

 Cengage

The **Shelly
Cashman**
Series[®]

Microsoft[®] 365[®] Office 2021

Intermediate

The
**Shelly
Cashman**
Series®

Microsoft® Office 365® Office 2021

Intermediate



Australia • Brazil • Canada • Mexico • Singapore • United Kingdom • United States

This is an electronic version of the print textbook. Due to electronic rights restrictions, some third party content may be suppressed. Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. The publisher reserves the right to remove content from this title at any time if subsequent rights restrictions require it. For valuable information on pricing, previous editions, changes to current editions, and alternate formats, please visit www.cengage.com/highered to search by ISBN#, author, title, or keyword for materials in your areas of interest.

Important Notice: Media content referenced within the product description or the product text may not be available in the eBook version.

**Shelly Cashman Series® Microsoft® Office 365®
& Office 2021 Intermediate**

Sandy Cable, Steven Freund, Ellen Monk, Susan Sebok,
Misty Vermaat

SVP, Product: Erin Joyner

VP, Product: Thais Alencar

Product Director: Mark Santee

Senior Product Manager: Amy Savino

Product Assistant: Ciara Horne

Learning Designer: Zenya Molnar

Senior Content Manager: Anne Orgren

Digital Delivery Quality Partner: Jim Vaughey

Developmental Editors: Barbara Clemens,
Deb Kaufmann, Lyn Markowicz

VP, Product Marketing: Jason Sakos

Director, Product Marketing: Danaë April

Executive Product Marketing Manager: Jill Staut

IP Analyst: Ann Hoffman

IP Project Manager: Ilakkiya Jayagopi

Production Service: Lumina Datamatics, Inc.

Designer: Erin Griffin

Cover Image Source: MirageC/Getty Images

© 2023, © 2020, © 2017

Copyright © 2023 Cengage Learning, Inc. ALL RIGHTS RESERVED.

WCN: 02-300

No part of this work covered by the copyright herein may be reproduced or distributed in any form or by any means, except as permitted by U.S. copyright law, without the prior written permission of the copyright owner.

Unless otherwise noted, all content is © Cengage, Inc.

Mac Users: If you're working through this product using a Mac, some of the steps may vary. Additional information for Mac users is included with the Data files for this product.

Disclaimer: This text is intended for instructional purposes only; data is fictional and does not belong to any real persons or companies.

Disclaimer: The material in this text was written using Microsoft Windows 10 and Office 365 Professional Plus and was Quality Assurance tested before the publication date. As Microsoft continually updates the Windows 10 operating system and Office 365, your software experience may vary slightly from what is presented in the printed text.

Windows, Access, Excel, and PowerPoint are registered trademarks of Microsoft Corporation. Microsoft and the Office logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. This product is an independent publication and is neither affiliated with, nor authorized, sponsored, or approved by, Microsoft Corporation.

Some of the product names and company names used in this book have been used for identification purposes only and may be trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

For product information and technology assistance, contact us at
**Cengage Customer & Sales Support, 1-800-354-9706 or
support.cengage.com.**

For permission to use material from this text or product,
submit all requests online at **www.copyright.com.**

Library of Congress Control Number: 2022905503

Student Edition ISBN: 978-0-357-67683-7

K12 ISBN: 978-0-357-67685-1

Looseleaf available as part of a digital bundle

Cengage

200 Pier 4 Boulevard
Boston, MA 02210
USA

Cengage is a leading provider of customized learning solutions with employees residing in nearly 40 different countries and sales in more than 125 countries around the world. Find your local representative at **www.cengage.com.**

To learn more about Cengage platforms and services, register or access your online learning solution, or purchase materials for your course, visit **www.cengage.com.**

Notice to the Reader

Publisher does not warrant or guarantee any of the products described herein or perform any independent analysis in connection with any of the product information contained herein. Publisher does not assume, and expressly disclaims, any obligation to obtain and include information other than that provided to it by the manufacturer. The reader is expressly warned to consider and adopt all safety precautions that might be indicated by the activities described herein and to avoid all potential hazards. By following the instructions contained herein, the reader willingly assumes all risks in connection with such instructions. The publisher makes no representations or warranties of any kind, including but not limited to, the warranties of fitness for particular purpose or merchantability, nor are any such representations implied with respect to the material set forth herein, and the publisher takes no responsibility with respect to such material. The publisher shall not be liable for any special, consequential, or exemplary damages resulting, in whole or part, from the readers' use of, or reliance upon, this material.

Printed in the United States of America

Print Number: 01 Print Year: 2022

Brief Contents

Getting to Know Microsoft Office Versions.....	OFF-1
Using SAM Projects and Textbook Projects.....	SAM-1

Word 2021

MODULE 4: Creating a Multipage Document	WD 4-1
MODULE 5: Creating a Resume and Sharing Documents	WD 5-1
MODULE 6: Using Mail Merge	WD 6-1
MODULE 7: Creating a Newsletter	WD 7-1

PowerPoint 2021

MODULE 4: Customizing Slide Masters and Presentations	PPT 4-1
MODULE 5: Collaborating and Adding Animation	PPT 5-1
MODULE 6: Formatting Tables and Charts	PPT 6-1
MODULE 7: Adding Media and Enhancing SmartArt	PPT 7-1

Excel 2021

MODULE 4: Financial Functions, Data Tables, and Amortization Schedules	EX 4-1
MODULE 5: Working with Multiple Worksheets and Workbooks	EX 5-1
MODULE 6: Creating, Sorting, and Querying a Table	EX 6-1
MODULE 7: Creating Templates, Importing Data, and Working with SmartArt, Images, and Screenshots	EX 7-1

Access 2021

MODULE 4: Creating Reports and Forms	AC 4-1
MODULE 5: Multiple-Table Forms	AC 5-1
MODULE 6: Advanced Report Techniques	AC 6-1
MODULE 7: Advanced Form Techniques	AC 7-1
Index	IND-1

Contents

Getting to Know Microsoft Office Versions
Using SAM Projects and Textbook Projects

OFF-1
SAM-1

Microsoft Word 2021

MODULE FOUR

Creating a Multipage Document

Objectives WD 4-1

Introduction WD 4-1

Project: Sales Proposal WD 4-1

To Start Word, Open the Proposal Draft File,
Save It with a New File Name, and
Specify Word Settings WD 4-2

Creating a Cover Page WD 4-4

To Insert a Cover Page WD 4-5

To Enter Text in Content Controls WD 4-6

To Format Characters in Small Caps and Modify
Character Spacing WD 4-7

Modifying Page Formatting WD 4-9

To Print Specific Pages in a Document WD 4-9

To Delete a Page Break WD 4-12

To Apply Heading Styles WD 4-12

To Change Left Paragraph Indent WD 4-13

To Insert a Different First Page Formatted
Header WD 4-14

To Remove a Content Control WD 4-15

To Insert a Different First Page Formatted Footer WD 4-16

To Format Page Numbers WD 4-18

To Format Text Using the Font Dialog Box WD 4-19

Editing and Formatting Lists WD 4-19

To Select a Predefined Bullet Character for a List WD 4-20

To Change Bullet Color WD 4-20

To Change Left Paragraph Indent WD 4-22

To Change Right Paragraph Indent WD 4-22

To Insert a Page Break WD 4-23

To Create a Multilevel List WD 4-23

To Change the Bullet Character to Picture
Bullets WD 4-26

To Change the Bullet Character to a
Predefined Bullet Character WD 4-28

To Sort Paragraphs WD 4-29

Editing and Formatting Tables WD 4-30

To Change Column Width WD 4-30

To Change Row Height WD 4-32

To Apply a Table Style WD 4-33

To Align Data in Cells WD 4-34

To Center a Table WD 4-35

To Sort a Table WD 4-36

To Add a Row to a Table WD 4-37

To Insert a Formula in a Table WD 4-38

To Change Cell Spacing WD 4-40

To Change Margins in Table Cells WD 4-41

To Distribute Columns WD 4-41

To Delete a Blank Paragraph WD 4-42

To Show Gridlines WD 4-42

To Split a Table Cell WD 4-43

To Move a Cell Boundary WD 4-44

To Enter Text in Cells WD 4-45

To Distribute Rows WD 4-45

To Insert a Column WD 4-46

To Merge Table Cells WD 4-47

To Change the Direction of Text in a Table Cell WD 4-48

To Resize Table Columns Using AutoFit WD 4-50

To Change Column Width WD 4-51

To Insert a Row and Merge Cells WD 4-51

To Shade a Table Cell WD 4-52

To Change Row Height WD 4-53

To Hide Gridlines WD 4-53

To Add a Table Border WD 4-53

Creating a Watermark WD 4-55

To Change the Zoom to Multiple Pages WD 4-55

To Create a Watermark WD 4-55

To Check Spelling, Save, Print, and Exit Word WD 4-57

Summary WD 4-57

Apply Your Knowledge WD 4-58

Extend Your Knowledge WD 4-61

Expand Your World WD 4-63

In the Lab WD 4-65

MODULE FIVE

Creating a Resume and Sharing Documents

Objectives WD 5-1

Introduction WD 5-1

Project: Resume WD 5-1

To Start Word and Specify Settings WD 5-3

Using a Template to Create a Resume	WD 5-3		
To Create a New Document from an Online Template	WD 5-3		
To Change Theme Colors	WD 5-6		
To Set Custom Margins	WD 5-7		
To Change Theme Fonts	WD 5-8		
To View Gridlines	WD 5-8		
To Enter Text in a Content Control	WD 5-9		
To Enter Text in More Content Controls	WD 5-10		
To Create Custom Theme Fonts	WD 5-11		
To Create Custom Theme Colors	WD 5-12		
To Enter Text in a Content Control	WD 5-14		
To Use Cut and Paste to Move Table Rows and Paragraphs with Source Formatting	WD 5-14		
To Copy and Paste a Table Row	WD 5-16		
To Delete a Row and Paragraph	WD 5-17		
To Create a Building Block	WD 5-17		
To Modify a Building Block	WD 5-18		
To Use AutoComplete	WD 5-19		
To Insert a Building Block	WD 5-20		
To Enter Text in Content Controls	WD 5-21		
To Delete a Row	WD 5-22		
To Enter Text in Content Controls	WD 5-22		
To Remove Bullets from a Paragraph	WD 5-23		
To Resize Table Columns	WD 5-24		
To Enter Text in a Content Control	WD 5-24		
To Enter a Line Break	WD 5-25		
To Enter Text in Content Controls	WD 5-25		
To Decrease Indent of a Paragraph	WD 5-26		
To Change a Bullet to a Predefined Symbol	WD 5-27		
To Create a Paragraph Style	WD 5-28		
To Apply a Style	WD 5-29		
To Reveal Formatting	WD 5-29		
To Modify a Style Using the Styles Dialog Box	WD 5-30		
To Center Page Contents Vertically	WD 5-31		
Sharing a Document with Others	WD 5-31		
To Insert a Quick Part	WD 5-32		
To Export a Word Document to a PDF File and View the PDF File in Adobe Reader	WD 5-34		
To Open a PDF File from Word to Edit It	WD 5-36		
To Check Document Compatibility	WD 5-38		
To Save a Word 365 Document in an Earlier Word Format	WD 5-39		
To Share a Document on OneDrive	WD 5-42		
To Get a Sharing Link	WD 5-43		
To Remove a Watermark	WD 5-44		
To Send a Document Using Email	WD 5-45		
Creating a Webpage from a Word Document	WD 5-46		
To Save a Word Document as a Webpage	WD 5-47		
To Format Text as a Hyperlink	WD 5-49		
To EDIT A HYPERLINK	WD 5-50		
To Change the Style Set	WD 5-50		
To Highlight Text	WD 5-51		
To Test a Webpage in a Browser	WD 5-53		
Summary	WD 5-54		
Apply Your Knowledge	WD 5-55		
Extend Your Knowledge	WD 5-57		
Expand Your World	WD 5-59		
In the Lab	WD 5-61		
		MODULE SIX	
		Using Mail Merge	
		Objectives	WD 6-1
		Introduction	WD 6-1
		Project: Form Letters, Mailing Labels, and a Directory	WD 6-1
		To Start Word and Specify Settings	WD 6-2
		Identifying the Main Document for Form Letters	WD 6-4
		To Start the Mail Merge Wizard	WD 6-4
		To Change Theme Colors	WD 6-7
		To Enter and Format the Sender Information	WD 6-7
		To Change a Picture and Format It	WD 6-7
		To Shade Cells and a Shape	WD 6-8
		To Change Margin Settings	WD 6-9
		To Specify the Position of a Graphic	WD 6-10
		To Create a Folder while Saving	WD 6-11
		Creating a Data Source	WD 6-12
		To Type a New Recipient List for a Data Source	WD 6-13
		To Enter More Recipients	WD 6-18
		To Save a Data Source when Prompted by Word	WD 6-18
		Composing the Main Document for the Form Letters	WD 6-20
		To Display the Next Step in the Mail Merge Wizard	WD 6-21
		To Enter the Date from a Content Control	WD 6-21
		To Insert the AddressBlock Merge Field	WD 6-23
		To Preview Results in the Main Document	WD 6-24
		To Insert the GreetingLine Merge Field	WD 6-25
		To View Merge Fields in the Main Document	WD 6-26
		To Begin Typing the Body of the Form Letter	WD 6-26
		To Insert a Merge Field in the Main Document	WD 6-27
		To Enter More Text and Merge Fields in the Main Document	WD 6-28
		To Insert an IF Field in the Main Document	WD 6-29
		To Enter the Remaining Text in the Main Document	WD 6-30
		To Toggle Field Codes	WD 6-31
		Merging the Recipient List in the Data Source with the Main Document to Generate Form Letters	WD 6-33
		To Preview a Mail Merge Using the Mail Merge Wizard	WD 6-33
		To Merge the Form Letters to a New Document Using the Mail Merge Wizard	WD 6-34
		To Select Mail Merge Recipients	WD 6-36
		To Merge the Form Letters to a New Document Using the Ribbon	WD 6-37
		To Remove a Merge Condition	WD 6-39
		To Sort a Recipient List	WD 6-39
		To Find Mail Merge Recipients	WD 6-40
		Addressing Mailing Labels and Envelopes	WD 6-41
		To Address and Print Mailing Labels Using an Existing Data Source	WD 6-42
		Merging All Data Records to a Directory	WD 6-48
		To Change Page Orientation	WD 6-49
		To Merge to a Directory	WD 6-50
		To Merge to a New Document	WD 6-52
		To Convert Text to a Table	WD 6-52

To Modify and Format a Table	WD 6-54
To Sort a Table by Multiple Columns	WD 6-54
Summary	WD 6-56
Apply Your Knowledge	WD 6-57
Extend Your Knowledge	WD 6-59
Expand Your World	WD 6-61
In the Lab	WD 6-63

MODULE SEVEN

Creating a Newsletter

Objectives	WD 7-1
Introduction	WD 7-1
Project: Newsletter	WD 7-2
To Start Word and Specify Settings	WD 7-4
To Change Spacing above and below Paragraphs and Adjust Margins	WD 7-4
To Change Theme Colors and Fonts	WD 7-5
Creating the Nameplate	WD 7-5
To Convert Text to WordArt	WD 7-6
To Resize WordArt	WD 7-7
To Change the Font and Font Size of WordArt Text	WD 7-7
To Change an Object's Text Wrapping	WD 7-7
To Change the Text Fill Color of WordArt	WD 7-8
To Change the WordArt Shape Using the Transform Effect	WD 7-11
To Set Custom Tab Stops Using the Tabs Dialog Box	WD 7-12
To Enter Text	WD 7-13
To Border One Edge of a Paragraph	WD 7-13
To Insert a Picture	WD 7-14
To Change the Color of a Graphic	WD 7-15
To Crop a Graphic	WD 7-16
To Change an Object's Text Wrapping and Size	WD 7-17
To Move a Graphic	WD 7-17
To Use the Selection Pane	WD 7-18
To Rotate a Graphic	WD 7-18
Formatting the First Page of the Body of the Newsletter	WD 7-19
To Clear Formatting	WD 7-20
To Format Text as a Heading Style, Modify a Heading Style, and Adjust Spacing before and after the Paragraph	WD 7-20
To Insert a Continuous Section Break	WD 7-21
To Format Text in Columns	WD 7-22
To Justify a Paragraph	WD 7-23
To Insert Text from a File into a Document	WD 7-24
To Adjust the Width of Columns and Place a Vertical Line between Columns	WD 7-25
To Hyphenate a Document	WD 7-26
To Format a Character as a Drop Cap	WD 7-27
To Format the Drop Cap	WD 7-28
To Insert a Next Page Section Break	WD 7-29
To Enter Text	WD 7-30
To Insert a Column Break	WD 7-30
To Insert Text from a File in to a Document	WD 7-31
Creating a Pull-Quote	WD 7-32
To Insert a Preformatted Text Box	WD 7-32
To Split the Word Window	WD 7-33
To Copy and Paste Using Split Windows	WD 7-34
To Remove a Split Window	WD 7-36

To Edit and Format Text in the Text Box	WD 7-36
To Resize a Text Box	WD 7-36
To Apply a Shape Style to a Text Box	WD 7-37
To Position a Text Box	WD 7-37
Formatting the Second Page of the Newsletter	WD 7-38
To Change Column Formatting	WD 7-39
To Set Custom Tab Stops Using the Tabs Dialog Box	WD 7-41
To Format and Enter Text and Add a Border	WD 7-42
To Enter Text	WD 7-42
To Balance Columns	WD 7-43
To Open a Document from Word	WD 7-44
To Change the Layout of a SmartArt Graphic	WD 7-45
To Add a Shape to a SmartArt Graphic	WD 7-45
To Use the Text Pane to Add Text to a SmartArt Graphic	WD 7-46
To Format SmartArt Graphic Text	WD 7-47
To Copy a SmartArt Graphic Using the Office Clipboard	WD 7-48
To Switch from One Open Document Window to Another	WD 7-48
To Paste from the Office Clipboard	WD 7-49
To Format a Graphic as Floating	WD 7-50
To Format, Resize, and Position the SmartArt Graphic	WD 7-50
To Edit Wrap Points in an Object	WD 7-50
Finishing the Newsletter	WD 7-52
To Turn Off Formatting Marks and Zoom Multiple Pages	WD 7-52
To Add an Art Page Border	WD 7-52
To Save and Print the Newsletter and then Exit Word	WD 7-54
Summary	WD 7-54
Apply Your Knowledge	WD 7-55
Extend Your Knowledge	WD 7-57
Expand Your World	WD 7-59
In the Lab	WD 7-61

Microsoft PowerPoint 2021

MODULE FOUR

Customizing Slide Masters and Presentations

Objectives	PPT 4-1
Introduction	PPT 4-1
Project: Presentation with Customized Slides	PPT 4-2
To Run PowerPoint, Apply a Theme, and Save the Presentation	PPT 4-6
Customizing Presentation Slide Master Backgrounds and Fonts	PPT 4-6
Slide Master	PPT 4-6
To Switch to Slide Master View	PPT 4-6
To Apply a Theme to a Slide Master	PPT 4-8
To Change the Theme Colors	PPT 4-8
To Create Custom Theme Colors	PPT 4-9
To Change the Theme Fonts	PPT 4-11
To Customize Theme Fonts	PPT 4-11
To Delete a Content Placeholder	PPT 4-12
To Change the Theme Effects	PPT 4-13
Adding and Formatting Placeholders	PPT 4-14
To Insert a Placeholder into a Blank Layout	PPT 4-14

To Add and Format Placeholder Text	PPT 4-15	To Review, Accept, and Reject Slide Changes	PPT 5-10
To Cut a Placeholder and Paste It into a Slide Master	PPT 4-19	To Review Comments	PPT 5-11
To Insert a Picture Placeholder	PPT 4-20	To Reply to a Comment	PPT 5-13
To Size and Format the Picture Content Layout	PPT 4-21	To Insert a Comment	PPT 5-14
To Format a Slide Master Background and Apply a Quick Style	PPT 4-23	To Edit a Comment	PPT 5-15
To Crop a Picture to a Shape	PPT 4-24	To Delete a Comment	PPT 5-15
To Rename a Slide Master and a Slide Layout	PPT 4-26	To Review and Accept Slide Changes on the Remaining Slides	PPT 5-16
To Delete a Slide Layout	PPT 4-27	To Run the Revised Presentation in Reading View	PPT 5-17
To Close Master View	PPT 4-30	To End the Review and Hide Markup	PPT 5-18
To Save a Presentation as a Template	PPT 4-30	To Resize Slides	PPT 5-19
To Open a Template and Save a Presentation	PPT 4-31	Formatting and Managing Text	PPT 5-20
To Change the Title Slide Layout and Add Text	PPT 4-32	To Change Line Spacing	PPT 5-20
To Insert Slide 2 and Add Text	PPT 4-33	To Change Paragraph Spacing	PPT 5-21
To Insert Slide 3 and Add Text	PPT 4-33	To Change Column Spacing	PPT 5-22
To Insert Slide 4 and Add Text	PPT 4-34	To Format Text in Columns	PPT 5-23
To Insert Slide 5 and Add Text	PPT 4-35	To Find Text	PPT 5-23
To Use the Thesaurus	PPT 4-35	To Find and Replace Text	PPT 5-24
Customizing Slide Elements	PPT 4-37	Formatting Pictures	PPT 5-25
To Change the Theme of a Single Slide	PPT 4-37	To Add an Artistic Effect to a Picture	PPT 5-25
To Change the Theme Variant	PPT 4-38	To Recolor a Picture	PPT 5-26
Formatting Slide Backgrounds	PPT 4-39	To Add a Picture Border	PPT 5-27
To Change the Slide Background to a Gradient Fill	PPT 4-40	To Change a Picture Border Color	PPT 5-27
To Change the Slide Background to a Picture	PPT 4-41	To Apply a Picture Effect	PPT 5-28
To Change the Transparency of a Slide Background	PPT 4-42	To Add Alt Text	PPT 5-29
To Change the Slide Background to a Pattern	PPT 4-43	Modifying Bullets and Adding Effects	PPT 5-30
To Change the Slide Background to a Texture	PPT 4-44	To Change a Bullet Character to a Picture	PPT 5-30
Hiding a Slide	PPT 4-45	To Change Bullet Size	PPT 5-32
To Hide a Slide	PPT 4-46	To Change a Bullet to a Symbol	PPT 5-33
To Add a Slide Transition	PPT 4-47	To Format Bullet Color	PPT 5-35
Protecting and Securing a Presentation	PPT 4-47	To Change a Bullet Character to a Number	PPT 5-36
To Inspect a Presentation	PPT 4-48	To Change the List Numbering Style	PPT 5-36
Navigating to a Slide During a Slide Show	PPT 4-49	To Change the Margins for Text in a Shape	PPT 5-37
Navigating to a Slide Using the Control Bar	PPT 4-50	To Format Shape Text	PPT 5-38
To Highlight Text	PPT 4-50	To Apply a Glow Text Effect	PPT 5-39
To Use Pen and Pointer Options During a Slide Show	PPT 4-51	To Apply a Glow Shape Effect	PPT 5-39
Rehearsing Slide Timings	PPT 4-52	Format Painter	PPT 5-40
To Rehearse Slide Timings	PPT 4-53	To Use the Format Painter with Text	PPT 5-40
To Advance a Slide After a Specified Number of Seconds	PPT 4-54	To Use the Format Painter with Objects	PPT 5-41
To Run a Slide Show with Timings	PPT 4-55	Animating Slide Content	PPT 5-42
To Save and Print the Presentation	PPT 4-55	To Animate a Picture Using an Entrance Effect	PPT 5-42
Summary	PPT 4-56	To Add an Emphasis Effect Animation	PPT 5-43
Apply Your Knowledge	PPT 4-57	To Add a Delay to an Animation	PPT 5-44
Extend Your Knowledge	PPT 4-59	To Animate Text	PPT 5-44
Expand Your World	PPT 4-63	To Dim Text after Animation	PPT 5-45
In the Lab	PPT 4-64	To Reorder Animations on a Slide	PPT 5-46
		To Use the Animation Painter	PPT 5-47
		To Animate an Object Using a Preset Motion Path	PPT 5-48
		To Animate an Object Using a Custom Motion Path	PPT 5-49
		To Trigger an Animation Effect	PPT 5-53
		To Insert a Connector	PPT 5-54
		To Align Content Placeholders	PPT 5-55
		Creating and Managing Sections	PPT 5-56
		To Add a Section to a Presentation	PPT 5-57
		To Rename a Section	PPT 5-57
		To Collapse Sections	PPT 5-59
		To Reorder Sections	PPT 5-60
		Zoom Links	PPT 5-61
		To Insert Section Zoom Links and Slide Zoom Links	PPT 5-61

MODULE FIVE

Collaborating and Adding Animation

Objectives	PPT 5-1
Introduction	PPT 5-1
Project: Presentation with Comments and Animation	PPT 5-2
Collaborating on a Presentation	PPT 5-2
To Merge a Presentation	PPT 5-5
To Preview the Presentation Changes	PPT 5-6
To Review, Accept, and Reject Presentation Changes	PPT 5-8

To Change the Zoom Icon Image	PPT 5-63
To Run a Presentation with Section Zoom Links and Slide Zoom Links	PPT 5-65
To Save and Print the Presentation	PPT 5-65
Summary	PPT 5-65
Apply Your Knowledge	PPT 5-66
Extend Your Knowledge	PPT 5-67
Expand Your World	PPT 5-69
In the Lab	PPT 5-70

MODULE SIX

Formatting Tables and Charts

Objectives	PPT 6-1
Introduction	PPT 6-1
Project: Presentation with Embedded and Linked Files and Formatted Table and Chart	PPT 6-2
Creating a Presentation from a Word Outline	PPT 6-5
Converting Documents for Use in PowerPoint	PPT 6-5
To Insert Slides from an Outline	PPT 6-5
Inserting Graphics or Other Objects from a File	PPT 6-7
To Delete a Placeholder	PPT 6-8
To Embed an Object from Another App	PPT 6-9
To Edit an Embedded File	PPT 6-10
Drawing and Formatting a Table	PPT 6-11
To Draw a Table	PPT 6-12
To Draw Table Rows	PPT 6-13
To Draw Table Columns	PPT 6-15
To Erase a Table Border	PPT 6-17
To Split Table Cells	PPT 6-19
To Select a Table and Apply Shading to Table Cells	PPT 6-22
To Apply a Bevel Effect to Table Cells	PPT 6-23
To Apply a Shadow Effect to Table Cells	PPT 6-24
To Apply a Reflection Effect to Table Cells	PPT 6-25
To Add an Image to a Table Cell	PPT 6-26
To Distribute Table Rows	PPT 6-27
To Resize a Table Column and Row	PPT 6-29
To Align Data in a Table Cell	PPT 6-30
To Align a Table	PPT 6-32
Inserting a Linked Excel Worksheet	PPT 6-33
To Link an Excel Worksheet	PPT 6-33
To Align a Worksheet	PPT 6-36
To Update a Linked Worksheet	PPT 6-36
Copying and Modifying a Linked Excel Chart	PPT 6-38
To Copy an Excel Chart	PPT 6-38
To Resize a Chart Proportionally	PPT 6-40
To Align a Chart	PPT 6-41
To Switch Chart Rows and Columns	PPT 6-43
To Change the Chart Type	PPT 6-43
To Change the Chart Layout	PPT 6-45
To Apply a Style to a Chart	PPT 6-46
To Change Chart Colors	PPT 6-46
To Add an Axis to a Chart	PPT 6-47
To Add a Title at a Specified Position in a Chart	PPT 6-50
To Add a Border to a Chart Element	PPT 6-51
To Edit the Source File of a Linked Chart	PPT 6-52
To Add a Link to Text	PPT 6-54
Changing Views	PPT 6-55
To Navigate between Slides in Reading View	PPT 6-56
To Switch to Outline View	PPT 6-57
To Navigate between Slides in Outline View	PPT 6-57
To Move a Slide in Outline View	PPT 6-57
To Enter Text in Outline View	PPT 6-58

Summary	PPT 6-59
Apply Your Knowledge	PPT 6-60
Extend Your Knowledge	PPT 6-62
Expand Your World	PPT 6-65
In the Lab	PPT 6-66

MODULE SEVEN

Adding Media and Enhancing SmartArt

Objectives	PPT 7-1
Introduction	PPT 7-1
Project: Presentation with Audio and Video Clips, SmartArt, and Hyperlinks	PPT 7-2
Modifying a Slide by Changing a Picture and Inserting an Audio and a Video Clip	PPT 7-5
To Open and Save a Presentation	PPT 7-5
To Change a Picture	PPT 7-5
To Resize a Picture to Exact Dimensions	PPT 7-7
To Insert an Audio Clip from a File	PPT 7-8
To Change the Audio Clip Start Option	PPT 7-10
To Loop an Audio Clip	PPT 7-10
To Hide an Audio Clip Object during a Slide Show	PPT 7-11
To Change the Volume of an Audio Clip	PPT 7-11
To Trim an Audio Clip	PPT 7-12
To Insert a Video File without Using a Content Placeholder	PPT 7-13
To Trim a Video File	PPT 7-15
To Change the Video Start Option	PPT 7-17
To Play a Video Full Screen	PPT 7-18
To Change the Video Volume	PPT 7-18
To Resize a Video Proportionally	PPT 7-19
To Apply a Video Style	PPT 7-20
To Compress a Video and an Audio File	PPT 7-21
To Add a Video Poster Frame	PPT 7-22
Creating and Formatting a SmartArt Graphic	PPT 7-24
To Insert SmartArt Using a Content Placeholder	PPT 7-24
To Show or Hide the SmartArt Text Pane	PPT 7-26
To Enter Text in SmartArt	PPT 7-27
To Format Text Pane Characters	PPT 7-27
To Insert a Picture into a SmartArt Shape	PPT 7-29
To Add a Shape to SmartArt	PPT 7-30
To Apply 3-D Effects to SmartArt	PPT 7-31
To Change the Color of SmartArt	PPT 7-32
To Increase the Size of a SmartArt Shape	PPT 7-34
To Resize SmartArt to Exact Dimensions	PPT 7-34
To Move a SmartArt Shape Up	PPT 7-36
To Move a SmartArt Shape Down	PPT 7-37
To Demote a SmartArt Shape	PPT 7-38
To Promote a SmartArt Shape	PPT 7-39
Formatting Pictures	PPT 7-41
To Remove a Picture Background	PPT 7-41
To Refine Background Removal	PPT 7-42
To Flip a Picture	PPT 7-45
To Change the Brightness and Contrast of a Picture	PPT 7-46
To Change the Color Saturation of a Picture	PPT 7-46
To Compress a Picture	PPT 7-48
To Insert a Screen Clipping	PPT 7-49
Adding Hyperlinks and Action Buttons	PPT 7-51
To Insert a Hyperlink to a Place in the Current Presentation	PPT 7-51
To Edit a Hyperlink	PPT 7-52
To Add a ScreenTip to a Hyperlink	PPT 7-53

To Add a Hyperlink Action Setting to a Picture	PPT 7-55	To Format the Numbers in the Amortization Schedule	EX 4-28
To Add a Hyperlink Action Setting to a Shape	PPT 7-56	Formatting the Worksheet	EX 4-29
To Insert a Hyperlink to a File	PPT 7-57	To Add Custom Borders to a Range	EX 4-29
Action Buttons	PPT 7-60	To Add Borders to the Varying Interest Rate Schedule	EX 4-31
To Insert an Action Button	PPT 7-60	To Add Borders to the Amortization Schedule	EX 4-32
To Change an Action Button Fill Color	PPT 7-62	To Use Borders and Fill Color to Visually Define and Group the Financial Tools	EX 4-33
To Edit an Action Button Setting	PPT 7-63	Highlighting Cells in the Data Table Using Conditional Formatting	EX 4-33
To Save the Presentation as a PDF	PPT 7-65	To Add a Pointer to the Data Table Using Conditional Formatting	EX 4-34
To Run, Save, and Exit PowerPoint	PPT 7-66	To Enter New Loan Data	EX 4-36
Summary	PPT 7-67	To Enter the Original Loan Data	EX 4-36
Apply Your Knowledge	PPT 7-68	Printing Sections of the Worksheet	EX 4-37
Extend Your Knowledge	PPT 7-70	To Set Up a Worksheet to Print	EX 4-37
Expand Your World	PPT 7-73	To Set the Print Area	EX 4-38
In the Lab	PPT 7-74	To Name and Print Sections of a Worksheet	EX 4-38
		Protecting and Hiding Worksheets and Workbooks	EX 4-41

Microsoft **Excel 2021**

MODULE FOUR

Financial Functions, Data Tables, and Amortization Schedules

Objectives	EX 4-1
Introduction	EX 4-1
Project: Mortgage Payment Calculator with Data Table and Amortization Schedule	EX 4-2
To Apply a Theme to the Worksheet	EX 4-4
To Enter the Section and Row Titles and System Date	EX 4-4
To Adjust the Column Widths and Row Heights	EX 4-5
To Change the Sheet Tab Name	EX 4-6
Creating Cell Names	EX 4-6
To Format Cells before Entering Values	EX 4-6
To Enter the Loan Data	EX 4-7
To Create Names Based on Row Titles	EX 4-8
To Enter the Loan Amount Formula Using Names	EX 4-9
The PMT Function	EX 4-10
To Enter the PMT Function	EX 4-11
Other Financial Functions	EX 4-12
To Determine the Total Interest and Total Cost	EX 4-13
To Enter New Loan Data	EX 4-13
To Enter the Original Loan Data	EX 4-14
Using a Data Table to Analyze Worksheet Data	EX 4-15
To Enter the Data Table Title and Column Titles	EX 4-16
To Create a Percentage Series Using the Fill Handle	EX 4-16
To Enter the Formulas in the Data Table	EX 4-18
To Define a Range as a Data Table	EX 4-19
More about Data Tables	EX 4-20
Creating an Amortization Schedule	EX 4-20
To Change Column Widths and Enter Titles	EX 4-21
To Create a Series of Integers Using the Fill Handle	EX 4-22
Formulas in the Amortization Schedule	EX 4-23
To Enter the Formulas in the Amortization Schedule	EX 4-24
To Copy the Formulas to Fill the Amortization Schedule	EX 4-26
To Enter the Total Formulas in the Amortization Schedule	EX 4-27

To Enter New Loan Data	EX 4-36
To Enter the Original Loan Data	EX 4-36
Printing Sections of the Worksheet	EX 4-37
To Set Up a Worksheet to Print	EX 4-37
To Set the Print Area	EX 4-38
To Name and Print Sections of a Worksheet	EX 4-38
Protecting and Hiding Worksheets and Workbooks	EX 4-41
Creating Formulas with Defined Names	EX 4-41
To Protect a Worksheet	EX 4-42
More about Worksheet Protection	EX 4-44
To Hide and Unhide a Worksheet	EX 4-44
To Hide and Unhide a Workbook	EX 4-45
Formula Checking	EX 4-46
To Enable Background Formula Checking	EX 4-47
More about Background Formula Checking	EX 4-48
Summary	EX 4-49
Apply Your Knowledge	EX 4-50
Extend Your Knowledge	EX 4-51
Expand Your World	EX 4-53
In the Lab	EX 4-54

MODULE FIVE

Working with Multiple Worksheets and Workbooks

Objectives	EX 5-1
Introduction	EX 5-1
Project: Consolidated Expenses Worksheet	EX 5-2
Creating the Consolidated Worksheet	EX 5-4
To Start Excel and Open a File	EX 5-4
To Format the Worksheet	EX 5-5
To Enter Column Titles	EX 5-6
Fill Series	EX 5-6
To Create Linear Series	EX 5-6
Date, Time, and Round Functions	EX 5-8
To Use the TODAY Function	EX 5-10
To Enter Formulas Using the ROUND Function	EX 5-11
To Format the Title and Subtitle	EX 5-14
To Format the Column Titles and Total Row	EX 5-15
To Format with a Floating Dollar Sign	EX 5-15
Format Codes	EX 5-16
To Create a Custom Format Code	EX 5-17
To Format with the Comma Style	EX 5-19
Creating a Cell Style	EX 5-19
To Create a New Cell Style	EX 5-20
To Apply a New Style	EX 5-22
To Use the Spelling Checker	EX 5-23
Working with Multiple Worksheets	EX 5-23
To Add a Worksheet to a Workbook	EX 5-24
To Copy and Paste from One Worksheet to Another	EX 5-24

MODULE SEVEN

Creating Templates, Importing Data, and Working with SmartArt, Images, and Screenshots

Objectives EX 7-1
Introduction EX 7-1
Project: Meyor Insurance EX 7-2
Creating Templates EX 7-5
 To Open a Blank Workbook and Format the Rows and Columns EX 7-5
 To Enter Titles in the Template EX 7-6
 To Enter Column Titles in the Template EX 7-7
 To Enter Sample Data in the Template EX 7-7
 To Enter Formulas and Functions in the Template EX 7-8
 To Save the Template EX 7-9
 To Open a Template-Based File and Save It as a Workbook EX 7-11
Importing Data EX 7-12
 Text Files EX 7-14
 To Import Data from a Text File EX 7-14
 To Format the CSV Data EX 7-16
 Text Formatting EX 7-17
 To Use the Trim Function EX 7-18
 To Paste Values Only EX 7-19
 Access Files EX 7-20
 To Import Data from an Access Table EX 7-20
 To Delete a Column Using Power Query EX 7-22
 To Format the Access Data EX 7-24
 Web Data EX 7-24
 To Import Data from a Webpage EX 7-24
 Using Word Data EX 7-27
 To Copy from Word and Paste to Excel EX 7-28
 To Transpose Columns and Rows EX 7-28
 To Delete, Cut, and Paste Data EX 7-29
 To Convert Text to Columns EX 7-30
 To Replicate Formulas EX 7-31
Using the Quick Analysis Gallery EX 7-33
 To Format Using the Quick Analysis Gallery EX 7-33
 To Total Data EX 7-34
Using the Find and Replace Commands EX 7-35
 To Find Data EX 7-35
 Working with the Find and Replace Dialog Box EX 7-37
 To Find and Replace EX 7-37
 To Format Styles and Borders EX 7-38
Inserting a Bar Chart EX 7-39
 To Insert a Chart Using the Quick Analysis Gallery EX 7-40
 To Format the Chart EX 7-41
 To Format Axis Options EX 7-44
 To Add Data Labels EX 7-45
 To Display a Data Table EX 7-46
 To Format the Chart Title EX 7-46
Working with SmartArt Graphics EX 7-47
 To Create a New Sheet EX 7-48
 To Insert a SmartArt Graphic EX 7-49
 To Color and Resize the SmartArt Graphic EX 7-50
 To Add a Shape to a SmartArt Graphic EX 7-51
 To Add Text to a SmartArt Graphic EX 7-51
 To Add a Style to a SmartArt Graphic EX 7-52
Pictures and Icons EX 7-53
 To Add a Picture to a SmartArt Graphic EX 7-54
 To Apply Picture Effects EX 7-56
 To Insert Icons EX 7-58

 To Format Text Using WordArt Styles EX 7-60
Text Boxes EX 7-61
 To Draw a Text Box EX 7-61
Alternative Text EX 7-62
 To Add ALT Text EX 7-62
Object Linking and Embedding EX 7-63
 Copy and Paste EX 7-64
 Embedded Objects EX 7-64
 Linked Objects EX 7-64
Using Screenshots on a Worksheet EX 7-66
 To Create Another New Sheet EX 7-66
 To Insert a Screenshot on a Worksheet EX 7-67
 To Move an Object EX 7-69
 To Add a Picture Border EX 7-69
Shapes EX 7-71
 To Create a Shape and Copy It EX 7-71
 To Add a Shape Style and Shape Effect EX 7-72
 Using the Format Painter with Objects EX 7-74
 To Align Shapes EX 7-75
Summary EX 7-76
Apply Your Knowledge EX 7-77
Extend Your Knowledge EX 7-79
Expand Your World EX 7-81
In the Lab EX 7-82

Microsoft **Access 2021**

MODULE FOUR

Creating Reports and Forms

Objectives AC 4-1
Introduction AC 4-1
Project — Reports and Forms AC 4-1
Report Creation AC 4-4
 Report Sections AC 4-4
 To Group and Sort in a Report AC 4-5
 Grouping and Sorting Options AC 4-8
 Report Controls AC 4-8
 To Add Totals and Subtotals AC 4-9
 To Remove the Group, Sort, and Total Pane AC 4-11
 To Conditionally Format Controls AC 4-12
 To Filter Records in a Report AC 4-17
 To Clear a Report Filter AC 4-18
 The Arrange and Page Setup Tabs AC 4-19
Multiple-Table Reports AC 4-20
 To Create a Report that Involves Multiple Tables AC 4-21
 To Modify the Report AC 4-26
 Creating a Report in Layout View AC 4-29
 To Create a Report in Layout View by Creating a Blank Report AC 4-30
 Using Themes AC 4-32
 Live Preview for Themes AC 4-34
 To Create a Summary Report AC 4-35
Form Creation AC 4-35
 To Use the Form Wizard to Create a Form AC 4-36
 Form Sections AC 4-38
 Form Controls AC 4-38
 Views Available for Forms AC 4-38
 To Place Controls in a Control Layout AC 4-38
 To Enhance a Form by Adding a Time AC 4-40
 To Change the Format of a Control AC 4-41
 To Move a Control AC 4-42

To Move Controls in a Control Layout	AC 4-43	Creating a Form with a Datasheet in Layout View	AC 5-44
To Add a Field	AC 4-44	Creating a Multiple-Table Form Based on the Many Table	AC 5-46
To Filter and Sort Using a Form	AC 4-45	Summary	AC 5-47
To Clear a Form Filter	AC 4-47	Apply Your Knowledge	AC 5-48
The Arrange Tab	AC 4-47	Extend Your Knowledge	AC 5-49
Mailing Labels	AC 4-48	Expand Your World In the Labs	AC 5-50 AC 5-51
To Create Labels	AC 4-48		
Summary	AC 4-51		
Apply Your Knowledge	AC 4-53		
Extend Your Knowledge	AC 4-54		
Expand Your World	AC 4-56		
In the Labs	AC 4-57		
MODULE FIVE			
Multiple-Table Forms			
Objectives	AC 5-1		
Introduction	AC 5-1		
Project — Multiple-Table Forms	AC 5-1		
Adding Special Fields	AC 5-2		
To Add Fields with New Data Types to a Table	AC 5-3		
To Use the Input Mask Wizard	AC 5-4		
Adding Fields in Datasheet View	AC 5-7		
Updating the New Fields	AC 5-8		
To Enter Data Using an Input Mask	AC 5-8		
To Enter Data in Yes/No Fields	AC 5-10		
To Enter Data in Long Text Fields	AC 5-10		
To Change the Row and Column Size	AC 5-10		
Undoing Changes to Row Height and Column Width	AC 5-11		
To Enter Images in Attachment Fields	AC 5-12		
To Insert the Remaining Pictures	AC 5-14		
To Enter More Data in Attachment Fields	AC 5-14		
To Save the Properties	AC 5-16		
Viewing Document Attachments in Datasheet View	AC 5-16		
Multiple-Table Form Techniques	AC 5-16		
To Create a Form in Design View	AC 5-17		
To Add a Control for a Field to the Form	AC 5-18		
To Add Controls for Additional Fields	AC 5-19		
To Align Controls on the Left	AC 5-19		
To Align Controls on the Top and Adjust Vertical Spacing	AC 5-21		
To Add Controls for the Remaining Fields	AC 5-22		
To Use a Shortcut Menu to Change the Fill/Back Color	AC 5-23		
To Add a Title	AC 5-24		
To Place a Subform	AC 5-25		
To Modify a Subform and Move the Picture	AC 5-28		
To Change a Label	AC 5-30		
To Change Label Effects and Colors	AC 5-31		
To Modify the Appearance of a Form Title	AC 5-35		
To Change a Tab Stop	AC 5-36		
Changing the Tab Order	AC 5-37		
To Use the Form	AC 5-37		
Navigation in the Form	AC 5-39		
Object Dependencies	AC 5-40		
To View Object Dependencies	AC 5-40		
Date/Time, Long Text, and Yes/No Fields in Queries	AC 5-41		
To Use Date/Time, Long Text, and Yes/No Fields in a Query	AC 5-41		
Datasheets in Forms	AC 5-43		
Creating a Simple Form with a Datasheet	AC 5-43		
		MODULE SIX	
		Advanced Report Techniques	
		Objectives	AC 6-1
		Introduction	AC 6-1
		Project — Creating Detailed Reports	AC 6-1
		Additional Tables	AC 6-3
		To Create the New Tables	AC 6-4
		To Import the Data	AC 6-6
		Linking versus Importing	AC 6-6
		To Relate the New Tables	AC 6-7
		Creating Reports in Design View	AC 6-9
		To Create a Query for the Report	AC 6-9
		To Create an Additional Query for the Report Using Expression Builder	AC 6-10
		To Create an Initial Report in Design View	AC 6-14
		To Group and Sort	AC 6-15
		Controls and Sections	AC 6-18
		To Add Fields to the Report in Design View	AC 6-18
		To Change Labels	AC 6-20
		Using Other Tools in the Controls Group	AC 6-20
		To Add Text Boxes	AC 6-21
		To View the Report in Print Preview	AC 6-24
		To Format a Control	AC 6-25
		To Group Controls	AC 6-26
		To Modify Grouped Controls	AC 6-27
		To Modify Multiple Controls That Are Not Grouped	AC 6-28
		Undoing and Saving	AC 6-30
		To Add a Subreport	AC 6-30
		To Open the Subreport in Design View	AC 6-33
		Print Layout Issues	AC 6-34
		To Modify the Controls in the Subreport	AC 6-35
		To Change the Can Grow Property	AC 6-35
		To Change the Appearance of the Controls in the Subreport	AC 6-37
		To Resize the Subreport and the Report in Design View	AC 6-38
		To Change the Can Grow Property	AC 6-40
		To Modify Section Properties	AC 6-40
		To Add a Title, Page Number, and Date	AC 6-41
		To Remove the Header Background Color and the Alternate Color	AC 6-42
		Headers and Footers	AC 6-44
		Creating a Second Report	AC 6-46
		To Create a Second Report	AC 6-46
		To Remove the Color from the Report Header	AC 6-47
		To Add and Move Fields in a Report	AC 6-47
		To Add the Remaining Fields	AC 6-50
		Totals and Subtotals	AC 6-52
		To Add Subtotals and Other Calculations	AC 6-54
		To Add a Header and Footer to the Discount Report	AC 6-55

To Change the Can Grow Property	AC 6-56	Command Buttons	AC 7-15
To View the Report	AC 6-57	To Add Command Buttons to a Form	AC 7-16
To Use Expression Builder to Add a Calculation	AC 6-58	To Add a Combo Box for Finding a Record	AC 7-18
To Add a Title	AC 6-60	To Place a Rectangle	AC 7-22
To Change the Border Style	AC 6-61	To Open the Appointment View and	
To Remove the Alternate Color	AC 6-61	Update Form	AC 7-23
Obtaining Help on Functions	AC 6-62	Using the Buttons	AC 7-23
Report Design Tools Page Setup Tab	AC 6-62	To Test the Add Record Button	AC 7-23
To Change the Report Margins	AC 6-64	To Use the Combo Box	AC 7-24
Fine-Tuning a Report	AC 6-64	Issues with the Add Record Button	AC 7-25
To Make Room For Resizing or Adding Controls	AC 6-65	Issues with the Combo Box	AC 7-26
Summary	AC 6-65	Macros	AC 7-26
Apply Your Knowledge	AC 6-67	To Modify the Macro for the Add Record Button	AC 7-26
Extend Your Knowledge	AC 6-68	To Modify the Combo Box	AC 7-29
Expand Your World	AC 6-68	To Correct Issues with the Combo Box	AC 7-30
In the Labs	AC 6-69	Using the Modified Form	AC 7-31
 		Creating a Multipage Form	AC 7-33
MODULE SEVEN		To Import a Table	AC 7-33
Advanced Form Techniques		To Create a Form in Design View	AC 7-34
Objectives	AC 7-1	To Use the Text Box Tool with Concatenation	AC 7-34
Introduction	AC 7-1	To Use Tab Controls to Create a	
Project — Advanced Form Techniques	AC 7-1	Multipage Form	AC 7-35
Creating a Form with Combo Boxes and		To Add a Subform	AC 7-36
Command Buttons	AC 7-3	To Modify a Subform	AC 7-38
To Create a Form in Design View	AC 7-4	To Resize the Subform	AC 7-39
To Add Fields to the Form Design	AC 7-5	To Change the Background Color	AC 7-40
Combo Boxes	AC 7-6	To Insert Charts	AC 7-40
To Add a Combo Box That Selects Values	AC 7-6	To Use the Form	AC 7-43
To Use the Background Color Button	AC 7-10	To Modify a Chart Type	AC 7-44
To Format a Control	AC 7-10	To Format a Chart	AC 7-47
To Use the Format Painter	AC 7-11	Summary	AC 7-49
To View the Form	AC 7-12	Apply Your Knowledge	AC 7-50
To Add a Title and Expand the Form		Extend Your Knowledge	AC 7-51
Header Section	AC 7-13	Expand Your World	AC 7-51
To Change the Background Color of the		In the Labs	AC 7-52
Form Header	AC 7-14		
Headers and Footers	AC 7-14	Index	IND-1
Images	AC 7-15		

Getting to Know Microsoft Office Versions

Cengage is proud to bring you the next edition of Microsoft Office. This edition was designed to provide a robust learning experience that is not dependent upon a specific version of Office.

Microsoft supports several versions of Office:

- **Office 365:** A cloud-based subscription service that delivers Microsoft's most up-to-date, feature-rich, modern productivity tools direct to your device. There are variations of Office 365 for business, educational, and personal use. Office 365 offers extra online storage and cloud-connected features, as well as updates with the latest features, fixes, and security updates.
- **Office 2021:** Microsoft's "on-premises" version of the Office apps, available for both PCs and Macs, offered as a static, one-time purchase and outside of the subscription model.
- **Office Online:** A free, simplified version of Office web applications (Word, Excel, PowerPoint, and OneNote) that facilitates creating and editing files collaboratively.

Office 365 (the subscription model) and Office 2021 (the one-time purchase model) had only slight differences between them at the time this content was developed. Over time, Office 365's cloud interface will continuously update, offering new application features and functions, while Office 2021 will remain static. Therefore, your onscreen experience may differ from what you see in this product. For example, the more advanced features and functionalities covered in this product may not be available in Office Online or may have updated from what you see in Office 2021.

For more information on the differences between Office 365, Office 2021, and Office Online, please visit the Microsoft Support site.

Cengage is committed to providing high-quality learning solutions for you to gain the knowledge and skills that will empower you throughout your educational and professional careers.

Thank you for using our product, and we look forward to exploring the future of Microsoft Office with you!

Using SAM Projects and Textbook Projects

SAM Projects allow you to actively apply the skills you learned live in Microsoft Word, Excel, PowerPoint, or Access. Become a more productive student and use these skills throughout your career.

To complete SAM Textbook Projects, please follow these steps:

SAM Textbook Projects allow you to complete a project as you follow along with the steps in the textbook. As you read the module, look for icons that indicate when you should download **sam** ↓ your SAM Start file(s) and when to upload **sam** ↑ the final project file to SAM for grading.

Everything you need to complete this project is provided within SAM. You can launch the eBook directly from SAM, which will allow you to take notes, highlight, and create a custom study guide, or you can use a print textbook or your mobile app. Download IOS or Download Android.

To get started, launch your SAM Project assignment from SAM, MindTap, or a link within your LMS.

Step 1: Download Files

- Click the “Download All” button or the individual links to download your **Start File** and **Support File(s)** (when available). You must use the SAM Start file.
- Click the Instructions link to launch the eBook (or use the print textbook or mobile app).
- Disregard any steps in the textbook that ask you to create a new file or to use a file from a location outside of SAM.
- Look for the SAM Download icon **sam** ↓ to begin working with your start file.
- Follow the module’s step-by-step instructions until you reach the SAM Upload icon **sam** ↑.
- Save and close the file.

Step 2: Save Work to SAM

- Ensure you rename your project file to match the Expected File Name.
- Upload your in-progress or completed file to SAM. You can download the file to continue working or submit it for grading in the next step.

Step 3: Submit for Grading

- Upload the completed file to SAM for immediate feedback and to view the available Reports.
 - The **Graded Summary Report** provides a detailed list of project steps, your score, and feedback to aid you in revising and re-submitting the project.
 - The **Study Guide Report** provides your score for each project step and links to the associated training and textbook pages.
- If additional attempts are allowed, use your reports to assist with revising and resubmitting your project.
- To re-submit the project, download the file saved in step 2.
- Edit, save, and close the file, then re-upload and submit it again.

For all other SAM Projects, please follow these steps:

To get started, launch your SAM Project assignment from SAM, MindTap, or a link within your LMS.

Step 1: Download Files

- Click the “Download All” button or the individual links to download your **Instruction File**, **Start File**, and **Support File(s)** (when available). You must use the SAM Start file.
- Open the Instruction file and follow the step-by-step instructions. Ensure you rename your project file to match the Expected File Name (change _1 to _2 at the end of the file name).

Step 2: Save Work to SAM

- Upload your in-progress or completed file to SAM. You can download the file to continue working or submit it for grading in the next step.

Step 3: Submit for Grading

- Upload the completed file to SAM for immediate feedback and to view available Reports.
 - The **Graded Summary Report** provides a detailed list of project steps, your score, and feedback to aid you in revising and resubmitting the project.
 - The **Study Guide Report** provides your score for each project step and links to the associated training and textbook pages.
- If additional attempts are allowed, use your reports to assist with revising and resubmitting your project.
- To re-submit the project, download the file saved in step 2.
- Edit, save, and close the file, then re-upload and submit it again.

For additional tips to successfully complete your SAM Projects, please view our Common Student Errors Infographic.

4 Creating a Multipage Document

Objectives

After completing this module, you will be able to:

- Insert a cover page
- Insert text in content controls
- Apply character effects
- Change paragraph indentation
- Insert formatted headers and footers
- Remove a content control
- Format page numbers
- Sort paragraphs and tables
- Change the color of bullets in a list
- Add picture bullets to a list
- Create a multilevel list
- Edit and format Word tables
- Insert a formula in a table
- Create a watermark

Introduction

During your business and personal endeavors, you may want or need to provide a recommendation to a person or group of people for their consideration. You might suggest they purchase a product, such as a vehicle or food, or contract a service, such as veterinary services or website design services. Or, you might try to convince an audience to take an action, such as visiting an establishment or donating to a cause. You may be asked to request funds for a new program or to promote an idea, such as a benefits package to company employees or a budget plan to upper management. To present these types of recommendations, you may find yourself writing a proposal.

A proposal generally is one of three types: sales, research, or planning. A **sales proposal** sells an idea, a product, or a service. A **research proposal** usually requests funding for a research project. A **planning proposal** offers solutions to a problem or improvement to a situation.

Project: Sales Proposal

Sales proposals describe the features and value of products and services being offered, with the intent of eliciting a positive response from the reader. Desired outcomes include the reader accepting ideas, purchasing products, contracting services, volunteering time, contributing to a cause, or taking an action. A well-written proposal can be the key to obtaining the desired results.

The project in this module follows generally accepted guidelines for writing short sales proposals and uses Word to create the sales proposal shown in Figure 4–1. The sales proposal in this module, written by the event coordinator at Awakenings Lodge and Conference Center, is designed to persuade employers to use the facility for their employee retreats. The proposal has a pleasing cover page to attract readers’ attention. To add impact, the sales proposal has a watermark consisting of the word, TEAM, positioned behind the content on each page. The proposal also uses lists and tables to summarize and highlight important data.

In this module, you will learn how to create the sales proposal shown in Figure 4–1. You will perform the following general tasks as you progress through this module:


1. Create a cover page for the proposal.
2. Modify page formatting in the proposal.
3. Edit and format lists in the proposal.
4. Edit and format tables in the proposal.
5. Create a watermark in the proposal.

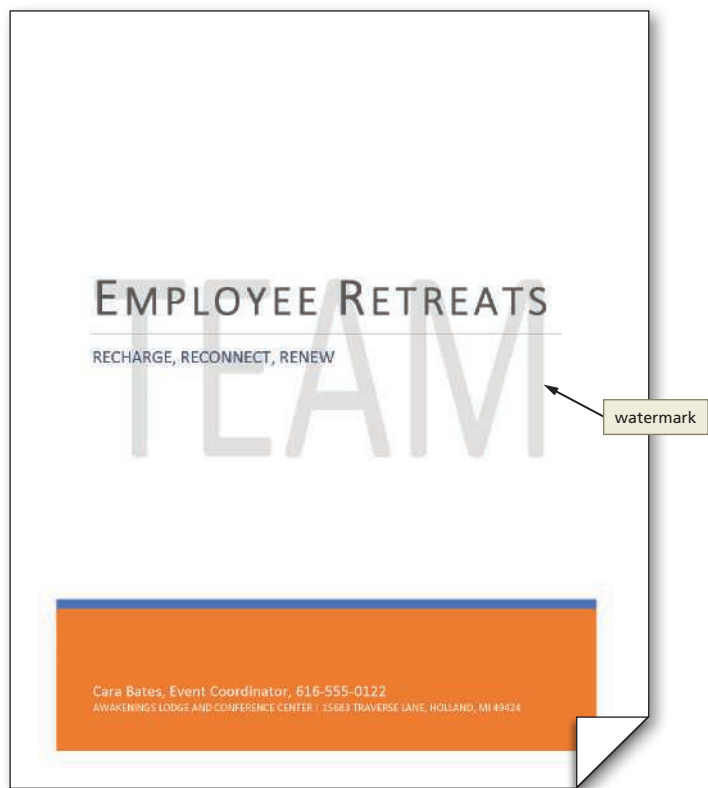
To Start Word, Open the Proposal Draft File, Save It with a New File Name, and Specify Word Settings

Assume you already have prepared a draft of the body of the proposal, which is located in the Data Files. Please see your instructor for information about accessing the Data Files. To convert the draft into a final document, you will fix formatting issues, modify page formatting, format an existing list, create a new list, edit and format existing tables, and add a watermark.

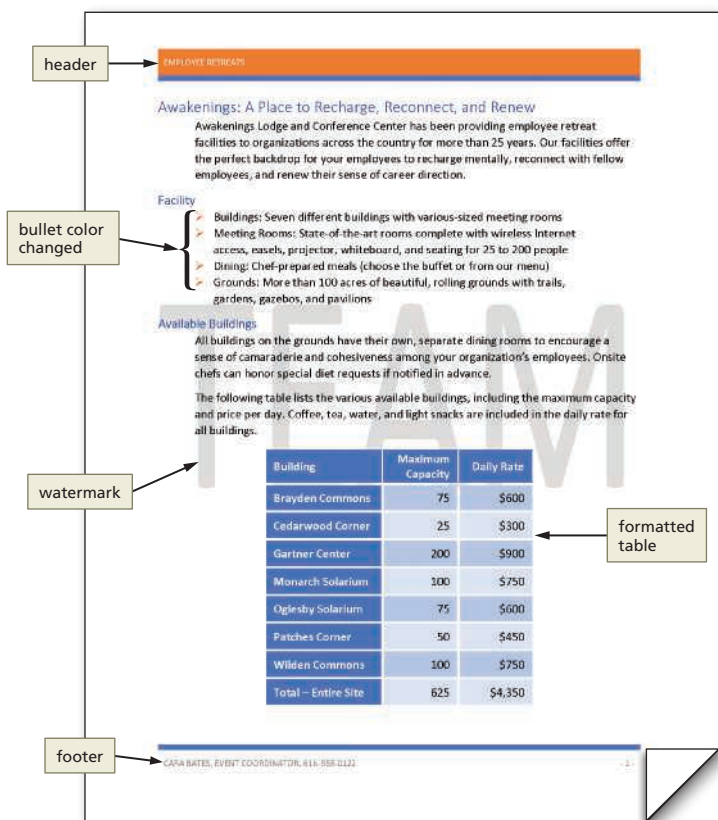
The following steps start Word, open the proposal draft file, save it with a new file name, display formatting marks, change the zoom to page width, and display rulers on the screen. If you are using a computer to step through the project in this module and you want your screens to match the figures in this book, you should change your screen’s resolution to 1366 × 768.

If your instructor wants you to submit your work as a SAM Project for automatic grading, you must download the Data Files from the assignment launch page.

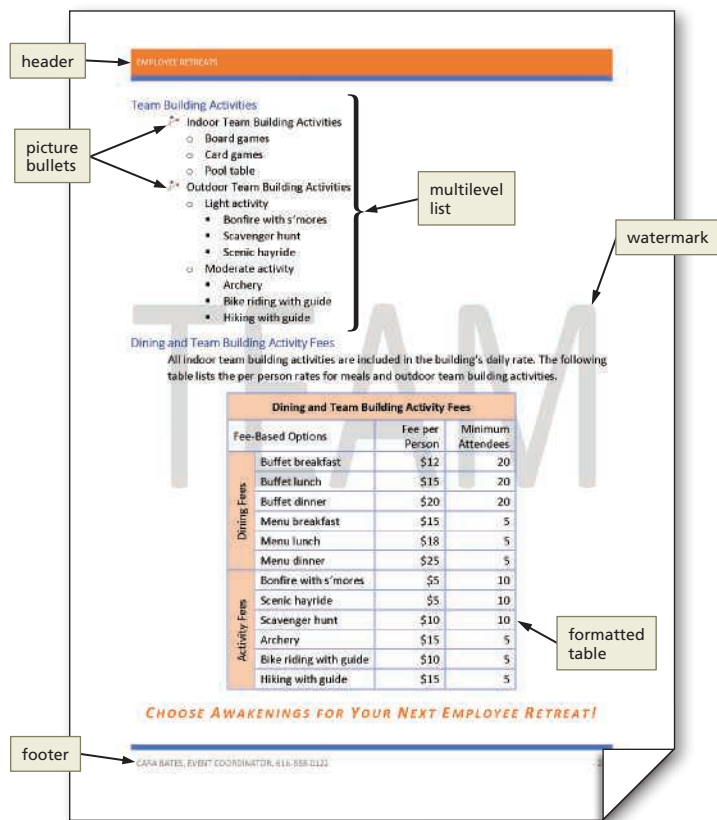
- 1  Start Word and open the file called SC_WD_4-1.docx from the Data Files. If necessary, maximize the Word window.
- 2 Save the file on your hard drive, OneDrive, or other storage location using the file name, SC_WD_4_Employee_Retreat_Sales_Proposal.
- 3 If the Print Layout button on the status bar is not selected, click it so that your screen is in Print Layout view.
- 4 If the ‘Show/Hide ¶’ button (Home tab | Paragraph group) is not selected already, click it to display formatting marks on the screen.
- 5 To display the page the same width as the document window, if necessary, click the Page Width button (View tab | Zoom group).
- 6 To display rulers on the screen, if necessary, click the Ruler check box (View tab | Show group).



(a) Cover Page



(b) First Page of Body of Proposal



(c) Second Page of Body of Proposal

Figure 4-1

WD 4-3

- 7 If you are using a mouse and you want your screens to match the figures in the book, verify that you are using Mouse mode by clicking the Touch/Mouse Mode button on the Quick Access Toolbar and then, if necessary, clicking Mouse on the menu (Figure 4–2). (If your Quick Access Toolbar does not display the Touch/Mouse Mode button, click the 'Customize Quick Access Toolbar' button on the Quick Access Toolbar and then click Touch/Mouse Mode on the menu to add the button to the Quick Access Toolbar.)

BTW

Normal Style

If your screen settings differ from Figure 4–2, it is possible the default settings in your Normal style have been changed. Normal style settings are saved in a file called normal.dotm. To restore the original Normal style settings, exit Word and use File Explorer to locate the normal.dotm file (be sure that hidden files and folders are displayed, and include system and hidden files in your search — you may need to use Help to assist you with these tasks). Rename the normal.dotm file as oldnormal.dotm. After renaming the normal .dotm file, it no longer will exist as normal.dotm. The next time you run Word, it will recreate a normal.dotm file using the original default settings.

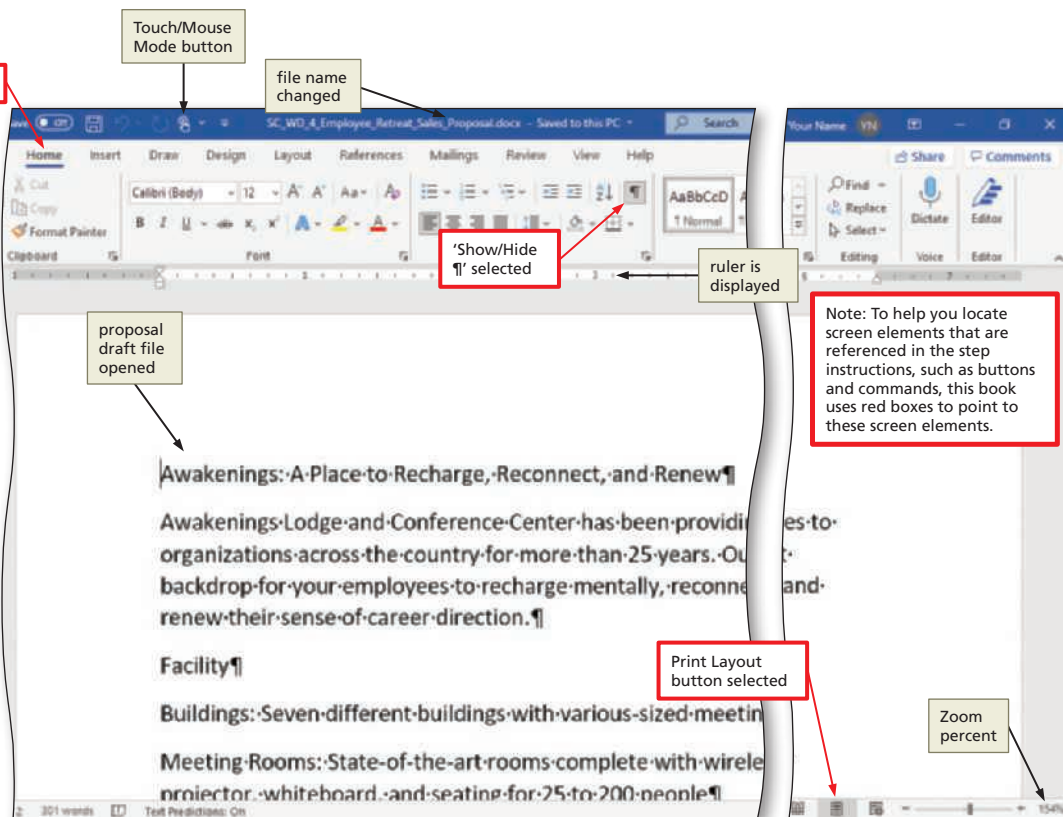


Figure 4–2

Creating a Cover Page

A **cover page** is a separate title page in a multipage document that contains, at a minimum, the title of a document, and often the writer’s name and sometimes the date. For a sales proposal, the cover page usually is the first page of the document. Solicited proposals often have a specific format for the cover page. Guidelines for the cover page of a solicited proposal may stipulate the margins, spacing, layout, and required contents, such as title, sponsor name, author name, date, etc. With an unsolicited proposal, by contrast, you can design the cover page in a way that best presents its message.

Consider This



How do you design an effective cover page?

The cover page is the first section a reader sees on a sales proposal. Thus, it is important that the cover page appropriately reflects the goal of the sales proposal. When designing the cover page, consider its content.

- **Use concise, descriptive text.** The cover page should contain a short, descriptive title that accurately reflects the message of the sales proposal. The cover page also may include a theme or slogan. Do not place a page number on the cover page.
- **Identify appropriate fonts, font sizes, and colors for the text.** Use fonts that are easy to read. Avoid using more than three different fonts because too many fonts can make the cover page visually confusing. Use larger font sizes to add impact to the cover page. To give the title more emphasis, its font size should be larger than any other text on the cover page. Use colors that complement one another and convey the meaning of the proposal.
- **Use graphics, if desired, to reinforce the goal.** Select simple graphics that clearly communicate the fundamental nature of the proposal. Possible graphics include shapes, pictures, and logos.
- **Use colors that complement text colors.** Be aware that too many graphics and colors can be distracting. Arrange graphics with the text so that the cover page is attractive and uncluttered.

The cover page of the sales proposal in this module (shown in Figure 4–1a) contains text, colors, and the faded word, TEAM, in the background. The steps in the next section create the cover page. The faded word, TEAM, is added to all pages at the end of this module.

To Insert a Cover Page

Word has many predefined cover page formats that you can use for the cover page in a document. When you insert a predefined cover page, Word inserts it at the top of the document by default. The following steps insert a cover page. **Why?** The predefined cover pages use complementary colors and fonts for a document’s cover page.

1

- Display the Insert tab.
- Click the Cover Page button (Insert tab | Pages group) to display the Cover Page gallery.

Experiment

- Scroll through the Cover Page gallery to see the variety of available predefined cover pages. When finished, display the Retrospect cover page in the Cover Page gallery, as shown in Figure 4–3.

Q&A **Does it matter where I position the insertion point before inserting a cover page?**
No. By default, Word inserts the cover page as the first page in a document.

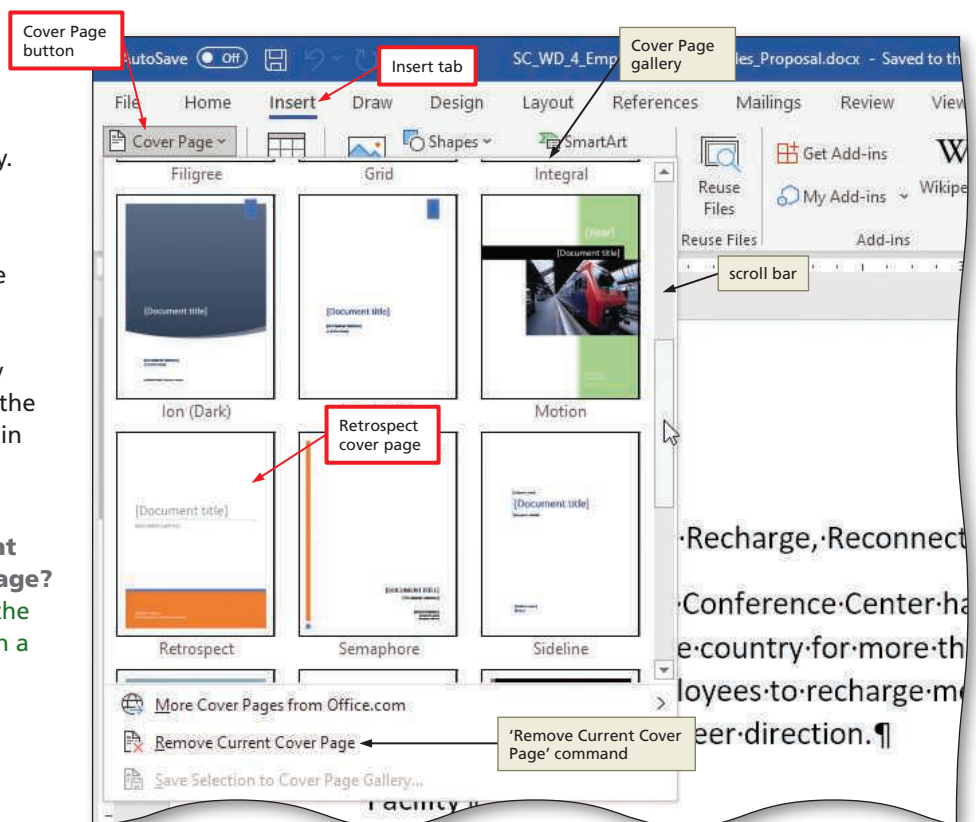


Figure 4–3

2

- If necessary, scroll to and then click Retrospect in the Cover Page gallery to insert the selected cover page as the first page in the current document.
- Display the View tab. Click the One Page button (View tab | Zoom group) to display the entire cover page in the document window (Figure 4-4).

Q&A Does the cover page have to be the first page?

No. You can right-click the desired cover page in the Cover Page gallery and then click the desired location on the submenu.

How would I delete a cover page?

You would click the Cover Page button (Insert tab | Pages group) and then click 'Remove Current Cover Page' in the Cover Page gallery (shown in Figure 4-3).

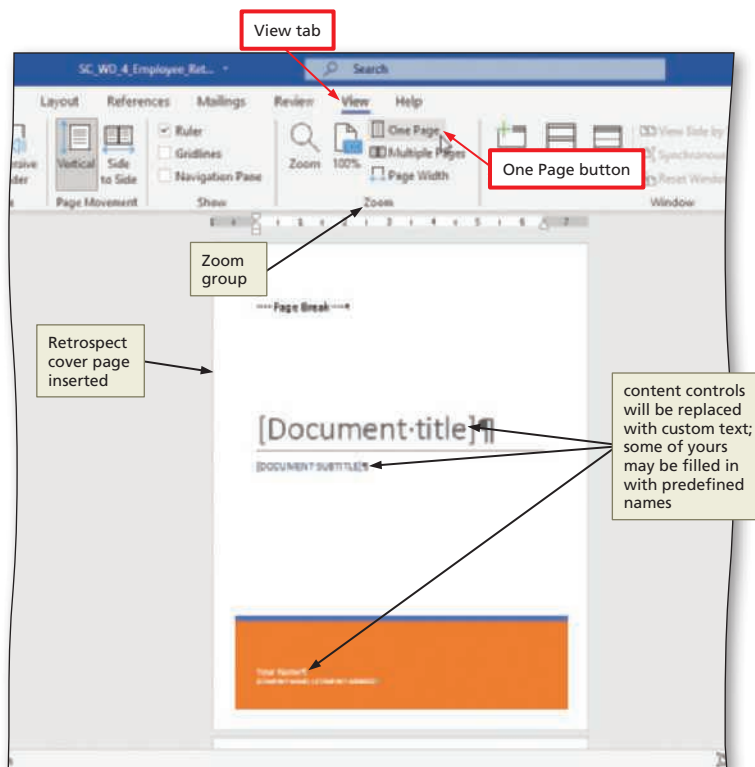


Figure 4-4

Other Ways

1. Click Quick Parts button (Insert tab | Text group), click 'Building Blocks Organizer' on Quick Parts menu, select desired cover page building block (Building Blocks Organizer dialog box), click Insert button, click Close

To Enter Text in Content Controls

The next step is to select content controls on the cover page and replace their text with the cover page information. A **content control** is an object that contains sample text or instructions for filling in text and graphics. To select a content control, you click it or its tag, which (if one exists) is located in the upper-left corner of the content control. As soon as you begin typing in the selected content control, your typing replaces the text in the control. Thus, you do not need to delete the selected text before you begin typing. Keep in mind that the content controls present suggested text. Depending on settings on your computer or mobile device, some content controls already may contain customized text, which you will change. The following steps enter text on the cover page. **Why?** You want to replace the content controls with customized text.

1

- Click the Page Width button (View tab | Zoom group) to display the page as wide as the document window.
- If necessary, scroll to display the [Document title] content control in the document window.
- Click the [Document title] content control or its tag to select the content control (Figure 4-5).

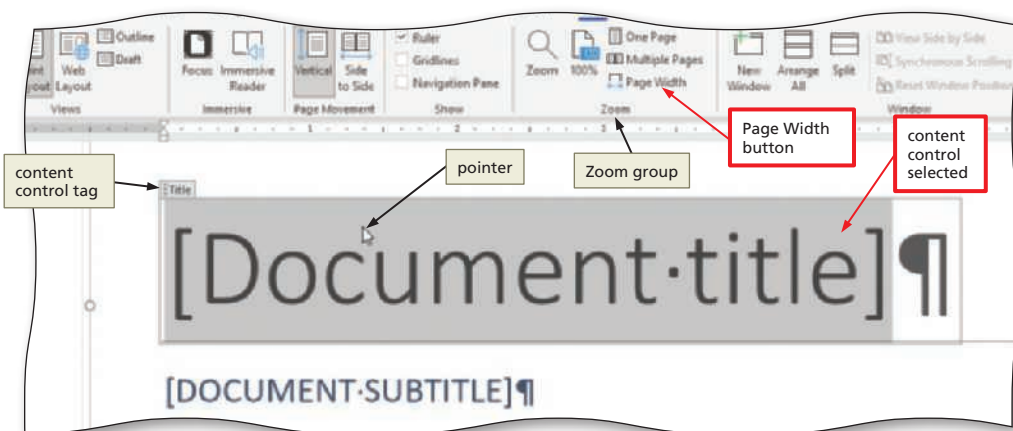


Figure 4-5

2

- Type **Employee Retreats** as the document title.
- Click the [DOCUMENT SUBTITLE] content control or its tag to select the content control (Figure 4-6).

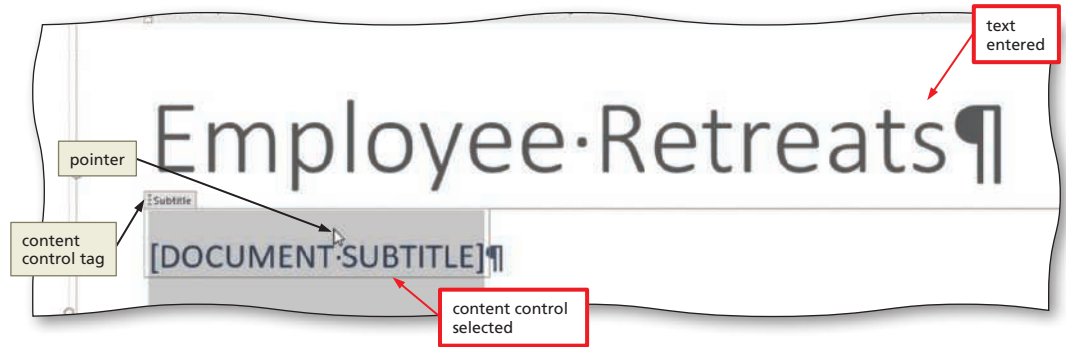


Figure 4-6

3

- Type **Recharge, Reconnect, Renew** as the document subtitle.

Q&A Why is my document subtitle text capitalized?

Word automatically changes the text to uppercase letters.

- Scroll to display the author content control in the document window.
- Select the author content control and then type **Cara Bates, Event Coordinator, 616-555-0122** as the text.

Q&A Why is my author content control filled in?

Depending on settings, your content control already may display an author name.

- Select the company control and then type **Awakenings Lodge and Conference Center** as the text.
- Select the address content control and then type **15683 Traverse Lane, Holland, MI 49424** as the text.
- Press END to deselect the content control (Figure 4-7).

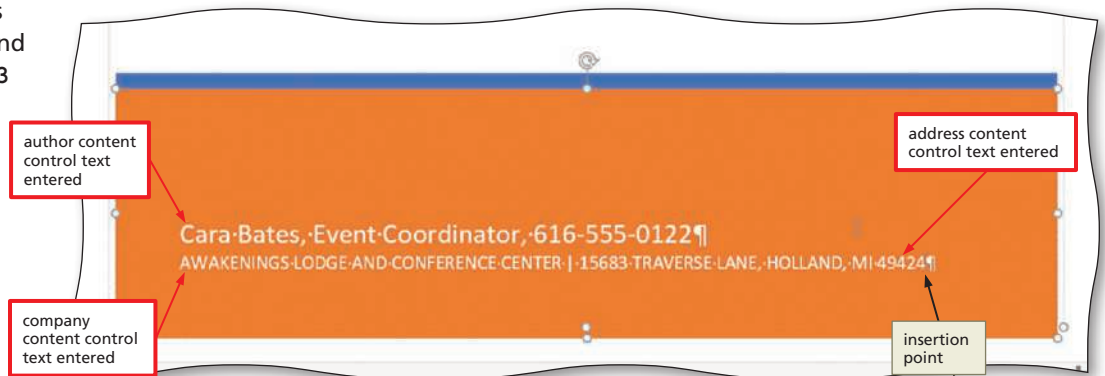


Figure 4-7

To Format Characters in Small Caps and Modify Character Spacing

The next step in this project is to enter and format the document title text in the middle of the cover page. Its characters are to be bold, and each letter in this text is formatted in **small caps**, which are letters that look like uppercase letters but are smaller than other uppercase letters in the document. Also, you want extra space between each character so that the text spans the width of the page.

Thus, the next steps apply the formats mentioned above using the Font dialog box. **Why?** Although you could use buttons on the Home tab to apply some of these formats, the small caps effect and expanded spacing are applied using the Font dialog box. Thus, you apply all the formats using the Font dialog box.

- 1**
- Scroll up, if necessary, and select the text to be formatted, Employee Retreats, in this case.
 - Display the Home tab and then click the Font Dialog Box Launcher (Home tab | Font group) to display the Font dialog box. If necessary, click the Font tab in the dialog box to display the Font sheet.
 - Click Bold in the Font style list to bold the selected text.

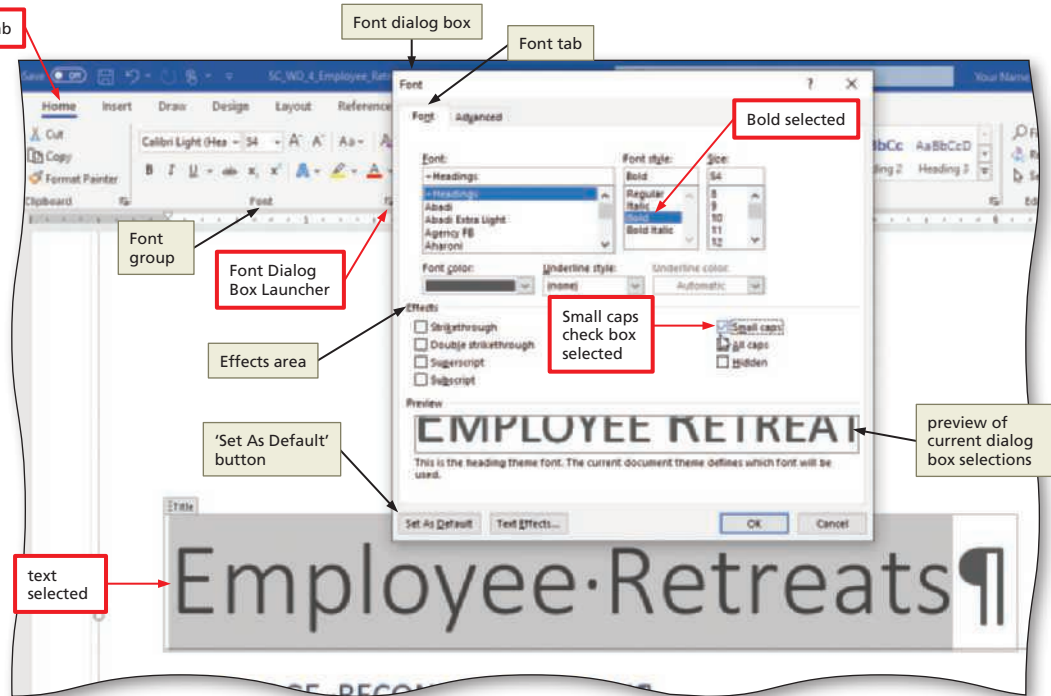


Figure 4-8

- Click the Small caps check box in the Effects area so that each character is displayed as a small uppercase letter (Figure 4-8).

- 2**
- Click the Advanced tab (Font dialog box) to display the Advanced sheet in the Font dialog box.
 - Click the Spacing arrow in the Character Spacing area and then click Expanded to increase the amount of space between characters by 1 pt, which is the default.
 - Double-click the value in the Spacing By box to select it and then type 5 because you want this amount of blank space to be displayed between each character.
 - Click in any box in the dialog box for the change to take effect and display a preview of the entered value in the Preview area (Figure 4-9).

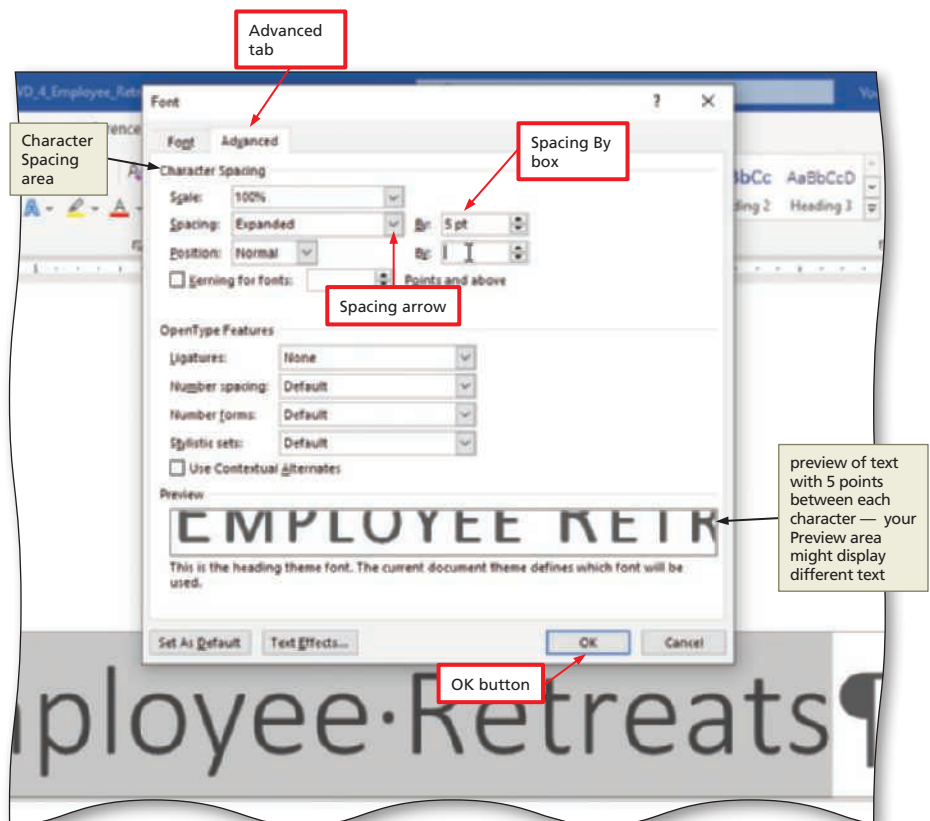
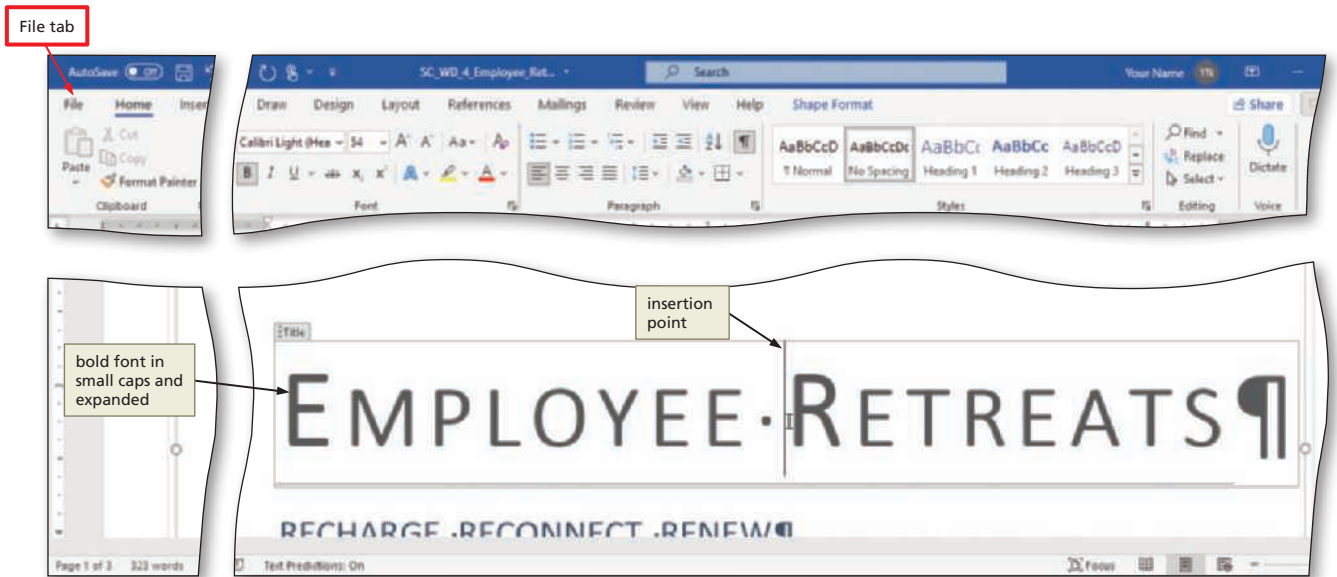


Figure 4-9

Q&A Can I click the Spacing By arrows instead of typing a value in the box?
Yes.

3

- Click OK to apply font changes to the selected text.
- Click anywhere to remove the selection from the text (Figure 4–10).

**Figure 4–10****Other Ways**

1. Right-click selected text (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Font on shortcut menu, select formats (Font dialog box), click OK
2. Press CTRL+D, select formats (Font dialog box), click OK

Modifying Page Formatting

In the following sections, you edit and format the draft of the proposal that is below the cover page by deleting a page break, applying styles, changing paragraph indentation, inserting a header and a footer, and formatting page numbers.

BTW**Conserving Ink and Toner**

If you want to conserve ink or toner, you can instruct Word to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the Word Options dialog box, clicking Advanced in the left pane (Word Options dialog box), scrolling to the Print area in the right pane, placing a check mark in the 'Use draft quality' check box, and then clicking OK. Then, use Backstage view to print the document as usual.

To Print Specific Pages in a Document

The cover page is the first page of the proposal. The body of the proposal spans the second and third pages, but when you inserted the cover page, Word formatted the page numbers so that numbering begins on the page that follows the cover page. **Why? Cover pages typically do not have a page number on them.** You would like to review a printout of the draft of the proposal, that is, the pages that follow the cover page. The following steps print only the body of the proposal, that is, the pages that follow the cover page.

BTW**Headers and Footers**

If a portion of a header or footer does not print, it may be in a nonprintable area. Check the printer user instructions to see how close the printer can print to the edge of the paper. Then, click the Page Setup Dialog Box Launcher (Layout tab | Page Setup group), click the Layout tab (Page Setup dialog box), adjust the From edge text box to a value that is larger than the printer's minimum margin setting, click OK, and then print the document again.

1

- Click File on the ribbon to open Backstage view and then click Print in Backstage view to display the Print screen.
- Verify that the printer listed on the Printer Status button will print a hard copy of the document. If necessary, click the Printer Status button to display a list of available printer options and then click the desired printer to change the selected printer.
- Type 1–2 in the Pages text box in the Settings area of the Print screen (Figure 4–11).

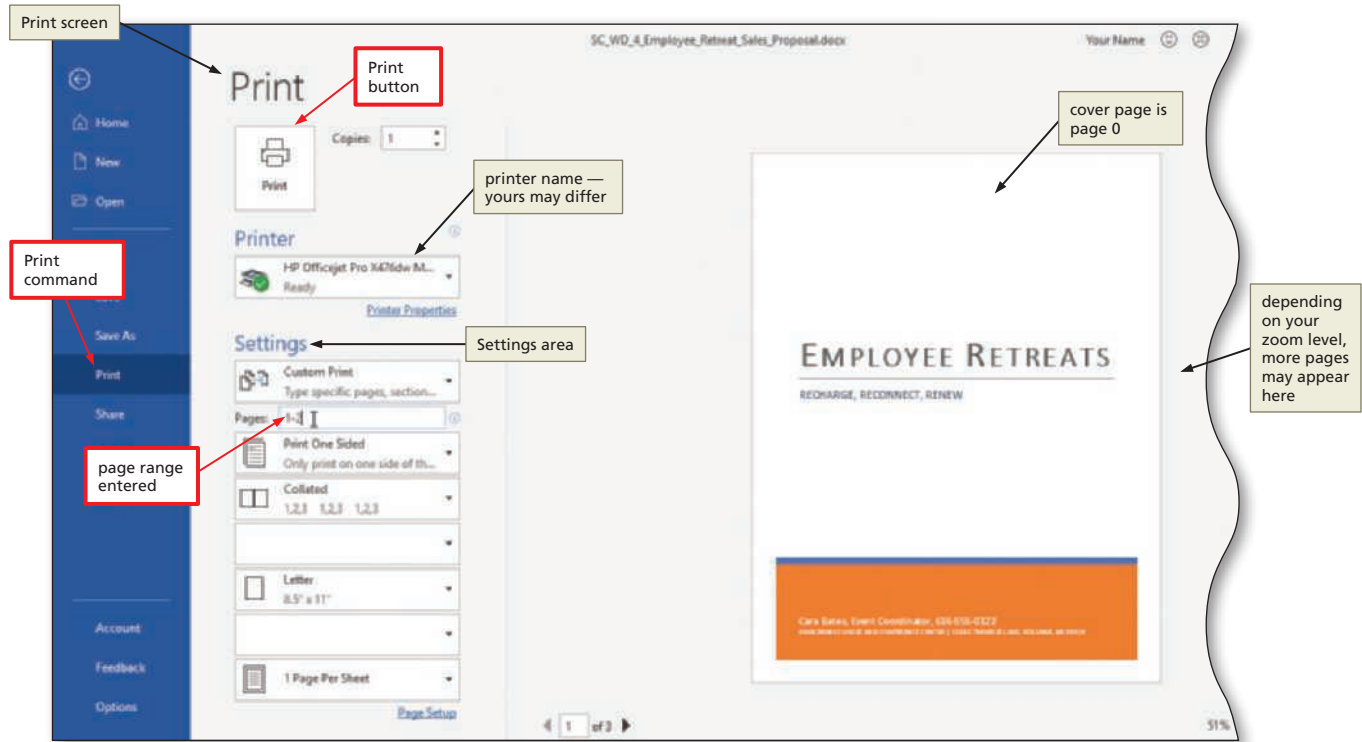


Figure 4–11

2

- Click the Print button to print the specified pages of the sales proposal (Figure 4–12).

Q&A How would I print pages from a certain point to the end of a document or just selected text?

You would enter the page number followed by a dash in the Pages text box. For example, 5- will print from page 5 to the end of the document. To print up to a certain page, put the dash first (e.g., -5 will print pages 1 through 5). To print part of a document, select the text or objects to be printed before opening Backstage view, click the first button in the Settings area, and then click Print Selection in the list.

Why does my document wrap on different words than Figure 4–12?

Differences in wordwrap may be related to the printer used by your computer.

BTW

Page Numbers

If Word displays {PAGE} instead of the actual page number, press ALT+F9 to turn off field codes. If Word prints {PAGE} instead of the page number, open Backstage view, click Options to display the Word Options dialog box, click Advanced in the left pane (Word Options dialog box), scroll to the Print area, remove the check mark from the 'Print field codes instead of their values' check box, and then click OK.

Awakenings: A Place to Recharge, Reconnect, and Renew

Awakenings Lodge and Conference Center has been providing employee retreat facilities to organizations across the country for more than 25 years. Our facilities offer the perfect backdrop for your employees to recharge mentally, reconnect with fellow employees, and renew their sense of career direction.

Facility

- Buildings: Seven different buildings with various-sized meeting rooms
- Meeting Rooms: State-of-the-art rooms complete with wireless Internet access, easels, projector, whiteboard, and seating for 25 to 200 people
- Dining: Chef-prepared meals (choose the buffet or from our menu)
- Grounds: More than 100 acres of beautiful, rolling grounds with trails, gardens, gazebos, and pavilions

Available Buildings

All buildings on the grounds have their own, separate dining rooms to encourage a sense of camaraderie and cohesiveness among your organization's employees. Onsite chefs can honor special diet requests if notified in advance.

The following table lists the various available buildings, including the maximum capacity and price per day. Coffee, tea, water, and all buildings.

Building	Maximum Capacity
Monarch Solarium	100
Brayden Commons	75
Gartner Center	200
Cedarwood Corner	25
Wilden Commons	100
Oglesby Solarium	75
Patches Corner	50

Team Building Activities

All indoor team building activities are included in the building's daily rate. The following table lists the per person rates for meals and outdoor team building activities.

Activity	Rate	Minimum Attendees
Buffet breakfast	\$12	20
Buffet lunch	\$15	20
Buffet dinner	\$20	20
Menu breakfast	\$15	5
Menu lunch	\$18	5
Menu dinner	\$25	5
Bonfire with s'mores	\$5	10
Scenic hayride	\$5	10
Scavenger hunt	\$10	10
Archery	\$15	5
Bike riding with guide	\$10	5
Hiking with guide	\$15	5

Choose Awakenings for Your Next Employee Retreat!

Figure 4-12

Other Ways

1. Press CTRL+P; press ENTER

Consider This



What elements should the body of a sales proposal contain?

Be sure to include basic elements in your sales proposals:

- **Include an introduction, body, and conclusion.** The introduction could contain the subject, purpose, statement of problem, need, background, or scope. The body may include costs, benefits, supporting documentation, available or required facilities, feasibility, methods, timetable, materials, or equipment. The conclusion summarizes key points or requests an action.
- **Use headers and footers.** Headers and footers help to identify every page. A page number should be in either the header or footer. If the sales proposal should become disassembled, the reader can use the page numbers in the headers or footers to determine the order and pieces of your proposal.

To Delete a Page Break

After reviewing the draft in Figure 4–12, you notice it contains a page break below the Team Building Activities heading. The following steps delete a page break. **Why?** This page break should not be in the proposal.

- 1**
 - Scroll to display the page break notation in the document.
 - To select the page break notation, double-click it (Figure 4–13).

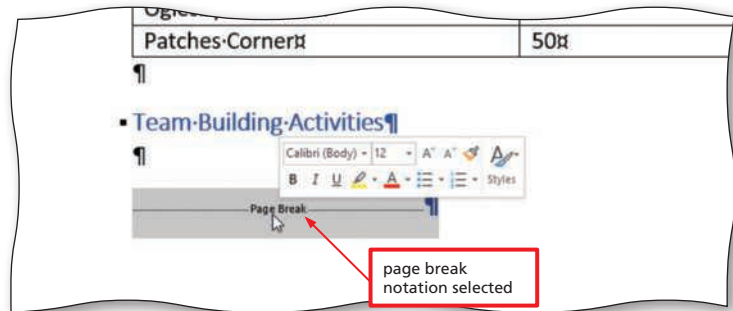


Figure 4–13

- 2**
 - Press DELETE to remove the page break from the document (Figure 4–14).

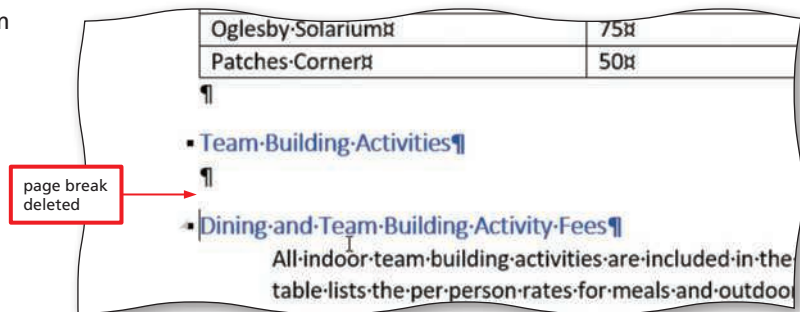


Figure 4–14

Other Ways

1. With page break notation selected, click Cut button (Home tab | Clipboard group)
2. With page break notation selected, right-click selection and then click Cut on Mini toolbar or shortcut menu
3. With the insertion point to the left or right of the page break notation, press DELETE or BACKSPACE, respectively

BTW

Page Breaks and Tables

If you do not want a page break to occur in the middle of a table, position the insertion point in the table, click the Properties button (Layout tab | Table group), click the Row tab (Table Properties dialog box), remove the check mark from the 'Allow row to break across pages' check box, and then click OK. To force a table to break across pages at a particular row, click in the row that you want to appear on the next page and then press CTRL+ENTER.

To Apply Heading Styles

Word has many built-in, or predefined, styles that you can use to format text. Three of the styles shown in the Styles gallery in Figure 4–15 are for headings: Heading 1 for the major headings and Heading 2 and Heading 3 for minor headings. In the draft document, all headings except for the first two were formatted using heading styles.

The following steps apply the Heading 1 style to the paragraph containing the text, Awakenings: A Place to Recharge, Reconnect, and Renew, and the Heading 2 style to the paragraph containing the text, Facility.

- 1** Position the insertion point in the paragraph to be formatted to the Heading 1 style, in this case, the first line on the page below the cover page with the text, Awakenings: A Place to Recharge, Reconnect, and Renew.
- 2** Click Heading 1 in the Styles gallery (Home tab | Styles group) to apply the selected style to the paragraph containing the insertion point.

Q&A Why did a square appear on the screen near the left edge of the paragraph formatted with the Heading 1 style?

The square is a nonprinting character, like the paragraph mark, that indicates text to its right has a special paragraph format applied to it.

- 3 Position the insertion point in the paragraph to be formatted to the Heading 2 style, in this case, the line containing the text, Facility.
- 4 Click Heading 2 in the Styles gallery (Home tab | Styles group) to apply the selected style to the paragraph containing the insertion point (Figure 4–15).

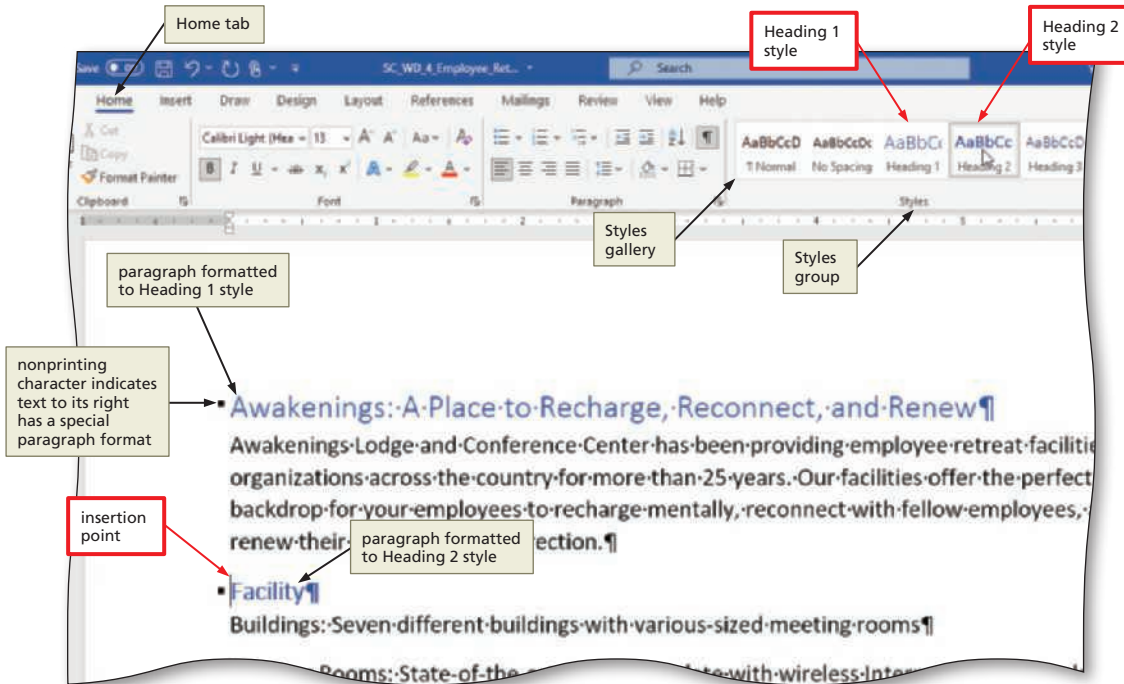


Figure 4–15

To Change Left Paragraph Indent

The paragraphs in the proposal are indented from the left margin by one-half inch. **Why? You want the headings to begin at the left margin and the paragraphs to be indented from the left margin.** The Increase Indent and Decrease Indent buttons (Home tab | Paragraph group) change the left indent by one-half inch, respectively. The following step changes the left paragraph indent of the first paragraph in the proposal.

- 1 Position the insertion point in the paragraph to indent, in this case, the paragraph that begins “Awakenings Lodge and Conference Center has been...”
- Click the Increase Indent button (Home tab | Paragraph group) to indent the paragraph one-half inch from the left margin (Figure 4–16).

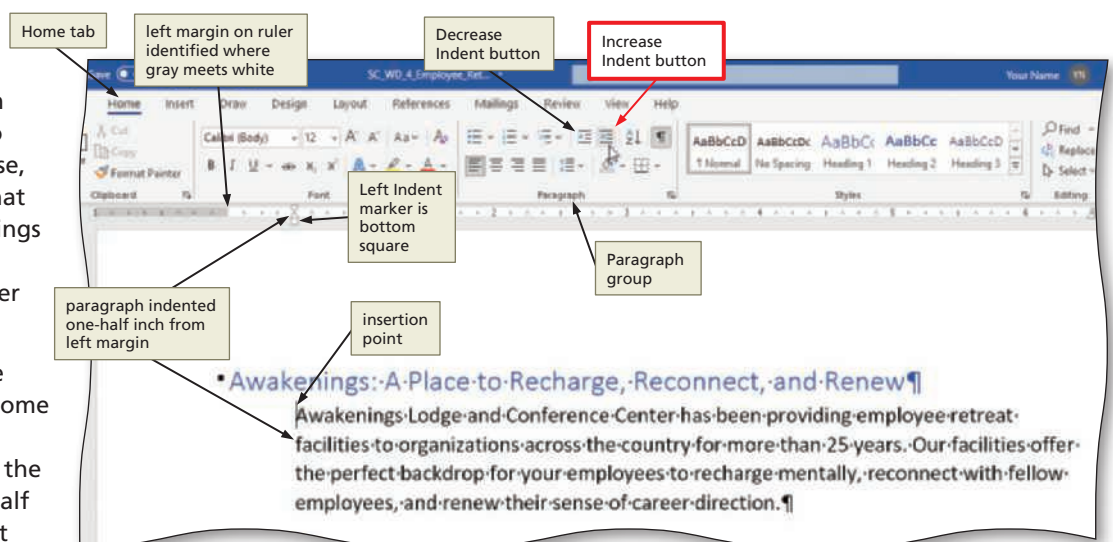


Figure 4–16

Experiment

- Repeatedly click the Increase Indent and Decrease Indent buttons (Home tab | Paragraph group) and watch the left edge of the current paragraph move in the document window. When you have finished experimenting, set the left indent so that it is one-half inch from the left margin as shown in Figure 4–16.

Other Ways

- | | | | |
|-------------------------------------|--|--|---|
| 1. Drag Left Indent marker on ruler | 2. Click Indent Left up or down arrows (Layout tab Paragraph group) (or, if using touch, tap Indent Left box (Layout tab Paragraph group) and then enter desired indent value) | 3. Click Paragraph Settings Dialog Box Launcher (Home tab Paragraph group), click Indents and Spacing tab (Paragraph dialog box), set indentation values, click OK | 4. Right-click paragraph (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Paragraph on shortcut menu, click Indents and Spacing tab (Paragraph dialog box), set indentation values, click OK |
|-------------------------------------|--|--|---|

To Insert a Different First Page Formatted Header

A header is information that appears at the top of each page in the document. A footer is information that appears at the bottom of each page. In this proposal, you want the header and footer you insert to appear on each page after the cover page. **Why? You do not want the header to appear on the cover page.** In Word, you can instruct the header and footer not to appear on the first page in a document. Word also provides several built-in preformatted header designs for you to insert in documents. The following steps insert a formatted header that does not appear on the first page of a document.

- 1**
- Display the Insert tab.
 - Click the Header button (Insert tab | Header & Footer group) to display the Header gallery.
- Experiment**
- Scroll through the list of built-in headers to see the variety of available formatted header designs (Figure 4–17).

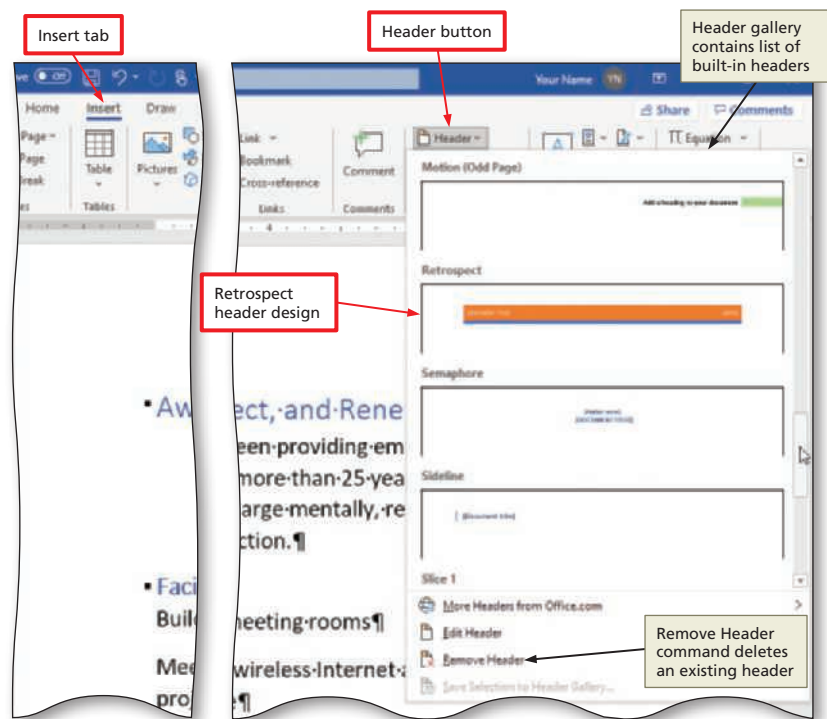


Figure 4–17

- 2**
- If necessary, scroll to and then click the Retrospect header design in the Header gallery to insert the formatted header, which contains two content controls, at the top of the page.

Q&A Why choose the Retrospect header design?

You want to use the same theme throughout the document and the cover page used the Retrospect design.

- If the 'Different First Page' check box (Header & Footer tab | Options group) is not selected, click it to select it so that this header does not appear on the cover page (Figure 4-18).

Q&A How would I delete a header?

You would click Remove Header in the Header gallery (shown in Figure 4-17).

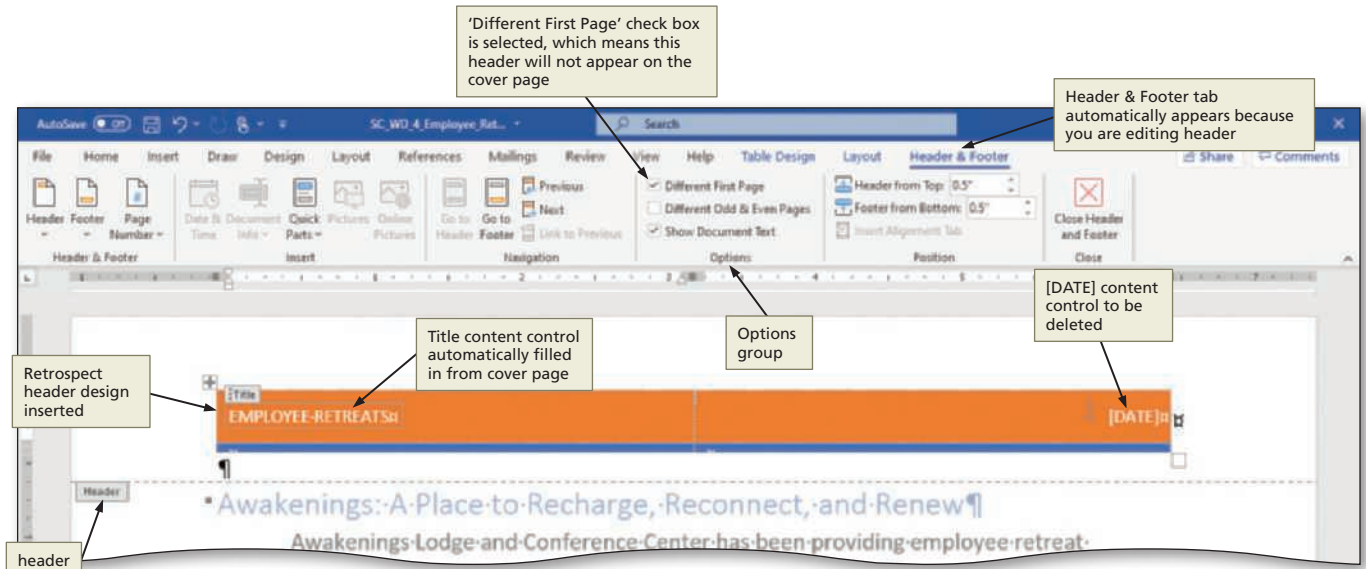


Figure 4-18

Other Ways

1. Click Quick Parts button (Insert tab | Text group), click 'Building Blocks Organizer' on Quick Parts menu, select desired header (Building Blocks Organizer dialog box), click Insert button, click Close

To Remove a Content Control

The following steps delete the [DATE] content control. **Why?** You do not want the date to appear in the header.

- 1 Right-click the [DATE] content control to display a shortcut menu (Figure 4-19).

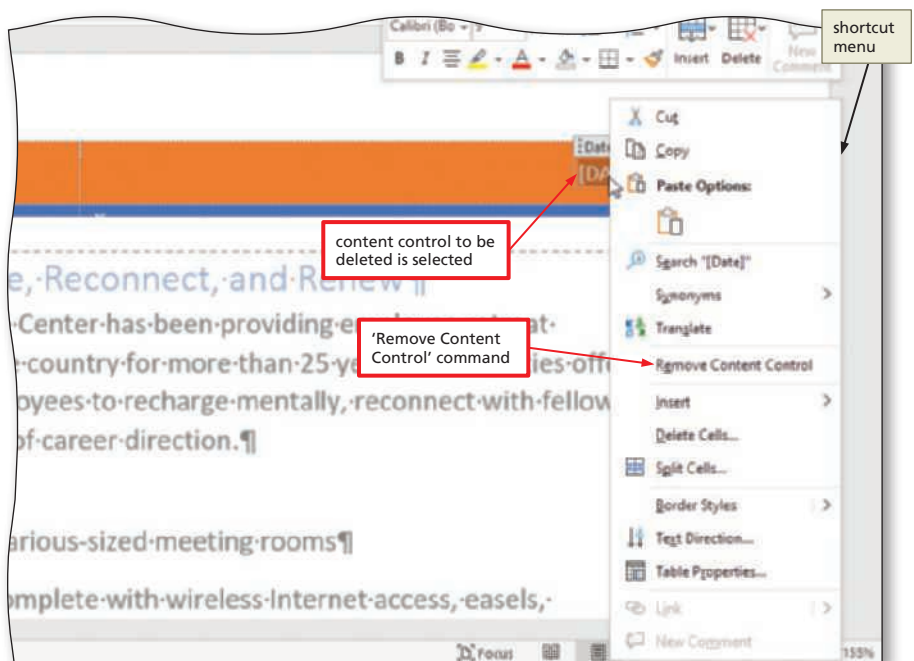


Figure 4-19

2

- Click 'Remove Content Control' on the shortcut menu to delete the selected content control, which also deletes the placeholder text contained in the content control (Figure 4–20).

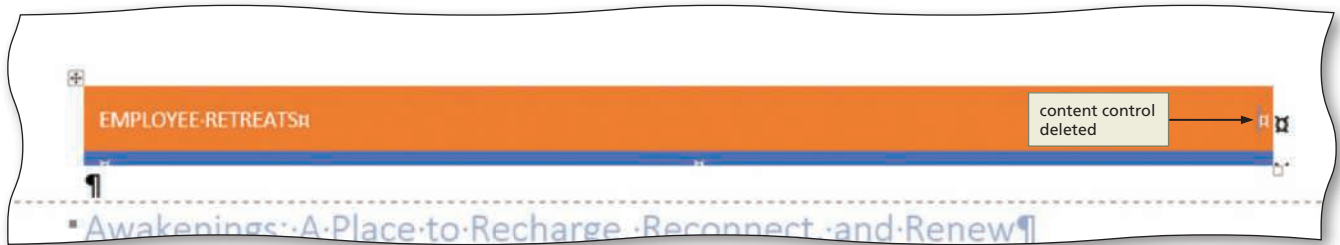


Figure 4–20

Other Ways

- | | |
|---|---|
| 1. With content control selected, click Cut button (Home tab Clipboard group) | 2. With content control selected, press CTRL+X or DELETE or BACKSPACE |
|---|---|

To Insert a Different First Page Formatted Footer

The next step is to insert the footer. Word provides the same built-in preformatted footer designs as header designs. The footer design that corresponds to the header just inserted contains a content control and a page number. The following steps insert a formatted footer that corresponds to the header just inserted. **Why?** You do not want the footer to appear on the cover page, and you want the footer design to complement the header.

1

- Click the 'Go to Footer' button (Header & Footer tab | Navigation group) to display the footer in the document window (Figure 4–21).

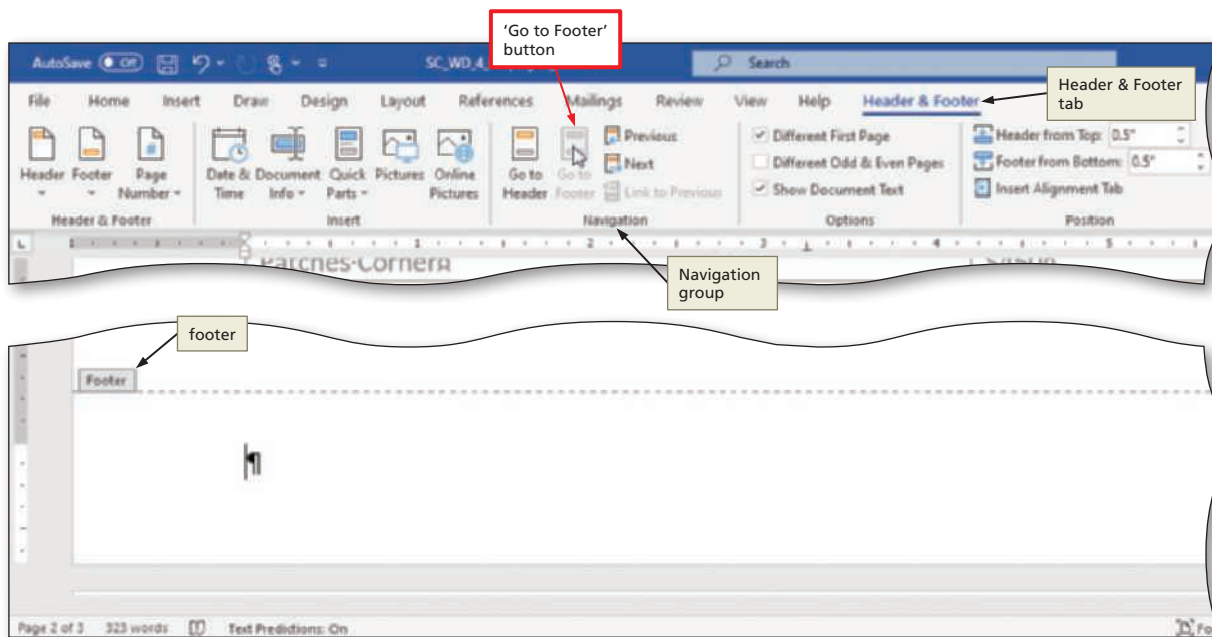


Figure 4–21

2

- Click the Footer button (Header & Footer tab | Header & Footer group) to display the Footer gallery.

Experiment

- Scroll through the list of built-in footers to see the variety of available formatted footer designs (Figure 4-22).

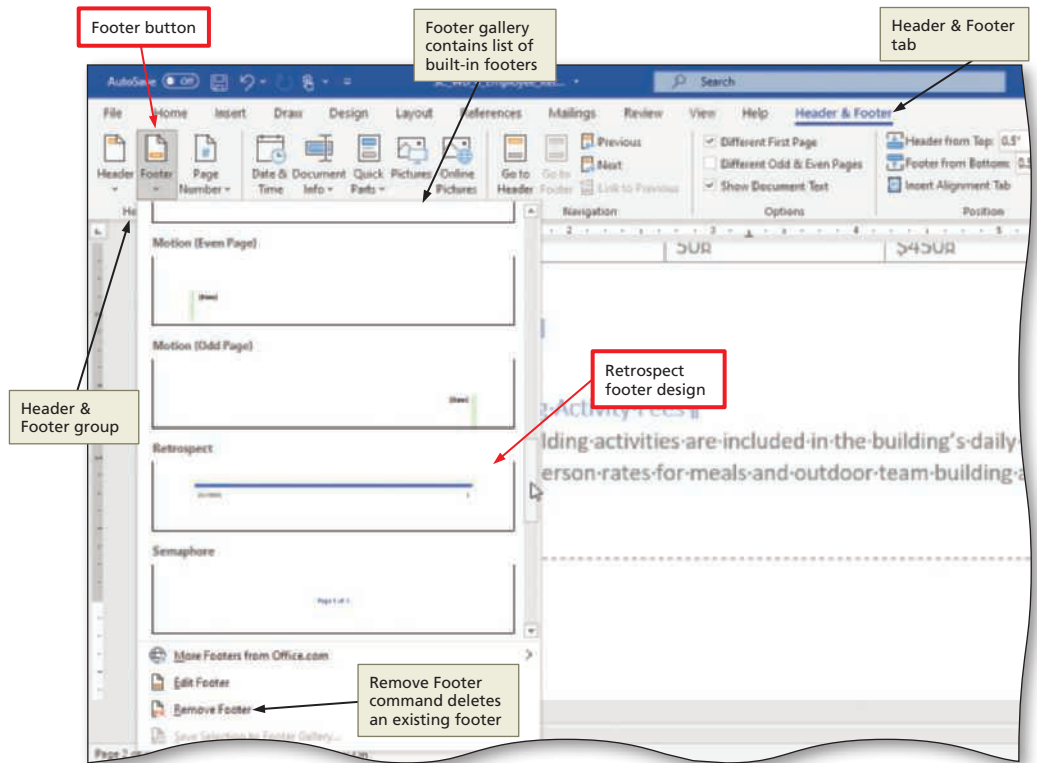


Figure 4-22

3

- Scroll to and then click the Retrospect footer design to insert the formatted footer in the document.
- If the 'Different First Page' check box (Header & Footer tab | Options group) is not selected, click it to select the button so that this footer does not appear on the cover page (Figure 4-23).

Q&A

Why is the page number a 1?

When you inserted the cover page, Word automatically removed the page number from the first page because numbering typically begins on the page after the cover page.

How would I delete a footer?

You would click Remove Footer in the Footer gallery (shown in Figure 4-22).

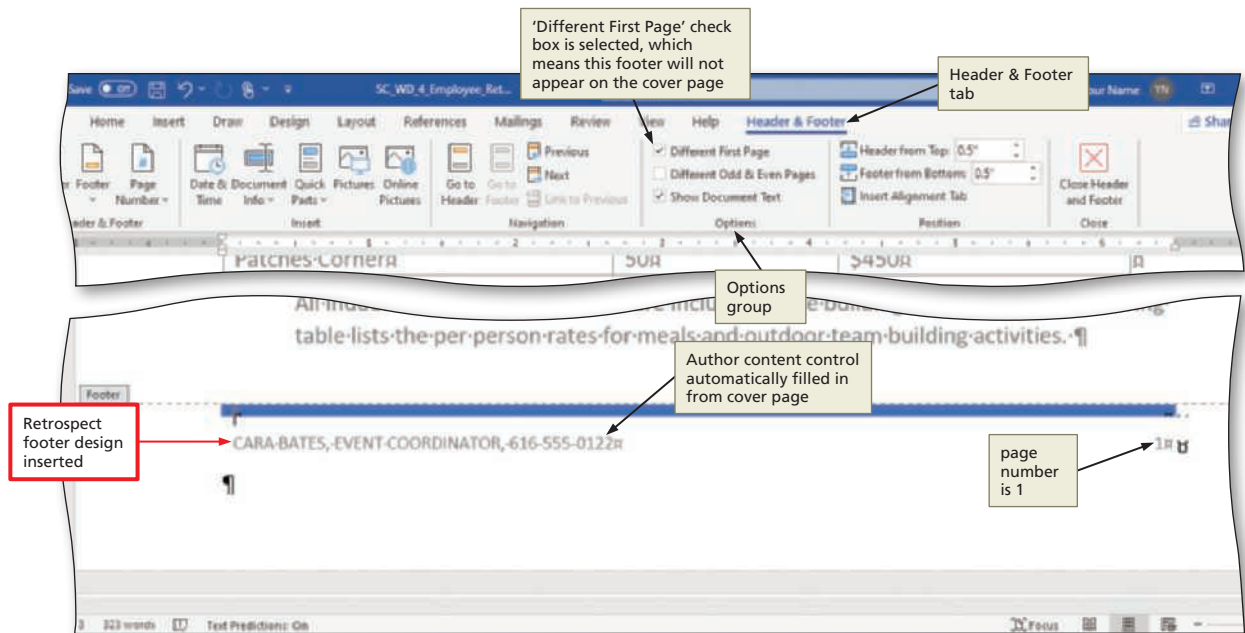


Figure 4-23

Other Ways

1. Click Footer button (Insert tab | Header & Footer group), select desired header in list
2. Click Quick Parts button (Insert tab | Text group), click 'Building Blocks Organizer' on Quick Parts menu, select desired footer (Building Blocks Organizer dialog box), click Insert button, click Close

To Format Page Numbers

You would like the page number to display with dashes around it, - 1 -, instead of just the single number, 1. **Why?** You want the page number to be more noticeable. The following steps format the page numbers.

- 1
 - Click the Page Number button (Header & Footer tab | Header & Footer group) to display the Page Number menu (Figure 4-24).

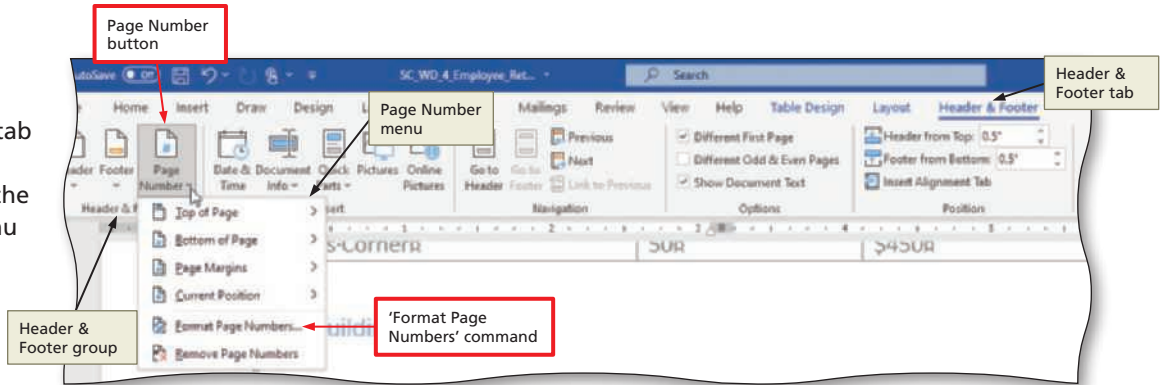


Figure 4-24

- 2
 - Click 'Format Page Numbers' on the Page Number menu to display the Page Number Format dialog box.
 - Click the Number format arrow (Page Number Format dialog box) and then click the second format in the list, - 1 -, - 2 -, - 3 -, ... (Figure 4-25).

Q&A Can I also change the starting page number?
 Yes. Click the Start at option button in the Page numbering area (Page Number Format dialog box) and then enter the desired starting page number for the current page in the document.

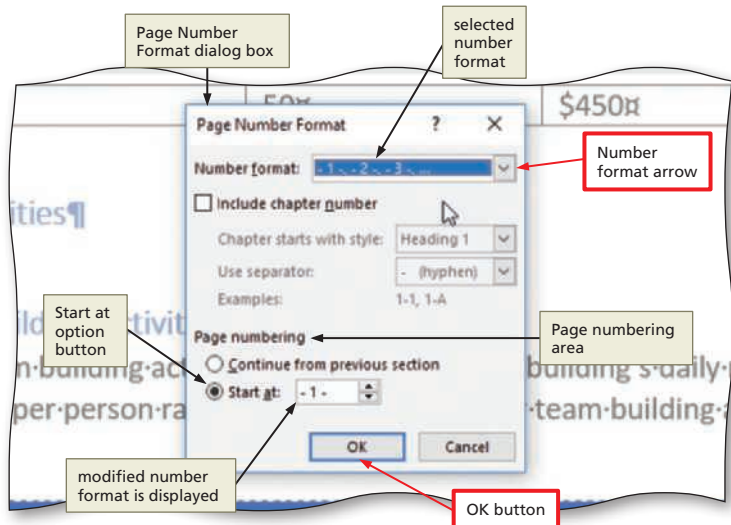


Figure 4-25

- 3
 - Click OK to change the format of the page number (Figure 4-26).
 - Click the 'Close Header and Footer' button (Header & Footer tab | Close group) to close the header and footer.

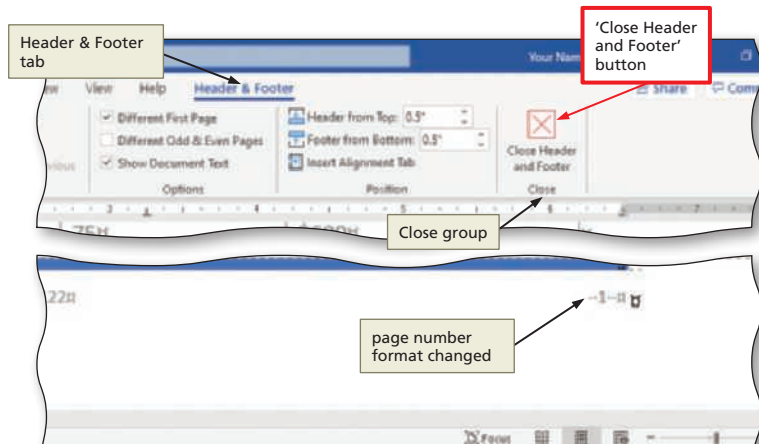


Figure 4-26

Other Ways

1. Click Page Number button (Insert tab | Header & Footer group), click 'Format Page Numbers' on Page Number menu, set page formats (Page Number Format dialog box), click OK

To Format Text Using the Font Dialog Box

The following steps format the conclusion (the last line of text in the body of the proposal) so that it is colored, uses small caps, and has expanded spacing.

- 1 Select the text to be formatted (in this case, the sentence that begins 'Choose Awakenings for Your...').
- 2 Click the Font Dialog Box Launcher (Home tab | Font group) to display the Font dialog box. If necessary, click the Font tab in the dialog box to display the Font sheet.
- 3 Click the Font color arrow (Font dialog box) and then click 'Orange, Accent 2' (sixth color in first row) in the Font color gallery to change the color.
- 4 Click 16 in the Size list to increase the font size.
- 5 Click the Small caps check box in the Effects area so that each character is displayed as a small uppercase letter.
- 6 Click the Advanced tab (Font dialog box) to display the Advanced sheet in the Font dialog box.
- 7 Click the Spacing arrow in the Character Spacing area and then click Expanded to increase the amount of space between characters by 1 pt, which is the default.
- 8 Double-click the value in the Spacing By box to select it and then type 2 because you want this amount of blank space to be displayed between each character.
- 9 Click OK to apply font changes to the selected text.
- 10 Click anywhere to remove the selection from the text (Figure 4-27).
- 11 Save the sales proposal again with the same file name in the same storage location.

BTW**Touch Mode Differences**

The Microsoft 365 and Windows interfaces may vary if you are using Touch mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.



Figure 4-27

Editing and Formatting Lists

The finished sales proposal in this module has two lists: a bulleted list and a multilevel list (shown in Figures 4-1b and 4-1c at the beginning of this module). The bulleted list uses a predefined bullet character instead of simple round dots, and the color of the bullet character is changed from the default. The multilevel list has multiple levels

for each item and also uses a picture for one of the bullet characters. The following sections illustrate steps used to edit and format the lists in the proposal:

1. Select a predefined bullet character and change its color.
2. Change the left and right indent of bulleted paragraphs.
3. Create a multilevel list.
4. Change the bullet character of list items to picture bullets.
5. Sort a list of paragraphs.

To Select a Predefined Bullet Character for a List

The paragraphs below the heading, Facility, should be a bulleted list. Instead of simply clicking the Bullets button to apply the default bullet character, you will select a predefined character for the bulleted list. **Why?** You want to use a more visually appealing bullet for this list. The following steps format the bullets in a list from the default round dot to a predefined bullet character.

1

- Select the paragraphs to be formatted as a bulleted list, in this case, the paragraphs below the Facility heading.
- Click the Bullets arrow (Home tab | Paragraph group) to display the Bullets gallery (Figure 4–28).

all paragraphs to be in bulleted list selected

Figure 4–28

- 2**
- Click the desired predefined bullet character in the Bullet Library area, in this case, the right-pointing chevron symbol, to format the selected paragraphs with the selected bullet character (shown in Figure 4–29).

To Change Bullet Color

The predefined bullet character is colored orange in the proposal. **Why?** You want the bullet character color to complement the cover page and header and footer colors. The following steps change the color of bullet characters in a list.

- 1 With the bulleted list selected, click the Bullets arrow (Home tab | Paragraph group) to display the Bullets gallery again (Figure 4–29).

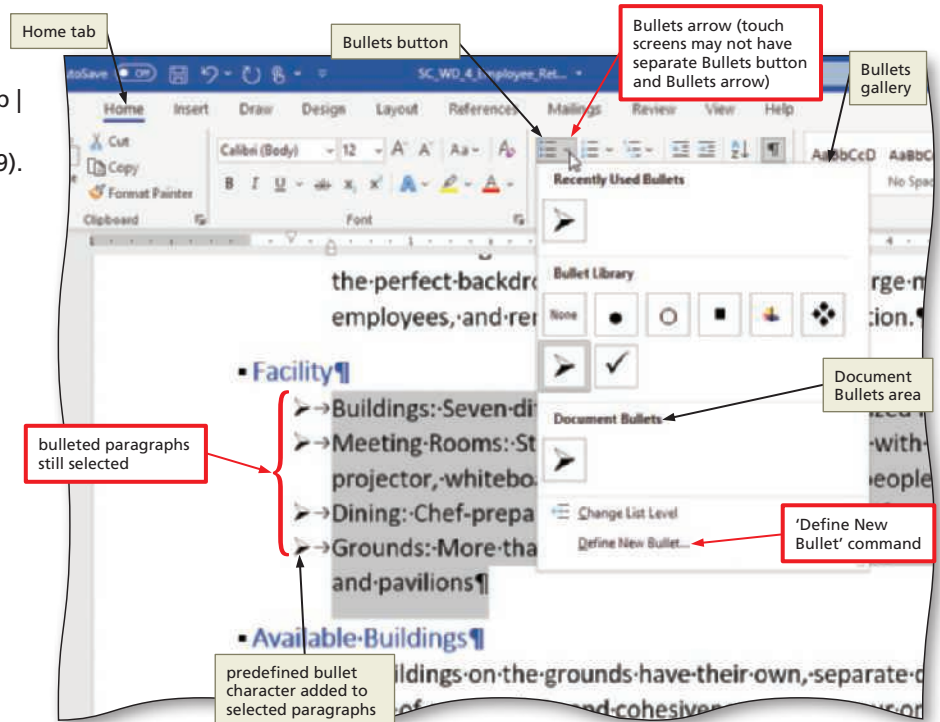


Figure 4–29

- 2 Click 'Define New Bullet' in the Bullets gallery to display the Define New Bullet dialog box.
- Click the Font button (Define New Bullet dialog box) to display the Font dialog box.
- Click the Font color arrow (Font dialog box) and then click 'Orange, Accent 2' (sixth color in first row) in the color gallery (Figure 4–30).

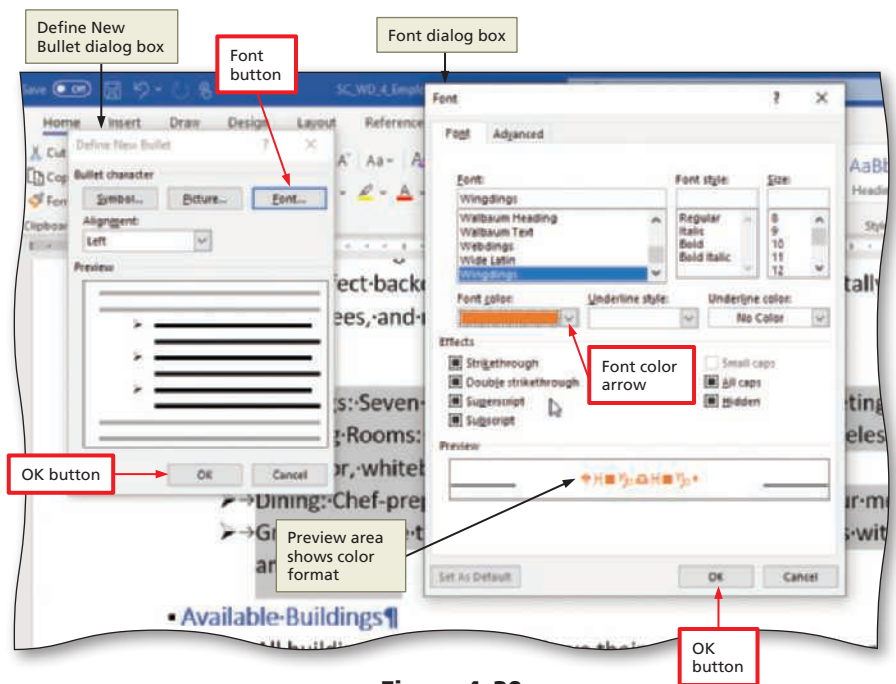


Figure 4–30

- 3 Click OK (Font dialog box) to change the color of the bullet character to the selected color.
- Click OK (Define New Bullet dialog box) to change the color of the bullet character in the selected list in the document (Figure 4–31).

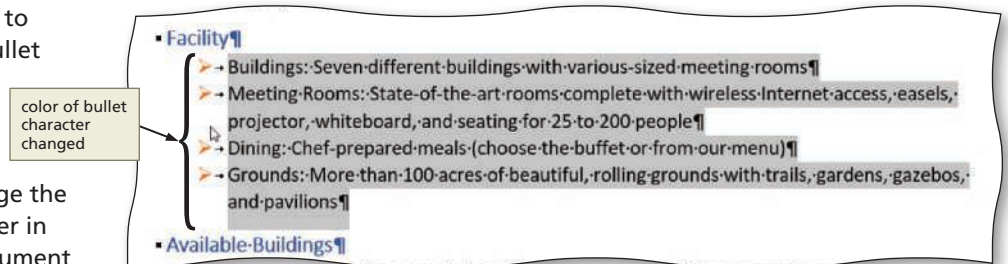


Figure 4–31

BTW
The Ribbon and Screen Resolution

Word may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

To Change Left Paragraph Indent

As with other paragraphs in the proposal, the paragraphs in the bulleted list also are indented from the left margin by one-half inch. The following step changes the left paragraph indent of the bulleted list in the proposal.

- 1 With the paragraphs in the bulleted list still selected, click the Increase Indent button (Home tab | Paragraph group) to indent the paragraphs in the selected bulleted list one-half inch from the left margin (Figure 4–32).

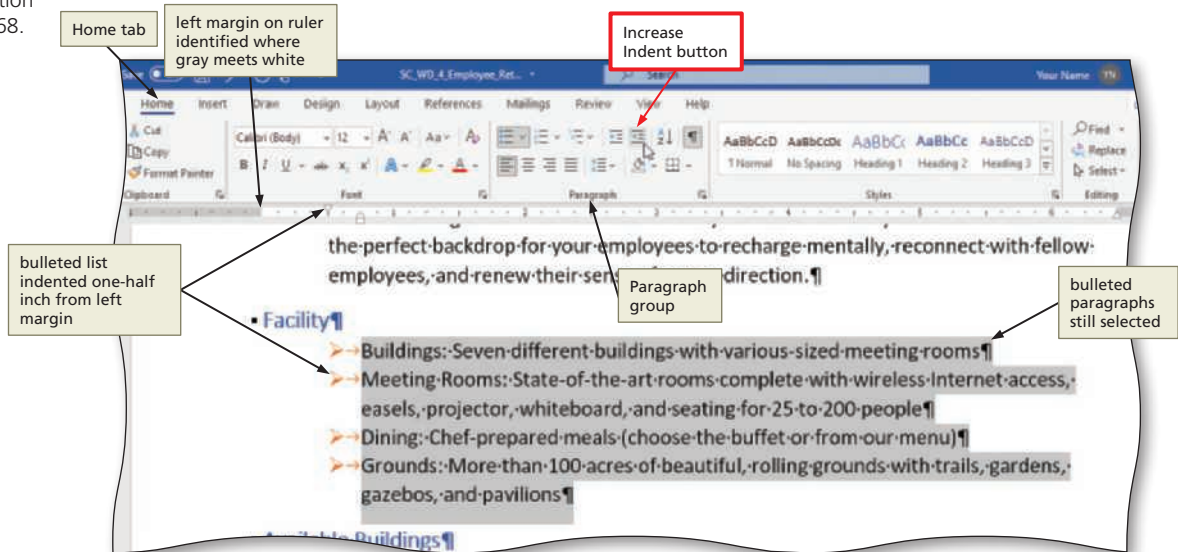


Figure 4–32

To Change Right Paragraph Indent

In addition to indenting the paragraphs in the bulleted list one-half inch from the left margin, you also want to indent them one-half inch from the right margin. **Why?** You do not want the bulleted list paragraphs to extend as far as the paragraphs of text. The following steps change the right paragraph indent.

- 1
 - With the paragraphs to format still selected, position the pointer on the Right Indent marker on the ruler (Figure 4–33).

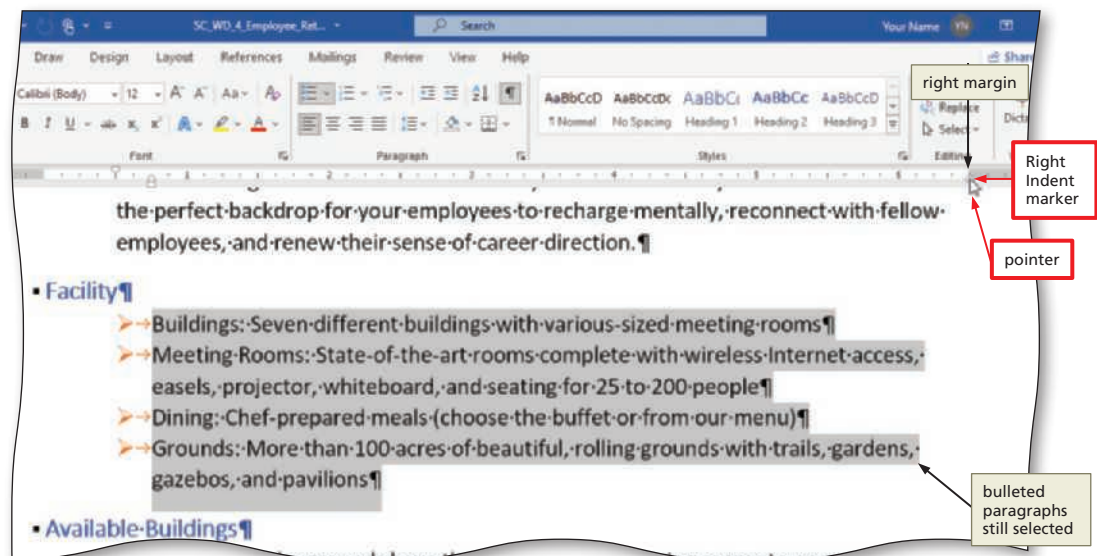
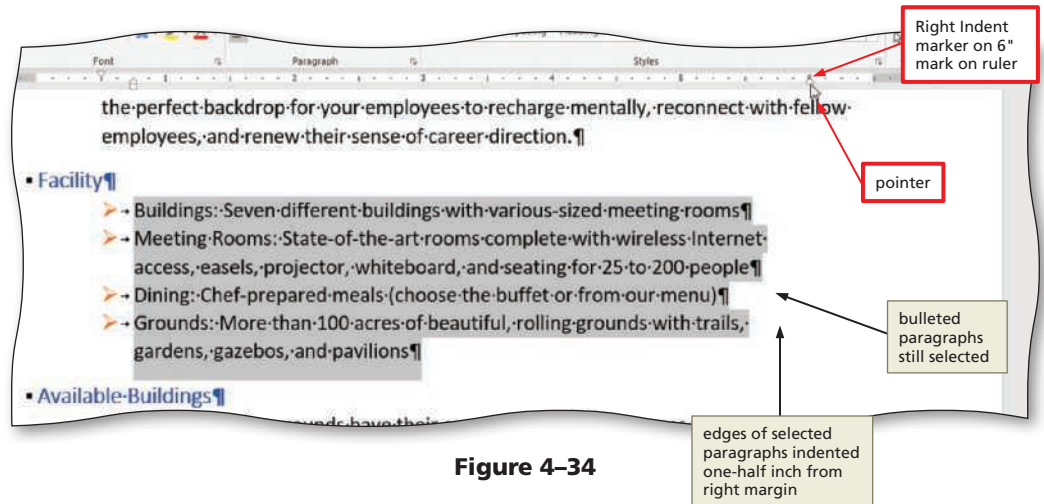


Figure 4–33

2

- Drag the Right Indent marker inward to the 6" mark on the ruler (Figure 4–34).

**Figure 4–34****Other Ways**

1. Click Indent Right up or down arrows (Layout tab | Paragraph group) (or, if using touch, tap Indent Right box (Layout tab | Paragraph group) and then enter desired indent value)
2. Click Paragraph Settings Dialog Box Launcher (Home tab | Paragraph group), click Indents and Spacing tab (Paragraph dialog box), set indentation values, click OK
3. Right-click paragraph (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Paragraph on shortcut menu, click Indents and Spacing tab (Paragraph dialog box), set indentation values, click OK

To Insert a Page Break

The Team Building Activities heading should appear at the beginning of the next page. The following steps insert a page break.

- 1** Scroll to the heading, Team Building Activities, and position the insertion point immediately to the left of the T in Team.
- 2** Display the Insert tab.
- 3** Click the Page Break button (Insert tab | Pages group) to insert a page break at the location of the insertion point, which will move the Team Building Activities heading to the last page of the proposal (shown in Figure 4–35).

BTW**Word Help**

At any time while using Word, you can find answers to questions and display information about various topics through Word Help. Used properly, this form of assistance can increase your productivity and reduce your frustrations by minimizing the time you spend learning how to use Word.

To Create a Multilevel List

The next step is to create a multilevel list below the Team Building Activities heading on the last page of the sales proposal in this module (shown in Figure 4–1c at the beginning of this module). **Why? You would like to list the indoor and outdoor team building activities available during employee retreats.**

A **multilevel list** is a list that contains several levels of list items, with each lower level displaying a different numeric, alphabetic, or bullet character. In a multilevel list, the first level is displayed at the left edge of the list and subsequent levels are indented; that is, the second level is indented below the first, the third level is indented below the second level, and so on. The list is referred to as a numbered list if the first level contains numbers or letters and is referred to as a bulleted list if the first level contains a character other than a number or letter. The multilevel list in this project uses bullet characters. The following steps create a multilevel list.

- 1
 - Position the insertion point at the location for the multilevel list, which in this case is the blank line below the Team Building Activities heading on the last page of the sales proposal.
 - Display the Home tab and then click the Multilevel List button (Home tab | Paragraph group) to display the Multilevel List gallery (Figure 4–35).

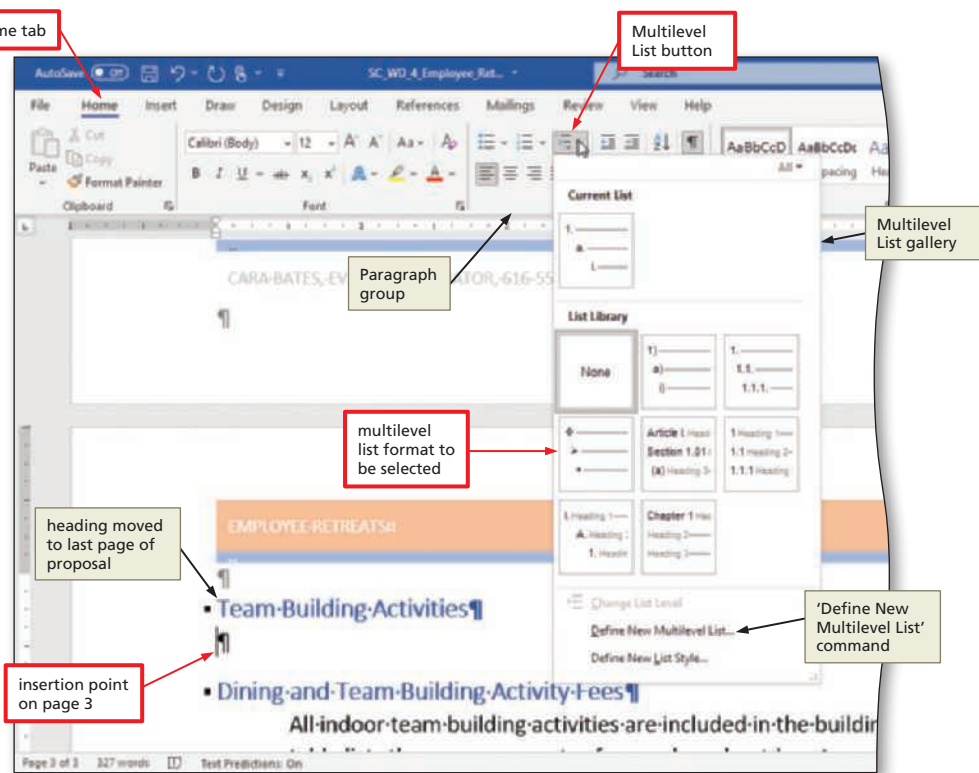


Figure 4–35

- 2
 - Click the character format in the Multilevel List gallery (shown in Figure 4–35) to display the current paragraph as a multilevel list item using the selected multilevel list format.
 - Click the Increase Indent button (Home tab | Paragraph group) to indent the list one-half inch from the left margin.

Q&A What if I wanted a different number format?

You would click the Multilevel List button (Home tab | Paragraph group) and then select the desired format in the Multilevel List gallery, or click 'Define New Multilevel List' in the Multilevel List gallery (shown in Figure 4–35) to define your own format.

- Type **Indoor Team Building Activities** as a first-level list item and then press ENTER, which automatically places the next bullet for the current level at the beginning of the next line (Figure 4–36).

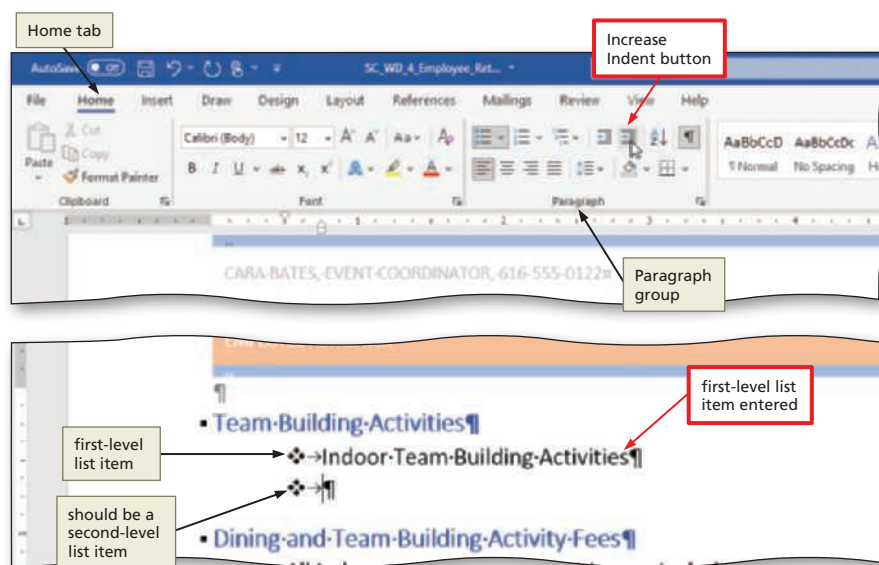


Figure 4–36

- 3
 - Press TAB to demote the current list item to the next lower level, which is indented below the higher-level list item.

4

- Type **Board games** as a second-level list item and then press ENTER, which automatically places the next sequential list item for the current level on the next line.
- Type **Card games** as a second-level list item and then press ENTER.
- Type **Pool table** as a second-level list item and then press ENTER (Figure 4–37).

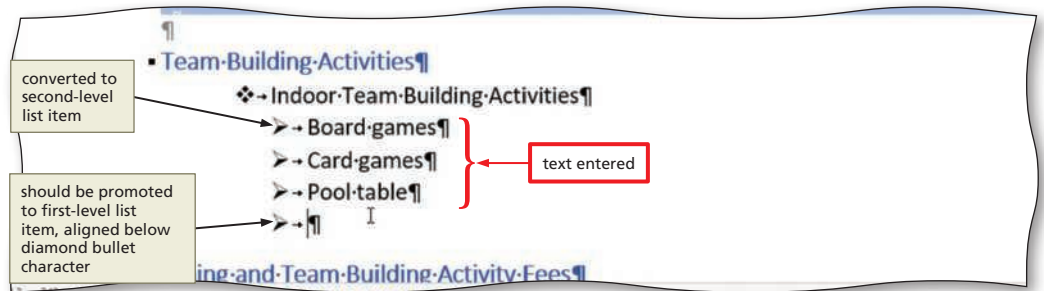


Figure 4–37

5

- Press SHIFT+TAB to promote the current-level list item to a higher-level list item.

Q&A

Can I use buttons on the ribbon instead of pressing TAB or SHIFT+TAB to promote and demote list items?
 Yes. With the insertion point in the item to adjust, you can click the Increase Indent or Decrease Indent button (Home tab | Paragraph group) or right-click the list item, click 'Adjust List Indents' on the shortcut menu, and select the desired options in the dialog box.

6

- Type **Outdoor Team Building Activities** as a first-level list item and then press ENTER.
- Press TAB to demote the current level list item to a lower-level list item.
- Type **Light activity** as a second-level list item and then press ENTER (Figure 4–38).

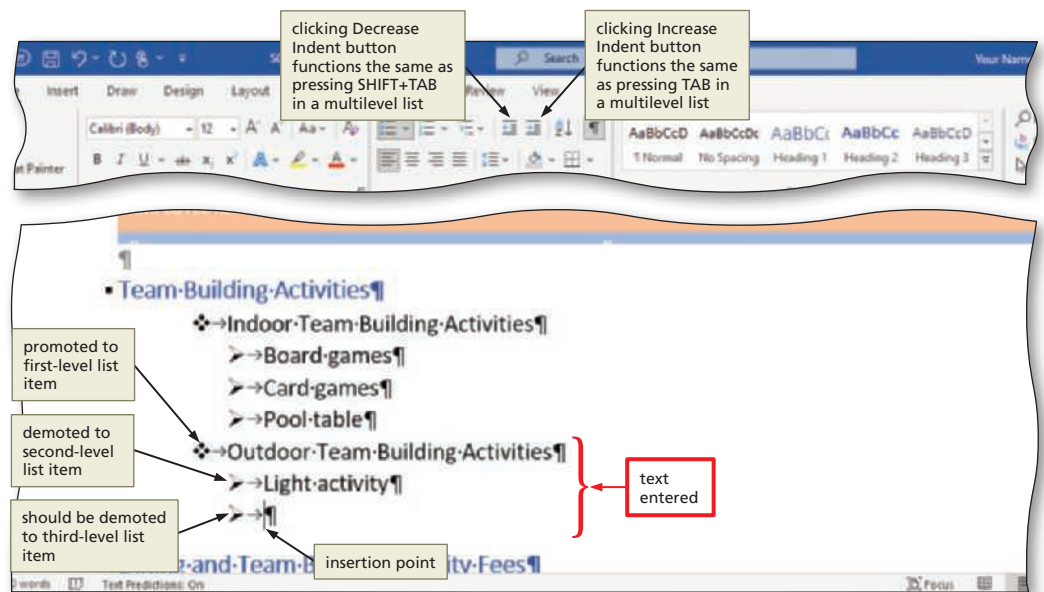


Figure 4–38

7

- Press TAB to demote the current-level list item to a lower-level list item.
- Type **Scenic hayride** as a third-level list item and then press ENTER.
- Type **Bonfire with s'mores** as a third-level list item and then press ENTER.
- Type **Scavenger hunt** as a third-level list item and then press ENTER.
- Press SHIFT+TAB to promote the current-level list item to a higher-level list item.
- Type **Moderate activity** as a second-level list item and then press ENTER.
- Press TAB to demote the current-level list item to a lower-level list item.
- Type **Archery** as a third-level list item and then press ENTER.

- Type **Bike riding with guide** as a third-level list item and then press ENTER.
- Type **Hiking with guide** as a third-level list item (Figure 4–39).

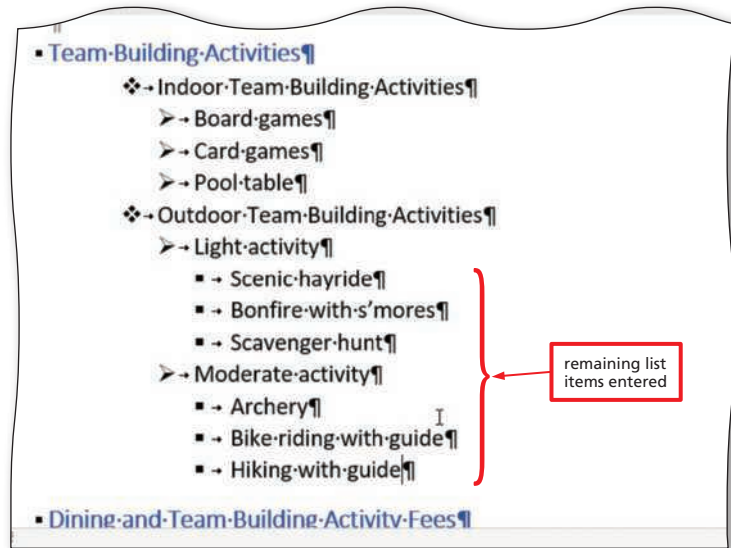


Figure 4–39

To Change the Bullet Character to Picture Bullets

The multilevel list in the sales proposal draft uses default bullet characters. The following steps change the first-level bullets in the multilevel list from the default to picture bullets. **Why?** You want to use a more visually appealing bullet that represents teamwork.

1

- Position the insertion point in the paragraph containing the bullet you want to change to a picture bullet, in this case, the first bulleted item in the multilevel list.
- Click the Bullets arrow (Home tab | Paragraph group) to display the Bullets gallery (Figure 4–40).

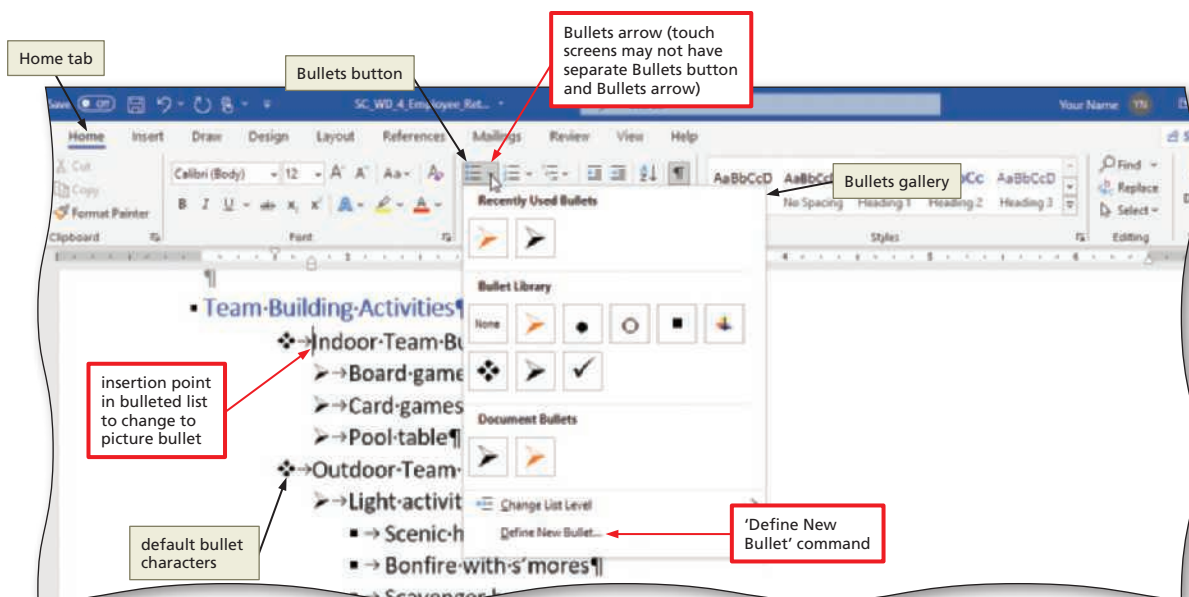


Figure 4–40

2

- Click 'Define New Bullet' in the Bullets gallery to display the Define New Bullet dialog box.
- Click the Picture button (Define New New Bullet dialog box) to display the Insert Pictures dialog box.
- Type **abstract group interaction** in the Bing Image Search box (Insert Pictures dialog box) (Figure 4-41).

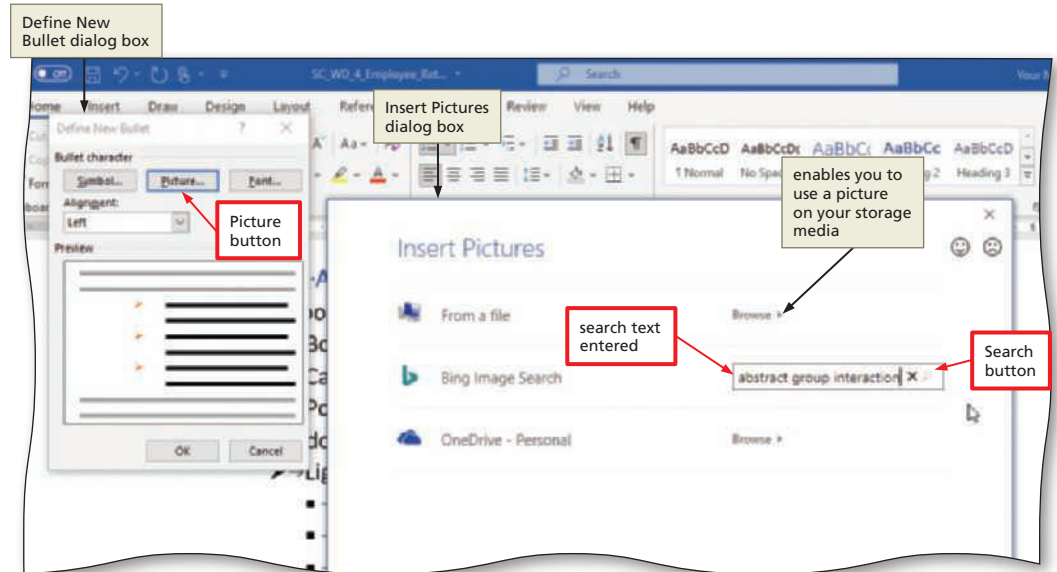


Figure 4-41

3

- Click the Search button to display a list of pictures (Online Pictures dialog box) that matches the entered search text.
- Scroll through the list of pictures to locate the one shown in Figure 4-42, or a similar image.

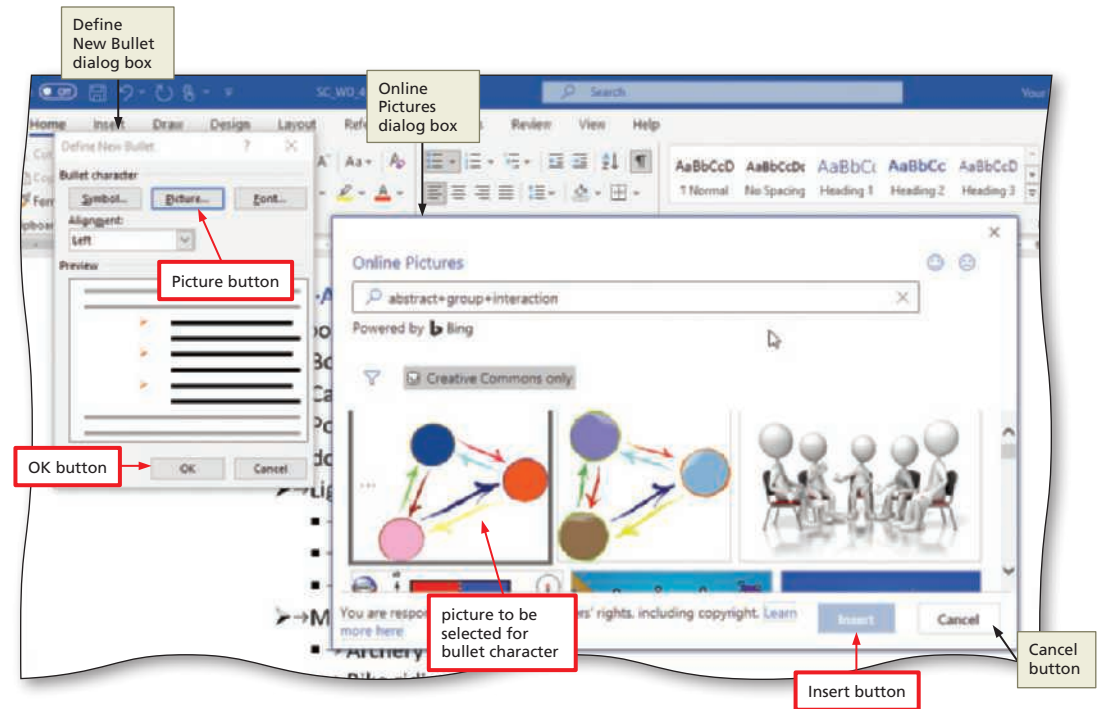


Figure 4-42

Q&A

What if I cannot locate the image in Figure 4-42, and I would like to use that exact image?

The image is located in the Data Files. You can click Cancel (Online Pictures dialog box), click the Picture button (Define New Bullet dialog box) to display the Insert Pictures dialog box again, click Browse in the Insert Pictures dialog box, navigate to the file called Support_WD_4_AbstractGroupInteraction.png in the Data Files, select the file, and then click the Insert button (Insert Picture dialog box) to show a preview of the selected picture bullet in the Define New Bullet dialog box. Proceed to Step 5.

4

- Click the desired picture to select it.
- Click the Insert button (Online Pictures dialog box) to download the image, close the dialog box, and show a preview of the selected picture bullet in the Define New Bullet dialog box.

5

- Click OK (Define New Bullet dialog box) to change the bullets in the current list level to picture bullets (Figure 4-43).



Figure 4-43

To Change the Bullet Character to a Predefined Bullet Character

You would like to change the bullet character for the second-level list items in the multilevel list to an open circle, which is a predefined bullet character. The following steps format bullets to a predefined bullet character.

- 1** Position the insertion point in the paragraph containing the bullet you want to change (shown in Figure 4-44).
- 2** Click the Bullets arrow (Home tab | Paragraph group) to display the Bullets gallery (Figure 4-44).
- 3** Click the desired predefined bullet character in the Bullet Library area, in this case, the open circle, to format current list level paragraphs with the selected bullet character (shown in Figure 4-45).

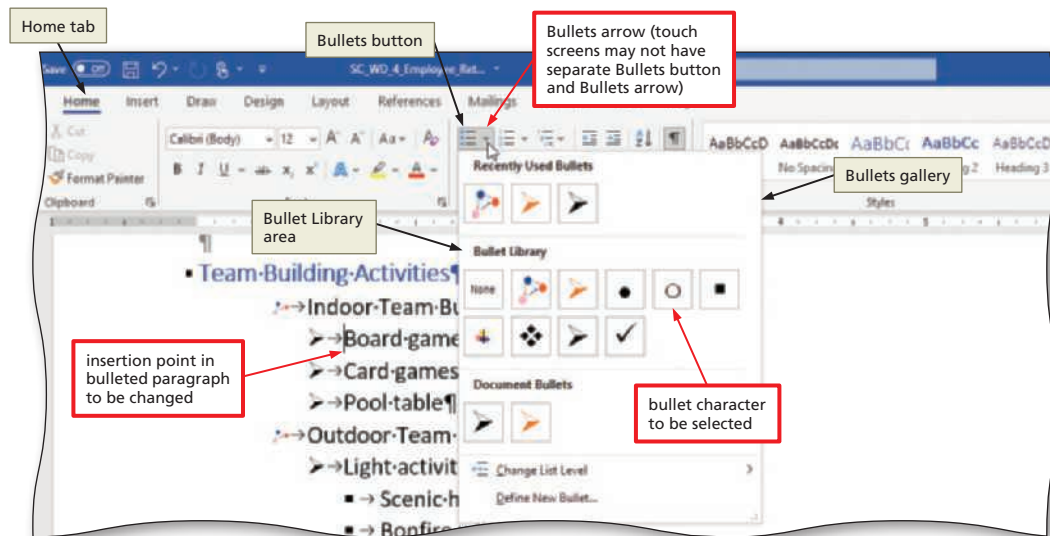


Figure 4-44

BTW

Bullets

In addition to selecting from a variety of bullet symbols and changing font attributes of a bullet by clicking 'Define New Bullet' in the Bullets gallery and then clicking the desired button in the Define New Bullet dialog box, you also can change the level of a bullet by pointing to 'Change List Level' in the Bullets gallery and then clicking the desired level.

To Sort Paragraphs

The next step is to alphabetize the paragraphs below Light activity in the bulleted list. **Why?** It is easier for readers to locate information in lists that are in alphabetical order. In Word, you can **sort** paragraphs, which is the process of arranging them in ascending or descending alphabetic, numeric, or date order based on the first character in each paragraph. Ascending means to sort in alphabetic, numeric, or earliest-to-latest date order. Descending means to sort in reverse alphabetic, numeric, or latest-to-earliest date order. The following steps sort paragraphs in ascending order.

1

- Select the paragraphs to be sorted.
- Click the Sort button (Home tab | Paragraph group) to display the Sort Text dialog box (Figure 4-45).

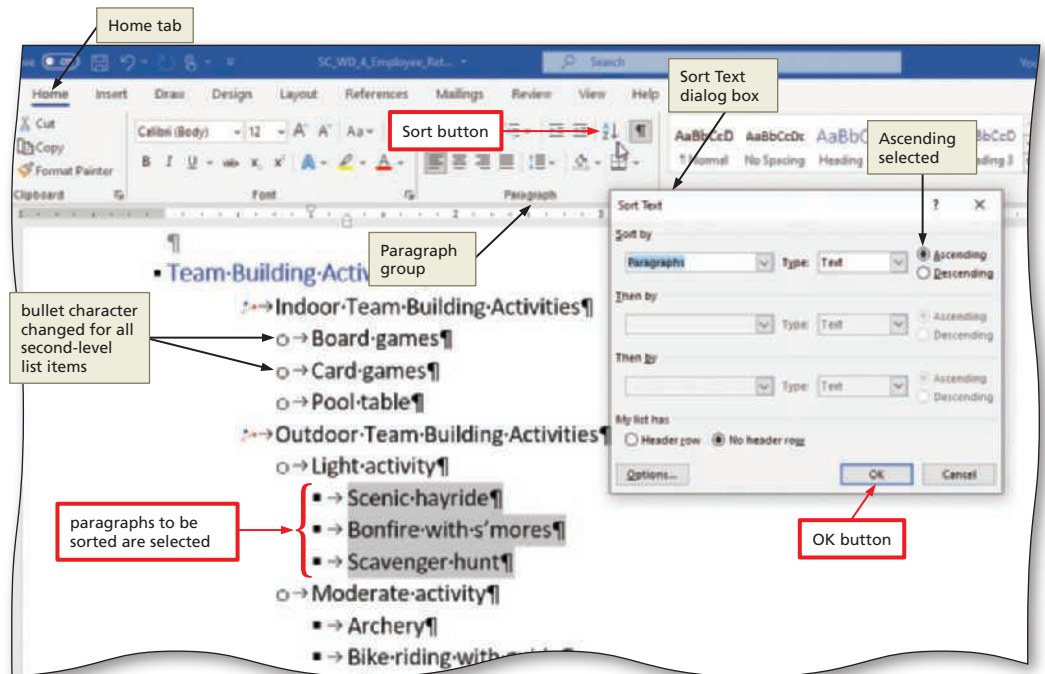


Figure 4-45

2

- Click OK (Sort Text dialog box) to instruct Word to alphabetize the selected paragraphs.
- Click anywhere to remove the selection from the text (Figure 4-46).
- Save the sales proposal again with the same file name in the same storage location.



Figure 4-46

Break Point: If you want to take a break, this is a good place to do so. You can exit Word now. To resume later, start Word, open the file called SC_WD_4_Employee_Retreat_Sales_Proposal.docx, and continue following the steps from this location forward.

Editing and Formatting Tables

The sales proposal draft contains two Word tables: the available buildings table and the additional fees table (shown earlier in the module in Figure 4–12). The available buildings table shows the maximum capacity and daily rate for various buildings on site, and the additional fees table shows costs and minimum attendees for dining and team building activities. In this section, you will make several modifications to these two tables so that they appear as shown in Figure 4–1 at the beginning of this module.

The following pages explain how to modify the tables in the sales proposal draft:

1. Available buildings table
 - a. Change the table column widths.
 - b. Change the table row heights.
 - c. Align data in the table cells.
 - d. Center the table.
 - e. Sort data in the table.
 - f. Insert a formula in the table.
 - g. Change cell spacing.
 - h. Change margins in the table cells.
 - i. Distribute table columns.
2. Additional fees table
 - a. Split table cells.
 - b. Move a cell boundary.
 - c. Distribute table rows.
 - d. Merge table cells.
 - e. Change the direction of text in table cells.
 - f. Resize table columns using AutoFit.
 - g. Shade table cells.
 - h. Add a table border.

BTW

Moving Tables

If you wanted to move a table to a new location, you would click in the table to display the table move handle in the upper-left corner of the table (shown in Figure 4–47) and then drag the table move handle to move the entire table to a new location.

Consider This



Why should you include visuals in a sales proposal?

Studies have shown that most people are visually oriented, preferring images to text. Use tables to clarify ideas and illustrate points. Be aware, however, that too many visuals can clutter a document.

To Change Column Width

Notice in Figure 4–47 that the columns in the available buildings table are much wider than their contents. Thus, you will change the widths of the columns. **Why? You want the columns to be narrower to reduce the amount of white space between the end of the text in the columns and the column boundaries.** The following steps change column widths.

1

- Position the insertion point somewhere in the table to be formatted.
- Position the pointer on the column boundary to the right of the column to adjust (in this case, to the right of the first column) so that the pointer changes to a double-headed arrow split by two vertical bars (Figure 4–47).

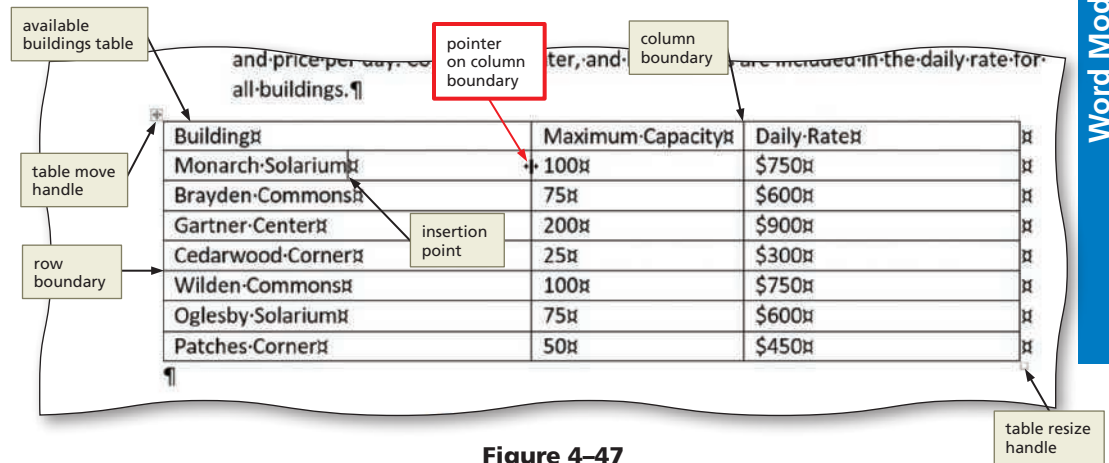


Figure 4–47

Q&A What is the column boundary?

You can drag a **column boundary**, the border to the right of a column, until the column is the desired width. Similarly, you can resize a row by dragging the **row boundary**, the border at the bottom of a row, until the row is the desired height. You also can resize the entire table by dragging the **table resize handle**, which is a small square that appears when you point to a corner of the table.

What causes the table move handle and table resize handle to appear and disappear from the table?
They appear whenever you position the pointer in the table.

2

- Double-click the column boundary so that Word adjusts the column width to the width of the column’s contents.
- Position the pointer on the column boundary to the right of the next column to adjust (in this case, to the right of the second column) so that the pointer changes to a double-headed arrow split by two vertical bars (Figure 4–48).

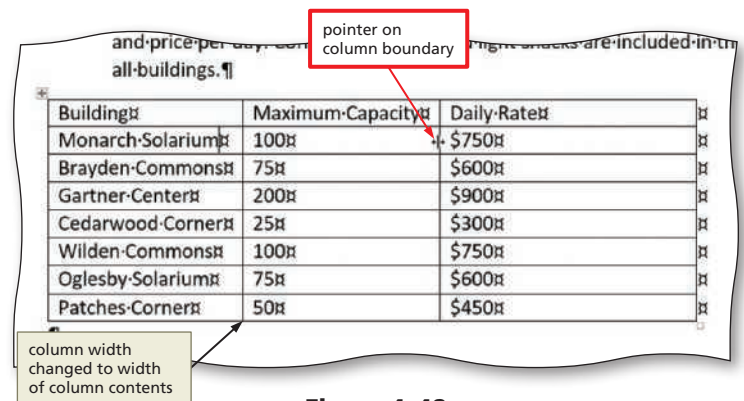


Figure 4–48

Q&A What if I am using a touch screen?

Position the insertion point in the column to adjust, tap the AutoFit button (Layout tab | Cell Size group), and then tap AutoFit Contents on the AutoFit menu.

3

- Drag the column boundary so that Word adjusts the column width so that the column heading wraps to two lines (Figure 4–49).

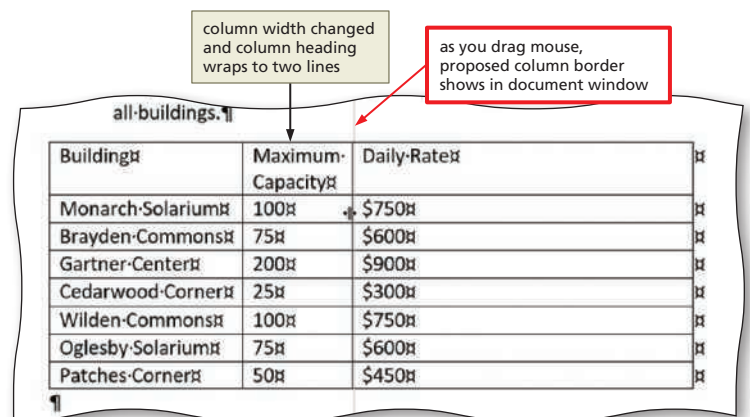


Figure 4–49

Q&A Why drag the column boundary instead of double-clicking it?

When you double-click the column boundary, Word adjusts the width of the column to the column contents, usually adjusting the width to the widest item in the column, which, in this case, is the text, Maximum Capacity. To make the column even narrower and cause the text, Maximum Capacity, to wrap to two lines, you drag the column to make it narrower than the column heading.

4

- Click Layout to display the Layout tab on the ribbon.

Experiment

- Practice changing the column widths in the table using other techniques: drag the 'Move Table Column' marker on the horizontal ruler to the right and then to the left. Click the Width box up and down arrows (Table Design tab | Cell Size group).
- When you have finished experimenting, position the insertion point in the first column and then type 1.6 in the Width box (Layout tab | Cell Size group) to specify the column width, position the insertion point in the second column and then type .98 in the Width box (Layout tab | Cell Size group) to specify the column width, and position the insertion point in the third column and then type 1.06 to specify the column width (Figure 4–50).

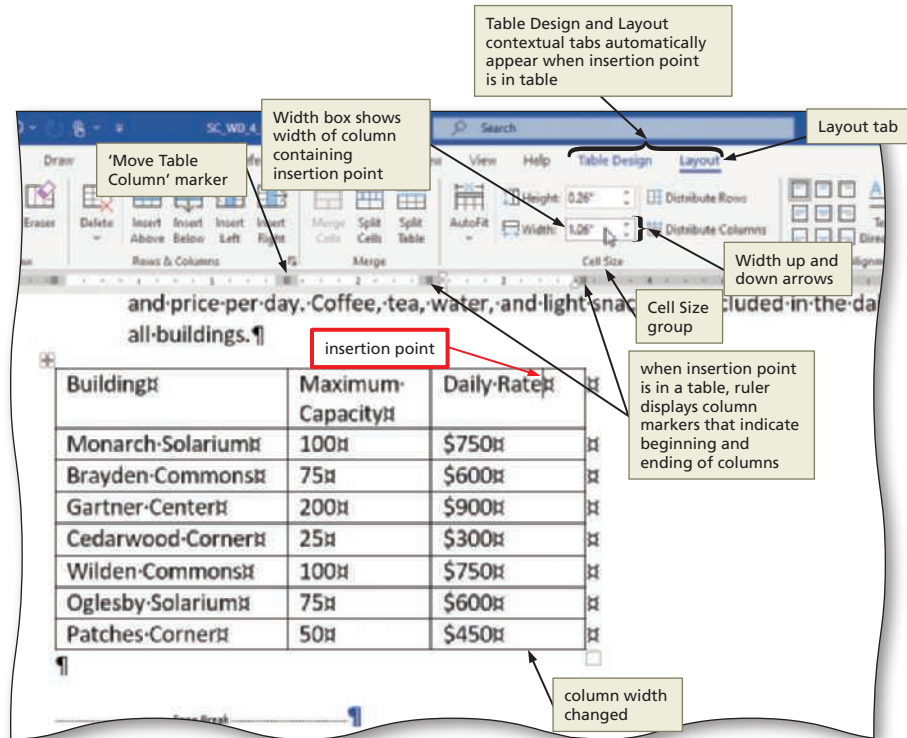


Figure 4–50

Other Ways

1. Drag 'Move Table Column' marker on horizontal ruler to desired width
2. Enter desired value in Width box (Layout tab | Cell Size group)
3. Click Properties button (Layout tab | Table group), click Column tab (Table Properties dialog box), enter width, click OK

To Change Row Height

The next step in this project is to make the height of the rows containing the building names taller. **Why?** For ease of reading, you want more space in the rows. You change row height in the same ways you change column width. That is, you can change row height by entering a specific value on the ribbon or in a dialog box, or by using a marker on the ruler or the row boundary. The latter two methods, however, work only for a single or for selected rows. The following steps change row height.

1

- Select the rows to format (in this case, all the rows below the first row).

Q&A How do I select rows?

Point to the left of the first row and then drag downward when the pointer changes to a right-pointing arrow (or, if using touch, drag through the rows).

- 2
 - Click the Height box up or down arrows (Layout tab | Cell Size group) as many times as necessary until the box displays 0.3" to change the row height to this value (or, if using touch, enter 0.3 in the Height box (Layout tab | Cell Size group) (Figure 4-51).
 - Click anywhere in the table to remove the selection from the table.

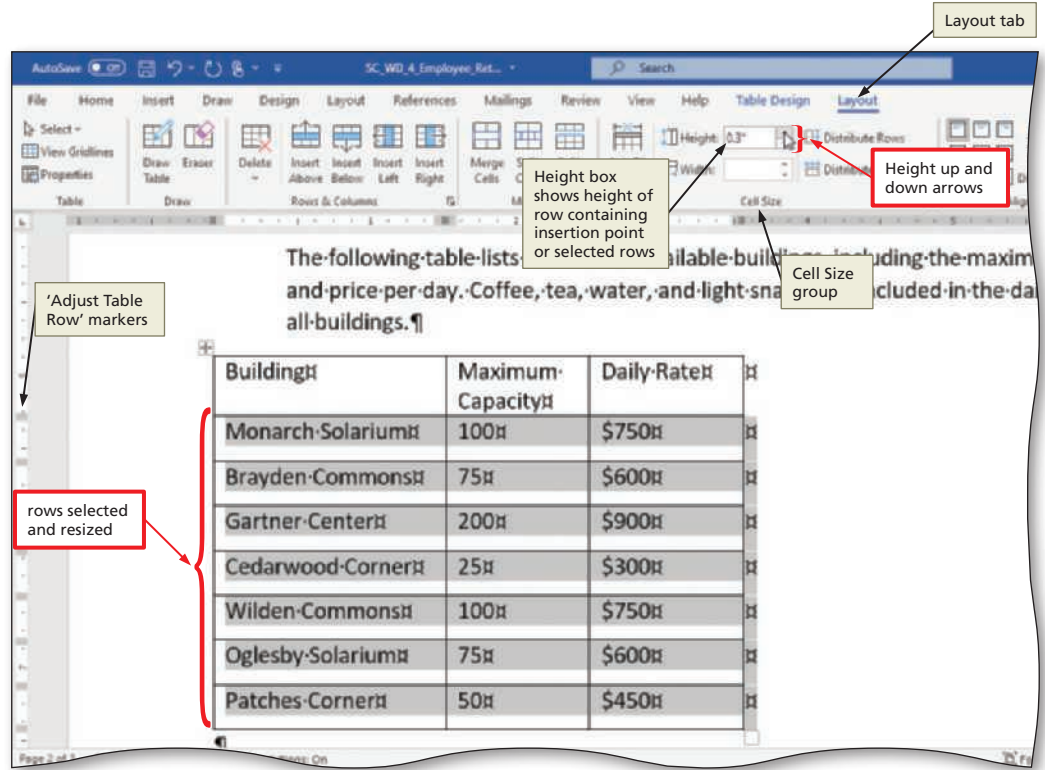


Figure 4-51

Other Ways

1. Click Properties button (Layout tab | Table group), click Row tab (Table Properties dialog box), enter row height, click OK
2. Right-click selected row (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Table Properties on shortcut menu, click Row tab, enter row height (Table Properties dialog box), click OK
3. For a single row or selected rows, drag row boundary (horizontal gridline at bottom of row in table) to desired height
4. Drag 'Adjust Table Row' marker on vertical ruler to desired height

To Apply a Table Style

The following steps apply a table style to the table so that the table is more visually appealing.

- 1 Display the Table Design tab.
- 2 With the insertion point in the table, click the More button in the Table Styles gallery (Table Design tab | Table Styles group) to expand the gallery and then click 'Grid Table 5 Dark - Accent 1' in the Table Styles gallery to apply the selected style to the table in the document (Figure 4-52).
- 3 If the First Column check box in the Table Style Options group (Table Design tab) does not contain a check mark, click the check box to add a check mark because you do want the first column in the table formatted differently from the rest of the table. Be sure the remaining check marks match those in the Table Style Options group (Table Design tab) as shown in Figure 4-52.

Q&A

What if the Table Design tab no longer is the active tab?
Click in the table and then display the Table Design tab.

BTW

Table Wrapping

If you want text to wrap around a table, instead of displaying above and below the table, do the following: either right-click the table and then click Table Properties on the shortcut menu, or click the Properties button (Layout tab | Table group), click the Table tab (Table Properties dialog box), click Around in the Text wrapping area, and then click OK.

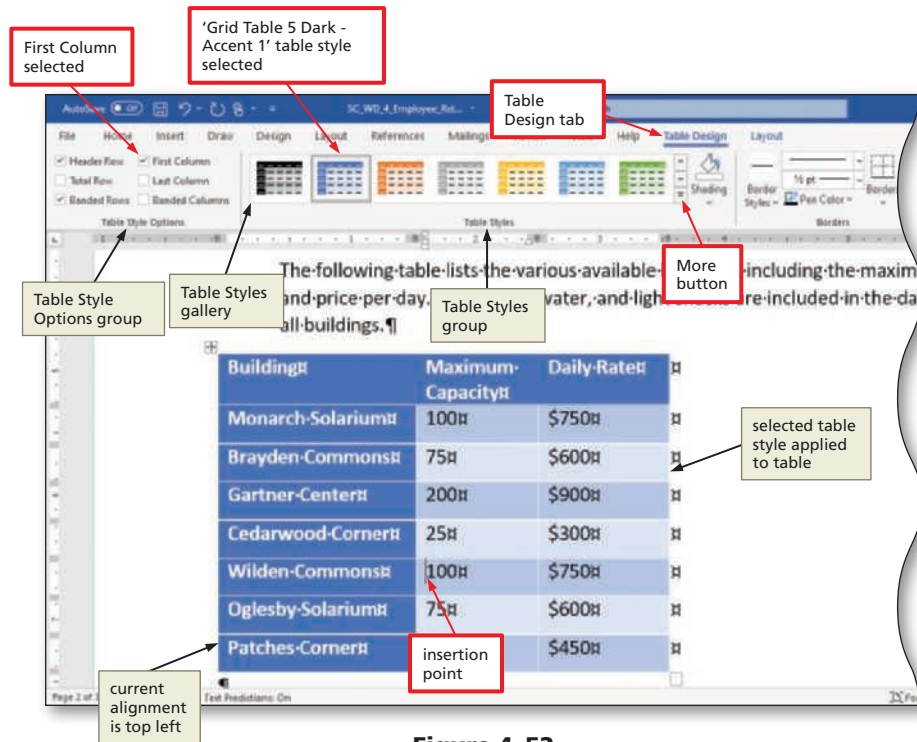


Figure 4-52

To Align Data in Cells

The next step is to change the alignment of the data in cells in the table. In addition to aligning text horizontally in a cell (left, center, or right), you can align it vertically within a cell (top, center, bottom). When the height of the cell is close to the same height as the text, however, differences in vertical alignment are not readily apparent. Because the rows are taller in this table, you will vertically center the data in the cells. The following step aligns data in cells. **Why?** In tables, textual data often is left-aligned and numeric data often is right-aligned.

1

- Display the Layout tab.
- Select the leftmost column, as shown in Figure 4-53, and then click the desired alignment, in this case the 'Align Center Left' button (Layout tab | Alignment group) to align the contents of the selected cells (Figure 4-53).

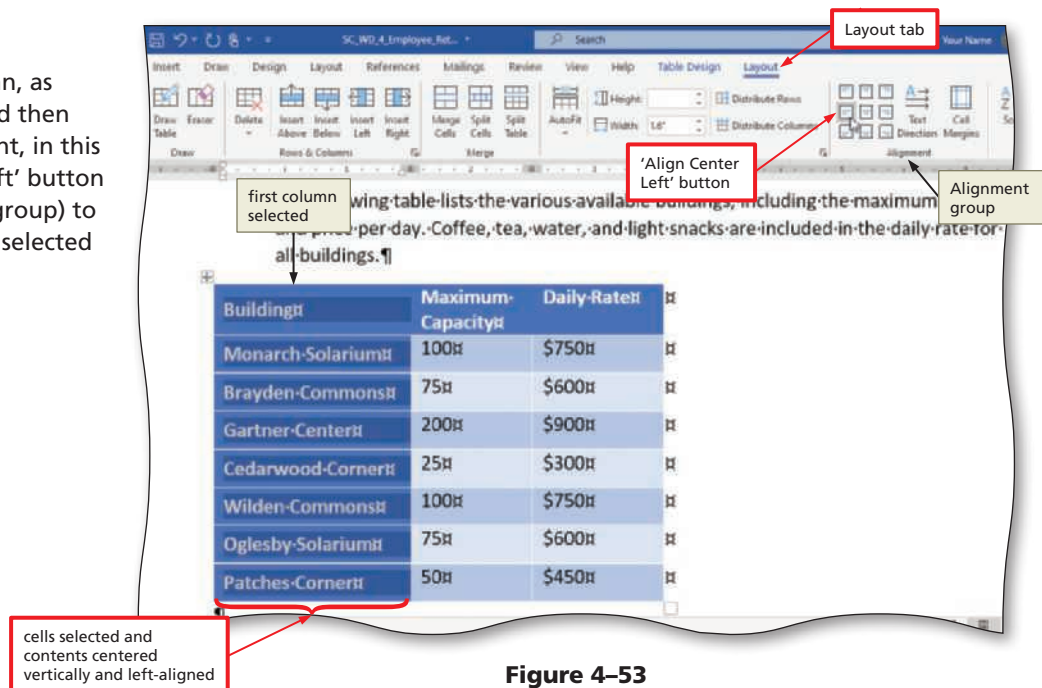


Figure 4-53

- 2 Select the second and third columns, as shown in Figure 4-54, and then click the desired alignment, in this case the 'Align Center Right' button (Layout tab | Alignment group) to align the contents of the selected cells (Figure 4-54).

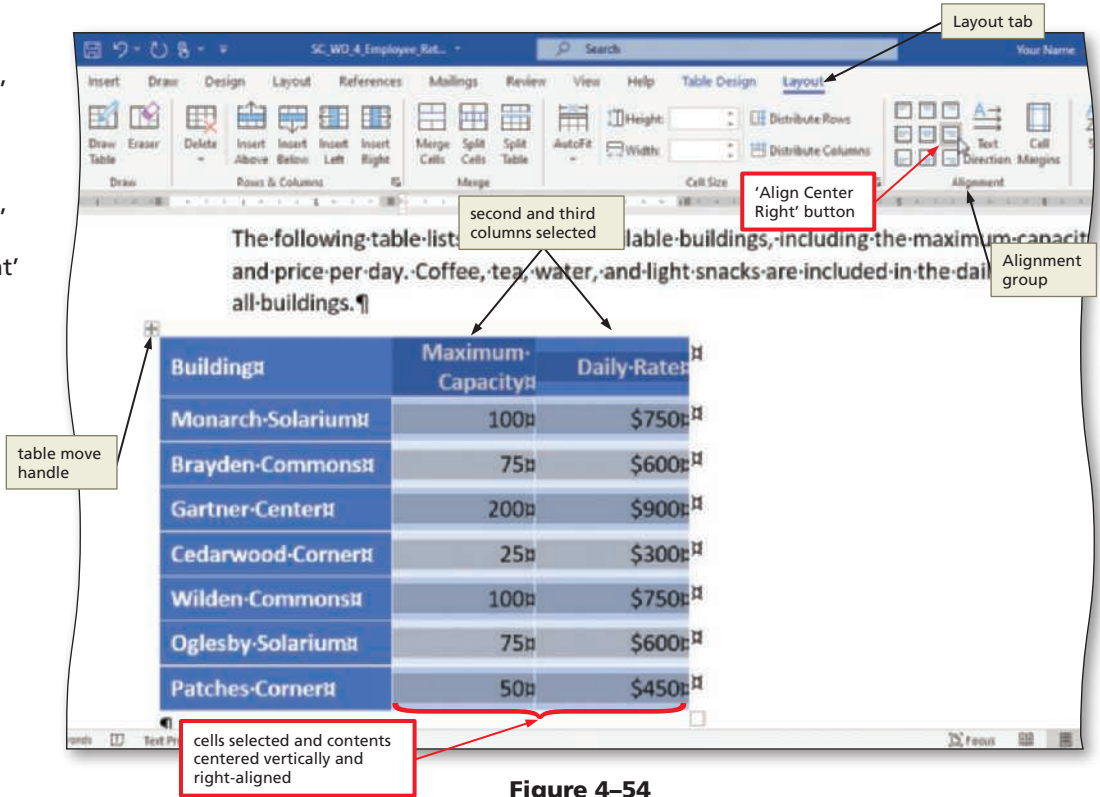


Figure 4-54

To Center a Table

The entire table in this document should be centered between the margins of the page. To center a table, you first select the entire table. The following steps select and center a table using the Mini toolbar. **Why?** You can use buttons and boxes on the Mini toolbar instead of those on the ribbon.

- 1 Position the pointer in the table so that the table move handle appears (shown in Figure 4-54) and then click the table move handle to select the entire table (Figure 4-55).

Q&A What if the table move handle does not appear?

You also can select a table by clicking the Select button (Layout tab | Table group) and then clicking Select Table on the menu.

What if I am using a touch screen?

Tap the Select button (Layout tab | Table group) and then tap Select Table on the Select menu to select the table.

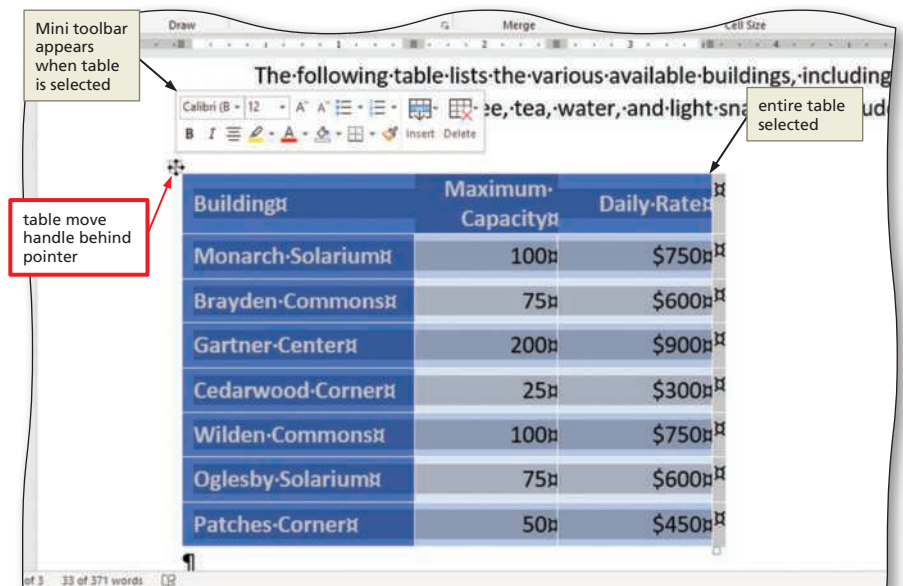


Figure 4-55

- 2**
- Click the Center button on the Mini toolbar to center the selected table between the left and right page margins (Figure 4-56).

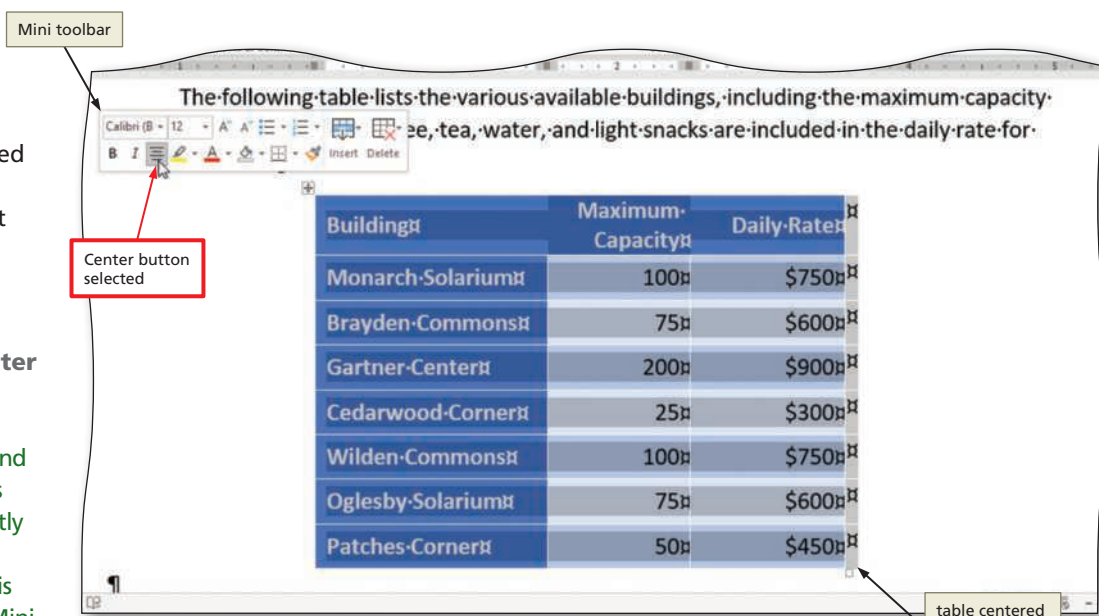


Figure 4-56

Q&A **Could I have clicked the Center button on the Home tab?**

Yes. If the command you want to use is not on the currently displayed tab on the ribbon and it is available on the Mini toolbar, use the Mini toolbar instead of switching to a different tab. This technique minimizes mouse movement.

What if I am using a touch screen?

Display the Home tab and then tap the Center button (Home tab | Paragraph group) to center the table.

To Sort a Table

The next task is to sort rows in the table on one column. **Why?** The building names should be listed in alphabetical order. The following steps sort rows in a table on the Building column.

- 1**
- With the table selected, click the Sort button (Layout tab | Data group) to display the Sort dialog box (Figure 4-57).

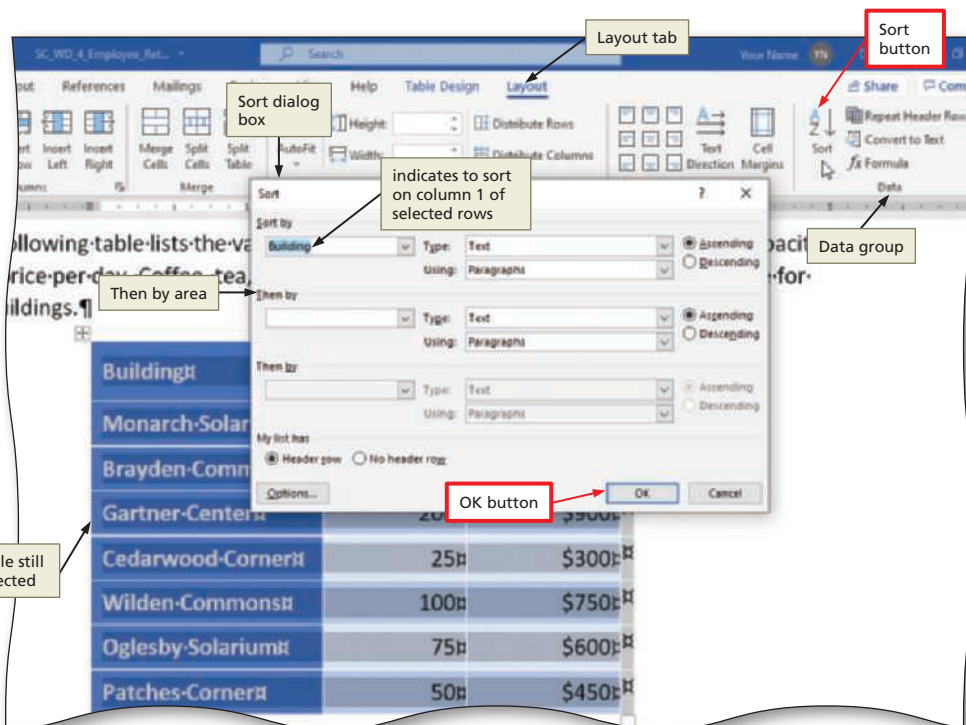


Figure 4-57

Q&A **Do I need to select the table before sorting its contents?**

No, you can also place the insertion point anywhere in the table instead of selecting it. If you want to sort only certain rows, select those rows first.

What is the purpose of the Then by area (Sort dialog box)?

If you have multiple values for a particular column, you can sort on multiple columns by sorting on columns within columns. For example, if the table had a city column and a last name column, you could sort by last names within cities.

2

- Click OK (Sort dialog box) to instruct Word to alphabetize the selected rows.
- Click anywhere in the table to remove the selection from the table (Figure 4-58).

Building	Maximum Capacity	Daily Rate
Brayden-Commons	75	\$600
Cedarwood-Corner	25	\$300
Gartner-Center	200	\$900
Monarch-Solarium	100	\$750
Oglesby-Solarium	75	\$600
Patches-Corner	50	\$450
Wilden-Commons	100	\$750

Figure 4-58

To Add a Row to a Table

The next step is to insert a row at the bottom of the table because you want to add totals to the bottom of the two right columns. You can add a row at the end of a table by positioning the insertion point in the bottom-right corner cell and then pressing TAB. Or, you use the Insert Below command (Layout tab | Rows & Columns group) or the Insert Control. The following steps insert a row at the bottom of a table.

- 1** Position the insertion point somewhere in the last row of the table because you want to insert a row below this row (shown in Figure 4-58).
- 2** Click the Insert Below button (Layout tab | Rows & Columns group) to insert a row below the row containing the insertion point and then select the newly inserted row.
- 3** Click in the leftmost column of the added row and then type **Total - Entire Site** (shown in Figure 4-59).

Q&A

Why did the hyphen I entered in Step 3 change to an en dash?

As you type text in a document, Word automatically formats some of it for you. If your entered hyphen did not automatically change to an en dash, you can enter an en dash by clicking the Symbol button (Insert tab | Symbols group), clicking More Symbols in the Symbol gallery, clicking the Special Characters tab (Symbol dialog box), clicking En Dash in the Character list, clicking the Insert button, and then closing the dialog box.

To DELETE A ROW

If you wanted to delete a row, you would perform the following tasks.

1. Position the insertion point in the row to be deleted; click the Delete button (Layout tab | Rows & Columns group) and then click Delete Rows on the Delete menu.
or
2. If using touch, press and hold row to delete, tap Delete button on Mini toolbar, and then tap Delete Rows.
or

BTW

Table Headings

If a table continues on the next page, you can instruct Word to repeat the table headings at the top of the subsequent page(s) containing the table. To do this, select the first row in the table and then click the 'Repeat Header Rows' button (Layout tab | Data group).

3. Right-click the row to delete, click Delete Cells on the shortcut menu, click 'Delete entire row' (Delete Cells dialog box), and then click OK.
or
4. Select the row to be deleted, right-click the selected row, and then click Delete Rows on the shortcut menu.

To Insert a Formula in a Table

Word can calculate the totals of rows and columns. You also can specify the format for how the totals will be displayed. The following steps sum the right two columns in the table. **Why?** In this project, the last row should display the sum (total) of the values in the Maximum Capacity and Daily Rate columns.

- 1
 - Position the insertion point in the cell to contain the sum (last row, Maximum Capacity column).

- 2
 - Click the Formula button (Layout tab | Data group) to display the Formula dialog box (Figure 4-59).

Q&A What is the formula that shows in the Formula box, and can I change it? Word places a default formula in the Formula box, depending on the location of the numbers in surrounding cells. In this case, because numbers are above the current cell, Word displays a formula that will add the numbers above the current cell. You can change the formula that Word proposes, or you can type a different formula. For example, instead of summing numbers you can multiply them.

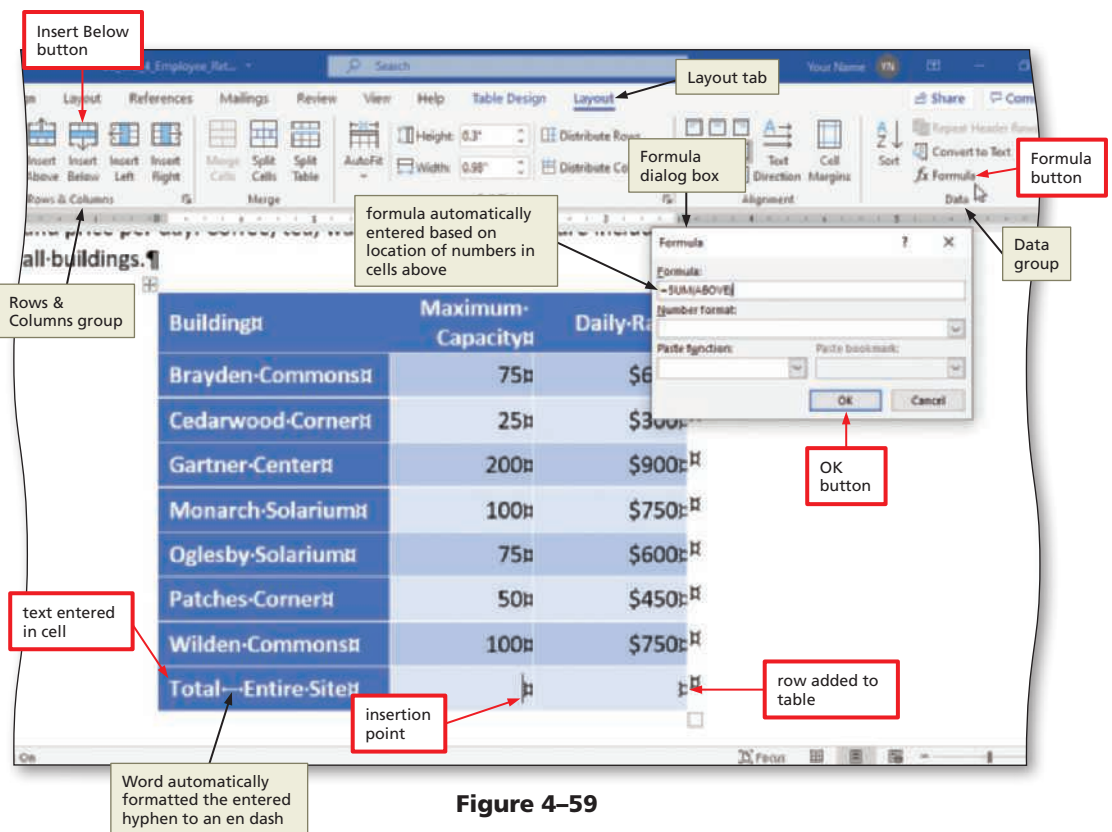


Figure 4-59

- 3
 - Click OK (Formula dialog box) to place the sum of the numbers in the current cell.
- 4
 - Position the insertion point in the cell to contain the sum (last row, Daily Rate column).
 - Click the Formula button (Layout tab | Data group) to display the Formula dialog box.

- Click the Number format arrow (Formula dialog box) to display a list of formats for numbers (Figure 4-60).

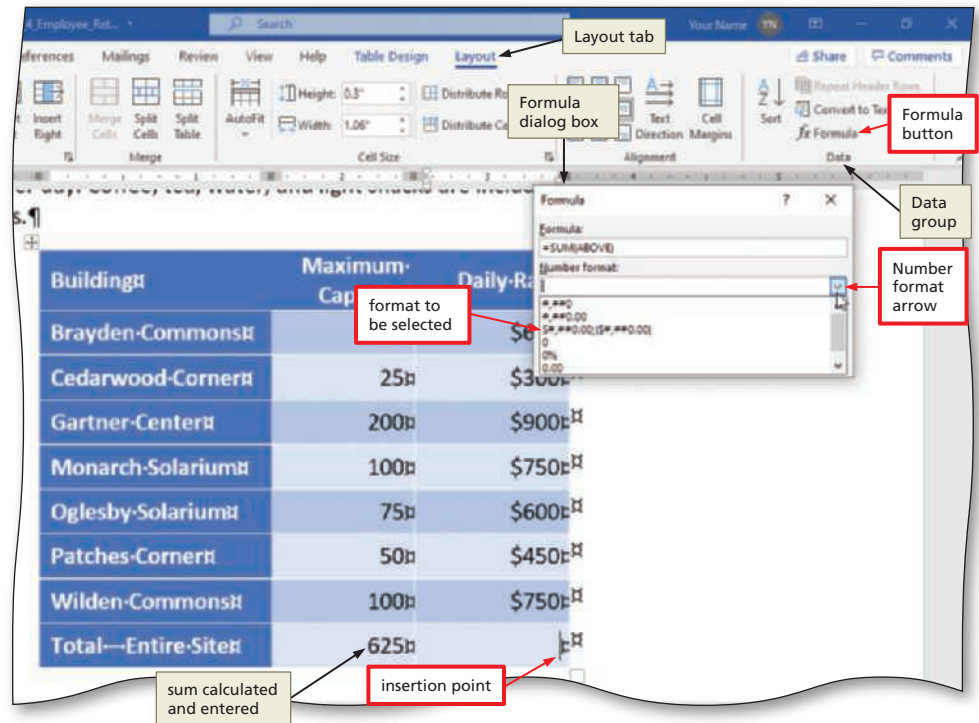


Figure 4-60

- Select the desired format for the result of the computation, in this case, the format \$#,##0.00;(\$#,##0.00).

Q&A What do # symbols mean in the format?
 The # symbol means to display a blank if the number has a value of zero. The format in the parenthesis is for negative numbers.

- Click the Number format box (Formula dialog box) and then delete the .00 from the format in two places because you want the number to display as a whole number without cents (Figure 4-61).

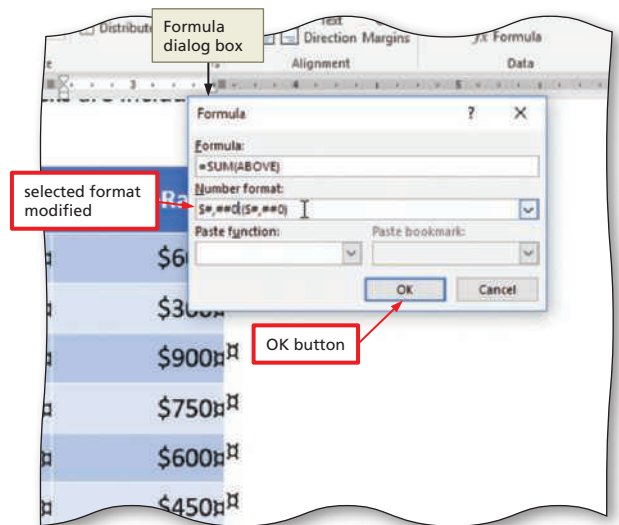


Figure 4-61

- Click OK (Formula dialog box) to place the sum of the numbers using the specified format in the current cell (shown in Figure 4-62).

Q&A Can I sum a row instead of a column?
 Yes. You would position the insertion point in an empty cell at the right edge of the row before clicking the Formula button.

If I make a change to a number in a table, does Word automatically recalculate the sum?
 No. You will need to update the field by right-clicking it and then clicking Update Field on the shortcut menu or by selecting the field and then pressing F9.

To Change Cell Spacing

The next step in formatting the available buildings table is to place a small amount of additional white space between every cell in the table. **Why?** You feel the table would be easier to read with more white space surrounding each cell. The following steps change spacing between cells.

1

- With the insertion point somewhere in the table, click the Cell Margins button (Layout tab | Alignment group) to display the Table Options dialog box.
- Place a check mark in the 'Allow spacing between cells' check box and then click the up arrow once so that 0.02" is displayed in this box, because you want to increase space between cells by this value (Figure 4–62).

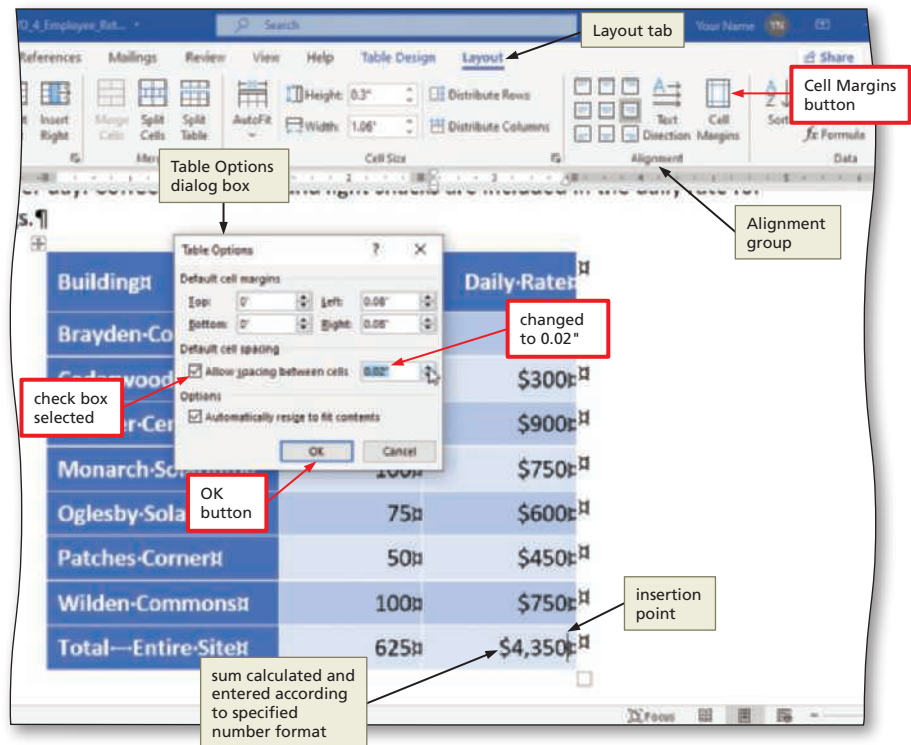


Figure 4–62

2

- Click OK (Table Options dialog box) to apply the cell spacing changes to the current table (Figure 4–63).

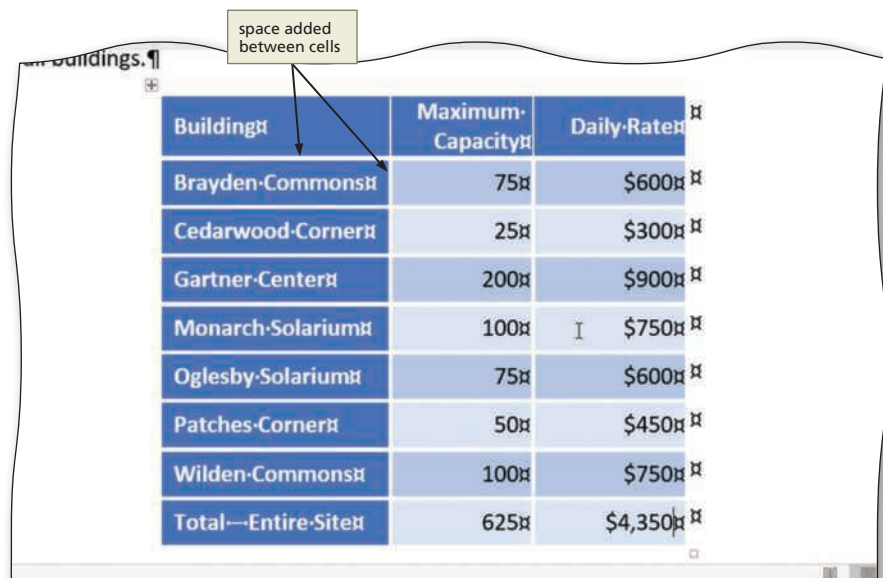


Figure 4–63

Other Ways

1. Click Properties button (Layout tab | Table group), click Table tab (Table Properties dialog box), click Options button, select desired options (Table Options dialog box), click OK in each dialog box
2. Right-click table (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Table Properties on shortcut menu, click Table tab (Table Properties dialog box), click Options button, select desired options (Table Options dialog box), click OK in each dialog box

To Change Margins in Table Cells

The next step in formatting the available buildings table is to adjust the cell margins, that is, the space at the top, bottom, left, and right edge of the cells. **Why?** You feel the table would be easier to read with bigger margins in the cells. The following steps change margins in table cells.

1

- Position the insertion point somewhere in the table and then click the Cell Margins button (Layout tab | Alignment group) to display the Table Options dialog box.
- Use the up arrows in the Top and Bottom boxes to change values to 0.02", and use the up arrows in the Left and Right boxes to change their values to 0.1", because you want to increase cell margins to these measurements (Figure 4–64).

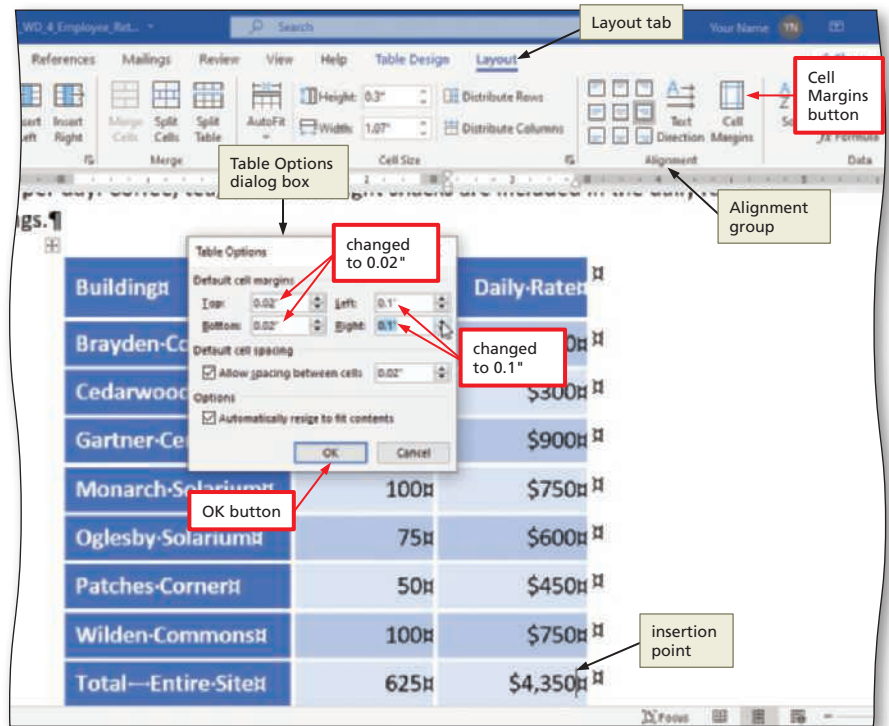


Figure 4–64

2

- Click OK (Table Options dialog box) to apply the cell margin changes to the current table (shown in Figure 4–65).

Q&A Why is there an extra page in my document?

The increased table margins may have added an extra page in the document. If this occurred, the blank page will be deleted after the next steps.

Other Ways

1. Click Properties button (Layout tab | Table group), click Table tab (Table Properties dialog box), click Options button, select desired options (Table Options dialog box), click OK in each dialog box
2. Right-click table (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Table Properties on shortcut menu, click Table tab (Table Properties dialog box), click Options button, select desired options (Table Options dialog box), click OK in each dialog box

To Distribute Columns

The last step in formatting the available buildings table is to make the width of the second and third columns uniform, that is, the same width. The following step distributes selected columns. **Why?** Instead of checking and adjusting the width of each column individually, you can format multiple columns uniform at the same time.

- 1
 - Select the columns to format, in this case, the second and third columns.
 - Click the Distribute Columns button (Layout tab | Cell Size group) to make the width of the selected columns uniform (Figure 4–65).

Q&A **How would I make all columns in the table uniform?**
 Simply place the insertion point somewhere in the table before clicking the Distribute Columns button.

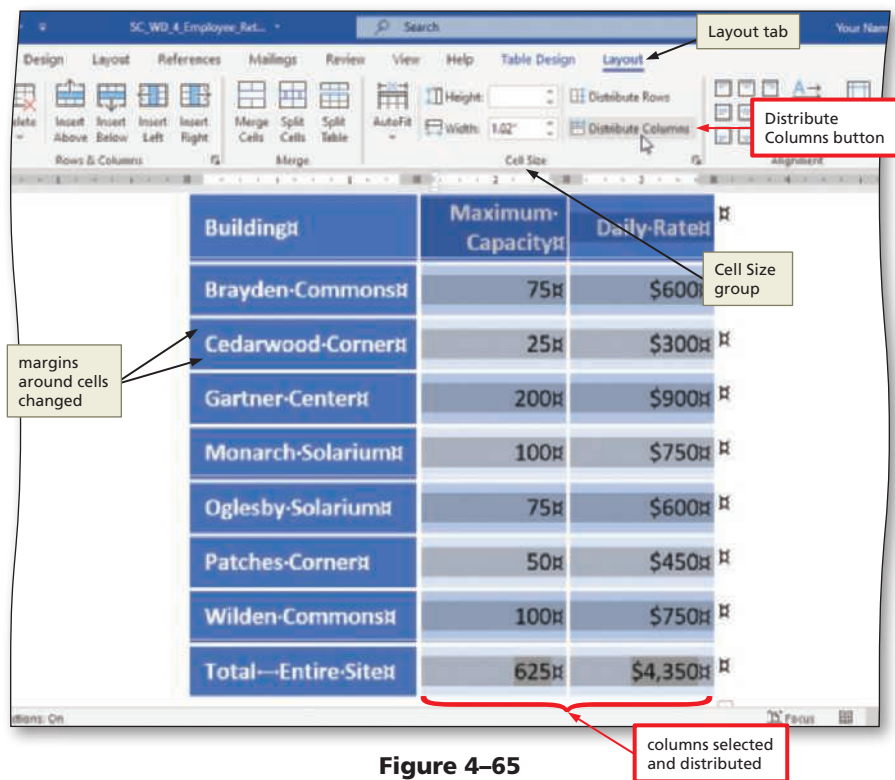


Figure 4–65

Other Ways

1. Right-click selected columns, click 'Distribute Columns Evenly' on shortcut menu (or, if using touch, tap 'Show Context Menu' button on Mini toolbar)

To Delete a Blank Paragraph

If you notice an extra paragraph mark below the available buildings table that is causing an extra blank page in the document, you should delete the blank paragraph. If necessary, the following steps delete a blank paragraph.

- 1 Position the insertion point on the blank paragraph mark below the available buildings table.
- 2 If necessary, press DELETE to remove the extra blank paragraph and delete the blank page.
- 3 If a blank page still exists or if one or more rows in the table spill onto the next page, remove space above and below paragraphs in the sales proposal until the entire proposal fits on three pages, as shown in Figure 4–1 at the beginning of this module.

To Show Gridlines

When a table contains no borders or light borders, it may be difficult to see the individual cells in the table. Thus, the following step shows gridlines. **Why?** To help identify the location of cells in the additional fees table, you can display gridlines, which show cell outlines on the screen. **Gridlines** are formatting marks that show cell boundaries but do not print.

1

- Display the table to be edited in the document window (in this case, the additional fees table).
- Position the insertion point in any cell in the table.
- Display the Layout tab.
- If gridlines are not displayed on the screen, click the View Gridlines button (Layout tab | Table group) to show gridlines in the table (Figure 4-66).

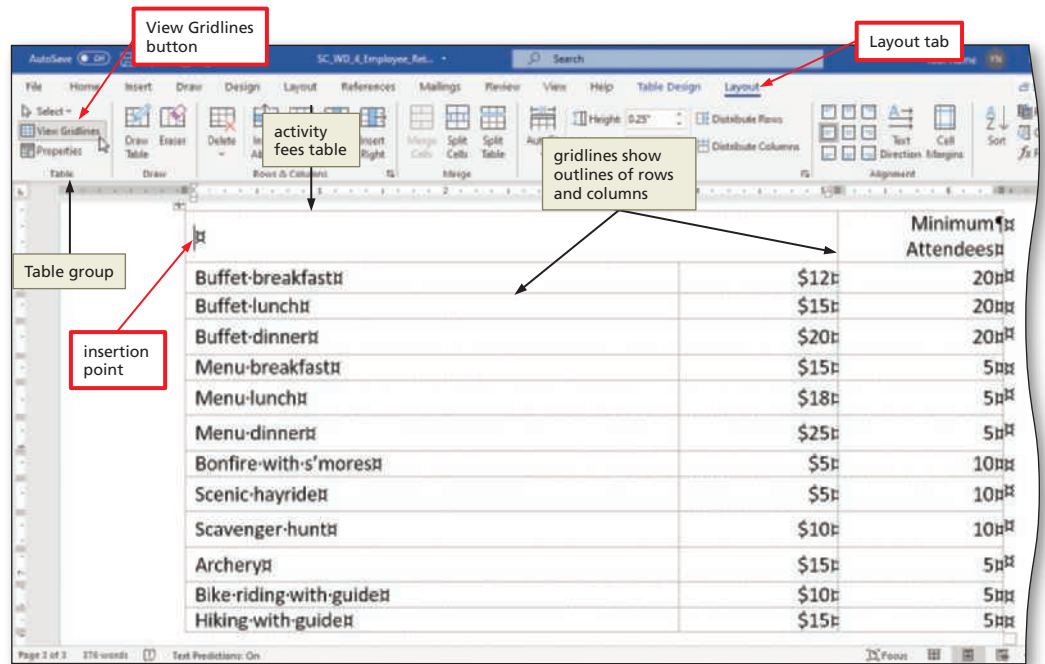


Figure 4-66

Q&A

How do I turn off table gridlines?

Click the View Gridlines button again.

To Split a Table Cell

The top, left cell of the table contains one long cell that appears above two columns (the options and fees columns). The heading, Fee-Based Options, should be above the first column, and the heading, Fee per Person, should be above the second column. Thus, you will split the cell into two cells. **Why? With the cell split, you can enter a heading above each of the first two columns.** The following steps split a single cell into two separate cells.

1

- Position the insertion point in the cell to split, in this case the top left cell as shown in Figure 4-67.
- Click the Split Cells button (Layout tab | Merge group) to display the Split Cells dialog box (Figure 4-67).

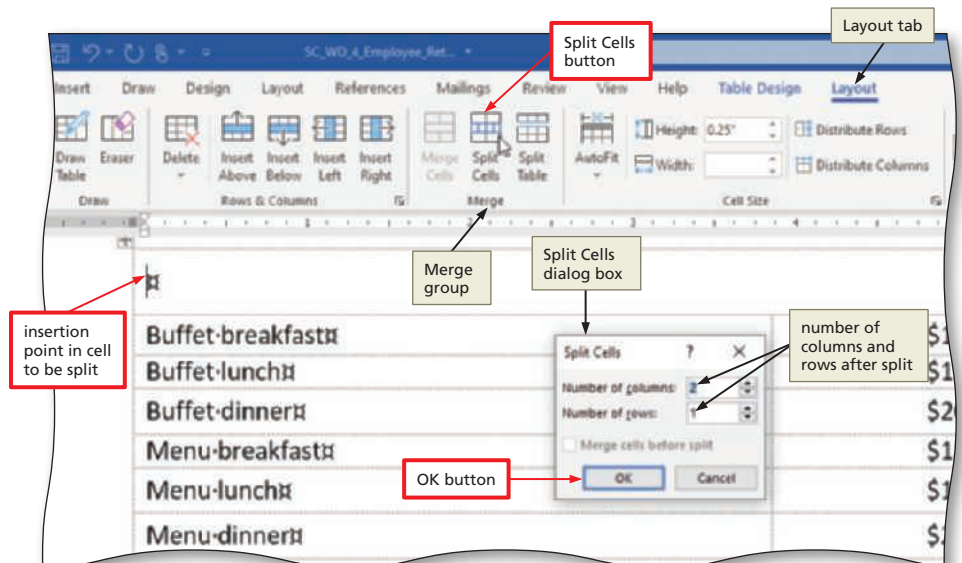


Figure 4-67

2

- Verify the number of columns and rows into which you want the cell split, in this case, 2 columns and 1 row.
- Click OK (Split Cells dialog box) to split the one cell into two columns (Figure 4-68).
- Click in the table to remove the selection from the cells.

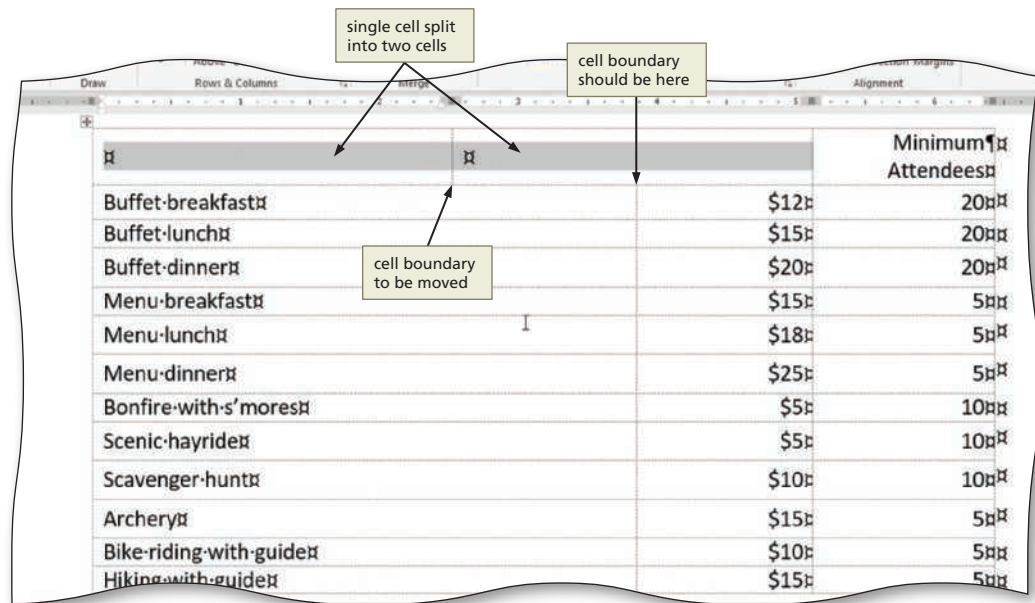


Figure 4-68

Other Ways

1. Right-click cell, click Split Cells on shortcut menu (or, if using touch, tap 'Show Context Menu' button on Mini toolbar)

TO SPLIT A TABLE

Instead of splitting table cells into multiple cells, sometimes you want to split a single table into multiple tables. If you wanted to split a table, you would perform the following steps.

1. Position the insertion point in the cell where you want the table to be split.
2. Click the Split Table button (Layout tab | Merge group) to split the table into two tables at the location of the insertion point.

To Move a Cell Boundary

Notice in Figure 4-68 that the cell boundary above the second column does not line up with the rest of the cells in the second column. **Why not?** This is because when you split a cell, Word divides the cell into evenly sized cells. If you want the boundary to line up with other column boundaries, drag it to the desired location. The following step moves a cell boundary.

1

- Position the pointer on the cell boundary you wish to move so that the pointer changes to a double-headed arrow split by two vertical bars.

Q&A What if I cannot see the cell boundary?

Be sure that table gridlines are showing: View Gridlines button (Layout tab | Table group).

- Drag the cell boundary to the desired new location, in this case, to line up with the column boundary to its right, as shown in Figure 4-69.

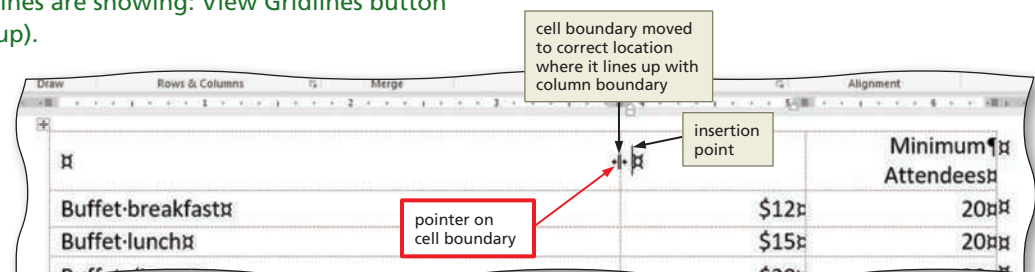


Figure 4-69

Q&A What if I am using a touch screen?

Position the insertion point in the upper-left cell and then type **1.28** in the Width box (Layout tab | Table group).

Other Ways

1. Drag 'Move Table Column' marker on horizontal ruler to desired width

To Enter Text in Cells

With the cells split, you can enter the column headings for the first and second column in the table. The following steps enter text in cells.

- 1 Position the insertion point in the upper-left table cell and then type **Fee-Based Options** as the column heading.
- 2 If necessary, click the 'Align Center Left' button (Layout tab | Alignment group) to align the contents of the cell.
- 3 Press TAB and then click the 'Align Center Right' button (Layout tab | Alignment group) to align the contents of the cell. Type **Fee per** as the first line of the heading, press ENTER, type **Person** as the heading (shown in Figure 4-70).

To Distribute Rows

The next step in formatting the additional fees table is to make the height of the rows below the column headings uniform, that is, the same height. The following step distributes selected rows. **Why?** Instead of checking and adjusting the width of each row individually, you can format multiple rows uniform at the same time.

- 1
 - Select the rows to format, in this case, all rows below the column headings.
 - Click the Distribute Rows button (Layout tab | Cell Size group) to make the height of the selected rows uniform (Figure 4-70).

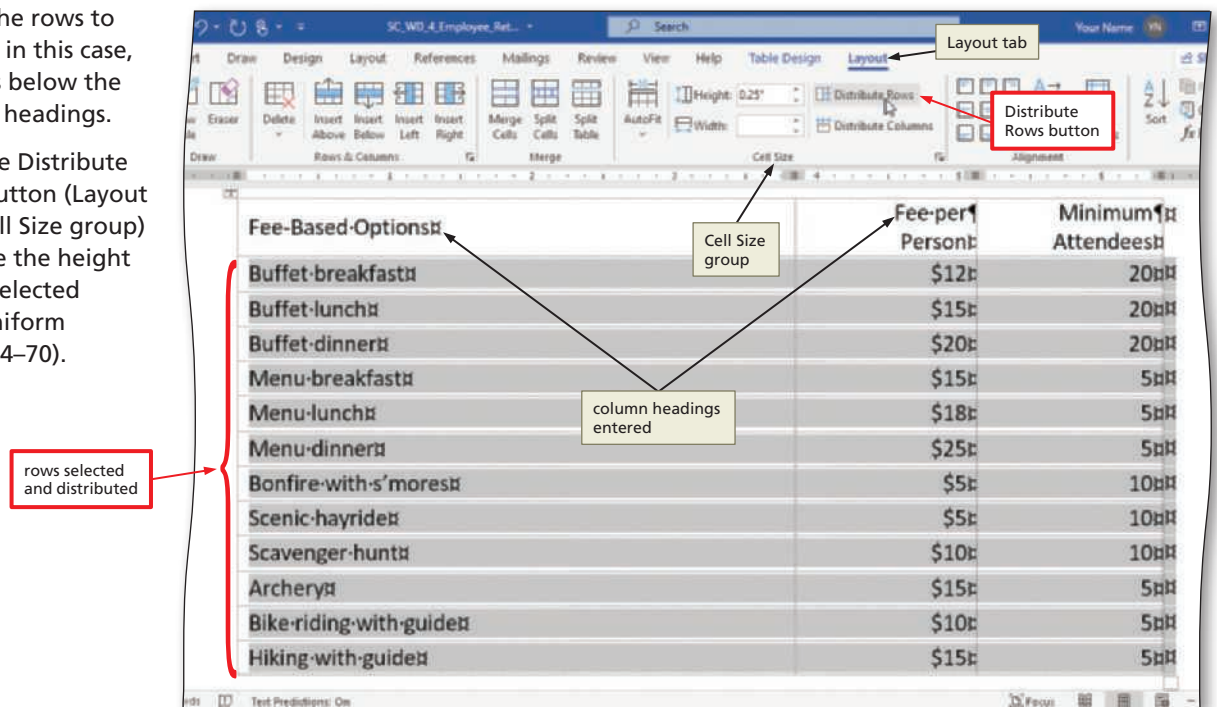


Figure 4-70

Other Ways

1. Right-click selected rows, click 'Distribute Rows Evenly' on shortcut menu (or, if using touch, tap 'Show Context Menu' button on Mini toolbar)

To Insert a Column

In this project, the left edge of the additional fees table has a column that displays the labels, Dining Fees and Activity Fees. Thus, the following steps insert a column at the left edge of the table.

- 1 Position the insertion point somewhere in the first column of the table.
- 2 Click the Insert Left button (Layout tab | Rows & Columns group) to insert a column to the left of the column containing the insertion point (Figure 4–71).
- 3 Click anywhere in the table to remove the selection.

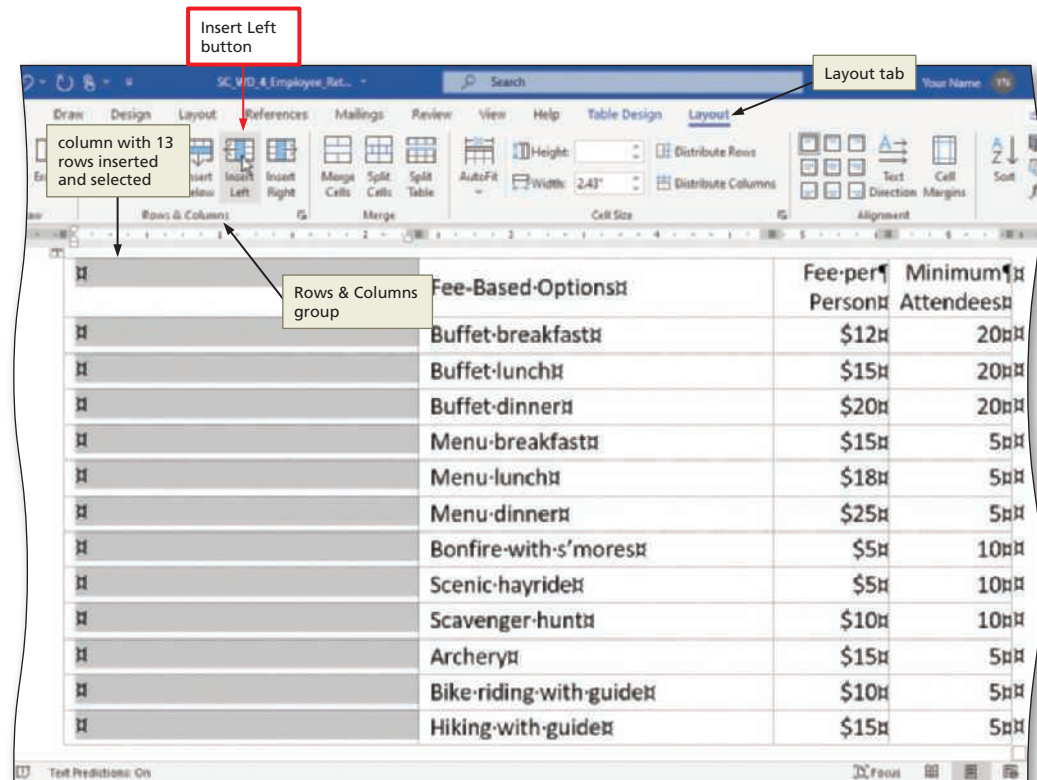


Figure 4–71

TO DELETE A COLUMN

If you wanted to delete a column, you would perform the following tasks.

1. Position the insertion point in the column to be deleted, click the Delete button (Layout tab | Rows & Columns group), and then click Delete Columns on the Delete menu.
or
2. If using touch, press and hold row to delete, tap Delete button on Mini toolbar, tap Delete Columns.
or
3. Right-click the column to delete, click Delete Cells on the shortcut menu, click 'Delete entire column' (Delete Cells dialog box), and then click OK.
or
4. Select the column to be deleted, right-click the selected column, and then click Delete Columns on the shortcut menu.

BTW

Deleting Table Cells

If you wanted to delete the contents of a table cell, you would select the cell contents and then press DELETE or BACKSPACE. To delete one or more cells entirely from a table, position the insertion point in the cell or select the cells to delete, click the Delete button (Layout tab | Rows & Columns group), click Delete Cells on the Delete menu, select the desired option in the Delete Cells dialog box, and then click OK.

To Merge Table Cells

The column just inserted has one cell for each row, in this case, 13 cells (shown in Figure 4–71). The top row of the first and second columns of the table are to be a single cell that spans above both columns. **Why?** The column heading, *Fee-Based Options*, should span above both columns. Also, the next two groups of six rows should be a single cell, each with the label, Dining Fees and Activity Fees, respectively. Thus, the following steps merge cells.

- 1 Select the cells to merge, in this case, the cells in the first and second column of the first row of the table (Figure 4–72).

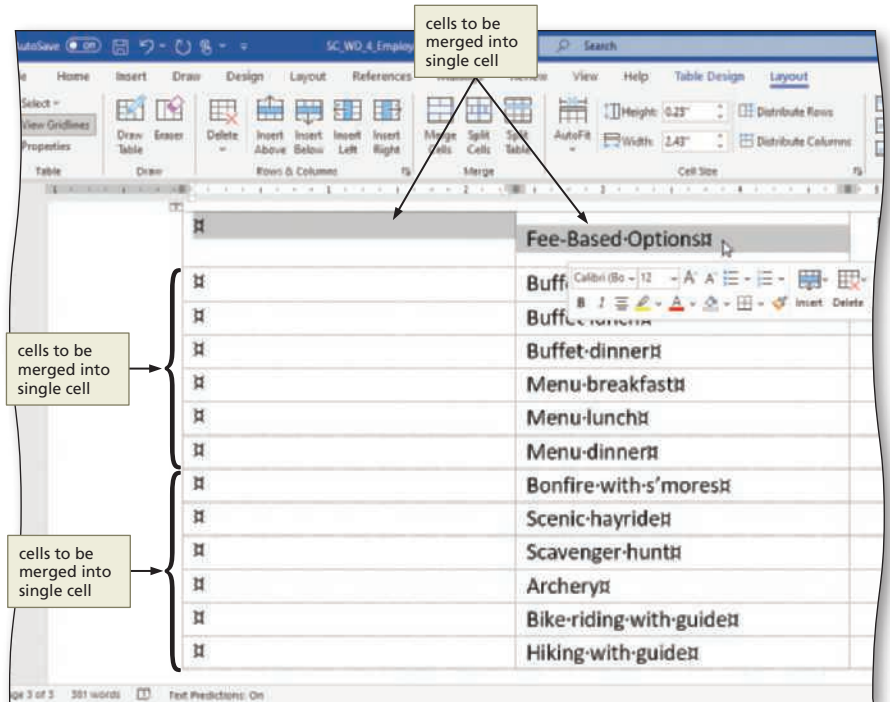


Figure 4–72

- 2 With the cells to merge selected, click the Merge Cells button (Layout tab | Merge group) to merge the selected cells into a single cell (shown in Figure 4–73).
If necessary, click the 'Align Center Left' button (Layout tab | Alignment group) to realign the cell contents.
- 3 Select the cells to merge, in this case, the six cells in the first column to the left of the dining options (Figure 4–73).

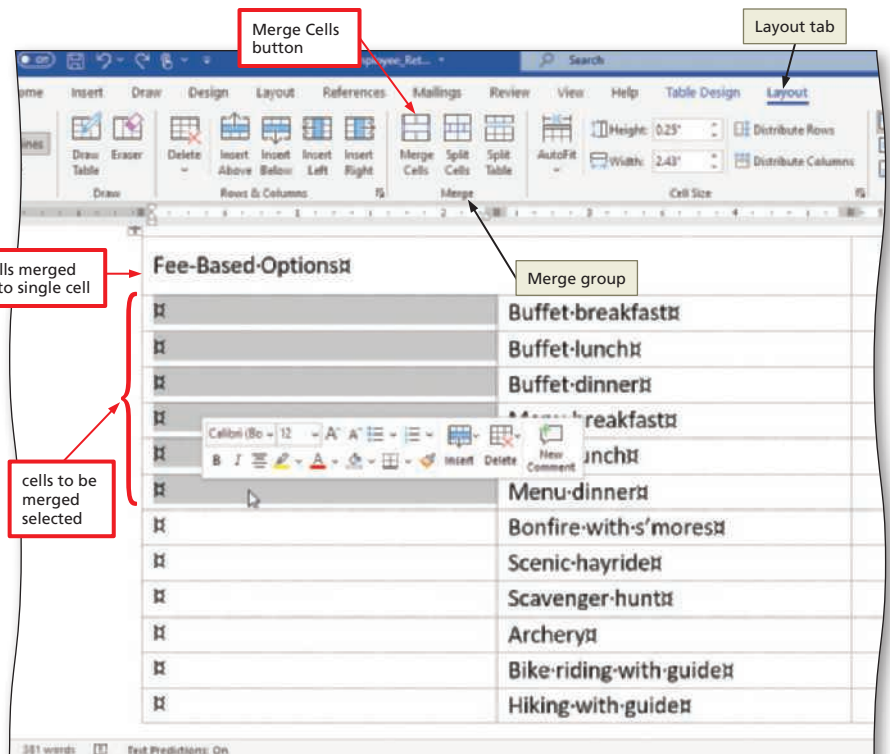


Figure 4–73

- 4 With the cells to merge selected, click the Merge Cells button (Layout tab | Merge group) to merge the selected cells into a single cell.

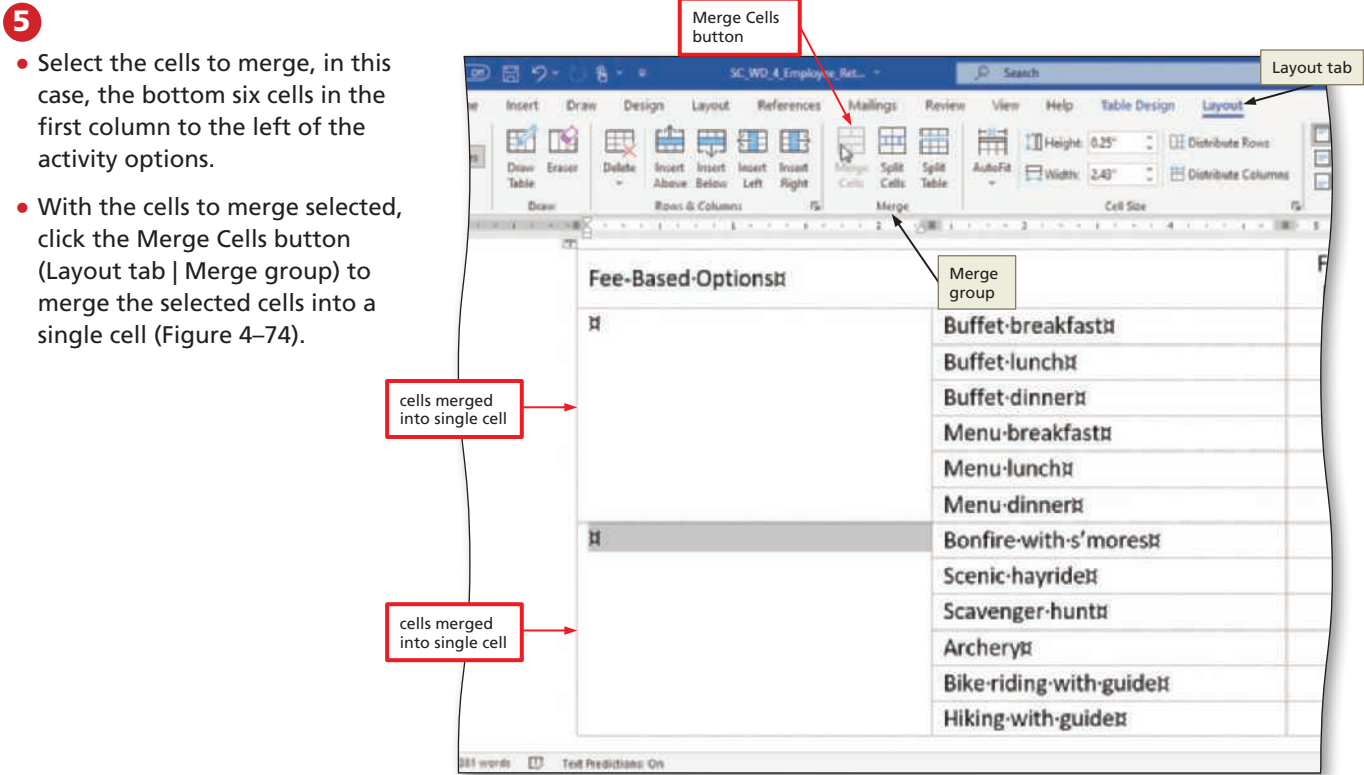


Figure 4–74

Other Ways

1. Right-click selected cells (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Merge Cells on shortcut menu

To Change the Direction of Text in a Table Cell

The data you enter in cells is displayed horizontally by default. You can rotate the text so that it is displayed vertically. The labels, Dining Fees and Activity Fees, are displayed vertically at the left edge of the table. **Why?** *Changing the direction of text adds variety to your tables.* The following steps display text vertically in cells.

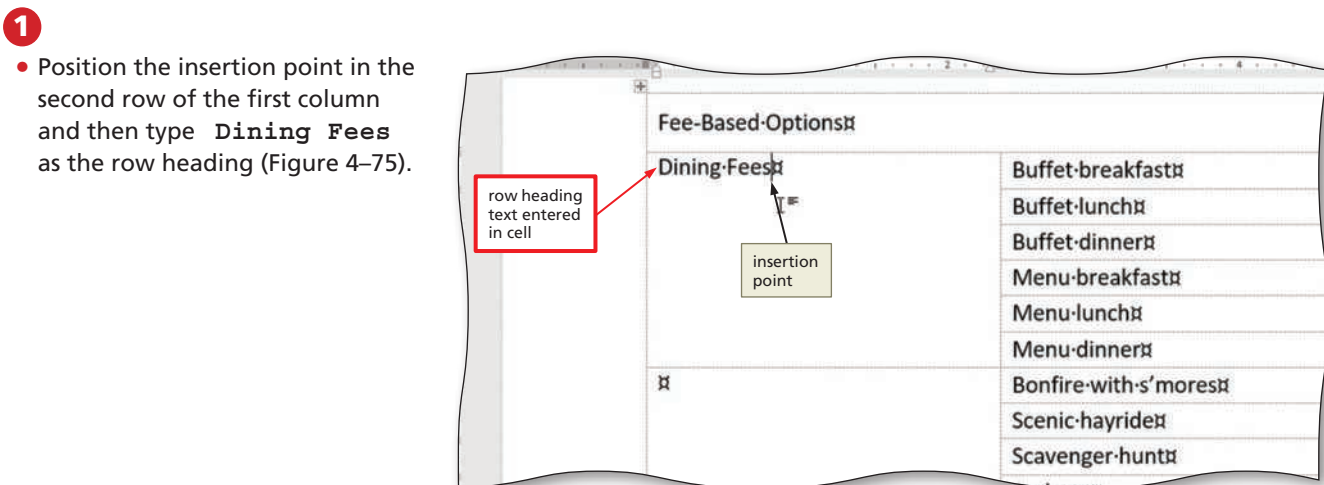


Figure 4–75

2

- With the insertion point in the cell that contains the text to rotate (in this case, Dining Fees), click the Text Direction button twice (Layout tab | Alignment group) so that the text reads from bottom to top in the cell (Figure 4-76).

Q&A Why click the Text Direction button twice?

The first time you click the Text Direction button (Layout tab | Alignment group),

the text in the cell reads from top to bottom. The second time you click it, the text is displayed so that it reads from bottom to top (as shown in Figure 4-76). If you were to click the button a third time, the text would be displayed horizontally again.

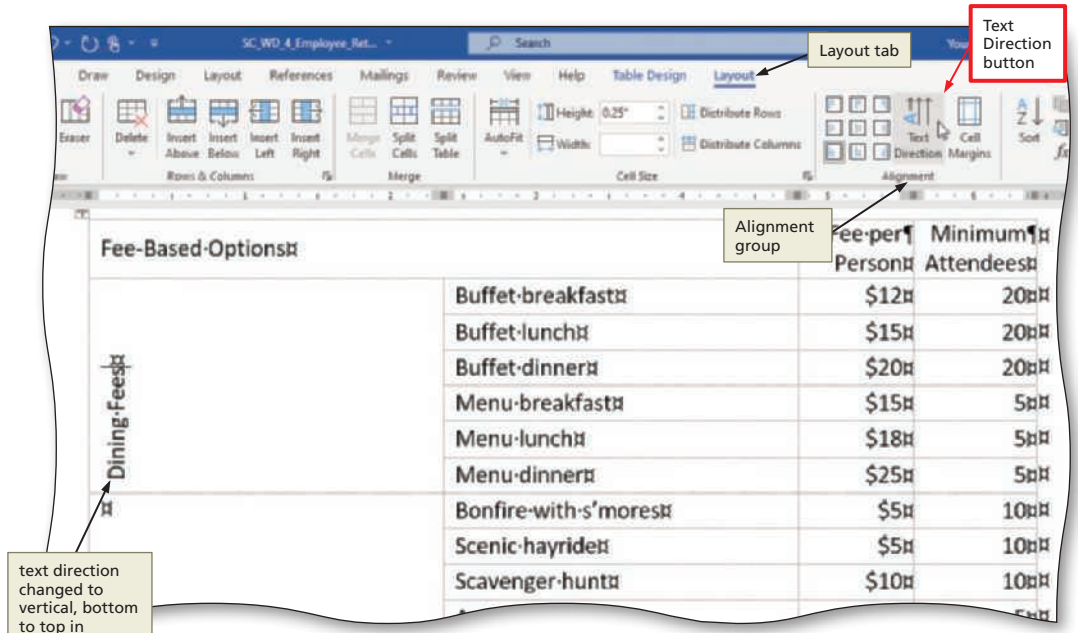


Figure 4-76

3

- Click the Align Center button (Layout tab | Alignment group) to center the row heading in the cell.
- Position the insertion point in the third row of the first column and then type **Activity Fees** as the row heading.

- With the insertion point in the cell that contains the text to rotate (in this case, Activity Fees), click the Text Direction button twice (Layout tab | Alignment group) so that the text reads from bottom to top in the cell.

- Click the Align Center button (Layout tab | Alignment group) to center the row heading in the cell (Figure 4-77).

- Click in the table to remove the selected cell.

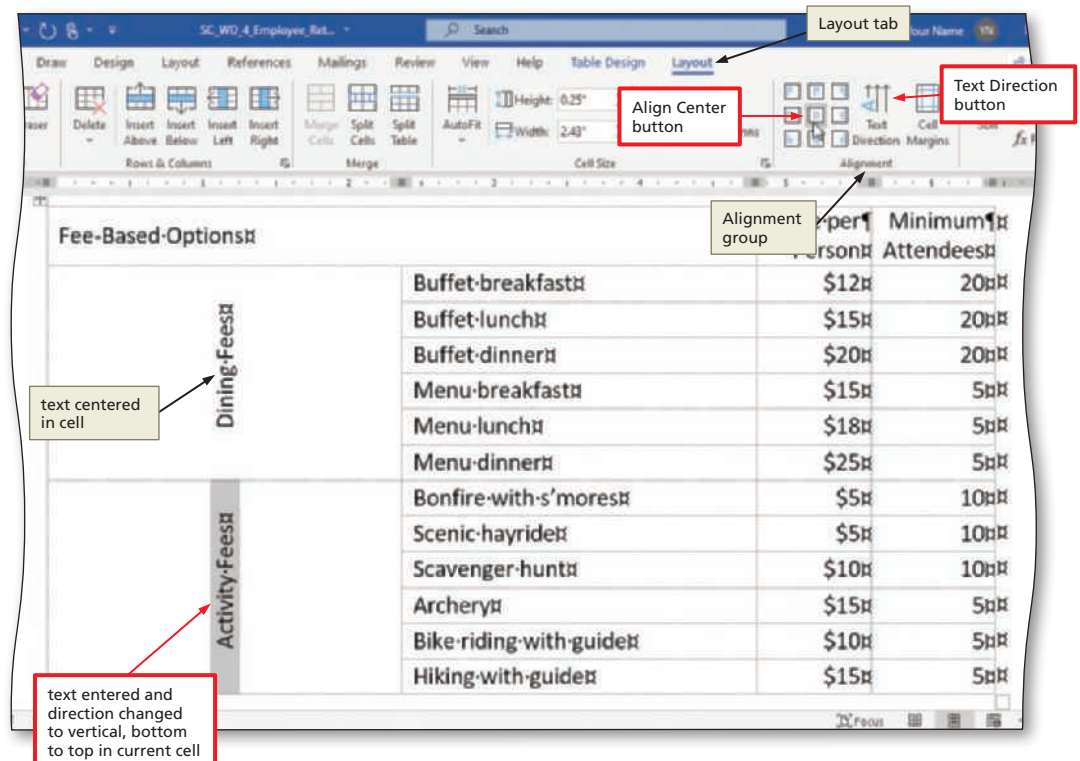


Figure 4-77

To Resize Table Columns Using AutoFit

The table in this project currently extends from the left margin to the right margin of the document. The following steps instruct Word to fit the width of the columns to the contents of the table automatically. **Why?** You want each column to be only as wide as the longest entry in the table. That is, the first column must be wide enough to accommodate the words, Dining Fees, and the second column should be only as wide as the words, Bike riding with guide, and so on.

- 1 With the insertion point in the table, click the AutoFit button (Layout tab | Cell Size group) to display the AutoFit menu (Figure 4-78).

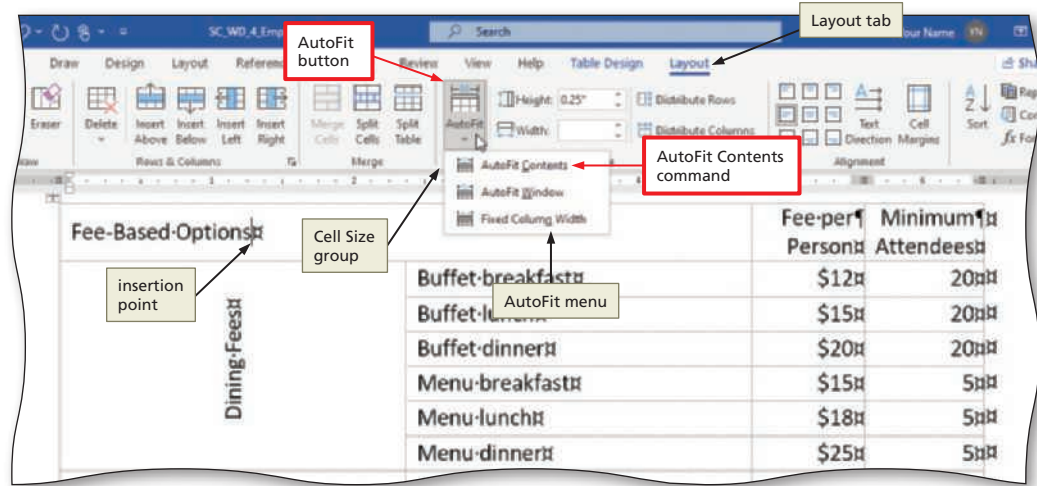


Figure 4-78

- 2 Click AutoFit Contents on the AutoFit menu, so that Word automatically adjusts the widths of the columns based on the text in the table (Figure 4-79).

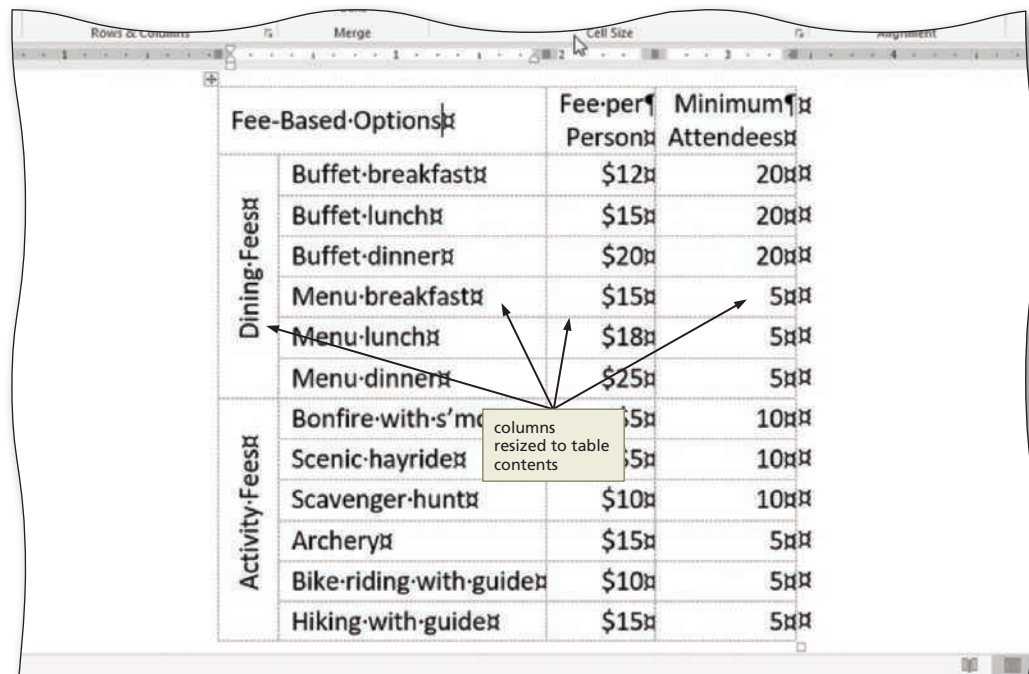


Figure 4-79

Other Ways

1. Double-click column boundary

To Change Column Width

You would like the Minimum Attendees column slightly wider. Thus, the next step is to change the width of that column. The following step changes column width.

- 1 Position the insertion point in the column to format, in this case, the Minimum Attendees column.
- 2 Type `.95` in the Width box (Layout tab | Cell Size group) and then press ENTER to change the width of the column containing the insertion point (Figure 4–80).

Q&A What if I am using a touch screen?

Position the insertion point in the column to adjust. Tap the Width box (Layout tab | Cell Size group), type `.95` as the column width, and then press ENTER.

BTW

Table Columns

If you hold down ALT while dragging a column marker on the ruler or a column boundary in the table, the width measurements of all columns appear on the ruler as you drag the column marker or boundary.

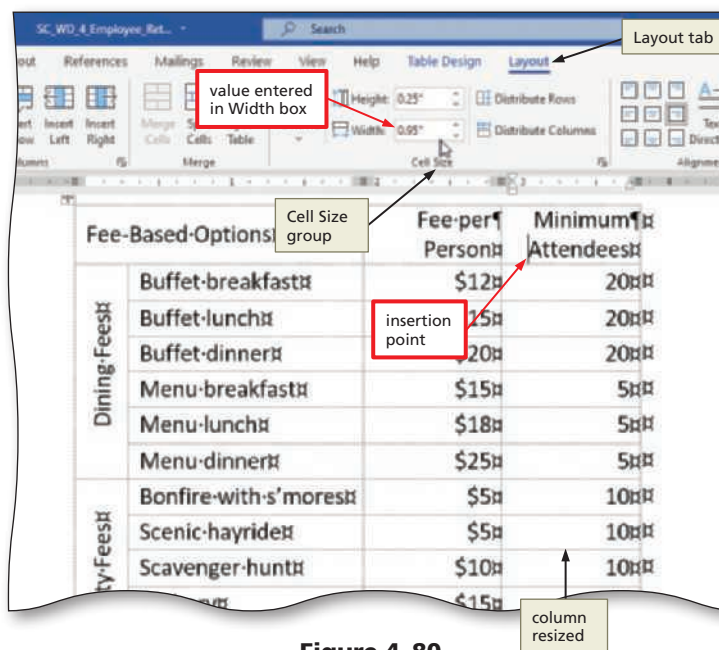


Figure 4–80

To Insert a Row and Merge Cells

The title, Dining and Team Building Activity Fees, is to be displayed in a row across the top of the table. To display this title as part of the table, you insert a row at the top of the table and then merge the three cells in the inserted row into a single cell. The following steps insert a row, merge cells, and then enter text in the merged cell.

- 1 Insert a row at the top of the table.
- 2 Select the cells to merge, in this case, the cells in the row added to the top of the table.
- 3 Click the Merge Cells button (Layout tab | Merge group) to merge the three selected cells into one cell. Click in the merged cell to remove the selection.
- 4 Click the Align Center button (Layout tab | Alignment group) to align the insertion point in the merged cell.
- 5 Type **Dining and Team Building Activity Fees** in the merged cell.
- 6 Bold the entered text (Figure 4–81).

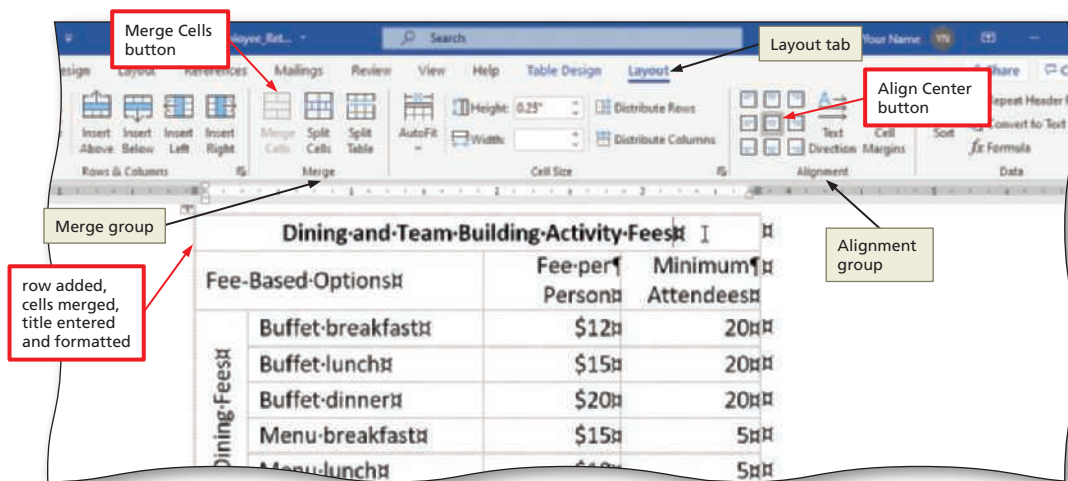


Figure 4-81

To Shade a Table Cell

In this table, the cell containing the table title and the cells containing the row headers, Dining Fees and Activity Fees, are to be shaded orange. **Why?** You want the cell shading color to complement the colors on the cover page and headers and footers. The following steps shade cells.

- 1
 - Position the insertion point in the cell to shade (in this case, the cell containing the title).
 - Display the Table Design tab.
 - Click the Shading arrow (Table Design tab | Table Styles group) to display the Shading gallery (Figure 4-82).

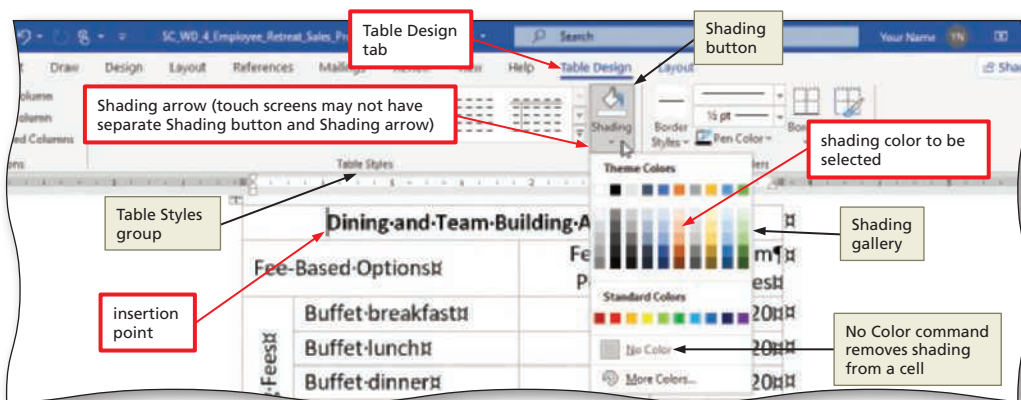


Figure 4-82

Experiment

- Point to various colors in the Shading gallery and watch the shading color of the current cell change.
- 2
 - Click 'Orange, Accent 2, Lighter 60%' (sixth color, third row) in the Shading gallery to apply the selected shading color to the current cell.
 - 3
 - Position the insertion point in the cell to shade (in this case, the cell containing the row header, Dining Fees).
 - Click the Shading button (Table Design tab | Table Styles group) to apply the most recently selected shading color to the current cell.

Q&A Can I select the Shading arrow (Table Design tab | Table Styles group) instead? Yes, you would click the desired color from the Shading gallery.

- 4
 - Position the insertion point in the cell to shade (in this case, the cell containing the row header, Activity Fees).
 - Click Shading button (Table Design tab | Table Styles group) to apply the most recently selected shading color to the current cell (Figure 4–83).

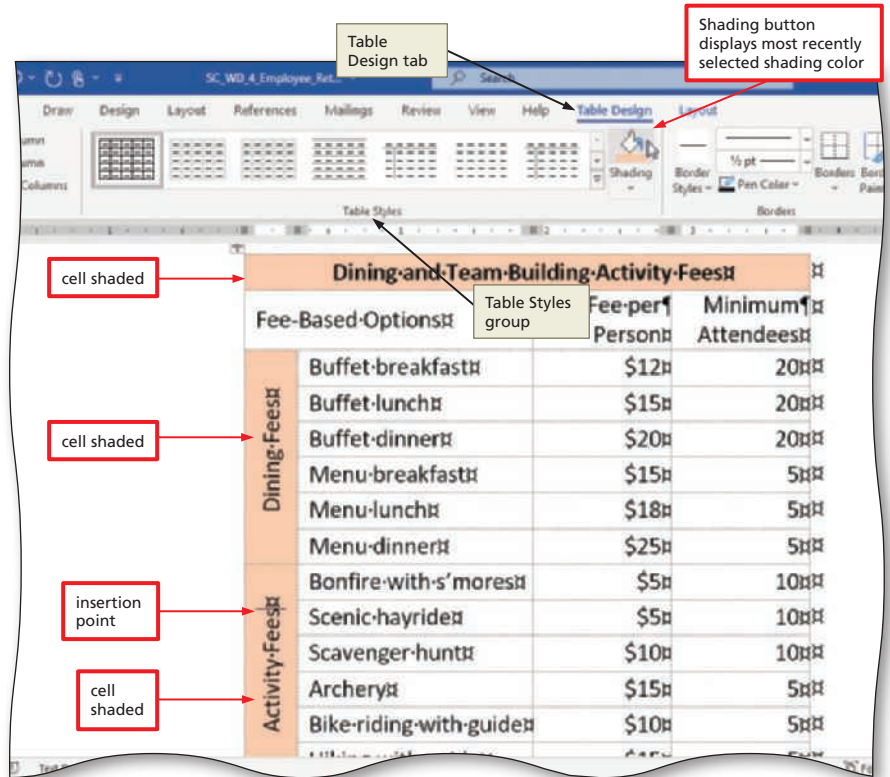


Figure 4–83

To Change Row Height

The next step in this project is to increase the height of the row containing the title. The following steps change row height.

- 1 Position the insertion point in the row to format (in this case, the row containing the title).
- 2 Display the Layout tab. Type `.34` in the Height box (Layout tab | Cell Size group) and then press ENTER to change the row height to this value.

To Hide Gridlines

You no longer need to see the gridlines in the table. Thus, you can hide the gridlines. The following steps hide gridlines.

- 1 If necessary, position the insertion point in a table cell.
- 2 Click the View Gridlines button (Layout tab | Table group) to hide gridlines in the table on the screen.

To Add a Table Border

The table in this project has a ½-point, blue double line border around all cells. The following steps change the border color in a table using the Borders and Shading dialog box. **Why?** Because the table border should be a double line with a blue color, you will use the Borders and Shading dialog box to specify the border settings for the table.

BTW

Draw Table

If you want to draw the boundary, rows, and columns of a table, click the Table button (Insert tab | Tables group) and then click Draw Table in the Table gallery. Use the pencil-shaped pointer to draw the perimeter of the table and the inside rows and columns. Use the Eraser button (Layout tab | Draw group) to erase lines in the table. To continue drawing, click the Draw Table button (Table Design tab | Draw group).

1

- Position the insertion point somewhere in the table.
- Display the Table Design tab. Click the Borders arrow (Table Design tab | Borders group) to display the Borders gallery (Figure 4–84).

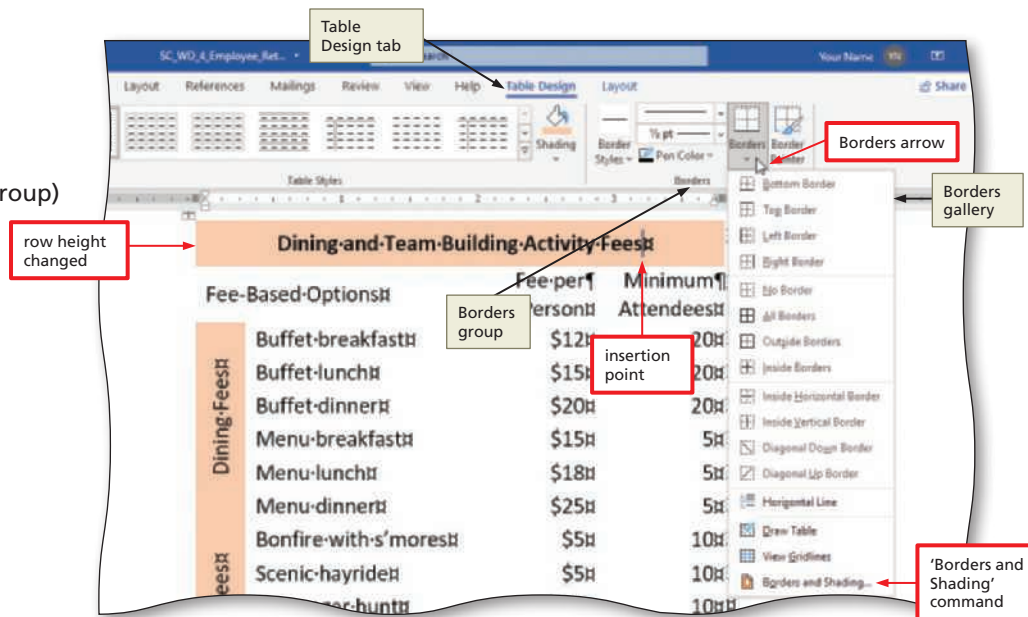


Figure 4–84

2

- Click 'Borders and Shading' in the Borders gallery to display the Borders and Shading dialog box.
- Click All in the Setting area (Borders and Shading dialog box), which will place a border on every cell in the table.
- Click the double line in the Style list.
- Click the Color arrow and then click 'Blue, Accent 1' (fifth color, first row) in the Color palette to specify the border color (Figure 4–85).

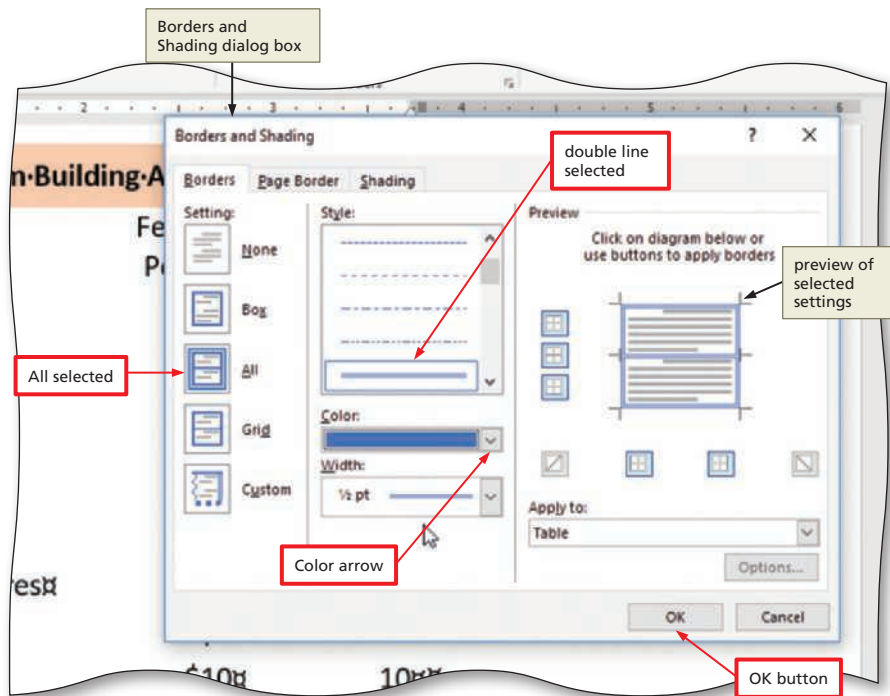


Figure 4–85

3

- Click OK to place the border shown in the preview area of the dialog box around the table cells in the document (Figure 4–86).

Dining and Team-Building Activity Fees			
Fee-Based Options	Fee per Person	Minimum Attendees	
Dining Fees	Buffet breakfast	\$12	20
	Buffet lunch	\$15	20
	Buffet dinner	\$20	20
	Menu breakfast	\$15	5
	Menu lunch	\$18	5
	Menu dinner	\$25	5
Activity Fees	Bonfire with s'mores	\$5	10
	Scenic hayride	\$5	10
	Scavenger hunt	\$10	10
	Archery	\$15	5

Figure 4–86

Creating a Watermark

The final task in this project is to create a watermark for the pages of the sales proposal. A **watermark** is text or a graphic, often semi-transparent, that is displayed on top of or behind the text in a document. For example, a catalog may print the words, Sold Out, on top of sold-out items. The first draft of a five-year-plan may have the word, Draft, printed behind the text of the document. Some companies use their logos or other graphics as watermarks to add visual appeal to their documents.

To Change the Zoom to Multiple Pages

The following steps display multiple pages in their entirety in the document window as large as possible, so that you can see the position of the watermark as you create it.

- Display the View tab.
- Click the Multiple Pages button (View tab | Zoom group) to display all three pages in the document window as large as possible (shown in Figure 4–87).

To Create a Watermark

In this project, the text, TEAM, is displayed behind all content in the proposal as a watermark. **Why?** The text adds visual appeal to the document, enticing readers to look at its contents. The following steps create a watermark.

- 1
 - Display the Design tab.
 - Click the Watermark button (Design tab | Page Background group) to display the Watermark gallery (Figure 4–87).

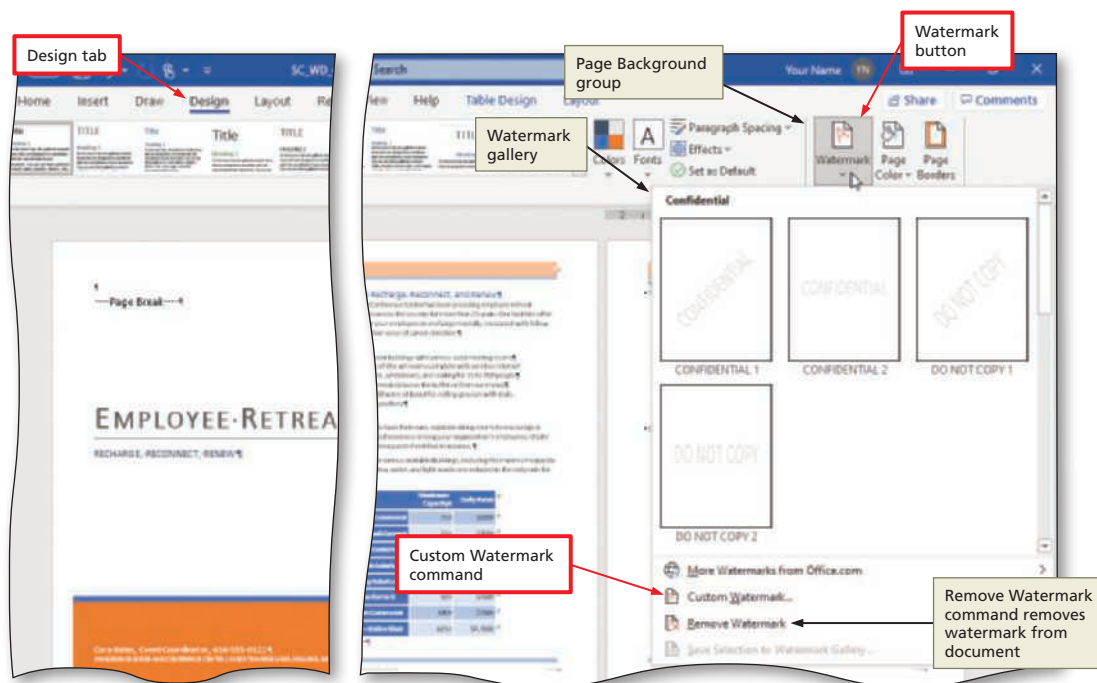


Figure 4–87

- 2
 - Click Custom Watermark in the Watermark gallery to display the Printed Watermark dialog box.
 - Click the Text watermark option button to select it (Printed Watermark dialog box), which enables you to enter or select text for the watermark.
 - Select the text in the Text box and type **TEAM** in the Text box to replace the text.
 - Click Horizontal to specify the direction for the text watermark.
 - Click the Apply button to show a preview of the watermark on the pages in the document window (Figure 4–88).

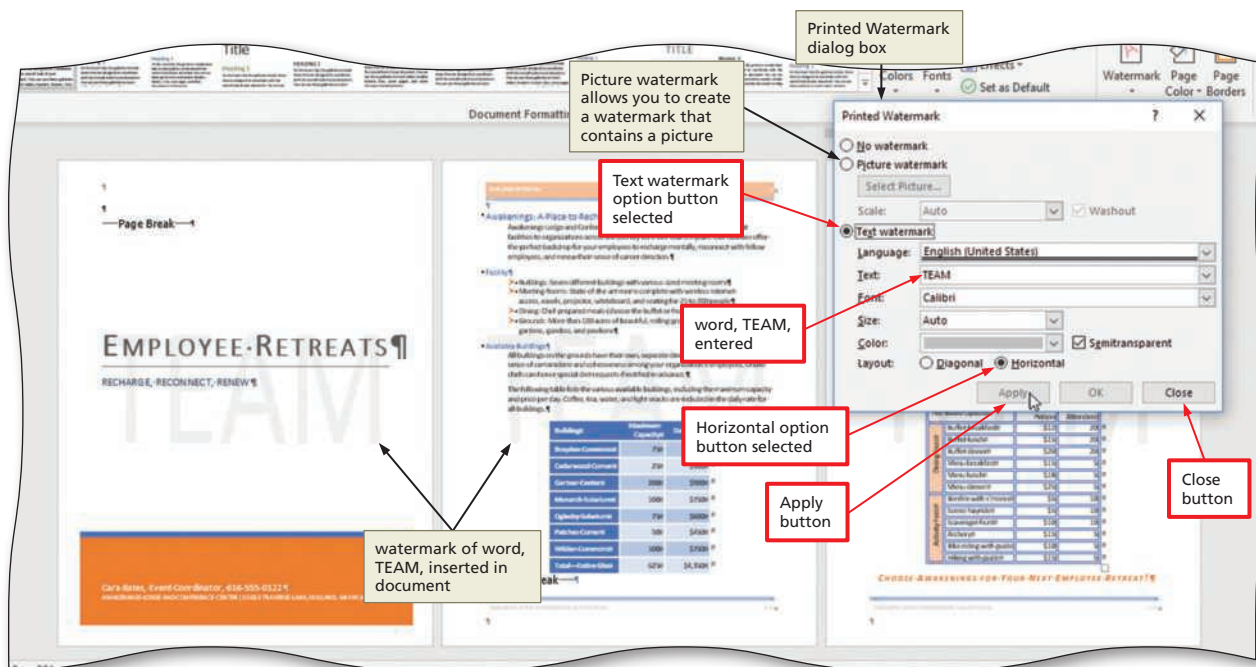


Figure 4–88

3

- Click Close to close the dialog box.

Q&A

How do I remove a watermark from a document?

Click the Watermark button (Design tab | Page Background group) and then click Remove Watermark in the Watermark gallery (shown in Figure 4–87).

How do I create a picture watermark?

Click Picture watermark in the Printed Watermark dialog box (shown in Figure 4–88), click the Select Picture button to display the Insert Pictures dialog box, locate the desired picture, click the Insert button, click the Apply button, and then click Close.

Other Ways

1. Click Quick Parts button (Insert tab | Text group), click 'Building Blocks Organizer' on Quick Parts menu, select desired watermark (Building Blocks Organizer dialog box), click Insert button

To Check Spelling, Save, Print, and Exit Word

The following steps check the spelling of the document, save and print the document, and then exit Word.

- 1 Display the Review tab. Click the Editor button (Review tab | Proofing group) to begin the spelling and grammar check. Correct any misspelled words.
- 2 **sam** ↑ Save the sales proposal again with the same file name.
- 3 If requested by your instructor, print the sales proposal (shown in Figure 4–1 at the beginning of this module).
- 4 Exit Word.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Word.

Summary

In this module, you learned how to insert a cover page, insert text in content controls, apply character effects, change paragraph indentation, insert formatted headers and footers, format page numbers, sort lists and tables, format bullet characters, create a multilevel list, edit and format Word tables, insert a formula in a table, and insert a watermark.

Consider This**What decisions will you need to make when creating your next proposal?**

Use these guidelines as you complete the assignments in this module and create your own proposals outside of this class.

1. Identify the nature of the proposal.

- a) If someone else requests that you develop the proposal, it is a **solicited proposal**. Be sure to include all requested information in a solicited proposal.
- b) When you write a proposal because you recognize a need, it is considered an **unsolicited proposal**. With an unsolicited proposal, you must gather information you believe will be relevant and of interest to the intended audience.

2. Design an eye-catching cover page.

- a) The cover page should convey the overall message of the sales proposal.
- b) Use text, graphics, formats, and colors that reflect the goals of the sales proposal.
- c) Be sure to include a title.

3. Compose the text of the sales proposal.

- a) Sales proposals vary in length, style, and formality, but all should be designed to elicit acceptance from the reader.
- b) The sales proposal should have a neat, organized appearance.
- c) A successful sales proposal uses succinct wording and includes lists for textual messages.
- d) Write text using active voice, instead of passive voice.
- e) Assume that readers of unsolicited sales proposals have no previous knowledge about the topic.
- f) Be sure the goal of the proposal is clear.
- g) Establish a theme and carry it throughout the proposal.

4. Enhance the sales proposal with appropriate visuals.

- a) Use visuals to add interest, clarify ideas, and illustrate points.
- b) Visuals include tables, charts, and graphical images (i.e., photos, etc.).

5. Proofread and edit the proposal.

- a) Carefully review the sales proposal to be sure it contains no spelling, grammar, mathematical, or other errors.
- b) Check that transitions between sentences and paragraphs are smooth. Ensure that the purpose of the proposal is stated clearly.
- c) Ask others to review the proposal and give you suggestions for improvements.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Working with Headers, Multilevel Lists, Tables, and Footers

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_4-2.docx, which is located in the Data Files. The document is a draft for a proposal that presents the menu and other information for Healthy Bites, a food chain that prides itself on fresh and nutritious fast food. The office manager, who created the draft, has asked you to delete its watermark; modify the header, footer, and table; and insert a multilevel list to create the finished document shown in Figure 4–89.

Perform the following tasks:

1. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_4_FoodChainProposal.
2. Remove the watermark. (**Hint:** Use the Watermark button (Design tab | Page Background group).)
3. Apply the Heading 1 style to the first line of text that reads: Our Menu: Nutritional and Delicious.
4. Remove the current header from the document. (**Hint:** Use the Header button (Insert tab | Header & Footer group).)
5. Add the predefined header called Banded to the document. Insert the text, Healthy Bites, in the Title content control in the header.
6. Format the text, Healthy Bites, in the header as small caps, bold the text, change its font size to 18 point, and expand its character spacing by 5 points. (**Hint:** Use the Font dialog box.)

HEALTHY BITES

Our Menu: Nutritional and Delicious

Each store bakes all its bread daily, slices meats and veggies fresh every day, and purchases produce locally.

- 1) Sandwiches
 - a) Bread
 - i) 6-inch and 12-inch
 - ii) Wheat, white, multigrain, flatbread, gluten-free white
 - b) Fresh ingredients
 - i) Meat and poultry: chicken, ham, salami, roast beef, turkey
 - ii) Seafood: tuna, crab salad
 - iii) Cheese: American, mozzarella, provolone, Swiss
 - iv) Veggies: cucumber, green pepper, lettuce, onion, pickle, spinach, tomato
 - v) Condiments: buffalo sauce, honey mustard, mayonnaise, yellow mustard
- 2) Salads
 - a) Full or half-size: Caesar, classic vegetable, turkey chef
 - b) Dressings
 - i) Regular: Caesar, chipotle, French, ranch
 - ii) Light: honey mustard, ranch, raspberry vinaigrette

Every store also makes its soup fresh daily. Soups are available in cup, bowl, and gallon sizes. The table below shows the days that each type of soup is available.

Daily Soup Selection					
	Broccoli Cheddar	Chicken Noodle	Corn Chowder	Tomato Basil	Vegetable Medley
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

Happy to Serve You!

- 😊 Free delivery on all orders within a 10-mile radius.
- 😊 Catering available.
- 😊 More than 50,000 locations worldwide
- 😊 All locations open seven days a week from 11:00 a.m. until 9:00 p.m.


ORDER ONLINE
STOP IN
CALL AHEAD

Figure 4-89

Continued >

Apply Your Knowledge *continued*

7. Increase by one-half inch the left indent of the first paragraph of text that begins, Each store bakes.... (**Hint:** Use the Increase Indent button, the Left Indent marker on the ruler, the Layout tab on the ribbon, or the Paragraph dialog box.)
8. Increase by one-half inch the right indent of the first paragraph of text that begins, Each store bakes.... (**Hint:** Use the Right Indent marker on the ruler, the Layout tab on the ribbon, or the Paragraph dialog box.)
9. On the blank line below the paragraph that begins, Each store bakes..., create the following multilevel list using the number style shown. Increase the indent of the multilevel list so the 1. in the first list item is lined up with the left indent of the paragraphs above and below it. (That is, the 1 should be at the .5" mark on the ribbon.) Be sure to promote and demote the list items as shown below.
 - 1) Sandwiches
 - a) Bread
 - i) 6-inch and 12-inch
 - ii) Wheat, white, multigrain, flatbread, gluten-free white
 - b) Fresh ingredients
 - i) Meat and poultry: chicken, ham, salami, roast beef, turkey
 - ii) Seafood: tuna, crab salad
 - iii) Cheese: American, mozzarella, provolone, Swiss
 - iv) Veggies: cucumber, green pepper, lettuce, onion, pickle, spinach, tomato
 - v) Condiments: buffalo sauce, honey mustard, mayonnaise, yellow mustard
 - 2) Salads
 - a) Full or half-size: Caesar, classic vegetable, turkey chef
 - b) Dressings
 - i) Regular: Caesar, chipotle, French, ranch
 - ii) Light: honey mustard, ranch, raspberry vinaigrette
10. Delete the page break below the table. This entire assignment should fit on a single page.
11. Use the Distribute Rows command to evenly space the rows containing the days of the week in the table. (**Hint:** Select the rows first.)
12. Use the Distribute Columns command to evenly space the columns containing the soup names in the table. (**Hint:** Select the columns first.)
13. Use the AutoFit Contents command to change the cell widths so they are as wide as the longest content of each column in the table.
14. Change the width of the column containing the days of the week to 1".
15. Select the rows containing the days of the week and change the row height to .23".
16. Change the alignment of the cells that contain the soup names to Align Center.
17. Change the alignment of the cells containing days of the week to Align Center Left.
18. Center the entire table across the width of the page.
19. Shade the cell intersecting the Broccoli Cheddar column and the Saturday row so that it is Teal, Accent 2.

20. Shade the cell intersecting the Corn Chowder column and the Tuesday row so that it is Orange, Accent 5.
21. Add a row to the top of the table. Merge all cells in the first row into a single cell. Enter the title, Daily Soup Selection, formatted in bold as the table title. Change the alignment of the entered text to Align Center. Make sure the row height is .19”.
22. Change the cell spacing for the table to allow 0.01" spacing between cells.
23. Change the cell margins so that the top and bottom cell margins are 0.01" and the left and right cell margins are 0.09”.
24. Change the bullets in the bulleted list at the bottom of the page to picture bullets using a smiley face picture (or use the image in the file called Support_WD_4_HappyFace.png in the Data Files).
25. Delete the current footer from the document. (**Hint:** Use the Footer button (Insert tab | Header & Footer group).)
26. Insert the Blank (Three Columns) footer in the document. Enter the text, ORDER ONLINE, in the left placeholder text; the text, STOP IN, in the middle placeholder text; and the text, CALL AHEAD, in the right placeholder text.
27. If requested by your instructor, change the title of the business in the header from Healthy Bites to a name that contains your last name.
28. Save the document again with the same file name.
29. Submit the modified document, shown in Figure 4–89, in the format specified by your instructor.
30. Exit Word.
31.  This proposal contains a multilevel numbered list. How would you change the font size and font color of the numbers and letters at the beginning of each list item?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Working with Lists, Picture Watermarks, and Word’s Draw Table Feature

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_4-3.docx, which is located in the Data Files. The document is a draft for a proposal that presents information about Acorn Run State Park to the public. The marketing coordinator, who created the draft, has asked you to delete the cover page, format the lists, add a table using Word’s Draw Table feature, and insert a picture watermark.

Perform the following tasks:

1. Use Help to learn about Draw Table and picture watermarks.
2. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_4_StateParkFacilityProposal.
3. If requested by your instructor, use the Print command to print only the second page of this document. Then select just a bulleted list and use the Print command to print just the selected text.

Continued >

Extend Your Knowledge *continued*

4. Remove the cover page from the document. (Hint: Use the Cover Page button (Insert tab | Pages group).)
5. Sort the paragraphs in the bulleted list at the top of the document.
6. Change the color of the bullets in the bulleted list to a color of your choice.
7. Draw the table shown in Figure 4–90 below the paragraph in the Fees section (above the Lodging Options heading). (Hint: Click Table button (Insert tab | Tables group) and then click Draw Table and then draw the table.) If necessary, use the Eraser button (Layout tab | Draw group) to erase lines you do not need. Switch back to drawing the table anytime by clicking the Draw Table button (Layout tab | Draw group).

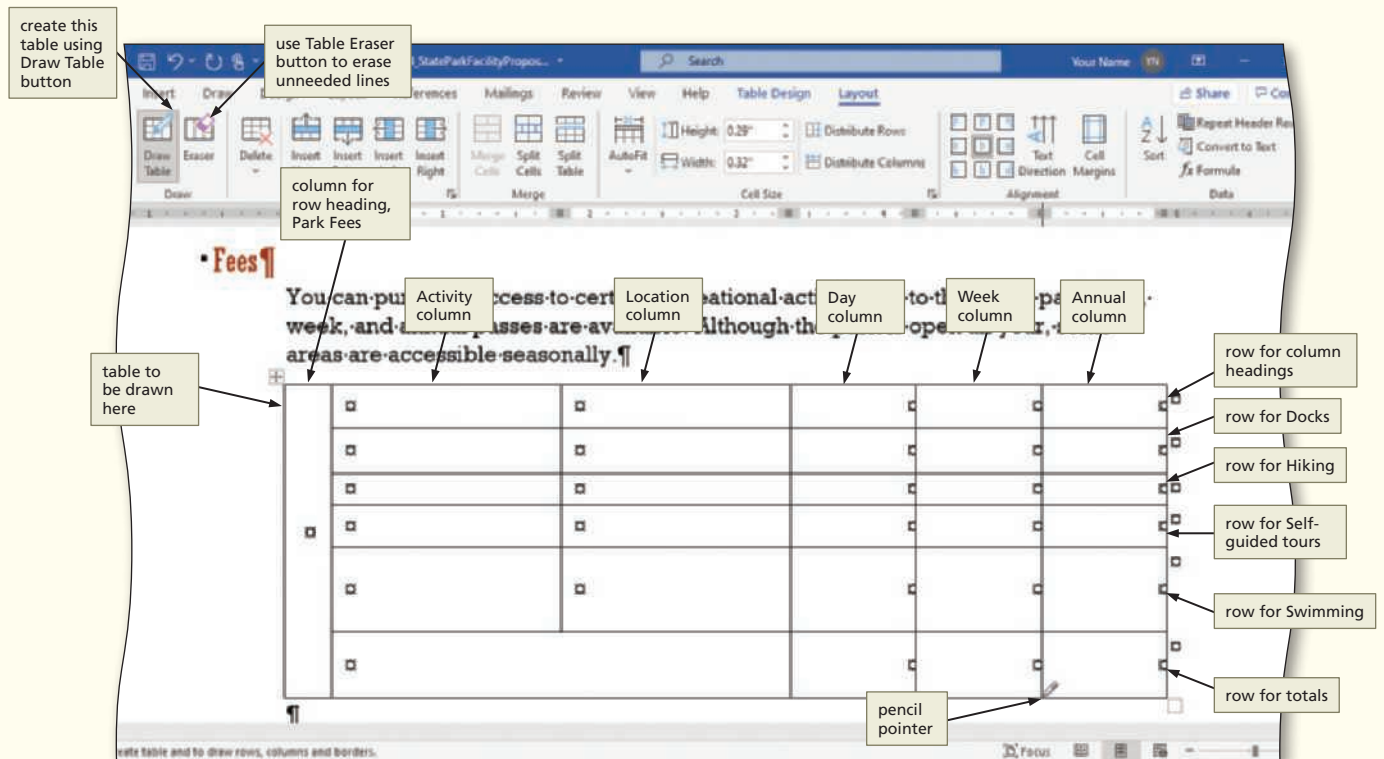


Figure 4–90

8. Show table gridlines, if they are not showing.
9. In the top row, enter these headings in the five rightmost columns: Activity, Location, Day, Week, Annual.
10. In the leftmost column of the table, enter the text, Park Fees, and then change its direction so that it displays vertically in the cell.
11. In the second column of the table titled Activity, enter these labels: Docks, Hiking, Self-guided tours, Swimming, Access to all park recreation.
12. In the third column of the table titled Location, enter this text: Boat and canoe docks, All trails, Nature center and historic sites, Public beach and outdoor pool.
13. In the fourth column of the table titled Day, enter these values: \$3, \$2, \$3, \$2.
14. In the fifth column of the table titled Week, enter these values: \$8, \$5, \$8, \$5.

15. In the last column of the table titled Annual, enter these values: \$45, \$25, \$45, \$25.
16. Resize table columns and rows by dragging to locations you deem appropriate.
17. Distribute the last three columns containing monetary amounts so that they are evenly spaced.
18. Use the Formula button (Layout tab | Data group) to place totals in the bottom row for the Day, Week, and Annual columns. The totals should be formatted to display dollar signs (no cents). (**Hint:** You will need to edit the formula number format and remove the .00 from the end of it.)
19. Change the values for Swimming to \$1, \$4, and \$20 (for day, week, and annual).
20. Update the fields containing the formulas by selecting the cells containing the formulas and then pressing F9.
21. Select the table and change the spacing after each paragraph to 0 point. (**Hint:** Use the options in the Paragraph group in the Layout tab.)
22. Change the alignment of all cells containing numbers to Align Center Right. Align all other cells as you deem appropriate.
23. Shade the table cells, along with any other relevant enhancements, as you deem appropriate.
24. Set the column widths for the table to fixed column width. (**Hint:** Use the AutoFit button (Layout tab | Cell Size group).)
25. Position the insertion point in the bottom-right cell in the table. Practice deleting a cell by clicking the Delete button (Layout tab | Rows & Columns group), clicking Delete Cells on the Delete menu, clicking 'Shift cells left' (Delete Cells dialog box), and then clicking OK. Press CTRL+Z to undo the deletion. Hide gridlines.
26. Change the number style in the list at the bottom of the page to a style of your choice.
27. In the last line on the page, indent the left margin by one-half inch so that the paragraph shading starts one-half inch from the left margin.
28. Add an appropriate picture watermark to the document (or use the image in the file called Support_WD_4_AcornOakLeafPattern.png in the Data Files). Change the scale in the Printed Watermark dialog box as necessary so that the watermark fills the entire page.
29. If requested by your instructor, change the name of the park to include your last name.
30. Save the revised document again with the same name and then submit it in the format specified by your instructor.
31. 🌟 Which alignment and shading for the table cells did you choose and why?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Using Word Online to Create a Table

Instructions: You will use Word Online to create a table and then you will download the table to your desktop version of Word to edit it further. As project coordinator for Bidwell Construction, while attending a conference, you will use Word Online to create a table for a proposal that you are developing. Then, when back at the office, you will download the table and edit it further in your desktop version of Word.

Continued >

Expand Your World *continued*

Perform the following tasks:

1. Start a browser. Search for the text, Word Online, using a search engine. Visit several websites to learn about Word Online. Navigate to the Office Online website. You will need to sign in to your OneDrive account.
2. Create a new blank Word document using Word Online. Name the document SC_WD_4_AvailableLots.
3. Create the table and enter the data shown in Figure 4–91.

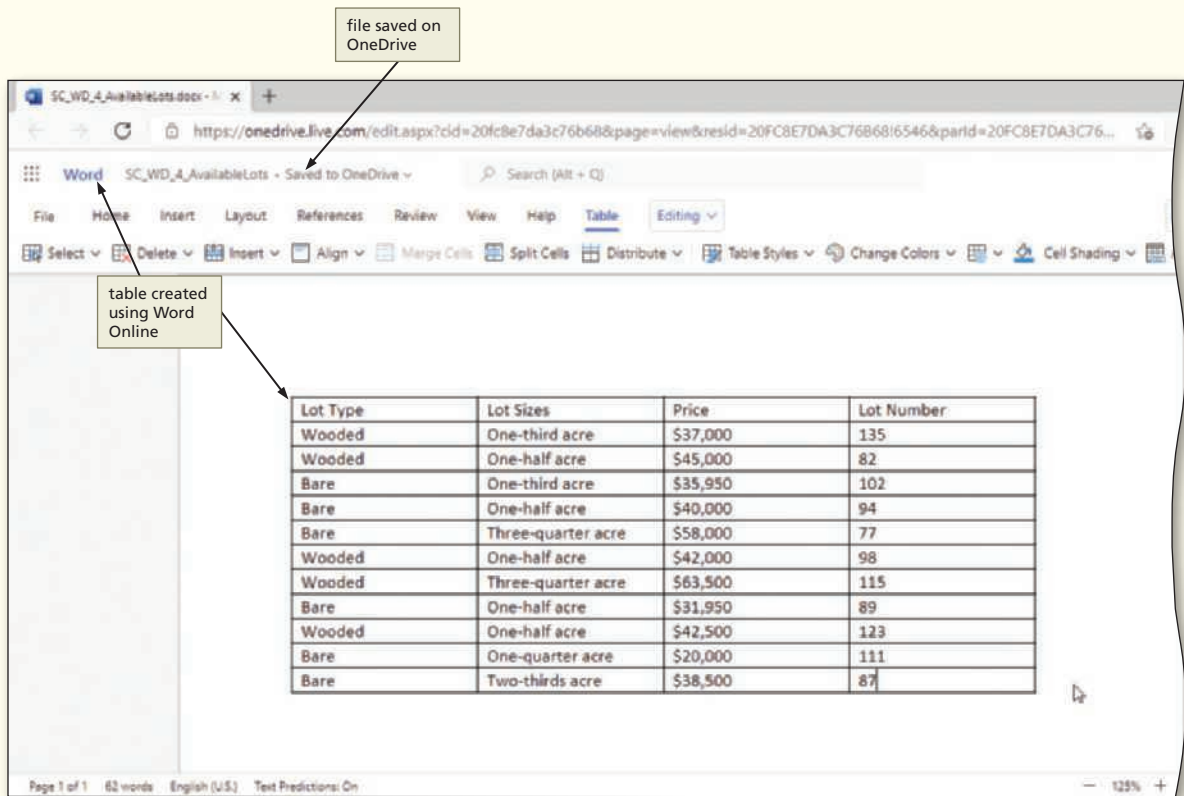


Figure 4–91

4. Apply the 'Grid Table 5 Dark - Accent 1' table style to the table.
5. Make sure Header Row and First Column are selected in the Style Options.
6. Change the colors of the table to a color of your choice.
7. Change the alignment of the prices column to Align Top Right.
8. Change the alignment of the lot number column to Align Top Center.
9. Adjust the column widths so that the contents better fit the columns. How did you adjust the column width?
10. Open the document in Word using the Editing button on the ribbon and then select 'Open in Desktop App'. (Note that the AutoSave button may become enabled if you are saving the file on OneDrive.)
11. Distribute the rows in the table so that they are evenly spaced.
12. Remove the first column shading. (**Hint:** Use the check boxes in the Table Style Options group in the Table Design tab.)
13. Split the cell in the Lot Number column with the number 82 into two columns and one row. Enter the value 83 in the empty cell.

14. Split the cell in the Lot Number column with the number 135 into two columns and one row. Enter the value 136 in the empty cell.
15. Position the insertion point in the column headings and then click the 'Repeat Header Rows' button (Layout tab | Data group) to repeat header rows if the table continues to a second page.
16. Sort the table on the Price column only with the highest price at the top. Did you use ascending or descending order?
17. Sort the table on the Lot Type column and then by the Lot Sizes column and then by Price so that the lot types and lot sizes are in alphabetical order and the highest price in each category is at the top.
18. Add a 1 pt, Blue, Accent 1 border to all cells in the table. In the Borders and Shading dialog box, select a border style of your choice. (**Hint:** Change the color first from white so that you easily can see the border styles.)
19. Split the table where the lot type changes from Bare to Wooded so that one table is the bare lots and the other table is the wooded lots.
20. Copy the row containing the column headings from the first table to the second table. If necessary, use the format painter to copy formats from the column headings in the first table to the column headings second table, or apply borders again so that the column headings in the two tables are the same.
21. If requested by your instructor, add your name on a line below the second table.
22. Save the document again and submit it in the format requested by your instructor. Sign out of your OneDrive account.
23. 🌀 Which table features that are covered in the module are not available in Word Online? Answer the questions posed in #9 and #16.

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Create a Proposal for an Animal Hospital

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Problem: As administrative specialist for the Caring Companion Animal Hospital, you have been asked to design a multipage sales proposal that presents information about the hospital's facility and services to the public and potential clients.

Part 1: The source content for the proposal is in a file called SC_WD_4-4.docx, which is located in the Data Files. The proposal should contain a cover page, followed by two pages of information about the animal hospital. Using the concepts and techniques presented in this module, along with the source content in the Data Files, create and format the sales proposal. While creating the proposal, be sure to do the following:


1. Insert an appropriate cover page. If requested by your instructor, include your name on the cover page.
2. Insert a formatted header and footer. The header or footer should contain page numbers. Format the page number so that it is in the format of - 1 -, - 2 -, etc.
3. Arrange content in a meaningful order.

Continued >

In the Lab *continued*

4. Format headings and indent paragraphs appropriately.
5. Organize and format bulleted lists. Include a multilevel list. Sort paragraphs in lists as needed.
6. Format the table(s) as needed and sort table contents appropriately.
7. Include an appropriate text watermark.
8. Be sure to check the spelling and grammar of the finished document.

When you are finished with the proposal, save it with the file name, SC_WD_4_AnimalHospitalProposal. Submit your assignment and answers to the Part 2 critical thinking questions in the format specified by your instructor.

Part 2:  You made several decisions while creating the sales proposal in this assignment: how to organize elements on the cover page and the body of the proposal, which cover page to use and how to format its text, how to organize and format the tables and lists, and what text watermark to use and how to format it. What was the rationale behind each of these decisions? When you proofread the document, what further revisions did you make and why?

5 | Creating a Resume and Sharing Documents

Objectives

After completing this module, you will be able to:

- Use a template to create a document
- Change document margins
- Personalize a document template
- Customize theme fonts and theme colors
- Create and modify a style
- Create, modify, and insert a building block
- Export a Word document to a PDF file and edit a PDF file in Word
- Check document compatibility
- Share a document on OneDrive
- Get a sharing link
- Send a Word document using email
- Save a Word document as a webpage
- Format text as a hyperlink
- Change a style set
- Highlight text

Introduction

Some people prefer to use their own creative skills to design and compose Word documents. Using Word, for example, you can develop the content and decide the location of each item in a document. On occasion, however, you may have difficulty composing a particular type of document. To assist with the task of creating certain types of documents, such as resumes and letters, Word provides templates. A **template** is a file with a theme applied and that may contain formatted placeholder text in content controls, headers and footers, and graphics that you replace with your own information. After Word creates a document from a template, you fill in the blanks or replace placeholder text or content controls in the document.

Once you have created a document, such as a resume, you often share it with others electronically via email, webpages, or links.

Project: Resume

At some time, you will prepare a resume to send to prospective employers. In addition to some personal information, a **resume** usually contains the applicant's personal information, educational background, and job experience. Employers review many

resumes for each vacant position. Thus, you should design your resume carefully so that it presents you as the best candidate for the job.

The project in this module follows generally accepted guidelines for creating resumes and uses Word to create the resume shown in Figure 5–1. The resume for Dwayne Jackman, an upcoming graduate of a public health program who is seeking employment as a sales representative with a pharmaceutical sales firm, uses a Word template to present relevant information to a potential employer.

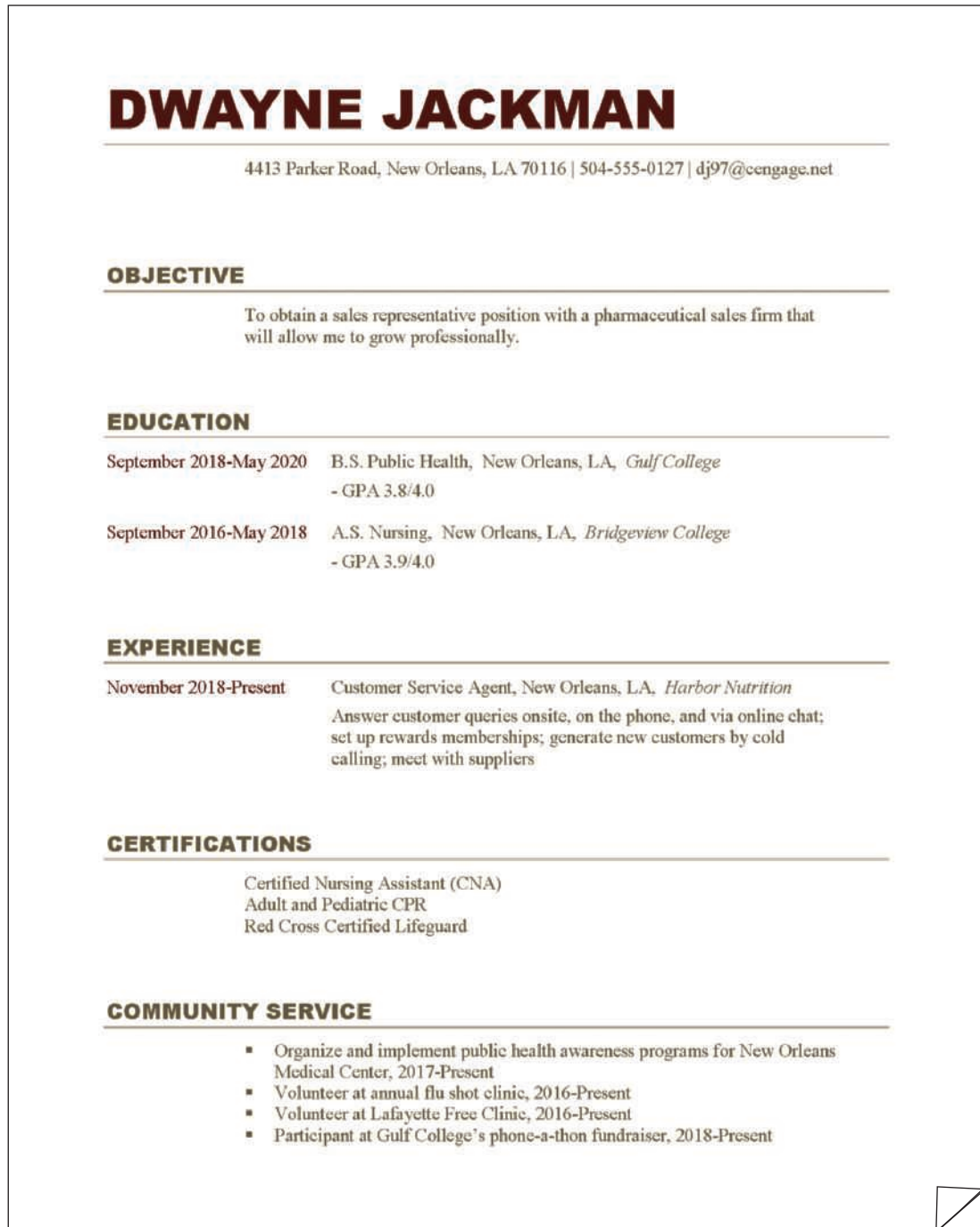


Figure 5–1

In this module, you will learn how to create the resume shown in Figure 5–1. You will perform the following general tasks as you progress through this module:

1. Create a new resume document from a Word template.
2. Modify and format the resume template.
3. Save the resume document in other formats so that you can share it with others.
4. Make the resume document available online so that others can access it.
5. Create a webpage from the resume Word document.
6. Format the resume webpage.

To Start Word and Specify Settings

If you are using a computer to step through the project in this module and you want your screens to match the figures in this book, you should change your screen's resolution to 1366 × 768. The following steps start Word, display formatting marks, change the zoom to page width, and verify ruler and Mouse mode settings.

- 1 Start Word and create a blank document in the Word window. If necessary, maximize the Word window.
- 2 If the Print Layout button on the status bar is not selected (shown in Figure 5–4), click it so that your screen is in Print Layout view.
- 3 If the 'Show/Hide ¶' button (Home tab | Paragraph group) is not selected already, click it to display formatting marks on the screen.
- 4 To display the page the same width as the document window, if necessary, click the Page Width button (View tab | Zoom group).
- 5 Verify that the Ruler check box (View tab | Show group) is not selected. (If it is selected, click it to remove the selection because you do not want the rulers to appear on the screen.)
- 6 If you are using a mouse and you want your screens to match the figures in the book, verify that you are using Mouse mode by clicking the Touch/Mouse Mode button on the Quick Access Toolbar and then, if necessary, clicking Mouse on the menu. (If your Quick Access Toolbar does not display the Touch/Mouse Mode button, click the 'Customize Quick Access Toolbar' button on the Quick Access Toolbar and then click Touch/Mouse Mode on the menu to add the button to the Quick Access Toolbar.)

Using a Template to Create a Resume

Although you could compose a resume in a blank document window, this module shows how to use a template instead, where Word formats the resume with appropriate headings and spacing. You then customize the resume that the template generated by filling in blanks and by selecting and replacing text.

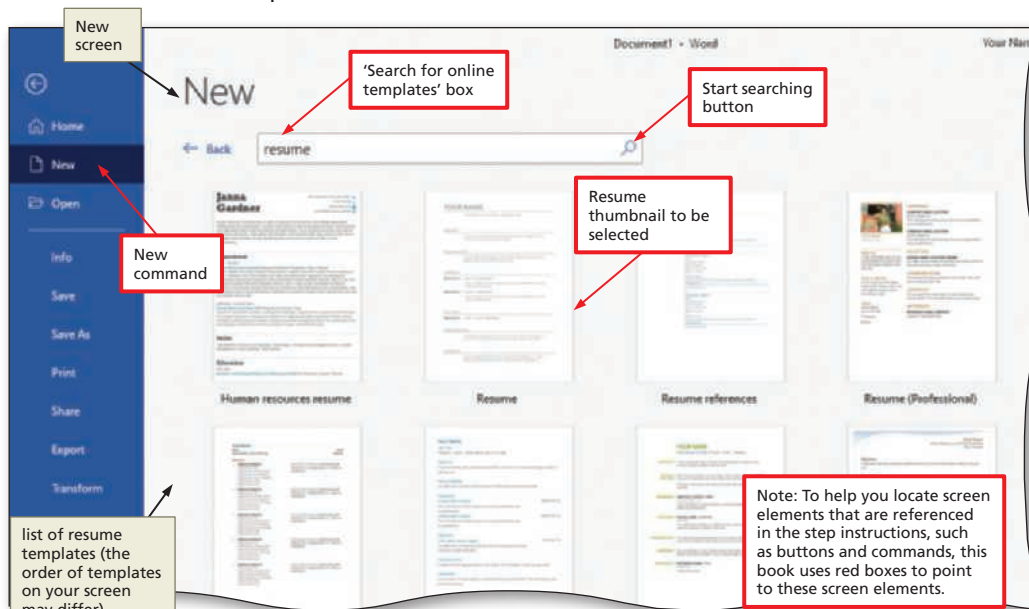
To Create a New Document from an Online Template

Word has a variety of templates available online to assist you with creating documents. Available online templates include agendas, award certificates, calendars, expense reports, greeting cards, invitations, invoices, letters, meeting minutes, memos, resumes, statements, and more. When you select an online template, Word

downloads (or copies) it from the Office.com website to your computer or mobile device. Many of the templates use the same design or style. **Why?** If you create related documents, such as a resume and a cover letter, you can use the same template design or style so that the documents complement one another. Because the Word window already is open, the following steps use Backstage view to create a resume using the Resume template.

- 1 **Start** Click File on the ribbon to open Backstage view and then click New in Backstage view to display the New screen, which initially lists several featured templates.

- Type **resume** in the 'Search for online templates' box and then click the Start searching button to display a list of online resume templates.
- If necessary, scroll through the list of templates to display the Resume thumbnail (Figure 5-2).



Q&A Can I select a template from the Word start screen that appears when I initially start Word?

Yes, instead of selecting Blank document from the Word start screen, you can select any of the available templates.

Figure 5-2

- 2 Click the Resume thumbnail to select the template and display it in a preview window (Figure 5-3).

Experiment

- Click the Back and Forward buttons on the sides of the preview window to view previews of other templates. When finished, display the Resume thumbnail in the preview window.



Figure 5-3

Q&A What if I cannot locate the Resume template?

Close Backstage view, open the document called Support_WD_5_ResumeTemplate from the Data Files (please contact your instructor for information about accessing the Data Files), and then skip Steps 2, 3, and 4.

- 3 • Click the Create button to create a new document based on the selected template (Figure 5-4).
- If the resume template displays your name instead of the text, YOUR NAME, as shown in Figure 5-4, click the Undo button on the Quick Access Toolbar to reset the content control.

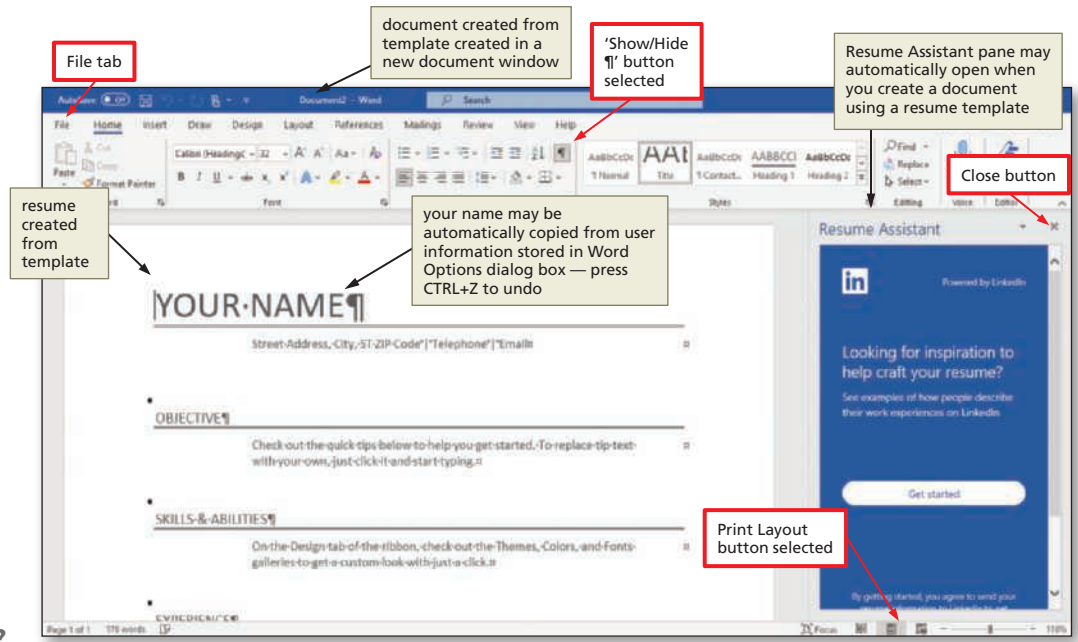


Figure 5-4

Q&A **What is the Resume Assistant?**
 The Resume Assistant pane, available to Office 365 subscribers, provides examples of wording you can use in your resume.

- 4 • If requested by your instructor, print the resume template so that you can see the entire resume created by the resume template using the Resume (Figure 5-5).

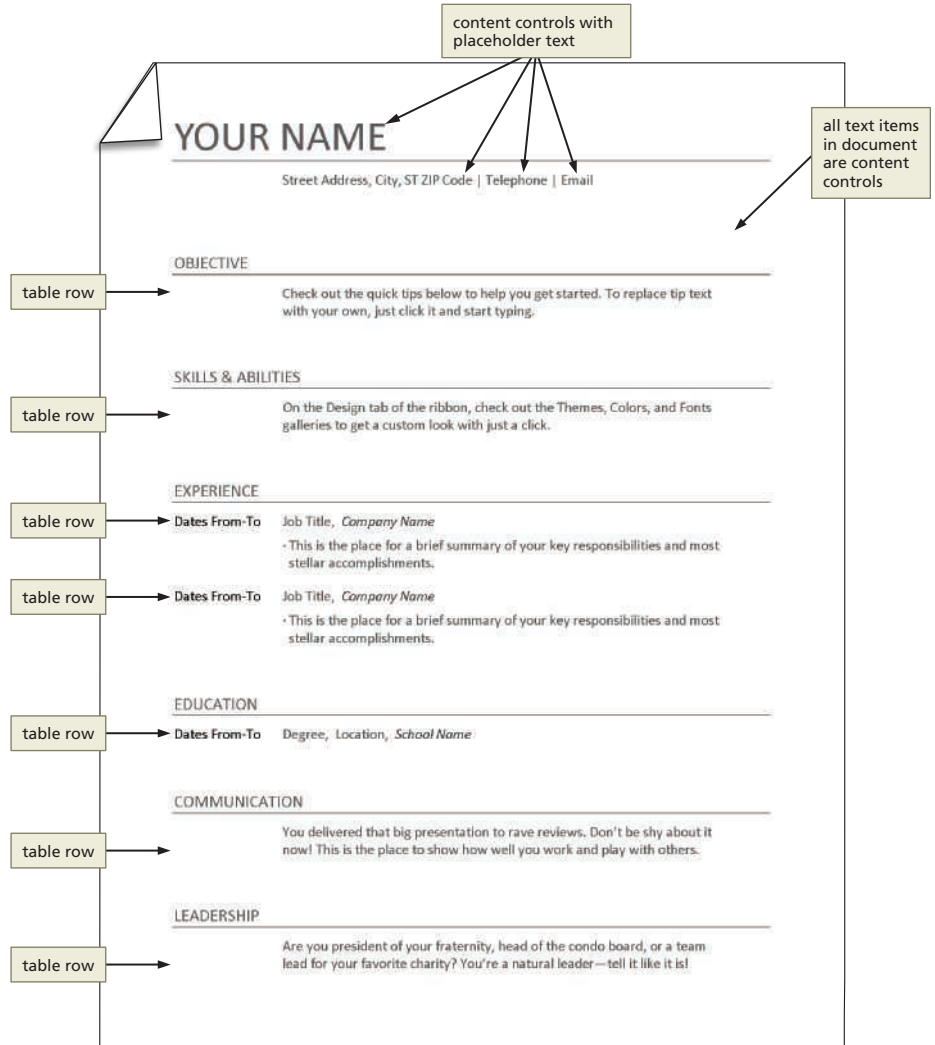


Figure 5-5

- 5 • If your screen opens the Resume Assistant pane, close the pane.
- 6 • Save the resume on your hard drive, OneDrive, or other storage location using the file name, SC_WD_5_JackmanResume.



How do you craft a successful resume?

Two types of resumes are the chronological resume and the functional resume. A chronological resume sequences information by time, with the most recent listed first. This type of resume highlights a job seeker's job continuity and growth. A functional resume groups information by skills and accomplishments. This resume emphasizes a job seeker's experience and qualifications in specialized areas. Some resumes use a combination of the two formats. For an entry-level job search, experts recommend a chronological resume or a combination of the two types of resumes.

When creating a resume, be sure to include necessary information and present it appropriately. Keep descriptions concise, using action words and bulleted lists.

- **Include necessary information.** Your resume should include contact information, a clearly written objective, educational background, and experience. Use your name and mailing address, along with your phone number and email address, if you have one. Other sections you might consider including are memberships, skills, recognitions and awards, and/or community service. Do not include your Social Security number, marital status, age, height, weight, gender, physical appearance, health, citizenship, previous pay rates, reasons for leaving a prior job, current date, high school information (if you are a college graduate), and references. Employers assume you will provide references, if asked, and this information simply clutters a resume.
- **Present your resume appropriately.** For printed resumes, use a high-quality ink-jet or laser printer to print your resume on standard letter-sized white or ivory paper. Consider using paper that contains cotton fibers for a professional look.

BTW

Resume Assistant

The Resume Assistant, which is powered by LinkedIn (a social network that connects career and business professionals), is available to Microsoft 365 subscribers. You can open the Resume Assistant pane by displaying the Review tab and then clicking the Resume Assistant button (Review tab | Resume group). If the Resume Assistant button is dim, you may need to enable LinkedIn integration by doing the following: open Backstage view, click Options to display the Word Options dialog box, click General in the left pane (Word Options dialog box), place a check mark in the 'Enable LinkedIn features in my Office applications' check box, and then click OK.

Resume Template

The resume created from the template, shown in Figure 5–5, contains several content controls and a table. A content control is an object that contains sample text or instructions for filling in text and graphics. To select a content control, you click it. As soon as you begin typing in the selected content control, your typing replaces the instructions in the control. Thus, you do not need to delete the selected instructions before you begin typing.

Below the name in the document are several individual one- or two-row tables, some with headings above the table rows. The following pages personalize the resume created by the resume template using these general steps:

1. Change the name at the top of the resume.
2. Fill in the contact information below the name.
3. Fill in the Objective section.
4. Move the Education and Experience sections above the Skills & Abilities section.
5. Fill in the Experience section.
6. Add a row to the Education section and fill in this section.
7. Delete the Skills & Abilities section.
8. Change the heading, Communication, to Certifications and fill in this section.
9. Change the heading, Leadership, to Community Service, and fill in this section.

To Change Theme Colors

Word provides document themes, which contain a variety of color schemes and other effects. This resume uses the Orange Red theme colors. The following steps change the theme colors.

- 1 Click Design on the ribbon to display the Design tab.
- 2 Click the Colors button (Design tab | Document Formatting group) to display the Colors gallery.
- 3 Scroll to and then click Orange Red in the Colors gallery to change the theme colors to the selected theme.

To Set Custom Margins

The resume template selected in this project uses .75-inch top and bottom margins and 1.1-inch left and right margins. You prefer 1-inch margins for the top, left, and right edges of the resume and a smaller bottom margin. **Why?** You want the margins to be even on the top edge and sides of the page and do not want the resume to spill to a second page. Because the margins you will use for the resume in this module are not predefined, you cannot use the predefined settings in the Margins gallery. Thus, the following steps set custom margins.

- 1**
 - Display the Layout tab.
 - Click the Margins button (Layout tab | Page Setup group) to display the Margins gallery (Figure 5-6).

Q&A **What is the difference between the Custom Margins setting and the Custom Margins command?**
 The Custom Margins setting applies the most recent custom margins to the current document, whereas the Custom Margins command displays the Page Setup dialog box so that you can specify new margin settings.

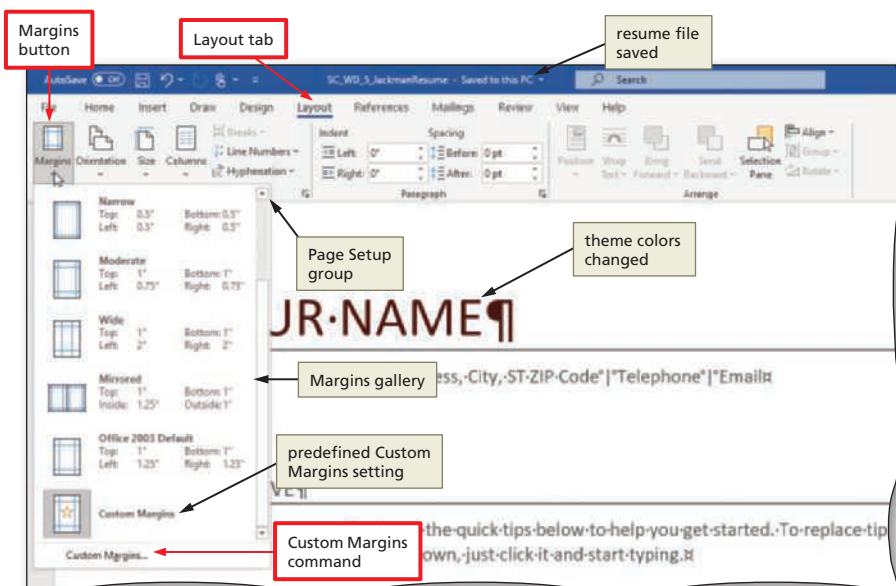


Figure 5-6

- 2**
 - Click Custom Margins at the bottom of the Margins gallery to display the Page Setup dialog box. If necessary, click the Margins tab (Page Setup dialog box) to display the Margins sheet.
 - Type 1 in the Top box to change the top margin setting and then press TAB to position the insertion point in the Bottom box.
 - Type .5 in the Bottom box to change the bottom margin setting and then press TAB to position the insertion point in the Left box.
 - Type 1 in the Left box to change the left margin setting and then press TAB to position the insertion point in the Right box.
 - Type 1 in the Right box to change the right margin setting (Figure 5-7).

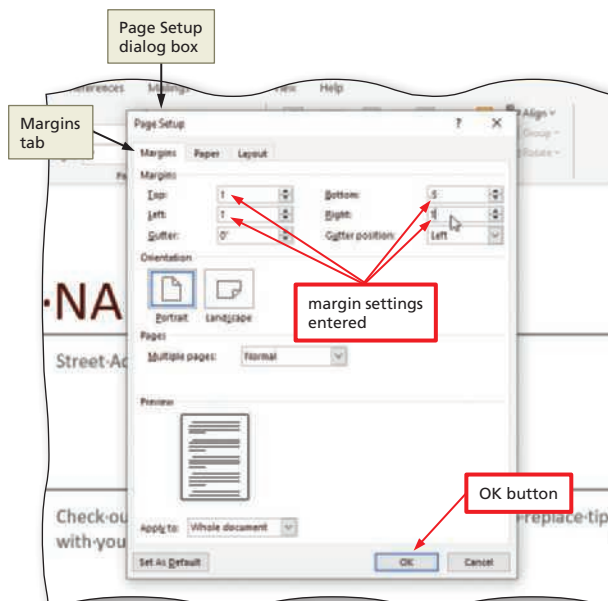


Figure 5-7

- 3**
 - Click OK to set the custom margins for this document.

Other Ways

1. Drag margin boundaries on ruler

BTW

The Ribbon and Screen Resolution

Word may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

To View Gridlines

When tables contain no borders, such as those in this resume, it can be difficult to see the individual cells in the table. To help identify the location of cells, you can display gridlines, which show cell outlines on the screen. The following steps show gridlines if they are not already displayed on your screen.

- 1 Position the insertion point in any table cell (in this case, the cell containing the address, phone, and email information).
- 2 Display the Layout tab.
- 3 If it is not selected already, click the View Gridlines button (Layout tab | Table group) to show gridlines in the table (Figure 5–8).

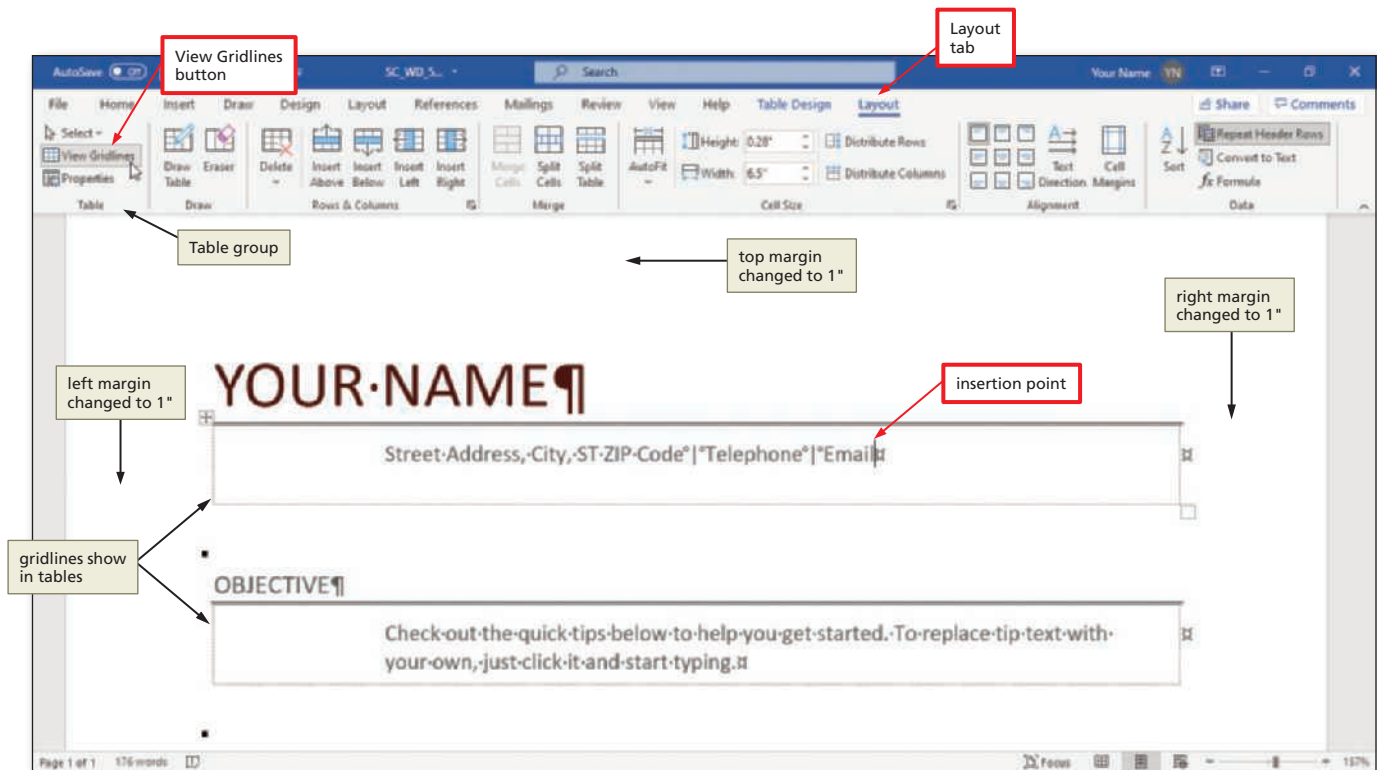


Figure 5–8

To Change Theme Fonts

The next step is to change the heading and body text fonts used in the resume. **Why? You would prefer a bolder font for the headings.** If text is entered using the headings and body text fonts, you easily can change the font in the entire document by changing the theme fonts, or font set. A **font set** is a format that defines one font for headings and another for body text. The default font set is Office, which uses the Calibri Light font for headings and the Calibri font for body text. In Word, you can select from more than 20 predefined, coordinated font sets to give the document's text a new look.

If you previously changed a font using buttons on the ribbon or Mini toolbar, Word will not alter those when you change the font set because changes to the font set are not applied to individually changed fonts. The following steps change the theme fonts to Arial Black for headings and Arial for body text.

1

- Display the Design tab.
- Click the Fonts button (Design tab | Document Formatting group) to display the Fonts gallery.
- Scroll to display the Arial Black-Arial theme font in the gallery (Figure 5–9).



Experiment

- Point to various theme fonts in the Fonts gallery and watch the fonts of text in the document change.

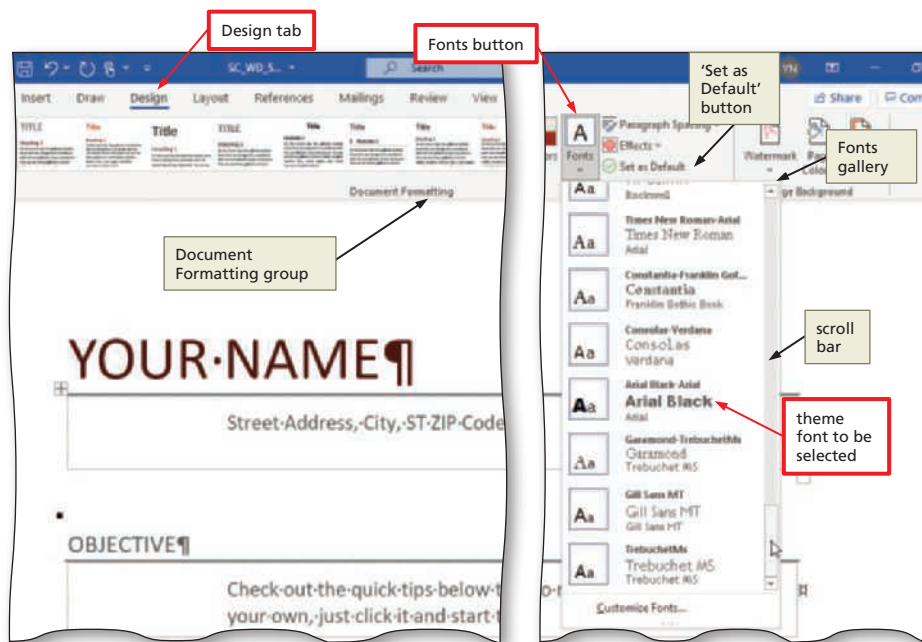


Figure 5–9

2

- Click Arial Black-Arial in the Fonts gallery to set the theme fonts to the selected font set (Figure 5–10).

Q&A

What if I want to return to the default theme fonts?
 You would click the Fonts button and then click Office in the Fonts gallery.

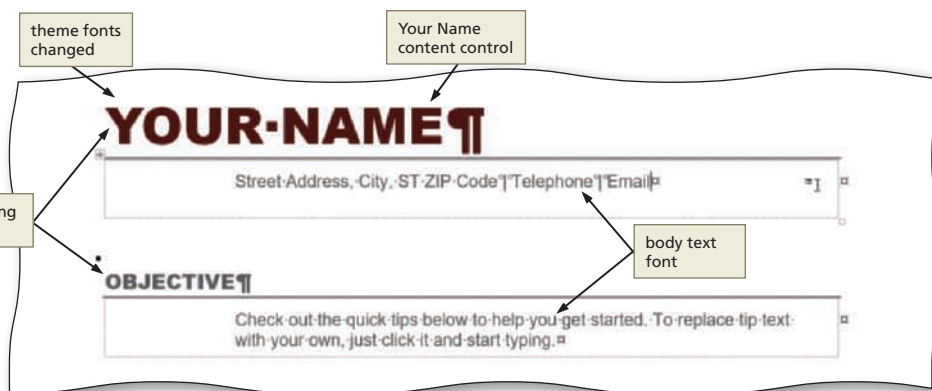


Figure 5–10

To Enter Text in a Content Control

The next step is to select the Your Name content control that the template inserted at the top of the resume and replace its placeholder text with the job seeker’s name. Word uses **placeholder text** to indicate where text can be typed. To replace placeholder text in a content control, you select the content control and then type.

The Your Name content control on your resume may already contain your name because Word may copy the user name from the Word Options dialog box and place it in the Your Name content control. Note that if your name appears instead of the text, YOUR NAME, the following steps may execute differently. The following steps enter text in a content control.

1

- Click the content control to be modified (in this case, the Your Name content control) to select it.

Q&A

How can I tell if a content control is selected?
 The appearance of selected content controls varies. When you select some content controls, they are surrounded by a rectangle; others appear selected. Selected content controls also may have a name that is attached to the top and/or a tag that is attached to its upper-left corner. You can drag a tag to move a content control from one location to another.

BTW

Touch Mode Differences

The Office and Windows interfaces may vary if you are using Touch mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module’s presentation.

- 2 Type **Dwayne Jackman** to replace the content control with the job seeker's name (Figure 5–11).

Q&A Why does all of the text appear in uppercase letters even though I type some letters in lowercase?

This content control includes formatting that displays the text in uppercase letters.



Figure 5–11

To Enter Text in More Content Controls

The next step is to select the Contact Info, Telephone, and Email content controls in the resume and replace their placeholder text with personal information. The following steps replace the placeholder text in content controls.

- 1 Click the Contact Info content control to select it, that is, the content control with the placeholder text of Street Address, City, ST ZIP Code, and then type **4413 Parker Road, New Orleans, LA 70116** as the contact info.
- 2 Click the Telephone content control to select it and then type **504-555-0127** as the phone number.
- 3 Click the Email content control to select it and then type **dj97@cengage.net** as the email address (Figure 5–12).

Q&A What are the small raised circles between content controls?

They are nonbreaking spaces, which are formatting marks. A nonbreaking space is a special space character that prevents two words from splitting if the first word falls at the end of a line. Similarly, a nonbreaking hyphen is a special type of hyphen that prevents two words separated by a hyphen from splitting at the end of a line. To insert a nonbreaking space, press CTRL+SHIFT+SPACEBAR (instead of SPACEBAR), and to insert a nonbreaking hyphen, press CTRL+SHIFT+HYPHEN (instead of HYPHEN). Or, click the Symbol button (Insert tab | Symbols group), click More Symbols, click the Special Characters tab (Symbol dialog box), click Nonbreaking Space or Nonbreaking Hyphen in the Character list, click the Insert button, and then click Close.



Figure 5–12

To DELETE A CONTENT CONTROL

To delete a content control, you would follow these steps.

1. Right-click the selected content control to display a shortcut menu.
2. Click 'Remove Content Control' on the shortcut menu to delete the content control, which also deletes any placeholder text contained in the content control.

To Create Custom Theme Fonts

This resume currently uses the Arial Black-Arial theme fonts, which specifies the Arial Black font for the headings and the Arial font for body text. The resume in this module creates a custom theme font. **Why?** With the Arial font for body text, the contact info wraps to two lines, and you want it to fit on a single line. The following steps create a customized theme font set with the name, Resume Text, that changes the font for the body text in the resume to Times New Roman.

- 1
 - Display the Design tab.
 - Click the Fonts button (Design tab | Document Formatting group) to display the Fonts gallery (Figure 5-13).

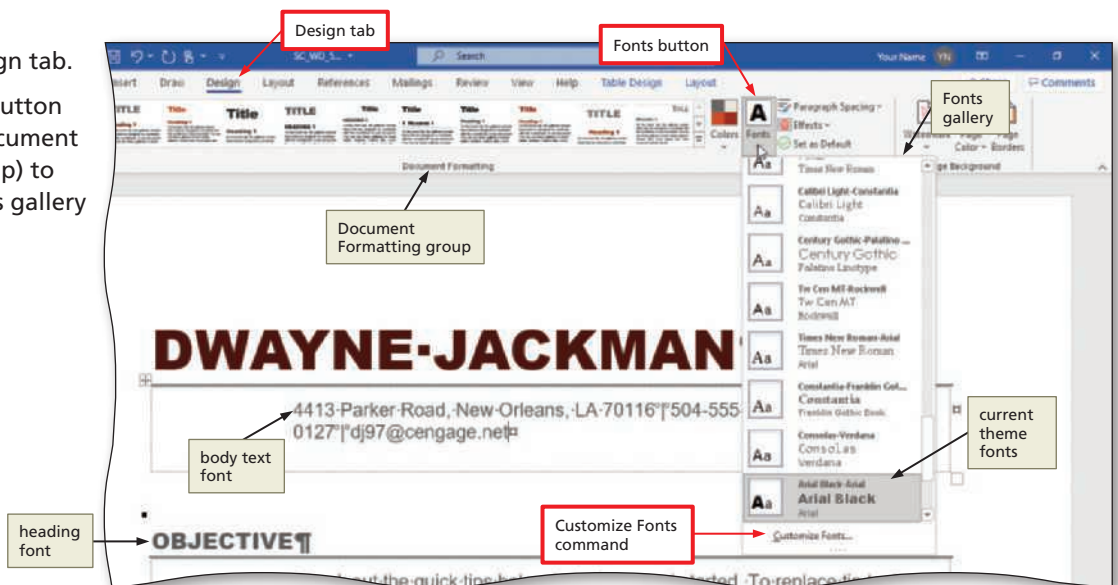


Figure 5-13

- 2
 - Click Customize Fonts in the Fonts gallery to display the Create New Theme Fonts dialog box.
 - Click the Body font arrow (Create New Theme Fonts dialog box); scroll to and then click 'Times New Roman' (or a similar font).
 - If necessary, select any text in the Name text box and then type **Resume Text** as the name for the new theme font (Figure 5-14).



Figure 5-14

- 3**
- Click the Save button (Create New Theme Fonts dialog box) to create the customized theme font with the entered name (Resume Text, in this case) and apply the new body text fonts to the current document (Figure 5–15). (If your contact info does not fit on a single line, adjust the font size so that it looks like Figure 5–15.)



Figure 5–15

To Create Custom Theme Colors

The next step in formatting the online form in this module is to change the color of the text in the document. A document theme has 12 predefined colors for various on-screen objects, including text, backgrounds, and hyperlinks. You can change any of the theme colors. The following steps customize the Orange Red theme applied earlier, changing its designated theme color for text. **Why?** You would like the text in the resume to be a shade of tan, instead of a shade of black.

- 1**
- Click the Colors button (Design tab | Document Formatting group) to display the Colors gallery (Figure 5–16).

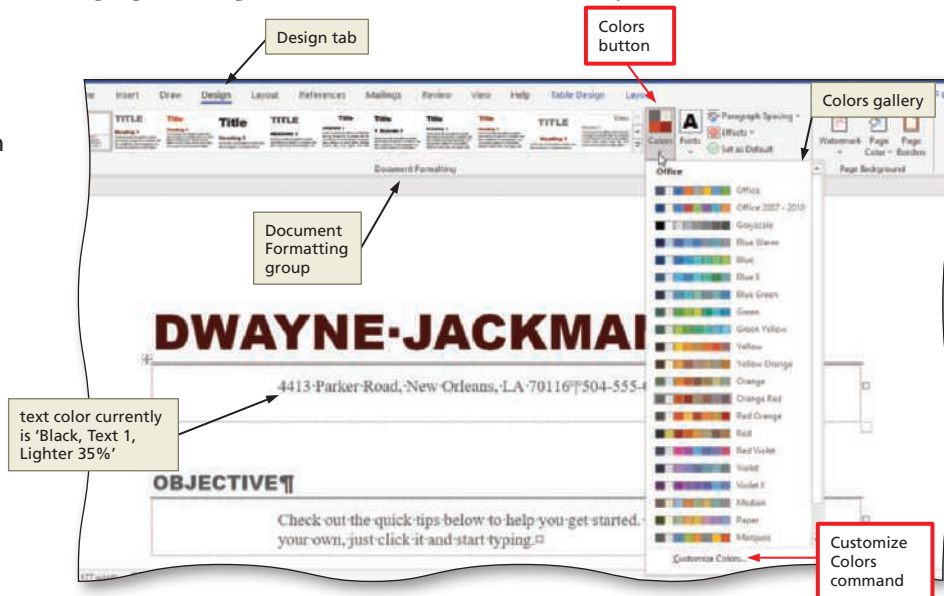


Figure 5–16

- 2**
- Click Customize Colors in the Colors gallery to display the Create New Theme Colors dialog box.
 - Click the 'Text/Background - Dark 1' button (Create New Theme Colors dialog box) to display a color palette (Figure 5–17).

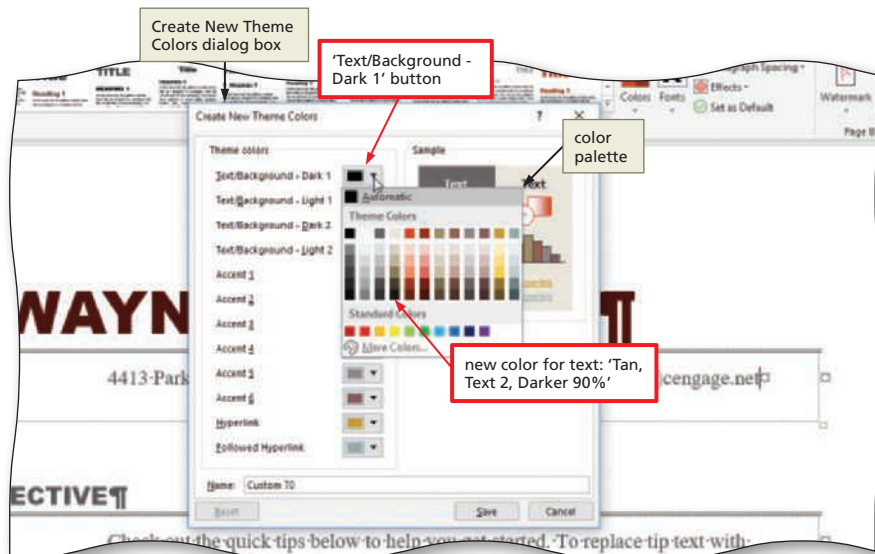


Figure 5–17

3

- Click 'Tan, Text 2, Darker 90%' (fourth color in sixth row) as the new text color.
- If necessary, select any text in the Name text box and then type **Resume Text** (Figure 5–18).

Q&A

What if I wanted to reset all the original theme colors?
 You would click the **Reset** button (Create New Theme Colors dialog box) before clicking the **Save** button.

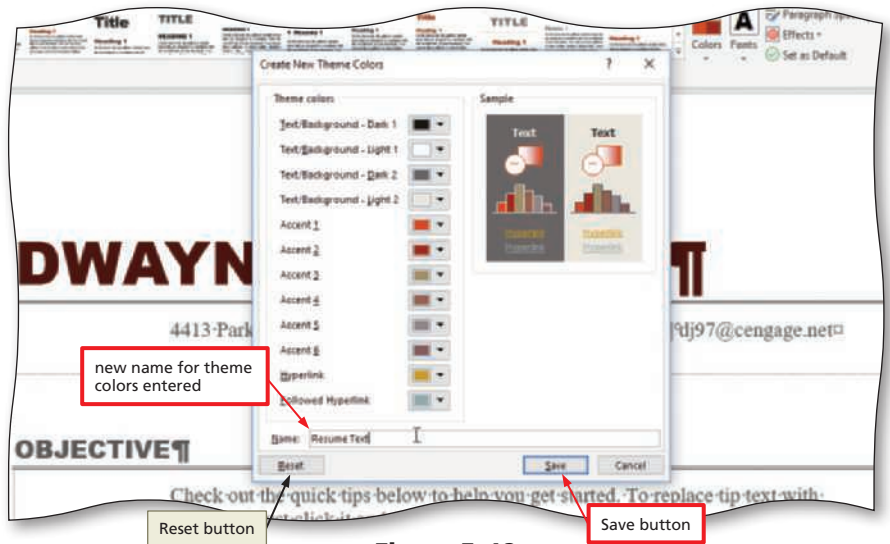


Figure 5–18

4

- Click the **Save** button (Create New Theme Colors dialog box) to save the modified color theme with the name, **Resume Text**, which will be positioned at the top of the Colors gallery for future access, and change the theme colors in the current document (Figure 5–19).

Q&A

What if I do not enter a name for the modified theme?
 Word assigns a name that begins with the letters, **Custom**, followed by a number (i.e., **Custom8**).

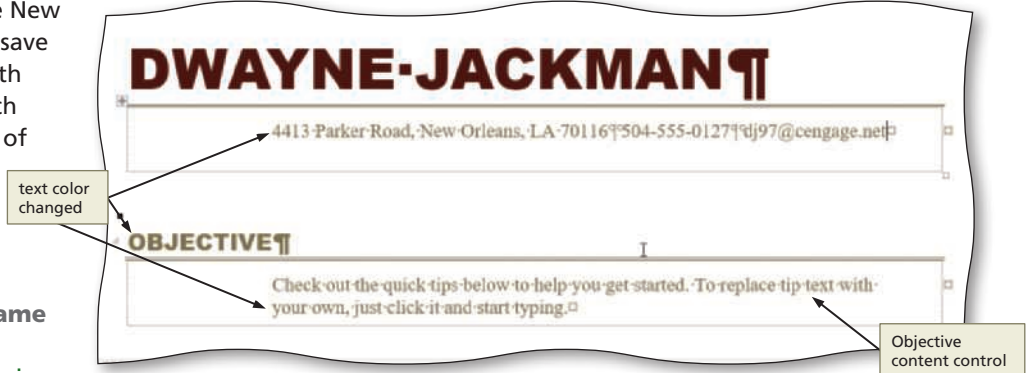


Figure 5–19

Other Ways

1. Make changes to theme colors, fonts, and/or effects; click **Themes** button (Design tab | Document Formatting group), click 'Save Current Theme' in Themes gallery

To SAVE CUSTOMIZED THEMES

When you modify the theme colors, theme fonts, or theme effects, you can save the modified theme for future use. If you wanted to save a customized theme, you would perform the following steps.

1. Click the **Themes** button (Design tab | Document Formatting group) to display the Themes gallery.
2. Click 'Save Current Theme' in the Themes gallery.
3. Enter a theme name in the File name box (Save Current Theme dialog box).
4. Click the **Save** button to add the saved theme to the Themes gallery.

To CHANGE THEME EFFECTS

If you wanted to change the look of graphics, such as SmartArt graphics, you would perform the following steps to change the theme effects.

1. Click the **Effects** button (Design tab | Document Formatting group).
2. Click the desired effect in the Effects gallery.

BTW

Set Theme Settings as the Default

If you wanted to change the default theme, you would select the theme you want to be the default theme, or select the color scheme, font set, and theme effects you would like to use as the default. Then, click the 'Set as Default' button (Design tab | Document Formatting group) (shown in Figure 5-9), which uses the current settings as the new default.

To Enter Text in a Content Control

The following steps select the Objective content control in the resume and then replace its placeholder text with personal information.

BTW

Selecting Rows

To move table rows, you must select them first. To do this, point to the left of the first row to select and then drag downward or upward when the pointer changes to a right-pointing block arrow. If you are using a touch screen, drag the selection handles to select the rows.

- 1** If necessary, scroll to display the Objective section of the resume in the document window.
- 2** In the Objective section of the resume, click the placeholder text that begins, 'Check out the quick tips...', in the Objective content control (shown in Figure 5–19) to select it.
- 3** Type the objective (shown in Figure 5–20): **To obtain a sales representative position with a pharmaceutical sales firm that will allow me to grow professionally.**

To Use Cut and Paste to Move Table Rows and Paragraphs with Source Formatting

In the resume, you would like the Education and Experience sections immediately below the Objective section, in that order. **Why?** You want to emphasize your educational background and experience. Thus, the next step is to move the Education section in the resume below the Objective section by selecting the table row and associated heading paragraph for the Education section, cutting the selected items, and then pasting them from the Office Clipboard to the appropriate location. Then, you will use the same process to move the Experience section so that it appears below the moved Education section. The following steps use cut and paste to move table rows and paragraphs.

- 1**
 - Click the Zoom Out button on the status bar as many times as necessary so that the resume is displayed at 70 percent zoom in the document window.
 - Scroll so that the Objective, Experience, and Education sections appear in the document window at the same time.

- 2**
 - Select the row and heading paragraph to be moved by dragging through it, in this case, the Education section (Figure 5–20).

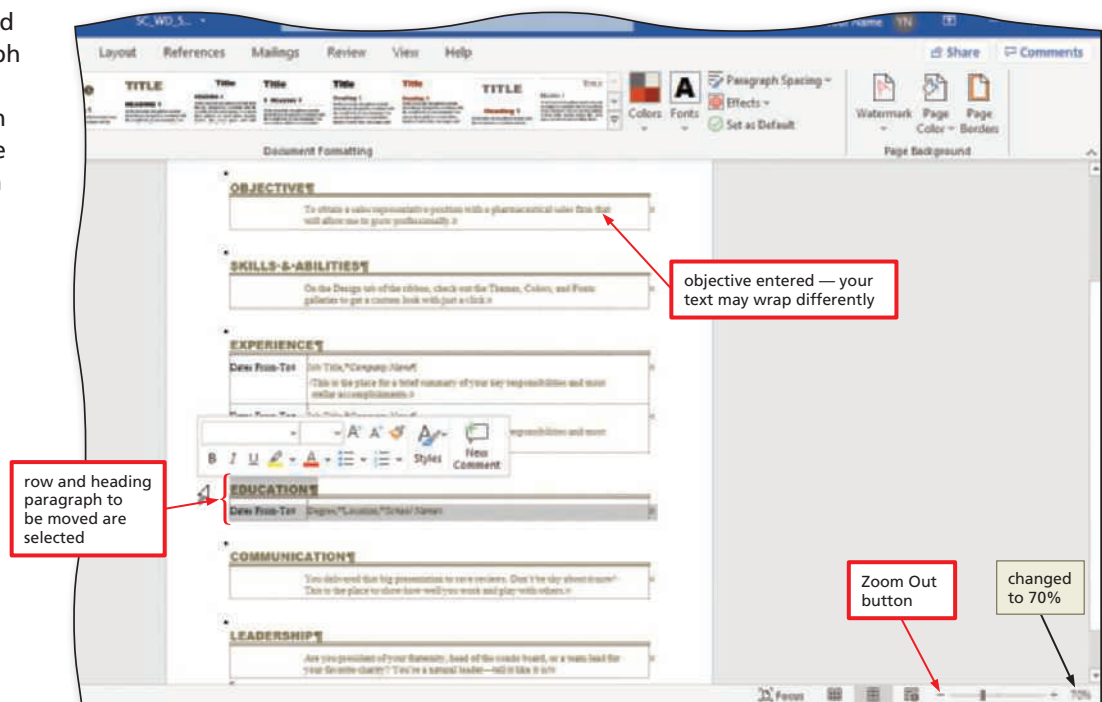


Figure 5–20

3

- Display the Home tab.
- Click the Cut button (Home tab | Clipboard group) to cut the selection and place it on the Office Clipboard.

• Position the insertion point at the location where the cut text is to be moved (pasted), in this case, to the left of the S in the Skills & Abilities heading (you may need to press the LEFT ARROW key after clicking Skills & Abilities to position the insertion point) (Figure 5–21).

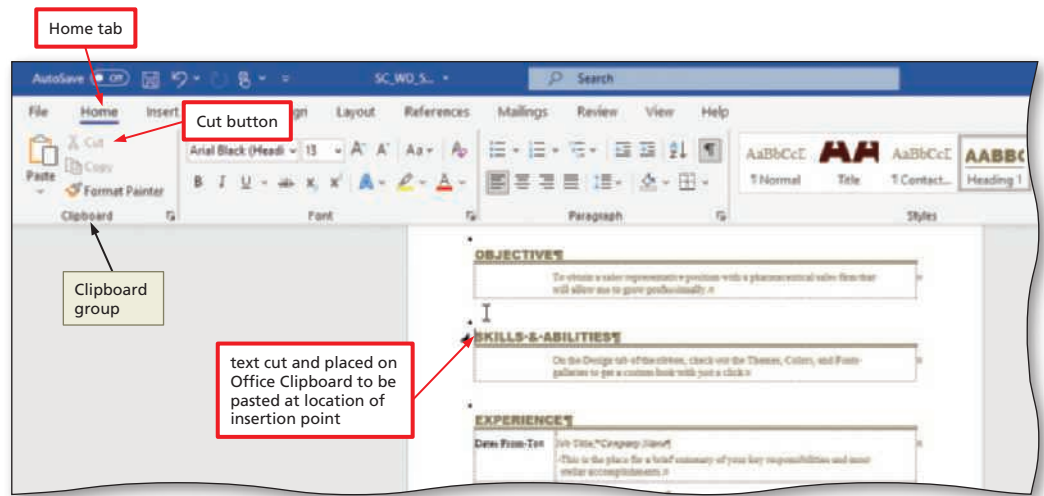


Figure 5–21

4

- Click the Paste arrow (Home tab | Clipboard group) to display the Paste menu.
- Point to the 'Keep Source Formatting' button on the Paste menu to display a Live Preview of that paste option applied to the selected content in the document (Figure 5–22).

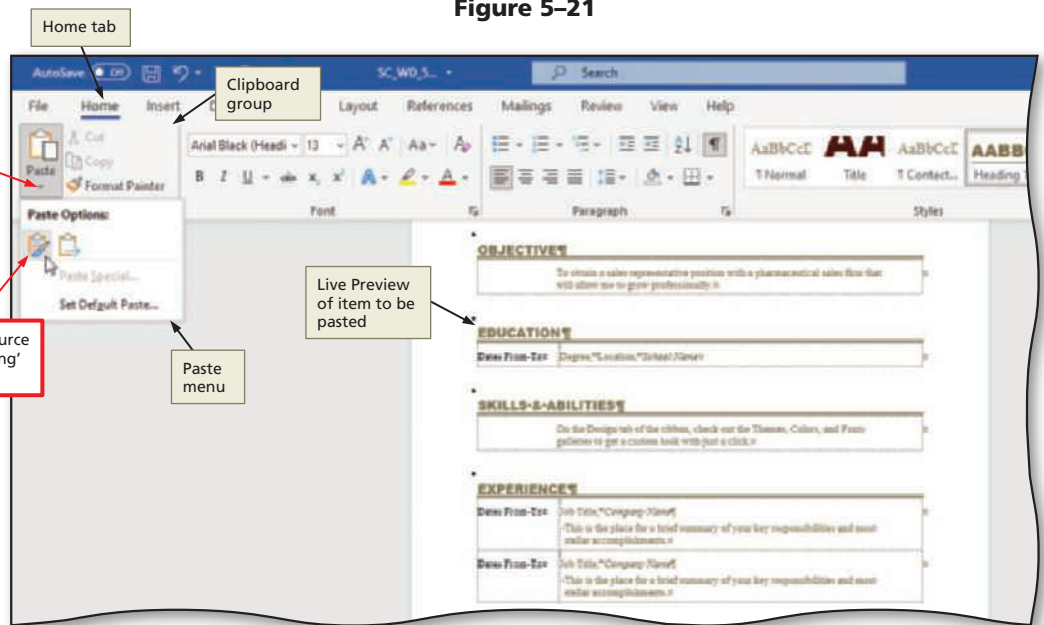


Figure 5–22

5

Experiment

- Point to each paste option button on the Paste menu and watch the Live Preview of the pasted item change.
- Click the 'Keep Source Formatting' button on the Paste menu to paste the content on the Office Clipboard using source formatting at the location of the insertion point.

Q&A

Can I use this procedure to copy and paste an entire table with source formatting?

Yes, you would select the table to be copied, position the insertion point at the location where you want to paste the table, click the Paste arrow, and then click the 'Keep Source Formatting' button on the Paste menu to paste the table with source formatting.

Can I use drag and drop instead of cut and paste to move the selected content?

Yes, but because the resume templates have many individual tables, it often is easier to use cut and paste.

- 6**
- Repeat Steps 2 through 5 to move the rows and heading in the Experience section so that the Experience section is positioned below the Education section (shown in Figure 5–23).

Other Ways

- Right-click selected text, click Cut on shortcut menu or Mini toolbar, right-click where text or object is to be pasted, click 'Keep Source Formatting' on shortcut menu (or, if using touch, tap Paste on Mini toolbar)
- Press CTRL+X, position insertion point where text or object is to be pasted, press CTRL+V

To Copy and Paste a Table Row

In the resume, you copy the row containing the school name information in the Education section so that it appears twice in the Education content control. **Why?** You would like to add two degrees to the resume. The following steps copy and paste a table row.

- 1**
- Select the row to be copied (in this case, the row containing the school information).
 - Click the Copy button (Home tab | Clipboard group) to copy the selected row to the Office Clipboard (Figure 5–23).

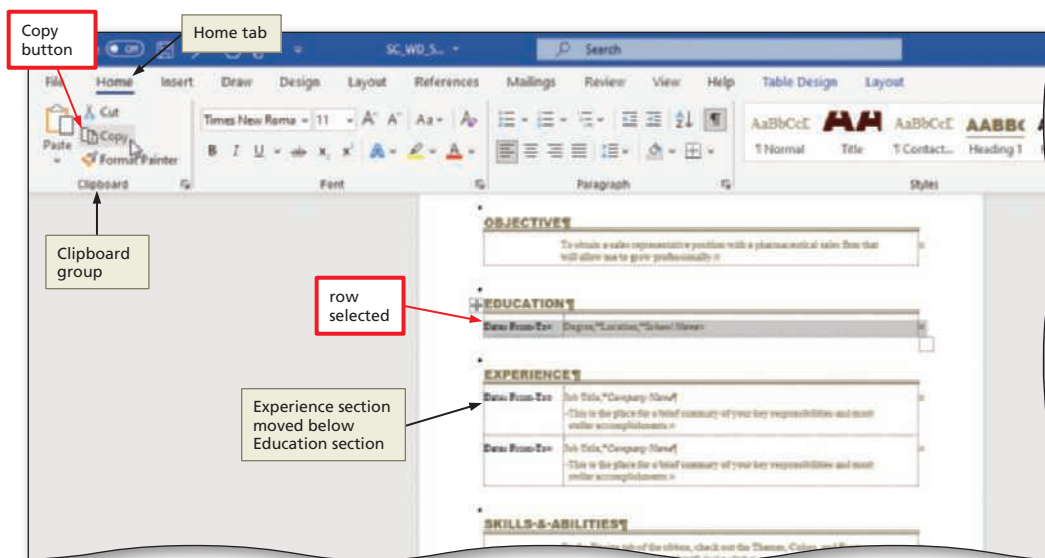


Figure 5–23

- 2**
- Click the Paste button (Home tab | Clipboard group) to paste the copied item below the selection (Figure 5–24).

Q&A **What if I click the Paste arrow by mistake?**

Click the Paste arrow again to remove the Paste menu and repeat Step 2.

What if I wanted to paste in a different location in the document?

You would position the insertion point at the location where the copied item should be pasted and then click the Paste button (Home tab | Clipboard group).

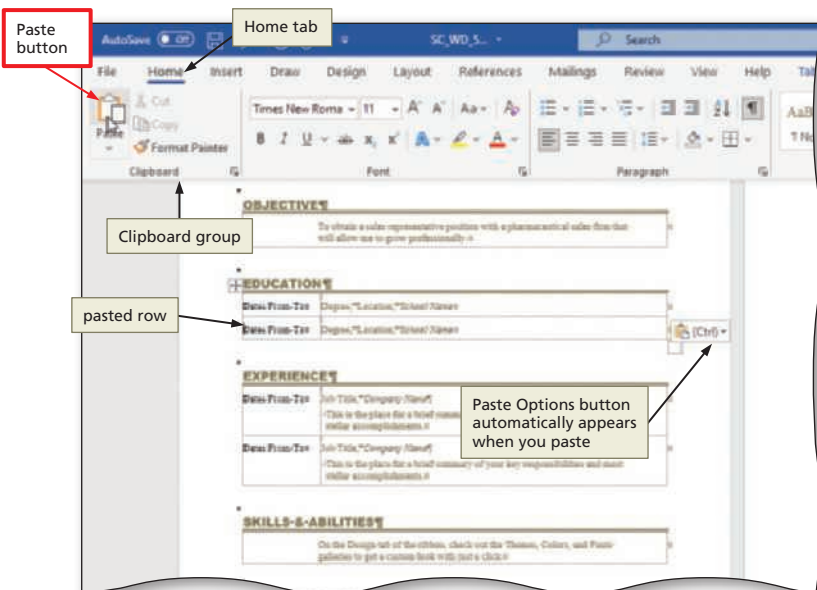


Figure 5–24

Other Ways

1. Click Copy on shortcut menu (or, if using touch, tap Copy on Mini toolbar), right-click where item is to be pasted, click 'Keep Source Formatting' in Paste Options area on shortcut menu (or, if using touch, tap Paste on Mini toolbar)
2. Select item, press CTRL+C, position insertion point at paste location, press CTRL+V

To Delete a Row and Paragraph

Because you will not be using the Skills & Abilities section of the resume template, the next task is to delete this section. The following steps delete a row and a paragraph.

- 1 Select the Skills & Abilities paragraph heading and associated table row (Figure 5–25).
- 2 Press DELETE to delete the selected text and ensure the document has one page only (shown in Figure 5–26).

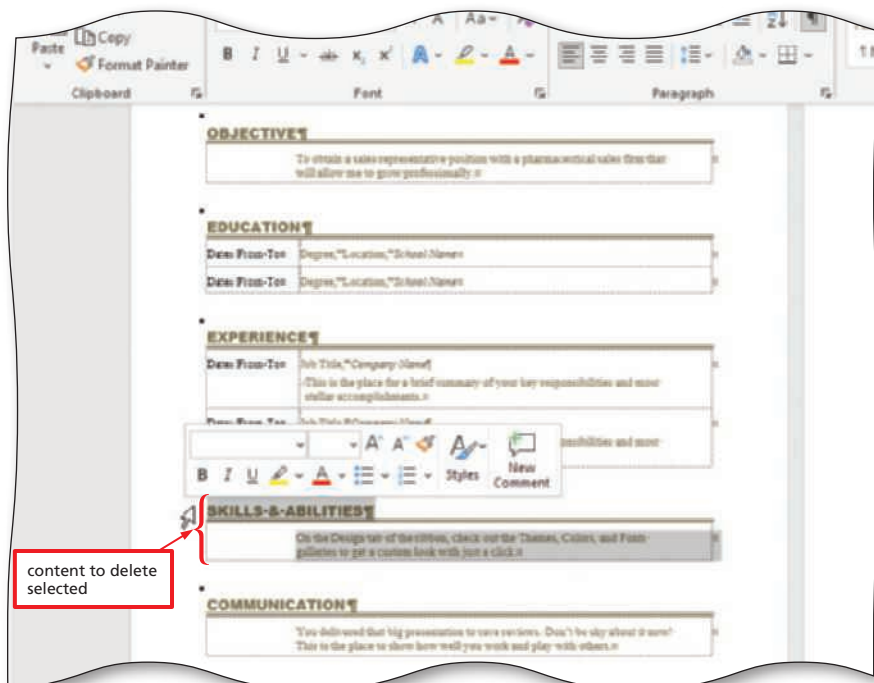


Figure 5–25

To Create a Building Block

If you use the same text or graphic frequently, you can store the text or graphic as a **building block**, which is a ready-made stored text element or graphic that you can insert in a document. That is, you can create the entry once as a building block and then insert the building block when you need it. In this way, you avoid entering text or graphics inconsistently or incorrectly in different locations throughout the same or multiple documents.

The following steps create a building block for the city name, New Orleans. **Why?** You use the city name multiple times throughout the resume and want to use a building block to insert it instead of typing the city name repeatedly.

- 1
 - Select the text to be a building block, in this case, New Orleans, in the contact information at the top of the resume.
 - Display the Insert tab.
 - Click the 'Explore Quick Parts' button (Insert tab | Text group) to display the Explore Quick Parts gallery (Figure 5-26).

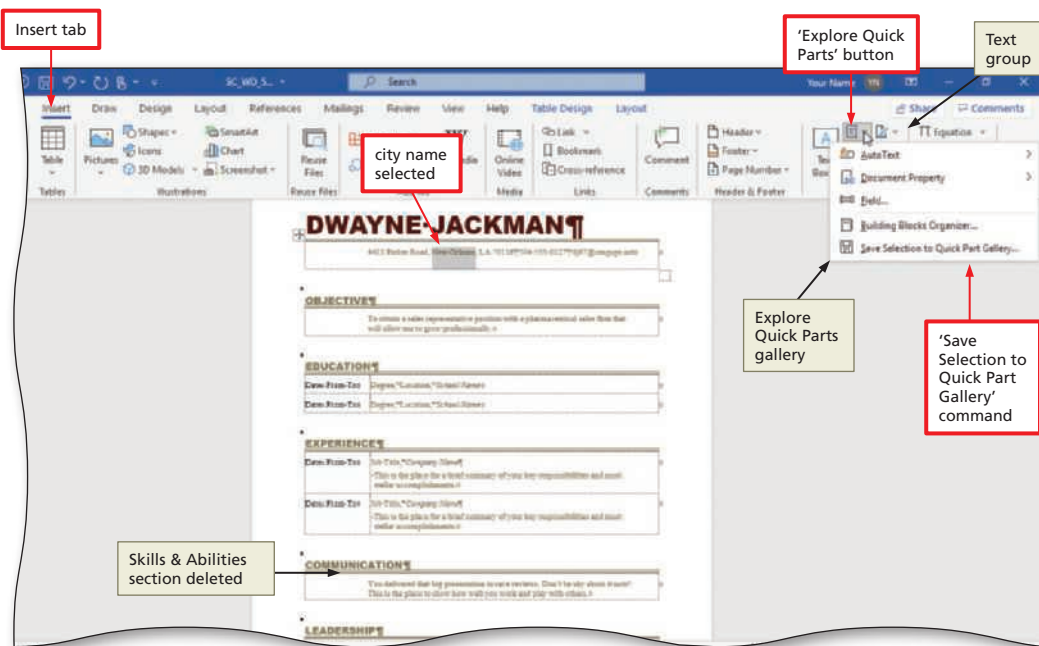


Figure 5-26

- 2
 - Click 'Save Selection to Quick Part Gallery' in the Explore Quick Parts gallery to display the Create New Building Block dialog box.
 - Type **no** in the Name text box (Create New Building Block dialog box) to replace the proposed building block name (New Orleans, in this case) with a shorter building block name (Figure 5-27).

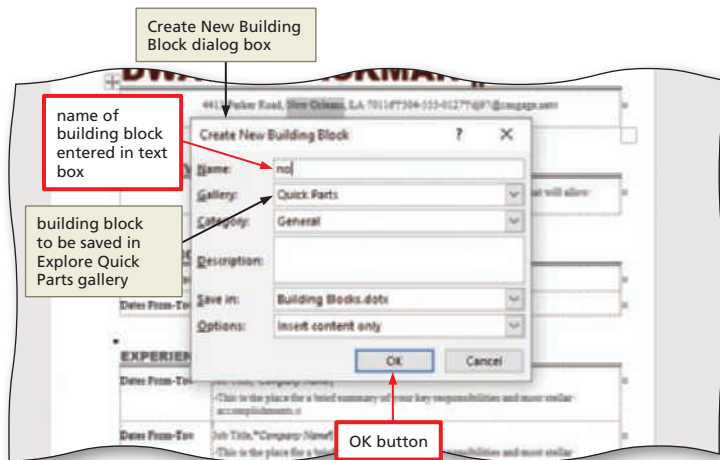


Figure 5-27

- 3
 - Click OK to store the building block entry and close the dialog box.
 - If Word displays another dialog box, click Yes to save changes to the building blocks.

Q&A Will this building block be available in future documents?

When you exit Word, a dialog box may appear asking if you want to save changes to the building blocks. Click Save if you want to use the new building block in future documents.

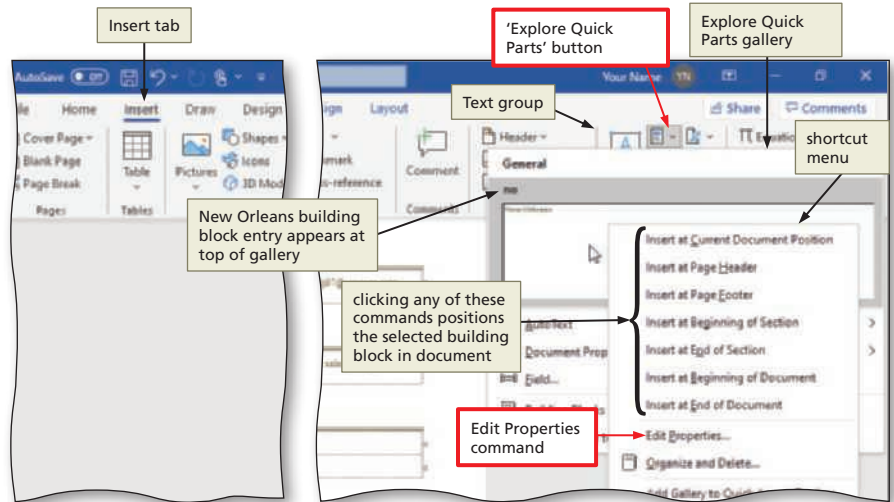
To Modify a Building Block

When you save a building block in the Explore Quick Parts gallery, the building block is displayed at the top of the Explore Quick Parts gallery. When you point to the building block in the Explore Quick Parts gallery, a ScreenTip displays the building block name. If you want to display more information when the user points to the building block, you can include a description in the ScreenTip.

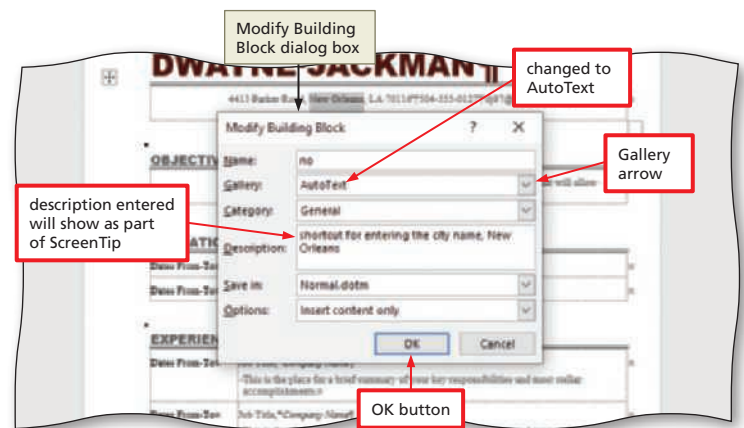
The following steps modify a building block to include a description and change its category to AutoText. **Why?** Because you want to reuse this text, you place it in the AutoText gallery, which also is accessible through the Explore Quick Parts gallery.

1

- Click the 'Explore Quick Parts' button (Insert tab | Text group) to display the Explore Quick Parts gallery.
- Right-click the New Orleans building block to display a shortcut menu (Figure 5–28).

**Figure 5–28****2**

- Click Edit Properties on the shortcut menu to display the Modify Building Block dialog box, filled in with information related to the selected building block.
- Click the Gallery arrow (Modify Building Block dialog box) and then click AutoText to change the gallery in which the building block will be placed.
- Type **shortcut for entering the city name, New Orleans** in the Description text box (Figure 5–29). (Note that depending on settings, your dialog box may display the extension of .dotm after Normal in the Save in box.)

**Figure 5–29****3**

- Click OK to store the building block entry and close the dialog box.
- Click Yes when asked if you want to redefine the building block entry.

To Use AutoComplete

As you begin typing, Word may display a ScreenTip that presents a suggestion for the rest of the word or phrase you are typing. **Why?** With its AutoComplete feature, Word predicts the text, numbers, dates, or phrases you are typing and displays its prediction in a ScreenTip. If the AutoComplete prediction is correct, you can instruct Word to finish your typing with its prediction, or you can ignore Word's prediction. Word draws its AutoComplete suggestions from its dictionary and from AutoText entries you create and save in the Normal template.

The following steps use the AutoComplete feature as you type the graduation date in the Education section of the resume.

1

- Change the zoom to page width.
- In the first row of the Education section of the resume, click the content control that says, Dates From, to select it, and then type **Sept** and notice the AutoComplete ScreenTip that appears on the screen (Figure 5–30).

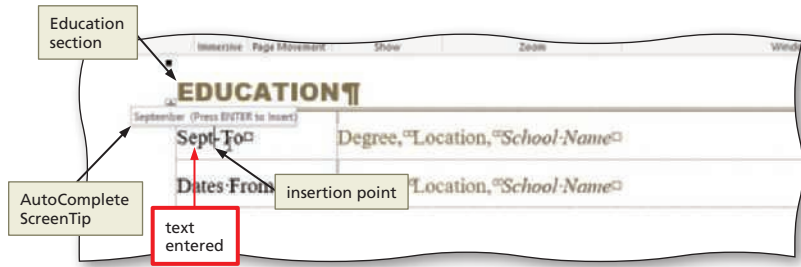


Figure 5–30

Q&A Why would my screen not display the AutoComplete ScreenTip?

Depending on previous Word entries, you may need to type more characters in order for Word to predict a particular word or phrase accurately. Or, you may need to turn on AutoComplete by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the Word Options dialog box, clicking Advanced in the left pane (Word Options dialog box), placing a check mark in the 'Show AutoComplete suggestions' check box, and then clicking OK.

2

- Press ENTER to instruct Word to finish your typing with the word or phrase that appeared in the AutoComplete ScreenTip.

Q&A What if I do not want to use the text proposed in the AutoComplete ScreenTip?

Simply continue typing and the AutoComplete ScreenTip will disappear from the screen.

3

- Press SPACEBAR. Type **2018** and then click the content control that says, To, to select it. Type **May 2020** to enter the date (shown in Figure 5–31).

To Insert a Building Block

The city name, New Orleans, appears in the degree in the Education section of the resume. You will type the building block name, no, and then instruct Word to replace this building block name with the stored building block entry, New Orleans. The following steps insert a building block. **Why? Instead of typing the name, you will insert the stored building block.**

1

- Click the content control that says, Degree, to select it, and then type **B.S. Public Health** as the degree name.
- Click the content control that says, Location, to select it, and then type the building block name, **no** (Figure 5–31).

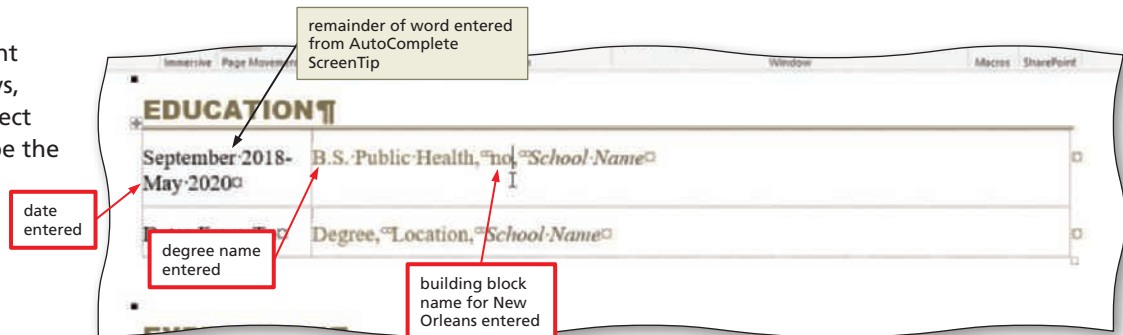
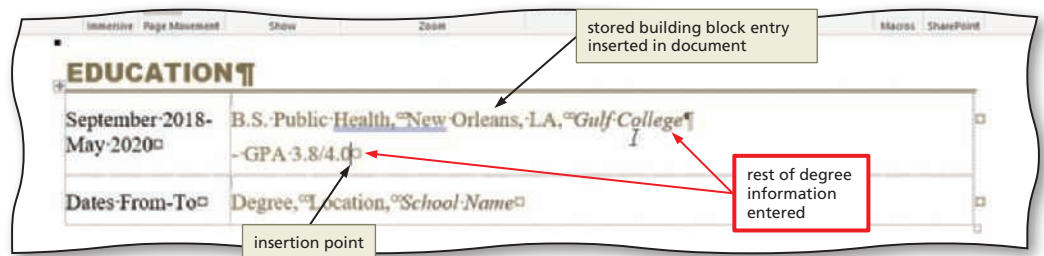


Figure 5–31

2

- Press F3 to instruct Word to replace the building block name (no) with the stored building block entry (New Orleans).
- Type **, LA** as the state.

- Click the content control that says, School Name, and then type **Gulf College** as the school name.
- Press ENTER and then type
 - GPA 3.8/4.0
 (Figure 5–32).

**Figure 5–32**

(If your GPA is italicized, select the line containing the GPA and then press CTRL+I to remove the italic format.)

Other Ways

1. Click 'Explore Quick Parts' button (Insert tab | Text group), if necessary point to AutoText, select desired building block
2. Click 'Explore Quick Parts' button (Insert tab | Text group), click 'Building Blocks Organizer', select desired building block, click Insert button

Building Blocks versus AutoCorrect

The AutoCorrect feature enables you to insert and create AutoCorrect entries, similarly to how you created and inserted building blocks in this module. The difference between an AutoCorrect entry and a building block entry is that the AutoCorrect feature makes corrections for you automatically as soon as you press SPACEBAR or type a punctuation mark, whereas you must instruct Word to insert a building block. That is, you enter the building block name and then press F3, or click the Quick Parts button and then select the building block from one of the galleries or the Building Blocks Organizer.

BTW

Building Blocks

If you wanted to make building blocks available in other documents and templates, instead of just the current document or template, you would save them in the Normal .dotm file instead of the Building Blocks.dotx file. To do this, click the 'Explore Quick Parts' button (Insert tab | Text group), click 'Building Blocks Organizer' in the Explore Quick Parts gallery, click the building block for which you want to change the save location, click the Edit Properties button (Building Blocks Organizer dialog box), click the Save in arrow (Modify Building Block dialog box), select Normal in the list, click OK (Modify Building Block dialog box), and then close the Building Blocks Organizer dialog box.

To Enter Text in Content Controls

The next step is to enter the rest of the text in the Education section of the resume. The following steps enter text in content controls.

- 1 In the second row of the Education section of the resume, click the content control that says, Dates From, to select it, and then type **September 2016** as the from date.
- 2 Click the content control that says, To, to select it, and then type **May 2018** as the end date.
- 3 Click the content control that says, Degree, to select it, and then type **A.S. Nursing** as the degree name.
- 4 Click the content control that says, Location, to select it, and then type **no** as the building block name. Press F3 to instruct Word to replace the building block name (no) with the stored building block entry (New Orleans).
- 5 Type **, LA** as the state.
- 6 Click the content control that says, School Name, and then type **Bridgeview College** as the school name.
- 7 Press ENTER and then type **- GPA 3.9/4.0** (Figure 5–33). (If your GPA is italicized, select the line containing the GPA and then press CTRL+I to remove the italic format.)

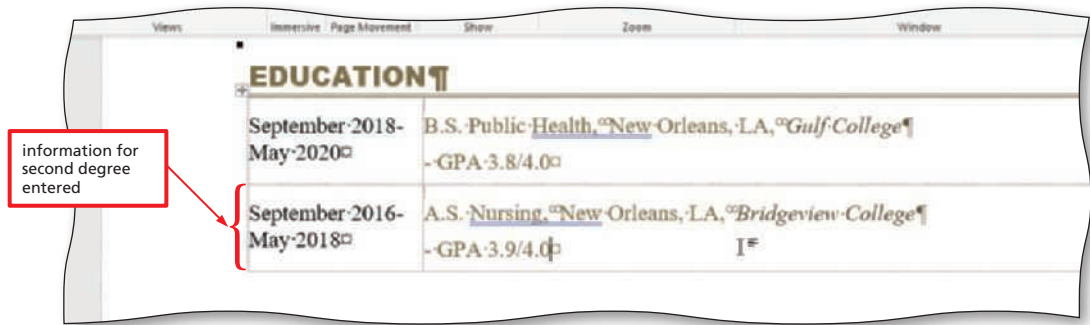


Figure 5-33

To Delete a Row

Because you have only one job to list in the Experience section, the next step is to delete the second row in the Experience section. The following steps delete a row.

- 1 Position the insertion point somewhere in the second row of the Experience section, as shown in Figure 5-34.
- 2 Display the Layout tab.
- 3 Click the Delete button (Layout tab | Rows & Columns group) to display the Delete menu (Figure 5-34).
- 4 Click Delete Rows on the Delete menu to delete the row containing the insertion point (in this case, the second row in the Experience section) (shown in Figure 5-35).

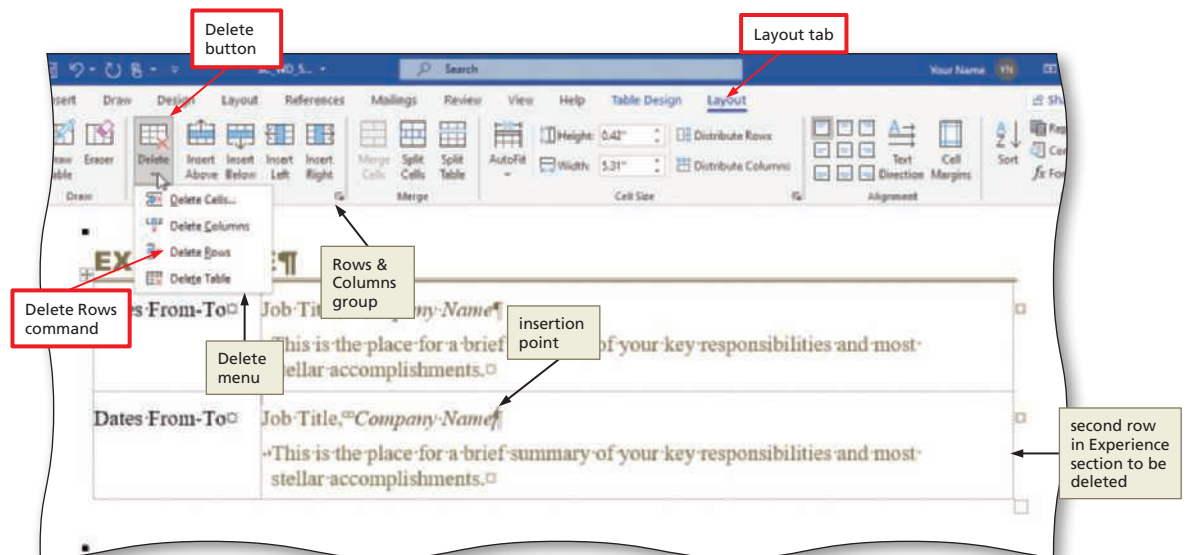


Figure 5-34

To Enter Text in Content Controls

The next step is to enter the job experience information in the Experience section of the resume. The following steps enter text in content controls.

- 1 In the row of the Experience section of the resume, click the content control that says, Dates From, to select it, and then type **November 2018** as the from date.
- 2 Click the content control that says, To, to select it, and then type **Present** as the end date.

- 3 Click the content control that says, Job Title, to select it, and then type **Customer Service Agent, New Orleans, LA** for the job title, city, and state (be sure to use the building block name for the city name, New Orleans).
- 4 Click the content control that says, Company Name, and then type **Harbor Nutrition** as the company name.
- 5 Click the content control that begins, 'This is the place for ...', and then type **Answer customer queries onsite, on the phone, and via online chat; set up rewards memberships; generate new customers by cold calling; meet with suppliers** (Figure 5-35).

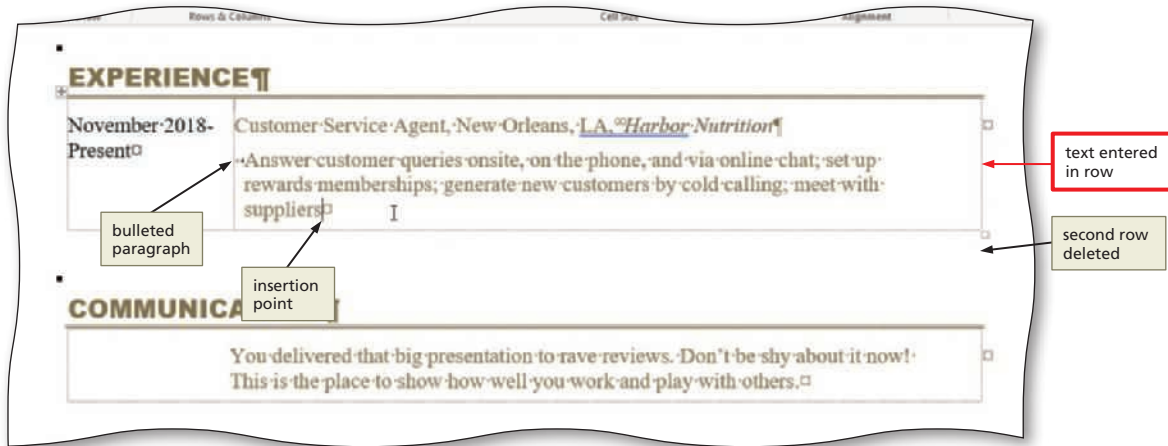


Figure 5-35

To Remove Bullets from a Paragraph

You do not want the experience entry to be a list. Thus, the following steps remove bullets from a list.

- 1 Display the Home tab.
- 2 With the insertion point in the bulleted paragraph, click the Bullets button (Home tab | Paragraph group) to remove the bullet from the paragraph (Figure 5-36).

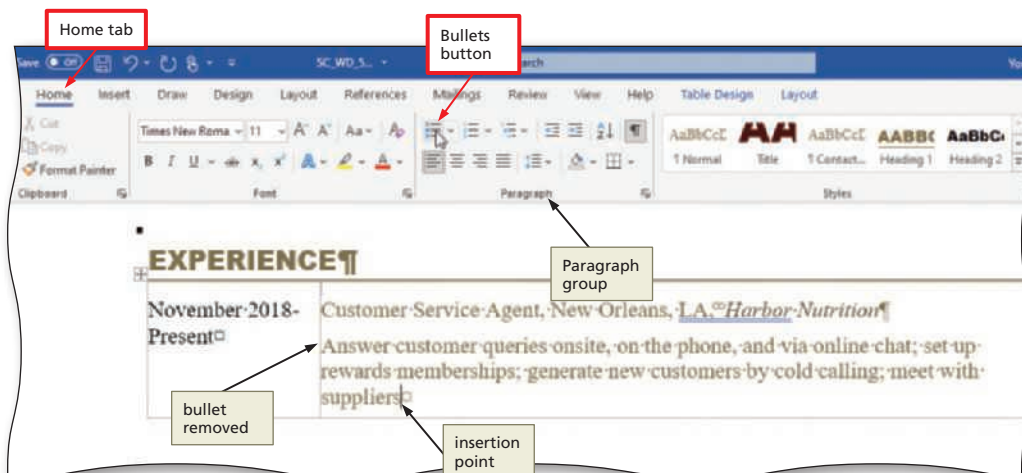


Figure 5-36

To Resize Table Columns

You do not want the dates to wrap in the Education and Experience sections of the resume. Thus, you will widen the columns containing these dates. The following steps resize table columns to make them wider.

- 1 Display the Education and Experience sections in the document window.
- 2 Position the pointer on the column boundary to the right of the column to adjust (in this case, to the right of the first column of dates in the Education section) so that the pointer changes to a double-headed arrow split by two vertical bars.
- 3 Drag the column boundary to the right so that Word adjusts the column width so that the from and to dates fit on a single line.
- 4 Position the pointer on the column boundary to the right of the column to adjust (in this case, to the right of the first column of dates in the Experience section) so that the pointer changes to a double-headed arrow split by two vertical bars.
- 5 Drag the column boundary to the right so that Word adjusts the column width so that the from and to dates fit on a single line and this column is the same width as the one containing dates in the Education section (Figure 5–37).

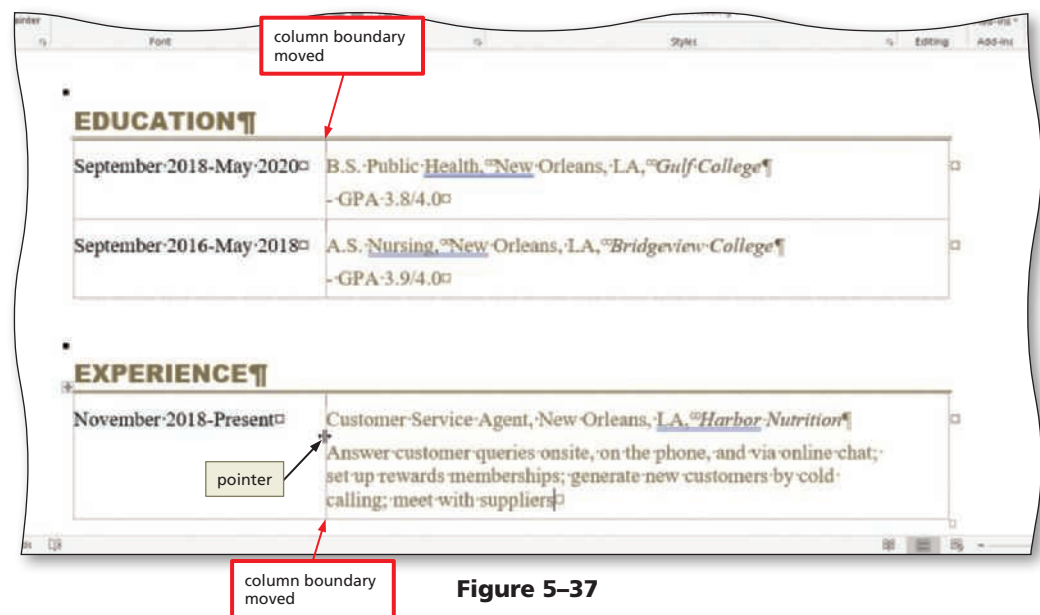


Figure 5–37

To Enter Text in a Content Control

The following step enters the heading in the Certifications section of the resume.

- 1 Click the Communication content control and then type **Certifications** as the heading (shown in Figure 5–38).

To Enter a Line Break

The next step in personalizing the resume is to enter content in the Certifications section. The default paragraph spacing in the resume placed 5 points after each line. For the list of certifications, you do not want this extra space after paragraphs. Thus, you will not press ENTER between each line. Instead, you will create a line break. **Why?** A line break, which is created by pressing SHIFT+ENTER, inserts a nonprinting character that advances the insertion point to the beginning of the next physical line, ignoring any paragraph formatting. The following steps enter the list of certifications using a line break, instead of a paragraph break, between each line.

1

- In the Certifications section of the resume, click the content control that begins, 'You delivered that ...', to select it.
- Type **Certified Nursing Assistant (CNA)** and then, if Word automatically changed (corrected) the letters CNA to CAN, press CTRL+Z to undo the autocorrection.
- Press SHIFT+ENTER to insert a line break character and move the insertion point to the beginning of the next physical line (Figure 5–38).

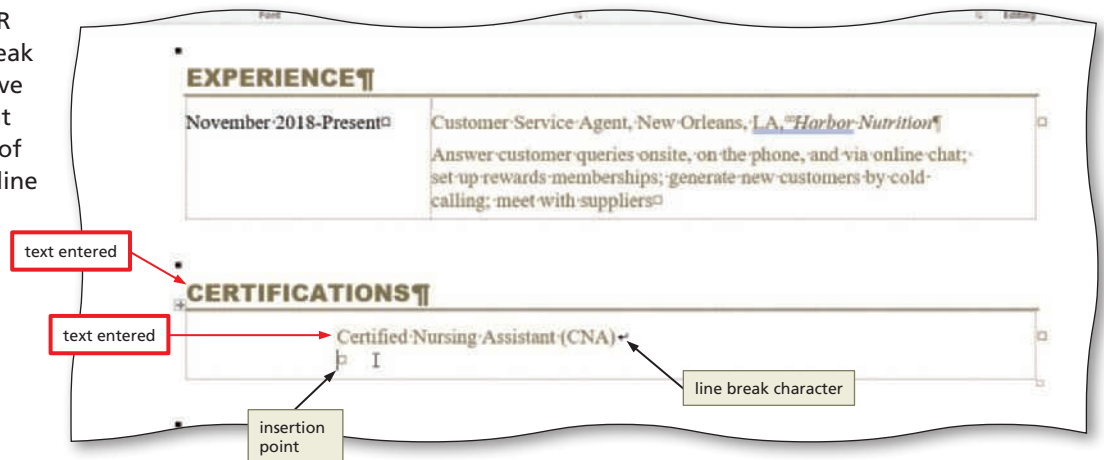


Figure 5–38

2

- Type **Adult and Pediatric CPR** and then press SHIFT+ENTER.
- Type **Red Cross Certified Lifeguard** as the last entry. Do not press SHIFT+ENTER at the end of this line (Figure 5–39).

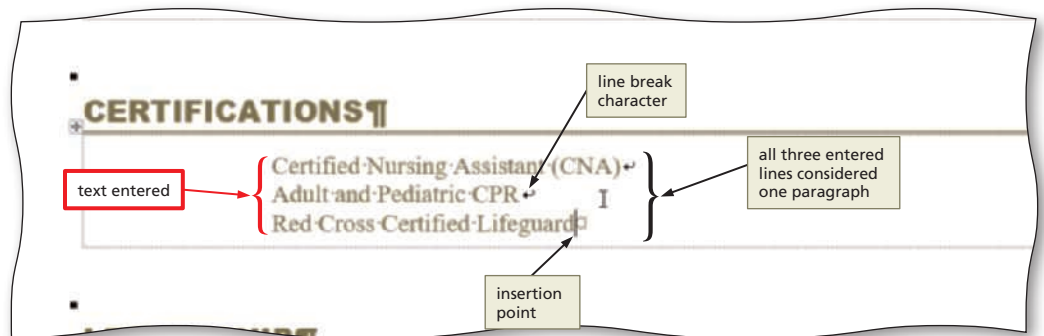


Figure 5–39

To Enter Text in Content Controls

The next step is to begin to enter content in the Community Service section of the resume. This should be a bulleted list. The following steps enter text in content controls.

BTW

Line Break Characters

A line break character is a formatting mark that indicates a line break at the end of the line. Like paragraph marks, tab characters, and other formatting marks, line break characters do not print.

- 1 Click the Leadership content control and then type **Community Service** as the heading (shown in Figure 5–40).
- 2 In the Community Service section of the resume, click the content control that begins, 'Are you president of ...', to select it.
- 3 Click the Bullets button (Home tab | Paragraph group) to format the current paragraph as a bulleted list item.
- 4 Type this text, making sure you use the building block for New Orleans: **Organize and implement public health awareness programs for New Orleans Medical Center, 2017-Present** (Figure 5–40).

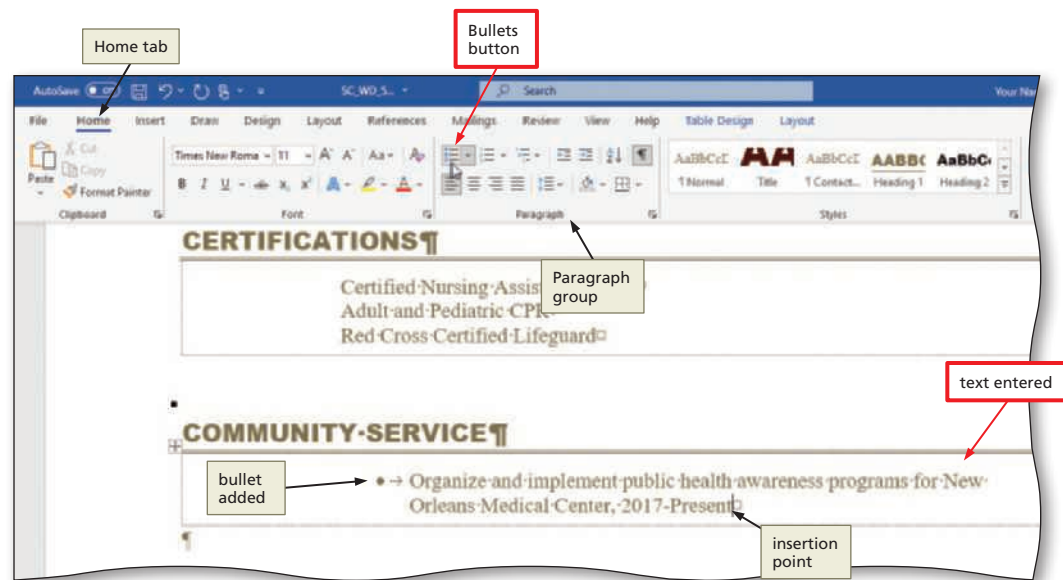


Figure 5–40

To Decrease Indent of a Paragraph

The next step is to decrease the indent of the bulleted paragraph because you want the bullet character to be aligned with the certifications listed in the Certification section. The following steps decrease the indent of a paragraph and enter the remainder of the bulleted list items.

- 1 With the insertion point in the bulleted paragraph, as shown in Figure 5–40, click the Decrease Indent button (Home tab | Paragraph group) to decrease the indent of the bulleted list item.
- 2 Press ENTER and then type **Volunteer at annual flu shot clinic, 2016-Present** to enter the second community service item.
- 3 Press ENTER and then type **Volunteer at Lafayette Free Clinic, 2016-Present** to enter the third community service item.
- 4 Press ENTER and then type **Participant at Gulf College's phone-a-thon fundraiser, 2018-Present** to complete the bulleted list (Figure 5–41).

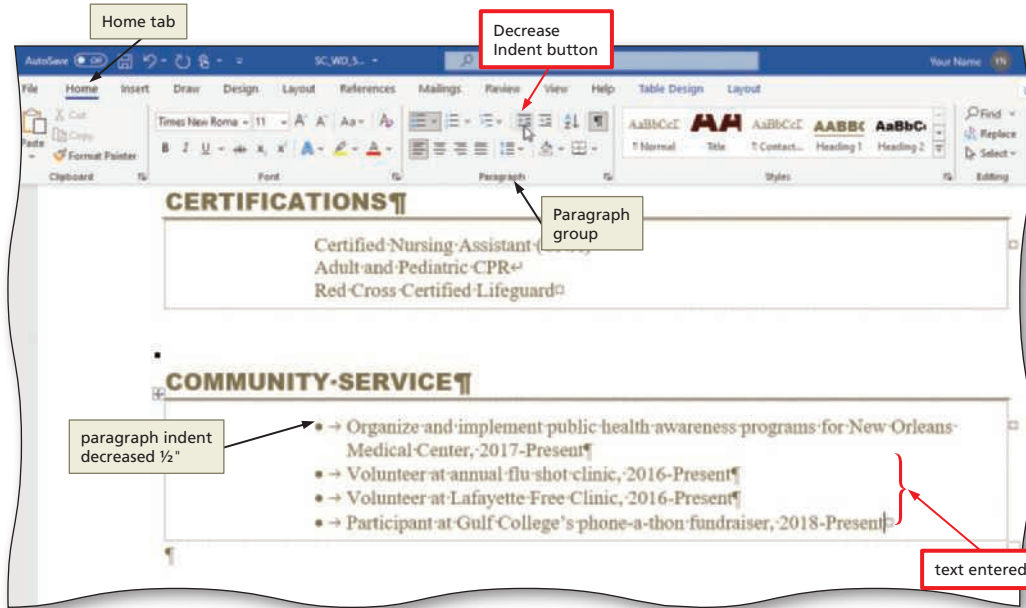


Figure 5-41

To Change a Bullet to a Predefined Symbol

The next step is to change the bullet character in the bulleted list in the Community Service section from a dot to a square. The following steps change a bullet character.

- 1 Select the bulleted list in the Community Service section.
- 2 Click the Bullets arrow (Home tab | Paragraph group) to display the Bullets gallery (Figure 5-42).
- 3 Click the desired bullet character in the Bullets gallery, in this case, the square, to change the bullet character in the selected bulleted list (shown in Figure 5-43).
- 4 Click anywhere to remove the selection from the text.
- 5 Save the resume again on the same storage location with the same file name.

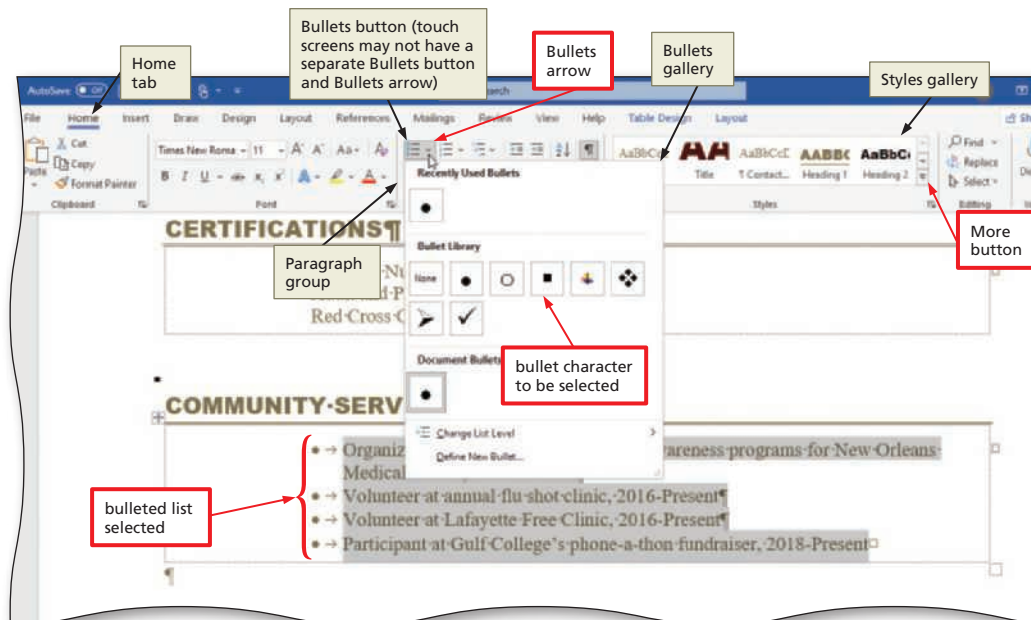


Figure 5-42

BTW

Working with Lists

In a numbered list, if you wanted to restart numbering, you would click the Numbering arrow, click 'Set Numbering Value' in the Numbering Library gallery to display the Set Numbering Value dialog box, if necessary, click to select the 'Start new list' option button (Set Numbering Value dialog box), and then click OK. To continue list numbering in a subsequent list, you would click the 'Continue from previous list' option button in the Set Numbering Value dialog box. You also can specify a starting number in a list by clicking the Numbering arrow, clicking 'Set Numbering Value' on the Numbering menu, and then entering the value in the 'Set value to' box (Set Numbering Value dialog box).

To Create a Paragraph Style

A style is a predefined set of formats that appears in the Styles gallery. In addition to using styles in the Styles gallery to apply formats to text and updating existing styles, you also can create your own styles.

The next task in this project is to create a style for the dates in the resume. **Why?** To illustrate creating a style, you will change the color of a date range in the resume and save the new format as a style. Then, you will apply the newly defined style to the remaining dates in the resume. The following steps format text and then create a style based on the formats in the selected text.

1

- Select the date range in the Experience section and then use the Font Color gallery to change the color of the selected text to 'Dark Red, Accent 2, Darker 50%'.
- Click the More button (shown in Figure 5-42) in the Styles gallery (Home tab | Styles group) to expand the gallery (Figure 5-43).

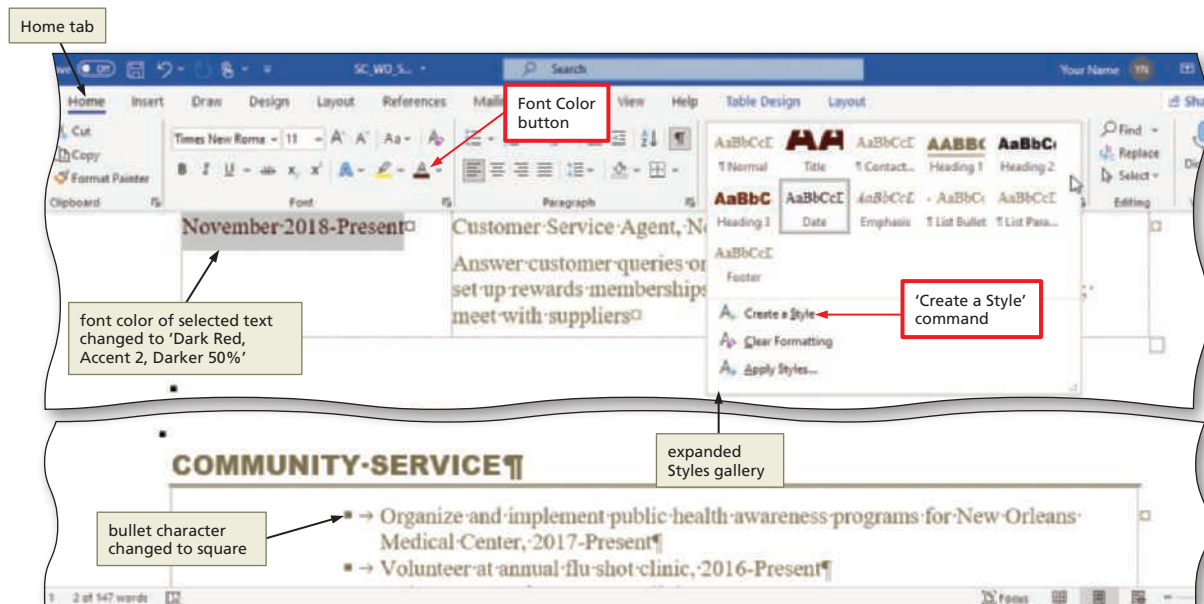


Figure 5-43

2

- Click 'Create a Style' in the Styles gallery to display the Create New Style from Formatting dialog box.
- Type **Resume Dates** in the Name text box (Create New Style from Formatting dialog box) (Figure 5-44).

3

- Click OK to create the new style and add it to the Styles gallery (shown in Figure 5-45).

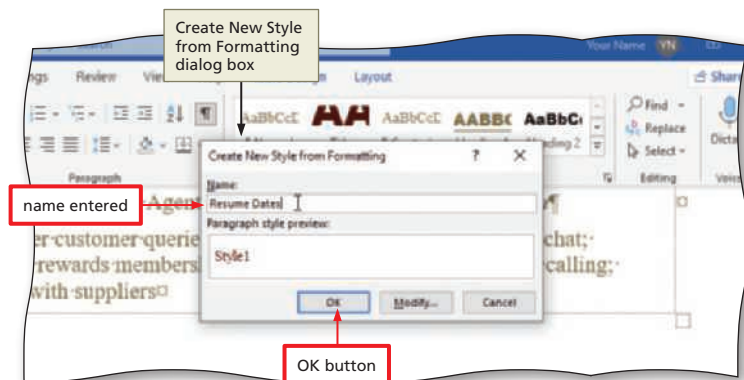


Figure 5-44

Q&A How can I see the style just created?

If the style name does not appear in the in-ribbon Styles gallery, click the More button in the Styles gallery (Home tab | Styles group) to display the expanded Styles gallery.

To Apply a Style

The next task is to apply the style just created to the other dates in the resume. The following step applies a style.

- 1 One at a time, position the insertion point in the remaining dates in the Education section of the resume and then click Resume Dates in the Styles gallery to apply the selected style to each heading (shown in Figure 5-45).

To Reveal Formatting

Sometimes, you want to know which formats were applied to certain text items in a document. **Why?** For example, you may wonder which font, font size, font color, and other effects were applied to the dates in the resume. To display formatting applied to text, use the Reveal Formatting pane. The following steps open and then close the Reveal Formatting pane.

- 1
 - Position the insertion point in the text for which you want to reveal formatting (in this case, the dates in the Education section).
 - Press SHIFT+F1 to open the Reveal Formatting pane, which shows formatting applied to the location of the insertion point (Figure 5-45). (If necessary, drag the edge of the pane to widen or narrow it.)



Experiment

- Click the Font collapse button to hide the Font formats. Click the Font expand button to redisplay the Font formats.

Q&A

Why do some of the formats in the Reveal Formatting pane appear as links?

Clicking a link in the Reveal Formatting pane displays an associated dialog box, allowing you to change the format of the current text. For example, clicking the Font link in the Reveal Formatting pane would display the Font dialog box. If you made changes in the Font dialog box and then clicked OK, Word would change the format of the current text.

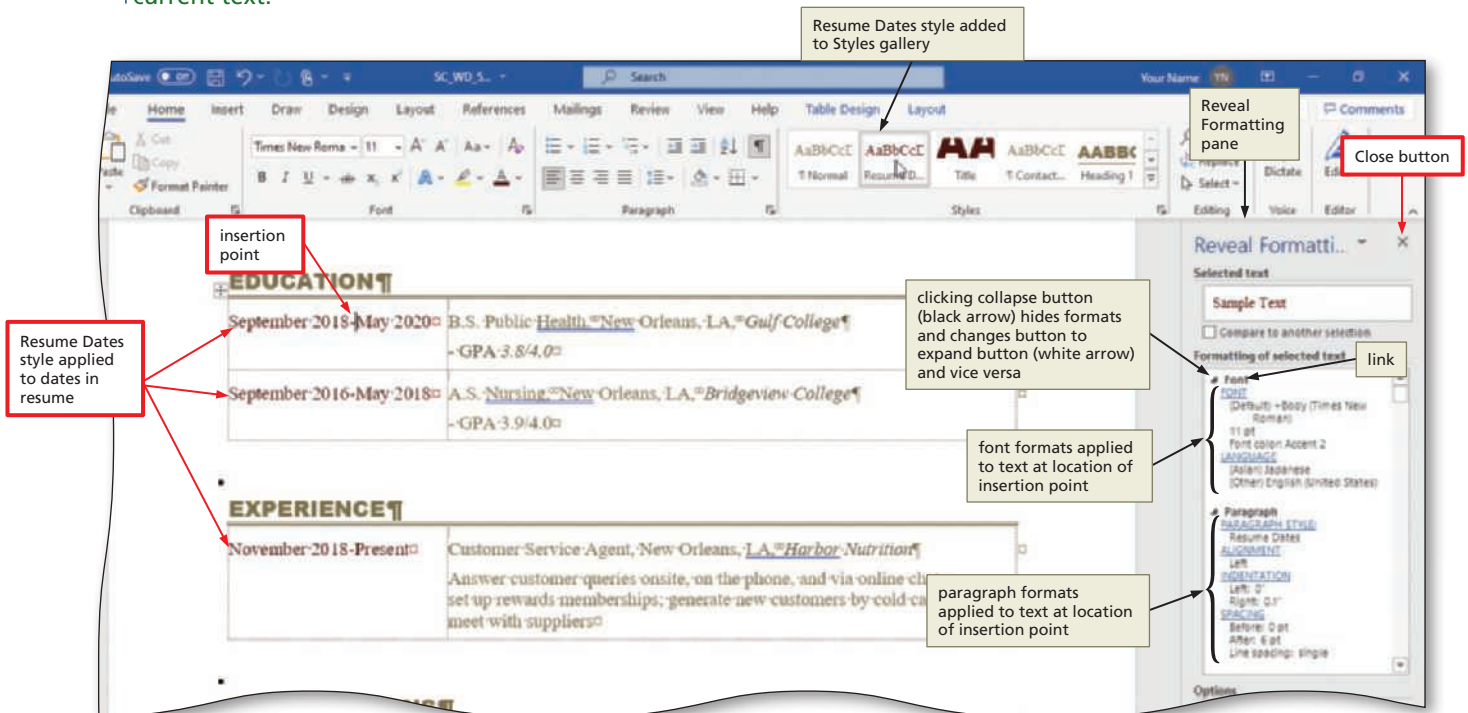


Figure 5-45

- 2
 - Close the Reveal Formatting pane by clicking its Close button.

To Modify a Style Using the Styles Dialog Box

The next step is to modify the Normal style. **Why?** The tan text in the resume is a little light. You prefer that it be a bit darker. Thus, the following steps modify a style.

- 1
 - Right-click the style name to modify in the Styles gallery (Normal in this case) (Home tab | Styles group) to display a shortcut menu (Figure 5-46).

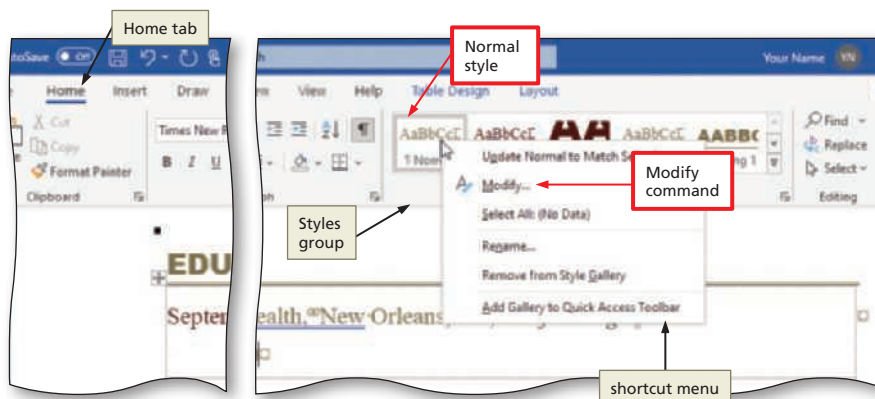


Figure 5-46

- 2
 - Click Modify on the shortcut menu to display the Modify Style dialog box.
 - Click the Font Color arrow (Modify Style dialog box) and then click 'Brown, Text 1, Lighter 25%' (second color, fifth row) in the Font Color gallery to change the font color of the current style (Figure 5-47).

Q&A What is the purpose of the Format button in the Modify Style dialog box? If the formatting you wish to change for the style is not available in the Modify Style dialog box, you can click the Format button and then select the desired command after you click the Format button to display a dialog box that contains additional formatting options.

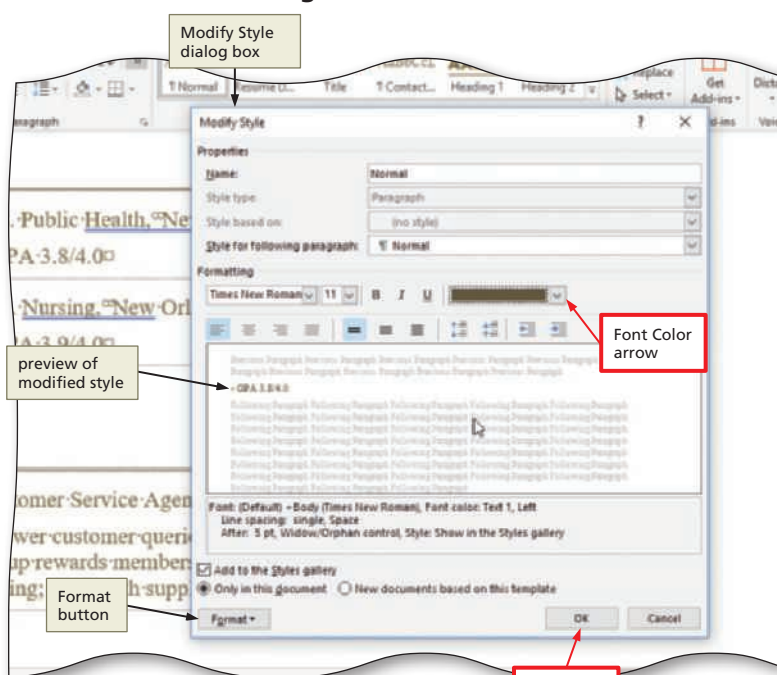


Figure 5-47

- 3
 - Click OK to close the dialog box and apply the style changes to the paragraphs in the document (Figure 5-48).
 - If the resume spills to two pages, adjust spacing above and below paragraphs so that the entire resume fits on a single page.

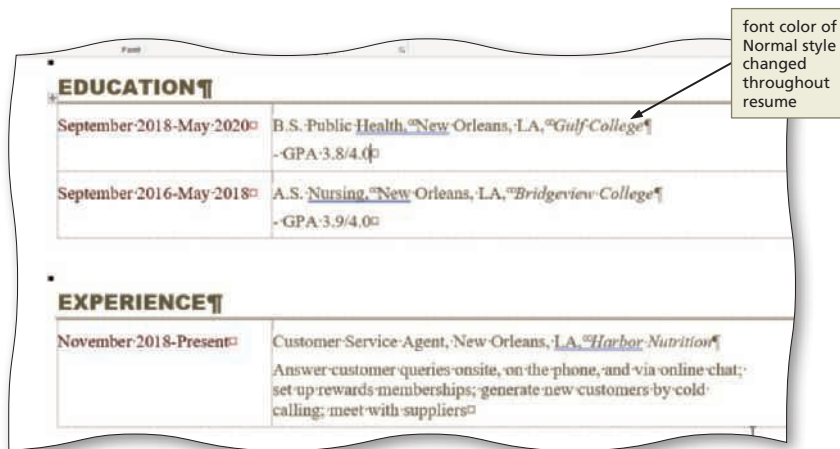


Figure 5-48

Other Ways

1. Click Styles Dialog Box Launcher (Home tab | Styles group), click arrow to right of style to modify, click Modify on menu, change settings (Modify Style dialog box), click OK
2. Click Styles Dialog Box Launcher, click Manage Styles button, scroll to style and then select it (Manage Styles dialog box), click Modify button, change settings (Modify Style dialog box), click OK in each dialog box

To Center Page Contents Vertically

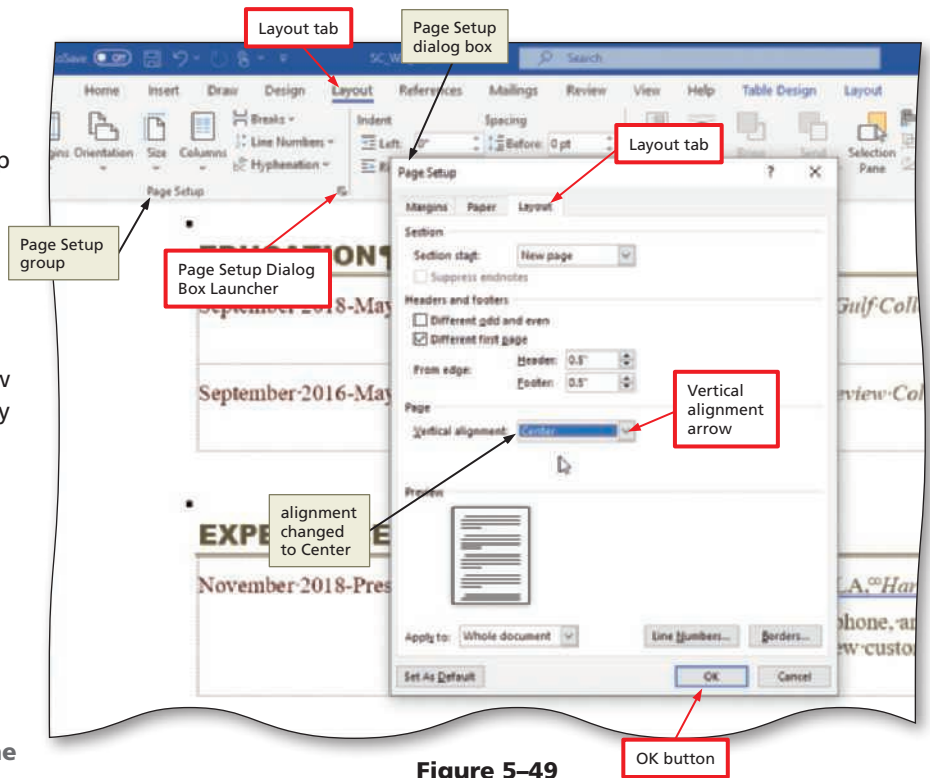
In Word, you can center the page contents vertically. **Why?** This places the same amount of space at the top and bottom of the page. The following steps center resume page contents vertically.

1

- If necessary, click Layout on the ribbon to display the Layout tab.
- Click the Page Setup Dialog Box Launcher (Layout tab | Page Setup group) to display the Page Setup dialog box.
- Click the Layout tab (Page Setup dialog box) to display the Layout sheet.
- Click the Vertical alignment arrow (Page Setup dialog box) to display the list of alignment options and then click Center in the list (Figure 5–49).

2

- Click OK to center the page contents vertically on the screen (shown in Figure 5–1 at the beginning of this module).

**Figure 5–49**

Q&A What if I wanted to change the alignment back?

You would select the Top vertical alignment from the Vertical alignment list in the Layout sheet (Page Setup dialog box).

- Save the resume again on the same storage location with the same file name.
- If requested by your instructor, print the finished resume (shown in Figure 5–1).

Break Point: If you want to take a break, this is a good place to do so. You can exit Word now. To resume later, start Word, open the file called SC_WD_5_JackmanResume.docx, and continue following the steps from this location forward.

Sharing a Document with Others

You may want to share Word documents with others electronically, such as via email, USB flash drive, or cloud storage. To ensure that others can read and/or open the files successfully, Word provides a variety of formats and tools to assist with sharing documents. This section uses the Jackman Resume created in this module to present a variety of these formats and tools.

To Insert a Quick Part

You would like to place the text, DRAFT, as a watermark on the resume before you share it, so that others are aware you might be making additional changes to the document. While you can insert a watermark using the ribbon, you also can use the Building Blocks Organizer to insert them because watermarks are a type of building block.

A building block, as described earlier in this module, is a reusable formatted ready-made graphic or text element that is stored in a gallery. Examples of building blocks include cover pages, headers, footers, page numbers, watermarks, and text boxes. You can see a list of every available building block in the **Building Blocks Organizer**. From the Building Blocks Organizer, you can sort building blocks, change their properties, or insert them in a document.

The next steps sort the Building Blocks Organizer by gallery and then insert the Draft 1 building block in the document. **Why?** Sorting the building blocks by gallery makes it easier to locate them.

1

- Display the View tab. Click the One Page button (View tab | Zoom group) to display the resume in its entirety in the document window.
- Display the Insert tab.
- Click the 'Explore Quick Parts' button (Insert tab | Text group) to display the Explore Quick Parts menu (Figure 5-50).

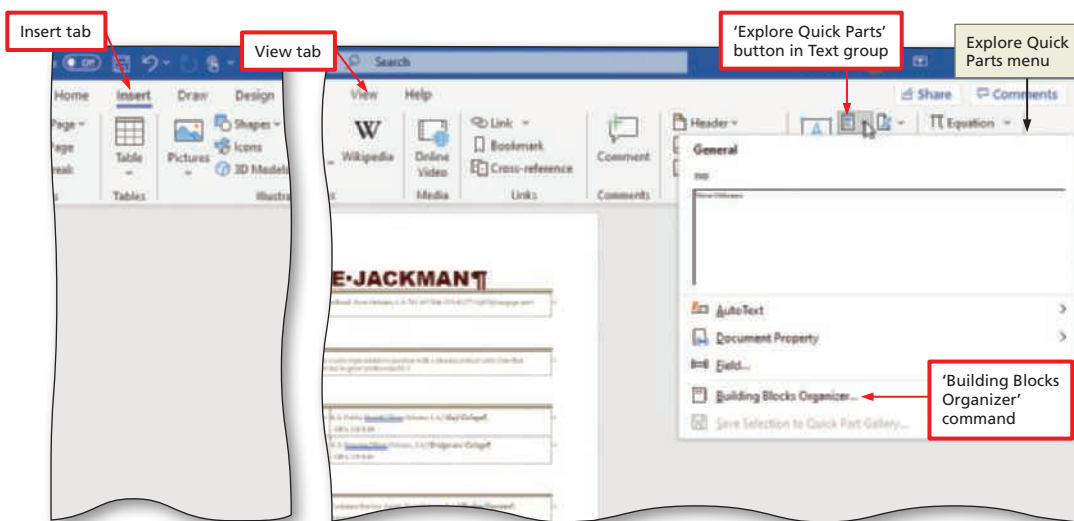


Figure 5-50

2

- Click 'Building Blocks Organizer' on the Explore Quick Parts menu to display the Building Blocks Organizer dialog box.

Experiment

- Drag the scroll bars in the Building Blocks Organizer so that you can look at all the columns and rows in the dialog box.
- Click the Gallery heading (Building Blocks Organizer dialog box) in the building blocks list to sort the building blocks by gallery (Figure 5-51).

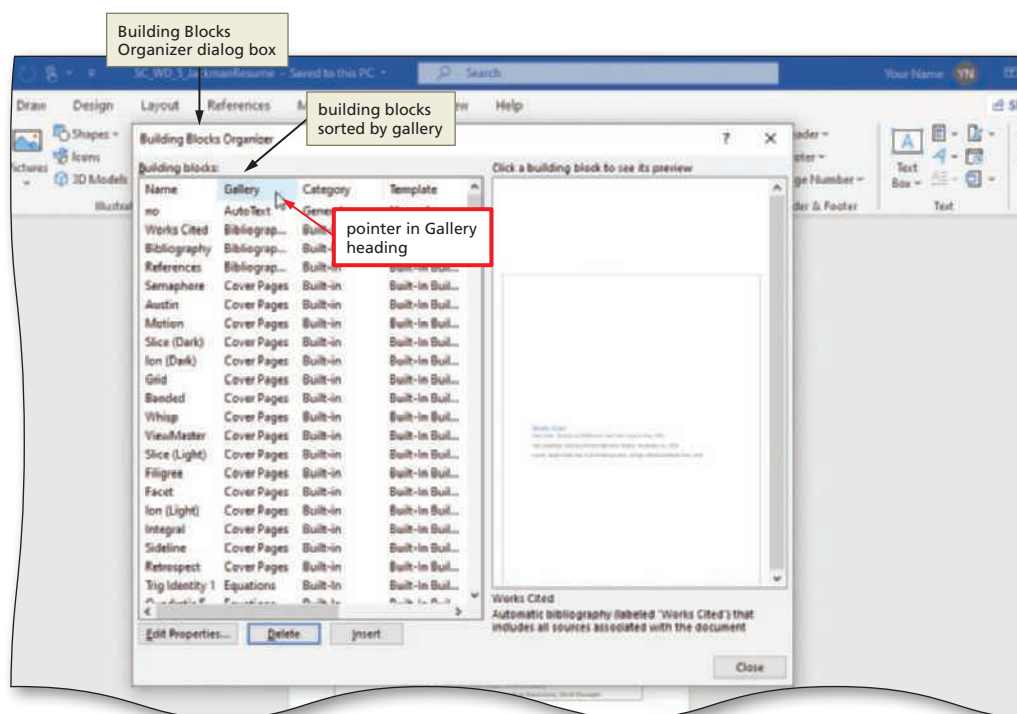


Figure 5-51

 **Experiment**

- Click various names in the building blocks list and notice that a preview of the selected building block appears in the dialog box.

3

- Scroll through the building blocks list to the Watermarks group in the Gallery column and then click DRAFT 1 to select this building block (Figure 5–52).

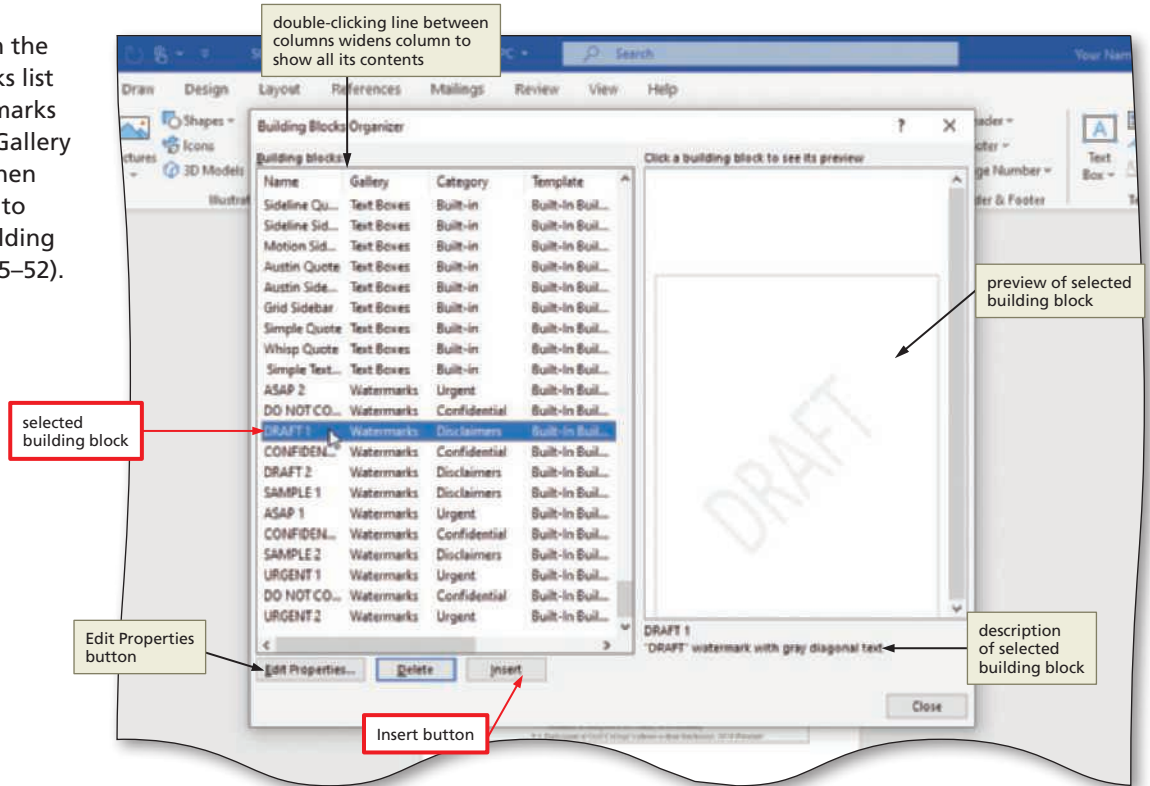


Figure 5–52

4

- Click the Insert button to insert the selected building block in the document (Figure 5–53).

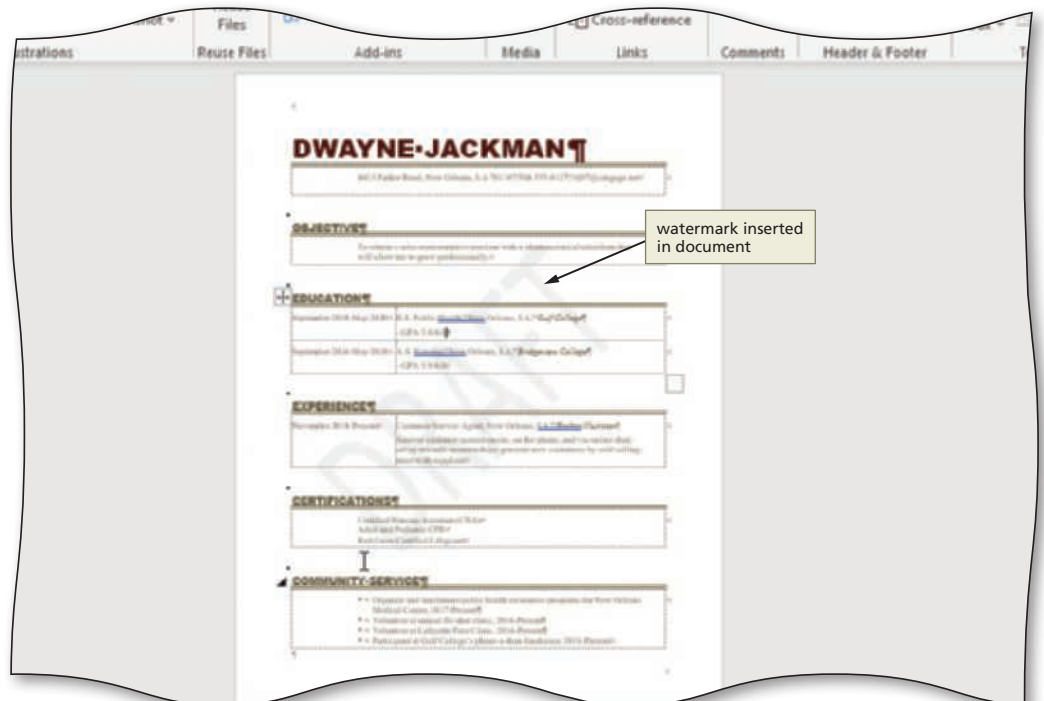


Figure 5–53

BTW

Conserving Ink and Toner

If you want to conserve ink or toner, you can instruct Word to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the Word Options dialog box, clicking Advanced in the left pane (Word Options dialog box), scrolling to the Print area in the right pane, placing a check mark in the 'Use draft quality' check box, and then clicking OK. Then, use Backstage view to print the document as usual.

TO EDIT PROPERTIES OF BUILDING BLOCK ELEMENTS (QUICK PARTS)

Properties of a building block include its name, gallery, category, description, location where it is saved, and how it is inserted in the document. If you wanted to change any of these building block properties for a particular building block, you would perform these steps.

1. Click the 'Explore Quick Parts' button (Insert tab | Text group) to display the Explore Quick Parts menu.
2. Click 'Building Blocks Organizer' on the Explore Quick Parts menu to display the Building Blocks Organizer dialog box.
3. Select the building block you wish to edit (Building Blocks Organizer dialog box).
4. Click the Edit Properties button (shown in Figure 5–52) to display the Modify Building Block dialog box.
5. Edit any property (Modify Building Block dialog box) and then click OK. Close the Building Blocks Organizer dialog box.

Consider This**Will a document look the same on another computer when you share it electronically?**

When sharing a Word document with others, you cannot be certain that it will look or print the same on their computers or mobile devices as on your computer or mobile device. For example, the document may wordwrap text differently on others' computers and mobile devices. If others do not need to edit the document (that is, if they need only to view and/or print the document), you could save the file in a format that allows others to view the document as you see it. Two popular such formats are PDF and XPS.

To Export a Word Document to a PDF File and View the PDF File in Adobe Reader

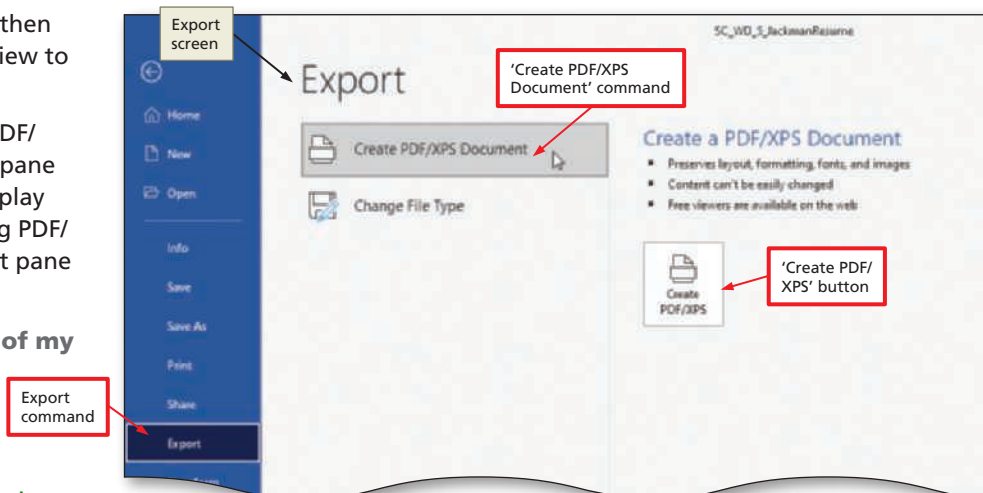
PDF, which stands for Portable Document Format, is a file format created by Adobe Systems. PDF is a standard format for exchanging documents and allows users to view a PDF file without the software that created the original document. Thus, the PDF format enables users to share documents with others easily. To view, navigate, and print a PDF file, you use an application called **Adobe Reader**, which can be downloaded free from Adobe's website.

When you save a Word document as a PDF file, the original Word document remains intact; that is, Word creates a copy of the file in the PDF format. The following steps save the Jackman Resume Word document as a PDF file and then open the Jackman Resume PDF file in Adobe Reader. **Why?** You want to share the resume with others but want to ensure it looks the same on their computer or mobile device as it does on yours.

- 1
 - Open Backstage view and then click Export in Backstage view to display the Export screen.
 - If necessary, click 'Create PDF/XPS Document' in the left pane of the Export screen to display information about creating PDF/XPS documents in the right pane (Figure 5–54).

Q&A Why does the left pane of my Export screen have an additional command related to creating an Adobe PDF?

Depending on your installation settings in Adobe, you may have an additional tab on your ribbon and/or additional commands in screens, etc., related to Adobe functionality.

**Figure 5–54**

2

- Click the 'Create PDF/XPS' button in the right pane to display the Publish as PDF or XPS dialog box.
- Navigate to the desired save location (Publish as PDF or XPS dialog box).

Q&A Can the file name be the same for the Word document and the PDF file?

Yes. The file names can be the same because the file types (and the file extensions) are different: one is a Word document and the other is a PDF file.

- If necessary, click the 'Save as type' arrow and then click PDF.
- If necessary, place a check mark in the 'Open file after publishing' check box so that Word will display the resulting PDF file in Adobe Reader (Figure 5–55).

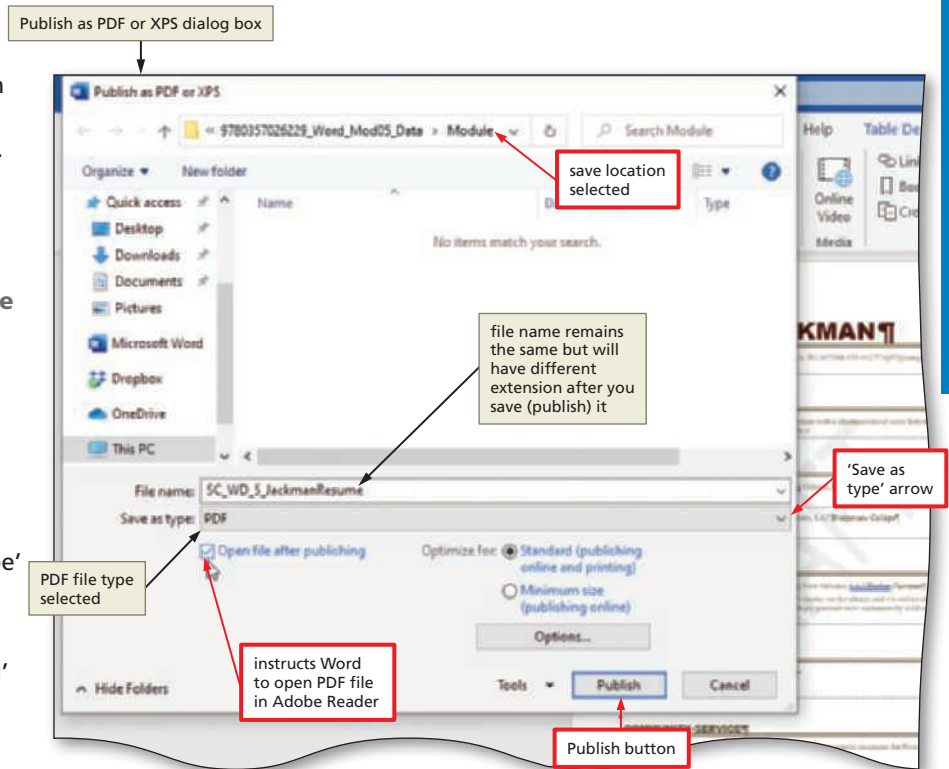


Figure 5–55

Q&A Why is my 'Open file after publishing' check box dimmed?

You do not have Adobe Reader installed on your computer. Use a search engine, such as Google, to search for the text, get adobe reader. Then, click the link in the search results to download Adobe Reader and follow the on-screen instructions to install the program. After installing Adobe Reader, repeat these steps.

3

- Click the Publish button to create the PDF file from the Word document and then, because the check box was selected, open the resulting PDF file in Adobe Reader.
- If necessary, click the Maximize button in the Adobe Reader window to maximize the window (Figure 5–56). Note that your screen may differ depending on your version of Adobe Reader.

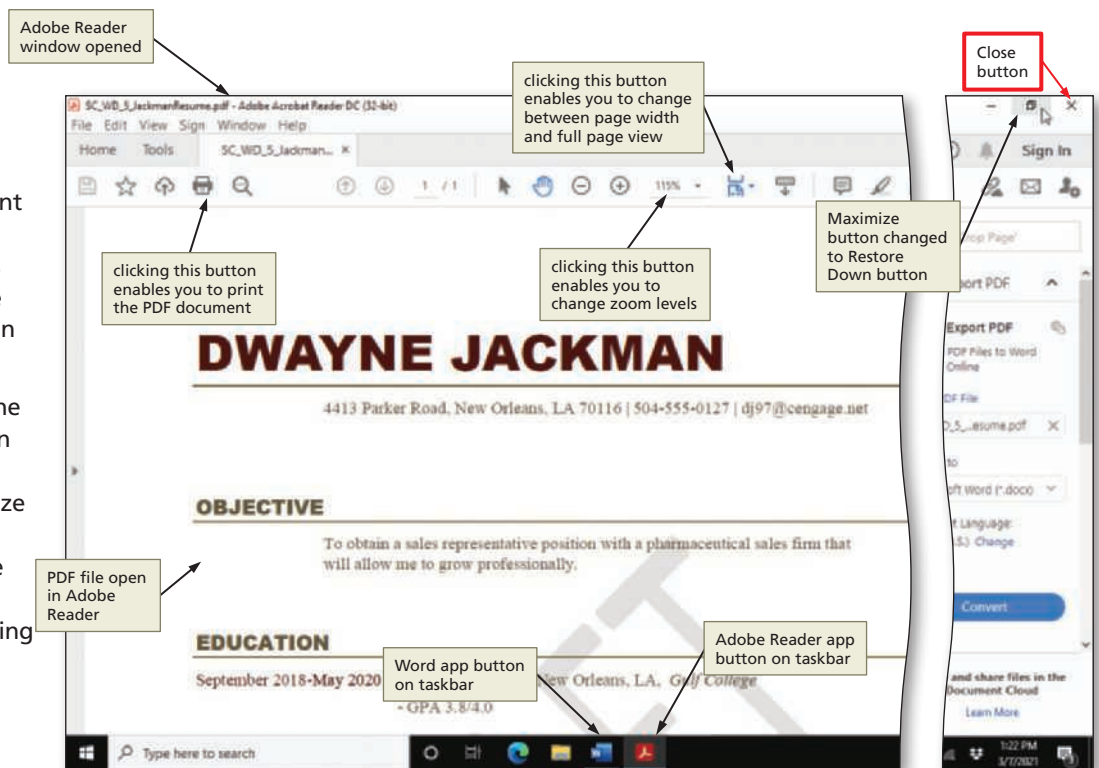


Figure 5–56

Q&A Do I have to display the resulting PDF file in Adobe Reader?

No. If you do not want to display the document in Adobe Reader, you would not place a check mark in the 'Open file after publishing' check box in the Publish as PDF or XPS dialog box (shown in Figure 5–55).

Q&A Is the Jackman Resume Word document still open?

Yes. Word still is running with the Jackman Resume document opened.

What if a blank screen appears instead of Adobe Reader or if the document appears in a different program?

You may not have Adobe Reader installed. Press the Start key on the keyboard to redisplay the Start screen and then navigate back to Word, or close the program in which the document opened.

- 4**
- Click the Close button on the Adobe Reader title bar to close the SC_WD_5_JackmanResume.pdf file and exit Adobe Reader.

Q&A Can I edit documents in Adobe Reader?

No, you need Adobe Acrobat or some other program that enables editing of PDF files.

Other Ways

1. Press F12, click 'Save as type' box arrow (Save As dialog box), select PDF in list, click Save

To Open a PDF File from Word to Edit It

When you use Word to open a PDF file, Word converts it to an editable document. **Why?** You may want to change the contents of a PDF file. The editable PDF file that Word creates from the PDF file may appear slightly different from the PDF due to the conversion process. To illustrate this feature, the following steps open the PDF file just saved.

- 1**
- Open Backstage view and then click Open in Backstage view to display the Open screen.
 - Click OneDrive, This PC, or another location in the left pane that references the location of the saved PDF file, click Browse, and then navigate to the location of the PDF file to be opened.
 - If necessary, click the File Type arrow (Open dialog box) to display a list of file types that can be opened by Word (Figure 5-57).

Q&A Why does the PDF file already appear in my list?

If the file type is All Word Documents, Word displays all file types that it can open in the file list.

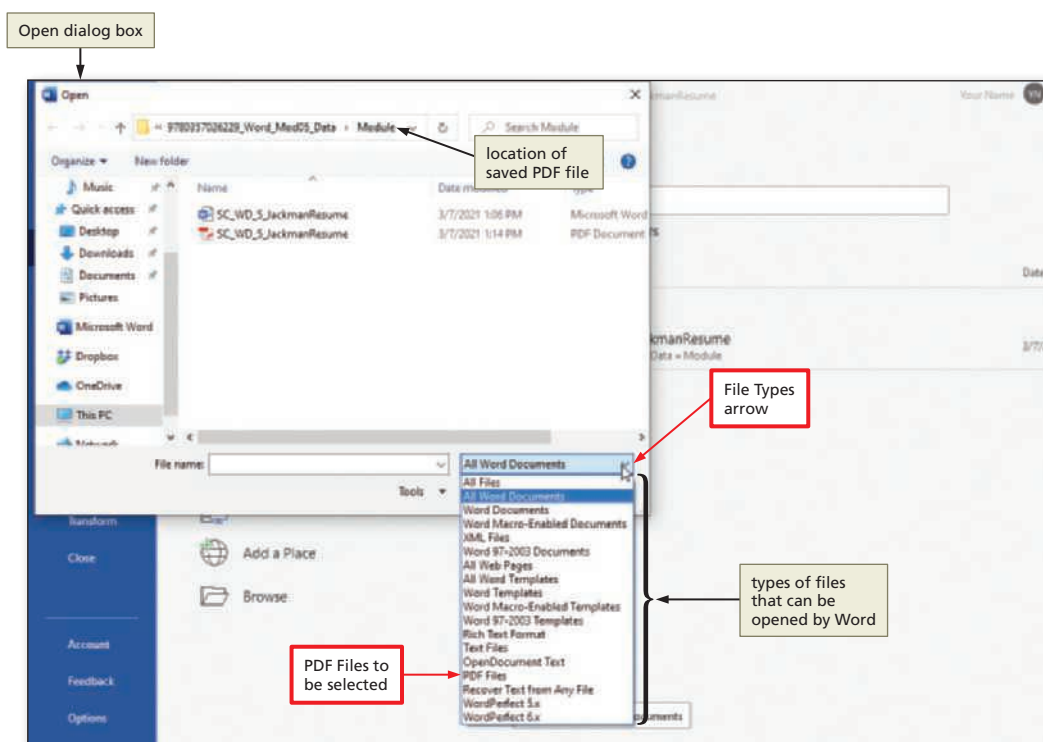


Figure 5-57

2

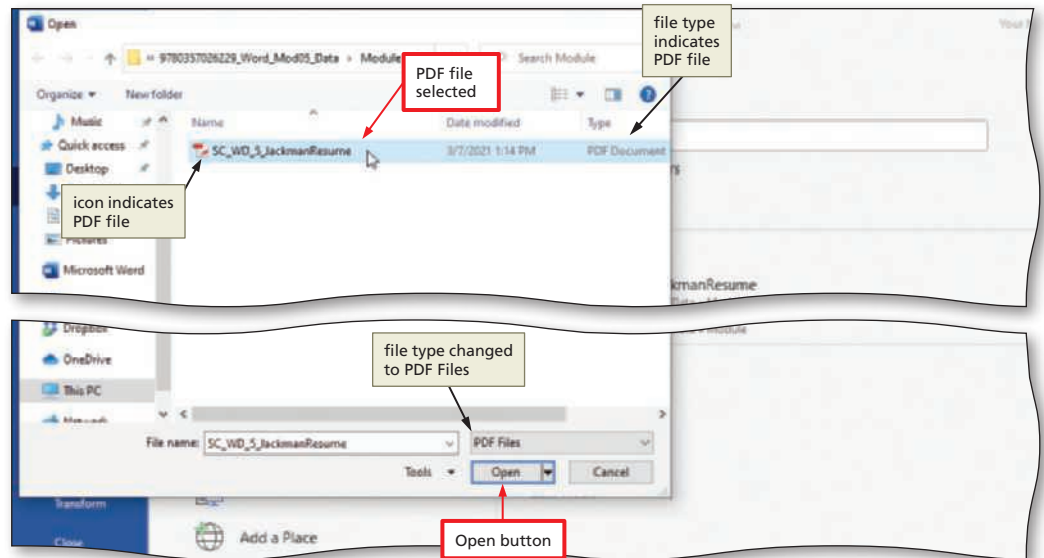
- Click PDF Files in the File Type list, so that Word displays PDF file names in the dialog box.
- Click SC_WD_5_JackmanResume to select the PDF file to be opened (Figure 5–58). (Depending on settings, the file name box may show the .pdf extension after the file name.)

3

- Click the Open button (Open dialog box) to open the selected file and display the opened document in the Word window.
- If Word displays a dialog box indicating it will begin converting the document, click OK.

4

- If necessary, click the Print Layout button on the status bar to switch to Print Layout view.

**Figure 5–58****Experiment**

- Scroll through the PDF that Word converted, noticing any differences between it and the original resume created in this module. Change a word in the document to practice editing it.
- Close the Word window and do not save this converted PDF file.

To EXPORT A WORD DOCUMENT TO AN XPS DOCUMENT

XPS, which stands for XML Paper Specification, is a file format created by Microsoft that shows all elements of a printed document as an electronic image. As with the PDF format, users can view an XPS document without the software that created the original document. Thus, the XPS format also enables users to share documents with others easily. Windows includes an XPS Viewer, which enables you to view, navigate, and print XPS files.

When you save a Word document as an XPS document, the original Word document remains intact; that is, Word creates a copy of the file in the XPS format. If you wanted to save a Word document as an XPS document, you would perform the following steps.

1. Open Backstage view and then click Export in Backstage view to display the Export screen.
2. Click 'Create PDF/XPS Document' in the left pane of the Export screen to display information about PDF/XPS documents in the right pane and then click the 'Create PDF/XPS' button to display the Publish as PDF or XPS dialog box.
3. If necessary, navigate to the desired save location.

BTW**Distributing a Document**

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Word.

4. If necessary, click the ‘Save as type’ arrow and then click XPS Document.
5. Click the Publish or Save button to create the XPS document from the Word document and then, if the ‘Open file after publishing’ check box was selected, open the resulting XPS document in the XPS Viewer.

or

1. Press F12 to display the Save As dialog box.
2. If necessary, navigate to the desired save location.
3. If necessary, click the ‘Save as type’ arrow and then click XPS Document.
4. Click the Publish or Save button to create the XPS document from the Word document and then, if the ‘Open file after publishing’ check box was selected, open the resulting XPS document in the XPS Viewer.

Q&A **What if I do not have an XPS Viewer?**
 The document will open in a browser window.

5. If necessary, exit the XPS Viewer.

To Check Document Compatibility

Word enables you to determine if a document is compatible with (will work with) versions earlier than the current version of Microsoft Word. **Why?** If you would like to save a document, such as your resume, in the Word 97-2003 format so that it can be opened by users with earlier versions of Microsoft Word, you want to ensure that all of its elements (such as building blocks, content controls, and graphics) are compatible with earlier versions of Word. The following steps run the compatibility checker.

- 1
 - Open Backstage view and then, if necessary, click Info in Backstage view to display the Info screen.
 - Click the ‘Check for Issues’ button in the Info screen to display the Check for Issues menu (Figure 5-59).

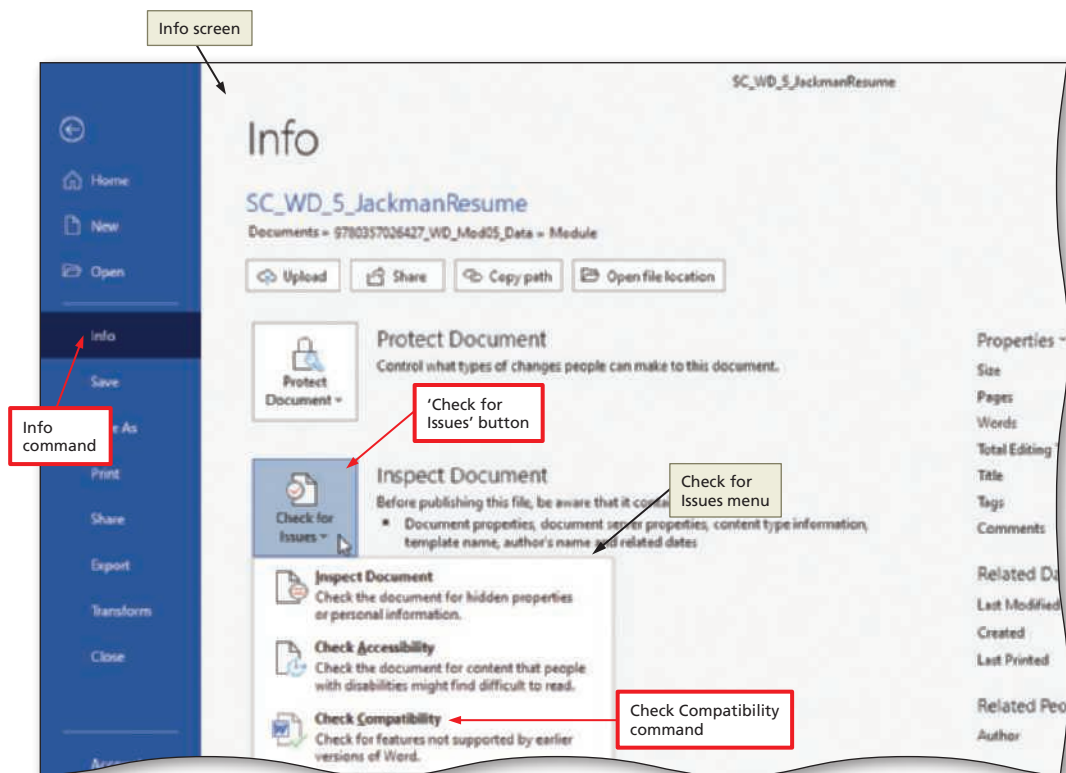


Figure 5-59

- 2**
 - Click Check Compatibility on the Check for Issues menu to display the Microsoft Word Compatibility Checker dialog box, which shows any content that may not be supported by earlier versions of Word (Figure 5–60).
- 3**
 - Click OK (Microsoft Word Compatibility Checker dialog box) to close the dialog box.

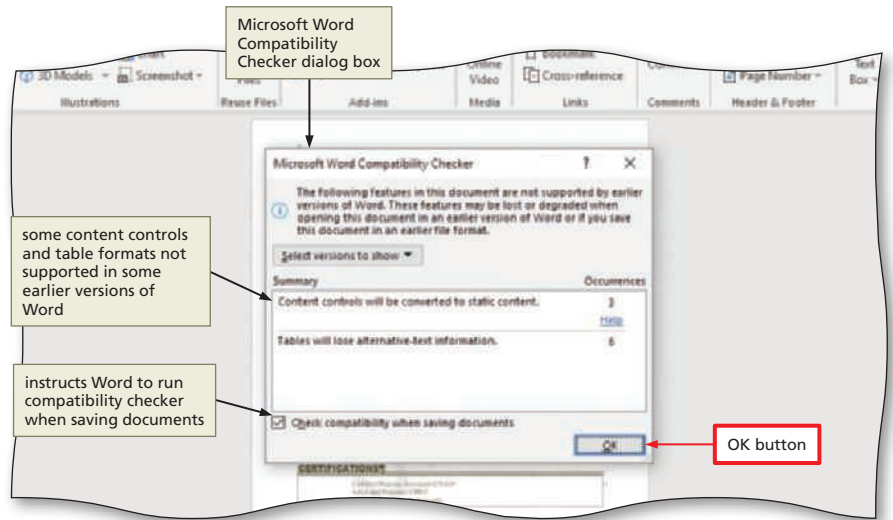


Figure 5–60

To Save a Word 365 Document in an Earlier Word Format

If you send a document created in Word 365 to users who have a version of Word earlier than Word 2007, they will not be able to open the Word 365 document. **Why?** Word 365 saves documents in a format that is not backward compatible with versions earlier than Word 2007. Word 365 documents have a file type of .docx, and versions prior to Word 2007 have a .doc file type. To ensure that all Word users can open your Word 365 document, you should save the document in a Word 97–2003 format. The following steps save the Word 365 format of the SC_WD_5_JackmanResume.docx document in the Word 97–2003 format.

- 1**
 - Open Backstage view and then click Export in Backstage view to display the Export screen.
 - Click 'Change File Type' in the left pane of the Export screen to display information in the right pane about various Word file types.
 - Click 'Word 97-2003 Document' in the right pane to specify the new file type (Figure 5–61).

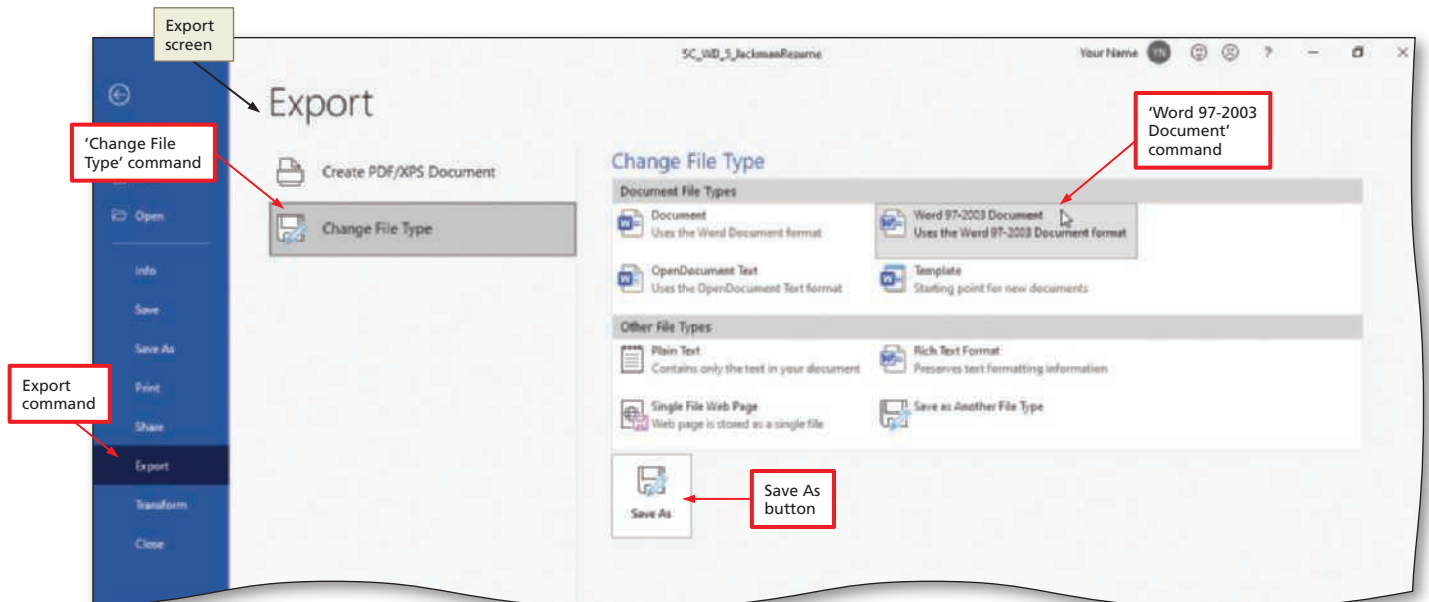


Figure 5–61

2

- Click the Save As button in the right pane to display the Save As dialog box.
- If necessary, navigate to the desired save location (Save As dialog box) (Figure 5–62).

Q&A Can the file name be the same for the Word 365 document and the Word 97-2003 document?

Yes. The file names can be the same because the file types (and file extensions) are different: one is a Word document with a .docx extension, and the other is a Word document with a .doc extension. The next section discusses file types and extensions.

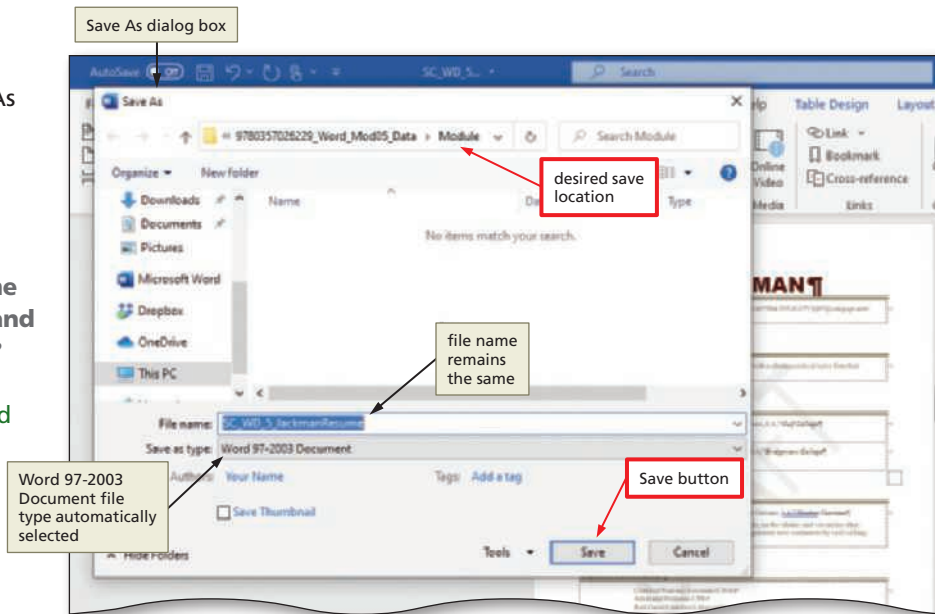


Figure 5–62

3

- Click Save, which may display the Microsoft Word Compatibility Checker dialog box before saving the document (shown in Figure 5–60).

Q&A My screen did not display the Microsoft Word Compatibility Checker dialog box. Why not?

If the 'Check compatibility when saving documents' check box is not selected (as shown in Figure 5–60), Word will not check compatibility when saving a document.

- If the Microsoft Word Compatibility Checker dialog box is displayed, click its Continue button to save the document on the selected drive with the current file name in the specified format (Figure 5–63).

Compatibility Mode notation on title bar indicates that document has been saved in a format different from Word 365 format

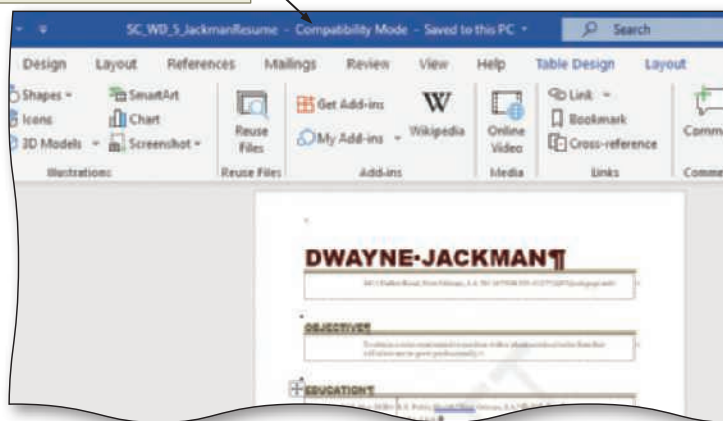


Figure 5–63

Q&A Is the Word 365 format of the SC_WD_5_JackmanResume.docx document still open?

No. Word closed the original document (the Word 365 format of the SC_WD_5_JackmanResume.docx).

Can I use Word 365 to open a document created in an earlier version of Word?

Yes, but you may notice that the appearance of the document differs when opened in Word 365.

- **san!** ↑ Because you are finished with the Word 97-2003 format of the resume, close the document.

Other Ways

1. Press F12, click 'Save as type' arrow (Save As dialog box), select 'Word 97-2003 Document' in list, click Save

File Types

When saving documents in Word, you can select from a variety of file types that can be opened in Word using the Export screen in Backstage view (shown in Figure 5–61) or by clicking the 'Save as type' arrow in the Save As dialog box. To save in these varied formats (Table 5–1), you follow the same basic steps as just illustrated.

Table 5–1 File Types

File Type	File Extension	File Explorer Image	Description
OpenDocument Text	.odt		Format used by other word processing programs, such as Google Docs and OpenOffice.org
PDF	.pdf		Portable Document Format, which can be opened in Adobe Reader
Plain Text	.txt		Format where all or most formatting is removed from the document
Rich Text Format	.rtf		Format designed to ensure file can be opened and read in many programs; some formatting may be lost to ensure compatibility
Single File Web Page	.mht		HTML (Hypertext Markup Language) format that can be opened in a browser; all elements of the webpage are saved in a single file
Web Page	.htm		HTML format that can be opened in a browser; various elements of the webpage, such as graphics, saved in separate files and folders
Word 97-2003 Document	.doc		Format used for documents created in versions of Word from Word 97 to Word 2003
Word 97-2003 Template	.dot		Format used for templates created in versions of Word from Word 97 and Word 2003
Word Document	.docx		Format used for Word 2019, Word 2016, Word 2013, Word 2010, or Word 2007 documents
Word Template	.dotx		Format used for Word 2019, Word 2016, Word 2013, Word 2010, or Word 2007 templates
XPS	.xps		XML (Extensible Markup Language) Paper Specification, which can be opened in the XPS Viewer

To Save a Word 365 Document as a Different File Type

To save a Word 365 document as a different file type, you would follow these steps.

1. Open Backstage view and then click Export in Backstage view to display the Export screen.
2. Click ‘Change File Type’ in the Export screen to display information in the right pane about various file types that can be opened in Word.
3. Click the desired file type in the right pane and then click the Save As button to display the Save As dialog box.
4. Navigate to the desired save location (Save As dialog box) and then click Save in the dialog box.
5. If the Microsoft Word Compatibility Checker dialog box appears and you agree with the changes that will be made to the document, click the Continue button (Microsoft Word Compatibility Checker dialog box) to save the document on the selected drive with the current file name in the specified format.

BTW

Word Help

At any time while using Word, you can find answers to questions and display information about various topics through Word Help. Used properly, this form of assistance can increase your productivity and reduce your frustrations by minimizing the time you spend learning how to use Word.

To Share a Document on OneDrive

If you have a OneDrive account, you can share a Word document saved on OneDrive with others through email message invitations. **Why?** Invited users can click a link in an email message that displays a webpage enabling them to view or edit the document on OneDrive. The following steps invite a user to view the resume. If you do not have a Microsoft account or an Internet connection, read these steps without performing them.

1

- If necessary, start Word. Open the Word 365 format of the SC_WD_5_JackmanResume.docx file and then save the resume document on OneDrive.

- Click the Share button in the upper-right corner of the ribbon to open the Share pane (Figure 5–64).

Q&A Why does a Share dialog box appear instead of a Send link dialog box? The document has not been saved on OneDrive and/or you are not signed in to your Microsoft account.

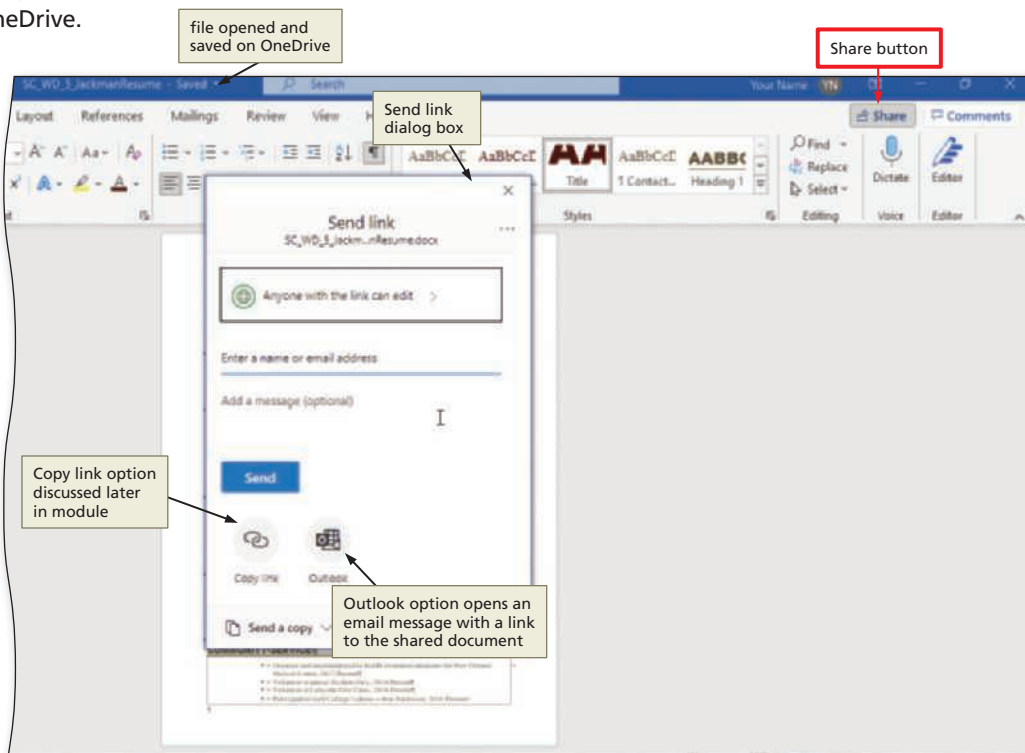


Figure 5–64

2

- In the Send link dialog box, type the email address(es) of the person(s) with whom you want to share the document, click the box arrow so that you can specify Can edit, if necessary, and then type a message to the recipient(s) (Figure 5–65).

3

- Click the Send button (Send link dialog box) to send the message along with a link to the document on OneDrive to the listed recipient(s) and then close the confirmation message.

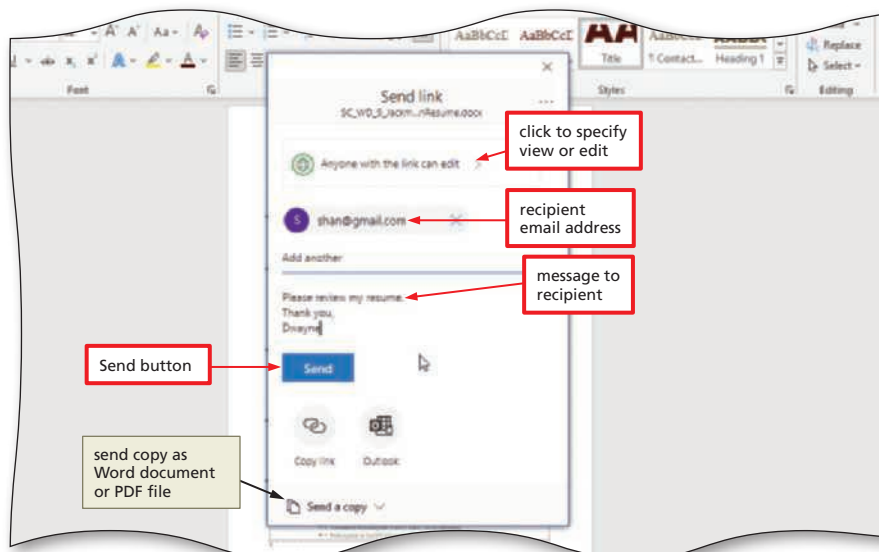


Figure 5–65

Other Ways

1. Open Backstage view, click Share, select desired sharing options

Consider This



How does a recipient access the shared document?

The recipient receives an email message that indicates it contains a link to a shared document (Figure 5–66). When the recipient clicks the link in the email message, the document opens in Word Online on OneDrive (Figure 5–67).

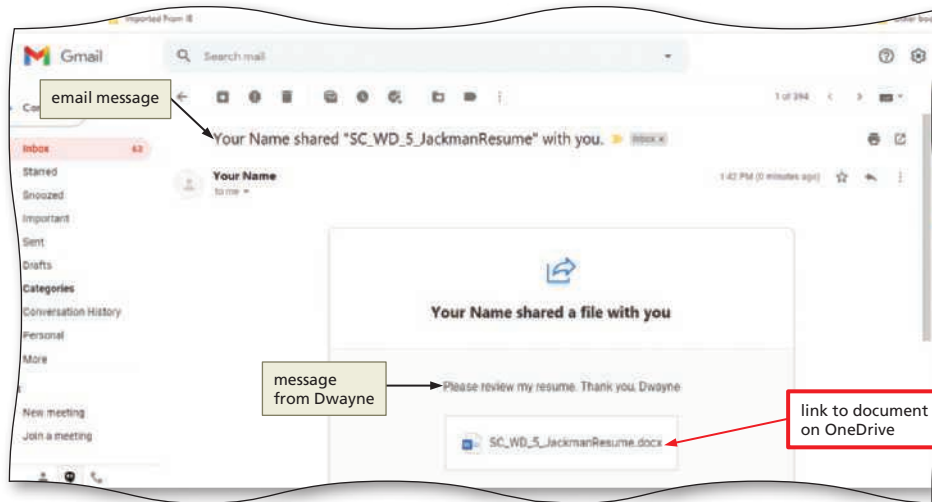


Figure 5–66

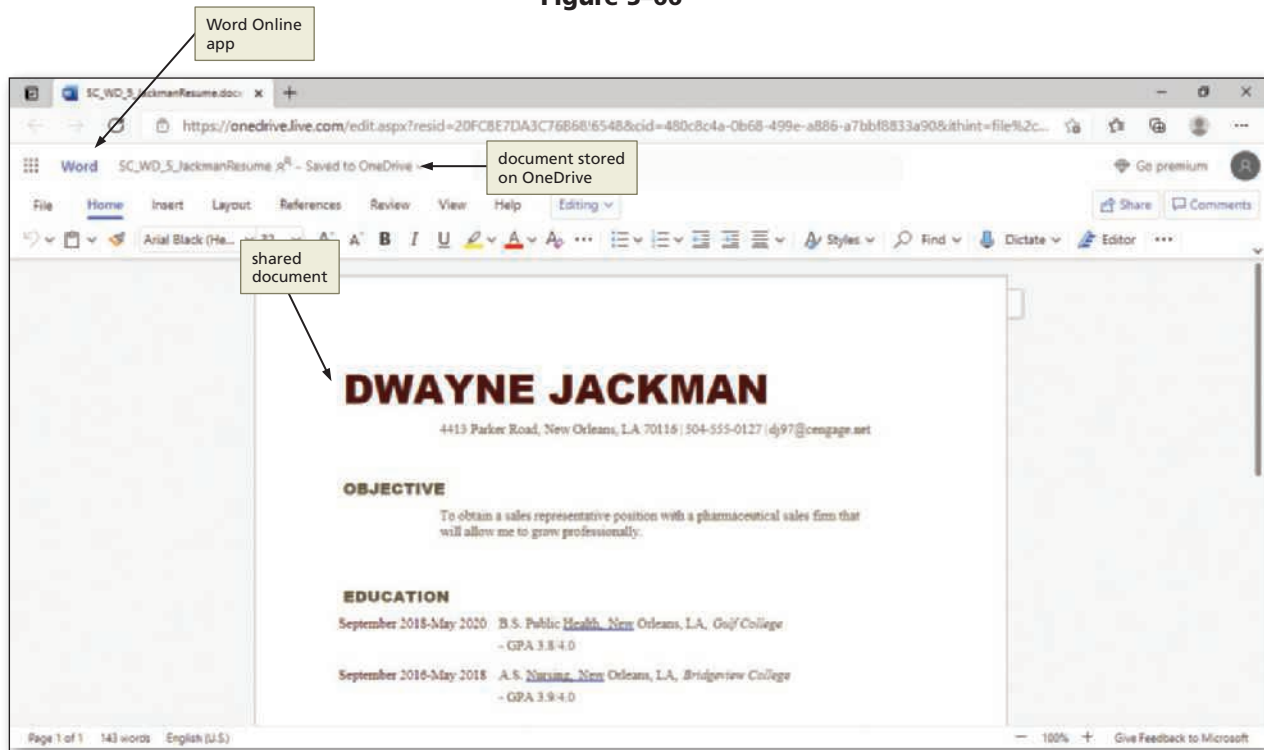


Figure 5–67

To Get a Sharing Link

Why share a link? Instead of inviting people to view or edit a document, you can create a link to the document’s location on OneDrive and then send others the link via an email message or text message, post it on a website or online social network, or communicate it via some other means. The following steps get a sharing link. If you do not have a Microsoft account or an Internet connection, read these steps without performing them.

- 1 If necessary, click the Share button in the upper-right corner of the ribbon to display the Send link dialog box and then click the Copy link at the bottom of the Send link dialog box (shown in Figure 5–64) to display options for obtaining a link to a document on OneDrive in the Send link dialog box (Figure 5–68).

Q&A **Why does a Share dialog box appear instead of a Send link dialog box?**
 The document has not been saved on OneDrive and/or you are not signed in to your Microsoft account.

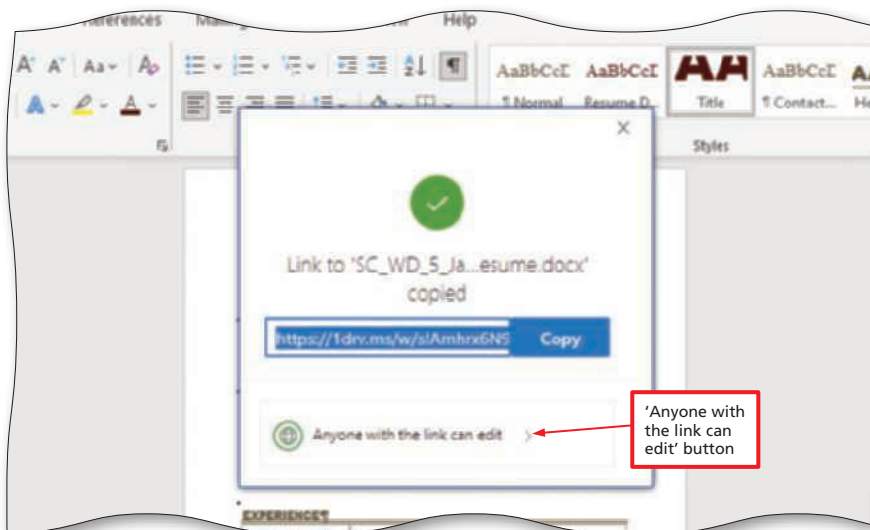


Figure 5–68

- 2
 - Click the 'Anyone with a link can edit' button in the Send link dialog box to display the Link settings dialog box.
 - Click the Allow editing check box (Link Settings dialog box) to remove the check mark (Figure 5-69).
 - Click the Apply button to create the link associated with the file on OneDrive.

Q&A **What do I do with the link?**
 You can copy and paste the link in an email or text message, on a webpage, or some other location.

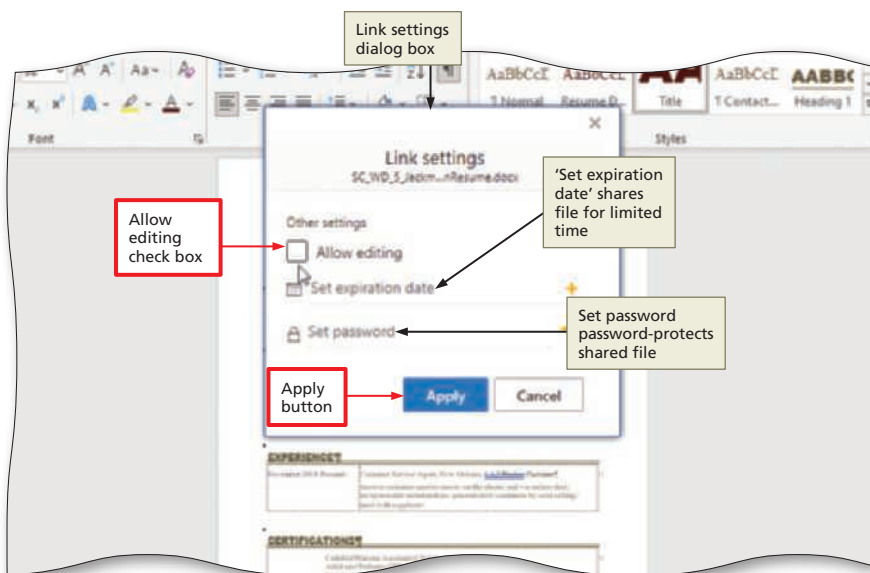


Figure 5–69

- 3
 - Click the Close button in the upper-right corner of the Send link dialog box to close the dialog box.
 - Because you are finished working with the resume on OneDrive, you can sign out of your Microsoft account, if you wish to do so.

Other Ways

1. Open Backstage view, click Share, select desired sharing options

To Remove a Watermark

The following steps remove the DRAFT watermark from the resume in the document window, if it was saved with the document, because you now consider the document final and would like to distribute it to potential employers.

- 1 If necessary, open the SC_WD_5_JackmanResume (Word 365 format).
- 2 Display the Design tab.

- 3 Click the Watermark button (Design tab | Page Background group) to display the Watermark gallery.
- 4 Click Remove Watermark in the Watermark gallery to remove the watermark.
- 5 Save the resume again with the same file name.

Consider This**What file type should you use when emailing documents?**

If you email a document, such as your resume, consider that the recipient, such as a potential employer, may not have the same software you used to create the resume and, thus, may not be able to open the file. As an alternative, you could save the file in a format, such as a PDF or XPS, that can be viewed with a reader program. Many job seekers also post their resumes on the web.

To Send a Document Using Email

In Word, you can include the current document as an attachment to an email message. An attachment is a file included with an email message. The following steps send the resume as an email attachment, assuming you use Outlook as your default email program. **Why?** When you attach an email document from within Word, it automatically uses the default email program, which is Outlook in this case.

1

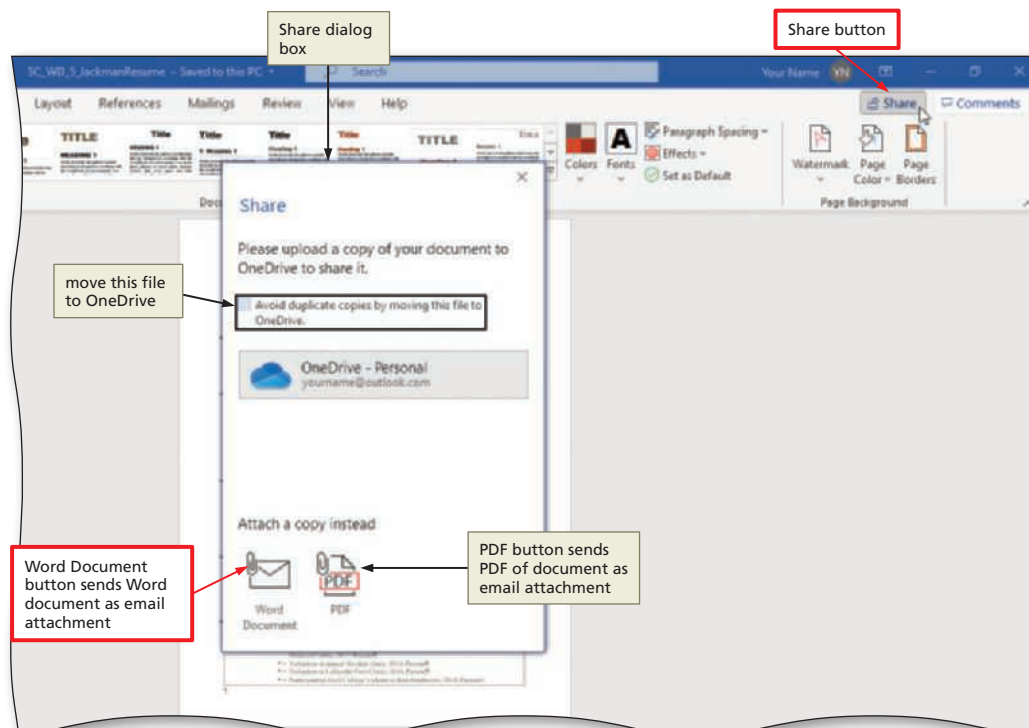
- Click Share in the upper-right corner of the ribbon to display a Share dialog box (if your document is saved on local media) or the Send link dialog box (if your document is saved on OneDrive) (Figure 5–70).

Q&A **What if the Send as link dialog box appears?**

Click the 'Send a copy' button at the bottom of the dialog box and then click Word document.

What is the purpose of the PDF button?

Word converts the current document to the PDF format and then attaches the PDF to the email message.

**Figure 5–70**

- 2**
- Click the Word Document button (Share dialog box) to start your default email program (Outlook, in this case), which automatically attaches the active Word document to the email message (or click the 'Send a copy' link if your screen displays the Send link dialog box).

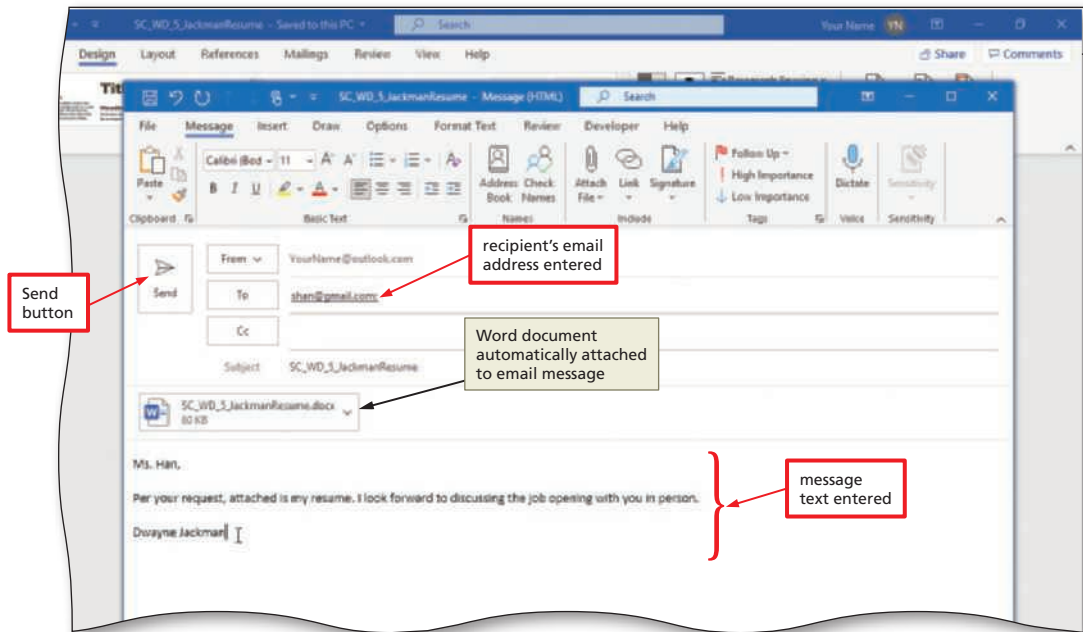


Figure 5-71

- Fill in the To text box with the recipient's email address.
 - Fill in the message text (Figure 5-71).
- 3**
- Click the Send button to send the email message along with its attachment to the recipient named in the To text box and then close the email window.

BTW

AutoSave and AutoRecover

If you do not want Word to save files automatically on OneDrive, you can disable this option by doing the following: open Backstage view, click Options to display the Word Options dialog box, click Save in the left pane (Word Options dialog box), and then remove the check mark from the 'AutoSave OneDrive and SharePoint Online files by default on Word' check box. If you wanted to change the frequency with which Word saves AutoRecover information, enter the number of minutes in the 'Save AutoRecover information every' box.

TO CUSTOMIZE HOW WORD OPENS EMAIL ATTACHMENTS

When a user sends you an email message that contains a Word document as an attachment, Word may display the document in Read mode. This view is designed to increase the readability and legibility of an on-screen document. Read mode, however, does not represent how the document will look when it is printed. For this reason, many users prefer working in Print Layout view to read documents. To exit Read mode, press ESC.

If you wanted to customize how Word opens email attachments, you would do the following.

1. Open Backstage view and then click Options in Backstage view to display the Word Options dialog box.
2. If necessary, click General in the left pane (Word Options dialog box).
3. If you want email attachments to open in Read mode, place a check mark in the 'Open e-mail attachments and other uneditable files in reading view' check box in the Start up options area; otherwise, remove the check mark to open email attachments in Print Layout view.
4. Click OK to close the dialog box.

Creating a Webpage from a Word Document

If you have created a document, such as a resume, using Word, you can save it in a format that can be opened by a browser, such as Microsoft Edge. When you save a file as a webpage, Word converts the contents of the document into **HTML** (Hypertext Markup Language), which is a special language that software developers use to create and format webpage elements. Some of Word's formatting features are not supported by webpages. Thus, your webpage may look slightly different from the original Word document.

When saving a document as a webpage, Word provides you with three choices:

- The **single file web page format** saves all of the components of the webpage in a single file that has a **.mht** extension. This format is particularly useful for sending documents via email in HTML format.
- The **web page format** saves some of the components of the webpage in a folder, separate from the webpage. This format is useful if you need access to the individual components, such as images, that make up the webpage.
- The **filtered web page format** saves the file in webpage format and then reduces the size of the file by removing specific Microsoft Office formats. This format is useful if you want to speed up the time it takes to download a webpage that contains graphics, video, audio, or animations.

The webpage created in this section uses the single file web page format.

To Save a Word Document as a Webpage

The following steps save the resume created earlier in this module as a webpage. **Why?** You intend to post your resume online.

1

- If necessary, open the Word 365 format of the resume file. Open Backstage view and then click Export in Backstage view to display the Export screen.
- Click 'Change File Type' in the left pane of the Export screen to display information in the right pane about various file types that are supported by Word.
- Click 'Single File Web Page' in the right pane to specify a new file type (Figure 5–72).

Q&A **What if I wanted to save the document as a web page instead of a single file web page?** You would click 'Save as Another File Type' in the Change File Type area, click the Save As button, click the 'Save as type' arrow in the Save As dialog box, and then click Web Page in the Save as type list.

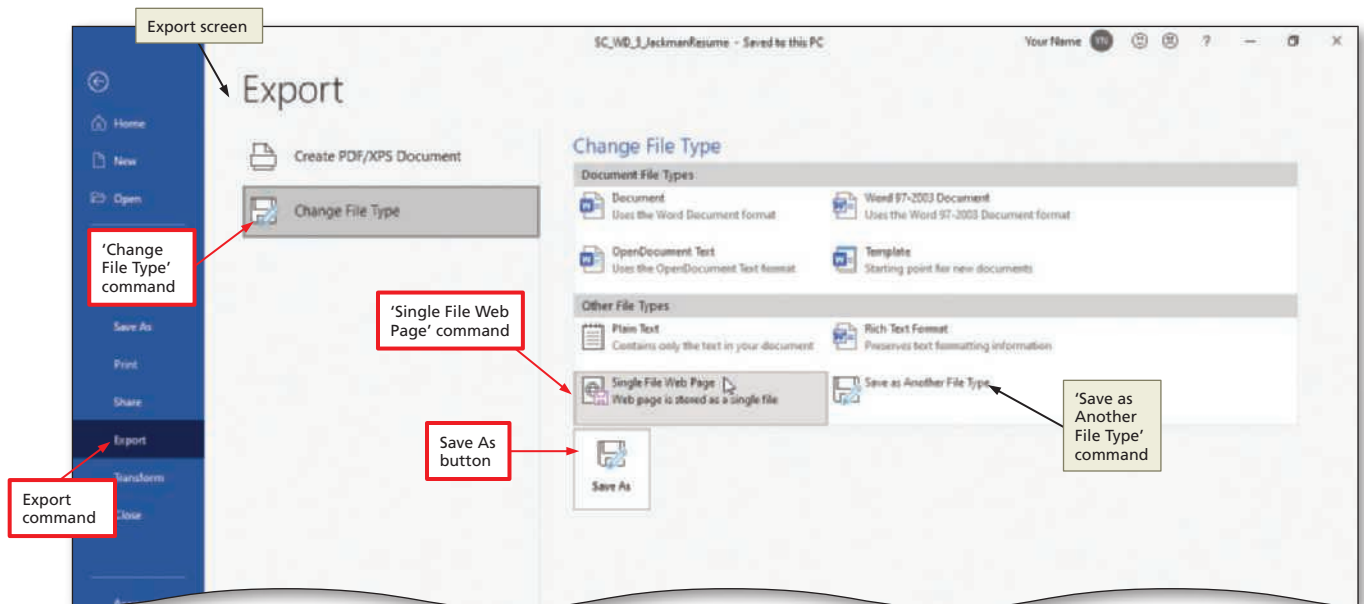


Figure 5–72

2

- Click the Save As button in the right pane to display the Save As dialog box.
- If necessary, navigate to the desired save location (Save As dialog box).
- If necessary, type **SC_WD_5_JackmanResume** in the File name box to change the file name.
- Click the Change Title button to display the Enter Text dialog box.
- Type **Jackman Resume** in the Page title text box (Enter Text dialog box) (Figure 5–73).

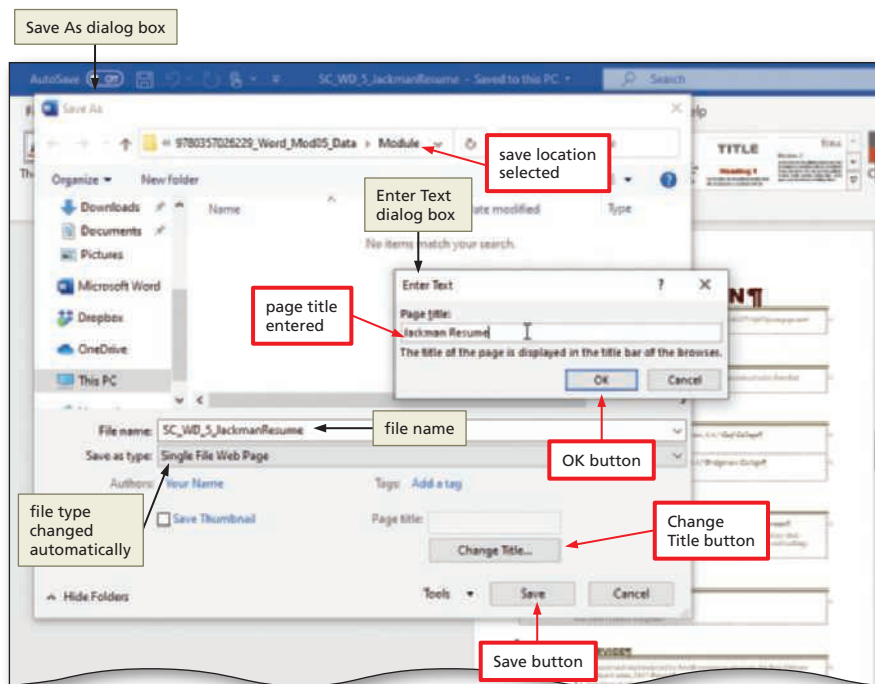


Figure 5–73

3

- Click OK (Enter Text dialog box) to close the dialog box.
- Click Save (Save As dialog box) to save the resume as a webpage and then display it in the document window in Web Layout view.
- If necessary, change the zoom to 100% (Figure 5–74).
- If the Microsoft Word Compatibility Checker dialog box appears, click its Continue button.

Q&A Can I switch to Web Layout view at any time by clicking the Web Layout button on the taskbar?

Yes.

Can I save the webpage to a web server?

If you have access to a web server, you can save the webpage from Word directly to the web server.

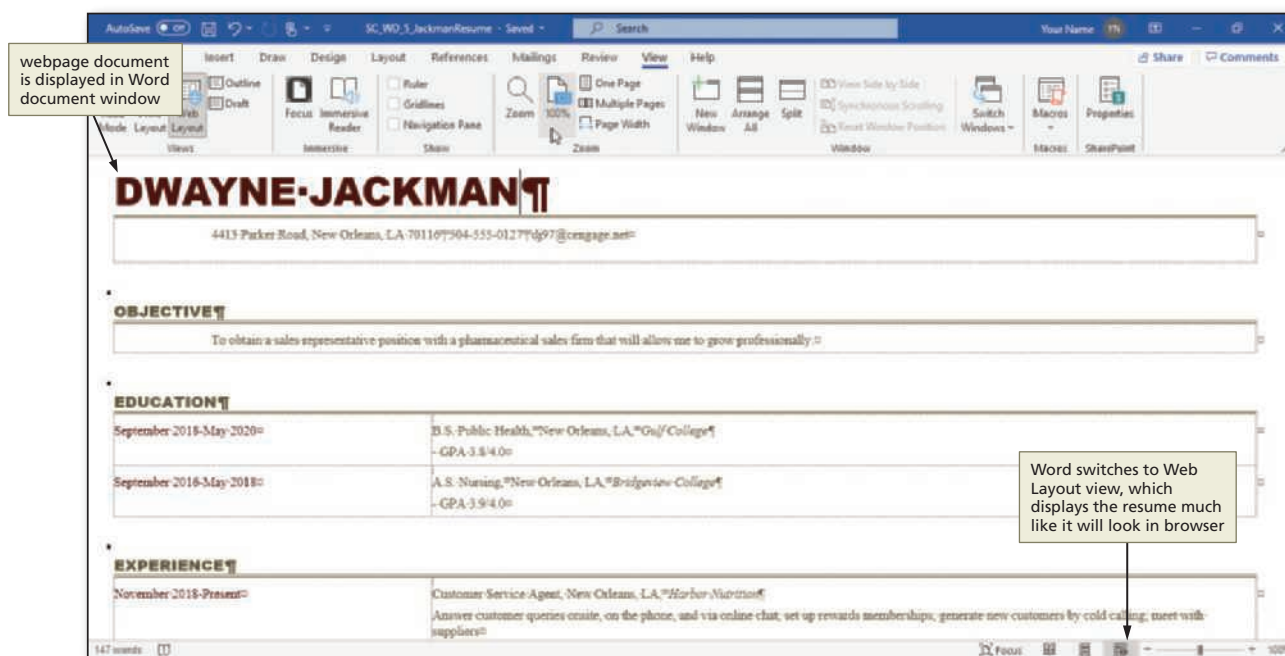


Figure 5–74

To Set a Default Save Location

If you wanted to change the default location that Word uses when it saves a document, you would do the following.

1. Open Backstage view and then click Options in Backstage view to display the Word Options dialog box.
2. Click Save in the left pane (Word Options dialog box) to display options for saving documents in the right pane.
3. In the 'Default local file location' text box, type the new desired save location.
4. Click OK to close the dialog box.

To Format Text as a Hyperlink

The email address in the resume webpage should be formatted as a hyperlink. **Why?** When webpage visitors click the hyperlink-formatted email address, you want their email program to run automatically and open an email window with the email address already filled in. The following steps format the email address as a hyperlink.

1

- Select the email address in the resume webpage (dj97@cengage.net, in this case).
- Display the Insert tab.
- Click the Link button (Insert tab | Links group) to display the Insert Hyperlink dialog box (Figure 5–75).

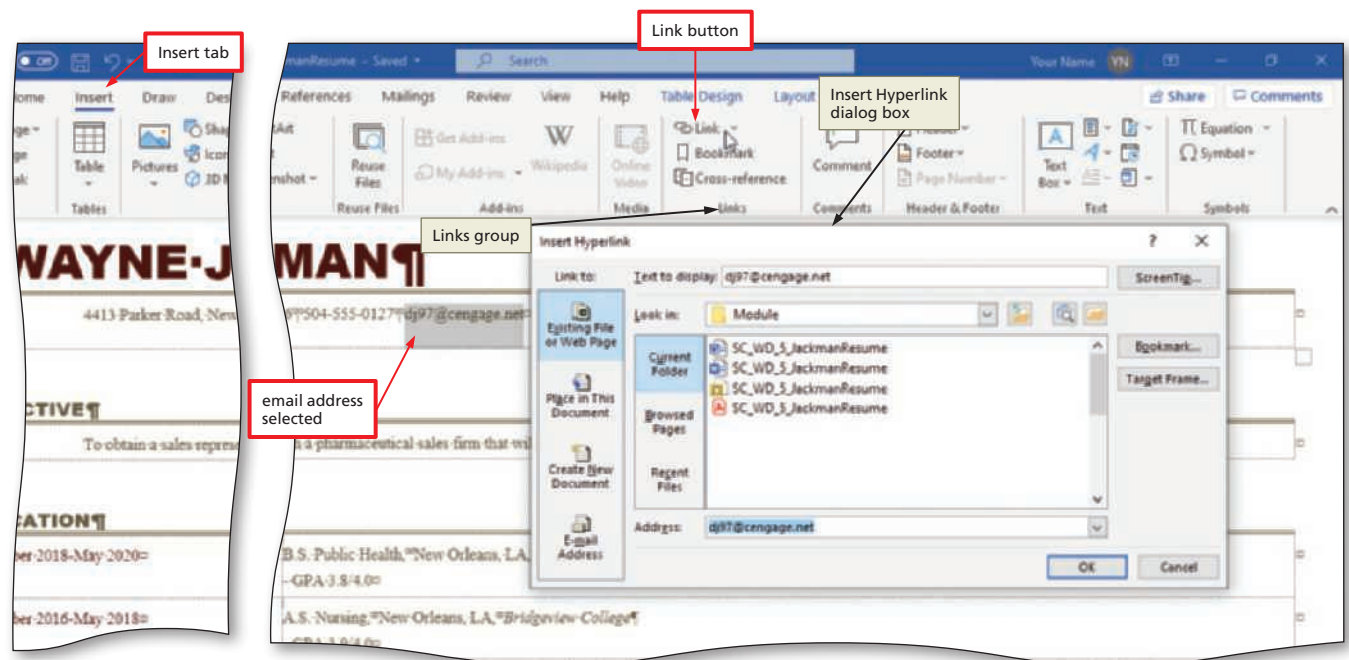


Figure 5–75

2

- Click E-mail Address in the Link to bar (Insert Hyperlink dialog box) so that the dialog box displays email address settings instead of webpage settings.
- In the E-mail address text box, type **dj97@cengage.net** to specify the email address that the browser uses when a user clicks the hyperlink.

Q&A Can I change the text that automatically appeared in the 'Text to display' text box?

Yes. Word assumes that the hyperlink text should be the same as the email address, so as soon as you enter the email address, the same text is entered in the 'Text to display' text box.

- If the email address in the 'Text to display' text box is preceded by the text, mailto:, delete this leading text because you want only the email address to appear in the document.
- Click the ScreenTip button to display the Set Hyperlink ScreenTip dialog box.
- Type **Send email message to Dwayne Jackman.** in the 'ScreenTip text' text box (Set Hyperlink ScreenTip dialog box) to specify the text that will be displayed when a user points to the hyperlink (Figure 5-76).

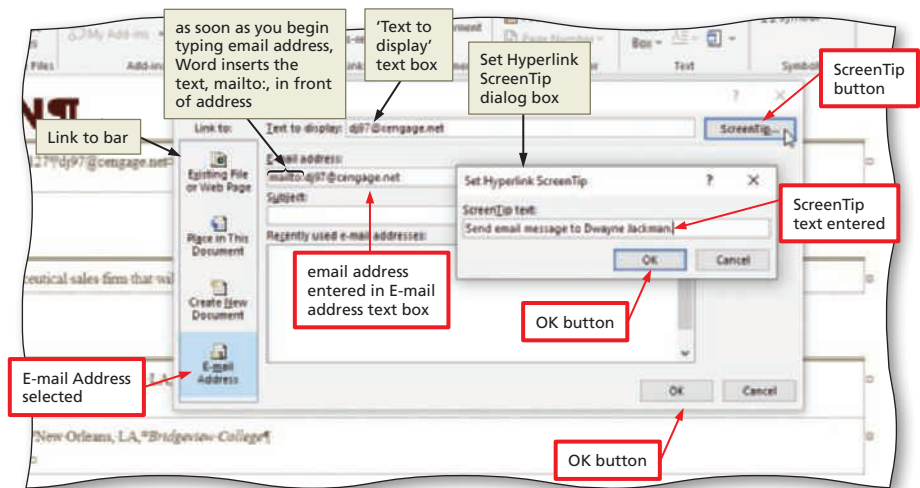


Figure 5-76

- 3**
- Click OK in each dialog box to format the email address as a hyperlink (Figure 5-77).

Q&A **How do I know if the hyperlink works?**

In Word, you can test the hyperlink by holding down CTRL while clicking the hyperlink. In this case, CTRL+clicking the email address should open an email window.

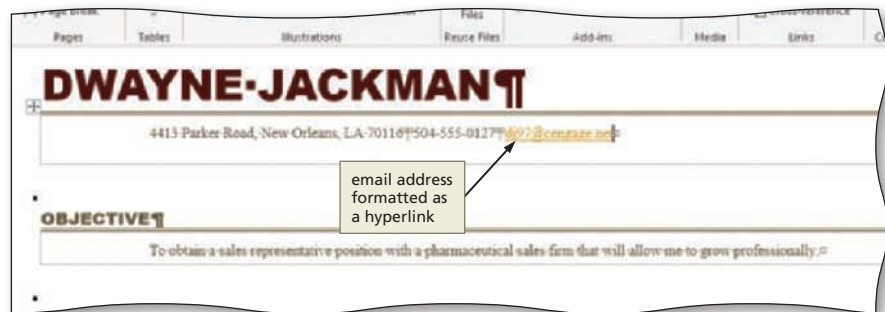


Figure 5-77

Other Ways

1. Right-click selected text, click Link on shortcut menu
2. Select text, press CTRL+K

BTW

Inserting Hyperlinks

In addition to inserting a hyperlink to an email address, you can insert a hyperlink to a webpage or to a file. To insert a hyperlink to a webpage, enter and select the text to be the hyperlink, click the Link button (Insert tab | Links group) to display the Insert Hyperlink dialog box, click 'Existing File or Web Page' in the Link to bar (Insert Hyperlink dialog box), be sure the web address is correct in the Address text box, and then click OK. To insert a hyperlink to a file, follow the same steps except select the location of the file instead of entering a web address in the Address text box.

TO EDIT A HYPERLINK

If you needed to edit a hyperlink, for example, to change its ScreenTip or its link, you would follow these steps.

1. Position the insertion point in the hyperlink.
2. Click the Link button (Insert tab | Links group) or press CTRL+K to display the Edit Hyperlink dialog box.

or

1. Right-click the hyperlink to display a shortcut menu.
2. Click Edit Hyperlink on the shortcut menu to display the Edit Hyperlink dialog box.

To Change the Style Set

Word provides several built-in style sets to help you quickly change the look of an entire document. **Why?** A style set contains formats for fonts and paragraphs. The following steps change the style set to the Shaded style set.

- 1

 - Display the Design tab (Figure 5–78).
 - Click the More button (Design tab | Document Formatting group) to display the expanded Style Set gallery.



Figure 5–78

- 2

 - Point to Shaded in the Style Set gallery to display a Live Preview of the style set applied to the document (Figure 5–79).

Experiment

- Point to various style sets in the Style Set gallery and watch the font and paragraph formatting change in the document window.

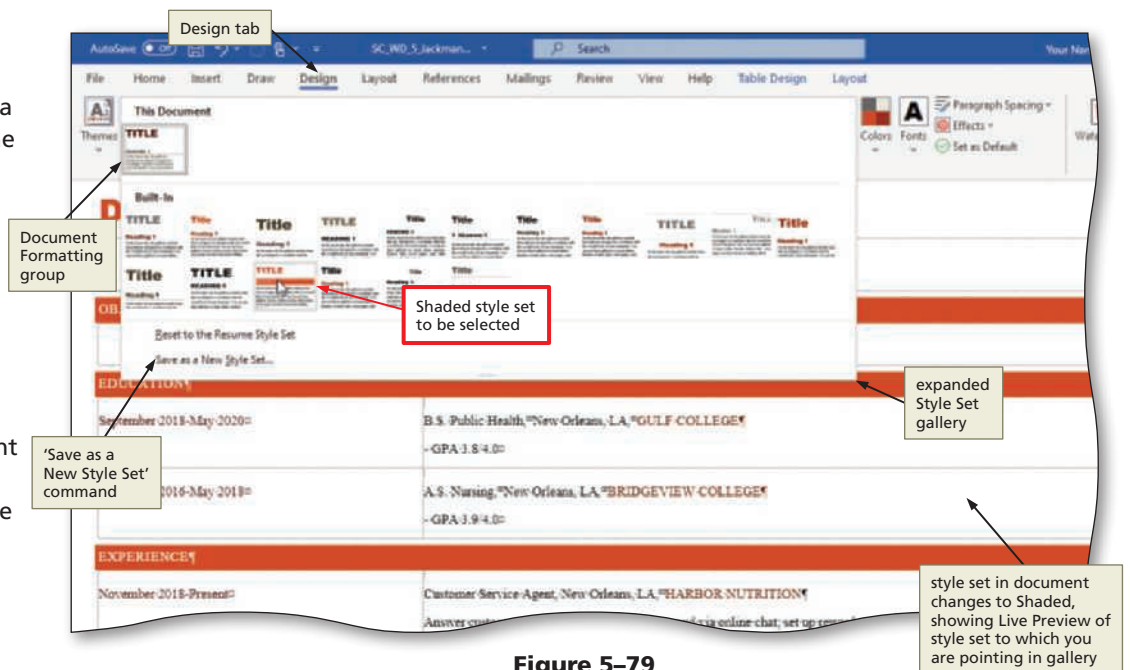


Figure 5–79

- 3

 - Click Shaded to change the style set to the selected style set.

Q&A Can I create my own style sets?

Yes. Modify the fonts and other formats as desired, click 'Save as a New Style Set' in the expanded Style Set gallery (shown in Figure 5–79), enter the name for the style set (Save as a New Style Set dialog box), and then click Save to create the custom style set. You then can access the custom style set through the Style Set gallery.

To Highlight Text

To emphasize text in an online document, you can highlight it. **Highlighting** alerts a reader to online text's importance, much like a highlighter pen does on a printed page. Word provides 15 colors you can use to highlight text, including the traditional yellow and green, as well as some nontraditional highlight colors, such as gray, dark blue, and dark red. The following steps highlight the job title being sought in the color yellow. **Why?** You want to emphasize this text on the resume.

1

- Select the text to be highlighted, which, in this case, is the text, sales representative position.
- Display the Home tab.
- Click the 'Text Highlight Color' arrow (Home tab | Font group) to display the Text Highlight Color gallery (Figure 5–80).

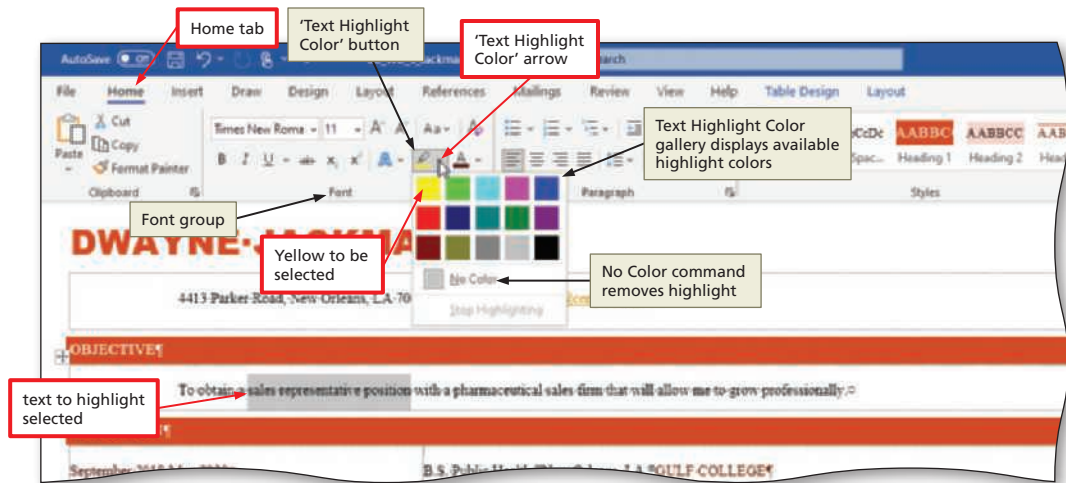


Figure 5–80

Q&A The Text Highlight Color gallery did not appear. Why not?

You clicked the 'Text Highlight Color' button instead of the 'Text Highlight Color' arrow. Click the Undo button on the Quick Access Toolbar and then repeat Step 1.

What if the icon on the 'Text Highlight Color' button already displays the color I want to use?

You can click the 'Text Highlight Color' button instead of the arrow.

2

Experiment

- Point to various colors in the Text Highlight Color gallery and watch the highlight color on the selected text change.
- Click Yellow in the Text Highlight Color gallery to highlight the selected text in the selected highlight color (Figure 5–81).

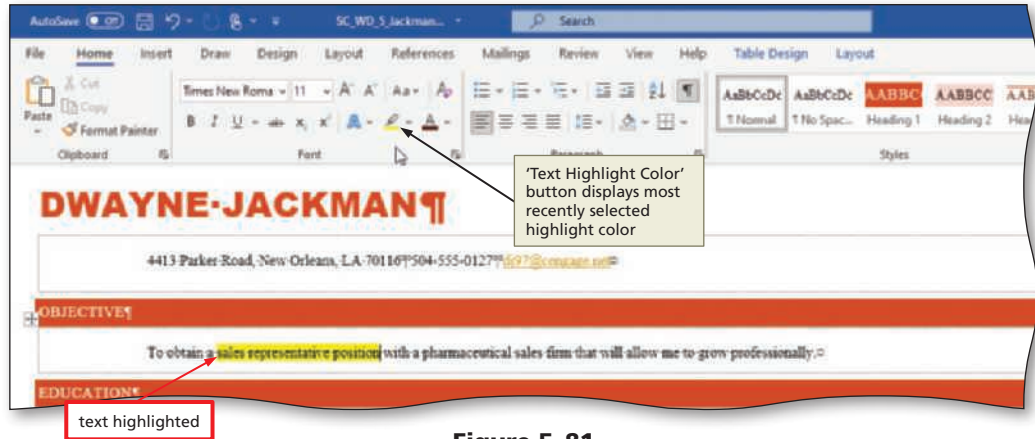


Figure 5–81

- Save the resume webpage again on the same storage location with the same file name and then exit Word.

Q&A How would I remove a highlight from text?

Select the highlighted text, click the 'Text Highlight Color' arrow, and then click No Color in the Text Highlight Color gallery.

Other Ways

1. Click 'Text Highlight Color' arrow (Home tab | Font group), select desired color, select text to be highlighted in document, select any additional text to be highlighted, click 'Text Highlight Color' button to turn off highlighting

To Test a Webpage in a Browser

After creating and saving a webpage, you should test it in at least one browser. **Why?** You want to be sure it looks and works the way you intended. The following steps use File Explorer to display the resume webpage in the Internet Explorer browser.

1

- Click the File Explorer button on the Windows taskbar to open the File Explorer window.
- Navigate to the location of the saved resume webpage file (Figure 5–82).

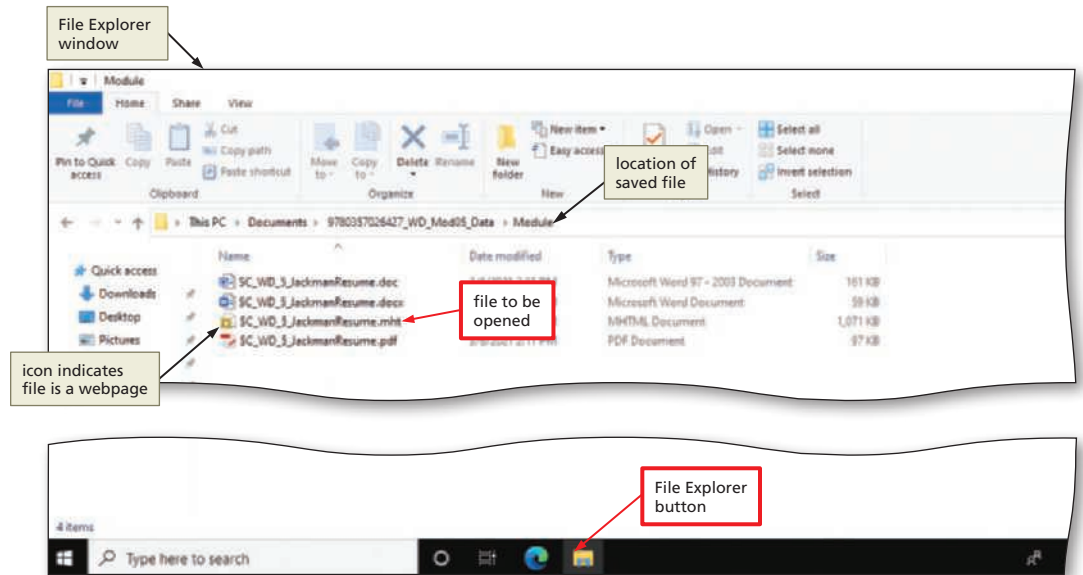


Figure 5–82

2

- Double-click the webpage file name, SC_WD_5_JackmanResume.mht, to start Internet Explorer and display the webpage file in the browser window (Figure 5–83).

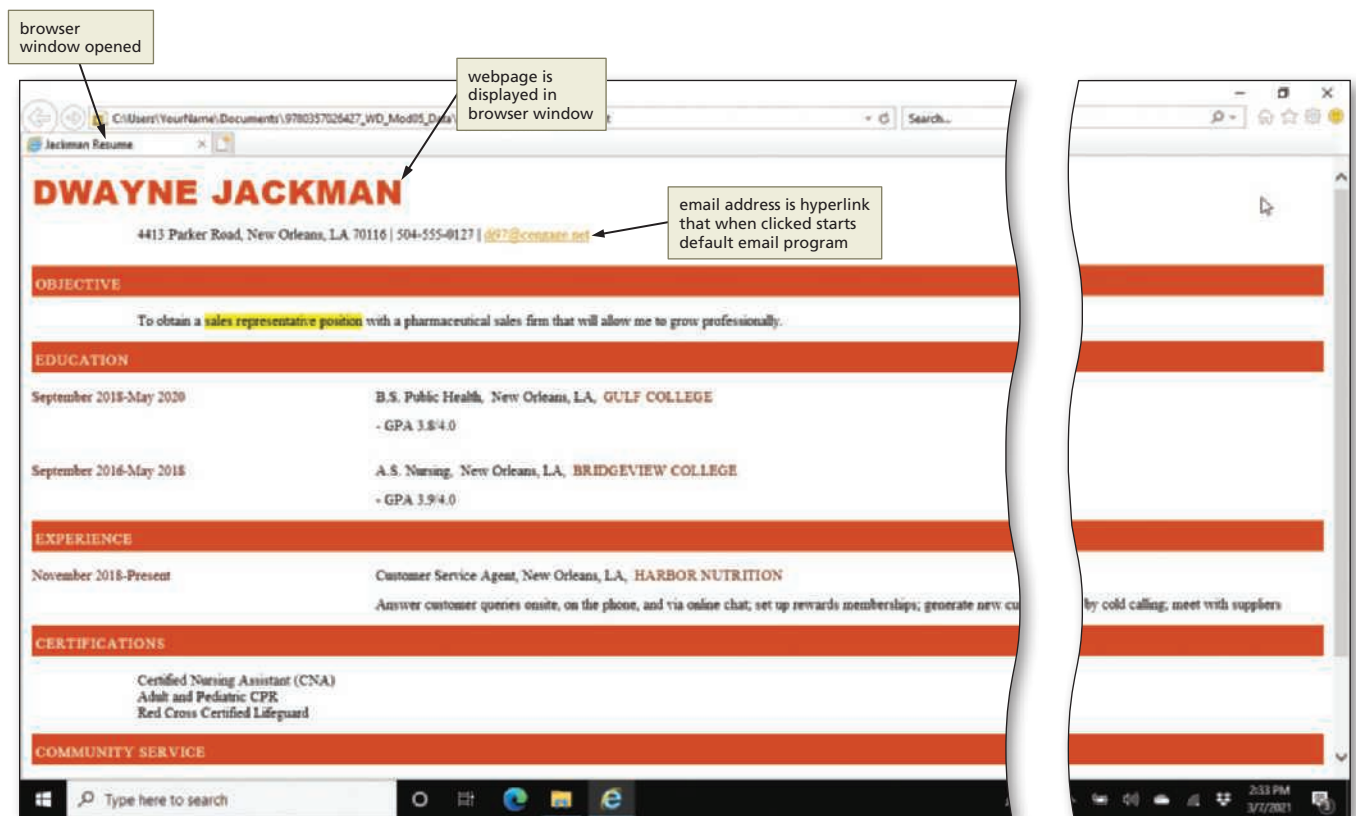


Figure 5–83

- 3**
- With the webpage document displayed in the browser, click the email address link to start the email program with the email address displayed in the email window (Figure 5–84).
 - If Internet Explorer displays a security dialog box, click its Allow button.

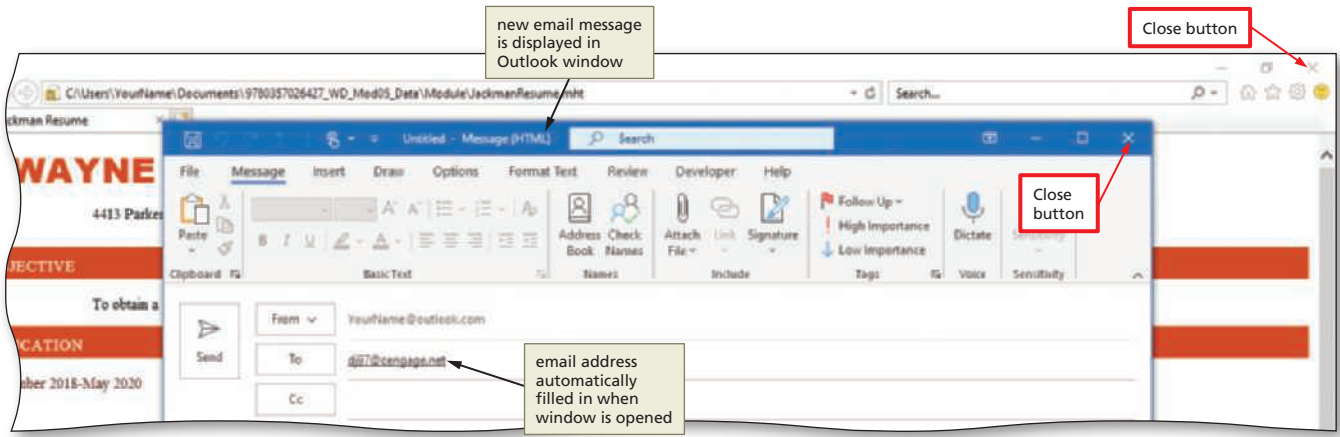


Figure 5–84

- 4**
- Exit all running apps.

Consider This



How do you publish a webpage?

Once you have created a webpage, you can publish it. **Publishing** is the process of making a webpage available to others on a network, such as the Internet or a company's intranet. Many Internet service providers (ISPs) offer storage space on their web servers at no cost to their subscribers.

Summary

In this module, you learned how to use a Word template to create a document, set custom margins, personalize a document template, change and customize theme fonts, customize theme colors, work with building blocks, create a style, modify a style, save a Word document in a variety of formats, share a document on OneDrive, get a sharing link, send a document using email, create a webpage from a Word document, insert a hyperlink, change the style set, and highlight text.



Consider This: Plan Ahead

What decisions will you need to make when creating your next resume?

Use these guidelines as you complete the assignments in this module and create your own resumes outside of this class.

1. Craft a successful resume.
 - a) Include necessary information (at a minimum, your contact information, objective, educational background, and work experience).
 - b) Honestly present all your positive points.
 - c) Organize information appropriately.
 - d) Ensure the resume is error free.
2. For electronic distribution, ensure the document is in the proper format.
 - a) Save the resume in a format that can be shared with others.
 - b) Ensure that others will be able to open the resume using software on their computers or mobile devices and that the look of the resume will remain intact when recipients open the resume.

3. If desired, create a resume webpage from your resume Word document.
 - a) Improve the usability of the resume webpage by making your email address a link to an email program.
 - b) Enhance the look of the webpage by adding, for example, a background color.
 - c) Test your finished webpage document in at least one browser to be sure it looks and works as intended.
 - d) Publish your resume webpage.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Saving a Word Document in a Variety of Formats

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_5-1.docx, which is located in the Data Files. You are to change the theme fonts, create custom theme fonts, change theme effects (Figure 5–85), and then save the revised document as a single file web page, a PDF document, an XPS document, and in the Word 97–2003 format.

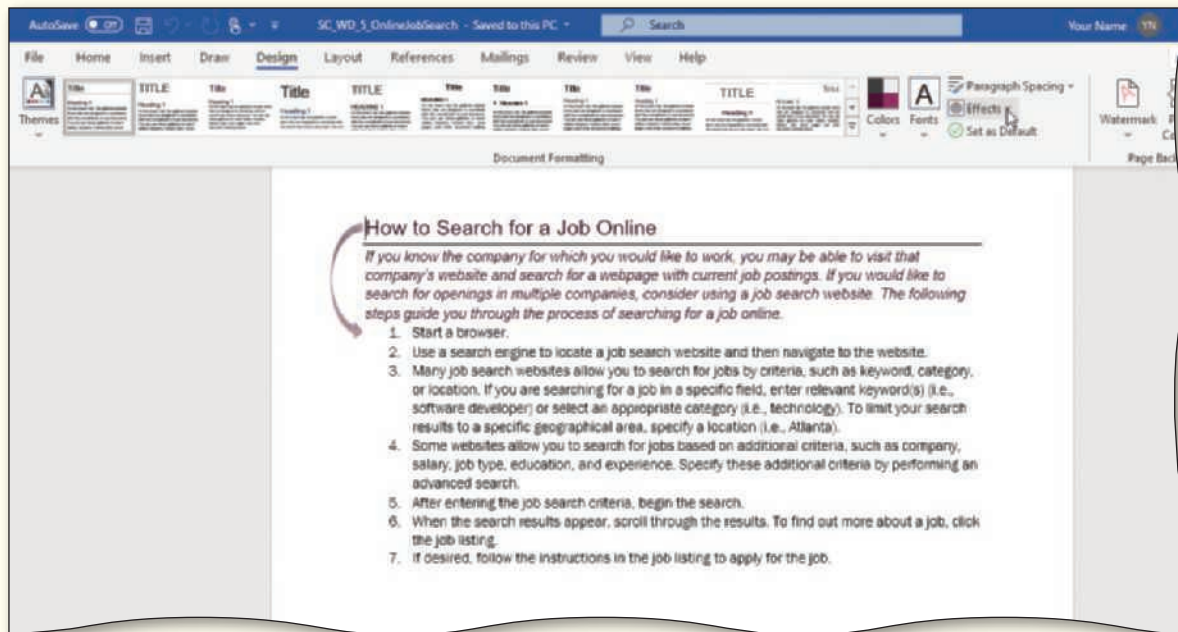



Figure 5–85

Perform the following tasks:

1. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_5_OnlineJobSearch.
2. Change the theme fonts to Arial-Times New Roman.
3. Create custom theme fonts to change the body font from Times New Roman to Franklin Gothic Book. Save the custom theme with the name, Job Search Steps.

Continued >

Apply Your Knowledge *continued*

4. Change the theme effects to Grunge Texture. What did the theme effects change in the document?
5. If requested by your instructor, add your name in parentheses immediately after the title of this document (on the same line).
6. Save the document again with the same file name (Figure 5-85).
7. Save the document as a single file web page using the file name, SC_WD_5_OnlineJobSearch_Webpage. In the Save As dialog box, click the Change Title button and then change the webpage title to Online Job Search. If necessary, change the view from Print Layout to Web Layout. If necessary, increase the zoom percentage so that the document is readable on your screen.
8. Delete the arrow shape in the upper-left corner of the document.
9. Change the style set to Centered.
10. Highlight the title, How to Search for a Job Online, in the yellow highlight color.
11. Save the document again with the same file name.
12. Use Internet Explorer or another browser to view the webpage. If requested by your instructor, print the webpage. What differences do you notice between the Word document format and the single file web page format? Exit the browser and then close the webpage document in Word.
13. Open the SC_WD_5_OnlineJobSearch.docx file created in Steps 1 through 6 above. If necessary, change the view from Web Layout to Print Layout. Export the document to a PDF document using the file name, SC_WD_5_OnlineJobSearch, ensuring you check the 'Open file after publishing' check box so that you can view the PDF document in Adobe Reader. Submit the document as specified by your instructor. Exit Adobe Reader. From within Word, open the PDF document just created. Edit the converted PDF document so that the title ends with the text, (PDF Version). What differences do you notice between the Word document format and the PDF format? Close the converted PDF document in Word without saving it.
14. If necessary, open the SC_WD_5_OnlineJobSearch.docx file created in Steps 1 through 6 above. Export the document to an XPS Document using the file name, SC_WD_5_OnlineJobSearch, ensuring you check the 'Open file after publishing' check box so that you can view the XPS document in the XPS Viewer. Submit the document as specified by your instructor. What differences do you notice between the Word document format and the XPS format? Exit the XPS Viewer.
15. If necessary, open the SC_WD_5_OnlineJobSearch.docx file created in Steps 1 through 6 above. Check the document's compatibility. What issue(s) were identified by the compatibility checker? Save the document in the Word 97-2003 format using SC_WD_5_OnlineJobSearch_Word97-2003 as the file name. Submit the document as specified by your instructor. Close the document window.
16. Open the SC_WD_5_OnlineJobSearch.docx file created in Steps 1 through 6 above. If your instructor allows, use the Share button to send this Word document as an attachment to an email message to your instructor's email account. If your instructor allows, use the Share button again to send a PDF of this document to your instructor's email account.
17.  Answer the questions posed in #4, #12, #13, #14, and #15. If you wanted to send this document in an email message to others, which format would you choose and why?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Modifying and Editing a Resume Template and Creating a Multi-File Webpage

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_5-2.docx, which is located in the Data Files. You will modify and edit a resume template by working with content controls and table elements, hyperlinks, building blocks, and the Resume Assistant, and you will save a Word document as a multi-file webpage and format it by inserting links, adding a pattern fill effect as the background, and applying highlights to text.

Perform the following tasks:

1. Use Help to learn more about the Resume Assistant, saving as a webpage (not a single file webpage), hyperlinks, and pattern fill effects.
2. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_5_VetTechResume.
3. If requested by your instructor, change the name on the resume to your name.
4. Enter the text, 207-555-0154, in the Telephone content control.
5. Delete the Website content control.
6. Insert a hyperlink to the email address. Add the following ScreenTip for the hyperlink: Send me an email message.
7. Edit the hyperlink to change the 98 in the email address to 97.
8. The applicant would like to work at a veterinary hospital as a full-time veterinary technician. Click the text in the Objective section, use the Resume Assistant to research the role and job skills, and then write an objective for the resume. (**Hint:** Click the Resume Assistant button (Review tab | Resume group)) (Figure 5–86). Note that to use the Resume Assistant you may need to agree to send your resume information to LinkedIn for suggestions.

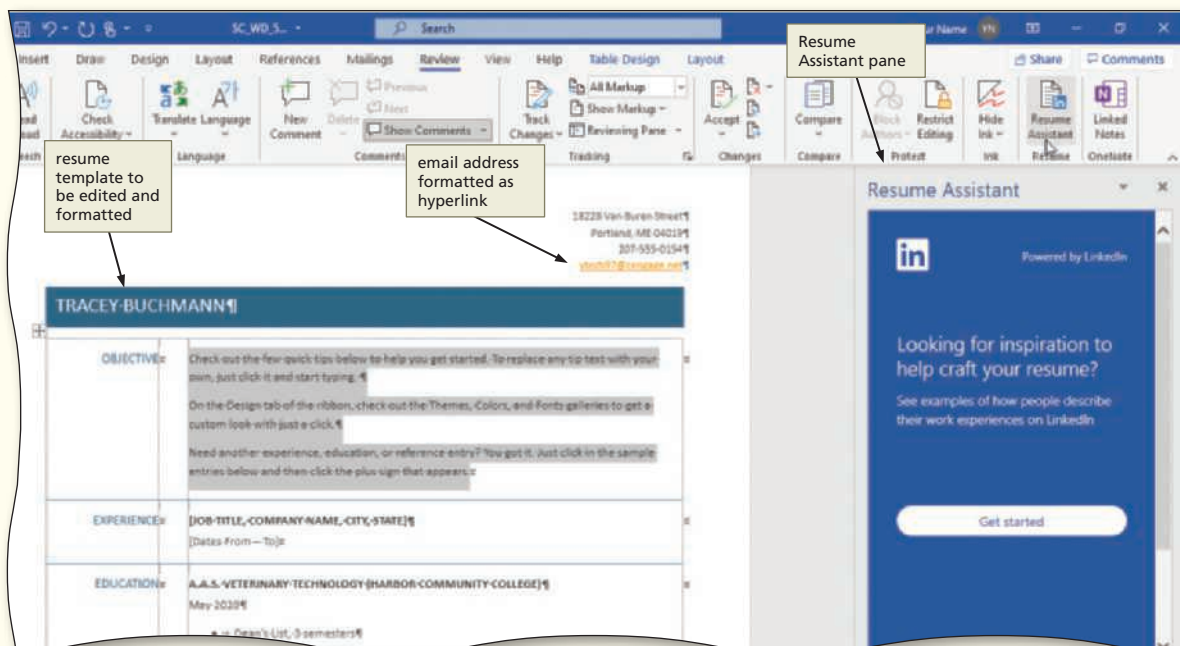


Figure 5–86

Continued >

Extend Your Knowledge *continued*

9. Create a building block (Quick Part) for the text, veterinary, and save the building block with the name vy. Insert the building block (Quick Part) whenever you have to enter the text, veterinary.
10. Use copy and paste or drag and drop to move the row containing the Education section so that it appears above the Experience row.
11. Copy the Memberships row and then paste the row (with source formatting) so that the pasted row appears immediately below the Education section. Change the heading of the pasted row from Memberships to Skills. Change the text in the right column of the pasted row to the following, with each item on a separate line: Anesthesia and surgery, Client education, Laboratory testing and procedures, Pharmacology, Recordkeeping.
12. In the Experience section of the resume, insert a content control so that you can enter two jobs. (**Hint:** Click the job experience content control to the right of the Experience heading and then click the Insert Control button at the right of the control, or right-click the job experience content control and then click the location to insert the content control on the shortcut menu.)
13. Enter this job information for two jobs in the Experience section:
Veterinary Assistant, Harbor Animal Clinic, Portland, ME, May 2018-Present; Groomer, Delaney's Doggie Care, Portland, ME, September 2017-May 2018.
14. Below the dates in the Veterinary Assistant job, add this description on a separate paragraph, indented: Sterilized surgical kits, assisted during routine physical examinations, collected patient histories, walked dogs, communicated with clients, and booked appointments.
15. Copy and paste with source formatting the paragraph you entered in #14 on a blank paragraph below the dates in the Groomer job. Change the pasted text so that it reads: Bathed dogs; brushed, combed, clipped, and shaped dogs' coats; trimmed nails; and cleaned ears.
16. Change the format of the Objective heading in the resume to a format you feel is more noticeable. Create a paragraph style for the newly formatted Objective heading and name the format Resume Headings. Apply the Resume Headings style to the remaining headings in the resume.
17. Change the format of the bulleted lists in the resume to a bullet symbol of your choice.
18. Insert one of the SAMPLE watermarks using the Quick Part button and the Building Blocks Organizer dialog box.
19. The resume should fit on a single page. If it does not, adjust spacing above and below paragraphs, line spacing, or table row heights so that it fits on a single page.
20. Change the vertical alignment of the resume so that its contents are centered vertically on the page.
21. Save the revised document again with the same name and then submit it in the format specified by your instructor.
22. Save the SC_WD_5_VetTechResume file in the web page format (not as a single file web page) using the file name, SC_WD_5_VetTechResume. In the Save As dialog box, change the page title to Vet Tech Resume.
23. If necessary, change the view to Web Layout. (Notice that the watermark does not appear in Web Layout view.) Above the email address in the resume, on a separate line, enter the text www.cengage.com as the web address. Format the web address in the document as a hyperlink so that when a user clicks the web address, the associated webpage is displayed in the browser window.
24. Add a page color of your choice to the document. (**Hint:** Use the Design tab.) Add a pattern fill effect of your choice to the page color. (**Hint:** Click the Page Color button (Design tab | Page Background group) and then click Fill Effects on the Page Color menu.)
25. Apply a text highlight color of your choice to at least five words in the resume.

26. If requested by your instructor, insert a hyperlink to another resume document you created in this module or elsewhere and change the ScreenTip to read: Click for another sample resume.
27. Save the revised document again with the same name and then submit it in the format specified by your instructor.
28. Test the webpage by double-clicking its file name in File Explorer. Test the web address link on the webpage.
29. Copy the entire resume table. Paste the table with source formatting in a new Word document window. Click the Paste Options button and point the various paste options to see how they change the look of the pasted table. Close the Word window without saving the document.
30. 🌟 Why would you add a pattern fill effect to a background?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Sharing a Resume Online and Creating a Calendar

Notes:

- You will use OneDrive and a job search website account, which you can create at no cost, to complete this assignment. If you do not have these accounts and do not want to create them, read Steps 9 through 12 in this assignment without performing the instructions.
- To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: You are a business graduate with an accounting degree from Maple Leaf College. You will make some final edits to your resume and then will share it with potential employers. You will save it on your OneDrive account, invite others to view it, get a sharing link, send it via email, and post it on a job search website (Figure 5–87). You also will use a calendar template to help organize your upcoming appointments and important dates.

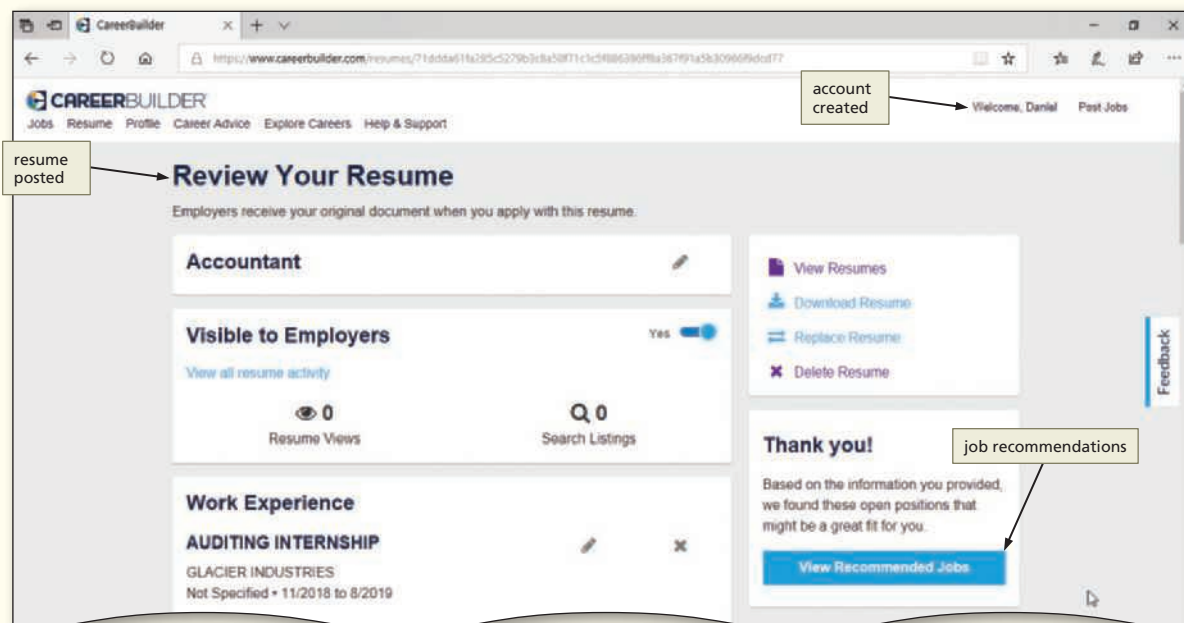


Figure 5–87

Source: CareerBuilder, LLC

Continued >

Expand Your World *continued*

Perform the following tasks:

1. Start Word. Open the document, SC_WD_5-3.docx, which is located in the Data Files.
2. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_5_AccountantResume.
3. If requested by your instructor, change the name at the top of the resume to your name.
4. Set custom margins to .75-inch top, bottom, left, and right so that the entire resume fits on a single page.
5. Reveal formatting of a heading in the resume. Notice that the headings use the Accent 1 color. Close the Reveal Formatting pane.
6. Create a custom theme color so that Accent 1 is a color different from 'Brown, Accent 1'. Save the custom theme with the name Accountant Resume Headings.
7. If requested by your instructor, save the current theme settings as the default.
8. Save the revised document again with the same name and then submit it in the format specified by your instructor.
9. Save the SC_WD_5_AccountantResume resume on your OneDrive account so that you can share it.
10. Using the Share button in Word, invite at least one of your classmates to view your resume document. If requested, include your instructor in the invitation.
11. In Word, get a sharing link for the resume. Send the sharing link in an email message to at least one of your classmates. Submit the link in the format requested by your instructor.
12. Export the resume to a PDF file. Search for the text, post resume online, using a search engine. Visit several of the job search websites and determine on which one you would like to post a resume. If requested, create an account or profile, fill in the requested information, and then upload the PDF format of the resume (shown in Figure 5-87). Submit the posting in the format requested by your instructor. Delete the posted resume from the job search website.
13. Browse through Word's calendar templates, download an appropriate calendar template, and then enter the following appointments in the calendar for the month of May: May 4–Job interview at Brighten Industries at 11:30 a.m., May 7–Job interview at TG Accounting at 2:00 p.m., May 8–Alumni Meeting at 1:00 p.m. in Room 103 in Pace Hall, May 12–Job Fair from noon to 4:00 p.m. in Bard Hall, May 18–Dentist appointment at 9:00 a.m., May 20–Lunch at noon with Dr. Chambers at Riverside Café, May 28–Eye doctor appointment at 1:00 p.m. Save the calendar using the file name, SC_WD_5_AppointmentCalendar and then submit it in the format specified by your instructor.
14. 🌟 Which job search websites did you evaluate? Which one did you select to use and why? What would cause the file size of your resume to be too large to upload (post)? How can you reduce the file size? Look through the all resume templates available in Word. Which would work best for your resume? Why?

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Create a Resume for a Graduating Criminal Justice Student

Problem: You are graduating with a degree in criminal justice from Marigold College. Because you soon will be seeking employment as an investigator with a law enforcement agency, you use a template to create a resume for your job search.

Part 1: Browse through Word's resume templates and select one you can use to create the resume. Use the concepts and techniques presented in this module to create and format the resume. The resume should contain the following content:

Name: Leo Moretti (if requested by your instructor, use your name).

Address: 2091 Willow Lane, Apt. 34, Bowling Green, KY, 42102 (if requested by your instructor, use your address).

Phone: 270-555-0177 (if requested by your instructor, use your phone number).

Email: leo@cengage.net (if requested by your instructor, use your email address).

Objective: To obtain a full-time investigator position with a local or state law enforcement agency.

Education: B.A. Criminal Justice from Marigold College in May 2020. GPA 3.85/4.0. Awards received: Dean's List, every semester; Outstanding Student Award, May 2019; Criminal Justice Journal, 1st Place, cross-cultural perspectives article. Areas of concentration: Criminal law, International justice systems, Research methods, Victims' rights. A.A. Legal Studies from Hammond Community College in May 2018. GPA 3.80/4.00.

Experience: Teachers' Assistant at Marigold College from January 2019-Present.

Research trends in course topics, grade student assignments, guide students with projects, manage student communications, present lectures when instructors are off campus.

Memberships: Criminal Justice Club, Marigold College; Phi Delta Gamma National Honor Society; Student Government Association, Marigold College.

Community Service: Certified Victim Advocate at Bowling Green Community Services from October 2018-Present. **Certified Victim Advocate Duties:** Volunteer eight hours a week at the call center; Offer emotional support and provide information on victims' legal rights and the criminal justice process.

When you are finished with the resume, be sure to check the spelling and grammar. Save it in a form suitable for sharing using the file name, SC_WD_5_InvestigatorResume. Also save the resume as a webpage and format the webpage appropriately. Submit your assignment documents and answers to the Part 2 critical thinking questions in the format specified by your instructor.

Part 2: 🌟 You made several decisions while creating the resume in this assignment: which template to use, where to position elements, how to format resume elements, in which format to save the document for sharing, and how to format the webpage elements. What was the rationale behind each of these decisions?

6 Using Mail Merge

Objectives

After completing this module, you will be able to:

- Explain the merge process
- Use the Mail Merge wizard and the Mailings tab on the ribbon
- Use a letter template as the main document for a mail merge
- Create and edit a recipient list in a data source
- Insert merge fields in a main document
- Use an IF field in a main document
- Merge form letters
- Select recipients to merge
- Sort a recipient list
- Address and print mailing labels and envelopes
- Change page orientation
- Merge all data records to a directory
- Convert text to a table

Introduction

People are more likely to open and read a personalized letter than a letter addressed as Dear Sir, Dear Madam, or To Whom It May Concern. Creating individual personalized letters, though, can be a time-consuming task. Thus, Word provides the capability of creating a form letter, which is an easy way to generate mass mailings of personalized letters. The basic content of a group of form letters is similar. Items such as name and address, however, vary from one letter to the next. With Word, you easily can address and print mailing labels or envelopes for the form letters.

Project: Form Letters, Mailing Labels, and a Directory

Both businesses and individuals regularly use form letters to communicate with groups of people via the postal service or email. Types of form letter correspondence include announcements of sales to customers, notices of benefits to employees, and job application letters to potential employers.

The project in this module follows generally accepted guidelines for writing form letters and uses Word to create the form letters shown in Figure 6–1. The form letters inform potential employers that you met at a job fair of your interest in a job opening at their organization. Each form letter states the potential employer's name and address, available job position, and whether the organization sells therapeutic medicine or medical devices.

To generate form letters, such as the ones shown in Figure 6–1, you create a main document for the form letter (Figure 6–1a), create or specify a data source, which contains a recipient list (Figure 6–1b), and then **merge**, or combine, the main document with the recipient list in the data source to generate a series of individual letters (Figure 6–1c). In Figure 6–1a, the main document represents the portion of the form letter that is repeated from one merged letter to the next. In Figure 6–1b, the recipient list in the data source contains the organization’s contact person, name, address, available position, and type of product sold for various potential employers. To personalize each letter, you merge the potential employer data in the recipient list in the data source with the main document for the form letter, which generates or prints an individual letter for each potential employer listed in the recipient list in the data source.


Word provides two methods of merging documents: the Mail Merge wizard and the Mailings tab on the ribbon. The Mail Merge wizard, which uses the Mail Merge pane, is a step-by-step progression that guides you through the merging process. The Mailings tab provides buttons and boxes you use to merge documents. This module illustrates both techniques.

In this module, you will learn how to create the form letters shown in Figure 6–1. You will perform the following general tasks as you progress through this module:

1. Identify the main document for the form letters.
2. Create the recipient list for a data source.
3. Compose the main document for the form letters.
4. Merge the recipient list in the data source with the main document.
5. Address mailing labels.
6. Merge all recipients in a data source to a directory.

To Start Word and Specify Settings

If you are using a computer to step through the project in this module and you want your screens to match the figures in this book, you should change your screen’s resolution to 1366 × 768. The following steps start Word, display formatting marks, change the zoom to page width, and verify ruler and Mouse mode settings.

- 1  Start Word and create a blank document in the Word window. If necessary, maximize the Word window.
- 2 If the Print Layout button on the status bar is not selected, click it so that your screen is in Print Layout view.
- 3 If the ‘Show/Hide ¶’ button (Home tab | Paragraph group) is not selected already, click it to display formatting marks on the screen.
- 4 To display the page the same width as the document window, if necessary, click the Page Width button (View tab | Zoom group).
- 5 Verify that the Ruler check box (View tab | Show group) is not selected. (If it is selected, click it to remove the check mark because you do not want the rulers to appear on the screen.)

(a) Main Document for the Form Letter

(b) Recipient List in Data Source

Title	First Name	Last Name	Organization Name	Address Line 1	Address Line 2	City	State	ZIP Code	Position	Product Sold
Ms.	Alisha	Briggs	Wilton Health Solutions	120 Sunrise Lane		New Orleans	LA	70116	pharmaceutical sales representative	T
Mr.	Rudy	Tan	Barton Medical	8839 Westmore Boulevard	Suite 22B	Covington	LA	70434	sales representative	M
Mr.	Sam	Steinberg	Chambers Pharmaceuticals	582 Center Street	P.O. Box 582	New Orleans	LA	70116	inside sales representative	T
Ms.	Adriana	PI	Tipton Laboratories	4465 Darien Avenue		Gulfport	MS	39501	entry level sales representative	T
Ms.	Tracy	Walker	Oakland Industries	980 Morgan Parkway	P.O. Box 980	Baton Rouge	LA	70801	territory representative	M

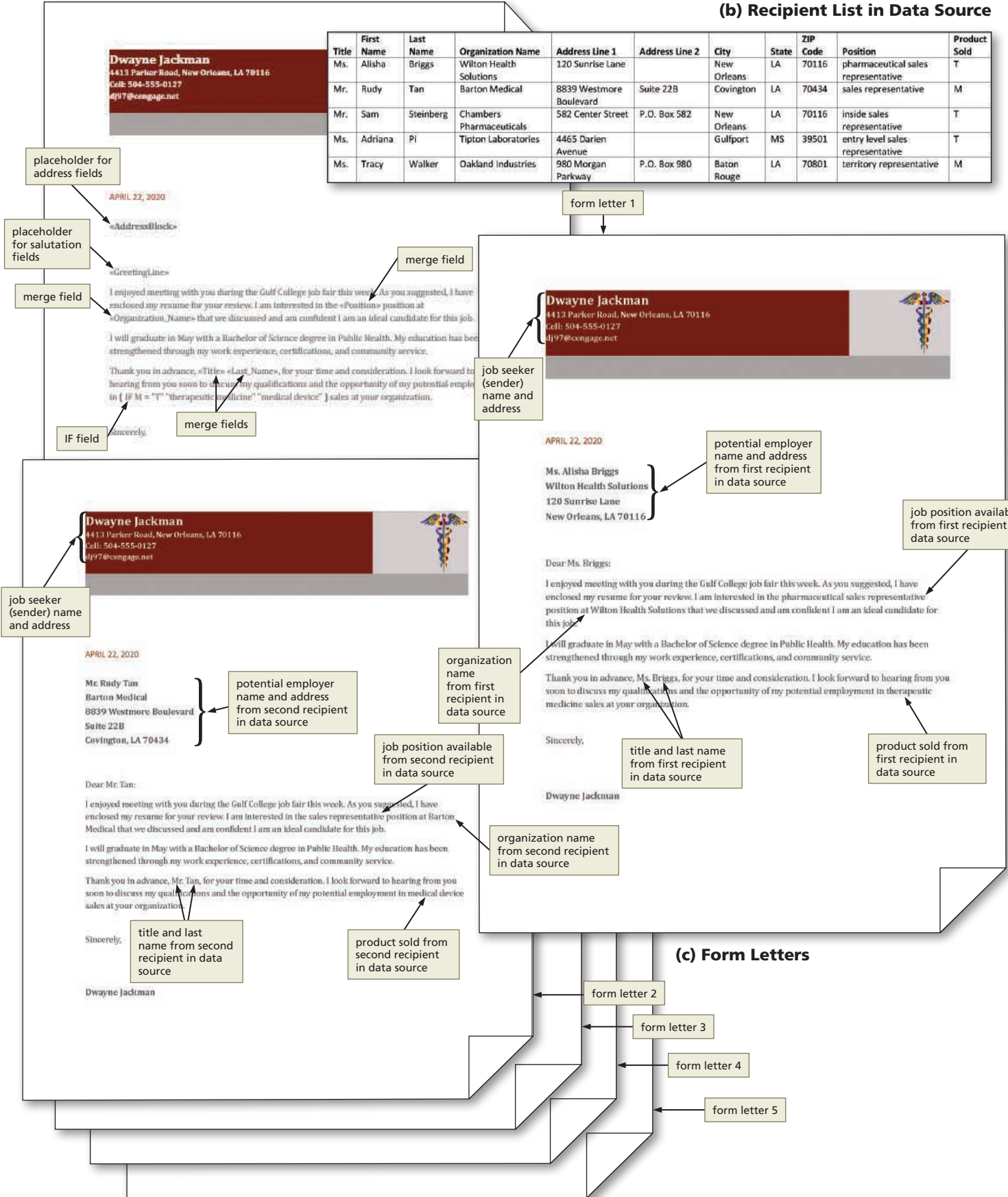


Figure 6-1

BTW

Touch Mode Differences

The Microsoft 365 and Windows interfaces may vary if you are using Touch mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

- 6 If you are using a mouse and you want your screens to match the figures in the book, verify that you are using Mouse mode by clicking the Touch/Mouse Mode button on the Quick Access Toolbar and then, if necessary, clicking Mouse on the menu. (If your Quick Access Toolbar does not display the Touch/Mouse Mode button, click the 'Customize Quick Access Toolbar' button on the Quick Access Toolbar and then click Touch/Mouse Mode on the menu to add the button to the Quick Access Toolbar.)

Identifying the Main Document for Form Letters

The first step in the mail merge process is to identify the type of document you are creating for the main document. Typical installations of Word support five types of main documents: letters, email messages, envelopes, labels, and a directory. In this section of the module, you create letters as the main document. Later in this module, you will specify labels and a directory as the main document.

Consider This



How should you create the letter for the main document?

When creating form letters, you either can type the letter for the main document from scratch in a blank document window or use a letter template. If you enter the contents of the main document from scratch, you can compose it according to the block, modified block, or semi-block letter style, formatted appropriately with business letter spacing. Alternatively, you can use a letter template to save time because Word prepares a letter with text and/or formatting common to all letters. Then, you customize the resulting letter by selecting and replacing prewritten text.

To Start the Mail Merge Wizard

This module uses a template for the main document for the form letter, where you select predefined content controls and placeholder text and replace them with personalized content, adjusting formats as necessary.

Why? You can use the same or similar style that you use with a resume so that the two documents complement one another. The following steps use the Mail Merge wizard to identify the Timeless letter template as the main document for a form letter.

- 1
 - Click Mailings on the ribbon to display the Mailings tab.
 - Click the 'Start Mail Merge' button (Mailings tab | Start Mail Merge group) to display the Start Mail Merge menu (Figure 6–2).

Q&A **What is the function of the E-mail Messages command?**
 Instead of sending individual letters, you can send individual email messages using email addresses in the recipient list in the data source or using a Microsoft Outlook Contacts list as the data source.

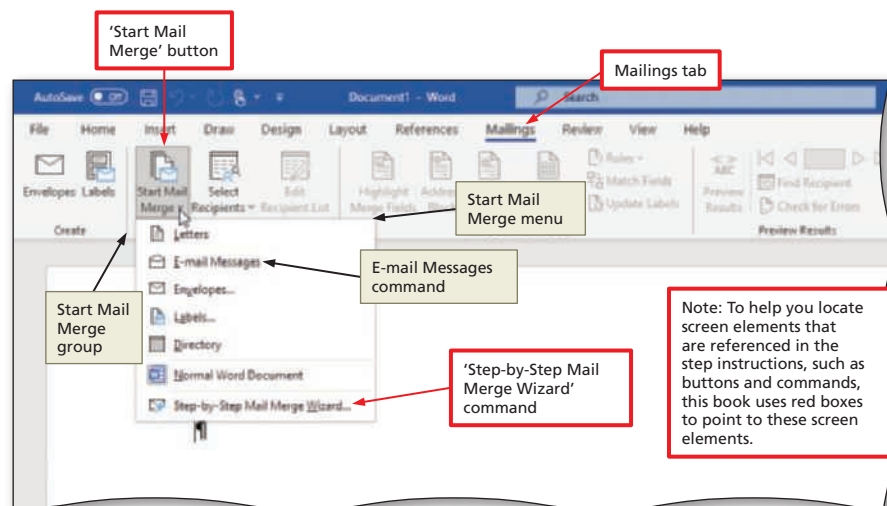
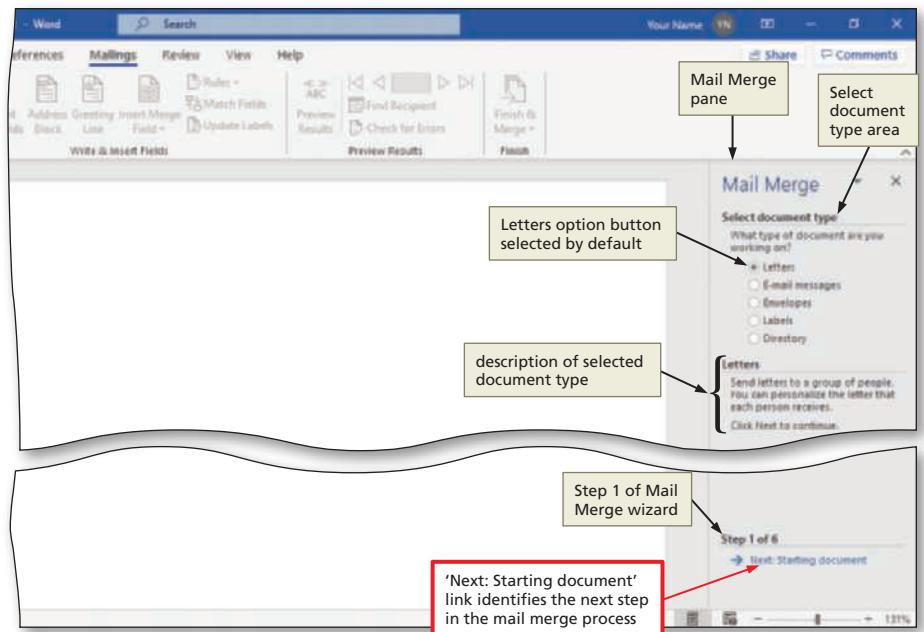


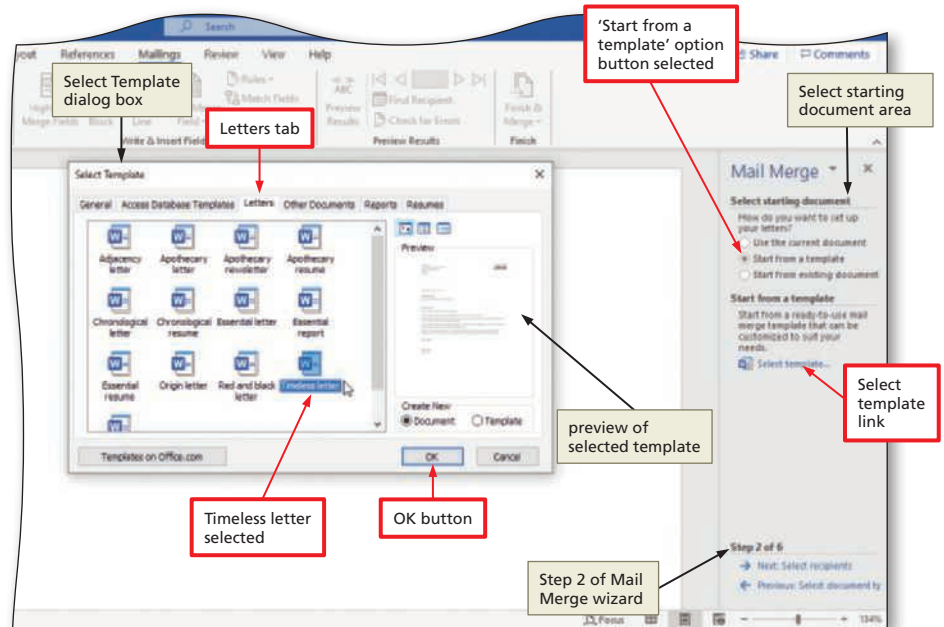
Figure 6–2

2

- Click 'Step-by-Step Mail Merge Wizard' on the Start Mail Merge menu to display Step 1 of the Mail Merge wizard in the Mail Merge pane (Figure 6-3).

**Figure 6-3****3**

- Ensure that Letters is selected in the Select document type area and then click the 'Next: Starting document' link at the bottom of the Mail Merge pane to display Step 2 of the Mail Merge wizard, which requests you select a starting document.
- Click 'Start from a template' in the Select starting document area and then click the Select template link to display the Select Template dialog box.
- Click the Letters tab (Select Template dialog box) to display the Letters sheet and then click Timeless letter, which shows a preview of the selected template in the Preview area (Figure 6-4).

**Figure 6-4**

Experiment

- Click various Letter templates in the Letters sheet and watch the preview change in the right pane of the dialog box. When you are finished experimenting, click the Timeless letter template to select it.

Q&A What if I cannot locate the Timeless letter template?

Click the Cancel button to close the dialog box, click the 'Start from existing document' option button in the Mail Merge pane to display options for opening a document in the pane, click the Open button that appears in the Mail Merge pane to display the Open dialog box, navigate to the location of the Support_WD_6_TimelessLetterTemplate.docx, click the file to select it, click the Open button (Open dialog box) to open the selected file, and then skip the remainder of these steps.

4

- Click OK to display a letter in the document window that is based on the Timeless letter template (Figure 6-5).
- If necessary, click the Undo button on the Quick Access Toolbar to reset the Your Name content control at the bottom of the letter.

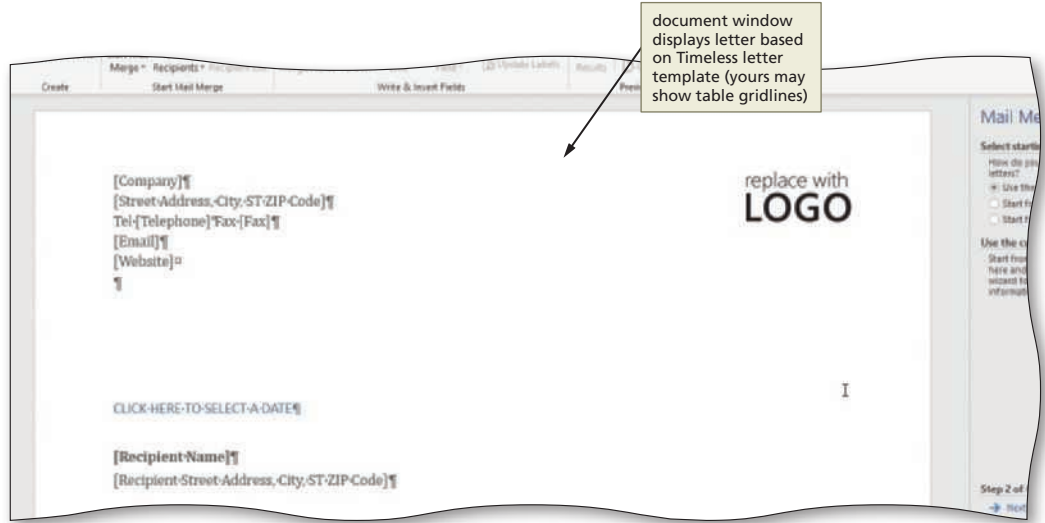


Figure 6-5

Q&A Can I close the Mail Merge pane?

Yes, you can close the Mail Merge pane at any time by clicking its Close button. When you want to continue with the merge process, you repeat these steps and Word will resume the merge process at the correct step in the Mail Merge wizard.

5

- Print the document shown on the screen so that you easily can see the entire letter contents (Figure 6-6).

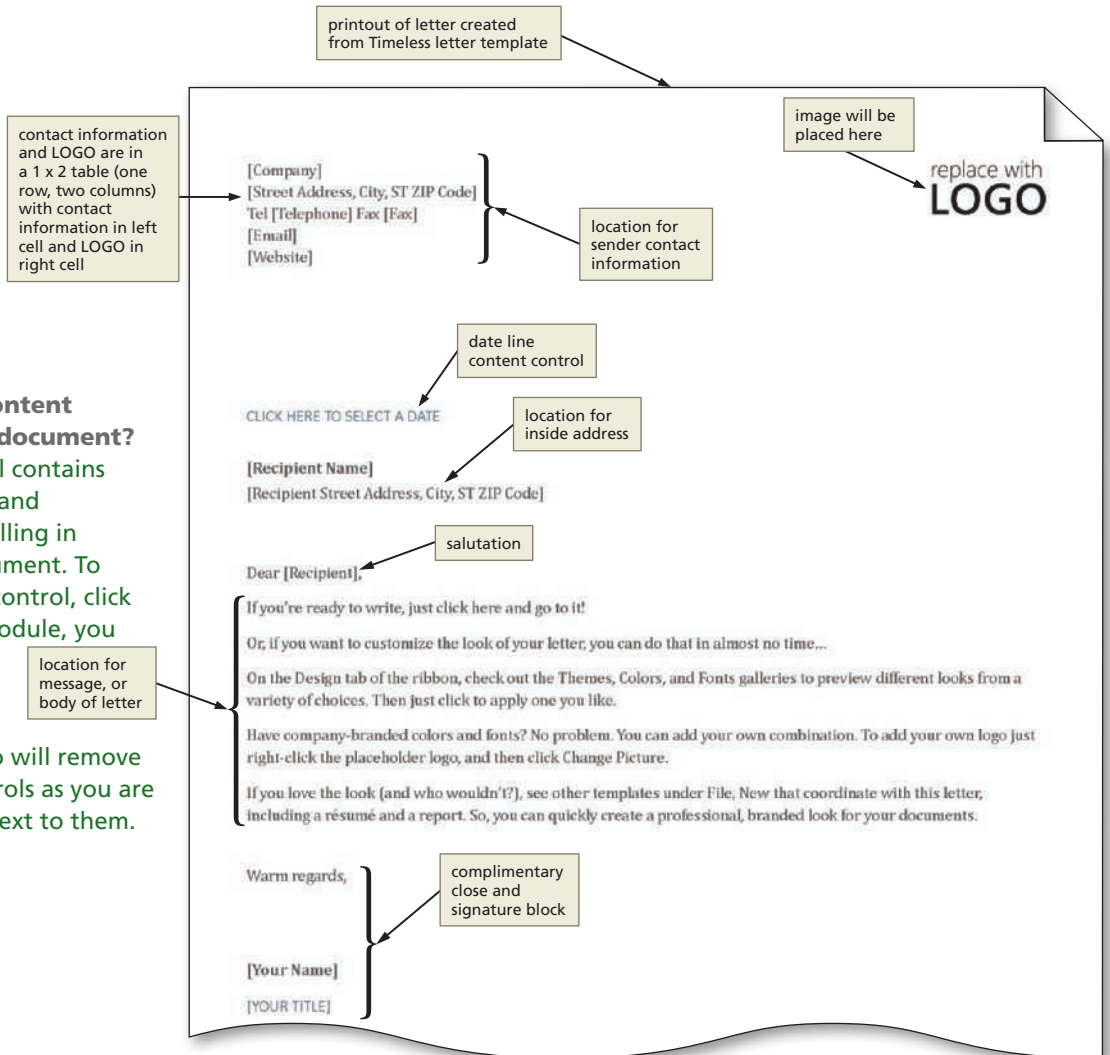


Figure 6-6

Q&A What are the content controls in the document?

A content control contains placeholder text and instructions for filling in areas of the document. To select a content control, click it. Later in this module, you will personalize the placeholder text and content controls. You also will remove the content controls as you are finished adding text to them.

Other Ways

1. Open Backstage view, click New, type **letters** in 'Search for online templates' box, click Start searching button, click desired letter template, click Create button

To Change Theme Colors

Word provides document themes, which contain a variety of color schemes and other effects. This cover letter uses the Orange Red theme colors to match the theme colors used in the associated resume. The following steps change the theme colors.

- 1 Click Design on the ribbon to display the Design tab.
- 2 Click the Colors button (Design tab | Document Formatting group) to display the Colors gallery.
- 3 Scroll to and then click Orange Red in the Colors gallery to change the theme colors to the selected theme.

To Enter and Format the Sender Information

The next step is to enter the sender's contact information at the top of the letter. You will use the [Company] placeholder text for the sender's name. You will delete the [Fax] and [Website] placeholder text because this sender does not have a fax or website. Then, you will change the font size of the text. The following steps enter and format the sender information.

- 1 Select the placeholder text, [Company], and then type **Dwayne Jackman** as the sender name.
- 2 Select the placeholder text, [Street Address, City, ST ZIP Code], and then type **4413 Parker Road, New Orleans, LA 70116** as the sender's address.
- 3 Select the text, Tel, and then type **Cell:** as the label. Select the placeholder text, [Telephone], and then type **504-555-0127** as the sender's cell phone number.
- 4 Delete the Fax label and [Fax] placeholder text.
- 5 Select the placeholder text, [Email], and then type **dj97@cengage.net** as the sender's email address. (If Word automatically capitalizes characters in the email address, change the capital letters to lowercase letters.)
- 6 Delete the [Website] placeholder text.
- 7 Increase the font size of the name to 14 point, and decrease the font size of the street address, cell phone, and email address to 9 point.
- 8 Select the name and all contact information. Bold the text (shown in Figure 6-7).

To Change a Picture and Format It

The current picture in the letter contains the text, replace with LOGO, which is a placeholder for a picture. The following steps change a picture.

- 1 Right-click the picture to be changed (in this case, the picture placeholder with the text, replace with LOGO) to display a shortcut menu and then point to Change Picture on the shortcut menu (Figure 6-7).

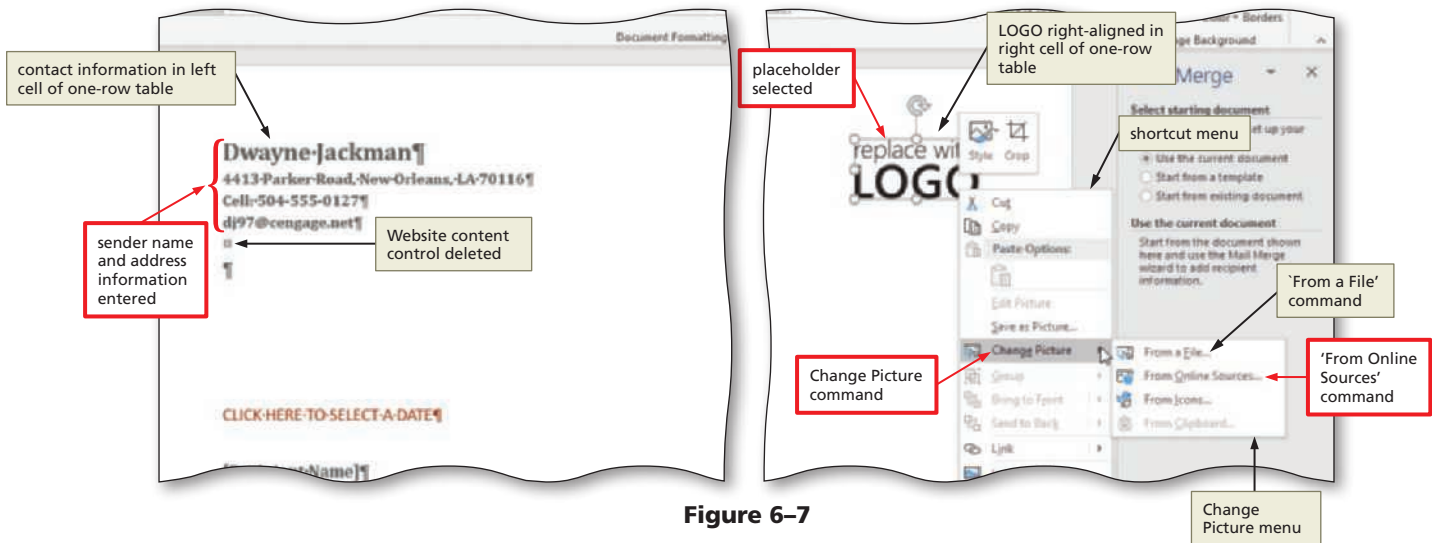


Figure 6-7

- 2 Click 'From Online Sources' on the Change Picture submenu to display the Online Pictures dialog box.

Q&A Can I use the Change Picture button (Picture Format tab | Adjust group) instead of the shortcut menu to display the Online Pictures dialog box?
Yes.

- 3 Type **caduceus** in the Search box (Online Pictures dialog box) and then press ENTER to display a list of images that matches the entered search text.
- 4 Scroll through the list of images to locate the one shown in Figure 6-8 (or a similar image), click the image to select it, and then click the Insert button (Online Pictures dialog box) to download the image, close the dialog box, and replace the selected placeholder with the new picture file (shown in Figure 6-8).

Q&A What if I cannot locate the same image?
Click Cancel and then repeat Step 1 above, click 'From a File' on the Change Picture submenu to display the Insert Picture dialog box, navigate to the Support_WD_6_Caduceus.png file in the Data Files (Insert Picture dialog box), and then click the Insert button to replace the selected placeholder with the new picture file.

- 5 Use the Shape Height and Shape Width boxes (Picture Format tab | Size group) to change the picture height to approximately .92" and width to .74". (Note: You might need to remove the check mark from the 'Lock aspect ratio' check box by clicking the Size Dialog Box Launcher (Picture Format tab | Size group) in order to size the image exactly.)

To Shade Cells and a Shape

In the letter in this module, the left and right cells of the table containing the contact information and picture are shaded different colors. These two cells are contained in a rectangular shape, which extends below these two cells. By shading the cells in the table and the rectangular shape each a separate color, you create a letterhead with three different colors. The following steps shade table cells and a shape.

- 1 Position the insertion point in the contact information (upper-left cell of table). Display the Layout tab and then, if necessary, click the View Gridlines button (Layout tab | Table group) to show table gridlines.

Q&A Why show table gridlines?
With table gridlines showing, the cells are easier to see.

- 2 Display the Table Design tab. With the insertion point in the left cell, click the Shading arrow (Table Design tab | Table Styles group) and then click 'Dark Red, Accent 2, Darker 25%' (sixth color, fifth row) to shade the current cell with the selected color.
- 3 Select the contact information in the left cell and change its font color to 'White, Background 1' (first color, first row).
- 4 Position the insertion point in the cell with the picture, click the Shading arrow (Table Design tab | Table Styles group) and then click 'Gray, Accent 5, Lighter 60%' (ninth color, third row) to shade the current cell with the selected color.
- 5 Position the insertion point on the paragraph mark below the shaded cell to select the rectangle drawing object. Display the Shape Format tab. Click the Shape Fill arrow (Shape Format tab | Shape Styles group) to display the Shape Fill gallery (Figure 6–8) and then click 'Gray, Text 2, Lighter 40%' (fourth color, fourth row) to shade the selected shape with the selected color.
- 6 Position the insertion point in the left cell. Hide table gridlines.

BTW
The Ribbon and Screen Resolution

Word may change how the groups and buttons within the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

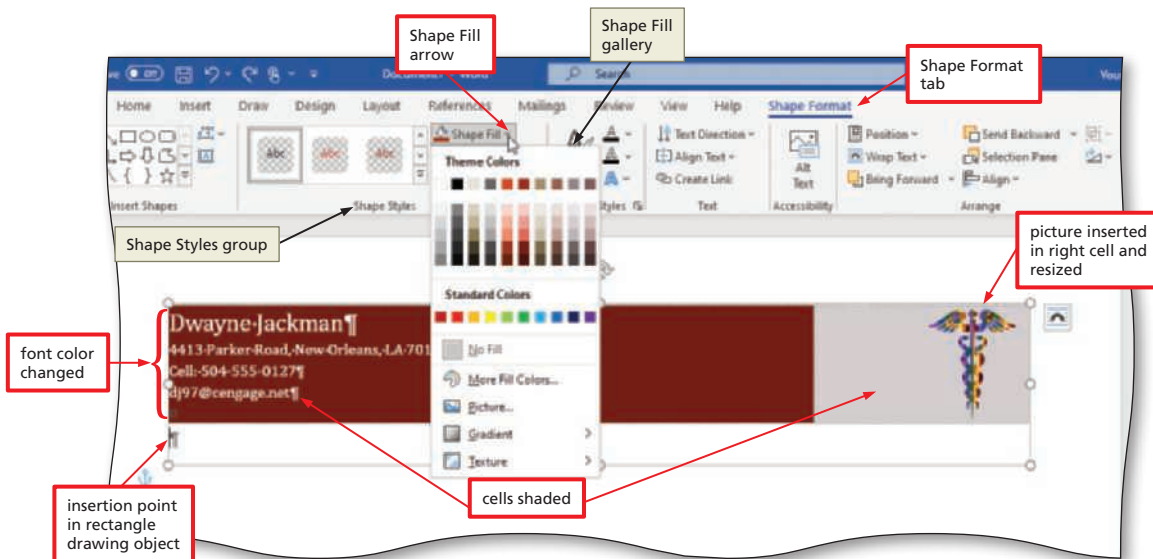


Figure 6–8

To Change Margin Settings

The Timeless letter template uses 1.9-inch top and .75-inch bottom, left, and right margins. You want the form letter to use 1-inch top and bottom margins and 1.25-inch left and right margins. The following steps change the margin settings.

- 1 Click the Date content control to deselect the drawing object.
- 2 Display the Layout tab. Click the Margins button (Layout tab | Page Setup group) to display the Margins gallery and then click Custom Margins at the bottom of the gallery to display the Page Setup dialog box.
- 3 Change the values in the Top, Bottom, Left, and Right boxes (Page Setup dialog box) to 1", 1", 1.25", and 1.25", respectively (Figure 6–9).

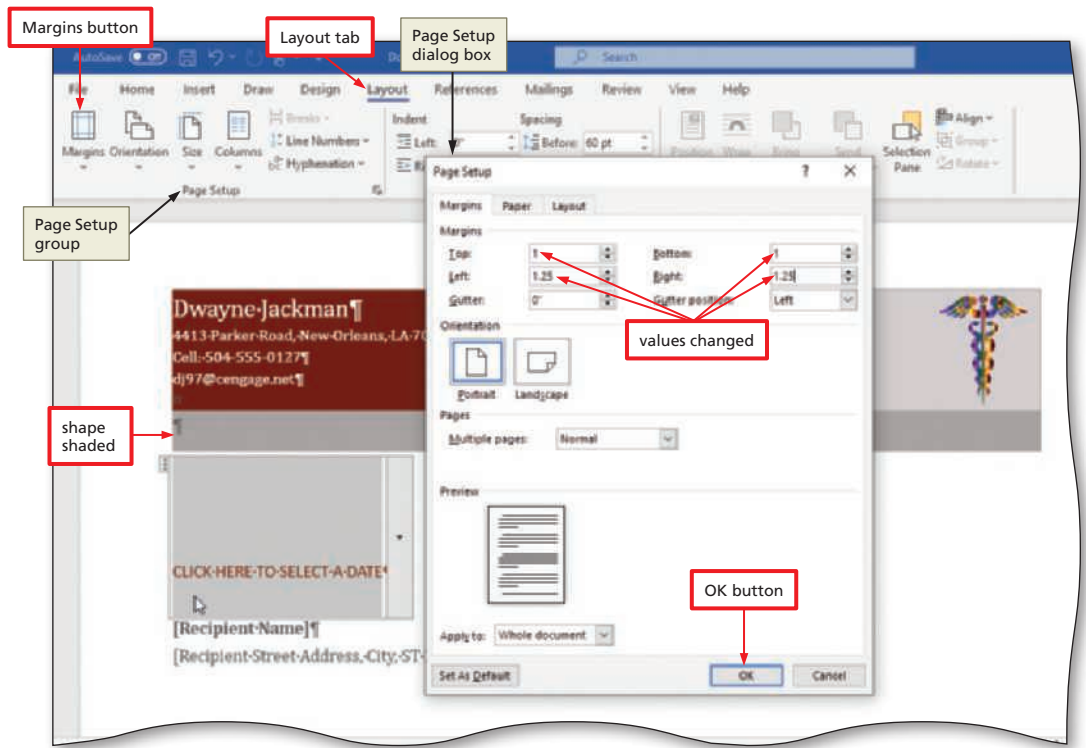


Figure 6-9

- 4 Click OK to change the margin values.

Q&A

Why is the top margin unchanged?

The template specifies that the rectangle shape be positioned a certain distance from the top of the page, regardless of margin settings. The next steps change the position of the shape.

To Specify the Position of a Graphic

The next step is to change the distance between the shape and the top of the page. **Why?** You want a one-inch space above the shape. The following steps specify the position of a graphic.

- 1
 - Click the rectangle shape to select it.
 - Click the Layout Options button attached to the shape to display the Layout Options gallery (Figure 6-10).

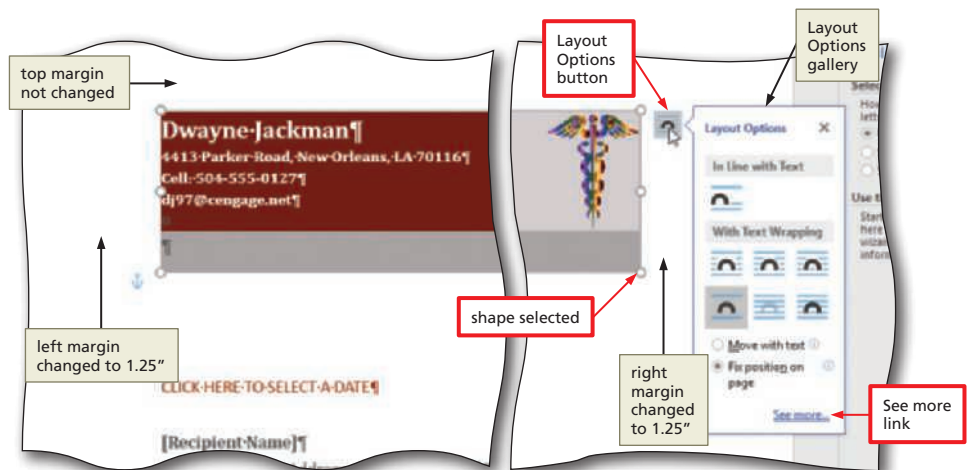


Figure 6-10

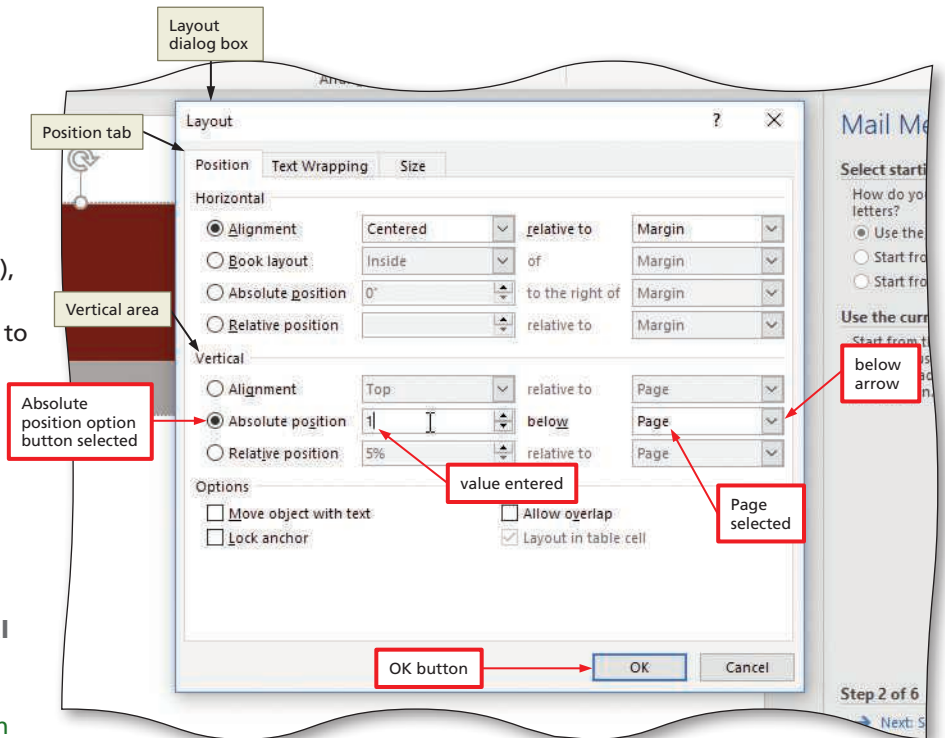
2

- Click the See more link (Layout Options gallery) to display the Position tab in the Layout dialog box.
- Click Absolute position in the Vertical area (Layout dialog box), select the value in the Absolute position box, and then type 1 to specify the distance in inches from the top of the page.
- If necessary, click the below arrow and then select Page (Figure 6–11).

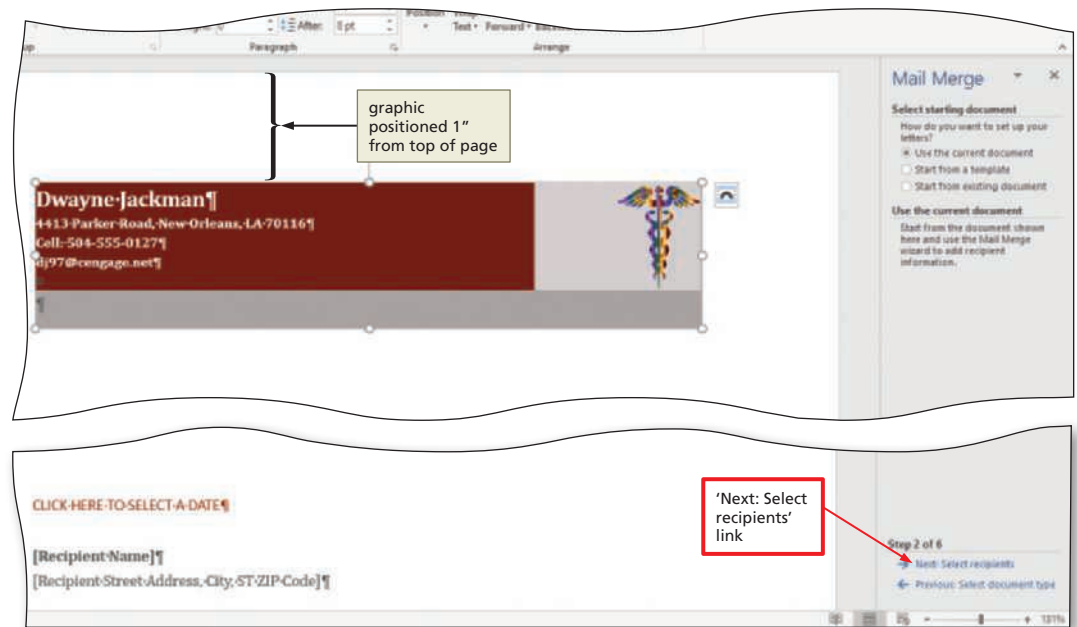
Q&A

What is the difference between the specifications in the Horizontal and Vertical areas?

Horizontal settings specify the graphic's position left to right on the page, whereas vertical settings specify the graphic's position top to bottom on the page.

**Figure 6–11****3**

- Click OK to change the position of the selected graphic (Figure 6–12).

**Figure 6–12**

To Create a Folder while Saving

You have performed several tasks while creating this project and, thus, should save it. The following steps assume you already have created folders for storing files, for example, a CIS 101 folder (for your class) that contains a Word folder and module folders. You want to save this and all other documents created in this module in a folder called JobHunting folder. The following steps create a folder during the process of saving a document. **Why?** This folder does not exist, so you must create it. Rather than creating the folder in Windows, you can create folders in Word.

1

- Display the Save As dialog box associated with your desired save location, type **SC_WD_6_JackmanCoverLetter** as the file name, and navigate to the desired save location for the new folder.
- Click the New folder button (Save As dialog box) to display a new folder icon with the name, New folder, selected in the dialog box (Figure 6–13).

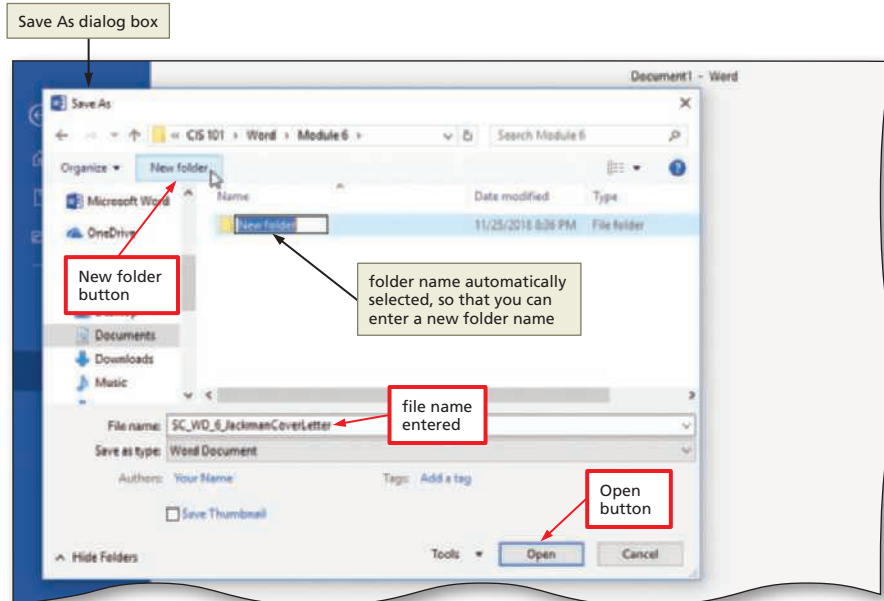


Figure 6–13

2

- Type **JobHunting** as the new folder name and then press ENTER to create the new folder.
- Click the Open button to open the selected folder, in this case, the JobHunting folder (Figure 6–14).

3

- Click Save (Save As dialog box) to save the current document in the selected folder on the selected drive.

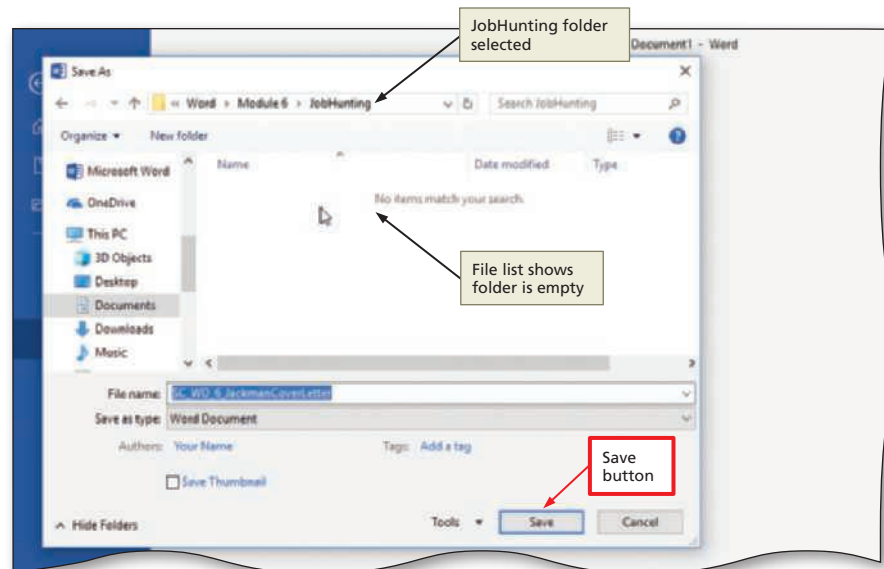


Figure 6–14

Q&A Can I create a folder in any other dialog box?

Yes. Any dialog box that displays a File list, such as the Open and Insert File dialog boxes, also has the New folder button, allowing you to create a new folder in Word instead of using Windows for this task.

Creating a Data Source

The **data source** is a file that contains the variable, or changing, values from one merged document to the next. A data source can be an Access database table, an Outlook contacts list, or an Excel worksheet. If the necessary and properly organized data already exists in one of these Microsoft 365 programs, you can instruct Word to use the existing file as the data source for the mail merge. Otherwise, you can create a new data source using one of these programs.

As shown in Figure 6–15, a data source often is shown as a table that consists of a series of rows and columns. Each row is called a **record**. The first row of a data source is called the **header record** because it identifies the name of each column. Each row below the header row is called a data record. A **data record** contains the complete set of related text for each recipient in the data source; the collection of data records is referred to as the recipient list. The data source for the project in this module contains five data records (recipients). In this project, each data record (recipient) identifies a different potential employer. Thus, five form letters will be generated from the recipient list in this data source.

Each column in the data source is called a **data field**, which represents a group of similar data. Each data field must be identified uniquely with a name, called a **field name**. For example, Position is the name of the data field (column) that contains the available job position. In this module, the data source contains 11 data fields with the following field names: Title, First Name, Last Name, Organization Name, Address Line 1, Address Line 2, City, State, ZIP Code, Position, and Product Sold.

BTW**Fields and Records**

Field and record are terms that originate from the software development field. Do not be intimidated by these terms. A field is simply a column in a table, and a record is a row. Rather than using the term, field, some software developers identify a column of data as a variable or an attribute. All three terms (field, variable, and attribute) have the same meaning.

Title	First Name	Last Name	Organization Name	Address Line 1	Address Line 2	City	State	ZIP Code	Position	Product Sold
Ms.	Alisha	Briggs	Wilton Health Solutions	120 Sunrise Lane		New Orleans	LA	70116	pharmaceutical sales representative	T
Mr.	Rudy	Tan	Barton Medical	8839 Westmore Boulevard	Suite 22B	Covington	LA	70434	sales representative	M
Mr.	Sam	Steinberg	Chambers Pharmaceuticals	582 Center Street	P.O. Box 582	New Orleans	LA	70116	inside sales representative	T
Ms.	Adriana	Pi	Tipton Laboratories	4465 Darien Avenue		Gulfport	MS	39501	entry level sales representative	T
Ms.	Tracy	Walker	Oakland Industries	980 Morgan Parkway	P.O. Box 980	Baton Rouge	LA	70801	territory representative	M

Figure 6–15**Consider This****What guidelines should you follow when creating a data source?**

When you create a data source, you will need to determine the fields it should contain. That is, you will need to identify the data that will vary from one merged document to the next. Following are a few important points about fields:

- For each field, you may be required to create a field name. Because data sources often contain the same fields, some programs create a list of commonly used field names that you may use.
- Field names must be unique; that is, no two field names may be the same.
- Fields may be listed in any order in the data source. That is, the order of fields has no effect on the order in which they will print in the main document.
- Organize fields so that they are flexible. For example, separate the name into individual fields: title, first name, and last name. This arrangement allows you to print a person's title, first name, and last name (e.g., Ms. Alisha Briggs) in the inside address but only the title and last name in the salutation (Dear Ms. Briggs).

To Type a New Recipient List for a Data Source

Word provides a list of 13 commonly used field names. This project uses 9 of the 13 field names supplied by Word: Title, First Name, Last Name, Company Name, Address Line 1, Address Line 2, City, State, and ZIP Code. This project does not use the other four field names supplied by Word: Country or Region, Home Phone, Work Phone, and E-mail Address. Thus, you will delete these four field names. Then, you will change the Company Name field name to Organization Name. **Why?** The term, organization, better describes the potential

employers in this project. You also will add two new field names (Position and Product Sold) to the data source. **Why?** You want to reference the available position, as well as the product sold, in the form letter. The next steps type a new recipient list for a data source for a mail merge.

- 1**
 - Click the 'Next: Select recipients' link at the bottom of the Mail Merge pane (shown in Figure 6-12) to display Step 3 of the Mail Merge wizard, which requests you select recipients.
 - Click 'Type a new list' in the Select recipients area, which displays the Type a new list area.
 - Click the Create link to display the New Address List dialog box (Figure 6-16).

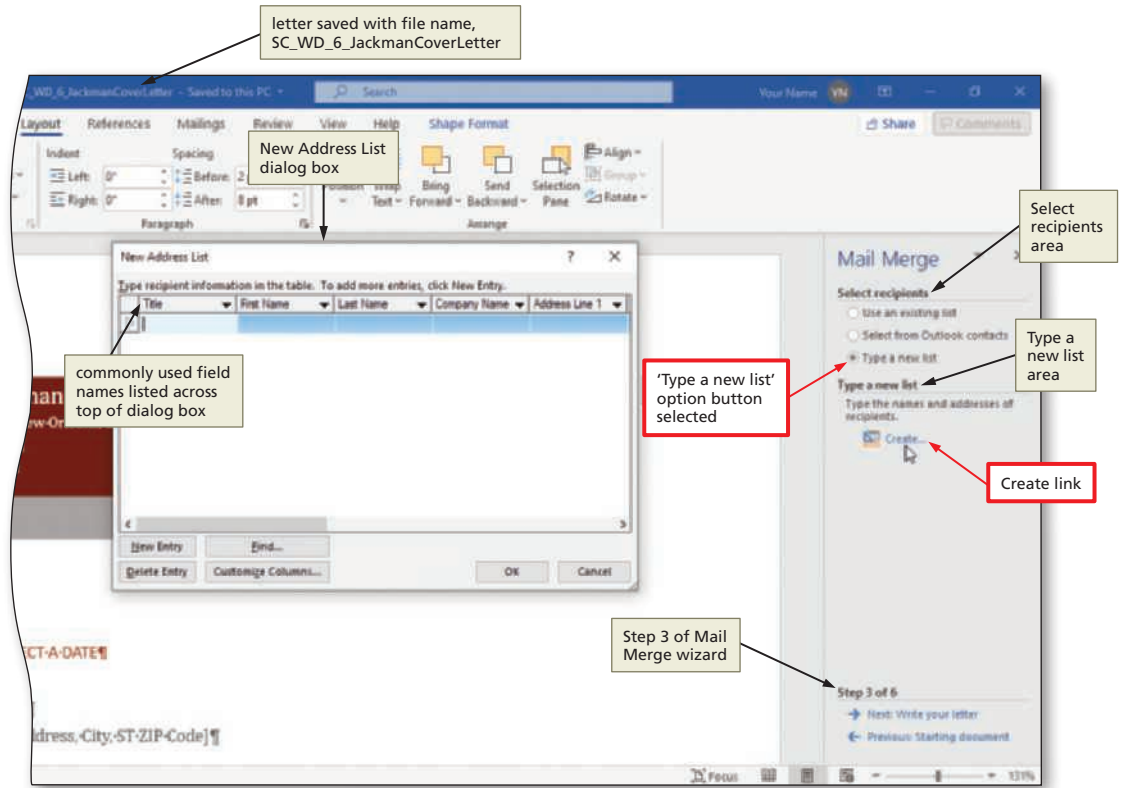


Figure 6-16

Q&A When would I use the other two option buttons in the Select recipients area?

If a data source already was created, you would use the first option: Use an existing list. If you wanted to use your Outlook contacts list as the data source, you would choose the second option.

- 2**
 - Click the Customize Columns button (New Address List dialog box) to display the Customize Address List dialog box (Figure 6-17).

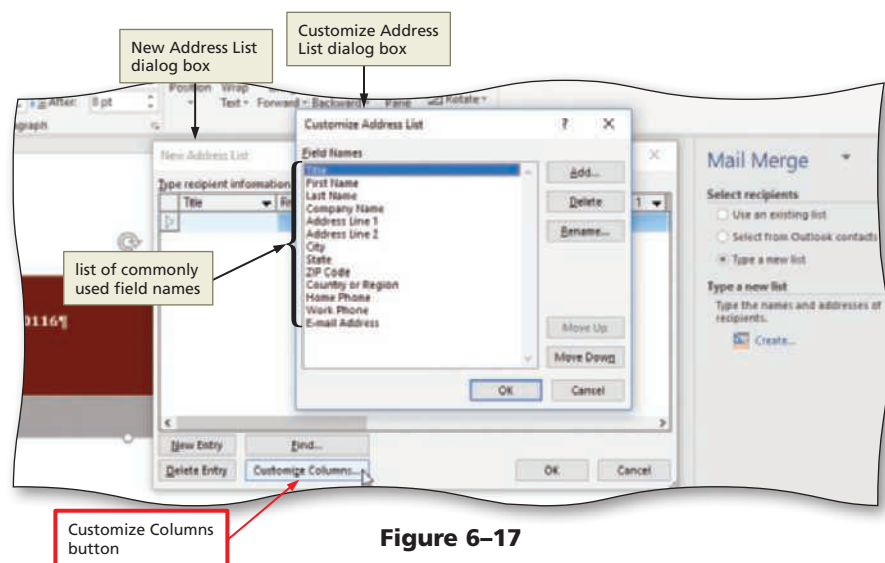


Figure 6-17

3

- Click 'Country or Region' in the Field Names list (Customize Address List dialog box) to select the field to be deleted and then click the Delete button to display a dialog box asking if you are sure you want to delete the selected field (Figure 6-18).

4

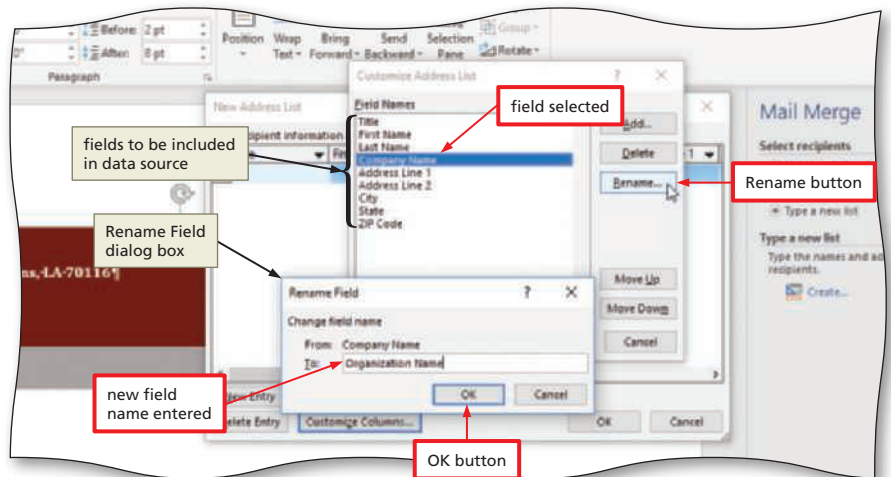
- Click Yes (Microsoft Word dialog box) to delete the field.
- Click Home Phone in the Field Names list to select the field. Click the Delete button (Customize Address List dialog box) and then click Yes (Microsoft Word dialog box) to delete the field.
- Use this same procedure to delete the Work Phone and E-mail Address fields.

**Figure 6-18****5**

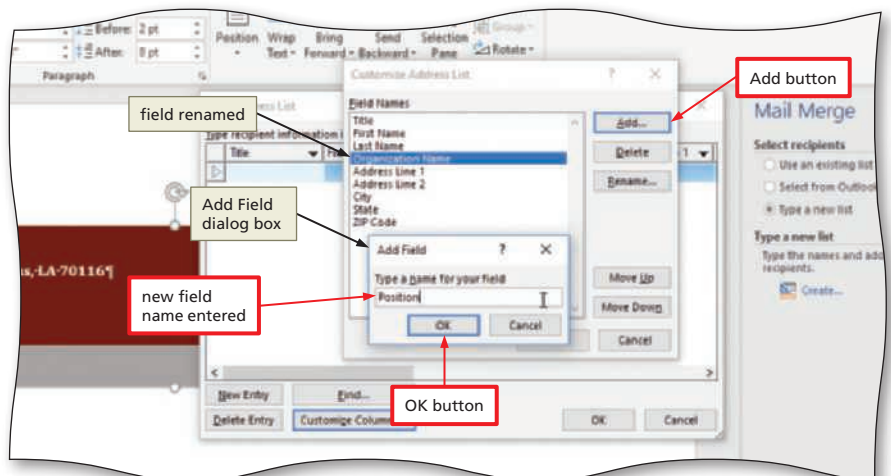
- Click Company Name in the Field Names list to select the field to be renamed.
- Click the Rename button to display the Rename Field dialog box.
- Type **Organization Name** in the To text box (Rename Field dialog box) (Figure 6-19).

6

- Click OK to close the Rename Field dialog box and rename the selected field.

**Figure 6-19****7**

- Click the Add button to display the Add Field dialog box.
- Type **Position** in the 'Type a name for your field' text box (Add Field dialog box) (Figure 6-20).

**Figure 6-20**

8

- Click OK to close the Add Field dialog box and add the Position field name to the Field Names list immediately below the selected field (Figure 6–21).

Q&A Can I change the order of the field names in the Field Names list?

Yes. Select the field name and then click the Move Up or Move Down button (Customize Address List dialog box) to move the selected field in the direction of the button name.

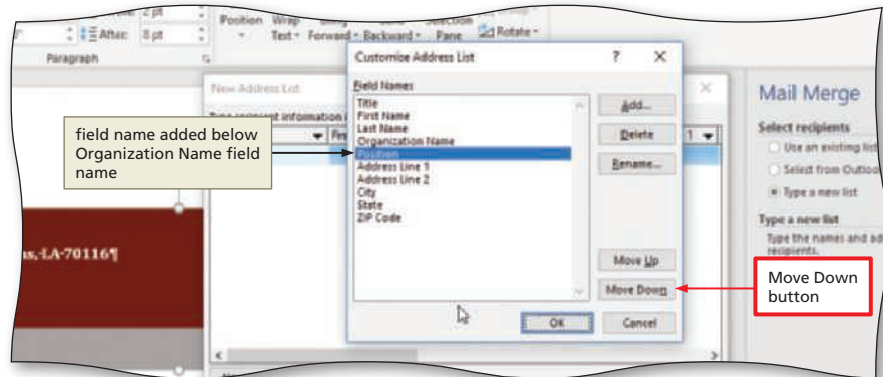


Figure 6–21

9

- With the Position field selected, click the Move Down button five times to position the selected field at the end of the Field Names list. (If the Position field is not at the bottom of the list, click the Move Down button to move it down as necessary.)
- Click the Add button to display the Add Field dialog box.
- Type **Product Sold** (Add Field dialog box) in the 'Type a name for your field' text box and then click OK to close the Add Field dialog box and add the Product Sold field name to the bottom of the Field Names list (Figure 6–22).

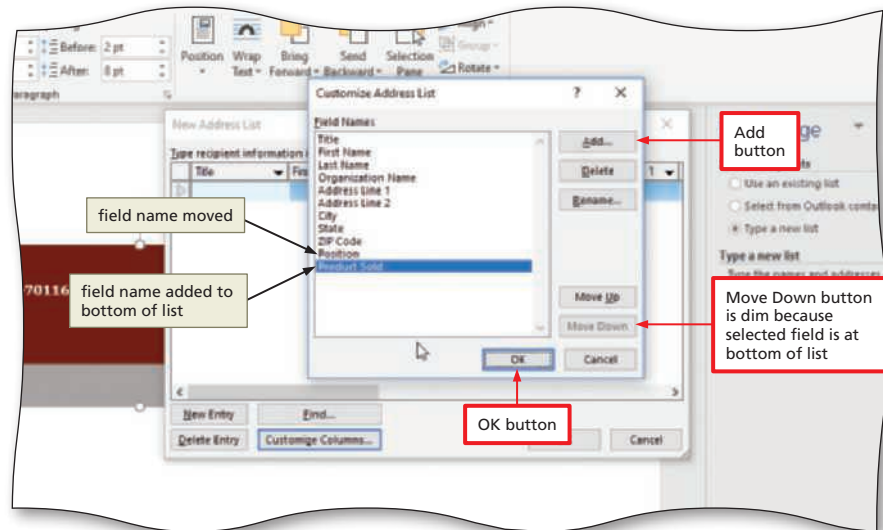


Figure 6–22

Q&A Could I add more field names to the list?

Yes. You would click the Add button for each field name you want to add.

10

- Click OK to close the Customize Address List dialog box, which positions the insertion point in the Title text box for the first data record (row or recipient) in the New Address List dialog box (Figure 6–23).

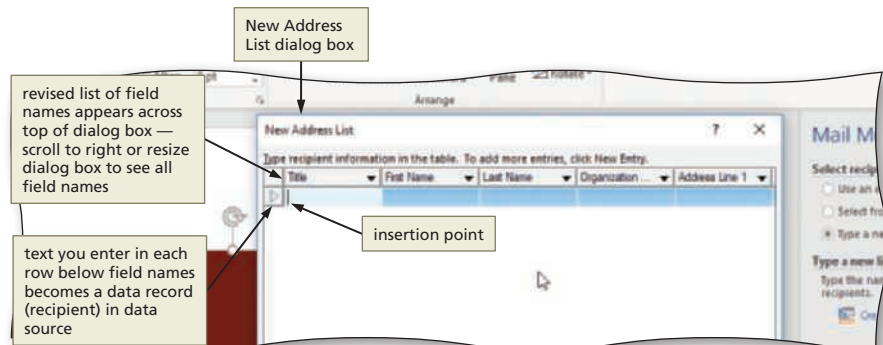
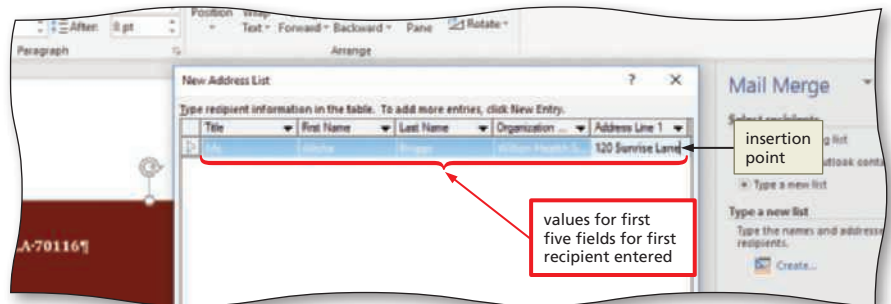


Figure 6–23

11

- Type **Ms.** and then press TAB to enter the title for the first data record.
- Type **Alisha** and then press TAB to enter the first name.
- Type **Briggs** and then press TAB to enter the last name.
- Type **Wilton Health Solutions** and then press TAB to enter the organization name.
- Type **120 Sunrise Lane** to enter the first address line (Figure 6–24).

**Figure 6–24****Q&A** What if I notice an error in an entry?

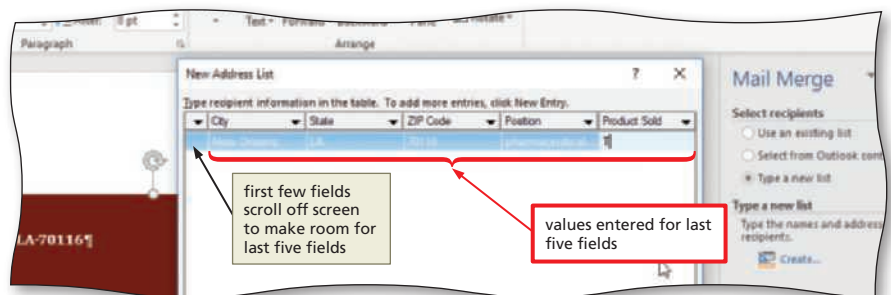
Click the entry and then correct the error as you would in the document window.

What happened to the rest of the Organization Name entry?

It is stored in the field, but you cannot see the entire entry because it is longer than the display area.

12

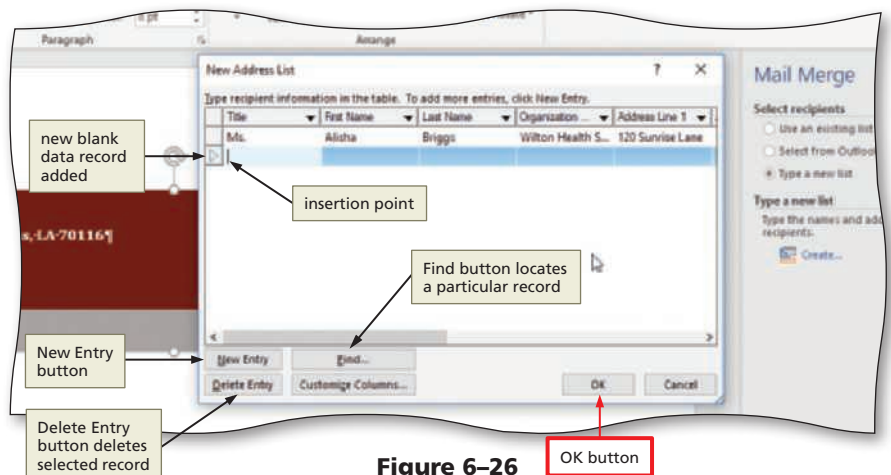
- Press TAB twice to leave the second address line empty.
- Type **New Orleans** and then press TAB to enter the city.
- Type **LA** and then press TAB to enter the state code.
- Type **70116** and then press TAB to enter the ZIP code.
- Type **pharmaceutical sales representative** and then press TAB to enter the position.
- Type **T** to enter the code for the product sold (Figure 6–25).

**Figure 6–25****Q&A** What does the T mean in the product sold?

You decide to enter T for therapeutic medicine and M for medical devices to minimize the amount of redundant typing for these records.

13

- Press TAB to add a new blank record and position the insertion point in the Title field of the new record (Figure 6–26).

**Figure 6–26**

Other Ways

1. Click Select Recipients button (Mailings tab | Start Mail Merge group)

To Enter More Recipients

The following steps enter the remaining four data records (recipients) in the New Address List dialog box.

- 1 Type **Mr.** and then press TAB. Type **Rudy** and then press TAB. Type **Tan** and then press TAB. Type **Barton Medical** and then press TAB.
- 2 Type **8839 Westmore Boulevard** and then press TAB. Type **Suite 22B** and then press TAB.
- 3 Type **Covington** and then press TAB. Type **LA** and then press TAB. Type **70434** and then press TAB.
- 4 Type **sales representative** and then press TAB. Type **M** and then press TAB.

Q&A

Instead of pressing TAB, can I click the New Entry button at the end of one row to add a new blank record?

Yes. Clicking the New Entry button at the end of a row has the same effect as pressing TAB.

- 5 Type **Mr.** and then press TAB. Type **Sam** and then press TAB. Type **Steinberg** and then press TAB. Type **Chambers Pharmaceuticals** and then press TAB.
- 6 Type **582 Center Street** and then press TAB. Type **P.O. Box 582** and then press TAB.
- 7 Type **New Orleans** and then press TAB. Type **LA** and then press TAB. Type **70116** and then press TAB.
- 8 Type **inside sales representative** and then press TAB. Type **T** and then press TAB.
- 9 Type **Ms.** and then press TAB. Type **Adriana** and then press TAB. Type **Pi** and then press TAB. Type **Tipton Laboratories** and then press TAB.
- 10 Type **4465 Darien Avenue** and then press TAB twice. Type **Gulfport** and then press TAB. Type **MS** and then press TAB. Type **39501** and then press TAB.
- 11 Type **entry level sales representative** and then press TAB. Type **T** and then press TAB.
- 12 Type **Ms.** and then press TAB. Type **Tracy** and then press TAB. Type **Walker** and then press TAB. Type **Oakland Industries** and then press TAB.
- 13 Type **980 Morgan Parkway** and then press TAB. Type **P.O. Box 980** and then press TAB.
- 14 Type **Baton Rouge** and then press TAB. Type **LA** and then press TAB. Type **70801** and then press TAB.
- 15 Type **territory representative** and then press TAB. Type **M** and then click OK (shown in Figure 6–26), which displays the Save Address List dialog box (shown in Figure 6–27).

BTW**Saving Data Sources**

Word, by default, saves a data source in the My Data Sources folder on your computer or mobile device's default storage location. Likewise, when you open a data source, Word initially looks in the My Data Sources folder for the file. Because the data source files you create in Word are saved as Microsoft Access database file types, you can open and view these files in Access if you are familiar with Microsoft Access.

To Save a Data Source when Prompted by Word

When you click OK in the New Address List dialog box, Word displays the Save Address List dialog box. **Why? You immediately save the data source so that you do not lose any entered information.** By default, the save location is the My Data Sources folder on your computer's hard drive. In this module, you save the data source in the JobHunting folder created earlier in this module. The following steps save the data source.

1

- Type **SC_WD_6_JackmanProspectiveEmployers** in the File name box (Save Address List dialog box) as the name for the data source. Do not press ENTER after typing the file name because you do not want to close the dialog box at this time.

- Navigate to the desired save location for the data source (for example, the JobHunting folder) (Figure 6–27).

Q&A What is a Microsoft Office Address Lists file type?

It is a Microsoft Access database file. If you are familiar with Microsoft Access, you can open the **SC_WD_6_JackmanProspectiveEmployers** file in Access. You do not have to be familiar with Access or have Access installed on your computer, however, to continue with this mail merge process. Word stores a data source as an Access table simply because it is an efficient method of storing a data source.

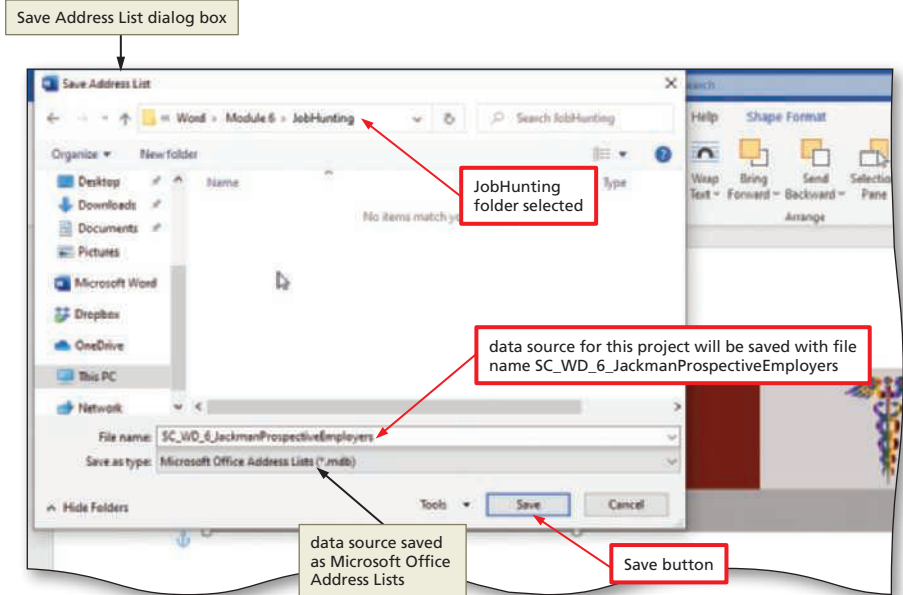


Figure 6–27

2

- Click Save (Save Address List dialog box) to save the data source in the selected folder using the entered file name and then display the Mail Merge Recipients dialog box (Figure 6–28).

Q&A What if the fields in my Mail Merge Recipients list are in a different order?

The order of fields in the Mail Merge Recipients list has no effect on the mail merge process. If Word rearranges the order, you can leave them in the revised order.

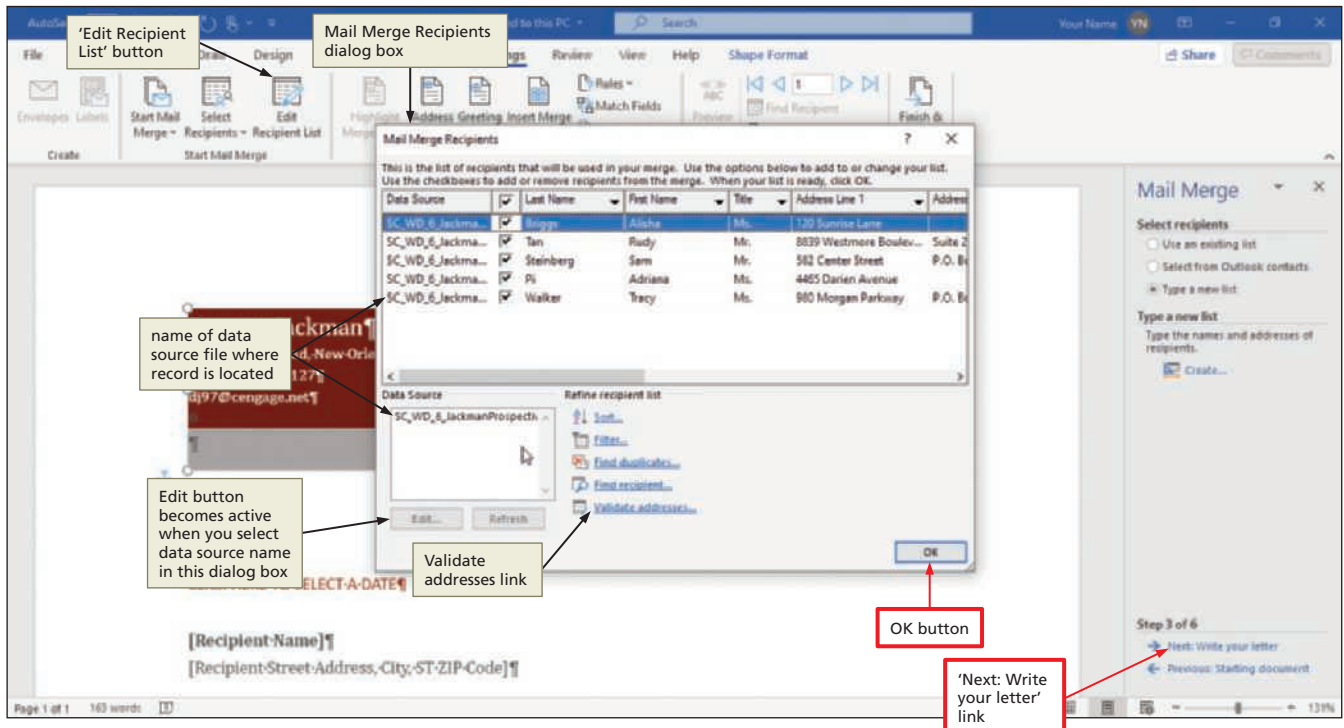


Figure 6–28

3

- Click OK to close the Mail Merge Recipients dialog box.

BTW**Validating Addresses**

If you have installed address validation software, you can click the Validate addresses link (shown in Figure 6–28) in the Mail Merge Recipients dialog box to validate your recipients' addresses. If you have not yet installed address validation software and would like information about doing so, click the Validate addresses link in the Mail Merge Recipients dialog box and then click Yes in the Microsoft Word dialog box to display a related Microsoft webpage.

Editing Data Records (Recipients) in the Data Source

All of the data records (recipients) have been entered in the data source and saved with the file name, SC_WD_6_JackmanProspectiveEmployers. To add or edit recipients in the data source, you would click the 'Edit Recipient List' button (Mailings tab | Start Mail Merge group) to display the Mail Merge Recipients dialog box (shown in Figure 6–28). Click the data source name in the Data Source list and then click the Edit button (Mail Merge Recipients dialog box) to display the data records in a dialog box similar to the one shown in Figure 6–26. Then, add or edit records as described in the previous steps. If you want to edit a particular record and the list of data records (recipients) is long, you can click the Find button to locate an item, such as a last name, quickly in the list.

To delete a record, select it using the same procedure described in the previous paragraph. Then, click the Delete Entry button in the dialog box (shown in Figure 6–26).

Using an Existing Data Source

Instead of creating a new data source, you can use an existing Microsoft Outlook Contacts list, an Access database table, or an Excel table as a data source in a mail merge. To use an existing data source, select the appropriate option in the Select recipients area in the Mail Merge pane or click the Select Recipients button (Mailings tab | Start Mail Merge group) and then click the desired option on the Select Recipients menu.

For a Microsoft Outlook Contacts list, click 'Select from Outlook contacts' in the Mail Merge pane or 'Choose from Outlook Contacts' on the Select Recipients menu to display the Select Contacts dialog box. Next, select the contact folder you wish to import (Select Contacts dialog box) and then click OK.

For other existing data source types, such as an Access database table or an Excel worksheet, click 'Use an existing list' in the Mail Merge pane or on the Select Recipients menu to display the Select Data Source dialog box. Next, select the file name of the data source you wish to use and then click the Open button (Select Data Source dialog box).

With Access, you can use any field in the database in the main document. (Later in this module you use an existing Access database table as the data source.) For the merge to work correctly with an Excel table, you must ensure data is arranged properly and that the table is the only element in the file. The first row of the table should contain unique field names, and the table cannot contain any blank rows.

Composing the Main Document for the Form Letters

The next step in this project is to enter and format the text and fields in the main document for the form letters (shown in Figure 6–1a at the beginning of this module).

A **main document** contains the constant, or unchanging, text, punctuation, spaces, and graphics, as well as references to the data in the data source. You will follow these steps to compose the main document for the form letter.

1. Enter the date.
2. Enter the address block.
3. Enter the greeting line (salutation).
4. Enter text and insert a merge field.
5. Enter additional text and merge fields.
6. Insert an IF field.
7. Enter the remainder of the letter.
8. Merge the letters.

Consider This**What guidelines should you follow when composing the main document for a form letter?**

The finished main document letter should look like a symmetrically framed picture with evenly spaced margins, all balanced below an attractive letterhead or return address. The content of the main document for the form letter should contain proper grammar, correct spelling, logically constructed sentences, flowing paragraphs, and sound ideas; it also should reference the data in the data source properly.

Be sure the main document for the form letter includes all essential business letter elements. All business letters should contain a date line, inside address, message, and signature block. Many business letters contain additional items, such as a special mailing notation(s), an attention line, a salutation, a subject line, a complimentary close, reference initials, and an enclosure notation. When finished, proofread your letter carefully.

To Display the Next Step in the Mail Merge Wizard

The following step displays the next step in the Mail Merge wizard, which is to write the letter.

- 1** Click the 'Next: Write your letter' link at the bottom of the Mail Merge pane (shown in Figure 6–28) to display Step 4 of the Mail Merge wizard in the Mail Merge pane (shown in Figure 6–29).
-

To Enter the Date from a Content Control

The next step is to enter the date in the letter. **Why?** All business letters should contain a date, which usually is positioned below the letterhead or return address. You can click the date content control and type the correct date, or you can click the arrow and select the date from a calendar. The following steps use the calendar to select the date.

- 1
 - Click the Date content control to select it and then click its arrow to display a calendar.
 - Scroll through the calendar months until the desired month appears, April 2020, in this case (Figure 6–29).

- 2
 - Click 22 in the calendar to display the selected month, day, and year in the date line of the form letter (shown in Figure 6–30).
 - Click outside the content control to deselect it.
 - Right-click the date to display a shortcut menu and then click 'Remove Content Control' on the shortcut menu so that your text (the selected date) remains but the content control is deleted.

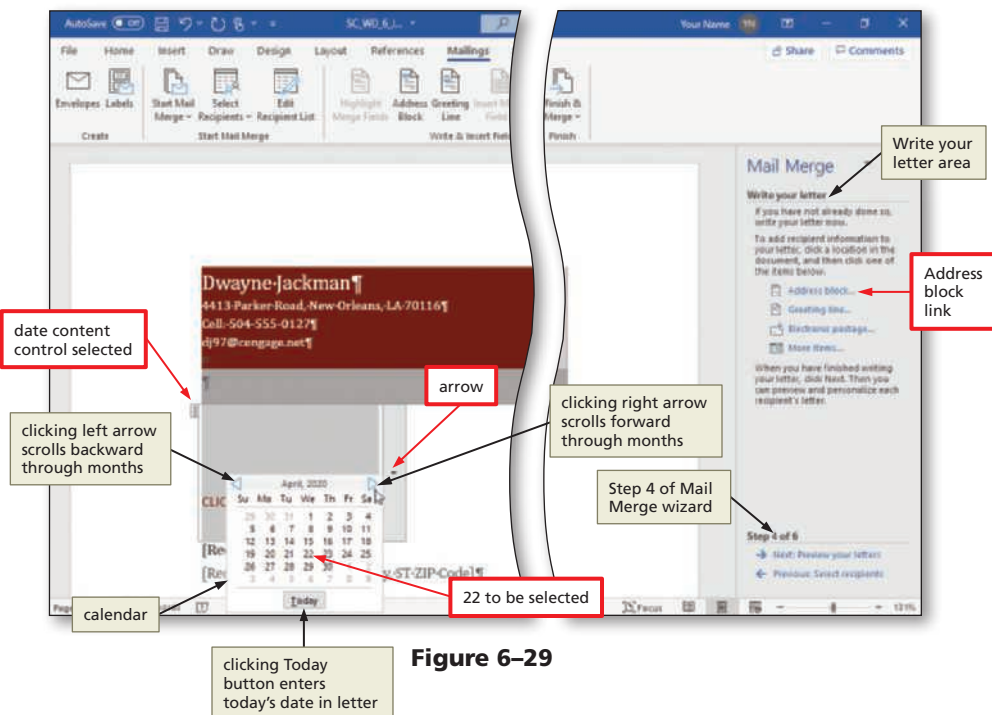


Figure 6–29

Q&A **Why delete the content control?**
 You no longer need the content control because you already selected the date.

Other Ways

1. Type date in Date content control
2. Click 'Insert Date & Time' button (Insert tab | Text group)

Merge Fields

In this form letter, the inside address appears below the date line, and the salutation is placed below the inside address. The contents of the inside address and salutation are located in the data source. To link the data source to the main document, you insert the field names from the data source in the main document.

In the main document, field names linked to the data source are called **merge fields** because they merge, or combine, the main document with the contents of the data source; that is, merge fields indicate where the data from each data record (recipient) should be inserted when you perform a mail merge. When a merge field is inserted in the main document, Word surrounds the field name with **merge field characters**, which are chevrons (<< >>) that mark the beginning and ending of a merge field. Merge field characters are not on the keyboard; therefore, you cannot type them directly in the document. Word automatically displays them when a merge field is inserted in the main document.

Most letters contain an address and salutation. For this reason, Word provides an AddressBlock merge field and a GreetingLine merge field. The **AddressBlock merge field** contains several fields related to an address: Title, First Name, Middle Name, Last Name, Suffix, Company, Street Address 1, Street Address 2, City, State, and ZIP Code. When Word uses the AddressBlock merge field, it automatically looks for any fields in the associated data source that are related to an address and then formats the address block properly when you merge the data source with the main document. For example, if your inside address does not use a middle name, suffix, or company, Word omits these items from the inside address and adjusts the spacing so that the address prints correctly.

To Insert the AddressBlock Merge Field

The default format for the AddressBlock merge field is the first name and last name on one line, followed by the street address on the next line, and then the city, state, and postal code on the next line. In this letter, you want the potential employer's title (i.e., Ms.) to appear to the left of the first name. **Why? You want to address the potential employers formally.** You also want the organization name to appear above the street address, if it does not already. The following steps insert the AddressBlock merge field in this format.

1

- Delete the content control that contains placeholder text for the recipient's address and then press DELETE to delete the blank paragraph.
- Delete the [Recipient Name] placeholder text but leave the paragraph mark; position the insertion point to the left of the paragraph mark because you will insert the AddressBlock merge field in that location.
- Click the Address block link in the Mail Merge pane (shown in Figure 6–29) to display the Insert Address Block dialog box.
- Scroll through the list of recipient name formats (Insert Address Block dialog box) and then click the format 'Mr. Joshua Randall Jr.' in this list, because that format places the title to the left of the first name and last name.

Experiment

- Click various recipient name formats and watch the preview change in the dialog box. When finished experimenting, click 'Mr. Joshua Randall Jr.' for the format.

Q&A Why is the 'Insert company name' check box dimmed?

The data source does not have a match to the Company Name in the AddressBlock merge field so this check box will be dimmed. Recall that earlier in this project the Company Name field was renamed as Organization Name, which causes the fields to be unmatched. The next step shows how to match the fields. If the Organization Name already appears in your AddressBlock merge field, proceed to Step 4.

- Click the Match Fields button (Insert Address Block dialog box) to display the Match Fields dialog box (Figure 6–30).

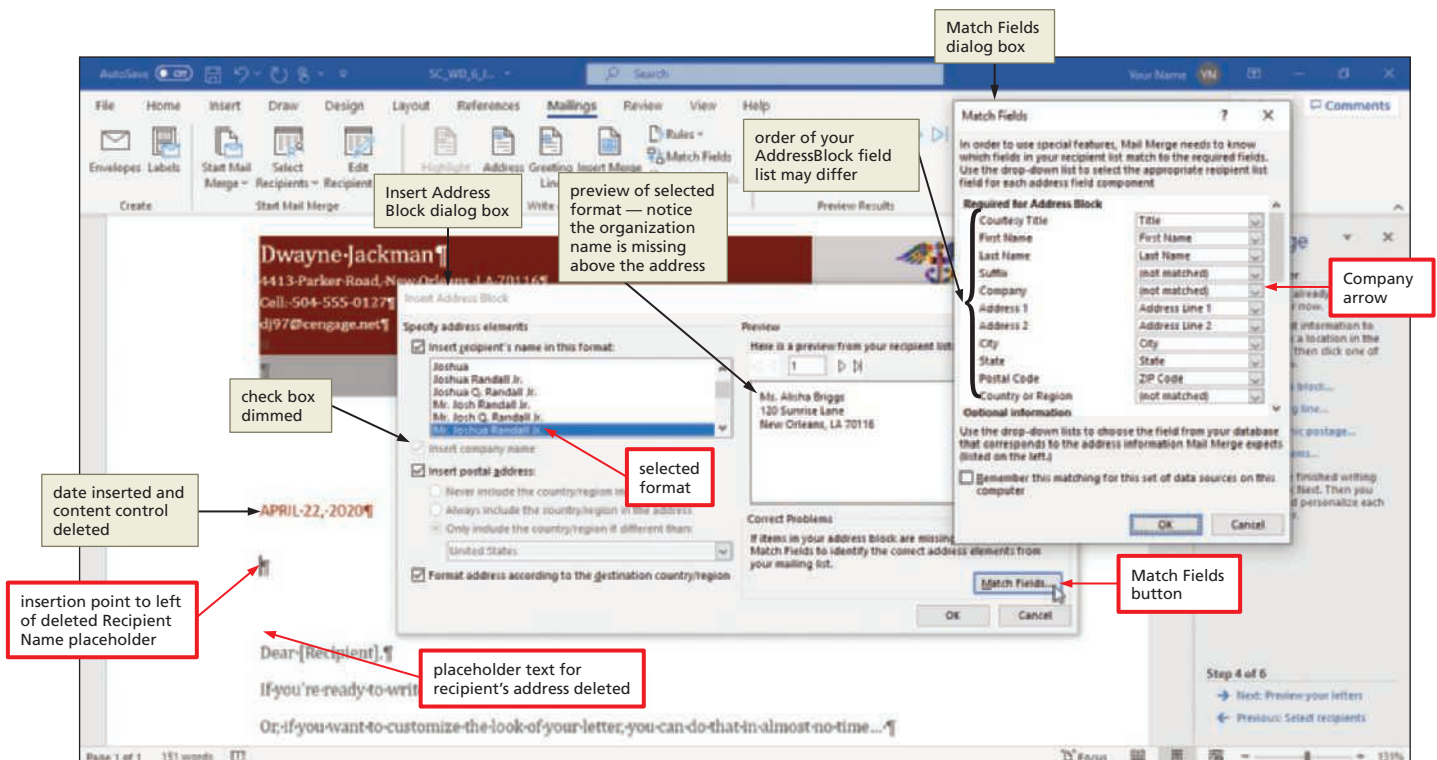


Figure 6–30

2

- Click the Company arrow (Match Fields dialog box) to display a list of fields in the data source and then click Organization Name to place that selected field as the match field (Figure 6–31).

3

- Click OK (Match Fields dialog box) to close the dialog box, and notice the 'Insert company name' check box no longer is dimmed (Insert Address Block dialog box) because the Company field now has a matched field in the data source.

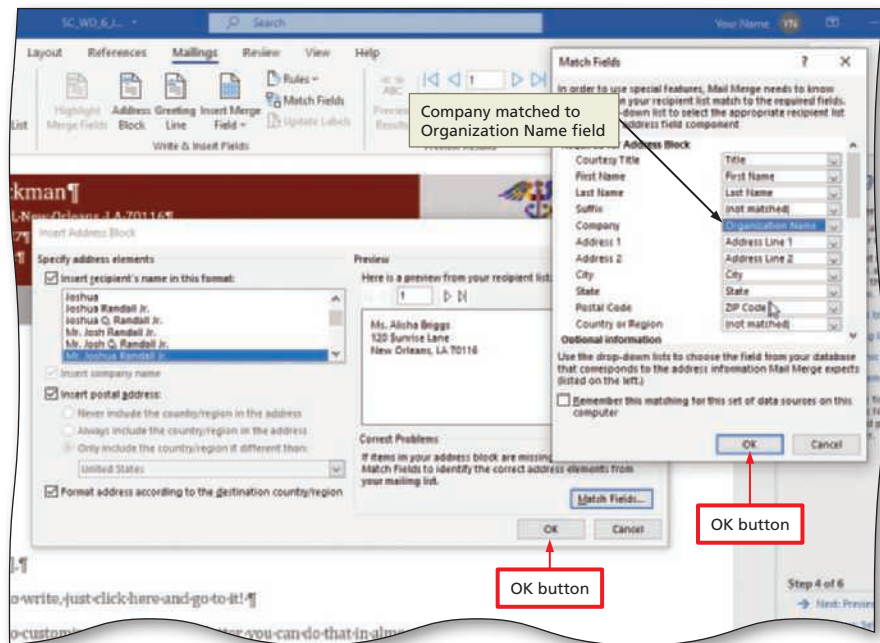


Figure 6–31

4

- Click OK (Insert Address Block dialog box) to insert the AddressBlock merge field at the location of the insertion point (Figure 6–32).

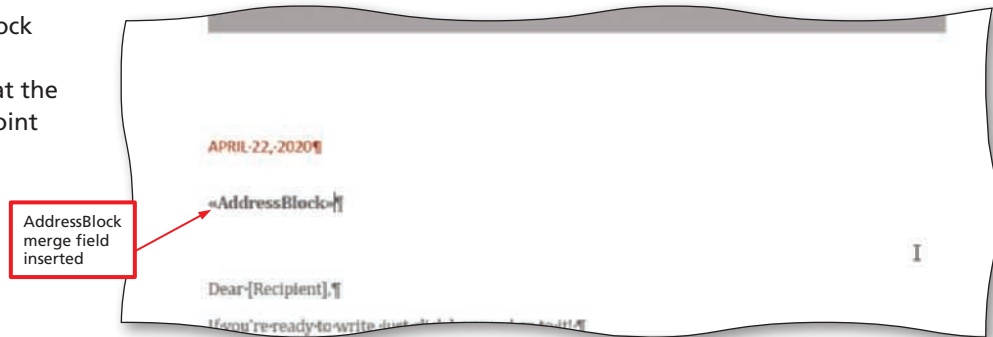


Figure 6–32

Other Ways

- Click Address Block button (Mailings tab | Write & Insert Fields group), select options (Insert Greeting Line dialog box), click OK

TO EDIT THE ADDRESSBLOCK MERGE FIELD

If you wanted to change the format of or match fields in the AddressBlock merge field, you would perform the following steps.

- Right-click the AddressBlock merge field to display a shortcut menu.
- Click 'Edit Address Block' on the shortcut menu to display the Modify Address Block dialog box.
- Make necessary changes and then click OK (Modify Address Block dialog box).

To Preview Results in the Main Document

Instead of displaying merge fields, you can display merged data. **Why?** One way to see how fields, such as the AddressBlock fields, will look in the merged letter, is to preview results. The following step previews results.

1

- Click the Preview Results button (Mailings tab | Preview Results group) to display the values in the current data record, instead of the merge fields.
- Scroll up, if necessary, to view the address fields (Figure 6–33).

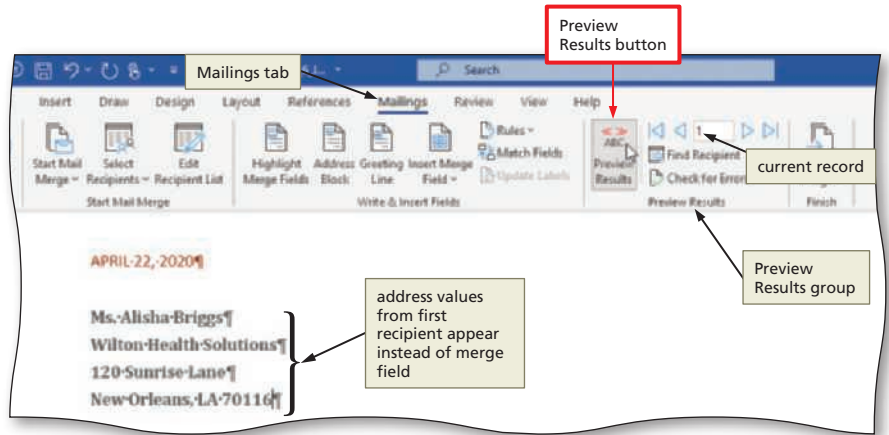
Q&A

How can I tell which record is showing?

The current record number is displayed in the Preview Results group.

Why is the spacing in my address different from Figure 6–33?

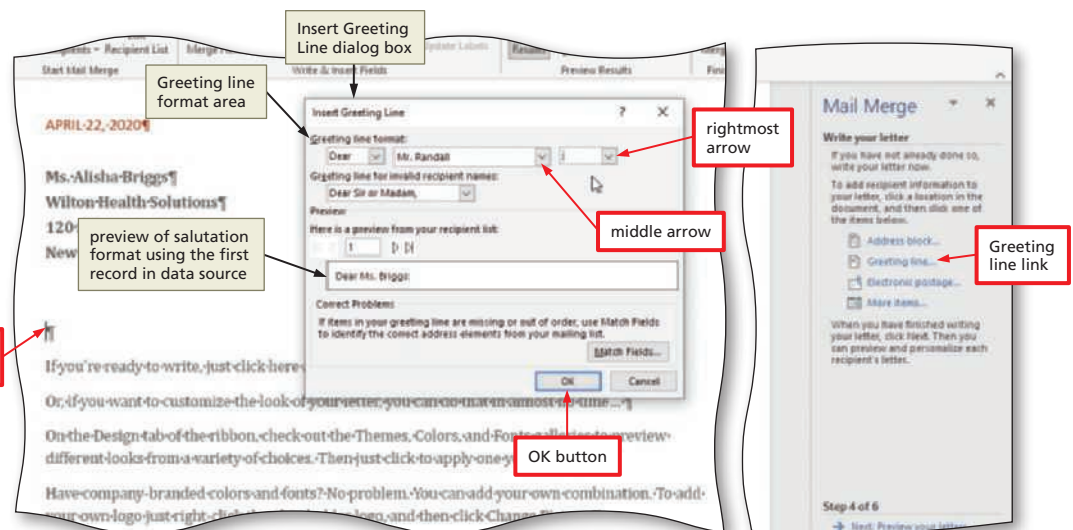
You may have inserted the AddressBlock field on the line in the template that contained the recipient's address, instead of the line that contained the recipient's name. To fix the address spacing, select the entire address and then change the spacing before and after to 2 pt (Layout tab | Paragraph group).

**Figure 6–33****To Insert the GreetingLine Merge Field**

The **GreetingLine** merge field contains text and fields related to a salutation. The default greeting for the salutation is in the format, Dear Alisha, followed by a comma. In this letter, you want the salutation to be followed by a colon. **Why?** Business letters use a more formal salutation (Dear Ms. Briggs:) in the cover letter. The following steps insert the GreetingLine merge field.

1

- Delete the word, Dear, the [Recipient] placeholder text, and the comma in the salutation but leave the paragraph mark; position the insertion point to the left of the paragraph mark because you will insert the GreetingLine merge field in that location.
- Click the Greeting line link in the Mail Merge pane to display the Insert Greeting Line dialog box.
- If necessary, click the middle arrow in the Greeting line format area (Insert Greeting Line dialog box); scroll to and then click the format, Mr. Randall, in this list because you want the title followed by the last name format.
- If necessary, click the rightmost arrow in the Greeting line format area and then click the colon (:) in the list (Figure 6–34).

**Figure 6–34**

2

- Click OK (Insert Greeting Line dialog box) to insert the GreetingLine merge field at the location of the insertion point (Figure 6–35).

Q&A Why are the values for the title and last name displayed instead of the merge field names?

With the Preview Results button (Mailings tab | Preview Results group) still selected, the field values are displayed instead of the field names.

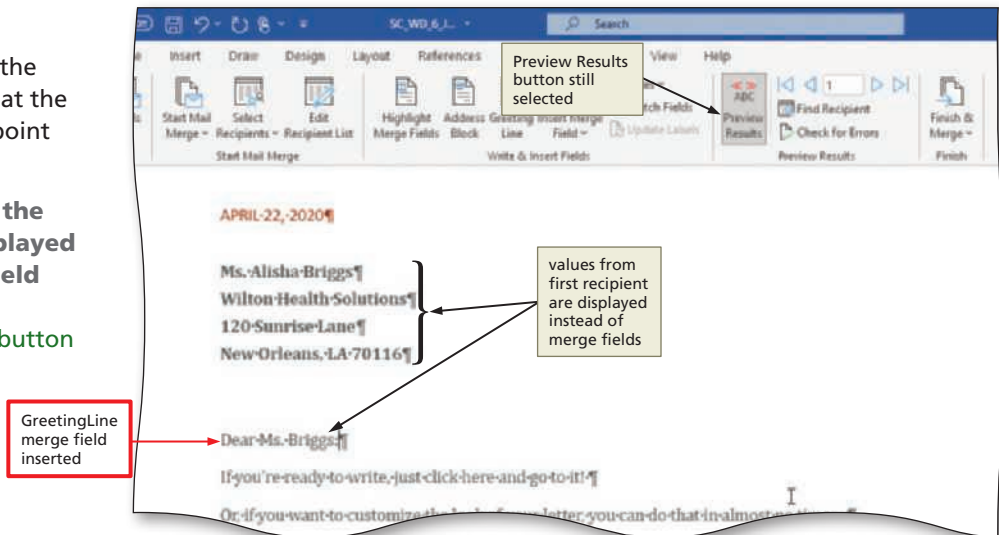


Figure 6–35

Other Ways

- Click Greeting Line button (Mailings tab | Write & Insert Fields group), select options (Insert Greeting Line dialog box), click OK

TO EDIT THE GREETINGLINE MERGE FIELD

If you wanted to change the format of or match fields in the GreetingLine merge field, you would perform the following steps.

- Right-click the GreetingLine merge field to display a shortcut menu.
- Click 'Edit Greeting Line' on the shortcut menu to display the Modify Greeting Line dialog box.
- Make the necessary changes and then click OK (Modify Greeting Line dialog box).

To View Merge Fields in the Main Document

Because you will be entering merge fields in the document next, you wish to display the merge fields instead of the merged data. The following step views merge fields instead of merged data.

- Click the Preview Results button (Mailings tab | Preview Results group) to display the merge fields instead of the values in the current data record (shown in Figure 6–36).

To Begin Typing the Body of the Form Letter

The next step is to begin typing the message, or body of the letter, which is located at the content control that begins with the placeholder text, If you're ready to write..., below the GreetingLine merge field. The following steps begin typing the letter at the location of the content control.

- Click the body of the letter to select the content control (Figure 6–36).
- With the content control selected, type **I enjoyed meeting with you during the Gulf College job fair this week. As you suggested, I have enclosed my resume for your review. I am interested in the** and then press SPACEBAR (shown in Figure 6–37).

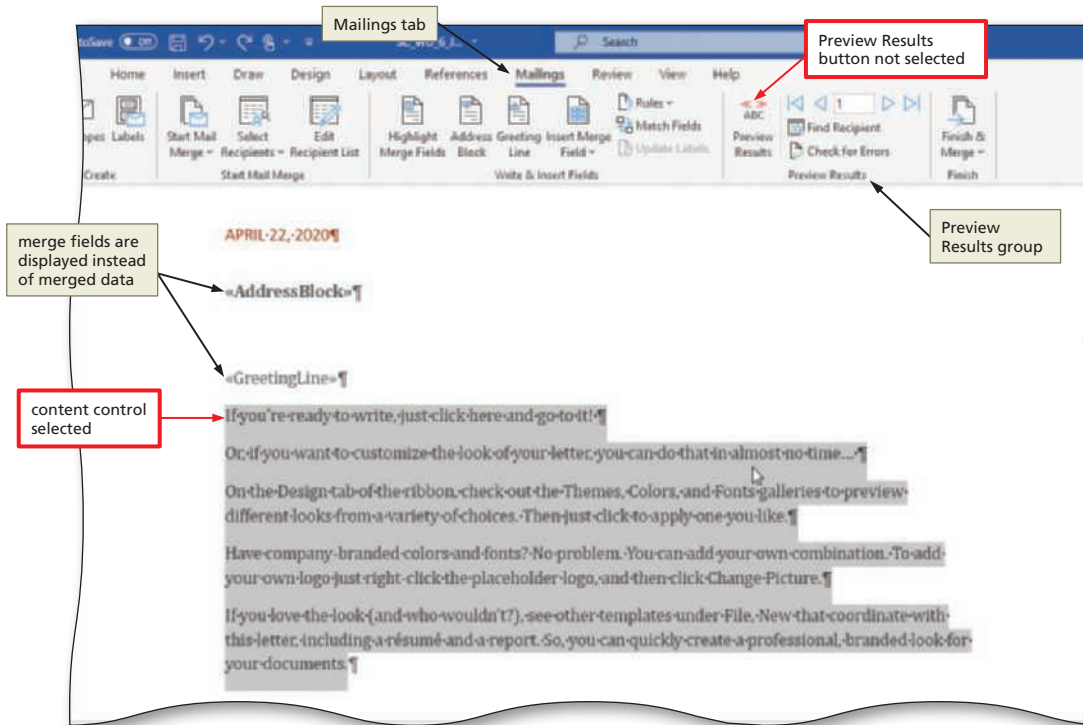


Figure 6-36

BTW 'Insert Merge Field' Button

If you click the 'Insert Merge Field' button instead of the 'Insert Merge Field' arrow (Figure 6-37), Word displays the Insert Merge Field dialog box instead of the Insert Merge Field menu. To insert fields from the dialog box, click the field name and then click the Insert button. The dialog box remains open so that you can insert multiple fields, if necessary. When you have finished inserting fields, click Close in the dialog box.

To Insert a Merge Field in the Main Document

The next step is to insert the Position merge field into the main document. **Why?** The first sentence in the first paragraph of the letter identifies the advertised job position, which is a merge field. To instruct Word to use data fields from the data source, you insert merge fields in the main document for the form letter. The following steps insert a merge field at the location of the insertion point.

1

- Click the 'Insert Merge Field' arrow (Mailings tab | Write & Insert Fields group) to display the Insert Merge Field menu (Figure 6-37).

Q&A What if I accidentally click the 'Insert Merge Field' button instead of the arrow? Click Cancel in the Insert Merge Field dialog box and repeat Step 1.

Why is the underscore character in some of the field names?

Word places an underscore character in place of the space in merge fields.

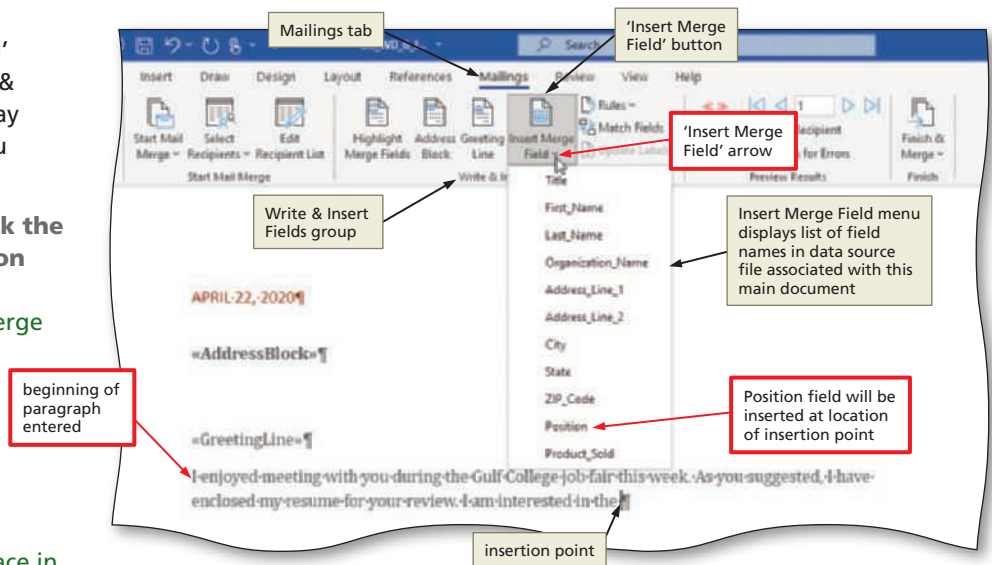


Figure 6-37

2

- Click Position on the Insert Merge Field menu to insert the selected merge field in the document at the location of the insertion point (Figure 6–38).

Q&A Will the word, Position, and the chevron characters print when I merge the form letters?

No. When you merge the data source with the main document, the value in the Position field (e.g., pharmaceutical sales representative) will print at the location of the merge field, Position.

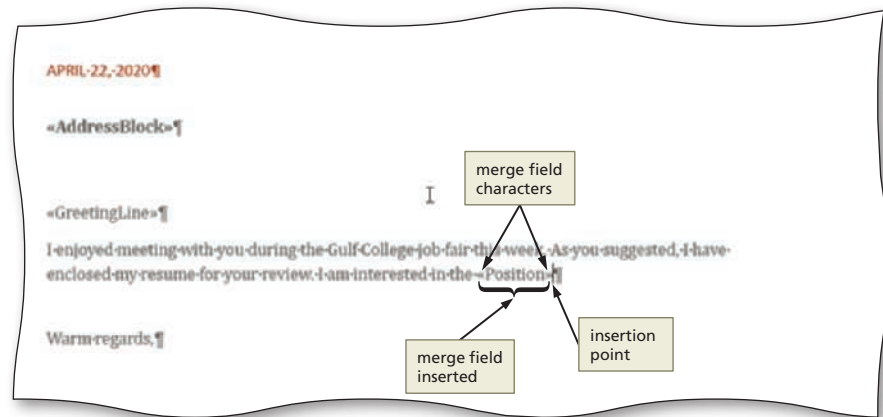


Figure 6–38

Other Ways

- Click 'Insert Merge Field' button (Mailings tab | Write & Insert fields group), click desired field (Insert Merge Field dialog box), click Insert button, click Close

BTW

Merge Fields

When you insert merge fields in a document, the displayed fields may be surrounded by braces instead of chevrons, and extra instructions may appear between the braces. If this occurs, then field codes have been turned on. To turn off field codes so that they are not displayed, press ALT+F9.

To Enter More Text and Merge Fields in the Main Document

The following steps enter more text and merge fields into the form letter.

- With the insertion point at the location shown in Figure 6–38, press SPACEBAR, type **position at** and then press SPACEBAR again.
- Click the 'Insert Merge Field' arrow (Mailings tab | Write & Insert Fields group) and then click Organization_Name on the Insert Merge Field menu to insert the selected merge field in the document. Press SPACEBAR. Type **that we discussed and am confident I am an ideal candidate for this job.**
- Press ENTER. Type **I will graduate in May with a Bachelor of Science degree in Public Health. My education has been strengthened through my work experience, certifications, and community service.** and then press ENTER.
- Type **Thank you in advance,** and then press SPACEBAR. Insert the Title merge field, press SPACEBAR, and then insert the Last Name merge field. Type **, for your time and consideration. I look forward to hearing from you soon to discuss my qualifications and the opportunity of my potential employment in** and then press SPACEBAR (shown in Figure 6–39).

IF Fields

In addition to merge fields, you can insert Word fields that are designed specifically for a mail merge. An **IF field** is an example of a Word field used during a mail merge that tests whether a condition is true. One form of the IF field is called an **If...Then**: If a condition is true, then perform an action. For example, if Mary owns a house, then send her information about homeowner's insurance. Another form of the IF field is called an **If...Then...Else**, where Word chooses between two options, depending on the contents of a particular field. If a condition is true, Word then performs an action; otherwise (else) Word performs a different action. For example, if John has an email address, then send him an email message; else send him the message via the postal service.

In this project, the form letter checks the product sold and displays text associated with the product sold. If the product sold is T, then the form letter should print the text, therapeutic medicine; else if the product sold is M, then the form letter should print the text, medical device. Thus, you will use an If...Then...Else: IF the Product_Sold is equal to T, then insert therapeutic medicine; else insert medical device.

The phrase that appears after the word If is called a rule, or condition. A **condition** consists of an expression, followed by a comparison operator, followed by a final expression.

Expression The expression in a condition can be a merge field, a number, a series of characters, or a mathematical formula. Word surrounds a series of characters with quotation marks ("). To indicate an empty, or null, expression, Word places two quotation marks together ("").

Comparison Operator The comparison operator in a condition must be one of six characters: = (equal to or matches the text), <> (not equal to or does not match text), < (less than), <= (less than or equal to), > (greater than), or >= (greater than or equal to).

If the result of a condition is true, then Word evaluates the **true text**. If the result of the condition is false, Word evaluates the **false text** if it exists. In this project, the first expression in the condition is a merge field (Product_Sold); the comparison operator is equal to (=); and the second expression is the text "T". The true text is "therapeutic medicine". The false text is "medical device". The complete IF field is as follows:

IF Product_Sold = "T" "therapeutic medicine" "medical device"

condition true text false text

BTW

IF Fields

The phrase, IF field, originates from computer programming. Do not be intimidated by the terminology. An IF field simply specifies a decision. Some software developers refer to it as an IF statement. Complex IF statements include one or more nested IF fields. A nested IF field is a second IF field inside the true or false text of the first IF field.

To Insert an IF Field in the Main Document

The next step is to insert an IF field in the main document. **Why?** You want to print the product sold in the letter. The following steps insert this IF field in the form letter: If the Product_Sold is equal to T, then insert therapeutic medicine, else insert medical device.

1

- With the insertion point positioned as shown in Figure 6–39, click the Rules button (Mailings tab | Write & Insert Fields group) to display the Rules menu (Figure 6–39).

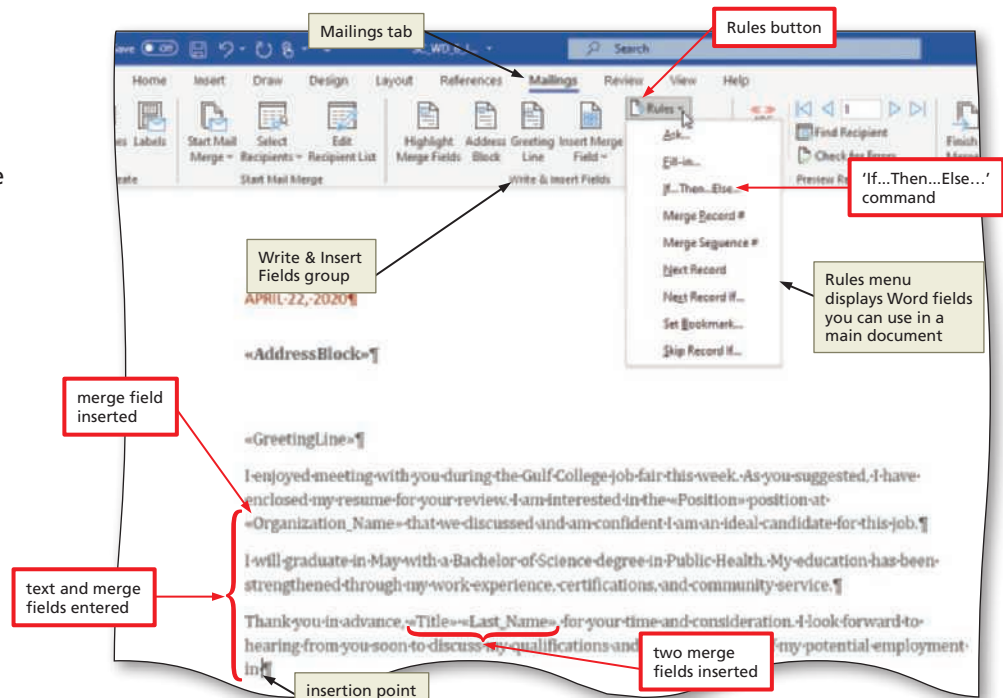


Figure 6–39

2

- Click 'If...Then...Else...' on the Rules menu to display the Insert Word Field: IF dialog box, which is where you enter the components of the IF field (Figure 6-40).

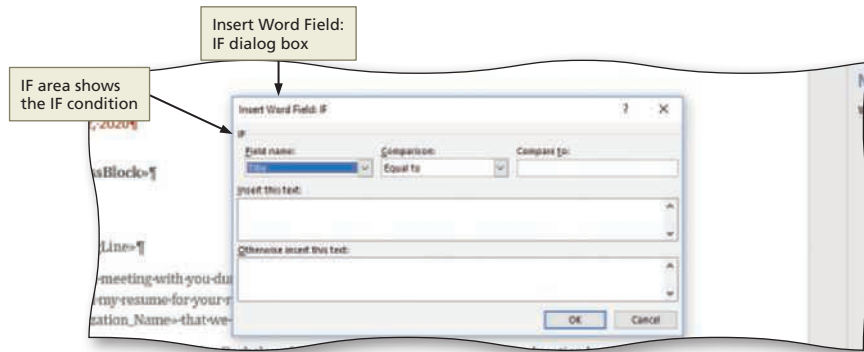


Figure 6-40

3

- Click the Field name arrow (Insert Word Field: IF dialog box) to display the list of fields in the data source.
- Scroll through the list of fields in the Field name list and then click Product_Sold to select the field.
- Position the insertion point in the Compare to text box and then type **T** as the comparison text.
- Press TAB and then type **therapeutic medicine** as the true text.
- Press TAB and then type **medical device** as the false text (Figure 6-41).

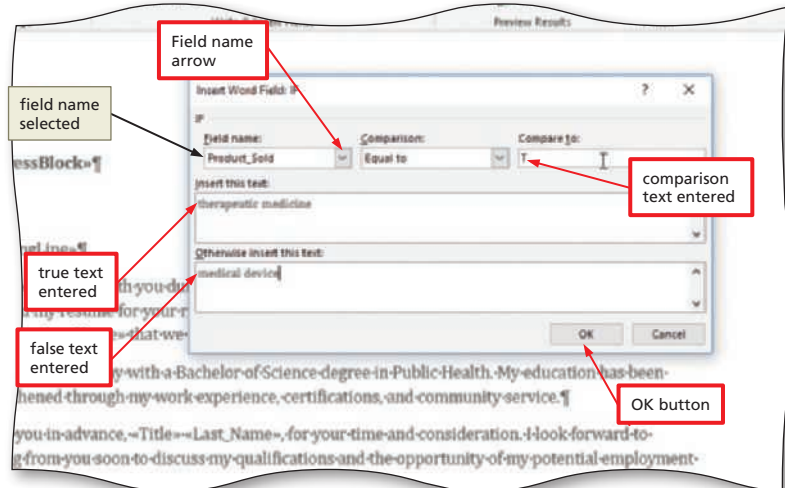


Figure 6-41

Q&A Does the capitalization matter in the comparison text?

Yes. The text, T, is different from the text, t, in a comparison. Be sure to enter the text exactly as you entered it in the data source.

4

- Click OK (Insert Word Field: IF dialog box) to insert the IF field at the location of the insertion point (Figure 6-42).

Q&A Why does the main document display the text, therapeutic medicine, instead of the IF field instructions?

The text, therapeutic medicine, is displayed because the first record in the data source has a product sold equal to T. Word, by default, evaluates the IF field using the current record and displays the results, called the **field results**, in the main document instead of displaying the IF field instructions. Later in the module, you will view the IF field instructions.

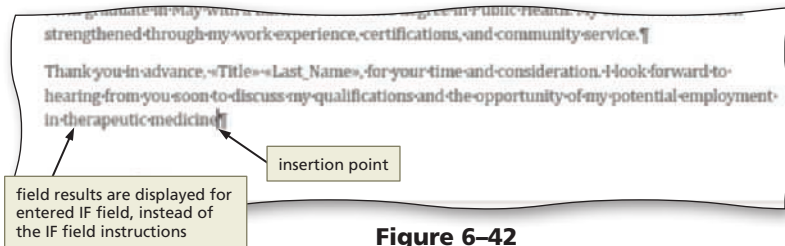
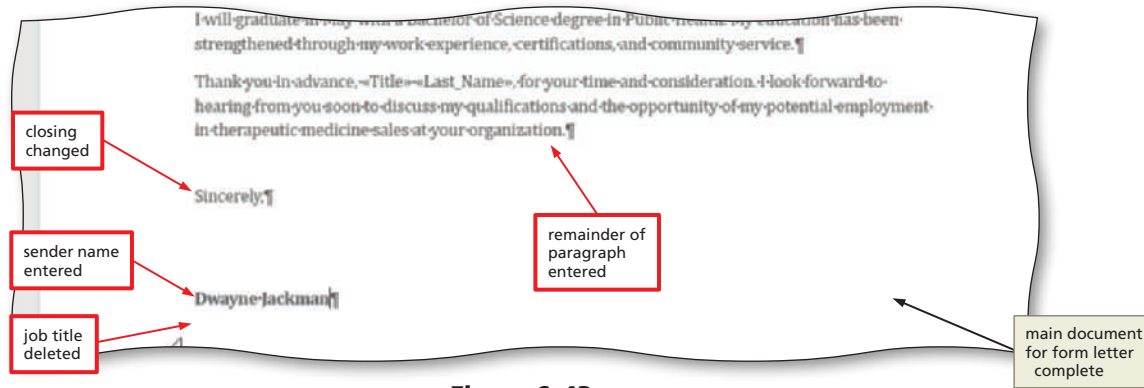


Figure 6-42

To Enter the Remaining Text in the Main Document

The following steps enter the remainder of the text into the form letter.

- Press SPACEBAR. Type **sales at your organization**.
- Change the closing to the word, Sincerely.
- Change the placeholder text in the Your Name content control to Dwayne Jackman. If necessary, delete the content control so that the name remains but the content control is deleted.
- Delete the Your Title content control and the paragraph mark that follows it (Figure 6-43).

**Figure 6-43**

- 5** Make any additional adjustments to spacing, formats, etc., so that your main document looks like Figure 6-1 shown at the beginning of this module.

To Highlight Merge Fields

If you wanted to highlight all the merge fields in a document so that you could identify them quickly, you would perform the following steps.

1. Click the 'Highlight Merge Fields' button (Mailings tab | Write & Insert Fields group) to highlight the merge fields in the document.
2. When finished viewing merge fields, click the 'Highlight Merge Fields' button (Mailings tab | Write & Insert Fields group) again to remove the highlight from the merge fields in the document.

BTW

Word Fields

In addition to the IF field, Word provides other fields that may be used in form letters. For example, the ASK and FILLIN fields prompt the user to enter data for each record in the data source. The SKIP RECORD IF field instructs the mail merge not to generate a form letter for a data record if a specific condition is met.

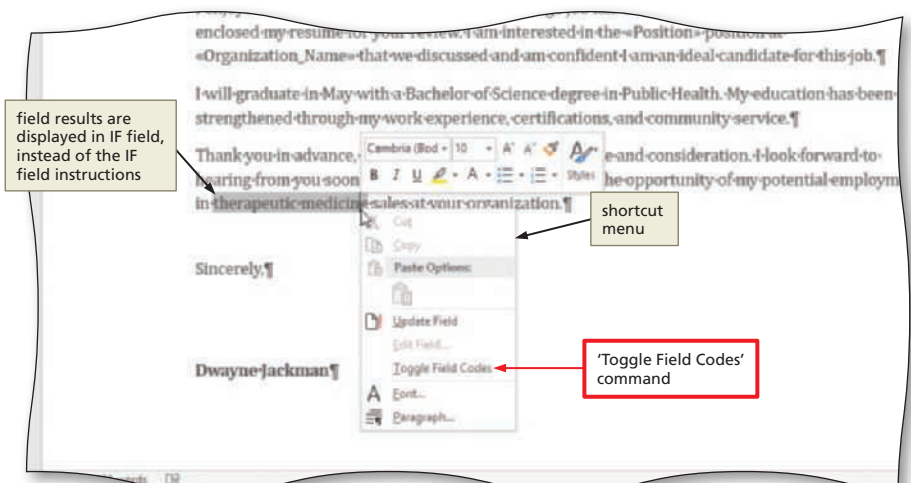
To Toggle Field Codes

The instructions in the IF field are not displayed in the document; instead, the field results are displayed for the current record (shown in Figure 6-42). The instructions of an IF field are called **field codes**, and the default for Word is for field codes not to be displayed. Thus, field codes do not print or show on the screen unless you turn them on. You use one procedure to show field codes on the screen and a different procedure to print them on a hard copy.

The following steps show a field code on the screen. **Why?** You might want to turn on a field code to verify its accuracy or to modify it. Field codes tend to clutter the screen. Thus, most Word users turn them off after viewing them.

1

- If necessary, scroll to display the last paragraph of the letter in the document window.
- Right-click the field results showing the text, therapeutic medicine, to display a shortcut menu (Figure 6-44).

**Figure 6-44**

2

- Click 'Toggle Field Codes' on the shortcut menu to display the field codes instead of the field results for the IF field (Figure 6–45).

Q&A Will displaying field codes affect the merged documents?
 No. Displaying field codes has no effect on the merge process.

What if I wanted to display all field codes in a document?
 You would press ALT+F9. Then, to hide all the field codes, press ALT+F9 again.

Why does the IF field turn gray?
 Word, by default, shades a field in gray when the field is selected. The shading displays on the screen to help you identify fields; the shading does not print on a hard copy.

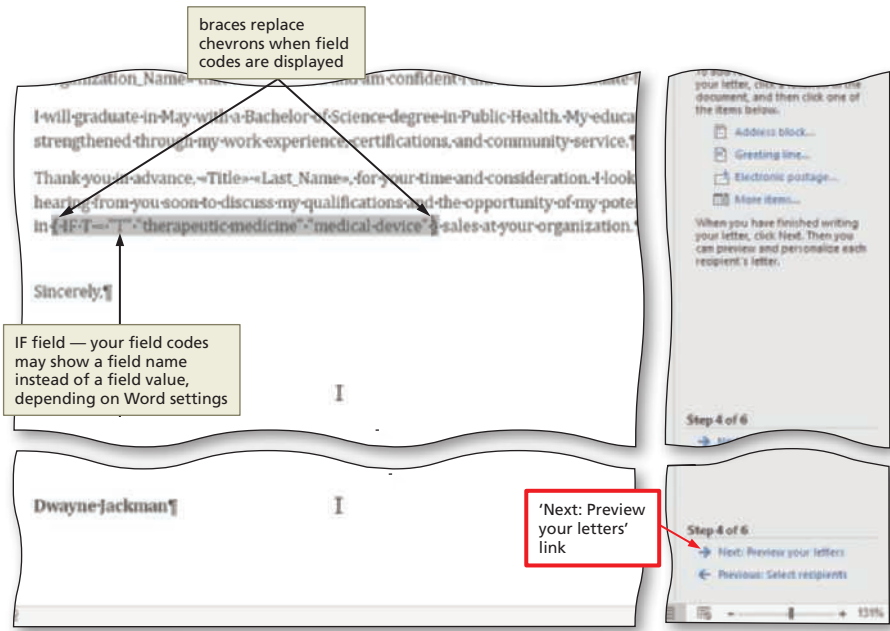


Figure 6–45

- **save** ↑ Save the main document for the form letter again on the same storage location with the same file name.

Other Ways

1. With insertion point in field, press SHIFT+F9

BTW

Locking Fields

If you wanted to lock a field so that its field results cannot be changed, click the field and then press CTRL+F11. To subsequently unlock a field so that it may be updated, click the field and then press CTRL+SHIFT+F11.

TO PRINT FIELD CODES IN THE MAIN DOCUMENT

When you merge or print a document, Word automatically converts field codes that show on the screen to field results. You may want to print the field codes version of the form letter, however, so that you have a hard copy of the field codes for future reference. When you print field codes, you must remember to turn off the field codes option so that merged documents print field results instead of field codes. If you wanted to print the field codes in the main document, you would perform the following steps.

1. Open Backstage view and then click Options to display the Word Options dialog box.
2. Click Advanced in the left pane (Word Options dialog box) to display advanced options in the right pane and then scroll to the Print area in the right pane of the dialog box.
3. Place a check mark in the 'Print field codes instead of their values' check box.
4. Click OK to instruct Word to show field codes when the document prints.
5. Open Backstage view, click Print, and then click the Print button to print the document with all field codes showing.
6. Open Backstage view and then click Options to display the Word Options dialog box.
7. Click Advanced in the left pane (Word Options dialog box) to display advanced options in the right pane and then scroll to the Print area in the right pane of the dialog box.
8. Remove the check mark from the 'Print field codes instead of their values' check box.
9. Click OK to instruct Word to show field results the next time you print the document.

Opening a Main Document

You open a main document the same as you open any other Word document (i.e., clicking Open in Backstage view). If Word displays a dialog box indicating it will run an SQL command, click Yes (Figure 6–46).

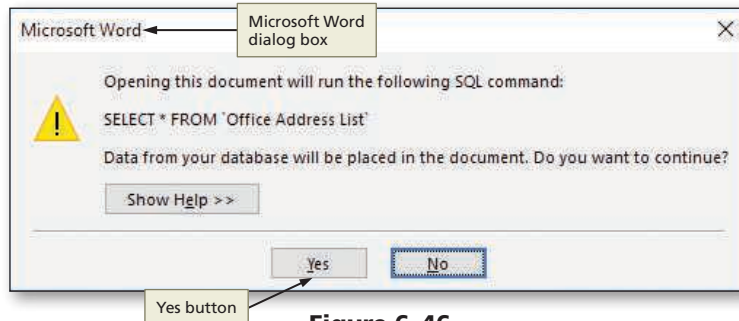


Figure 6–46

When you open a main document, Word attempts to open the associated data source file, too. If the data source is not in exactly the same location (i.e., drive and folder) as when it originally was saved, Word may display a dialog box indicating that it could not find the data source (Figure 6–47). When this occurs, click the 'Find Data Source' button to display the Open Data Source dialog box, which allows you to locate the data source file. (Word may display several messages or dialog boxes requiring you to click an OK (or similar) button until the one shown in Figure 6–47 appears.)

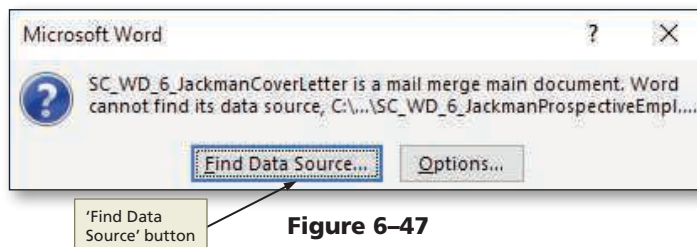


Figure 6–47

Break Point: If you want to take a break, this is a good place to do so. You can exit Word now. To resume later, start Word, open the file called SC_WD_6_JackmanCoverLetter.docx, and continue following the steps from this location forward.

Merging the Recipient List in the Data Source with the Main Document to Generate Form Letters

The next step in this project is to merge the recipient list in the data source with the main document to generate the form letters (shown in Figure 6–1c at the beginning of this module). **Merging** is the process of combining the contents of a data source with a main document.

You can merge the form letters to a new document, which you can edit, or merge them directly to a printer. You also have the option of merging all data in a data source or merging just a portion of it. The following sections discuss various ways to merge.

To Preview a Mail Merge Using the Mail Merge Wizard

Earlier in this module, you previewed the data in the letters using a button on the ribbon. The following step uses the Mail Merge wizard to preview the letters. **Why?** The next wizard step previews the letters so that you can verify the content is accurate before performing the merge.

BTW

Data Source and Main Document Files

When you open a main document, if Word cannot locate the associated data source file or it does not display a dialog box with the 'Find Data Source' button, then the data source may not be associated with the main document. To associate the data source with the main document, click the Select Recipients button (Mailings tab | Start Mail Merge group), click 'Use an Existing List' on the Select Recipients menu, and then locate the data source file. When you save the main document, Word will associate the data source with the main document.

1

- Click the 'Next: Preview your letters' link at the bottom of the Mail Merge pane (shown in Figure 6-45) to display Step 5 of the Mail Merge wizard in the Mail Merge pane (Figure 6-48).

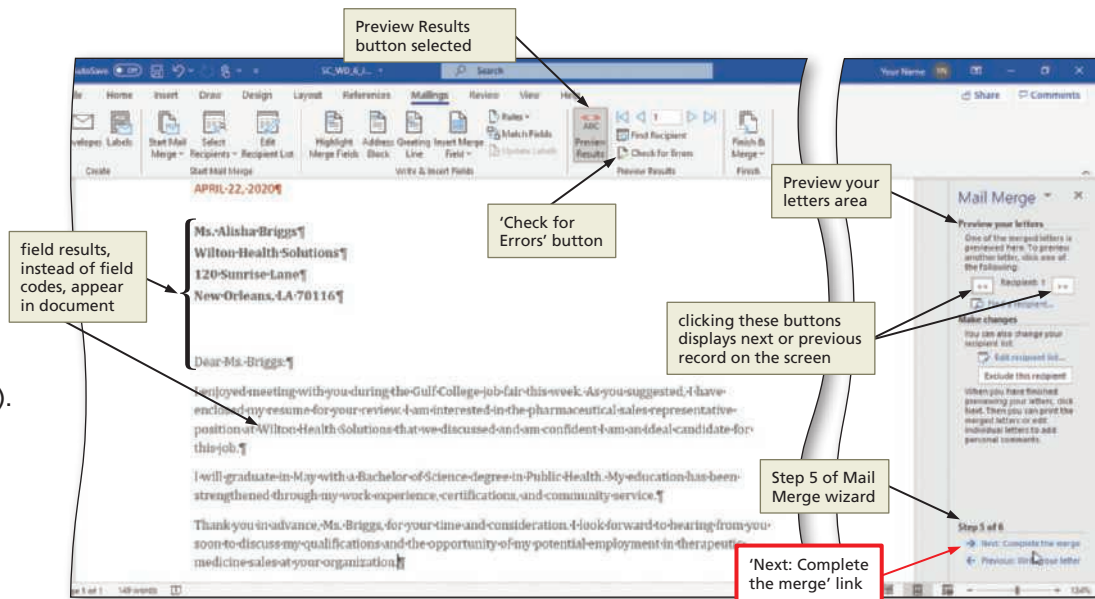


Figure 6-48

To CHECK FOR ERRORS

Before merging documents, you can instruct Word to check for errors that might occur during the merge process. If you wanted to check for errors, you would perform the following steps.

- Click the 'Check for Errors' button (Mailings tab | Preview Results group) (shown in Figure 6-48) or press ALT+SHIFT+K to display the Checking and Reporting Errors dialog box.
- Select the desired option and then click OK.

To Merge the Form Letters to a New Document Using the Mail Merge Wizard

With the data source and main document for the form letter complete, the next step is to merge them to generate the individual form letters. You can merge the letters to the printer or to a new document. **Why?** If you merge the documents to a new document, you can save the merged documents in a file and then print them later, review the merged documents for accuracy and edit them as needed, or you can add personal messages to individual merged letters. The following steps merge the form letters to a new document.

1

- Click the 'Next: Complete the merge' link at the bottom of the Mail Merge pane (shown in Figure 6-48) to display Step 6 of the Mail Merge wizard in the Mail Merge pane.
- Click the 'Edit individual letters' link in the Mail Merge pane to display the Merge to New Document dialog box (Figure 6-49).

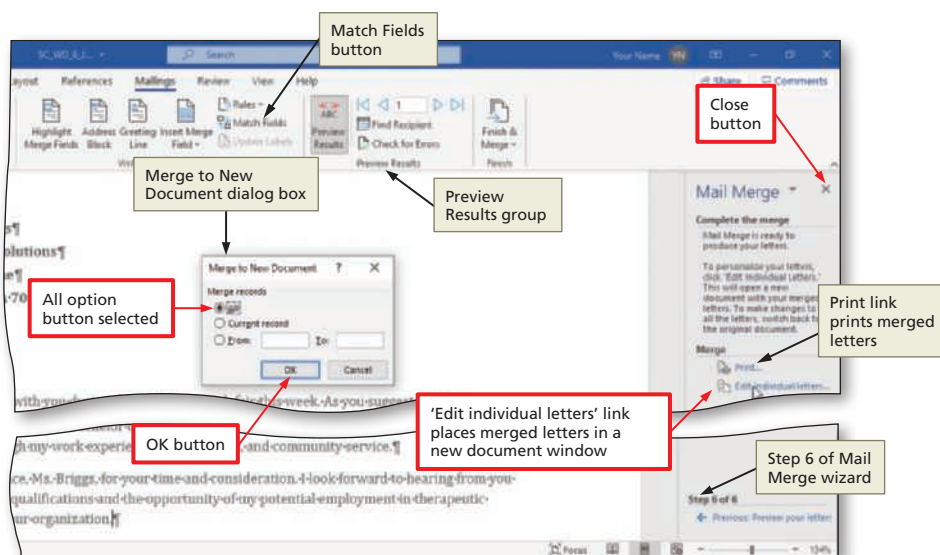


Figure 6-49

Q&A What if I wanted to print the merged letters immediately instead of reviewing them first in a new document window? You would click the Print link instead of the 'Edit individual letters' link.

2

- If necessary, click All (Merge to New Document dialog box) so that all records in the data source are merged.

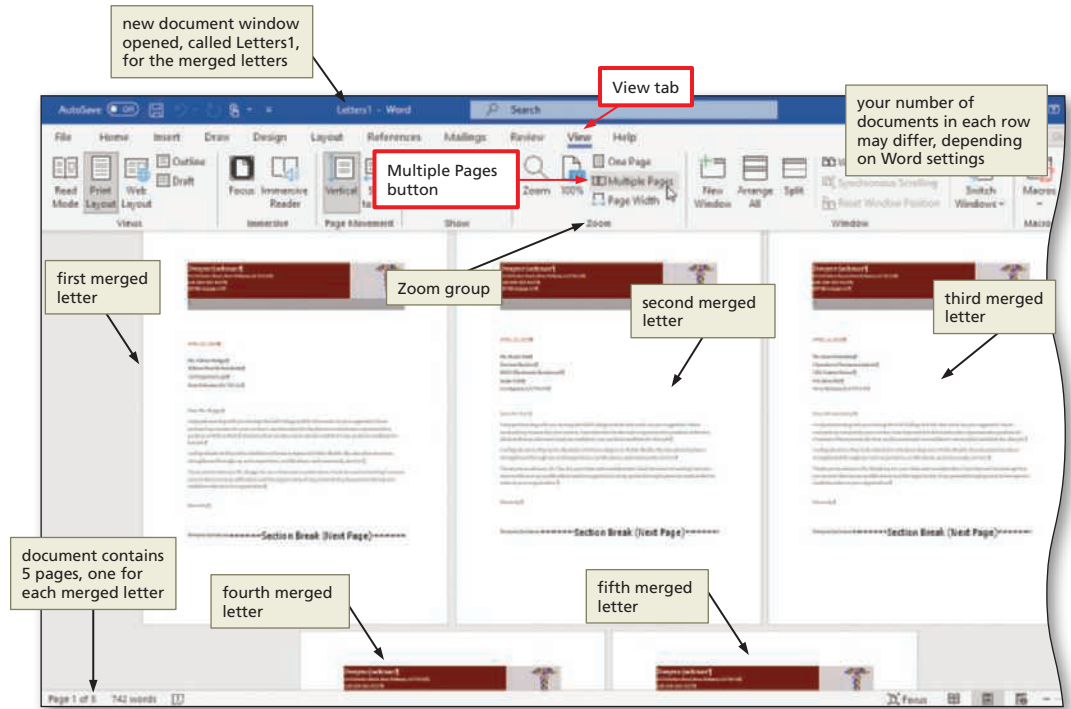
Q&A | Do I have to merge all records?

No. Through this dialog box, you can merge the current record or a range of record numbers.

- Click OK to merge the letters to a new document, in this case, five individual letters — one for each potential employer in the recipient list in the data source. (If Word displays a dialog box containing a message about locked fields, click OK.)

3

- Display the View tab and then click the Multiple Pages button (View tab | Zoom group) so that you can see miniature versions of all five letters in the document window at once (Figure 6–50).

**Figure 6–50****4**

- Change the zoom back to page width.

Experiment


- Scroll through the merged documents so that you can read all five letters.

Q&A | Why does my screen show an extra blank page at the end?

You might have a blank record in the recipient list in the data source, or the spacing may cause an overflow to a blank page.

Can I edit the merged letters?

Yes, you can edit the letters as you edit any other Word document. Always proofread the merged letters for accuracy before distributing them.

- **save**  Save the merged letters in the JobHunting folder on your hard drive, OneDrive, or other storage location using the file name, SC_WD_6_JackmanMergedCoverLetters. If requested by your instructor, print the merged letters. Close the document window containing the merged letters.

Q&A | Do I have to save the document containing the merged letters?

No. You can close the document without saving it.

- Click the Close button on the Mail Merge pane title bar (shown in Figure 6–49) because you are finished with the Mail Merge wizard.
- If necessary, click the Preview Results button to show field codes instead of merged data.

Other Ways

1. Click 'Finish & Merge' button (Mailings tab | Finish group), click 'Edit Individual Documents'

Correcting Merge Field Errors in Merged Documents

If the wrong field results appear, Word may be mapping the fields incorrectly. To view fields, click the Match Fields button (Mailings tab | Write & Insert Fields group) (shown in Figure 6–49). Then, review the fields in the list. For example, Last Name should map to the Last Name field in the data source. If it does not, click the arrow to change the name of the data source field.

If the fields are mapped incorrectly, the data in the data source may be incorrect. For a discussion about editing records in the data source, refer to that section earlier in this module.

BTW

Conserving Ink and Toner

If you want to conserve ink or toner, you can instruct Word to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the Word Options dialog box, clicking Advanced in the left pane (Word Options dialog box), scrolling to the Print area in the right pane, placing a check mark in the 'Use draft quality' check box, and then clicking OK. Then, use Backstage view to print the document as usual.

TO MERGE THE FORM LETTERS TO A PRINTER

If you are certain the contents of the merged letters will be correct and do not need individual editing, you can perform the following steps to merge the form letters directly to the printer.

1. If necessary, display the Mailings tab.
2. Click the 'Finish & Merge' button (Mailings tab | Finish group) and then click Print Documents on the Finish & Merge menu, or click the Print link (Mail Merge pane), to display the Merge to Printer dialog box.
3. If necessary, click All (Merge to Printer dialog box) and then click OK to display the Print dialog box.
4. Select desired printer settings. Click OK (Print dialog box) to print five separate letters, one for each potential employer in the recipient list in the data source, as shown in Figure 6–1c at the beginning of this module. (If Word displays a message about locked fields, click OK.)

To Select Mail Merge Recipients

Instead of merging all of the data records (recipients) in the data source, you can choose which data records to merge, based on a condition you specify. The dialog box in Figure 6–49 allows you to specify by record number which data records to merge. Often, though, you want to merge based on the contents of a specific field. The following steps select data records (recipients) for a merge. **Why?** You want to merge just those potential employers who sell medical devices.

1

- Click the 'Edit Recipient List' button (Mailings tab | Start Mail Merge group) to display the Mail Merge Recipients dialog box (Figure 6–51).

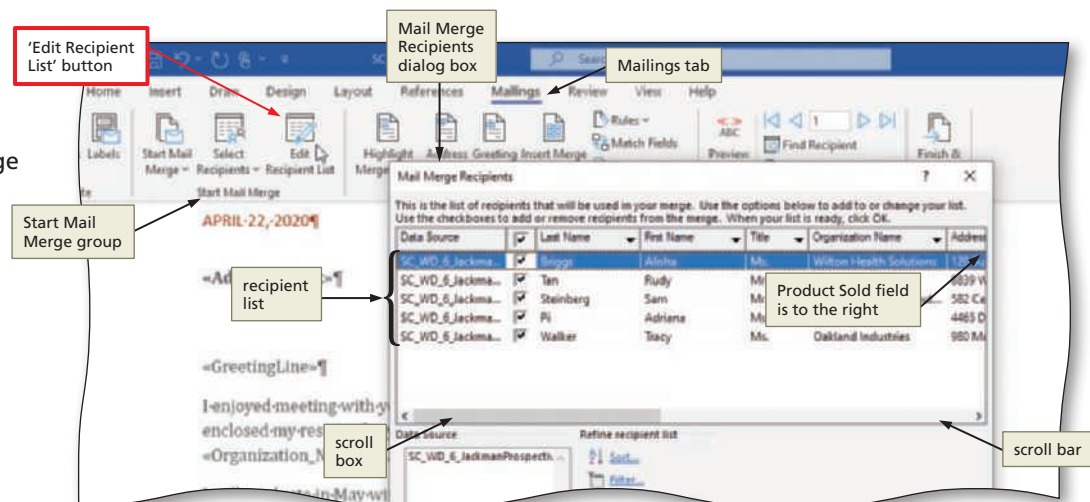


Figure 6–51

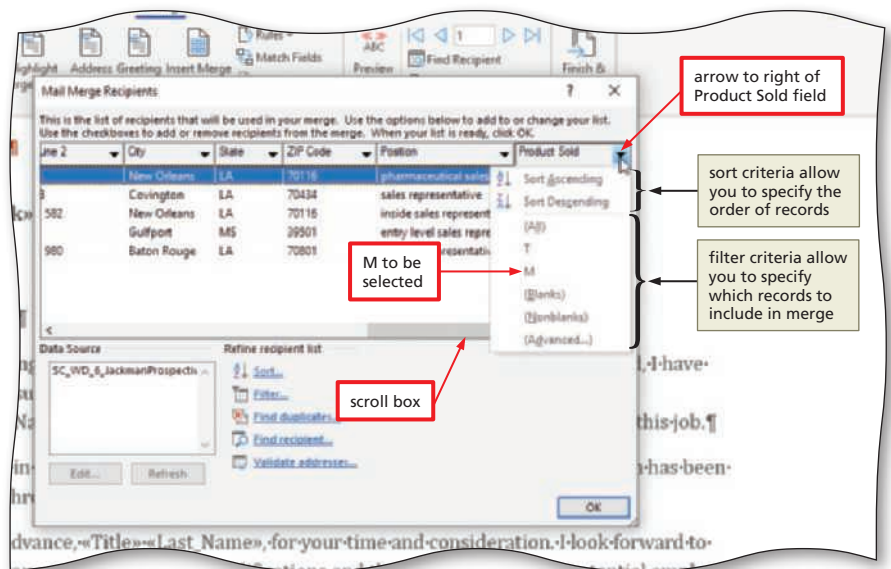
2

- Drag the scroll box to the right edge of the scroll bar (Mail Merge Recipients dialog box) so that the Product Sold field appears in the dialog box.
- Click the arrow to the right of the field name, Product Sold, to display sort and filter criteria for the selected field (Figure 6–52).

Q&A

What are the filter criteria in the parentheses?

The (All) option clears any previously set filter criteria. The (Blanks) option selects records that contain blanks in that field, and the (Nonblanks) option selects records that do not contain blanks in that field. The (Advanced) option displays the Filter and Sort dialog box, which allows you to perform more advanced record selection operations.

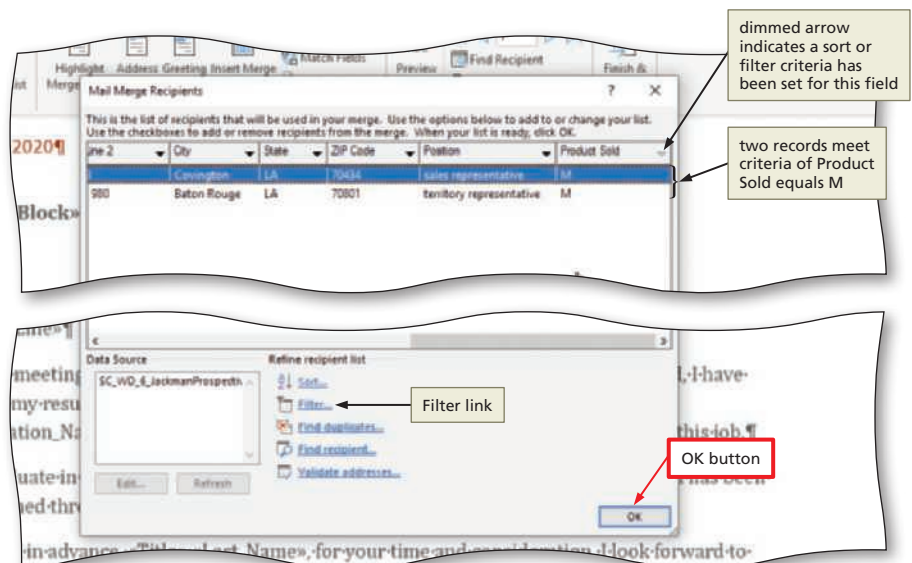
**Figure 6–52****3**

- Click M to reduce the number of data records displayed (Mail Merge Recipients dialog box) to two, because two potential employers sell medical devices (Figure 6–53).

Q&A

What happened to the other three records that did not meet the criteria?

They still are part of the data source; they just are not appearing in the Mail Merge Recipients dialog box. When you clear the filter, all records will reappear.

**Figure 6–53****4**

- Click OK to close the Mail Merge Recipients dialog box.

Other Ways

1. Click Filter link (Mail Merge Recipients dialog box), click Filter Records tab (Sort and Filter dialog box), enter filter criteria, click OK

To Merge the Form Letters to a New Document Using the Ribbon

The next step is to merge the selected records. To do this, you follow the same steps described earlier. The difference is that Word will merge only those records that meet the criteria specified, that is, just those with a product sold equal to M (for medical device). **Why?** Word will merge only those data records that meet the specified filter criteria. The following steps merge the filtered data records (recipients) to a new document using the ribbon.

1

- Click the 'Finish & Merge' button (Mailings tab | Finish group) to display the Finish & Merge menu (Figure 6-54).

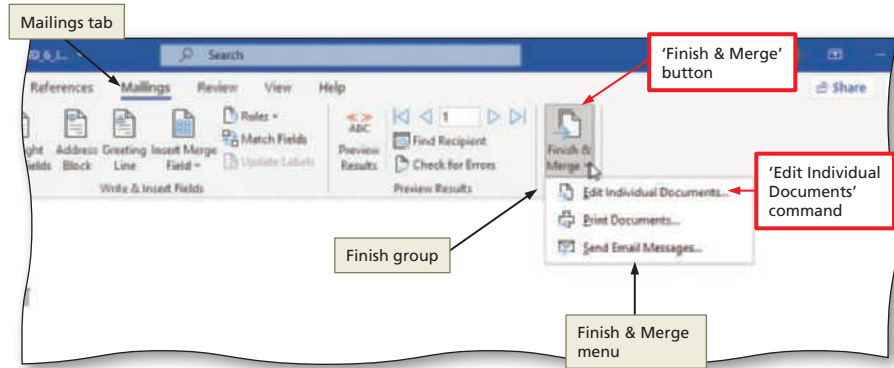


Figure 6-54

2

- Click 'Edit Individual Documents' on the Finish & Merge menu to display the Merge to New Document dialog box. If necessary, click All in the dialog box.
- Click OK (Merge to New Document dialog box) to display the merged documents in a new document window.

3

- Change the zoom so that both documents, one for each potential employer whose product sold field equals M, appear in the document window at the same time (Figure 6-55). (If Word displays a message about locked fields, click OK.)

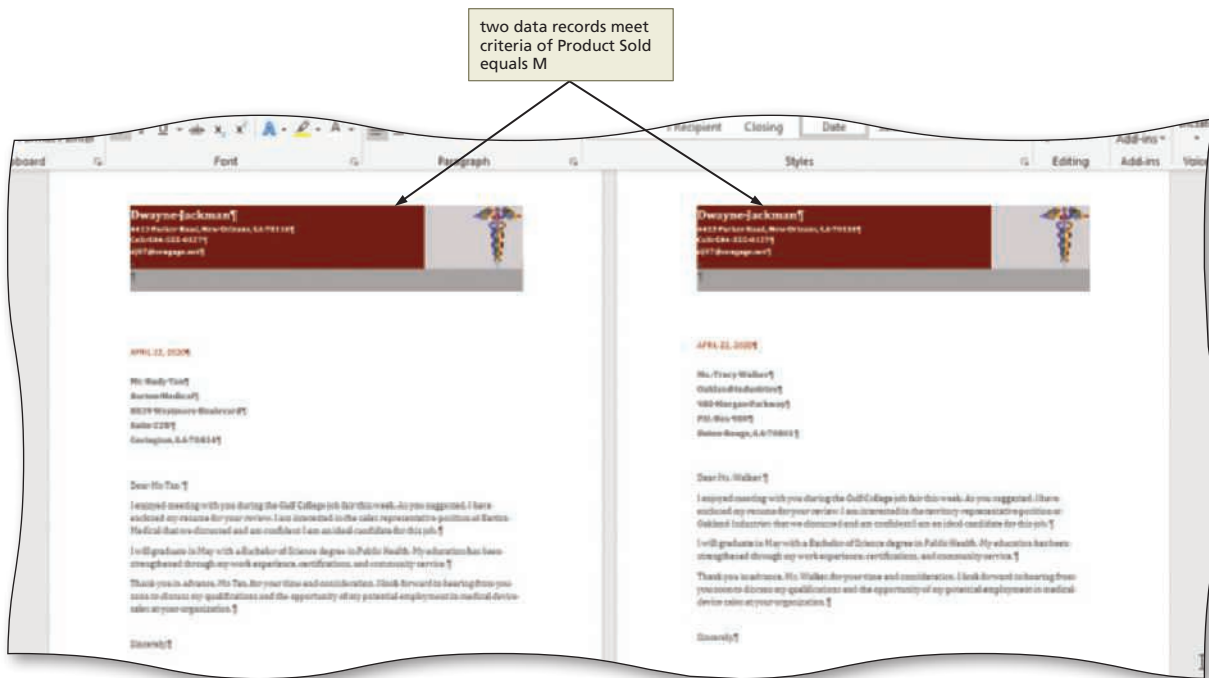


Figure 6-55

4

- Close the window. Do not save the merged documents.

To Remove a Merge Condition

The next step is to remove the merge condition. **Why?** You do not want future merges be restricted to potential employers with a product sold equal to M. The following steps remove a merge condition.

1

- Click the 'Edit Recipient List' button (Mailings tab | Start Mail Merge group) to display the Mail Merge Recipients dialog box.

2

- Click the Filter link (Mail Merge Recipients dialog box) to display the Filter and Sort dialog box.
- If necessary, click the Filter Records tab to display the Filter Records sheet (Figure 6–56).

Q&A Can I specify a merge condition in this dialog box instead of using the box arrow in the Mail Merge Recipients dialog box?

Yes.

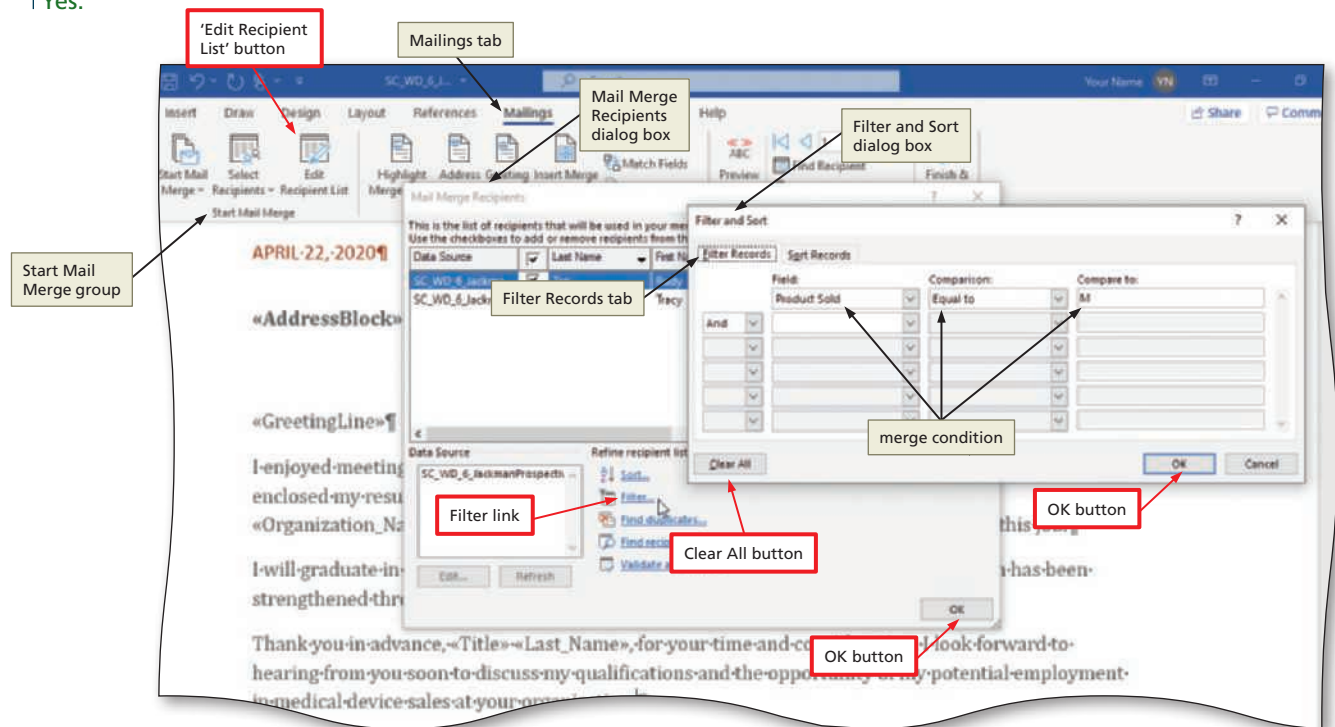


Figure 6–56

3

- Click the Clear All button (Filter and Sort dialog box) to remove the merge condition from the dialog box.
- Click OK in each of the two open dialog boxes to close the dialog boxes.

To Sort a Recipient List

The following steps sort the data records (recipient list) by ZIP code. **Why?** You may want the form letters printed in a certain order. For example, if you mail the form letters using the U.S. Postal Service's bulk rate mailing service, the post office requires that you sort and group the form letters by ZIP code.

- 1**
- Click the 'Edit Recipient List' button (Mailings tab | Start Mail Merge group) to display the Mail Merge Recipients dialog box.

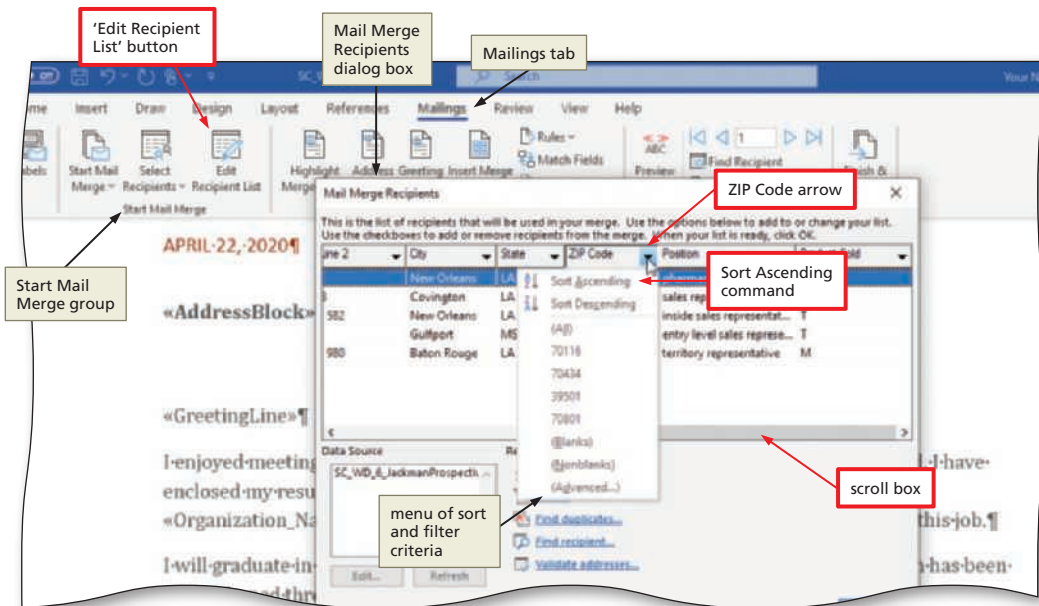


Figure 6-57

- Scroll to the right until the ZIP Code field shows in the dialog box.
- Click the arrow to the right of the field name, ZIP Code, to display a menu of sort and filter criteria (Figure 6-57).

- 2**
- Click Sort Ascending on the menu to sort the data source records in ascending (smallest to largest) order by ZIP Code (Figure 6-58).

- 3**
- Click OK to close the Mail Merge Recipients dialog box.

Q&A In what order would the form letters print if I merged them again now?
 Word would merge them in ZIP code order; that is, the record with ZIP code 39501 would appear first, and the record with ZIP code 70801 would appear last.

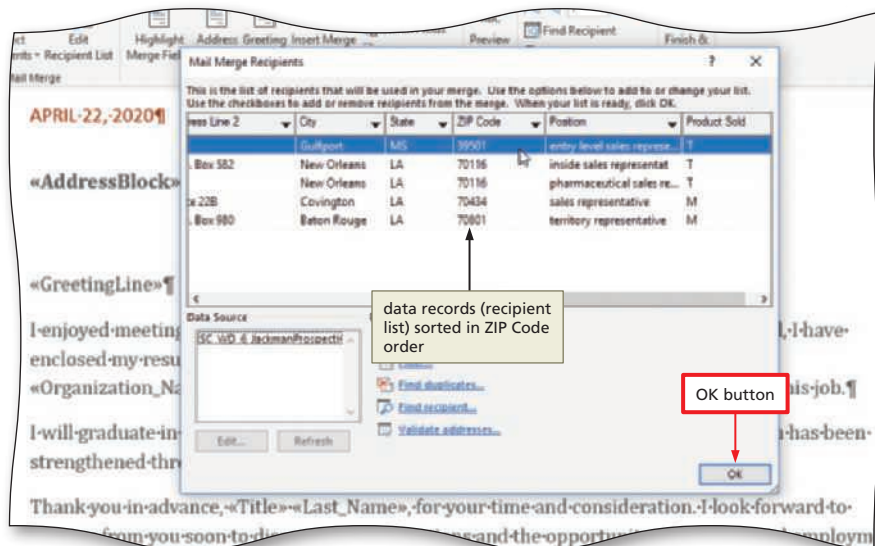


Figure 6-58

Other Ways

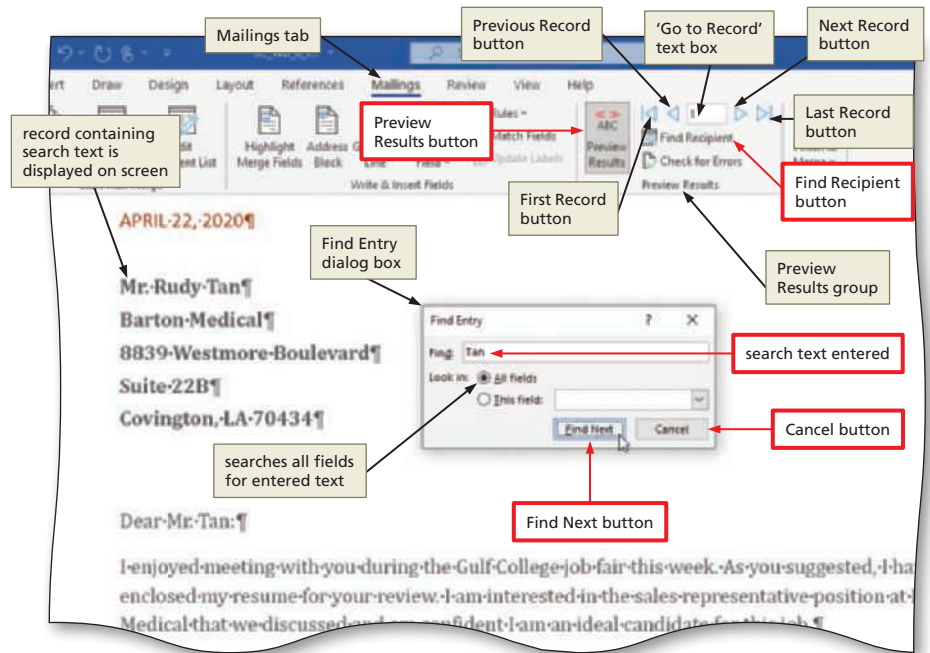
1. Click Sort link (Mail Merge Recipients dialog box), enter sort criteria (Sort and Filter dialog box), click OK

To Find Mail Merge Recipients

Why? If you wanted to find a particular data record in the recipient list in the data source and display that recipient's data in the main document on the screen, you can search for a field value. The following steps find Tan, which is a last name in the recipient list in the data source, and display that recipient's values in the form letter currently displaying on the screen.

1

- If necessary, click the Preview Results button (Mailings tab | Preview Results group) to show field results instead of merged fields on the screen.
- Click the Find Recipient button (Mailings tab | Preview Results group) to display the Find Entry dialog box.
- Type **Tan** in the Find text box (Find Entry dialog box) as the search text.
- Click the Find Next button to display the record containing the entered text (Figure 6–59).

**Figure 6–59****2**

- Click Cancel (Find Entry dialog box) to close the dialog box.
- Close the open document. If a Microsoft Word dialog box is displayed, click Save to save the changes.

Displaying Mail Merge Recipients in the Main Document

When you are viewing merged data in the main document (shown in Figure 6–59) — that is, the Preview Results button (Mailings tab | Preview Results group) is selected — you can click buttons and boxes in the Preview Results group on the Mailings tab to display different results and values. For example, click the Last Record button to display the values from the last record in the data source, the First Record button to display the values in record one, the Next Record button to display the values in the next consecutive record number, or the Previous Record button to display the values from the previous record number. You also can display a specific record by clicking the ‘Go to Record’ text box, typing the record number you would like to be displayed in the main document, and then pressing ENTER.

BTW

Closing Main Document Files

Word always asks if you want to save changes when you close a main document, even if you just saved the document. If you are sure that no additional changes were made to the document, click Don't Save; otherwise, click Save — just to be safe.

Addressing Mailing Labels and Envelopes

Now that you have merged and printed the form letters, the next step is to print addresses on mailing labels to be affixed to envelopes for the form letters. The mailing labels will use the same data source as the form letter, SC_WD_6_JackmanProspectiveEmployers. The format and content of the mailing labels will be exactly the same as the inside address in the main document for the form letter. That is, the first line will contain the title and first name followed by the last name. The second line will contain the organization name, and so on. Thus, you will use the AddressBlock merge field in the mailing labels.

You follow the same basic steps to create the main document for the mailing labels as you did to create the main document for the form letters. That is, determine the appropriate data source, create the label main document, and then merge the main document with the data source to generate the mailing labels and envelopes. The major difference here is that the data source already exists because you created it earlier in this module.

To Address and Print Mailing Labels Using an Existing Data Source

To address mailing labels, you specify the type of labels you intend to use. Word will request the label information, including the label vendor and product number. You can obtain this information from the box of labels. For illustration purposes in addressing these labels, the label vendor is Avery and the product number is J8158. The following steps address and print mailing labels using an existing data source. **Why?** You already created the data source earlier in this module, so you will use that data source.

Note: If your printer does not have the capability of printing mailing labels, read these steps without performing them. If you are in a laboratory environment, ask your instructor if you should perform these steps or read them without performing them.

1

- Open Backstage view. Click New in Backstage view to display the New screen. Click the Blank document thumbnail to open a new blank document window.
- If necessary, change the zoom to page width.
- Display the Mailings tab. Click the 'Start Mail Merge' button (Mailings tab | Start Mail Merge group) and then click 'Step-by-Step Mail Merge Wizard' on the Start Mail Merge menu to display Step 1 of the Mail Merge wizard in the Mail Merge pane.
- Click Labels in the Select document type area to specify labels as the main document type (Figure 6–60).

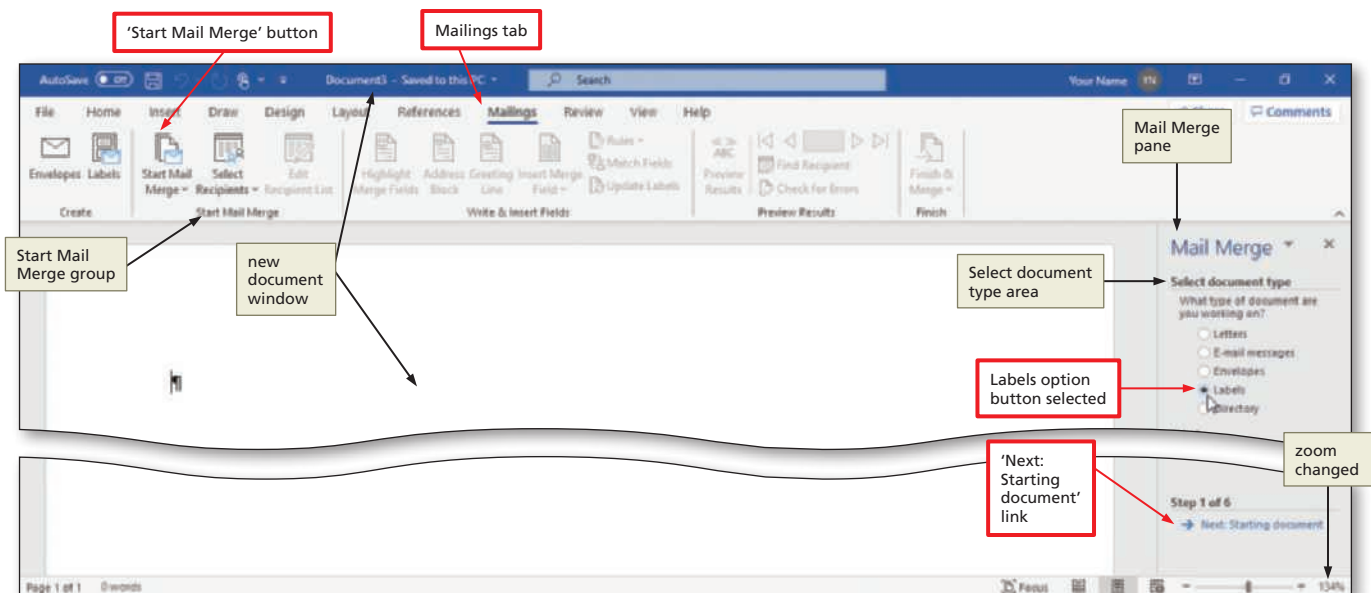
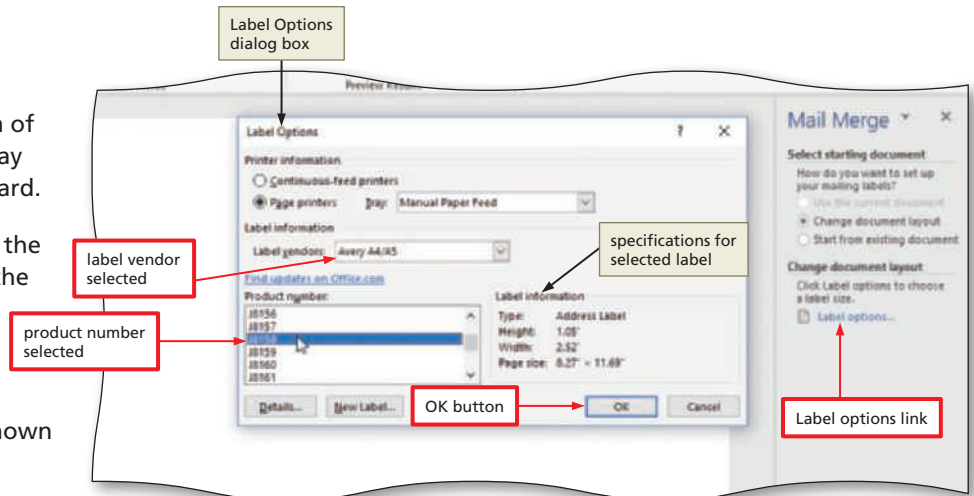


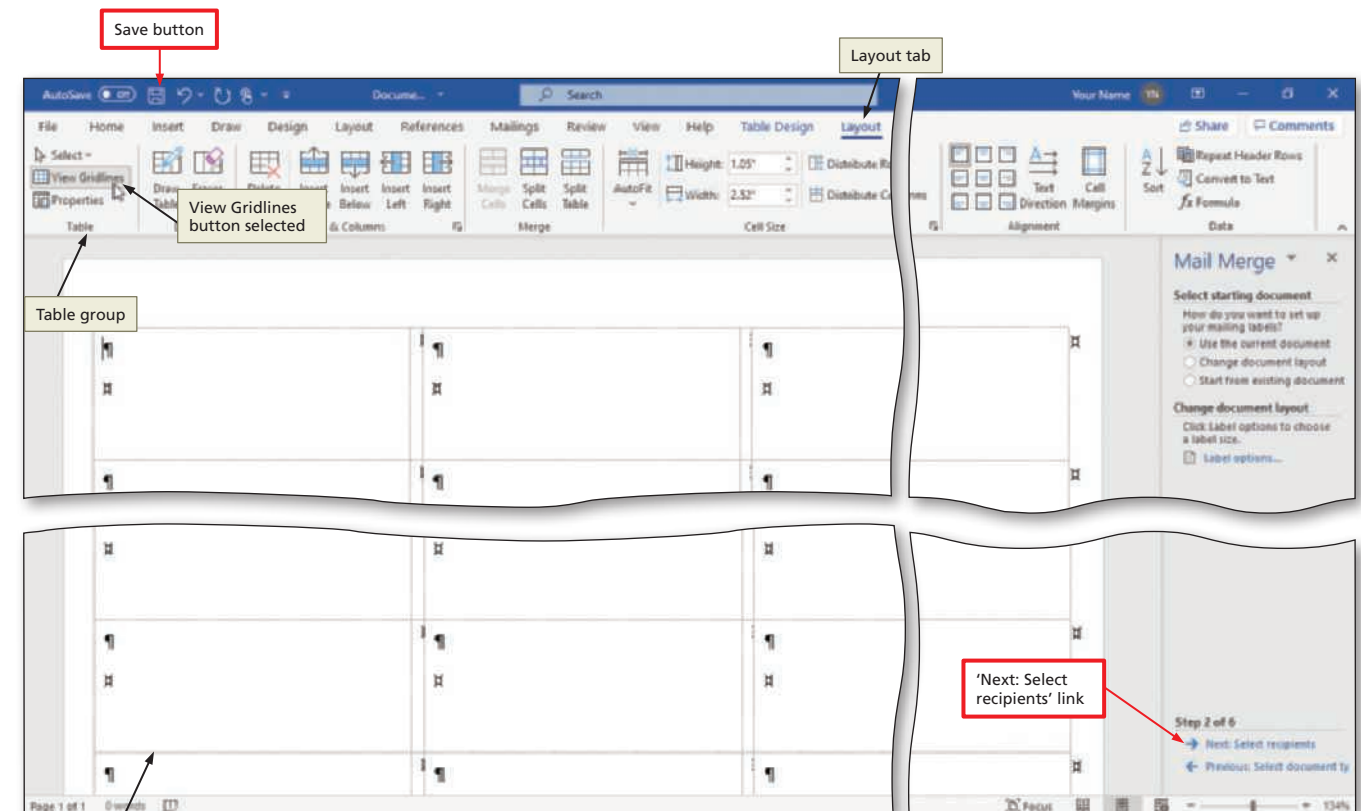
Figure 6–60

2

- Click the 'Next: Starting document' link at the bottom of the Mail Merge pane to display Step 2 of the Mail Merge wizard.
- In the Mail Merge pane, click the Label options link to display the Label Options dialog box.
- Select the label vendor and product number (in this case, Avery A4/A5 and J8158), as shown in Figure 6-61.

**Figure 6-61****3**

- Click OK (Label Options dialog box) to display the selected label layout as the main document (Figure 6-62).
- If gridlines are not displayed, click the View Gridlines button (Layout tab | Table group) to show gridlines.

**Figure 6-62**

mailing label layout
is displayed as main
document

4

Click the 'Next: Select recipients' link at the bottom of the Mail Merge pane to display Step 3 of the Mail Merge wizard, which allows you to select the data source.

If necessary, click 'Use an existing list' in the Select recipients area. Click the Browse link to display the Select Data Source dialog box.

If necessary, navigate to the location of the data source (in this case, the JobHunting folder).

Click the file name, SC_WD_6_Jackman ProspectiveEmployers, to select the data source you created earlier in the module (Figure 6-63).

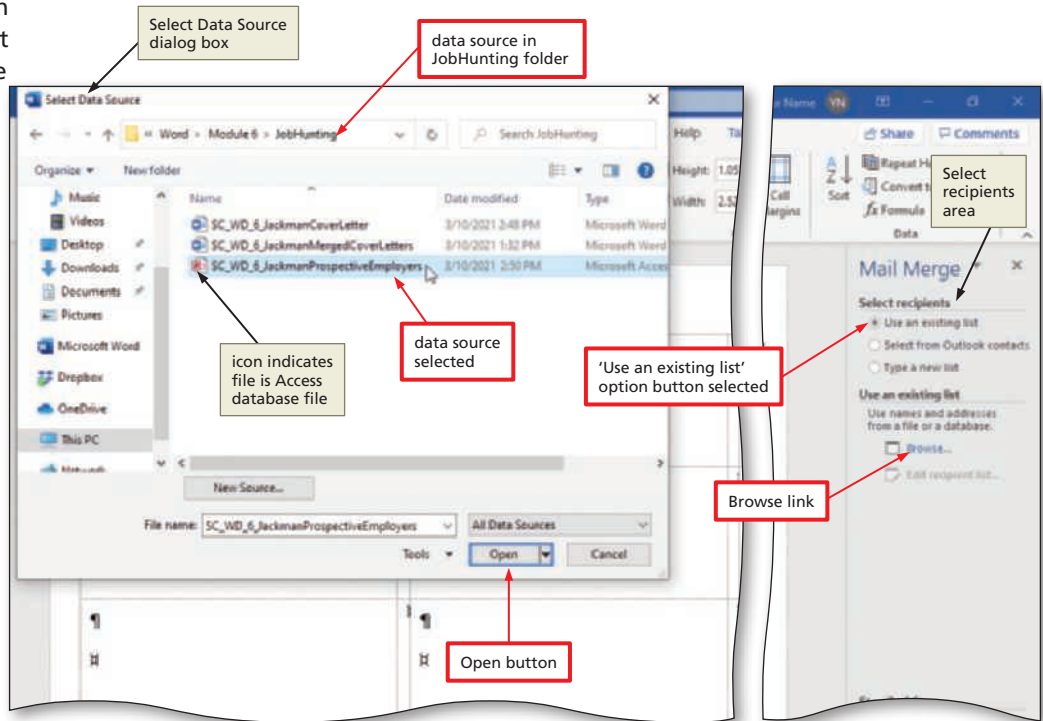


Figure 6-63

Q&A What is the folder initially displayed in the Select Data Source dialog box?

It is the default folder for storing data source files. Word looks in that folder, by default, for an existing data source.

5

Click the Open button (Select Data Source dialog box) to display the Mail Merge Recipients dialog box (Figure 6-64).

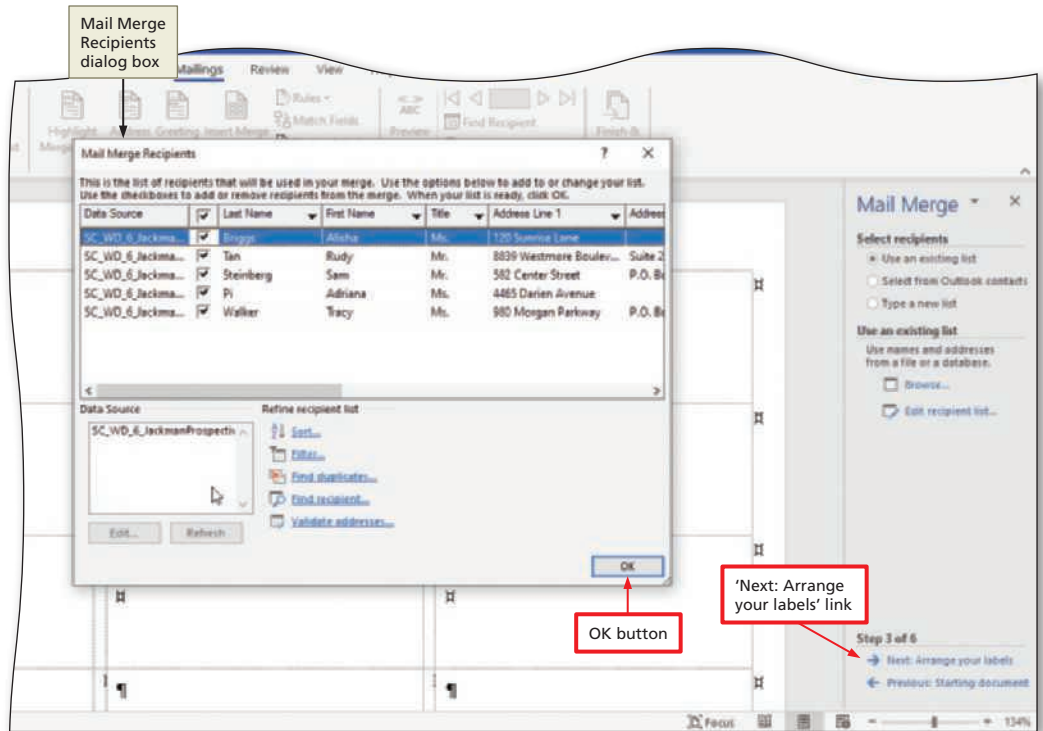
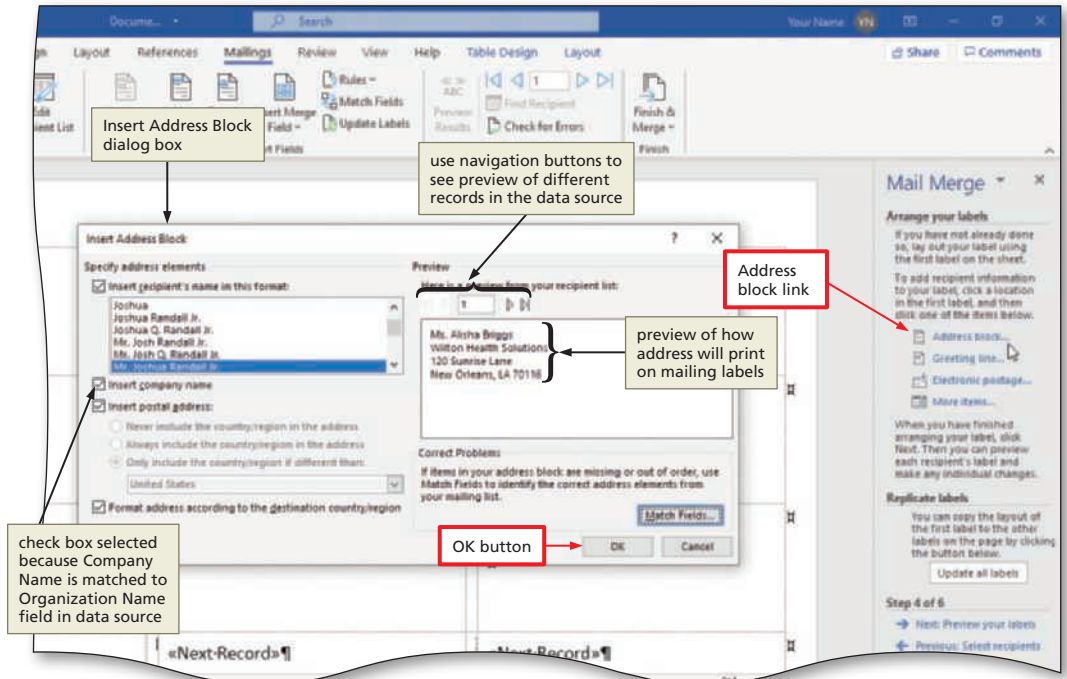


Figure 6-64

6

- Click OK (Mail Merge Recipients dialog box) to close the dialog box and insert the Next Record field in each label after the first.
- At the bottom of the Mail Merge pane, click the 'Next: Arrange your labels' link to display Step 4 of the Mail Merge wizard in the Mail Merge pane.
- In the Mail Merge pane, click the Address block link to display the Insert Address Block dialog box (Figure 6-65).

**Figure 6-65**

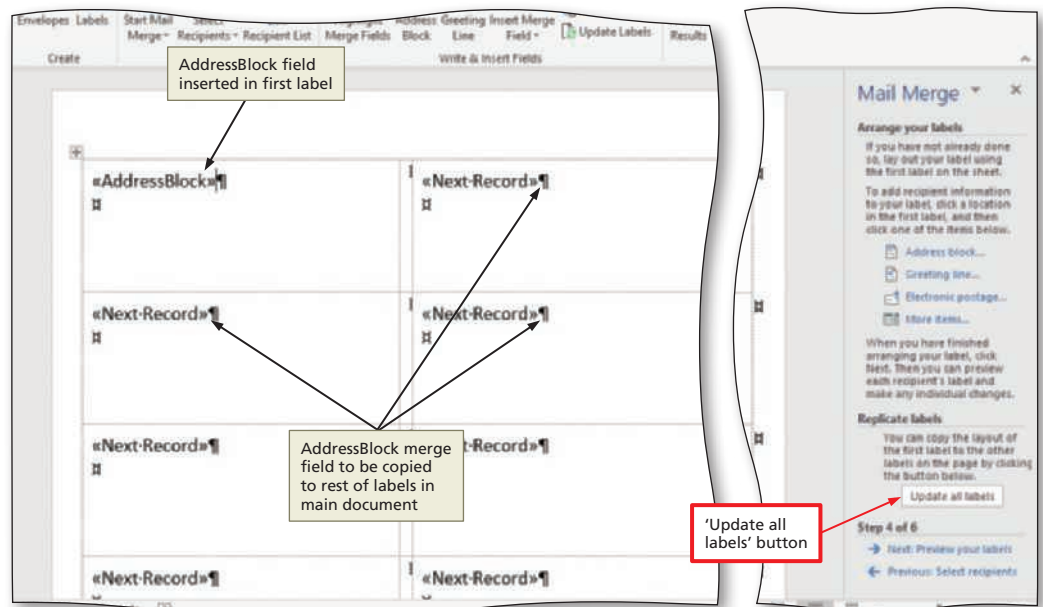
- If necessary, match the company name to the Organization Name field by clicking the Match Fields button (Insert Address Block dialog box), clicking the Company box arrow (Match Fields dialog box), clicking Organization Name in the list, and then clicking OK (Match Fields dialog box).

7

- Click OK to close the dialog box and insert the AddressBlock merge field in the first label of the main document (Figure 6-66).

Q&A**Do I have to use the AddressBlock merge field?**

No. You can click the Insert Merge Field button (Mailings tab | Write & Insert Fields group) and then select the preferred fields for the mailing labels, organizing the fields as desired.

**Figure 6-66**

8

- Click the 'Update all labels' button (shown in Figure 6-66) in the Mail Merge pane to copy the layout of the first label to the remaining label layouts in the main document (Figure 6-67).

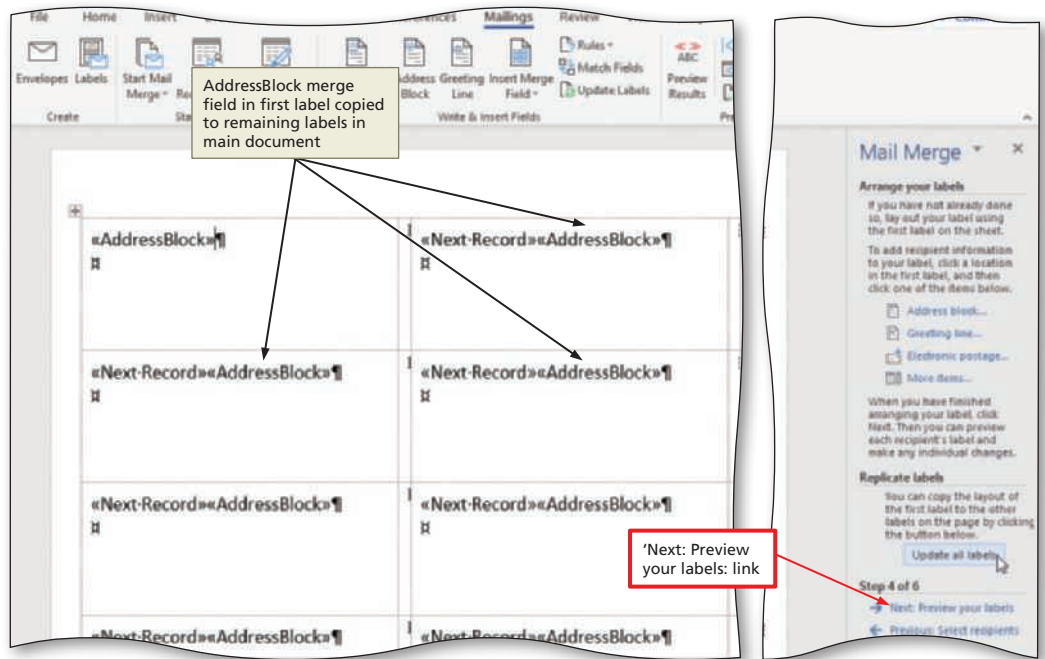


Figure 6-67

9

- Click the 'Next: Preview your labels' link at the bottom of the Mail Merge pane to display Step 5 of the Mail Merge wizard, which shows a preview of the mailing labels in the document window.
- Because you do not want a blank space between each line in the printed mailing address, select the table containing the label layout (that is, click the table move handle in the upper-left corner of the table), display the Layout tab, change the Spacing Before and After boxes to 0 pt, and then click anywhere to remove the selection (Figure 6-68).

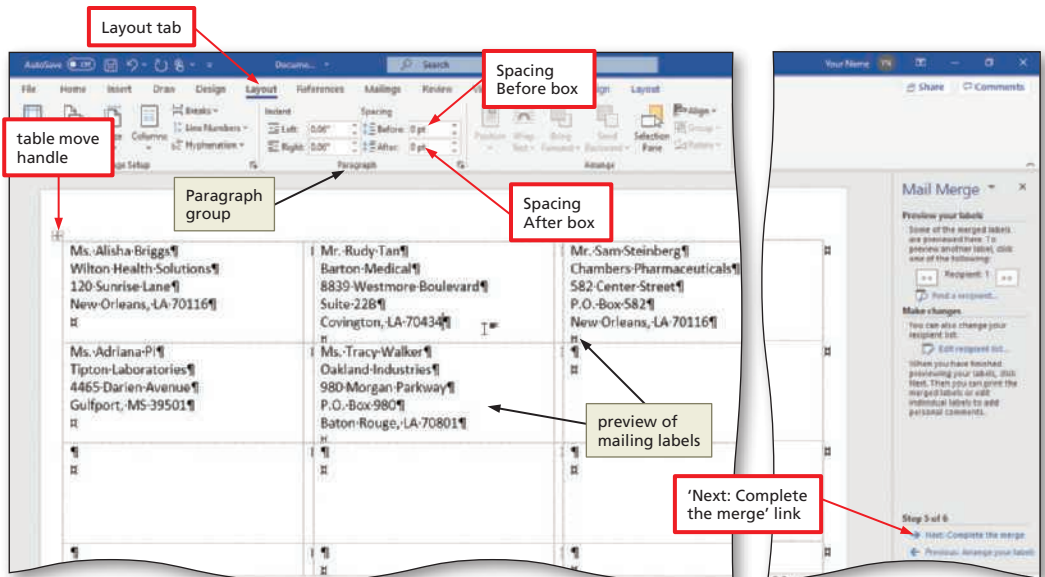


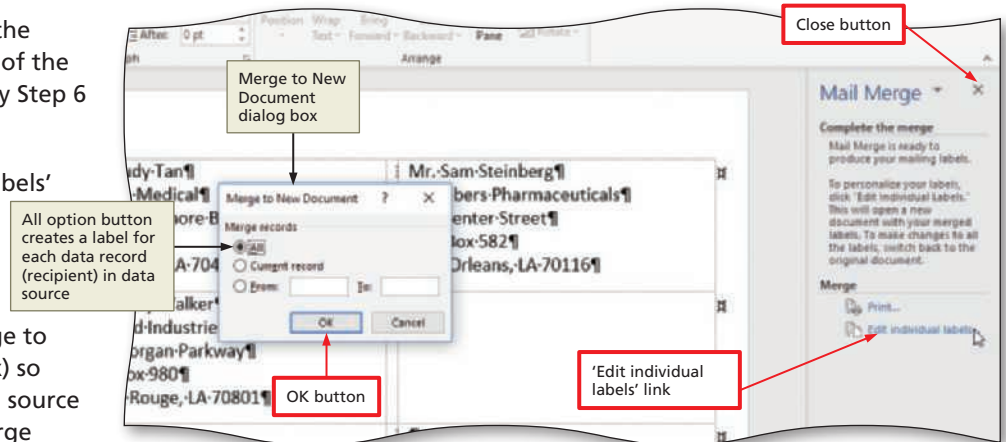
Figure 6-68

Q&A What if the spacing does not change?

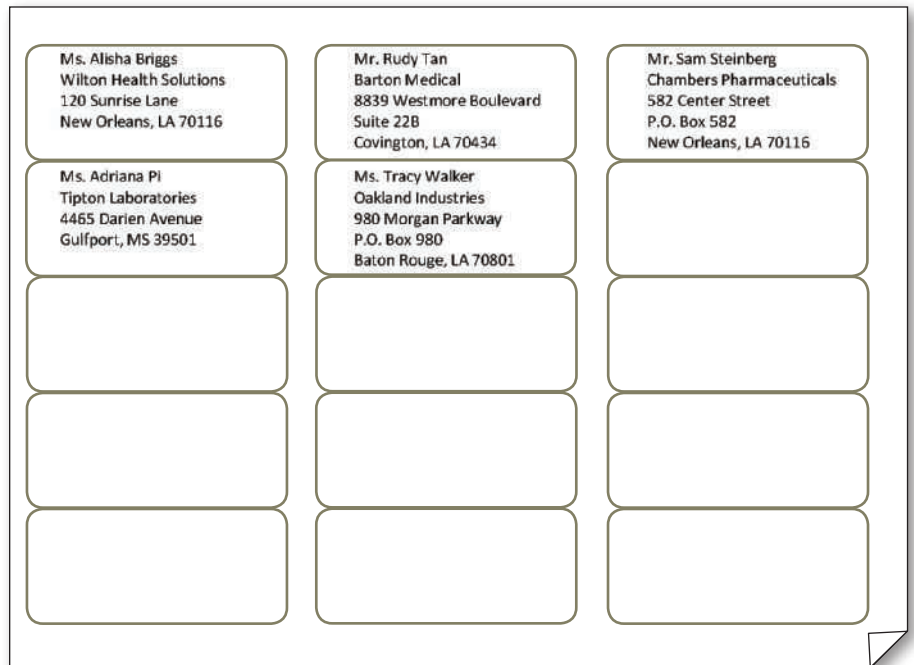
Drag through the labels and try changing the Spacing Before and After boxes to 0 again.

10

- Click the 'Next: Complete the merge' link at the bottom of the Mail Merge pane to display Step 6 of the Mail Merge wizard.
- Click the 'Edit individual labels' link to display the Merge to New Document dialog box.
- If necessary, click All (Merge to New Document dialog box) so that all records in the data source will be included in the merge (Figure 6–69).

**Figure 6–69****11**

- Click OK (Merge to New Document dialog box) to merge the mailing labels to a new document.
- If necessary, insert a sheet of blank mailing labels in the printer.
- Save the merged mailing labels in the JobHunting folder on your hard drive, OneDrive, or other storage location using the file name, SC_WD_6_Jackman MergedMailingLabels. If requested by your instructor, print the merged labels (Figure 6–70).

**Figure 6–70****12**

- Close the document window containing the merged labels.
- Click the Close button at the right edge of the Mail Merge pane.
- Display the Mailings tab. Click the Preview Results button to show field codes instead of merged data on the labels.
- Save the mailing label main document in the JobHunting folder on your hard drive, OneDrive, or other storage location using the file name, SC_WD_6_JackmanMailingLabelLayout.
- Close the mailing label main document.

Consider This**How should you position addresses on an envelope?**

An envelope should contain the sender's full name and address in the upper-left corner of the envelope. It also should contain the addressee's full name and address, positioned approximately in the vertical and horizontal center of the envelope. The address can be printed directly on the envelope or on a mailing label that is affixed to the envelope.

BTW

Create Envelopes and Mailing Labels for a Single Recipient

If you wanted to print an envelope for a single recipient, you could drag through the recipient's address to select it, click the Envelopes button (Mailings tab | Create group) to display the Envelopes and Labels dialog box, click the Envelopes tab (Envelopes and Labels dialog box), type the return address, and then click the Print button. To print a mailing label for a single recipient, click the Labels button (Mailings tab | Create group) to display the Envelopes and Labels dialog box, type the address in the Delivery address box, if necessary, and then click the Print button. To print the same address on all labels on the page, select the 'Full page of the same label' option button in the Print area.

TO ADDRESS AND PRINT ENVELOPES

Instead of addressing mailing labels to affix to envelopes, your printer may have the capability of printing directly on envelopes. If you wanted to print address information directly on envelopes, you would perform the following steps to merge the envelopes directly to the printer.

1. Open Backstage view. Click New in Backstage view to display the New screen. Click the Blank document thumbnail to open a new blank document window.
2. Display the Mailings tab. Click the 'Start Mail Merge' button (Mailings tab | Start Mail Merge group) and then click 'Step-by-Step Mail Merge Wizard' on the Start Mail Merge menu to display Step 1 of the Mail Merge wizard in the Mail Merge pane. Specify envelopes as the main document type by clicking Envelopes in the Select document type area.
3. Click the 'Next: Starting document' link at the bottom of the Mail Merge pane to display Step 2 of the Mail Merge wizard. In the Mail Merge pane, click the Envelope Options link to display the Envelope Options dialog box.
4. Select the envelope size and then click OK (Envelope Options dialog box), which displays the selected envelope layout as the main document.
5. If your envelope does not have a preprinted return address, position the insertion point in the upper-left corner of the envelope layout and then type a return address.
6. Click the 'Next: Select recipients' link at the bottom of the Mail Merge pane to display Step 3 of the Mail Merge wizard, which allows you to select the data source. Select an existing data source or create a new one. At the bottom of the Mail Merge pane, click the 'Next: Arrange your envelope' link to display Step 4 of the Mail Merge wizard in the Mail Merge pane.
7. Position the insertion point in the middle of the envelope. In the Mail Merge pane, click the Address block link to display the Insert Address Block dialog box. Select desired settings and then click OK to close the dialog box and insert the AddressBlock merge field in the envelope layout of the main document. If necessary, match fields so that the Company is matched to the Organization_Name field.
8. Click the 'Next: Preview your envelopes' link at the bottom of the Mail Merge pane to display Step 5 of the Mail Merge wizard, which shows a preview of an envelope in the document window.
9. Click the 'Next: Complete the merge' link at the bottom of the Mail Merge pane to display Step 6 of the Mail Merge wizard. In the Mail Merge pane, click the Print link to display the Merge to Printer dialog box. If necessary, click All (Merge to Printer dialog box) so that all records in the data source will be included in the merge.
10. If necessary, insert blank envelopes in the printer. Click OK to display the Print dialog box. Click OK (Print dialog box) to print the addresses on the envelopes. Close the Mail Merge pane.

Merging All Data Records to a Directory

You may want to print the data records (recipient list) in the data source. Recall that the data source is saved as a Microsoft Access database table. Thus, you cannot open the data source in Word. To view the data source, you click the 'Edit Recipient List' button

(Mailings tab | Start Mail Merge group), which displays the Mail Merge Recipients dialog box. This dialog box, however, does not have a Print button.

One way to print the contents of the data source is to merge all data records in the data source into a single document, called a directory. A **directory** is a listing of data records (recipients) from the data source. A directory does not merge each data record to a separate document; instead, a directory lists all records together in a single document. When you merge to a directory, the default organization of a directory places each record one after the next, similar to the look of entries in a telephone book.

To create a directory, follow the same process as for the form letters. That is, determine the appropriate data source, create the directory main document, and then merge the main document with the data source to create the directory.

The directory in this module is more organized with the rows and columns divided and field names placed above each column (shown in Figure 6–83). To accomplish this look, the following steps are required:

1. Change the page orientation from portrait to landscape, so that each record fits on a single row.
2. Create a directory layout, placing a separating character between each merge field.
3. Merge the directory to a new document, which creates a list of all data records (recipients) in the data source.
4. Convert the directory to a table, using the separator character as the identifier for each new column.
5. Format the table containing the directory.
6. Sort the table by organization name within city, so that it is easy to locate a particular record.

To Change Page Orientation

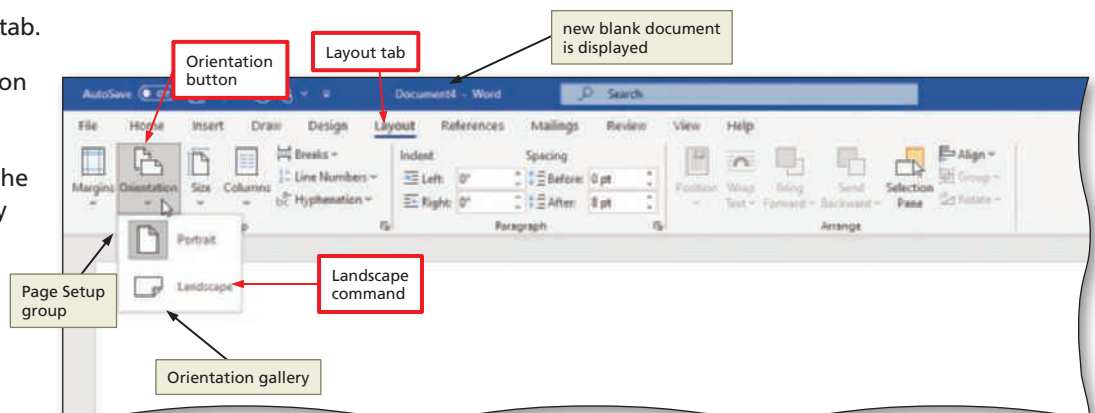
When a document is in **portrait orientation**, the short edge of the paper is the top of the document, and the document is taller than it is wide. You can instruct Word to lay out a document in **landscape orientation**, so that the long edge of the paper is the top of the document, and the document is wider than it is tall. The following steps change the orientation of the document from portrait to landscape. **Why? You want an entire record to fit on a single line in the directory.**

1

- **san** ↓ If necessary, create a new blank document in the Word window and change the zoom to page width.

- Display the Layout tab.

- Click the Orientation button (Layout tab | Page Setup group) to display the Orientation gallery (Figure 6–71).



2

- Click Landscape in the Orientation gallery to change the page orientation to landscape.
- If necessary, change the zoom to page width again so that both the left and right edges of the page are visible in the document window.

Figure 6–71

To Merge to a Directory

The next steps merge the data records (recipients) in the data source to a directory. **Why?** You would like a listing of all data records (recipients) in the data source. For illustration purposes, the following steps use the buttons on the Mailings tab rather than using the Mail Merge wizard to merge to a directory.

- 1**
 - Display the Mailings tab.
 - Click the 'Start Mail Merge' button (Mailings tab | Start Mail Merge group) to display the Start Mail Merge menu (Figure 6-72).

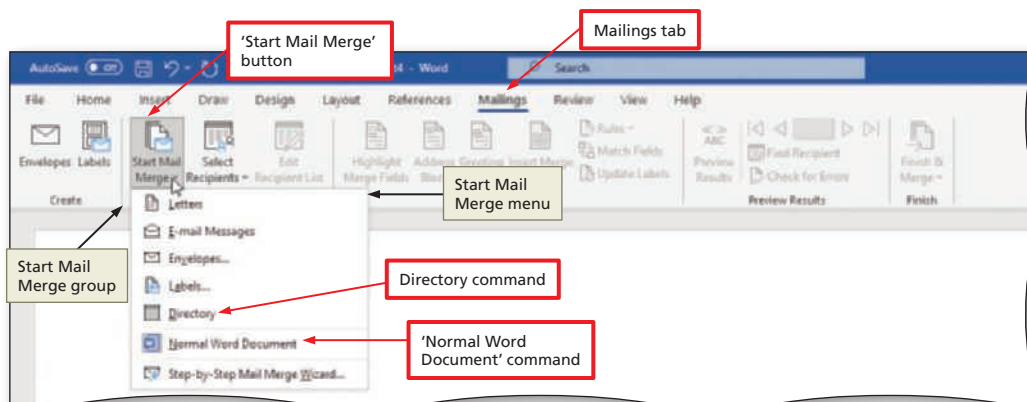


Figure 6-72

- 2**
 - Click Directory on the Start Mail Merge menu to select the main document type.

- 3**
 - Click the Select Recipients button (Mailings tab | Start Mail Merge group) to display the Select Recipients menu (Figure 6-73).

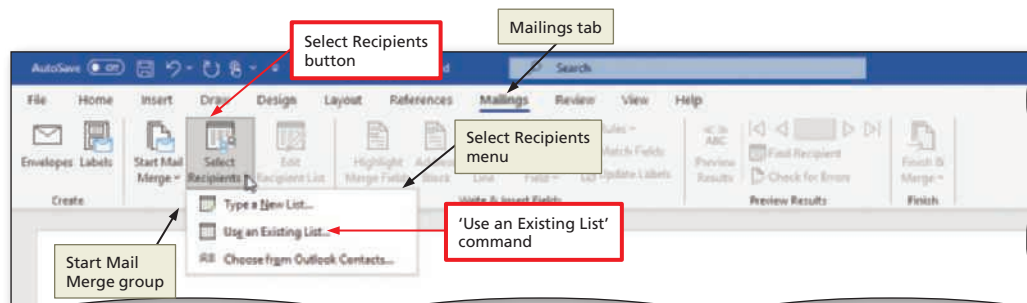


Figure 6-73

- 4**
 - Click 'Use an Existing List' on the Select Recipients menu to display the Select Data Source dialog box.
 - If necessary, navigate to the location of the data source (in this case, the JobHunting folder).
 - Click the file name, SC_WD_6_JackmanProspectiveEmployers, to select the data source you created earlier in the module (Figure 6-74).

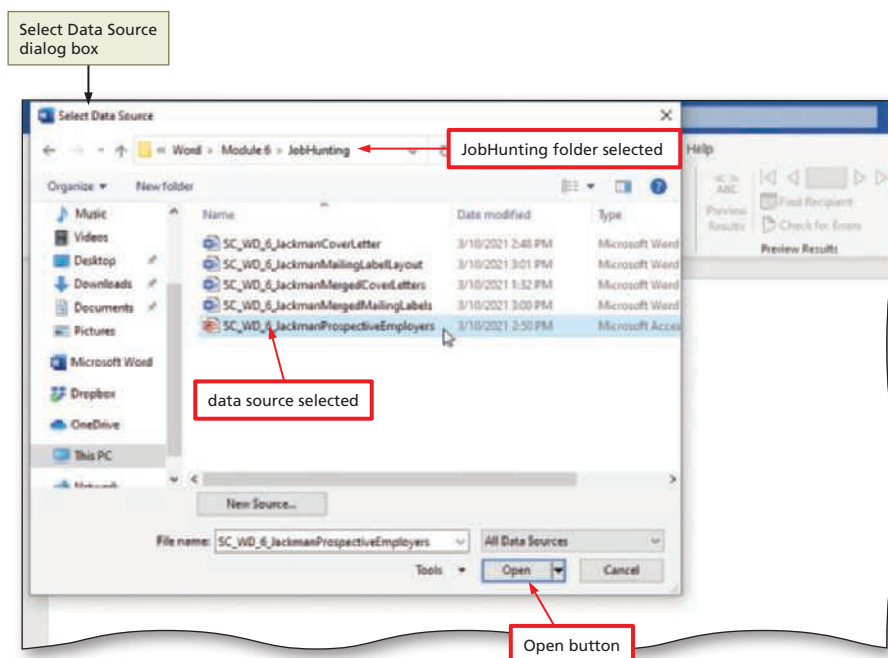


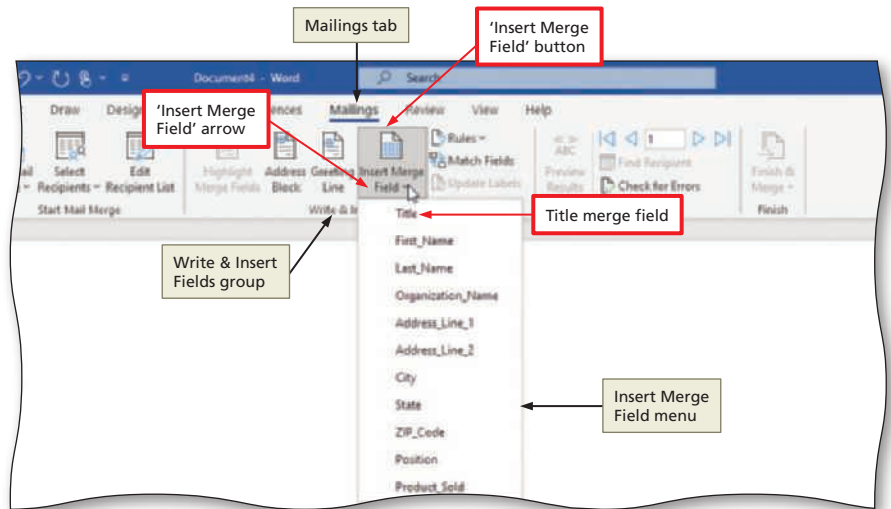
Figure 6-74

5

- Click the Open button (Select Data Source dialog box) to associate the selected data source with the current main document.

6

- Click the 'Insert Merge Field' arrow (Mailings tab | Write & Insert Fields group) to display the Insert Merge Field menu (Figure 6-75).

**Figure 6-75****7**

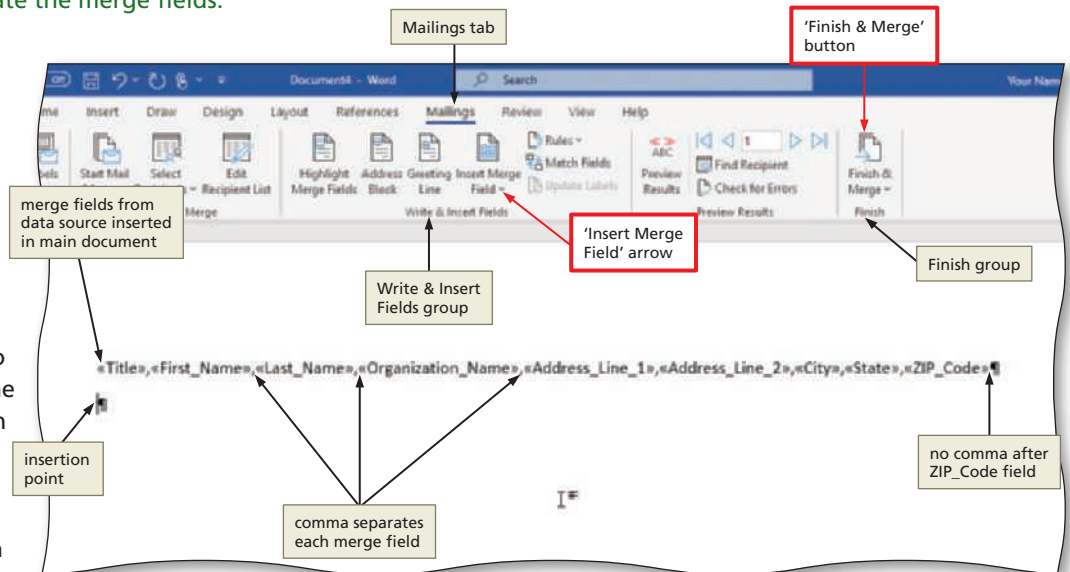
- Click Title on the Insert Merge Field menu to insert the selected merge field in the document.
- Press the COMMA (,) key to place a comma after the inserted merge field.

Q&A Why insert a comma after the merge field?

In the next steps, you will convert the entered merge fields to a table format with the records in rows and the fields in columns. To do this, Word divides the columns based on a character separating each field. In this case, you use the comma to separate the merge fields.

8

- Repeat Steps 6 and 7 for the First_Name, Last_Name, Organization_Name, Address_Line_1, Address_Line_2, City, State, and ZIP_Code fields on the Insert Merge Field menu, so that these fields in the data source appear in the main document separated by a comma, except do not type a comma after the last field (ZIP_Code).

**Figure 6-76**

- Press ENTER (Figure 6-76).

Q&A Why press ENTER after entering the merge fields names?

This will place the first field in each data record at the beginning of a new line.

Why are the Position and Product_Sold fields not included in the directory?

You just want the directory listing to show the contact information for each potential employer.

9

- save** Save the directory main document in the JobHunting folder on your hard drive, OneDrive, or other storage location using the file name, SC_WD_6_JackmanPotentialEmployerDirectoryLayout.

BTW

Converting Main Document Files

If you wanted to convert a mail merge main document to a regular Word document, you would open the main document, click the 'Start Mail Merge' button (Mailings tab | Start Mail Merge group), and then click 'Normal Word Document' on the Start Mail Merge menu (shown in Figure 6-72).

To Merge to a New Document

The next step is to merge the data source and the directory main document to a new document, so that you can edit the resulting document. The following steps merge to a new document.

- 1 Click the 'Finish & Merge' button (Mailings tab | Finish group) to display the Finish & Merge menu.
- 2 Click 'Edit Individual Documents' on the Finish & Merge menu to display the Merge to New Document dialog box.
- 3 If necessary, click All (Merge to New Document dialog box).
- 4 Click OK to merge the data records to a directory in a new document window (Figure 6-77).

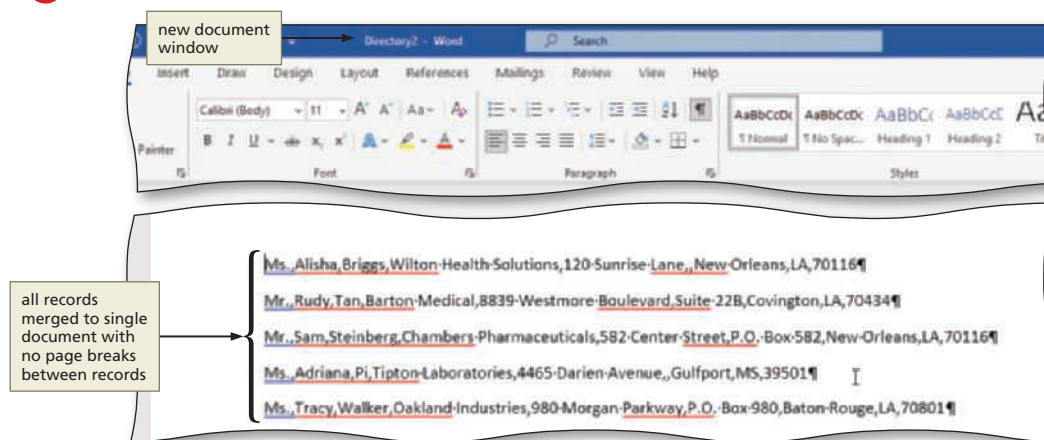


Figure 6-77

To Convert Text to a Table

You want each data record (recipient) to be in a single row and each merge field to be in a column. Why? The directory will be easier to read if it is in table form. The following steps convert the text containing the merge fields to a table.

- 1
 - Press CTRL+A to select the entire document, because you want all document contents to be converted to a table.
 - Display the Insert tab.
 - Click the Table button (Insert tab | Tables group) to display the Table gallery (Figure 6-78).

Q&A Can I convert a section of a document to a table?
 Yes, simply select the characters, lines, or paragraphs to be converted before displaying the Convert Text to Table dialog box.

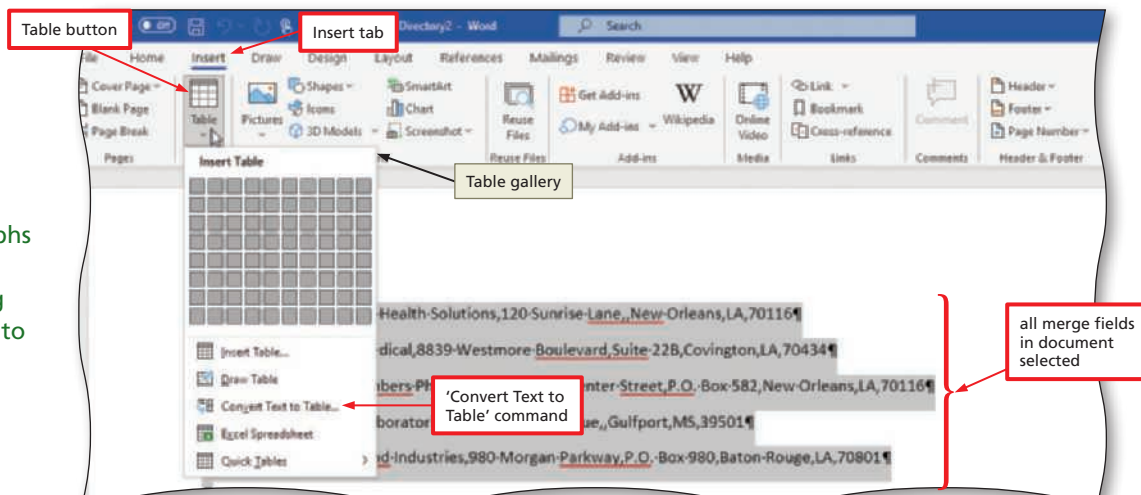
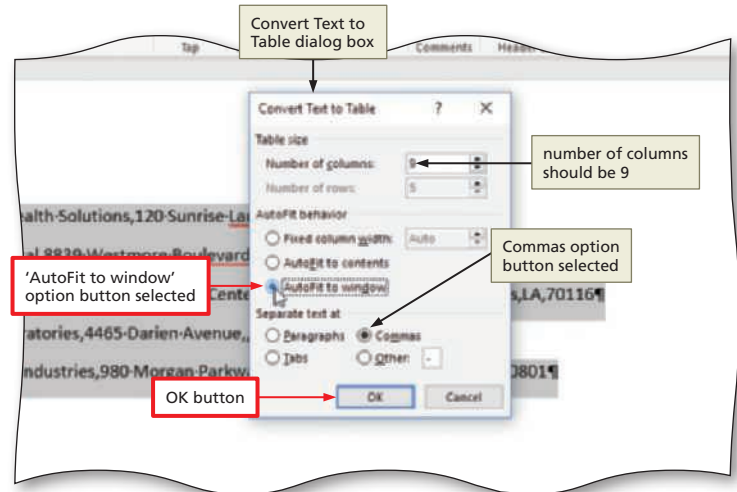


Figure 6-78

2

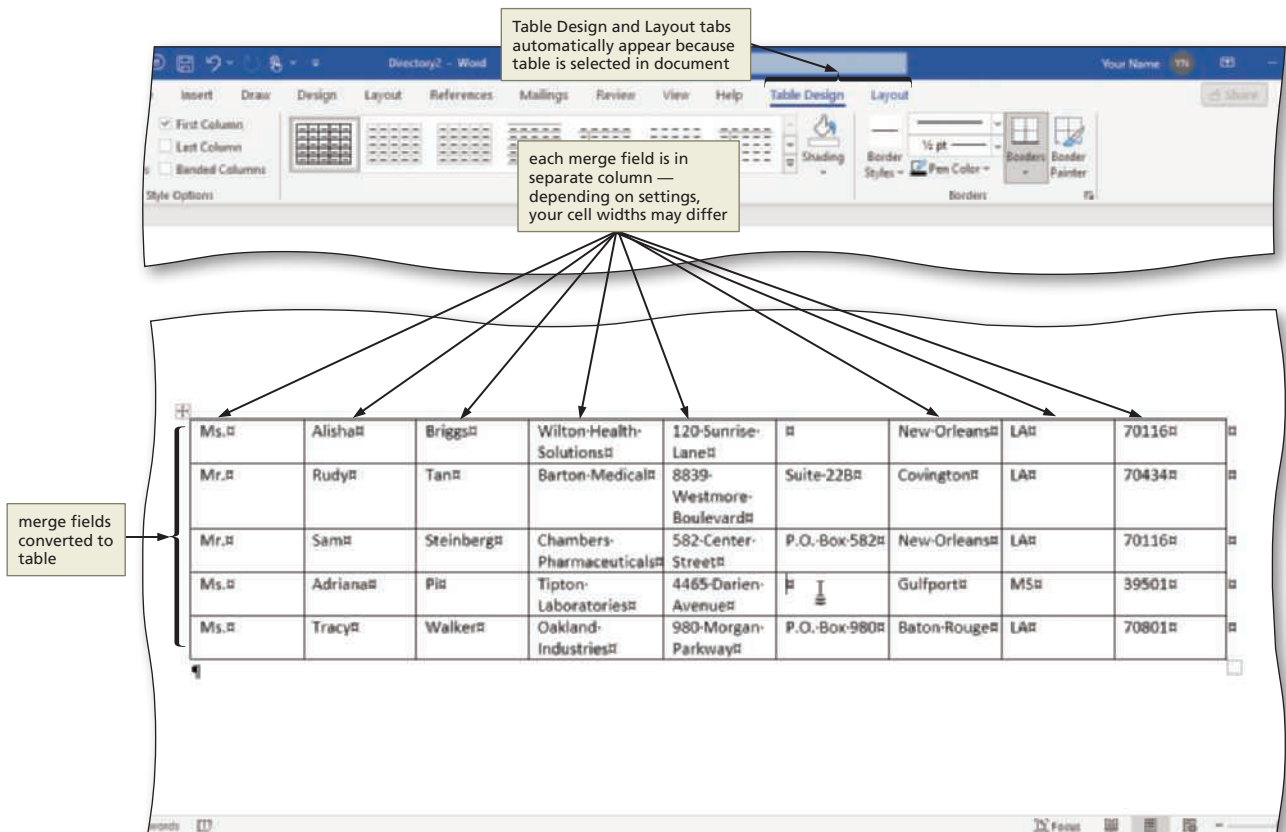
- Click 'Convert Text to Table' in the Table gallery to display the Convert Text to Table dialog box.
- If necessary, type 9 in the 'Number of columns' box (Convert Text to Table dialog box) to specify the number of columns for the resulting table.
- Click 'AutoFit to window', which instructs Word to fit the table and its contents to the width of the window.
- If necessary, click Commas to specify the character that separates the merge fields in the document (Figure 6-79).

**Figure 6-79****3**

- Click OK to convert the selected text to a table and then, if necessary, click to remove the selection from the table (Figure 6-80).

Q&A**Can I format the table?**

Yes. You can use any of the commands on the Table Design and Layout tabs to change the look of the table.

**Figure 6-80**

To Modify and Format a Table

The table would be more descriptive if the field names were displayed in a row above the actual data. The following steps add a row to the top of a table and format the data in the new row.

- 1 Add a row to the top of the table by positioning the insertion point in the first row of the table, displaying the Layout tab, and then clicking the Insert Above button (Layout tab | Rows & Columns group).
- 2 Click in the first (leftmost) cell of the new row. Type **Title** and then press TAB. Type **First Name** and then press TAB. Type **Last Name** and then press TAB. Type **Organization Name** and then press TAB. Type **Address Line 1** and then press TAB. Type **Address Line 2** and then press TAB. Type **City** and then press TAB. Type **State** and then press TAB. Type **ZIP Code** as the last entry in the row.
- 3 Bold the contents of the first row.
- 4 Use the AutoFit Contents command on the ribbon or the shortcut menu to make all columns as wide as their contents. If necessary, adjust individual column widths so that the table looks like Figure 6–81.
- 5 Center the table between the margins (Figure 6–81).

header row added and bold

Title	First-Name	Last-Name	Organization-Name	Address-Line-1	Address-Line-2	City	State	ZIP-Code
Ms.	Alisha	Briggs	Wilton-Health-Solutions	120-Sunrise-Lane		New-Orleans	LA	70116
Mr.	Rudy	Tan	Barton-Medical	8839-Westmore-Boulevard	Suite-228	Covington	LA	70434
Mr.	Sam	Steinberg	Chambers-Pharmaceuticals	582-Center-Street	P.O. Box-582	New-Orleans	LA	70116
Ms.	Adriana	Pitt	Tipton-Laboratories	4465-Darien-Avenue		Gulfport	MS	39501
Ms.	Tracy	Walker	Oakland-Industries	980-Morgan-Parkway	P.O. Box-980	Baton-Rouge	LA	70801

Figure 6–81

TO REPEAT HEADER ROWS

If you had a table that exceeded a page in length and you wanted the header row (the first row) to appear at the top of the table on each continued page, you would perform the following steps.

1. Position the insertion point in the header row.
2. Click the 'Repeat Header Rows' button (Layout tab | Data group) (shown in Figure 6–82) to repeat the row containing the insertion point at the top of every page on which the table continues.

To Sort a Table by Multiple Columns

The next step is to sort the table. **Why?** In this project, the table records are displayed by organization name within city. The following steps sort a table by multiple columns.

- 1
 - With the table selected or the insertion point in the table, click the Sort button (Layout tab | Data group) to display the Sort dialog box.
 - Click the Sort by arrow (Sort dialog box); scroll to and then click City in the list.
 - Click the first Then by arrow and then click Organization Name in the list.
 - If necessary, click Header row so that the first row remains in its current location when the table is sorted (Figure 6–82).

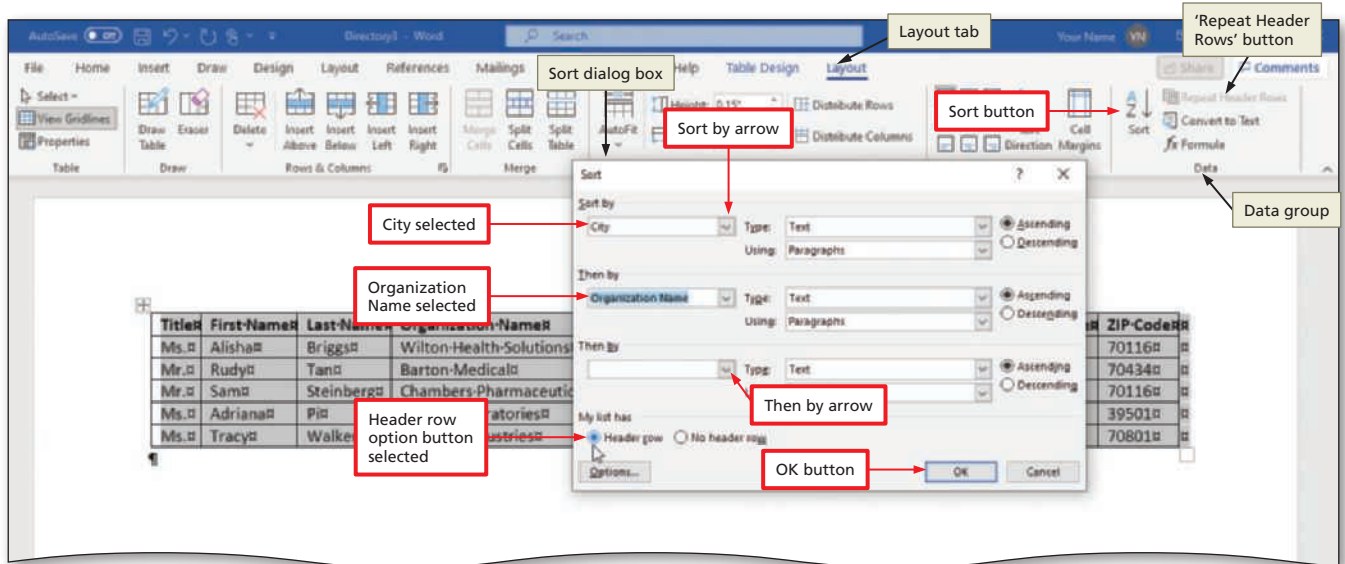


Figure 6–82

2

- Click OK to sort the records in the table in ascending Organization Name order within ascending City order (Figure 6–83).
- If necessary, click to deselect the table.
- **save** ↑ Save the merged directory in the JobHunting folder on your hard drive, OneDrive, or other storage location using the file name, SC_WD_6_JackmanMergedPotentialEmployerDirectory.
- If requested by your instructor, print the merged directory.

Q&A If Microsoft Access is installed on my computer, can I use that to print the data source?

As an alternative to merging to a directory and printing the results, if you are familiar with Microsoft Access and it is installed on your computer, you can open and print the data source in Access.

- Close all open files, if necessary, and then exit Word.

Title#	First-Name#	Last-Name#	Organization-Name#	Address-Line-1#	Address-Line-2#	City#	State#	ZIP-Code#
Ms.#	Tracy#	Walker#	Oakland-Industries#	980-Morgan-Parkway#	P.O.-Box-980#	Baton-Rouge#	LA#	70801#
Mr.#	Rudy#	Tan#	Barton-Medical#	8839-Westmore-Boulevard#	Suite-228#	Covington#	LA#	70434#
Ms.#	Adriana#	Pi#	Tipton-Laboratories#	4465-Darien-Avenue#	#	Gulfport#	MS#	39501#
Mr.#	Sam#	Steinberg#	Chambers-Pharmaceuticals#	582-Center-Street#	P.O.-Box-582#	New-Orleans#	LA#	70116#
Ms.#	Alisha#	Briggs#	Wilton-Health-Solutions#	120-Sunrise-Lane#	#	New-Orleans#	LA#	70116#

Figure 6–83

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Adobe Reader or XPS Viewer instead of in Word.

Summary

In this module, you learned how to create and print form letters, work with merge fields and an IF field, open a main document, create and edit a recipient list in a data source, address mailing labels and envelopes from a data source, change page orientation, merge to a directory, and convert text to a table.



Consider This: Plan Ahead

What decisions will you need to make when creating your next form letter?

Use these guidelines as you complete the assignments in this module and create your own form letters outside of this class.

1. Identify the main document for the form letter.
 - a) Determine whether to type the letter from scratch in a blank document window or use a letter template.
2. Create or specify the recipient list for the data source.
 - a) Determine if the data exists already in an Access database table, an Outlook contacts list, or an Excel worksheet.
 - b) If you cannot use an existing data source, create a new one using appropriate field names.
3. Compose the main document for the form letter.
 - a) Ensure the letter contains all essential business letter elements and is visually appealing.
 - b) Be sure the letter contains proper grammar, correct spelling, logically constructed sentences, flowing paragraphs, and sound ideas.
 - c) Properly reference the data in the data source.
4. Merge the main document with the data source to create the form letters.
 - a) Determine the destination for the merge (i.e., a new document, the printer, etc.).
 - b) Determine which data records to merge (all of them or a portion of them).
5. Determine whether to generate mailing labels or envelopes.
 - a) Create or specify the data source.
 - b) Ensure the mailing label or envelope contains all necessary information.
6. Create a directory of the data source.
 - a) Create or specify the data source.
 - b) If necessary, format the directory appropriately.

BTW

Printing Document Properties

To print document properties, click File on the ribbon to open Backstage view, click Print in Backstage view to display the Print screen, click the first button in the Settings area to display a list of options specifying what you can print, click Document Info in the list to specify you want to print the document properties instead of the actual document, and then click the Print button in the Print screen to print the document properties on the currently selected printer.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Editing, Printing, and Merging a Form Letter and Recipients in a Data Source

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Using a file manager, such as File Explorer in Windows, copy the file Support_WD_6_PrincetonOpticalPatientList in the Data Files to the location where you will save your documents in this assignment and then rename the copied file to SC_WD_6_PrincetonOpticalPatientList.

Start Word and create a new blank document. You will use this data source in the Mail Merge wizard to work with a main document for the form letters created by an optical assistant at Princeton Optical that reaches out to customers about eye examinations (Figure 6–84). You will enter a date using the date content control, insert the AddressBlock and GreetingLine merge fields, insert additional merge fields, print the form letter, edit the recipients in the data source, and merge the form letters.

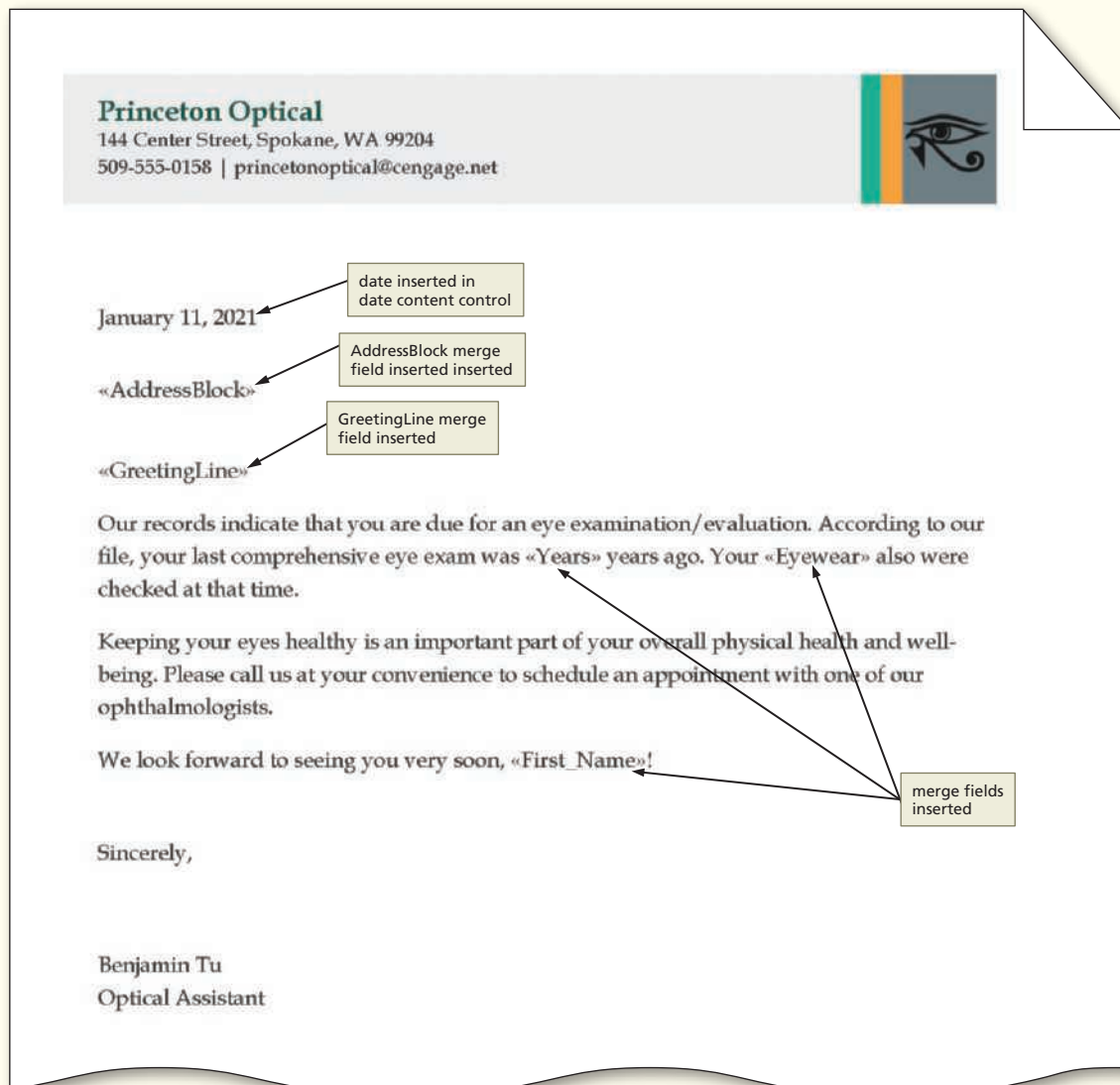



Figure 6–84

Continued >

Apply Your Knowledge *continued*

Perform the following tasks:

1. Start the Mail Merge wizard.
2. In Step 1 of the Mail Merge wizard, select Letters as the document type.
3. In Step 2 of the Mail Merge wizard, select 'Start from an existing document' as the starting document and then use the Open button in the Mail Merge pane to open the file called SC_WD_6-1.docx, which is located in the Data Files.
4. Save the document using SC_WD_6_PrincetonOpticalFormLetter as the file name.
5. In Step 3 of the Mail Merge wizard, select 'Use an existing list' and then use the Browse link to open the data source called SC_WD_6_PrincetonOpticalPatientList (the file you copied from the Data Files at the beginning of this assignment, which contains the patient recipient list). When the Mail Merge Recipients dialog box appears, click OK to close the dialog box.
6. If requested by your instructor, add a record to the data source that contains your personal information and uses two in the Years merge field and contacts in the Eyewear field. (**Hint:** Use the 'Edit recipient list' link in the Mail Merge pane or the 'Edit Recipient List' button (Mailings tab | Write & Insert Fields) to display the Mail Merge Recipients dialog box, click the data source name in the Mail Merge Recipients dialog box, and click the Edit button to display the Edit Data Source dialog box.)
7. In the data source (recipient list), change Leslie Gerhard's last name to DeYoung. (See Hint in Step 6 above.)
8. Sort the recipient list in the data source by the Last Name field. (**Hint:** Use the Mail Merge Recipients dialog box.)
9. Use the date content control to enter January 11, 2021 as the date. Right-click the date content control and then click 'Remove Content Control' on the shortcut menu to convert the content control to regular text.
10. Delete the text that reads InsertAddressBlockMergeFieldHere (do not delete the paragraph mark). Using Step 4 of the Mail Merge wizard, insert the AddressBlock field at the location of the deleted text in the letter.
11. Delete the text that reads InsertGreetingLineMergeFieldHere (do not delete the paragraph mark). Using Step 4 of the Mail Merge wizard, insert the GreetingLine merge field so that the salutation appears in the format, Dear Mr. Randall followed by a colon.
12. Edit the GreetingLine merge field so that the salutation appears in the format Dear Josh followed by a comma. (**Hint:** Right-click the GreetingLine field.)
13. Delete the text InsertYearsMergeFieldHere. At the location of the deleted text, use the Mail Merge wizard to insert the Years merge field by clicking the More items link in the Mail Merge pane, clicking Years (Insert Merge Field dialog box), clicking the Insert button, and then closing the dialog box. If necessary, press SPACEBAR after the Years merge field in the form letter.
14. Delete the text InsertEyewearMergeFieldHere. At the location of the deleted text, insert the Eyewear merge field by clicking the Insert Merge Field arrow (Mailings tab | Write & Insert Fields group) and then clicking Eyewear in the Insert Merge Field list. If necessary, press SPACEBAR after the Eyewear merge field in the form letter.
15. Delete the text InsertFirstNameMergeFieldHere and then press SPACEBAR. (If necessary, adjust spacing so that one space appears before the inserted merge field.) At the location of the deleted text, insert the First Name merge field.
16. Highlight the merge fields in the document. How many were highlighted? Remove the highlight from the merge fields.

17. In Step 5 of the Mail Merge wizard, preview the mail merge. Use the navigation buttons in the Mail Merge pane to view merged data from various data records in the recipient list in the data source. Click the Preview Results button (Mailings tab | Preview Results group) to view merge fields (turn off the preview results). Click the Preview Results button (Mailings tab | Preview Results group) again to view merged data again. Use the navigation buttons in the Preview Results group in the Mailings tab to display merged data from various records in the data source. What is the last name shown in the first record? The third record? The fifth record?
18. Use the 'Find a recipient' link in the Mail Merge pane in Step 5 of the Mail Merge wizard or the Find Recipient button (Mailings tab | Preview Results group) to find the name, Roberto. In what city does Roberto live?
19. Print the main document for the form letter (shown in Figure 6–84). If requested by your instructor, save the main document as a PDF.
20. Save the main document for the form letter again.
21. In Step 6 of the Mail Merge wizard, merge the form letters to a new document using the 'Edit individual letters' link. Save the new document with the file name, SC_WD_6_PrincetonOpticalMergedLetters. Close the merged letters document.
22. If requested by your instructor, merge the form letters directly to the printer using the Print link in Step 6 of the Mail Merge wizard.
23. Close the Mail Merge pane.
24. Submit the saved documents in the format specified by your instructor.
25.  Answer the questions posed in #16, #17, and #18. If you did not want to use the AddressBlock and GreetingLine fields, how would you enter the address and salutation so that the letters printed the correct fields from each record?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Working with an IF Field and a Fill-In Field, and Merging Using Email and Access

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Using your file manager, such as File Explorer in Windows, copy the file Support_WD_6_ScenicHorizonsTravelCustomerList in the Data Files to the location where you will save your documents in this assignment and then rename the copied file to SC_WD_6_ScenicHorizonsTravelCustomerList.

Start Word. Open the document, SC_WD_6-2.docx, which is located in the Data Files. When you open the main document, if Word displays a dialog box about an SQL command, click the Yes button. When Word prompts for the name of the data source, navigate to and open the file you just copied named SC_WD_6_ScenicHorizonsTravelCustomerList. (If Word does not prompt for the data source name, change the data source to SC_WD_6_ScenicHorizonsTravelCustomerList.)

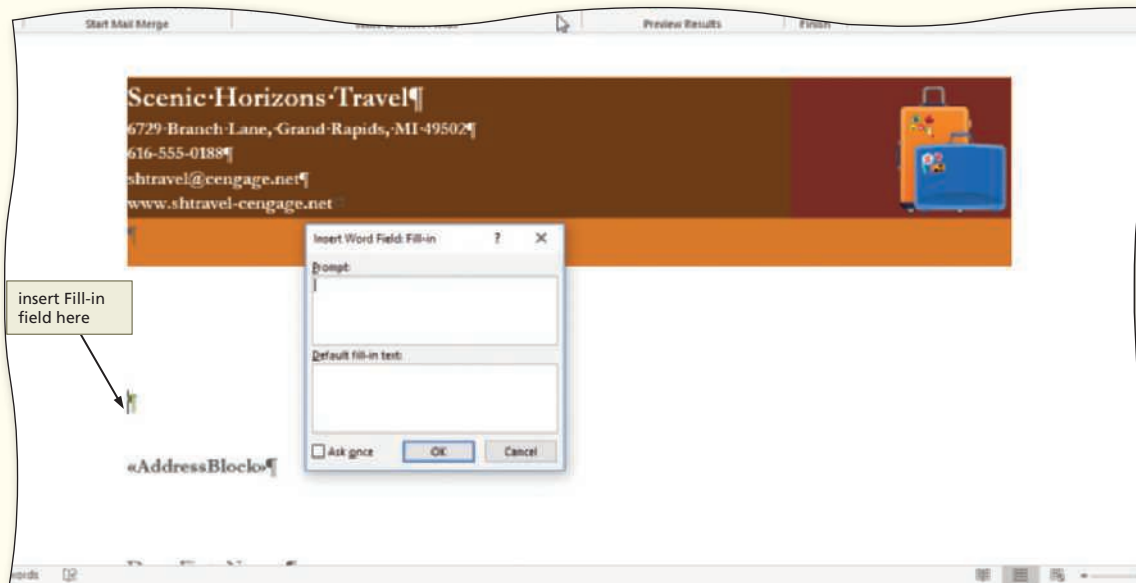
The Word document is a main document for a form letter from a travel agent with Scenic Horizons Travel confirming cruise bookings (Figure 6–85). You will modify the letter, insert and modify an IF field, insert a Fill-in field, print field codes, create envelopes for records in the data source, use an Access database file as a data source, and merge to email addresses.

Continued >

Extend Your Knowledge *continued*

Perform the following tasks:

1. Use Help to learn about mail merge, IF fields, Fill-in fields, and merging to email addresses.
2. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_6_ScenicHorizonsTravelFormLetter.
3. Change the top and bottom margins to 1 inch and the left and right margins to 1.25 inches. Specify the position of the drawing image that contains the company information to 1 inch from the top of the page.
4. Position the insertion point to the left of the word, cabin, in the second sentence of the letter. At this location, insert an IF field that tests the value in the Cabin Type field. If the value in the Cabin Type field is a W, then the word, windows, should be displayed; otherwise, the word, balconies, should be displayed. If necessary, add a space after the inserted field in the document. View merged data and scroll through the data records to be sure the IF field works as intended.
5. When viewing merged data, you notice that the text to be displayed in the IF Field should be singular instead of plural. Edit the IF field so that the text displayed is window and balcony (instead of windows and balconies). (**Hint:** Use the 'Toggle Field Codes' command on the shortcut menu (right-click the IF field code in the document window) and edit the IF field directly in the document.)
6. Above the AddressBlock merge field (shown in Figure 6–85), insert a Fill-in field that asks this question: On what date will you be mailing these letters? Select the Ask once check box so that the question is asked only once, instead of for each letter. When merging the letters, use a date in March of 2021. What is the purpose of the Fill-in field?
7. Add a field to the data source called Cruise Type. Enter a value into this field for each data record in the recipient list, i.e., Alaskan, Caribbean, etc.
8. In the third sentence in the first paragraph and also the first sentence in the last paragraph, insert the new field called Cruise Type immediately to the left of the word, cruise. If necessary, add a space after the inserted field in the document.
9. If requested by your instructor, add a record to the data source that contains your personal information along with a cabin type of window and a cruise type of your choice.
10. Merge the letters to a new document. Save the merged letters using the file name, SC_WD_6_ScenicHorizonsTravelMergedLetters.
11. Print the main document for the form letter. If requested by your instructor, save the main document as a PDF.
12. Print the form letter with field codes showing; that is, print it with the 'Print field codes instead of their values' check box selected in the Word Options dialog box. Be sure to deselect this check box after printing the field codes version of the letter. How does this printout differ from the one printed in #11?
13. Filter the recipient list to show only those customers with window cabins. How many are there? Clear the filter.
14. Submit the main document and merged letters in the format specified by your instructor.
15. If your instructor requests, create envelopes for each letter in the data source using the Mail Merge wizard. Submit the merged envelopes in the format specified by your instructor.
16. If your instructor requests, create mailing labels for each letter in the data source using the Mail Merge wizard. While creating the mailing label main document, be sure to click the 'Update all labels' button so that all recipients appear on the mailing labels. Submit the merged mailing labels document in the format specified by your instructor.

**Figure 6–85**

17. If your instructor requests, create a single mailing label for Bethany Ames because the envelope jammed when you were printing envelopes. (**Hint:** Use the Labels button (Mailings tab | Create group).)
18. If Access is installed on your computer or mobile device, and if you are familiar with Access and your instructor requests it, open the data source included with the assignment in Access and then print it from within Access.
19. If your instructor requests, display your personal record on the screen and merge the form letter to an email message, specifying that only the current record receives the message. Submit the merged email message in the format specified by your instructor.
20. 🌟 Answer the questions posed in #6, #12, and #13. If you choose to merge to email addresses, what is the purpose of the various email formats?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Exploring Add-Ins for Microsoft 365 Apps

Instructions: You regularly use apps on your phone and tablet to look up a variety of information. In Microsoft 365 apps, you can use add-ins, which essentially are apps that work with Word (and the other Microsoft 365 apps). You would like to investigate some of the add-ins available for Word to determine which ones would be helpful for you to use.

Note: You will be required to use your Microsoft account to complete this assignment. If you do not have a Microsoft account and do not want to create one, read this assignment without performing the instructions.

Perform the following tasks:

1. Use Help to learn about add-ins. If necessary, sign in to your Windows account.
2. Start Word and create a new blank document. If you are not signed in already, sign in to your Microsoft Account in Word.

Continued >

Expand Your World *continued*

3. Click the Get Add-ins button (Insert tab | Add-ins group) to display the Office Add-ins dialog box. Click the STORE tab (Office Add-ins dialog box) to visit the online Office Store. (Note that if your Insert tab does not have a Get Add-ins button, search through Help for the location of the button in your version of Word that enables you to work with add-ins.)
4. Scroll through add-ins in the various categories (Figure 6–86). Locate a free add-in that you feel would be helpful to you while you use Word, click the Add button, and then follow the instructions to add the add-in to Word.

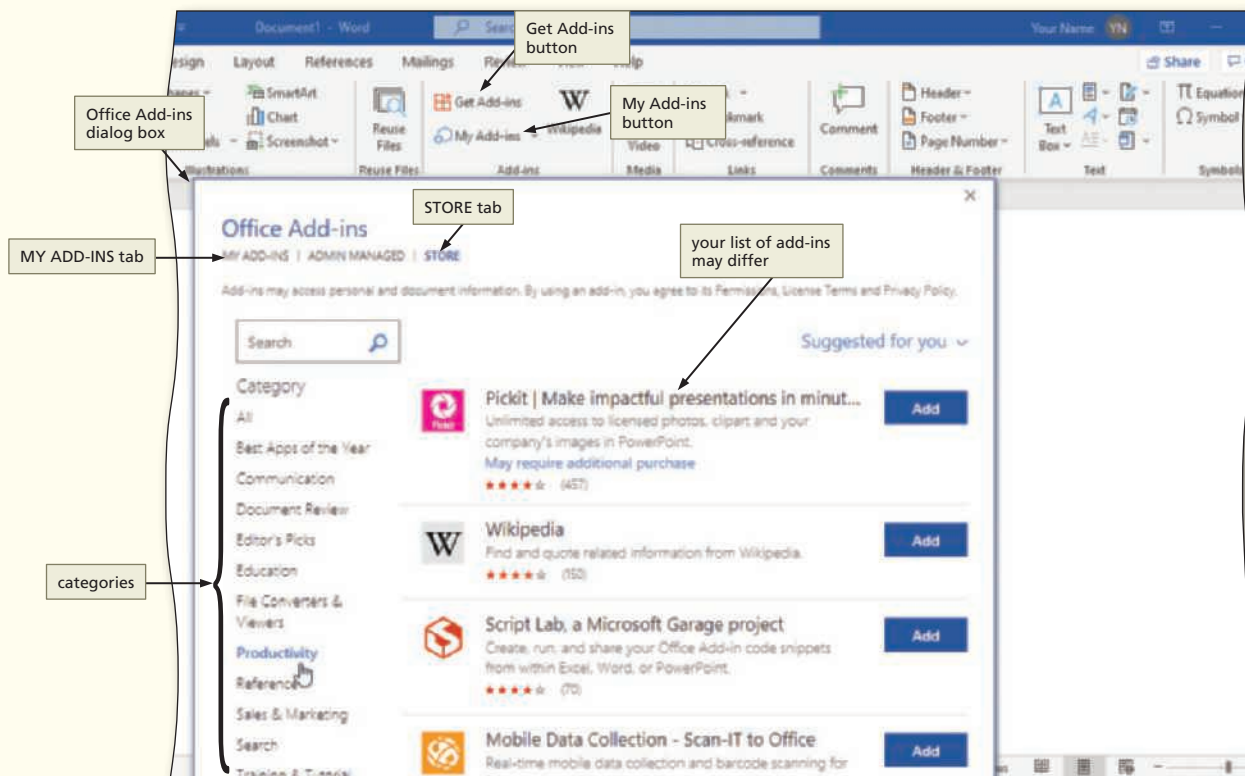


Figure 6–86

5. In Word, click the Get Add-ins button (Insert tab | Add-ins group) again to display the Office Add-ins dialog box. Click the MY ADD-INS tab to display the list of your add-ins, click the add-in you added, and click the Add button to use the add-in.
6. Practice using the add-in. Does the add-in work as you intended? Would you recommend the add-in to others? If you rated this add-in, what would your rating be? Why?
7. In Word, click the My Add-ins button (Insert tab | Add-ins group) to display the MY ADD-INS tab in the Office Add-ins dialog box. Click the 'Manage My Add-ins' link in the upper-right corner of the Office Add-ins dialog box to open the My Office and Sharepoint add-ins window in a browser and display available add-ins. Note that if you want to cancel a paid subscription to an add-in, you would do it in this window. Close the My Office and Sharepoint add-ins window.

8. To see add-ins included with Microsoft 365, open Backstage view, click Options to display the Word Options dialog box, and click Add-ins in the left pane (Word Options dialog box). To manage an add-in, select the desired add-in type in the Manage list at the bottom of the Word Options dialog box and then click the Go button.
9. In Word, click the My Add-ins button (Insert tab | Add-ins group) and then click 'See My Add-ins' at the bottom of the Get Add-ins list to display the MY ADD-INS tab in the Office Add-ins dialog box. Right-click the add-in you added in this assignment, click Remove on the shortcut menu, and then click the Remove button in the dialog box to remove the add-in from your Word app.
10. 🌟 Which add-ins, if any, were already on your computer or mobile device? Which add-in did you download and why? Answer the questions in #6.

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Use Mail Merge to Create Cover Letters for a Graduating Criminal Justice Student

Problem: You are graduating with a degree in criminal justice from Marigold College. You decide to create a cover letter for your resume as a form letter that you will send to potential employers. You will use the Mail Merge wizard to create the form letters and the recipient list for the data source. Place all files created in this assignment in a folder called Investigator Jobs; create the folder from within Word when saving.

Part 1: Use a letter template of your choice or design the letter from scratch for the main document for the form letter. Save the main document for the form letter with the file name, SC_WD_6_InvestigatorCoverLetter. Type a new data source using the data shown in Table 6-1. Delete the field names not used and add one field name: Position. Rename the Company_Name field to Organization_Name. If requested by your instructor, add a record to the data source that contains your personal information. (Be sure to match the Company Name to the Organization_Name field so that the organization name appears in the AddressBlock field.) Save the data source with the file name, SC_WD_6_InvestigatorProspectiveEmployers.

Table 6-1

Title	First Name	Last Name	Organization Name	Address Line 1	Address Line 2	City	State	ZIP Code	Position
Detective	Kristina	Stein	Warren County	293 Bailey Lane	Room 281	Bowling Green	KY	42102	associate investigator
Mr.	Jordan	Green	Granger Investigative Services	221 Second Street		Paducah	KY	42003	investigator
Sergeant	Adelbert	Martinez	Lexington Police Department	443 Cedar Lane	P.O. Box 443	Lexington	KY	40505	field investigator
Ms.	Cam	Lin	City of Middlesboro	101 Main Street	P.O. Box 101	Middlesboro	KY	40965	detective
Ms.	Michelle	Cole	Armour Investigations	32 Chamber Road	Unit 20C	Mount Sterling	KY	40353	investigator

Continued >

In the Labs *continued*

Use this information in the cover letter:

Name: Leo Moretti (if requested by your instructor, use your name).

Address: 2091 Willow Lane, Apt. 34, Bowling Green, KY, 42102 (if requested by your instructor, use your address).

Phone: 270-555-0177 (if requested by your instructor, use your phone number).

Email: leo@cengage.net (if requested by your instructor, use your email address).

First paragraph in body of letter, inserting a merge field as indicated: I will graduate from Marigold College in May with a Bachelor of Arts degree in Criminal Justice. My education, experience, and community service make me an ideal candidate for the InsertPositionMergeFieldHere position.

Second paragraph in body of letter: As shown on the accompanying resume, my background matches the job requirements posted through the Career Development Office at Marigold College. My coursework and experience have prepared me for law enforcement fieldwork.

Third paragraph in body of letter, inserting merge fields as indicated: Thank you in advance, InsertTitleMergeFieldHere InsertLastNameMergeFieldHere, for your time and consideration. I look forward to hearing from you soon to discuss the opportunity for my potential employment at InsertOrganizationNameMergeFieldHere.

In the main document, include the AddressBlock and GreetingLine merge fields. Use the concepts and techniques presented in this module to create and format this form letter. Be sure to check the spelling and grammar of the finished documents. Use the 'Check for Errors' button (Mailings tab | Preview Results group) to check if the main document contains merge errors and fix any errors identified. If requested by your instructor, save the main document as a PDF. Merge all records to a new document. Save the merged letters in a file called SC_WD_6_InvestigatorMergedCoverLetters.

In a new document window, create a directory of the recipient list in the data source. Begin by specifying the main document type as a directory. Change the page layout to landscape orientation. Change the margins to narrow. Insert all merge fields in the document, separating each with a comma. Save the directory layout with the file name, SC_WD_6_InvestigatorProspectiveEmployersDirectoryLayout. Merge the directory layout to a new document window. Convert the list of fields to a Word table (the table will have 10 columns). Add a row to the top of the table and insert field names in the empty cells. Format the table appropriately. Sort the table in the directory listing by the Last Name field. Save the merged directory with the file name, SC_WD_6_InvestigatorProspectiveEmployersMergedDirectoryListing.

Submit your assignment documents and answers to the Part 2 critical thinking questions in the format specified by your instructor.

Part 2: 🌟 You made several decisions while creating the form letter, data source, and directory in this assignment: whether to use a template or create the letter from scratch, layout of letter elements, how to format elements, how to set up the data source, and how to format the directory. What was the rationale behind each of these decisions?

7 | Creating a Newsletter

Objectives

After completing this module, you will be able to:

- Work with WordArt
- Set custom tab stops
- Crop a graphic
- Rotate a graphic
- Format a document in multiple columns
- Justify a paragraph
- Hyphenate a document
- Format a character as a drop cap
- Insert a column break
- Insert and format a text box
- Copy and paste using a split window
- Balance columns
- Modify and format a SmartArt graphic
- Copy and paste using the Office Clipboard
- Add an art page border

Introduction

Professional-looking documents, such as newsletters and brochures, often are created using desktop publishing software. With desktop publishing software, you can divide a document in multiple columns, wrap text around diagrams and other graphical images, change fonts and font sizes, add color and lines, and so on, to create an attention-grabbing document. Desktop publishing software, such as Microsoft Publisher, Adobe InDesign, or QuarkXpress, enables you to open an existing word processing document and enhance it through formatting tools not provided in your word processing app. Word, however, provides many of the formatting features that you would find in a desktop publishing app. Thus, you can use Word to create eye-catching newsletters and brochures.

Project: Newsletter

A newsletter is a publication geared for a specific audience that is created on a recurring basis, such as weekly, monthly, or quarterly. The audience may be subscribers, employees, customers, patrons, students, etc.

The project in this module uses Word to produce the two-page newsletter shown in Figure 7–1. The newsletter is a monthly publication called **Tech Tips** that is written by the campus Tech Club for students and staff. Each issue of **Tech Tips** contains a feature article and announcements. This month’s feature article discusses how to avoid malware infections. The feature article spans the first two columns of the first page of the newsletter and then continues on the second page. The announcements, which are located in the third column of the first page, inform readers about an upcoming webinar and discounts and announce the topic of the next issue’s feature article.

The **Tech Tips** newsletter in this module incorporates the desktop publishing features of Word. The body of each page of the newsletter is divided in three columns. A variety of fonts, font sizes, and colors add visual appeal to the document. The first page has text wrapped around a pull-quote, and the second page has text wrapped around a graphic. Horizontal and vertical lines separate distinct areas of the newsletter, including a page border around the perimeter of each page.

The project in this module involves several steps requiring you to drag and drop. If you drag to the wrong location, you may want to cancel an action. Remember that you always can click the Undo button on the Quick Access Toolbar or press CTRL+Z to cancel your most recent action.

In this module, you will learn how to create the newsletter shown in Figure 7–1. You will perform the following general tasks as you progress through this module:

1. Create the nameplate for the first page of the newsletter.
2. Format the first page of the body of the newsletter.
3. Create a pull-quote on the first page of the newsletter.
4. Create the nameplate for the second page of the newsletter.
5. Format the second page of the body of the newsletter.
6. Add a page border to the newsletter.

Desktop Publishing Terminology

As you create professional-looking newsletters and brochures, you should be familiar with several desktop publishing terms. Figure 7–1 identifies these terms:

- A **nameplate**, or **banner**, is the portion of a newsletter that contains the title of the newsletter and usually an issue information line.
- The **issue information line** identifies the specific publication.
- A **ruling line**, usually identified by its direction as a **horizontal rule** or **vertical rule**, is a line that separates areas of the newsletter.
- A **subhead** is a heading within the body of the newsletter that is subordinate to a higher level heading.
- A **pull-quote** is a text box that contains a quote or excerpt from the document that is **pulled**, or copied, from the text of the document and given graphical emphasis when it is placed elsewhere in the document.

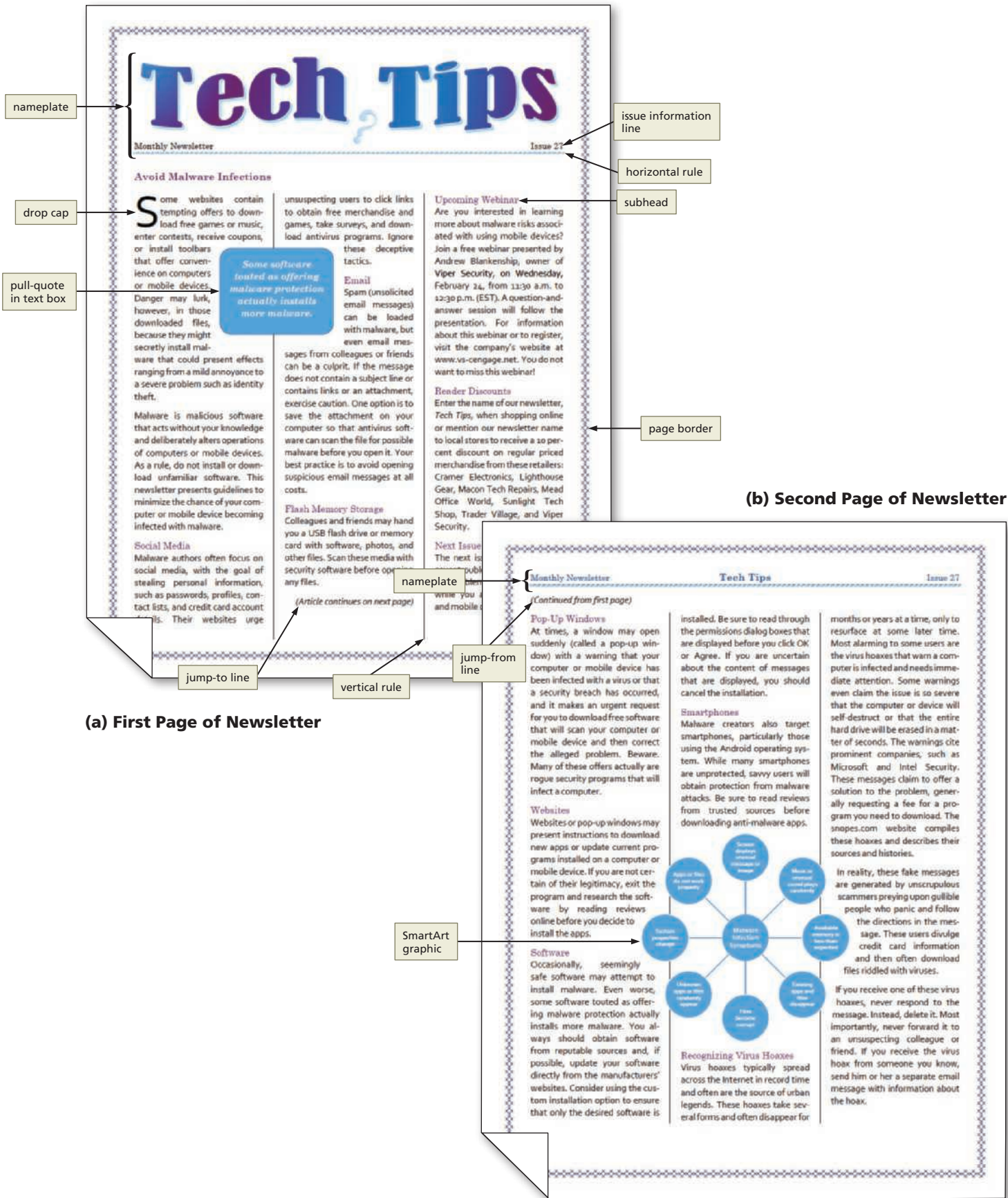



Figure 7-1

To Start Word and Specify Settings

If you are using a computer to step through the project in this module and you want your screens to match the figures in this book, you should change your screen's resolution to 1366 × 768. The following steps start Word, display formatting marks, change the zoom to page width, and verify ruler and Mouse mode settings.

- 1  Start Word and create a blank document in the Word window. If necessary, maximize the Word window.
- 2 If the Print Layout button on the status bar is not selected, click it so that your screen is in Print Layout view.
- 3 If the 'Show/Hide ¶' button (Home tab | Paragraph group) is not selected already, click it to display formatting marks on the screen.
- 4 To display the page the same width as the document window, if necessary, click the Page Width button (View tab | Zoom group).
- 5 Verify that the Ruler check box (View tab | Show group) is not selected. (If it is selected, click it to remove the check mark because you do not want the rulers to appear on the screen.)
- 6 If you are using a mouse and you want your screens to match the figures in the book, verify that you are using Mouse mode by clicking the Touch/Mouse Mode button on the Quick Access Toolbar and then, if necessary, clicking Mouse on the menu. (If your Quick Access Toolbar does not display the Touch/Mouse Mode button, click the 'Customize Quick Access Toolbar' button on the Quick Access Toolbar and then click Touch/Mouse Mode on the menu to add the button to the Quick Access Toolbar.)

To Change Spacing above and below Paragraphs and Adjust Margins

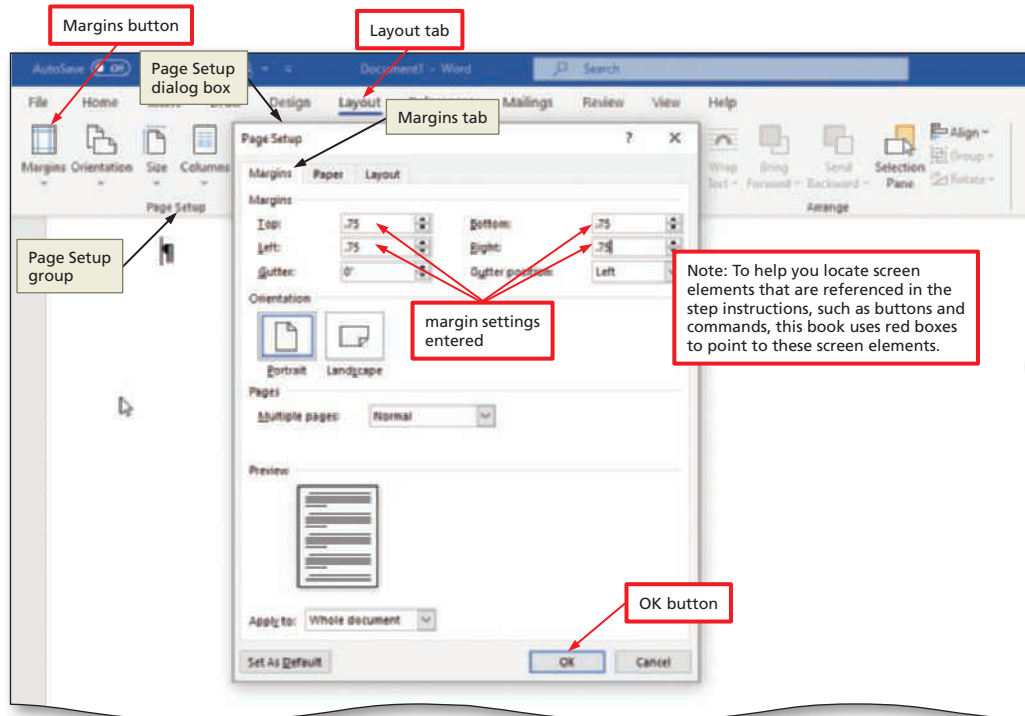
Word is preset to use standard 8.5-by-11-inch paper, with 1-inch top, bottom, left, and right margins. For the newsletter in this module, all margins (left, right, top, and bottom) are .75 inches, which is not a predefined setting in the Margins gallery. Thus, the following steps set custom margins.

- 1 Display the Layout tab.
- 2 Click the Margins button (Layout tab | Page Setup group) to display the Margins gallery and then click Custom Margins at the bottom of the Margins gallery to display the Page Setup dialog box.
- 3 Change each value in the Top, Bottom, Left, and Right boxes (Page Setup dialog box) to .75 (Figure 7-2).
- 4 Click OK to change the margin values.

BTW

Touch Mode Differences

The Office and Windows interfaces may vary if you are using Touch mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

**Figure 7-2**

BTW
The Ribbon and Screen Resolution

Word may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

To Change Theme Colors and Fonts

The newsletter in this module uses the Office theme with the Violet II color scheme and a customized set of fonts. The following steps change the theme colors and fonts.

- 1 Display the Design tab.
- 2 Click the Colors button (Design tab | Document Formatting group) and then click Violet II in the Colors gallery to change the document colors.
- 3 Click the Fonts button (Design tab | Document Formatting group) and then click Customize Fonts in the Fonts gallery to display the Create New Theme Fonts dialog box.
- 4 Select Century Schoolbook as the Heading font and then select Corbel as the Body font (Create New Theme Fonts dialog box).
- 5 Type **NewsLetter** in the Name text box to name the custom font and then click Save (Create New Theme Fonts dialog box).

Creating the Nameplate

The nameplate on the first page of this newsletter consists of the information above the multiple columns (shown in Figure 7-1a at the beginning of this module). In this project, the nameplate includes the newsletter title, Tech Tips, an image of a question mark, and the issue information line.

The following sections use the steps outlined below to create the nameplate for the first page of the newsletter in this module.

1. Enter and format the newsletter title using WordArt.
2. Set custom tab stops for the issue information line.
3. Enter text in the issue information line.
4. Add a horizontal rule below the issue information line.
5. Insert and format the image.



How should you design a nameplate?

A nameplate visually identifies a newsletter. It should catch the attention of readers, enticing them to read a newsletter. Usually, the nameplate is positioned horizontally across the top of the newsletter, although some nameplates are vertical. The nameplate typically consists of the title of the newsletter and the issue information line. Some also include a subtitle, a slogan, and a graphical image or logo.

Guidelines for the newsletter title and other elements in the nameplate are as follows:

- Compose a title that is short, yet conveys the contents of the newsletter. In the newsletter title, eliminate unnecessary words such as these: the, newsletter. Use a decorative font in as large a font size as possible so that the title stands out on the page.
- Other elements on the nameplate should not compete in size with the title. Use colors that complement the title. Select easy-to-read fonts.
- Arrange the elements of the nameplate so that it does not have a cluttered appearance. If necessary, use ruling lines to visually separate areas of the nameplate.

To Convert Text to WordArt

A drawing object is a graphic, such as a shape, that you create using Word. Another type of drawing object, called **WordArt**, enables you to create decorative text in a text box or other shape with special effects, such as shadowed, rotated, stretched, skewed, and wavy effects, that is created using WordArt tools.

This project uses WordArt for the newsletter title, Tech Tips. **Why?** A title created with WordArt is likely to draw the reader's attention. The following steps convert text to WordArt.

- 1
 - Type **Tech Tips** on the first line of the document and then select the entered text.
 - Display the Insert tab.
 - Click the WordArt button (Insert tab | Text group) to display the WordArt gallery (Figure 7-3).

Q&A Once I select a WordArt style, can I customize its appearance?
Yes. The next steps customize the WordArt style selected here.

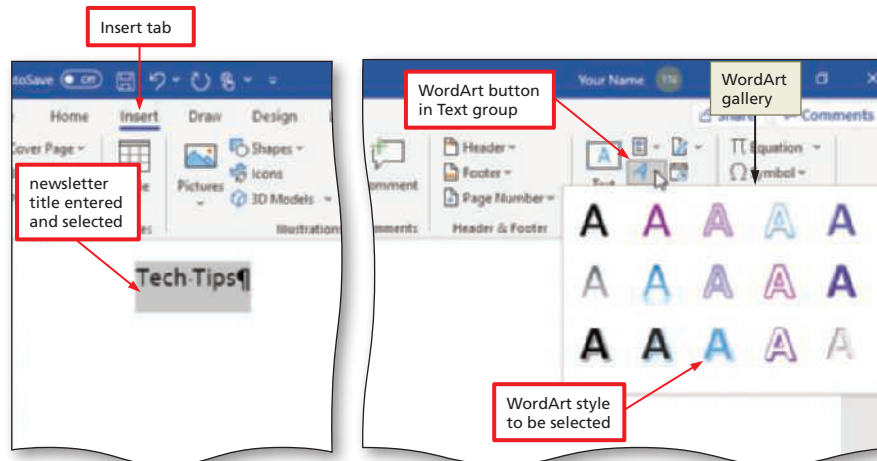


Figure 7-3

- 2
 - Click 'Fill: Blue, Accent color 5; Outline: White, Background color 1; Hard Shadow: Blue, Accent color 5' in the WordArt gallery (third WordArt style in last row) to insert a drawing object in the document that is formatted according to the selected WordArt style, which contains the selected text, Tech Tips (Figure 7-4).

Q&A What if I do not select text before selecting a WordArt style?
The WordArt drawing object will contain the placeholder text, Your text here, which you can replace with your desired text.

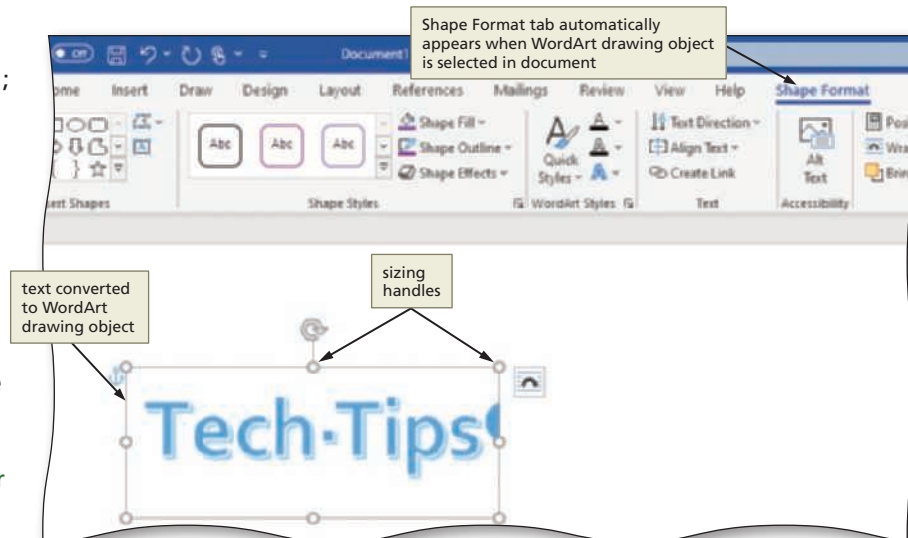


Figure 7-4

To Resize WordArt

You resize WordArt the same way you resize any other graphic. That is, you can drag its sizing handles or enter values in the Shape Height and Shape Width boxes. The next steps resize the WordArt drawing object.

- 1** With the WordArt drawing object selected, if necessary, display the Shape Format tab.
- 2** Change the value in the Shape Height box (Shape Format tab | Size group) to 1.44 and the value in the Shape Width box (Shape Format tab | Size group) to 7 (Figure 7-5). (Note that you may need to press ENTER after typing 7 in the Shape Width box for the change to take effect.)

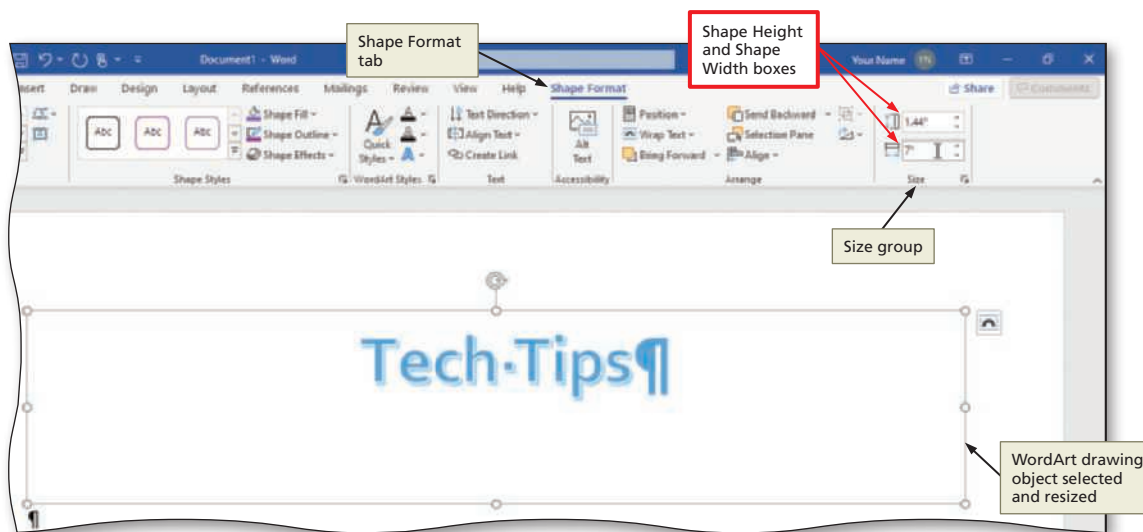


Figure 7-5

To Change the Font and Font Size of WordArt Text

You change the font and font size of WordArt text the same way you change the font and font size of any other text. That is, you select the text and then change its font and font size. The following steps change the font and font size of WordArt text.

- 1** Select the WordArt text, in this case, Tech Tips.
- 2** Change the font of the selected text to Bernard MT Condensed (or a similar font).
- 3** Change the font size of the selected text to 72 point (shown in Figure 7-6).

To Change an Object's Text Wrapping

When you insert a drawing object in a Word document, the default text wrapping is Square, which means text will wrap around the object in the shape of a square. Because you want the nameplate above the rest of the newsletter, you change the text wrapping for the drawing object to Top and Bottom. The following steps change a drawing object's text wrapping.

- 1** With the WordArt drawing object selected, click the Layout Options button that is attached to the WordArt drawing object to display the Layout Options gallery.

BTW

Deleting WordArt

If you want to delete a WordArt drawing object, right-click it and then click Cut on the shortcut menu, or select the WordArt drawing object and then click the Cut button (Home tab | Clipboard group).

- 2 Click 'Top and Bottom' in the Layout Options gallery so that the WordArt drawing object will not cover the document text (Figure 7-6).
- 3 Close the Layout Options gallery.

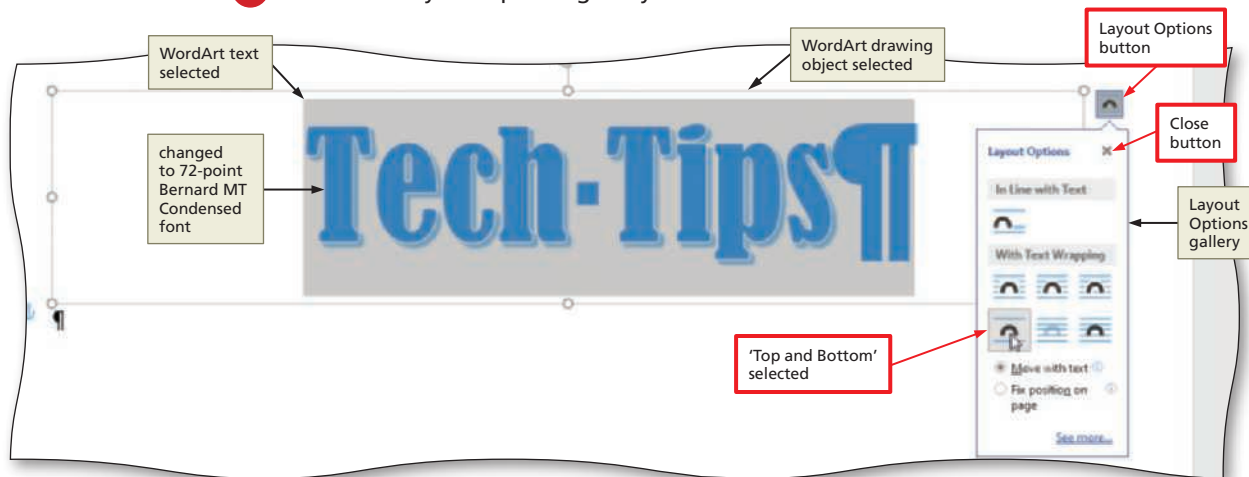


Figure 7-6

To Change the Text Fill Color of WordArt

The next step is to change the color of the WordArt text so that it displays a blue and plum gradient fill color. **Gradient** is a gradual progression of colors and shades, usually from one color to another color or from one shade to another shade of the same color. Word includes several built-in gradient fill colors, or you can customize one for use in drawing objects. The following steps change the fill color of the WordArt drawing object to a built-in gradient fill color and then customize the selected fill color. **Why?** Using a gradient fill color will add interest to the title.

- 1
 - With the WordArt drawing object selected, click the Text Fill arrow (Shape Format tab | WordArt Styles group) to display the Text Fill gallery.

Q&A The Text Fill gallery did not appear. Why not? Be sure you click the Text Fill arrow, which is to the right of the Text Fill button. If you mistakenly click the Text Fill button, Word places a default fill in the selected WordArt instead of displaying the Text Fill gallery.

- 2
 - Point to Gradient in the Text Fill gallery to display the Gradient gallery (Figure 7-7).

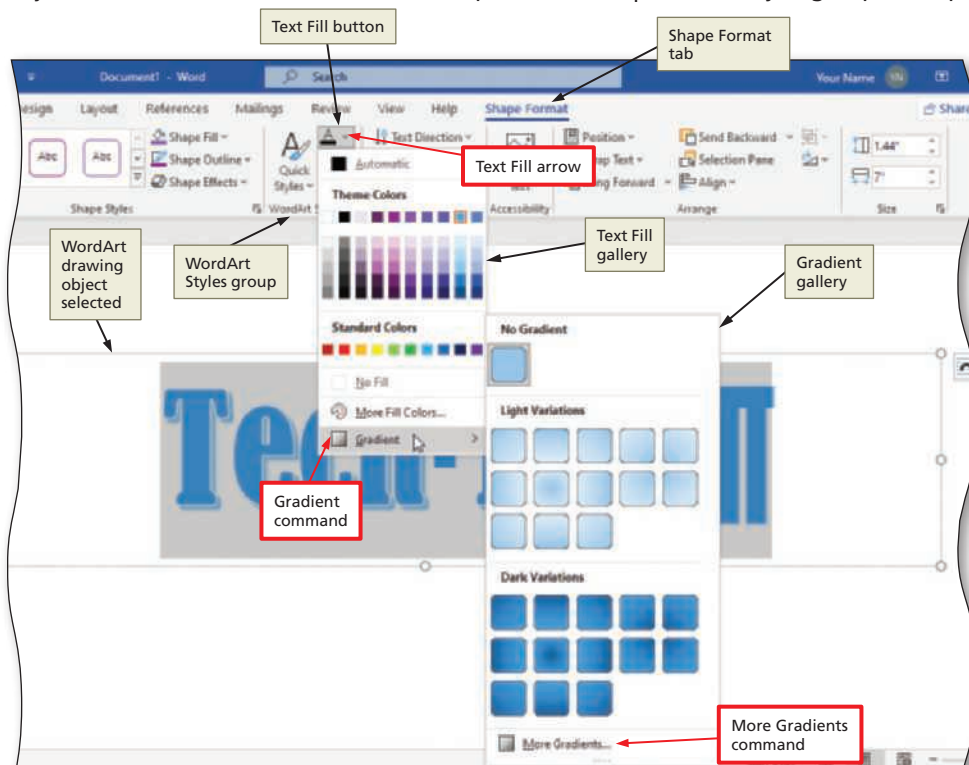


Figure 7-7

3

- Click More Gradients in the Gradient gallery to open the Format Shape pane. If necessary, click the Text Options tab in the Format Shape pane and then, if necessary, click the 'Text Fill & Outline' button. If necessary, expand the Text Fill section.
- Click Gradient fill in the Text Fill section to display options related to gradient colors in the pane (Figure 7-8).

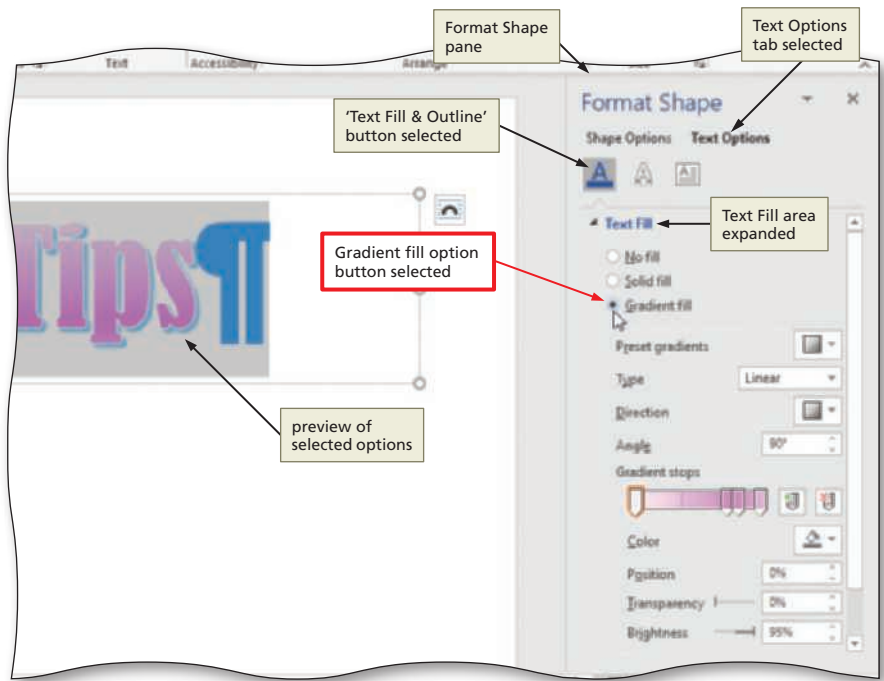


Figure 7-8

4

- Click the Preset gradients button in the Format Shape pane to display a palette of built-in gradient fill colors (Figure 7-9).

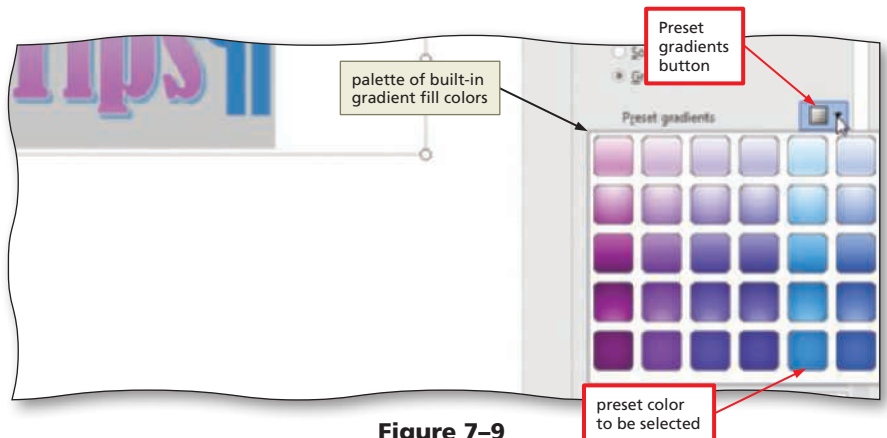


Figure 7-9

5

- Click 'Radial Gradient - Accent 5' (bottom row, fifth column) in the Preset gradients palette to select the built-in gradient color, which shows a preview in the Gradient stops area (Figure 7-10).

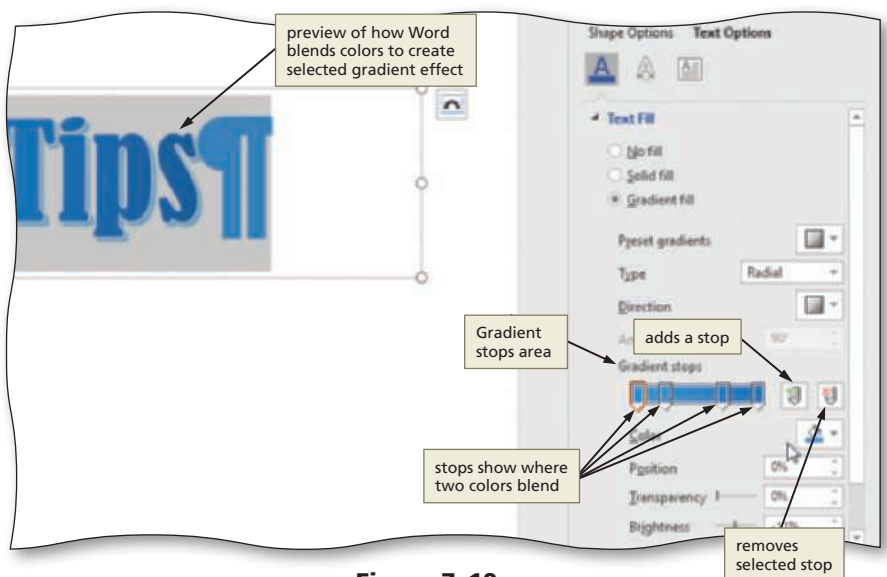


Figure 7-10

Q&A

What is a gradient stop?
 A gradient stop is the location where two colors blend. You can change the color of a stop so that Word changes the color of the blend. You also can add or delete stops, with a minimum of two stops and a maximum of ten stops per gradient fill color.

- 6**
- Click the second gradient stop to select it and then click the Color button to display a Color palette, from which you can select a color for the selected stop (Figure 7-11).

- 7**
- Click 'Plum, Accent 1, Darker 25%' (fifth row, fifth column) in the Color palette to change the color of the selected stop and the gradient between the selected stop and the next stop.

- Click the rightmost gradient stop to select it and then click the Color button to display a Color palette. Click 'Plum, Accent 1, Darker 25%' (fifth row, fifth column) in the Color palette to change the color of the selected stop and the gradient between the selected stop and the previous stop.

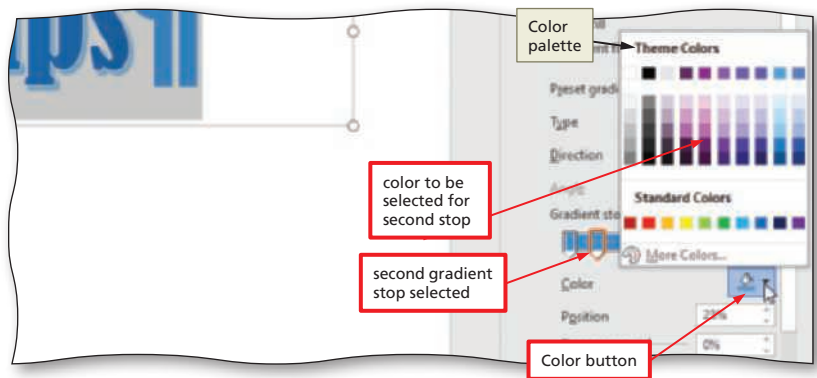


Figure 7-11

Q&A Can I move a gradient stop?
 Yes. You can drag a stop to any location along the color bar. You also can adjust the position, brightness, and transparency of any selected stop.

- 8**
- Click the Direction button to display a gallery that shows a variety of directions for the gradient colors (Figure 7-12).

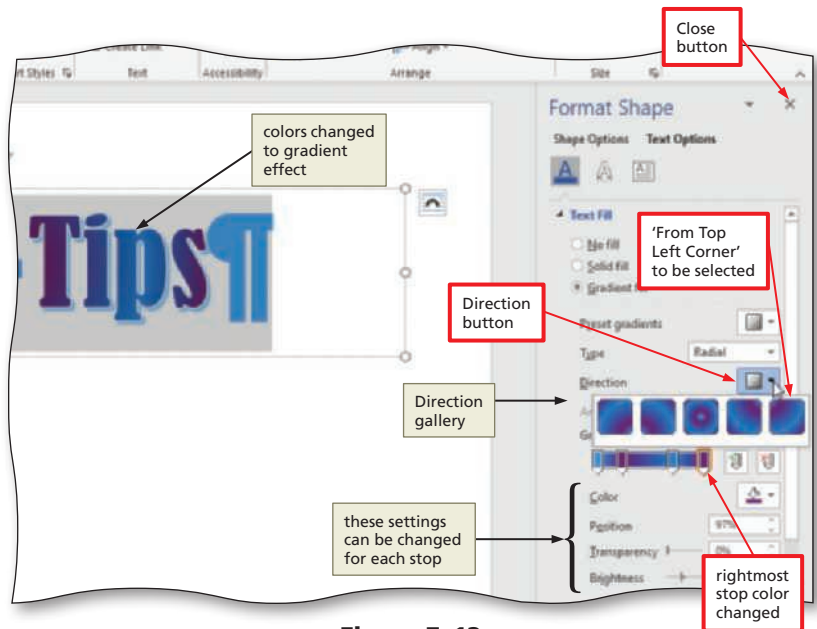


Figure 7-12

- 9**
- Click 'From Top Left Corner' (rightmost option) in the Direction gallery to specify the direction to blend the colors.
 - Click the Close button in the pane.
 - Click the paragraph mark below the WordArt drawing object to deselect the text so that you can see its gradient fill colors (Figure 7-13).

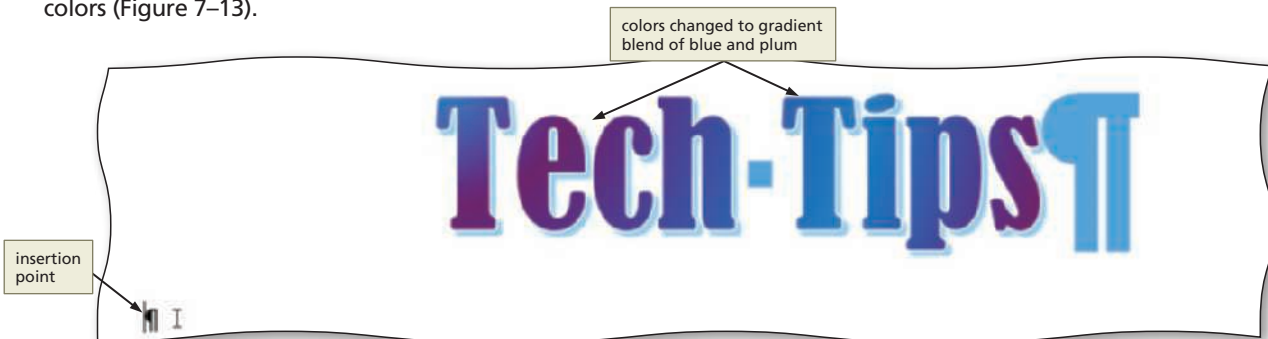


Figure 7-13

To Change the WordArt Shape Using the Transform Effect

Word provides a variety of shapes to make your WordArt more interesting. The following steps change the WordArt shape using the Transform effect. **Why?** The WordArt in this newsletter has a wavy appearance.

1

- Click the WordArt drawing object to select it.
- If necessary, display the Shape Format tab.
- Click the Text Effects button (Shape Format tab | WordArt Styles group) to display the Text Effects gallery.
- Point to Transform in the Text Effects gallery to display the Transform gallery.
- Point to 'Double Wave: Up-Down' (fourth effect, fifth row in Warp area) in the Transform gallery to display a Live Preview of the selected transform effect applied to the selected drawing object (Figure 7-14).

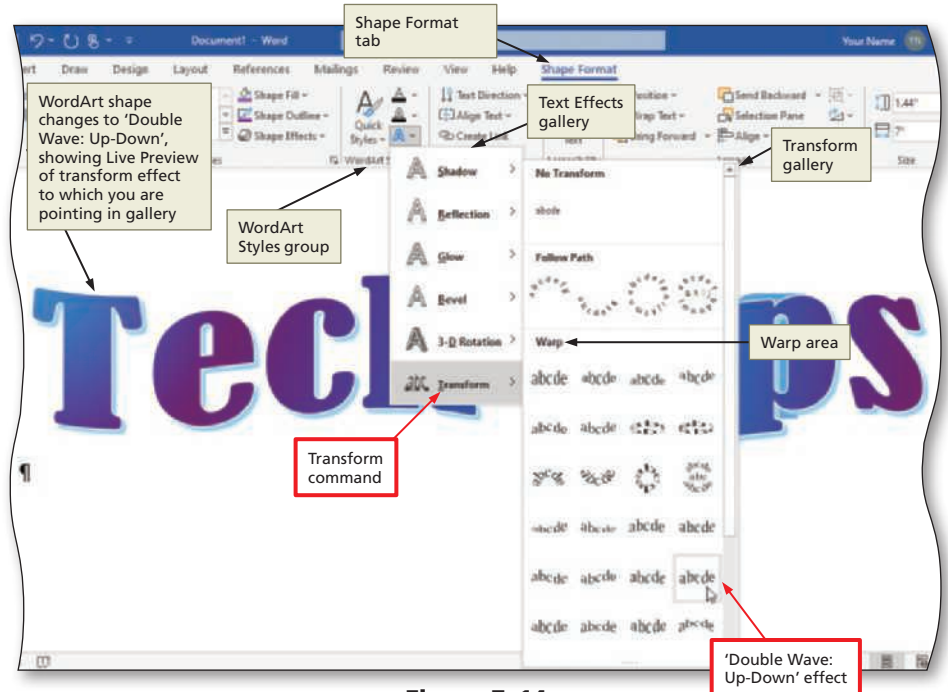


Figure 7-14



Experiment

- Point to various text effects in the Transform gallery and watch the selected drawing object conform to that transform effect.

2

- Click 'Double Wave: Up-Down' in the Transform gallery to change the shape of the WordArt drawing object.

TO APPLY A GLOW EFFECT TO WORDART

If you wanted to apply a glow effect to WordArt, you would perform the following steps:

1. Select the WordArt drawing object.
2. Click the Text Effects button (Shape Format tab | WordArt Styles group) to display the Text Effects gallery.
3. Point to Glow in the Text Effects gallery and then click the desired glow effect in the Glow gallery.

TO APPLY A SHADOW EFFECT TO WORDART

If you wanted to apply a shadow effect to WordArt, you would perform the following steps:

1. Select the WordArt drawing object.
2. Click the Text Effects button (Shape Format tab | WordArt Styles group) to display the Text Effects gallery.
3. Point to Shadow in the Text Effects gallery and then click the desired shadow effect in the Shadow gallery.

To Set Custom Tab Stops Using the Tabs Dialog Box

The issue information line in this newsletter contains the text, Monthly Newsletter, at the left margin and the issue number at the right margin (shown in Figure 7–1a at the beginning of this module). In Word, a paragraph cannot be both left-aligned and right-aligned. **Why?** If you click the **Align Right** button (Home tab | Paragraph group), for example, all text will be right-aligned. To place text at the right margin of a left-aligned paragraph, you set a tab stop at the right margin.

One method of setting custom tab stops is to click the ruler at the desired location of the tab stop. You cannot click, however, at the right margin location. Thus, the following steps use the Tabs dialog box to set a custom tab stop.

- 1
 - If necessary, display the Home tab.
 - Position the insertion point on the paragraph mark below the WordArt drawing object, which is the paragraph to be formatted with the custom tab stops.
 - Click the Paragraph Dialog Box Launcher to display the Paragraph dialog box (Figure 7–15).

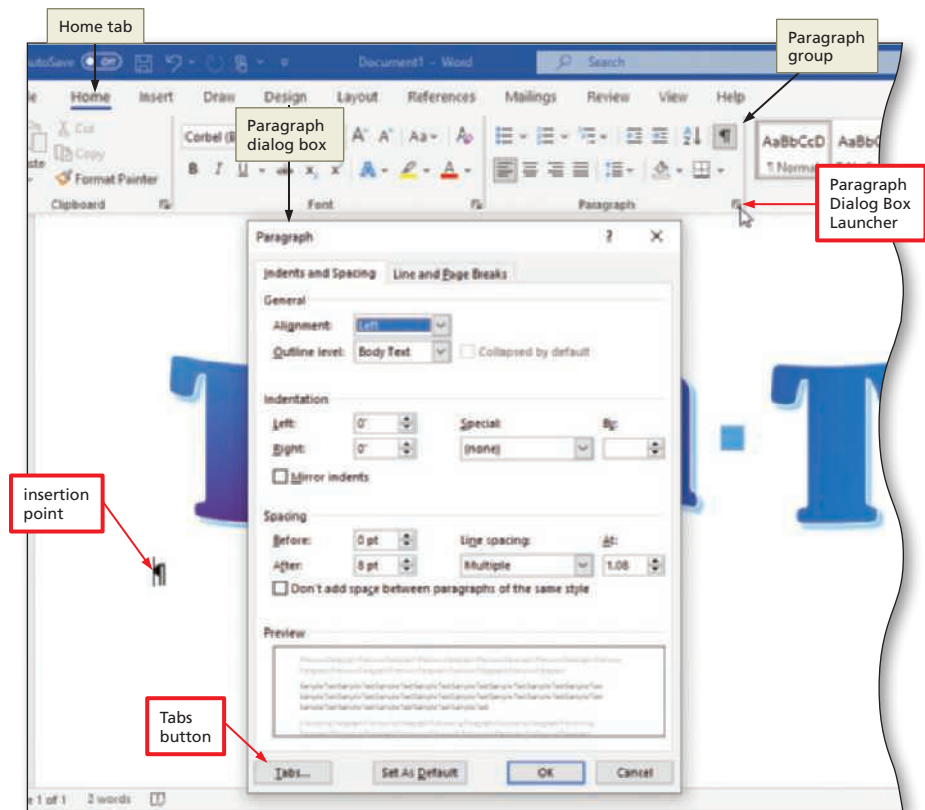


Figure 7–15

- 2
 - Click the Tabs button (Paragraph dialog box) to display the Tabs dialog box.
 - Type 7 in the 'Tab stop position' text box (Tabs dialog box).
 - Click Right in the Alignment area to specify alignment for text at the tab stop (Figure 7–16).

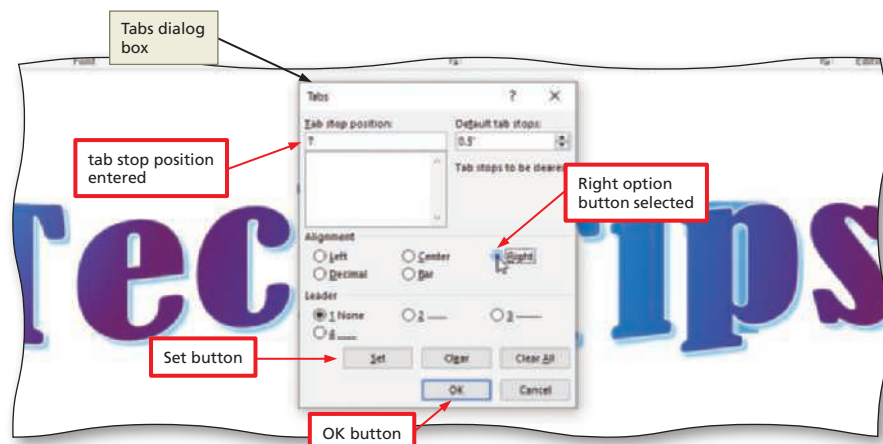


Figure 7–16

- 3
 - Click the Set button (Tabs dialog box) to set a right-aligned custom tab stop at the specified position.
 - Click OK to set the defined tab stops.

Other Ways

1. Click desired tab stop on ruler
2. Right-click paragraph (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Paragraph on shortcut menu, click Tabs button (Paragraph dialog box), enter desired settings, click OK

To Enter Text

The following steps enter the issue information line text.

- 1 With the insertion point on the paragraph below the WordArt, change the font to Century Schoolbook (or a similar font) and the font size to 10 point.
- 2 Type **Monthly Newsletter** on line 2 of the newsletter.
- 3 Press TAB and then type **Issue 27** to complete the issue information line (Figure 7-17).

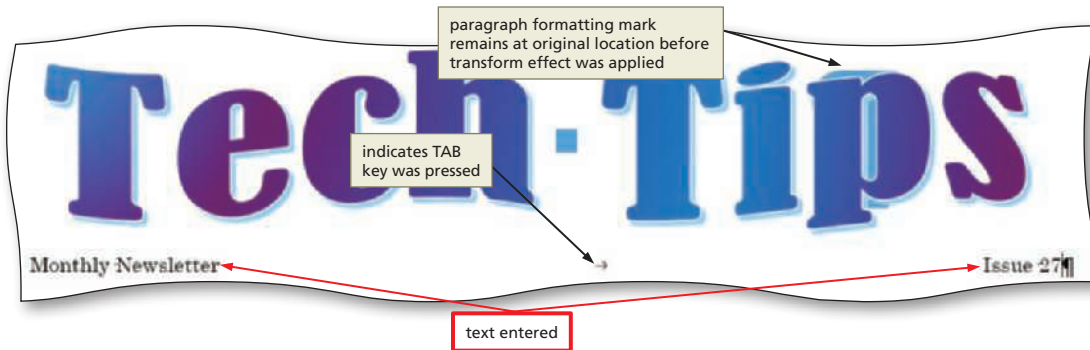


Figure 7-17

Q&A Why is the paragraph formatting mark in the middle of the newsletter title?
 The formatting marks remain at the original location of the text before you applied the transform effect.

To Border One Edge of a Paragraph

In Word, you use borders to create ruling lines. Word can place borders on any edge of a paragraph; that is, Word can place a border on the top, bottom, left, and right edges of a paragraph.

One method of bordering paragraphs is by clicking the desired border in the Borders gallery. If you want to specify a particular border, for example, one with color, you use the Borders and Shading dialog box. The following steps use the Borders and Shading dialog box to place a border below a paragraph. **Why? In this newsletter, the issue information line has a 3-point diagonally striped blue border below it.**

- 1 Click the Borders arrow (Home tab | Paragraph group) to display the Borders gallery (Figure 7-18).

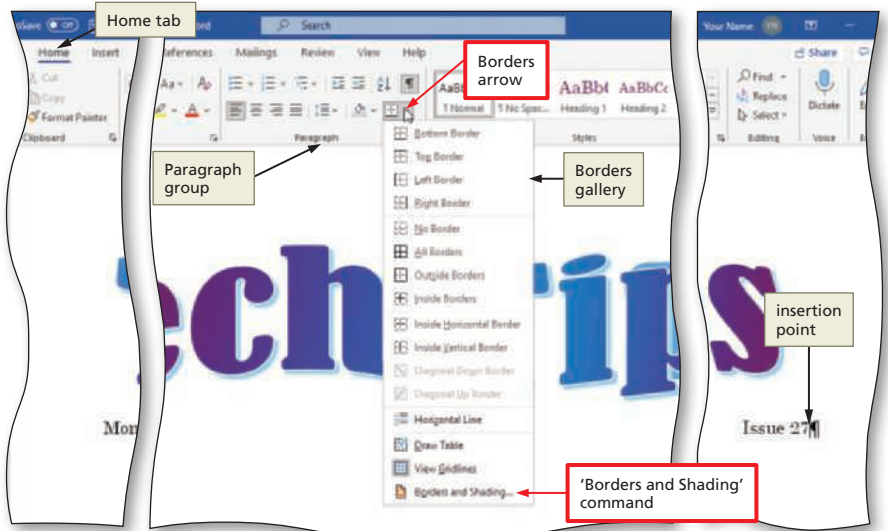


Figure 7-18

2

- Click 'Borders and Shading' in the Borders gallery to display the Borders and Shading dialog box.
- Click Custom in the Setting area (Borders and Shading dialog box) because you are setting just a bottom border.
- Scroll through the Style list and click the style shown in Figure 7–19, which is a diagonally striped line for the border.
- Click the Color button and then click 'Blue Accent 5, Darker 50%' (ninth column, bottom row) in the Color gallery.
- Click the Bottom Border button in the Preview area of the dialog box to show a preview of the selected border style (Figure 7–19).

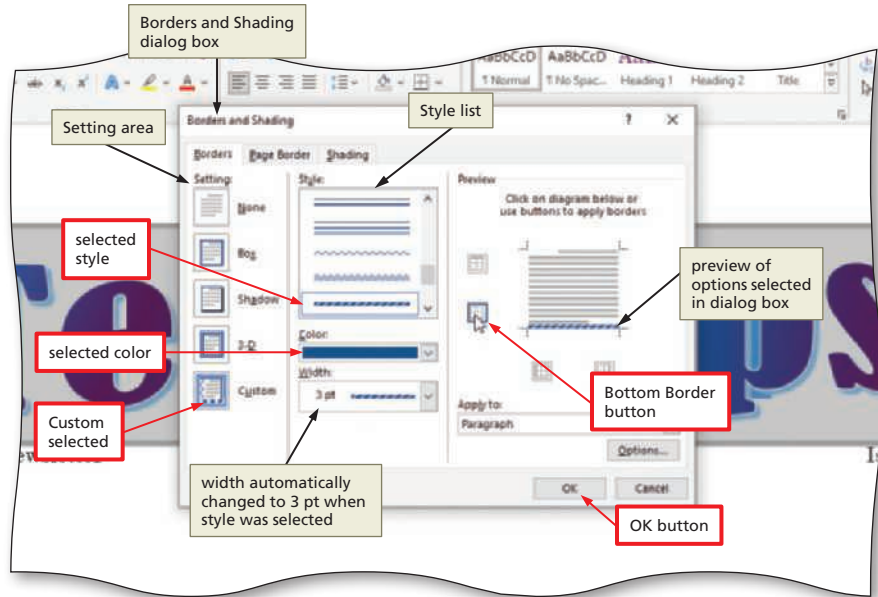


Figure 7-19

Q&A | What is the purpose of the buttons in the Preview area?
 They are toggles that display and remove the top, bottom, left, and right borders from the diagram in the Preview area.

3

- Click OK to place the defined border on the paragraph containing the insertion point (Figure 7–20).



Figure 7-20

Q&A | How would I change an existing border?
 You first remove the existing border by clicking the Borders arrow (Home tab | Paragraph group) and then clicking the border in the Borders gallery that identifies the border you wish to remove. Then, add a new border as described in these steps.

Other Ways

1. Click Page Borders button (Design tab | Page Background group), click Borders tab (Borders and Shading dialog box), select desired border, click OK

To Insert a Picture

The next steps insert an image of question marks in the nameplate.

- 1** Display the Insert tab.
- 2** Click the Pictures button (Insert tab | Illustrations group) and then click Online Pictures to display the Online Pictures dialog box.

- 3 Type **question marks** in the Search box (Online Pictures dialog box) to specify the search text and then press ENTER to display a list of images that match the entered search text.
- 4 Scroll through the list of images to locate the one shown in Figure 7-21 (or a similar image), click the image to select it, and then click the Insert button (Online Pictures dialog box) to download and insert the selected image at the location of the insertion point in the document.

Q&A What if I cannot locate the same image as in Figure 7-21?
 Click **Cancel** (Online Pictures dialog box) to close the dialog box, click the **Pictures** button (Insert tab | Illustrations group), click **This Device** to display the Insert Picture dialog box, navigate to and select the **Support_WD_7_QuestionMarks.png** file in the Data Files, and then click the **Insert** button (Insert Picture dialog box) to insert the picture.

What if my inserted image is not in the same location as in Figure 7-21?
 The image may be in a different location, depending on the position of the insertion point when you inserted the image. In a later section, you will move the image to a different location.

To Change the Color of a Graphic

The following steps change the color of the graphic (the question marks) to a shade of blue.

- 1 With the graphic still selected, click the **Color** button (Picture Format tab | Adjust group) to display the Color gallery (Figure 7-21).
- 2 Click 'Blue, Accent color 5 Light' (sixth color, third row) in the Recolor area in the Color gallery to change the color of the selected graphic.

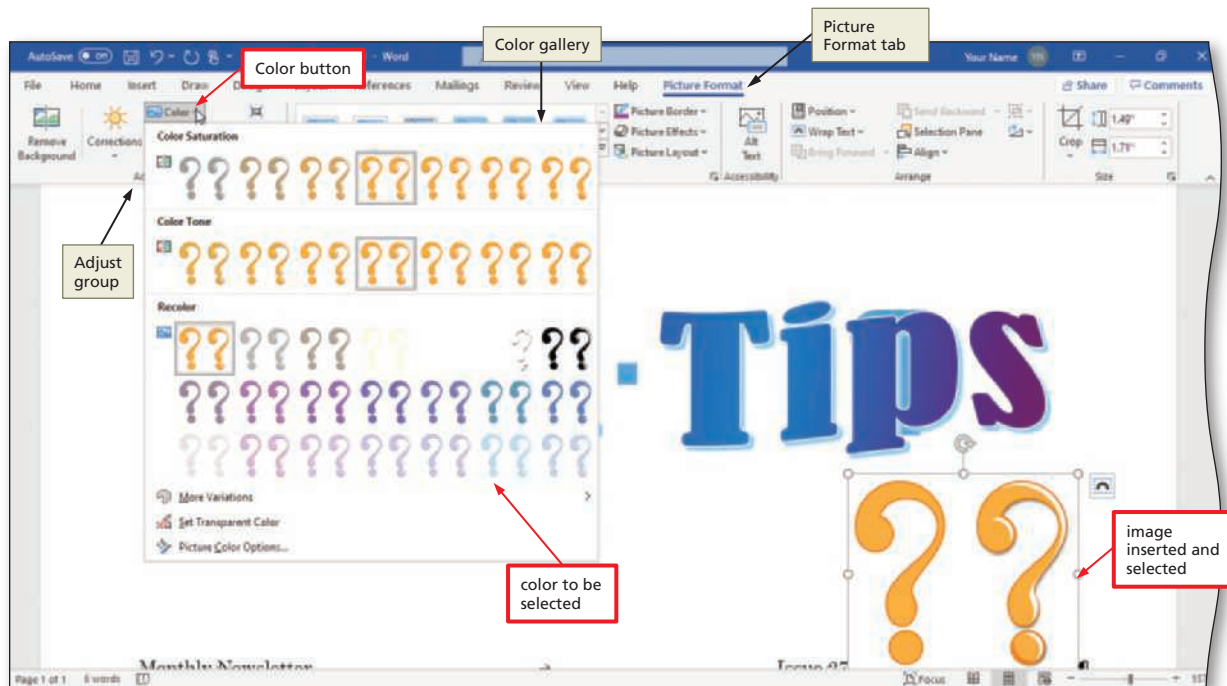


Figure 7-21

To Crop a Graphic

The next step is to format the image just inserted. You would like to remove the matte question mark on the left from the image. **Why?** You want just one question mark to appear in the newsletter. Word allows you to **crop**, or trim away part of, a graphic. The following steps crop a graphic.

- 1**
- With the graphic selected, click the Crop button (Picture Format tab | Size group), which places cropping handles on the image in the document.

Q&A What if I mistakenly click the Crop arrow?
Click the **Crop button**.

- Position the pointer on the left-middle cropping handle so that it looks like a sideways letter T (Figure 7-22).

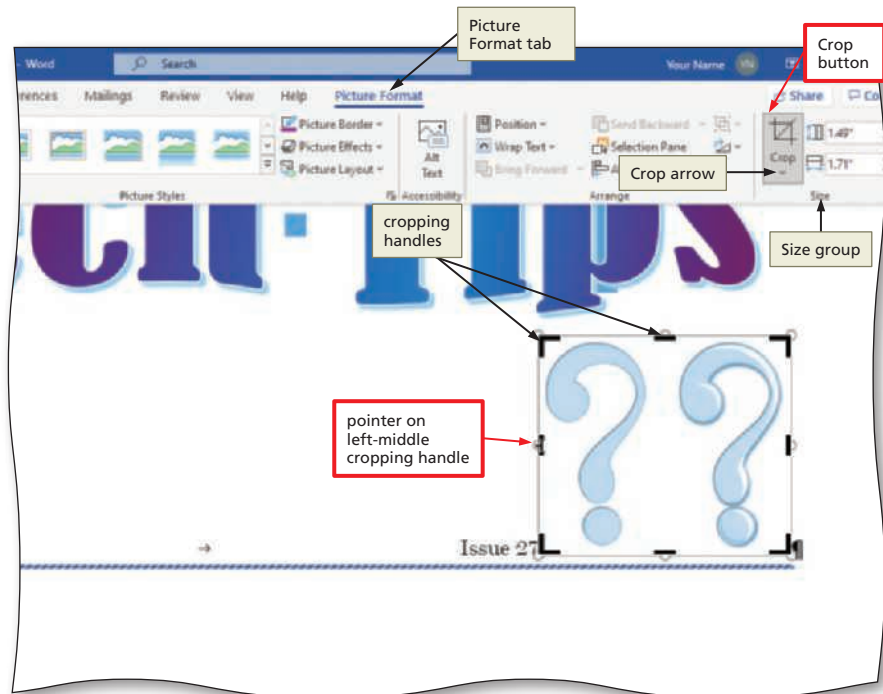


Figure 7-22

- 2**
- Drag the left-middle cropping handle inward to the location shown in Figure 7-23 to crop the leftmost question mark from the image.
- 3**
- Click the Crop button (Picture Format tab | Size group) to deactivate the cropping tool, which removes the cropping handles from the selected image (shown in Figure 7-24).

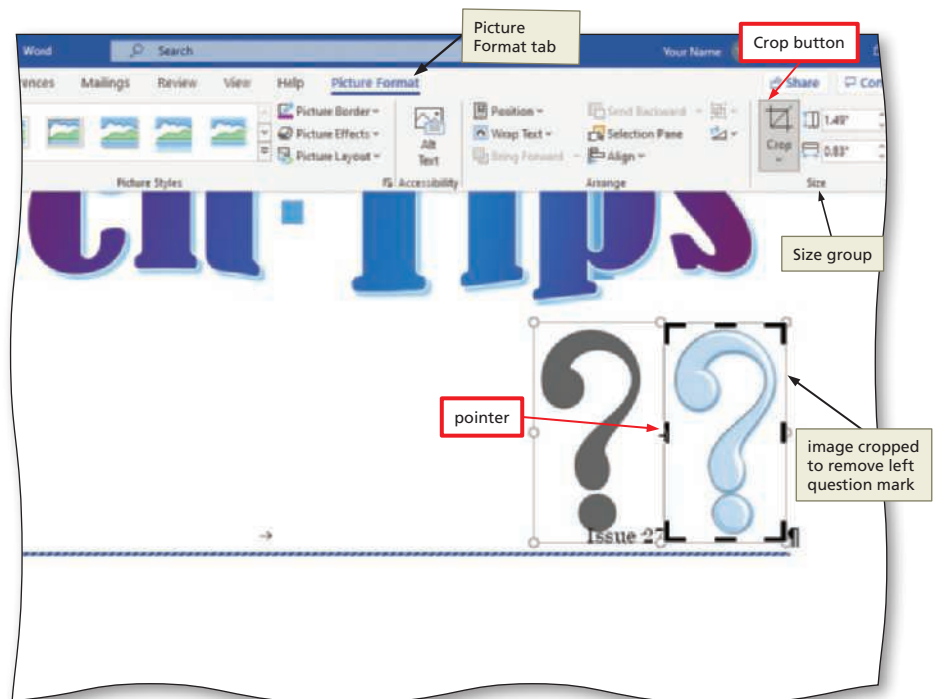


Figure 7-23

Other Ways

- Right-click graphic, click Crop button on Mini toolbar, drag cropping handles, click Crop button (Picture Format tab | Size group)

To Change an Object's Text Wrapping and Size

When you insert an object (image) in a Word document, the default text wrapping is In Line with Text, which means the object is part of the current paragraph. Because you want the question mark image behind the newsletter title, you change the text wrapping for the image to Behind Text. The next steps change a drawing object's text wrapping and also change its size.

- 1 With the question mark graphic selected, click the Layout Options button attached to the graphic to display the Layout Options gallery.
- 2 Click Behind Text in the Layout Options gallery so that the image is positioned behind text in the document.
- 3 Close the Layout Options gallery.
- 4 Change the values in the Shape Height and Shape Width boxes (Picture Format tab | Size group) to .65" and .43", respectively. If you are not able to resize the graphic exactly, click the Size Dialog Box Launcher (Picture Format tab | Size group), remove the check mark from the 'Lock aspect ratio' check box, and then try again.

To Move a Graphic

The clip art image needs to be moved up so that the bottom of the question mark is between the words, Tech Tips, in the newsletter title. The following step moves a graphic.

- 1 Drag the graphic to the location shown in Figure 7–24.

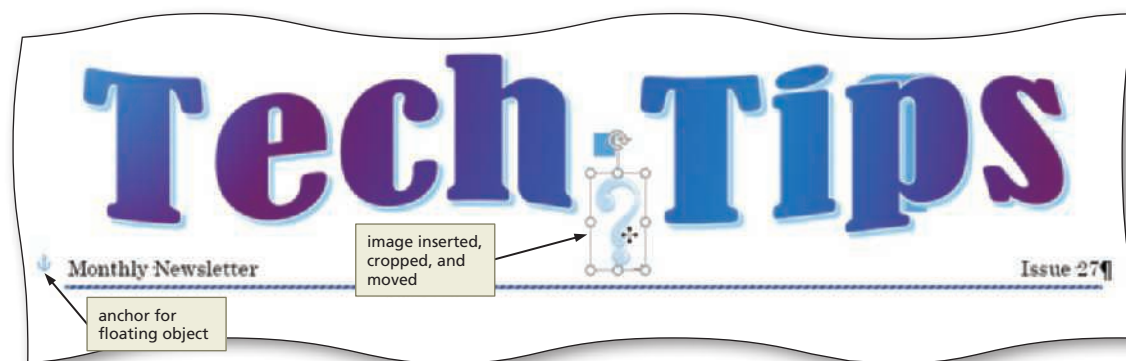


Figure 7–24

To Specify or Change the Absolute Position for a Floating Graphic

If you wanted to move a floating graphic and specify its absolute position, you would perform the following steps.

1. Select the graphic to be moved.
2. Click the Layout Options button attached to the graphic to display the Layout Options gallery.
3. Click the See more link (Layout Options gallery) to display the Position tab in the Layout dialog box.
4. Click Absolute position in the Vertical area (Layout dialog box), select the value in the Absolute position box, and then type the desired value to specify the distance in inches from the top of the page.
5. If necessary, click the below arrow and then select Page.
6. Click OK to change the position of the selected graphic to the specified position.

BTW Anchors on Floating Objects

If you want to move an anchor on a floating object that is locked, you can unlock the anchor by selecting the object, clicking the Layout Options button attached to the object, clicking the See more link in the Layout Options gallery to display the Layout dialog box, clicking the Position tab, removing the check mark from the Lock anchor check box, and then clicking OK.

To Use the Selection Pane

The next step is to rotate the question mark image, but because it is positioned behind the text, it may be difficult to select it. The following step opens the Selection pane. **Why?** The Selection pane enables you easily to select items on the screen that are layered behind other objects.

- 1 If necessary, click in the graphic object to display the Picture Format tab.
- Click the Selection Pane button (Picture Format tab | Arrange group) to open the Selection pane (Figure 7-25).

Experiment

- Click Text Box 1 in the Selection pane to select the WordArt drawing object. Click Picture 2 in the Selection pane to select the question mark image.

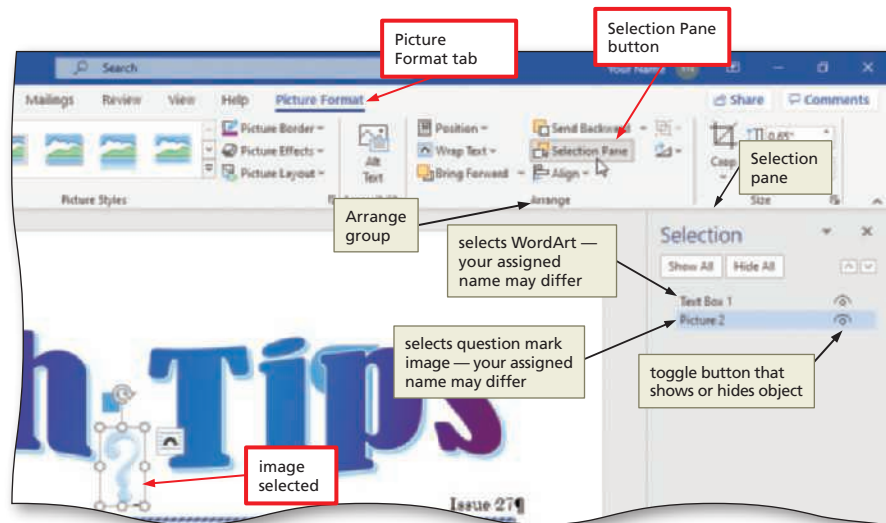


Figure 7-25

Q&A What are the displayed names in the Selection pane?
 Word assigns names to each object in the document. The names displayed on your screen may differ.

Other Ways

1. Click in WordArt object, click Selection Pane button (Shape Format tab | Arrange group)

To Rotate a Graphic

The following steps rotate a graphic. **Why?** You would like the question mark image angled to the right a bit.

- 1 If necessary, click Picture 2 in the Selection pane to select the question mark image.
- Position the pointer on the graphic's rotate handle (Figure 7-26).

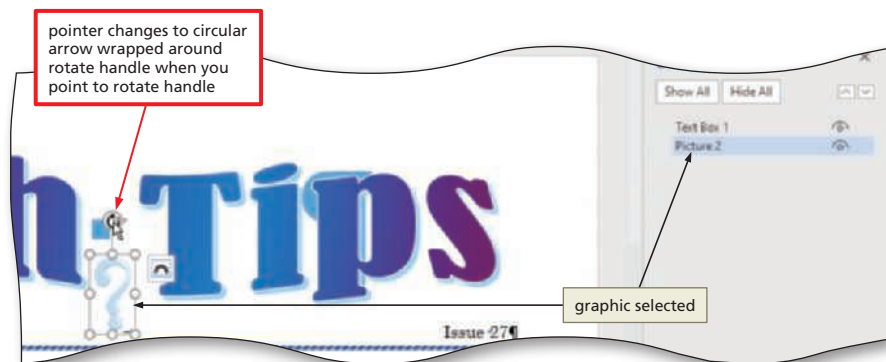


Figure 7-26

- 2 Drag the rotate handle clockwise to rotate the graphic slightly as shown in Figure 7-27. (You may need to rotate the graphic a few times to position it in the desired location.)

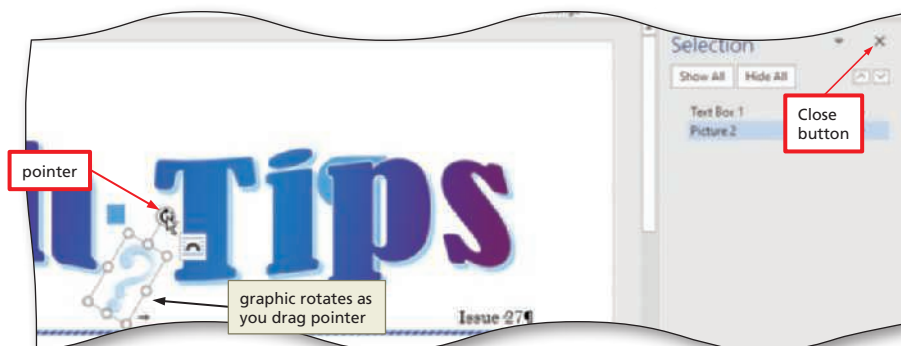


Figure 7-27

Q&A Can I drag the rotate handle in any direction?
 You can drag the rotate handle clockwise or counterclockwise.

What if I am using a touch screen?

Because the rotate handle is not available on a touch screen, you enter the degree of rotation in the Size dialog box. Tap the Rotate Objects button (Picture Format tab | Arrange group) to display the Rotate Objects menu, tap 'More Rotation Options' on the Rotate Objects menu to display the Size sheet in the Layout dialog box, change the Rotation value to 16, and then tap OK.

3

- Click the Close button in the Selection pane to close the pane.
- Click somewhere in the issue information line to deselect the graphic.
- Save the title page on your hard drive, OneDrive, or other storage location using the file name, SC_WD_7_TechTipsNewsletter.

Other Ways

1. Click Rotate Objects button (Picture Format tab | Arrange group), click 'More Rotation Options' on Rotate Objects menu, enter rotation value in Rotation box (Layout dialog box), click OK
2. Right-click object, click 'Size and Position' on shortcut menu, enter rotation value in Rotation box (Layout dialog box), click OK
3. Click Size Dialog Box Launcher (Picture Format tab | Size group), enter rotation value in Rotation box (Layout dialog box), click OK

Break Point: If you want to take a break, this is a good place to do so. You can exit Word now. To resume later, start Word, open the file called SC_WD_7_TechTipsNewsletter.docx, and continue following the steps from this location forward.

Formatting the First Page of the Body of the Newsletter

The next step is to format the first page of the body of the newsletter. The body of the newsletter in this module is divided in three columns (shown in Figure 7-1a at the beginning of this module). The first two columns contain the feature article, and the third column contains announcements. The characters in the paragraphs are aligned on both the right and left edges — similar to newspaper columns. The first letter in the first paragraph is much larger than the rest of the characters in the paragraph. A vertical rule separates the columns. The steps in the following sections format the first page of the body of the newsletter using these desktop publishing features.

Consider This



What guidelines should you follow when creating the body of a newsletter?

While content and subject matter of newsletters may vary, the procedures used to create newsletters are similar:

- **Write the body copy.** Newsletters should contain articles of interest and relevance to readers. Some share information, while others promote a product or service. Use active voice in body copy, which is more engaging than passive voice. Proofread the body copy to be sure it is error free. Check all facts for accuracy.
- **Organize body copy in columns.** Most newsletters arrange body copy in columns. The body copy in columns, often called **snaking columns** or newspaper-style columns, flows from the bottom of one column to the top of the next column.
- **Format the body copy.** Begin the feature article on the first page of the newsletter. If the article spans multiple pages, use a continuation line, called a jump or jump line, to guide the reader to the remainder of the article. The message at the end of the article on the first page of the newsletter is called a **jump-to line**, and a **jump-from line** marks the beginning of the continuation, which is usually on a subsequent page.
- **Maintain consistency.** Be consistent with placement of body copy elements in newsletter editions. If the newsletter contains announcements, for example, position them in the same location in each edition so that readers easily can find them.
- **Maximize white space.** Allow plenty of space between lines, paragraphs, and columns. Tightly packed text is difficult to read. Separate the text adequately from graphics, borders, and headings.

- **Incorporate color.** Use colors that complement those in the nameplate. Be careful not to overuse color. Restrict color below the nameplate to drop caps, subheads, graphics, and ruling lines. If you do not have a color printer, still change the colors because the colors will print in shades of black and gray, which add variety to the newsletter.
 - **Select and format subheads.** Develop subheads with as few words as possible. Readers should be able to identify content of the next topic by glancing at a subhead. Subheads should be emphasized in the newsletter but should not compete with text in the nameplate. Use a larger, bold, or otherwise contrasting font for subheads so that they stand apart from the body copy. Use this same format for all subheads for consistency. Leave a space above subheads to visually separate their content from the previous topic. Be consistent with spacing above and below subheads throughout the newsletter.
 - **Divide sections with vertical rules.** Use vertical rules to guide the reader through the newsletter.
 - **Enhance the document with visuals.** Add energy to the newsletter and emphasis to important points with graphics, pull-quotes, and other visuals, such as drop caps to mark beginning of an article. Use these elements sparingly, however, so that the newsletter does not have a crowded appearance. Fewer, large visuals are more effective than several smaller ones. If you use a graphic that you did not create, be sure to obtain permission to use it in the newsletter and give necessary credit to the creator of the graphic.
-

To Clear Formatting

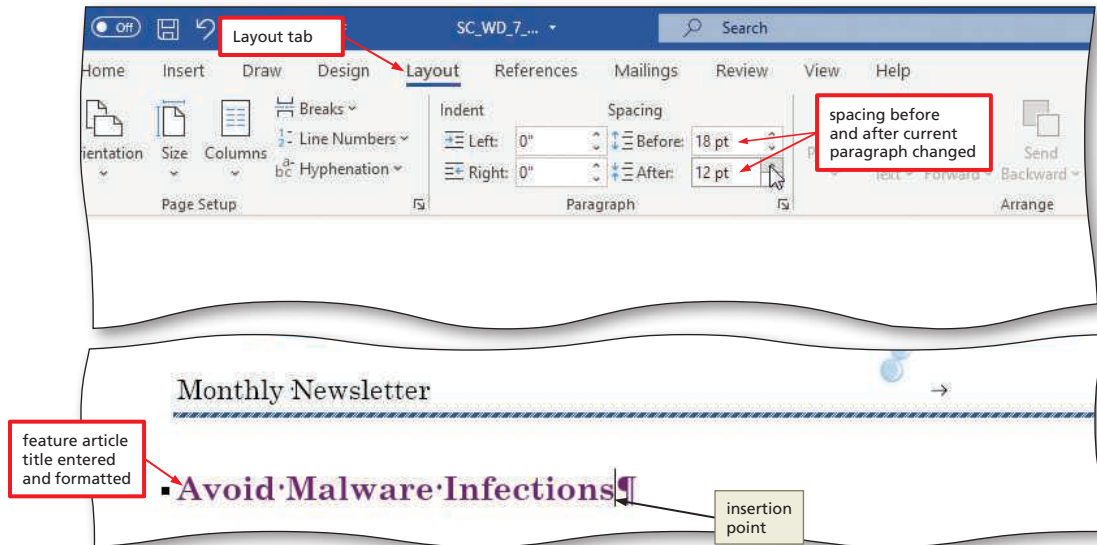
The next step is to enter the title of the feature article below the horizontal rule. To do this, position the insertion point at the end of the issue information line (after the 7 in Issue 27) and then press ENTER. Recall that the issue information line has a bottom border. When you press ENTER in a bordered paragraph, Word carries forward any borders to the next paragraph. Thus, after you press ENTER, you should clear formatting to format the new paragraph as the Normal style. The following steps clear formatting.

- 1 Click at the end of line 2 (the issue information line) so that the insertion point is immediately after the 7 in Issue 27. Press ENTER to advance the insertion point to the next line, which also moves the border down one line.
 - 2 If necessary, display the Home tab. Click the 'Clear All Formatting' button (Home tab | Font group) to apply the Normal style to the location of the insertion point, which in this case moves the new paragraph below the border on the issue information line.
-

To Format Text as a Heading Style, Modify a Heading Style, and Adjust Spacing before and after the Paragraph

Below the bottom border in the nameplate is the title of the feature article, Avoid Malware Infections. The following steps apply the Heading 1 style to this paragraph, modify the style, and adjust the paragraph spacing.

- 1 If necessary, display formatting marks.
- 2 With the insertion point on the paragraph mark below the border, click Heading 1 (Home tab | Styles group) to apply the Heading 1 style to the paragraph containing the insertion point.
- 3 Decrease the font size to 12 point. Bold the paragraph. Update the Heading 1 style to reflect these changes.
- 4 Type **Avoid Malware Infections** as the title of the feature article.
- 5 Display the Layout tab. Change the Spacing Before box to 18 pt and the Spacing After box to 12 pt (Figure 7–28).

**Figure 7-28**

Columns

When you begin a document in Word, it has one column. You can divide a portion of a document or the entire document in multiple columns. Within each column, you can type, modify, or format text.

To divide a portion of a document in multiple columns, you use section breaks. Word requires that a new section be created each time you alter the number of columns in a document. Thus, if a document has a nameplate (one column) followed by an article of three columns followed by an article of two columns, the document would be divided in three separate sections.

Consider This



How should you organize the body copy in columns?

Be consistent from page to page with the number of columns. Narrow columns generally are easier to read than wide ones. Columns, however, can be too narrow. A two- or three-column layout generally is appealing and offers a flexible design. Try to have between five and fifteen words per line. To do this, you may need to adjust the column width, the font size, or the leading (line spacing). Font size of text in columns should be no larger than 12 point but not so small that readers must strain to read the text.

Sections

All Word documents have at least one section. A Word document can be divided into any number of sections. During the course of creating a document, you create a new **section** if you need to change the top margin, bottom margin, page alignment, paper size, page orientation, page number position, columns, or contents or position of headers, footers, or footnotes in just a portion of the document.

BTW

Section Numbers

If you want to display the current section number on the status bar, right-click the status bar to display the Customize Status Bar menu and then click Section on the Customize Status Bar menu. The section number appears at the left edge of the status bar. To remove the section number from the status bar, perform the same steps.

To Insert a Continuous Section Break

The next step is to insert a continuous section break below the nameplate. **Why?** In this module, the nameplate is one column and the body of the newsletter is three columns. The term, continuous, means the new section should be on the same page as the previous section, which, in this case, means that the three columns of body copy will be positioned directly below the nameplate on the first page of the newsletter. The following steps insert a continuous section break.

1

- With the insertion point at the end of the feature article title (shown in Figure 7–28), press ENTER to position the insertion point below the article title.
- Click the Breaks button (Layout tab | Page Setup group) to display the Breaks gallery (Figure 7–29).

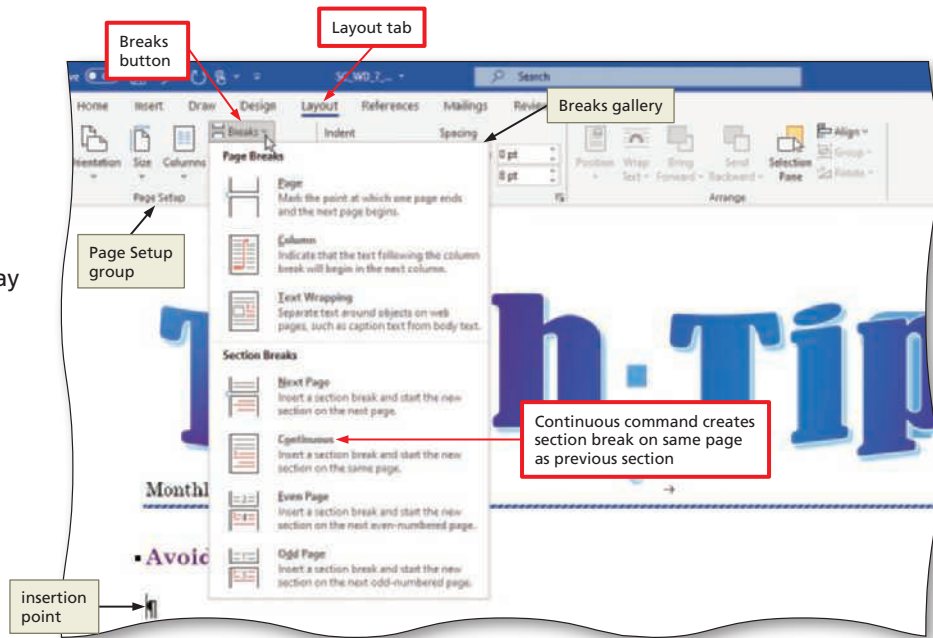


Figure 7–29

2

- Click Continuous in the Breaks gallery to insert a continuous section break above the insertion point (Figure 7–30).

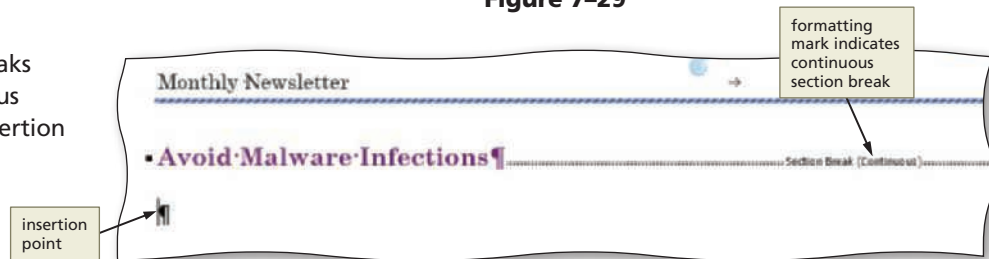


Figure 7–30

To Format Text in Columns

The document now has two sections. The nameplate is in the first section, and the insertion point is in the second section. The second section should be formatted to three columns. **Why?** The feature article and announcements appear in three columns that snake across the page. Thus, the following steps format the second section in the document as three columns.

1

- Click the Columns button (Layout tab | Page Setup group) to display the Columns gallery (Figure 7–31).

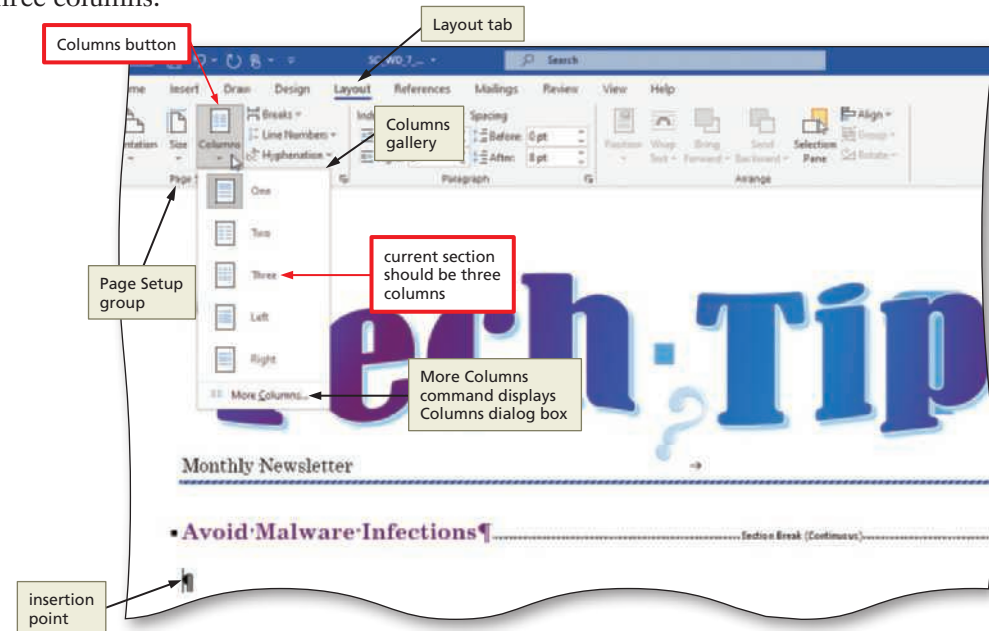


Figure 7–31

2

- Click Three in the Columns gallery to divide the section containing the insertion point in three evenly sized and spaced columns.
- Display the View tab and then, if necessary, click the Ruler check box so that the rulers appear on the screen (Figure 7-32).

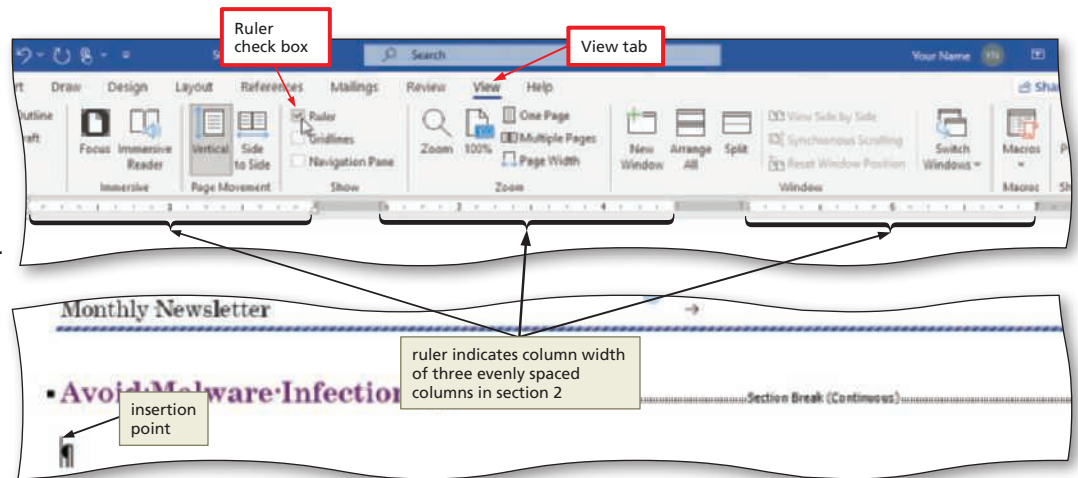


Figure 7-32

Q&A

Why display the rulers?

You want to see the column widths on the ruler.

What if I want columns of different widths?

You would click More Columns in the Columns gallery (shown in Figure 7-31), which displays the Columns dialog box. In this dialog box, you can specify varying column widths and spacing.

To Justify a Paragraph

The following step enters the first paragraph of the feature article using justified alignment. **Why?** The text in the paragraphs of the body of the newsletter is *justified*, which means that the left and right margins are aligned, like the edges of newspaper columns.

1

- Display the Home tab.
- Click the Justify button (Home tab | Paragraph group) so that Word aligns both the left and right margins of typed text.
- Type the first paragraph of the feature article (Figure 7-33):
Some websites contain tempting offers to download free games or music, enter contests, receive coupons, or install toolbars that offer convenience on computers or mobile devices. Danger may lurk, however, in those downloaded files, because they might secretly install malware that could present effects ranging from a mild annoyance to a severe problem such as identity theft. and then press ENTER.

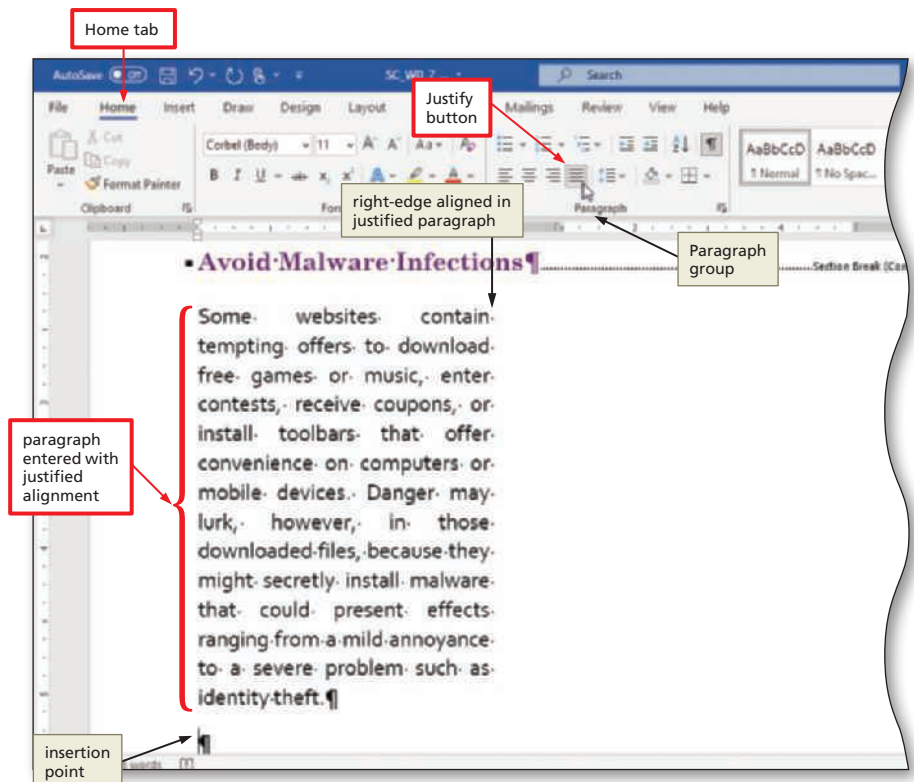


Figure 7-33

Q&A Why do some words have extra space between them?
 When a paragraph is formatted to justified alignment, Word places extra space between words so that the left and right edges of the paragraph are aligned. To remedy big gaps, sometimes called rivers, you can add or rearrange words, change the column width, change the font size, and so on.

Other Ways

- | | | |
|--|--|------------------------|
| <p>1. Right-click paragraph (or, if using touch, tap 'Show Context Menu' button on Mini toolbar), click Paragraph on shortcut menu, click 'Indents and Spacing' tab (Paragraph dialog box), click Alignment arrow, click Justified, click OK</p> | <p>2. Click Paragraph Dialog Box Launcher (Home tab or Layout tab Paragraph group), click Indents and Spacing tab (Paragraph dialog box), click Alignment arrow, click Justified, click OK</p> | <p>3. Press CTRL+J</p> |
|--|--|------------------------|

To Insert Text from a File into a Document

The next step is to insert a file named Support_WD_7_AvoidMalwareInfectionsArticle.docx in the newsletter. **Why?** To save you time typing, the rest of the feature article is located in the Data Files. Please contact your instructor for information about accessing the Data Files. The following steps insert the Support_WD_7_AvoidMalwareInfectionsArticle.docx file in a column of the newsletter.

- 1**
- Display the Insert tab.
 - With the insertion point positioned in the left column as shown in Figure 7–33, click the Object arrow (Insert tab | Text group) to display the Object menu (Figure 7–34).

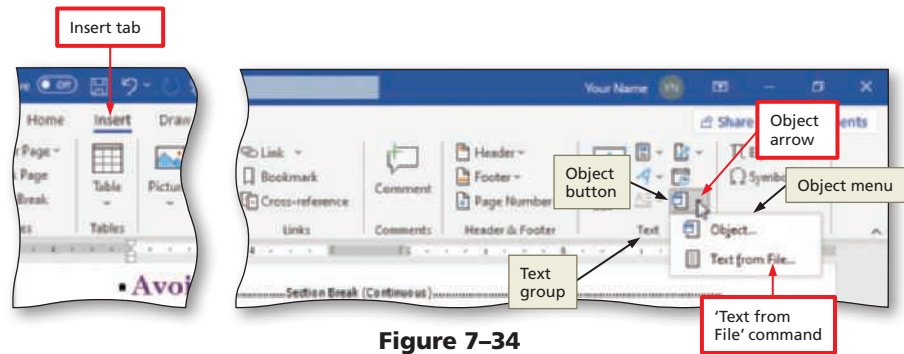


Figure 7–34

- 2**
- Click 'Text from File' on the Object menu to display the Insert File dialog box.
 - Navigate to the location of the file to be inserted.
 - Click the file named Support_WD_7_AvoidMalwareInfectionsArticle.docx to select the file (Figure 7–35).

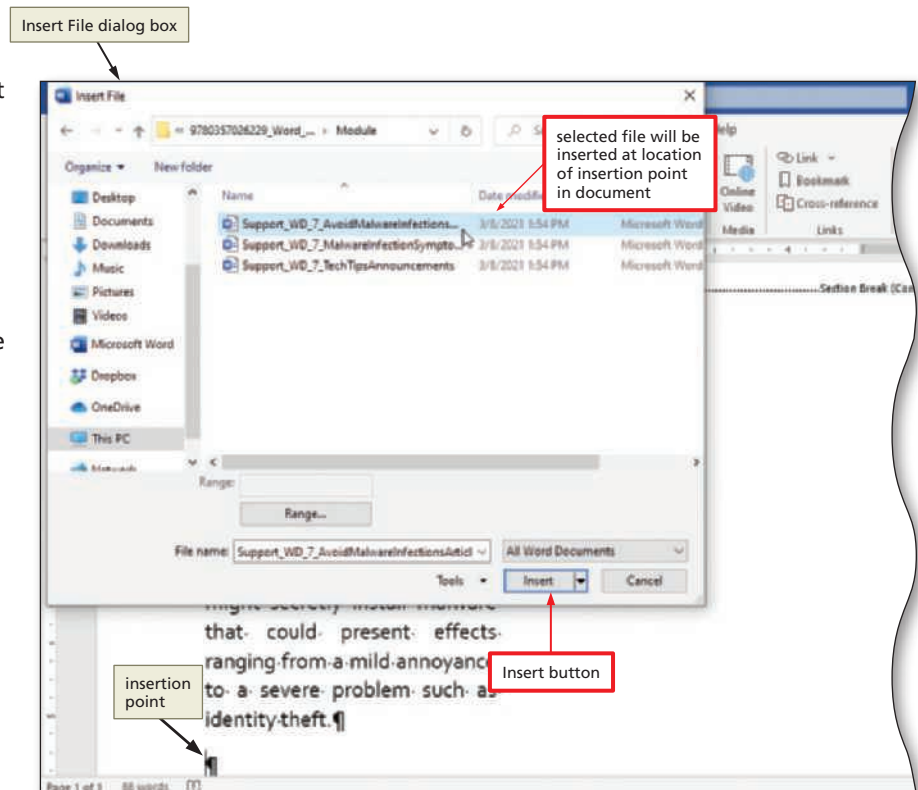


Figure 7–35

3

- Click the Insert button (Insert File dialog box) to insert the file, Support_WD_7_AvoidMalwareInfectionsArticle.docx, in the current document at the location of the insertion point.
- So that you can see the entire inserted article, display multiple pages on the screen by clicking the Multiple Pages button (View tab | Zoom group) (Figure 7–36).

4

- When you are finished viewing the document, change the zoom to page width so that the newsletter content is larger on the screen and then scroll to the top of the first page.

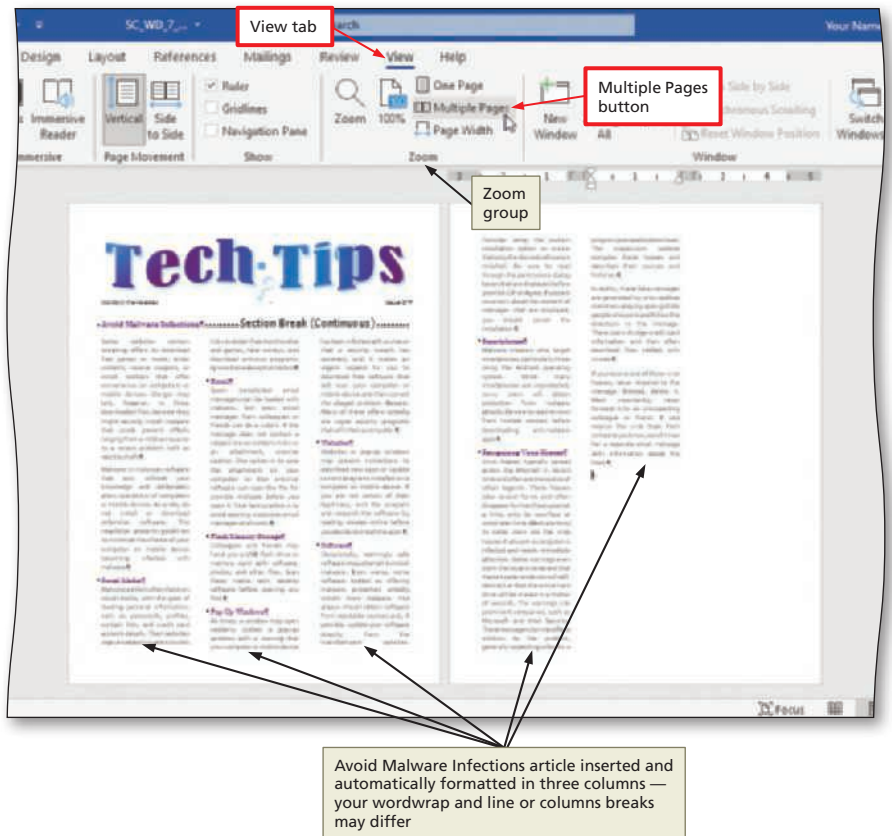


Figure 7–36

To Adjust the Width of Columns and Place a Vertical Line between Columns

The columns in the newsletter currently contain many rivers. **Why?** The justified alignment in the narrow column width often causes large gaps between words. To eliminate some of the rivers, you increase the size of the columns slightly in this newsletter. In newsletters, you often see a vertical rule (line) separating columns. Through the Columns dialog box, you can change column width and add vertical lines. The following steps increase column widths and add vertical lines between columns.

1

- Position the insertion point somewhere in the feature article text.
- Display the Layout tab.
- Click the Columns button (Layout tab | Page Setup group) to display the Columns gallery (shown in Figure 7–31).

2

- Click More Columns in the Columns gallery to display the Columns dialog box.
- If necessary, in the Width and spacing area (Columns dialog box), click the Width up arrow until the Width box reads 2.1".

Q&A How would I make the columns different widths?

You would remove the check mark from the 'Equal column width' check box and then set the individual column widths in the dialog box.

- Place a check mark in the Line between check box to select the check box (Figure 7–37).

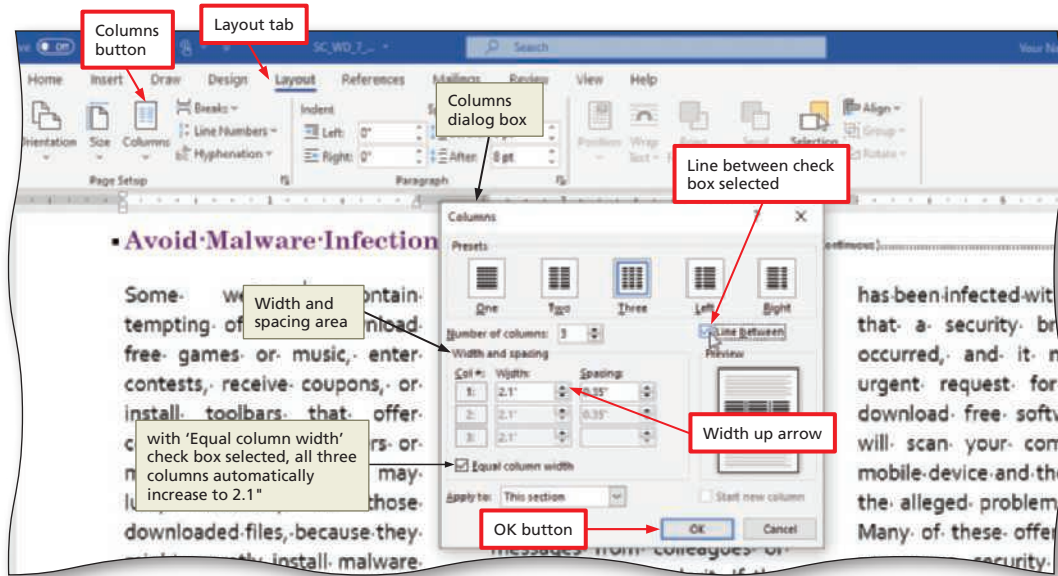


Figure 7-37

- 3
- Click OK to make the columns slightly wider and place a line (vertical rule) between each column in the document (Figure 7-38).

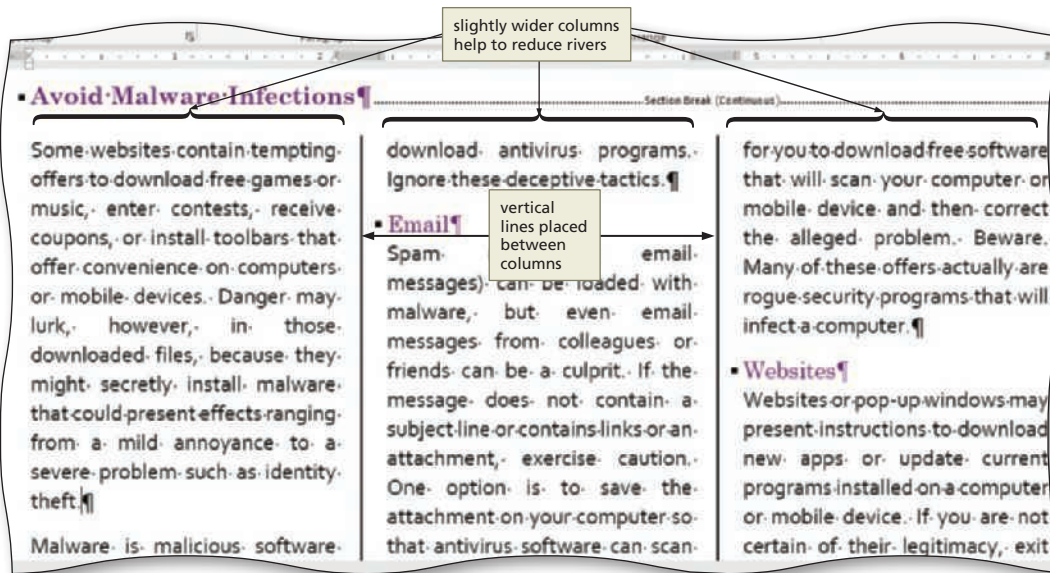


Figure 7-38

Other Ways

1. Double-click shaded space between columns on ruler, enter settings (Columns dialog box), click OK
2. To adjust column widths, drag column boundaries on ruler
3. To insert single rule, click Borders arrow (Home tab | Paragraph group)

To Hyphenate a Document

The following steps turn on the hyphenation feature. **Why?** To further eliminate some of the rivers in the columns of the newsletter, you turn on Word's hyphenation feature so that words with multiple syllables are hyphenated at the end of lines instead of wrapped in their entirety to the next line.

1

- Click the Hyphenation button (Layout tab | Page Setup group) to display the Hyphenation gallery (Figure 7–39).

Q&A

What is the difference between Automatic and Manual hyphenation?

Automatic hyphenation places hyphens wherever words can break at a syllable in the document. With manual hyphenation, Word displays a dialog box for each word it could hyphenate, enabling you to accept or reject the proposed hyphenation.

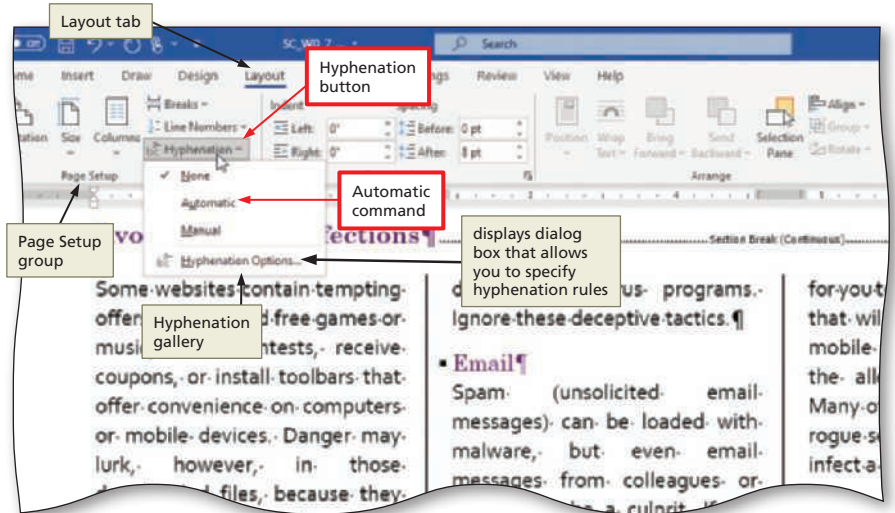


Figure 7–39

2

- Click Automatic in the Hyphenation gallery to hyphenate the document (Figure 7–40).

Q&A

What if I do not want a particular word hyphenated?

You can reword text, and Word will redo the hyphenation automatically.

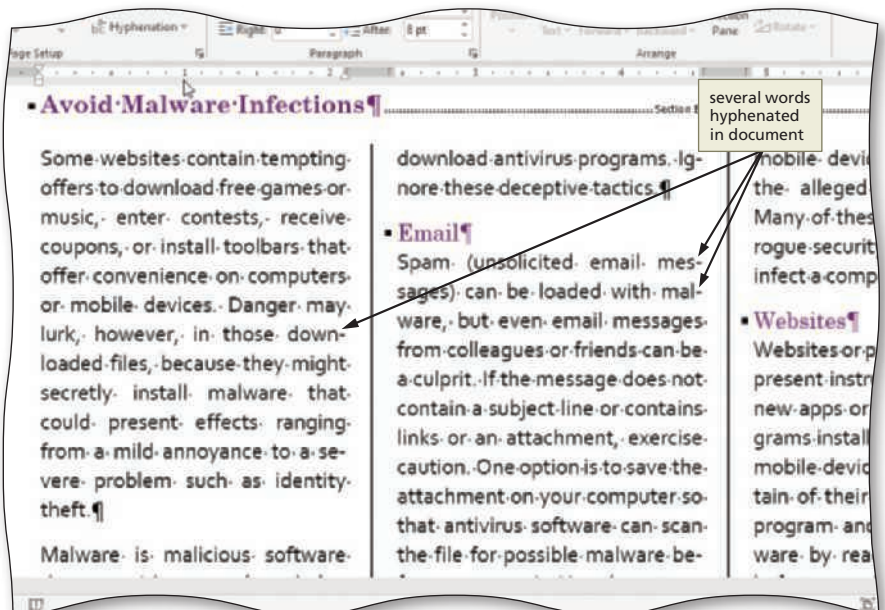


Figure 7–40

To Format a Character as a Drop Cap

The first character in the feature article in this newsletter — that is, the capital letter S — is formatted as a drop cap. **Why?** To add interest to an article, you often see a **drop cap**, which is a decorative, large, initial capital letter that extends below the other letters in the line. In Word, the drop cap can sink into the first few lines of text, or it can extend into the left margin, which often is called a stick-up cap. In this newsletter, the paragraph text wraps around the drop cap.

The following steps create a drop cap in the first paragraph of the feature article in the newsletter.

1

- Position the insertion point somewhere in the first paragraph of the feature article.
- Display the Insert tab.
- Click the Drop Cap button (Insert tab | Text group) to display the Drop Cap gallery (Figure 7–41).

Experiment

- Point to various commands in the Drop Cap gallery to see a Live Preview of the drop cap formats in the document.

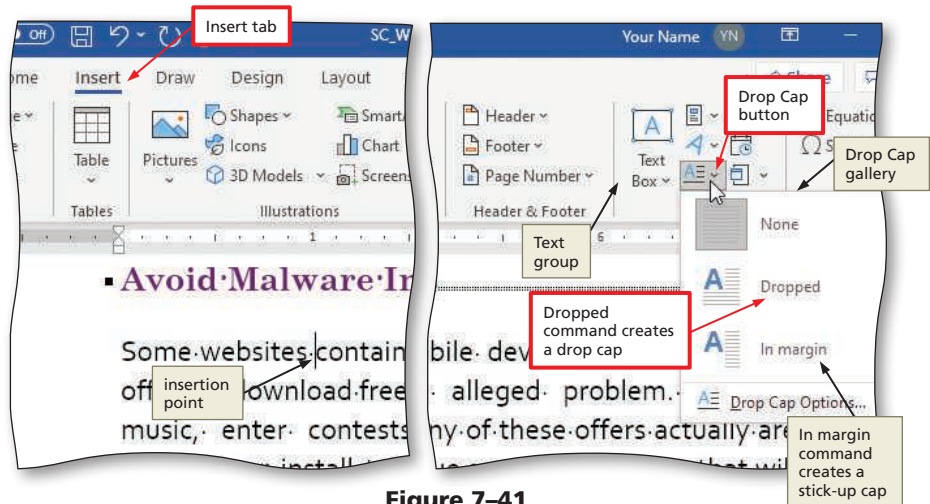


Figure 7–41

2

- Click Dropped in the Drop Cap gallery to format the first letter in the paragraph containing the insertion point (the S in Some, in this case) as a drop cap and wrap subsequent text in the paragraph around the drop cap (Figure 7–42).

Q&A What is the outline around the drop cap in the document?
 When you format a letter as a drop cap, Word places a frame around it. A **frame** is a container for text that allows you to position the text anywhere on the page. Word formats a frame for the drop cap so that text wraps around it. The frame also contains a paragraph mark nonprinting character to the right of the drop cap, which may or may not be visible on your screen.

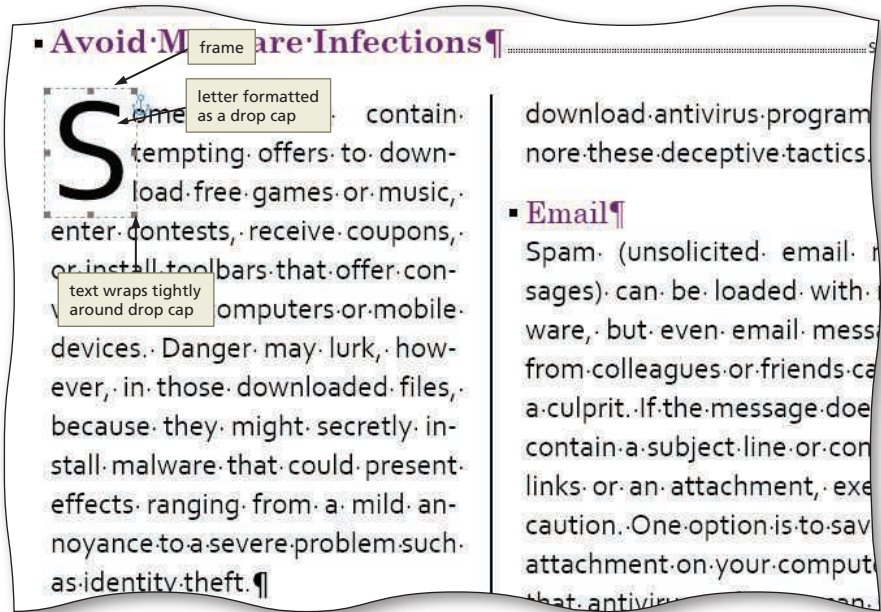


Figure 7–42

To Format the Drop Cap

The following step changes the font color of the drop cap.

- 1 With the drop cap selected, display the Home tab and then change the font color of the drop cap to 'Blue, Accent 5, Darker 50%' (ninth color, sixth row) in Font Color gallery (shown in Figure 7–1a at the beginning of this module).

Q&A What if my frame no longer is displayed?
 Click the drop cap to select it. Then, click the selection rectangle to display the frame.

To Insert a Next Page Section Break

The third column on the first page of the newsletter is not a continuation of the feature article. **Why not?** The third column, instead, contains several reader announcements. The feature article continues on the second page of the newsletter (shown in Figure 7–1b at the beginning of this module). Thus, you must insert a next page section break, which is a section break that also contains a page break, at the bottom of the second column so that the remainder of the feature article moves to the second page. The following steps insert a next page section break in the second column.

1

- Position the insertion point at the location for the section break, in this case, to the left of the P in the Pop-Up Windows heading.
- Display the Layout tab.
- Click the Breaks button (Layout tab | Page Setup group) to display the Breaks gallery (Figure 7–43).

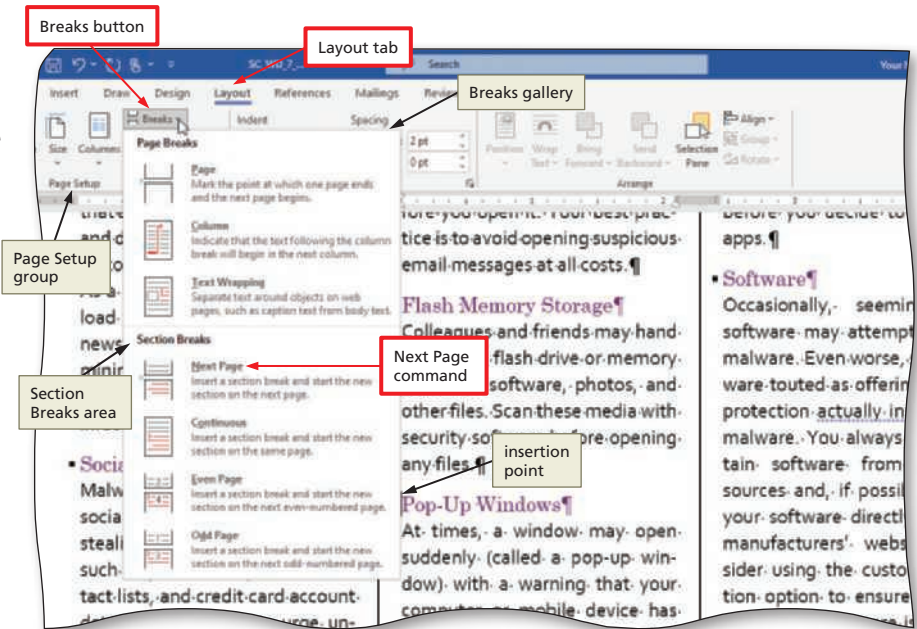


Figure 7–43

2

- In the Section Breaks area in the gallery, click Next Page to insert a next page section break, which positions the insertion point on the next page.
- If necessary, scroll to the bottom of the first page so that you can see the moved text (Figure 7–44).

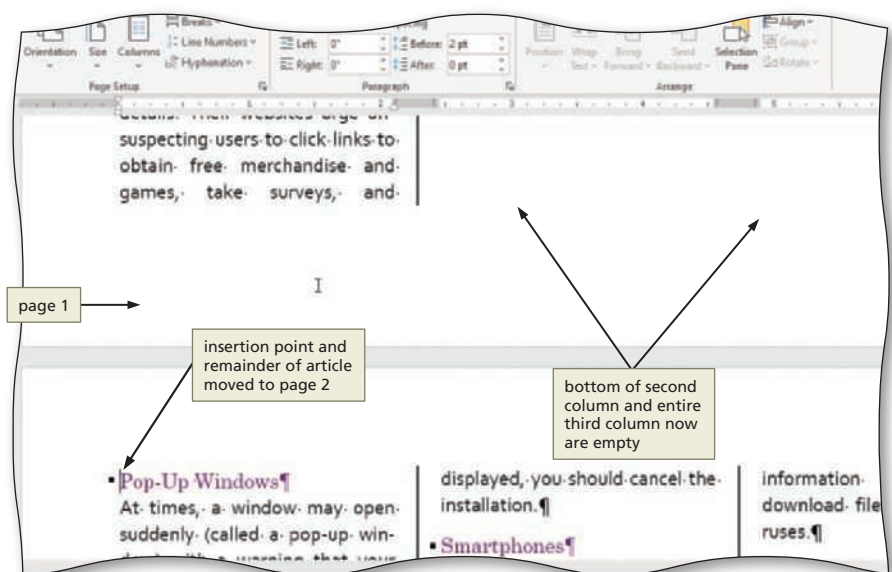


Figure 7–44

To Enter Text

The next step is to insert a jump-to line at the end of the second column, informing the reader where to look for the rest of the feature article. The following steps insert a jump-to line at the end of the text in the second column on the first page of the newsletter.

- 1 Scroll to display the end of the text in the second column of the first page of the newsletter and then position the insertion point to the left of the paragraph mark that is to the left of the section break notation.
- 2 Press ENTER twice to insert a blank line for the jump-to text above the section break notation.
- 3 Press the UP ARROW key to position the insertion point on the blank line. If the blank line is formatted in a heading style, click the 'Clear All Formatting' button (Home tab | Font group) so that the entered text follows the Normal style.
- 4 Press CTRL+R to right align the paragraph mark. Press CTRL+I to turn on the italic format. Type **(Article continues on next page)** as the jump-to text and then press CTRL+I again to turn off the italic format.

To Insert a Column Break

In the **Tech Tips** newsletters, for consistency, the reader announcements always begin at the top of the third column. If you insert the file containing the announcements at the current location of the insertion point, however, they will begin at the bottom of the second column. **Why? The insertion point currently is at the bottom of the second column.**

For the reader announcements to be displayed in the third column, you insert a **column break** at the bottom of the second column, which places the insertion point at the top of the next column. Thus, the following steps insert a column break at the bottom of the second column.

- 1
 - Position the insertion point to the left of the paragraph mark on the line containing the next page section break, which is the location where the column break should be inserted.
 - If necessary, display the Layout tab.
 - Click the Breaks button (Layout tab | Page Setup group) to display the Breaks gallery (Figure 7-45).

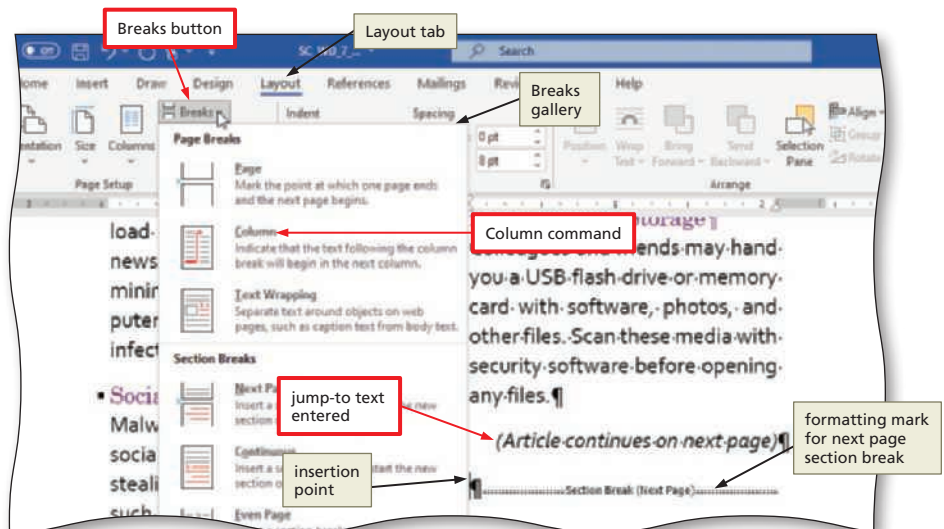


Figure 7-45

- 2
 - Click Column in the Breaks gallery to insert a column break at the location of the insertion point and move the insertion point to the top of the next column (Figure 7-46).

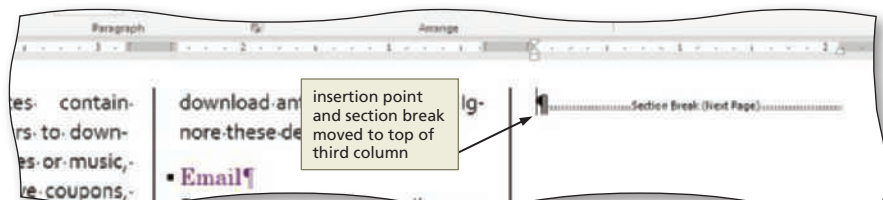


Figure 7-46

Q&A What if I wanted to remove a column break?
 You would double-click it to select it and then click the Cut button (Home tab | Clipboard group) or press DELETE.

Other Ways

1. Press CTRL+SHIFT+ENTER

To Insert Text from a File in to a Document

So that you do not have to enter the entire third column of announcements in the newsletter, the next step in the project is to insert the file named Support_WD_7_TechTipsAnnouncements.docx in the third column of the newsletter. This file contains the three announcements: the first about an upcoming webinar, the second about reader discounts, and the third about the topic of the next newsletter issue.

The Support_WD_7_TechTipsAnnouncements.docx file is located in the Data Files. Please contact your instructor for information about accessing the Data Files. The following steps insert a file in a column of the newsletter.

- 1 With the insertion point at the top of the third column, display the Insert tab.
- 2 Click the Object arrow (Insert tab | Text group) to display the Object menu and then click 'Text from File' on the Object menu to display the Insert File dialog box.
- 3 Navigate to the location of the file to be inserted (in this case, the Data Files folder).
- 4 Click Support_WD_7_TechTipsAnnouncements.docx to select the file.
- 5 Click the Insert button (Insert File dialog box) to insert the file, Support_WD_7_TechTipsAnnouncements.docx, in the document at the location of the insertion point.

Q&A What if text from the announcements column spills onto the second page of the newsletter?

You will format text in the announcements column so that all of its text fits in the third column of the first page.

- 6 Press SHIFT+F5 to return the insertion point to the last editing location, in this case, the top of the third column on the first page of the newsletter (Figure 7-47).
- 7 Save the newsletter again on the same storage location with the same file name.

BTW

Inserting Documents

When you insert a Word document in another Word document, the entire inserted document is placed at the location of the insertion point. If the insertion point is positioned in the middle of the open document when you insert another Word document, the open document continues after the last character of the inserted document; therefore, pay close attention to where the insertion point is positioned before inserting a document.

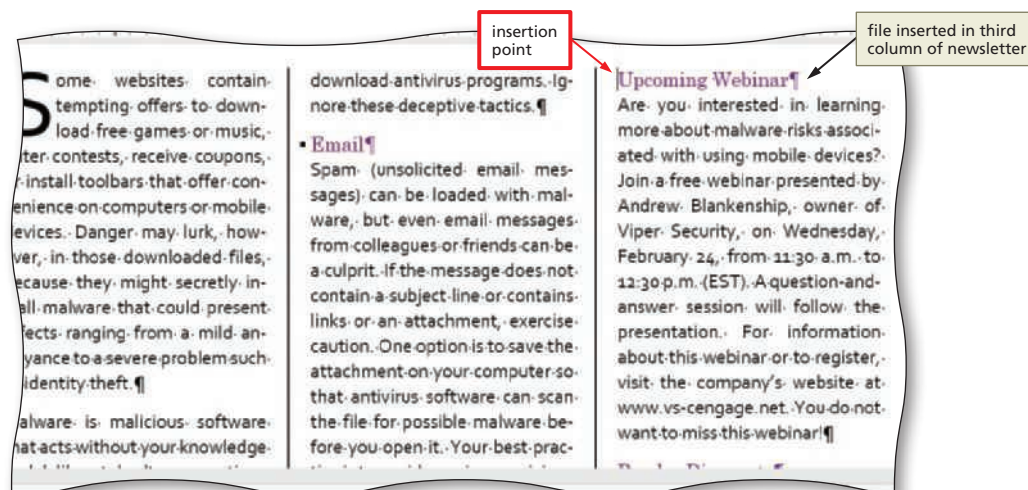


Figure 7-47

Creating a Pull-Quote

A pull-quote is text pulled, or copied, from the text of the document and given graphical emphasis so that it stands apart and commands the reader's attention. The newsletter in this project copies text from the first page of the newsletter and places it in a pull-quote, also on the first page between the first and second columns (shown in Figure 7–1a at the beginning of this module).

Consider This



What guidelines should you follow when using pull-quotes?

Because of their bold emphasis, pull-quotes should be used sparingly in a newsletter. Pull-quotes are useful for breaking the monotony of long columns of text. Typically, quotation marks are used only if you are quoting someone directly. If you use quotation marks, use curly (or smart) quotation marks instead of straight quotation marks.

To create the pull-quote in this newsletter, follow this general procedure:

1. Create a **text box**, which is an object that contains text and that allows you to position the text anywhere on the page.
2. Copy the text from the existing document to the Office Clipboard and then paste the text from the Office Clipboard to the text box.
3. Resize and format the text box.
4. Move the text box to the desired location.

To Insert a Preformatted Text Box

The first step in creating the pull-quote is to insert a text box. A text box is like a frame; the difference is that a text box has more graphical formatting options than does a frame. The following steps insert a built-in text box. **Why?** Word provides a variety of built-in text boxes, saving you the time of formatting the text box.

- 1
 - Click the Text Box button (Insert tab | Text group) to display the Text Box gallery.
 - **Experiment**
 - Scroll through the Text Box gallery to see the variety of available text box styles.
 - Scroll to display Simple Quote in the Text Box gallery (Figure 7–48).

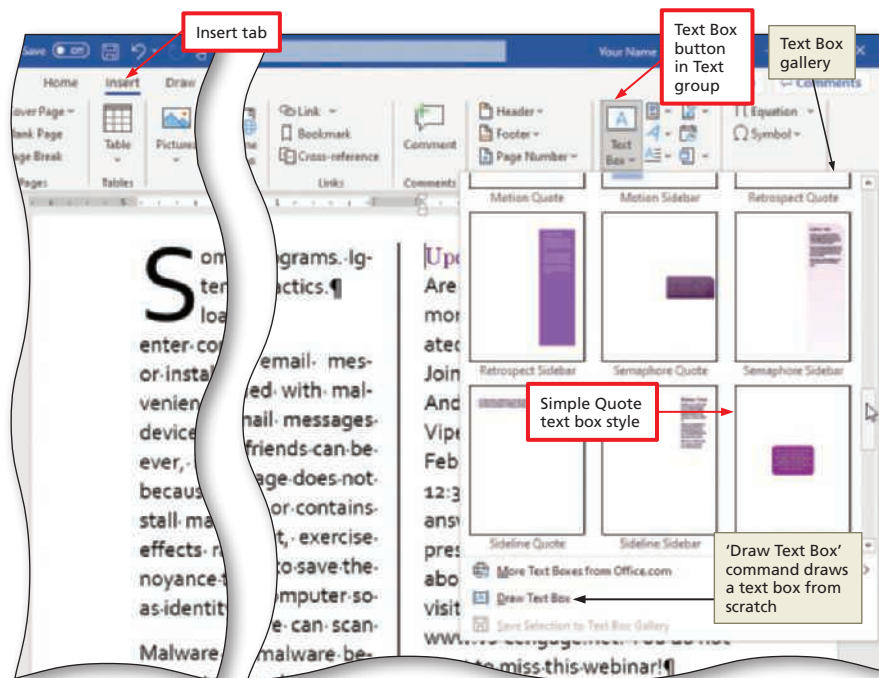


Figure 7–48

2

- Click Simple Quote in the Text Box gallery to insert that style of text box in the document.
- If necessary, drag the text box to the approximate location shown in Figure 7–49.

Q&A

Does my text box need to be in the exact same location as in Figure 7–49?

No. You will move the text box later.

The layout of the first page is not correct because of the text box. What do I do?

You will enter text in the text box and then position it in the correct location. At that time, the layout of the first page will be fixed.

What if I did not want to insert a preformatted text box?

You would click 'Draw Text Box' at the bottom of the Text Box gallery (shown in Figure 7–48) and then draw the text box from scratch.

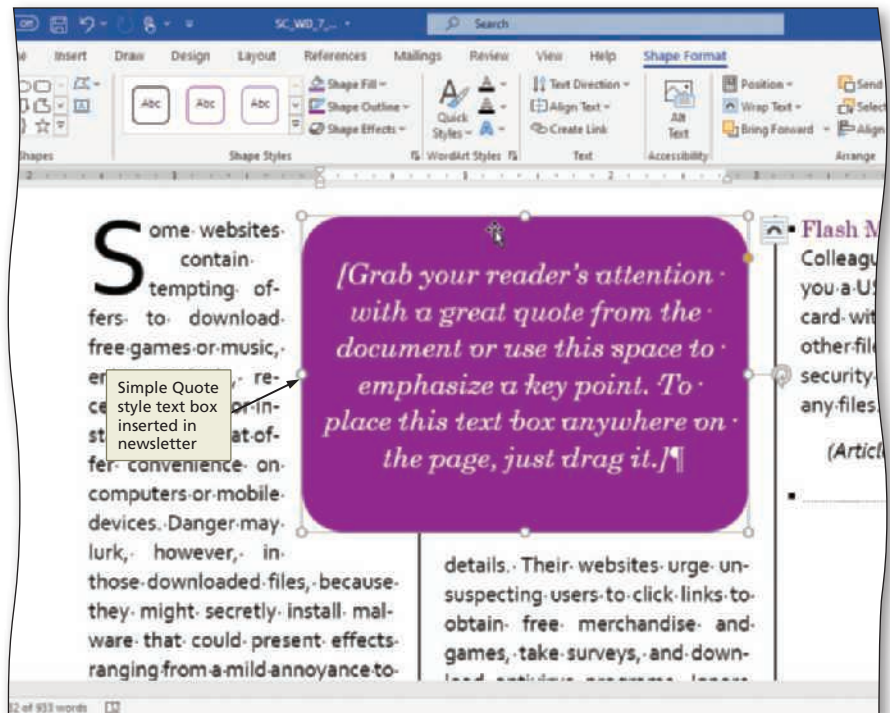


Figure 7–49

Other Ways

1. Click Quick Parts button (Insert tab | Text group), click 'Building Blocks Organizer' on Quick Parts menu, select desired text box name in Building blocks list, click Insert button

To Split the Word Window

The text that you will copy for the pull-quote is in the middle of the first page on the newsletter and the pull-quote (text box) is near the top of the first page of the newsletter. Thus, the next step is to copy the pull-quote text from the middle of the first page and then paste it in the pull-quote at the top of the first page. You would like to view the pull-quote and the text to be copied on the screen at the same time. **Why?** Viewing both simultaneously will simplify the copying and pasting process.

Word allows you to split the window in two separate panes, each containing the current document and having its own scroll bar. This enables you to scroll to and view two different portions of the same document at the same time. The following step splits the Word window.

1

- Display the View tab.
- Click the Split button (View tab | Window group) to divide the document window in two separate panes — both the upper and lower panes display the current document (Figure 7–50).

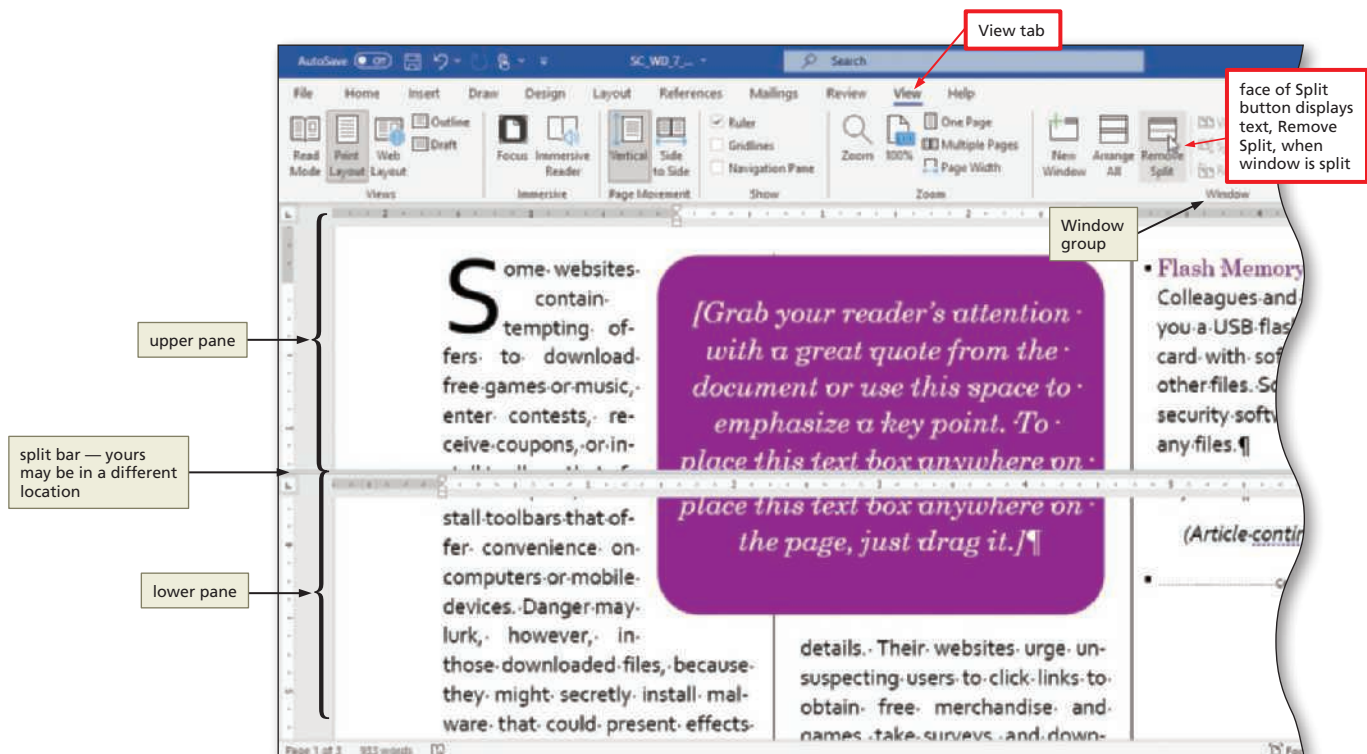


Figure 7-50

Other Ways

1. Press ALT+CTRL+S

TO ARRANGE ALL OPEN WORD DOCUMENTS ON THE SCREEN

If you have multiple Word documents open and want to view all of them at the same time on the screen, you can instruct Word to arrange all the open documents on the screen from top to bottom. If you wanted to arrange all open Word documents on the same screen, you would perform the following steps.

1. Click the Arrange All button (View tab | Window group) to display each open Word document on the screen.
2. To make one of the arranged documents fill the entire screen again, maximize the window by clicking its Maximize button or double-clicking its title bar.

To Copy and Paste Using Split Windows

The following steps copy text from the middle of the first page of the newsletter to the Clipboard (the source) and then paste the text into the text box (the destination) at the top of the newsletter. **Why?** The item being copied is called the **source**. The location to which you are pasting is called the **destination**.

1

- In the upper pane, scroll so that all placeholder text in the text box is visible, as shown in Figure 7-51.
- In the lower pane, scroll to page 3 to display the text to be copied, as shown in Figure 7-51, and then select the text to be copied: some software touted as offering malware protection actually installs more malware.
- Display the Home tab.

- Click the Copy button (Home tab | Clipboard group) to copy the selected text to the Clipboard (Figure 7–51).

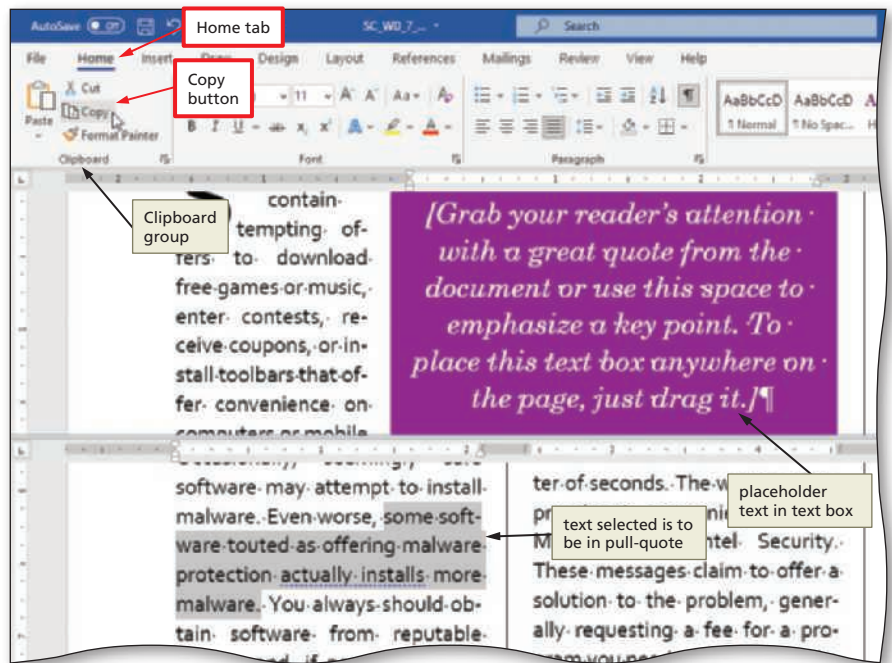


Figure 7–51

2

- In the upper pane, if necessary, scroll to display the text in the text box. Click the text in the text box to select it.
- Click the Paste arrow (Home tab | Clipboard group) to display the Paste menu (Figure 7–52).

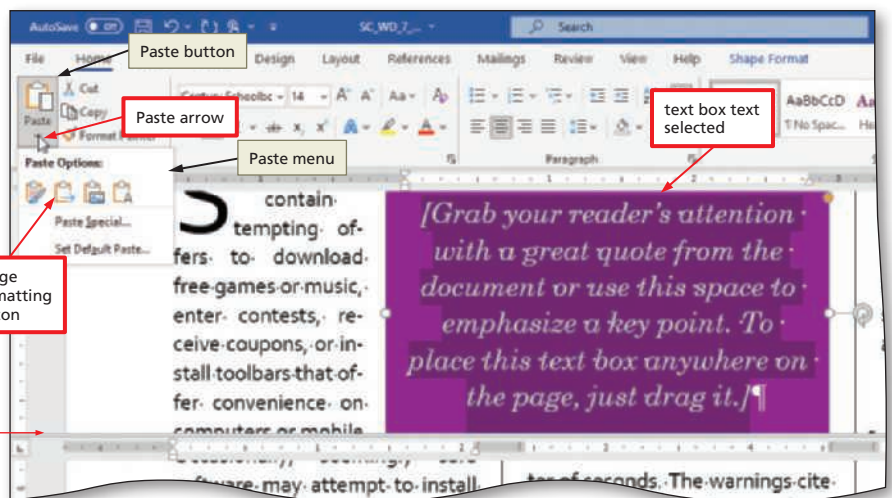


Figure 7–52

Q&A

What if I click the Paste button by mistake? Click the Paste Options button to the right of the pasted text in the text box to display the Paste Options menu.

3

- Click the Merge Formatting button on the Paste menu to paste the copied text into the text box (shown in Figure 7–53).

Q&A

Why select the Merge Formatting button on the Paste menu? You want the pasted text to use the formats that were in the text box (the destination) instead of the formats of the copied text (the source).

Other Ways

1. Click copy on shortcut menu (or, if using touch, tap Copy on Mini toolbar), right-click where item is to be pasted, click 'Keep Source Formatting' in Paste Options area on shortcut menu (or, if using touch, tap Paste on Mini toolbar)
2. Select text to copy, press CTRL+C; select destination for pasted text, press CTRL+V

To Remove a Split Window

The next step is to remove the split window so that you can position the pull-quote. The following step removes a split window.

- 1 Double-click the split bar (shown in Figure 7–52), or click the Remove Split button (View tab | Window group), or press ALT+SHIFT+C to remove the split window and return to a single Word window on the screen.

To Edit and Format Text in the Text Box

The next steps format text in the pull-quote.

- 1 If necessary, scroll to display the text box in the document window.
- 2 Capitalize the first letter in the pull-quote so it reads: Some.
- 3 Select all the text in the text box, if necessary, change its font to Century Schoolbook (or a similar font), bold the text, and change its font size to 11 point. If necessary, center this paragraph.
- 4 Click in the text box to deselect the text, but leave the text box selected (shown in Figure 7–53).

To Resize a Text Box

The next step in formatting the pull-quote is to resize the text box. You resize a text box the same way as any other object. That is, you drag its sizing handles or enter values in the height and width boxes through the Size button (Shape Format tab | Size group). The following steps resize the text box and insert line break characters.

- 1 Drag the sizing handles so that the pull-quote looks about the same size as Figure 7–53.
- 2 Verify the pull-quote dimensions in the Shape Height and Shape Width boxes (Shape Format tab | Size group) and, if necessary, change the value in the Shape Height box to 1.85 and the Shape Width box to 1.4. (Note that depending on your printer and other settings that the text wrapping in your newsletter may not match the figure.)

Q&A What if some of the words in the text box are hyphenated?
 Insert line break characters to eliminate any hyphenated words in the text box; that is, position the insertion point to the left of the first letter in the hyphenated word and then press SHIFT+ENTER to insert a line break character, which places the entire word on the next line and removes the hyphen.

BTW Rotating Text Box Text

To rotate text in a text box, select the text box, click the Text Direction button (Shape Format tab | Text group), and then click the desired direction on the Text Direction menu.

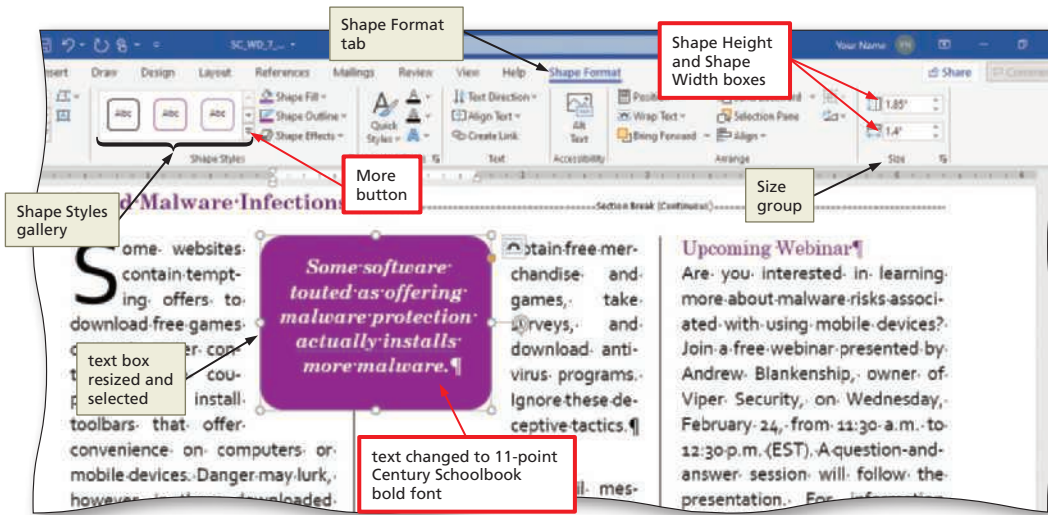


Figure 7-53

To Apply a Shape Style to a Text Box

The next step in formatting the pull-quote is to apply a shape style to the text box to coordinate its colors with the rest of the newsletter. The following steps apply a shape style to a text box.

- 1** With the text box still selected, click the More button (shown in Figure 7-53) in the Shape Styles gallery (Shape Format tab | Shape Styles group) to expand the gallery.
- 2** Point to 'Colored Fill - Blue, Accent 5' (sixth style, second row) in the Shape Styles gallery to display a Live Preview of that style applied to the text box (Figure 7-54).
- 3** Click 'Colored Fill - Blue, Accent 5' in the Shape Styles gallery to apply the selected style to the shape.

BTW

Text Box Styles

Like other drawing objects or pictures, text boxes can be formatted or have styles applied. You can change the fill in a text box by clicking the Shape Fill button or arrow (Shape Format tab | Shape Styles group), add an outline to a text box by clicking the Shape Outline button or arrow (Shape Format tab | Shape Styles group), and apply an effect, such as shadow or 3-D effects, by clicking the Shape Effects button (Shape Format tab | Shape Styles group).

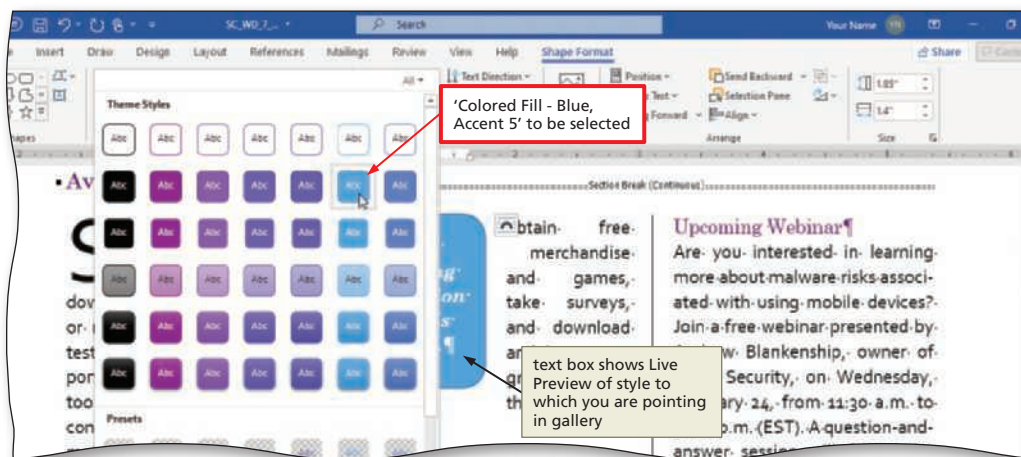


Figure 7-54

To Position a Text Box

The following steps move the text box to the desired location in the newsletter.

- 1** With the text box still selected, drag the text box to its new location (Figure 7-55). You may need to drag and/or resize the text box a couple of times so that it looks similar to this figure.

BTW

Moving Text Boxes

To move a text box using the keyboard, select the text box and then press the arrow keys on the keyboard. For example, each time you press the DOWN ARROW key, the selected text box moves down one space incrementally.

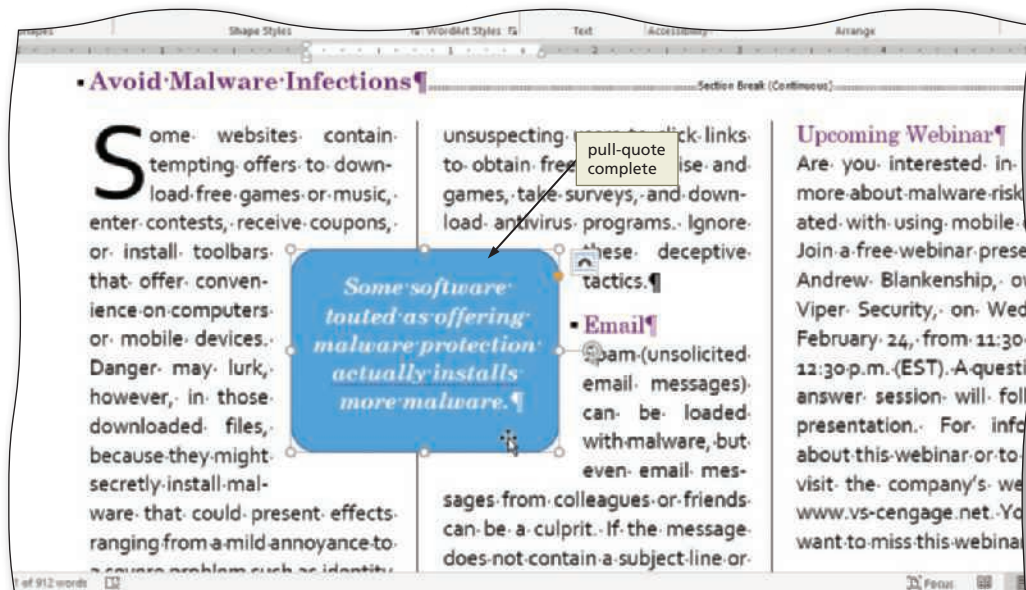


Figure 7-55

- 2 Click outside the text box to remove the selection.

Q&A Why does my text wrap differently around the text box?
 Differences in wordwrap often relate to the printer used by your computer. Thus, your document may wordwrap around the text box differently.

- 3 If the jump-to line, which is supposed to appear at the bottom of the second column (shown in Figure 7-56), moved to the top of the third column, position the insertion point in the article title (Avoid Malware Infections) and decrease the spacing before and after (Layout tab) until the jump-to line moves back to the bottom of the second column.
- 4 Save the newsletter again on the same storage location with the same file name.

TO CHANGE DEFAULT TEXT BOX SETTINGS

If you wanted to change the default text box settings, you would perform the following steps.

1. Insert a text box and format it as desired.
2. Right-click the text box and then click 'Set as Default Shape' on the shortcut menu.

Break Point: If you want to take a break, this is a good place to do so. You can exit Word now. To resume later, start Word, open the file called SC_WD_7_TechTipsNewsletter.docx, and continue following the steps from this location forward.

Formatting the Second Page of the Newsletter

The second page of the newsletter (shown in Figure 7-1b at the beginning of this module) continues the feature article that began in the first two columns on the first page. The nameplate on the second page is less elaborate than the one on the first page of the newsletter. In addition to the text in the feature article, page two contains a graphic. The following sections format the second page of the newsletter in this project.

Consider This



How do you create a nameplate for inner pages of a newsletter?

The top of the inner pages of a newsletter may or may not have a nameplate. If you choose to create one for your inner pages, it should not be the same as, or compete with, the one on the first page. Inner page nameplates usually contain only a portion of the nameplate from the first page of a newsletter.

To Change Column Formatting

The document currently is formatted in three columns. The nameplate at the top of the second page, however, should be in a single column. **Why?** The nameplate should span across the top of the three columns below it. The next step, then, is to change the number of columns at the top of the second page from three to one.

As discussed earlier in this project, Word requires a new section each time you change the number of columns in a document. Thus, you first must insert a continuous section break and then format the section to one column so that the nameplate can be entered on the second page of the newsletter. The following steps insert a continuous section break and then change the column format.

1

- If you have a blank page between the first and second pages of the newsletter, position the insertion point to the left of the paragraph mark at the end of the third column on the first page of the newsletter and then press DELETE as many times as necessary to delete the blank line causing the overflow.
- Position the insertion point at the upper-left corner of the second page of the newsletter (to the left of P in Pop-Up).
- Display the Layout tab.
- Click the Breaks button (Layout tab | Page Setup group) to display the Breaks gallery (Figure 7-56).

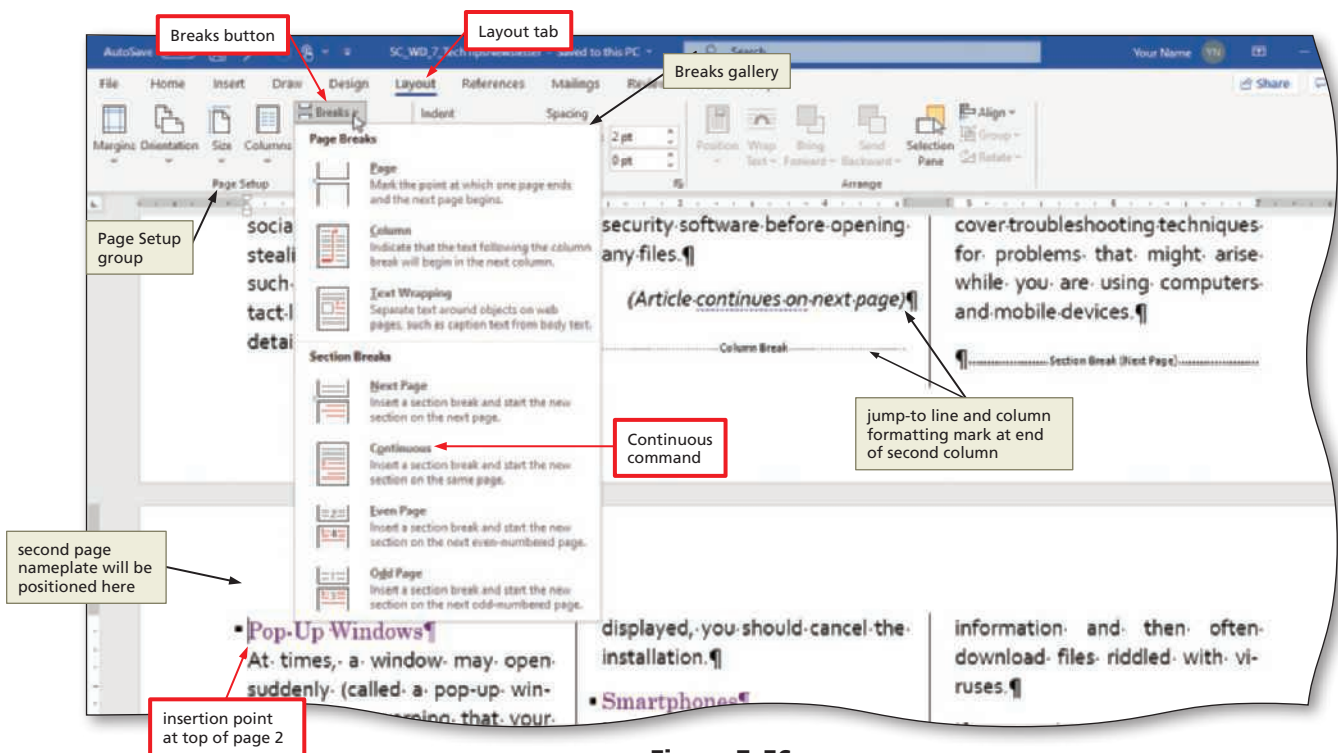


Figure 7-56

2

- Click Continuous in the Breaks gallery to insert a continuous section break above the insertion point.
- Press the UP ARROW key to position the insertion point to the left of the continuous section break just inserted.
- Click the Columns button (Layout tab | Page Setup group) to display the Columns gallery (Figure 7-57).

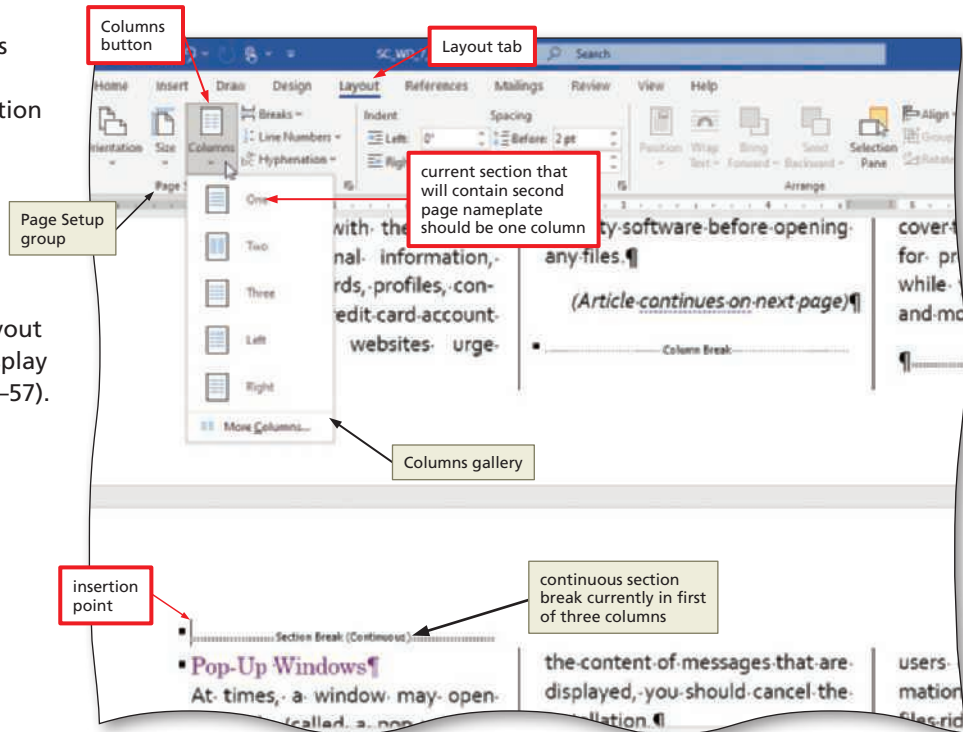


Figure 7-57

3

- Click One in the Columns gallery to format the current section to one column, which now is ready for the second page nameplate.
- If necessary, scroll to display the bottom of the first page and the top of the second page, so that you can see the varying columns in the newsletter (Figure 7-58).

Q&A Can I change the column format of existing text?

Yes. If you already have typed text and would like it to be formatted in a different number of columns, select the text, click the Columns button (Layout tab | Page Setup group), and then click the number of columns desired in the Columns gallery. Word automatically creates a new section for the newly formatted columns.

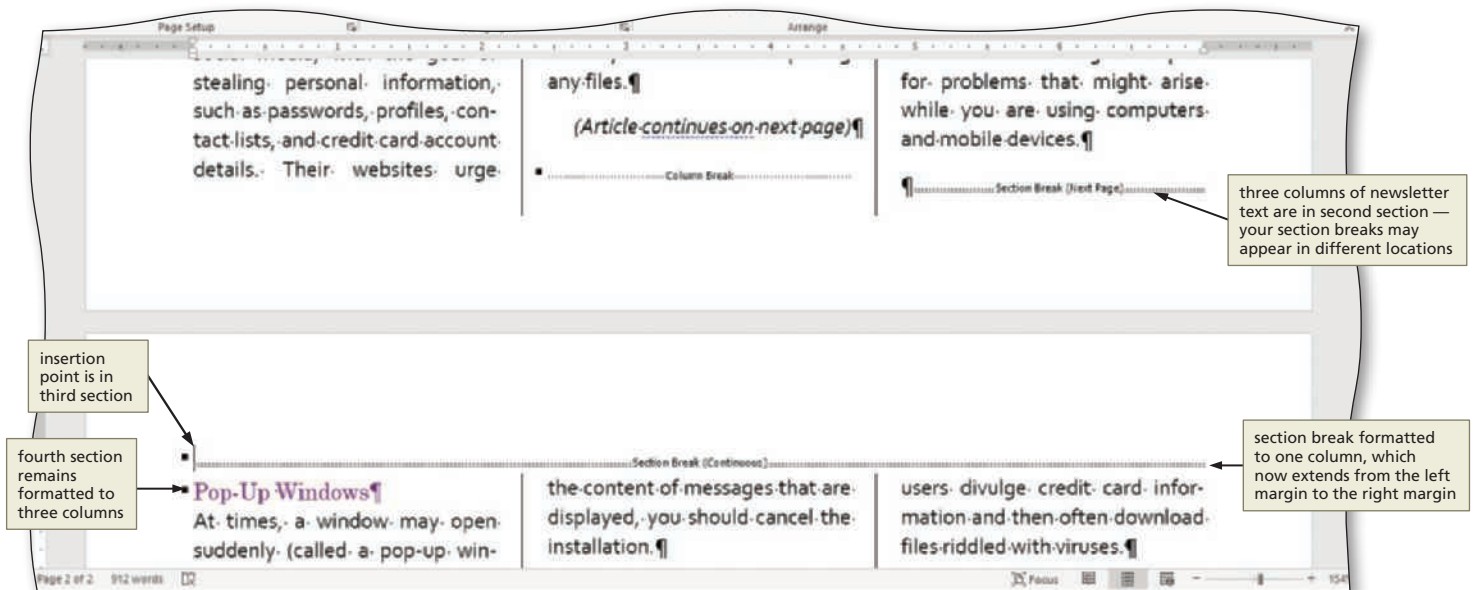


Figure 7-58

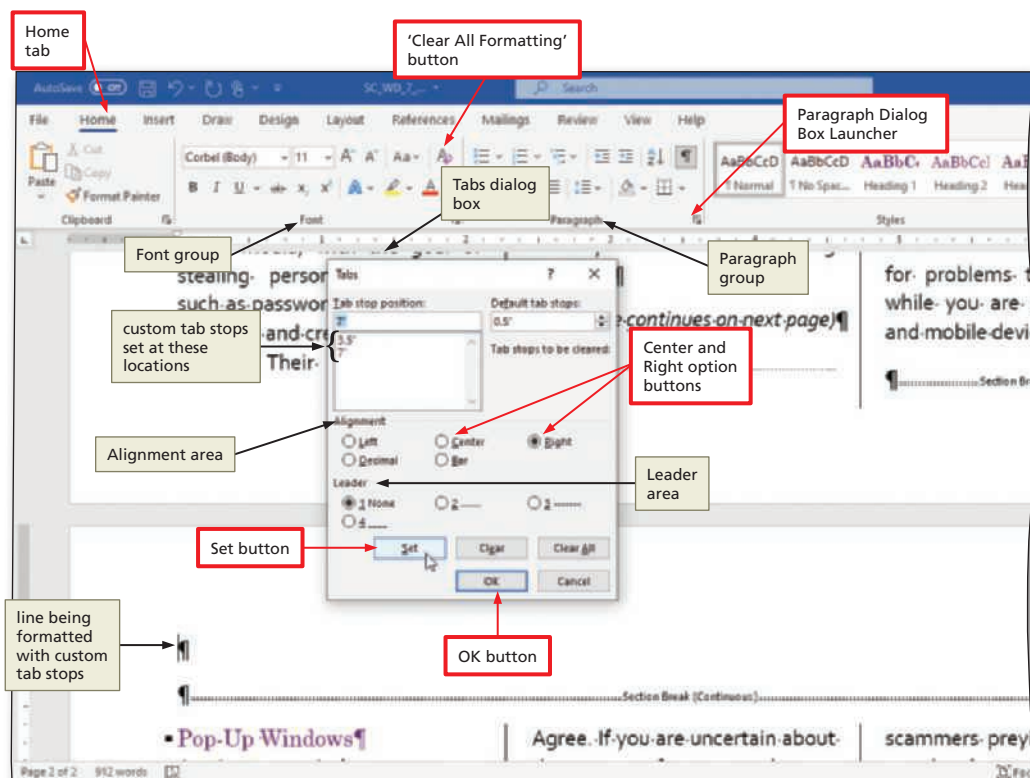
To Set Custom Tab Stops Using the Tabs Dialog Box

The nameplate on the second page of the newsletter contains the text, Monthly Newsletter, at the left margin, the newsletter title in the center, and the issue number at the right margin (shown in Figure 7-1b at the beginning of this module). To properly align the text in the center and at the right margin, you will set custom tab stops. The following steps set custom tab stops.

- 1** Press ENTER twice and then position the insertion point on the first line of the second page of the newsletter, which is the paragraph to be formatted with the custom tab stops.
- 2** Display the Home tab and then click the 'Clear All Formatting' button (Home tab | Font group) to apply the Normal style to the first line on the second page of the newsletter.
- 3** Click the Paragraph Dialog Box Launcher (Home tab | Paragraph group) to display the Paragraph dialog box and then click the Tabs button (Paragraph dialog box) to display the Tabs dialog box.
- 4** Type 3.5 in the Tab stop position text box (Tabs dialog box), click Center in the Alignment area to specify the tab stop alignment, and then click the Set button to set the custom tab stop.
- 5** Type 7 in the Tab stop position text box (Tabs dialog box), click Right in the Alignment area to specify the tab stop alignment, and then click the Set button to set the custom tab stop (Figure 7-59).
- 6** Click OK to set custom tab stops using the specified alignments.

BTW Sections

To see the formatting associated with a section, double-click the section break notation, or click the Page Setup Dialog Box Launcher (Layout tab | Page Setup group) to display the Page Setup dialog box. You can change margin settings and page orientation for a section in the Margins sheet. To change paper sizes for a section, click the Paper tab (Page Setup dialog box). The Layout tab (Page Setup dialog box) allows you to change header and footer specifications and vertical alignment for the section. To add a border to a section, click the Borders button in the Layout sheet.



BTW Leader Characters

Leader characters, such as a series of dots, often are used in a table of contents to precede page numbers. Four types of leader characters, which Word places in the space occupied by a tab character, are available in the Leader area of the Tabs dialog box (shown in Figure 7-59).

Figure 7-59

To Format and Enter Text and Add a Border

The following steps enter the newsletter title at the top of the second page in the third section.

- 1 With the insertion point on the first line of the second page of the newsletter, click the Font Color arrow and then change the font color of the current text to 'Blue, Accent 5, Darker 50%' (ninth column, bottom row). Change the font to Century Schoolbook (or a similar font), the font size to 10 point, and type **Monthly Newsletter** at the left margin.
- 2 Press TAB to advance the insertion point to the centered tab stop. Increase the font size to 12 point and then click the Bold button (Home tab | Font group) to bold the text. Type **Tech Tips** at the centered tab stop.
- 3 Press TAB to advance the insertion point to the right-aligned tab stop. Reduce the font size to 10 point and then click the Bold button (Home tab | Font group) to turn off the bold format. Type **Issue 27** at the right-aligned tab stop.
- 4 Click the Borders button (Home tab | Paragraph group) to add a bottom border (shown in Figure 7–60).

Q&A Why is the border formatted already?
 When you define a custom border, Word uses that custom border the next time you click the Borders button in the Borders gallery.

To Enter Text

The second page of the feature article on the second page of this newsletter begins with a jump-from line (the continued message) immediately below the nameplate. The next steps enter the jump-from line.

- 1 Position the insertion point on the blank line above the heading, Pop-Up Windows, to the left of the paragraph mark.
- 2 Click the 'Clear All Formatting' button (Home tab | Font group) to apply the Normal style to the location of the insertion point.
- 3 Press CTRL+I to turn on the italic format.
- 4 Type *(Continued from first page)* and then press CTRL+I to turn off the italic format (Figure 7–60).

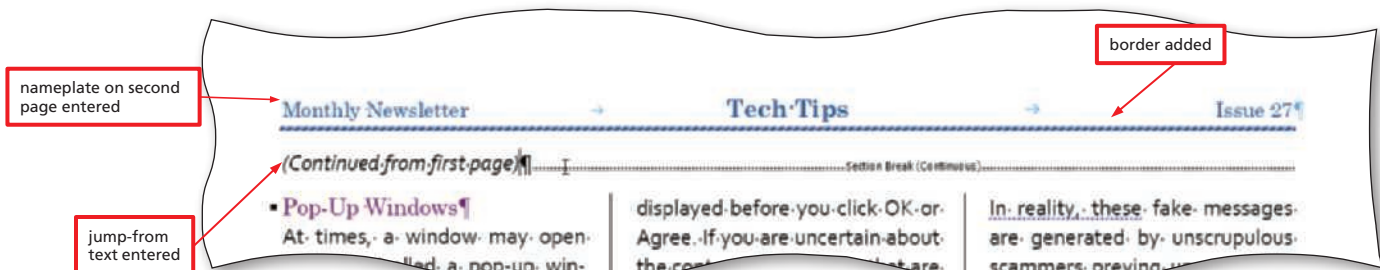


Figure 7–60

To Balance Columns

Currently, the text on the second page of the newsletter completely fills up the first and second columns and almost fills the third column. The text in the three columns should consume the same amount of vertical space. **Why?** Typically, the text in columns of a newsletter is balanced. To balance columns, you insert a continuous section break at the end of the text. The following steps balance columns.

1

- Scroll to the bottom of the text in the third column on the second page of the newsletter and then position the insertion point at the end of the text.
- If an extra paragraph mark is below the last line of text, press DELETE to remove the extra paragraph mark.
- Display the Layout tab.
- Click the Breaks button (Layout tab | Page Setup group) to display the Breaks gallery (Figure 7-61).

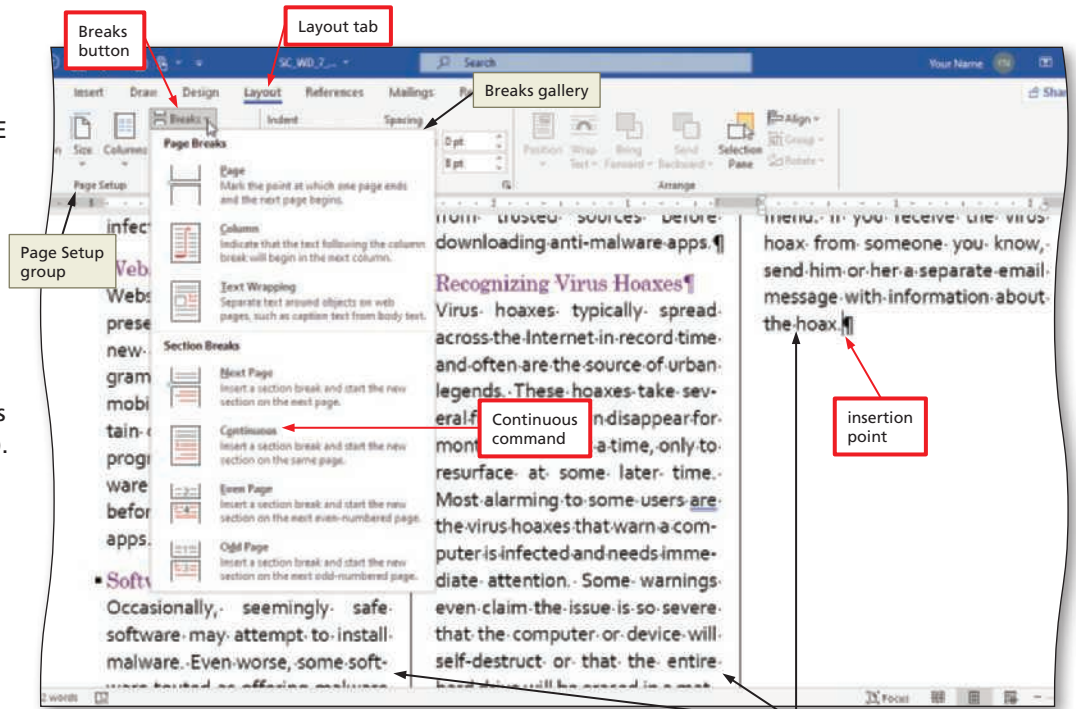


Figure 7-61

2

- Click Continuous in the Breaks gallery to insert a continuous section break, which balances the columns on the second page of the newsletter (Figure 7-62).
- Save the newsletter again on the same storage location with the same file name.

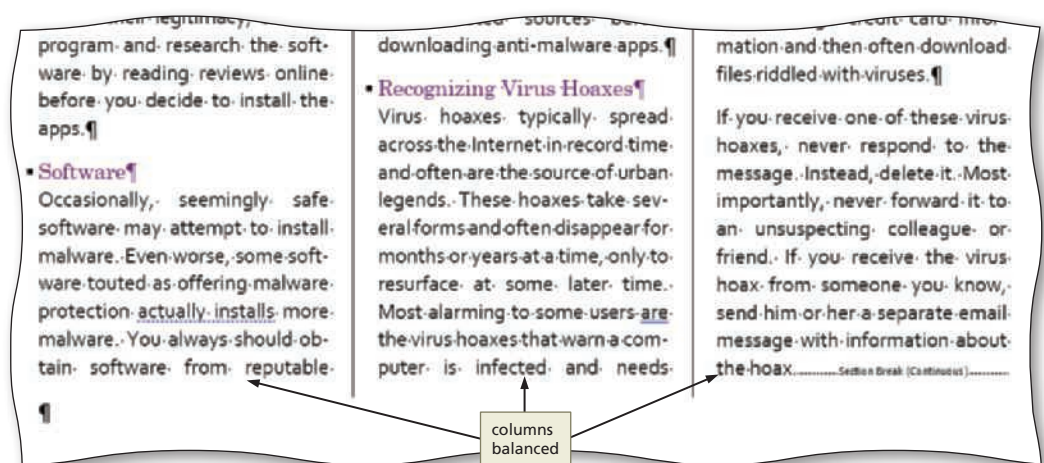


Figure 7-62

Modifying and Formatting a SmartArt Graphic

Microsoft Office includes SmartArt graphics, which are visual representations of ideas. Many different types of SmartArt graphics are available, allowing you to choose one that illustrates your message best.

In this newsletter, a SmartArt graphic is positioned on the second page, toward the bottom of the second column. Because the columns are small in the newsletter, it is best to work with a SmartArt graphic in a separate document window so that you easily can see all of its components. When finished editing the graphic, you can copy and paste it in the newsletter. You will follow these steps for the SmartArt graphic in this newsletter:

1. Open the document that contains the SmartArt graphic for the newsletter.
2. Modify the layout of the graphic.
3. Add a shape and text to the graphic.
4. Format a shape and the graphic.
5. Copy and paste the graphic in the newsletter.
6. Resize the graphic and position it in the desired location.

To Open a Document from Word

The first draft of the SmartArt graphic is in a file called Support_WD_7_MalwareInfectionSymptomsDiagram.docx in the Data Files. Please contact your instructor for information about accessing the Data Files. The following steps open the Support_WD_7_MalwareInfectionSymptomsDiagram.docx file.

1. Navigate to the location of the Data Files on your hard drive, OneDrive, or other storage location.
2. Open the file named Support_WD_7_MalwareInfectionSymptomsDiagram.docx in the Data Files.
3. Click the graphic to select it and display the SmartArt Design and Format tabs (Figure 7–63).

Q&A Is the *Tech Tips* Newsletter file still open?
Yes. Leave it open because you will copy the modified diagram to the second page of the newsletter.

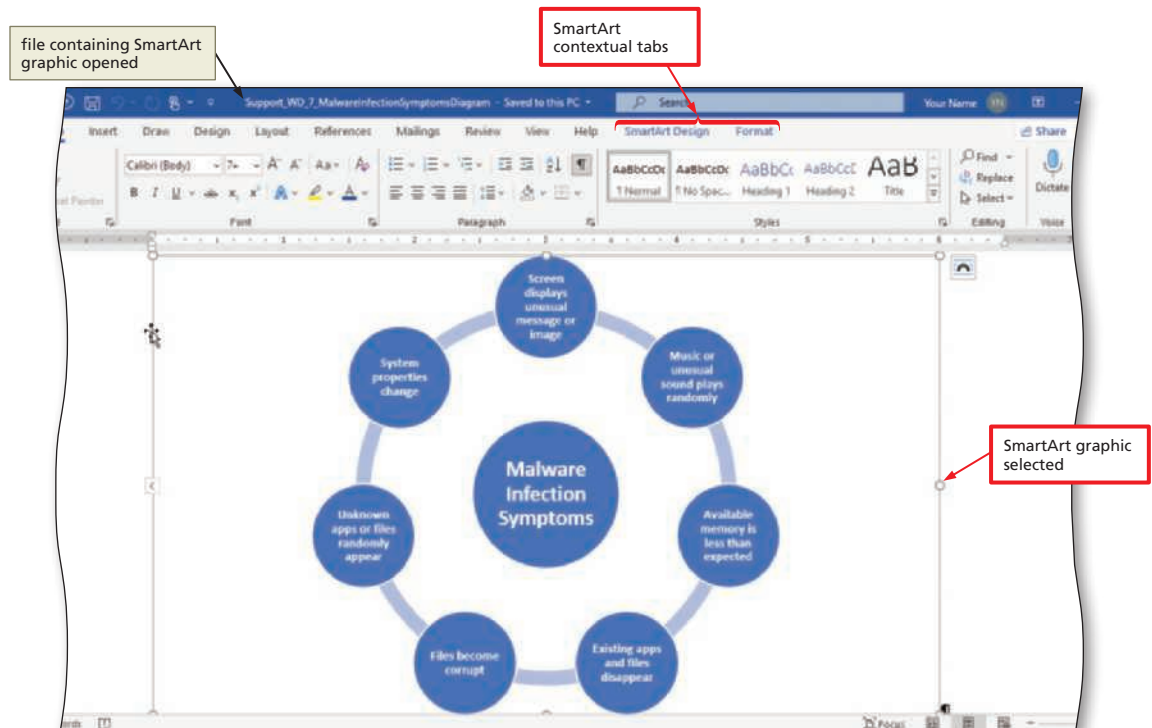


Figure 7–63

To Change the Layout of a SmartArt Graphic

The following step changes the layout of an existing SmartArt graphic. **Why?** The SmartArt graphic currently uses the Radial Cycle layout, and this newsletter uses the Basic Radial layout.

1

- If necessary, display the SmartArt Design tab.
- Scroll through the layouts in the Layouts gallery until Basic Radial appears, if necessary, and then click Basic Radial to change the layout of the SmartArt graphic (Figure 7–64).

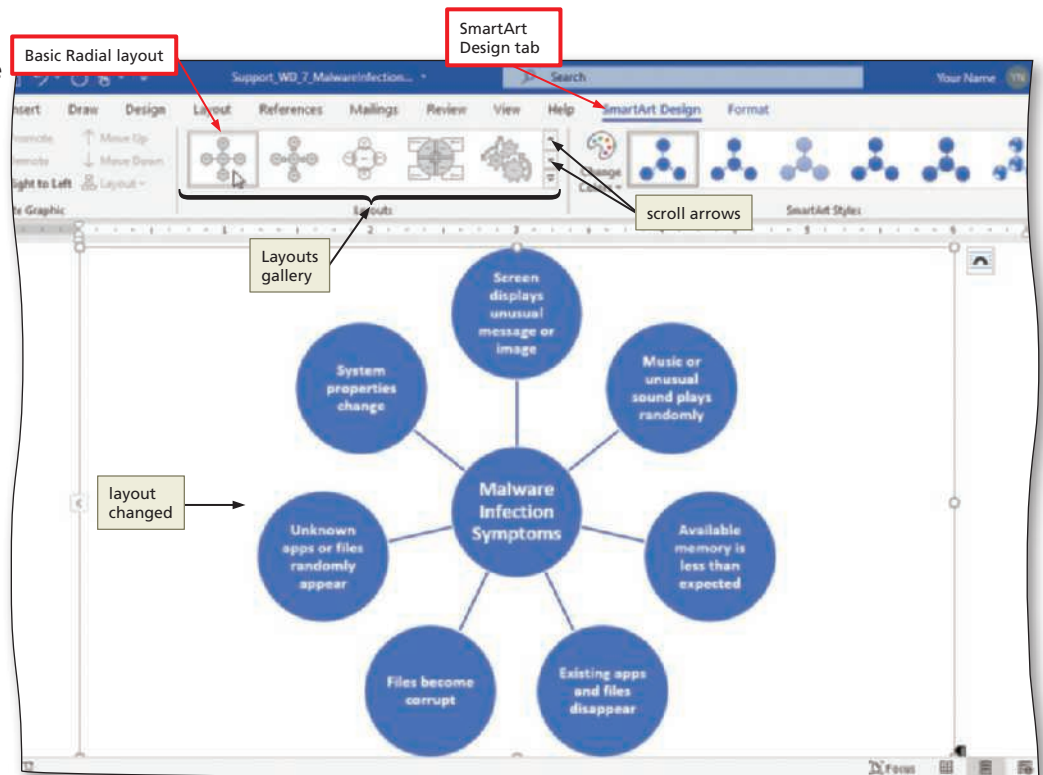


Figure 7–64

Other Ways

1. Right-click the selected graphic, click Layout button on Mini toolbar and select desired layout, or click Change Layout on shortcut menu, select desired layout, click OK

To Add a Shape to a SmartArt Graphic

The current SmartArt graphic has seven perimeter shapes. This newsletter has an eighth shape. The following step adds a shape to a SmartArt graphic.

1

1. With the diagram selected, click the Add Shape button (SmartArt Design tab | Create Graphic group) to add a shape to the SmartArt graphic (Figure 7–65).

Q&A

Why did my screen display a menu instead of adding a shape?

You clicked the Add Shape arrow instead of the Add Shape button. Clicking the Add Shape button adds the shape automatically; clicking the Add Shape arrow displays a menu allowing you to specify the location of the shape.

How do I delete a shape?

Select the shape by clicking it and then press DELETE, or right-click the shape and then click Cut on the Mini toolbar or shortcut menu.

How do I decrease the size of a SmartArt shape?

You drag the sizing handles or enter the desired value in the Height box (Format tab | Size group). You also can select the shape and then click the Smaller button (Format tab | Shapes group) to decrease the size of the selected shape. (Similarly, you can select the Larger button to increase the size of the selected shape.)

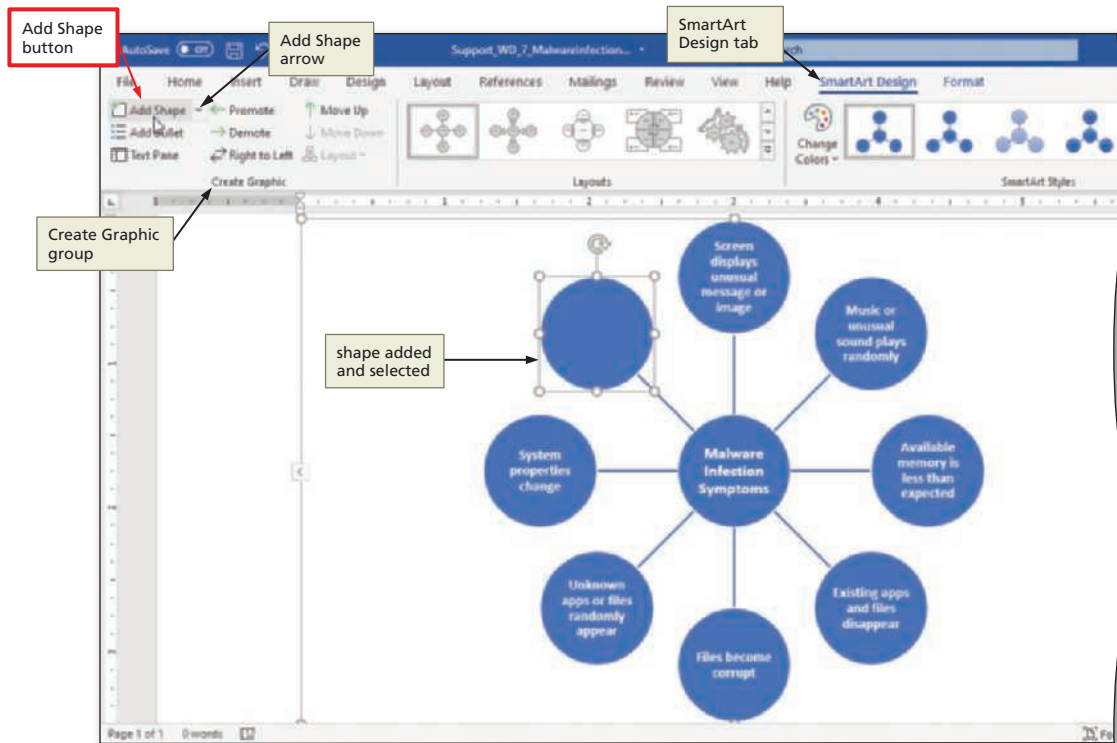


Figure 7-65

To Use the Text Pane to Add Text to a SmartArt Graphic

One way to add text to a SmartArt graphic is to add it directly to the shapes in a SmartArt graphic. In this project, however, you add text to a SmartArt graphic by entering the text through the Text Pane. **Why?** Some users prefer to enter text in the Text Pane instead of in the shape. The following steps use the Text Pane to add text to a shape.

- 1
 - Click the Text Pane control, which is on the left side of the SmartArt graphic, to open the Text Pane to the left of the SmartArt graphic.
- 2
 - In the Text Pane, if necessary, position the insertion point to the right of the bullet that has no text to its right.
 - Type **Apps or files do not work properly** as the text for the shape (Figure 7-66).
- 3
 - Click the Close button in the Text Pane to close the Text Pane.

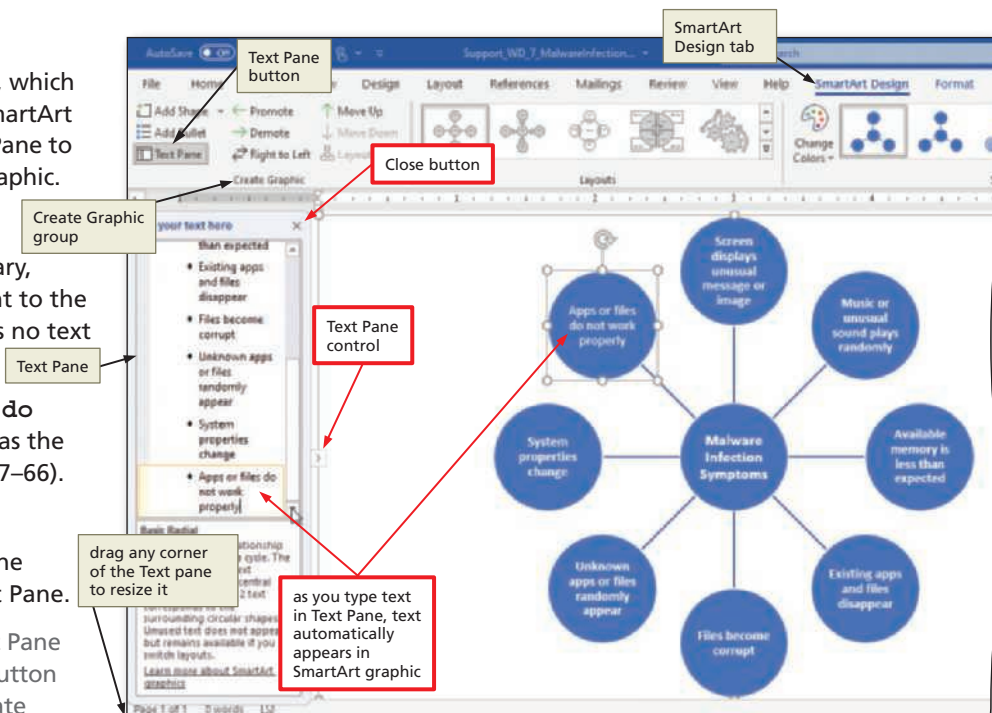


Figure 7-66

Q&A Can I instead close the Text Pane by clicking the Text Pane button (SmartArt Design tab | Create Graphic group)?
Yes.

Other Ways

1. Click Text Pane button (SmartArt Design tab | Create Graphic group)

To Format SmartArt Graphic Text

To format text in an entire SmartArt graphic, select the graphic and then apply the format. The following steps bold the text in the SmartArt graphic.

- 1 If necessary, click the shape just added to select it.
- 2 Display the Home tab. Click the Bold button (Home tab | Font group) to bold the text in the SmartArt graphic (shown in Figure 7–67).
- 3 Save the file containing the SmartArt graphic with a new file name on your hard drive, OneDrive, or other storage location using SC_WD_7_MalwareInfectionSymptomsDiagramModified as the file name.

BTW**Demoting Text Pane Text**

Instead of pressing TAB in the Text Pane, you could click the Demote button (SmartArt Design tab | Create Graphic group) to increase (or move to the right) the indent for a bulleted item. You also can click the Promote button (SmartArt Design tab | Create Graphic group) to decrease (or move to the left) the indent for a bulleted item.

To Change a SmartArt Shape

If you wanted to change a SmartArt shape, you would perform the following steps.

1. Right-click the shape, point to Change Shape on the shortcut menu, and then select the desired shape in the Change Shape gallery.
- or
1. Select the shape.
 2. Click the Change Shape button (Format tab | Shapes group) and then select the desired shape in the Change Shape gallery.

To Add a Picture to a SmartArt Shape

If you wanted to add a picture to a SmartArt shape, you would perform the following steps.

1. Select the shape.
2. Click the Shape Fill arrow (Format tab | Shapes group) and then click Picture in the Shape Fill gallery to display the Insert Pictures dialog box.
3. Click 'From a File' to locate a picture on your storage media or click Online Pictures to search for a picture online. After locating the desired picture, click the Insert button in the appropriate dialog box to add the selected picture to the selected shape.

Copying and Pasting

The next step is to copy the SmartArt graphic from this document window and then paste it in the newsletter. To copy from one document and paste into another, you can use the Office Clipboard. Through the Office Clipboard, you can copy multiple items from any Office document and then paste them into the same or another Office document by following these general guidelines:

1. Items are copied **from** a **source document**. If the source document is not the active document, display it in the document window.
2. Open the Office Clipboard pane and then copy items from the source document to the Office Clipboard.

3. Items are copied to a **destination document**. If the destination document is not the active document, display the destination document in the document window.
4. Paste items from the Office Clipboard to the destination document.

To Copy a SmartArt Graphic Using the Office Clipboard

The following step copies the SmartArt graphic to the Office Clipboard. **Why?** Sometimes you want to copy multiple items to the Office Clipboard through the Clipboard pane and then paste them later.

- 1
 - Click the Clipboard Dialog Box Launcher (Home tab | Clipboard group) to open the Clipboard pane.
 - If the Office Clipboard in the Clipboard pane is not empty, click the Clear All button in the Clipboard pane.
 - Select the SmartArt graphic in the document window and then click the Copy button (Home tab | Clipboard group) to copy the selected text to the Clipboard (Figure 7-67).

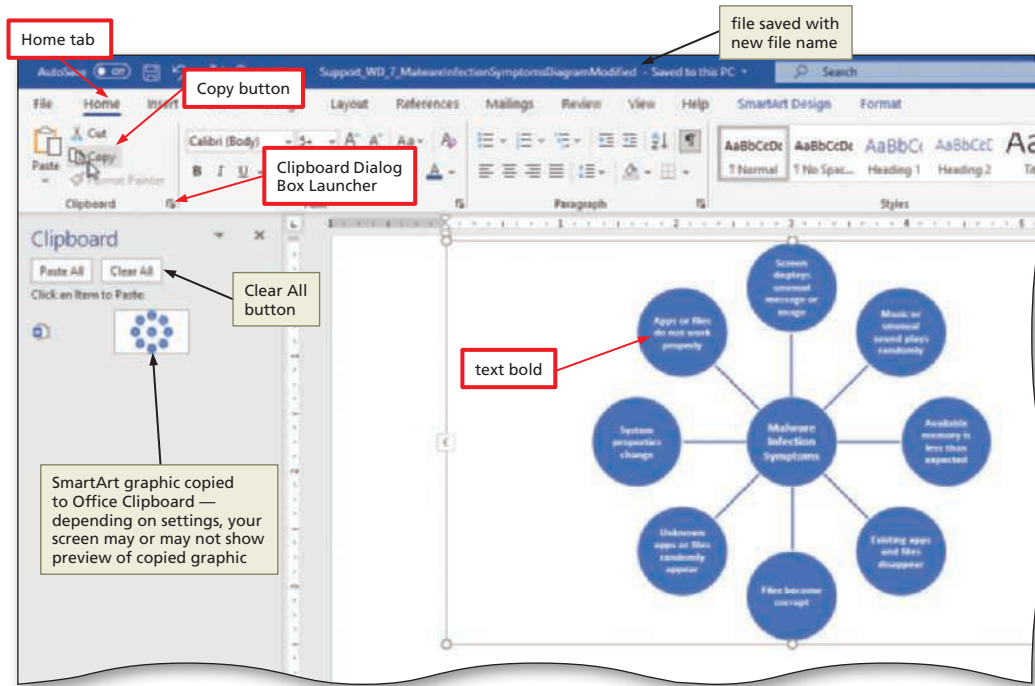


Figure 7-67

Other Ways

1. With Clipboard pane open, right-click selected item, click Copy on shortcut menu
2. With Clipboard pane open and item to copy selected, press CTRL+C

To Switch from One Open Document Window to Another

The following steps switch from the open SC_WD_7_MalwareInfectionSymptomsDiagramModified.docx document (the source document) to the open SC_WD_7_TechTipsNewsletter.docx document (the destination document). **Why?** You want to paste the copied diagram into the newsletter document.

- 1
 - Point to the Word app button on the taskbar to display a Live Preview of the open documents or window titles of the open documents, depending on your computer's configuration (Figure 7-68).

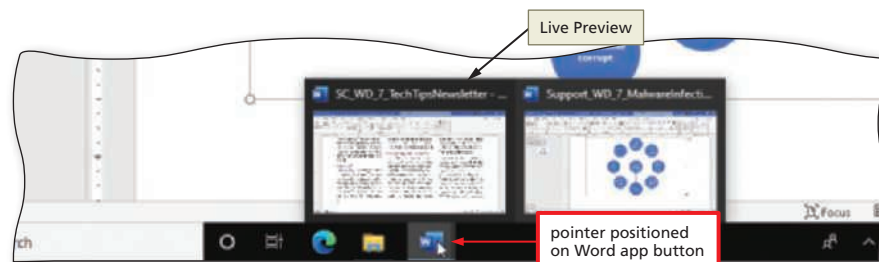


Figure 7-68

2

- Click the Live Preview of SC_WD_7_TechTipsNewsletter.docx on the Windows taskbar to display the selected document in the document window (shown in Figure 7–69).

Other Ways

- | | |
|---|------------------|
| 1. Click Switch Windows button (View tab Window group), click document name | 2. Press ALT+TAB |
|---|------------------|

To Paste from the Office Clipboard

The following steps paste from the Office Clipboard. **Why?** You want to paste the copied SmartArt graphic into the destination document, in this case, the newsletter document.

1

- Position the insertion point at the end of the Smartphones paragraph in the second column on the second page of the newsletter.
- If the Clipboard pane is not open on the screen, display the Home tab and then click the Clipboard Dialog Box Launcher (Home tab | Clipboard group) to open the Clipboard pane.
- Click the SmartArt graphic entry in the Office Clipboard to paste it in the document at the location of the insertion point (Figure 7–69).

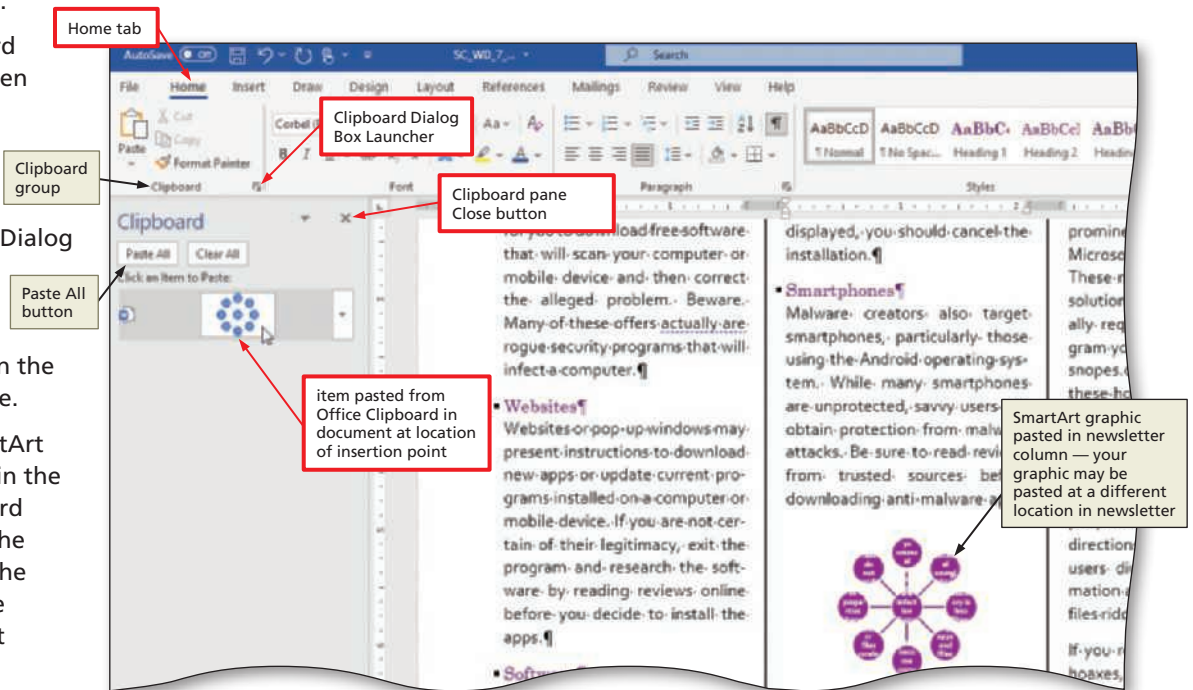


Figure 7–69

Q&A

What if my pasted graphic is in a different location?

The location of your graphic may differ. You will move the graphic in the next steps.

Does the destination document have to be a different document?

No. The source and destination documents can be the same document.

What is the function of the Paste All button?

If you have multiple items on the Office Clipboard, it pastes all items in a row, without any characters between them, at the location of the insertion point or selection.

2

- Click the Close button in the Clipboard pane.

Other Ways

- | | |
|--|---|
| 1. With Clipboard pane open, right-click selected item, click Paste on shortcut menu | 2. With Clipboard pane open, press CTRL+V |
|--|---|

BTW

Clipboard Pane and Icon

You can control when the Clipboard pane opens on the Word screen and the Office Clipboard icon appears in the notification area on the taskbar. To do this, first open the Clipboard pane by clicking the Clipboard Dialog Box Launcher on the Home tab. Next, click the Options button at the bottom of the Clipboard pane and then click the desired option on the menu. For example, if you want to be able to open the Clipboard pane by clicking the Office Clipboard icon on the Windows taskbar, click 'Show Office Clipboard Icon on Taskbar' on the Options menu.

To Format a Graphic as Floating

The text in the newsletter should wrap tightly around the graphic; that is, the text should conform to the graphic's shape. Thus, the next step is to change the graphic from inline to floating with a wrapping style of tight. The following steps format the graphic as floating with tight wrapping.

- 1 Click the SmartArt graphic to select it.
 - 2 With the SmartArt graphic selected, click the Layout Options button that is attached to the graphic to display the Layout Options gallery.
 - 3 Click Tight in the Layout Options gallery to change the graphic from inline to floating with tight wrapping.
 - 4 Close the Layout Options gallery.
-

To Format, Resize, and Position the SmartArt Graphic

The next tasks are to change the color of the graphic, increase its size, and then position it at the top of the second column on the second page. The following steps format and then position the graphic.

- 1 With the graphic selected, click the Change Colors button (SmartArt Design tab | SmartArt Styles group) and then click 'Colored Fill - Accent 5'.
 - 2 Drag the sizing handles outward until the graphic is approximately the same size as shown in Figure 7-70, which has a height of 3.4" and a width of 4.33". (Verify the dimensions of the graphic in the Height and Width boxes (Format tab | Size group)).
 - 3 Drag the edge of the graphic to the location shown in Figure 7-70. You may have to drag the graphic a couple of times to position it similarly to the figure.
 - 4 If the newsletter spills onto a third page, reduce the size of the SmartArt graphic. You may need to delete an extra paragraph mark at the end of the document, as well.
-

TO LAYER THE SMARTART GRAPHIC IN FRONT OF TEXT

In Word, you can layer objects on top of or behind other objects. If you wanted to layer the SmartArt graphic on top of all text, you would perform the following steps.

1. Click the SmartArt graphic to select it. Click the Bring Forward arrow (Format tab | Arrange group) to display the Bring Forward menu.
2. Click 'Bring in Front of Text' on the Bring Forward menu to position the selected object on top of all text.

To Edit Wrap Points in an Object

In Word, you can change how text wraps around an object, called editing wrap points. The following steps edit the wrap points in the SmartArt diagram near the middle of the second page of the newsletter. **Why?** You want to ensure that text starts on a complete line below the bottom of the graphic.

1

- If necessary, click the SmartArt graphic to select it and then click the Format tab. If necessary, display the Arrange group (Format tab). Click the Wrap Text button (Format tab | Arrange group) to display the Wrap Text menu (Figure 7-70). (If your Format tab contains a Wrap Text button, click the button.)

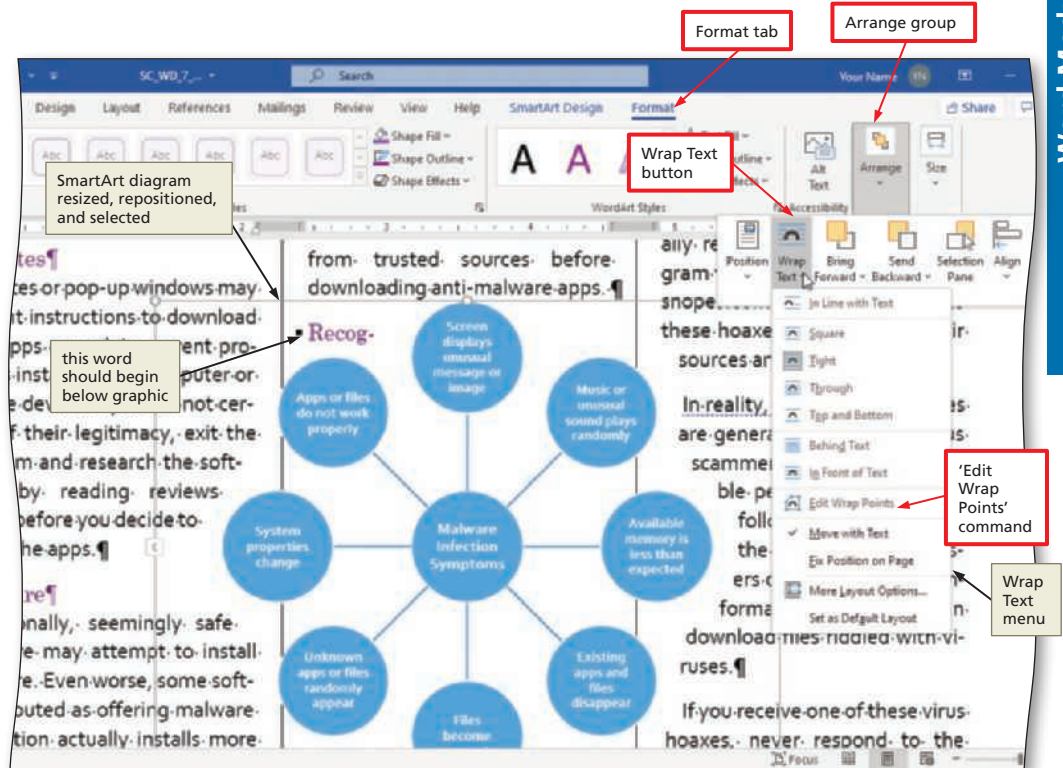


Figure 7-70

2

- Click 'Edit Wrap Points' on the Wrap Text menu to display wrap points around the graphic.
- Click the black wrap point to the upper-left of the top shape in the diagram, as shown in Figure 7-71, so that the pointer changes to a four-headed dot.

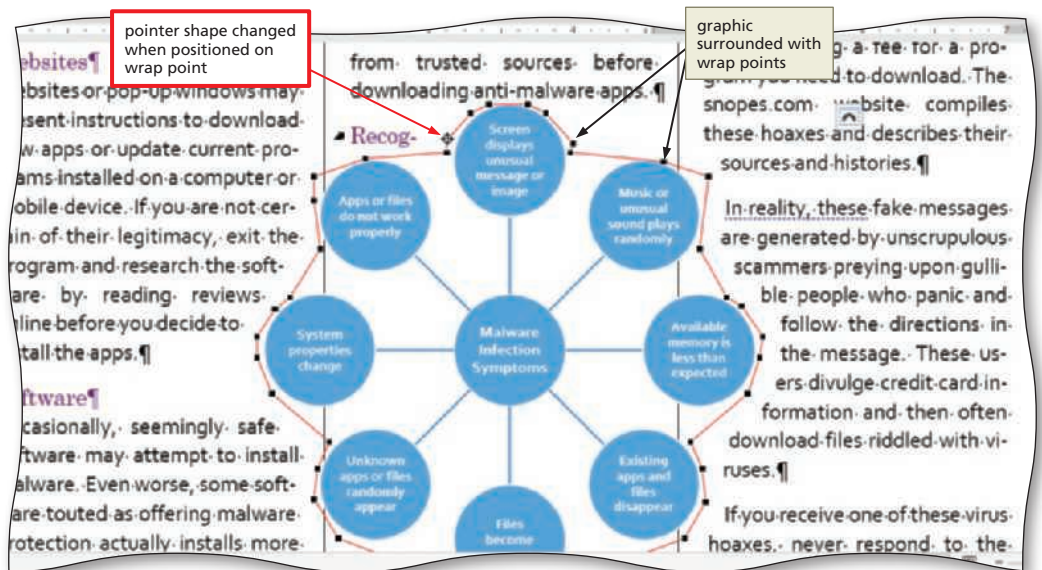


Figure 7-71

3

- Drag the black wrap point to the upper-left of the graphic as shown in Figure 7-72, so that the text (the first part of the word, Recognizing, in this case) will appear on a complete line below the shape.



Figure 7-72

4

- Drag the black wrap point to the upper-right of the graphic as shown in Figure 7-73, so that the text begins on a complete line below the graphic.

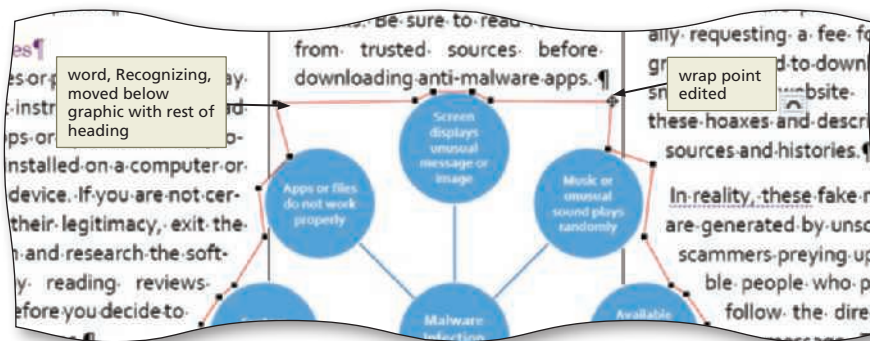


Figure 7-73

5

- Repeat the process at the bottom of the SmartArt graphic, as shown in Figure 7-74. (Note that due to printer drivers and other settings, your document may wrap differently than Figure 7-74).
- Click outside the graphic so that it no longer is selected.
- If necessary, adjust the position of the SmartArt graphic so that text wraps close to that shown in Figure 7-1 at the beginning of this module.

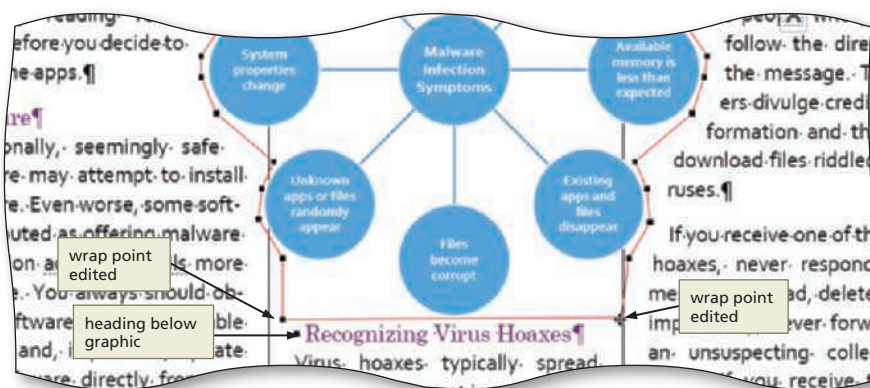


Figure 7-74

BTW

Space around Graphics

The space between a graphic and the text, which sometimes is called the run-around, should be at least 1/8" and should be the same for all graphics in a document. Adjust the run-around of a selected floating graphic by doing the following: click the Wrap Text button (Format tab | Arrange group), click 'More Layout Options' on the Wrap Text menu, click the Position tab (Layout dialog box), adjust the values in the Horizontal and Vertical boxes, and then click OK.

Finishing the Newsletter

With the text and graphics in the newsletter entered and formatted, the next step is to view the newsletter as a whole and determine if it looks finished in its current state. To give the newsletter a finished appearance, you will add a border to its edges.

To Turn Off Formatting Marks and Zoom Multiple Pages

The last step in formatting the newsletter is to place a border around its edges. You turn off formatting marks to remove the clutter from the screen, and you place both pages in the document window at once so that you can see all the page borders applied. The following steps turn off formatting marks and zoom multiple pages.

- 1 If necessary, display the Home tab and then turn off formatting marks.
- 2 Display the View tab and then display multiple pages on the screen. You may need to increase the zoom slightly so that the borders in the nameplates appear.

To Add an Art Page Border

The following steps add a page border around the pages of the newsletter. **Why?** This newsletter has a purple art border around the perimeter of each page.

1

- Display the Design tab.
- Click the Page Borders button (Design tab | Page Background group) to display the Borders and Shading dialog box. If necessary, click the Page Border tab.

Q&A

What if I cannot select the Page Borders button because it is dimmed?
 Click somewhere in the newsletter to make the newsletter the active document and then repeat Step 1.

2

- Click Box in the Setting area (Borders and Shading dialog box) to specify a border on all four sides of the page.
- Click the Art arrow, scroll to and then click the art border shown in Figure 7-75.
- Click the Color arrow and then click 'Purple, Accent 4, Darker 50%' (bottom row, eighth column) on the palette (Figure 7-75).

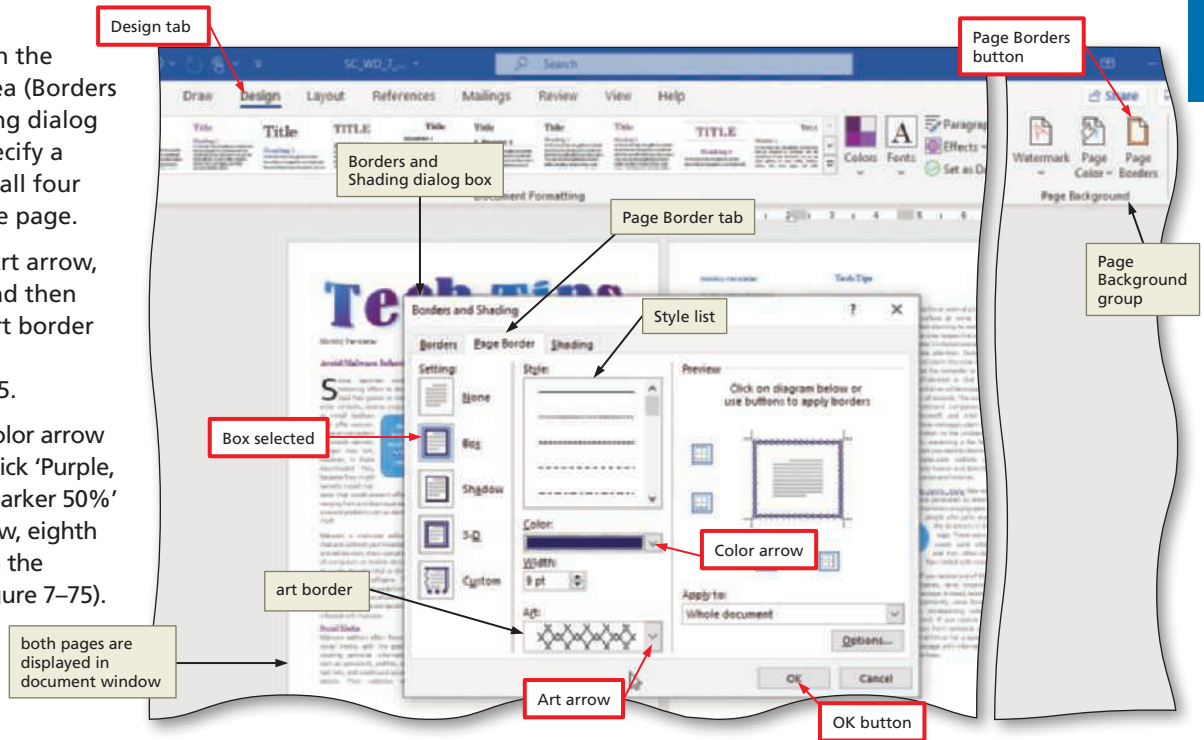


Figure 7-75

3

- Click OK to place the defined border on each page of the newsletter (Figure 7-76). (Note that depending on resolution, zoom, and other settings, the border in the document window may look different from how it appears on the printed document.)

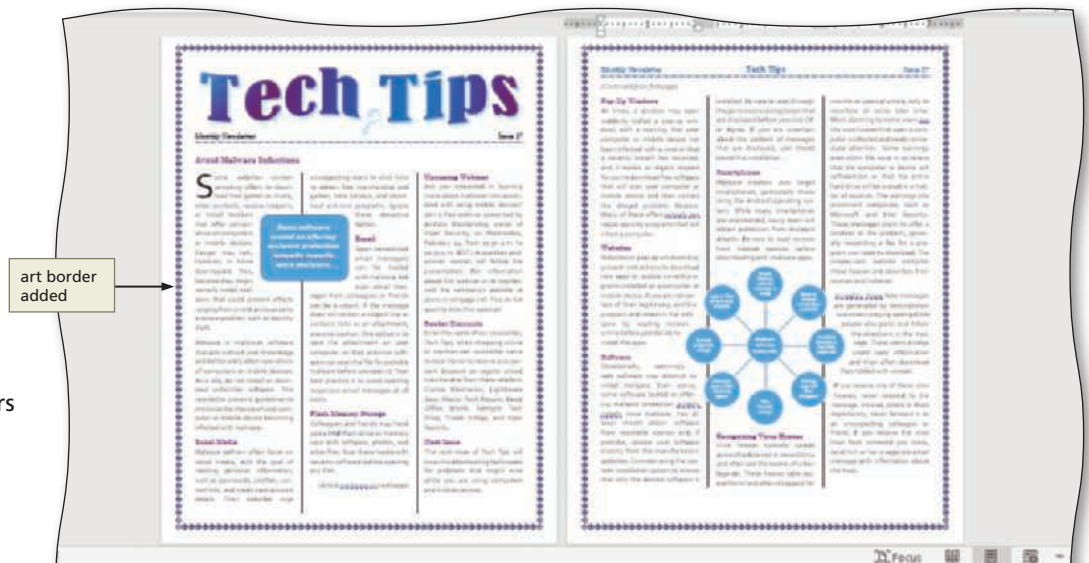


Figure 7-76

BTW

Conserving Ink and Toner

If you want to conserve ink or toner, you can instruct Word to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the Word Options dialog box, clicking Advanced in the left pane (Word Options dialog box), scrolling to the Print area in the right pane, placing a check mark in the 'Use draft quality' check box, and then clicking OK. Then, use Backstage view to print the document as usual.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Adobe Reader or XPS Viewer instead of in Word.

**Consider This: Plan Ahead****What decisions will you need to make when creating your next newsletter?**

Use these guidelines as you complete the assignments in this module and create your own newsletters outside of this class.

1. Create the nameplate.
 - a) Determine the location of the nameplate.
 - b) Determine content, formats, and arrangement of text and graphics.
 - c) If appropriate, use ruling lines.
2. Determine content for the body of the newsletter.
 - a) Write the body copy.
 - b) Organize the body copy in columns.
 - c) Format the body copy and subheads.
 - d) Incorporate color.
 - e) Divide sections with vertical rules.
 - f) Enhance with visuals.
3. Bind and distribute the newsletter.
 - a) Determine if newsletters should be printed, posted on bulletin boards, sent as an email message, or posted on websites.
 - b) For multipage newsletters that will be printed, determine the appropriate method of binding the pages.
 - c) For online newsletters, select a format that most users will be able to open.

To Save and Print the Newsletter and then Exit Word

The newsletter now is complete. You should save the document, print it, and then exit Word.

1 **save** ↑ Save the newsletter again on the same storage location with the same file name.

2 If desired, print the newsletter (shown in Figure 7–1 at the beginning of this module).

Q&A

What if an error message appears about margins?

Depending on the printer you are using, you may need to set the margins differently for this project.

What if one or more of the borders do not print?

Click the Page Borders button (Design tab | Page Background group), click the Options button (Borders and Shading dialog box), click the Measure from arrow and click Text, change the four text boxes to 15 pt, and then click OK in each dialog box. Try printing the document again. If the borders still do not print, adjust the text boxes in the dialog box to a number smaller than 15 pt.

3 Exit Word, closing all open documents.

Summary

In this module, you have learned how to create a professional-looking newsletter using Word's desktop publishing features, such as the following: inserting and modifying WordArt, organizing a document in columns, adding horizontal and vertical rules, inserting and formatting pull-quotes, inserting and formatting graphics, and adding an art page border.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Working with Desktop Publishing Elements of a Newsletter

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_7-1.docx, which is located in the Data Files. The document contains a newsletter, written by the public relations coordinator at Caruso Bank, that will be sent via email to customers and also placed on lobby tables at the bank. You are to modify the newsletter so that it appears as shown in Figure 7–77.



Figure 7–77

Continued >

Apply Your Knowledge *continued*

Perform the following tasks:

1. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_7_MoneyNews.
2. Resize the WordArt shape to a height and width of 1.44" and 7", respectively. (**Hint:** Select the WordArt shape and then use the Shape Format tab.)
3. Change the text fill color of the WordArt text to Green, Accent 4. (**Hint:** Select the WordArt text and then use the Text Fill arrow (Shape Format tab | WordArt Styles group).)
4. Change the WordArt shape to Chevron: Down using the Transform Effect.
5. Crop the image of the dollar signs so that only the rightmost dollar sign shows. Change the height and width of the cropped image to 0.6" and 0.19", respectively. Change the wrapping of the image to behind text and then move the image to the location shown in Figure 7-77.
6. Open the Selection pane. Practice selecting the items in the selection pane. Select the dollar sign image using the Selection pane. Rotate the image clockwise as shown in Figure 7-77. Close the Selection pane.
7. Turn off automatic hyphenation.
8. Change the column width of the columns in the body of the newsletter to 2.1".
9. Add a vertical line between each column.
10. Format the first paragraph with a drop cap.
11. Change the alignment of the paragraph containing the drop cap from left-aligned to justified.
12. Change the color of the page border to 'Light Turquoise, Background 2'.
13. Insert a Whisp Quote preformatted text box into the newsletter near the top of the second column. Select the line in the lower-right corner of the text box that contains the placeholder text for citing a source and then delete the entire line.
14. Split the screen. Display the text box in the top screen and the ATM Card and PIN heading in the bottom screen. Copy the first sentence below the ATM Card and PIN heading and then paste the sentence into the placeholder text in the text box in the top screen using the destination theme. (**Hint:** Use the Merge Formatting button on the Paste Options menu.) Remove the split from the window.
15. Change the shape style of the pull-quote (text box text) to 'Intense Effect - Green, Accent 4' (Shape Format tab | Shape Styles group). If necessary, select the pull-quote text and change its color to White, Background 1.
16. Change the height and width of the text box (pull-quote) to 2.2 and 1.43, respectively.
17. Verify that the text in the pull-quote (text box text) is 12-point Corbel (Body). Center the text in the text box.
18. Move the pull-quote so that it is positioned similarly to the one in Figure 7-77.
19. If requested by your instructor, add your name to the left of the text, Monthly Newsletter, in the issue information line.
20. If the newsletter flows to two pages, reduce the size of elements such as WordArt or pull-quote, or adjust spacing above or below paragraphs so that the newsletter fits on a single page. Make any other necessary adjustments to the newsletter.
21. Save the revised document again with the same name and then submit it in the format specified by your instructor.
22. 🌟 How many sections are in this newsletter? How many columns are in each section? If you wanted to add a second page to this newsletter, what type of section break would appear at the end of the first page?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Modifying and Enhancing a Newsletter

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_7-2.docx, which is located in the Data Files. The document contains a draft of a newsletter, written by a human relations associate at Freedom Insurance, that will be distributed to all company employees. You will add and format WordArt, clear tabs, insert leader characters, add and format a drop cap, adjust the hyphenation rules, modify and format a SmartArt graphic, draw and format a text box, and move the page border closer to the text.

Perform the following tasks:

1. Use Help to learn more about WordArt options, hyphenation, tabs, SmartArt graphics, and art borders.
2. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_7_WorkplaceChatter.
3. Convert the text, Workplace Chatter, in the nameplate to WordArt using a WordArt style of your choice. Change the text wrapping of the WordArt shape to 'Top and Bottom'. Resize the WordArt to approximately 1.44" × 7".
4. Change the WordArt shape using a transform effect of your choice, a glow effect of your choice, and a shadow effect of your choice.
5. Change the color of the WordArt text outline. Change the color of the WordArt text fill.
6. Add a shape fill color to the text box surrounding the WordArt.
7. Clear the tabs in the issue information line in the nameplate. Use the Tabs dialog box to insert a right-aligned tab stop at the 7" mark. Fill the tab space with a leader character of your choice.
8. Add a border of your choice below the issue information line.
9. Select the chomping head picture to the right of the News and Events heading. What object is attached to the picture's anchor? Unlock the anchor so that the anchor moves with the floating object. (**Hint:** Click the Layout Options button attached to the picture and then click the See more link in the Layout Options gallery.)
10. Move the chomping head picture up to the right of the News and Events heading by dragging it to an approximate location. Specify an absolute position of 1.75" to the right of the column and 2.5" below the top margin for the floating picture. (**Hint:** Click the Layout Options button and then click the See more link in the Layout Options gallery.)
11. Add a drop cap to the first paragraph in the body of the newsletter. Change the number of lines to drop from three to four. Change the distance from the text to 0.1".
12. Apply automatic hyphenation to the document. Change the hyphenation rules to limit consecutive hyphens to two.
13. Save the document again using the same file name. Keep the document open for the next step.
14. Open the document, SC_WD_7-3.docx, which is located in the Data Files. This document contains a SmartArt graphic.
15. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_7_UpcomingActivitiesDiagram.

Continued >

Extend Your Knowledge *continued*

16. Decrease the size of the May shape so it is the same size as the April shape. (Hint: Use the Smaller button (Format tab | Shapes group).)
17. Change the layout of the SmartArt graphic to Hierarchy List.
18. Open the SmartArt Text Pane. Use the Text Pane to add the text, First Quarter Reports Due, to the empty shape in the SmartArt graphic. Close the SmartArt Text Pane.
19. Add a shape below the New Technology Training shape. Add the text, Branch Performance Evaluations, in the added shape.
20. Add the picture called Support_WD_7_RainDropsPattern.png to the April shape, and add the picture called Support_WD_7_FlowersPattern.png to the May shape (Figure 7–78). These pictures are located in the Data Files. (Hint: Use the Shape Fill arrow (Format tab | Shape Styles group).) Change the font color of the text, April and May, to a color of your choice. If necessary, bold the text, April and May.

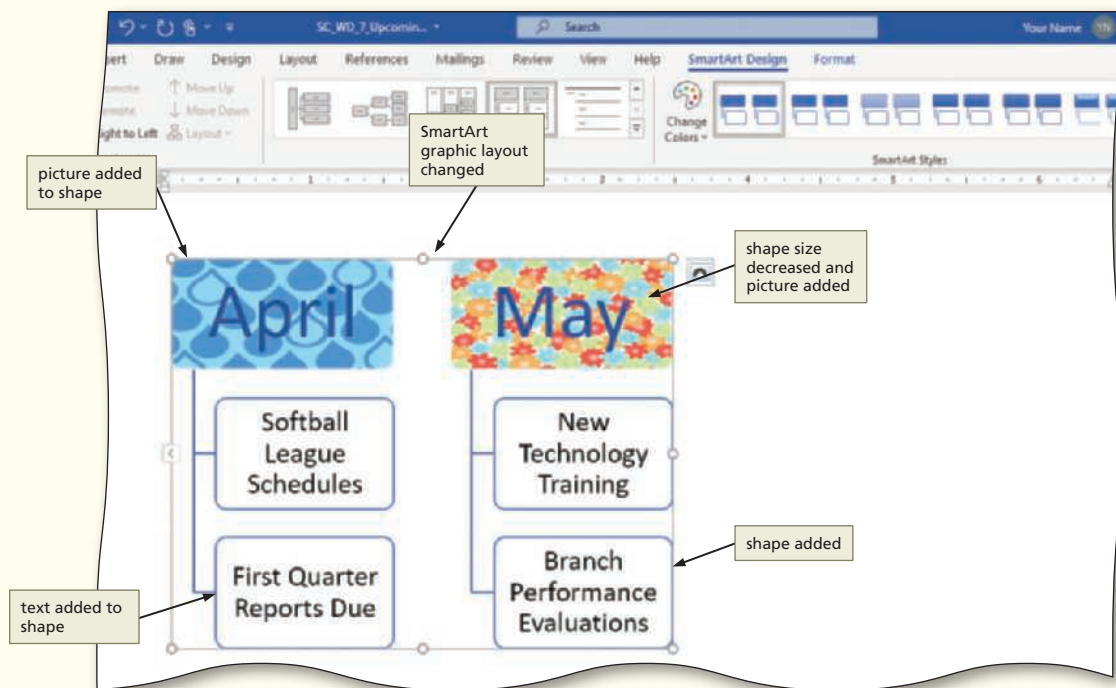



Figure 7–78

21. Change the shape of the April and May shapes to a shape of your choice. (Hint: Use the Change Shape button (Format tab | Shape Styles group).)
22. Save the document again using the same file name. Keep the document open for the next step.
23. Open the Clipboard pane. Clear all items from the Clipboard pane. Copy the SmartArt graphic to the Clipboard. Switch document windows so that the SC_WD_7_WorkplaceChatter.docx is displayed on the screen. Paste the SmartArt graphic from the Clipboard pane to the third column in the newsletter below the Upcoming Activities heading.
24. Change the text wrapping of the SmartArt graphic in the third column of the newsletter to 'Top and Bottom'. If necessary, change the height and width of the SmartArt graphic in the third column of the newsletter to 1.9" and 2", respectively. Change the layering of the SmartArt graphic so that it is in front of text.

25. Change the style of the SmartArt graphic in the newsletter to a style of your choice. Change the color of the SmartArt graphic in the newsletter to a color of your choice.
26. Draw a text box in the newsletter. Enter the text, New employees have joined our team, and spring sports are gearing up, in the text box. Change the wrapping of the text box to Square. Format and position the text box appropriately. If requested by your instructor, change the default text box setting to the settings of this new text box.
27. If the newsletter flows to two pages, reduce the size of elements, such as WordArt or the text box or the graphic, or adjust spacing above or below paragraphs so that the newsletter fits on a single page. Make any other necessary adjustments to the newsletter.
28. Add an art page border of your choice to the newsletter. Change the page border so that the border is closer to the text.
29. If requested by your instructor, add your name to the left of the text, Monthly Newsletter, in the issue information line.
30. Save the newsletter with the same file name.
31. Copy the text box to the Clipboard. Create a new blank document. Practice using the Paste All button in the Clipboard to paste all its contents to the new document. Close the document without saving it. Close the Clipboard pane.
32. Arrange both Word documents (the newsletter and diagram) on the screen. Scroll through both open windows. Close the document containing the diagram.
33. Submit the revised newsletter and diagram files in the format specified by your instructor.
34.  Answer the question posed in #9. When you use hyphenation to divide words at the end of a line, what are the accepted guidelines for dividing the words? (**Hint:** Use a search engine to search the text, end of line hyphenation.)

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Inserting Online Videos

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Word. Open the document, SC_WD_7-4.docx, which is located in the Data Files. The document contains a SmartArt diagram outlining the steps involved when a customer purchases from an online retailer. This diagram, which was designed by a marketing associate at the online retailer Kramer's, eventually will be incorporated in a newsletter for distribution to all online customers. You will add online videos above each step in the process for customers to view as they read the newsletter.

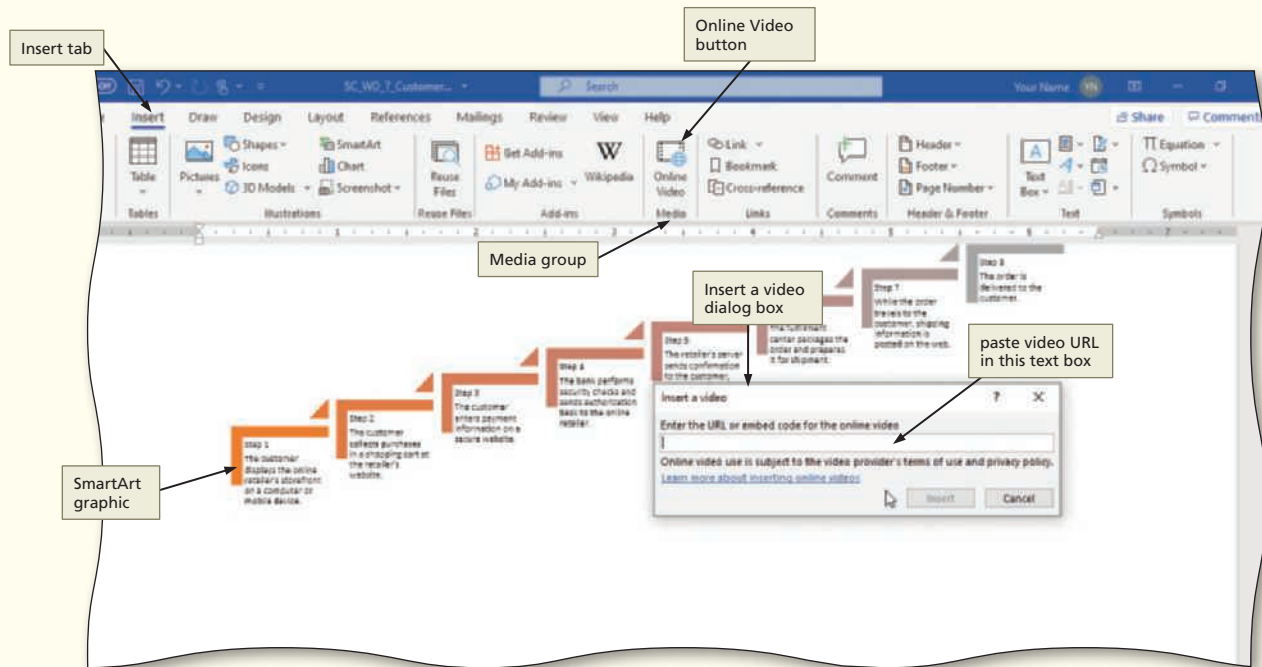
Perform the following tasks:

1. Use Help to learn about inserting online videos, noting their terms of use and privacy policies.
2. Click File on the ribbon and then click Save As and save the document using the new file name, SC_WD_7_CustomerPurchasingDiagram.
3. Change the position of the SmartArt diagram to 'Position in Top Center with Square Text Wrapping'. (**Hint:** Use the Format tab.)

Continued >

Expand Your World *continued*

4. Start a browser and go to one of the video websites that Word supports: vimeo.com, youtube.com, or slideshare.net.
5. In the search box on the video website, type **how to tell if a website is secure** and then press ENTER to display a list of videos that match your search criteria.
6. Select a video and then copy the URL of the video webpage from the Address bar of your browser.
7. In Word, display the Insert tab and then click the Online Video button (Insert tab | Media group) to display the Insert a video dialog box (Figure 7–79).

**Figure 7–79**

8. Paste the URL into the text box and then click Insert (Insert a video dialog box).
9. Change the wrapping of the video in the document to 'In Front of Text'. Resize the video in the document to approximately 0.4" × 0.53". Move the video in the document so that it is above Step 3 in the SmartArt diagram.
10. Repeat Steps 4 through 8 for each of the other steps in the SmartArt diagram, locating an online video appropriate to the content of the step.
11. Test each video by clicking it in the Word document to be sure it works as intended.
12. Save the document with the same file name. Export it to a PDF using the file name, SC_WD_7_CustomerPurchasingDiagram.
13. Access the SC_WD_7_CustomerPurchasingDiagram.pdf file through File Explorer. Test the videos in the PDF.
14. Submit the documents in the format specified by your instructor.
15. 🌀 What options are available while you are watching a video from Word? What are some of the sources for the videos in the dialog box? Which videos did you insert in the form, and why? How do you play the videos inserted on the form?

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Create a Newsletter for a Village Community

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Problem: As the community relations coordinator for Oakwood Village, you have been assigned the task of creating a newsletter called **Oakwood Bulletin**, which will be distributed to all community members.


Part 1: The feature article in Issue 54 of the **Oakwood Bulletin** newsletter covers a community renovation project in the first two columns. The rightmost column of the newsletter contains community announcements. The text for the feature article and announcements is in the Data Files. The newsletter should contain a SmartArt graphic and a pull-quote (text box). Enhance the newsletter with a drop cap, WordArt, color, ruling lines, and a page border. Be sure to use appropriate desktop publishing elements, including a nameplate, columns of text, balanced columns, and a variety of font sizes, font colors, and shading. Use the concepts and techniques presented in this module to create and format the newsletter. While creating the newsletter, be sure to do the following:

1. Change all margins as necessary.
2. Create a nameplate that contains the newsletter title and an issue information line. Insert WordArt for the newsletter title. Format the WordArt as desired. Insert an appropriate picture or other image in the nameplate.
3. Below the nameplate, enter the title of the feature article.
4. Insert a continuous section break below the feature article title.
5. Format section 2 of the newsletter to three columns.
6. Insert the file called Support_WD_7_CommunityRenovationProjectArticle.docx in section 2 below the feature article title. (This article should span the first two columns of the newsletter.)
7. Insert a column break at the end of the feature article in the second column.
8. Insert the file called Support_WD_7_OakwoodBulletinAnnouncements.docx in the third column of the newsletter.
9. Insert a continuous section break at the end of the text in the third column to balance all columns in the newsletter.
10. Insert a text box for a pull-quote using text of your choice from the newsletter. Format and position the text box appropriately.
11. Insert a SmartArt graphic using text of your choice into the newsletter. Format and position the SmartArt graphic appropriately. Layer the SmartArt graphic in front of text, if necessary. Edit wrap points in the SmartArt graphic, if necessary.
12. Format the newsletter with a drop cap and appropriate font sizes, fonts, colors, and shading.
13. Add an appropriate page border to the newsletter.
14. Be sure to check spelling and grammar of the finished newsletter.

When you are finished with the newsletter, save it with the file name, SC_WD_7_OakwoodBulletin. Submit your assignment and answers to the Part 2 critical thinking questions in the format specified by your instructor.

Continued >

In the Lab *continued*

Part 2:  You made several decisions while creating the newsletter in this assignment: how to organize and format the nameplate (location, content, formats, arrangement of text and graphics, ruling lines, etc.), how to organize and format the pull-quote (text box), how to organize and format the SmartArt graphic, and how to organize and format the body copy (columns, formats, headings and subheads, color, vertical rules, etc.). What was the rationale behind each of these decisions? When you proofread the document, what further revisions did you make and why?

4 Customizing Slide Masters and Presentations

Objectives

After completing this module, you will be able to:

- Apply slide and font themes to a slide master
- Change a slide master background
- Add a background style and graphic to a slide master
- Add and format a placeholder into a slide layout
- Change the theme variant
- Change the slide background to a pattern, texture, or gradient fill
- Inspect and protect a presentation
- Highlight text and use a pen and pointer during a slide show
- Rehearse slide timings

Introduction

PowerPoint provides a variety of designs and layouts to meet most presenters' needs. At times, however, you may want a different set of colors, fonts, placeholders, or graphics to display throughout a presentation. PowerPoint allows you to customize the master layouts for slides, handouts, and speaker notes. These masters specify the precise locations and styles of placeholders, pictures, text boxes, and other slide and handout elements.

Once you determine your custom specifications in these masters, you can save the file as a template so that you can reuse these key elements as a starting point for multiple presentations. This unique **template** is a predesigned, preformatted Microsoft 365 file that contains default text formats, themes, placeholder text, headers and footers, and graphics that you can replace with your own information for hundreds of purposes, including budgets, flyers, and resumes; the PowerPoint template files have slightly different file extensions than standard application files: .pptx. You use this set of special slides to create and then use similar presentations. A template consists of a general master slide layout that has elements common to all the slide layouts.

One efficient way to create similar presentations is to create a template, save the template, open the template, and then save the slides as a different PowerPoint presentation each time a new presentation is required.

Templates help speed and simplify the process of creating a presentation, so many PowerPoint designers create a template for common presentations they develop frequently. Templates can have a variable number of slide layouts depending upon the complexity of the presentation. A simple presentation can have a few slide layouts; for example, the emergency preparedness presentation will have three slide layouts. A more complex template can have many slide masters and layouts.

Project: Presentation with Customized Slides

BTW

Masters Assure Universal Style

Masters are convenient because they allow you to make unique and uniform style changes to every slide in your presentation, including ones added later. Using slide masters saves time because you do not need to format every slide or type the same information repeatedly. You can customize the presentation theme and slide layouts, including the background, color, fonts, effects, and placeholder sizes and location.

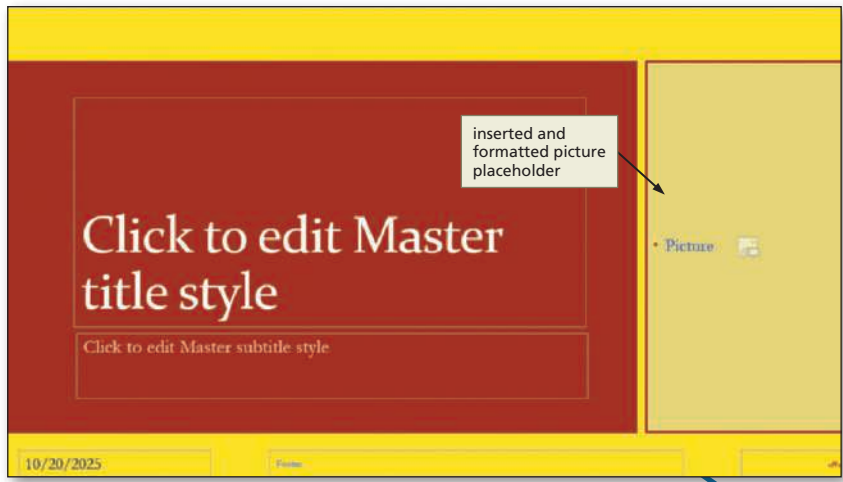
In this module's project, you will follow proper design guidelines and learn to use PowerPoint to create the slides shown in Figure 4-1a through 4-1i. The objective is to produce a presentation for community residents to inform them of how to prepare for emergency situations, such as a flood or fire. All five slides are created by starting with an overall template, called the **slide master** (Figure 4-1a), that is formatted with a theme and customized title and text fonts. The Title Slide Layout (Figure 4-1b) is used to create Slide 1 (Figure 4-1c), which introduces audiences to the emergency preparedness experience. Similarly, the Master Comparison Layout (Figure 4-1d) is used for Slide 2 (Figure 4-1e), which describes the products that should be included in supply kits for the house and vehicles, and Slide 5 (Figure 4-1f), which gives tips on using technology wisely before and during the disaster. The Master Title and Content Layout (Figure 4-1g) is used to develop the Slide 3 text (Figure 4-1h) describing the information to collect about every family member and the steps to survive a flood on Slide 4 (Figure 4-1i).

In this module, you will learn how to create the slides shown in Figure 4-1. You will perform the following general tasks as you progress through this module:

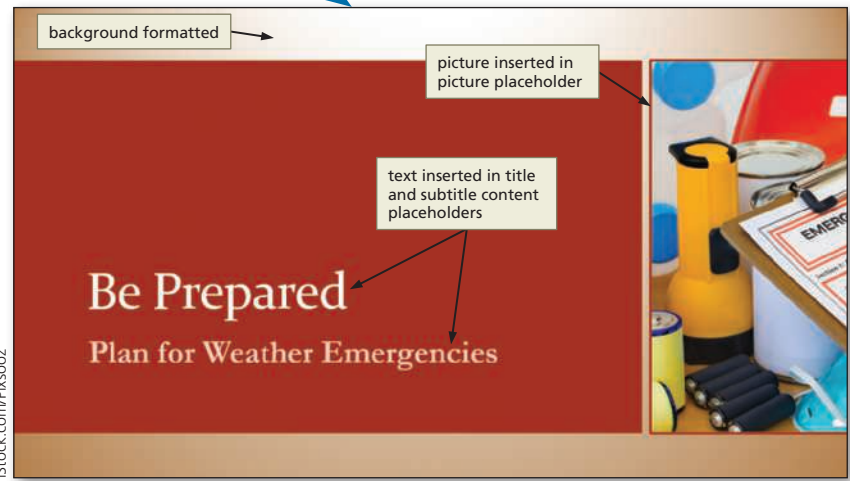
1. Customize slide masters by changing theme fonts and colors.
2. Format and arrange slide master placeholders.
3. Rename and delete slide layouts.
4. Change slide backgrounds.
5. Use presentation tools.
6. Inspect and protect a presentation.
7. Rehearse slide timings.



(a) Slide Master



(b) Master Title Slide Layout



(c) Slide 1

Figure 4-1 (Continued)



(d) Master Comparison Layout



(e) Slide 2

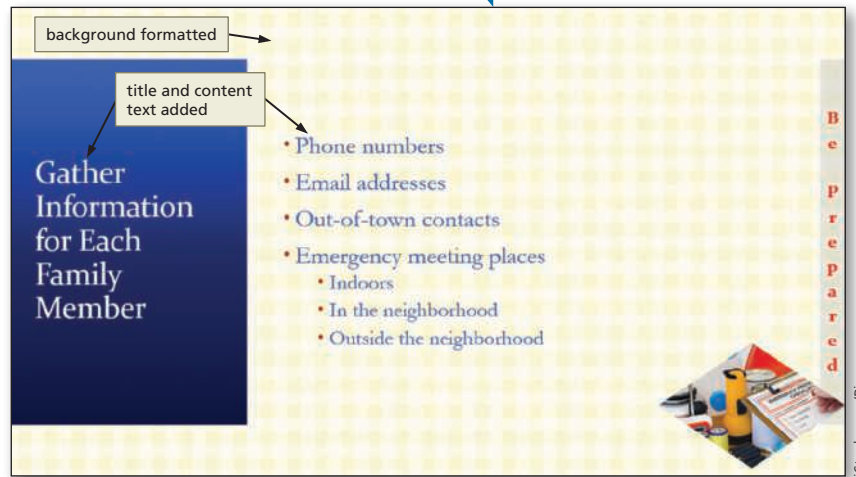


(f) Slide 5

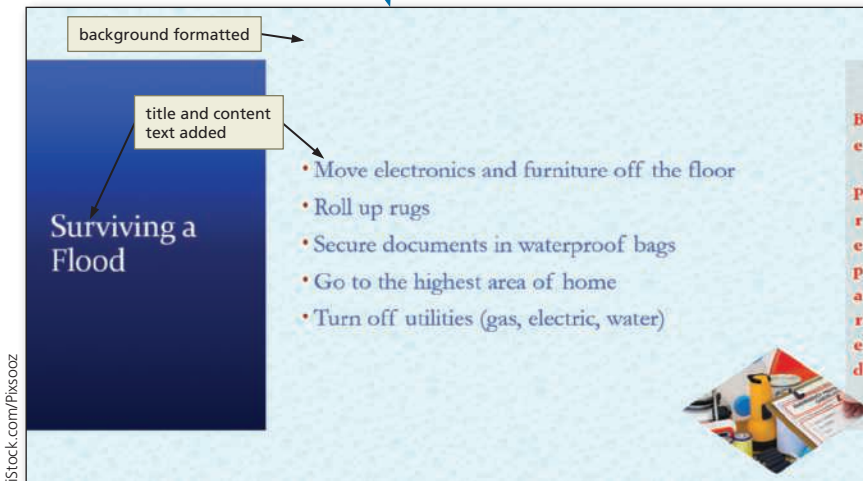
Figure 4-1 (Continued)



(g) Master Title and Content Layout



(h) Slide 3




(i) Slide 4

Figure 4-1

To Run PowerPoint, Apply a Theme, and Save the Presentation

You can begin the project by running PowerPoint, applying a theme, and then saving the slide. The following steps run PowerPoint and save a new file.

- 1  Run PowerPoint. If necessary, maximize the PowerPoint window.
- 2 Apply the Blank Presentation theme.
- 3 Save the presentation using `SC_PPT_4_Prepare` as the file name.

BTW

Ribbon and Screen Resolution

PowerPoint may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

BTW

Multiple Slide Masters

You can insert additional slide masters in one file so that one presentation can have two or more different styles. Each slide master has a related set of layout masters. In contrast, however, one presentation can have only one handout master and one notes master.

Customizing Presentation Slide Master Backgrounds and Fonts

PowerPoint has many template files with the file extension .potx. Each template file has three masters: slide, handout, and notes. A slide master has at least one layout; you have used many of these layouts, such as Title and Content, Two Content, and Picture with Caption, to create presentations. A **handout master** designates the placement of text, such as page numbers, on a sheet of paper intended to distribute to audience members. A **notes master** defines the formatting for speaker's notes.

Slide Master

If you select a document theme and want to change one of its components on every slide, you can override that component by changing the slide master. In addition, if you want your presentation to have a unique design, you might want to create a slide master rather than attempt to modify a current presentation theme. A slide master indicates the size and position of text and object placeholders, font styles, slide backgrounds, transitions, and effects. Any change to the slide master results in changing that component on every slide in the presentation. For example, if you change the second-level bullet on the slide master, each slide with a second-level bullet will display this new bullet format. In this presentation, all slides except the title slide, which has background graphics hidden by default, will have the words, Be Prepared, on the slide master.



Consider This

Plan the slide master.

Using a new slide master gives you the freedom to specify every slide element. Like an artist with a new canvas or a musician with blank sheet music, your imagination permits you to create an appealing master that conveys the overall look of your presentation.

Before you start developing the master, give your overall plan some careful thought. The decisions you make at this point should be reflected on every slide. A presentation can have several master layouts, but you should change these layouts only if you have a compelling need to change them. Use the concepts you have learned in this book to guide your decisions about fonts, colors, backgrounds, art, and other essential slide elements.

To Switch to Slide Master View

To begin developing the emergency preparedness slides, you need to display the slide master. **Why? The slide master allows you to customize the slide components and create a unique design.** The following steps switch to Slide Master view and display the slide master.

1

- Click View on the ribbon to display the View tab (Figure 4-2).

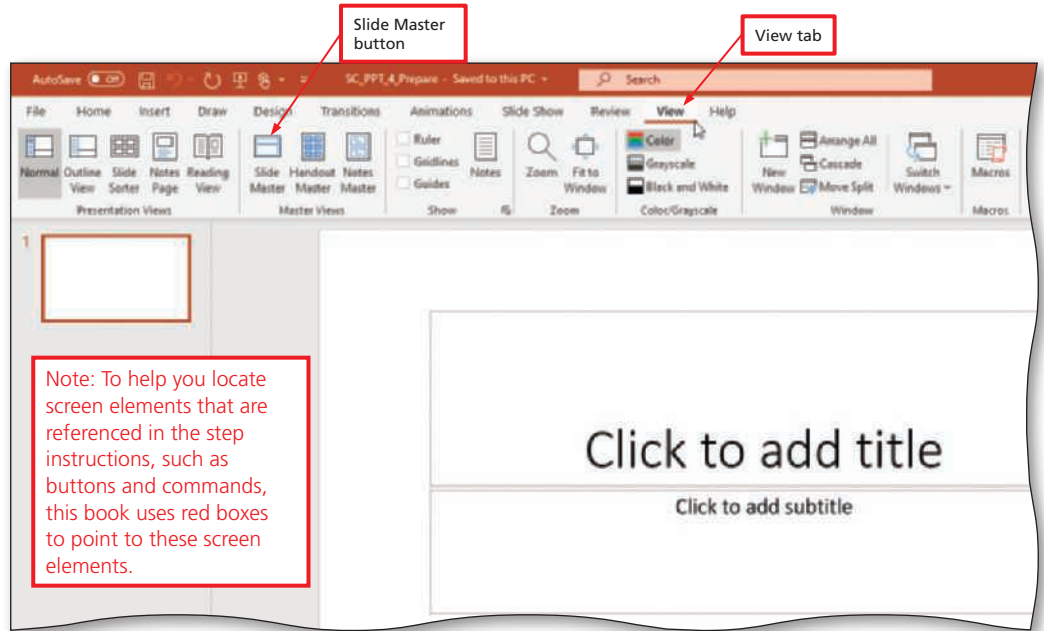


Figure 4-2

2

- Click the Slide Master button (View tab | Master Views group) to display the Slide Master tab and the slide thumbnails in the Slides tab.
- Scroll up and then click the Office Theme Slide Master layout (Figure 4-3).

Q&A

What are all the other thumbnails below the slide master?

They are all the slide layouts associated with this slide master. You have used many of these layouts in the presentations you have developed in the exercises in this book.

Why is the layout given this name?

The slide layout names begin with the theme applied to the slides. In this case, the default Office Theme is applied. The first slide layout in the list is called the master because it controls the colors, fonts, and objects that are displayed on all the other slides in the presentation.

slide thumbnails

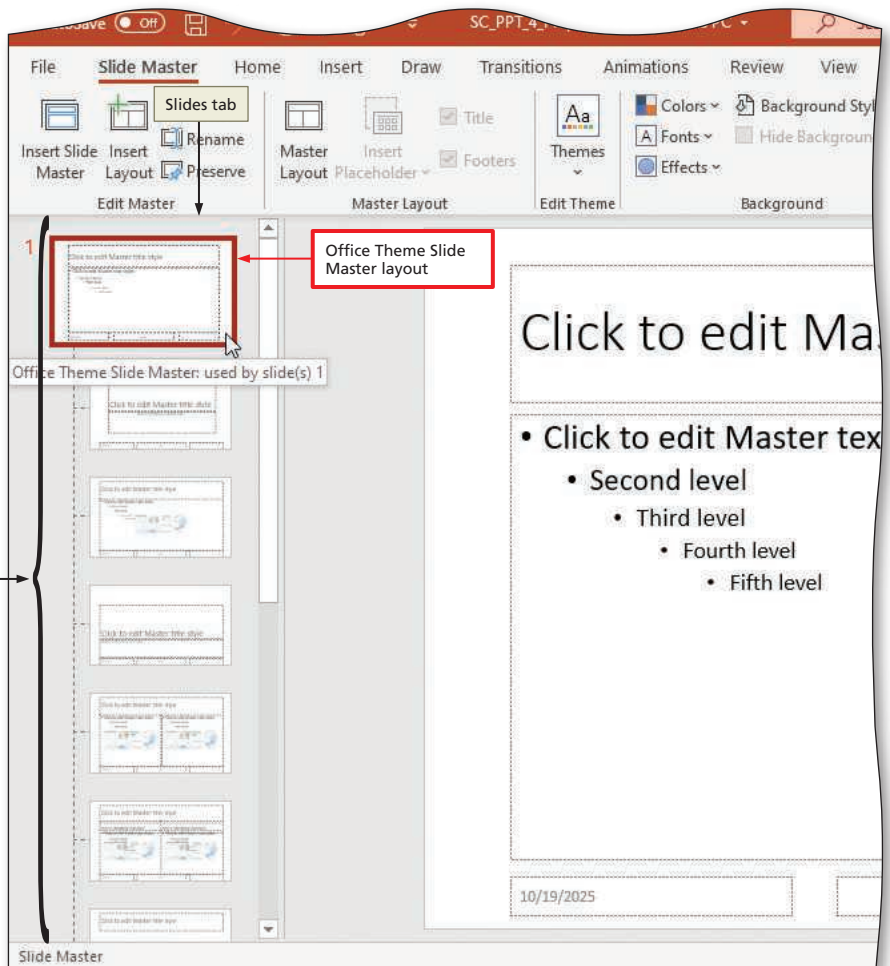


Figure 4-3

To Apply a Theme to a Slide Master

You can change the look of an entire presentation by applying formats to the slide master in the same manner that you apply these formats to individual slides. In this presentation, you will change the slide theme to Frame. **Why?** The Frame theme features large, colorful areas on the left side of the slide for the titles, which call attention to the subject matter. The following steps apply a theme to the slide master.

- 1
 - With the slide master displayed, click the Themes button (Slide Master tab | Edit Theme group) to display the Themes gallery.
 - Scroll down and then point to the Frame theme in the gallery (Figure 4-4).
- 2
 - Click the Frame theme to apply this theme to the slide master.

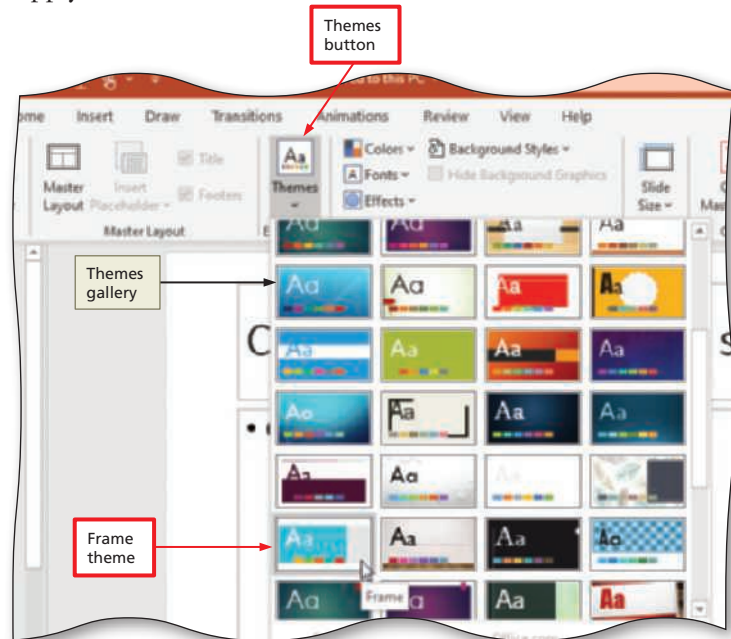


Figure 4-4

To Change the Theme Colors

Every theme has 12 standard colors: two for text, two for backgrounds, six for accents, and two for hyperlinks. The following steps change the colors for the presentation to Red. **Why?** Red colors are associated with danger and emergencies and also complement the colors in the photo you will insert later in this project.

- 1
 - With the slide master displayed, click the Colors button (Slide Master tab | Background group) to display the Theme Colors gallery (Figure 4-5).
- 2
 - Click the Red color scheme in the Theme Colors gallery to change the slide master colors to Red.

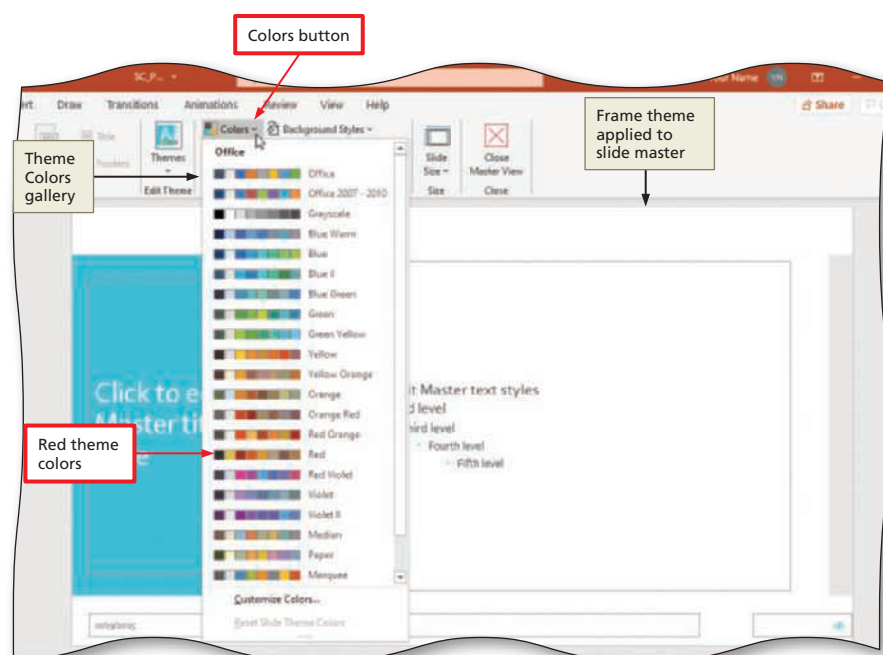


Figure 4-5

To Create Custom Theme Colors

You can modify the colors associated with a particular theme by selecting specific colors and then see samples in the 'Create New Theme Colors' dialog box. Once you determine the specific colors you desire, you can save this combination in the Colors menu. **Why?** You can use this color scheme in other presentations. The following steps customize the colors for the Frame theme.

- 1 Click Colors again to display the Theme Colors gallery (Figure 4-6).



Figure 4-6

- 2 Click Customize Colors in the Theme Colors gallery to display the Create New Theme Colors dialog box.
 - Click the 'Text/Background-Dark 1' arrow to display the Colors gallery (Figure 4-7).

Q&A Can I preview the colors to see how they are displayed on the slide master?
 No preview is available when using the Create New Theme Colors dialog box. Once you select the color, however, PowerPoint will display text in the Sample box.

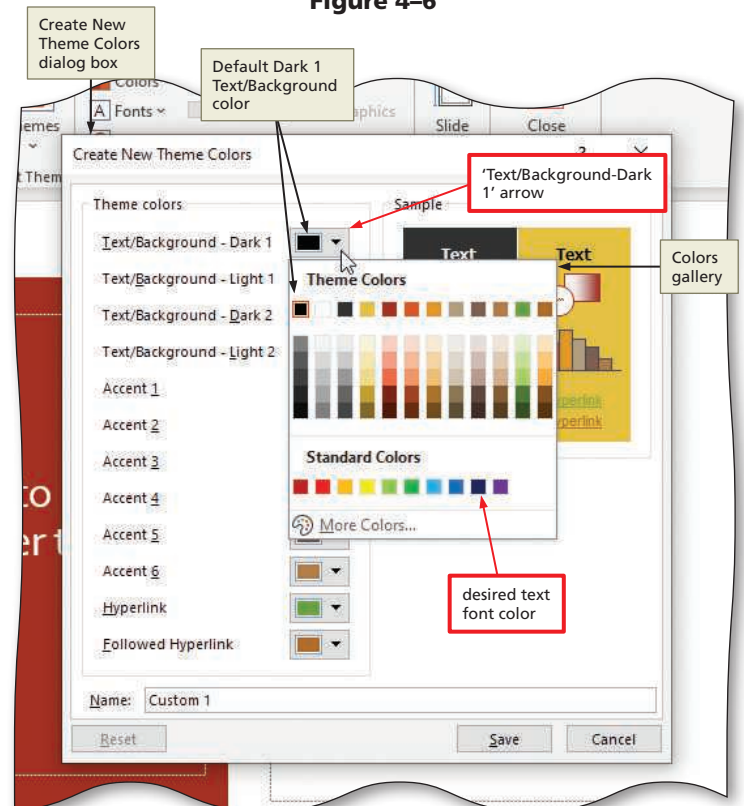


Figure 4-7

3

- Click 'Dark Blue' (ninth color in Standard Colors row) to apply that color as the text font color.
- Click the 'Text/Background-Dark 2' arrow to display the Colors gallery again (Figure 4–8).

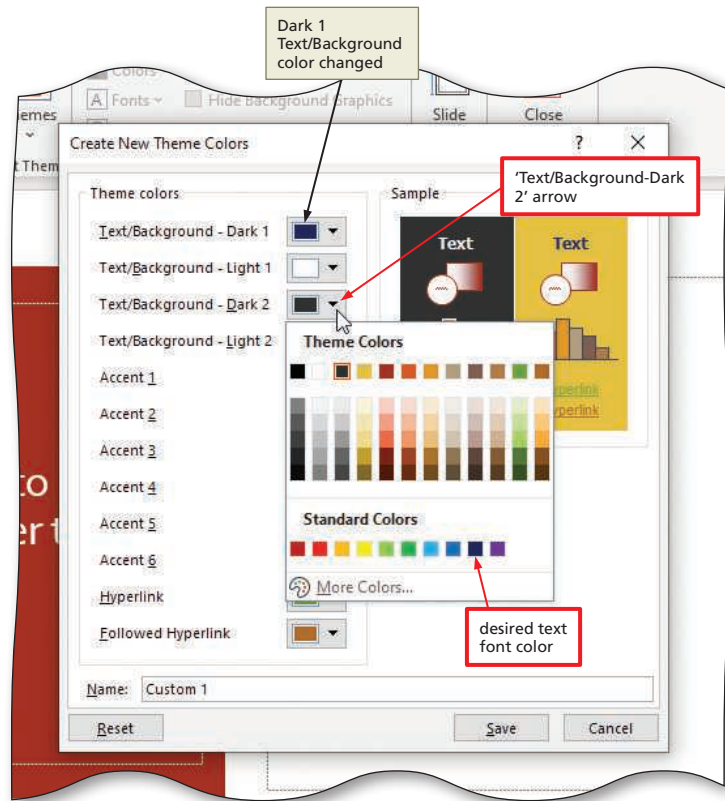


Figure 4–8

4

- Click 'Dark Blue' again to apply that color as the text font color.
- Select the text, Custom 1, in the Name text box (Create New Theme Colors dialog box) and then type **Prepare** as the name of the new custom theme colors palette (Figure 4–9).

Q&A **Must I name this custom color scheme I just created?**

No. If you name the set, however, you easily will recognize this combination in your color set if you want to use it in new presentations. It will display in the Custom area of the Colors gallery.

5

- Click Save (Create New Theme Colors dialog box) to save this new color set with the name, Prepare, and to display the font color changes in the slide master.
- Save the presentation again in the same storage location with the same file name.



Figure 4–9

To Change the Theme Fonts

Each theme has a heading font and a body font applied to it. At times both fonts are the same, and other times, the heading font differs from the body font, but both fonts coordinate with each other. You can change the text in your slides by selecting one of the font sets. **Why?** This is a quick and easy method of changing all the text simultaneously. The following steps apply a new heading font and body font to the Frame theme.

- 1 With the slide master displayed, click the Fonts button (Slide Master tab | Background group) to display the Theme Fonts gallery.
- 2 Scroll down and then point to the Constantia-Franklin Gothic Book font set (Figure 4-10).

Q&A **How are the font sets arranged in the Theme Fonts gallery?**
 Constantia is the heading font, and Franklin Gothic Book is the body font. The fonts are previewed in the boxes on the left side of the gallery and in the text displaying their names.

- 2 Click Constantia-Franklin Gothic Book to apply the two fonts to the Frame theme.

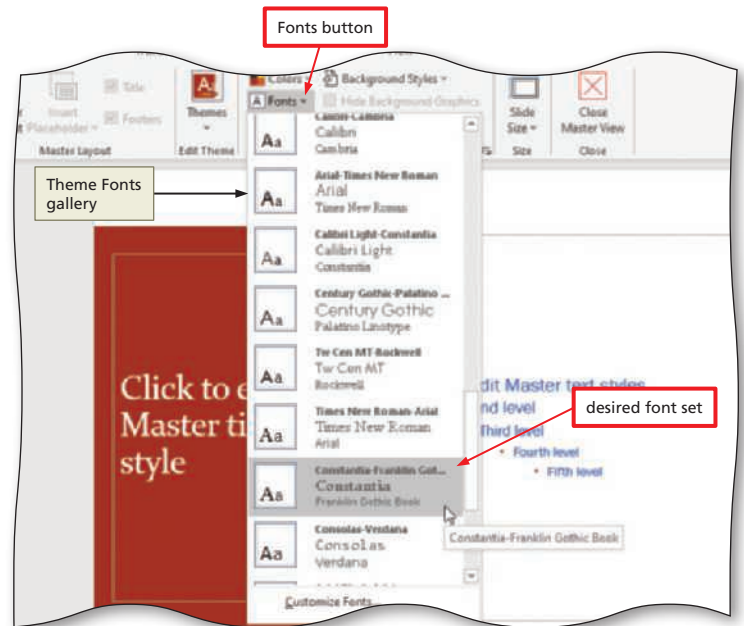


Figure 4-10

To Customize Theme Fonts

You can customize theme fonts by selecting your own combination of heading and body font and then giving the new theme font set a unique name. **Why?** A particular font may match the tone of the presentation and help convey the message you are presenting. The following steps apply a new body font to the Frame theme.

- 1 Click the Fonts button again to display the Theme Fonts gallery (Figure 4-11).

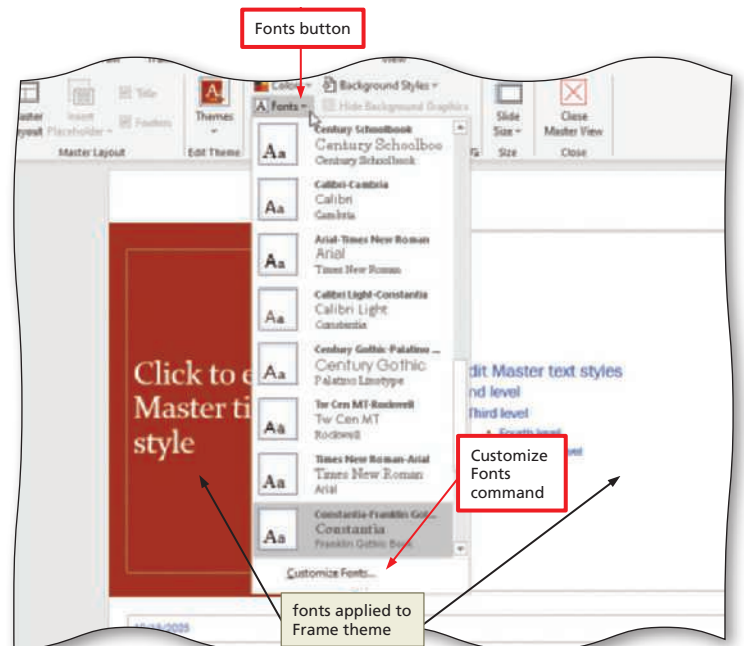


Figure 4-11

2

- Click Customize Fonts in the Theme Fonts gallery to display the Create New Theme Fonts dialog box.
- Click the Body font arrow and then scroll down and point to Garamond in the list (Figure 4–12).

Q&A Can I preview the fonts to see how they are displayed on the slide master?

No preview is available when using the Create New Theme Fonts dialog box. Once you select the font, however, PowerPoint will display text in the Sample box.

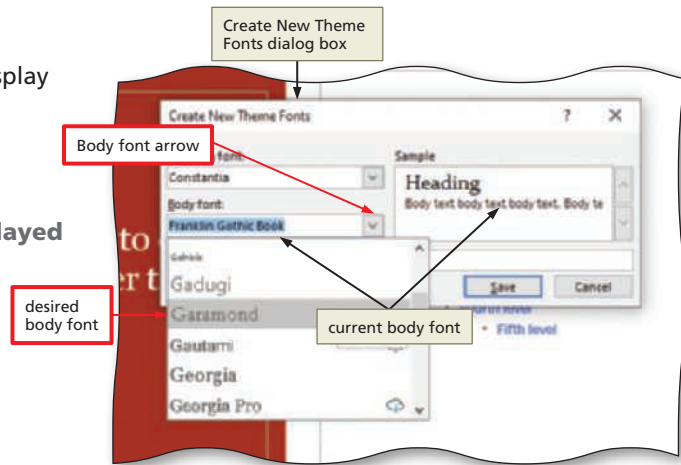


Figure 4-12

3

- Click Garamond to apply that font as the new body text font (Figure 4–13).

Q&A What if the Garamond font is not in my list of fonts? Select a font that resembles the font shown in Figure 4–13.

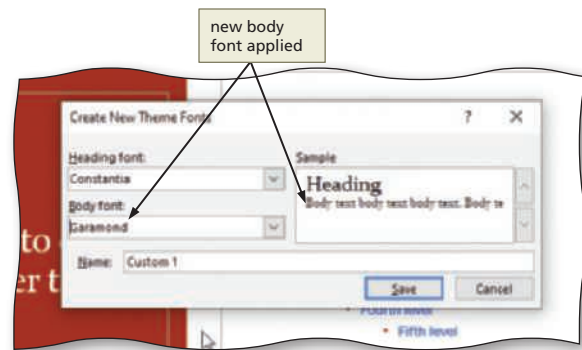


Figure 4-13

4

- Select the text, Custom 1, in the Name text box and then type Prepare to name the new font set (Figure 4–14).

Q&A Must I name this font set I just created?

No. If you name the set, however, you easily will recognize this combination in your font set if you want to use it in new presentations. It will display in the Custom area of the Fonts gallery.

5

- Click Save (Create New Theme Fonts dialog box) to save this new font set with the name, Prepare, and to display the font changes in the slide master.
- Save the presentation again in the same storage location with the same file name.

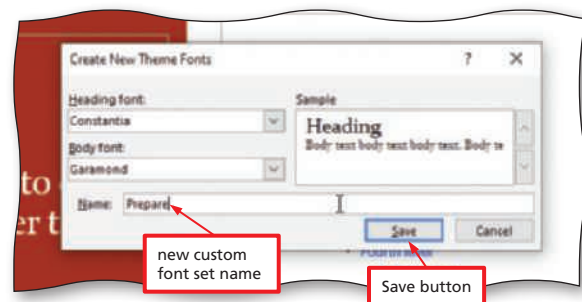


Figure 4-14

To Delete a Content Placeholder

When you run a slide show, empty placeholders do not display. At times, you may desire to delete these unused elements, such as a slide number, date and time, and footer placeholder, from a slide. **Why?** Empty placeholders can be a distraction when you are designing slide content because they interfere with other slide content or they use an area of the slide that can display other slide content. Or, you might not want to display information, such as a page number or the date. The following steps delete the date placeholder on the slide master.

- 1 With the slide master displayed, click the border of the date footer placeholder to select it (Figure 4-15).
- 2 Press DELETE to delete the date placeholder.

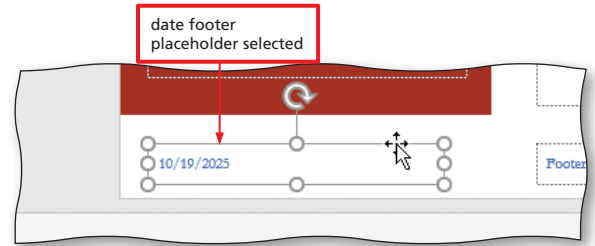


Figure 4-15

Q&A What should I do if the placeholder still is showing on the slide?

Be certain you clicked the placeholder border and not just the text. The border must display as a solid line before you can delete it.

Can I also click Cut (Home tab | Clipboard group) to delete the placeholder?

Yes. Generally, however, Cut is used when you desire to remove a selected slide element, place it on the Clipboard, and then paste it in another area. DELETE is used when you do not want to reuse that particular slide element.

If I am using a touch screen, how do I delete the placeholder?

Press and hold on a border of the title text placeholder and then tap DELETE on the shortcut menu to remove the placeholder.

BTW Touch Screen Differences

The Microsoft 365 and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

Other Ways

1. Select placeholder, press BACKSPACE

To Change the Theme Effects

Each theme has a specific set of effects that include such elements as shadows, reflections, lines, and fills. You cannot customize a set of theme effects, but you can change the effects associated with a particular theme. **Why?** A set of effects may fit the message you are giving in the presentation. The following steps change the theme effects.

- 1 With the Slide Master tab displayed, click the Effects button (Slide Master tab | Background group) to display the Effects gallery (Figure 4-16).
- 2 Click Glossy in the gallery to change the effect from Subtle Solids.

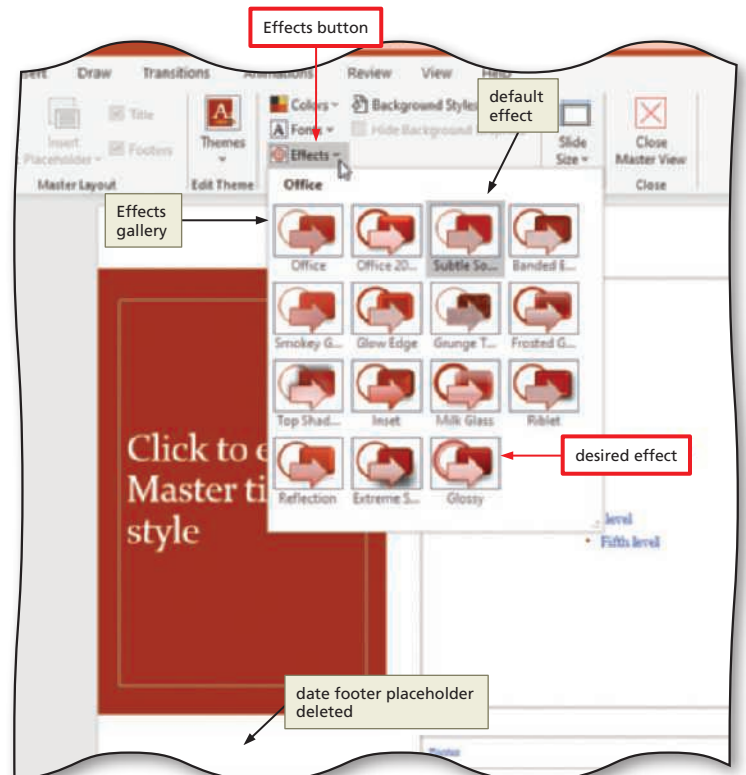


Figure 4-16

Adding and Formatting Placeholders

Each design theme determines where placeholders appear on individual layouts. The slide master has placeholders for bulleted lists, title text, pictures, and other graphical elements. At times, you may find that you need a specific placeholder for a design element not found on any of the slide master layouts. You can add a placeholder in Slide Master view for text, SmartArt, charts, tables, and other graphical elements.

To Insert a Placeholder into a Blank Layout

The words, Be Prepared, will appear as the title text on the title slide, but you may desire to add these words to every text slide. **Why?** Displaying this text in the same location on all slides helps emphasize the need to be prepared for emergencies and also provides a consistent, uniform look to the presentation. One efficient method of adding this text is to insert a placeholder, type the words, and, if necessary, format the characters. The following steps insert a text placeholder into the Blank Layout.

1

- In the Slides tab, scroll down and then click the Blank Layout to display this layout.
- Click the Insert Placeholder arrow (Slide Master tab | Master Layout group) to display the Insert Placeholder gallery (Figure 4–17).

Q&A Why does the Insert Placeholder button on my screen differ from the button shown in Figure 4–17? The image on the button changes based on the type of placeholder content that was last inserted. A placeholder can hold any content, including text, pictures, and tables. If the last type of placeholder inserted was for a picture, for example, the Insert Placeholder button would display the Picture icon.

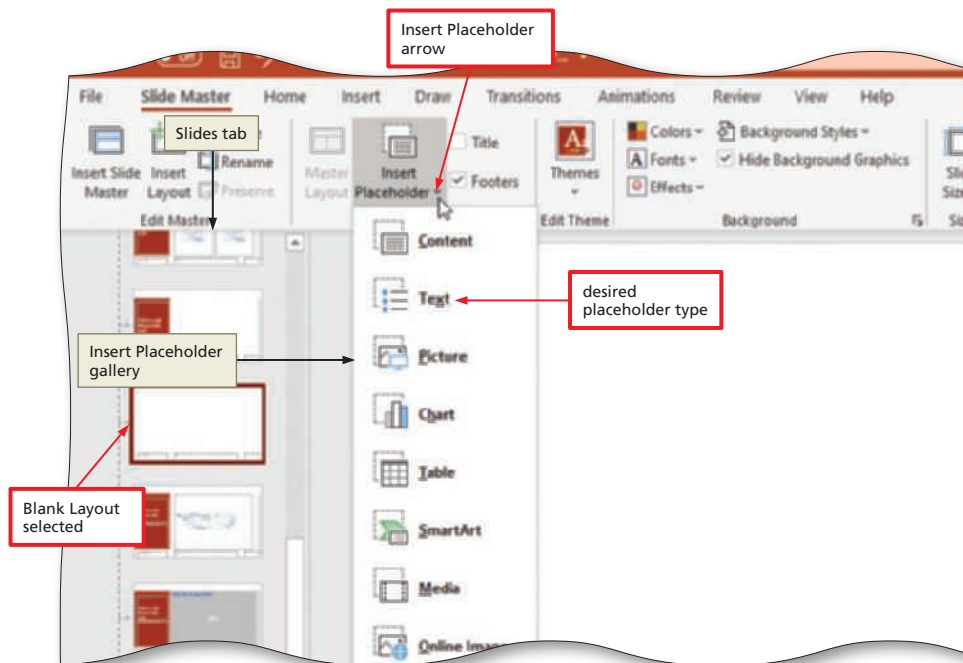


Figure 4–17

2

- Click Text in the gallery.

Q&A Could I have inserted a Content placeholder rather than a Text placeholder? Yes. The Content placeholder is used for any of the seven types of slide content: text, table, chart, SmartArt, picture, clip art, or media. In this project, you will insert text in the placeholder. If you know the specific kind of content you want to place in the placeholder, it is best to select that placeholder type.

3

- Position the pointer, which is a crosshair, in the center of the slide layout (Figure 4-18).

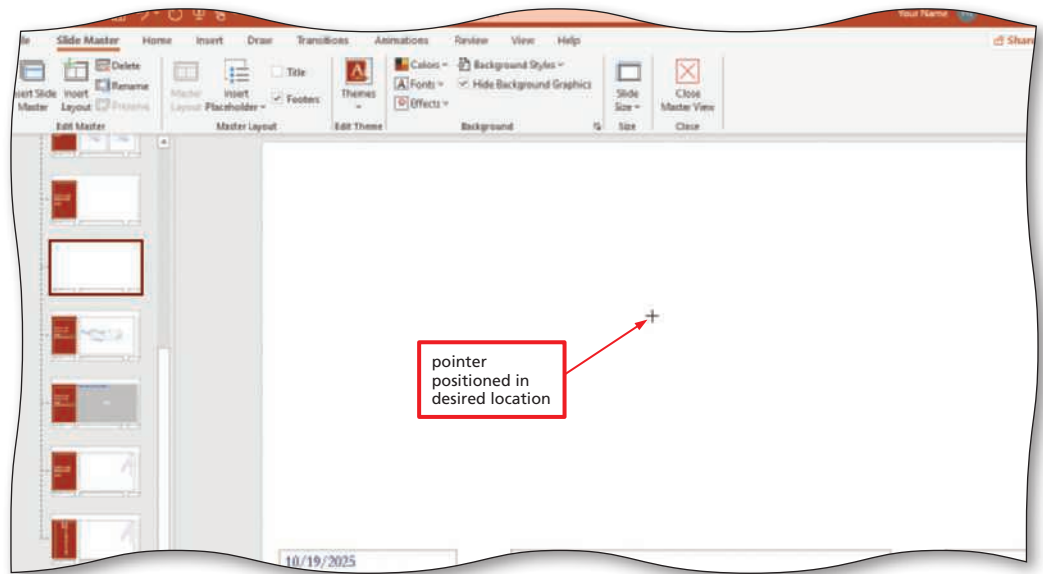


Figure 4-18

4

- Click to insert the new placeholder into the layout (Figure 4-19).

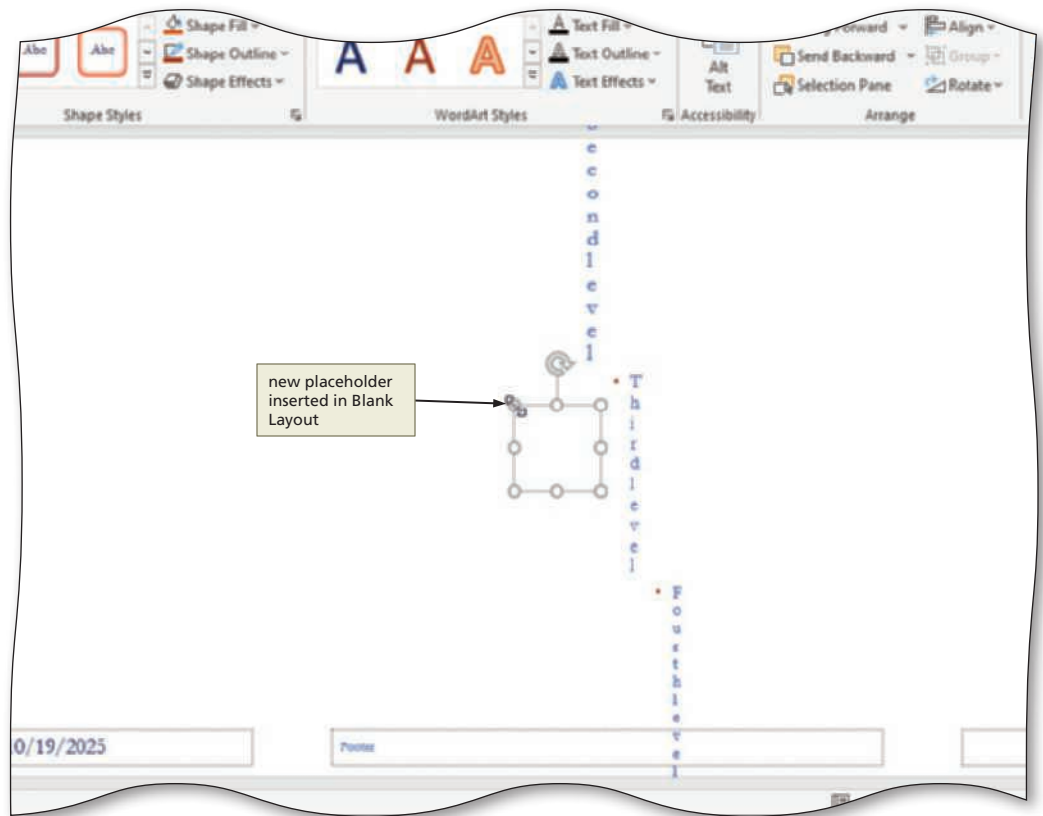


Figure 4-19

To Add and Format Placeholder Text

Now that the text placeholder is positioned, you can add the desired text and then format the characters. You will need to delete the second-, third-, fourth-, and fifth-level bullets in this placeholder and remove the bullet from the first-level text. **Why?** The second- through fifth-level bullets are not used in this presentation, and you do not want a bullet on your primary text. The following steps add and format the words in the new Blank Layout placeholder.

1

- Display the Home tab and then click inside the new placeholder.
- Click the Select button (Home tab | Editing group) to display the Select menu (Figure 4–20).

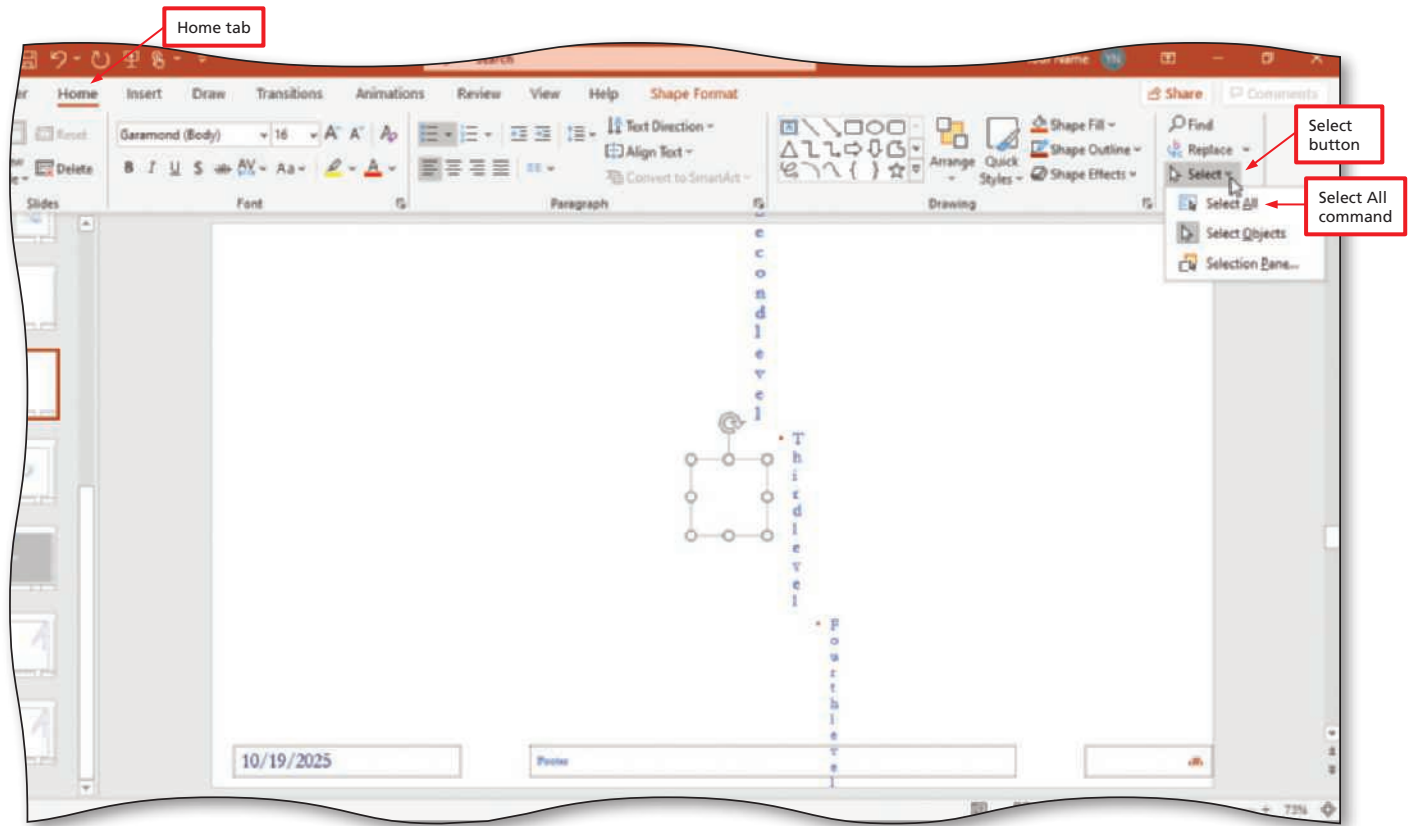


Figure 4–20

2

- Click Select All in the Select menu to select all the text in the placeholder (Figure 4–21).

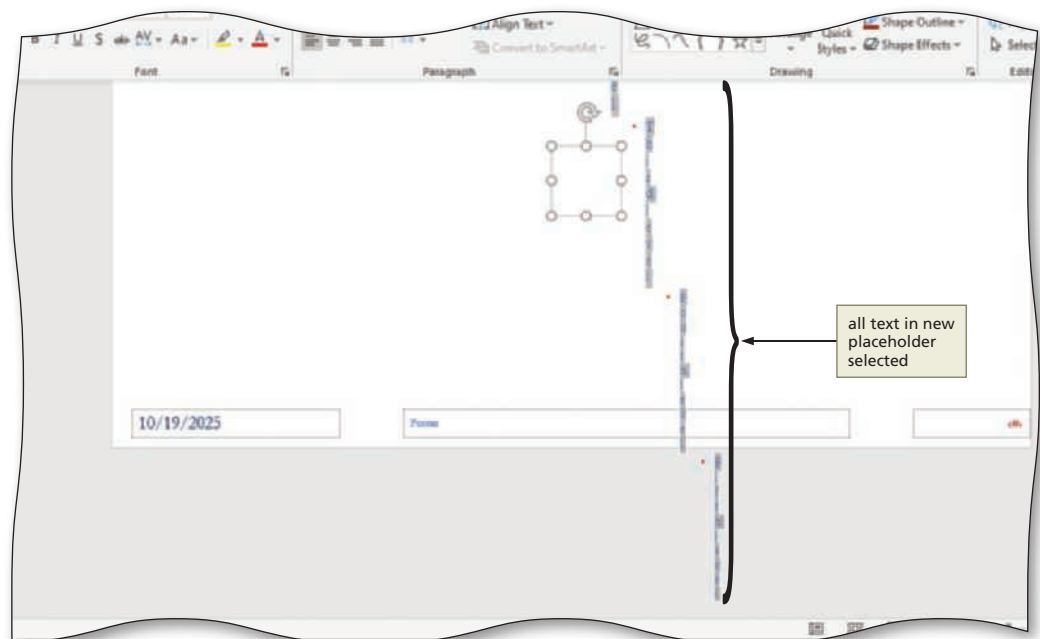


Figure 4–21

3

- Press DELETE to delete all the selected text in the placeholder.
- Click the Bullets button (Home tab | Paragraph group) to remove the bullet from the placeholder.
- Type **Be Prepared** in the placeholder (Figure 4–22).

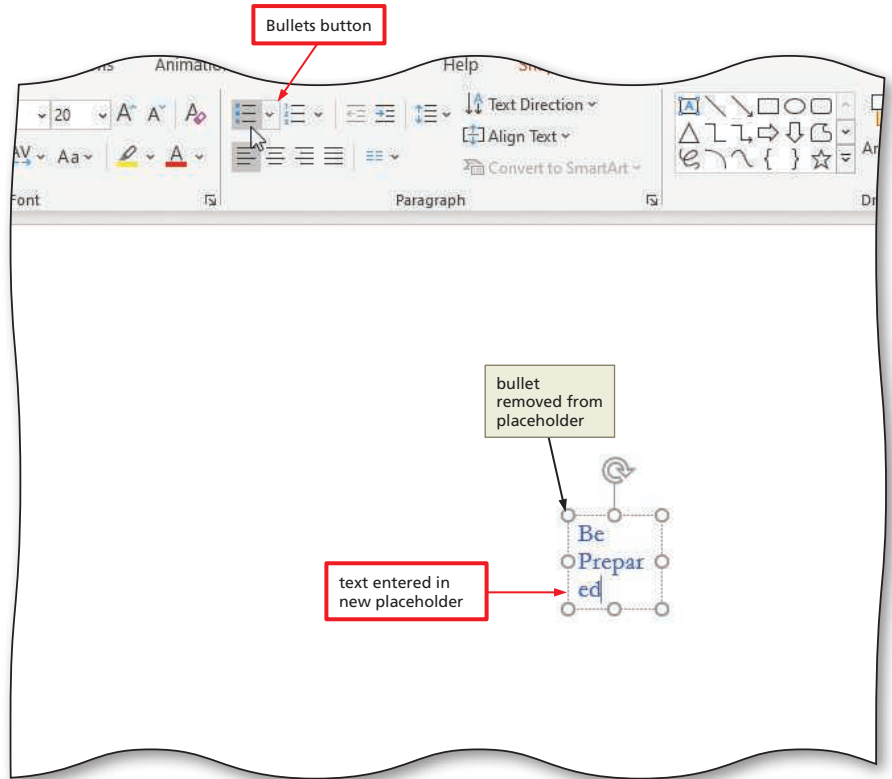


Figure 4–22

4

- Click the Shape Format tab and then change the height of the placeholder to 4.5" and the width to 0.3" (Figure 4–23).

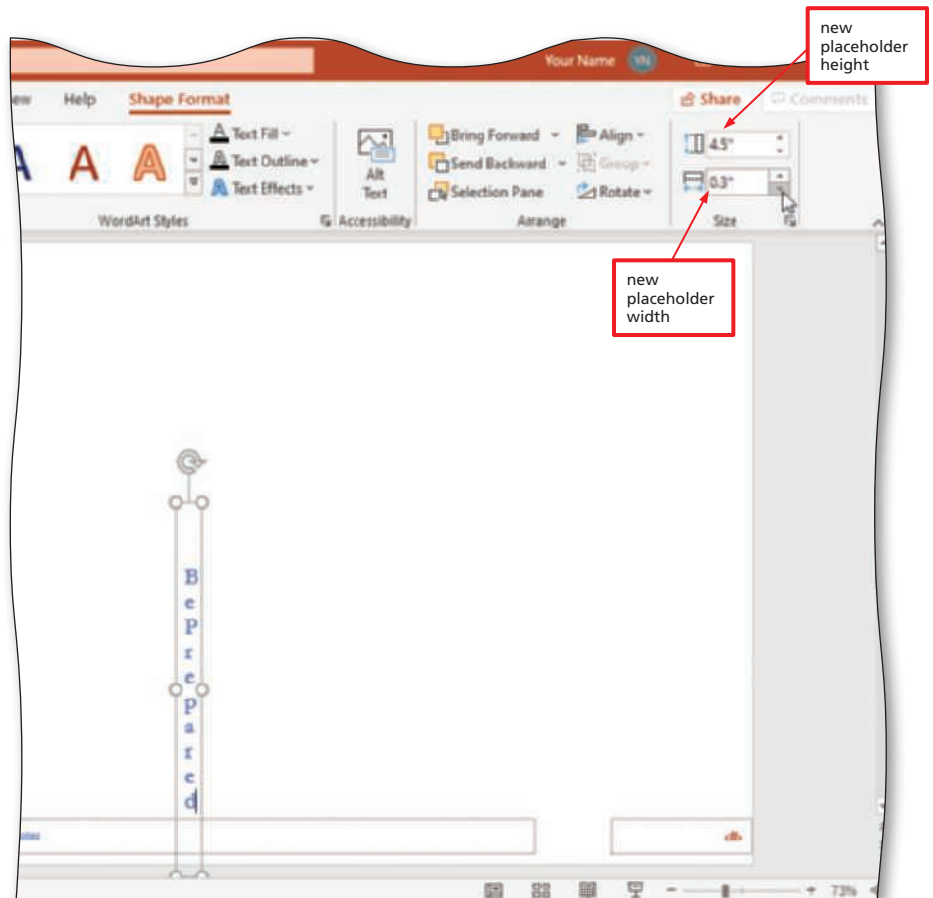


Figure 4–23

5

- Display the Home tab and then click the Text Direction button (Home tab | Paragraph group) to display the Text Direction gallery (Figure 4–24).

Experiment

- Point to various directions in the Text Direction gallery and watch the words in the placeholder change direction on the layout.

6

- Click Stacked to display the text vertically.

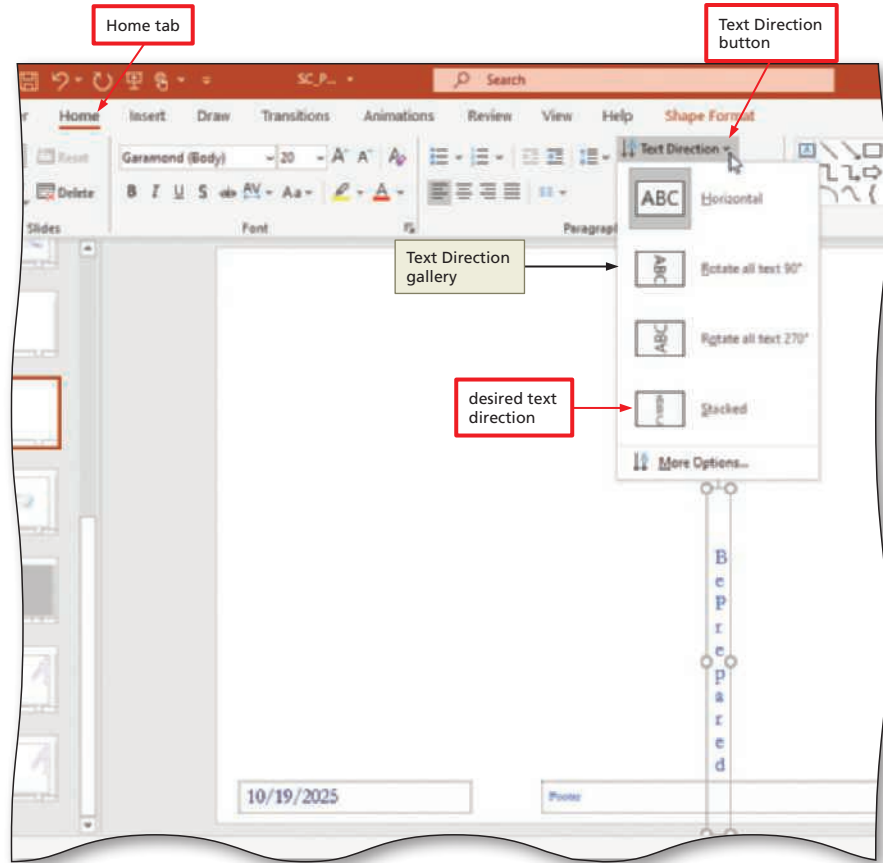


Figure 4–24

7

- Display the Shape Format tab and then click the Align button to display the Align menu (Figure 4–25).
- Click Align Right.
- Display the Align menu again and then click Align Middle to position the text box.

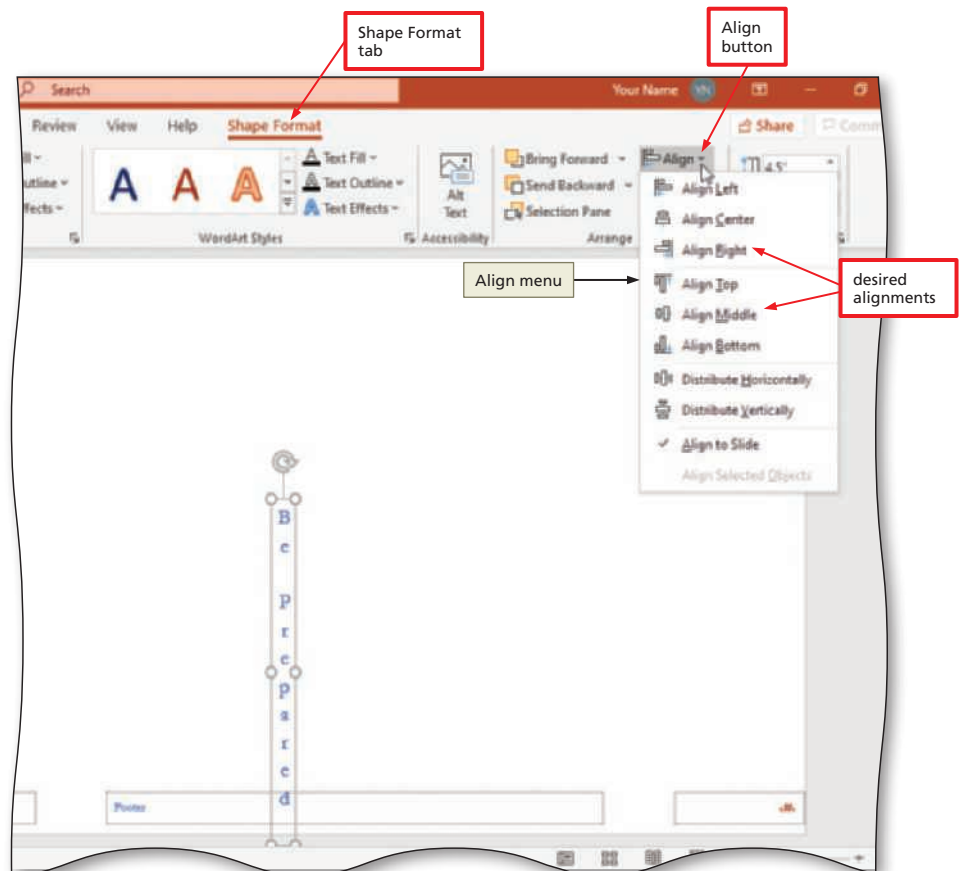


Figure 4–25

8

- Select the text in the placeholder to display the Mini toolbar, click the Font arrow, and then select Constantia in the Theme Fonts area of the Font gallery.
- Click the Bold button to bold the text.
- Click the Font Color arrow and then change the font color to Red (second color in Standard Colors row) (Figure 4–26).

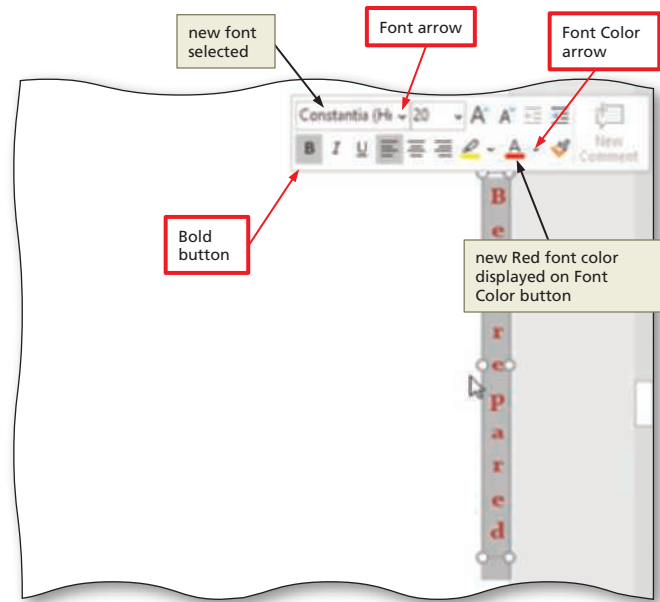


Figure 4–26

To Cut a Placeholder and Paste It into a Slide Master

The new formatted placeholder appears only on the Blank Layout. If you selected any other layout in your presentation, such as Two Content or Title Only, this placeholder would not display. This placeholder should appear on all text slides. **Why?** Repeating this placeholder will provide consistency throughout the presentation. PowerPoint does not allow you to insert a placeholder into the slide master, but you can paste a placeholder that you copied or cut from another slide. The following steps cut the new placeholder from the Blank Layout and paste it into the slide master.

1

- Display the Home tab, click the new placeholder border, and then click the Cut button (Home tab | Clipboard group) to delete the placeholder from the layout and copy it to the Clipboard (Figure 4–27).

Q&A Why did I click Cut instead of Copy?

Tapping or clicking Cut deletes the placeholder. Tapping or clicking Copy keeps the original placeholder on the slide, so if you paste the placeholder on the slide master, a second, identical placeholder would display on the Blank Layout.

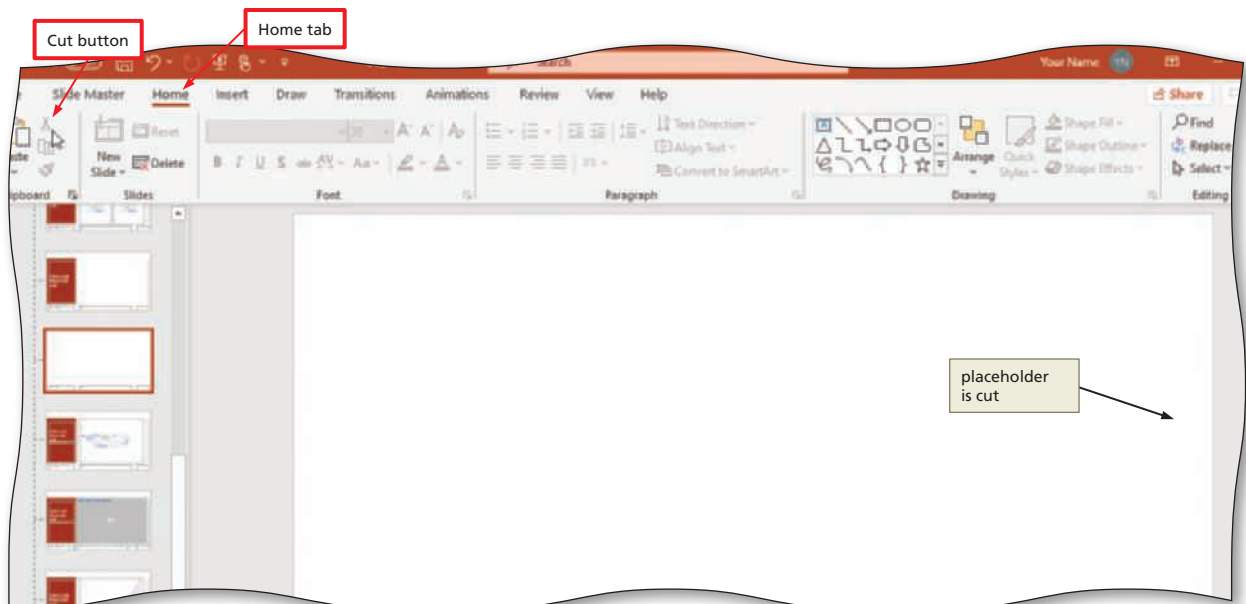


Figure 4–27

2

- Scroll up and then click the Frame Slide Master thumbnail in the Slides tab to display the slide master.
- Click the Paste button (Home tab | Clipboard group) to copy the placeholder from the Clipboard to the slide master.
- Use the smart guides to position the placeholder in the location shown in Figure 4–28.

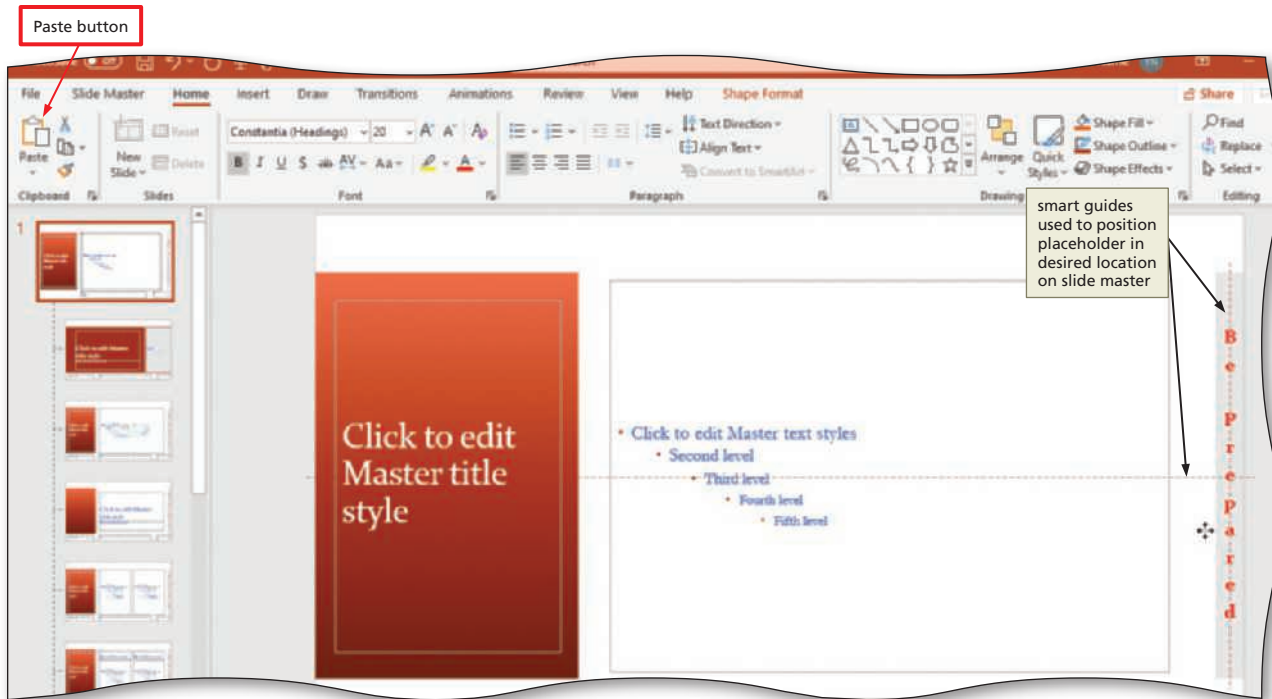


Figure 4–28

To Insert a Picture Placeholder

The right side of the Title Slide Layout contains a large gray rectangular shape. You can add a picture placeholder to this area of the slide in the slide master. **Why?** You can draw attention to your presentation’s purpose if you add a picture to this slide. You add a picture placeholder in the same manner as you add a text placeholder. You then can size and format this placeholder by adding an outline, effect, or other enhancements. The following steps insert a picture placeholder into the Title Slide Layout.

1

- In the Slides tab, click the Title Slide Layout to display this layout.
- Display the Slide Master tab and then click the Insert Placeholder arrow (Slide Master tab | Master Layout group) to display the Insert Placeholder gallery (Figure 4–29).

2

- Click Picture in the gallery.



Figure 4–29

3

- Position the pointer, which is a crosshair, in the gray area on the right side of the layout (Figure 4–30).

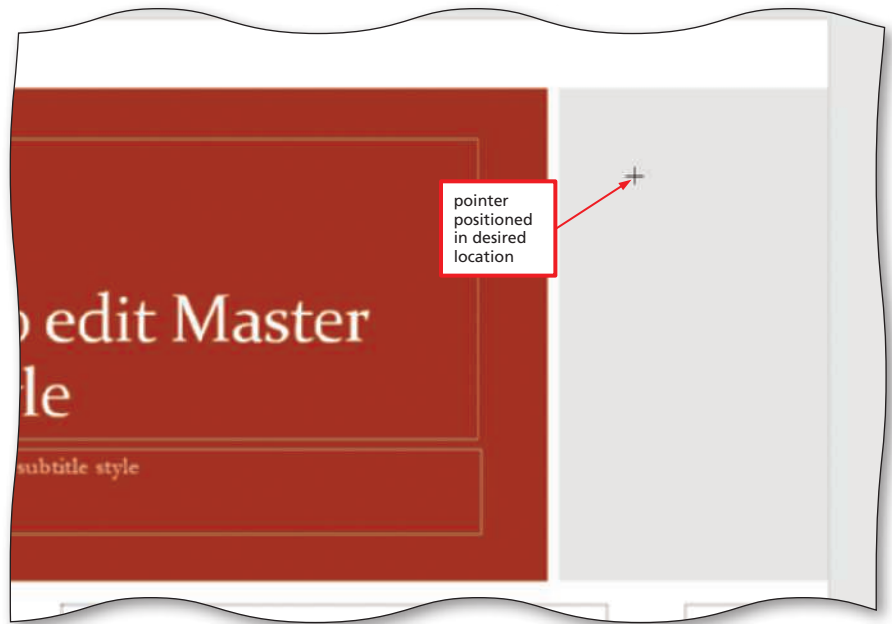


Figure 4–30

4

- Click to insert the new placeholder into the Title Slide Layout (Figure 4–31).



Figure 4–31

To Size and Format the Picture Content Layout

You can size the picture placeholder to cover the large rectangle on the right side of the title slide. You also can add an outline to enhance the visual appeal of this element. The following steps increase the size of the picture placeholder so that it has the same dimensions as the gray box on the slide and then add an outline.

- 1 With the Shape Format tab displayed, increase the placeholder height to 5.8".
- 2 Increase the placeholder width to 3.2".
- 3 Position the placeholder over the gray box, as shown in Figure 4–32.
- 4 Click Shape Outline (Shape Format tab | Shape Styles group) and then click 'Dark Red, Accent 1' (fifth color in first Theme Colors row).
- 5 Increase the outline weight to 3 point (Figure 4–32).



Figure 4–32

TO COPY A CONTENT PLACEHOLDER

At times you may want the same slide content to appear in another area of the slide or on another slide. To perform this action, you would copy the element, such as a placeholder, and then paste it. When you copy this element, it is stored on the **Office Clipboard**. You can copy a maximum of 24 items from Office documents and then paste them in the same or other documents. To copy a placeholder to another slide master, you would perform the following steps.

1. Select the item you want to copy.
2. Display the Home tab and then click Copy (Home tab | Clipboard group).
3. Place the insertion point where you want the item to display and then click Paste (Home tab | Clipboard group).

To Format a Slide Master Background and Apply a Quick Style

Once you have applied a theme to the slide master and determined the fonts for the presentation, you can further customize the slide master. **Why?** Adding a unique background and customizing the colors can give your presentation a unique look that matches the message you are conveying. The following steps format the slide master background and then apply a Quick Style.

1

- Display the Frame Slide Master and then, if necessary, display the Slide Master tab.
- Click the Background Styles button (Slide Master tab | Background group) to display the Background Styles gallery (Figure 4-33).

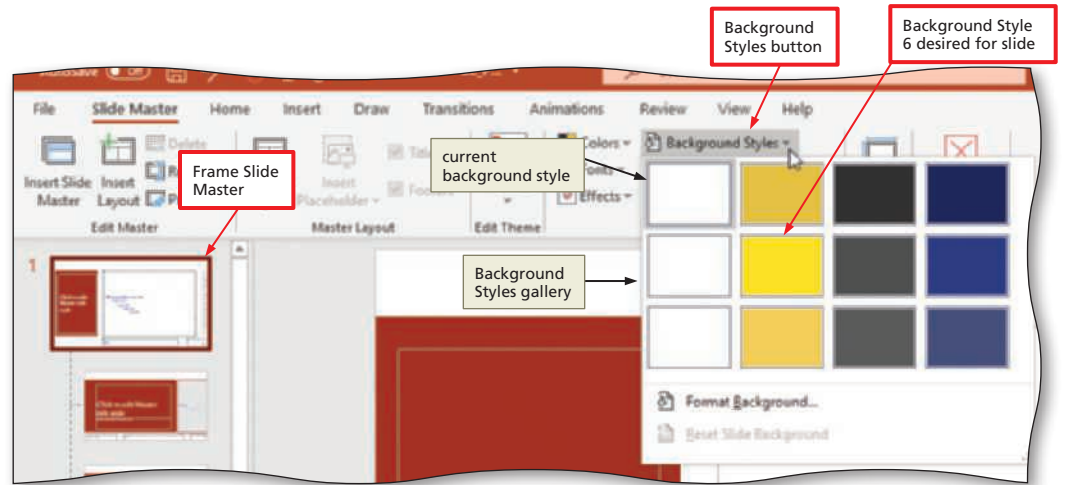


Figure 4-33



Experiment

- Point to various styles in the Background Styles gallery and watch the backgrounds change on the slide master.

2

- Click Style 6 (second style in second row) to apply this background to the slide master (Figure 4-34).

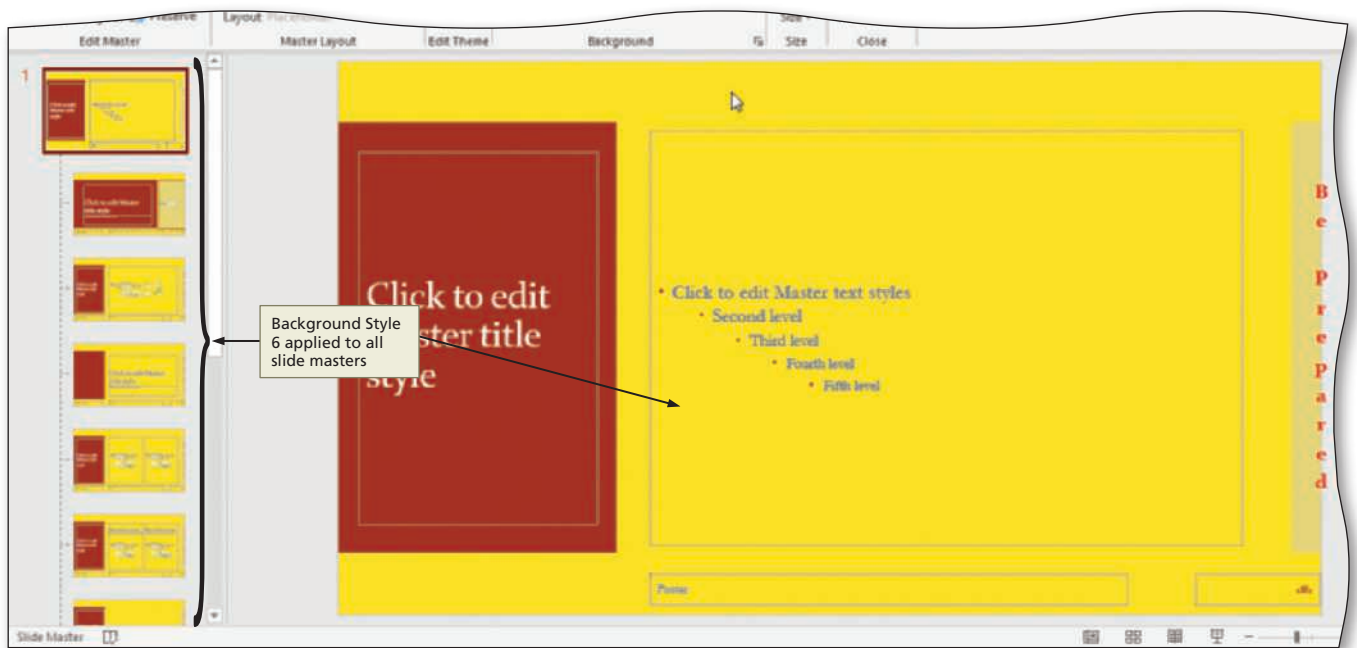


Figure 4-34

3

- Click the outer edge of the slide master title text placeholder to select it.
- Display the Home tab and then click the Quick Styles button (Home tab | Drawing group) to display the Shape Quick Styles gallery (Figure 4–35).

Experiment

- Point to various styles in the Quick Styles gallery and watch the background and borders change on the slide master title text placeholder.



Figure 4–35

4

- Scroll down and then click the 'Gradient Fill - Dark Blue, Dark 1, No Outline' Quick Style (first style in last row) to apply this style to the title text placeholder (Figure 4–36).



Figure 4–36

To Crop a Picture to a Shape

In addition to cropping a picture, you can change the shape of a picture by cropping it to a specific shape. The picture's proportions are maintained, and it automatically is trimmed to fill the shape's geometry. In the Prepare presentation, you want to insert a picture on the Title and Content Layout. You will use the same picture that will be inserted on the title slide, but you will crop it to a diamond shape. **Why?** Displaying the same picture reinforces the disaster kit concept, and the diamond shape is a variation of the rectangle on the left side of the slide. The following steps crop the supplies picture to a diamond shape.

1

- Display the Title and Content Layout and then display the Insert tab.
- Click the Pictures button, click This Device, and then insert the Support_PPT_4_Supplies.jpg file, which is located in the Data Files.

2

- Select the supplies picture and then click the Crop arrow (Picture Format Tab | Size group) to display the Crop menu.
- Point to 'Crop to Shape' to display the Shapes gallery (Figure 4–37).

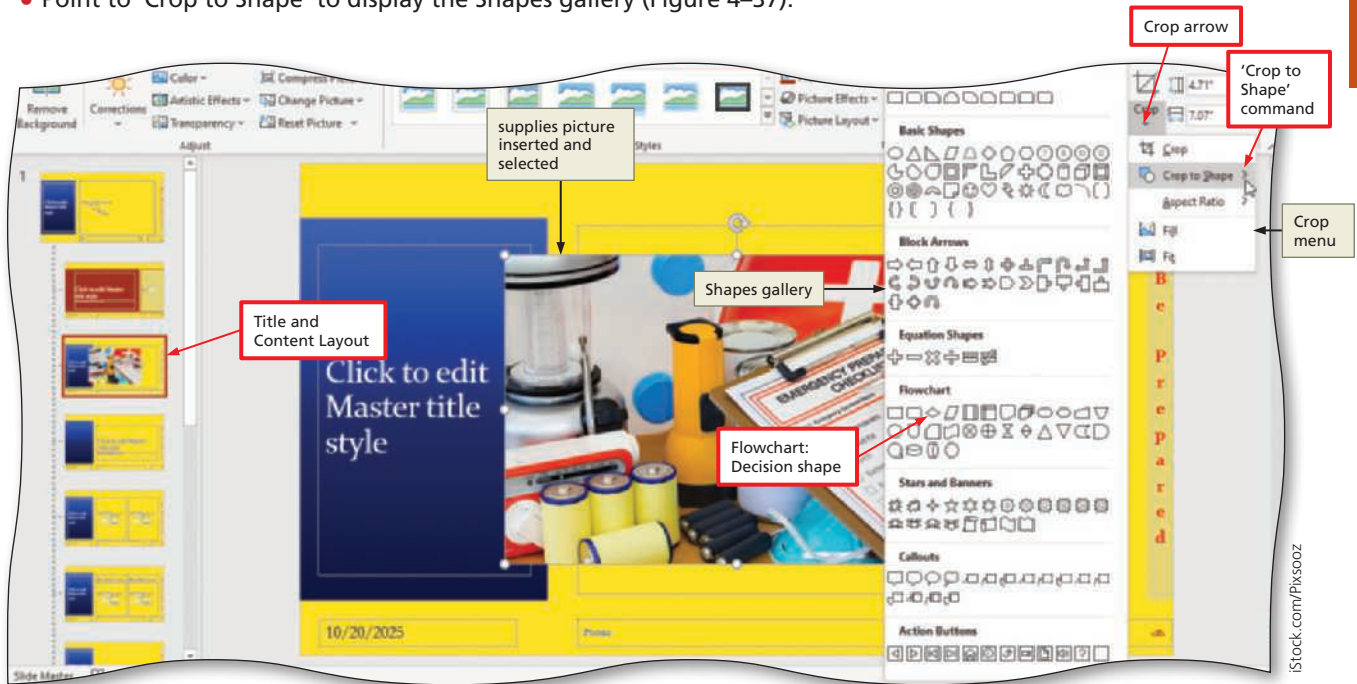


Figure 4-37

3

- Click the Flowchart: Decision shape (third shape in first Flowchart row) to crop the picture.
- Change the shape height to 2".
- Use the smart guides to move the picture to the lower-right area of the slide, as shown in Figure 4–38.

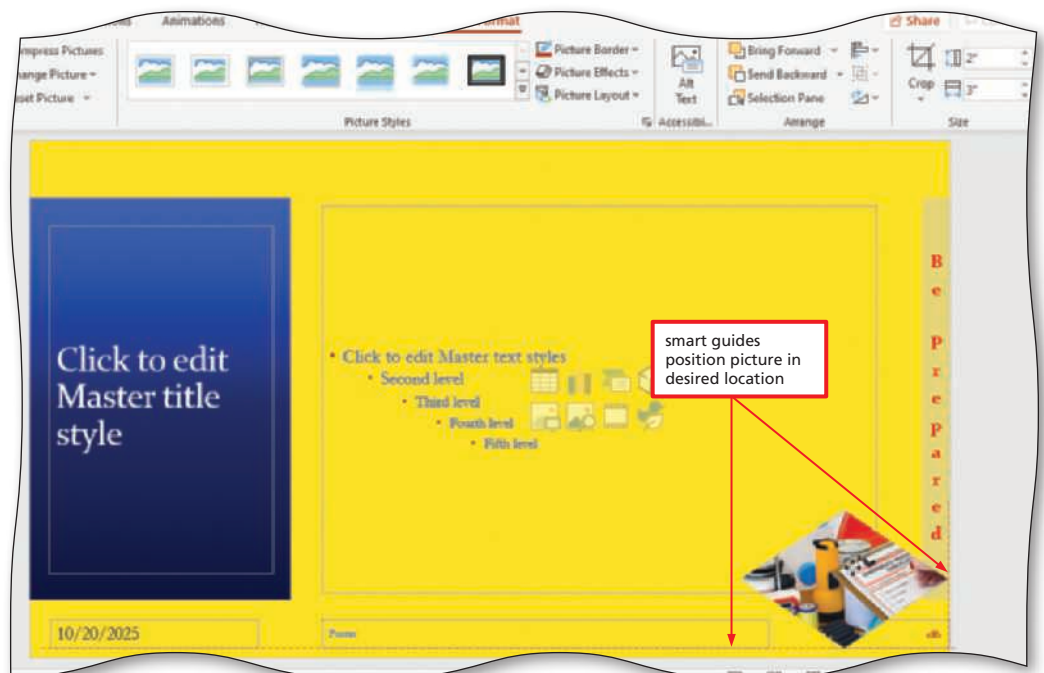


Figure 4-38

TO HIDE AND UNHIDE BACKGROUND GRAPHICS

The placeholder, text box, pictures, and other graphical elements are displayed on some slide master layouts and are hidden on others. You have the ability to change the default setting by choosing to hide or unhide the background graphics. The Hide Background Graphics check box is a toggle that displays and conceals the graphics. To hide background graphics on a layout, you would perform the following steps.

1. Display the Slide Master tab, select the desired layout, and then click the Hide Background Graphics check box (Slide Master tab | Background group) to insert a check mark in it.
2. To unhide the graphics, click the same check box to make them appear.

To Rename a Slide Master and a Slide Layout

Once all the changes are made to a slide master and a slide layout, you may want to rename them with meaningful names that describe their functions or features. The new slide master name will be displayed on the status bar; the new layout name will be displayed in the Slide Layout gallery. The following steps rename the Frame Slide Master, the Title Slide Layout, the Title and Content Layout, and the Comparison Layout. **Why?** Renaming the layouts gives meaningful names that reflect the purpose of the design.

- 1
 - With the Title and Content Layout displayed, display the Slide Master tab and then click the Rename button (Slide Master tab | Edit Master group) to display the Rename Layout dialog box.
 - Delete the text in the Layout name text box and then type **Prepare Content** in the text box (Rename Layout dialog box) (Figure 4–39).

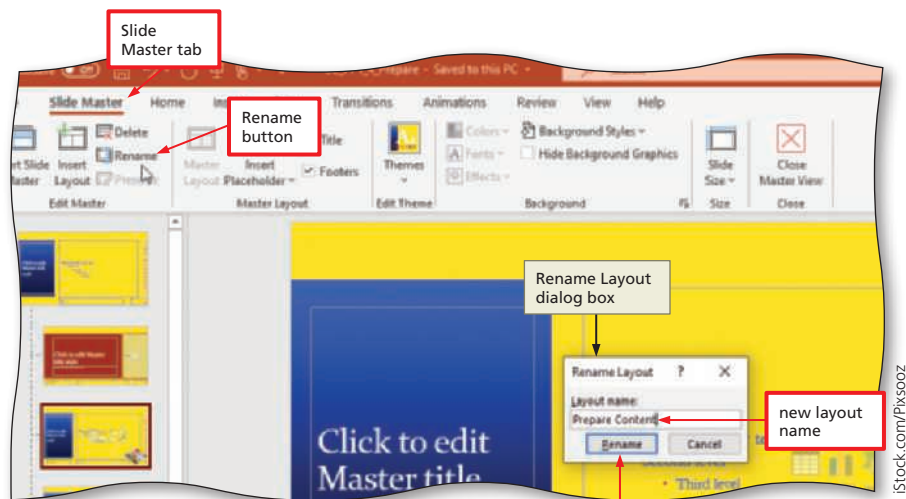


Figure 4–39

- 2
 - Click the Rename button (Rename Layout dialog box) to give the Title and Content Layout the new name, Prepare Content Layout.

- 3
 - Display the Title Slide Layout, click the Rename button, delete the text in the Layout name text box, and then type **Prepare Title** as the new layout name (Figure 4–40).

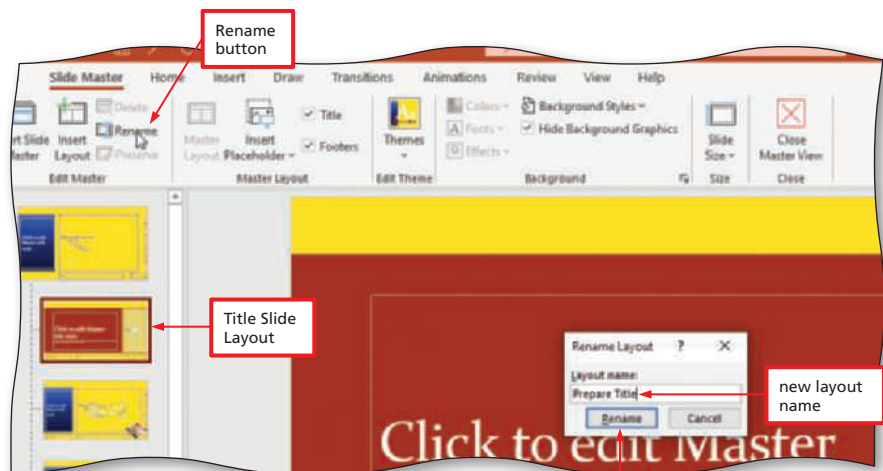


Figure 4–40

4

- Click the Rename button (Rename Layout dialog box) to rename the Title Slide Layout.
- Click the Frame Slide Master layout to display it, click Rename, delete the text in the Layout name text box, and then type **Prepare Master** as the new name (Figure 4–41).

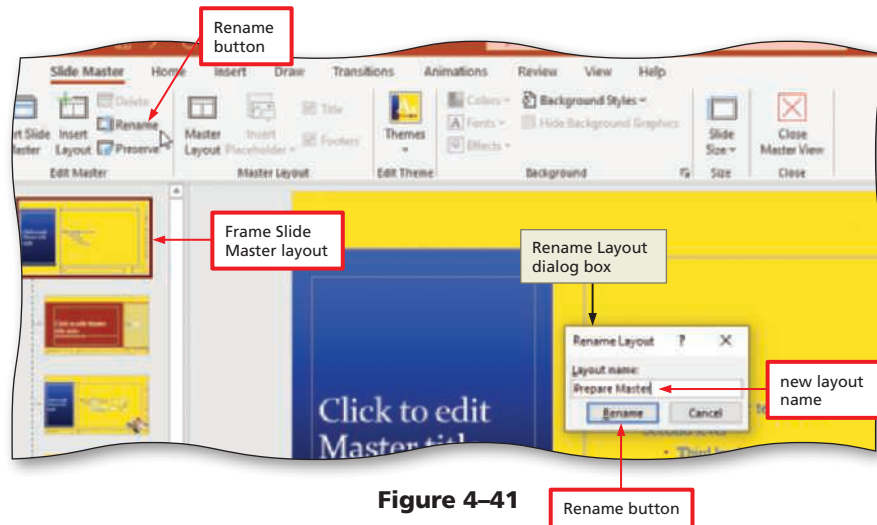


Figure 4–41

5

- Click the Rename button (Rename Layout dialog box).
- Display the Comparison Layout, click Rename, delete the text in the Layout name text box, type **Prepare Compare** as the new layout name, and then click Rename (Figure 4–42).



Figure 4–42

To Delete a Slide Layout

You have made many changes to the slide master and three slide layouts. You will use these layouts when you close Master view and then add text to the presentation in Normal view. You can delete the other layouts in the Slides tab. **Why?** You will not use them in this presentation. The following steps delete slide layouts that will not be used to create the presentation.

1

- Click the Section Header Layout in the Slides tab to select it (Figure 4–43).

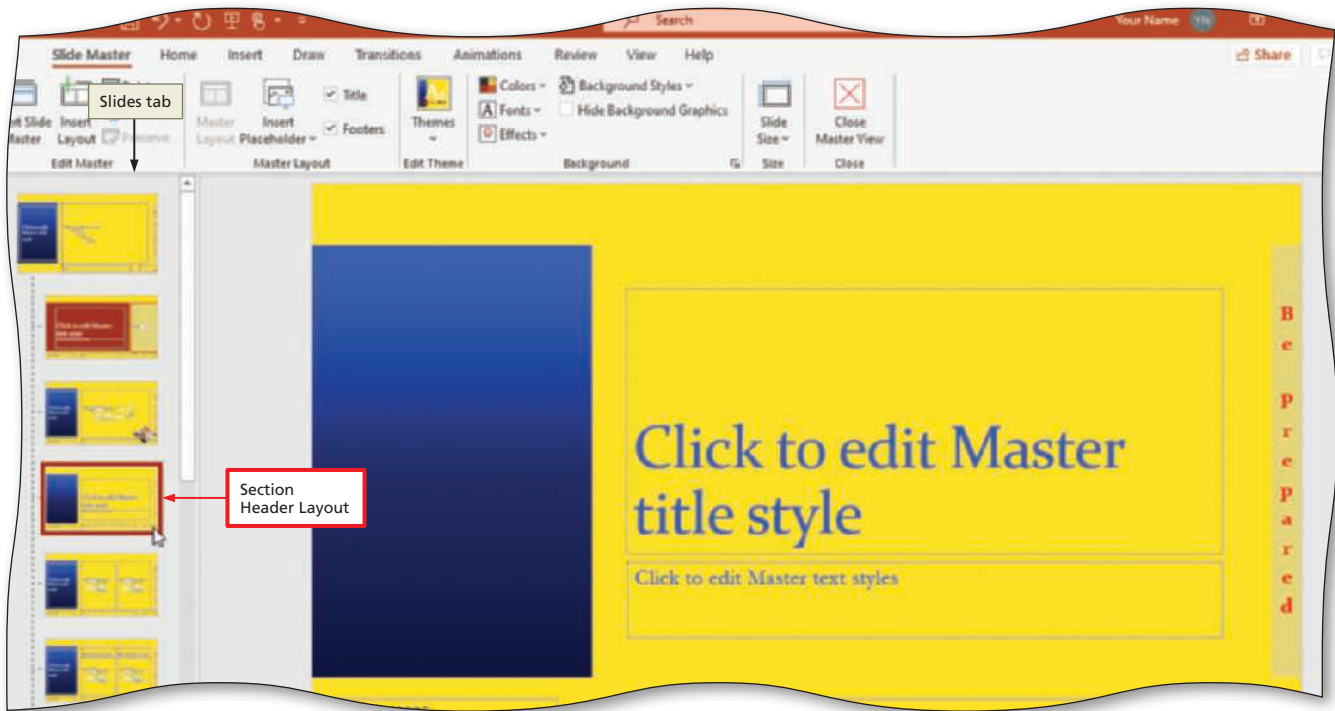


Figure 4–43

2

- Press and hold down CTRL and then click the Two Content Layout to select both layouts (Figure 4–44).

3

- Click the Delete button (Slide Master tab | Edit Master group) to delete the two layouts.

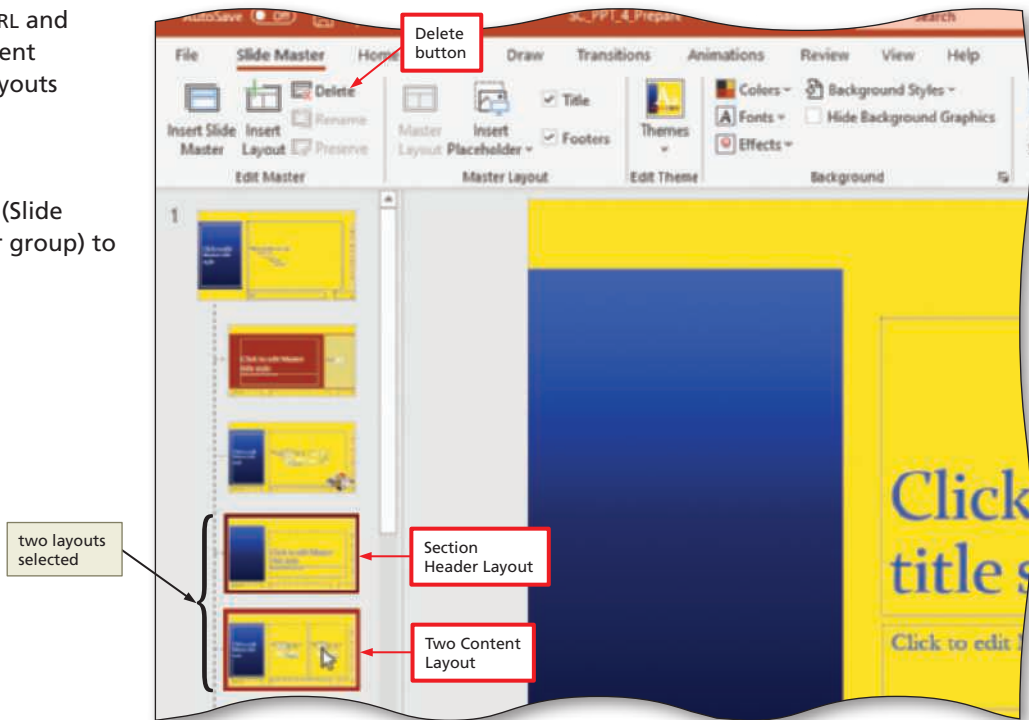


Figure 4–44

4

- Click the Title Only Layout in the Slides tab to select it.
- Press and hold down SHIFT, scroll down to display the last layout, which is the Vertical Title and Text Layout, and then click this layout to select six consecutive layouts (Figure 4–45).

Q&A

Why did I select these layouts?

You will not use any of these layouts in your presentation.

Why did I hold down SHIFT instead of CTRL to select these layouts?

You press SHIFT to select a range of consecutive slides whereas you press CTRL to select specific slides that may or may not be consecutive.

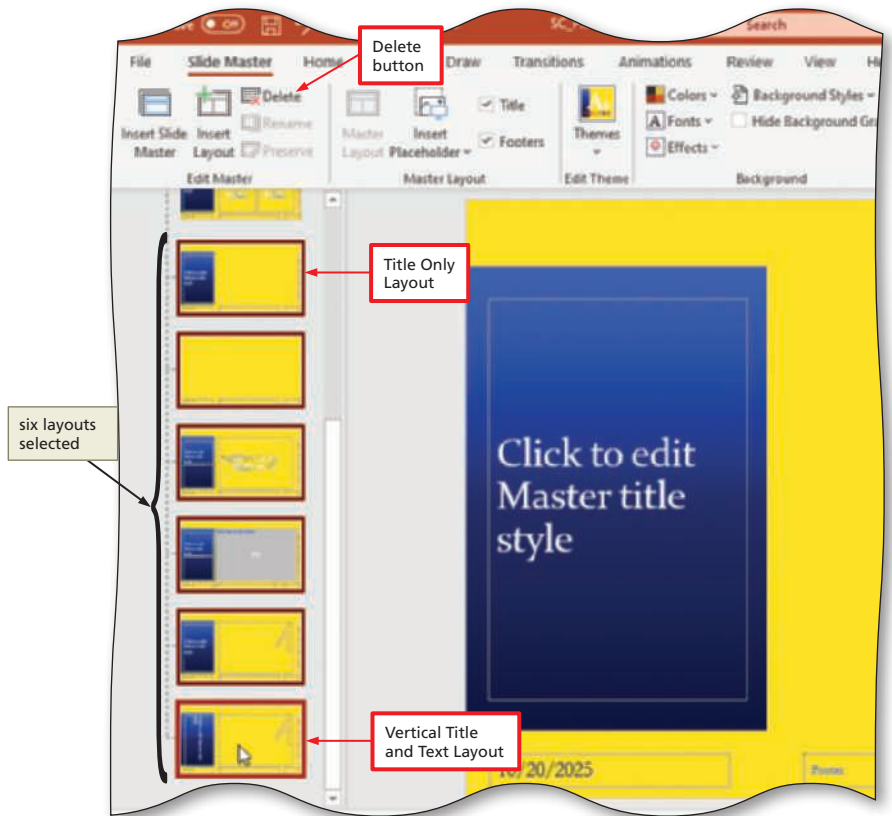


Figure 4–45

5

- Click the Delete button (Slide Master tab | Edit Master group) to delete the six layouts (Figure 4–46).

Q&A

Now that I have created this slide master, can I ensure that it will not be changed when I create future presentations?

Yes. Normally a slide master is deleted when a new design template is selected. To keep the original master as part of your presentation, you can preserve it by selecting the thumbnail and then clicking Preserve in the Edit Master group. An icon in the shape of a pushpin is displayed below the slide number to indicate the master is preserved. If you decide to unpreserve a slide master, select this thumbnail and then click Preserve.

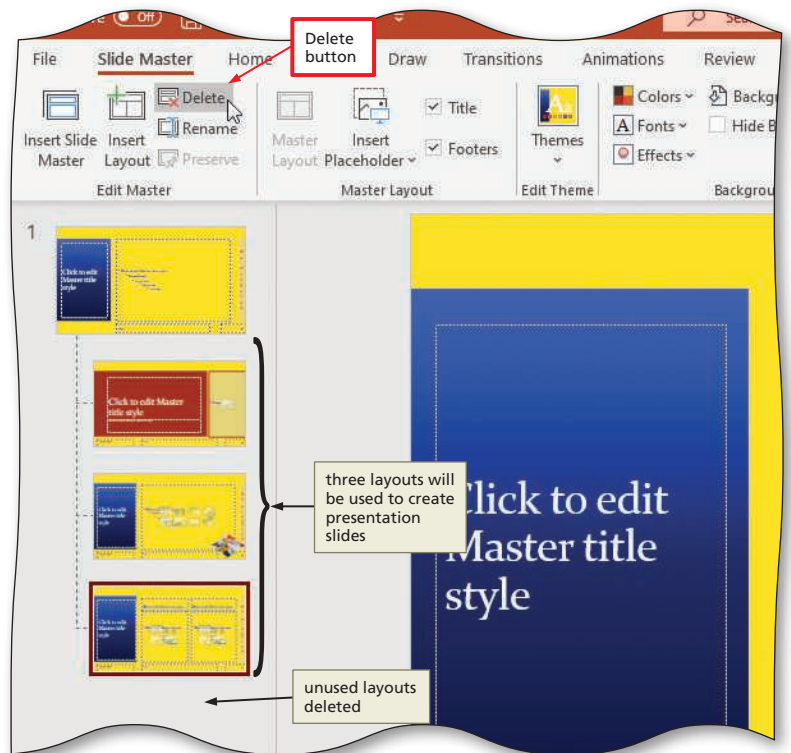


Figure 4–46

Other Ways

1. Click Delete (Home tab | Slides group)
2. Right-click selected slide, click Delete Layout on shortcut menu
3. Press DELETE on keyboard

To Add a New Slide Master Layout

The slide layouts included within each slide master are practical and varied. At times, however, you may desire to create a layout from scratch, especially if your design requires many placeholders and unique design elements. To add a new slide layout, you would perform the following steps.

1. Display the Slide Master tab and then click between the layout thumbnails in the Slides tab to place the pointer where you desire the new slide layout to appear.
2. Click Insert Layout to insert a new slide layout with the name, Custom Layout.
3. Click the Rename button (Slide Master tab | Edit Master group) and type a meaningful name for the new layout.

To Close Master View

You now can exit Master view and return to Normal view. **Why?** All the changes to the slide master are complete. The following steps close Master view.

- 1
 - If necessary, display the Slide Master tab (Figure 4-47).
- 2
 - Click the 'Close Master View' button (Slide Master tab | Close group) to exit Master view and return to Normal view.

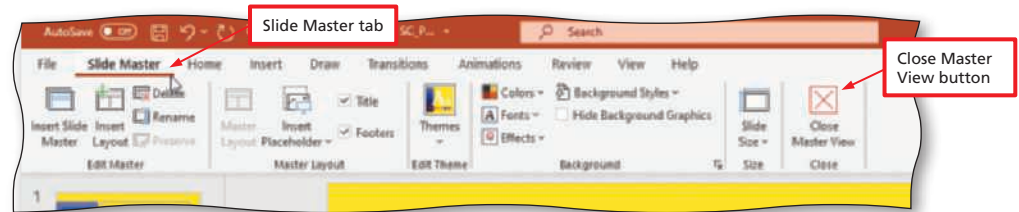


Figure 4-47

To Save a Presentation as a Template

The changes and enhancements you have made to the Prepare slide master are excellent starting points for future presentations. The background text and graphics allow users to add text boxes, pictures, SmartArt, tables, and other elements depending upon the specific message that needs to be communicated to an audience. Saving a slide master as a template is convenient when you often reuse and modify presentations. **Why?** You can save your slide layouts as a template to use for a new presentation. The following steps save the Prepare master as a template.

- 1
 - Display the Save As or Save a Copy gallery in Backstage view.
 - Click the 'Save as type' arrow to display the 'Save as type' list (Figure 4-48).
- 2
 - Click 'PowerPoint Template (*.potx)' in the 'Save as type' list to change the save as type.

Q&A Why do the file name extensions, such as (*.potx), display after the file type in my 'Save as type' list?

These letters identify the file format or type. You can configure Windows to show or hide all common file extensions by opening File Explorer, displaying the View tab, clicking Options, clicking the View tab in the Folder Options dialog box, and then either checking or unchecking 'Hide extensions for known file types' in the Advanced settings area.

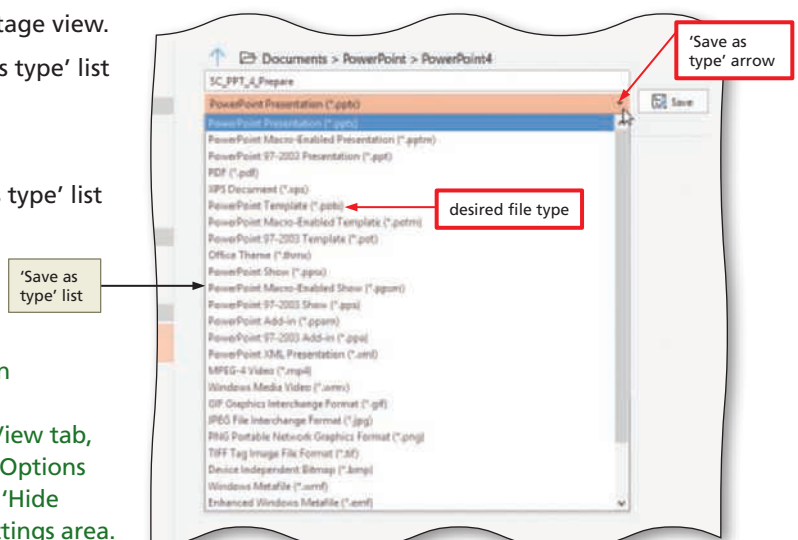


Figure 4-48

- Type `SC_PPT_4_Prepare_Template` in the File name box and then navigate to the desired save location (Figure 4-49).

3

- Click Save (Save As or Save a Copy gallery) to save the Prepare presentation as a template.

4

- Close the Prepare Template file.

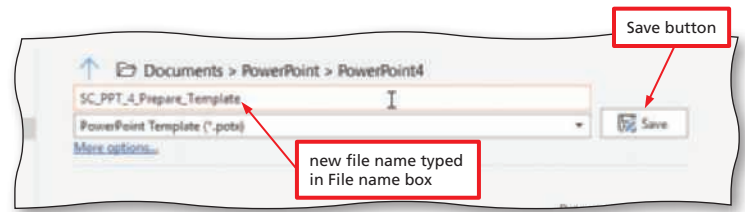


Figure 4-49

Break Point: If you wish to take a break, this is a good place to do so. Be sure the `SC_PPT_4_Prepare_Template` file is saved and then you can exit PowerPoint. To resume later, start PowerPoint, open the file called `SC_PPT_4_Prepare_Template.pptx`, and continue following the steps from this location forward.

To Open a Template and Save a Presentation

The Prepare Template file you created is a convenient start to a new presentation. The graphical elements and essential slide content are in place; you then can customize the layouts for a specific need, such as a new event or special program. Unless users specify a different location, PowerPoint saves templates they create in a folder called 'Custom Office Templates' in the Documents folder. The following steps open the Prepare Template file and save the presentation with the Prepare name.

1

- In Backstage view, click the Open tab to display the Open pane.
- If necessary, navigate to the save location and then click the file name, `SC_PPT_4_Prepare_Template.potx`, to open the Prepare Template file (Figure 4-50).

Q&A If I did not change the default save location, can I select `SC_PPT_4_Prepare_Template.potx` from the list of Recent Presentations or by opening the Custom Office Templates folder?

Yes. Either technique will locate the desired template.

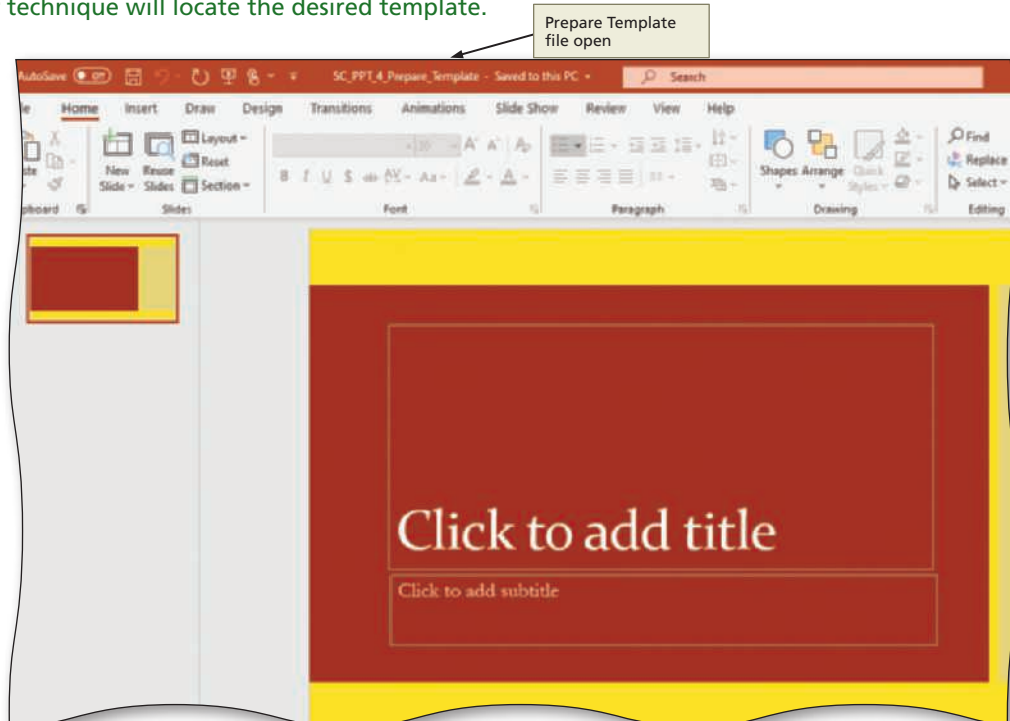


Figure 4-50

2

- In Backstage view, click the Save As or Save a Copy tab to display the Save As pane.

Q&A Why do I see 'Save a Copy' instead of Save As?

PowerPoint automatically defaults to AutoSave when opening documents.

- Navigate to the location where your files are saved.
- Click the 'Save as type' arrow to display the 'Save as type' list, and then click PowerPoint Presentation in the 'Save as type' list to change the save as type.
- Click SC_PPT_4_Prepare in the Save As dialog box to select the file (Figure 4–51).

3

- Click Save (Save As dialog box) to display the Confirm Save As dialog box.
- Click Yes to replace the file.

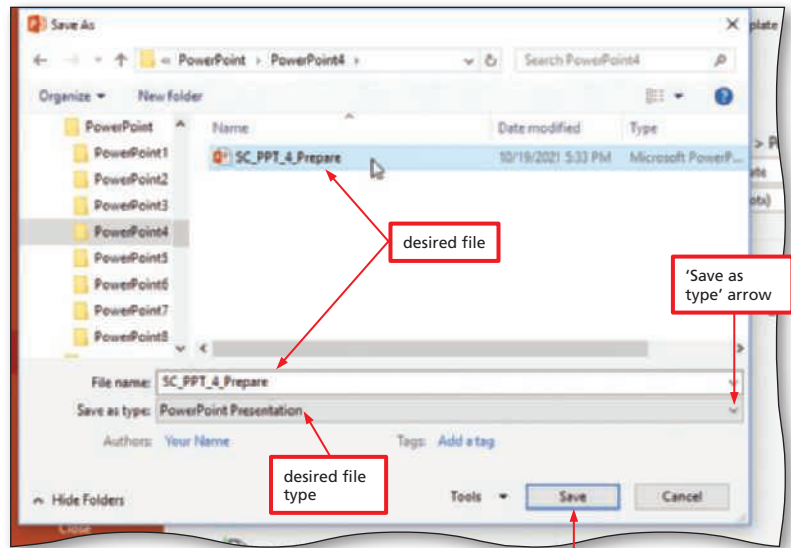


Figure 4–51

To Change the Title Slide Layout and Add Text

The following steps change the layout to the Prepare Title layout and then add text to Slide 1.

- 1 Click the Layout button and then click the Prepare Title layout. Type **Be Prepared** as the title text and then type **Plan for Weather Emergencies** as the subtitle text.
- 2 Increase the subtitle text font to 36 point and then bold this text.
- 3 Click the Pictures content placeholder on the right side of the slide and then insert the picture with the file name, Support_PPT_4_Supplies.jpg (Figure 4–52).
- 4 Close the Design Ideas pane if it opens.



Figure 4–52

To Insert Slide 2 and Add Text

The second slide in your presentation will highlight supplies that should be available in the home and in a vehicle. The Prepare Compare layout, which is the new name for the Comparison layout, will allow you to insert text into the two column heading placeholders and the two bulleted list placeholders. The following steps insert a slide and then add and format text.

- 1 Click the Home tab, insert a slide with the Prepare Compare layout, and then type the text shown in Figure 4–53.
- 2 Increase the font size of the two column headings, For the Home and For the Vehicle, to 32 point.
- 3 Increase the font size of the bulleted list paragraphs to 28 point (Figure 4–53).



Figure 4–53

To Insert Slide 3 and Add Text

The third slide in your presentation will list details about acquiring information pertaining to all family members. The Prepare Content layout, which is the new name for the Title and Content Layout, is designed so that you can add variable slide content above the diamond shape in the lower-right corner of the slide. The following steps insert a slide and then add and format text.

- 1 Insert a slide with the Prepare Content layout and then type the text shown in Figure 4–54.
- 2 Increase the font size of the four first-level bulleted paragraphs to 28 point.
- 3 Increase the font size of the three second-level bulleted paragraphs to 24 point (Figure 4–54).

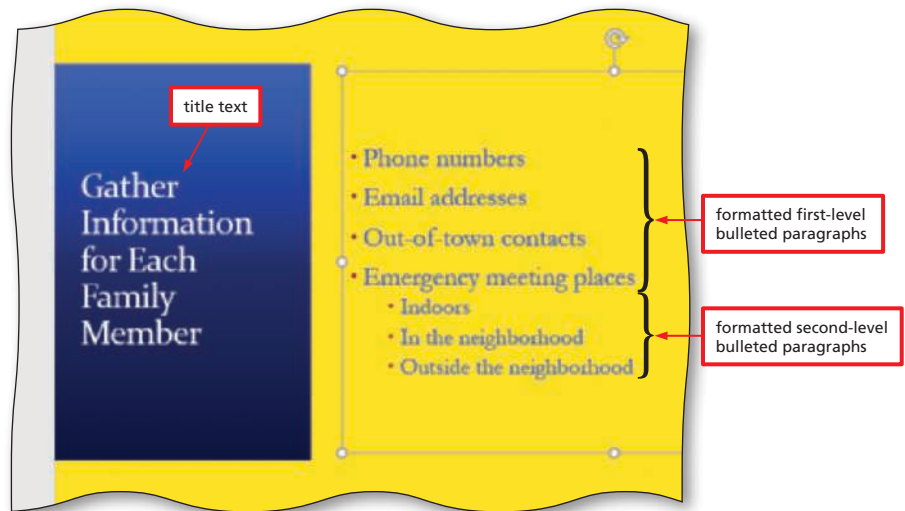


Figure 4-54

To Insert Slide 4 and Add Text

The fourth slide in your presentation will list steps to follow when a flood is imminent. This slide uses the Prepare Content layout, which you used to create Slide 3. The following steps insert a slide and then add and format text.

- 1 Insert a slide with the Prepare Content layout and then type the text shown in Figure 4-55.
- 2 Increase the font size of the five bulleted list paragraphs to 28 point (Figure 4-55).

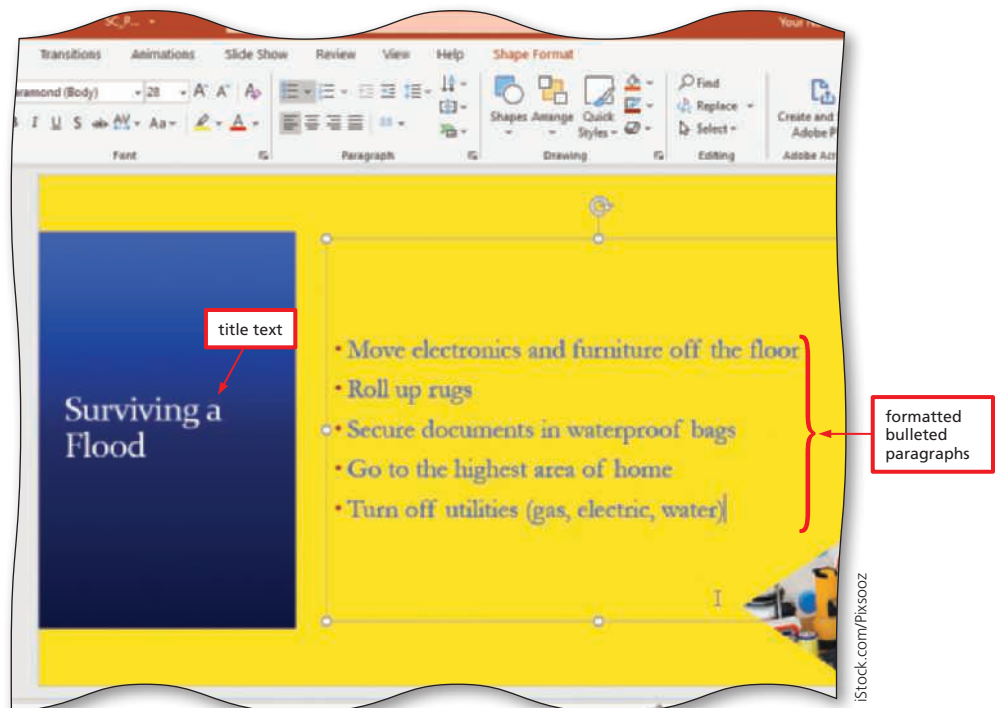


Figure 4-55

To Insert Slide 5 and Add Text

The last slide in your presentation gives advice on using technology before and during a disaster. It uses the Prepare Compare layout, which is the layout you used for Slide 2. The following steps insert a slide and then add and format text.

- 1 Insert a slide with the Prepare Compare layout and then type the text shown in Figure 4–56.
- 2 Increase the font size of the two column headings, Prior to Disaster and During Disaster, to 32 point.
- 3 Increase the font size of the six first-level bulleted paragraphs to 28 point.
- 4 Increase the font size of the three second-level bulleted paragraphs to 24 point (Figure 4–56).

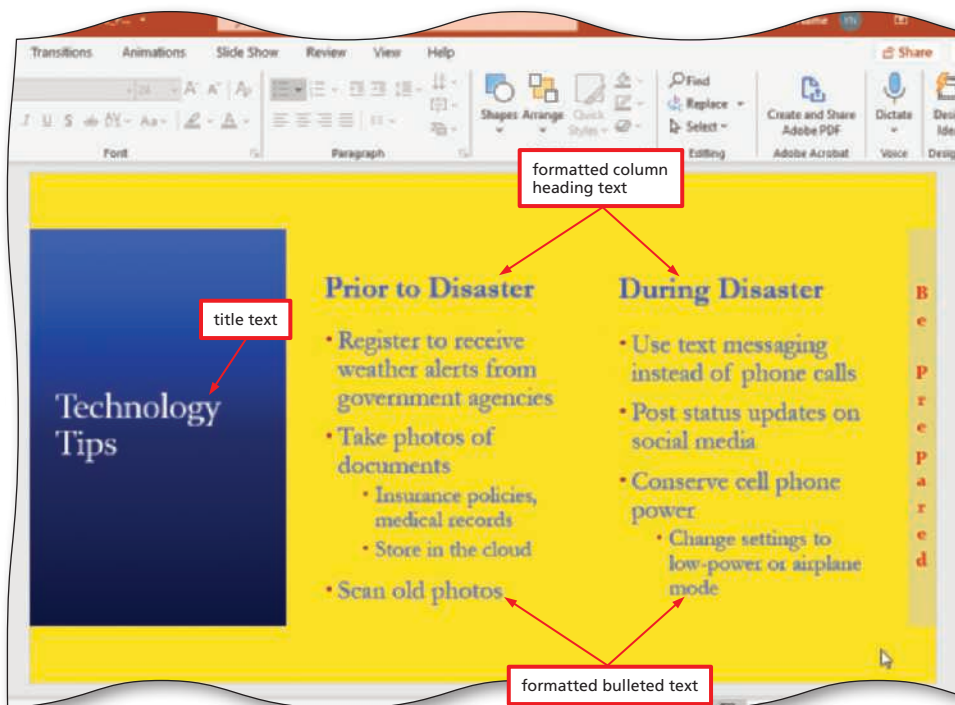


Figure 4–56

To Use the Thesaurus

Why? When reviewing your slide show, you may decide that a particular word does not express the exact usage you intended or that you used the same word on multiple slides. In these cases, you could find a **synonym**, or word similar in meaning, to replace the inappropriate or duplicate word. PowerPoint provides a **thesaurus**, which is a list of synonyms to help you find a replacement word.

In this project, you want to find a synonym to replace the word, Materials, on Slide 2 with the word, Supplies. The following steps locate an appropriate synonym and replace the word.

- 1
 - Display Slide 2 and then place the insertion point in the word, Materials, in the title placeholder.

2

- Display the Review tab and then click the Thesaurus button (Review tab | Proofing group) to display the Thesaurus pane with synonyms for the word, Materials (Figure 4-57).

Q&A

How do I locate a synonym for multiple words?

You need to select all the words and then right-click to display the shortcut menu.

If I am using a touch screen, how do I find a synonym?

Tap Thesaurus (Review tab | Proofing group) to display the Thesaurus pane for the selected word. Then, in the pane, tap the arrow next to the word to display a shortcut menu.

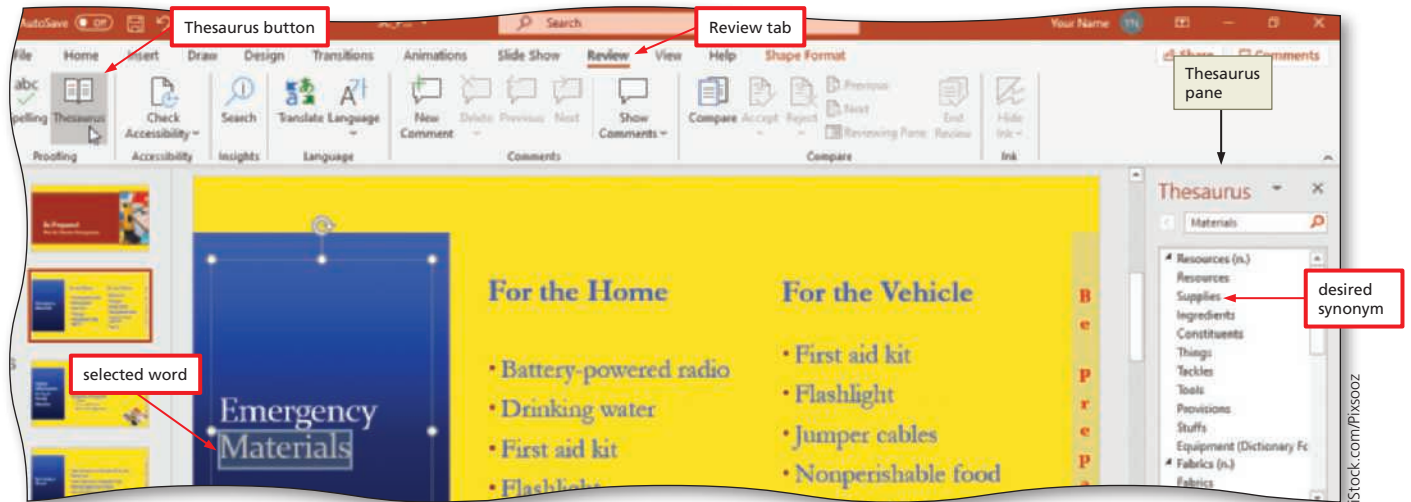


Figure 4-57

3

- Point to the synonym you want (Supplies) in the synonyms list and then click the arrow on the right side of that word to display the synonym menu (Figure 4-58).



Figure 4-58

4

- Click Insert to replace the word, Materials, with the word, Supplies (Figure 4-59).

5

- Click the Close button to close the Thesaurus pane.

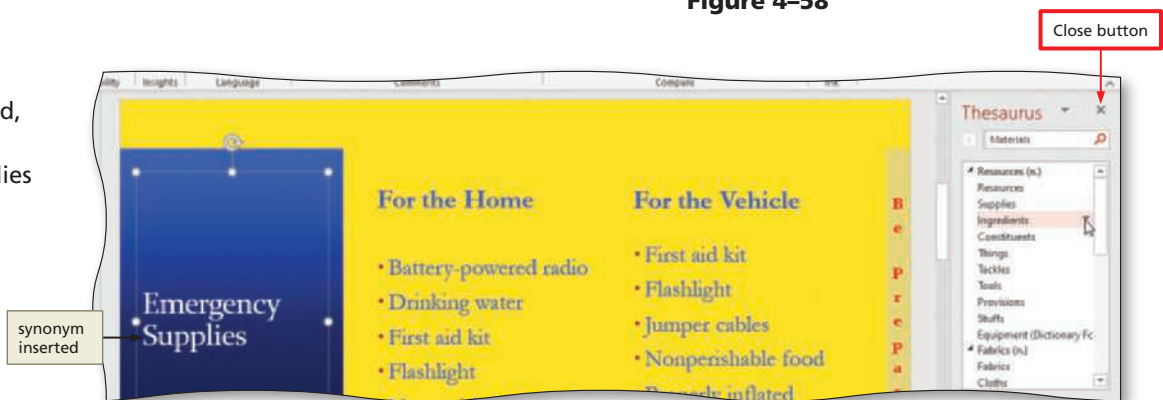


Figure 4-59

Other Ways

1. Point to Synonyms on shortcut menu
2. Press SHIFT+F7

Customizing Slide Elements

PowerPoint's varied themes and layouts help give presentations a unified and aesthetically pleasing look. You may, however, desire to modify the default settings to give your slides a unique quality. One of the easier methods of developing a custom show is to change the **variant**. Each theme has a set of four alternate designs, called variants. Each variant has the same overall composition, but the colors, fonts, and design elements differ. You can select a variant that best fits your overall design needs. If you later decide that another variant would better fit the presentation's general theme, you can change this element while you are developing slides.

You also can change the theme for one or more slides, not an entire presentation. One other method of altering your slides slightly is to change the backgrounds, including adding a picture, gradient fill, pattern, or texture.

To Change the Theme of a Single Slide

The Frame theme applied to the presentation is appropriate for this topic. The font and placeholder locations are simple and add variety without calling attention to the design elements. The following steps change the theme for Slide 5. **Why?** To call attention to the technology content in the bulleted list on Slide 5, you can apply an equally effective theme that has a design element resembling a circuit board. You then can modify this new theme by changing the variant on one slide.

1

- Display Slide 5, click the Design tab, click the Themes More button, and then point to the Circuit theme to see a preview of that theme on Slide 5 (Figure 4–60).



Figure 4–60

Experiment

- Point to various document themes in the Themes gallery and watch the colors and fonts change on Slide 5.

- 2
 - Right-click the Circuit theme to display a shortcut menu (Figure 4–61).
- 3
 - Click 'Apply to Selected Slides' to apply the Circuit theme to Slide 5 only.



Figure 4–61

To Change the Theme Variant

The Circuit theme on Slide 5 has a default blue variant. You can change the color variant for this slide at any time for any theme, and you want to change the color to red. **Why?** The title slide in the presentation has a red background in the title text placeholder, so the red variant on Slide 5 complements this color scheme. The following steps change the variant from blue to red.

- 1
 - Point to the red variant (Design tab | Variants group) to see a preview of the red variant on Slide 5 (Figure 4–62).



Figure 4–62

Experiment

- Point to the green and gray variants and watch the colors change on the slide.

2

- Click the red variant to apply this color to Slide 5 (Figure 4–63).

Q&A If I decide at some future time that this color variation does not fit the theme of my presentation, can I apply a different variant?

Yes. You can repeat these steps at any time.



Figure 4–63

Formatting Slide Backgrounds

A slide's background is an integral part of a presentation because it can generate audience interest. Every slide can have the same background, or different backgrounds can be used in a presentation. This background is considered **fill**, which is the content that makes up the interior of a shape, line, or character. Four fills are available: solid, gradient, picture or texture, and pattern. **Solid fill** is one color used throughout the entire slide. **Gradient fill** is one color shade gradually progressing to another shade of the same color or one color progressing to another color. **Picture fill** uses a specific file or image to fill the background or shape. **Texture fill** uses a specific file or an image that simulates a material, such as cork, granite, marble, or canvas. **Pattern fill** adds designs, such as dots or dashes, which repeat in rows across the slide.

Once you add a fill, you can adjust its appearance. For example, you can adjust its **transparency**, which allows you to see through the background, so that any text on the slide is visible. You also can select a color that is part of the theme or a custom color. You can use an **offset**, another background feature, to move the background away from the slide borders in varying distances by percentage. A **tiling option** repeats the background image many times vertically and horizontally on the slide; the smaller the tiling percentage, the greater the number of times the image is repeated.

To Change the Slide Background to a Gradient Fill

For each theme, PowerPoint provides 30 preset gradient fills with five designs for each of the six major theme colors. Each fill has one dark color shade that gradually lightens to either another shade of the same color or another color. You decide that a gradient fill would be suitable for Slide 1. **Why? The current background is plain, so you want to add a minimal design element to enhance the overall slide.** The following steps replace the background on Slide 1 to a preset gradient fill.

- 1**
 - Display Slide 1, display the Design tab if necessary, and then click the Format Background button (Design tab | Customize group) to display the Format Background pane.
 - If the Fill section is not displayed, click Fill to expand the Fill section (Format Background pane). Click Gradient fill in the Format Background pane and then click Preset gradients to display the Preset gradients gallery (Figure 4-64).



Figure 4-64

Q&A Are the backgrounds displayed in a specific order?

Yes. The first row has light colors at the top of the background; the middle rows have darker fills at the bottom; the bottom row has overall dark fills on all edges.

Is a live preview available to see the various gradients on this slide?

No. Live preview is not an option with the background textures and fills.

- 2**
 - Click 'Top Spotlight - Accent 6' (last fill in second row) to apply that style to Slide 1 (Figure 4-65).

Q&A If I decide later that this background gradient does not fit the theme of my presentation, can I apply a different background?

Yes. You can repeat these steps at any time while creating your presentation.

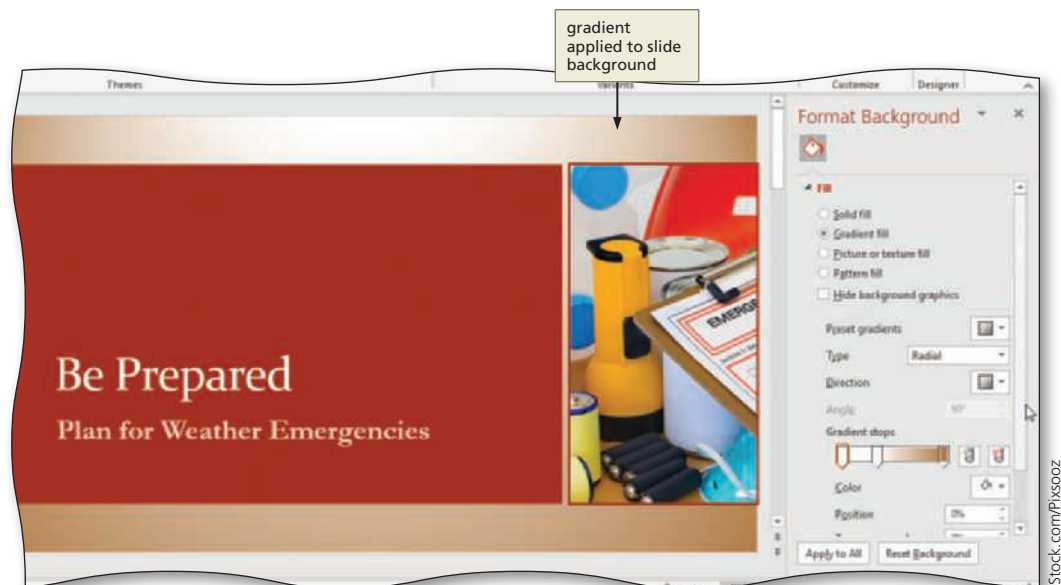


Figure 4-65

Other Ways

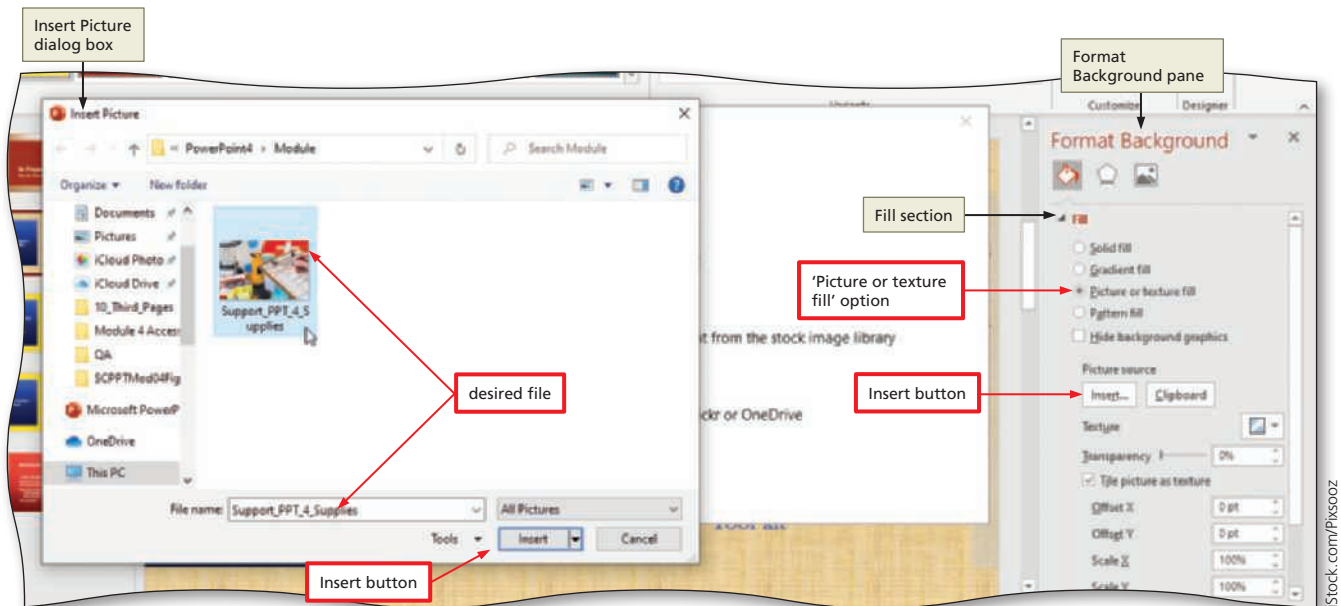
1. Click Design tab, click Format Background (Customize group), select desired options (Format Background pane)
2. Right-click background, click Format Background on shortcut menu, select desired options (Format Background pane)

To Change the Slide Background to a Picture

Why? For variety and interest, you want to use a picture as the Slide 2 background. The picture can be the same picture inserted in the title slide. PowerPoint will stretch the height and width of this picture to fill the slide area. The following steps insert the supplies pictures on Slide 2 only.

1

- Display Slide 2. With the Fill section displayed (Format Background pane), click 'Picture or texture fill', click Insert (Format Background pane), and then click From a File to display the Insert Picture dialog box. If necessary, navigate to the location where your data files are located.
- Click Support_PPT_4_Supplies to select the .jpg file (Figure 4–66).

**Figure 4–66****2**

- Click the Insert button (Insert Picture dialog box) to insert the supplies picture as the Slide 2 background (Figure 4–67).

Q&A What if I do not want to use this picture?

Click the Undo button on the Quick Access Toolbar or click the Reset Background button at the bottom of the Format Background pane.

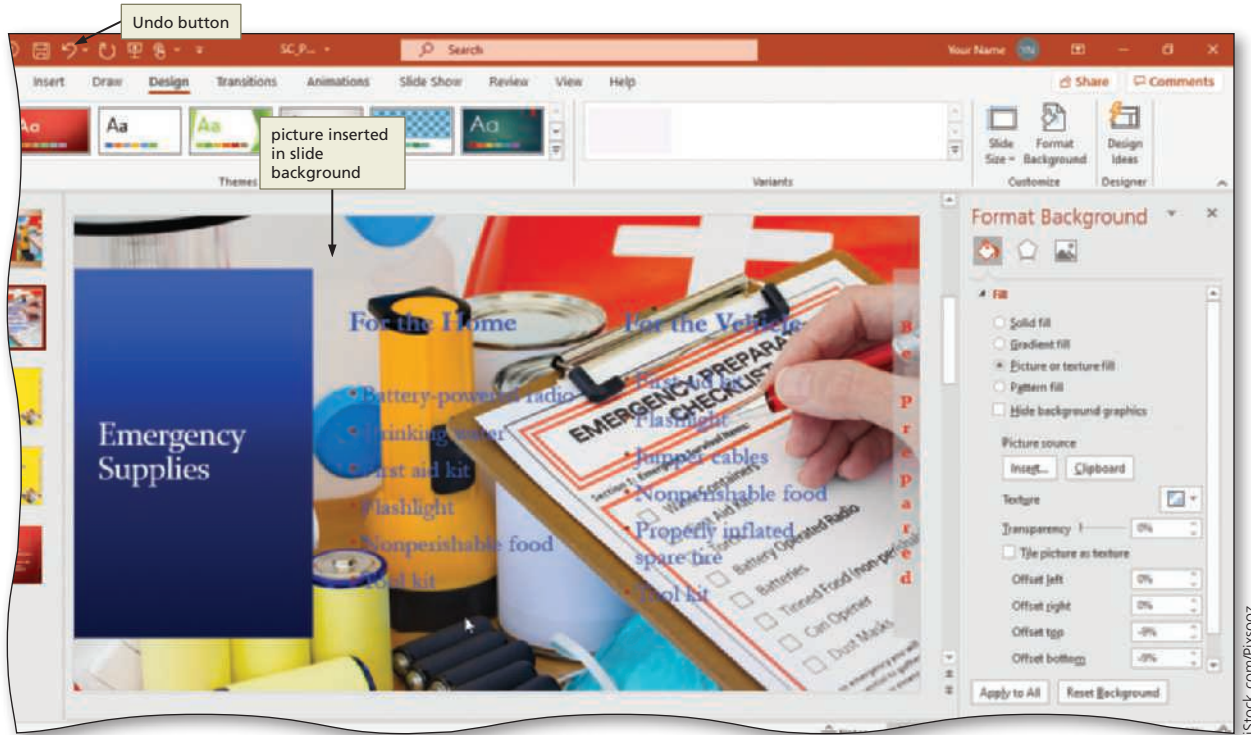


Figure 4-67

To Change the Transparency of a Slide Background

The **Transparency slider** indicates the amount of opaqueness. The default setting is 0, which is fully opaque. The opposite extreme is 100%, which is fully transparent. To change the transparency, you can move the Transparency slider or enter a number in the box next to the slider. The following step increases the Slide 2 background transparency to 90%. **Why?** The supplies picture has vibrant colors that will conflict with the text.

- 1 Click the Transparency slider in the Fill section (Format Background pane) and drag it to the right until 90% is displayed in the Transparency box (Figure 4-68).

Q&A Can I move the slider in small increments so that I can get a precise percentage easily? Yes. Click the up or down arrows in the Transparency box to move the slider in 1% increments.

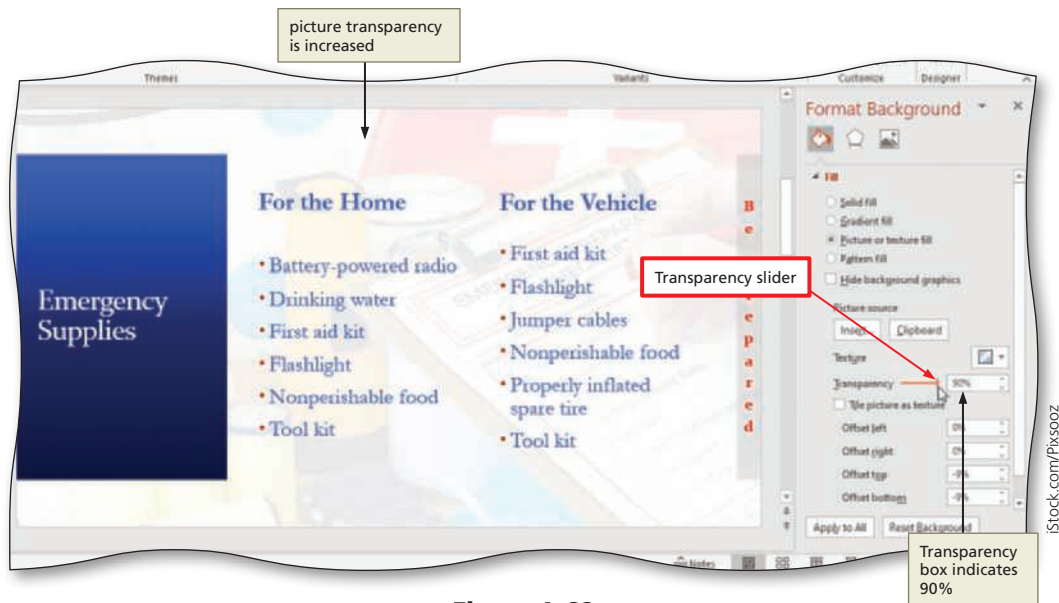


Figure 4-68

Experiment

- Drag the Transparency slider to the left and right and watch the text box background change.

Other Ways

1. Enter percentage in Transparency text box
2. Click Transparency up or down arrow

To Change the Slide Background to a Pattern

You add variety to a slide by making a pattern fill. This design of repeating horizontal or vertical lines, dots, dashes, or stripes can enhance the visual appeal of one or more slides in the presentation. If you desire to change the colors in the pattern, PowerPoint allows you to select the fill foreground and background colors by clicking Color and then choosing the desired colors. The following steps apply a pattern to Slide 3. **Why?** The dots in this pattern are a subtle contrast to the Frame theme slide elements.

1

- Display Slide 3. With the Fill section displayed (Format Background pane), click Pattern fill to display the Pattern gallery and the Dotted: 5% pattern on Slide 3 (Figure 4-69).

Experiment

- Click various patterns in the Pattern gallery and watch the Slide 3 background change.

Q&A How can I delete a pattern if I decide not to apply one to my slide?

If the Format Background pane is displayed, click Reset Background. If you already have applied the pattern, you must click Undo on the Quick Access Toolbar.

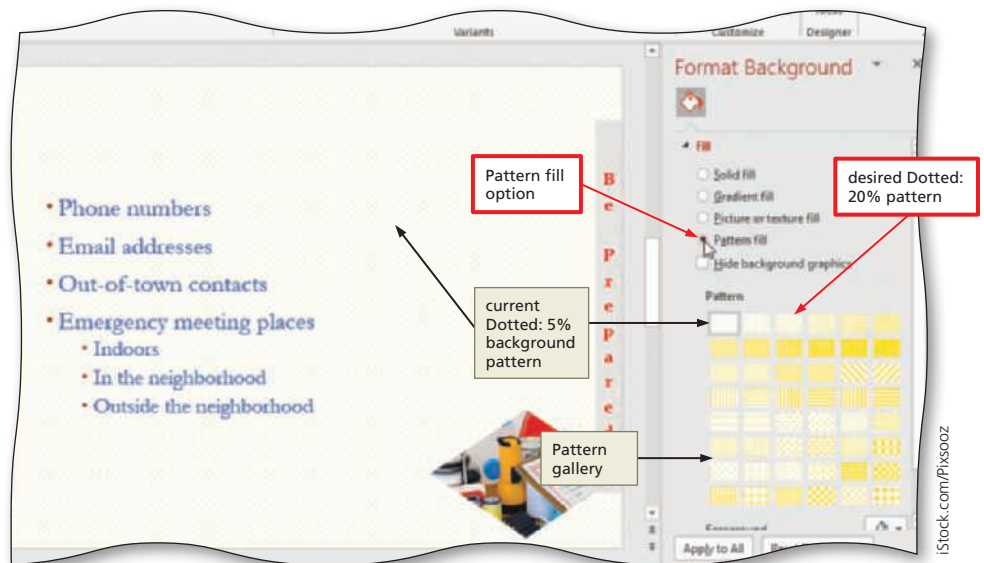


Figure 4-69

2

- Click the Dotted: 20% pattern (third pattern in first row) to apply this pattern to the Slide 3 background (Figure 4-70).

Q&A Can I apply this pattern to all the slides in the presentation?

Yes. You would click 'Apply to All' in the Format Background pane.

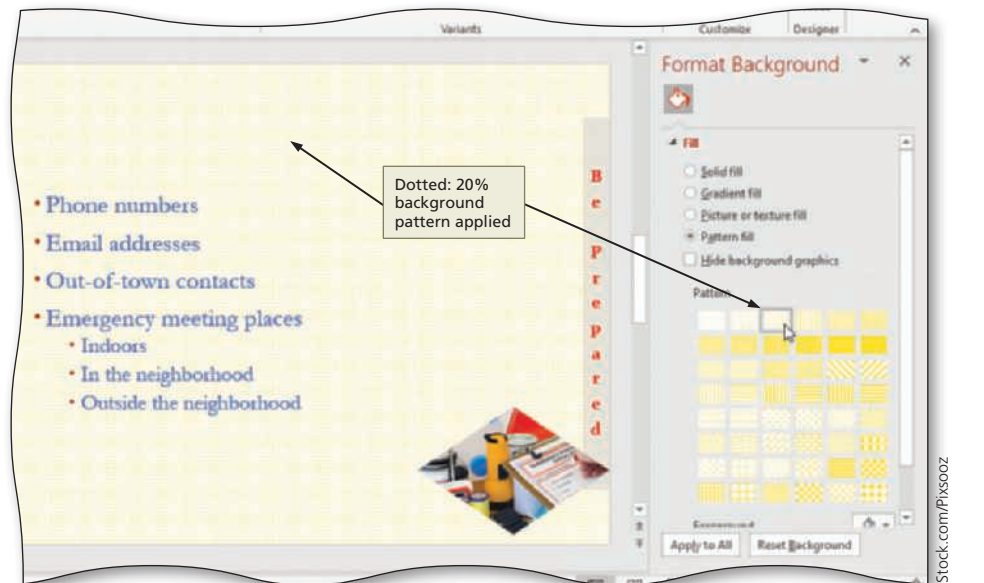


Figure 4-70

To Change the Slide Background to a Texture

The 24 pictures in the Texture gallery give the appearance of a physical object, such as marble, sand, tissue paper, and a paper bag. You also can use your own texture pictures for custom backgrounds. **Why? Various texture fills are available to give your background a unique look.** You can adjust the transparency of a slide texture in the same manner that you change the transparency of a picture. The following steps insert the Water Droplets texture fill on Slide 4 in the presentation and then change the transparency.

1

- Display Slide 4. With the Fill section displayed (Format Background pane), click 'Picture or texture fill' (Figure 4-71).

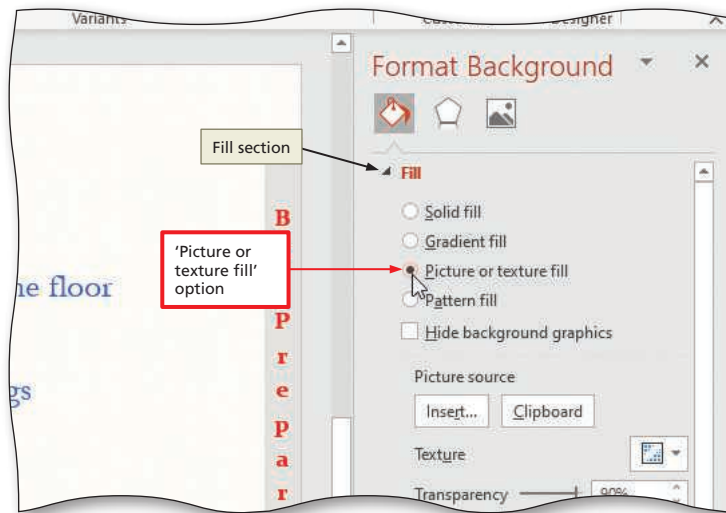


Figure 4-71

2

- Click the Texture button to display the Texture gallery (Figure 4-72).

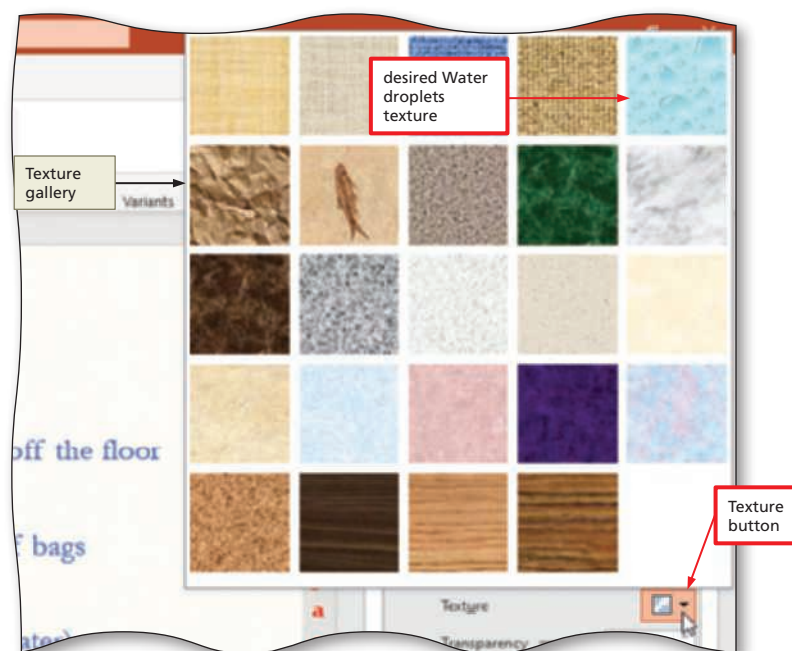


Figure 4-72

3

- Click the Water droplets texture (last texture in first row) to insert this texture fill as the background on Slide 4 (Figure 4-73).

Q&A Is a live preview available to see the various textures on this slide?

No. Live preview is not an option with the background textures and fills.

Could I insert this background on all four slides simultaneously?

Yes. You would click 'Apply to All' to insert the Water droplets background on all slides.

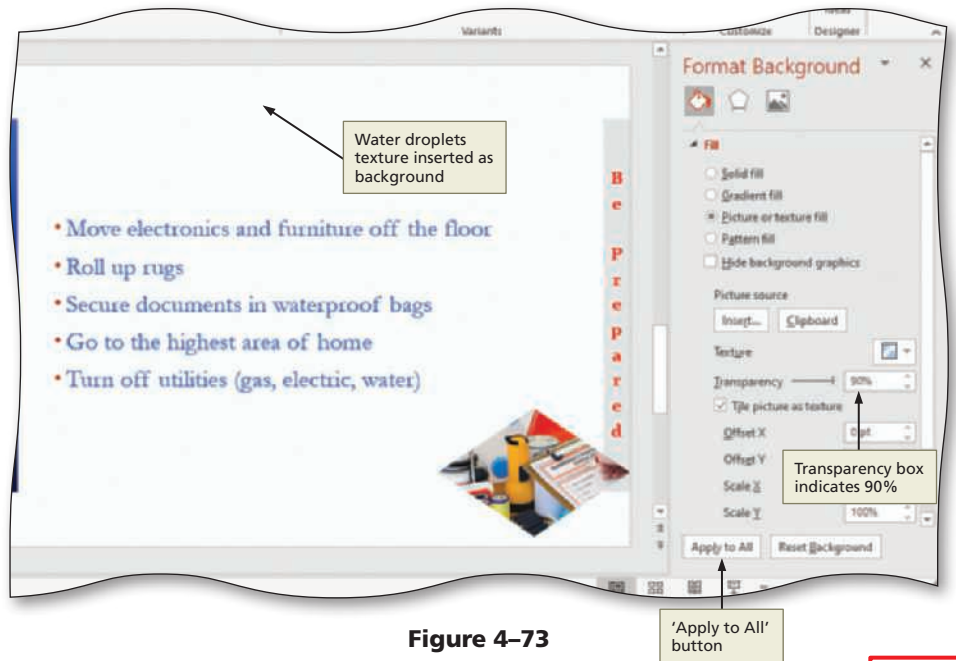


Figure 4-73

4

- Click the Transparency slider and drag it to the left until 60% is displayed in the Transparency box (Figure 4-74).

Experiment

- Drag the Transparency slider to the left and right and watch the slide background change.

5

- Click Close (Format Background pane) to close the pane.

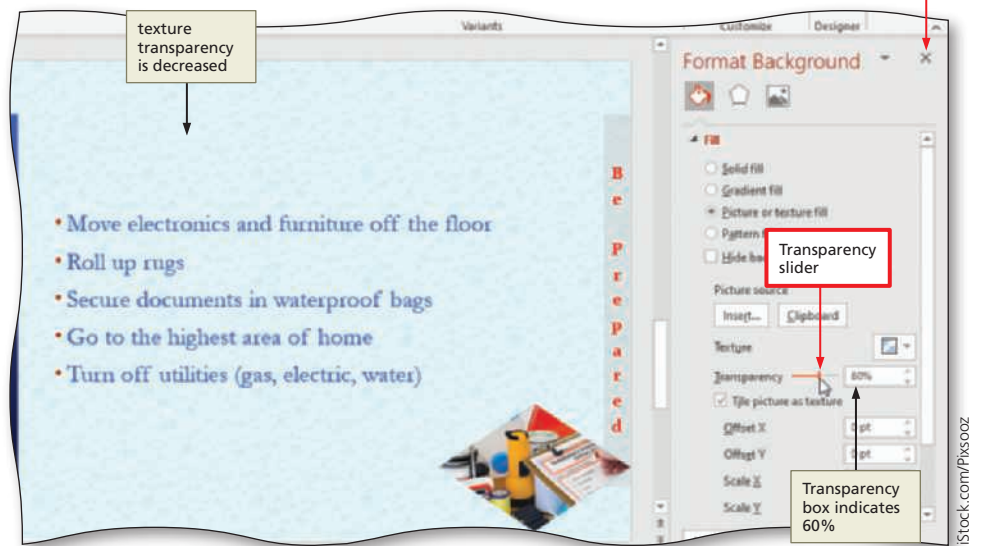


Figure 4-74

Other Ways

1. Right-click background, click Format Background on shortcut menu, select desired options (Format Background pane)

Hiding a Slide

Slides 2, 3, and 4 present a variety of emergency preparation advice. Depending on the audience's needs and the time constraints, you may decide not to display one or more of these slides. If need be, you can use the **Hide Slide** command to hide a slide from the audience during the normal running of a slide show. When you want to display the hidden slide, press H. No visible indicator displays to show that a hidden slide exists. You must be aware of the content of the presentation to know where the hidden slide is located.

When you run your presentation, the hidden slide does not display unless you press H when the slide preceding the hidden slide is displayed. For example, if you choose to hide Slide 4, then Slide 4 will not display unless you press H when Slide 3 displays in Slide Show view.

To Hide a Slide

Slide 5 discusses technology guidelines such as preserving important documents and using social media before and during disasters. As the presenter, you decide whether to show Slide 5. **Why? If time permits, or if the audience requires information on this subject, you can display Slide 5.** When you hide a slide in Slide Sorter view, a slash appears through the slide number, which indicates the slide is hidden. The following steps hide Slide 5.

- 1

 - Click Slide Sorter view on the status bar to display the slide thumbnails.
 - Click Slide Show on the ribbon to display the Slide Show tab and then click the Slide 5 thumbnail to select it (Figure 4-75).

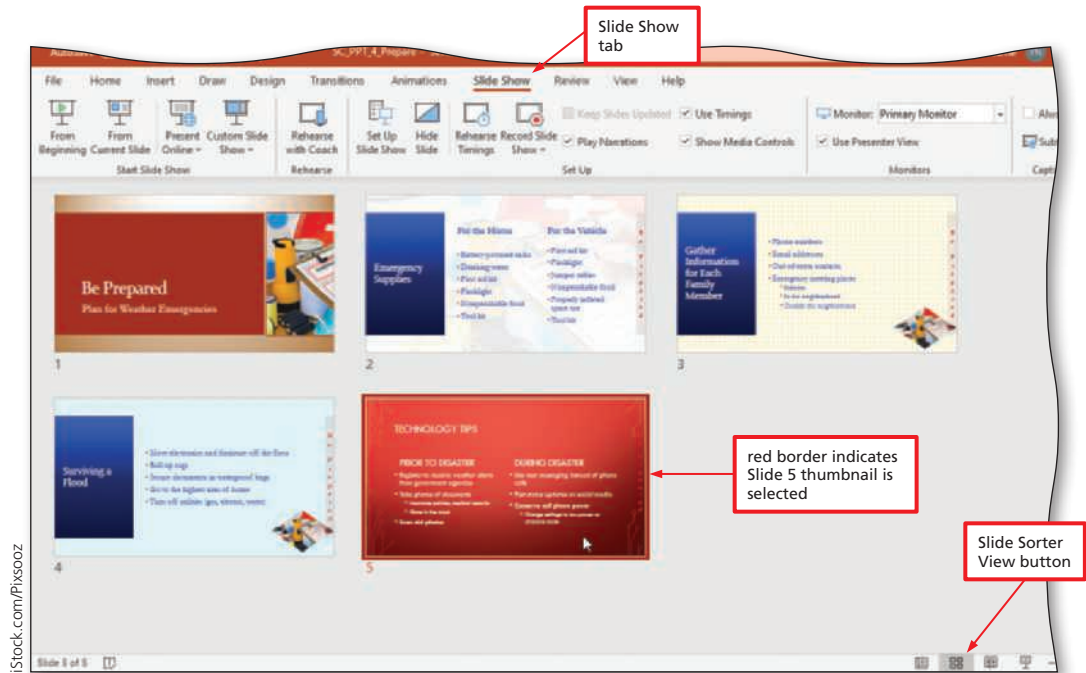


Figure 4-75

- 2

 - Click the Hide Slide button (Slide Show tab | Set Up group) to hide Slide 5 (Figure 4-76).

Q&A How do I know that Slide 5 is hidden?

The slide number has a slash through it and the slide thumbnail is shaded to indicate Slide 5 is a hidden slide.

What if I decide I no longer want to hide a slide?

Repeat Step 2. The Hide Slide button is a toggle; it either hides or displays a slide.



Figure 4-76

3

- Click the Normal view button to display Slide 5.

Other Ways

1. Right-click desired slide in Slide Sorter view or Normal view on Slides tab, click Hide Slide on shortcut menu

To Add a Slide Transition

A final enhancement you will make in this presentation is to apply the Wind transition to all slides and then change the transition speed and effect option. The following steps apply a transition and effect to the presentation.

- 1 Display the Transitions tab and then apply the Wind transition in the Exciting category to all five slides in the presentation.
- 2 Change the duration to 03.00 (Figure 4–77).

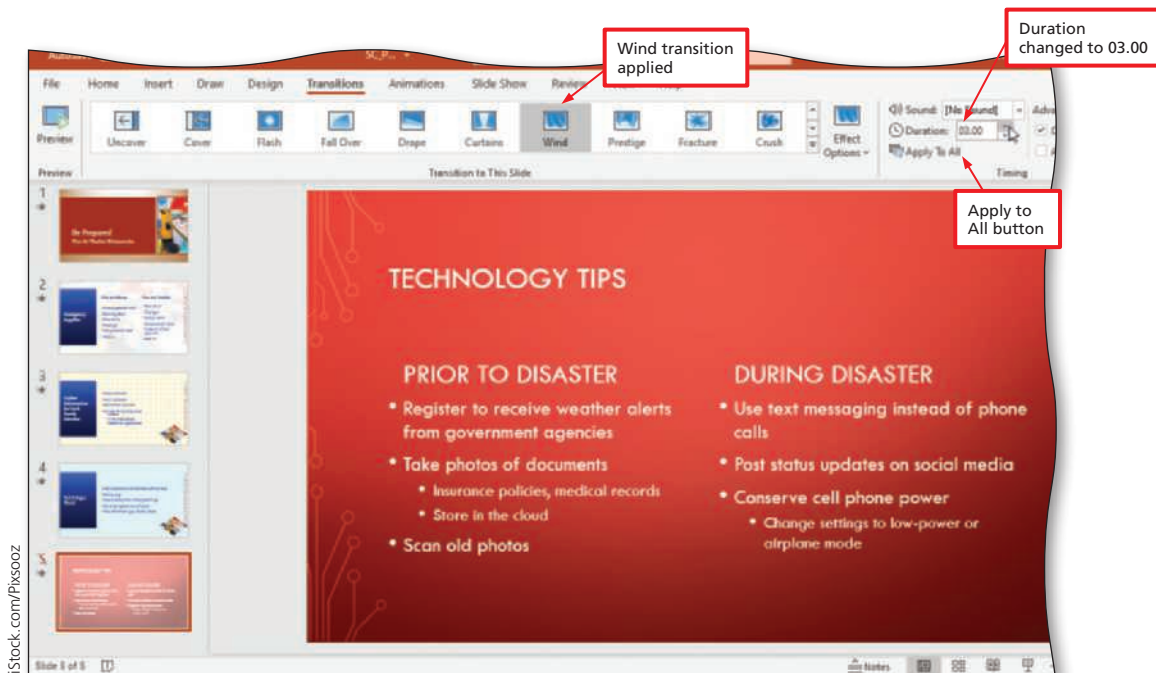


Figure 4–77

Protecting and Securing a Presentation

When your slides are complete, you can perform additional functions to finalize the file and prepare it for distributing to other users or running on a computer other than the one used to develop the file. For example, the **Document Inspector** locates inappropriate information, such as comments, in a file and allows you to delete these slide elements. You also can set passwords so only authorized people can distribute, view, or modify your slides. When the review process is complete, you can indicate this file is the final version.

To Inspect a Presentation

As you work on your presentation, you might add information meant only for you to see. For example, you might write comments to yourself or put confidential information in the Notes pane. You would not want other people to access this information if you give a copy of the presentation file to them. The Document Inspector provides a quick and efficient method of viewing all document properties and searching for and deleting personal information.

It is a good idea to make a duplicate copy of your file and then inspect this new second copy. **Why?** If you tell the Document Inspector to delete content, such as personal information, comments, invisible slide content, or notes, and then decide you need to see those slide elements, quite possibly you will be unable to retrieve the information by using the Undo command. The following steps run the Document Inspector and then delete comments.

- 1
 - Open Backstage view, click the Info tab, and then click 'Check for Issues' to display the 'Check for Issues' menu (Figure 4-78).
- 2
 - Click Inspect Document. If the Microsoft PowerPoint dialog box is displayed asking if you want to save your presentation, click Yes to save the file and then click Inspect to check the document and display the inspection results.

Q&A What information does the Document Inspector check?

This information includes text in the Info pane, such as your name and company. Other information includes details of when the file was last saved, objects formatted as invisible, graphics and text you dragged off a slide, presentation notes, and email headers.

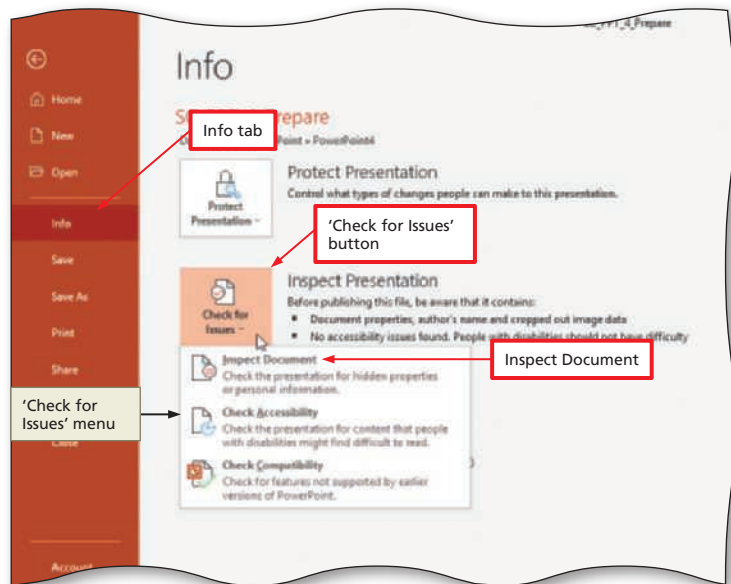


Figure 4-78

- 3
 - View the inspection results to see information that possibly could be removed (Figure 4-79).

Q&A What would happen if I click Remove All in the 'Documents Properties and Personal Information' section of the inspection results?

You would delete all identifying information, such as your name, that is saved.

- 4
 - Click the Close button (Document Inspector dialog box) to close the dialog box without removing any information.

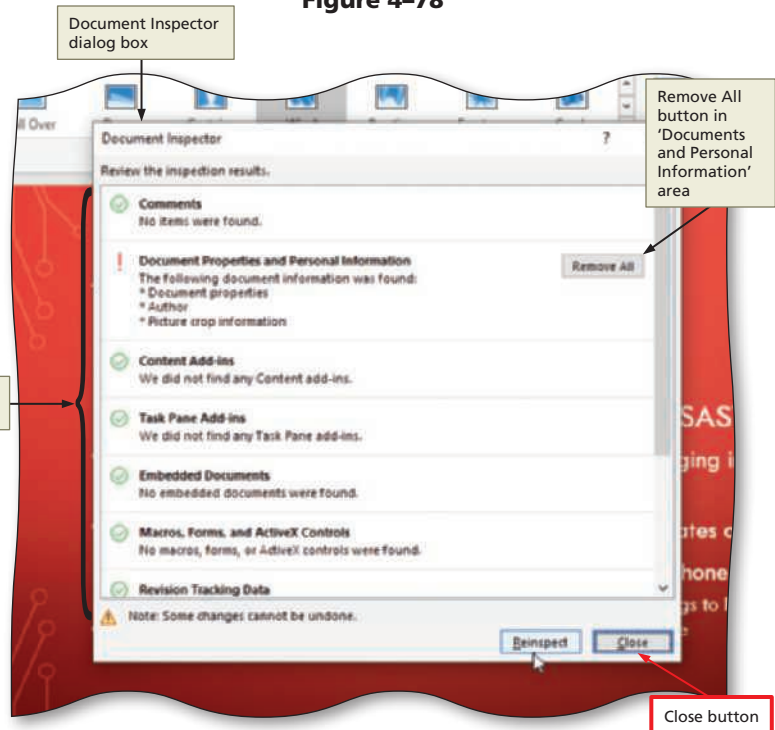


Figure 4-79

BTW Editing Document Properties

Recall that you can view and edit document properties such as Title and Categories in Backstage view (File | Info, Properties area).

TO MARK A PRESENTATION AS FINAL

When your slides are completed, you may want to prevent others or yourself from accidentally changing the slide content or features. If you use the **Mark as Final** command, the presentation becomes a read-only document. To mark the presentation as a final (read-only) document you would perform the following steps.

- With Backstage view open and the Info tab displayed for the Prepare file, click Protect Presentation to display the Protect Presentation menu.
- Click 'Mark as Final' to display the Microsoft PowerPoint dialog box indicating that the presentation will be saved as a final document.
- Click OK (Microsoft PowerPoint dialog box) to save the file and to display another Microsoft PowerPoint dialog box with information about a final version of a document and indicating that the presentation is final.

Q&A **Can I turn off this read-only status so that I can edit the file?**

Yes. Click Mark as Final in the Protect Presentation menu to toggle off the read-only status.

- Click OK (Microsoft PowerPoint dialog box). If an Information bar is displayed above the slide, click Edit Anyway to allow changes to be made to the presentation.

BTW**Printing Document Properties**

PowerPoint does not allow you to print document properties. This feature, however, is available in Word.

Navigating to a Slide During a Slide Show

When you display a particular slide and view the information, you may want to return to one of the other slides in the presentation. Jumping to other slides in a presentation is called **navigating**. A set of keyboard shortcuts can help you navigate to various slides during the slide show. When running a slide show, you can press F1 to see a list of these keyboard controls. These navigational features are listed in Table 4–1.

Table 4–1 Slide Show Shortcuts

Keyboard Shortcut	Purpose
N ENTER SPACEBAR PAGE DOWN RIGHT ARROW DOWN ARROW	Perform the next animation or advance to the next slide
P BACKSPACE LEFT ARROW UP ARROW PAGE UP	Perform the previous animation or return to the previous slide
NUMBER FOLLOWED BY ENTER	Go to a specific slide number
B	Display a blank black slide
W	Display a blank white slide
S	Stop or restart an automatic presentation
ESC	End a presentation
E	Erase on-screen annotations
H	Go to the next slide if the next slide is hidden
T	Set new timings while rehearsing

(Continued)

Table 4–1 Slide Show Shortcuts (Continued)

Keyboard Shortcut	Purpose
R	Rerecord slide narration and timing
CTRL+P	Change the pointer to a pen
CTRL+A	Change the pointer to an arrow
CTRL+E	Change the pointer to an eraser
CTRL+M	Show or hide ink markup

Navigating to a Slide Using the Control Bar

BTW

Using Presenter View

If you have two monitors, you can switch to Presenter view to see the presentation with speaker notes or the next slide on one computer while your audience sees only the current slide on a second monitor. To switch to Presenter view, click the Slide Show tab and then click the 'Use Presenter View' button in the Monitors group.

When you begin running a presentation in full screen mode and move the pointer, a control bar is displayed with buttons that allow you to navigate to the next slide or previous slide, mark up the current slide, display slide thumbnails, zoom, or change the current display. When you move the mouse, the control bar is displayed in the lower-left corner of the slide; it disappears after the mouse has not been moved for three seconds. Table 4–2 describes the buttons on the control bar.

Table 4–2 Slide Show Control Bar Buttons

Description	Image	Function
Previous		Go to previous slide or previous animated element on the slide
Next		Go to next slide or next animated element on the slide
Pen and laser pointer tools		Shortcut menu for laser pointer, pen, highlighter, and eraser
See all slides		View thumbnails of all slides in presentation
Zoom into the slide		Zoom in on specific slide area
Toggle Subtitles		Use the Subtitles feature to have PowerPoint transcribe your words as you present and display them on-screen as captions; also turns off the Subtitles feature.
Options		Shortcut menu for slide navigation and screen displays; also displays Presenter View on a single monitor

To Highlight Text

You click the arrows on the left side of the control bar to navigate backward or forward through the slide show. The 'Pen and laser pointer tools' button has a variety of functions, most often to emphasize aspects of slides or to make handwritten notes. The following steps highlight an item on a slide in Slide Show view. **Why?** You want to call attention to the presentation's emphasis on developing a plan.

1

- Display Slide 1 and then run the slide show.
- If the control bar is not visible in the lower-left corner of the slide, move the pointer on the slide.
- Click the 'Pen and laser pointer tools' icon on the control bar to display a menu (Figure 4–80).

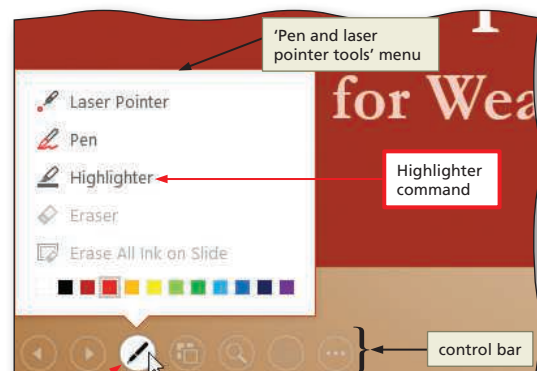


Figure 4–80

2

- Click the Highlighter icon on the control bar and then drag over the word, Plan, several times until all the letters are highlighted (Figure 4–81).



Figure 4–81

To Use Pen and Pointer Options During a Slide Show

Instead of Highlighter, you also can click Pen to draw or write notes on the slides. **Why? The Pen tool is much thinner than the Highlighter, so you can write words or draw fine lines on the slides.** When the presentation ends, PowerPoint will prompt you to keep or discard the ink annotations. The following steps change the pointer to a pen and then change the color of ink during the presentation.

1

- Click Next to display Slide 2. Click the 'Pen and laser pointer tools' icon on the control bar and then click Pen on the menu.
- Click 'Pen and laser pointer tools' on the control bar and then point to the color Dark Red (Figure 4–82).

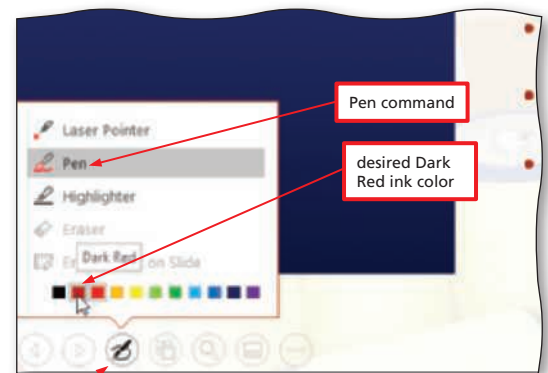


Figure 4–82

2

- Click the color Dark Red.
- Drag the pointer around the title text to draw a circle around the title text words, Emergency Supplies (Figure 4–83).

icon changes to indicate Pen pointer

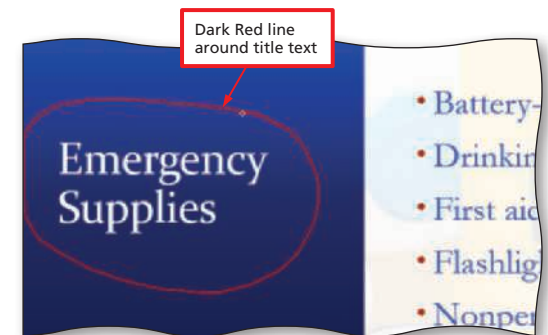


Figure 4–83

3

- Display Slide 3 and review the information.
- Display Slide 4 and review the information.
- Press H to display Slide 5.
- Right-click the slide to display the shortcut menu and then point to End Show (Figure 4–84).

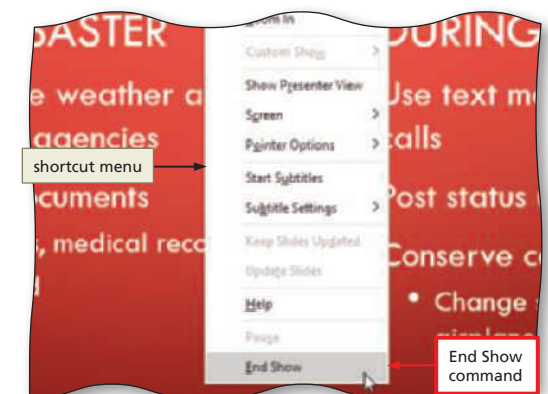


Figure 4–84

4

- Click End Show to display the Microsoft PowerPoint dialog box (Figure 4–85).

5

- Click the Discard button (Microsoft PowerPoint dialog box) to end the presentation without saving the ink annotations.

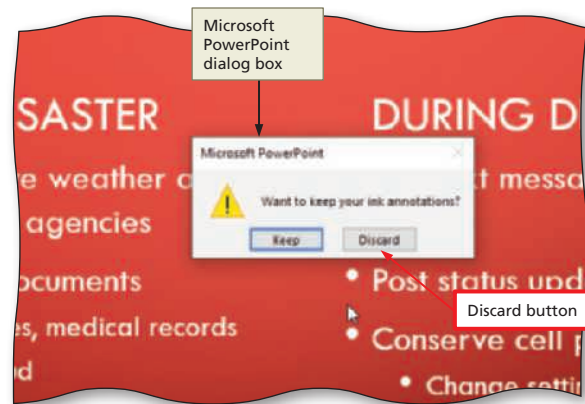


Figure 4–85

TO HIDE THE POINTER AND SLIDE SHOW CONTROL BAR

To hide the pointer and the control bar during the slide show, you would perform the following step.

- Click Options on the control bar, click Arrow Options, and then click Hidden.

TO CONSTANTLY DISPLAY THE POINTER AND SLIDE SHOW CONTROL BAR

By default, the pointer and control bar are set at Automatic, which means they are hidden after three seconds of no movement. After you hide the pointer and control bar, they remain hidden until you choose one of the other commands on the Options menu. They are displayed again when you move the mouse.

To keep the pointer and control bar displayed at all times during a slide show, you would perform the following step.

- Click Options on the control bar, click Arrow Options, and then click Visible.

BTW

Turn Off Slide Timings

PowerPoint gives you the option to turn slide timings off and then turn them back on without having to recreate them. Click the 'Set Up Slide Show' button (Slide Show tab | Set Up group) and then click Manually in the Advance slides area (Set Up Show dialog box). To turn the slide timings back on, click 'Using timings, if present' in the Advance slides area (Set Up Show dialog box).

Rehearsing Slide Timings

In previous slide shows, you clicked to advance from one slide to the next. You also can set the time each slide is displayed on the screen. You can set these times in one of two ways. The first method is to specify each slide's display time manually. The second method is to use PowerPoint's **rehearsal feature**, which allows you to advance through the slides at your own pace, and the amount of time you view each slide is recorded. You will use the second technique in this module and then adjust the fourth slide's timing manually.

When you begin rehearsing a presentation, the Rehearsal toolbar is displayed. The **Rehearsal toolbar** contains buttons that allow you to start, pause, and repeat viewing the slides in the slide show and to view the times for each slide as well as the elapsed time. Table 4–3 describes the buttons on the Rehearsal toolbar.

Table 4–3 Rehearsal Toolbar Buttons

Button Name	Image	Description
Next	➔	Displays the next slide or next animated element on the slide.
Pause Recording	⏸	Stops the timer. Tap or click Next or Pause Recording to resume timing.
Slide Time	0:00:00	Indicates the length of time a slide has been displayed. You can enter a slide time directly in the Slide Time box.
Repeat	↶	Clears the Slide Time box and resets the timer to 0:00:00.
Elapsed Time	0:00:00	Indicates slide show total time.

Consider This 

Give your audience sufficient time to view a slide.

The presentation in this module is designed to run continuously at a kiosk without a speaker’s physical presence. Your audience, therefore, must read or view each slide and absorb the information without your help as a narrator. Be certain to give them time to read each slide and grasp the concept you are presenting. They will become frustrated if the slide changes before they have finished viewing and assimilating the material. As you set the slide timings, read each slide aloud and note the amount of time that elapses. Add a few seconds to this time and use this amount for the total time the slide is displayed.

To Rehearse Slide Timings

You need to determine the length of time each slide should be displayed. **Why? Audience members need sufficient time to read the text and watch the animations.** Table 4–4 indicates the desired timings for the five slides in the Prepare presentation. Slide 1 is displayed and then the title text appears for 10 seconds. Slides 2, 3, and 4 are displayed for 15 seconds. Slide 5 is displayed for 20 seconds.

Slide Number	Display Time	Elapsed Time
1	0:00	0:10
2	0:15	0:25
3	0:15	0:40
4	0:15	0:55
5	0:20	1:15

The following steps add slide timings to the slide show.

- 1 Display Slide 1 and then click Slide Show on the ribbon to display the Slide Show tab (Figure 4–86).

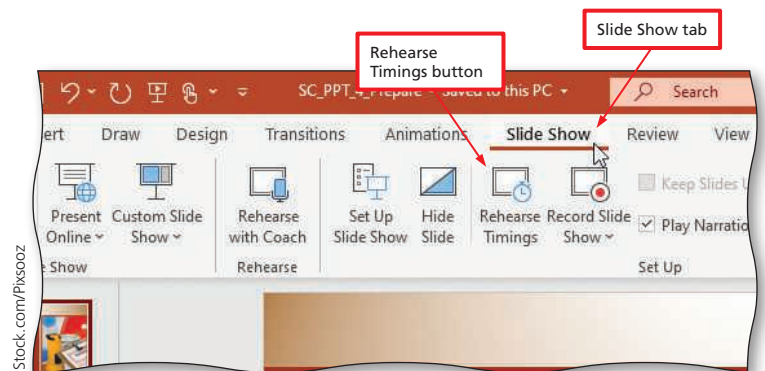


Figure 4–86

2

- Click the Rehearse Timings button (Slide Show tab | Set Up group) to start the slide show and the counter (Figure 4–87).

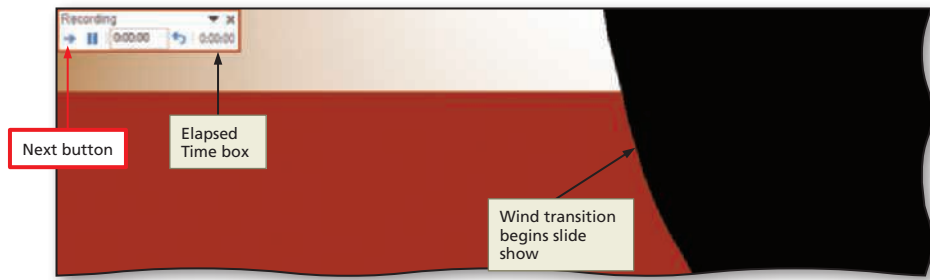


Figure 4–87

3

- When the Elapsed Time displays 00:10, click Next to display Slide 2.
- When the Elapsed Time displays 00:25, click Next to display Slide 3.
- When the Elapsed Time displays 00:40, click Next to display Slide 4.
- When the Elapsed Time displays 00:55, type 15 to display the hidden Slide 5.
- When the Elapsed Time displays 01:15, click Next to display the Microsoft PowerPoint dialog box (Figure 4–88).

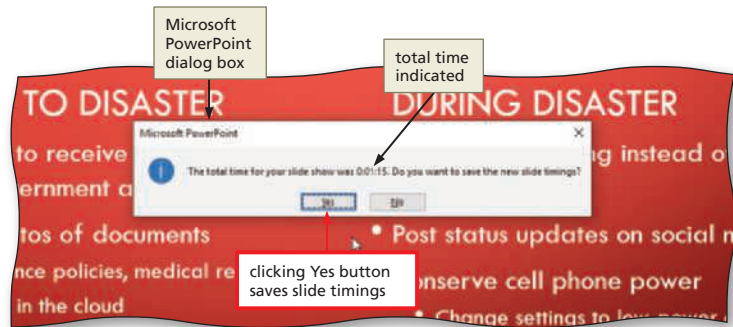


Figure 4–88

4

- Click Yes to keep the new slide timings with an elapsed time of 01:15.
- Click Slide Sorter view and then, if necessary, zoom the view to display all five thumbnails. Review the timings displayed in the lower-right corner of each slide (Figure 4–89).
- If the Always Use Subtitles pane opens, click Close to close it.

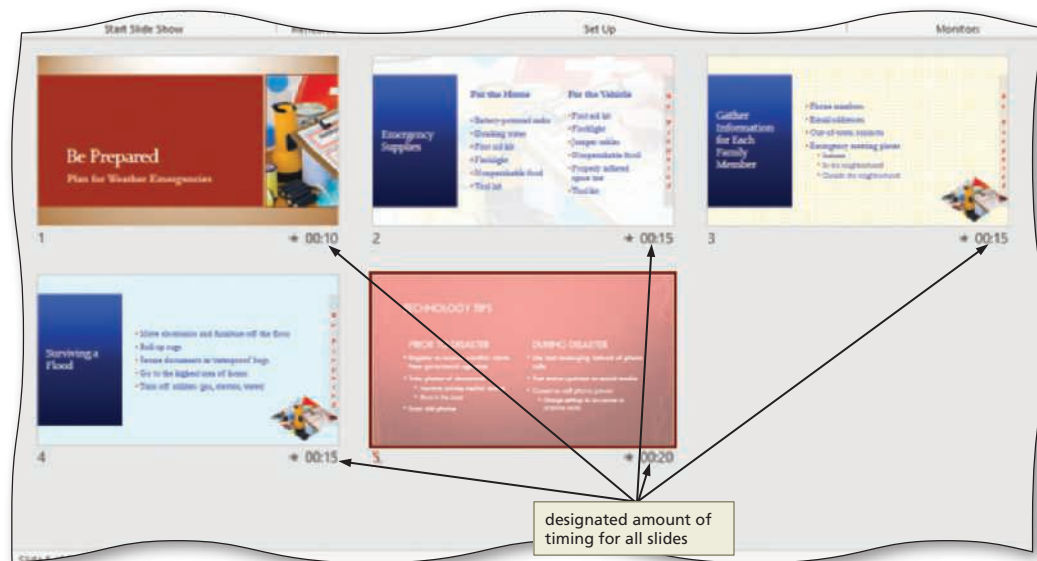


Figure 4–89

To Advance a Slide After a Specified Number of Seconds

Why? If the slide timings need adjustment, you manually can change the length of time each slide is displayed. In this presentation, you decide to display Slide 4 for 20 seconds instead of 15 seconds. The following step increases the Slide 4 timing.

1

- In Slide Sorter view, display the Transitions tab and then select Slide 4.
- Change the 'Advance Slide After' setting (Transitions tab | Timing group) to 00:20.00 (Figure 4–90).

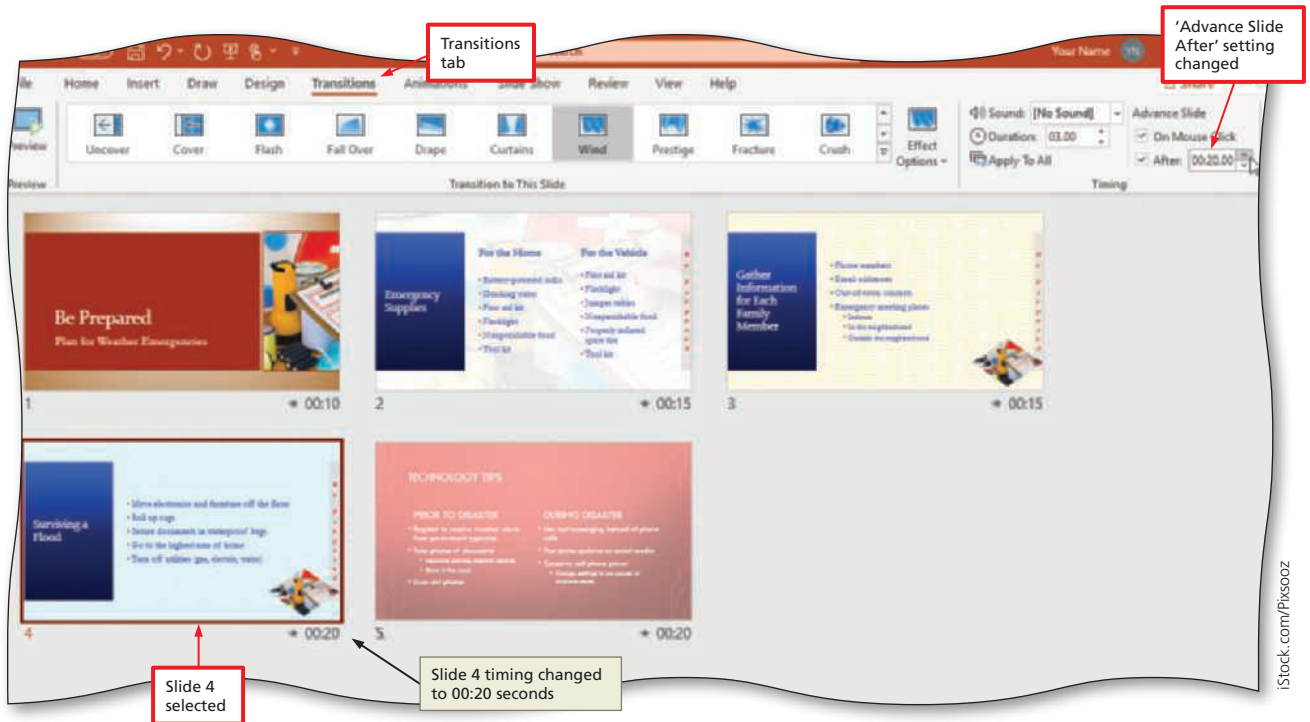


Figure 4–90

To Run a Slide Show with Timings

All changes are complete. You now can view the presentation with timings. The following steps run the slide show.

- 1 Click From Beginning (Slide Show tab | Start Slide Show group) to start the presentation.
- 2 As each slide automatically is displayed, review the information.
- 3 When the final slide is displayed, press ESC to stop the presentation.

To Save and Print the Presentation

With the presentation completed, you should save the file and print handouts for your audience. The following steps save the file and then print a presentation handout with two slides per page.

- 1 Save the presentation again in the same storage location with the same file name.
- 2 Open Backstage view, click the Print tab, click 'Full Page Slides' in the Settings area, click 2 Slides in the Handouts area to display a preview of the handout, and then click Print in the Print gallery to print the presentation.
- 3 **sm** ↑ Because the project now is complete, you can exit PowerPoint.

BTW

Distributing Slides

Instead of printing and distributing a hard copy of PowerPoint slides, you can distribute the slides electronically. Options include sending the slides via email; posting them on cloud storage (such as OneDrive) and sharing the link with others; posting them on social media, a blog, or other website; and sharing a link associated with an online location of the slides. You also can create and share a PDF or XPS image of the slides, so that users can view the file in Acrobat Reader or XPS Viewer instead of in PowerPoint.

BTW

Conserving Ink and Toner

If you want to conserve ink or toner, you can instruct PowerPoint to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the PowerPoint Options dialog box, clicking Advanced in the left pane (PowerPoint Options dialog box), scrolling to the Print area in the right pane, verifying there is no check mark in the High quality check box, and then clicking OK. Then, use Backstage view to print the document as usual.

Summary

In this module you learned how to customize slide masters and presentations. Topics covered included applying slide and font themes to a slide master, formatting slide backgrounds, adding and formatting placeholders, changing the theme variant, inspecting and protecting a presentation, highlighting text and using a pen and pointer during a slide show, and rehearsing slide timings.



Consider This: Plan Ahead

What decisions will you need to make when creating your next presentation?

Use these guidelines as you complete the assignments in this module and create your own slide show decks outside of this class.

1. **Plan the slide master.** Using a new slide master gives you the freedom to plan every aspect of your slide. Take care to think about the overall message you are trying to convey before you start PowerPoint and select elements for this master.
 2. **Develop the slide master prior to creating presentation slides.** You can save time and create consistency when you design and build your master at the start of your PowerPoint session rather than after you have created individual slides.
 3. **Determine the rehearsal times.** On average, audience members will spend only eight seconds viewing a basic slide with a simple graphic or a few words. They will need much more time to view charts, graphs, and other graphics. When you are setting slide timings, keep this length of time in mind, particularly when the presentation is viewed without a speaker's physical presence.
-

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Creating and Formatting Slide Masters and a Template

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start PowerPoint. Your school is promoting careers available for math majors, and the marketing department has asked you to help with the campaign. You decide to design a template that can be customized for each local school on the college visitation schedule. Open the presentation called SC_PPT_4-1.pptx, which is located in the Data Files. You will delete and rename slide layouts, change slide backgrounds, save a slide master as a template, and then create the presentation shown in Figure 4–91.

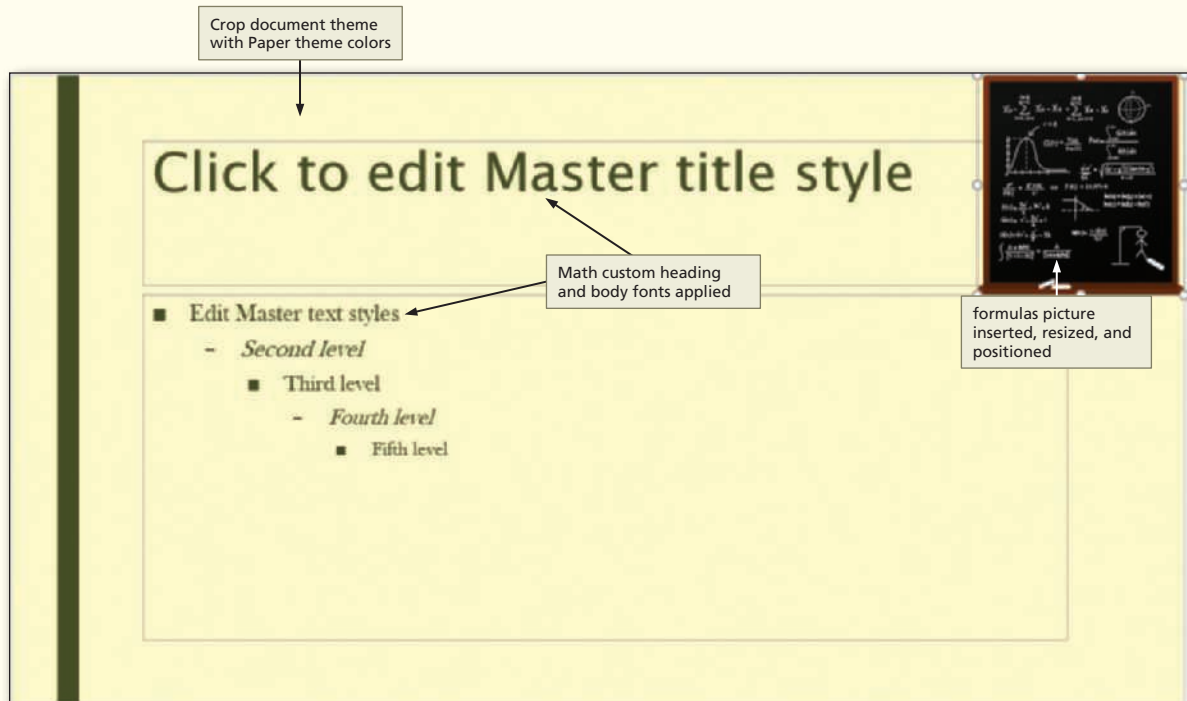
Perform the following tasks:

1. Display Slide Master view. Delete all layouts except the Title Slide Layout and the Title and Content Layout.
2. Display the Crop Slide Master. Change the theme colors to Paper. Customize the theme fonts by changing the heading font to Lucida Sans and the body font to Baskerville Old Face. Save the new font set with the name, **Math**.
3. Insert the picture Support_PPT_4_Formulas.tif, resize it to a height of 2.5" and a width of 2.34", and then move it to the upper-right edge of the slide, as shown in Figure 4–91a. Rename the Crop Slide Master as **Math Slide Master**.
4. Display the Title Slide Layout and then format the background texture fill to Recycled paper (fourth background in third row). Change the transparency to 50%. To display the formulas picture on this slide, click the 'Hide Background Graphics' check box (Slide Master tab | Background group) so that it no longer is checked. Rename this layout **Math Title Slide**.
5. On the Math Title Slide Layout, insert a Text placeholder and then change the width to 4". Delete the default text and the bullet in the new placeholder and then type **Multiply your success** in the placeholder. Bold this text, increase the font size to 28 point, and then center it in the placeholder. Cut this placeholder from the layout and then paste it on the Math Slide Master layout. Position this placeholder by aligning it in the center and the top of the slide.
6. Display the Title and Content Layout and then insert the picture called Support_PPT_4_Math.jpg, located in the Data Files, as the new background fill. Change the transparency to 85%, as shown in Figure 4–91b. Close the Format Background pane. Rename this layout **Math Content**.
7. Close Master view. Save the file as a template using the file name, **SC_PPT_4_Math_Template**.
8. On Slide 1, type **Presentation for Shelly High School Math Club** in the subtitle placeholder (Figure 4–91c).
If requested by your instructor, replace the word, Shelly, with the name of the first school you attended.
9. Insert a new slide as Slide 2 with the Math Content Layout. Type the text shown in Figure 4–91d. Increase the font size of the bulleted paragraphs to 32 point.
10. Apply the Peel Off transition in the Exciting category to both slides and then change the duration to 2.00 seconds.

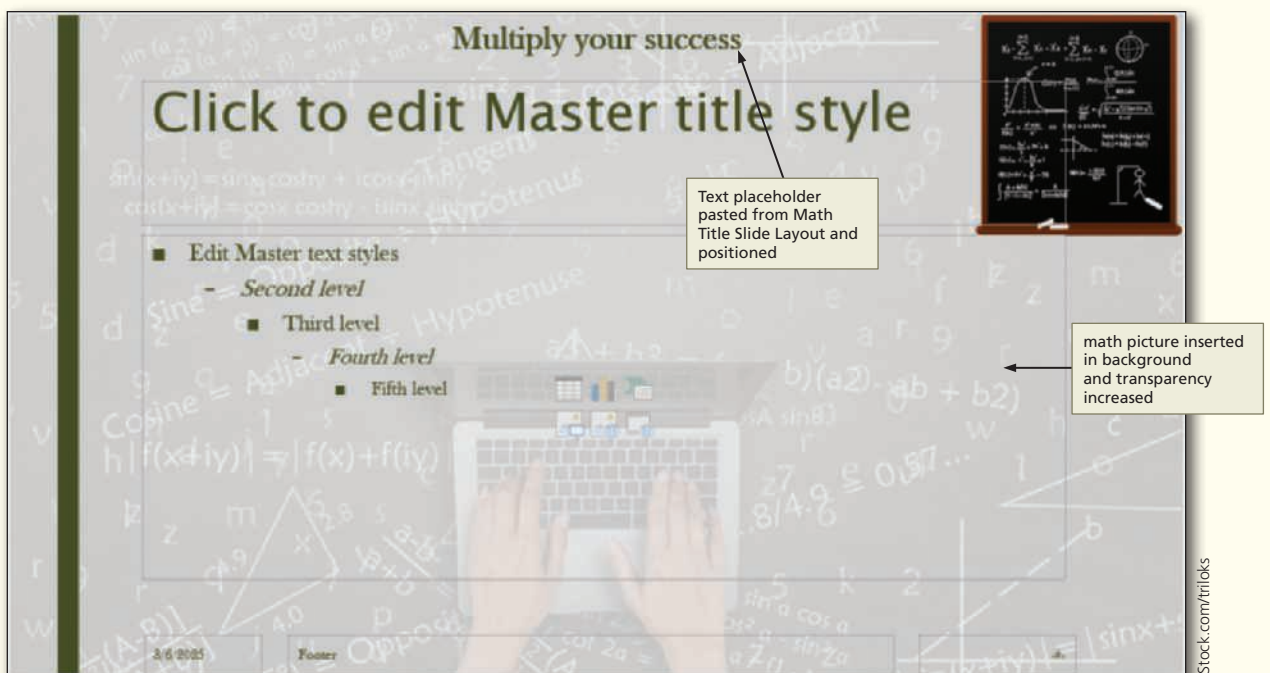
Continued >

Apply Your Knowledge *continued*

11. View the presentation and then save the file as a PowerPoint presentation using the file name, **SC_PPT_4_Math**, and submit the revised presentation in the format specified by your instructor.
12. 🌟 In this assignment, you created a new theme font in the Slide Master and named it Math. Are the fonts appropriate for this presentation? You also changed the theme colors to Paper. Was this a good choice? Would another set of colors been a better complement for this topic? Why or why not?

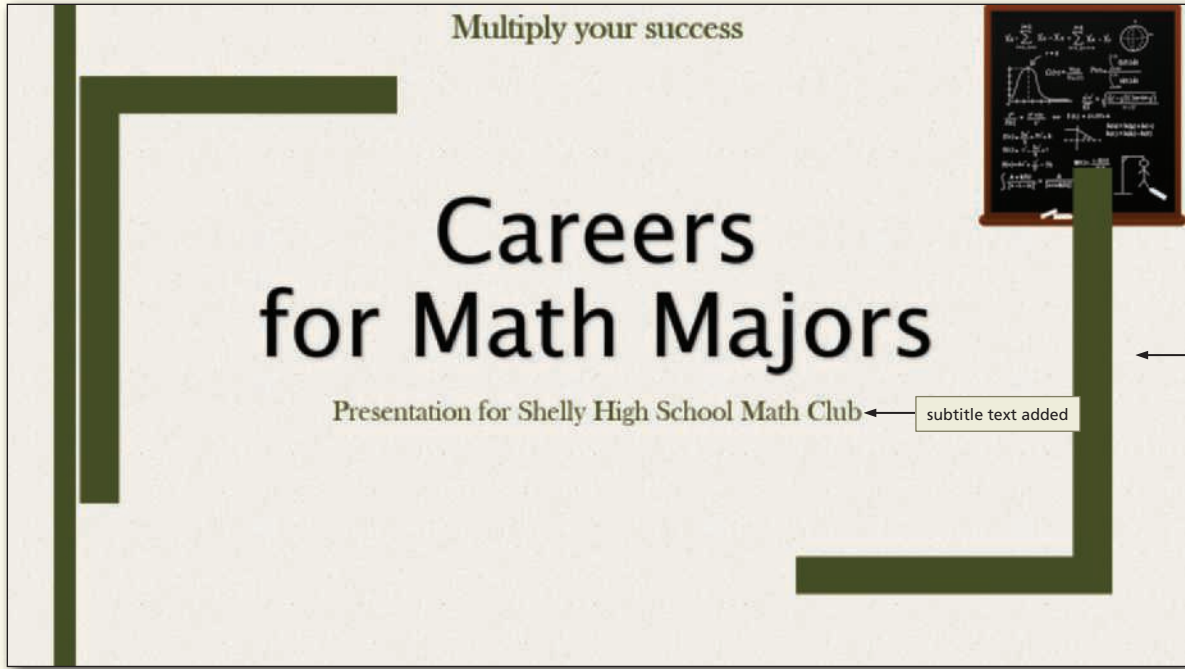


(a) Slide Master

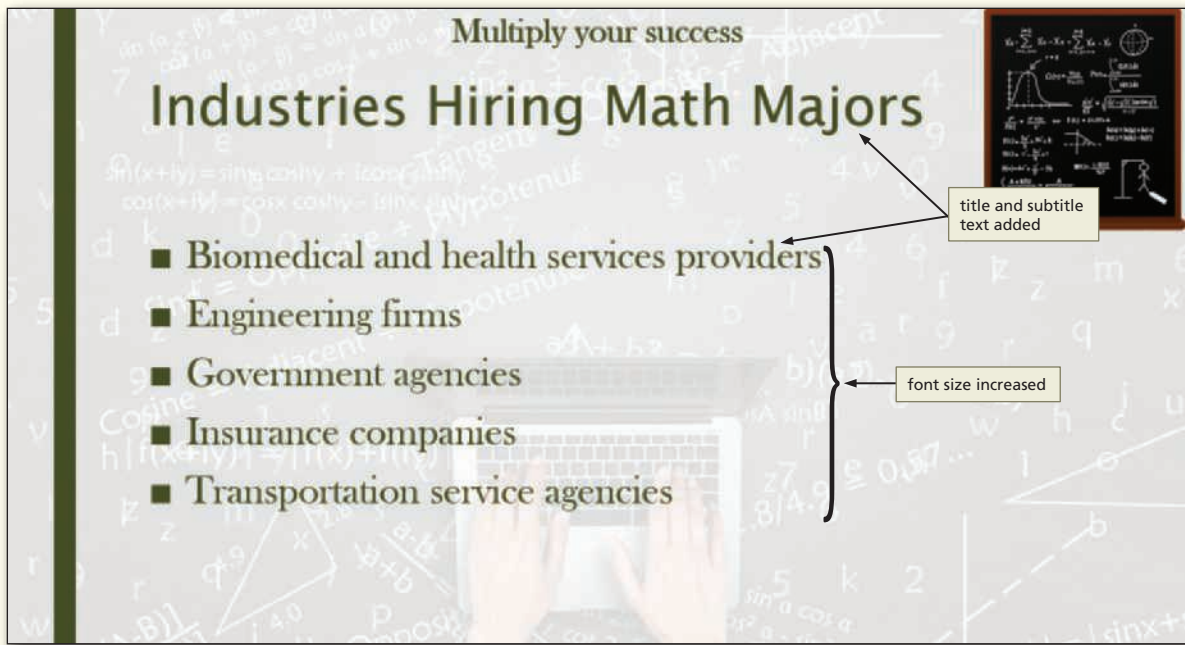


(b) Formatted Slide Master

Figure 4-91 (Continued)



(c) Slide 1



(d) Slide 2

Figure 4-91

Extend Your Knowledge

Extend the skills you learned in the module and experiment with new skills. You may need to use Help to complete the assignment.

Using Design Ideas and Adjusting Footer Content

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Continued >

Extend Your Knowledge *continued*

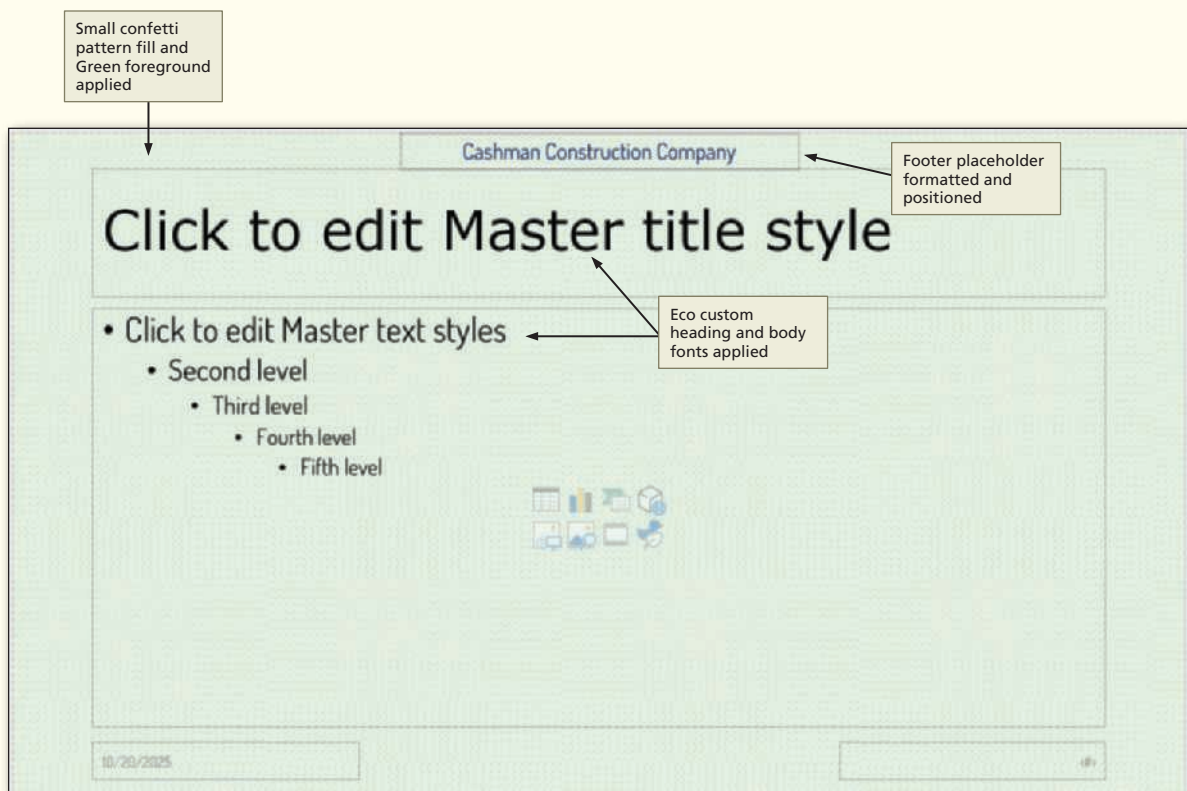
Instructions: Start PowerPoint. This semester you are interning at Cashman Construction Company. This business specializes in home remodeling services, and the owner has asked you to prepare slides to show at several local home shows. He wants you to create a PowerPoint template so he can change photographs for each show he attends. Open the presentation called SC_PPT_4-2.pptx, which is located in the Data Files. You will use the Design Ideas pane to develop the title slide, adjust the footer content, and insert and rename a layout. The document you open is a partially formatted presentation. Slide 1 in the presentation has a title and three pictures. Slide 2 has a list of possible eco-friendly projects. You will create the slide master layouts in Figure 4–92 and then add the slide content.

Perform the following tasks:

1. Display Slide Master view and then select the Office Theme Slide Master. Display the Header and Footer dialog box and then type the text, **Cashman Construction Company**, in the Footer text box and apply the footer text box to all slides.

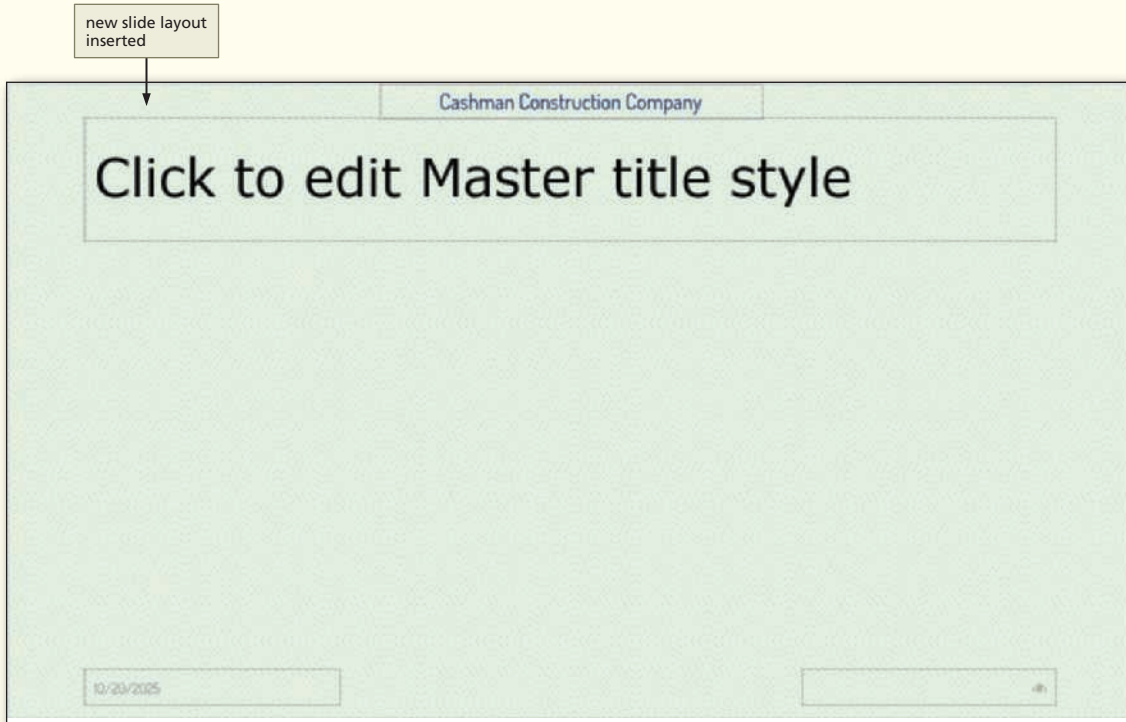
If requested by your instructor, replace the word, Cashman, with the name of your high school mascot.

2. Align the Footer placeholder in the center and top of the slide and then increase font size to 18 point and change the font color to Dark Blue.
3. Format the background by adding the Small confetti pattern fill (fifth pattern in fifth row) to all layouts and then change the Foreground color to Green. Close the Format Background pane.
4. Customize the theme fonts using Verdana for the heading font and Dosis for the body font. Name the new font set, **Eco** (Figure 4–92a).

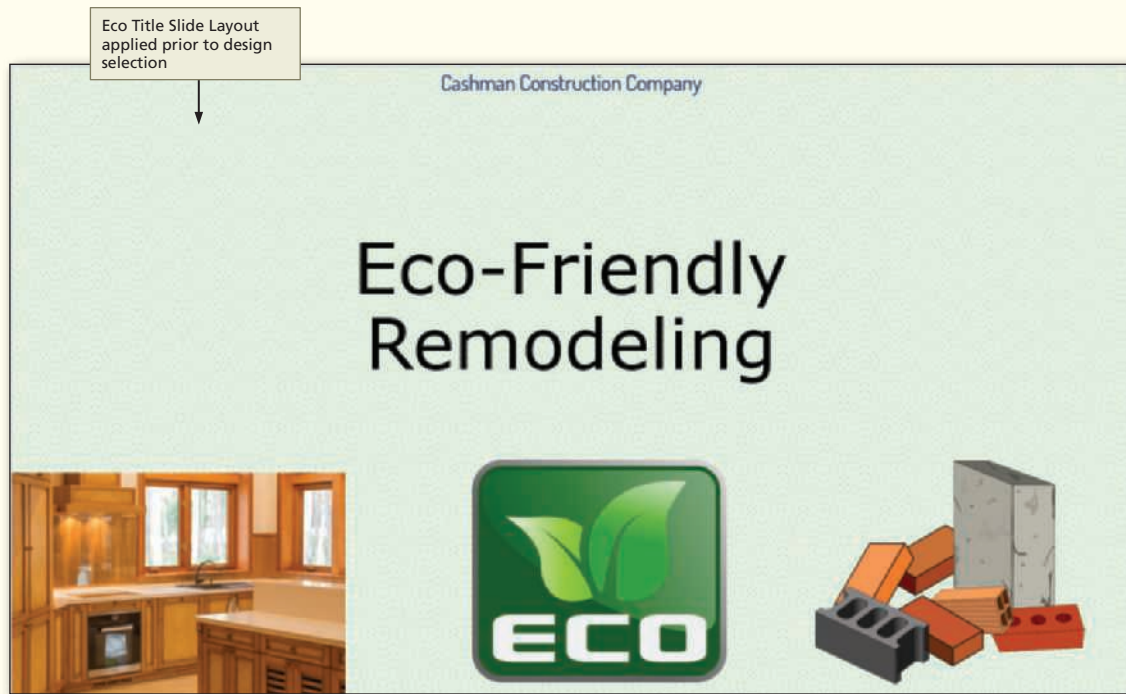


(a) Eco Slide Master

Figure 4–92 (Continued)



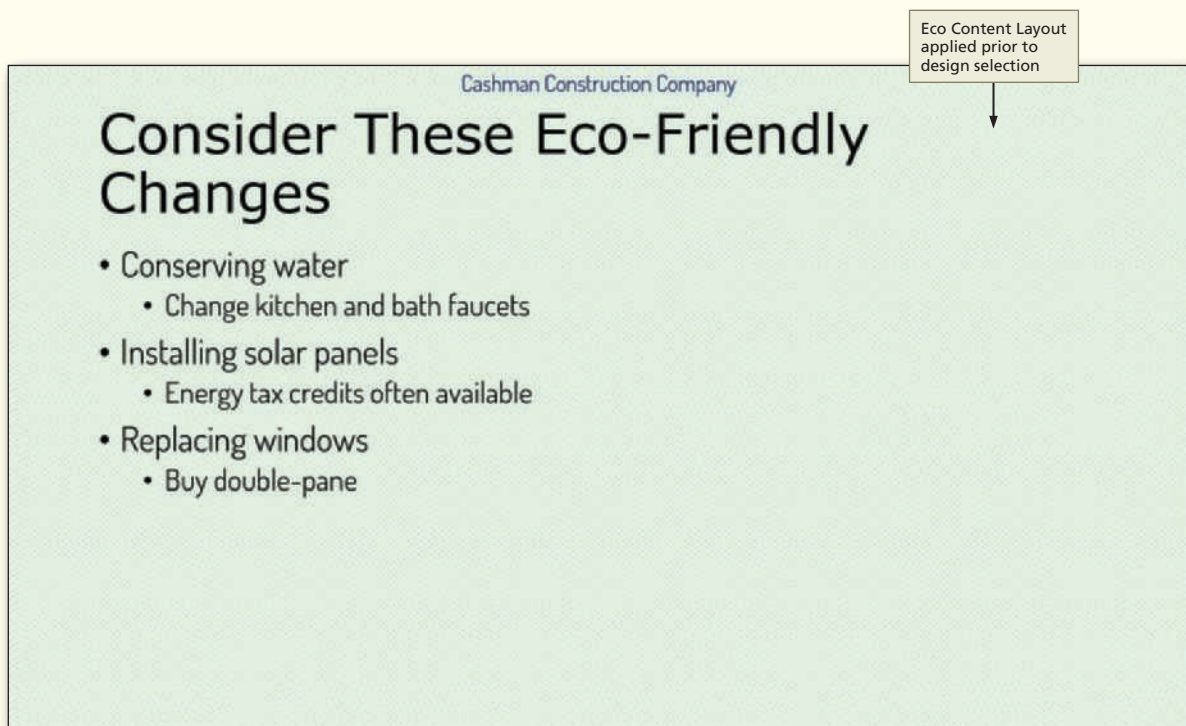
(b) Final Slide Layout



(c) Slide 1

Figure 4-92 (Continued)

Continued >

Extend Your Knowledge *continued*

(d) Slide 2

Figure 4-92

5. Select the Section Header Layout and then delete this layout and all other layouts below it. Rename the Office Theme Slide Master, **Eco Slide Master**. Rename the Title Slide Layout, **Eco Title Slide Layout**. Rename the Title and Content Layout, **Eco Content Layout**. Insert a layout and rename it, **Final Slide Layout** (Figure 4-92b). Close Slide Master view.
6. With Slide 1 displayed (Figure 4-92c), click Design Ideas (Design tab | Designer group) to display the Design Ideas pane. Click the first design in the pane to apply that design to the title slide.
7. Display Slide 2 (Figure 4-92d). Click the first design in the pane to apply that design to the slide.
8. Insert a new slide with the Final Slide layout. Type **Improvements for Every Budget** in the title text placeholder. Insert the picture, Support_PPT_4_Remodel.jpg, and then select the first design in the Design Ideas pane.
9. Apply the Doors transition in the Exciting category to all slides and then change the duration to 3.00 seconds.
10. View the presentation, save the file as a PowerPoint presentation using **SC_PPT_4_Eco** as the file name, and then submit the revised presentation in the format specified by your instructor.
11. 🌟 In this assignment, you created a new theme font in the Slide Master and named it Eco. Are the fonts appropriate for this presentation? Why or why not? How did the design ideas enhance the three slides?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Exploring Add-ins

Instructions: You use apps on your phone and tablet to access information on the web. Similarly, when you are working with PowerPoint and other Microsoft 365 apps, you can use add-ins, which essentially are apps designed to increase your productivity. When you download an add-in from a reliable source, you enable it by clicking Enable Content on the Message Bar. You would like to investigate some of the add-ins available for PowerPoint to determine which ones would be helpful for you to use.

Note: You will be required to use your Microsoft account to complete this assignment. If you do not have a Microsoft account and do not want to create one, read this assignment without performing the instructions.

Perform the following tasks:

1. Use Help to learn about Office add-ins. If necessary, sign in to your Windows account and your Microsoft account in PowerPoint.
2. Display the Insert tab and then click Get Add-ins (Insert tab | Add-ins group) to display the Office Add-ins dialog box. (If a menu is displayed, click the 'See My Add-ins' link to display the Office Add-ins dialog box.) Click the STORE tab to visit the online Office Store (Figure 4–93).

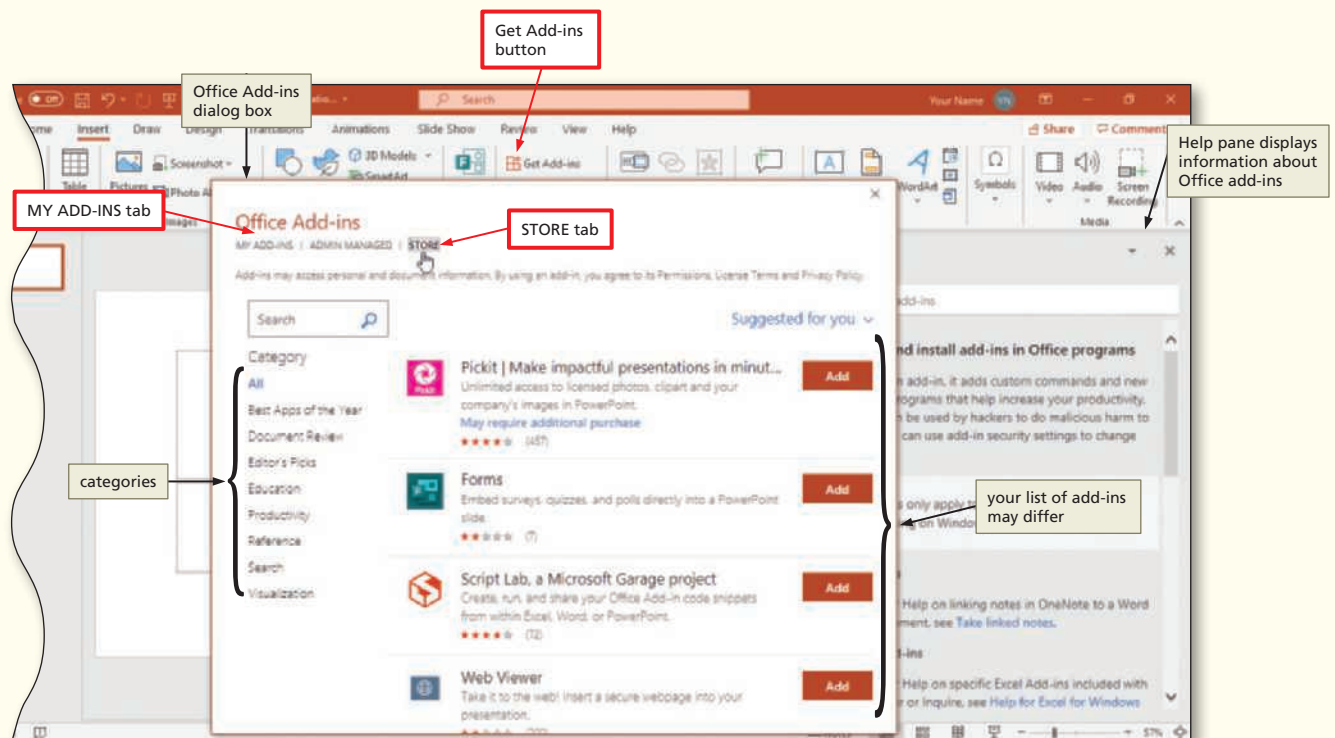


Figure 4–93

3. Scroll through the add-ins in the various categories. Locate a free add-in that you feel would be helpful to you while you use PowerPoint, click this desired add-in, and then follow the instructions to add the add-in to PowerPoint.

Continued >

Expand Your Knowledge *continued*

4. In PowerPoint, click Get Add-ins to display the Office Add-ins dialog box. Click the MY ADD-INS tab to display the add-in you added, click this add-in, and then click Add (Office Add-ins dialog box) to use the add-in.
5. Practice using the add-in.
6. 🌟 Which add-in did you download and why? Does the add-in work as you intended? Would you recommend this add-in to others? Which add-ins, if any, were already on your computer?

In the Lab

Apply your creative thinking and problem-solving skills to design and implement a solution.

Design and Create a Presentation about Using Public Wi-Fi Safely

Part 1: Free public Wi-Fi can be convenient, but it also has inherent risks from hackers who desire to intercept data. You work in the marketing department of your insurance company and are helping to prepare a presentation with advice on using unfamiliar networks. You have done some research and have learned that it is important to verify the network is legitimate, keep the operating system up to date, avoid file and printer sharing, use virtual private networks, and use a secure browser. Use the concepts and techniques presented in this module to prepare a presentation with a minimum of three slides with information about using Wi-Fi networks safely in public areas. Review some websites to learn how to minimize the risks of using free Wi-Fi hotspots. Use the pictures, Support_PPT_4_Wifi.jpg and Support_PPT_4_Tablet.jpg, which are located in the Data Files. Develop at least two slide master layouts that include a picture that displays on all slides, and then rename these layouts. Delete the layouts you do not use. Change the theme colors. Customize the theme fonts. Modify a slide background. Add slide transitions. Rehearse the slide timings. Review and revise your presentation as needed and then save the file using the file name, **SC_PPT_4_Wifi**. Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while creating the presentation in this assignment: creating and formatting slide masters, changing theme colors and fonts, modifying a slide background, and rehearsing slide timings. What was the rationale behind each of these decisions? When you reviewed the document, what further revisions did you make and why? Where would you recommend showing this slide show?

5 Collaborating and Adding Animation

Objectives

After completing this module, you will be able to:

- Combine (merge) PowerPoint presentations
- Accept and reject a reviewer's proposed changes
- Delete, reply to, and insert comments
- Change line and paragraph spacing
- Apply picture and artistic effects
- Change bullets to pictures and symbols and add effects
- Animate slide content
- Use the Animation Painter and Format Painter
- Add motion paths for animations
- Control animation timing
- Create and manage sections
- Insert zoom links

Introduction

BTW

Review Cycle Value

The review cycle plays an important role in developing an effective PowerPoint presentation. Your reviewers may raise issues and make comments about your material, and their concerns may help enhance your final slides. Terms and graphics that seem clear to you may raise questions among people viewing your material. Audience members may have diverse technical skills and educational levels, so it is important to understand how they may interpret your slides.

Often presentations are enhanced when you collaborate with others to fine-tune text, visuals, and design elements on your slides. A **review cycle** occurs when a slide show designer shares a file with multiple reviewers so they can make comments and changes to their copies of the slides and then return the file to the designer. A **comment** is a note that an author or a reviewer adds to a document that normally does not display as part of the slide show. It can be used to clarify information that may be difficult to understand, to pose questions, or to communicate suggestions. The designer then can display the comments, add replies, ask the reviewers to again review the presentation, and continue this process until the slides are satisfactory. Once the presentation is complete, the designer can protect the presentation so no one can open it without a password, remove comments and other information, and assure that slide content has not been altered. The designer also can save the presentation to a storage device or the cloud or as a PowerPoint show that will run without opening PowerPoint. In addition, a presenter can use PowerPoint's variety of tools to run the show effectively and emphasize various elements on the screen.

BTW

Pixels

Screen resolution specifies the amount of pixels displayed on your screen. The word, pixel, combines pix (for “pictures”) and el (for “element”).

Project: Presentation with Comments and Animation

In this module’s project, you will follow proper design guidelines and learn to use PowerPoint to create the slides shown in Figure 5–1a through 5–1e. The objective is to produce a presentation for a seminar at the local hospital in your town regarding the importance of drinking at least eight ounces of water daily. All slides in the presentation were developed using an older version of PowerPoint. In the older version, the slides used a 4:3 width-to-height ratio, which was the standard proportion of computer monitors at that time. Today, however, most people use PowerPoint’s default 16:9 ratio, which is the proportion of most widescreen monitors today. You will change the slide size in your presentation after all the slides are created.

When you are developing a presentation, it often is advantageous to ask a variety of people to review your work in progress. These individuals can evaluate the wording, art, and design, and experts in the subject can check the slides for accuracy. They can add comments to the slides in specific areas, such as a paragraph, a graphic, or a table. You then can review their comments and use them to modify and enhance your work. You also can insert slides from other presentations into your presentation.

In this module, you will learn how to create the slides shown in Figure 5–1. You will perform the following general tasks as you progress through this module:

1. Collaborate on a presentation by using comments.
2. Format and manage text spacing and bullets.
3. Format pictures with effects.
4. Modify bullets.
5. Animate paragraphs and objects.
6. Create and manage sections.
7. Use zoom links.

BTW

Reviewers’ Technology Limitations

People who receive copies of your presentation to review may not be able to open a PowerPoint file saved in the default .pptx format because they have a previous version of this software or may not have Internet access available readily. For these reasons, you need to know their software and hardware limitations and distribute your file or handouts accordingly.

Collaborating on a Presentation

PowerPoint provides several methods to collaborate with friends or coworkers who can view your slide show and then provide feedback. When you **collaborate**, you work together on a document with other PowerPoint users who are cooperating jointly and assisting willingly with the endeavor. You can distribute your slide show physically to others by exchanging a compact disc or a flash drive. You also can share your presentation through the Internet by sending the file as an email attachment or saving the file to a storage location, such as Microsoft OneDrive.

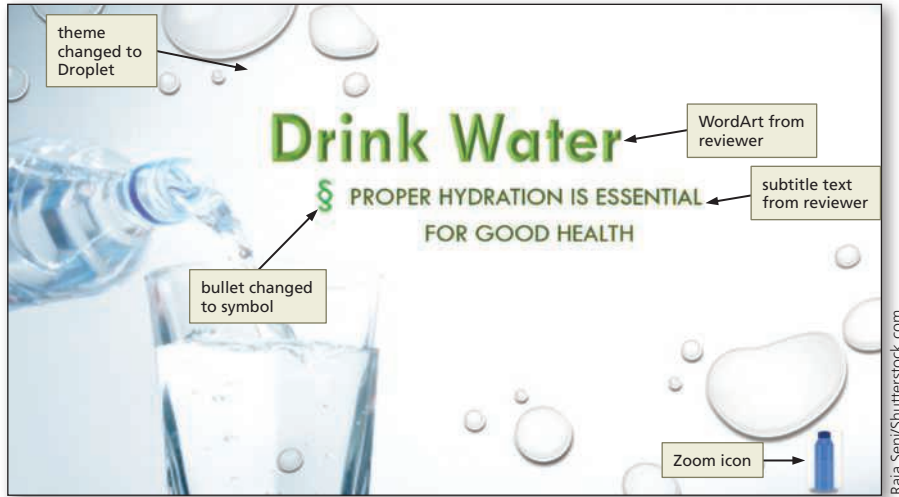
Consider This



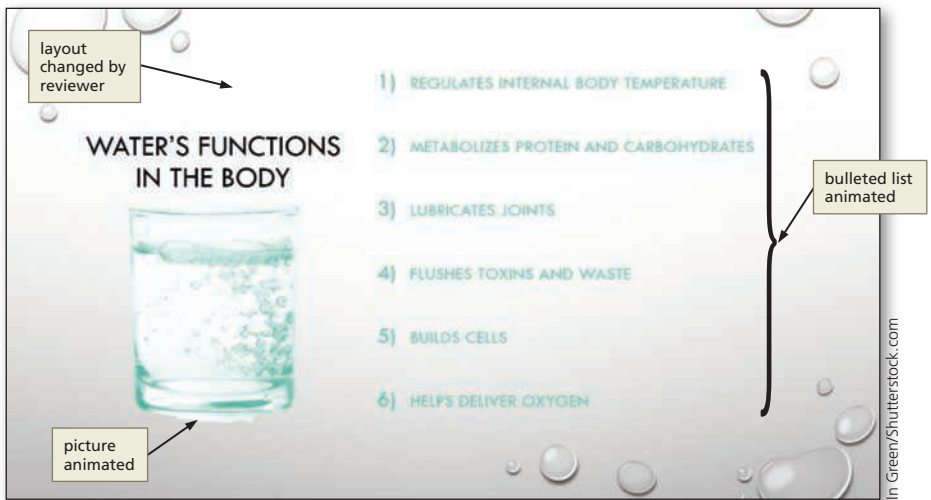
What are some tips for collaborating successfully?

Working with your classmates can yield numerous benefits. Your peers can assist in brainstorming, developing key ideas, revising your project, and keeping you on track so that your presentation meets the assignment goals.

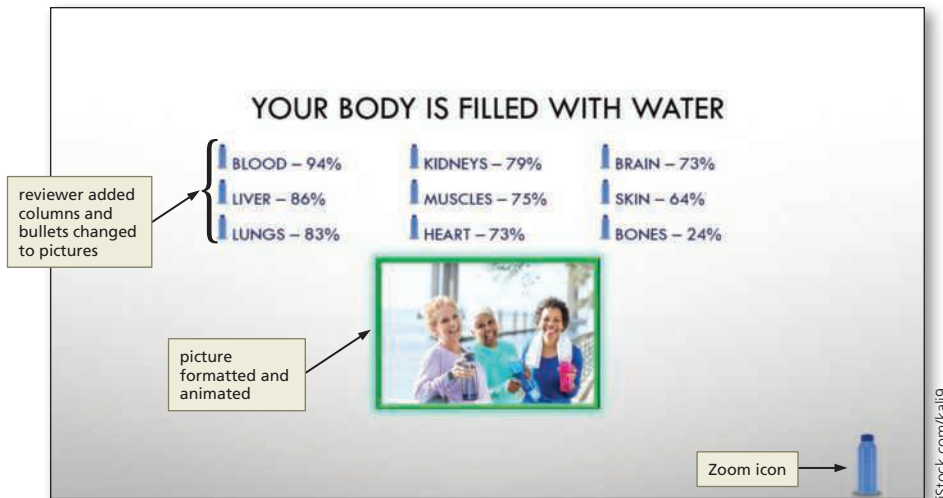
The first step when collaborating with peers is to define success. What, ultimately, is the goal? For example, are you developing a persuasive presentation to school administrators in an effort to fund a new club? Next, you can set short-term and long-term goals that help lead you to completing the project successfully. These goals can be weekly tasks to accomplish, such as interviewing content experts, conducting online research, or compiling an annotated bibliography. After that, you can develop a plan to finish the project by outlining subtasks that each member must accomplish. Each collaborator should inform the group members when the task is complete or if problems are delaying progress. When collaborators meet, whether in person or online, they should establish an agenda and have one member keep notes of topics discussed.



(a) Slide 1 (Title Slide Enhanced from Reviewer)



(b) Slide 2 (Redesigned from Reviewer)

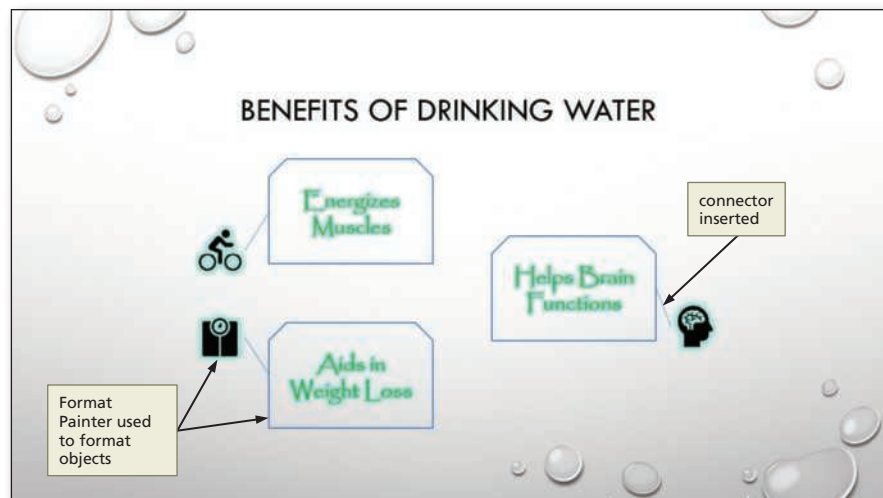


(c) Slide 3 (Enhanced from Reviewer)

Figure 5-1 (Continued)



(d) Slide 4 (Animation Added to Reviewer's Slide)



(e) Slide 5 (Enhanced from Reviewer)

Figure 5-1

BTW

Ribbon and Screen Resolution

PowerPoint may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

BTW

Touch Screen Differences

The Microsoft 365 and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

PowerPoint does not have a track changes feature like the one found in Word. You can receive comments and feedback from reviewers by first saving your presentation to your computer and then posting a second copy to a shared location, such as OneDrive, for them to review. You then can ask the reviewers to add comments to your slides and add feedback to the shared copy. Once they have finished their reviews, you can compare and merge their shared copy with the original saved on your computer.

In the following pages, you will follow these general steps to collaborate with Joe Weber, who has reviewed a presentation you created:

1. Combine (merge) presentations.
2. Review and accept or reject changes.
3. Reply to a comment.
4. Insert a comment.
5. Delete a comment.

To Merge a Presentation

Joe Weber's changes to the initial presentation include adding a subtitle, converting the Slide 1 title and subtitle text to WordArt, and changing the Slide 3 bulleted list into columns. A transition is added to all slides, the theme is changed, and two slides are added. **Why?** Joe reviewed your Water presentation and made several comments, so you want to combine (merge) his changes with your file to see if they improve the original design and slide content. The following steps merge this reviewer's file with your Water Final presentation.

1

- **Run** PowerPoint. If necessary, maximize the PowerPoint window.
- Open the presentation, SC_PPT_5_Water, from the Data Files.
- Save the presentation using SC_PPT_5_Water_Final as the file name.
- Display the Review tab (Figure 5-2).

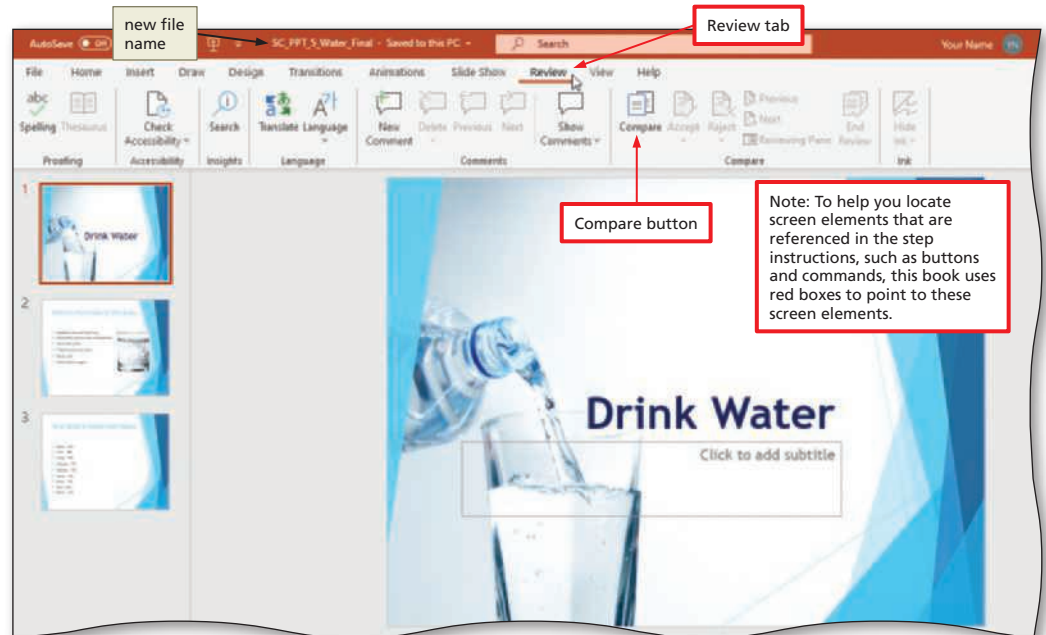


Figure 5-2

Q&A

Why do the slides have a different size than the slides I have seen in previous presentations?

The slides in the Water presentation use a 4:3 ratio, which was the default setting in PowerPoint versions prior to PowerPoint 2013.

2

- Click the Compare button (Review tab | Compare group) to display the 'Choose File to Merge with Current Presentation' dialog box.
- With the list of your Data Files displayed, click SC_PPT_5_Water_Joe to select the PowerPoint file (Figure 5-3).

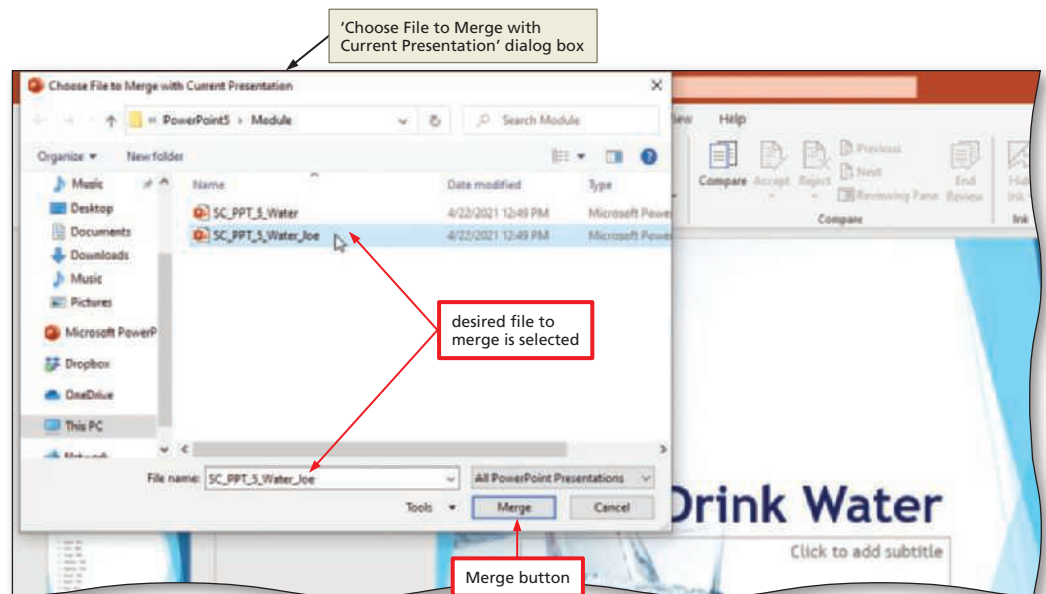


Figure 5-3

3

- Click the Merge button (Choose File to Merge with Current Presentation dialog box) to merge Joe Weber's presentation with the water presentation and to display the Revisions pane.
- Click the Show Comments button (Review tab | Comments group) to display the Comments pane (Figure 5-4).

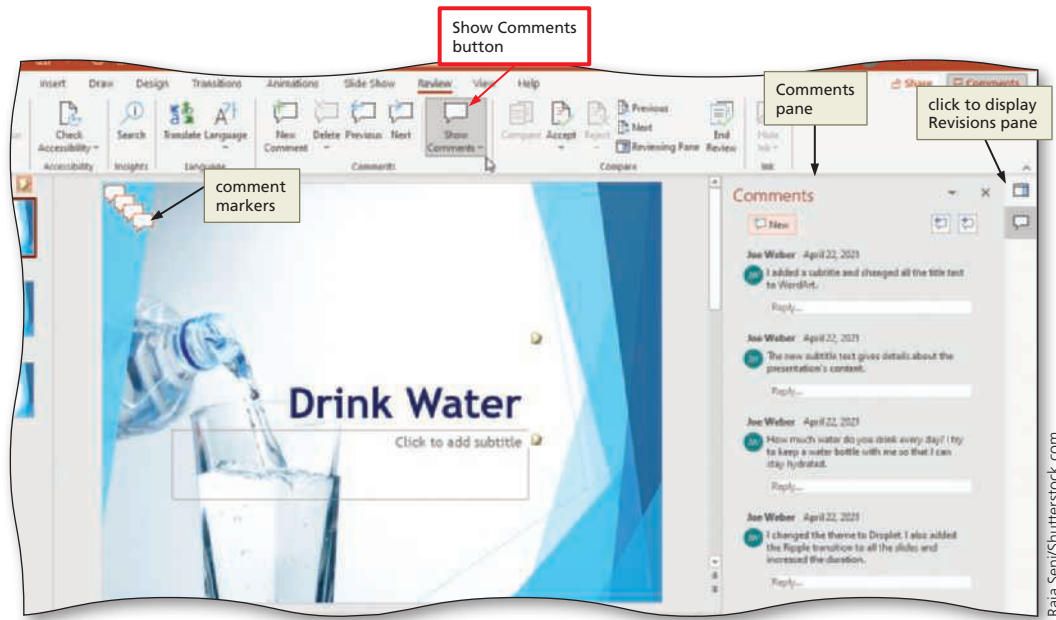


Figure 5-4

Q&A When does the Comments pane display automatically?

It displays if it was left open during a previous PowerPoint session. Clicking Show Comments or Comments on the ribbon displays or hides the Comments pane.

My Revisions pane disappeared. How can I get it to display again?

Click Reviewing Pane (Review tab | Compare group) or click the Revisions button to the right of the Comments pane to display the Revisions pane instead of the Comments pane.

If several reviewers have made comments and suggestions, can I merge their files, too?

Yes. Repeat Steps 1, 2, and 3. Each reviewer's initials display in a color-coded comment box.

BTW **Conserving Ink and Toner**

If you want to conserve ink or toner, you can instruct PowerPoint to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the PowerPoint Options dialog box, clicking Advanced in the left pane (PowerPoint Options dialog box), scrolling to the Print area in the right pane, verifying there is no check mark in the High quality check box, and then clicking OK. Then, use Backstage view to print the document as usual.

To PRINT COMMENTS

As owner of the original presentation, you want to review the comments and modifications on a hard copy before making decisions about whether to accept these suggestions. You can print each slide and the comments a reviewer has made before you begin to accept and reject each suggestion. PowerPoint can print these slides and comments on individual pages. To perform this action, you would perform the following steps.

1. Open Backstage view and then click the Print tab to display the Print gallery.
2. Click 'Full Page Slides' in the Print gallery to display print layouts.
3. If necessary, click 'Print Comments' to place a check mark by this option and turn on printing comment pages.
4. Click the Print button to print the pages.

To Preview the Presentation Changes

The reviewer made several changes to the overall presentation and then edited your three slides. You can preview his modifications to obtain an overview of his suggestions. **Why? Seeing his edits now can help you decide later whether to accept or reject each change as you step through each revision.** The changes that apply to the entire presentation are displayed in the Presentation Changes section of the Revisions pane, and changes to each individual slide are displayed in the Slide Changes section of this pane. Vertical rectangular icons indicate change markers, and horizontal rectangular icons represent comment markers. Each reviewer's revisions are color-coded. The following steps preview the merged presentation.

1

- With the Review tab and Slide 1 displayed, click the Reviewing Pane button (Review tab | Compare group) to display the Revisions pane (Figure 5–5).

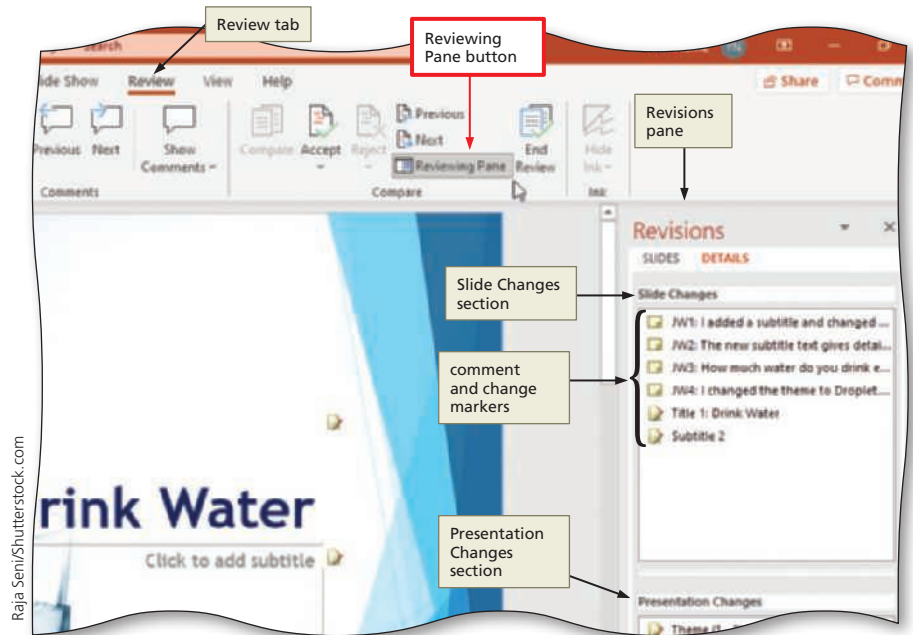


Figure 5–5

2

- Click the SLIDES tab in the Revisions pane to display a thumbnail of merged Slide 1.
- Click the Joe Weber check box above the Slide 1 thumbnail (Revisions pane) to view the proposed text changes in the main slide pane (Figure 5–6).

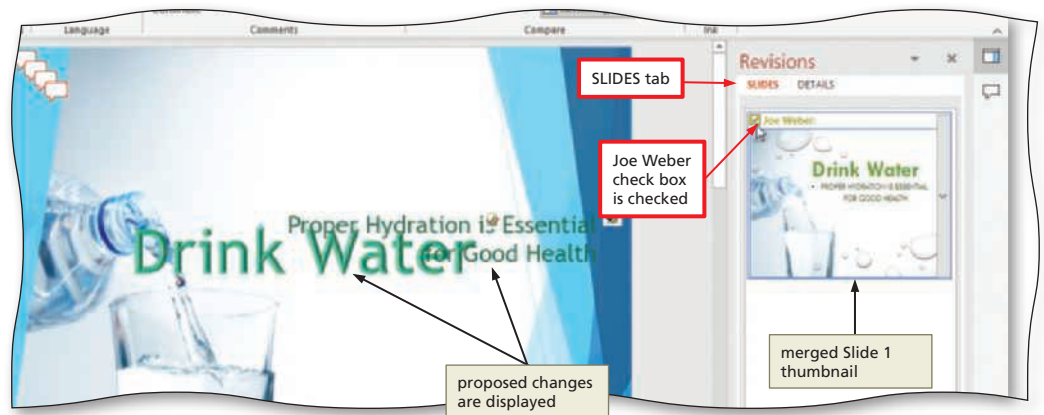


Figure 5–6

3

- Click the Joe Weber check box again to undo the changes.

Q&A

Can I make some, but not all, of the reviewer's changes on Slide 1?

Yes. PowerPoint allows you to view each proposed change individually and then either accept or reject the modification.

Consider This**How do I accept and evaluate criticism positively?**

Receiving feedback from others ultimately should enhance your presentation. If several of your reviewers make similar comments, such as too much text appears on one slide or that a chart would help present your concept, then you should heed their criticism and modify your slides. Criticism from a variety of people, particularly if they are from different cultures or vary in age, gives a wide range of viewpoints. Some reviewers might focus on the font size, some on color and design choices, while others might single out the overall message. These individuals should evaluate and comment on your work, such as saying that the overall presentation is good or that a particular paragraph is confusing, and then give specific information of what elements are effective or how you can edit the paragraph.

When you receive these comments, do not get defensive. Ask yourself why your reviewers would have made these comments. Perhaps they lack a background in the subject matter. Or they may have a particular interest in this topic and can add their expertise.

To Review, Accept, and Reject Presentation Changes

Changes that affect the entire presentation are indicated in the Presentation Changes section of the Revisions pane. These changes can include transitions, color schemes, fonts, and backgrounds. They also can include slide insertions. Joe added three slides in his review, so you can insert these slides in your presentation and then accept or reject each one. The following steps display and accept the reviewer's three slides and then delete one of the inserted slides. **Why?** You want to see all the slides and then evaluate how they add value to the presentation. One of the slides has a cluttered graphic, so you want to delete that slide.

1

- Click the DETAILS tab in the Revisions pane.
- In the Presentation Changes section of the Revisions pane, click the first presentation change marker, Theme (1 - 3) to display the Theme box with an explanation of the proposed change for all slides in the presentation (Figure 5-7).

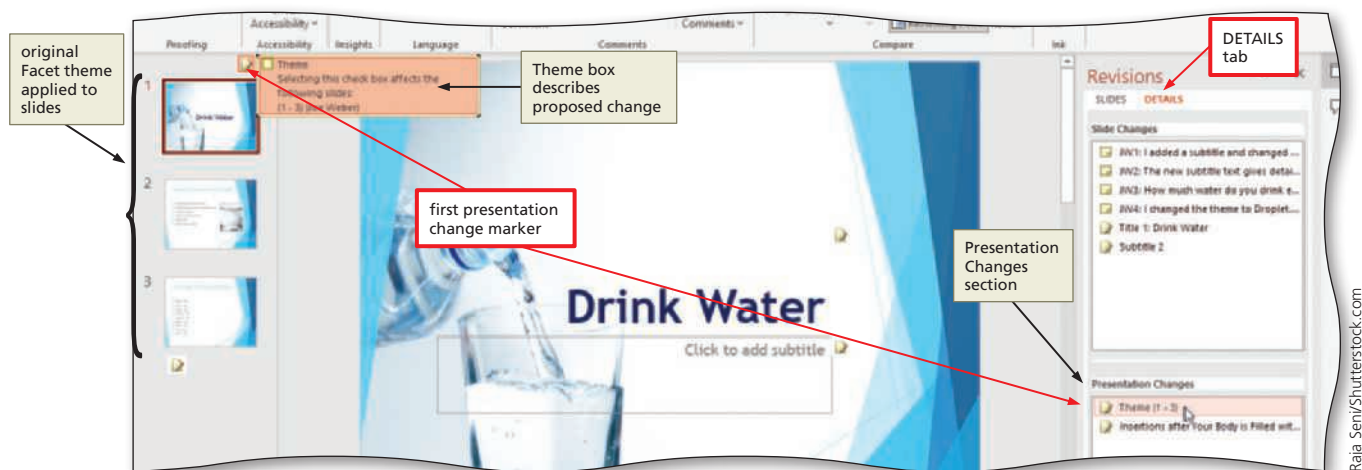


Figure 5-7

2

- Click the Theme check box to view the new Droplet theme on all slides (Figure 5-8).

Q&A Can I also apply the change by tapping or clicking Accept Change (Review tab | Compare group)?

Yes. Either method applies the Droplet theme.

If I decide not to apply the new theme, can I reverse this change?

Yes. Click Reject Change (Review tab | Compare group) or click the check box to remove the check and reject the reviewer's theme modification.



Figure 5-8

3

- Click the second presentation change marker, 'Insertions after Your Body is Filled with Water,' in the Presentation Changes section to display an insertion box with a list of the three proposed new slides to insert into the presentation, one with no title text and two with title text ('Drink Eight Glasses Daily' and 'Benefits of Drinking Water') (Figure 5–9).

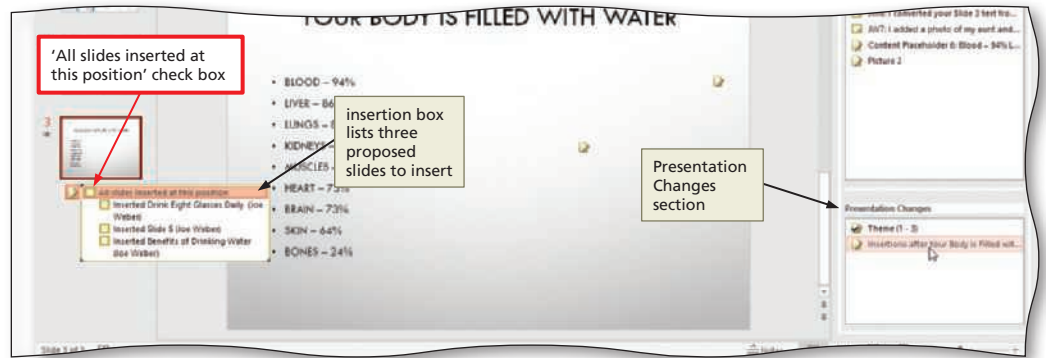


Figure 5–9

Q&A

What is the significance of the check boxes in the insertion box?

You can click the first check box to insert all three slides in your presentation. You can elect to insert one or two slides by clicking the check mark to the left of each slide title.

4

- Click the 'All slides inserted at this position' check box to insert the three new slides (Figure 5–10).



Figure 5–10

Q&A

Why do check marks appear in the Slides tab and in the Presentation Changes section?

Slides 4, 5, and 6 thumbnails in the Slides tab and in the Presentation Changes section? The check marks indicate you have applied the proposed changes.

5

- Display Slide 4 and review the slide contents. Then, display Slide 5 and review the information.
- Display Slide 4 again, click the Show Comments button (Review tab | Comments group) to display the Comments pane, and then read the comment Joe made about using graphics to inform audiences (Figure 5–11).



Figure 5–11

6

- Display Slide 5 and then click the change marker on the Slide 5 thumbnail to display the insertion box (Figure 5–12).

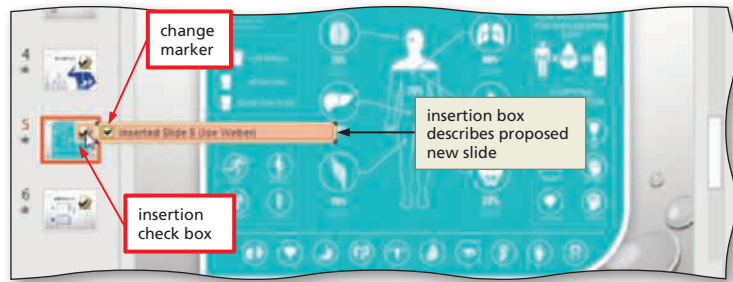


Figure 5–12

7

- Click the 'Inserted Slide 5' check box to clear this check box and delete Slide 5 from the presentation.
- Click the Revisions button to the right of the Comments pane to display the Revisions pane (Figure 5–13).



Figure 5–13

Q&A If I decide to insert the original Slide 5, how can I perform this task? Click the change marker above the current Slide 5 to insert the slide you deleted.

Other Ways

1. Click Next or Previous (Review tab | Compare group), click Accept or Reject button
2. Right-click proposed change, click Accept Change or Reject Change on shortcut menu

To Review, Accept, and Reject Slide Changes

Changes that affect only the displayed slide are indicated in the Slide Changes section of the DETAILS tab on the Revisions pane. A reviewer can modify many aspects of the slide, such as adding and deleting pictures and clips, editing text, and moving placeholders. The following steps display and accept the reviewer's revisions to Slide 1. **Why?** You agree with the changes Joe suggested because they enhance your slides.

1

- Display Slide 1 and then click the slide change 'Title 1: Drink Water' (shown in Figure 5–13) in the Slide Changes section of the Revisions pane to display the Title 1 box with Joe Weber's three proposed changes for the Drink Water text in the rectangle (Figure 5–14).

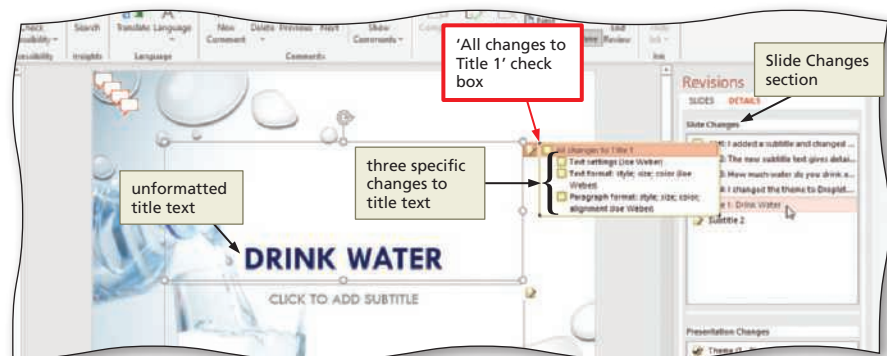


Figure 5–14

2

- Click the 'All changes to Title 1' check box to preview all proposed changes to the Drink Water text (Figure 5–15).



Figure 5–15

3

- Click to uncheck the Paragraph format check box to preview only the other changes to the title text, not the alignment of the title WordArt (Figure 5–16).

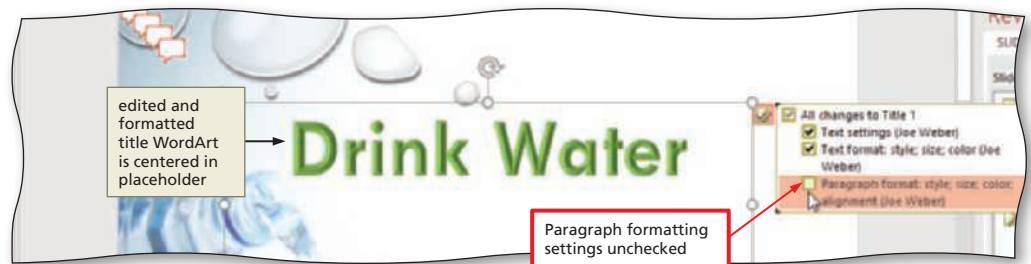


Figure 5–16

Q&A

Can I select any combination of the check boxes to modify the text in the rectangle?

Yes. You can click the individual check boxes to preview the reviewer's modifications.

4

- Click a blank area of the Slide Changes section to close the 'All changes to Title 1' insertion box.
- Click the slide change, Subtitle 2, in the Slide Changes section to display the insertion box showing the changes to the Slide 1 subtitle.
- Click the 'All changes to Subtitle 2' check box to view the proposed changes (Figure 5–17).

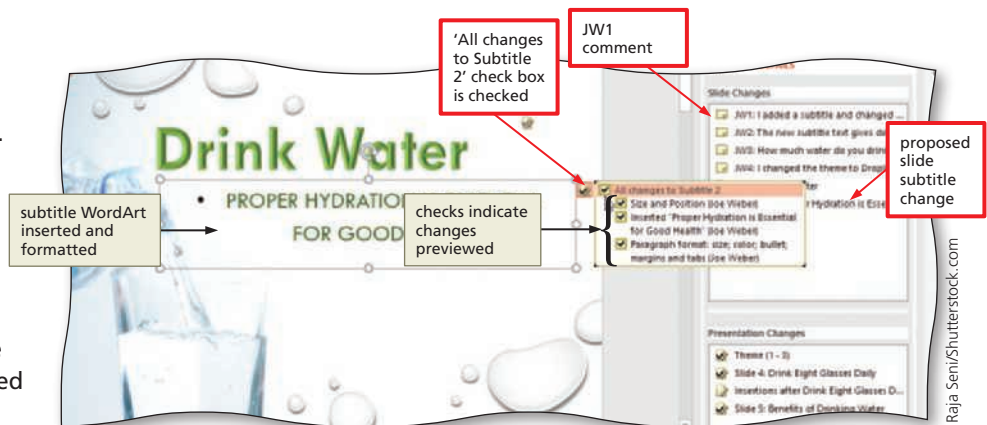


Figure 5–17

Other Ways

- Click Next or Previous (Review tab | Compare group), click Accept or Reject
- Right-click proposed change, click Accept Change or Reject Change on shortcut menu

To Review Comments

The Comments pane displays the reviewer's name above each comment, and an associated comment marker is displayed on the slide and in the Slide Changes section of the Revisions pane. The following steps review comments for Slide 1. **Why?** You want to look at each comment before deciding to accept or reject the changes.

- 1
 - Click the JW1 comment in the Slide Changes section (shown in Figure 5–17) to display the Comments pane and select the comment and the associated comment marker on the slide (Figure 5–18).

Q&A Why does the number 1 display after the commenter’s initials in the Slide Changes section of the Revisions pane?

The number indicates it is the first comment the reviewer inserted.



Figure 5–18

- 2
 - Read the comment and then click the Next button in the Comments pane to select the second comment and the associated comment marker on the slide (Figure 5–19).

Q&A Can I click the buttons on the Review tab instead of the buttons in the Comments pane?

Yes. Either method allows you to review comments.



Figure 5–19

- 3
 - Click the Next button to review the third comment and click it again to review the fourth comment.

Other Ways

1. Click Next button or Previous button (Review tab | Comments group)

To Reply to a Comment

Joe asked a question in his third comment. One method of responding is by replying to the comment he made. You want to provide feedback to him by responding to his query. **Why?** Giving feedback helps the reviewer realize his efforts in improving the presentation were useful and encourages him to continue to participate in collaboration efforts. The following steps reply to a comment on Slide 1.

1

- With Slide 1 displayed, select the third comment.
- Click the Reply box to place the insertion point in that box (Figure 5–20).



Figure 5–20

2

- Type **I exercise a lot, so I drink more than the recommended 8 glasses.** in the Reply box and then press ENTER (Figure 5–21).

Q&A Why does my name differ from that shown in the figure, which is Your Name?

The name reflects the information that was entered when Microsoft 365 was installed on your computer.



Figure 5–21

To Insert a Comment

Joe Weber's comments and changes greatly enhanced your slide show, and you would like to thank him for taking the time to review your original slides and to respond to his questions. **Why?** He will be able to see what modifications you accepted. The following steps insert a comment on Slide 1.

- 1 With Slide 1 displayed, click the New button (Comments pane) to open a comment box in the Comments pane (Figure 5-22).

Q&A Why is my comment box displayed at the top of the Comments pane?

Depending upon your computer, PowerPoint will display the new box either at the beginning or the end of the list of comments in the Comments pane.

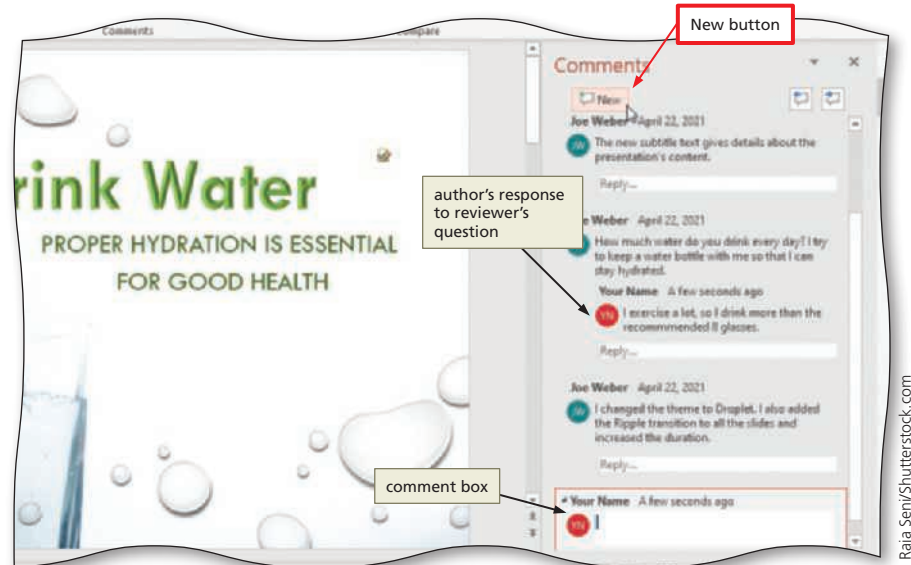


Figure 5-22

- 2 Click the comment box, type `I really appreciate the work you did to improve my slides, Joe.` in the box, and then press ENTER (Figure 5-23).

Q&A Can I move the comment on the slide?

Yes. Select the comment icon on the slide and then drag it to another location on the slide.

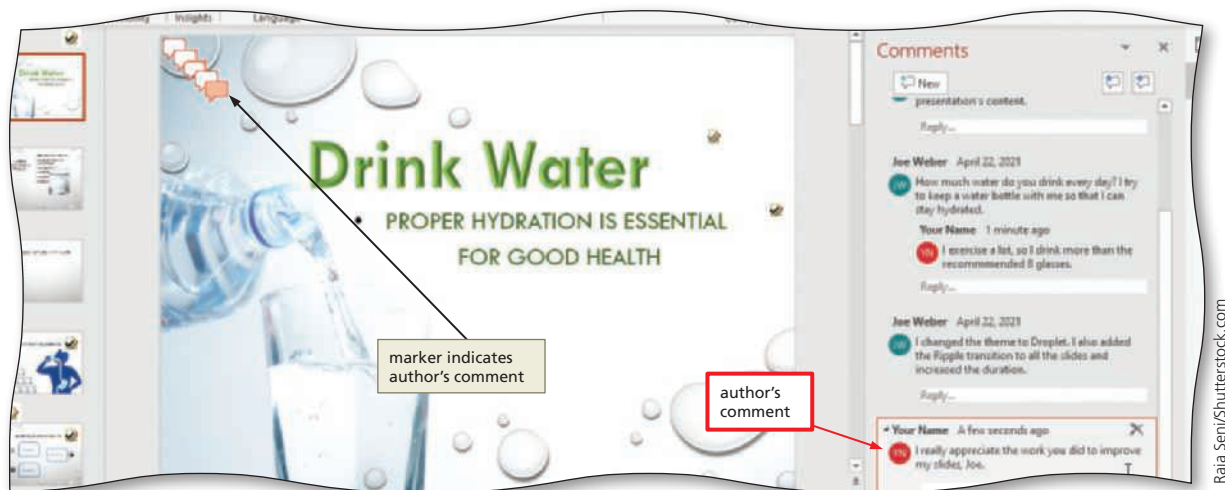


Figure 5-23

Other Ways

1. Click New Comment button (Review tab | Comments group)

To Edit a Comment

Once you have reviewed comments, you may decide to change a comment you made to a reviewer. The following steps edit your comment to add another sentence. **Why?** You want to give Joe additional information about monitoring daily water consumption.

1

- With Slide 1 displayed, scroll up and then click Joe Weber's third comment in the Comments pane to select it (Figure 5-24).

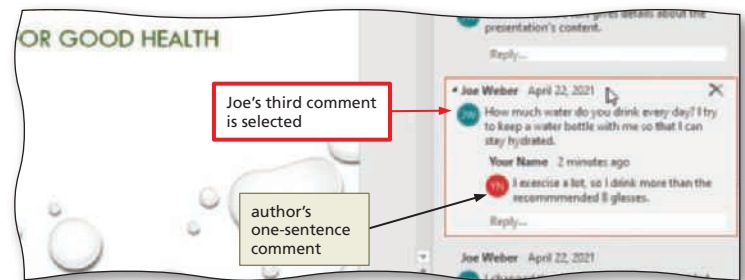


Figure 5-24

- Click the comment box, place the insertion point after the period in your sentence, press SPACEBAR, type **Some smart water bottles monitor hydration by tracking intake and syncing with a smartphone.** in the box, and then press ENTER (Figure 5-25).

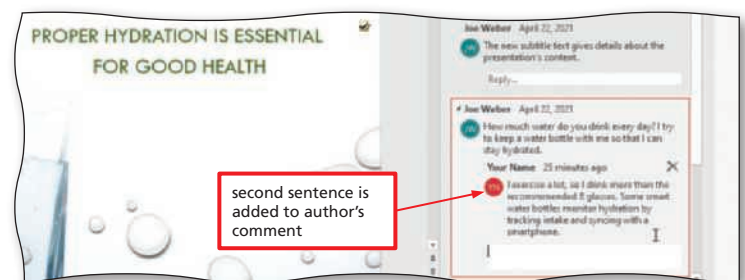


Figure 5-25

To Delete a Comment

Once you have reviewed comments, you may no longer want them to be a part of your slides. You can delete comments that you have read and considered as you are preparing your slides. The following steps delete three of Joe's comments. **Why?** They are not necessary now because you have incorporated the changes into your initial presentation.

1

- With Slide 1 displayed, scroll up and then click Joe Weber's first comment in the Comments pane to select it (Figure 5-26).

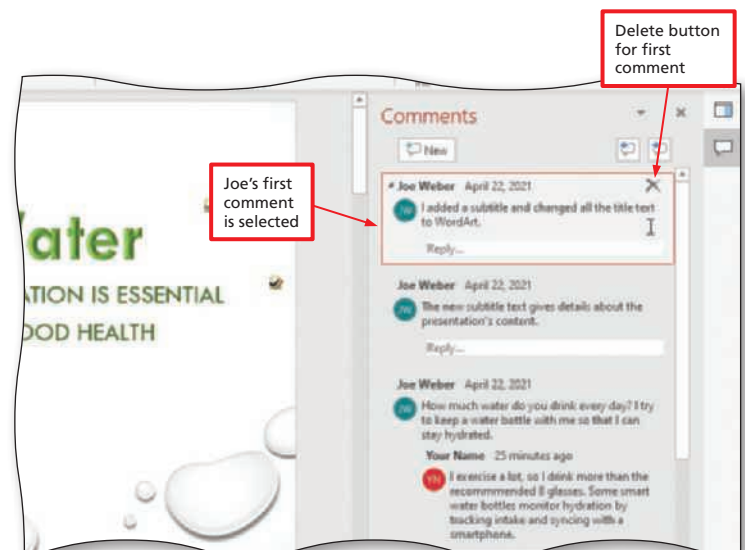


Figure 5-26

2

- Click the Delete button (Comments pane) to delete Joe’s first comment and to select the new first comment, which previously was the second comment in the list (Figure 5–27).

Q&A The Delete button is not displayed in this first comment. What should I do?

Click in the comment or hover over the comment until the Delete button (X) appears.

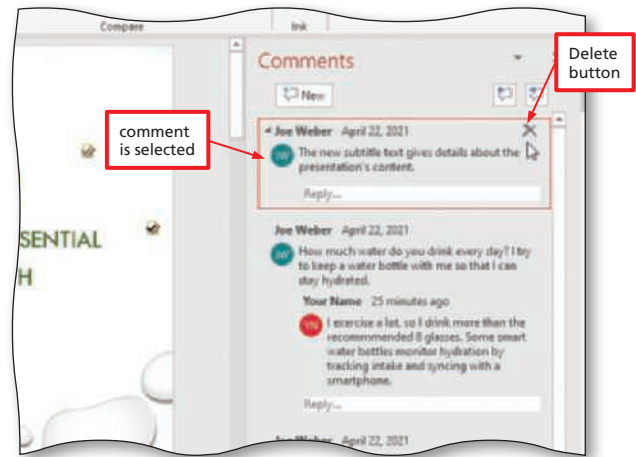


Figure 5-27

3

- Delete the selected comment about the new subtitle.
- Skip the next comment.
- Select the last Joe Weber comment regarding the theme and transition and then delete this comment (Figure 5–28).

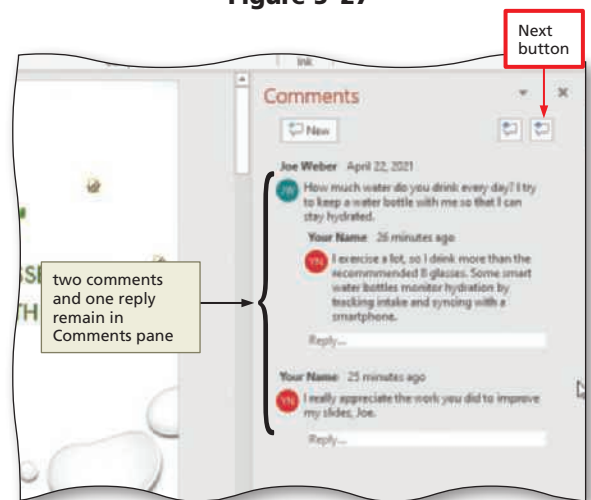


Figure 5-28

Other Ways

1. Click Delete Comment button (Review tab | Comments group)
2. Right-click comment, click Delete Comment on shortcut menu

To Review and Accept Slide Changes on the Remaining Slides

You have accepted most of Joe Weber’s presentation and Slide 1 changes. He also inserted comments in and made changes to other slides. The following steps review his comments and accept his modifications.

- 1 Click the Next button (Comments pane) several times until Slide 2 is displayed.
- 2 Read the comment on Slide 2 and then delete this comment.
- 3 Display the Revisions pane and then click the SLIDES tab in the Revisions pane to show a thumbnail of Slide 2.
- 4 Click the Joe Weber check box above the Slide 2 thumbnail (Revisions pane) to display a preview of the Slide 2 revisions.
- 5 Display the Comments pane and then click the Next button (Comments pane) to display Slide 3. Read and then delete the two comments on this slide.
- 6 Display the Revisions pane and then click the Joe Weber check box above the Slide 3 thumbnail (Revisions pane) to display a preview of the Slide 3 revisions.

BTW
Removing Comments

If you want to remove the comments on Slides 1 and 4 before saving your presentation, inspect your presentation. To perform this action, open Backstage view, click the ‘Check for Issues’ button in the Info tab, click Inspect Document, and then click the Inspect button.

- 7 Display the Comments pane and then click the Next button (Comments pane) to display Slide 4. Read the comment and then type `I agree. I deleted your Slide 5 because it was too cluttered. This slide presents similar information clearly.` as a reply.
- 8 Click the Next button to display Slide 5, read the comment, and then delete this comment (Figure 5–29).

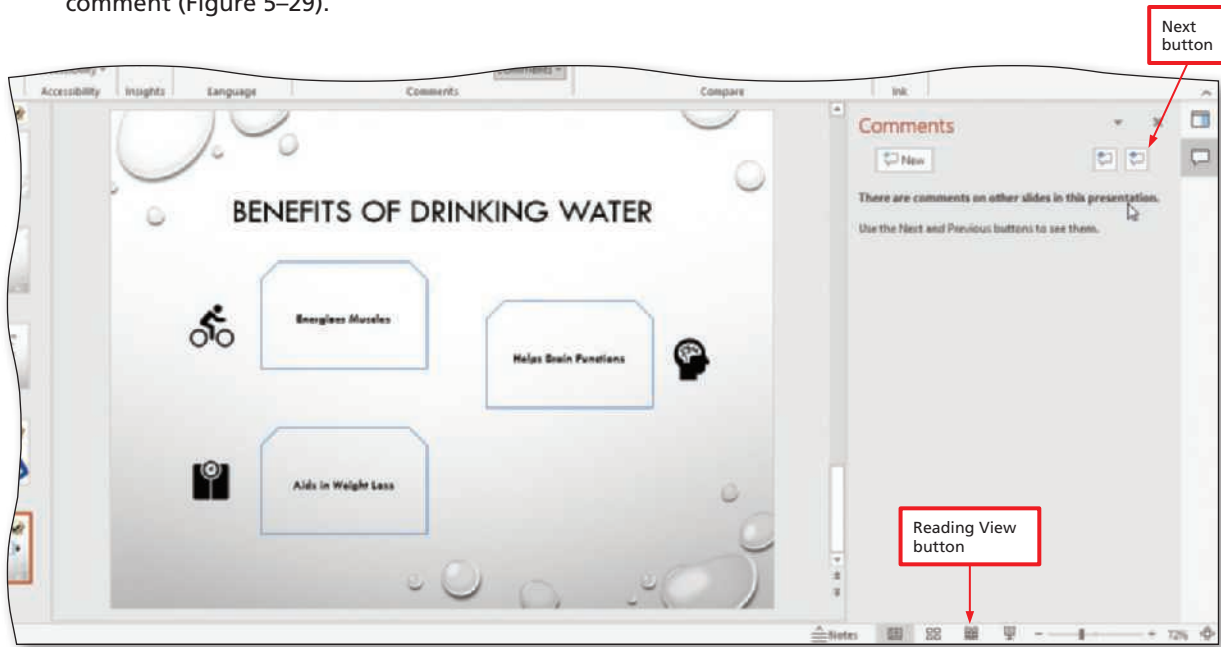


Figure 5–29

To Run the Revised Presentation in Reading View

Joe's changes modified the original presentation substantially, so it is a good idea to review the new presentation. The following steps review the slides in Reading view. **Why?** This view helps you see large images of the slides so you can evaluate their content without needing to start Slide Show view.

- 1
 - Display Slide 1 and then click the Reading View button on the status bar to display Slide 1 in this view (Figure 5–30).



Figure 5–30

2

- Click the Next and Previous buttons to advance the slides and review the changes on each slide.
- Click the black 'End of slide show' screen to end the slide show and return to Normal view.

Other Ways

1. Click Reading View button (View tab | Presentation Views group)

Consider This



How should I give constructive criticism when I am reviewing a presentation?

If you are asked to critique a presentation, begin and end with positive comments. Give specific details about a few key areas that can be improved. Be honest, but be tactful. Avoid using the word, you. For example, instead of writing, "You need to give some statistics to support your viewpoint," write "I had difficulty understanding which departments' sales have increased in the past six months. Perhaps a chart with specific figures would help depict how dramatically revenues have improved."

To End the Review and Hide Markup

You have analyzed all of the reviewer's proposed changes and replied to some of his questions. Your review of the merged presentation is complete, so you can accept and apply all the changes and then close the Comments and Revisions panes. You also can hide the comments that are present on Slide 1. **Why? You do not need to see the comments when you are developing the remainder of the presentation, so you can hide them.** The following steps end the review of the merged slides, close the Comments and Revisions panes, and hide the comment markers.

1

- With the Review tab displayed, click the End Review button (Review tab | Compare group) to display the Microsoft PowerPoint dialog box (Figure 5–31).

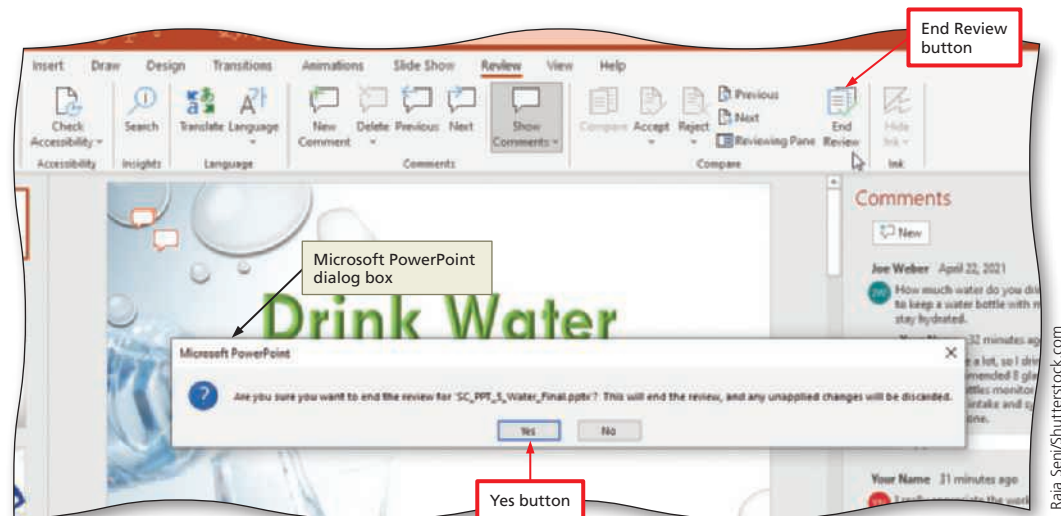


Figure 5–31

2

- Click Yes (Microsoft PowerPoint dialog box) to apply the changes you accepted and discard the changes you rejected.

Q&A Which changes are discarded?

You did not apply the aligned WordArt on Slide 1 and did not insert Joe's proposed Slide 5.

- Click the Show Comments arrow (Review tab | Comments group) to display the Show Comments menu (Figure 5–32).

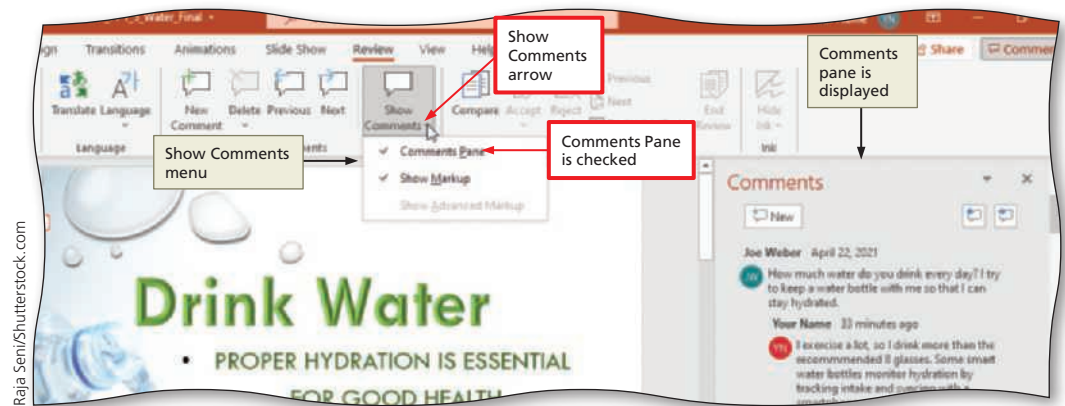


Figure 5–32

3

- Click Comments Pane in the menu to remove the check mark and close the Comments pane.
- Click the Show Comments arrow to display the Show Comments menu again (Figure 5–33).

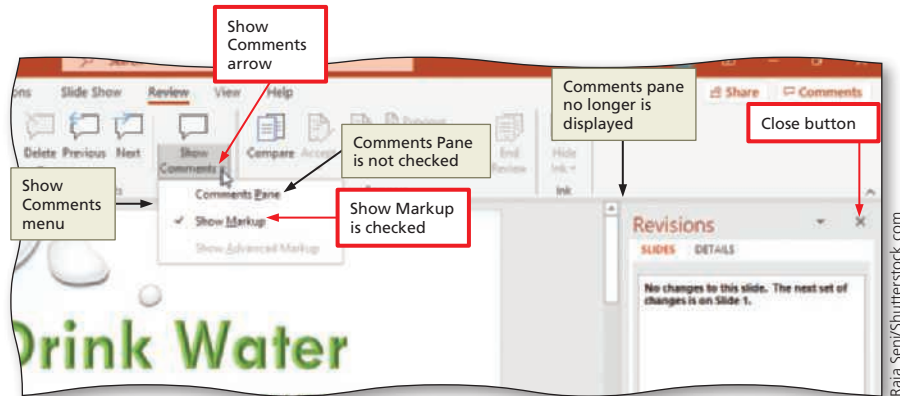


Figure 5–33

4

- Click Show Markup in the menu to remove the check mark and hide comments on the slide.
- Click the Close button (Revisions pane) to close the Revisions pane.

To Resize Slides

Prior to PowerPoint 2013, PowerPoint set slides in a 4:3 size ratio, which is the proportion found on a standard monitor that is not widescreen. If you know your presentation will be viewed on a wide screen or you are using a widescreen display, you can change the slide size to optimize the proportions. The on-screen show ratio determines the height and width proportions. The following steps change the default setting to 16:9. **Why? This 16:9 dimension is the proportion of most widescreen displays.**

1

- Display the Design tab and then click the Slide Size button (Design tab | Customize group) to display the Slide Size gallery (Figure 5–34).



Figure 5–34

2

- Click Widescreen (16:9) to change the slide size setting.

3

- Display Slide 2 and then move the water glass to the left and use the smart guides to center it under the title text (Figure 5–35).

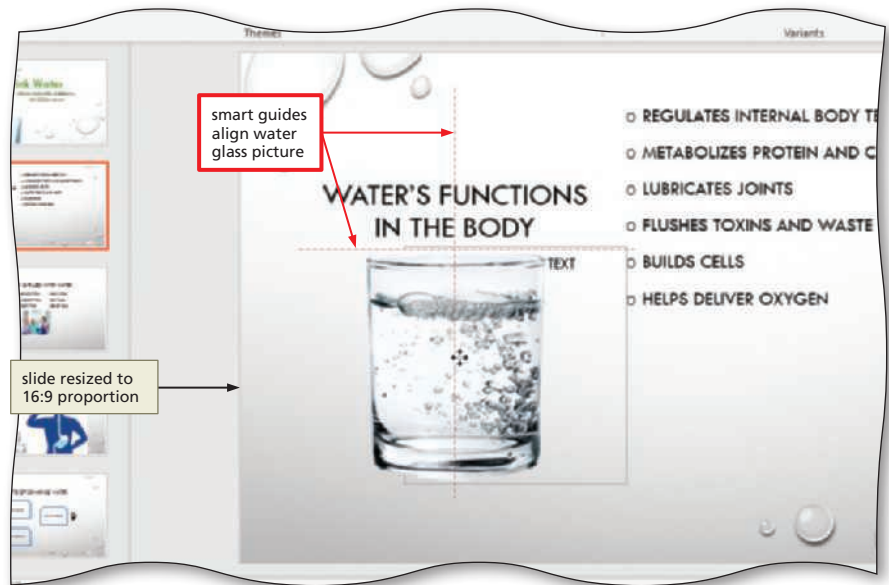


Figure 5–35

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Water Final file is saved and then you can exit PowerPoint. To resume later, start PowerPoint, open the file called SC_PPT_5_Water_Final, and continue following the steps from this location forward.

Formatting and Managing Text

Design templates determine formatting characteristics, such as fonts, font styles, effects, colors, paragraph alignment, indentation, and spacing. The design theme also determines the amount of spacing around the sides of the placeholder and between the lines of text. An internal **margin** provides a cushion of space between text and the top, bottom, left, and right sides of the placeholder. **Line spacing** is the amount of vertical space between the lines of text in a paragraph, and **paragraph spacing** is the amount of space above and below a paragraph.

To Change Line Spacing

PowerPoint adjusts the amount of line spacing based on font size. Default line spacing is 1.0, which is considered single spacing. Other preset options are 1.5, 2.0 (double spacing), 2.5, and 3.0 (triple spacing). You can specify precise line spacing intervals between, before, and after paragraphs in the Indents and Spacing tab of the Paragraph dialog box. The following steps increase the line spacing of the content paragraphs from single (1.0) to double (2.0) on Slide 2. **Why?** The additional space helps fill some of the area on the slide and also helps your audience read the paragraph text more easily.

1

- Display Slide 2 and then display the Home tab. Select the six content paragraphs.
- Click the Line Spacing button (Home tab | Paragraph group) to display the Line Spacing gallery.

- Point to 2.0 in the Line Spacing gallery to display a live preview of this line spacing (Figure 5–36).

Experiment

- Point to each of the line spacing options in the gallery to see a preview of that line spacing.

2

- Click 2.0 in the Line Spacing gallery to change the line spacing to double.

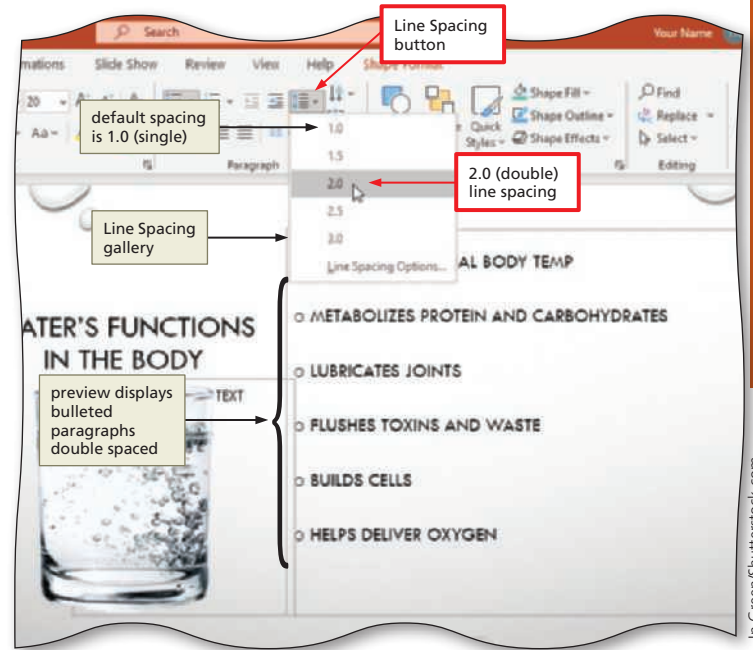


Figure 5–36

Other Ways

- Right-click selected text, click Paragraph on shortcut menu, click Line Spacing arrow (Paragraph dialog box), click Double, click OK
- Click Paragraph Dialog Box Launcher (Home tab | Paragraph group), click Line Spacing arrow (Paragraph dialog box), click Double, click OK

To Change Paragraph Spacing

PowerPoint adjusts the paragraph spacing above and below a paragraph automatically to accommodate various font sizes within the placeholder. The following steps change the paragraph spacing to add more space after each paragraph on Slide 2. **Why?** The additional space helps fill some of the area on the slide and also helps your audience read the paragraph text more easily.

1

- With the six content paragraphs selected, click the Line Spacing button (Home tab | Paragraph group) to display the Line Spacing gallery again (Figure 5–37).

2

- Click 'Line Spacing Options' to display the Paragraph dialog box.

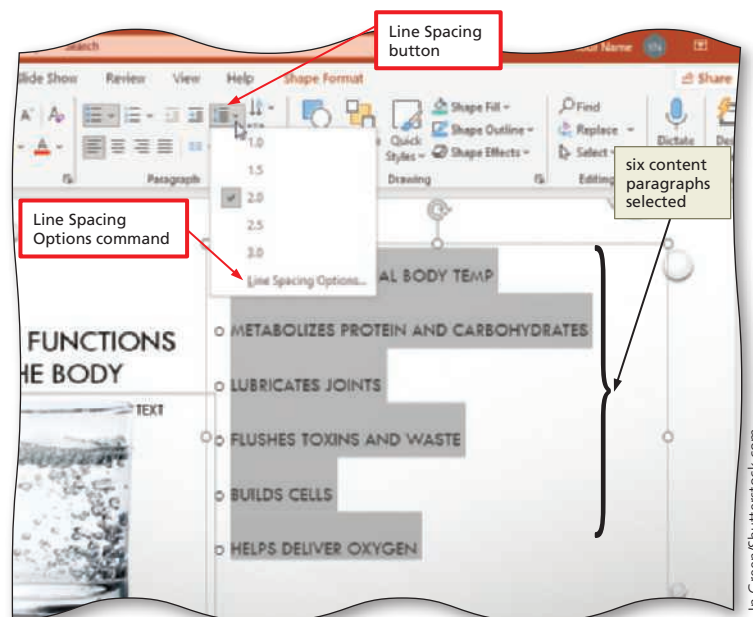


Figure 5–37

- 3 • Click the Spacing After up arrow twice to increase the spacing to 12 pt (Figure 5–38).

- 4 • Click OK to close the Paragraph dialog box and apply the new paragraph spacing setting.

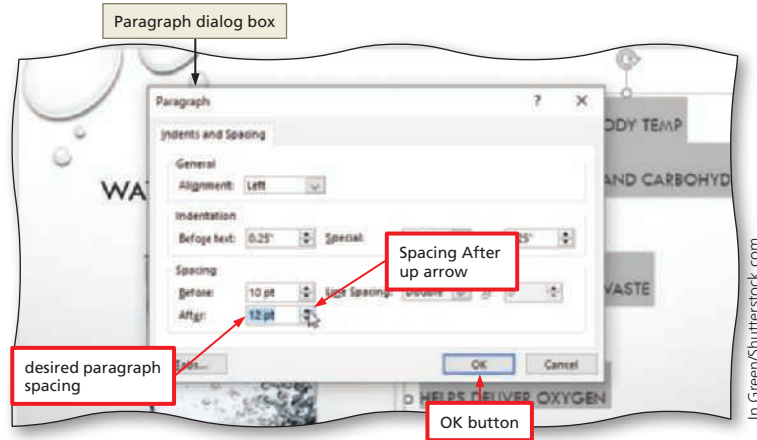


Figure 5–38

Other Ways

1. Right-click selected text, click Paragraph on shortcut menu, click Before or After Spacing arrows (Paragraph dialog box), click OK
2. Click Paragraph Dialog Box Launcher (Home tab | Paragraph group), click Before or After Spacing arrows (Paragraph dialog box), click OK

To Change Column Spacing

The following steps increase the spacing between the columns on Slide 3. **Why?** You wish to increase the space between the columns in the placeholder to fill the width of the placeholder.

- 1 • Display Slide 3 and click anywhere within the column placeholder to select it. Click the 'Add or Remove Columns' button (Home tab | Paragraph group) to display the Columns gallery (Figure 5–39).

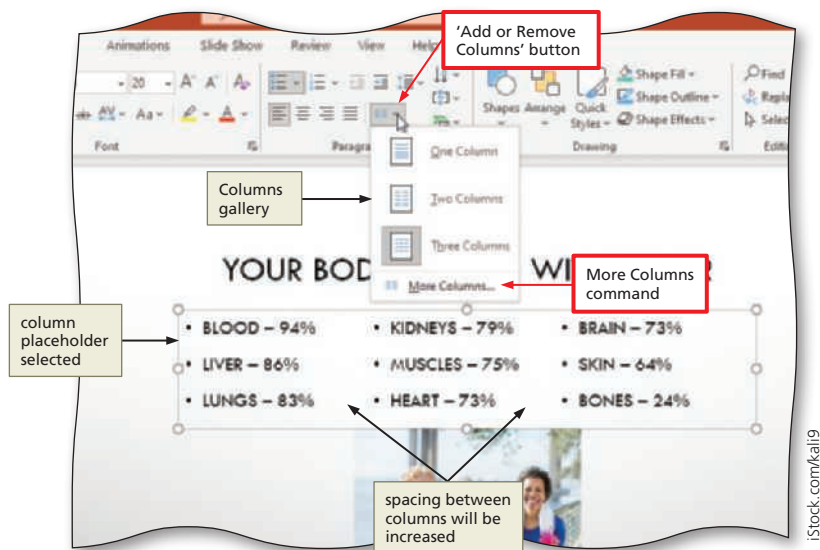


Figure 5–39

- 2 • Click More Columns and then click the Spacing box up arrow (Columns dialog box) until 0.5" is displayed (Figure 5–40).

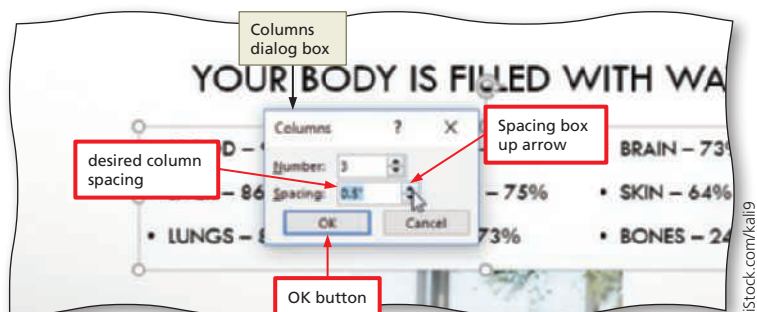


Figure 5–40

3

- Click OK to increase the spacing between the columns.

Q&A

Can I change the number of columns easily?

Yes. Click Columns and then click the number of columns you desire.

Other Ways

1. Right-click placeholder, click Format Shape, click Text Options (Format Shape pane), click Textbox, click Columns button, enter space between columns in Spacing box

To Format Text in Columns

You can add formatting characteristics to the column text to add interest. The following steps change the font color of the column text.

- 1 Select the text in the Slide 3 placeholder and then change the font color to Dark Blue (ninth color in Standard Colors row).
- 2 Click a blank area of the slide to deselect the column text (Figure 5-41).

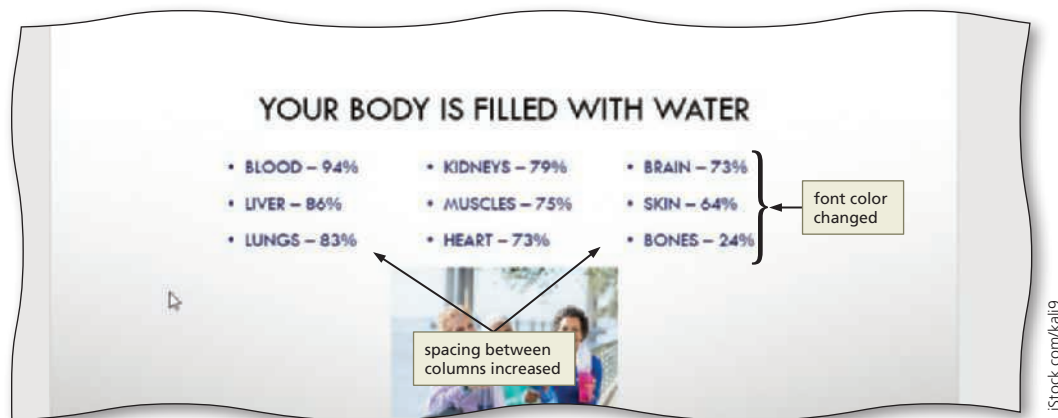


Figure 5-41

To Find Text

You can have PowerPoint locate specific text on any slide in your presentation and in the Notes pane. **Why?** This feature allows you to find particular text quickly and efficiently. It is especially useful when your presentation has many slides. The following steps find the word, Functions, which is found on two slides.

- 1
 - With the Home tab selected, click the Find button (Home tab | Editing group) to display the Find dialog box.
 - Type **Functions** in the Find what box (Figure 5-42).

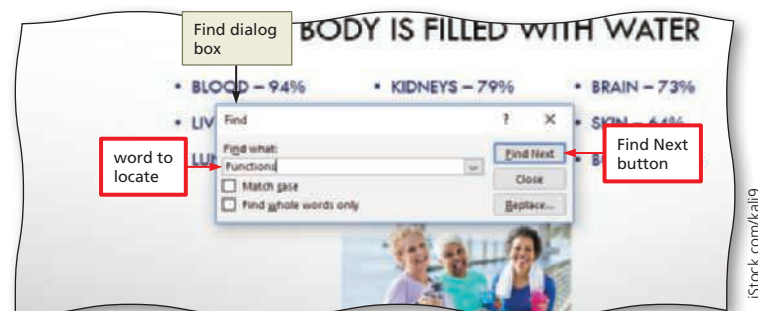


Figure 5-42

2

- Click the Find Next button to display the word, Functions, highlighted on Slide 5.
- Click the Find Next button to display the next occurrence of the word, Functions, on Slide 2 (Figure 5–43).

3

- Click Close to close the Find dialog box.

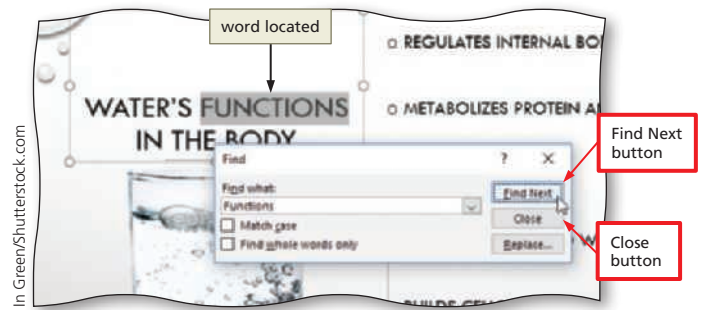


Figure 5–43

Other Ways

- 1 Press CTRL+F

To Find and Replace Text

If your presentation has many slides and you need to replace a word or phrase, use Find and Replace to efficiently modify the text. You can search for a word or phrase and then replace it with another word or phrase. To change the highlighted text, click the Replace button. To change wherever this text is found in your slides, click the Replace All button. To cancel a search in progress, press ESC. The following steps search for the word, temp, and replace it with the word, temperature. **Why?** You want to use the full word instead of a shortened form.

1

- With the Home tab displayed, click the Replace button (Home tab | Editing group) to display the Replace dialog box.
- Type **temp** in the Find what box.
- Type **temperature** in the Replace with box.
- Click the Find Next button to display the first occurrence of the word, temp, on Slide 2 (Figure 5–44).

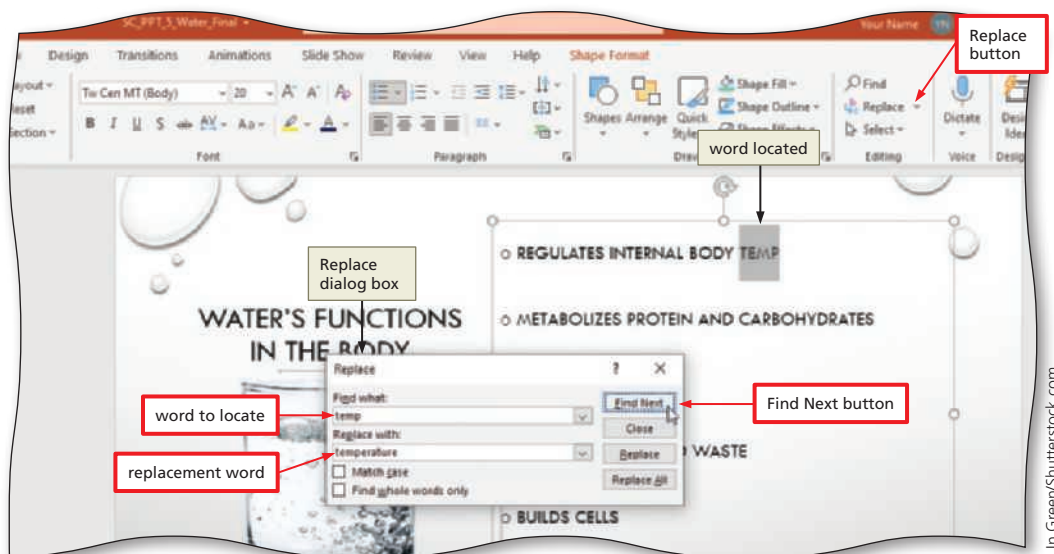


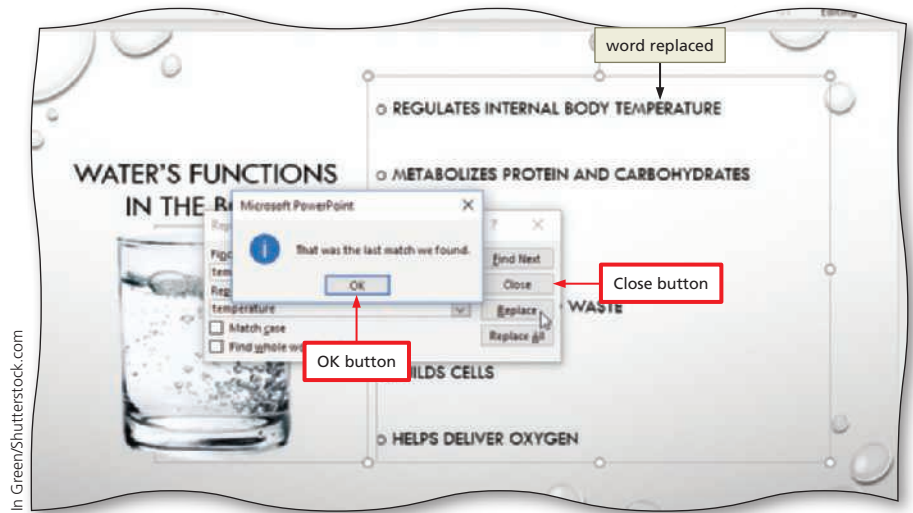
Figure 5–44

2

- Click the Replace button to change the highlighted word, temp, to temperature (Figure 5–45).

3

- Click OK to close the Microsoft PowerPoint dialog box.
- Click Close to close the Replace dialog box.

**Figure 5–45****Other Ways**

- 1 Press CTRL+H

Formatting Pictures

In previous modules you formatted pictures by adding artistic effects and adjusting colors. These features can make your slides expressive and unique. One enhancement is adding a border and then changing the color, width, and line style of the shape. Another is creating an effect, such as a shadow, glow, reflection, soft edges, bevels, or 3-D rotation. You can customize an effect by selecting variations in the Format Picture pane.

To Add an Artistic Effect to a Picture

In Module 3 you added an artistic effect to the Slide 1 picture. You similarly want to add an artistic effect to the Slide 2 picture in this presentation. The following steps add the Pastels Smooth artistic effect to the water glass picture.

- 1** With Slide 2 displayed, select the water glass picture.
- 2** Click the Picture Format tab and then click the Artistic Effects button (Picture Format tab | Adjust group) to display the Artistic Effects gallery.
- 3** Point to Crisscross Etching (third thumbnail in fourth row) to display a live preview of this effect on the picture.
- 4** Click Crisscross Etching to apply this artistic effect to the picture (Figure 5–46).

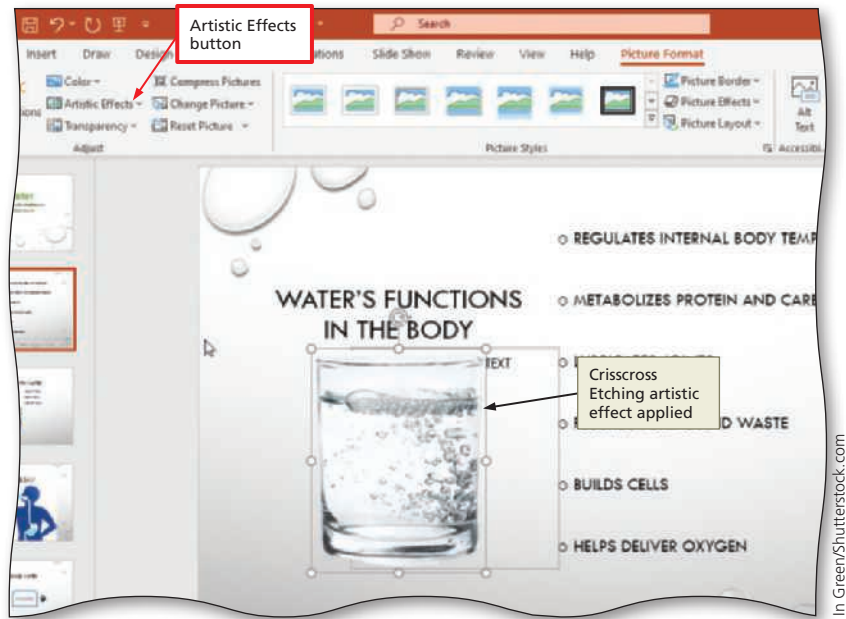


Figure 5-46

To Recolor a Picture

The Droplet theme is appropriate for this presentation on the subject of water, and you have enhanced the slides with shades of blue and green. The following steps recolor the Slide 2 picture to further coordinate the green hues found throughout the presentation.

- 1 With the water glass picture still selected, click the Color button (Picture Format tab | Adjust group) to display the Color gallery.
- 2 Point to 'Green, Accent color 2 Light' (third thumbnail in last Recolor row) to display a live preview of this adjustment on the picture.
- 3 Click 'Green, Accent color 2 Light' to apply this recolor to the water glass picture (Figure 5-47).

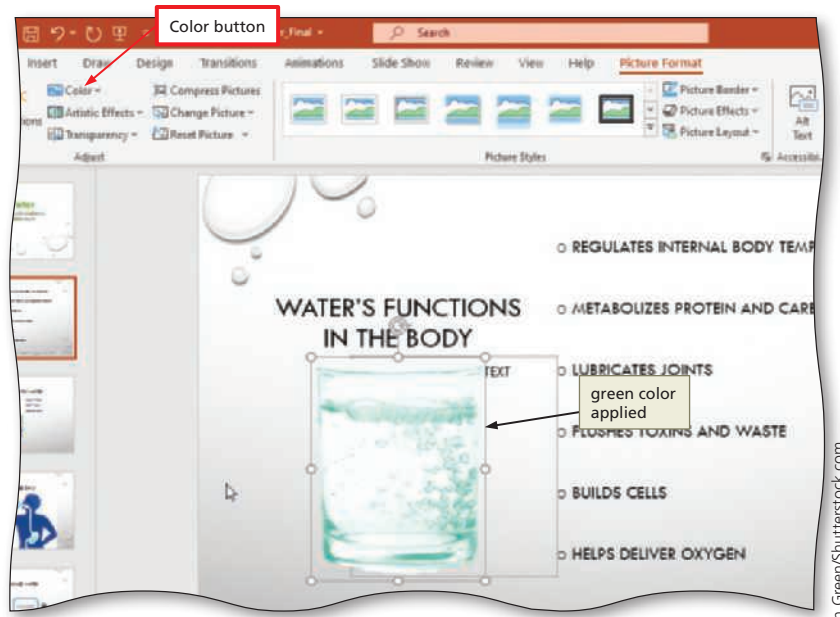


Figure 5-47

To Add a Picture Border

The next step is to add a border to the Slide 3 picture. **Why?** A border completes the picture and adds a subtle design element. Default borders range from a width of ¼ point to 6 point, and you can increase or decrease the size if desired. You can change the line style from a solid line to round or square dots, dashes, and combinations of dots and dashes. The following steps add a border to the picture.

1

- Display Slide 3 and select the picture.
- With the Picture Format tab displayed, click the Picture Border arrow (Picture Format tab | Picture Styles group) to display the Picture Border gallery.

2

- Point to Weight on the Picture Border gallery to display the Weight gallery.
- Point to 6 pt to display a live preview of this line weight on the picture (Figure 5–48).

Q&A

How can I make the line width more than 6 pt?

Click More Lines, click Solid line in the Line section of the Format Picture pane, and then increase the amount in the Width box.



Experiment

- Point to various line weights in the Weight gallery and watch the line thickness change.

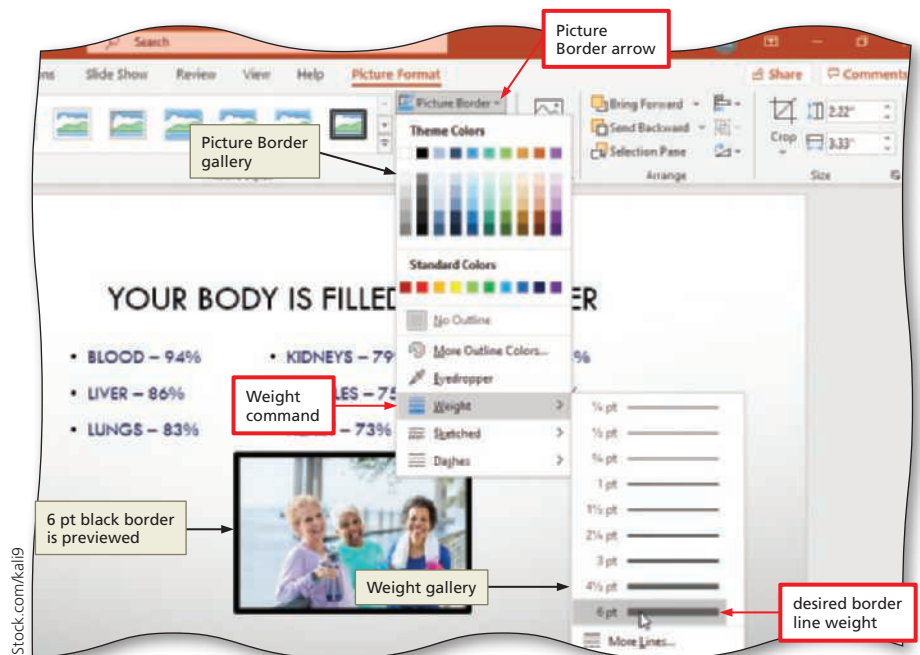


Figure 5–48

3

- Click 6 pt to add this line weight to the picture.

To Change a Picture Border Color

The default color for the border you added to the Slide 3 picture is black, but you will change the border color to green. **Why?** The green color complements the blue elements on the slide and coordinates with green elements on other slides. The following steps change the Slide 3 picture border color.

1

- With the Slide 3 picture still selected, click the Picture Border arrow (Picture Format tab | Picture Styles group) to display the Picture Border gallery again.

2

- Point to Green (sixth color in Standard Colors row) in the Picture Border gallery to display a live preview of that border color on the picture (Figure 5-49).

Experiment

- Point to various colors in the Picture Border gallery and watch the border on the picture change in the slide.

3

- Click Green in the Picture Border gallery to change the picture border color.

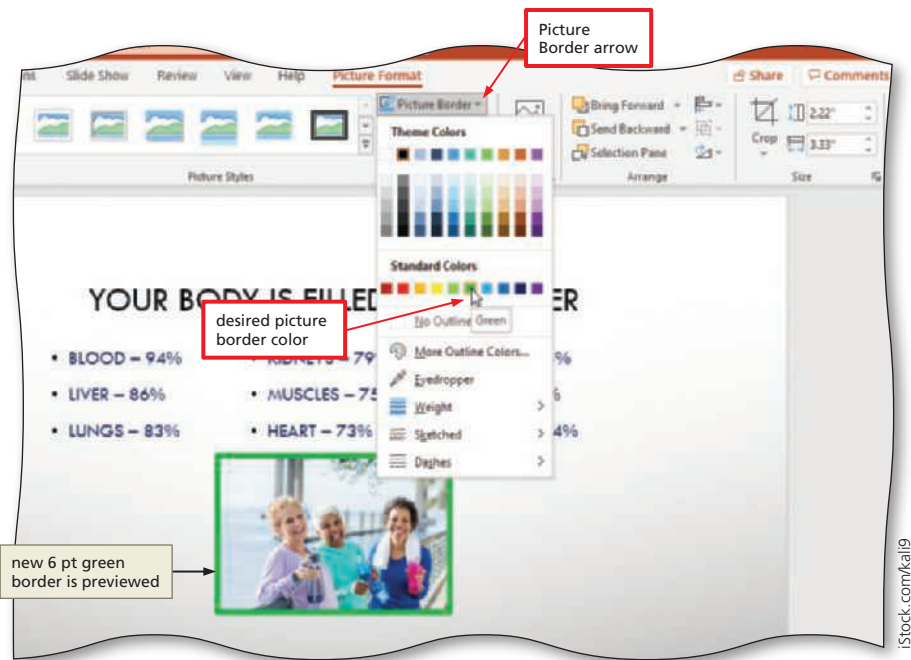


Figure 5-49

To Apply a Picture Effect

PowerPoint provides a variety of picture effects, including shadows, reflections, glow, soft edges, bevel, and 3-D rotation. **Why? Picture effects allow you to further customize a picture.** The difference between the effects and the styles is that each effect has several options, providing you with more control over the exact look of the image.

In this presentation, the picture on Slide 3 has a green glow effect and a bevel applied to its edges. The following steps apply picture effects to the selected picture.

1

- With the Slide 3 picture still selected, click Picture Effects (Picture Format tab | Picture Styles group) to display the Picture Effects menu.

Q&A What if the Picture Format tab no longer is displayed on my ribbon?

Click the picture to display the Picture Format tab.

- Point to Glow on the Picture Effects menu to display the Glow gallery.
- Point to 'Glow: 18 point; Green, Accent color 2' in the Glow Variations area (second glow in last row) to display a live preview of the selected glow effect applied to the picture in the document window (Figure 5-50).

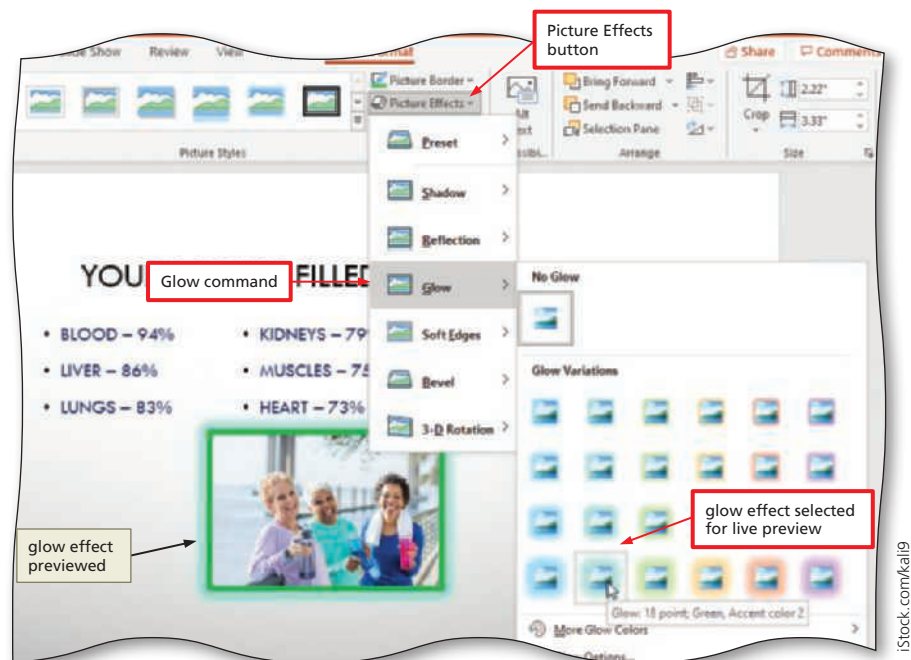


Figure 5-50

Experiment

- Point to various glow effects in the Glow gallery and watch the picture change in the document window.

2

- Click 'Glow: 18 point; Green, Accent color 2' in the Glow gallery to apply the selected picture effect.

3

- Click the Picture Effects button (Picture Format tab | Picture Styles group) to display the Picture Effects menu again.
- Point to Bevel on the Picture Effects menu to display the Bevel gallery.
- Point to Soft Round (second bevel in second Bevel row) to display a live preview of the selected bevel effect applied to the Slide 3 picture (Figure 5–51).



Experiment

- Point to various bevel effects in the Bevel gallery and watch the picture change in the slide.

4

- Click Soft Round in the Bevel gallery to apply the selected picture effect.

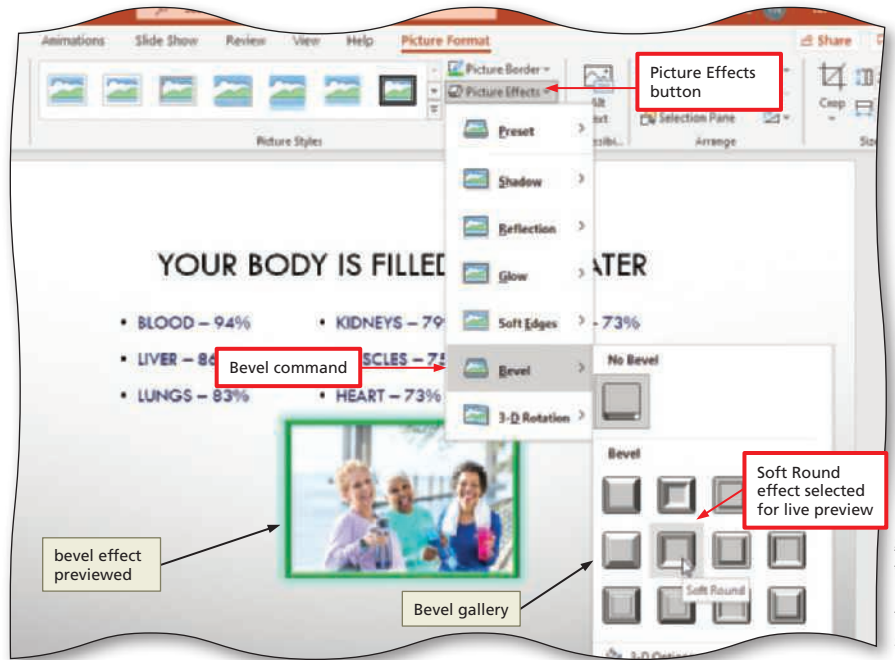


Figure 5–51

Other Ways

- Right-click picture, click Format Picture on shortcut menu, select desired options (Format Picture pane), click Close
- Click Format Picture dialog box launcher (Picture Format tab | Picture Styles group), select desired options (Format Picture pane), click Close

To Add Alt Text

PowerPoint includes accessibility features, including text descriptions for screen readers that help people understand the content of pictures. When a screen reader is used to view a slide, alternative text is displayed when you move the pointer over a picture. The following steps change the Slide 3 picture alt text. **Why?** The picture does not include a description of the picture contents.

1

- With the Slide 3 picture selected, click the Alt Text button (Picture Format tab | Accessibility group) to display the Alt Text pane.

2

- Click the Alt Text text box, delete any text in the box, and then type **Three smiling women are wearing workout gear and holding water bottles.** as the descriptive text (Figure 5–52).

3

- Click the Close button (Alt Text pane) to close the pane.

BTW

Typing Alt Text

Alternative text can be used for shapes, pictures, charts, SmartArt graphics, or other objects in a Microsoft 365 document. You can type a brief summary of the picture if your explanation in the Description box is detailed or long.

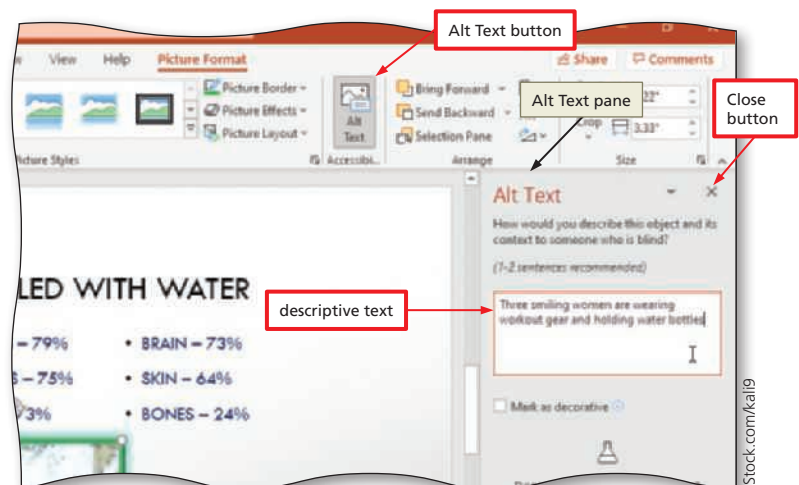


Figure 5–52

Modifying Bullets and Adding Effects

PowerPoint allows you to change the default appearance of bullets in a slide show. The document themes determine the bullet character. A **bullet character** is a small graphic symbol, traditionally a closed circle, that sets off items in a list. It can be a predefined style, a variety of fonts and characters displayed in the Symbol gallery, or a picture from a file, from Online Pictures, or from the Microsoft icon collection. You may want to change a bullet character to add visual interest and variety. Once you change the bullet character, you also can change its size and color.

If desired, you can change every bullet in a presentation to a unique character. If your presentation has many bulleted slides, however, you would want to have a consistent look on all slides by making the bullets a similar color and size.

To customize your presentation, you can change the default slide layout bullets to numbers by changing the bulleted list to a numbered list. PowerPoint provides a variety of numbering options, including Arabic and Roman numerals. These numbers can be sized and recolored, and the starting number can be something other than 1 or I. In addition, PowerPoint's numbering options include uppercase and lowercase letters.

To Change a Bullet Character to a Picture

One method of modifying these bullets is to use a relevant picture. The following steps change the first paragraph bullet character to the Water Bottle picture, which is located in the Data Files. **Why?** The plain bullet characters for the Droplet document theme do not add much visual interest and do not relate to the topic of drinking water.

1

- With Slide 3 displayed, select all nine paragraphs in the three columns.
- Click the Bullets arrow (Home tab | Paragraph group) to display the Bullets gallery (Figure 5-53).

Q&A What should I do if I clicked the Bullets button instead of the Bullets arrow?

If the paragraphs are bulleted, clicking the Bullets button removes the bullets. Click the Bullets button again to display the bullets.

Why is a gray box displayed around the three characters?

They are the default first-level bullet characters for the Droplet document theme.



Experiment

- Point to each of the bullets displayed in the gallery to see a preview of the characters.

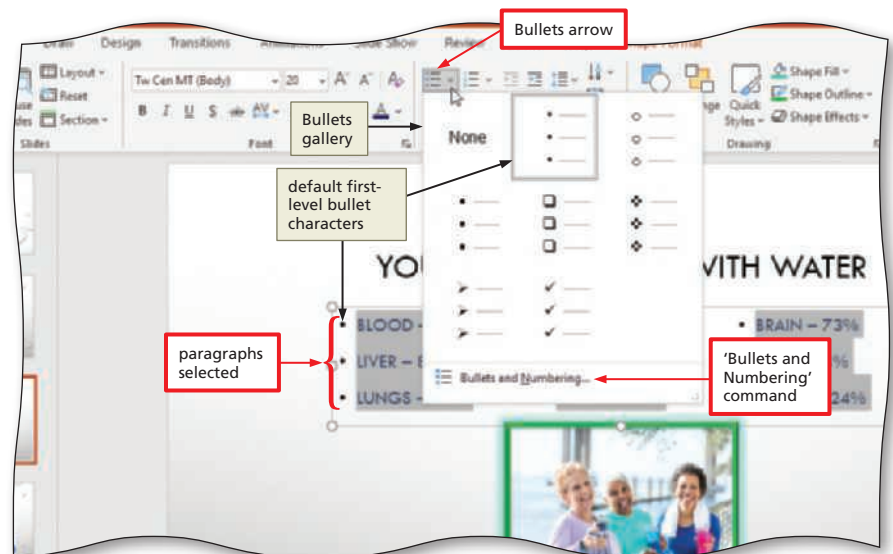


Figure 5-53

2

- Click 'Bullets and Numbering' to display the Bullets and Numbering dialog box (Figure 5-54).

Q&A Why are my bullets different from those displayed in Figure 5-54?

The bullets most recently inserted are displayed as the first items in the dialog box.

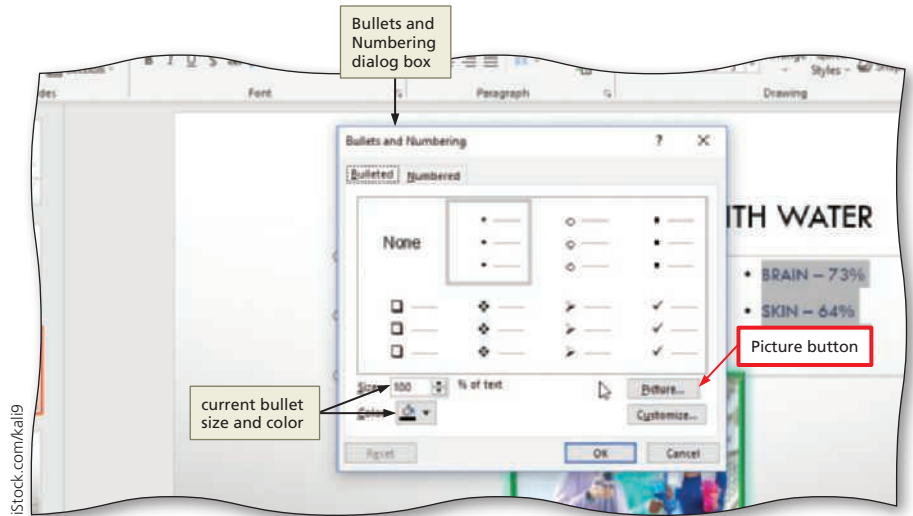


Figure 5-54

3

- Click the Picture button (Bullets and Numbering dialog box) to display the Insert Pictures dialog box (Figure 5-55).

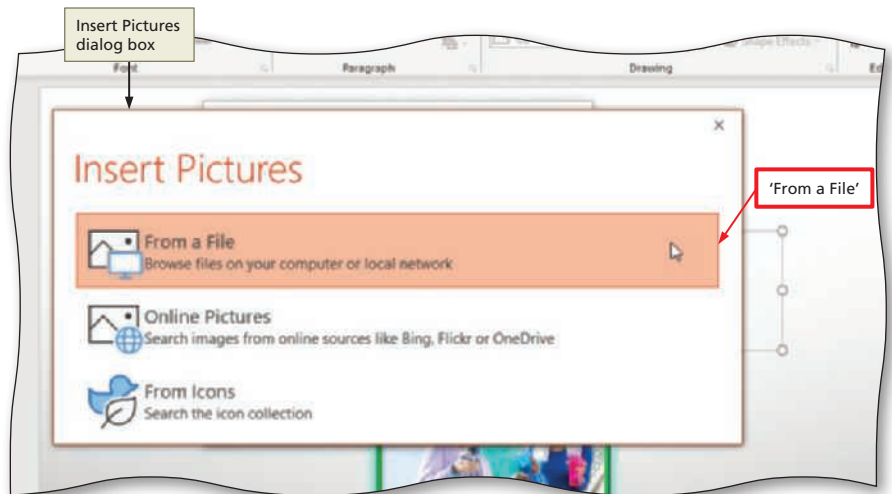


Figure 5-55

4

- Click 'From a File' (Insert Pictures dialog box) to display the Insert Picture dialog box.
- If necessary, navigate to the location of the Data Files.
- Click `Support_PPT_5_Water_Bottle` to select the .png file (Figure 5-56).

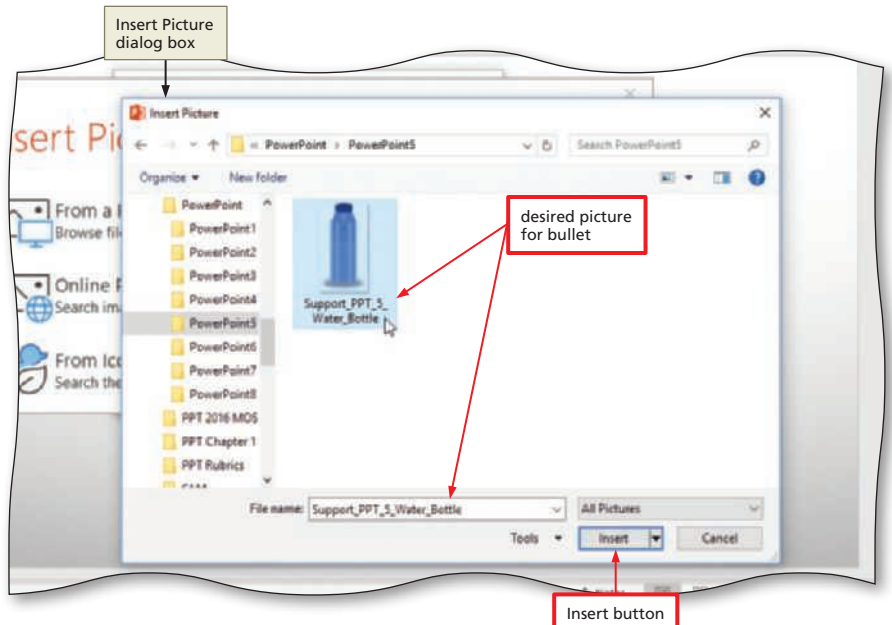


Figure 5-56

5

- Click the Insert button (Insert Picture dialog box) to insert the Water Bottle picture as the paragraph bullet character (Figure 5-57).

Q&A Can I insert a different bullet character in each paragraph?
 Yes. Select only a paragraph and then perform the previous steps for each paragraph.

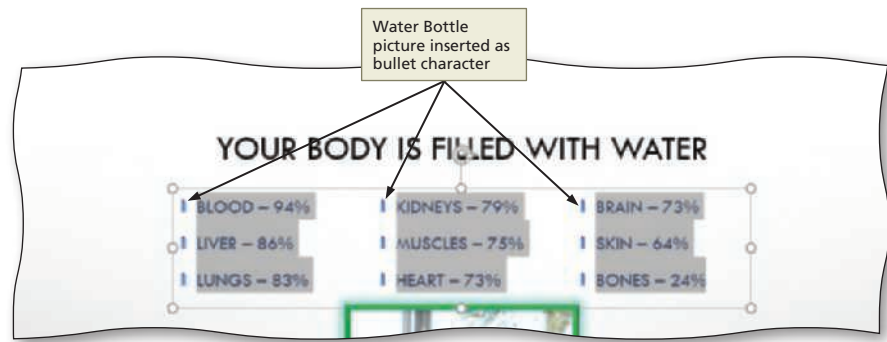


Figure 5-57

iStock.com/kali9

Other Ways

- Right-click paragraph, point to Bullets on shortcut menu, click 'Bullets and Numbering'

To Change Bullet Size

Bullets have a default size determined by the document theme. **Bullet size** is measured as a percentage of the text size and can range from 25 to 400 percent. The following steps change the water bottle picture size. **Why?** It is difficult to see the picture, so increasing its size draws attention to the visual element.

1

- With the Slide 3 paragraphs still selected, click the Bullets arrow (Home tab | Paragraph group) and then click 'Bullets and Numbering' in the Bullets gallery to display the Bullets and Numbering dialog box.
- Click the Size up arrow until 200 is displayed in the '% of text' Size box (Figure 5-58).

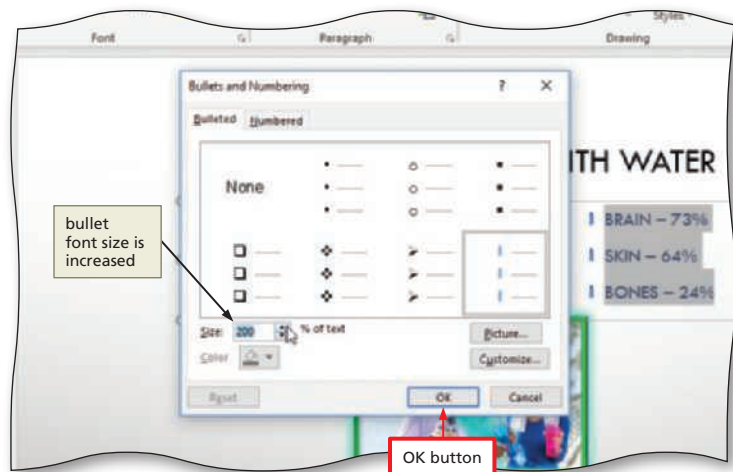


Figure 5-58

iStock.com/kali9

2

- Click OK to increase the water bottle bullet size to 200 percent of the text size (Figure 5-59).

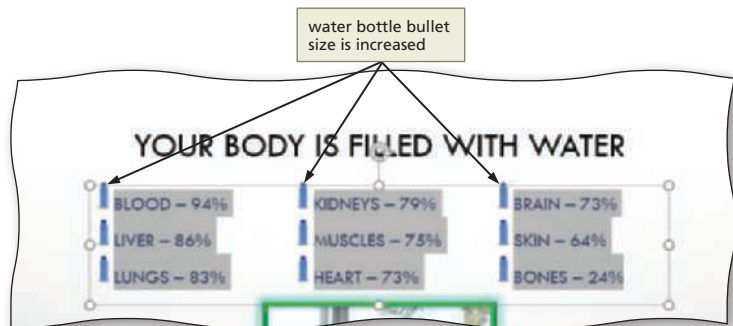


Figure 5-59

iStock.com/kali9

To Change a Bullet to a Symbol

Symbols are found in several fonts, including Webdings, Wingdings, Wingdings 2, and Wingdings 3. These fonts are available when slides have themes other than the Office theme. The following steps change the bullet character on Slide 1 to a section symbol. **Why?** For variety and to add a unique characteristic to the presentation, another bullet change you can make is to insert a symbol as the character.

1

- Display Slide 1, place the insertion point anywhere in the subtitle text, click the Bullets arrow (Home tab | Paragraph group), and then click 'Bullets and Numbering' to display the Bullets and Numbering dialog box (Figure 5-60).

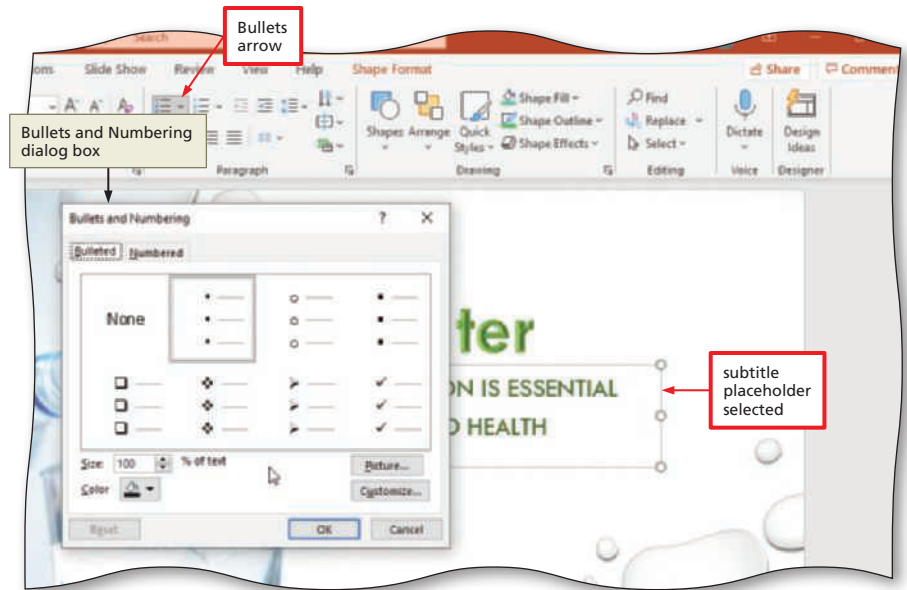


Figure 5-60

2

- Click the Customize button (Bullets and Numbering dialog box) to display the Symbol dialog box (Figure 5-61).

Q&A **Why is a symbol selected?**
That symbol is the default bullet for the first-level paragraphs in the Droplet document theme.

BTW

Changing a Bullet to a Symbol

The shortcut key for the Section Sign is ALT+0167. You can type that combination rather than performing the steps to select this character from the Symbol dialog box.

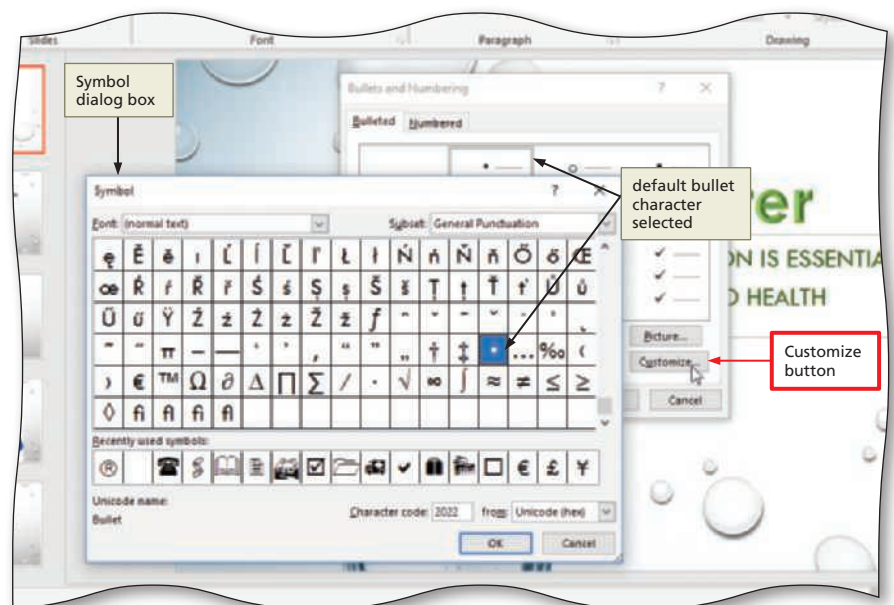


Figure 5-61

3

- Locate the Section Sign symbol (§); scroll up if necessary.
- Click the Section Sign symbol to select it. The symbol number and character code (00A7) appear at the bottom of the dialog box (Figure 5–62).

Q&A Why does my dialog box have more rows of symbols and different fonts from which to choose?

The rows and fonts displayed depend upon how PowerPoint was installed on your system and the screen you are viewing.

What is the character code that is displayed in the Symbol dialog box?

Each character in each font has a unique code. If you know the character code, you can type the number in the Character code box to display that symbol. The character code for the Section Sign symbol is 00A7.

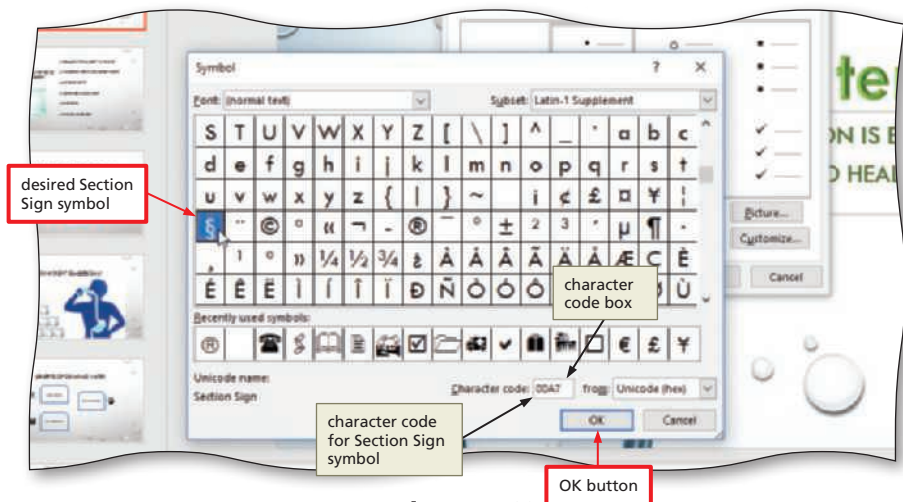


Figure 5–62

4

- Click OK (Symbol dialog box) to display the Section Sign bullet in the Bullets and Numbering dialog box (Figure 5–63).

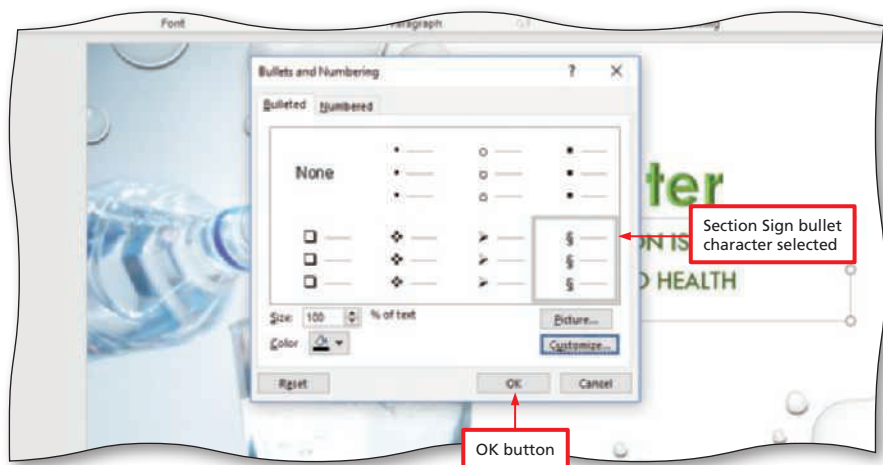


Figure 5–63

5

- Click OK (Bullets and Numbering dialog box) to insert the Section Sign symbol as the paragraph bullet (Figure 5–64).



Figure 5–64

To Format Bullet Color

A default **bullet color** is based on the eight colors in the design theme. Additional standard and custom colors also are available. The following steps change the section symbol bullet color to green. **Why?** This color coordinates with other green colors used throughout the presentation.

1

- Display the Bullets and Numbering dialog box and then click the Color button (Bullets and Numbering dialog box) to display the Color gallery (Figure 5–65).

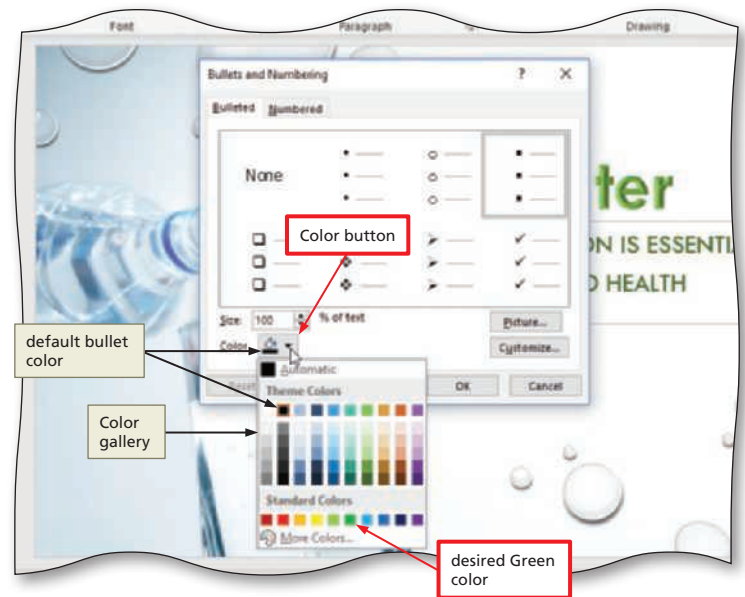


Figure 5–65

2

- Click the color Green in the Standard Colors area (sixth color in Standard Colors row) to change the bullet color to Green.
- Increase the bullet size to 150% of text (Figure 5–66).

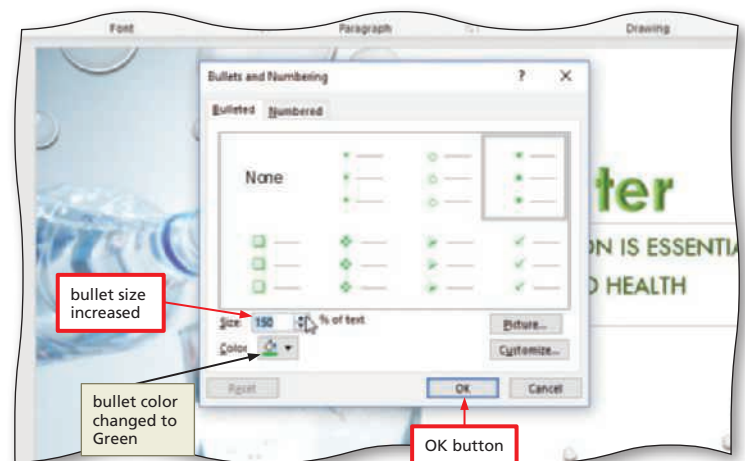


Figure 5–66

3

- Click OK (Bullets and Numbering dialog box) to apply the color green to the section symbol bullet and increase the bullet size (Figure 5–67).



Figure 5–67

Other Ways

1. Right-click paragraph, point to Bullets on shortcut menu, click Bullets and Numbering, select color

To Change a Bullet Character to a Number

PowerPoint allows you to change the default bullets to numbers. The following steps change the first-level paragraph bullet characters on Slide 2 to numbers. **Why?** Numbers help to show steps in a sequence and also help guide a speaker during the presentation when referring to specific information in the paragraphs.

1

- Display Slide 2 and then select all six paragraphs in the content placeholder.
- With the Home tab displayed, click the Numbering arrow (Home tab | Paragraph group) to display the Numbering gallery.
- Point to the 1) 2) 3) numbering option in the Numbering gallery to display a live preview of these numbers (Figure 5–68).

Experiment

- Point to each of the numbers in the Numbering gallery to watch the numbers change on Slide 2.

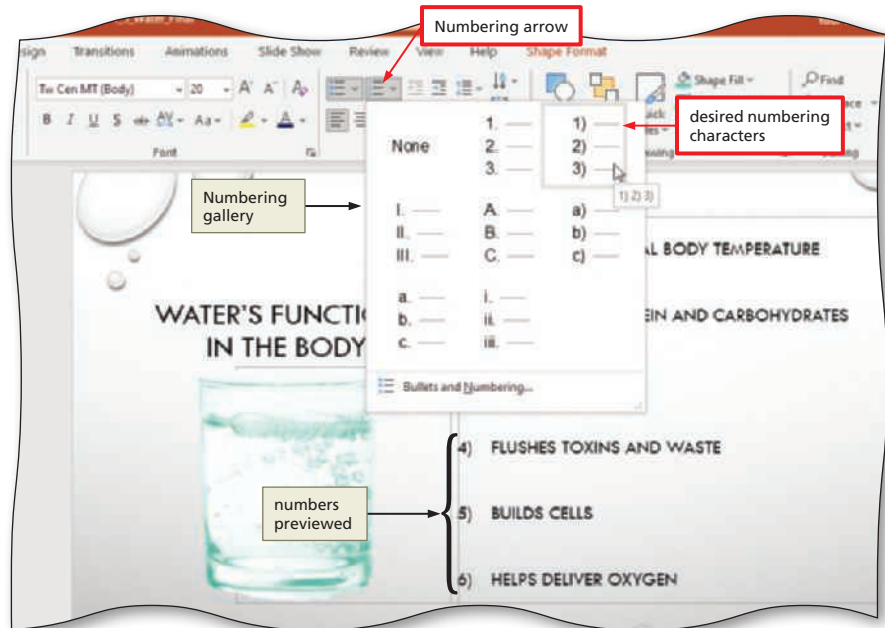


Figure 5–68

2

- Click the 1) 2) 3) numbering option to insert these numbers as the first-level paragraph characters (Figure 5–69).

Q&A How do I change the first number in the list?

Click 'Bullets and Numbering' at the bottom of the Numbering gallery and then click the up or down arrow in the Start at box to change the number.

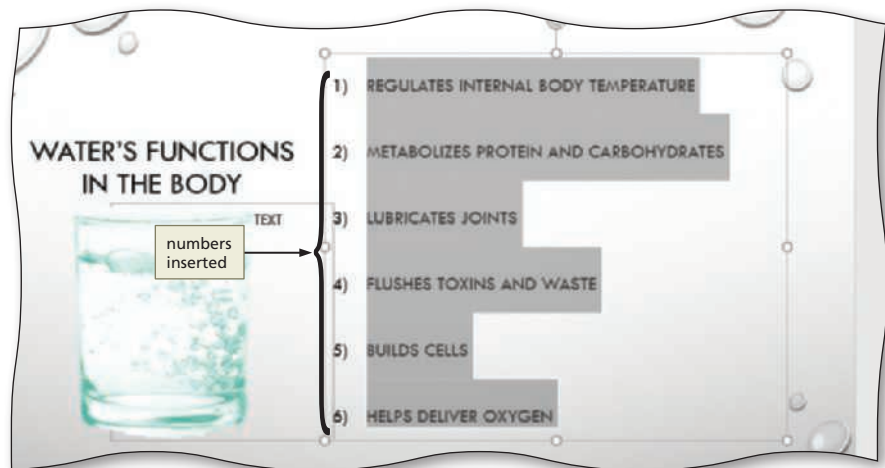


Figure 5–69

Other Ways

1. Right-click paragraph, point to Numbering on shortcut menu, select numbering characters

To Change the List Numbering Style

As with bullets, numbering characters are measured as a percentage of the text size and can range from 25 to 400 percent. The color of these numbers also can change. The following steps change the numbering color to Green and the size to 125 percent. **Why?** To add emphasis, you choose to increase the size of the new numbers inserted in Slide 2. The green color coordinates with other green elements throughout the presentation.

1

- With the Slide 2 content placeholder paragraphs still selected, click the Numbering arrow (Home tab | Paragraph group) to display the Numbering gallery and then click 'Bullets and Numbering' to display the Bullets and Numbering dialog box again.
- Click the Size up arrow until 125 is displayed in the '% of text' Size text box.

2

- Click Color (Bullets and Numbering dialog box) to display the Color gallery and then click Green (sixth color in Standard Colors row) to change the numbers' font color (Figure 5-70).

3

- Click OK (Bullets and Numbering dialog box) to apply the new numbers' font size and color.

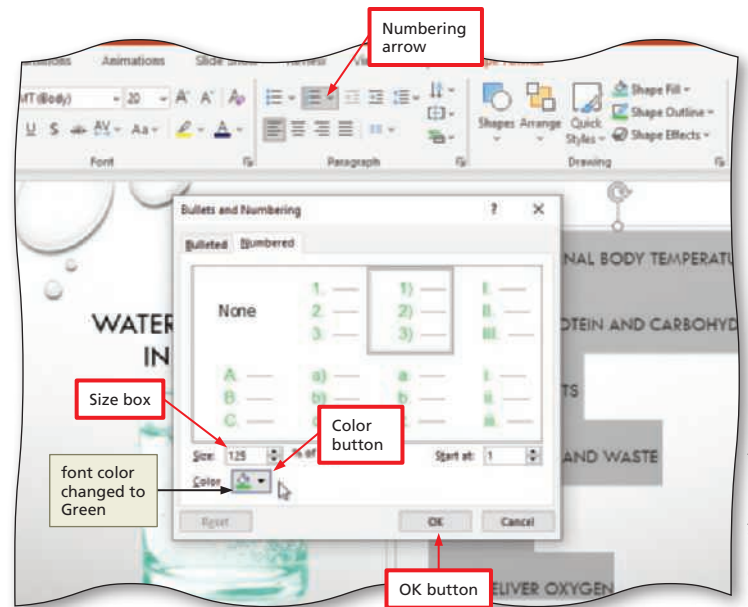


Figure 5-70

Other Ways

1. Right-click paragraph, point to Numbering on shortcut menu, click 'Bullets and Numbering', click up or down Size arrow until desired size is displayed, click Color, select color, click OK

To Change the Margins for Text in a Shape

Each placeholder and text box has preset internal margins, which are the spaces between the border and the contents of the box. The default left and right margins are 0.1", and the default top and bottom margins are 0.05". In this project, you will format the text in the shapes, so you need to increase the left and right margins and then decrease the top and bottom margins. **Why? You want to allow room and sufficient white space for these design elements.** The following steps change all three shape margins.

1

- Display Slide 5 and then right-click the Energizes Muscles shape to display the shortcut menu (Figure 5-71).

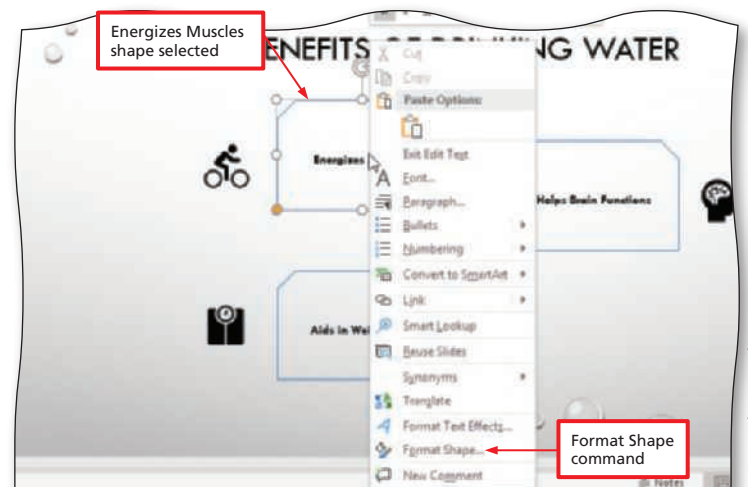


Figure 5-71

2

- Click Format Shape to display the Format Shape pane and then click the 'Size & Properties' Shape Options button.
- If necessary, click Text Box to display the Text Box section (Figure 5–72).

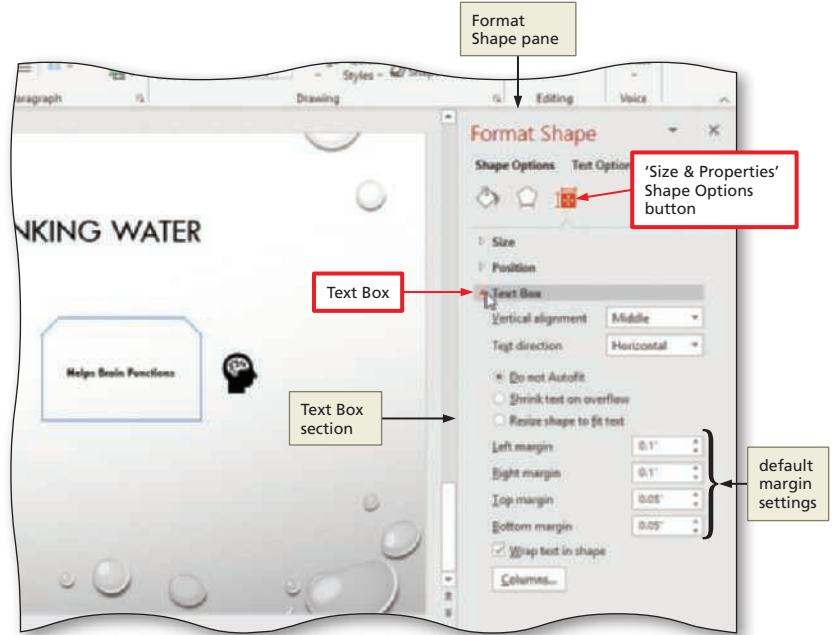


Figure 5–72

3

- Increase the Left margin setting to 0.3”.
- Increase the Right margin setting to 0.3”.
- Decrease the Top margin setting to 0”.
- Decrease the Bottom margin setting to 0” (Figure 5–73).

Q&A **Must I change all the margins?**
 No. You can change one, two, three, or all four internal margins depending upon the placeholder shape and the amount of text entered.

4

- Click the Close button (Format Shape pane).



Figure 5–73

To Format Shape Text

Sufficient space exists in the shape to increase the font size. In addition, changing the font and font color adds a custom design element to the final slide in the presentation. The following steps format the shape text.

- 1 Change the Energizes Muscles font to Papyrus.
- 2 Change the font size to 24 point.
- 3 Change the font color to Green.

To Apply a Glow Text Effect

You can add dimension to text by applying a glow effect. PowerPoint comes with a number of common preset glow variations. Once you have added this effect, you can choose a variation to create a custom style, color, and size. You also can change the transparency, which specifies how much of the glow is visible. **Why?** You want to emphasize the benefits of drinking water, and this effect helps to call attention to the text in the shape. The following steps apply a glow effect to the Energizes Muscles text.

1

- Display the Shape Format tab and then, if necessary, select the Energizes Muscles text.
- Click the Text Effects button (Shape Format tab | WordArt Styles group) to display the Text Effects menu and then point to Glow to display the Glow gallery.

2

- Point to 'Glow: 11 point; Green, Accent color 2' (second glow in third Glow Variations row) to display a live preview of the glow effect (Figure 5-74).



Experiment

- Point to various glow variations in the Glow gallery and watch the text change in the shape.
- Click 'Glow: 11 point; Green, Accent color 2' to apply the glow effect.

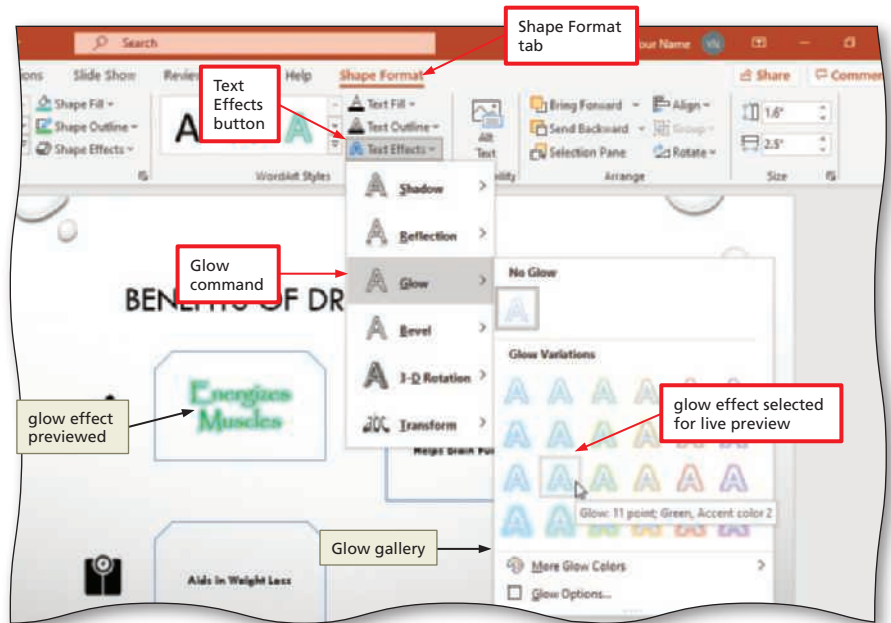


Figure 5-74

To Apply a Glow Shape Effect

You can apply glow effects to shapes and other objects. As with the glow text effect, the glow shape effect has several preset variations. The color, size, and transparency also can be changed. **Why?** You want to coordinate the text and icon design elements. The following steps apply a glow effect to the bicycle icon.

1

- Select the bicycle icon and then display the Graphics Format tab.
- Click the Graphics Effects button (Graphics Format tab | Graphics Styles group) to display the Graphics Effects menu and then point to Glow to display the Glow gallery.

2

- Point to 'Glow: 8 point; Green, Accent color 2' (second glow in second Glow Variations row) to display a live preview of the glow effect (Figure 5-75).

Experiment

- Point to various glow variations in the Glow gallery and watch the image change in the shape.
- Click 'Glow: 8 point; Green, Accent color 2' to apply the glow effect.

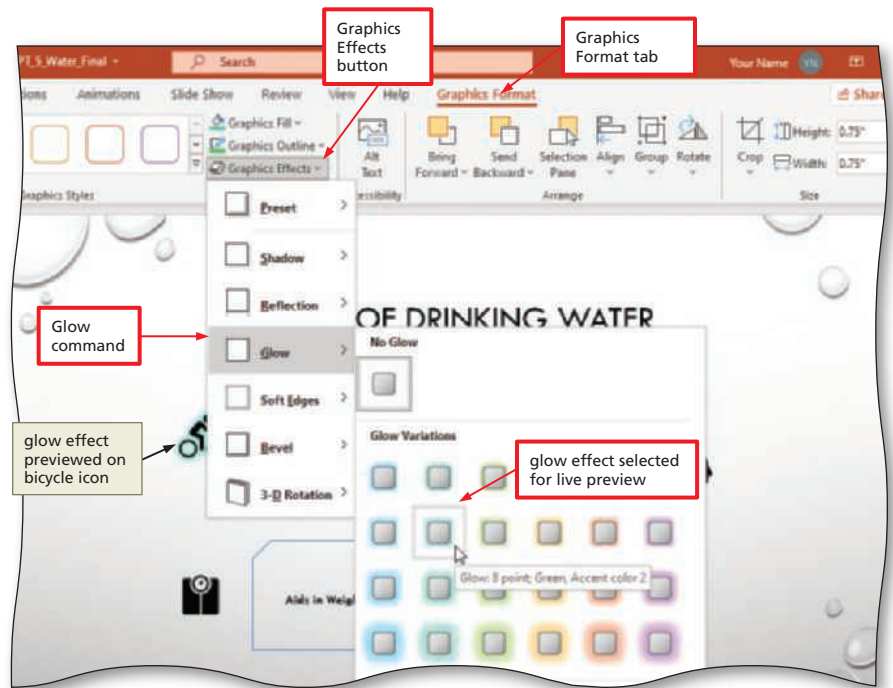


Figure 5-75

BTW

Using a Slide Library

PowerPoint presentations may be stored on a centrally located slide library that resides on a server. These slide shows may be shared, reused, and accessed by many individuals who then can copy materials into their own presentations. The slide library time stamps when an individual has borrowed a particular slide or presentation and then time stamps the slide or presentation when it is returned. If a particular slide in the library has been updated, anyone who has borrowed that slide is notified that the content has changed. In this way, people creating PowerPoint presentations can track changes to presentations, locate the latest versions of slides, and check for slide updates.

Format Painter

To save time and avoid formatting errors, you can use the **Format Painter** to copy custom formatting to other places in your presentation quickly and easily. You can use this feature in three ways:

- To copy only character attributes, such as font and font effects, select text that has these qualities.
- To copy both character attributes and paragraph attributes, such as alignment and indentation, select the entire paragraph.
- To apply the same formatting to multiple words, phrases, or paragraphs, double-click the Format Painter button and then select each item you want to format. You then can press ESC or click the Format Painter button to turn off this feature.

To Use the Format Painter with Text

The following steps use the Format Painter to copy formatting features. **Why?** To save time and duplicated effort, you quickly can use the Format Painter to copy formatting attributes from the Energizes Muscles shape text and apply them to the two other shapes.

1

- Display the Home tab, select the Energizes Muscles text, and then double-click the Format Painter button (Home tab | Clipboard group).

- Move the pointer off the ribbon (Figure 5-76).

Q&A

Why does the Format Painter button on my screen display only a paintbrush and not the words, Format Painter?

Monitor dimensions and resolution affect how buttons display on the ribbon.

Why did my pointer change shape?

The pointer changed shape by adding a paintbrush to indicate that the Format Painter function is active.

2

- Triple-click the text in the Helps Brain Functions shape to apply the format to all characters.
- Triple-click the text in the Aids in Weight Loss shape to apply the format to all characters (Figure 5-77).
- Click the Format Painter button or press ESC to turn off the Format Painter feature.

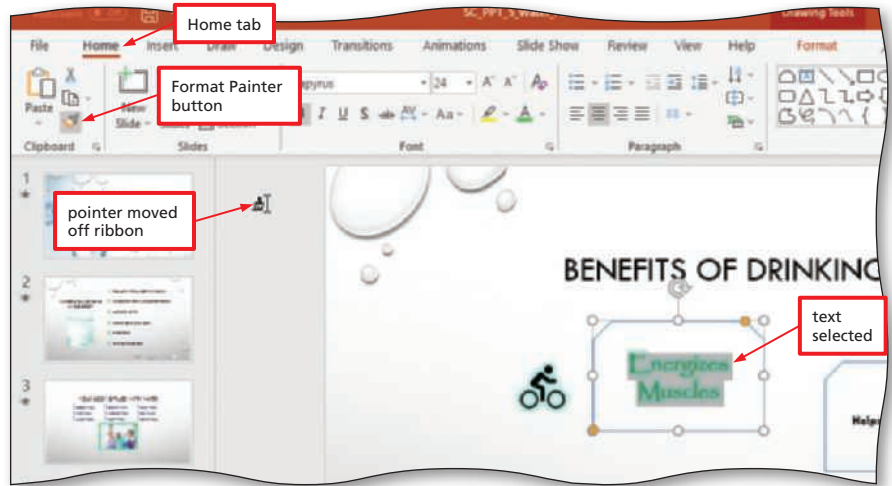


Figure 5-76

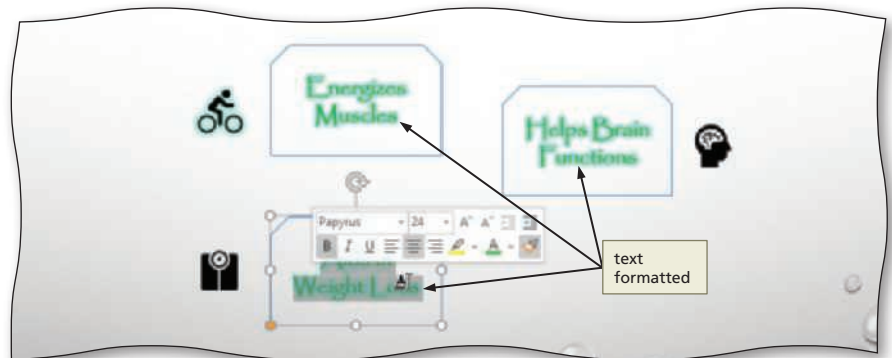


Figure 5-77

Other Ways

1. Select text, double-click Format Painter button on Mini toolbar

To Use the Format Painter with Objects

The following steps use the Format Painter to copy formatting features. **Why?** To save time and duplicated effort, you quickly can use the Format Painter to copy formatting attributes from the bicycle icon and apply them to brain and scale icons.

1

- Select the bicycle icon and then double-click the Format Painter button (Home tab | Clipboard group).
- Move the pointer off the ribbon (Figure 5-78).

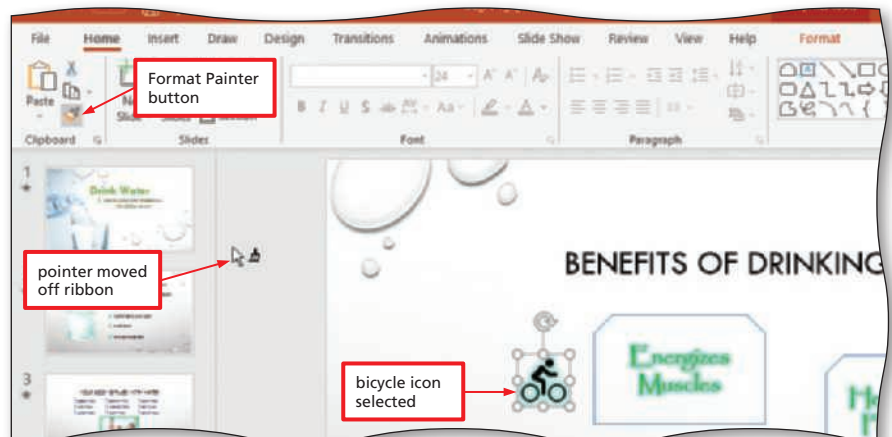


Figure 5-78

2

- Click the brain icon to apply the format to the graphic.
- Click the scale icon to apply the format to the graphic (Figure 5-79).
- Click the Format Painter button or press ESC to turn off the Format Painter feature.

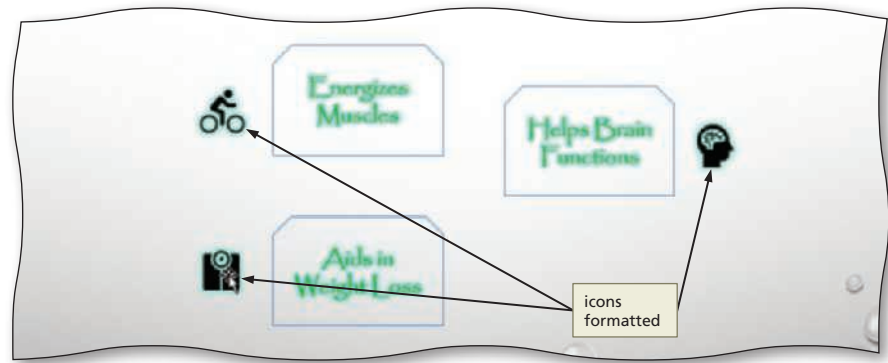


Figure 5-79

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Water Final file is saved and then you can exit PowerPoint. To resume later, start PowerPoint, open the file called SC_PPT_5_Water_Final, and continue following the steps from this location forward.

Animating Slide Content

BTW

Compressing Pictures

Click the Compress Pictures button (Picture Format tab | Adjust group) to reduce the presentation file size. Determine the optimum resolution by selecting where or how you will show the slides, such as on the web or via printed handouts.

BTW

Adding a Sound from a File to an Animation

If none of PowerPoint's default sounds seems appropriate to accompany an animation, you can add your own. Click the Sound arrow to display the sound list, scroll down, click Other Sound, and then locate the sound you want to use from your storage medium.

If you need to move objects on a slide once they are displayed, you can define a **motion path**. This predefined movement determines where an object will be displayed and then travel. Motion paths are grouped into the Basic, Lines & Curves, and Special categories. You can draw a **custom path** if none of the predefined paths meets your needs.

Slide 2 contains several animation effects. When this slide is displayed, the water glass automatically will float up under the title text after a brief delay. Next, the first content paragraph will display and then fade as the second paragraph displays. This animation sequence will continue until the sixth paragraph is displayed. Finally, the water glass picture will pulse slightly. To create this animation on the slide, you will use entrance and emphasis effects.

The Slide 3 picture shows three women holding water bottles. When this slide is displayed, the audience will view the text in the three columns and then watch the picture move in a circle at the bottom of the slide. You will use the Circle motion path to create this animation.

When Slide 4 is displayed, the picture of the water glasses will float up into the slide and then pulse slightly. When you are ready to discuss the amount of water an individual should drink, you will click a green arrow and watch it move from the mouth to the stomach. A custom motion path creates this arrow movement.

To Animate a Picture Using an Entrance Effect

In Module 3 you animated a WordArt object using an entrance effect, changed its direction, and then changed the start option so that it displayed automatically. Similarly, you can animate a picture and change the animation effects. The water glass you modified in Slide 2 will enter the slide from the lower edge and then continue moving upward until it is under the title text. The following steps apply an entrance effect to the water glass picture.

- 1 Display Slide 2 and then click the water glass picture to select it.
- 2 Display the Animations tab and then click the Float In animation in the Animation gallery (Animation group) to apply and preview this entrance animation for the water glass picture.
- 3 Change the Start animation timing option to With Previous (Figure 5-80).

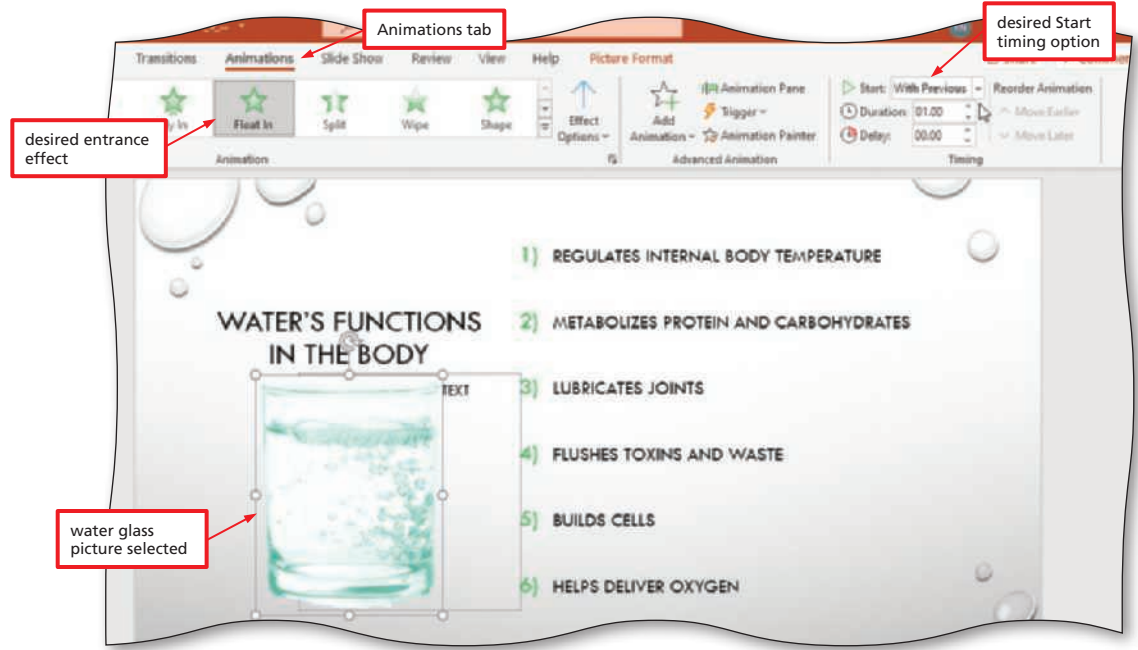


Figure 5-80

To Add an Emphasis Effect Animation

Once the water glass picture has entered the slide, you want it to fade out and in, or pulse, slightly. PowerPoint provides several effects that you can apply to a picture once it appears on a slide. These movements are categorized as emphasis effects, and they are colored yellow in the Animation gallery. You already have applied an entrance effect to the water glass picture, so you want to add another animation to this picture. **Why?** You want to call attention to this object as a subtle reminder of the water's importance throughout the body. The following steps apply an emphasis effect to the water glass picture after the entrance effect.

1

- Select the water glass picture again and then click the Add Animation button (Animations tab | Advanced Animation group) to expand the Animation gallery (Figure 5-81).

2

- Click Pulse in the Emphasis section (first animation in first row) to apply this effect to the water glass picture.
- Change the Start animation timing option to With Previous.
- Change the Duration time to 02.00 seconds.

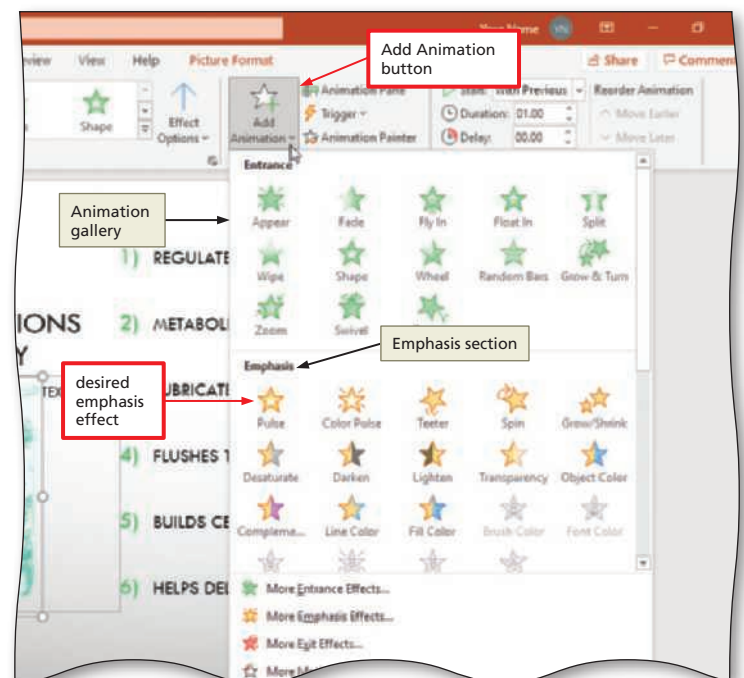


Figure 5-81

To Add a Delay to an Animation

All animations have been applied to the water glass picture. You can control when these effects start by delaying the start time. **Why?** You want several seconds to pass before the animation runs. The following step adds a delay to the water glass animations.

1

- With the water glass still selected, click the Delay up arrow (Animations tab | Timing group) several times to increase the delay time from 00.00 seconds to 03.00 seconds (Figure 5–82).
- Click the Preview button to view the animations.

Q&A Can I type the time in the Delay box instead of click the arrow to adjust the time?

Yes. Typing the numbers allows you to set a precise timing.

Can I adjust the delay time I just set?

Yes. Click the Delay up or down arrows and run the slide show to display Slide 2 until you find the time that best fits your presentation.

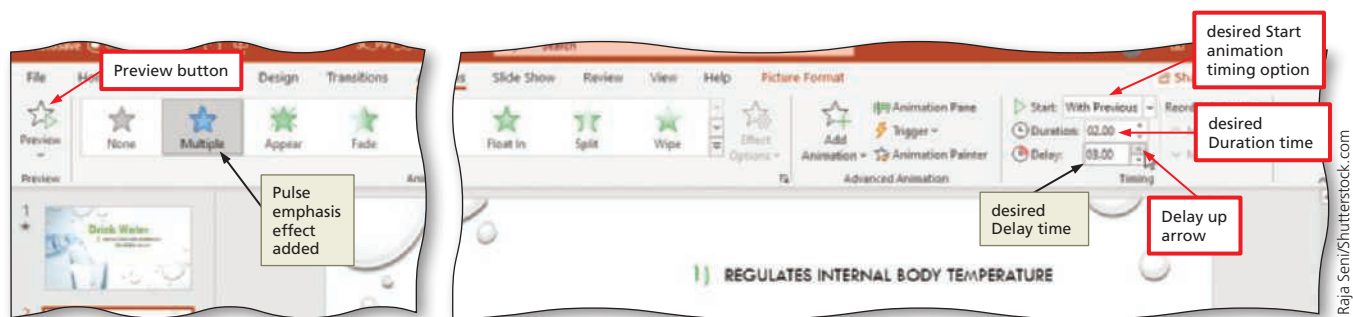


Figure 5–82

BTW

Turning Off Animations

You cannot remove all animations from an entire presentation in one step, but you can disable all animations in your presentation. To do this, click the 'Set Up Slide Show' button (Slide Show tab | Set Up group) to display the 'Set Up Show' dialog box and then click 'Show without animation' in the Show options area.

To Animate Text

You can animate the six numbered paragraphs in the Slide 2 content placeholder. The following steps animate the numbered list paragraphs.

- 1 Click any numbered list paragraph in the Slide 2 content placeholder to select the placeholder and then click a placeholder border so that it displays as a solid line.
- 2 Click the Fade entrance effect in the Animation gallery to add and preview this animation.
- 3 Change the Start animation timing option to After Previous.
- 4 Change the Duration time to 02.00 seconds (Figure 5–83).
- 5 Click the Preview button to view the animations.



Figure 5–83

Consider This



Select colors for dimming text.

After paragraphs of text are displayed, you can change the color, or dim the text, to direct the audience's attention to another area of the slide. Choose the dimming colors carefully. For example, use cool colors, such as blue, purple, and turquoise, as backgrounds so that the audience focuses on the next brighter, contrasting color on the slide. Be certain the color you choose can be seen against the background. In addition, use a maximum of three colors unless you have a compelling need to present more variety.

To Dim Text after Animation

As each item in the list is displayed, you may desire to have the previous item removed from the screen or to have the font color change or **dim**. PowerPoint provides several options for you to alter this text by specifying an After Animation effect. The following steps dim each paragraph in the content placeholder by changing the font color to teal. **Why?** That color is in the green family of accent colors on different slides in the presentation.

1

- With Slide 2 displayed, click the Animation Pane button (Animation tab | Advanced Animation group) to display the Animation Pane. Click the double arrow below the content placeholder to expand the contents showing the six placeholder paragraphs.
- Right-click the first paragraph in the list to display the Animation Order menu (Figure 5–84).

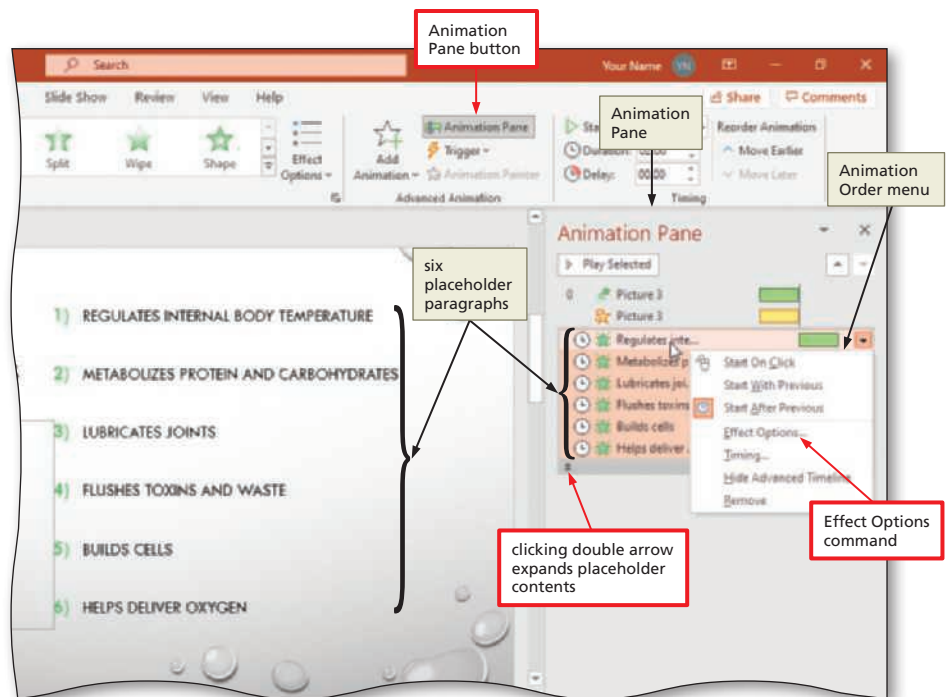


Figure 5–84

2

- Click Effect Options in the Animation Order menu to display the Fade dialog box.
- Click the After animation arrow to display the After animation menu (Figure 5–85).

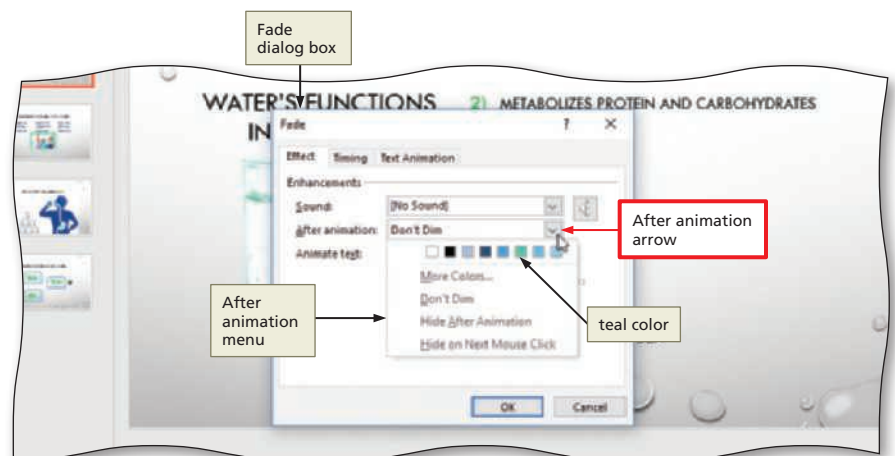


Figure 5–85

- 3 Click the teal color (sixth color in row of colors) to select this color for the dim effect (Figure 5-86).
- 4 Click OK (Fade dialog box) to apply the dim effect to the first item in the content placeholder on Slide 2 and preview the animations.
- 5 If necessary, repeat Steps 1 to 4 for each of the remaining five paragraphs in the list to apply and preview the dim After animation effect.

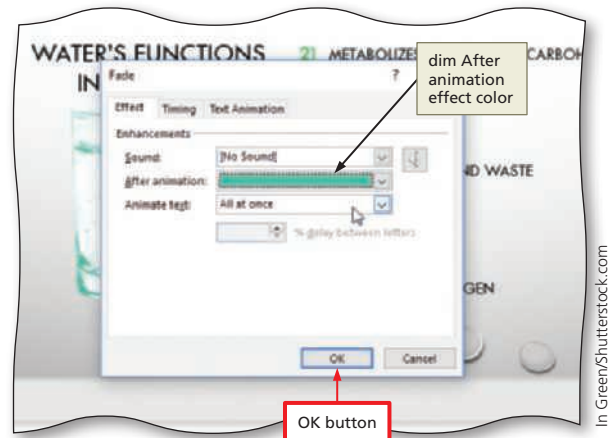


Figure 5-86

To Reorder Animations on a Slide

By default, the water glass picture's entrance and emphasis effects occur sequentially. You can modify this order by moving each animation earlier or later in the animation list. The following steps change the sequence for the Slide 2 animations so the water glass is displayed when Slide 2 is shown, but the Pulse animation effect will occur after the six bulleted paragraphs are displayed. **Why?** You will direct the audience's attention to the picture after they have learned about the importance of adequate water in the body.

- 1 Click the Picture 3 Pulse Emphasis animation (with the yellow star) in the Animation Pane to select it (Figure 5-87).

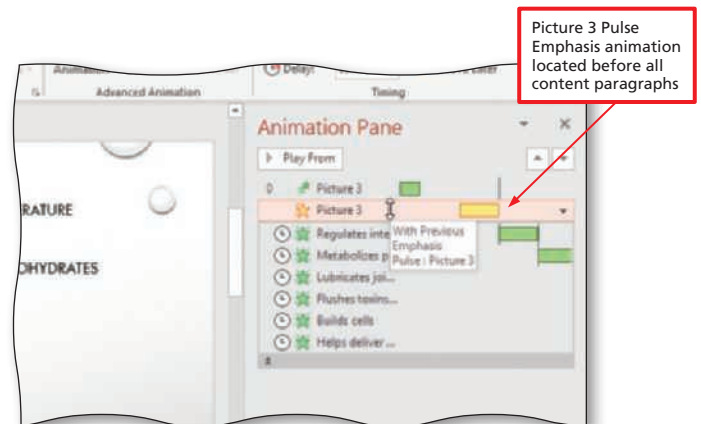


Figure 5-87

- 2 Click the Move Later button (Animations tab | Timing group) six times to move the Pulse animation after all the content paragraphs.

Q&A Can I click the Move Later button in the Animation Pane instead of the button on the Animations tab to reorder the animation?

Yes. Either button performs the same action.

Would I click the Move Earlier button on the Animations tab if I wanted the animation to occur earlier in the sequence?

Yes. You also could click the Move Earlier button in the Animation Pane.

- Change the Start animation timing option to After Previous.
- Change the Delay time to 02.00 seconds (Figure 5-88).

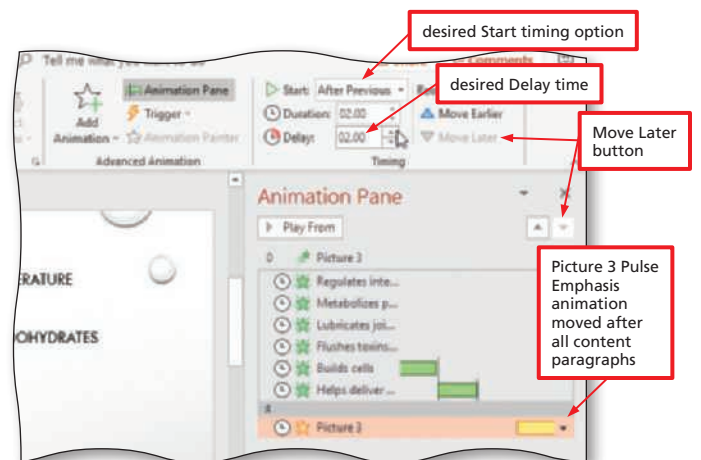


Figure 5-88

3

- Preview the animations.

To REMOVE AN ANIMATION

You can remove an animation effect that has been applied to text or an object. To remove an animation, you would perform the following steps.

1. Display the Animations tab and then click the Animation Pane button.
2. Click the animated object that has the effect you want to remove.
3. In the Animation Pane, click the effect to remove, click the down arrow, and then click Remove.

To Use the Animation Painter

At times, you may desire to apply the same animation effects to several objects in a presentation. On Slide 4, for example, you want to animate the picture with the identical entrance and emphasis effects you applied to the Slide 2 water glass picture. As with the Format Painter that is used to duplicate formatting attributes, the **Animation Painter** copies animations from one object to another. Using the Animation Painter can save time. **Why? It duplicates numerous animation effects and characteristics uniformly to other objects with one click.** The following steps use the Animation Painter to copy the animations from Slide 2 to Slide 4.

1

- Click the water glass picture to select it.
- Click the Animation Painter button (Animations tab | Advanced Animation group).
- Move the pointer off the ribbon (Figure 5–89).

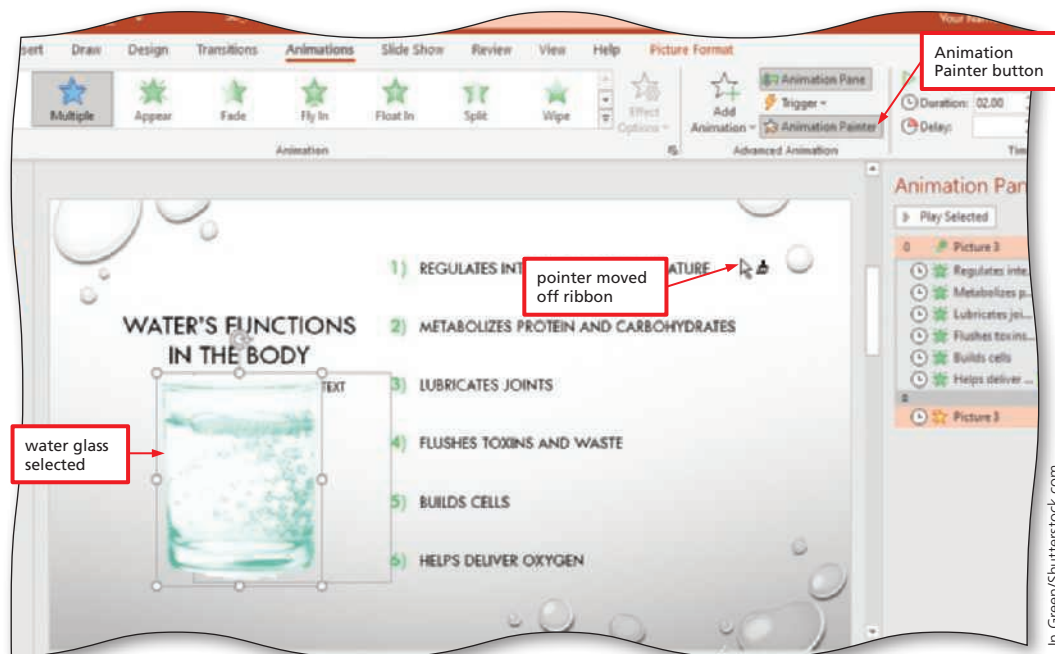


Figure 5–89

2

- Display Slide 4 and then click the picture with the eight water glasses to copy and preview the animations from Slide 2 (Figure 5–90).

3

- Close the Animation Pane.

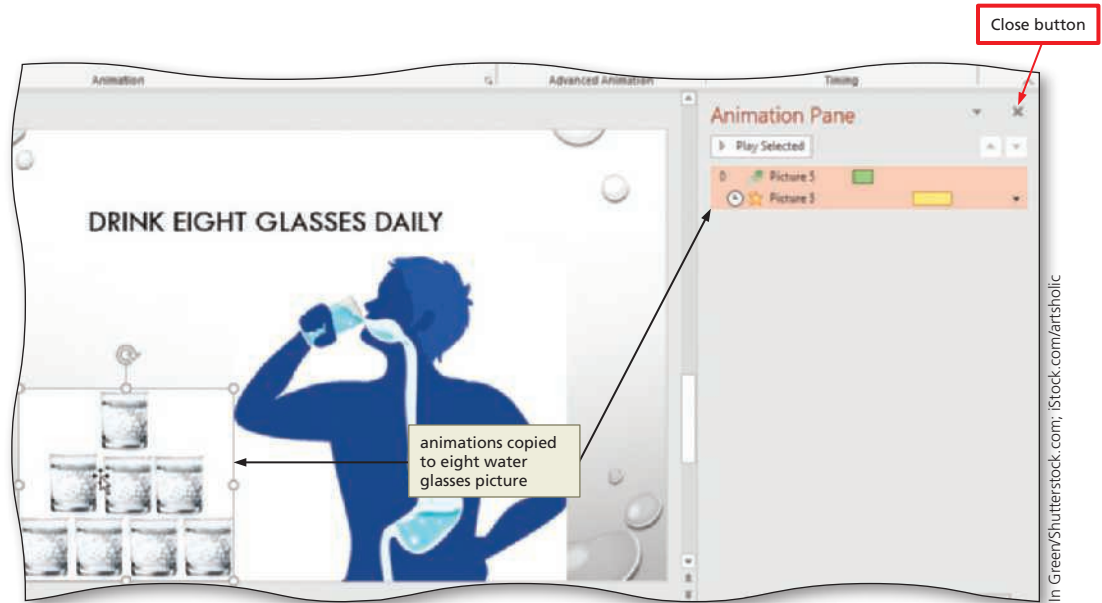


Figure 5–90

Other Ways

1. Press ALT+SHIFT+C

To Animate an Object Using a Preset Motion Path

Slide 3 has a picture you want to animate using a motion path. You will add the Shapes motion path, which is one of the six options displayed in the Motion Paths section of the Animation gallery. **Why? The ladies in the picture have been working out, so you want to apply a motion path that has energy.** In addition, many additional motion paths are available when you click More Motion Paths in the lower area of the Animation gallery. The following steps animate the picture using the Shapes motion path.

1

- Display Slide 3 and select the picture.
- With the Animations tab selected, click the Add Animation button (Animations tab | Advanced Animation group) to display the Animation gallery.
- Scroll down until the Motion Paths section is visible (Figure 5–91).

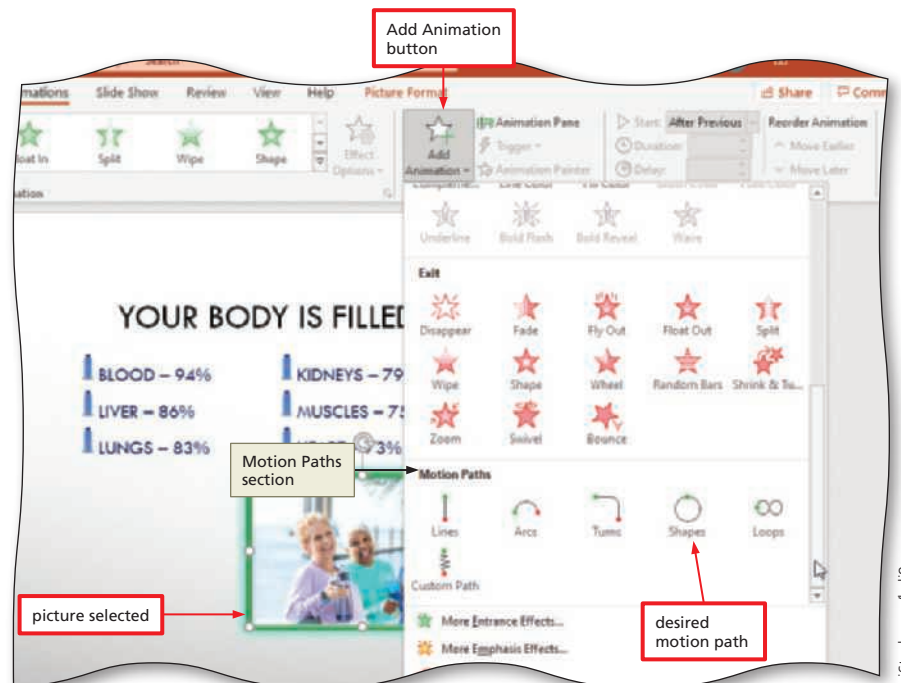


Figure 5–91

2

- Click the Shapes motion path to apply the animation to the picture and preview the animation.
- Change the Start animation timing option to After Previous.
- Change the Duration to 05.00 seconds (Figure 5–92) and preview the animation.

Q&A

Are more motion paths available in addition to those shown in the Animation gallery?

Yes. To see additional motion paths, click More Motion Paths in the lower portion of the Animation gallery. The motion paths are arranged in the Basic, Lines & Curves, and Special categories.

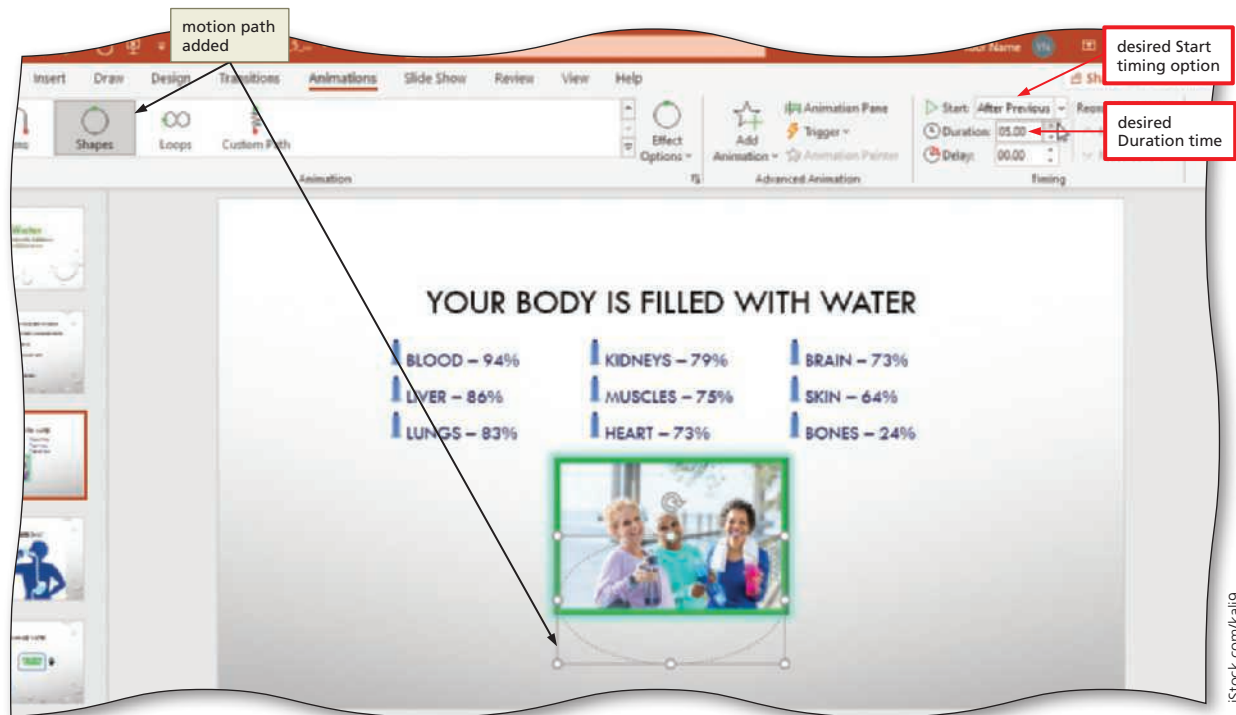


Figure 5–92

To Animate an Object Using a Custom Motion Path

Although PowerPoint supplies a wide variety of preset motion paths, at times they may not fit the precise animations your presentation requires. In that situation, you can draw a **custom path** that specifies the unique movement your slide element should make. None of the predefined paths meets your needs, so you will draw your own custom path. **Why?** You want to show the flow of water from the mouth to the stomach.

Drawing a custom path requires some practice and patience. A mouse is required to perform this task, and you click the mouse to begin drawing the line. If you want the line to change direction, such as to curve, you click again. When you have completed drawing the path, you double-click to end the line. The following steps insert an arrow shape and draw a custom motion path to animate the arrow on Slide 4.

1

- Display Slide 4, display the Insert tab, click the Shapes button (Insert tab | Illustrations group), and then insert the Arrow: Down shape (fourth shape in Block Arrows section).
- With the Shape Format tab displayed, click the Shape Fill button (Shape Format tab | Shape Styles group) and then change the arrow shape fill color to Green (sixth color in the Standard Colors row).

- Change the arrow width to 0.3" and the height to 1.0" and then move the arrow location to between the man's mouth and the water glass (Figure 5-93).



Figure 5-93

2

- Apply the Fade entrance animation to the arrow.
- Click the Add Animation button and then scroll down until the entire Motion Paths section is visible (Figure 5-94).

Q&A Can I draw a custom motion path when using a touch screen?

No. You must use a mouse to perform this task.



Figure 5-94

3

- Click Custom Path in the Motion Paths section to add this animation.
- Click the Effect Options button (Animations tab | Animation group) to display the Type gallery (Figure 5–95).

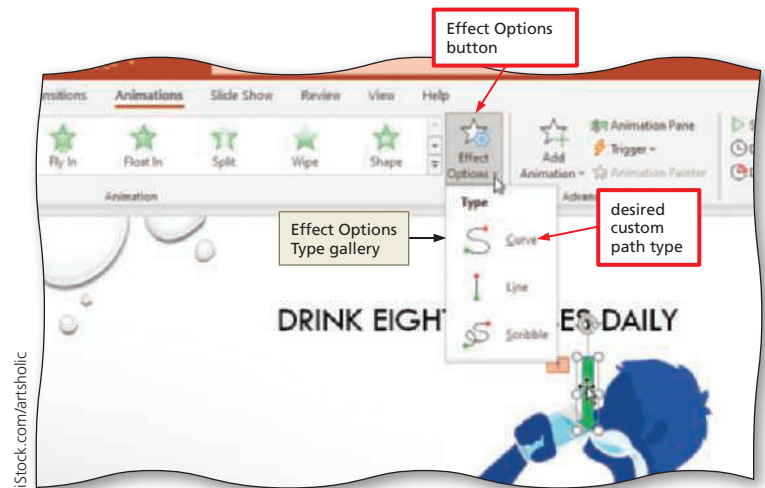


Figure 5–95

4

- Click Curve in the Type gallery and then position the pointer near the top of the arrow (Figure 5–96).

Q&A Why did I need to select Curve rather than Scribble or Line?

Your custom motion path will select particular locations on the slide, and the Curve type will create rounded edges to connect the lines you draw. The Scribble and Line options would draw only straight lines, so the arrow would not have smooth turns as it moves toward the stomach.



Figure 5–96

5

- Click to set the beginning of the curve and then position the pointer by the man's throat (Figure 5–97).



Figure 5–97

6

- Click to set the location by the throat where the arrow will change direction.
- Position the pointer on the beginning of the stomach, as shown in Figure 5–98, and then click to set the top of the curve in this direction of travel.

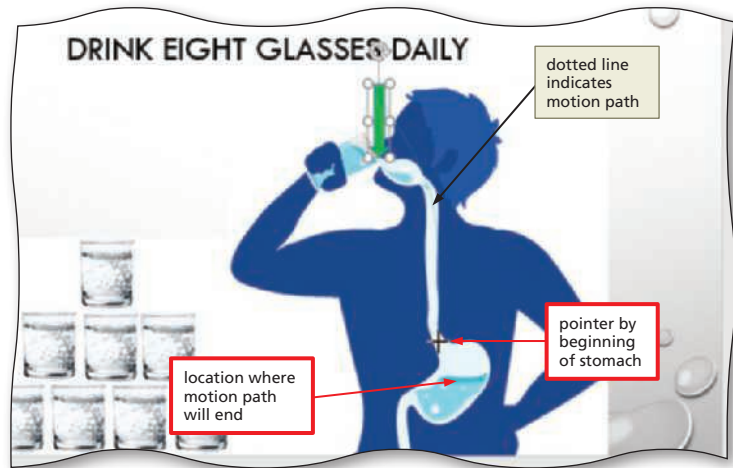


Figure 5–98

7

- Position the pointer at the top of the water in the stomach and then double-click to indicate the end of the motion path and preview this animation (Figure 5–99).



Figure 5–99

- Change the Duration setting to 07.00 seconds (Figure 5–100).

Q&A | **If my curve is not correct, can I delete it?**

Yes. Select the motion path, press DELETE, and then repeat the previous steps.



Figure 5–100

To Trigger an Animation Effect

If you select the On Click Start animation timing option and run the slide show, PowerPoint starts the animation when you click any part of the slide or press SPACEBAR. You may, however, want the option to play an animation in a particular circumstance. **Why?** You may have an animated sequence ready to show if time permits or if you believe your audience needs time to understand a process and would understand the concept more readily if you revealed one part of a slide element at a time. A **trigger** specifies when an animation or other action should occur. It is linked to a particular component of a slide so that the action occurs only when you click this slide element. For example, you can trigger an animation effect to start when you click a shape or other object that has the animation applied, or you can trigger an animation effect to begin playing at the start of, or sometime during, an audio or video clip. If you click any other part of the slide, PowerPoint will display the next slide in the presentation. The following steps set clicking the green arrow on Slide 4 as the trigger to move the arrow from the mouth to the stomach.

BTW

Removing Multiple Animation Effects

To remove more than one animation effect from text or an object, in the Animation Pane, press CTRL, click each animation effect that you want to remove, and then press DELETE. To remove all animation effects from text or an object, click the object that you want to stop animating, then click None in the gallery of animation effects (Animations tab | Animation group).

1

- Click the green arrow, click the Trigger button (Animations tab | Advanced Animation group) to display the Trigger menu, and then point to 'On Click of' to display the list of Slide 4 elements (Figure 5-101).

2

- Click Arrow: Down 2, which is the green arrow, as the object that will trigger the animation when clicked.

Q&A How do I know the trigger animation has been added to the green arrow?
 The tag, with a symbol resembling a lightning bolt, indicates the trigger animation is applied.



Figure 5-101

To Insert a Connector

You may decide to arrange items on a slide to improve the design. If some slide elements are related to each other, you can use a **connector**, which is a line with connection points at each end that stay attached to related shapes. The three types of connectors are straight, elbow (angled), and curved. When you choose a connector, dots appear on the shape outline to indicate where you can attach a connector. You click where you want the connector to start and then drag the pointer to the location where the connector should end. **Lock Drawing Mode** allows you to add the same line repeatedly. When you have completed adding the connector, you press ESC to exit drawing mode. **Why?** On Slide 5, you want to connect each icon to its related shape. The following steps insert a line connector between objects on Slide 5.

1

- Display Slide 5, display the Insert tab, and then click the Shapes button to display the Shapes gallery.
- Right-click the Line shape (first shape in Lines area) to display the Drawing Mode menu (Figure 5-102).

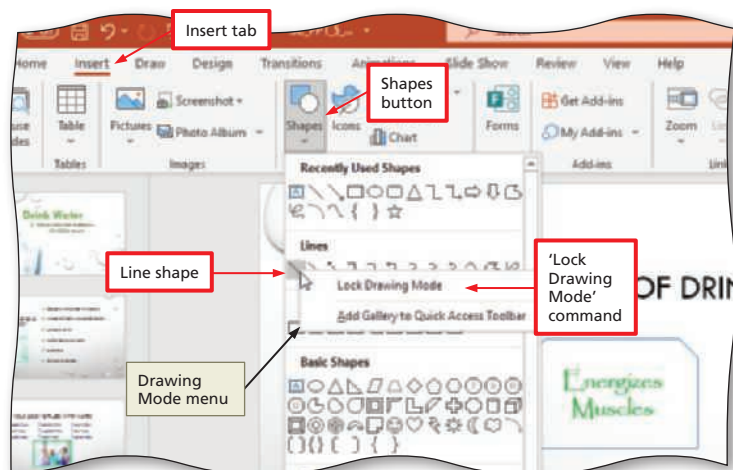


Figure 5-102

2

- Click 'Lock Drawing Mode', move the pointer (a crosshair) over the bicycle icon until gray circles appear, and then position the pointer over the gray circle on the right side of the bicycle icon (Figure 5–103).

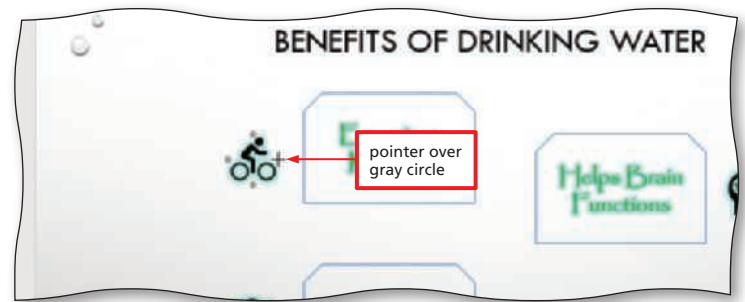


Figure 5–103

3

- Click and then drag the pointer toward the Energizes Muscles shape.
- When the pointer reaches the left circle of the Energizes Muscles shape, release the mouse (Figure 5–104).

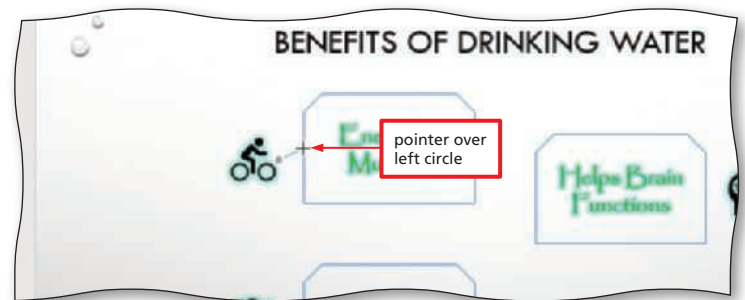


Figure 5–104

4

- Position the pointer over the gray circle on left side of the brain icon and then drag the pointer to the right circle of the 'Helps Brain Functions' shape.
- Position the pointer over the gray circle on the right side of the scale icon and then drag the pointer to the left circle of the 'Aids in Weight Loss' shape (Figure 5–105).

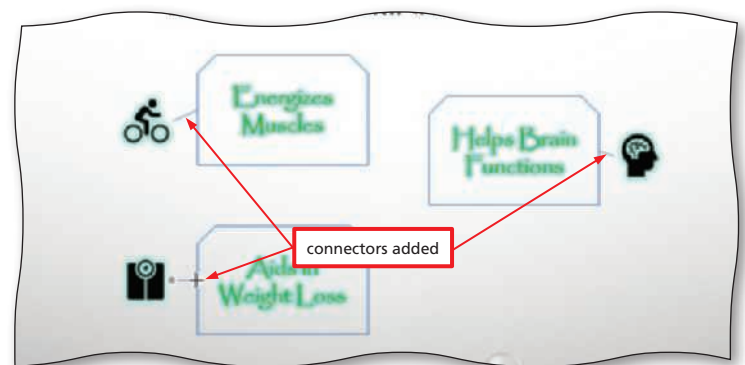


Figure 5–105

5

- Press ESC to exit Drawing Mode.

Q&A How do I know I have exited Drawing Mode?
The gray dots no longer are displayed.

To Align Content Placeholders

You can have PowerPoint place the same amount of space between the three sets of icons and shapes on Slide 5. You have two distribution options: 'Align to Slide' spaces all the selected objects evenly across the entire width of the slide; 'Align Selected Objects' spaces the objects between the fixed right and left objects. The following steps use the 'Align Selected Objects' option. **Why?** This option will distribute the Slide 5 pictures and shapes vertically to evenly fill space in the middle of the slide.

1

- Select the six Slide 5 icons and shapes, display the Shape Format tab, and then click the Align button (Shape Format tab | Arrange group) to display the Align Objects menu.

2

- If necessary, click 'Align Selected Objects' so that PowerPoint will adjust the spacing of the pictures evenly and then click the Align button to display the Align menu again (Figure 5-106).

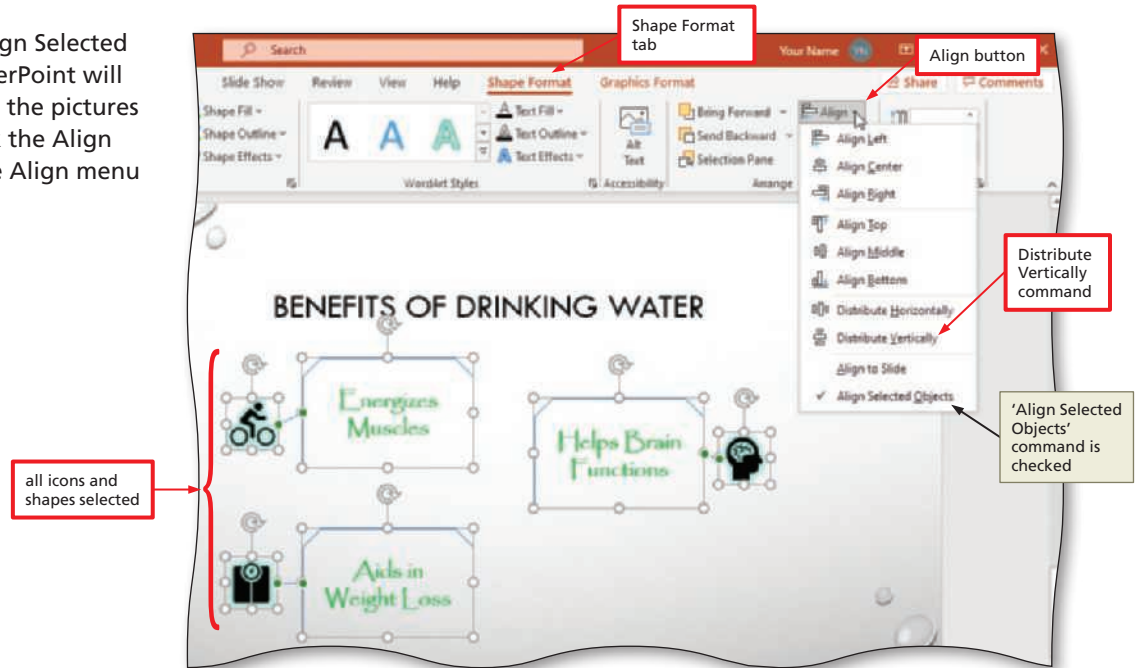


Figure 5-106

3

- Click Distribute Vertically to adjust the spacing (Figure 5-107).

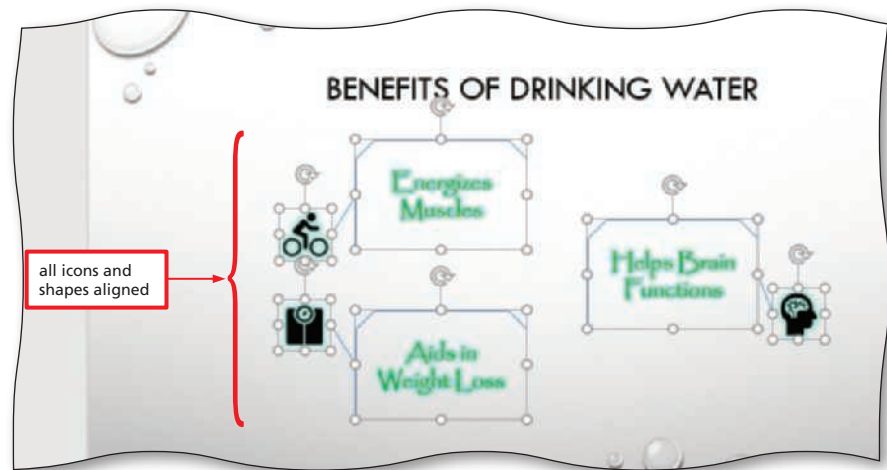


Figure 5-107

Creating and Managing Sections

Quality PowerPoint presentations are tailored toward specific audiences, and experienced presenters adapt the slides to meet the listeners' needs and expectations. Speakers can develop one slide show and then modify the content each time they deliver the presentation. In the Drink More Water slide show, for example, a speaker may decide to place the slides that showcase the benefits of drinking water before the slides describing the functions that water provides.

You can divide the slides into **sections** to help organize the slides. These sections serve the same function as dividers in a notebook or tabs in a manual: They help the user find required information and move material in a new sequence.

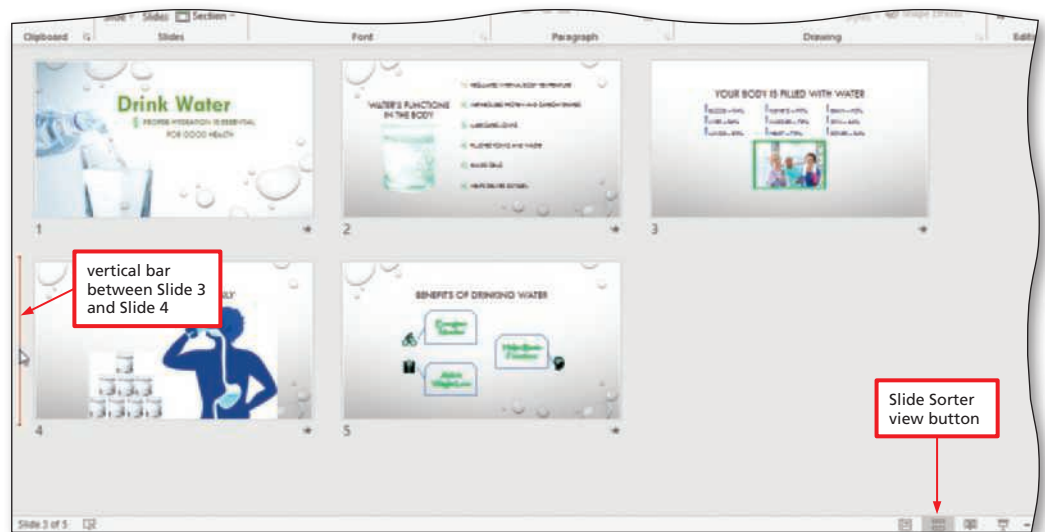
In PowerPoint, you can create sections, give them unique names, and then move slides into each section. You then can move one entire section to another part of the slide show or delete the section if it no longer is needed. Each section can be displayed or printed individually.

To Add a Section to a Presentation

The slides in the presentation are divided into two categories: Functions and Benefits. You can create a section break to organize slides into a particular group. **Why?** At times, you may want to display slides from one particular category or move a section of slides to another part of the presentation. The following steps create two sections in the presentation.

1

- Click the Slide Sorter view button on the status bar to display the presentation in Slide Sorter view.
- Position the pointer between Slide 3 and Slide 4 and then click once to display the vertical bar (Figure 5–108).



Q&A

I am using a touch screen. When I tap between the slides to display the vertical bar, a shortcut menu also displays with an Add Section button.

Can I just tap that button instead of using the Home tab Section button?

Yes.

2

- With the Home tab displayed, click the Section button (Home tab | Slides group) to display the Section menu (Figure 5–109).

3

- Click Add Section in the menu to create a section with the name, Untitled Section.

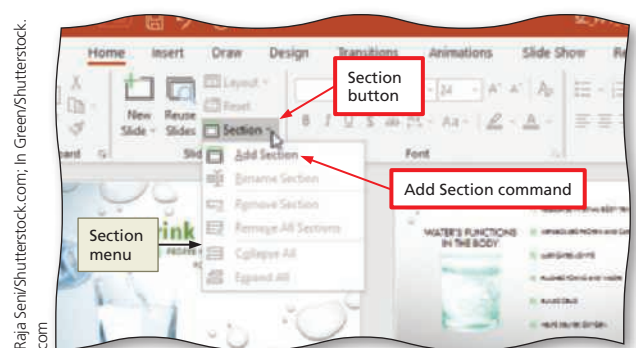


Figure 5–109

To Rename a Section

The default section names, Default and Untitled, do not identify the content of the slides in the group. The following steps rename each of the two sections in the presentation. **Why?** Giving each section a unique name helps to categorize the slides easily.

1

- With the two slides in the last section highlighted and the Rename Section dialog box displayed, type **Benefits** in the Section name box (Figure 5-110).

Q&A If the Benefits section is not highlighted, how can I select it? Click the divider between the sections. You will know the section is selected when the thumbnails have a colored border and the text and slide numbers have a colored font color.

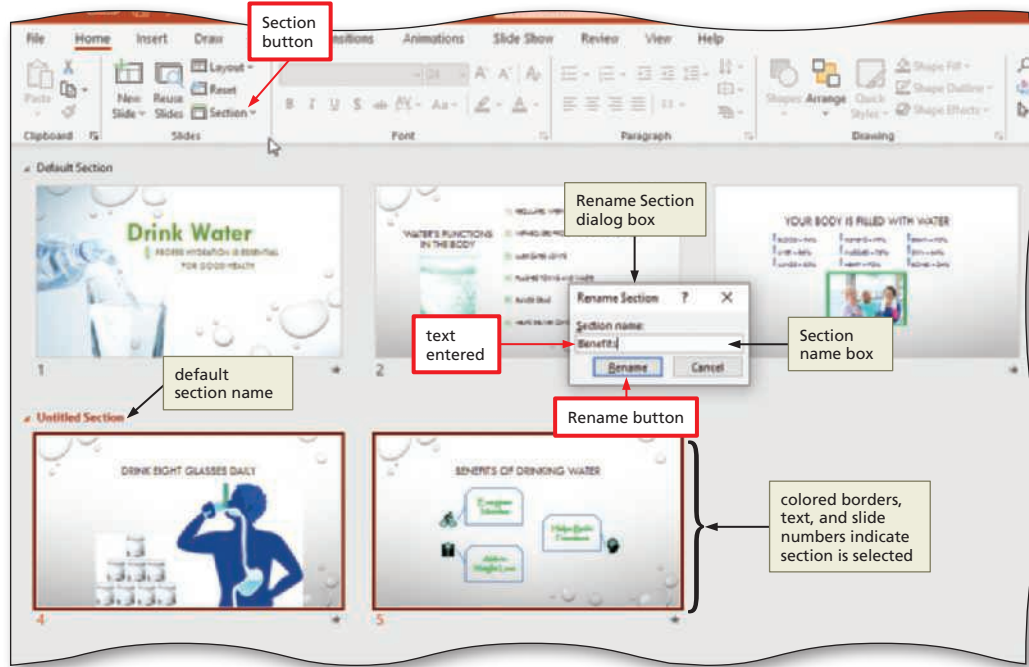


Figure 5-110

2

- Click the Rename button (Rename Section dialog box) to change the section name to Benefits.
- Click the Default Section divider for Slides 1, 2, and 3 to select it and then click the Section button to display the Section menu (Figure 5-111).



Figure 5-111

3

- Click Rename Section to display the Rename Section dialog box, type **Functions** in the Section name box, and then click the Rename button to change the section name (Figure 5–112).

Raja Seni/Shutterstock.com;
In Green/Shutterstock.com;
iStock.com/Kalig;
iStock.com/artsholic

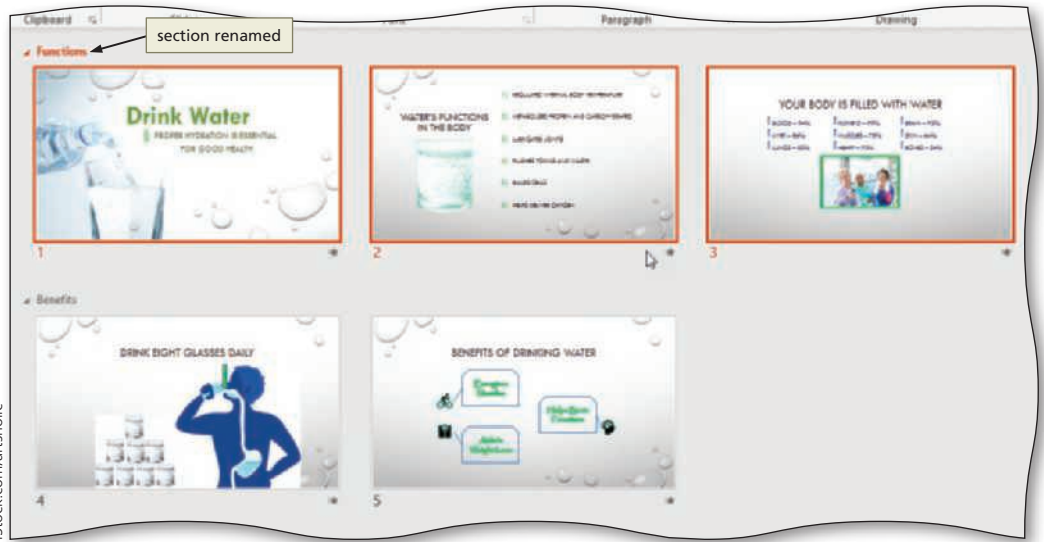


Figure 5–112

Other Ways

1. Right-click section divider, click Rename Section on shortcut menu

To Collapse Sections

You can collapse the sections so that only the two section titles are displayed. **Why?** It is convenient to view the names when the sections are displayed in a list. The following steps collapse the sections.

1

- With the first section, Functions, selected and the Home tab displayed, click the Section button (Figure 5–113).

Q&A Can I remove a section?

Yes. To delete one section, select the section title and then click Remove Section in the Section menu. To remove all sections, display the Section menu and then click 'Remove All Sections'.



Figure 5–113

2

- Click Collapse All in the Section menu to display only the section names.

To Reorder Sections

When the slide sections are collapsed, it is easy to change the order in which the sections display. **Why?** You want to emphasize the benefits of drinking water, so you want to present this information at the beginning of your talk and change the order of the two sets of slides in your presentation. The following steps reorder the Functions and Benefits sections and then expand the sections.

1

- Click the Benefits section name to select it and then drag the section upward so that it becomes the first section.

Q&A Could I have dragged the Functions section name below the Benefits section name?
 Yes. Either method would arrange the sections.

- Click Section to display the Section menu (Figure 5-114).

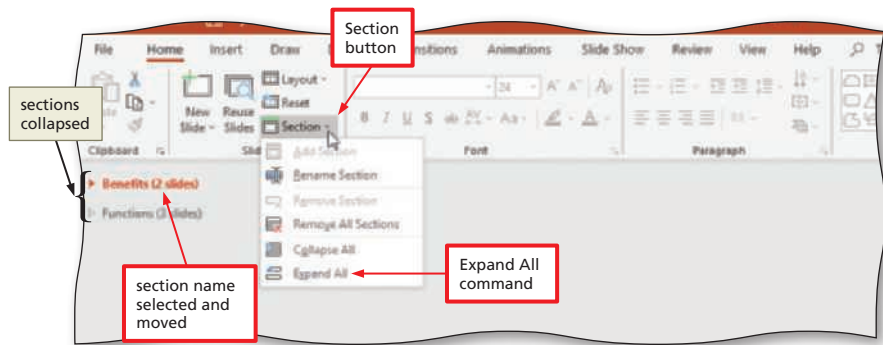


Figure 5-114

2

- Click Expand All to display all the slides in their corresponding sections (Figure 5-115).

3

- Run the presentation to display all the slides in the desired order.

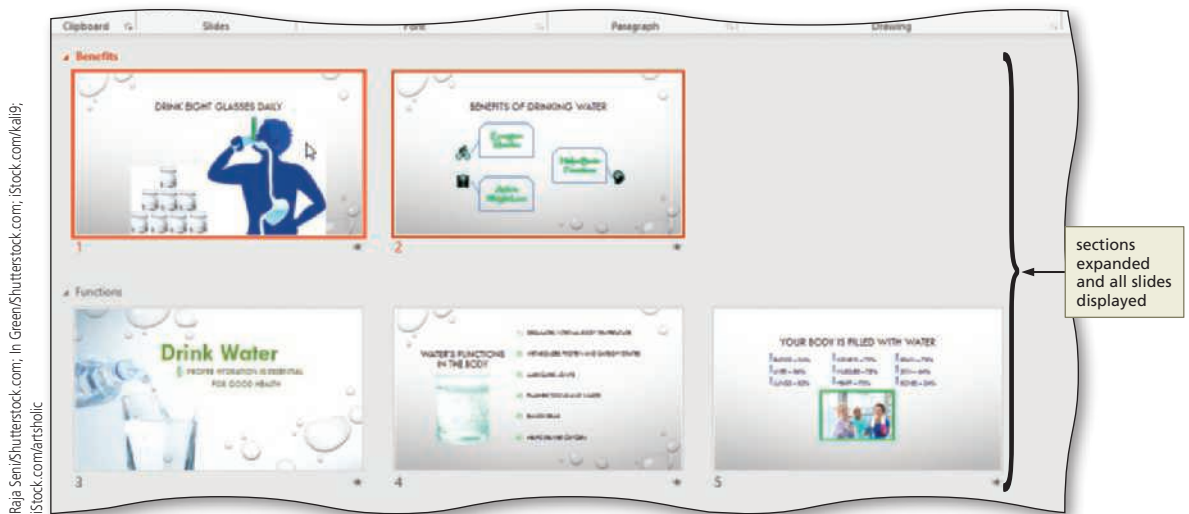


Figure 5-115

4

- Right-click the Functions section name to select it and display the shortcut menu (Figure 5-116).



Figure 5-116

5

- Click 'Move Section Up' to position the Functions section as the first section in the presentation.

Other Ways

1. Right-click section name, click Move Section Up, Move Section Down, Collapse All, or Expand All on shortcut menu

Zoom Links

Zoom is a dynamic feature that allows you to present your content creatively in a nonlinear way. When you create a Zoom, you can jump to and from specific slides, sections, and portions of your presentation in an order you decide when you are presenting. You can jump to specific slides and section with Slide Zoom and Section Zoom. If your presentation has several sections, you can use a **section zoom** to return to sections you want to emphasize or highlight. To show only selected slides, you can use **slide zoom** to show a small version of a slide on another slide that you can click to display the slide in Slide Show view, which is useful when a shorter presentation does not have many sections. In addition, you can create an interactive table of contents with **summary zoom**, which is a slide that contains section zooms, usually for all of the sections in the presentation. When you are presenting your slide show, you click the section zoom or slide zoom to jump to the linked section. If you use the section zoom, PowerPoint will display the slides in a section and then automatically return to the original slide.

To Insert Section Zoom Links and Slide Zoom Links

The zoom feature can be useful when presenting your Drink More Water slides if your audience expresses interest in a particular section or you need to jump to a particular slide to review or display information. When you are displaying the title slide, for example, you can click a section zoom link and then jump to the benefits section, starting with Slide 4. After Slide 5 is displayed, PowerPoint returns to Slide 1. In another example, you can click the slide zoom link on Slide 3 to skip to Slide 5. Once Slide 5 is displayed, the presentation ends. **Why?** You may decide to modify the slide order while you are speaking based on the audience's interest and background knowledge. The following steps insert section and slide zoom links.

1

- Click the Normal view button on the status toolbar.
- With Slide 1 displayed, click the Insert tab and then click the Zoom button (Insert tab | Links group) to display the Zoom menu (Figure 5–117).

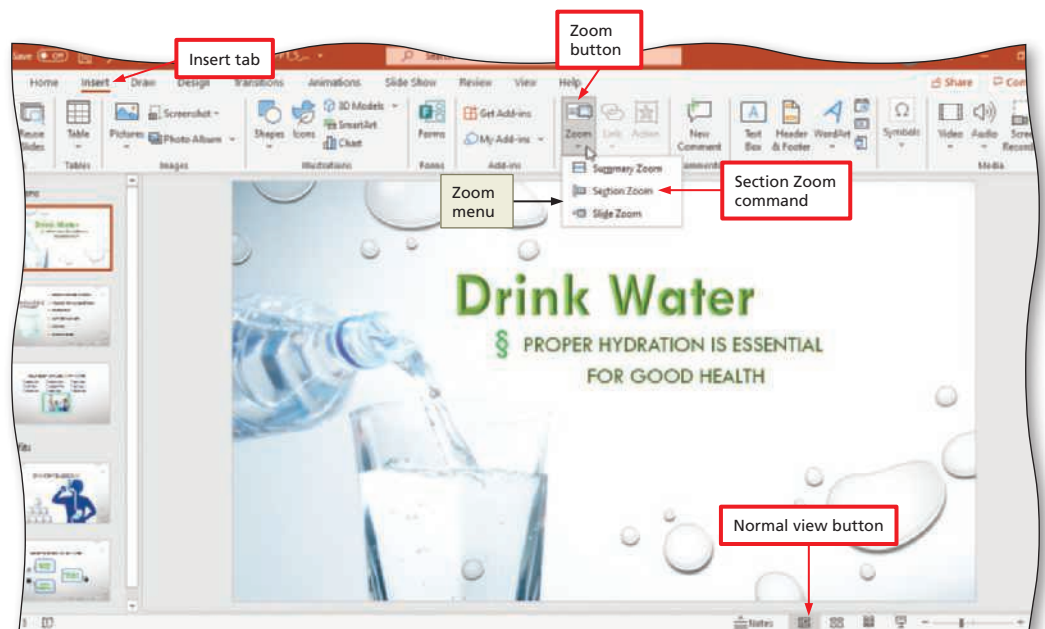


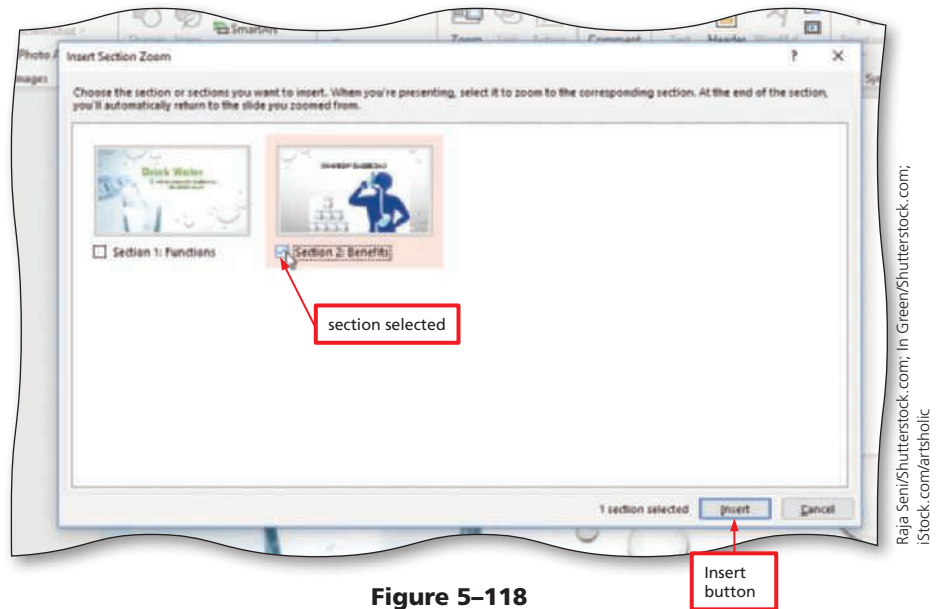
Figure 5–117

2

- Click Section Zoom and then click the 'Section 2: Benefits' box to select that section (Figure 5-118).

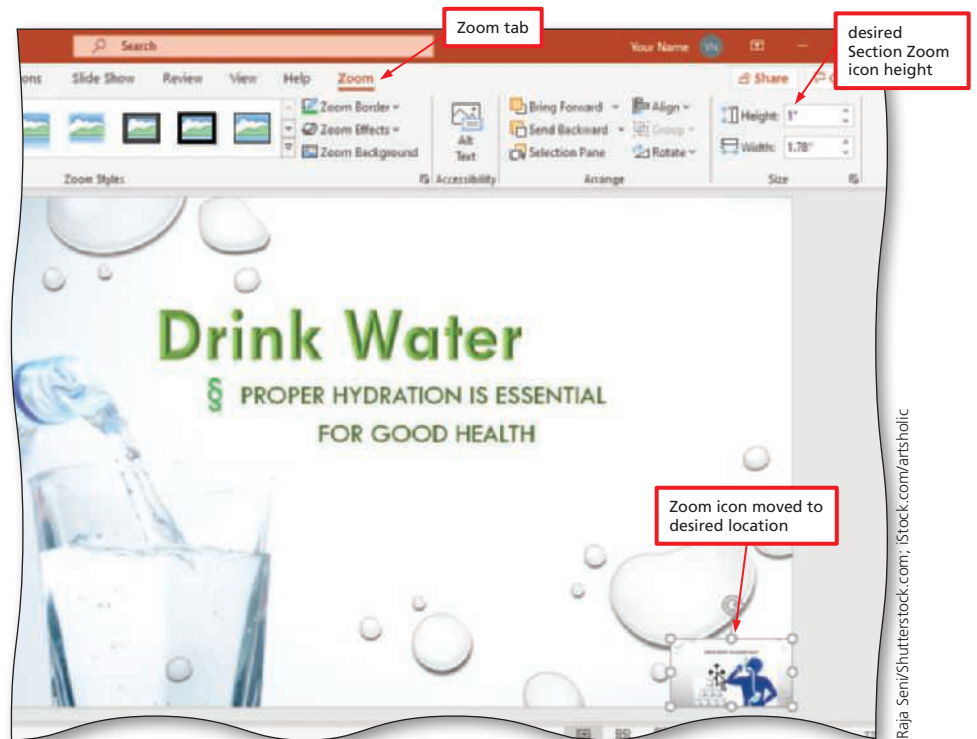
3

- Click the Insert button to create the Section Zoom.



4

- Click the Zoom tab and then resize the Section Zoom icon height to 1".
- Move the icon to the lower-right corner of the slide (Figure 5-119).



5

- Display Slide 3. Click the Insert tab and then click the Zoom button to display the Zoom menu.
- Click Slide Zoom and then click '5. Benefits of Drinking Water' to select this slide (Figure 5-120).

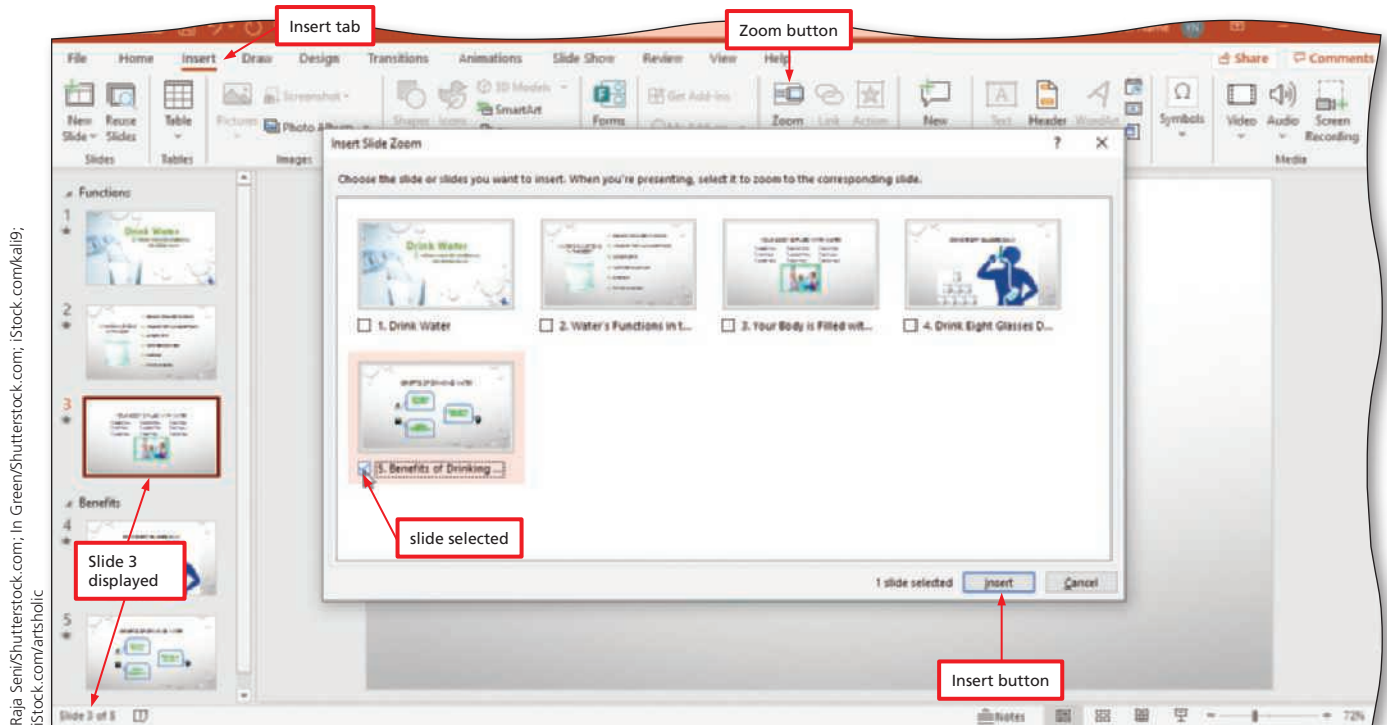


Figure 5-120

6

- Click the Insert button to create the Slide Zoom.
- Click the Zoom tab and then resize the Slide Zoom icon height to 1".
- Move the icon to the lower-right corner of the slide (Figure 5-121).



Figure 5-121

To Change the Zoom Icon Image

As a default, PowerPoint uses a miniature copy of the slide as the zoom image. You can change this image and add styles, a border, effects, and a background. **Why?** The water bottle picture is the Slide 3 bullet, so the image is repeated throughout the slides. The following steps change the zoom icon image.

1

- With the Zoom tab displayed and the slide zoom icon selected, click the Change Image button (Zoom tab | Zoom Options) to display the Insert Pictures dialog box (Figure 5–122).

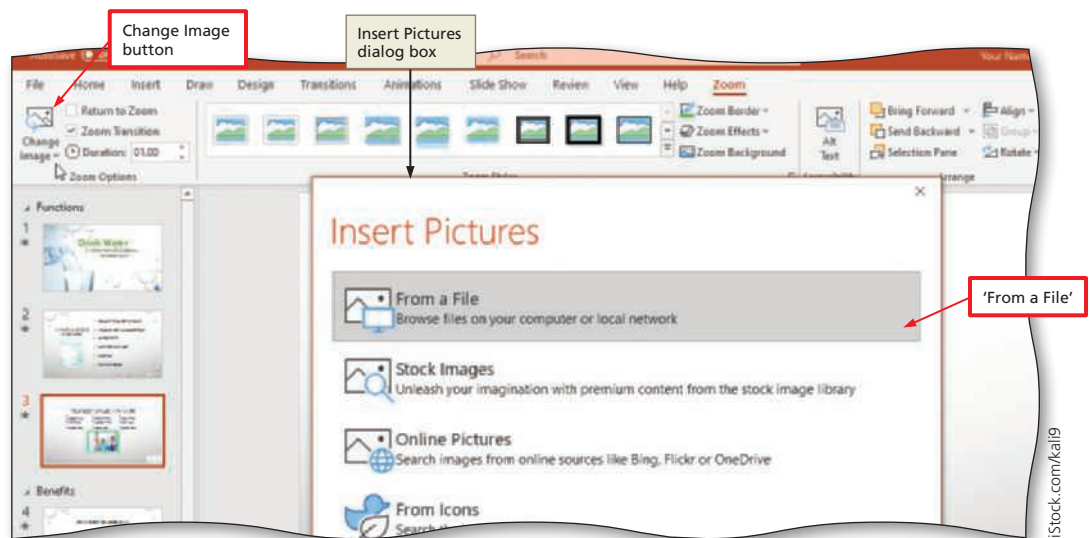


Figure 5–122

2

- Click 'From a File' (Insert Pictures dialog box) to display the Insert Picture dialog box.
- If necessary, navigate to the location of the Data Files.
- Click Support_PPT_5_Water_Bottle to select the .png file (Figure 5–123).

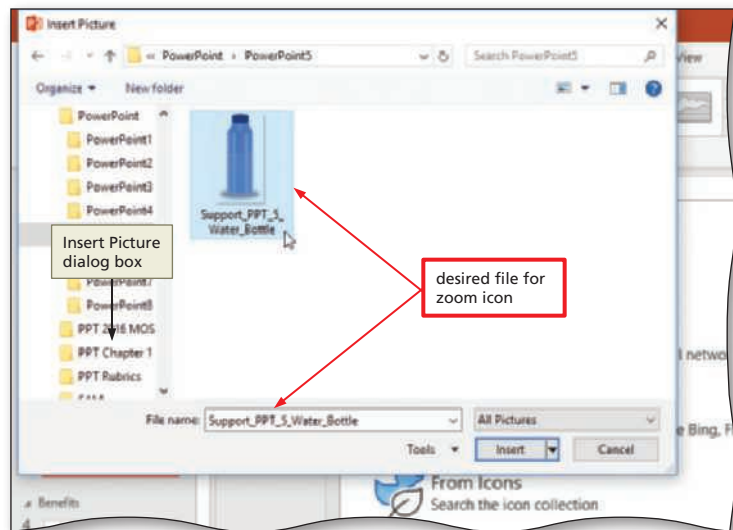


Figure 5–123

3

- Click the Insert button (Insert Picture dialog box) to insert the Water Bottle picture as the zoom icon.
- Display Slide 1 and then repeat Steps 1 and 2 above to change the section zoom icon to the Water Bottle picture (Figure 5–124).



Figure 5–124

To Run a Presentation with Section Zoom Links and Slide Zoom Links

All changes are complete. You now can view the presentation with animations and zoom links. The following steps run the slide show.


- 1 Display Slide 1 and then run the presentation.
- 2 Click the water bottle icon on Slide 1 to zoom to the 'Drink Eight Glasses Daily' Slide 4 and then click the green arrow to trigger the animation.
- 3 Click to display Slide 5 and then click to display Slides 1, 2, and 3.
- 4 When Slide 3 is displayed, click the water bottle zoom icon to zoom to the 'Benefits of Drinking Water' slide.
- 5 Click twice to end the presentation.

BTW Printing Document Properties

PowerPoint does not allow you to print document properties. This feature, however, is available in Word.

To Save and Print the Presentation

With the presentation completed, you should save the file and print handouts for your audience. The following steps save the file and then print a presentation handout.

- 1 Save the presentation again in the same storage location with the same file name.
- 2 Open Backstage view, click the Print tab, click 'Full Page Slides' in the Settings area, click '6 Slides Horizontal' in the Handouts area to display a preview of the handout, and then click Print in the Print gallery to print the presentation.
- 3  Because the project now is complete, you can exit PowerPoint.

BTW Distributing Slides

Instead of printing and distributing a hard copy of PowerPoint slides, you can distribute the slides electronically. Options include sending the slides via email; posting them on cloud storage (such as OneDrive) and sharing the link with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the slides. You also can create and share a PDF or XPS image of the slides, so that users can view the file in Acrobat Reader or XPS Viewer instead of in PowerPoint.

Summary

In this module you learned how to merge presentations, evaluate a reviewer's comments, and then review, accept, and reject proposed changes, as well as reply to and insert comments. You managed text in columns and shapes, formatted a picture by adding a border and glow effect, changed bullets to a picture and a symbol, added animation, created and managed sections, and added zoom links.



Consider This: Plan Ahead

What decisions will you need to make when creating your next presentation?

Use these guidelines as you complete the assignments in this module and create your own slide show decks outside of this class.

1. Develop a collaboration plan for group members to follow.
 - a) Set an overall group goal.
 - b) Set long-term and short-term goals.
 - c) Identify subtasks that must be completed.
 - d) Set a schedule.
2. Accept both positive and negative feedback.
 - a) Realize that this criticism helps you to improve yourself and your work.
 - b) Oral and written comments from others can help reinforce positive aspects and identify flaws.
 - c) Seek comments from a variety of people who genuinely want to help you develop an effective presentation.
3. Give constructive criticism when asked to critique a presentation.
 - a) Begin and end with positive comments.
 - b) Give specific details about a few areas that can be improved.
 - c) Be honest, but be tactful.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Inserting and Deleting Comments, Changing Bullets, and Adding Animation

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start PowerPoint. Open the presentation called SC_PPT_5-1.pptx, which is located in the Data Files.

The slides in the presentation present information about the benefits of using a fitness tracker. The document you open is a partially formatted presentation. You are to change the slide size, insert and reply to comments, add animation, change bullets, and change line spacing. Your presentation should look like Figure 5–125.

Perform the following tasks:


1. Change the slide size to Widescreen (16:9).
2. On Slide 1 (Figure 5–125a), insert a comment and then type **I suggest changing the title to Using Fitness Trackers.** as the text. In the Reply box, type **That's a great idea. I'll change the title text.** as a reply to the comment.
3. Change the title text to **Using Fitness Trackers** and then change the font size to 48 point and bold this text.
4. On Slide 2 (Figure 5–125b), select the bulleted list, insert a new comment, and then type **Perhaps you can change the bullets to an image related to the presentation.** as the text. In the Reply box, type **I agree. I'll insert a fitness tracker picture.** as a reply to the comment.
5. On Slide 2, change the bulleted paragraphs' line spacing to 1.5.
6. Change the bullets to the Support_PPT_5_Fitness_Tracker.jpg picture. Increase the size to 110% of text.
7. Animate the bulleted paragraphs using the Fly In entrance effect. Use the After Previous Start option and change the Duration time to 03.00 seconds. Have each paragraph dim after it is displayed to the color red (fifth color).
8. On Slide 2, add the Lines motion path to the picture of the fitness tracker. Add a trigger to this picture (On Click of Picture 4).
9. Edit the fitness tracker picture's Alt Text to use **A close up of a black fitness tracker** as the new description.
If requested by your instructor, add your current or previous pet's name in the Alt Text text box.
10. Save the presentation using the file name, **SC_PPT_5_Fitness.**
11. Submit the presentation in the format specified by your instructor.
12.  In Step 6, you changed the bullets, and then in Step 7 you animated the bulleted paragraphs. Did these changes improve the presentation? Why or why not?



Figure 5-125 (a) Slide 1

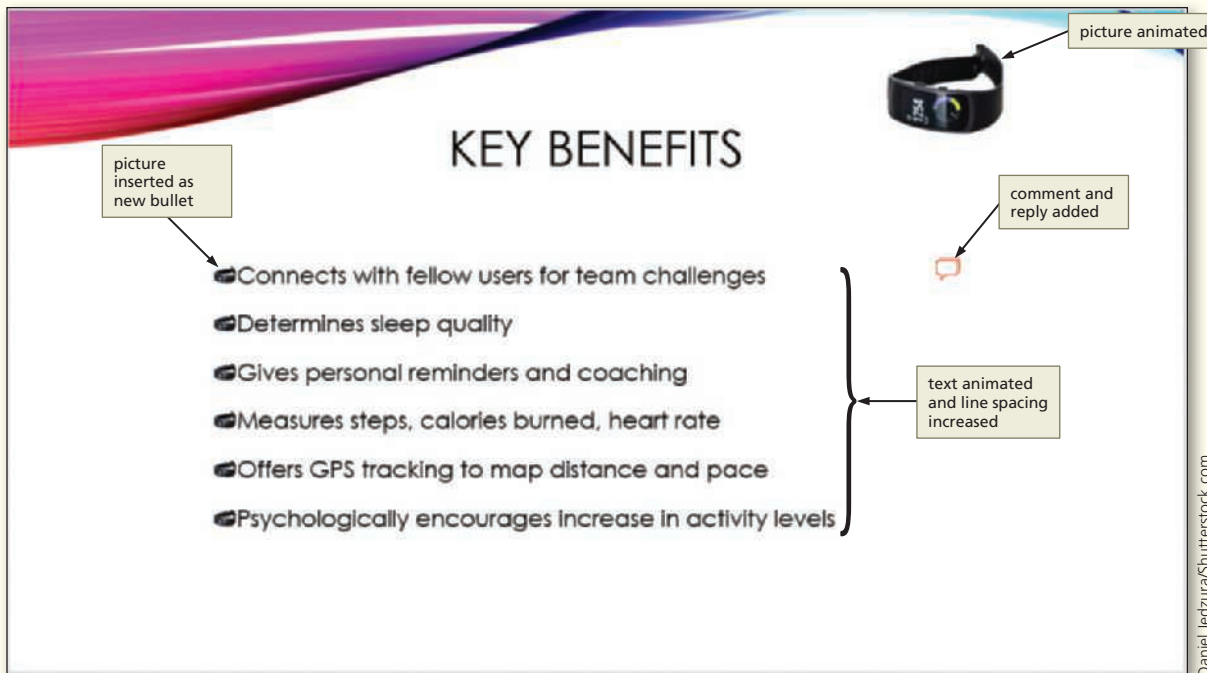


Figure 5-125 (b) Slide 2

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Creating Credits and Adding a Sound

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Continued >

Extend Your Knowledge *continued*

Instructions: Start PowerPoint. Open the presentation called SC_PPT_5-2.pptx, which is located in the Data Files. You will display text as an ascending credit line on the slide. You then will add a sound to the animation (Figure 5–126).

Perform the following tasks:

1. Click the placeholder with the four paragraphs to select it.
2. Display the Animation gallery and then click 'More Entrance Effects' to display the Change Entrance Effect dialog box.
3. Scroll down to display the Exciting section.
4. Click the Credits entrance animation effect in the Exciting section to see a preview of the animation effect.
5. Click OK ('Change Entrance Effect' dialog box) to apply the effect.
6. Click the Effect Options button (Animations tab | Animation group) and then click By Paragraph to see a preview of the new animation effect.
If requested by your instructor, replace the word, nutritionists, in the footer with your high school mascot's name.
7. Change the Start animation timing option to After Previous and the Duration to 04.75 seconds.
8. To add a sound to the animation, display the Animation Pane and then click the down arrow to the right of the Content Placeholder animation. Click Effect Options in the menu to display the Credits dialog box. In the Enhancements area, click the Sound arrow to display the Sound list and then click Push.
9. Save the presentation using the file name, **SC_PPT_5_Children**.
10. Submit the revised document in the format specified by your instructor.
11. 🌀 In this assignment, you added credits and a sound. Did these changes enhance the slide? Why or why not? Which sound other than Push could be used?



Figure 5–126

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Using Google Slides to Upload and Edit a File

Instructions: The project manager of the professional services firm where you work has asked to you to create a presentation to inform your clients about methods of preventing online identity theft. You began working on the slides at the studio but did not have time to finish the slides there and need to complete the slide deck at home. Although you do not have PowerPoint on your home computer, you have an Internet connection and a Google account. You uploaded your PowerPoint presentation to Google Drive so you can view and edit it later from home.

Notes: You will use a Google account, which you can create at no cost, to complete this assignment. If you do not have a Google account and do not want to create one, read this assignment without performing the instructions.

To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Perform the following tasks:

1. Start PowerPoint. Open the presentation called SC_PPT_5-3.pptx, which is located in the Data Files. Review the slides so that you are familiar with their contents and formats. If desired, print the slides so that you easily can compare them to the Google Slides converted file. Close the presentation.
2. Run a browser. Search for the text, Google Slides, using a search engine. Visit several websites to learn about Google Slides and Google Drive. Navigate to the Google Slides website. If you do not have a Google account and you want to create one, click the Create account button and follow the instructions. If you do not have a Google account and you do not want to create one, read the remaining instructions without performing them. If you have a Google account, sign in to your account.
3. Click the Main menu button in the upper-left corner and then click Drive to display Google Drive. Click the New button, click the File upload, or similar, button, and then navigate to the location of the file, SC_PPT_5-3.pptx.
4. Upload the file and then click the file name and open it with Google Slides.
5. Rename the file **SC_PPT_5_Identity** (Figure 5–127) and then click the PRESENT button and review the slides.
6. What differences do you see between the PowerPoint document and the Google Slides converted document? Which animations are shown? How do you add a comment?
7. Modify the document in Google Slides by changing the slide transition to ‘Slide from left’ for all slides and then changing the numbered list on Slide 3 to a bulleted list. Animate the Warning Identity Theft picture on Slide 3 to ‘Fly in from top’ and then change the Start condition to After previous.
If requested by your instructor, add a bulleted paragraph on Slide 2 and then type the name of your favorite grade school teacher.
8. Download the revised document as a PowerPoint (.pptx) file to your local storage medium. Submit the document in the format requested by your instructor.
9. 🌟 What is Google Drive? What is Google Slides? Answer the questions posed in Step 6. If you have an Android smartphone, download the Google Slides app and edit the SC_PPT_5_Identity file. Do you prefer using Google Slides or PowerPoint? Why?

Continued >

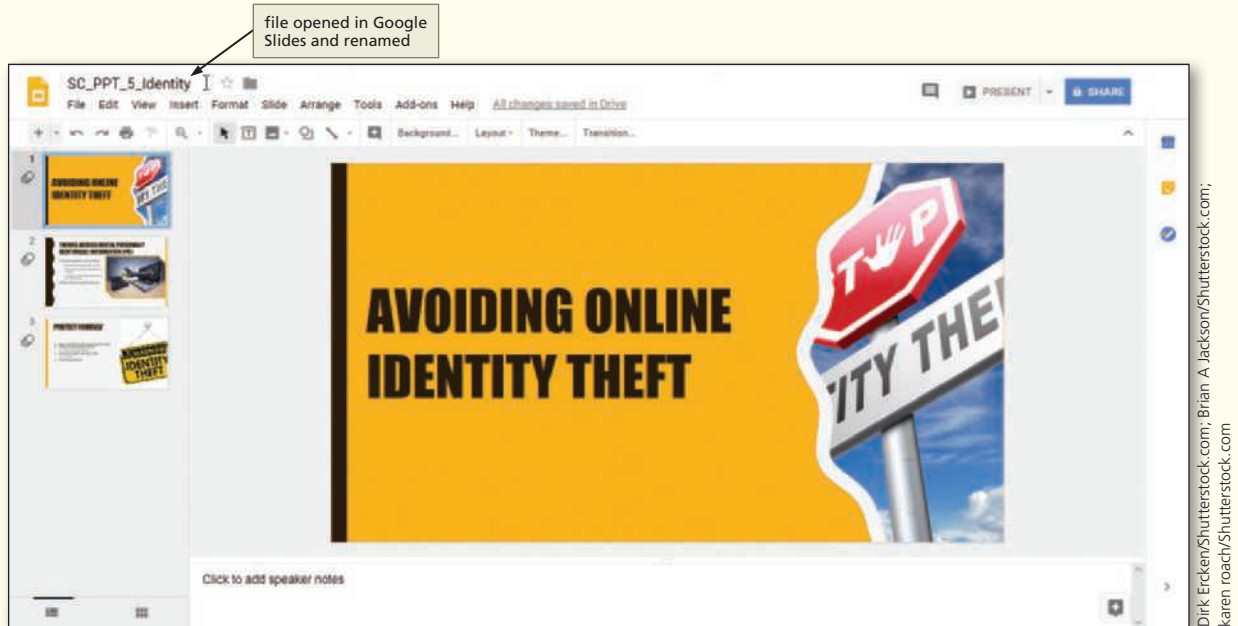
Extend Your Knowledge *continued*

Figure 5–127

In the Lab

Apply your creative thinking and problem-solving skills to design and implement a solution.

Design and Create a Presentation about Using Savings Apps

Part 1: The financial investment business in your town is planning a series of seminars for recent college graduates, and the first topic relates to strategies for saving money. The branch managers have begun developing content for PowerPoint slides and have located some pictures they would like to use in the presentation. They want to provide information about apps available to manage budgets and track spending automatically. Budgeting apps have features that categorize transactions from credit and debit card issuers and track them against a financial plan. Other apps help prevent people from overspending, include debt payoff figures, offer a snapshot of remaining funds, share and sync budgets for two people, and provide investment advice. You agree to help them complete the project by developing slides. Perform some research about savings apps and then create slides with animation. At least two of the slides should have bulleted lists with customized bullets and animation. Create the animation for one slide and then use the animation painter to copy these effects to another slide. Provide alt text when necessary. Change the line spacing for the bulleted lists. The Data Files folder contains pictures you could use. Add a comment asking for your branch managers' approval of your work. Review and revise your presentation as needed and then save the file using the file name, **SC_PPT_5_Saving**. Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while creating the presentation in this assignment: what content to include, how to format the bulleted list, what text or pictures to animate, and which styles and effects to apply. What was the rationale behind each of these decisions? Where would you recommend showing this slide show? When you reviewed the document, what changes did you make?

6 Formatting Tables and Charts

Objectives

After completing this module, you will be able to:

- Insert slides from an outline
- Embed and edit a file
- Insert an object from a file
- Draw and format a table
- Resize, split, and distribute table columns and rows
- Insert and edit a linked Excel worksheet
- Switch chart rows and columns
- Change a chart type and layout
- Apply effects to chart elements
- Edit chart data
- Add a link to a file
- Navigate between slides in Reading and Outline views

Introduction

Adding visuals to a presentation can help audience members remember the important facts you want to share. Researchers have found that adding graphics such as tables, charts, graphs, and maps increases retention by more than 50 percent. Audiences also believe that speakers who include visuals in their presentations are more qualified and believable than speakers who do not have accompanying visuals. In addition, studies have shown that meeting times are reduced and decisions are reached more quickly when group members have seen visuals that help them reach a consensus.

PowerPoint has many features that allow you to insert visuals and then modify them directly on the slide. For example, you can embed a Word document and then edit its text or replace its graphics. You can link an Excel worksheet with a PowerPoint slide so that when numbers are modified in the slide, the corresponding numbers on the worksheet also are updated. These tools help you work productively and generate slides with graphics that help your audience comprehend and remember your message.

BTW

Using Tables and Charts

Charts and tables help audiences understand abstract concepts and the relationships between sets of data. These tools can give meaning to the figures and facts you want to emphasize in your presentation. Present only one main idea in a chart or table. Overloading your slides with data may confuse your audience and defeat the purpose of these graphical elements.

Project: Presentation with Embedded and Linked Files and Formatted Table and Chart

Heart rate monitors are becoming mainstream at many health clubs and wellness centers. No longer just for hard-core athletes and people with heart conditions, these devices help all people of all fitness levels track their heart rates and keep records of their progress. Effective aerobic exercise consists of a warm-up period, activity at the target heart rate, and a cool-down session. The heart rate monitor accurately tells users when they have reached their target heart rate and for how long they have maintained it. The monitors have two pieces: a transmitter integrated in a chest strap and a receiver that displays data. Software generates charts displaying this data showing the duration in zones, generally broken into five exertion categories: very light, light, moderate, strenuous, and maximum.

BTW

Checking for Accessibility Issues

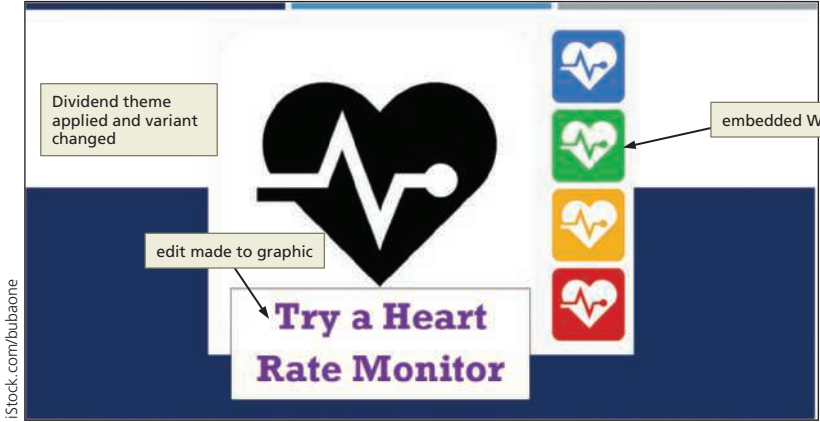
As you develop tables and other slide elements, you may want to check the presentation for content that people with disabilities may be unable to read. To identify possible accessibility problems, display the Info tab in Backstage view and notice if the message, 'Content that people with disabilities are unable to read', is displayed next to the 'Check for Issues' button. If so, click the 'Check for Issues' button and then click Check Accessibility in the menu. The Accessibility Checker pane will display issues that you can address.

In this module's project you will follow proper design guidelines and learn to use PowerPoint to create the slides shown in Figure 6-1a through 6-1h. The objective is to produce a presentation for personal trainers to use during their seminars promoting the benefits of using heart rate monitors at the two fitness centers located in the Midtown and Downtown areas. You begin by importing a Word outline with the slide titles. On Slide 1 (Figure 6-1a), you insert and edit a flyer with graphics and text (Figure 6-1b) created in Word. You decide that the word, Try, is more persuasive than the word, Buy, in the title text, so you edit this word directly on the slide.

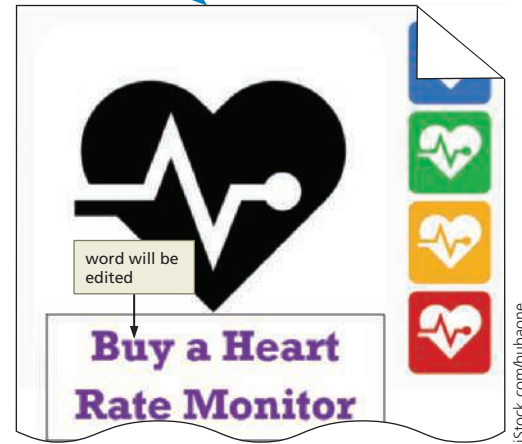
The second slide (Figure 6-1c) includes a table that you draw and enhance using PowerPoint's tools and graphical features. The table shows the five exertion zones, examples of activities correlated to each zone, and benefits of training in each of these zones. If you click the title text when running the presentation, a linked Adobe PDF file displays showing the features of using a monitor (Figure 6-1d). This document also can be used as a handout during the presentation or distributed at the front desk when members arrive.

The two fitness centers began selling the monitors this past month and have tracked the sales in a table shown on Slide 3 (Figure 6-1e). This table is inserted from an Excel worksheet (Figure 6-1f). Projected sales also are included in the spreadsheet, and you will update these figures based on members' interest in purchasing the devices at the two locations. The spreadsheet is linked to Slide 3, so once the numbers change in the spreadsheet, the updated numbers change on the slide.

The fitness centers also have used Excel to record data on the average times people have spent exercising in each of the five zones. Slide 4 (Figure 6-1g) shows this Excel chart (Figure 6-1h), which you copy and then format. You obtain updated exertion data, so you update the worksheet data that generated the chart, which, in turn, modifies the chart automatically.



(a) Slide 1 (Title Slide)



(b) Original Word Document

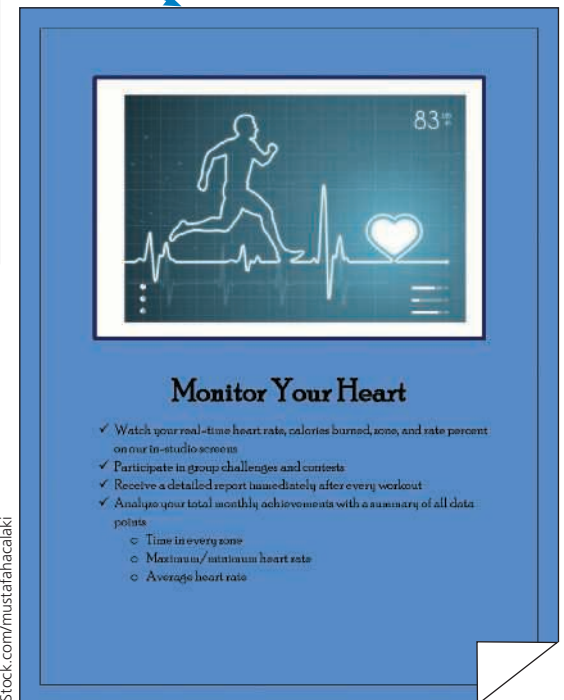
hyperlink to Adobe PDF file

EXERTION ZONES AND TRAINING BENEFITS

<u>Zone</u>	<u>Activity</u>	<u>Benefits</u>	
Very light		Helps recovery from heavier exercises	
Light	Walking briskly	Increases metabolism	Targets fat burning
Moderate	Jogging	Improves circulation	Enhances aerobic fitness
Strenuous	Running	Increases anaerobic tolerance	Improves endurance
Maximum	Racing pace	Tones muscular system	Increases race speed

table drawn and formatted

(c) Slide 2



(d) Hyperlinked Adobe PDF File

Figure 6-1 (Continued)

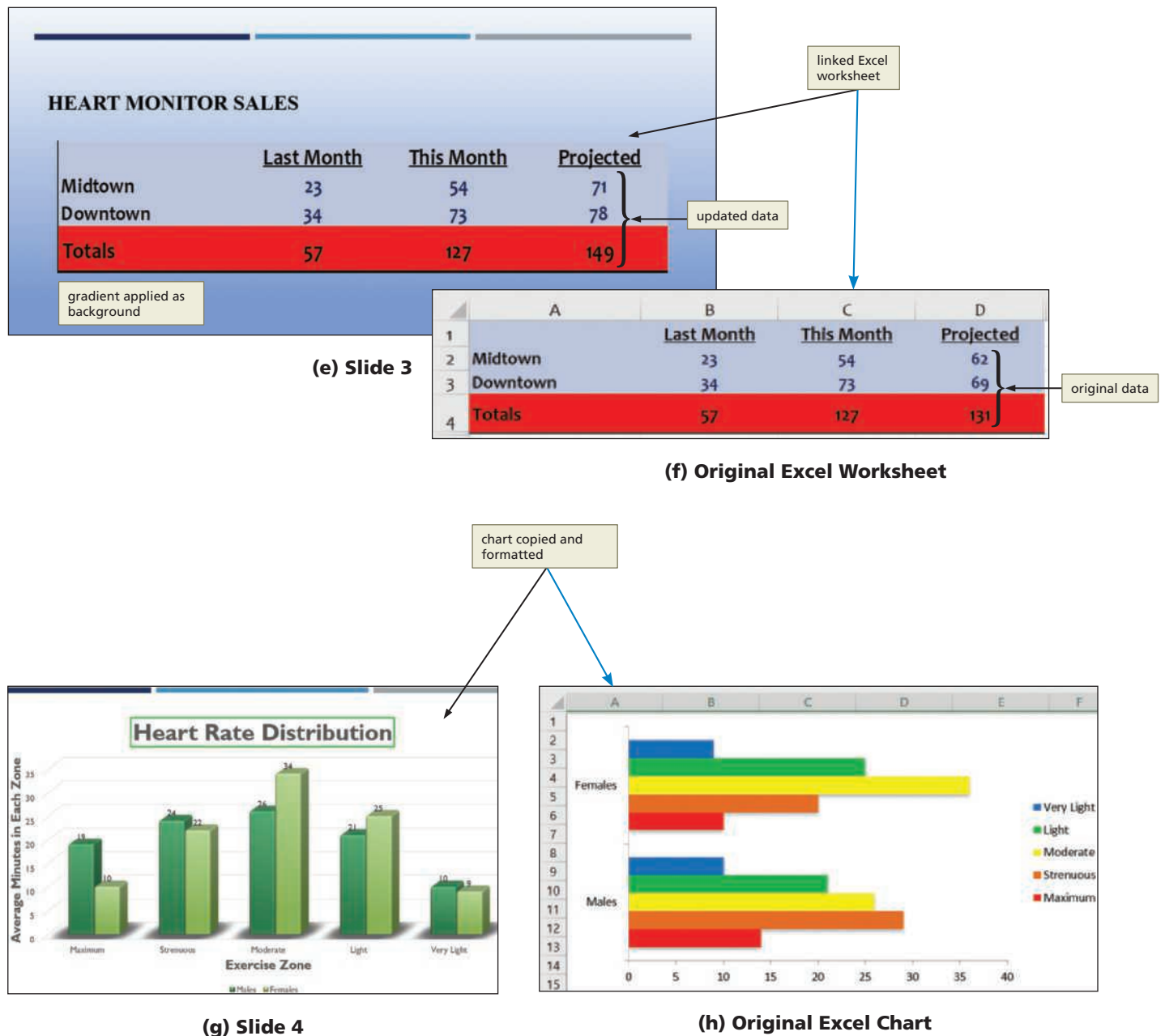


Figure 6-1

In this module, you will learn how to create the slides shown in Figure 6-1. You will perform the following general tasks as you progress through this module:

1. Insert and edit a Word file by adding text.
2. Create table rows and columns, and then erase lines and split columns and rows.
3. Format a table by adding shading, a reflection, and a cell bevel, and then distribute rows and resize columns and rows.
4. Insert and edit a linked Excel worksheet.
5. Copy, format, and edit an Excel chart by changing the type, colors, legend, labels, and data.
6. Add a link to text.
7. Move a slide and enter text in Outline view.

Creating a Presentation from a Word Outline

An outline created in Word or another word-processing program works well as a shell for a PowerPoint presentation. Instead of typing text in PowerPoint, you can import this outline, add visual elements such as pictures, and ultimately create an impressive slide show.

Converting Documents for Use in PowerPoint

PowerPoint can produce slides based on an outline created in Word, another word-processing program, or a webpage if the text was saved in a format that PowerPoint can recognize. Word files use the **.docx** file extension in their file names. Text originating in other word-processing programs for later use with PowerPoint should be saved in Rich Text Format (.rtf) or plain text (.txt). Webpage documents that use an HTML extension (.htm or .html) also can be imported.

PowerPoint automatically opens Microsoft 365 files, and many other types of files, in the PowerPoint format. When you insert a Word document into a presentation, PowerPoint creates an outline structure based on heading styles in the document. A Heading 1 in a source document becomes a slide title in PowerPoint, a Heading 2 becomes the first level of content text on the slide, a Heading 3 becomes the second level of text on the slide, and so on.

If the original document contains no heading styles, PowerPoint creates an outline based on paragraphs. For example, in a .docx or .rtf file, for several lines of text styled as Normal and broken into paragraphs, PowerPoint turns each paragraph into a slide title.

BTW

Defining Outline Levels

Imported outlines can have a maximum of nine outline levels, whereas PowerPoint outlines are limited to six levels (one for the title text and five for body paragraph text). When you import an outline, all text in outline levels six through nine is treated as a fifth-level paragraph.

BTW

Ribbon and Screen Resolution

PowerPoint may change how the groups and buttons within the ribbon appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

To Insert Slides from an Outline

The title text for the heart rate monitor presentation is contained in a Word file. The following steps open this Word outline located in the Data Files as a presentation in PowerPoint. **Why? Instead of typing text for each of the four PowerPoint slides, you can open a Word outline and have PowerPoint create the slides automatically.**

1 **start** ↓

- Run PowerPoint, create a blank presentation, apply the Dividend theme, and then select the blue (second) variant. If necessary, maximize the PowerPoint window. If the Design Ideas pane opens, close it.
- Save the presentation using the file name, **SC_PPT_6_Heart**.

2

- Display the Home tab and then click the New Slide arrow (Home tab | Slides group) to display the New Slide gallery (Figure 6–2).

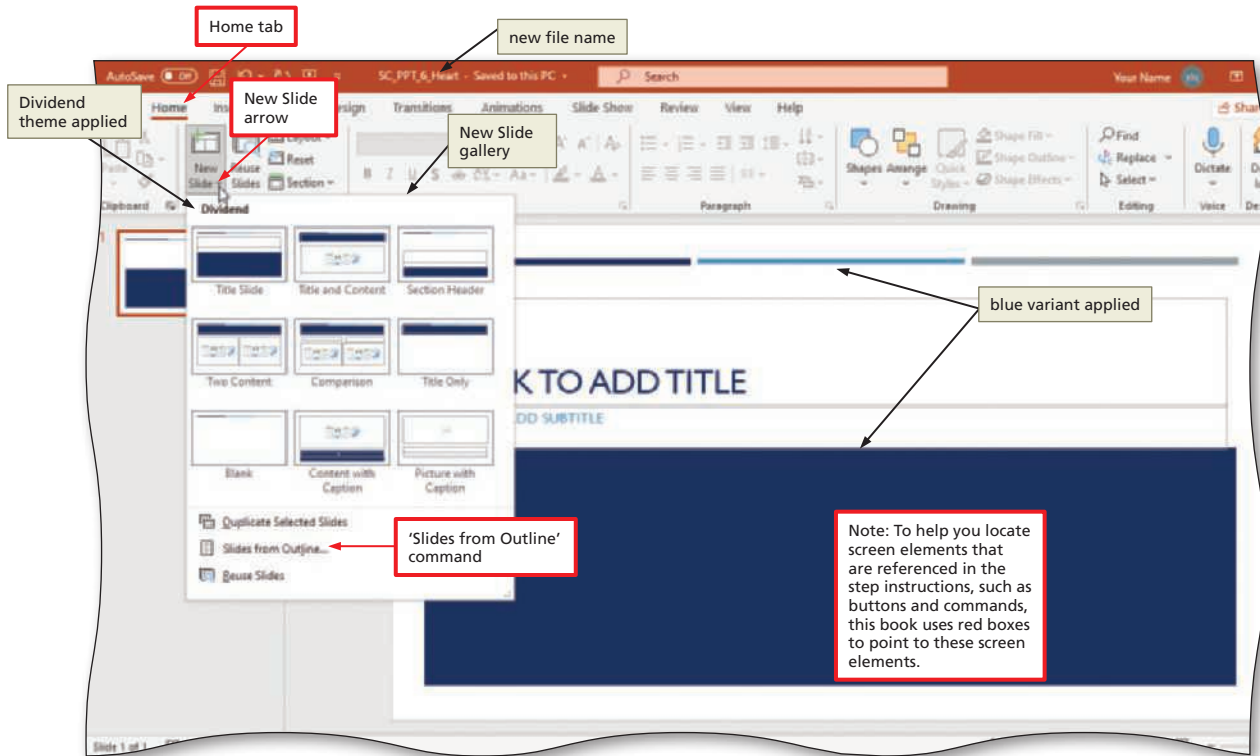


Figure 6–2

3

- Click 'Slides from Outline' to display the Insert Outline dialog box.
- Navigate to the location of the Data Files and then click Support_PPT_6_Heart_Outline.docx to select the file (Figure 6–3).

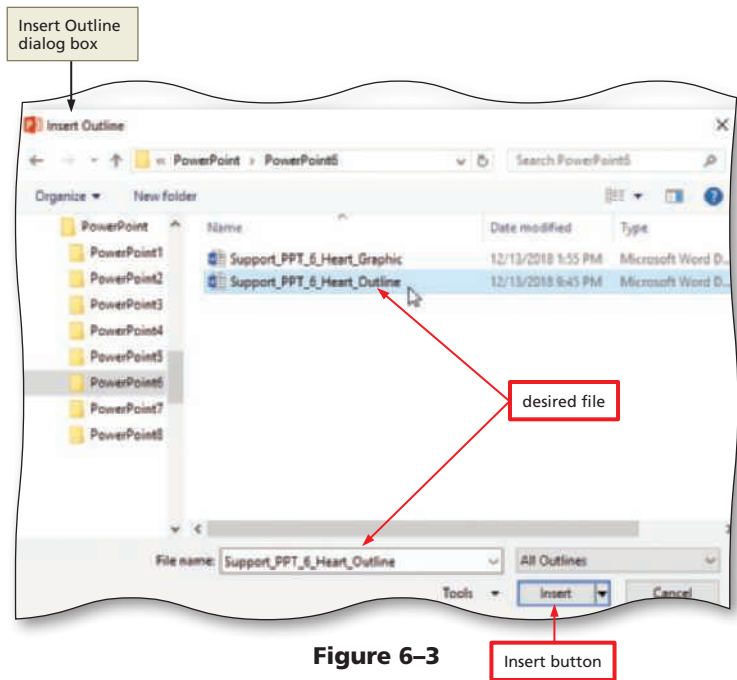


Figure 6–3

4

- Click the Insert button (Insert Outline dialog box) to create the four slides in your presentation (Figure 6-4).

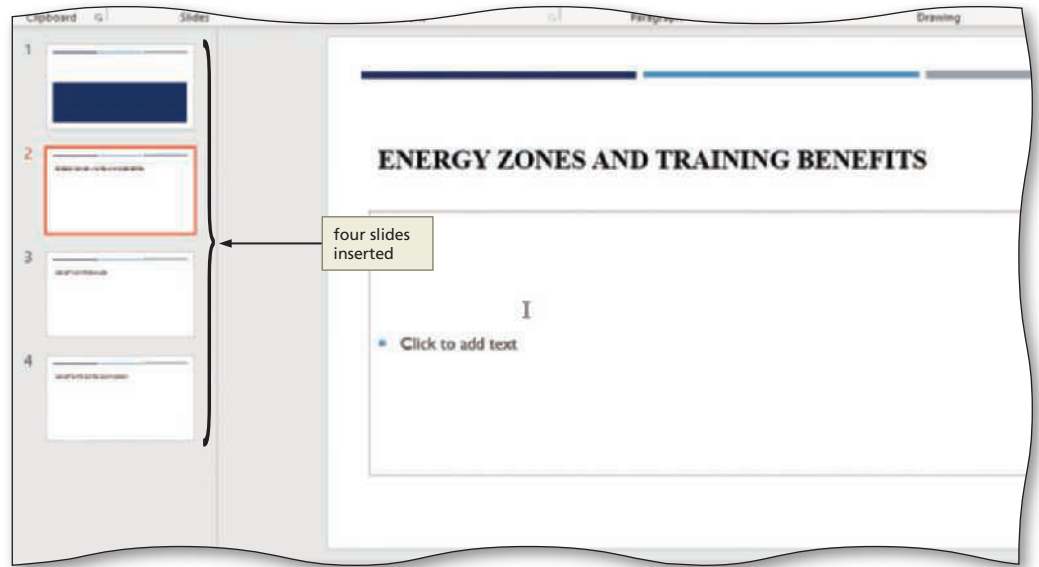


Figure 6-4

Other Ways

1. Display Backstage view, click Open tab, click Browse (Open dialog box) and navigate to Data Files location, click file type arrow, click All Outlines, click desired outline, click Insert

Inserting Graphics or Other Objects from a File

PowerPoint allows you to insert many types of objects into a presentation. You can insert clips, pictures, video and audio files, and symbols, and you also can copy and paste or drag and drop objects from one slide to another. At times you may want to insert content created with other Microsoft 365 programs, such as a Word flyer, an Excel table or graph, or a document created with another Microsoft Windows-based application. The original document is called the **source document**, and the new document that contains this object is called the **destination document**. When you want to copy a source document object, such as a Word flyer, to a destination document, such as your PowerPoint slide, you can use one of three techniques.

- **Embedding** — An **embedded object** becomes part of the destination slide, but you edit and modify the contents using the source program's commands and features. In this project, for example, you will embed a Word document and then edit the text using Word without leaving PowerPoint.
- **Linking** — Similar to an embedded object, a **linked object** also is created in another application and is stored in the **source file**, the original file in which the object was created. The linked object maintains a connection to its source and does not become part of the destination slide. Instead, a connection, or link, made between the source and destination objects gives the appearance that the objects are independent. In reality, the two objects work together so that when one is edited, the other is updated. If the original object is changed, the linked object on the slide also changes. In this project, for example, you will link an Excel table and then edit the data using Excel. As the numbers in the table change, the numbers in the linked table on the PowerPoint slide also are updated to reflect those changes.
- **Copying and pasting** — An object that you copy from a source document and then paste in a destination document becomes part of the destination program. Any edits that you make are done using the destination software. When you

BTW

Touch Screen Differences

The Microsoft 365 and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

BTW

Importing Text Files

In this project, you import a Word file, but you also can import a text (.txt) file, which has alphanumeric characters with little or no visual formatting. To import a text file, perform the same steps you use to insert the Heart Outline file, but locate a file with the .txt file extension instead of the .docx file extension.

paste the object, you have the options of embedding or linking the document. For example, if you copy a picture from a Word document, embed it into your slide, and then recolor or remove the background, those changes are made using PowerPoint’s commands and do not affect the source object.

The first two techniques described above are termed **object linking and embedding (OLE, pronounced o-lay)**. This means of sharing material developed in various sources and then updating the files within a destination program is useful when you deliver presentations frequently that display current data that changes constantly. For example, your PowerPoint presentation may contain a chart reflecting current fitness center enrollment statistics, or you may include a table with the fitness center’s membership totals for the previous year.

The first object you will add to your presentation is a graphical flyer created in Word. This flyer contains artwork and text developed as part of a promotion to sell heart rate monitors to members. You desire to use this document in your slide show because the heart rate image and text fit the topic of your presentation.

To Delete a Placeholder

When you run a slide show, empty placeholders do not display. You may desire to delete unused placeholders from a slide. **Why? By deleting them, they will not be a distraction when you are designing slide content.** The title and subtitle text placeholders on Slide 1 are not required for this presentation, so you can remove them. The following steps remove the Slide 1 title and subtitle text placeholders.

- 1
 - Display Slide 1 and then click a border of the title text placeholder so that it displays as a solid or finely dotted line (Figure 6–5).
- 2
 - Press DELETE to remove the title text placeholder.

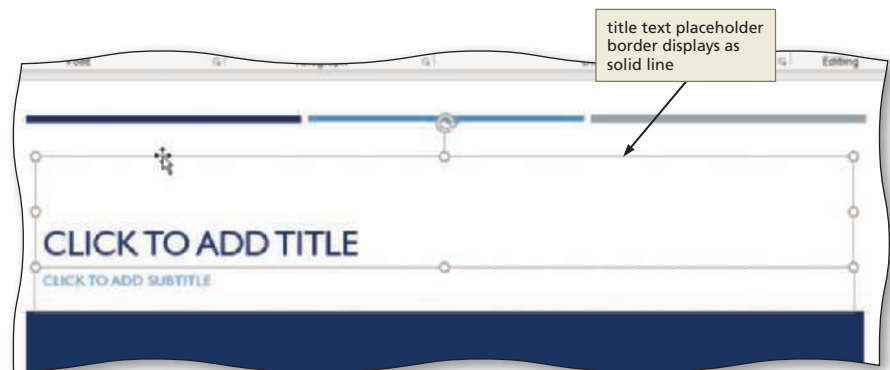


Figure 6–5

Q&A Can I also click the Cut button to delete the placeholder?

Yes. Generally, however, the Cut button is used when you desire to remove a selected slide element, place it on the Clipboard, and then paste it in another area. The DELETE key is used when you do not want to reuse that particular slide element.

- 3
 - Click a border of the subtitle text placeholder to select it (Figure 6–6).
- 4
 - Press DELETE to remove the subtitle placeholder.



Figure 6–6

Other Ways

1. Select placeholder, press BACKSPACE
2. Right-click placeholder border, click Cut on shortcut menu

To Embed an Object from Another App

The first object you will add to your presentation is a graphical flyer created in Word. This flyer contains artwork and text that explains the benefits of using a heart rate monitor during a workout session. You desire to use this document in your slide show. **Why?** The flyer was distributed to members when they arrived at the fitness centers, so they have seen the document. It contains pertinent information about the data provided during class sessions. The following steps insert a Word file with a graphic and text.

- 1
 - Display the Insert tab and then click the Object button (Insert tab | Text group) to display the Insert Object dialog box (Figure 6-7).

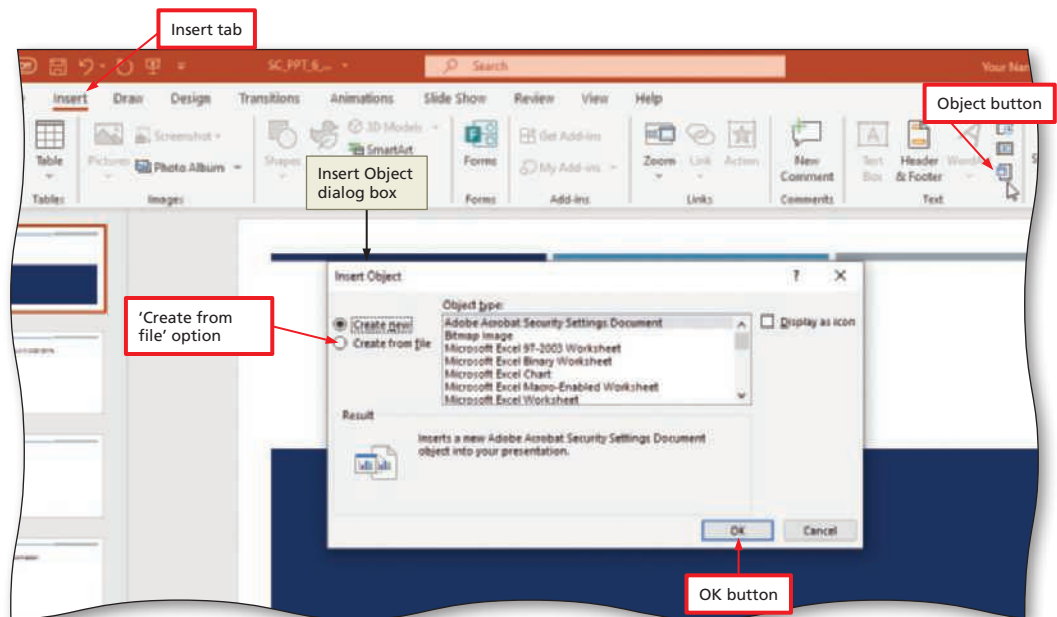


Figure 6-7

- 2
 - Click 'Create from file' (Insert Object dialog box) to display the File box.
 - Click the Browse button and then navigate to the location of the Data Files.
 - Click Support_PPT_6_Heart_Graphic.docx to select the Word file (Figure 6-8).

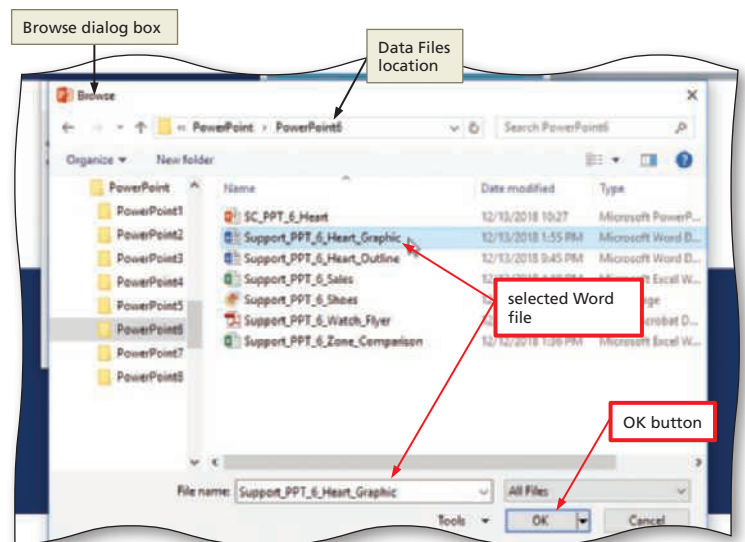


Figure 6-8

Q&A **What is the difference between the 'Create new' and the 'Create from file' options?**
 The 'Create new' option opens an application and allows you to develop an original object. In contrast, the 'Create from file' option prompts you to locate a file that already is created and saved so you can modify the object using the program that was used to create it.

3

- Click OK (Browse dialog box) to insert the file name into the File box (Insert Object dialog box) (Figure 6–9).
- Click OK (Insert Object dialog box) to insert and display the heart graphic contents on Slide 1.

Q&A Why did several seconds pass before this flyer was displayed on the slide?

PowerPoint takes more time to insert embedded and linked inserted objects than it takes to perform an ordinary cut-and-paste or copy-and-paste action. You must be patient while PowerPoint is inserting the object.

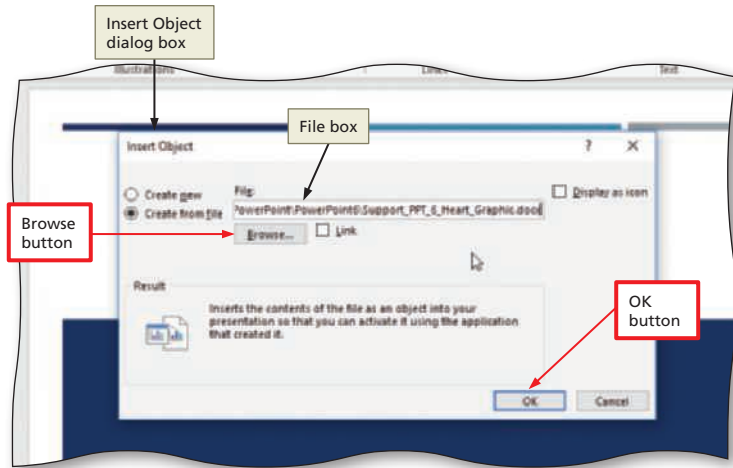


Figure 6–9

4

- Display the Shape Format tab and then click the Height up arrow to increase the height of the heart graphic to 6”.
- Click the Align button (Shape Format tab | Arrange group) to display the Align menu (Figure 6–10).

5

- Click Align Center to position the heart graphic in the center of the slide.
- Click the Align button again and then click Align Middle to position the heart graphic in the middle of the slide.



Figure 6–10

To Edit an Embedded File

The heart graphic provides an excellent image and text to use on Slide 1, but you want to edit the text by changing the word, Buy, to Try. **Why?** You want the fitness center member to consider trying the monitors before buying them. PowerPoint allows you to edit an embedded file easily by opening the source program, which in this case is Word. The following steps edit the Word text.

1

- Double-click the embedded heart graphic to run Word and open the document on Slide 1 (Figure 6–11).

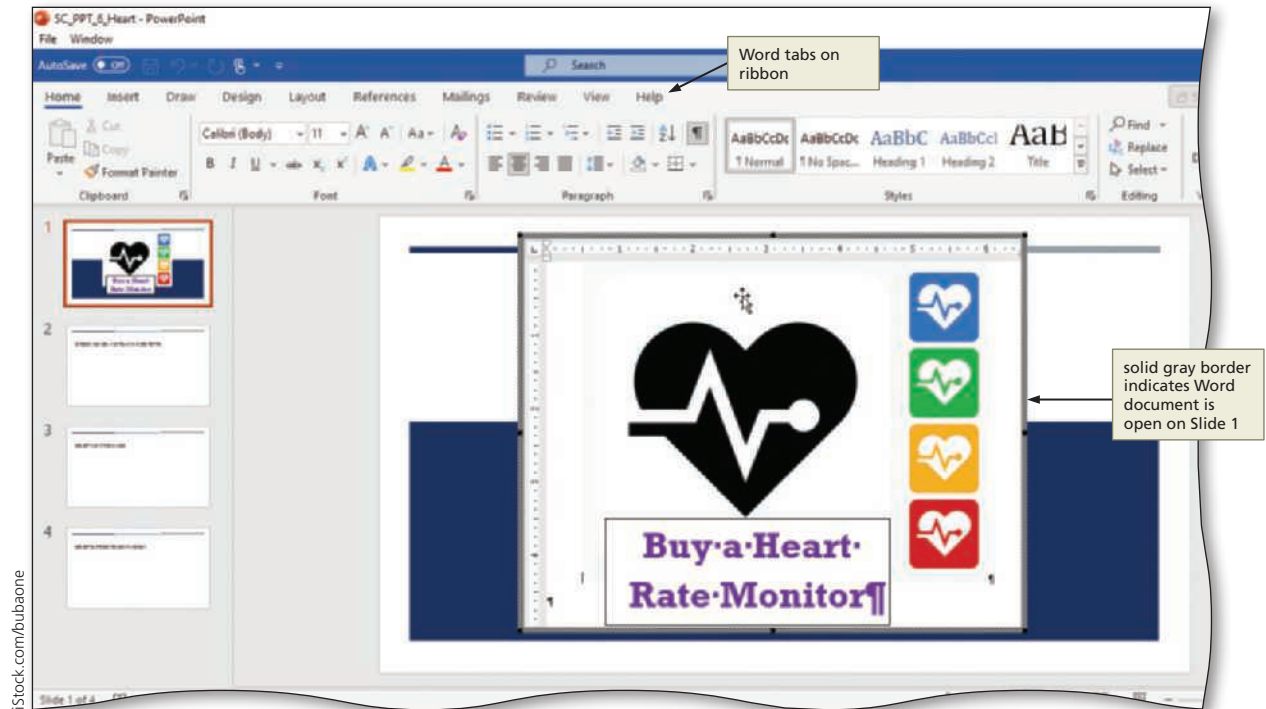


Figure 6–11

2

- Edit the document text by selecting the letters, Bu, and then typing **Tr** as the replacement text (Figure 6–12).

3

- Click outside the Word document to exit Word and display the edited flyer object on Slide 1.

Q&A

Does PowerPoint take more time to position embedded objects than copied objects?

Yes, you must be patient while PowerPoint responds to your touch, mouse, or arrow key movements.

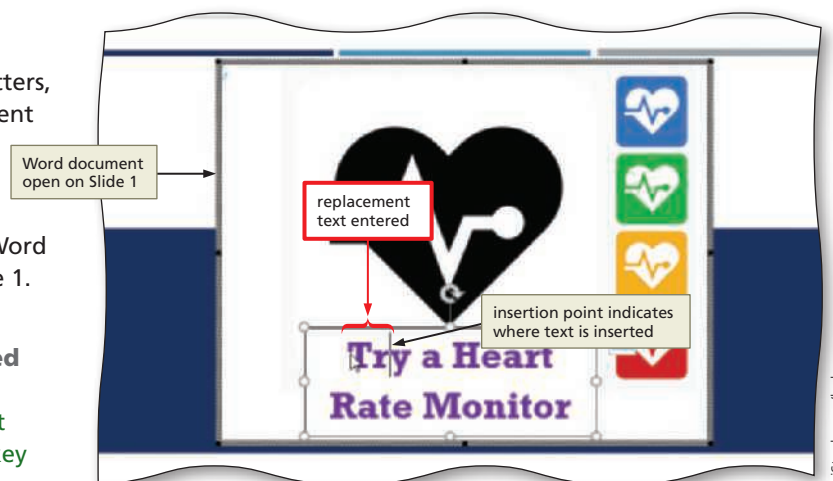


Figure 6–12

Other Ways

1. Right-click Word object, click Document Object on shortcut menu, click Edit

Drawing and Formatting a Table

Tables are useful graphical elements to present data organized in descriptive rows and columns. Each cell created from the intersection of a row and column has a unique location name and contains numeric or textual data that you can edit.

In the following steps, you will perform these tasks on Slide 2:

1. Draw a table.
2. Draw table rows and columns.
3. Erase a table border and enter text in a table.
4. Split a table cell.
5. Add bevel and shadow effects.
6. Distribute table rows.
7. Align data in cells.
8. Center the table and format table data.

Consider This



Develop tables that are clear and meaningful.

Use a table to present complex material, but be certain the information makes useful comparisons. Tables generally are used to show relationships between sets of data. For example, they may show prices for grades of gasoline in three states, the number of in-state and out-of-state students who have applied for admission to various college programs, or the rushing and passing records among quarterbacks in a particular league. The units of measurement, such as dollars, specific majors, or yards, should be expressed clearly on the slides. The data in the rows and columns should be aligned uniformly. Also, the table labels should be meaningful and easily read.

To Draw a Table

PowerPoint allows you to insert a table in several ways. You can click the Table button on the Insert tab (Tables group) and click the Insert Table command. You also can click the Insert Table button in a content placeholder. Another method that allows flexibility is to draw the entire table. However, you must use a mouse or other pointing device to use the Draw Table command. The following steps draw a table on Slide 2. **Why? This method allows flexibility to draw the outer edges and then add the columns and rows.**

1

- Display Slide 2, click a border of the content placeholder, and then press DELETE to remove this placeholder.

2

- Display the View tab and then, if necessary, select the Ruler check box (View tab | Show group) to display the horizontal and vertical rulers (Figure 6–13).

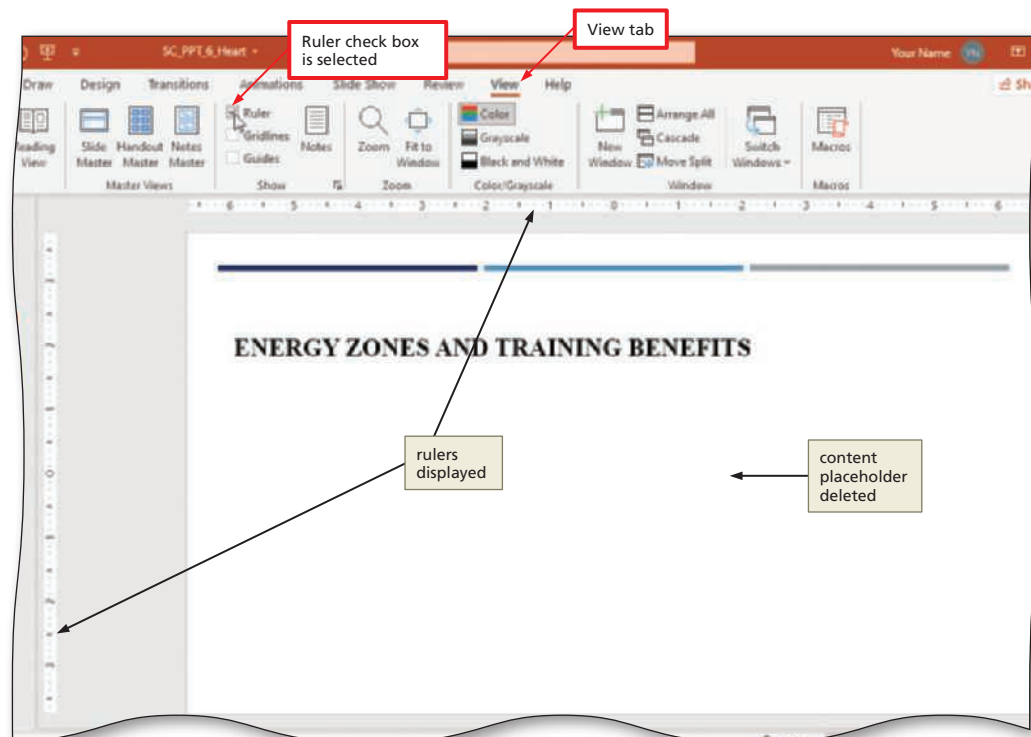


Figure 6–13

- 3 Display the Insert tab and then click the Table button (Insert tab | Tables group) to display the Insert Table gallery (Figure 6-14).

- 4 Click Draw Table and then position the pointer, which has the shape of a pencil, under the word, Energy, in the upper-left area of the slide.

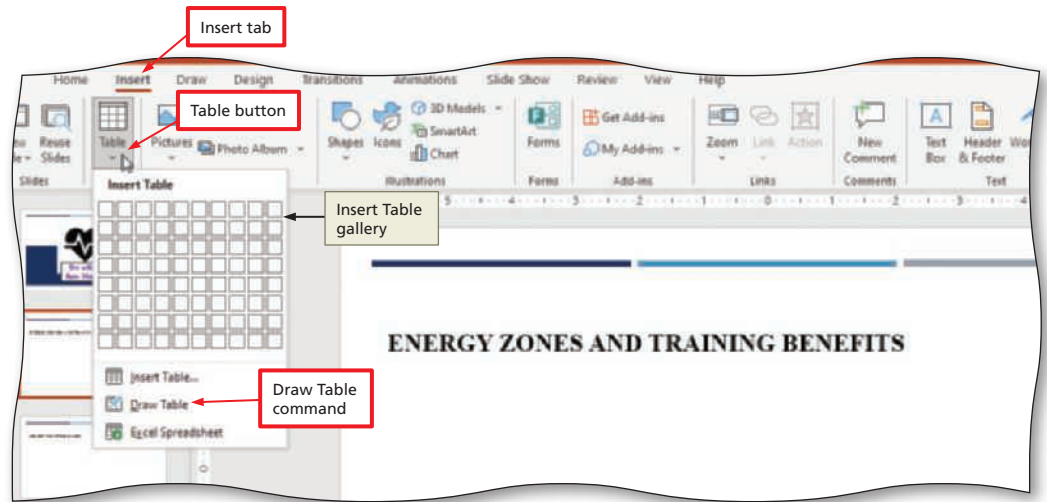


Figure 6-14

Q&A If I decide I do not want to draw a table, how can I change the pointer to the block arrow?
 Press ESC.

- Drag the pencil pointer to the lower-right corner of the slide to draw the outer edges of the table (Figure 6-15).

- 5 Release the mouse button to create the table frame.

Q&A Must my table be the same size or be positioned in the same location shown in the figure?

No. You will resize and reposition the table later in this project.

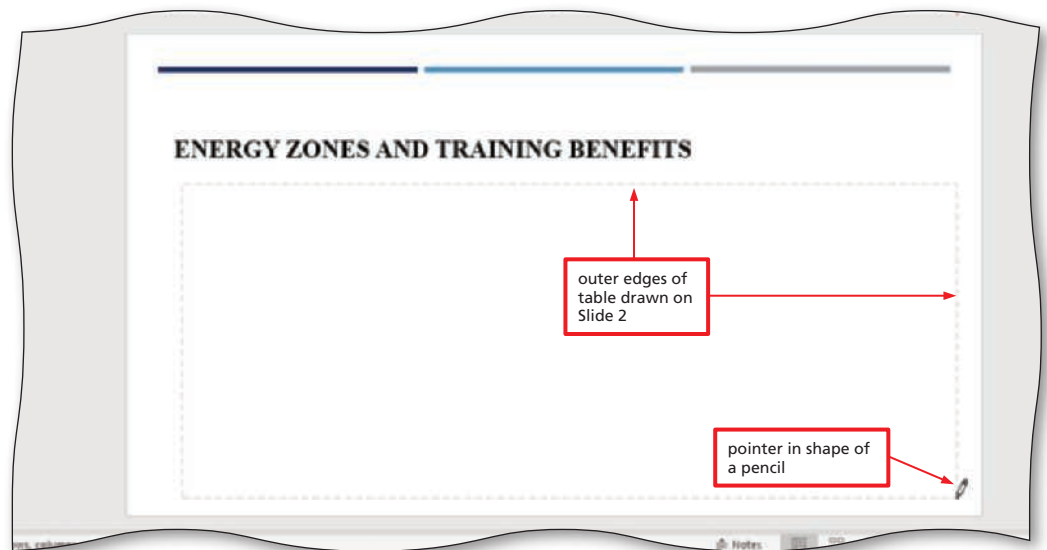


Figure 6-15

To Draw Table Rows

Once you draw the four sides of the table, you then can use the pointer as a pencil to draw lines for the columns and rows in the positions where you desire them to display. You could, therefore, draw columns having different widths and rows that are spaced in irregular heights. The following steps draw four lines to create five table rows. **Why?** The first row will contain the table title, and the remaining rows will list specific zones: very light, light, strenuous, and maximum. You must use a mouse or other pointing device to draw table rows.

1

- With the Table Design tab displayed, click the Draw Table button (Table Design tab | Draw Borders group) to change the pointer to a pencil and then position the pencil pointer inside the table approximately 1" from the top table edge and 1" from the left table edge (Figure 6-16).

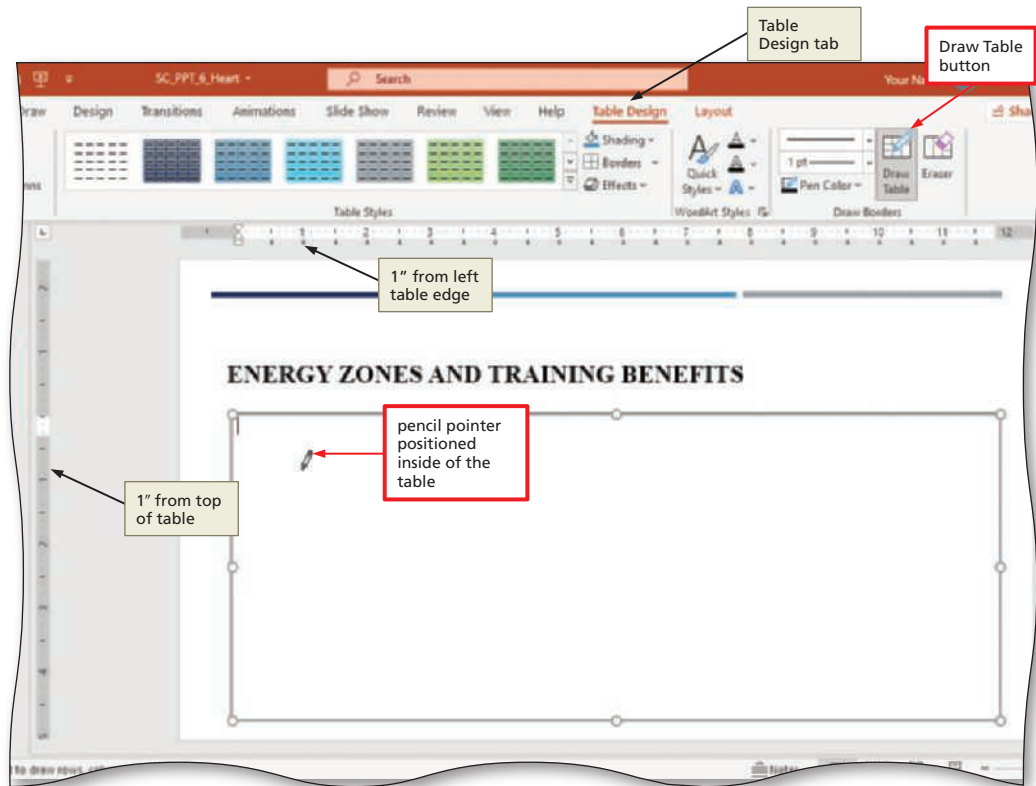


Figure 6-16

2

- Drag the pencil pointer to the right to draw a horizontal line across the entire table and divide it into two cells (Figure 6-17).

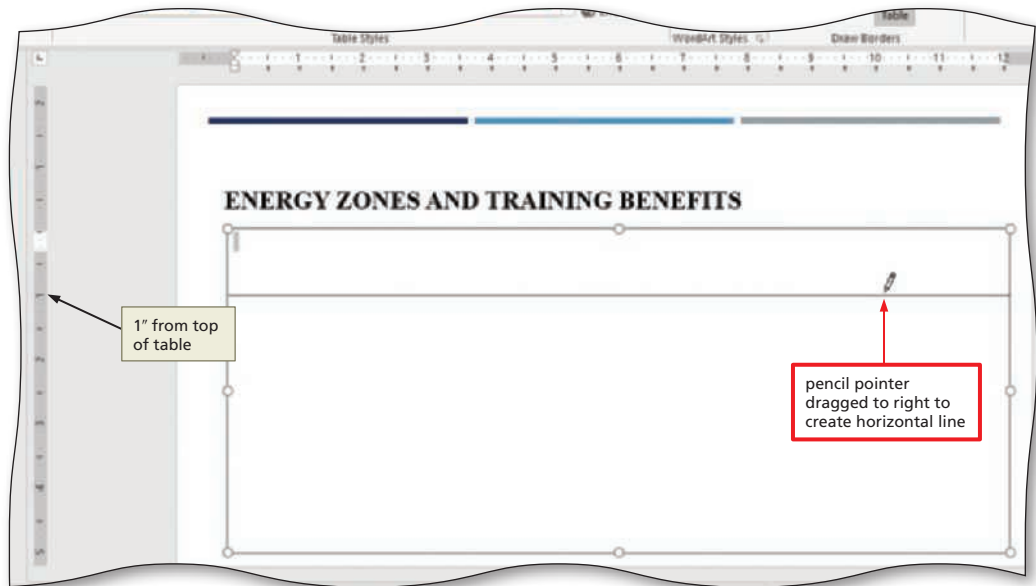


Figure 6-17

Q&A Should I drag the pencil pointer to the right edge of the table?

No. PowerPoint will draw a complete line when you begin to move the pencil pointer in one direction.

If I drew the line in an incorrect location, how can I erase it?

Press CTRL+Z, click the Undo button on the Quick Access Toolbar, or click the Eraser button (Table Design tab | Draw Borders group) and then click the line.

3

- Draw three additional horizontal lines, as shown in Figure 6–18. When you start drawing the lines, place your pencil pointer at a location away from the table border, not at a border, to prevent creating a new table.

Q&A How can I get my pencil pointer to reappear if it no longer is displayed?
 Click the Draw Table button again.

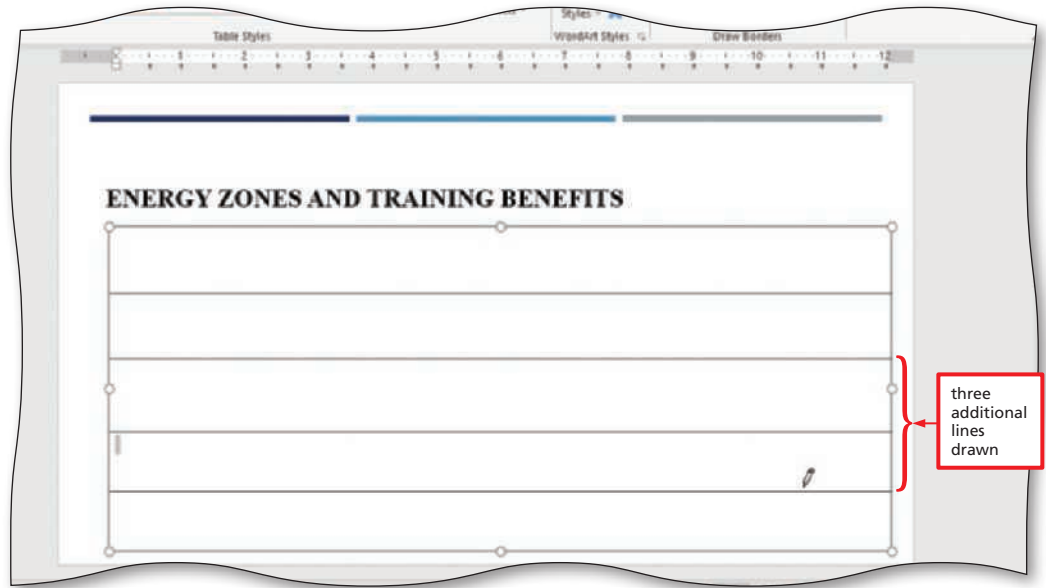


Figure 6–18

Q&A Do I need to align the lines in the precise positions shown?
 No. You will create evenly spaced rows later in this project.

To Draw Table Columns

The pencil pointer is useful to draw table columns with varying widths. Each zone row has one activity and either one or two benefits. The maximum row will be subdivided. **Why?** You want to add interest to the slide, so you will insert a picture in the lower-right table cell. The following steps draw three vertical lines to create columns. You must use a mouse or other pointing device to draw table columns.

1

- Position the pencil pointer inside the table approximately 2.5" from the left table edge (Figure 6–19).

Q&A Can I change the line color?
 Yes. Click the Pen Color button (Table Design tab | Draw Borders group) and then select a different color.

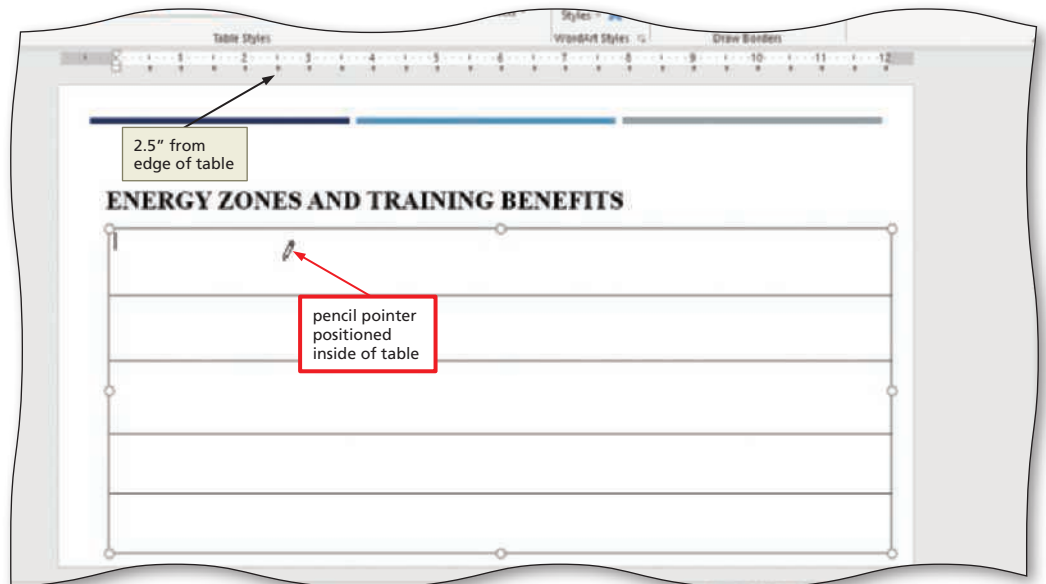


Figure 6–19

2

- Drag the pencil pointer down through all the horizontal lines to draw a vertical line that divides the table into 10 cells.
- Position the pencil pointer inside the table approximately 5" from the left table edge.
- Drag the pencil pointer down through all the horizontal lines to draw a vertical line that divides the table now into 15 cells (Figure 6-20).

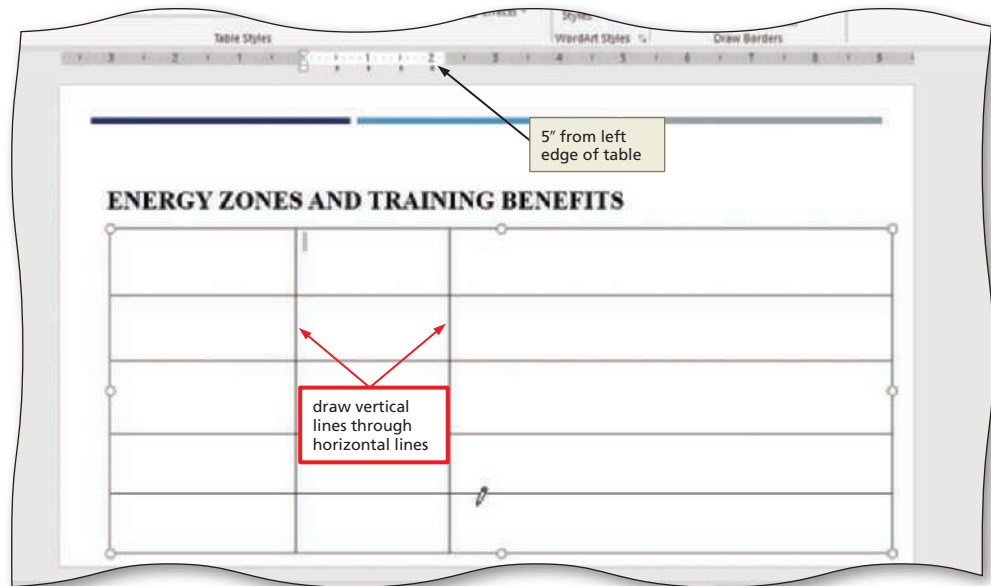


Figure 6-20

3

- Position the pencil pointer in the middle of the right (last) cell in the second row (Figure 6-21).

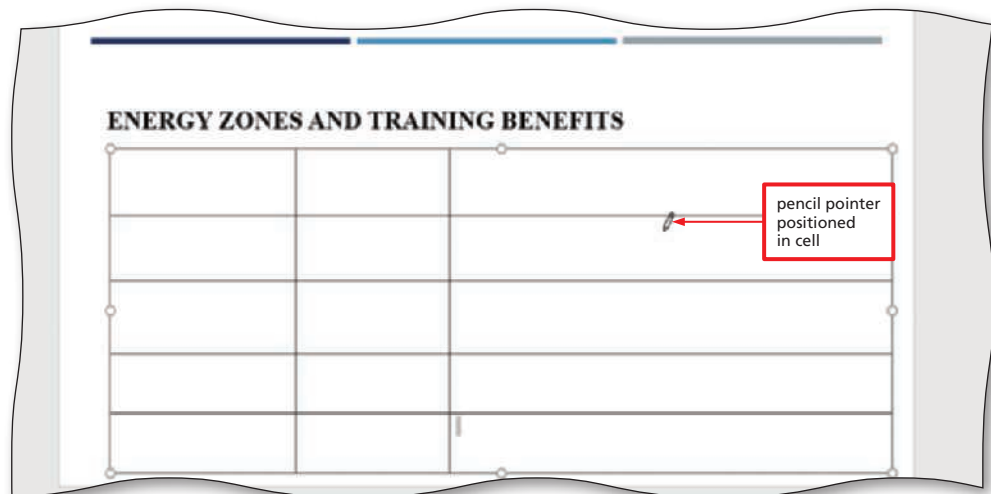


Figure 6-21

4

- Drag the pencil pointer down to the bottom edge of the table to draw a vertical line in the second, third, fourth, and fifth rows (Figure 6-22).

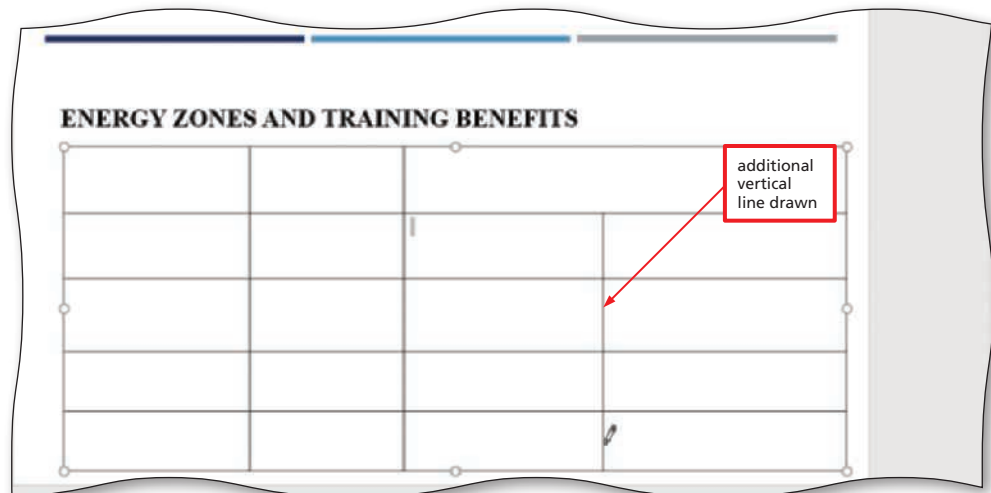


Figure 6-22

Q&A Are vertical and horizontal lines the only types of lines I can draw?

No. You also can draw a diagonal line from one corner of a cell to another corner.

To Erase a Table Border

PowerPoint supplies an eraser tool that allows you to delete vertical and horizontal lines in a table. This eraser is useful to delete unnecessary column lines. You must use a mouse or other pointing device to use this tool. The following steps use the eraser to delete one vertical line in a row. **Why?** You want to erase the vertical line because you need only three columns in this row, not four.

1

- Click the Eraser button (Table Design tab | Draw Borders group).
- Position the pointer, which has the shape of an eraser, over the rightmost vertical line in the second row (Figure 6–23).

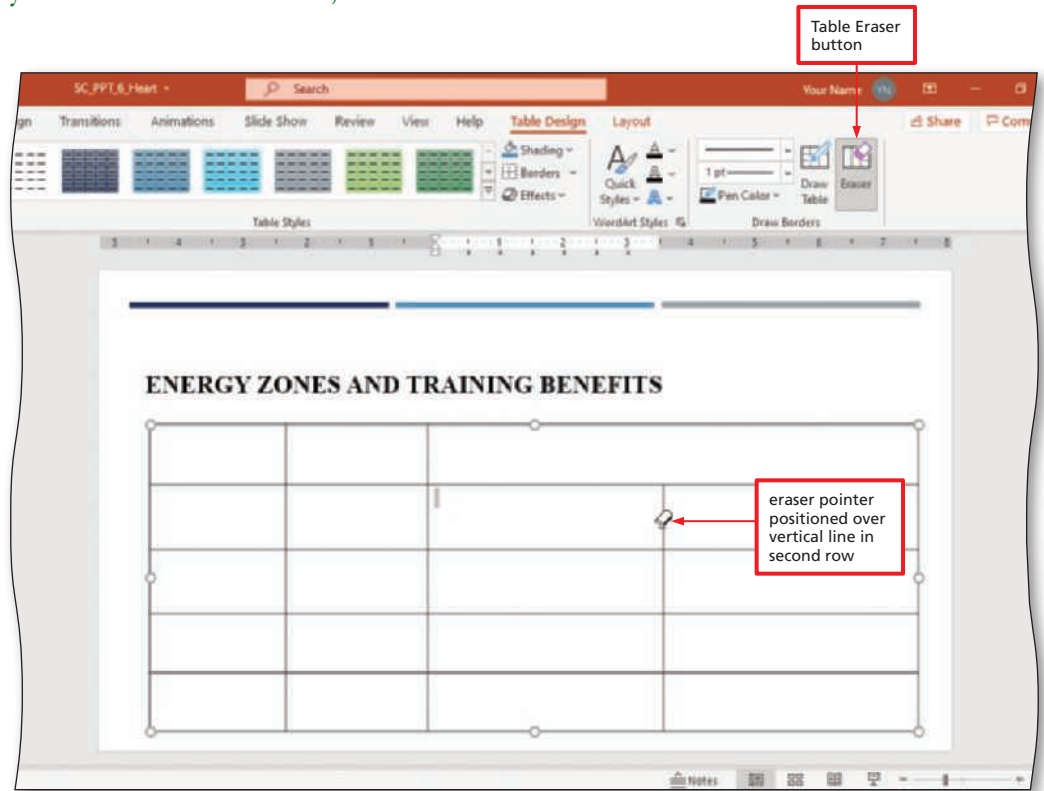


Figure 6–23

2

- Click the vertical line to erase it.
- Press ESC and then click inside the cell to change the pointer to the I-beam and display the insertion point.

3

- Display the View tab and then click the Ruler check box (View tab | Show group) to hide the horizontal and vertical rulers (Figure 6–24).

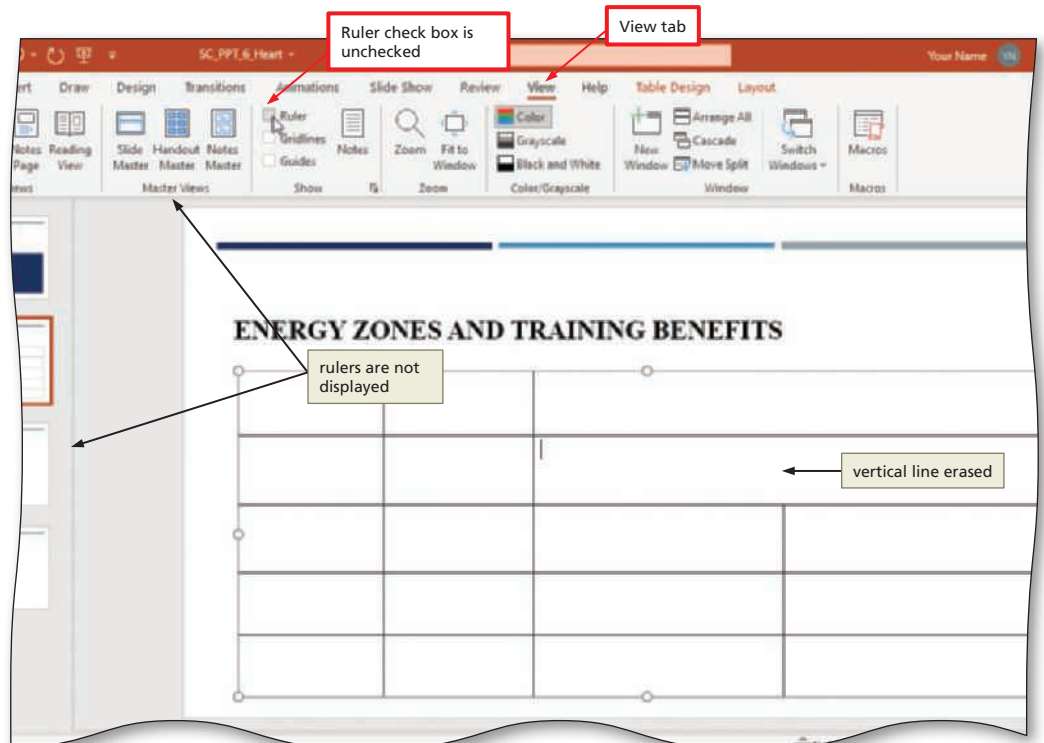


Figure 6–24

To MERGE TABLE CELLS

You can merge two or more cells to create one large cell, making room for text or graphics. If you wanted to merge two or more cells in a table row or column into a single cell, you would perform the following steps.

1. Drag through the cells you want to merge to select them.
2. Click the Layout tab on the ribbon.
3. Click the Merge Cells button (Layout tab | Merge group) to merge the cells into one cell.

To Enter Text in a Table

BTW

Navigating the Table

In this project, you advance the insertion point to the next cell by pressing TAB. To move to the previous cell, press SHIFT+TAB. Press DOWN ARROW to move to the next row and UP ARROW to move up one row.

At this point, four energy zones will be featured in your table: very light, light, strenuous, and maximum. The table you created will list these zones on the left side of each row and give specific activities and benefits on the right side. To place data in a cell, you click the cell and then type text. The following steps enter text in the cells of the empty table.

- 1 Position the pointer in the leftmost cell in the first row and then type **Zone** in the cell. Press TAB to advance the insertion point to the second cell in the first row, type **Activity**, and then press TAB. Type **Benefits** in the rightmost cell and then press TAB to advance the insertion point to the second row.
- 2 Type **Very light** in the first cell, **Walking** in the second cell, and **Helps recovery from heavier exercises** in the third cell. Press TAB to advance the insertion point to the first cell in the third row.
- 3 In the third row, type **Light** in the first cell, **Walking briskly** in the second cell, **Increases metabolism** in the third cell, and **Targets fat burning** in the last cell. Advance the insertion point to the first column of the fourth row.
- 4 In the fourth row, type **Strenuous** in the first cell, **Running** in the second cell, **Increases anaerobic tolerance** in the third cell, and **Improves endurance** in the last cell. Advance the insertion point to the first column of the last row.
- 5 In the last row, type **Maximum** in the first cell, **Racing pace** in the second cell, **Tones muscular system** in the third cell, and **Increases race speed** in the last cell (Figure 6–25).

Zone	Activity	Benefits	
I Very light	Walking	Helps recovery from heavier exercises	
Light	Walking briskly	Increases metabolism	Targets fat burning
Strenuous	Running	Increases anaerobic tolerance	Improves endurance
Maximum	Racing pace	Tones muscular system	Increases race speed

data entered in five rows

Figure 6–25

TO CHANGE THE DIRECTION OF TEXT IN A TABLE CELL

By default, the text in a cell displays horizontally. You can, however, change the direction to rotate the text 90 degrees or 270 degrees, or you can stack the letters vertically. If you wanted to change the direction, you would perform the following steps.

1. Select the text you want to change and then click the Text Direction button (Layout tab | Alignment group) to display the Text Direction gallery.
2. Click the desired direction ('Rotate all text 90', 'Rotate all text 270', or Stacked) in the Text Direction gallery.

To Split Table Cells

You easily can create additional table columns and rows by dividing current cells and rows. The following steps use the Split Cells feature to divide a cell into two columns and to add a row. **Why?** You want to add another zone, moderate, between the light and strenuous rows.

1

- With the insertion point in the Increases race speed cell, click Layout on the ribbon to display the Layout tab and then click the Split Cells button (Layout tab | Merge group) to display the Split Cells dialog box (Figure 6–26).

Q&A

Are the default numbers in the dialog box always 2 columns and 1 row?
 Yes, but you can increase the numbers if you need to divide the cell into more than two halves or need to create two or more rows within one cell.

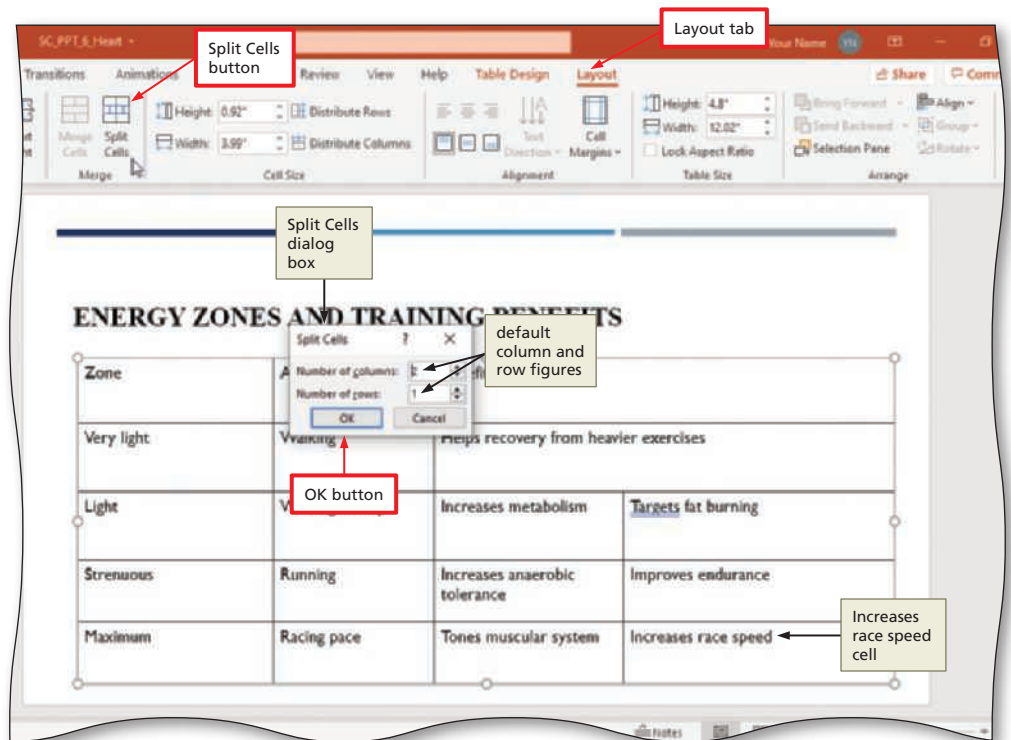


Figure 6–26

2

- Click OK (Split Cells dialog box) to create a fifth cell in the Maximum row.

3

- Position the insertion point in the Light cell.
- Click the Select button (Layout tab | Table group) to display the Select Table menu (Figure 6–27).

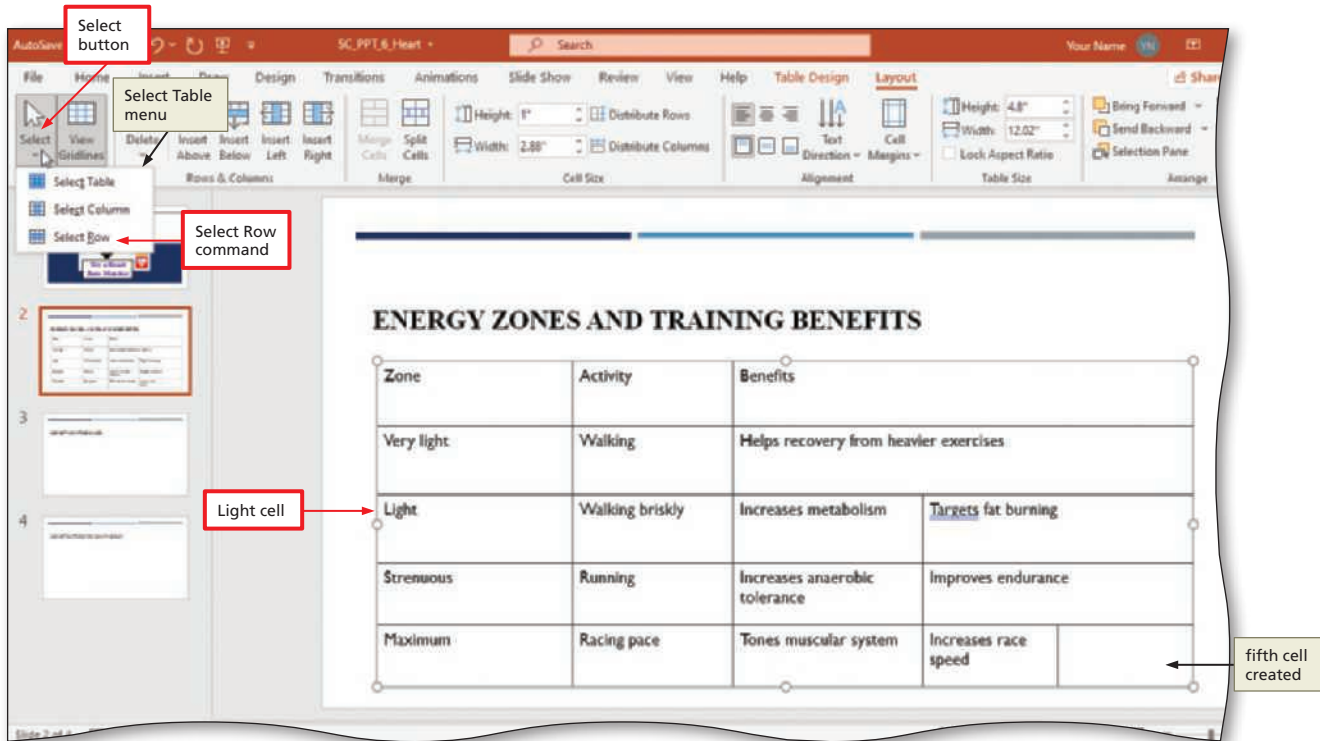


Figure 6–27

4

- Click Select Row in the Select Table menu to select the Light row.
- Click the Split Cells button (Layout tab | Merge group) to display the Split Cells dialog box (Figure 6–28).

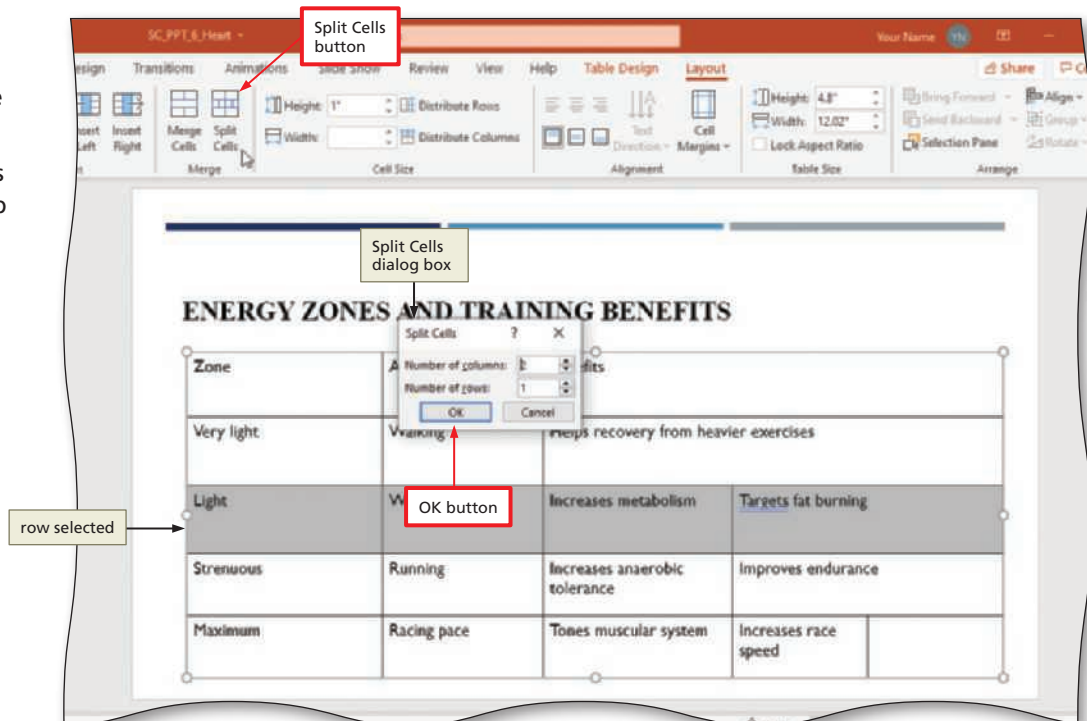


Figure 6–28

- 5
 - Click the 'Number of columns' down arrow once to decrease the number of columns from 2 to 1.
 - Click the 'Number of rows' up arrow once to increase the number of rows from 1 to 2 (Figure 6–29).

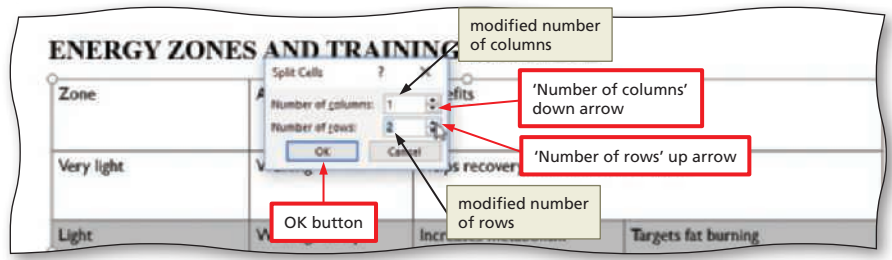


Figure 6–29

Q&A **How many rows and columns can I create by splitting the cells?**
 The maximum number varies depending upon the width and height of the selected cell.

- 6
 - Click OK (Split Cells dialog box) to create a row below the Light row.

Other Ways

1. Right-click table, click Split Cells on shortcut menu, enter number of columns and rows, click OK

To Enter Additional Text in a Table

With the additional row added to the table, you now can add the moderate zone information in the inserted row. The following steps enter text in the new cells.

- 1 Position the pointer in the first cell of the new row and then type **Moderate** in the cell. Advance the insertion point to the adjacent right column cell and then type **Jogging** in the second cell, **Improves circulation** in the third cell, and **Enhances aerobic fitness** in the last cell in this row (Figure 6–30).

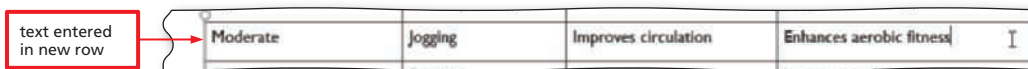


Figure 6–30

Consider This



Use appropriate colors when formatting graphics you want people to remember.

Studies have shown that men and women differ slightly in their recall of graphics formatted with various colors. Men remembered objects colored with shades of violet, dark blue, olive green, and yellow. Women recalled objects they had seen with dark blue, olive green, yellow, and red hues.

TO ADD A TABLE BORDER

You can give your table some dimension and add to its visual appeal by adding borders. These lines can be applied around the entire table; between the cells; to the top, bottom, left, or right edges; or a combination of these areas. To add a table border, you would perform the following steps.

1. Select the table cells that you want to have a border and then click the Borders arrow (Table Design tab | Table Styles group) to display the Borders gallery.
2. Click the desired border in the Borders gallery.

BTW

Customizing Table Formatting

PowerPoint applies a style to a table automatically based on the theme. To change this format, you can select a style in the Table Styles gallery, which presents several options to give a professional and colorful design and format. You, however, may desire to customize the layout by adding or modifying borders, the background color, or the font.

To CHANGE THE COLOR OF A TABLE BORDER

The design theme determines the default table border color. If you desire to change this color, you can select a theme or standard color in the color gallery or mix your own color in the Custom tab (Colors dialog box). To change the table border color, you would perform the following steps.

1. Select the table cells for which you want to change the border color and then click the Pen Color button (Table Design tab | Draw Borders group) to display the Pen Color gallery.
2. Click the desired color.
3. Click the Borders button (Table Design tab | Table Styles group).

To CHANGE THE LINE STYLE OF A TABLE BORDER

The default border line style is a solid line, but you can change this style to add a custom design element to this element. To change the table border line style, you would perform the following steps.

1. Select the table cells for which you want to change the border line style and then click the Pen Style button (Table Design tab | Draw Borders group) to display the Pen Style gallery.
2. Click the desired line style.
3. Click the Borders button (Table Design tab | Table Styles group).

To CHANGE THE WEIGHT OF A TABLE BORDER

You can change the default 1 point border weight to a width ranging from ¼ point to 6 point. To change the table border weight, you would perform the following steps.

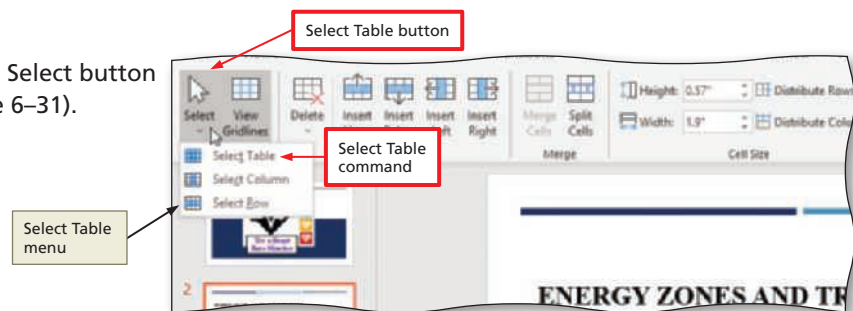
1. Select the table cells for which you want to change the weight and then click the Pen Weight arrow (Table Design tab | Draw Borders group) to display the Pen Weight gallery.
2. Click the desired line weight.
3. Click the Borders button (Table Design tab | Table Styles group).

To Select a Table and Apply Shading to Table Cells

You can format the table in several ways, including adding shading to color the background. The following steps add shading to the table. **Why?** Shading makes the table more visually appealing and helps distinguish each cell.

1

- With the Layout tab displayed, click the Select button to display the Select Table menu (Figure 6–31).

**Figure 6–31**

2

- Click Select Table in the Select Table menu to select the entire table.
- Click the Table Design tab and then click the Shading arrow (Table Design tab | Table Styles group) to display the Shading gallery.
- Point to 'Green, Accent 5, Lighter 40%' (ninth color in fourth Theme Colors row) in the Shading gallery to display a live preview of that color applied to the table in the slide (Figure 6–32).

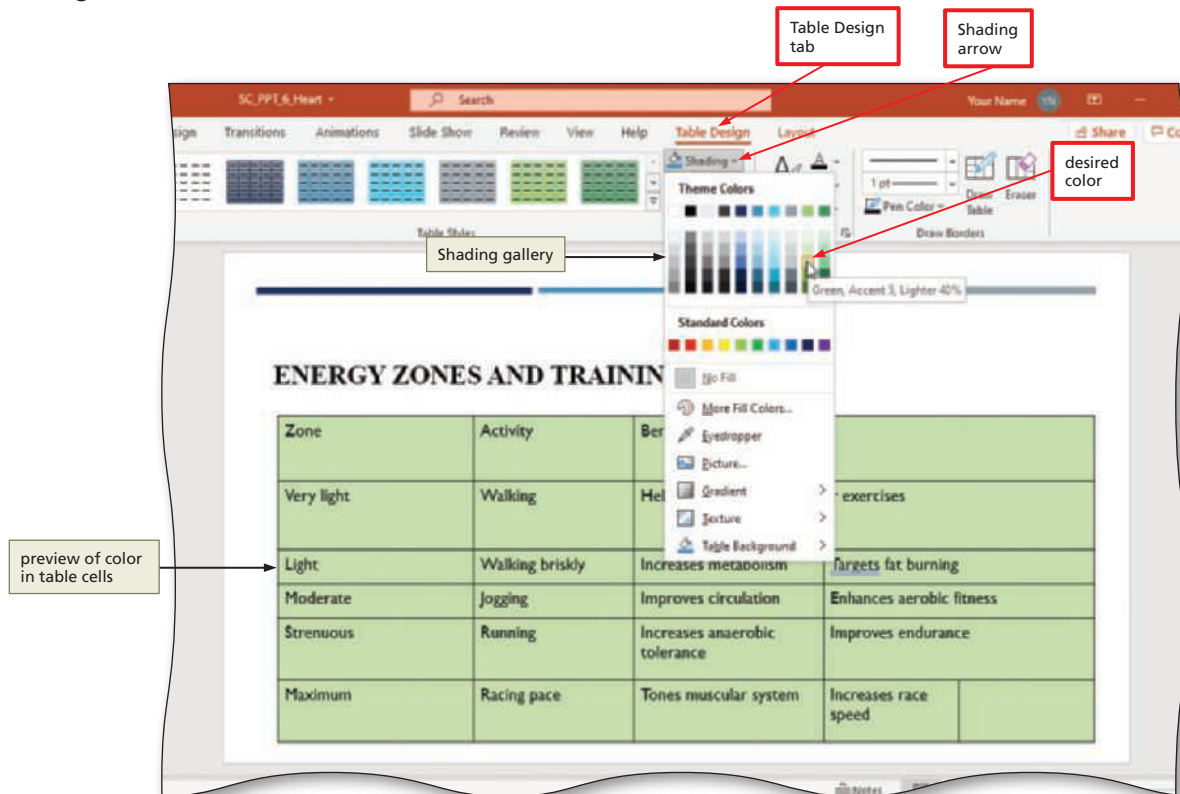


Figure 6–32



Experiment

- Point to various colors in the Shading gallery and watch the background of the table change.

3

- Click 'Green, Accent 5, Lighter 40%' in the Shading gallery to apply the selected color to the table.

To Apply a Bevel Effect to Table Cells

Bevels modify the cell edges to give a 3-D effect. Some bevels give the appearance that the cell is protruding from the table, while others give the effect that the cell is depressed into the table. The following steps apply a bevel effect to the table cells. **Why?** You desire to make the individual table cells stand out.

1

- With the table still selected, click the Effects button (Table Design tab | Table Styles group) to display the Effects menu.
- Point to Cell Bevel on the Effects menu to display the Cell Bevel gallery.

- Point to Round (first bevel in first Bevel row) to display a live preview of that bevel applied to the table in the slide (Figure 6–33).

Experiment

- Point to various bevel effects in the Bevel gallery and watch the table cells change.

2

- Click Round in the Bevel gallery to apply the selected bevel effect to the table.



Figure 6–33

To Apply a Shadow Effect to Table Cells

You can enhance the table by adding a shadow effect. The shadows are arranged in three categories: Outer, Inner, and Perspective. As the names imply, the outer shadows project on the outside edges, while the inner shadows shade the inside edges. The five perspective shadows are cast to the left, right, or lower edges of the cell. The following steps apply an outer shadow effect to the table cells. **Why?** The outer shadow gives an effect that a light source is present on the left edge of the slide.

1

- With the table still selected, click the Effects button again to display the Effects menu.
- Point to Shadow on the Effects menu to display the Shadow gallery.
- Point to 'Offset: Top Right' (first shadow in third row in Outer area) to display a live preview of that shadow applied to the table in the slide (Figure 6–34).

Experiment

- Point to various shadow effects in the Shadow gallery and watch the table cells change.

2

- Click 'Offset: Top Right' in the Shadow gallery to apply the selected shadow effect to the table.

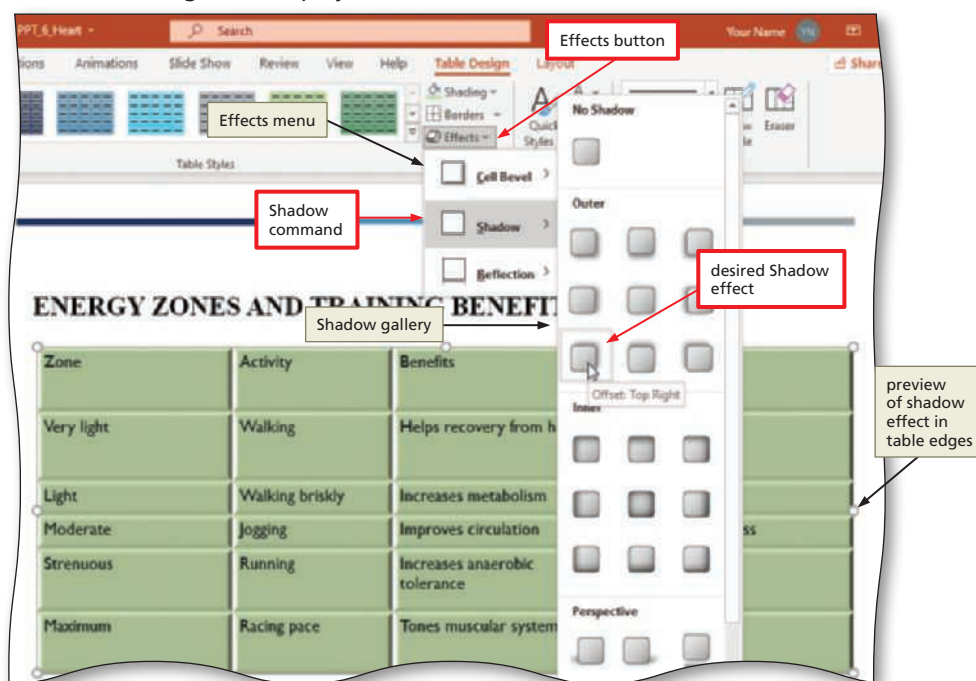


Figure 6–34

To Apply a Reflection Effect to Table Cells

Reflections add a subtle effect by repeating the image beneath the slide. The various options in the Reflection gallery modify the distance and transparency. **Why?** Adding a reflection repeats the last table row, which includes the shoe image you will add to the table later in this module. The following steps apply a reflection effect to the table cells.

1

- With the table still selected, click the Effects button again to display the Effects menu.
- Point to Reflection on the Effects menu to display the Reflection gallery.
- Point to 'Tight Reflection: Touching' (first reflection in first row in Reflection Variations area) to display a live preview of that reflection applied to the table in the slide (Figure 6–35).

Experiment

- Point to various reflection effects in the Reflection gallery and watch the table cells change.

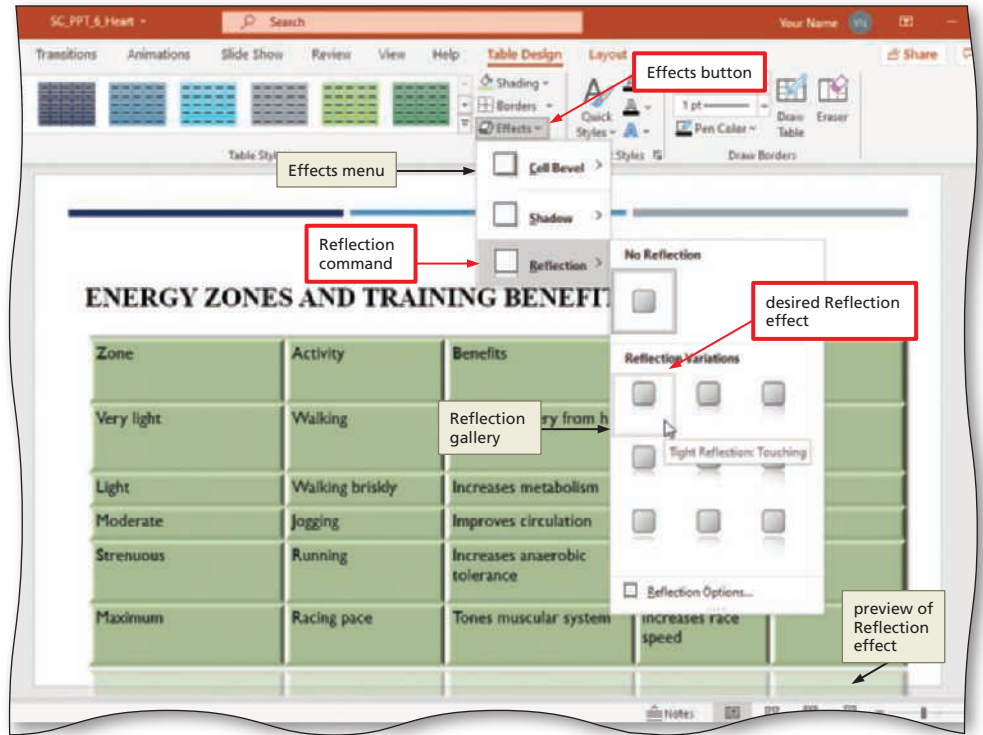


Figure 6–35

2

- Click 'Tight Reflection: Touching' in the Reflection gallery to apply the selected reflection effect to the table.

To Include a Total Row in a Table

Many PowerPoint table styles emphasize particular rows by shading them a darker color. In many cases, the first row, called the header row, is highlighted. If you want to emphasize the last row, called the total row, in a table, you can apply a table style to this row. To include a total row, you would perform the following step.

1. Display the Table Design tab and then click the Total Row box (Table Design tab | Table Style Options) to select it and style the total row in the table.

To Add an Image to a Table Cell

A table enhancement you can make is to add a photo or illustration to a table cell. The following steps add a picture of athletic shoes to the lower-right table cell. **Why?** This illustration is another graphical element that reinforces the purpose of the table.

1

- Right-click the last cell in the last row to display the shortcut menu and Mini toolbar (Figure 6–36).

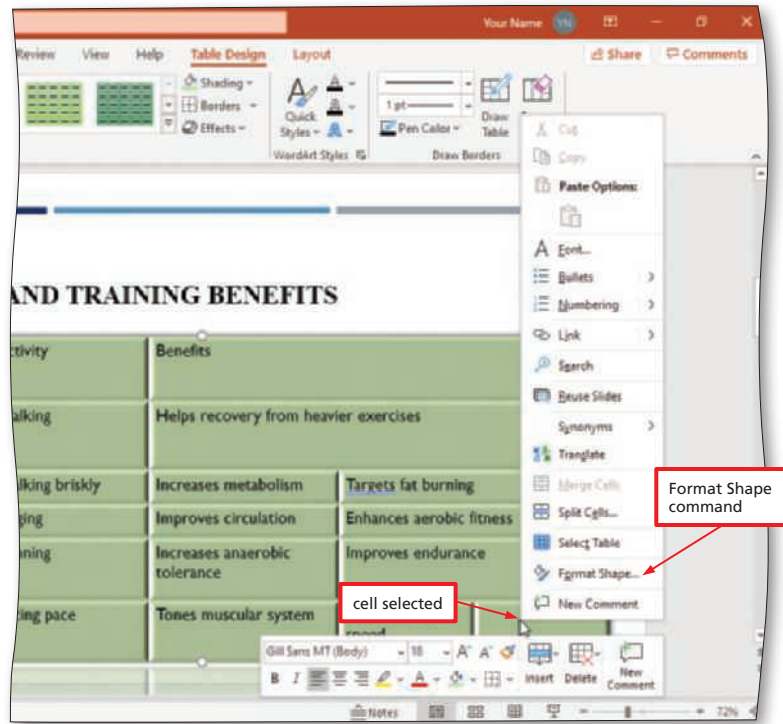


Figure 6–36

2

- Click Format Shape to display the Format Shape pane and then, if necessary, click Fill to expand the Fill section.
- Click 'Picture or texture fill' to select this option (Figure 6–37).

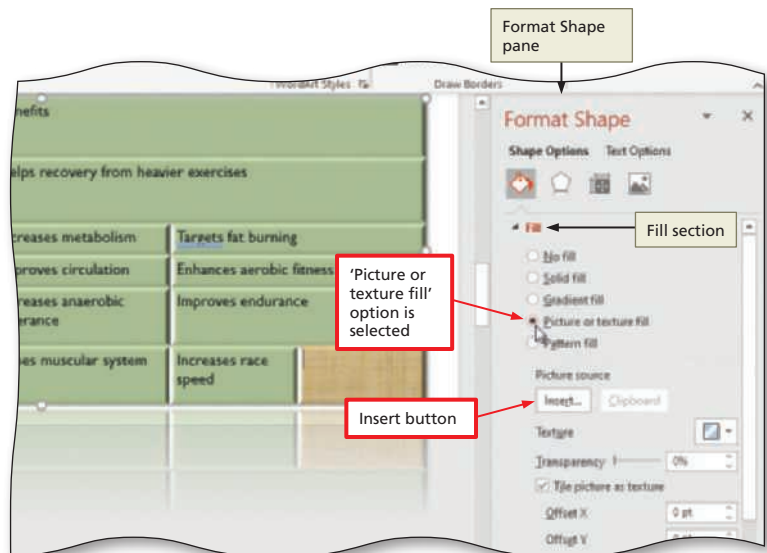


Figure 6–37

3

- Click the Insert button to display the Insert Picture dialog box.
- Click From a File to display the Insert Pictures dialog box.
- Navigate to the location of your Data Files and then click the Support_PPT_6_Shoes picture to select this picture (Figure 6–38).

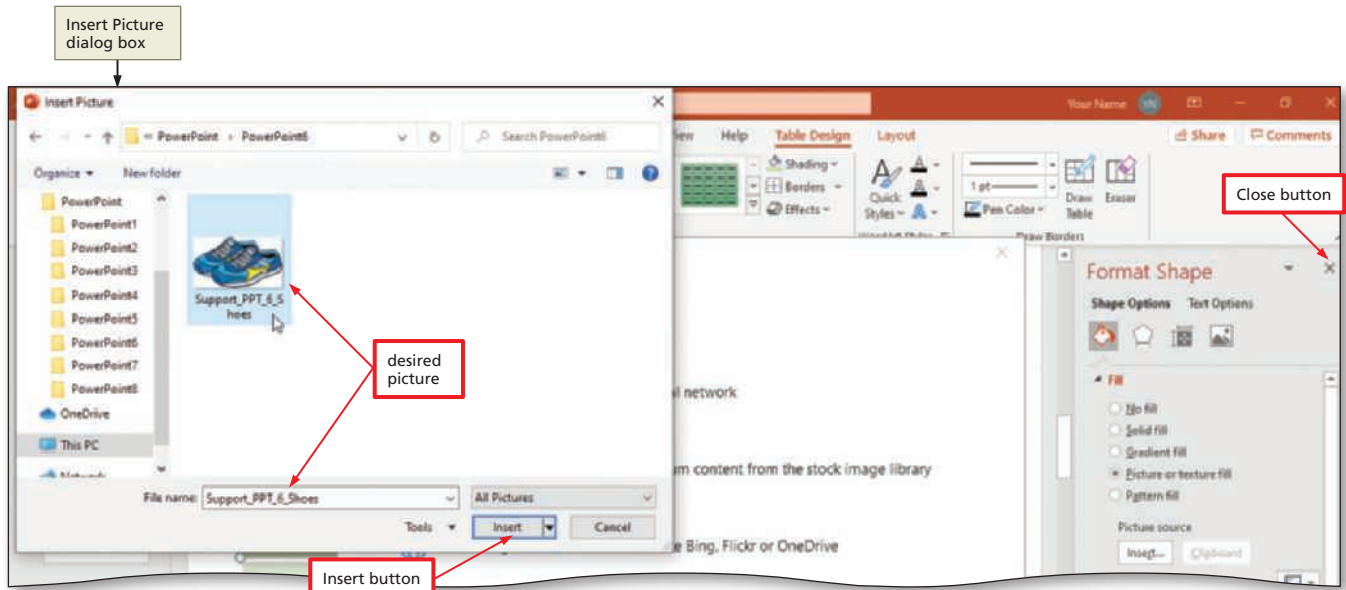


Figure 6–38

4

- Click the Insert button (Insert Picture dialog box) to insert the shoes picture into the table cell.
- Click Close (Format Shape pane).

Other Ways

1. Right-click selected cell, click Shape Fill arrow on Mini toolbar, click Picture

To Distribute Table Rows

At times you may desire the row heights to vary. In the Slide 2 table, however, you desire the heights of the rows to be uniform. To make each selected row the same height, you distribute the desired rows. The following steps distribute table rows. **Why?** The horizontal lines you drew are not spaced equidistant from each other, and distributing the rows is an efficient manner of creating rows with the same height.

1

- With the table still selected, display the Layout tab and then select the cells in the second, third, fourth, fifth, and sixth rows (all rows except the first row) (Figure 6–39).

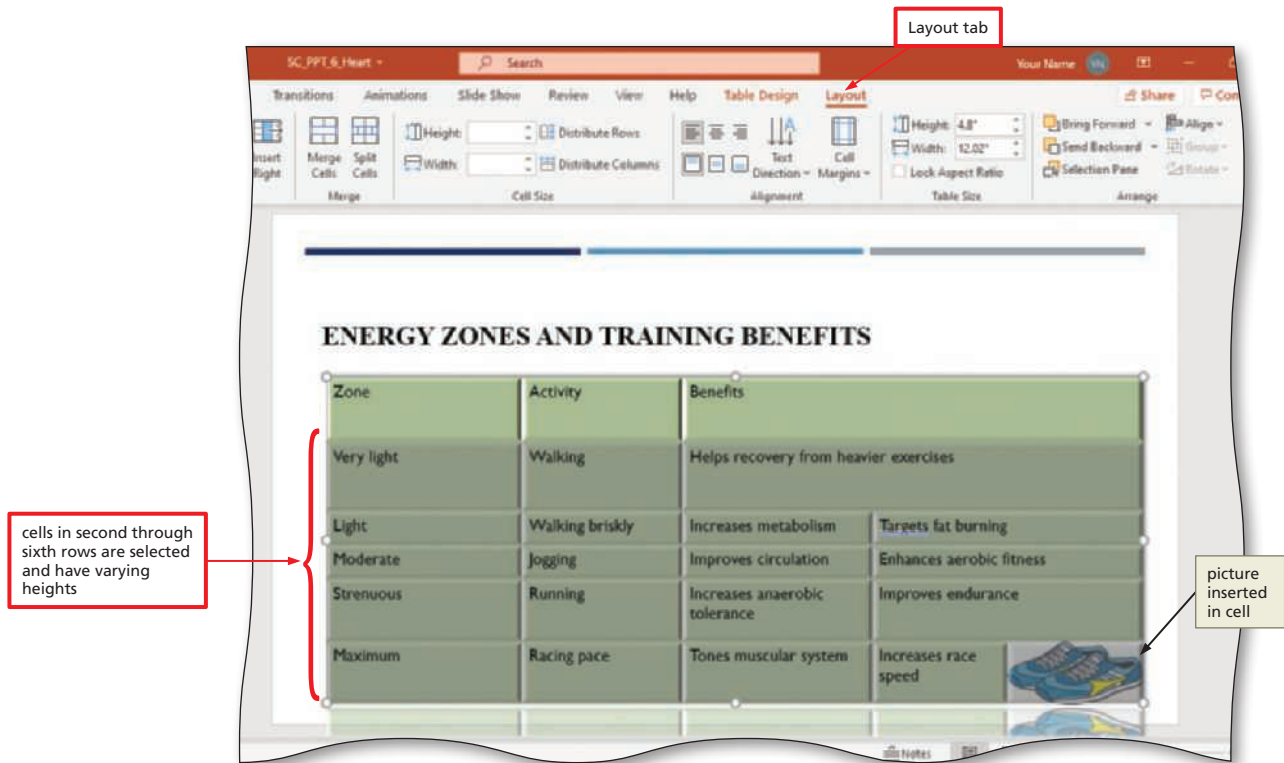


Figure 6-39

2

- Click the Distribute Rows button (Layout tab | Cell Size group) to equally space these five rows vertically (Figure 6-40).

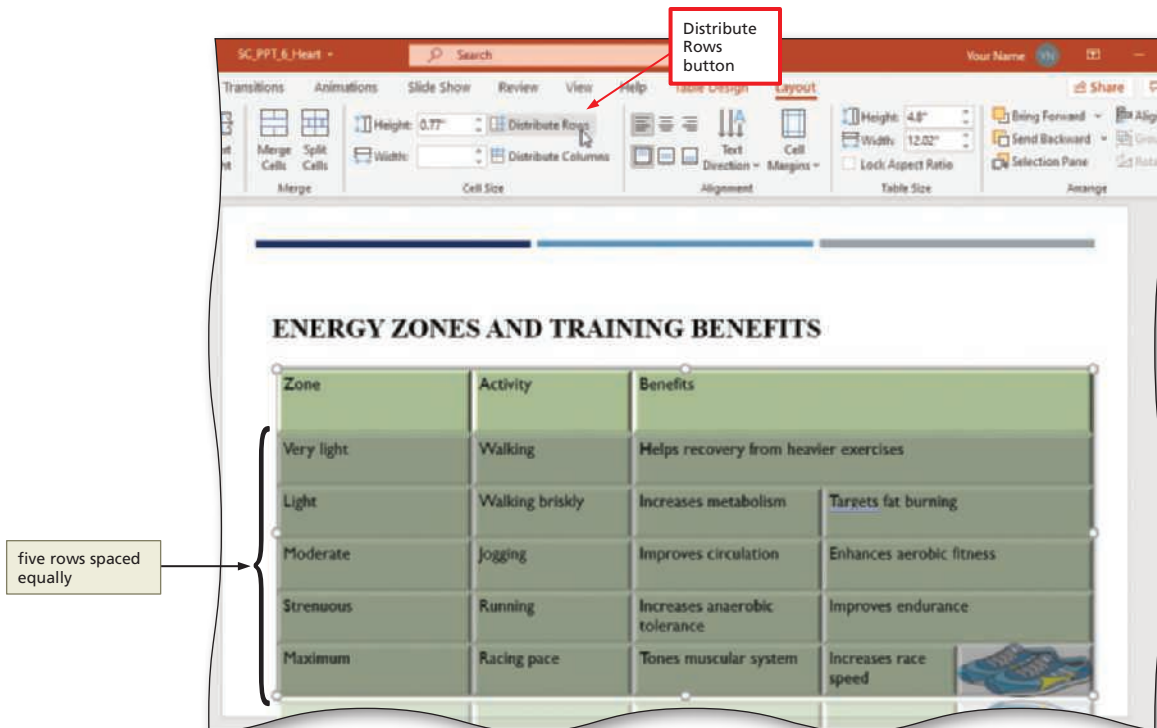


Figure 6-40

To Resize a Table Column and Row

The first table row should have a height taller than the rows beneath it. In addition, the cell width can be changed. **Why?** You can eliminate the white space in the cells and allow sufficient room for all letters. The following steps resize the table columns and rows.

1

- With the Layout tab displayed, position the insertion point in the Zone cell in the first row.
- Click the 'Table Row Height' up or down arrow (Layout tab | Cell Size group) to set the row height to 1" (Figure 6-41).

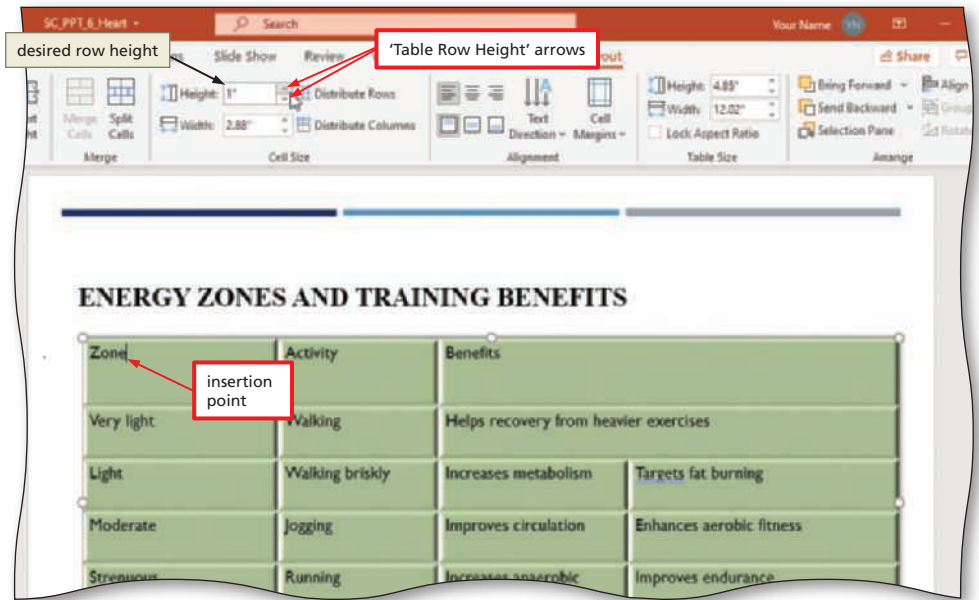


Figure 6-41

2

- With the insertion point in the Zone cell, click the 'Table Column Width' down arrow (Layout tab | Cell Size group) to change the cell and column width to 2" (Figure 6-42).

BTW

Resizing a Table Row or Column to an Approximate Value

In this module, you resized the table cells by entering a specific size. You also can change the cell width or height to a size that looks aesthetically pleasing to you. If you want to change the width of a column, position the pointer over the border of the column that you want to resize. When the pointer changes shape, drag the column to the right or left. Likewise, to change a row height, position the pointer over the border of the row you want to resize. When the pointer changes shape, drag the row up or down.

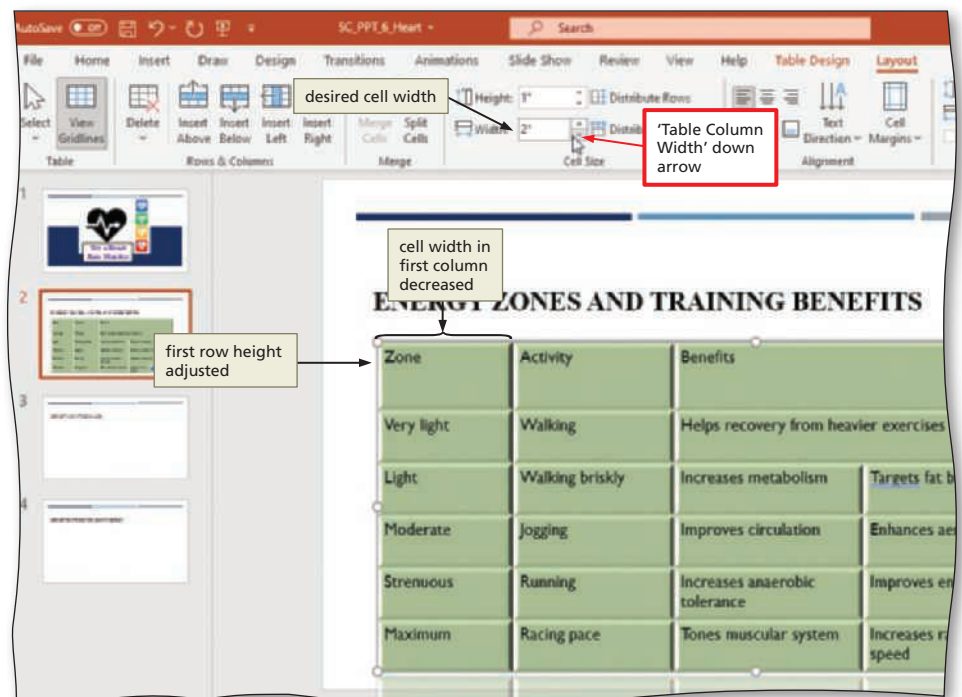


Figure 6-42

TO RESIZE A TABLE PROPORTIONALLY

When you change the height and width of a table proportionally, you maintain the same ratio of these dimensions. If you want to enlarge, reduce, or change the size of a table and keep the same proportions, you would perform the following steps.

1. Display the Layout tab and then select the 'Lock Aspect Ratio' check box (Layout tab | Table Size group) to check the box.
2. Click the Height or Width up or down arrow to change the table dimensions.

To Align Data in a Table Cell

The data in each cell can be aligned horizontally and vertically. You change the horizontal alignment of each cell in a similar manner as you center, left-align, or right-align text in a placeholder. You also can change the vertical alignment so that the data displays at the top, middle, or bottom of each cell. The following steps center the text both horizontally and vertically in each table cell. **Why?** Having the text centered vertically and horizontally helps balance the cells by distributing the empty space evenly around the cell contents.

- 1
 - Click the Select button to display the Select menu and then click Select Table to select the entire table.
 - Click the Center button (Layout tab | Alignment group) to center the text between the left and right borders of each cell in the table (Figure 6-43).

all table cells selected and text centered horizontally

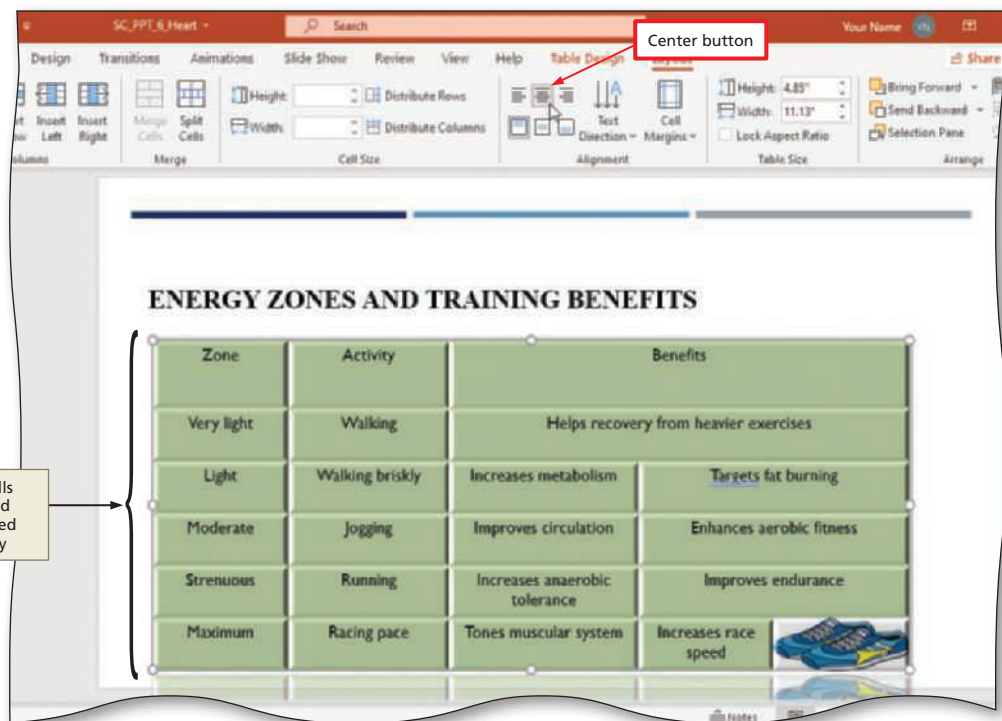


Figure 6-43

2

- Click the Center Vertically button (Layout tab | Alignment group) to center the text between the top and bottom borders of each cell in the table (Figure 6–44).

Q&A

Must I center all the table cells, or can I center only specific cells?

You can center as many cells as you desire at one time by selecting one or more cells.

all table cells selected and text centered vertically

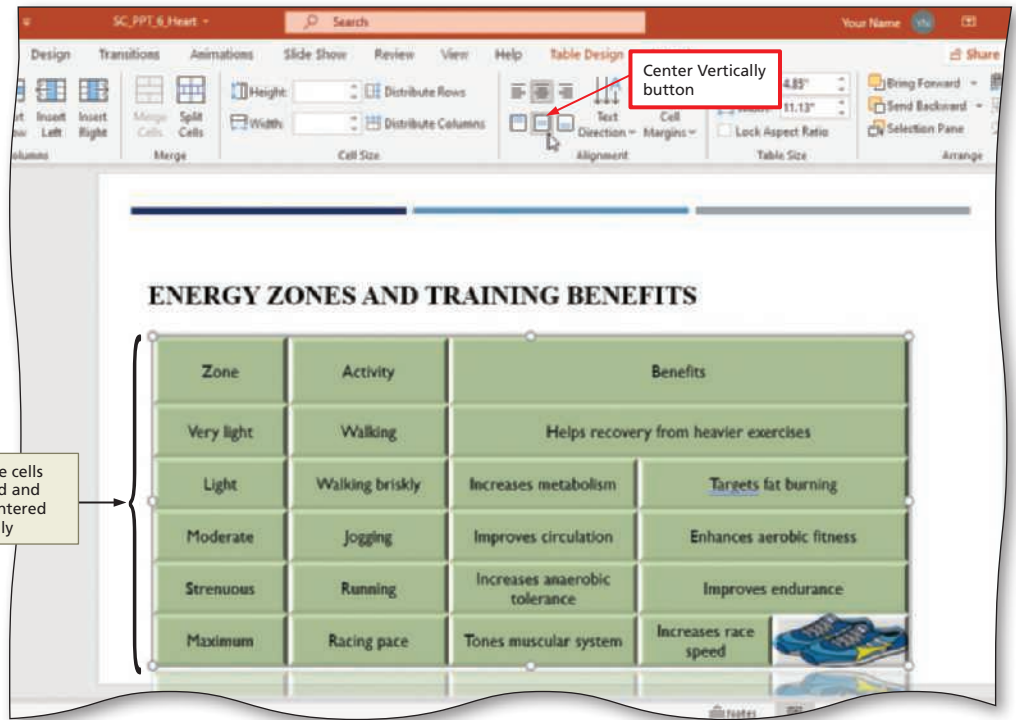


Figure 6–44

Other Ways

- Right-click selected cells, click Format Shape on shortcut menu, click Text Options tab, click Textbox icon, click Vertical alignment arrow

To Format Table Data

The final table enhancement is to bold the text in all cells and format the font size of the column headings. The entire table is selected, so you can bold all text simultaneously. The following steps format the data.

1

- With the table selected, display the Home tab and then click the Bold button (Home tab | Font group) to bold all text in the table.

2

- Select the three column headings in the first row, change the font to Century, increase the font size to 24 point, and then underline this text (Figure 6–45).

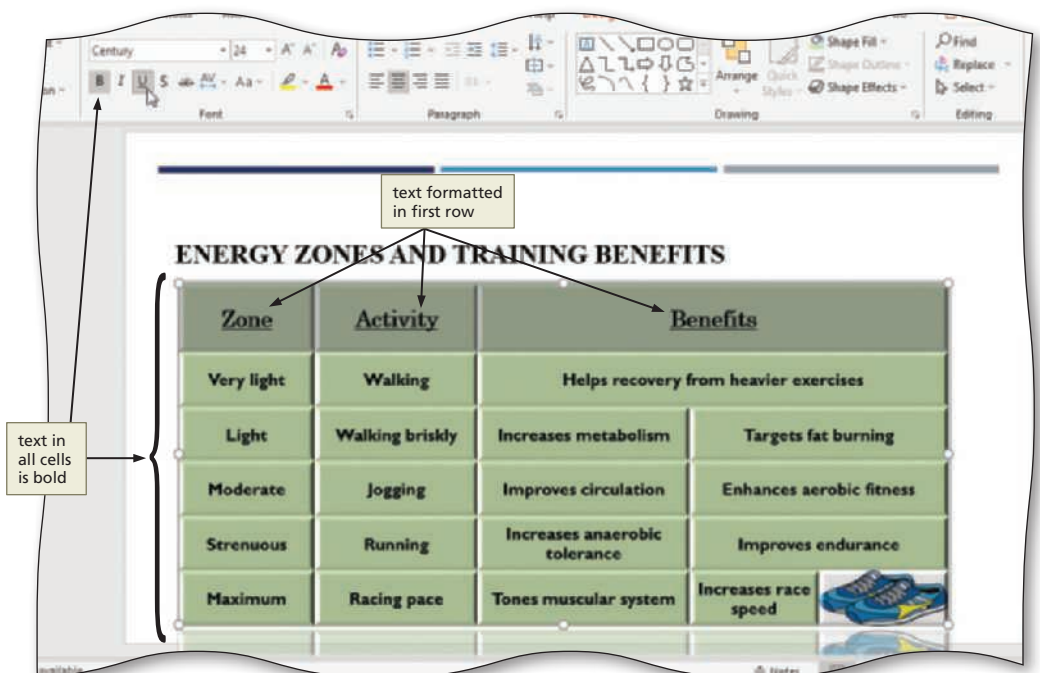


Figure 6–45

TO CLEAR FORMATTING FROM A TABLE

The table you create on Slide 3 has three columns and six rows. Many times, however, you may need to create larger tables and then enter data into many cells. In these cases, you can clear all formatting from the table so that you can concentrate on the numbers and letters and not be distracted by the colors and borders. To clear formatting, you would perform the following steps.

1. Display the Table Design tab and then click the More button in the Table Styles group.
2. Click the Clear Table command at the bottom of the Table Styles gallery (Table Design tab | Table Styles group).

To Align a Table

To center the table, you align it in the middle of the slide. The following steps center the table horizontally. **Why?** The table should be positioned an equal distance between the left and right slide edges to balance this object in the slide.

- 1
 - With the table selected, display the Layout tab and then click the Align button (Layout tab | Arrange group) to display the Align Objects menu (Figure 6–46).

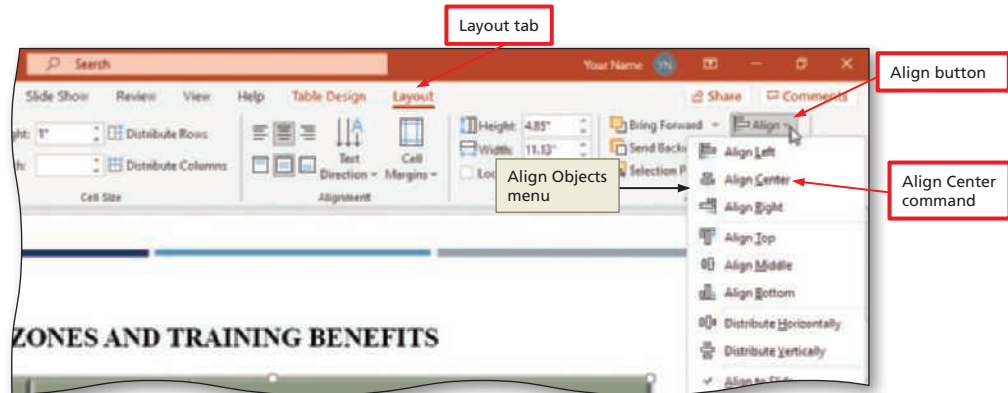


Figure 6–46

- 2
 - Click Align Center on the Align Objects menu, so PowerPoint adjusts the position of the table evenly between the left and right sides of the slide (Figure 6–47).



Figure 6–47

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Heart file is saved and then you can exit PowerPoint. To resume later, start PowerPoint, open the file called SC_PPT_6_Heart, and continue following the steps from this location forward. Note: PowerPoint will prompt you to update any files you modified.

Inserting a Linked Excel Worksheet

Linked files maintain a connection between the source file and the destination file. When you select the **Link check box** in the Insert Object dialog box, the object is inserted as a linked object instead of an embedded object. Your PowerPoint presentation stores a representation of the original file and information about its location. If you later move or delete the source file, the link is broken, and the object will not be available. Consequently, if you make a presentation on a computer other than the one on which the presentation was created, and the presentation contains linked objects, be certain to include a copy of the source files. The source files must be stored in the exact location as originally specified when you linked them to your presentation.

PowerPoint associates a linked file with a specific application, which PowerPoint bases on the file extension. For example, if you select a source file with the file extension .docx, PowerPoint recognizes the file as a Word file. Additionally, if you select a source file with the file extension .xlsx, PowerPoint recognizes the file as an Excel file.

In the following steps, you will perform these tasks on Slide 3:

1. Insert a linked Excel worksheet.
2. Align the Excel worksheet on the slide.
3. Edit two cells.

BTW

File Sizes

Files with embedded objects typically have larger file sizes than those with linked objects because the source data is stored in the presentation. In order to keep file sizes manageable, Microsoft recommends inserting a linked object rather than an embedded object when the source file is large or complex.

To Link an Excel Worksheet

The sales worksheet contains a table with data corresponding to actual heart rate monitor sales last month and this month at the two fitness center locations, Midtown and Downtown, and total sales for both centers. It also has projected sales for these two locations. You will update this table by editing the number of projected sales at both locations. These figures will update the original Excel worksheet. When you insert the sales chart, you can specify that it is linked from the PowerPoint slide to the Excel worksheet. **Why? Any edits made to specific cells are reflected in both the source and destination files.** The following steps insert and link the Excel worksheet.

1

- Display Slide 3 and then delete the content placeholder.
- Display the Design tab and then click the Format Background button (Design tab | Customize group) to display the Format Background pane.
- Click Gradient fill to apply this background to the slide (Figure 6–48).

Q&A | How can I change the color of the gradient?

Click the Color button in the Fill area of the Format Background pane and then choose the desired color.

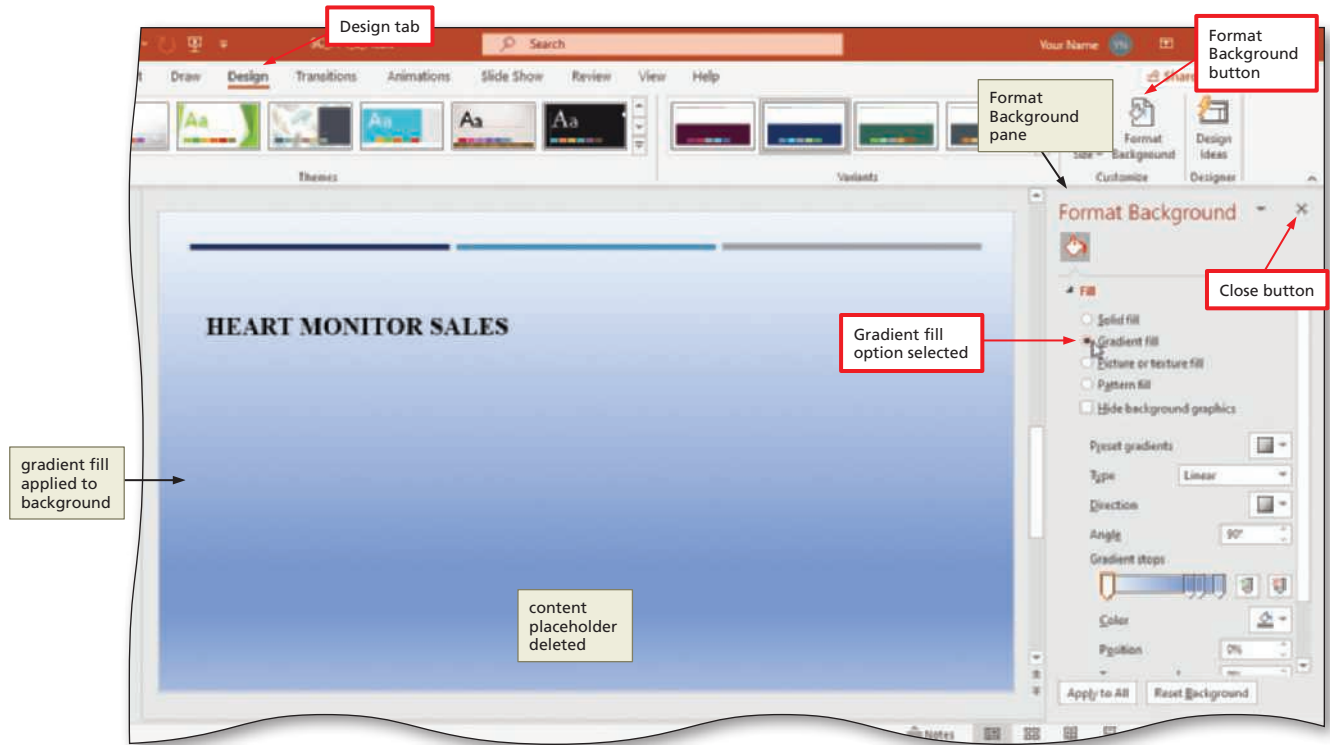


Figure 6-48

- 2**
- Close the Format Background pane.
 - Display the Insert tab and then click the Object button (Insert tab | Text group) to display the Insert Object dialog box.
 - Click 'Create from file' (Insert Object dialog box) to display the File box (Figure 6-49).

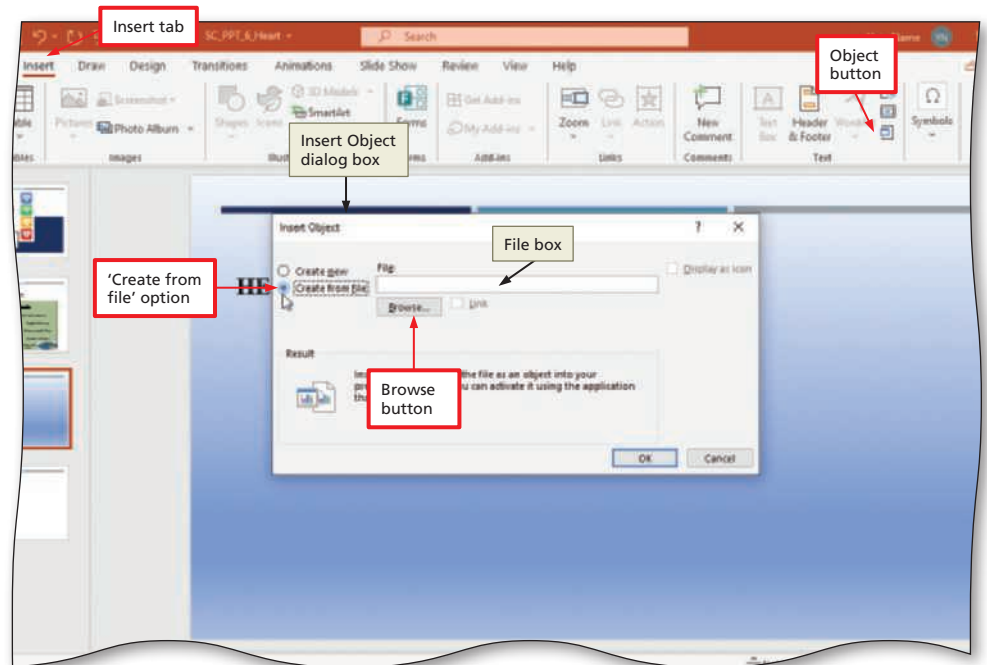


Figure 6-49

3

- Click the Browse button to display the Browse dialog box, navigate to the location of your Data Files, and then click Support_PPT_6_Sales to select the Excel file name (Figure 6-50).

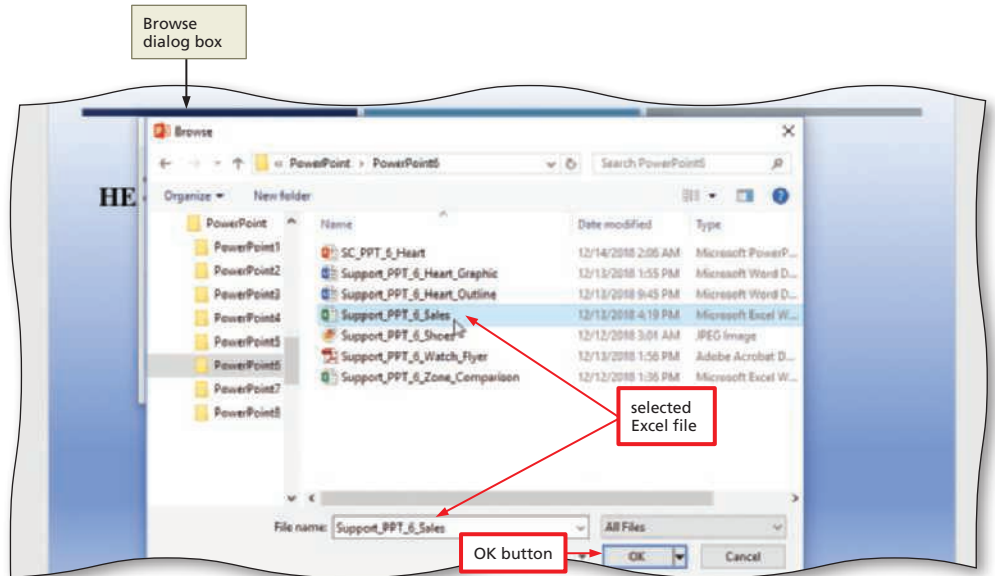


Figure 6-50

4

- Click OK (Browse dialog box) to insert the file name into the File box (Insert Object dialog box).
- Click the Link check box (Insert Object dialog box) to select the check box (Figure 6-51).

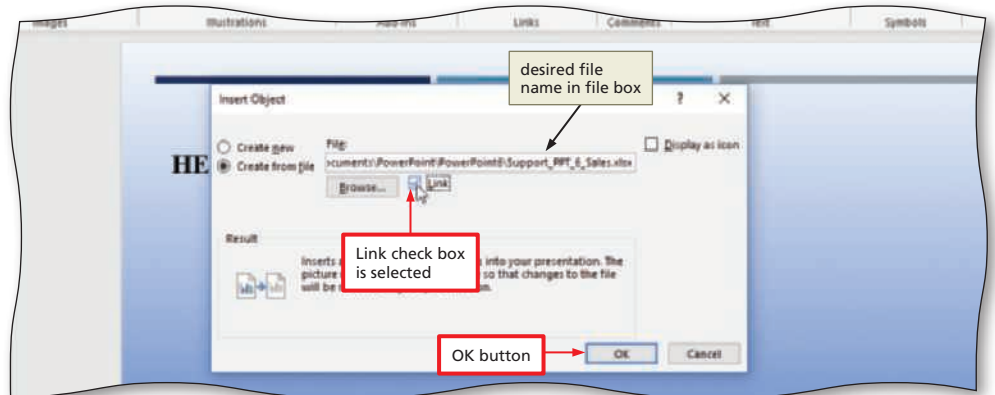


Figure 6-51

5

- Click OK (Insert Object dialog box) to insert the Support_PPT_6_Sales Excel worksheet into Slide 3.
- Display the Shape Format tab, click the Size dialog box launcher to display the Format Object pane, click the 'Lock aspect ratio' check box to uncheck the box, and then change the worksheet height to 2.5" and the width to 11.5" (Figure 6-52).

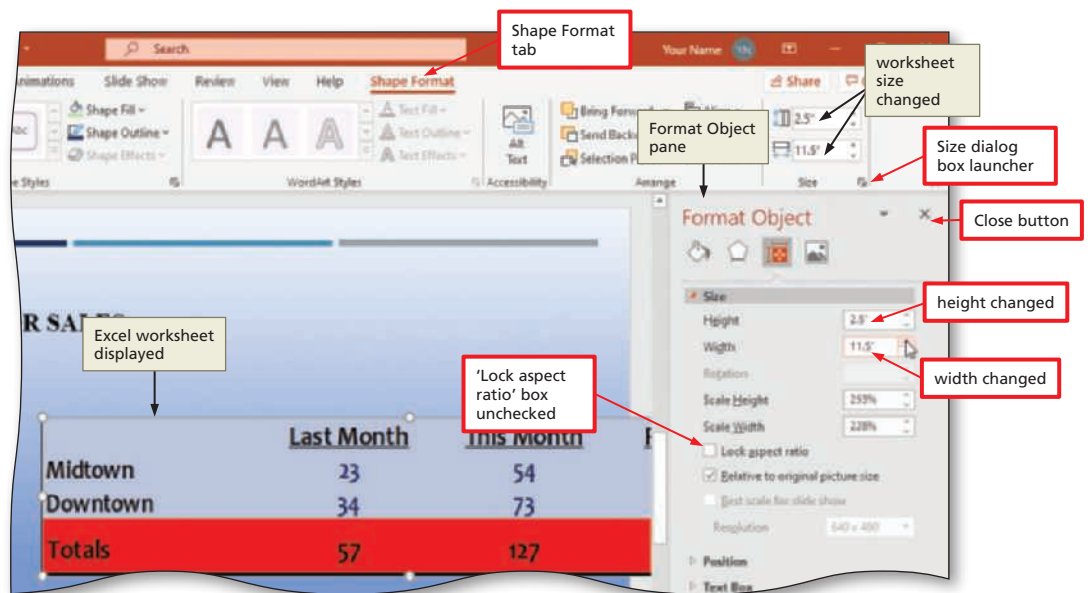


Figure 6-52

6

- Close the Format Object pane.

To Align a Worksheet

You can drag the table to a location, but you also can have PowerPoint precisely align the object horizontally in the left, center, or right areas of the slide, and vertically in the top, middle, or bottom of the slide. The following steps align the table horizontally and vertically on Slide 3. **Why?** PowerPoint inserts the table on Slide 3 in a location that is not visually appealing, so you want to center it on the slide.

- With the Shape Format tab displayed, click the Align button to display the Align Objects menu (Figure 6-53).

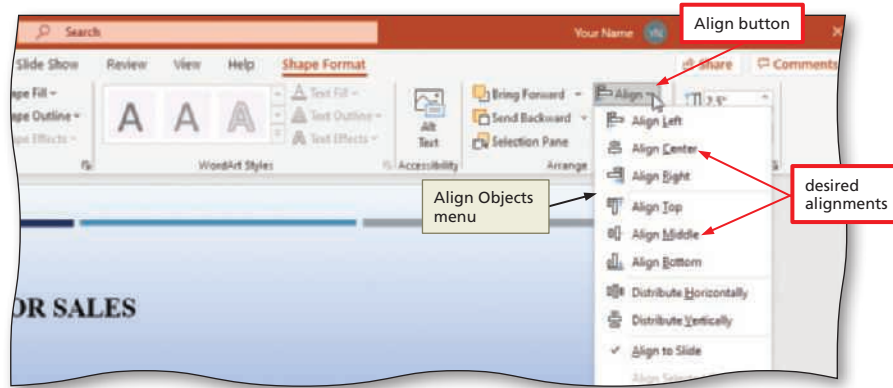


Figure 6-53

- Click Align Center on the Align Objects menu to position the worksheet evenly between the left and right edges of the slide.
 - Click the Align button again to display the Align Objects menu and then click Align Middle to position the worksheet in the center of the slide (Figure 6-54).

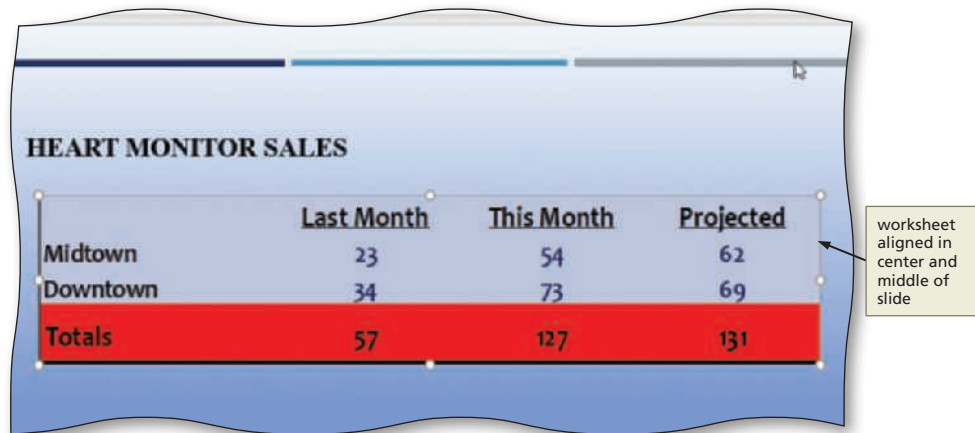


Figure 6-54

To Update a Linked Worksheet

Each table or worksheet cell is identified by a unique address, or **cell reference**, representing the intersection of a column and row. The column letter is first and is followed by the row number. For example, cell D2 is located at the intersection of the fourth column, D, and the second row. Two cells need updating. **Why?** Many fitness center members have expressed interest in trying a monitor, so the personal trainers have revised the projected sales upward. The following steps edit cells in the linked table.

1

- Double-click the worksheet to run Excel and display the worksheet.
- Click the number 62 underneath the Projected column heading to make cell D2 the active cell (Figure 6-55).

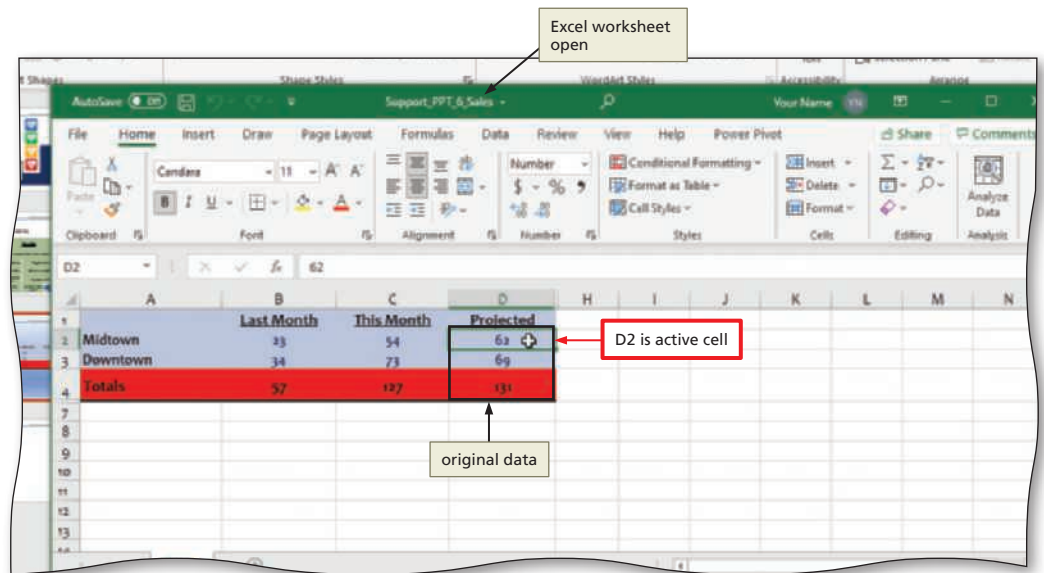


Figure 6-55

2

- Type 71 as the new projected Midtown number and then press ENTER to complete the entry and make cell D3 the active cell.
- Type 78 as the new projected Downtown number and then press ENTER to complete the entry and make cell D4 the active cell (Figure 6-56).

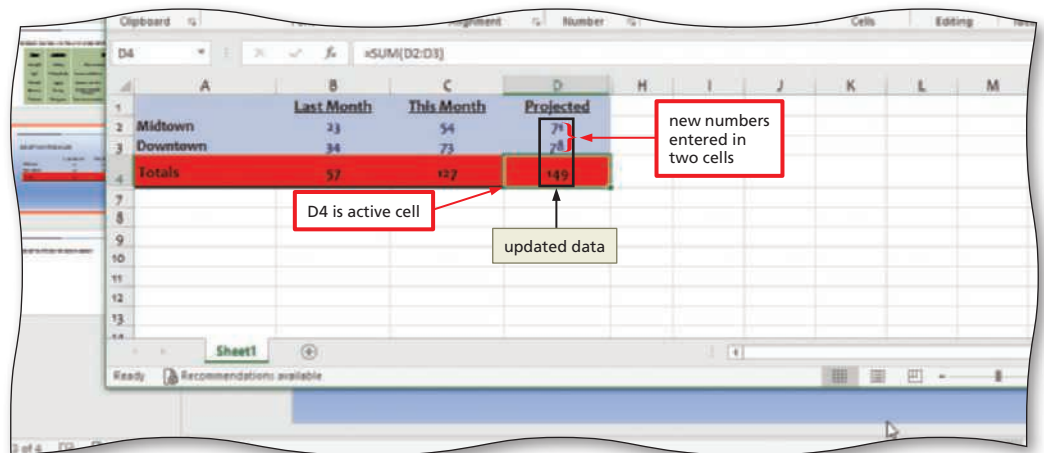


Figure 6-56

3

- Click Close in the upper-right corner of the Microsoft Excel window to close Excel (Figure 6-57).

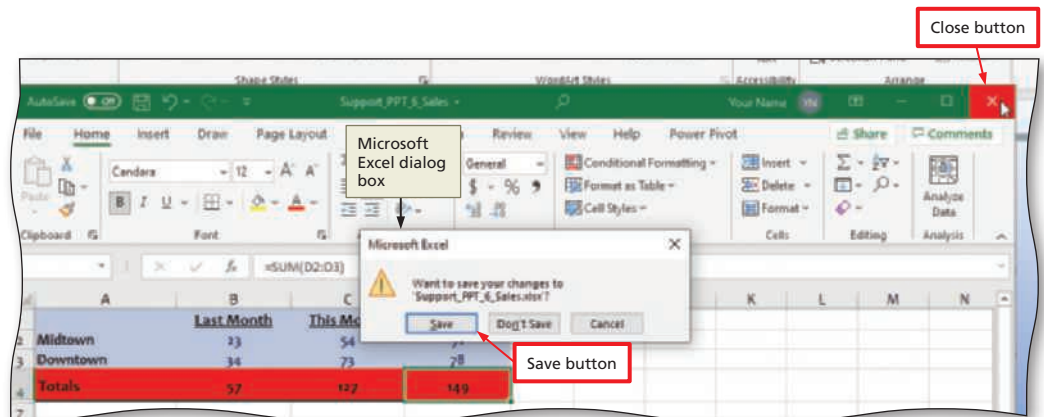


Figure 6-57

- If necessary, click Save (Microsoft Excel dialog box) to save your edited numbers in the worksheet and display Slide 3 with the three updated figures in the table (Figure 6–58).

	Last Month	This Month	Projected
Midtown	23	54	71
Downtown	34	73	78
Totals	57	127	149

Figure 6–58

Q&A What would occur if I clicked Don't Save in the dialog box instead of Save?
The new figures in cells B3 and B4 would not be updated in the Excel spreadsheet.

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Heart file is saved and then you can exit PowerPoint. To resume later, start PowerPoint, open the file called SC_PPT_6_Heart, and continue following the steps from this location forward. Note: PowerPoint will prompt you to update any files you modified.

Copying and Modifying a Linked Excel Chart

The Excel table you inserted into Slide 3 is a linked object. You added data to the table using the Excel source program, and that change is reflected on the PowerPoint slide and in the original Excel document. Now you will insert and then modify an Excel chart on Slide 4. The personal trainers have tracked the average times males and females have spent in each of the five exertion zones and used this data to develop this chart. This object will be linked, so any changes you make to the layout, legend, or background will be reflected in the destination object on the slide and in the original Excel worksheet.

In the following steps, you will perform these tasks on Slide 4:

1. Copy an Excel chart.
2. Align the chart.
3. Switch rows and columns.
4. Change the chart type.
5. Apply a style.
6. Add and format axis titles.
7. Add a chart title.
8. Edit data.

To Copy an Excel Chart

The chart you want to insert into your slide show was created in Excel. The file consists of two sheets: one for the chart and another for the numbers used to create the chart. The chart is on Sheet1. One method of placing this chart into a PowerPoint presentation is to copy this object from the Excel worksheet and then paste it into a slide. The following steps copy and link a chart from Sheet1 of the Excel file using the destination formatting. **Why?** Copying and linking allows you to modify the chart content easily. You want to use the destination formatting so the chart uses the Dividend theme colors and styles.

1

- Display Slide 4 and then delete the title and content placeholders.

2

- Click the File Explorer app button on the taskbar to make the File Explorer window the active window. Navigate to the location where your Data Files are stored and then point to the Support_PPT_6_Zone_Comparison Excel file in the Name list (Figure 6–59).

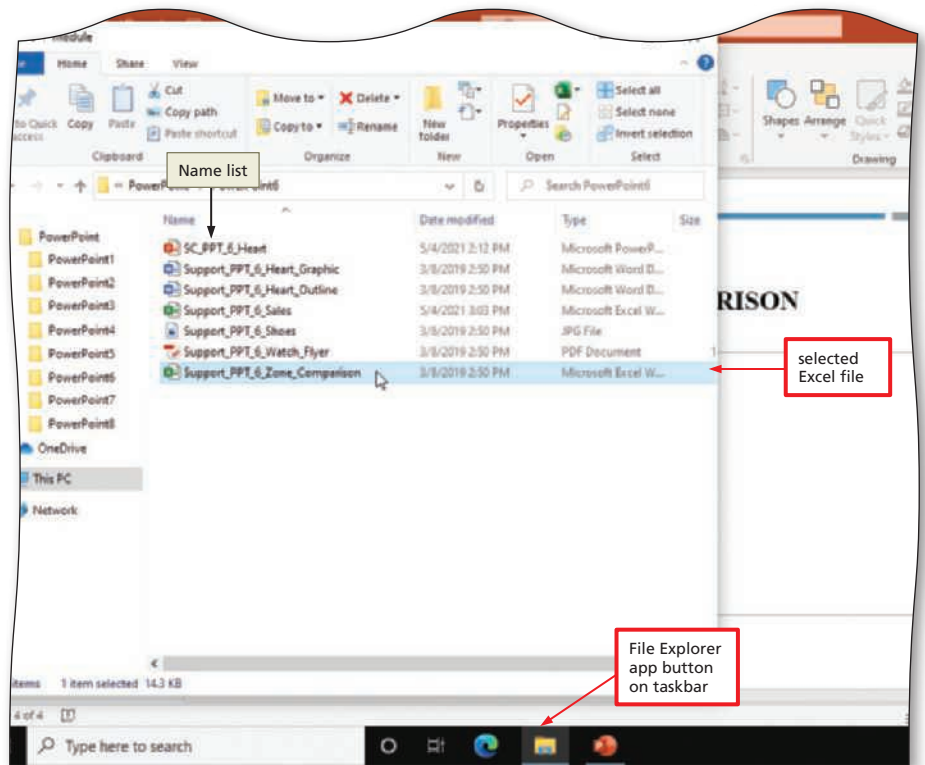


Figure 6–59

3

- Double-click the Support_PPT_6_Zone_Comparison file to run Excel. If necessary, display the chart on Sheet1.
- Click a blank area above the chart legend in the Chart Area to select the entire chart.
- Click the Copy button (Home tab | Clipboard group) to copy the chart to the Office Clipboard (Figure 6–60).

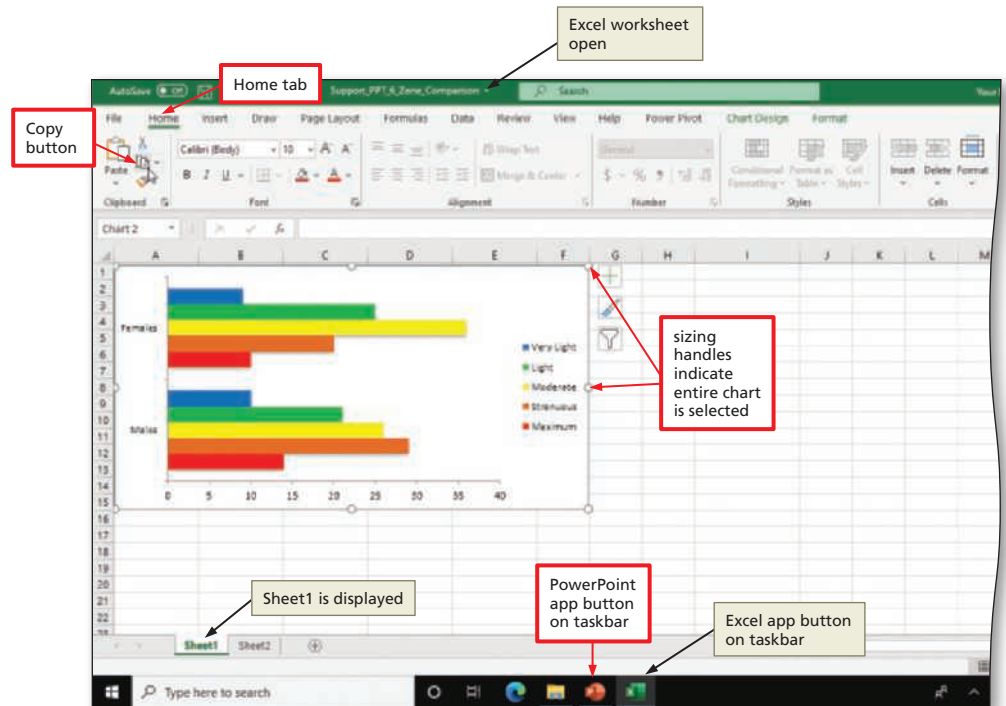


Figure 6–60

4

- Click the PowerPoint app button on the taskbar to make the PowerPoint window the active window. With Slide 4 and the Home tab displayed, click the Paste arrow (Home tab | Clipboard group) to display the Paste Options gallery.
- Point to the 'Keep Source Formatting & Link Data' button to display a live preview of the chart in the slide (Figure 6-61).

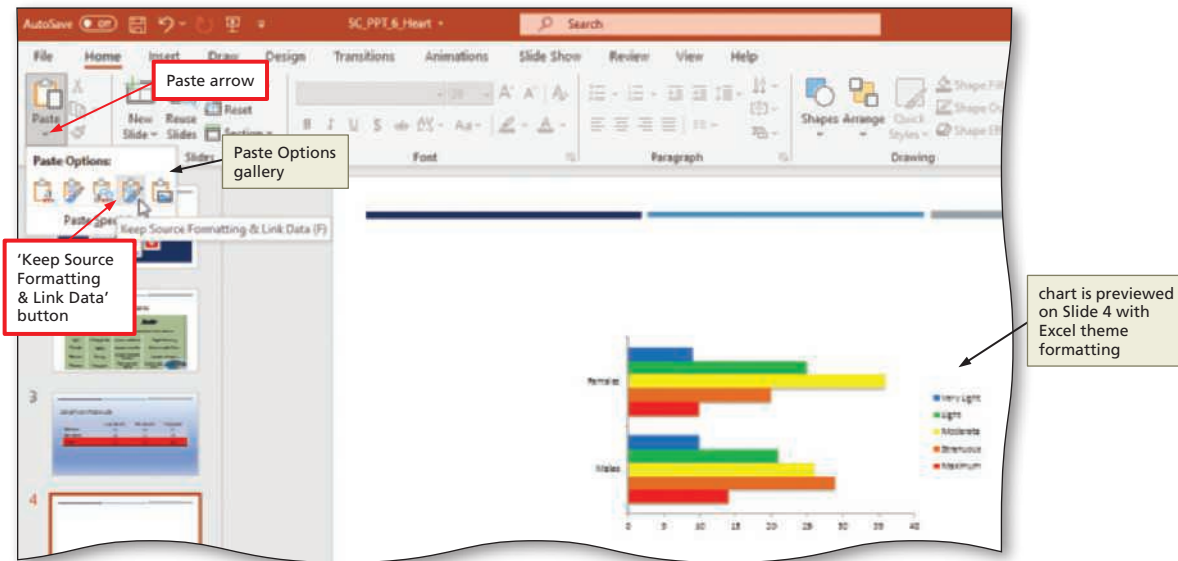


Figure 6-61

Q&A Why did I click the Paste arrow instead of the Paste button?

You want to use the colors and style of the chart on Sheet1 of the Excel workbook (the source theme), so you need to display the Paste Options gallery to make that choice and to link the chart to the original Excel file. If you had clicked the Paste button, you would have embedded the chart using PowerPoint's Dividend theme (the destination theme).

Experiment

- Point to the 'Use Destination Theme & Link Data' button in the Paste Options gallery to display a live preview of the chart with the Dividend theme applied.

5

- Click the 'Keep Source Formatting & Link Data' button to paste the chart into Slide 4.
- If the Design Ideas pane opens, close it.

Other Ways

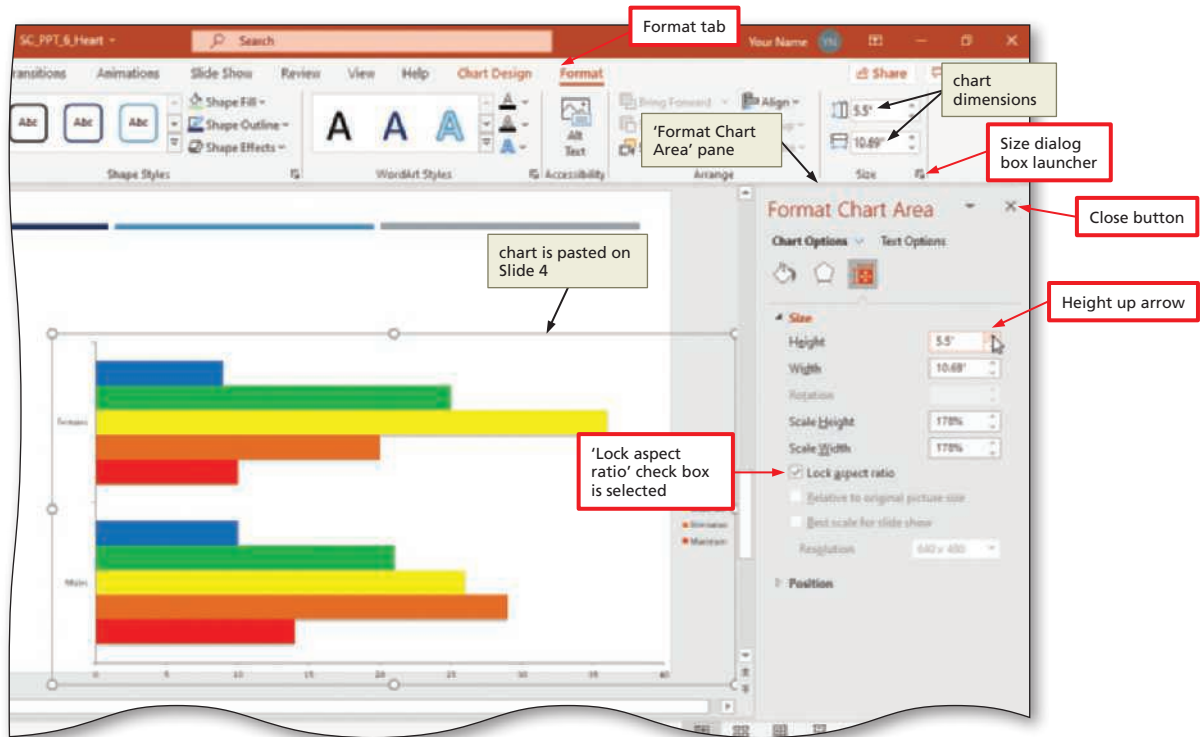
1. Right-click Excel chart, click Copy, exit Microsoft Excel, click Paste arrow (Home tab | Clipboard group), click 'Keep Source Formatting & Link Data'

To Resize a Chart Proportionally

If you want to enlarge or reduce a chart, or change its proportions, you can resize this object in the same manner that you resize a SmartArt graphic or any other graphical object. When you proportionally resize, you select the Lock Aspect Ratio box. The following steps resize the Slide 4 chart proportionally. **Why?** You want to maintain the same ratio between the height and width.

1

- Display the Format tab, click the Size dialog box launcher to display the 'Format Chart Area' pane, select the 'Lock aspect ratio' check box to check the box, and then click the Height up arrow to change the chart height to 5.5" (Figure 6–62).


Figure 6–62
2

- Close the Format Chart Area pane.

To Align a Chart

Although you can drag the chart on the slide to realign it manually, you also can use PowerPoint commands to align the object horizontally in the left, center, or right areas of the slide, and vertically in the top, middle, or bottom of the slide. The following steps align the chart horizontally and vertically on Slide 4. **Why?** You aligned the table on Slide 3 horizontally and vertically. Likewise, you want to align the chart on Slide 4 so that it is displayed in an appropriate location on the slide.

1

- With the chart selected and the Format tab displayed, click the Align button to display the Align Objects menu (Figure 6–63).

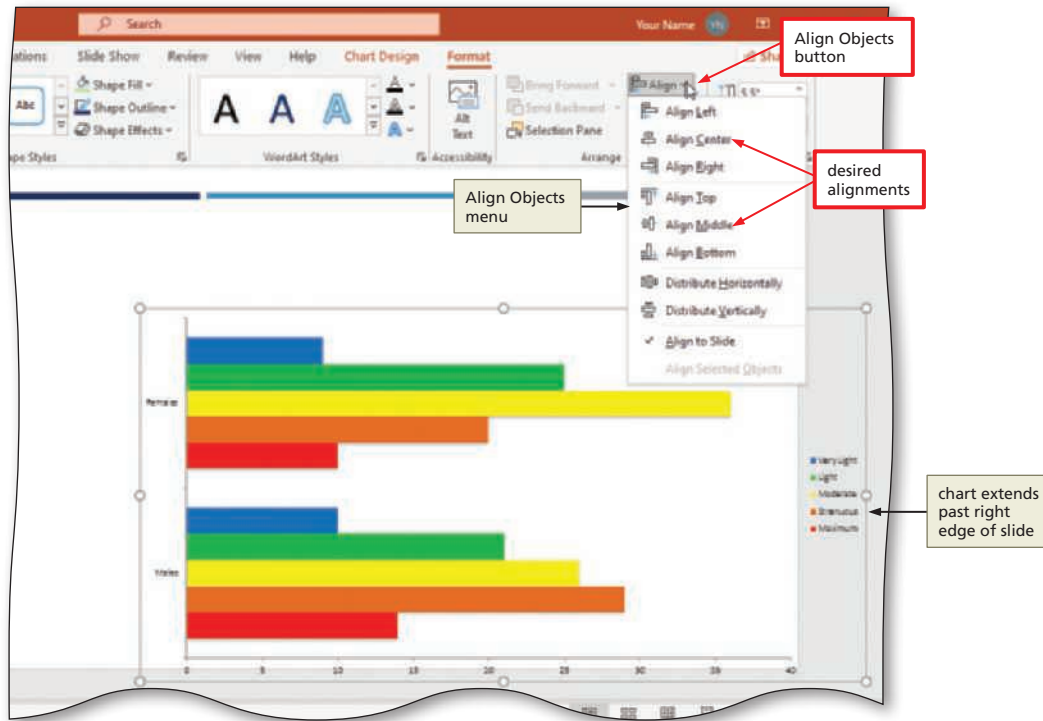


Figure 6-63

2

- Click Align Center on the Align Objects menu to position the chart in the center of the slide.
- Click the Align button and then click Align Middle to position the chart in the middle of the slide (Figure 6-64).

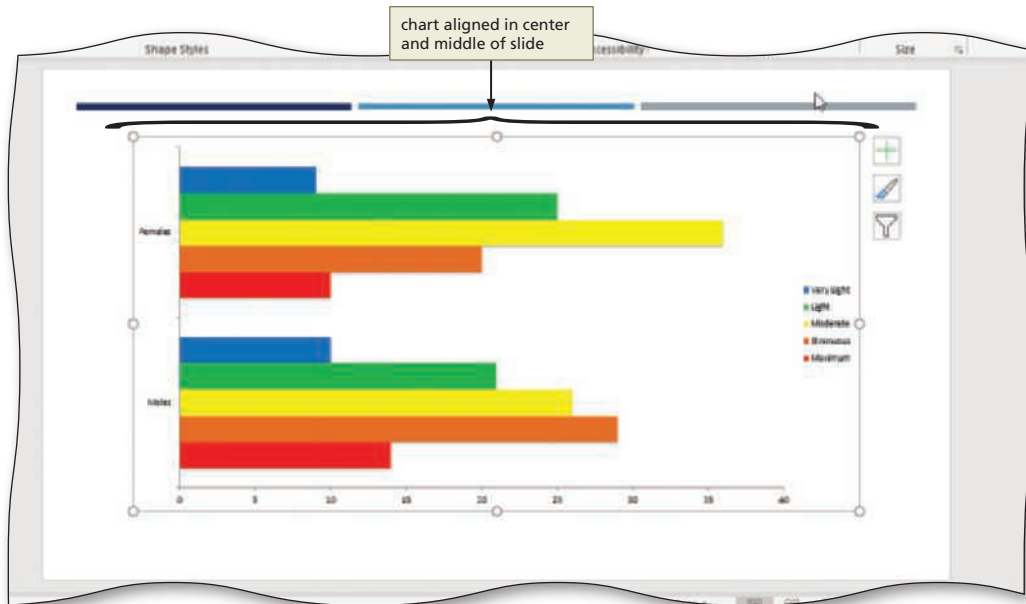


Figure 6-64

To Switch Chart Rows and Columns

Excel created the chart on Slide 4 (Sheet1 in the Excel file) based on the values in the worksheet on Sheet2 of the Excel file. The scale is based on the values in the **y-axis**, which also is called the **vertical axis** or **value axis**. The titles along the **x-axis**, also referred to as the **horizontal axis** or **category axis**, are derived from the top row of the Sheet2 worksheet and are displayed along the left edge of the chart. Each bar in the chart has a specific color to represent one of the five exertion zones—very light, light, moderate, strenuous, and maximum—grouped by females and males. You can switch the data in the chart so that the male and female average times display together in each zone. **Why?** Audience members may be interested in comparing variations between the males and females as their heart rates change in each zone. The following step switches the rows and columns in the chart.

1

- Display the Chart Design tab on the ribbon.
- Click the Switch Row/Column button (Chart Design tab | Data group) to swap the data charted on the x-axis with the data on the y-axis (Figure 6–65).

Q&A If the Switch Row/Column button is dimmed, how can I switch the data? Be certain the Excel worksheet is open. The button is active only when the worksheet is open.

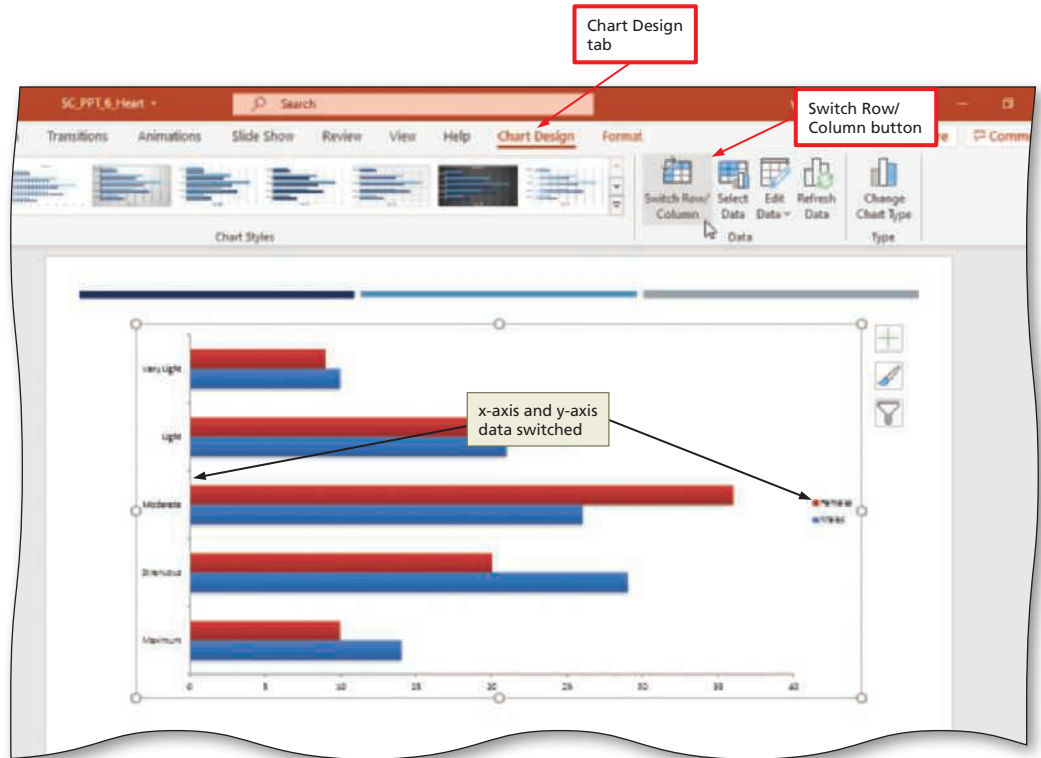


Figure 6–65

To Change the Chart Type

The bar chart represents data horizontally for each of five exertion zones. You can change the chart appearance by selecting another type in the Change Chart Type dialog box. The sample charts are divided into a variety of categories, including column, line, pie, and bar. The clustered column type that you want to use in the presentation is located in the Column area, which has seven layouts. The following steps change the chart to a 3-D Clustered Column chart type. **Why?** The vertical bars show the average time spent in each zone, and the 3-D effect adds an interesting visual element.

1

- Click the 'Change Chart Type' button (Chart Design tab | Type group) to display the 'Change Chart Type' dialog box.
- Click Column in the left pane ('Change Chart Type' dialog box) to display a Clustered Column thumbnail (Figure 6–66).

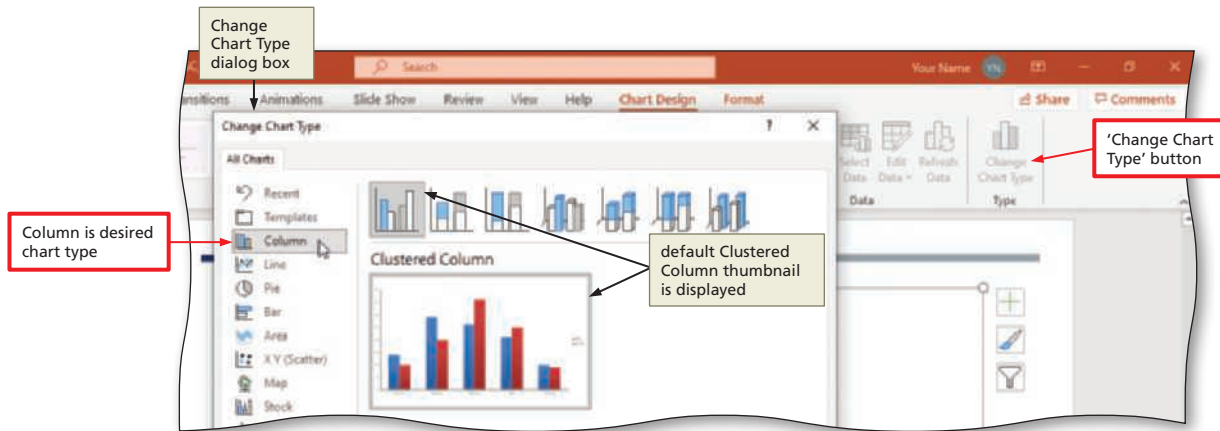


Figure 6-66

- 2**
- Click the '3-D Clustered Column' chart (fourth chart) to select this chart type and display a thumbnail with a 3-D effect (Figure 6-67).

Q&A Can I see a larger preview of the chart?
 Yes. You can point to the chart to enlarge the preview.

- 3**
- Click OK ('Change Chart Type' dialog box) to change the chart type to 3-D Clustered Column.

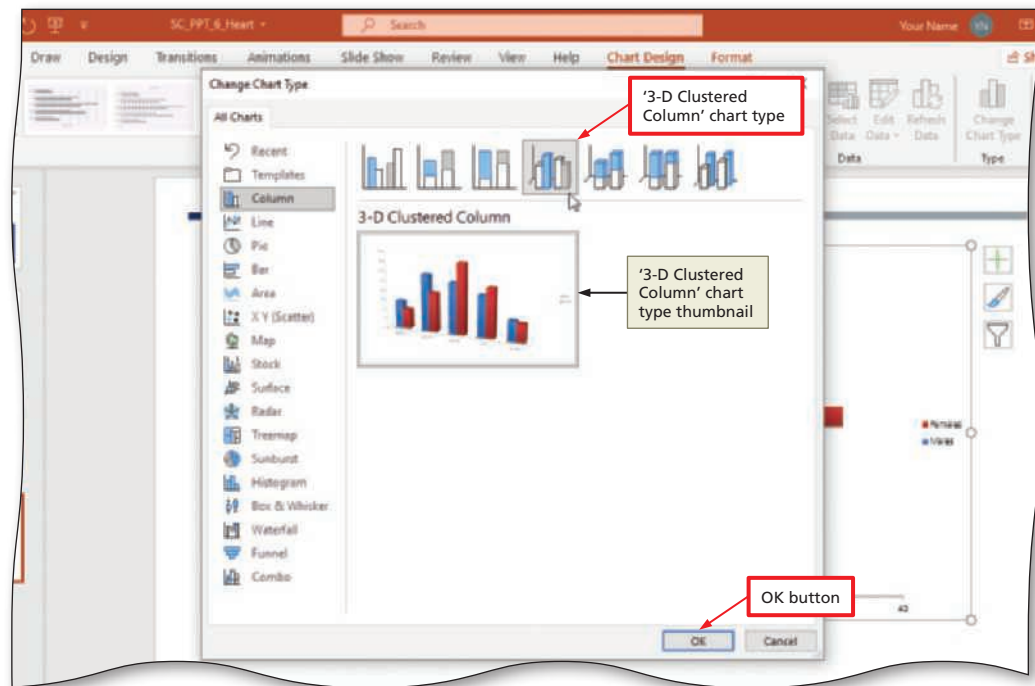


Figure 6-67

TO CHANGE THE CHART TYPE TO PIE AND EXPLODE A PIE CHART SLICE

Pie charts are a popular method of showing how individual amounts contribute to a total amount. Each pie slice represents the size or percentage of that slice relative to the entire pie. You can emphasize an individual slice of the pie by moving, or exploding, it outward. If you wanted to change the 3-D Clustered Column chart on your slide to a pie chart and then explode a particular slice, you would perform the following steps.

1. Click the 'Change Chart Type' button (Chart Design tab | Type group) to display the 'Change Chart Type' dialog box.
2. Click Pie in the left pane.
3. Click OK.
4. Double-click the slice you want to explode and then drag that slice away from the center of the chart.

To Exclude Data in a Chart

If you have multiple categories (which display in the x-axis) or series (which display in the legend) of data and want to exclude one or more of them from displaying, you can instruct PowerPoint to exclude data elements. If you wanted to exclude a particular category or series, you would perform the following steps.

1. Click the Chart Filters button (funnel icon) on the right side of the chart to display a pane with each data element.
2. Clear the check boxes of the elements you want to exclude on the chart.
3. To display an excluded data element, select the check box.

To Change the Chart Layout

The styles available in the Quick Layout gallery show various chart elements, including the chart title, legend, horizontal and vertical axes, data labels, and gridlines. The following steps change the layout of the chart. **Why?** You can modify the chart's appearance easily by selecting a predefined layout.

1

- Click the Quick Layout button (Chart Design tab | Chart Layout group) to display the Quick Layout gallery.
- Point to Layout 4 (first layout in second row) to display a live preview of the layout in the slide (Figure 6–68).



Figure 6–68

Experiment

- Point to various chart layouts and watch the layouts change.

2

- Click Layout 4 in the Quick Layout gallery to apply the layout to the chart.

BTW

Displaying Gridlines

Gridlines can help you align charts, shapes, and other objects on slides. To show the gridlines, display the View tab and then select the Gridlines check box (View tab | Show group).

To Apply a Style to a Chart

The styles available in the Chart Styles gallery have a variety of colors and backgrounds and display in both 2-D and 3-D. The following steps apply a style to the chart. **Why?** You can modify the chart's appearance easily by selecting a predefined style.

1

- Click the Chart Style button (paintbrush icon) on the right side of the chart area to display the Chart Style gallery with the Style tab displayed.
- Scroll down until Style 11 is displayed in the Chart Style gallery and then point to this style to see a live preview on Slide 4 (Figure 6–69).

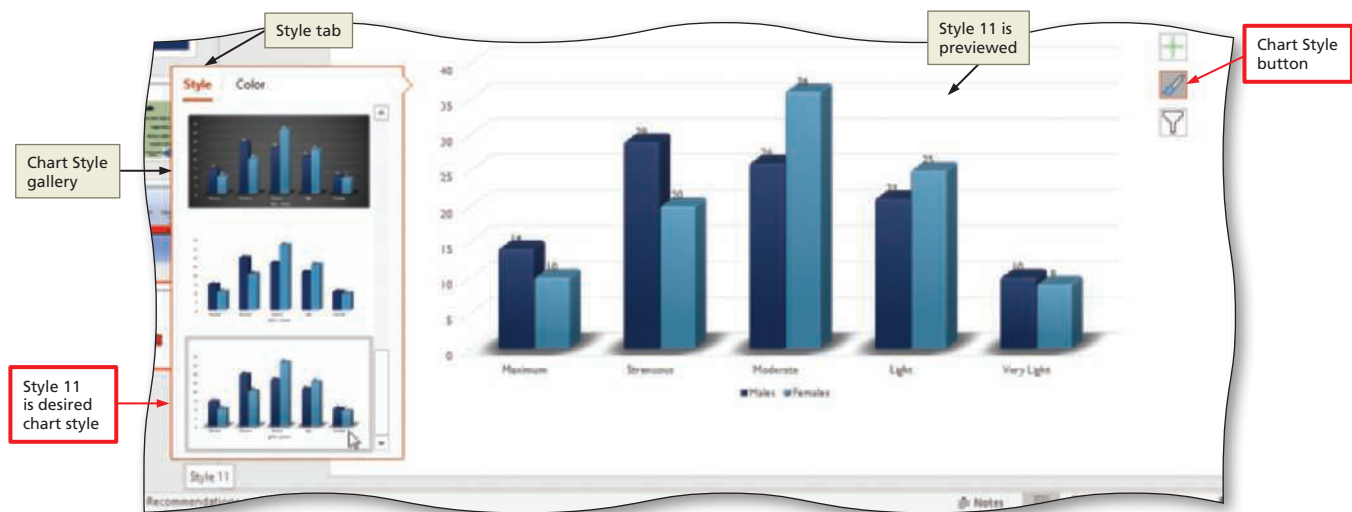


Figure 6–69

Experiment

- Point to various chart styles and watch the layouts change.

2

- Click Style 11 in the Chart Style gallery to apply the chart style to the chart.

To Change Chart Colors

You can modify a chart's colors easily by selecting one of the color groups available in the Chart Color gallery. These colors are grouped in two categories: Colorful and Monochromatic. For a unique look, PowerPoint also allows you to create a custom color combination. The following steps change the chart colors. **Why?** The two columns in the chart have very similar colors, so you want to distinguish the males' and the females' average times in each zone by changing to a color scheme with more contrast.

1

- With the Chart Style gallery still displayed, click the Color tab at the top of the pane to display the Chart Color gallery.
- Point to 'Colorful Palette 4' (fourth row in the Colorful area) to display a live preview of the layout in the slide (Figure 6–70).

Experiment

- Point to various color groups and watch the chart colors change.

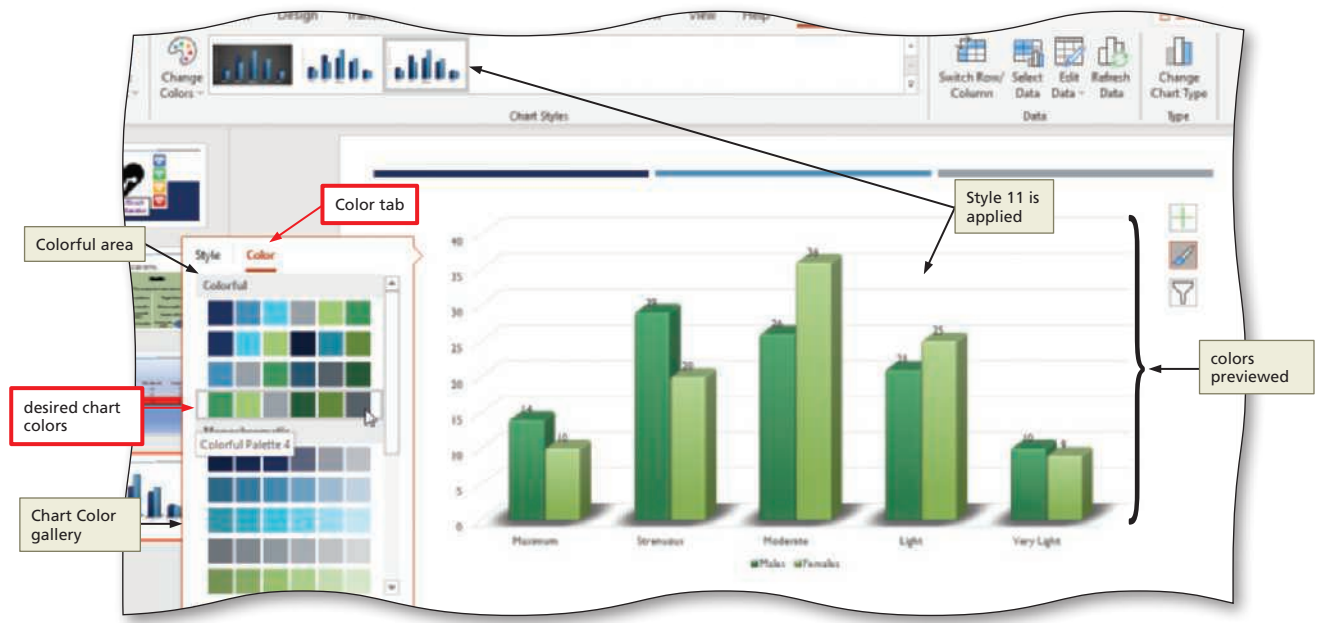


Figure 6-70

2

- Click 'Colorful Palette 4' to apply these colors to the chart.

Other Ways

1. Click Change Colors button (Chart Design tab | Chart Styles group)

To Add an Axis to a Chart

The legend below the chart identifies the colors assigned to each of the bars. You can modify the default legend in a variety of ways, including moving its location, changing the fill and outline, adding an effect, and changing the font. The Chart Elements button on the right side of the chart area allows you to display or hide a chart element. When you click this button, the Chart Elements pane is displayed. A check mark appears in the check box for each chart element that is displayed. You can check and uncheck each chart element to display or hide axes, the chart title, labels, gridlines, and the legend. The following steps display the axis titles and then format the text. **Why?** You want your audience to recognize that the y-axis represents the average minutes in each zone and the x-axis represents the exercise zones.

1

- Click the Chart Elements button (plus sign icon) on the right side of the chart area to display the Chart Elements pane.
- Select the Axis Titles check box to display the two default titles for the x and y axes (Figure 6-71).

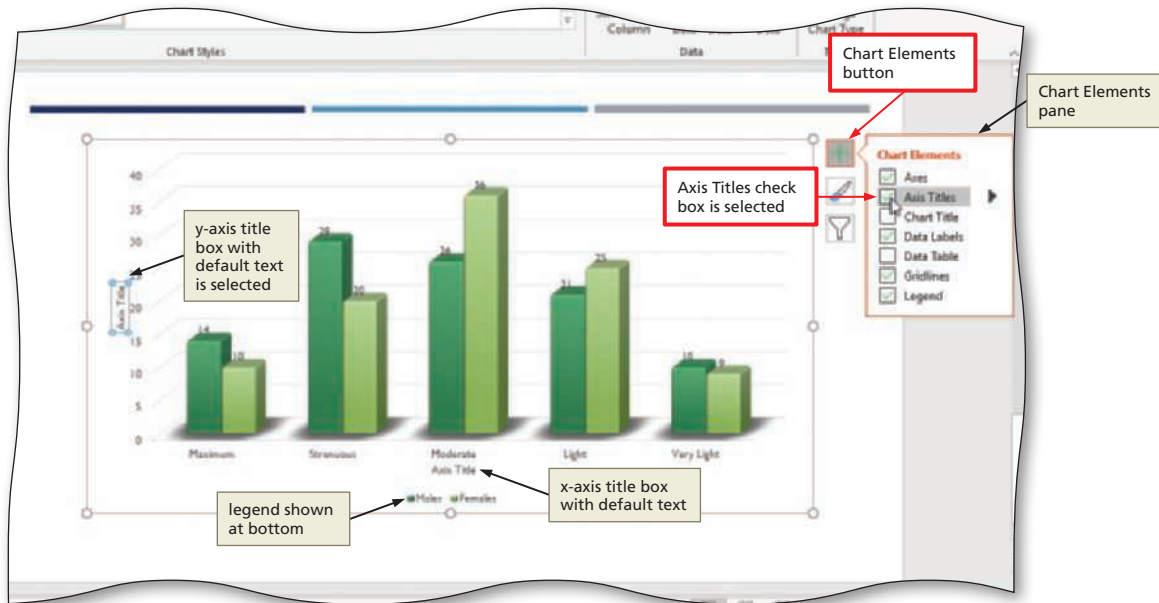


Figure 6-71

2

- With the default y-axis title box selected, delete the default text and then type **Average Minutes in Each Zone** in the text box.
- Select the text and then increase the font size to 18 point and bold the text.

3

- Click the x-axis title to select it, delete the default text, and then type **Exercise Zone** as the replacement text.
- Select the text and then increase the font size to 18 point and bold the text (Figure 6-72).

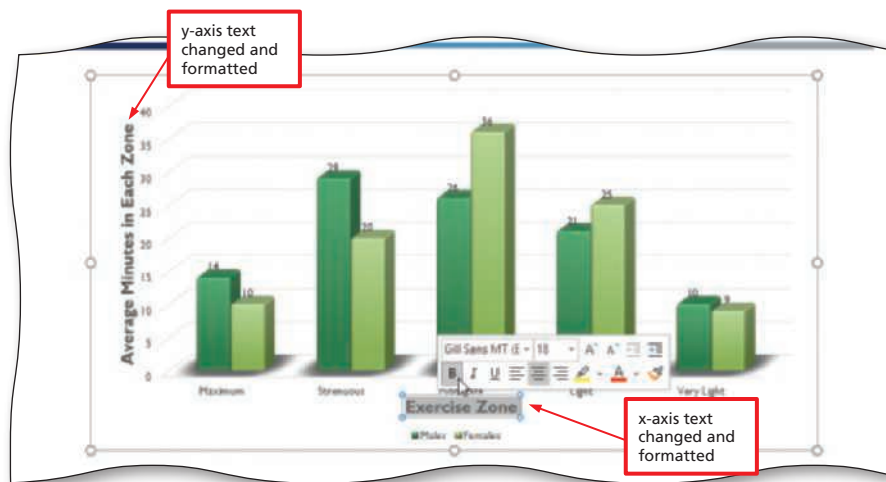


Figure 6-72

Other Ways

1. Click Add Chart Element button (Chart Design tab | Chart Layouts group), click Axis Titles

To Add Data Labels to a Chart

The figures at the top of each bar in the Slide 4 chart are called **data labels**. They show the exact amount of average minutes the groups have exerted in each exercise zone. Data labels help audience members understand a chart's content by showing details about the data series. The data labels are included in the Layout 4 design. If, however, you had selected a layout without data labels, you would perform the following steps to display them.

1. Click the Chart Elements button on the right side of the chart area to display the Chart Elements pane.
2. Select the Data Labels check box to display the labels.
3. Click the Data Labels arrow to display more details or to format the labels.

Other Ways

1. Click Add Chart Element button (Chart Design tab | Chart Layouts group), click Data Labels

To Add Gridlines to a Chart

The eight horizontal lines along the left side and behind the bars in the Slide 4 chart are called **gridlines**. They extend from the horizontal and vertical axes across the plot area of the chart and provide visual cues. The gridlines are included in the Layout 4 design. If, however, you had selected a layout without data labels, you would perform the following steps to display them.

1. Click the Chart Elements button on the right side of the chart area to display the Chart Elements pane.
2. Select the Gridlines check box to display this chart element.
3. Click the Gridlines arrow to display more gridlines or to format the lines.

To Add a Legend to a Chart

When you create a chart, the legend is displayed automatically. A **legend** identifies the colors assigned to each data element in the chart. In the chart on Slide 4, for example, the legend shows that the dark green bar represents the males' average minutes in each zone and the light green bar represents the females' average minutes. The legend is included in the Layout 4 design. If, however, you had selected a layout without a legend, you would perform the following steps to display this chart element.

1. Click the Chart Elements button on the right side of the chart area to display the Chart Elements pane.
2. Select the Legend check box to display this chart element.
3. Click the Legend arrow to specify where the legend should appear.
4. Click More Options to format the legend by adding borders; a fill; and effects such as a shadow, glow, or soft edges.

BTW

Embedding Fonts

If you plan to show your presentation using a computer other than yours, consider embedding the fonts to ensure that the fonts on your slides will be available. To embed the fonts, display the Save As dialog box, click the Tools button, click Save Options, select the 'Embed fonts in the file' check box in the Preserve fidelity when sharing this presentation area (PowerPoint Options dialog box), and then click the OK and Save buttons.

BTW

Adding Gridlines and a Legend

Another method of displaying chart gridlines and a legend is to click the Add Chart Element button (Chart Design tab | Chart Layouts group) and then click the Gridlines or the Legend button.

To Add a Title at a Specified Position in a Chart

The default chart does not have a title, but you easily can add this element and specify where you want it to appear on the slide. The following steps add the text box for the chart title and display above the moderate zone. **Why?** A title on Slide 4 would help audience members recognize the purpose of presenting this information.

1

- Click the Add Chart Element button (Chart Design tab | Chart Layouts group) to display the Add Chart Element menu.
- Point to Chart Title to display the Chart Title gallery (Figure 6–73).

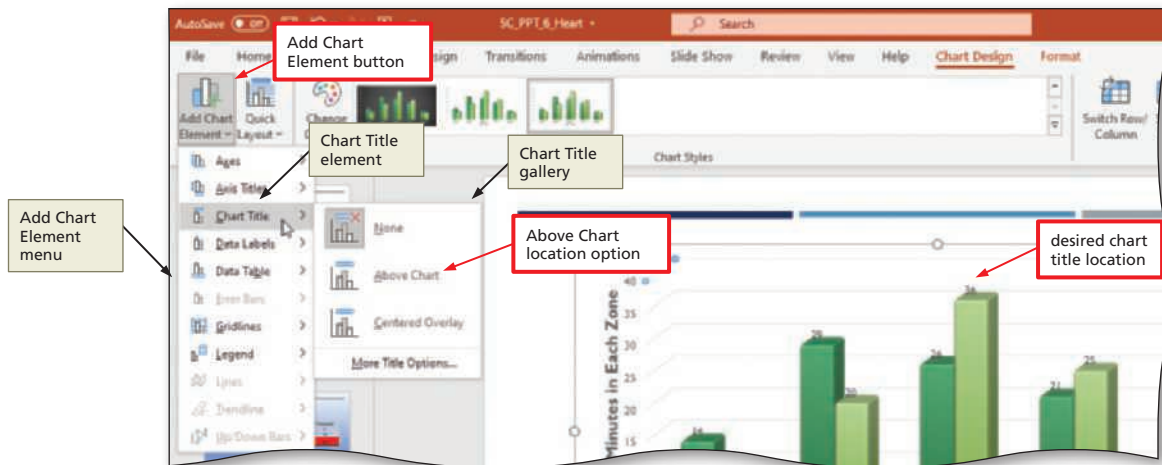


Figure 6–73

2

- Click Above Chart to display the default chart title.
- Click the title text to select it, delete the default text, and then type **Heart Rate Distribution** as the replacement text.
- Select the text and then increase the font size to 32 point (Figure 6–74).

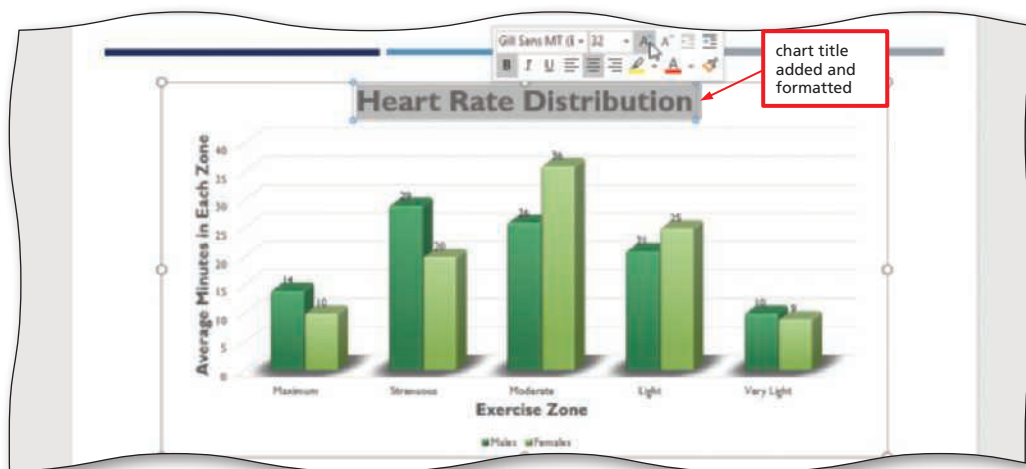


Figure 6–74

Other Ways

1. Click Chart Elements button on right side of chart, click Chart Title check box to select it, click Chart Title arrow

To Add a Border to a Chart Element

You can modify chart elements in a variety of ways, including adding borders and changing the border color. The following steps add a border to the chart title and then change the color and width. **Why?** Adding a border will call attention to the title text and help audience members understand the chart's purpose.

1

- With the chart title still selected, right-click to display the shortcut menu (Figure 6–75).

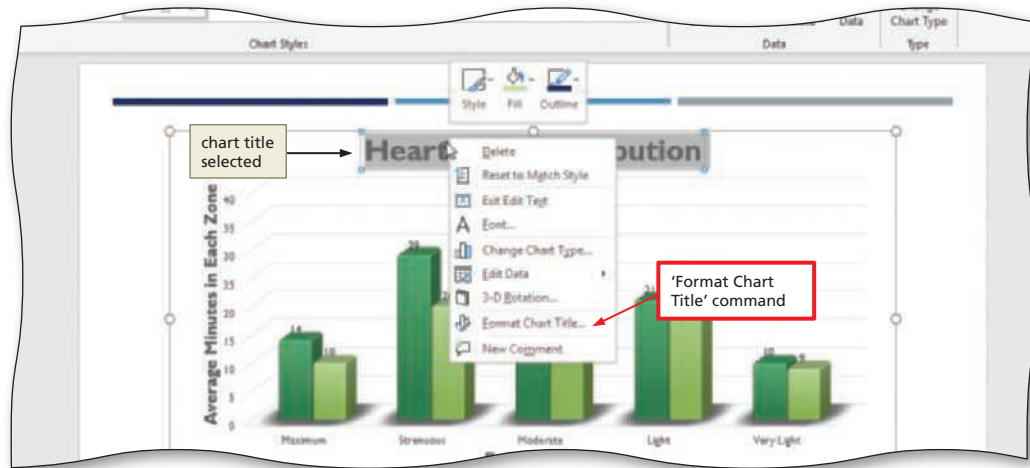


Figure 6–75

2

- Click 'Format Chart Title' to display the 'Format Chart Title' pane. If necessary, click the 'Fill & Line' button and then, if necessary, click Border to display the Border area. Scroll down to display the Border area.
- Click Solid line and then, if necessary, scroll down and then click the Color button to display the Color gallery (Figure 6–76).

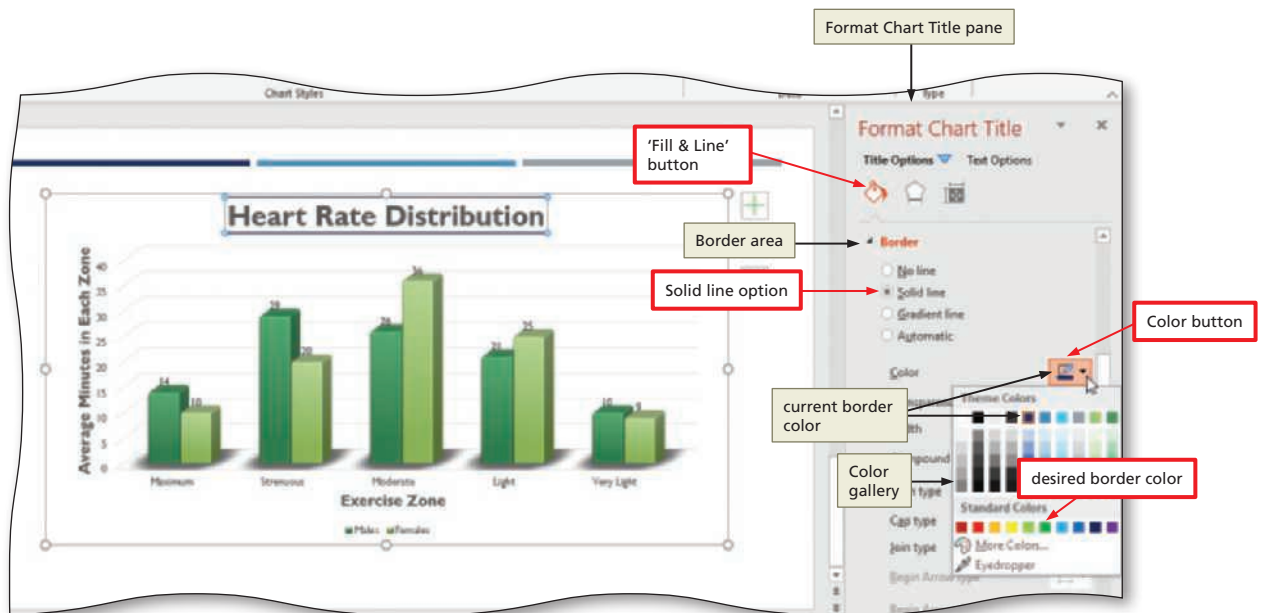


Figure 6–76

3

- Click Green (sixth color in Standard Colors row) to change the legend border line color.
- Click the Width up arrow several times to increase the line width to 2 pt (Figure 6–77).

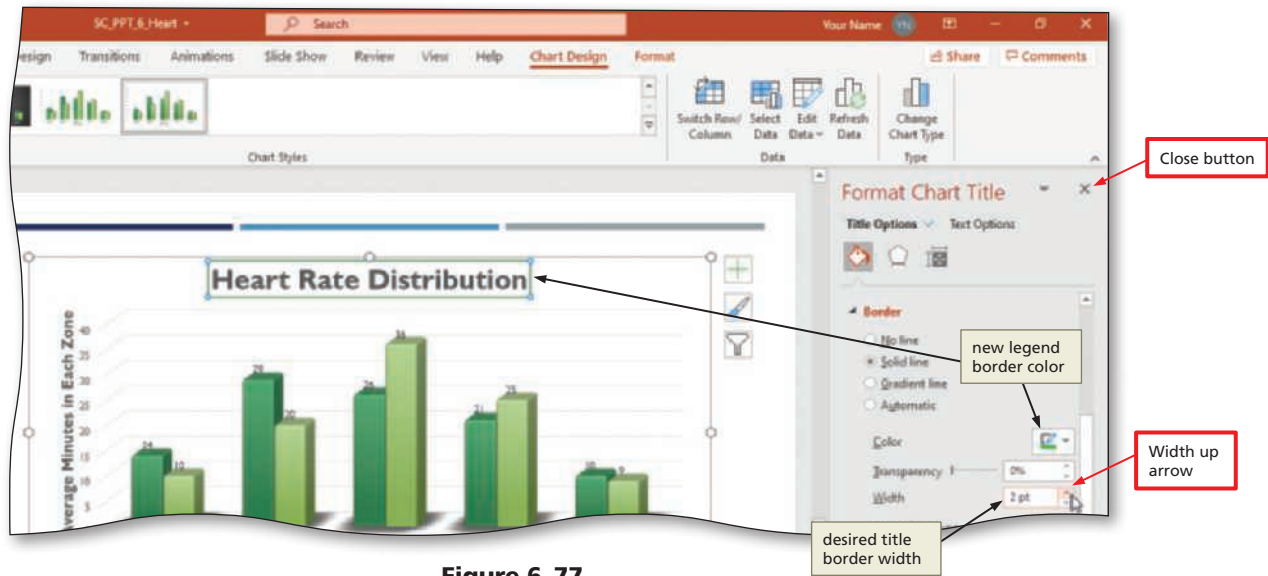


Figure 6–77

Q&A | Is a live preview available?
No, this feature is not offered.

4

- Click Close ('Format Chart Title' pane).

Other Ways

1. Click Chart Elements button on right side of chart, click Chart Title, click Chart Title arrow, click More Options, click Solid Line, choose color

To Edit the Source File of a Linked Chart

The data in Sheet2 of the worksheet is used to create the chart on Slide 4. If you edit this data, the corresponding bars in the chart change height to reflect new numbers. The chart is a linked object, so when you modify the data and close the worksheet, the chart will reflect the changes and the original file stored in your Data Files also will change. The following steps edit three cells in the worksheet. **Why?** The fitness trainers have seen increased interest in purchasing heart rate monitors, so they project sales will be higher than expected next month. You want to update your chart and the Excel worksheet with this information.

1

- With the Chart Design tab displayed, click the Edit Data button (Chart Design tab | Data group) to display Excel.
- Display Sheet2 of the worksheet.

Q&A | Sheet1 is displayed. How do I display Sheet2?
Click the Sheet2 tab at the bottom of the worksheet.

Q&A Why might I want to click the Edit Data arrow instead of the Edit Data button?

You would be given the option to run Microsoft Excel and then edit the worksheet using that app. More options would be available using Excel. If you simply need to edit data, you can perform that task easily using PowerPoint.

2

- Click cell B2 (Maximum time for Males) to make cell B2 the active cell (Figure 6–78).

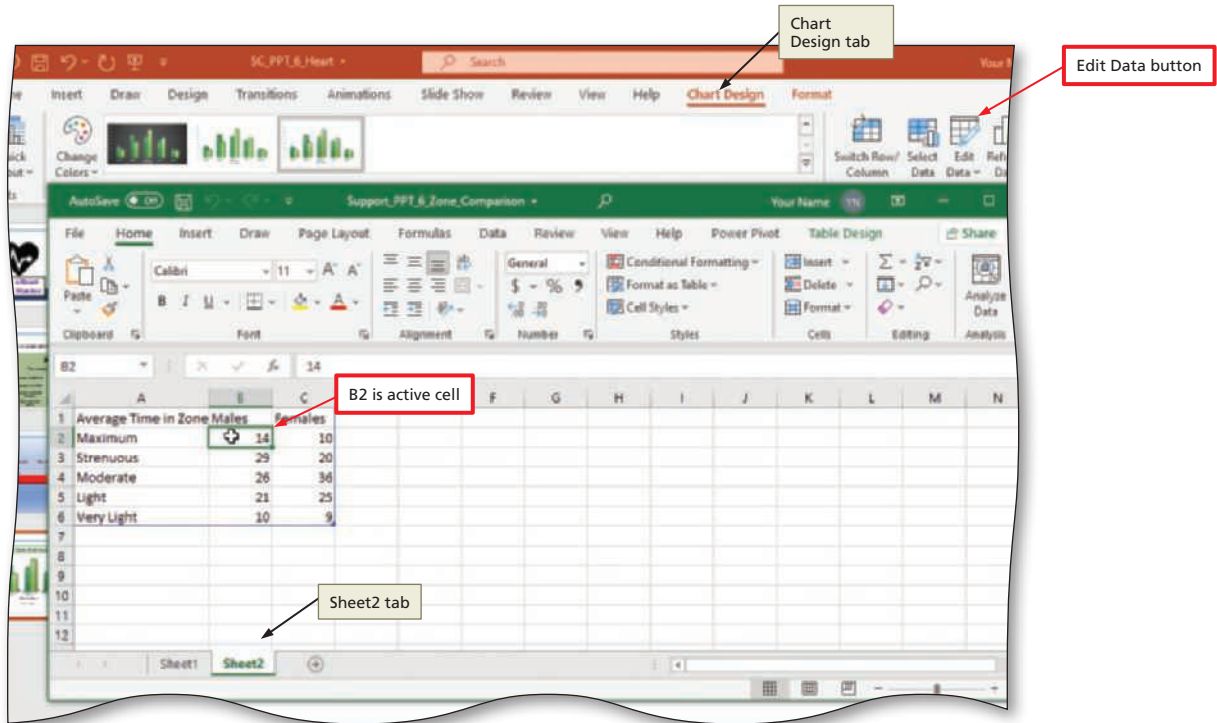


Figure 6–78

3

- Type 19 as the replacement number and then press DOWN ARROW to make cell B3 (Strenuous time for Males) the active cell.
- Type 24 as the replacement number and then press RIGHT ARROW to make cell C3 (Strenuous time for Females) the active cell.
- Type 22 as the replacement number and then press DOWN ARROW to make cell C4 (Moderate time for Females) the active cell.
- Type 34 as the replacement number and then press ENTER (Figure 6–79).

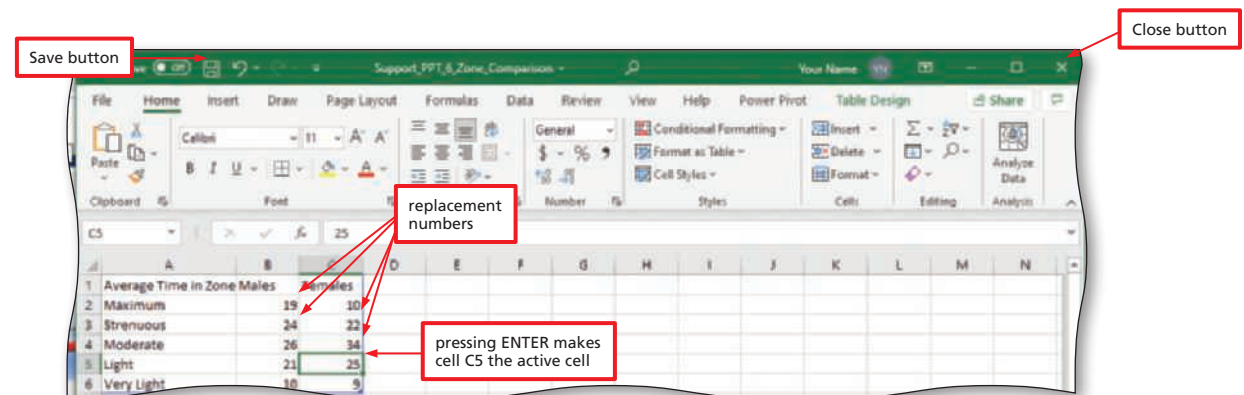


Figure 6–79

4

- If necessary, click Save on the spreadsheet toolbar to save the data to the Excel spreadsheet.
- Click Close on the spreadsheet to close the window and view the updated PowerPoint chart (Figure 6–80).

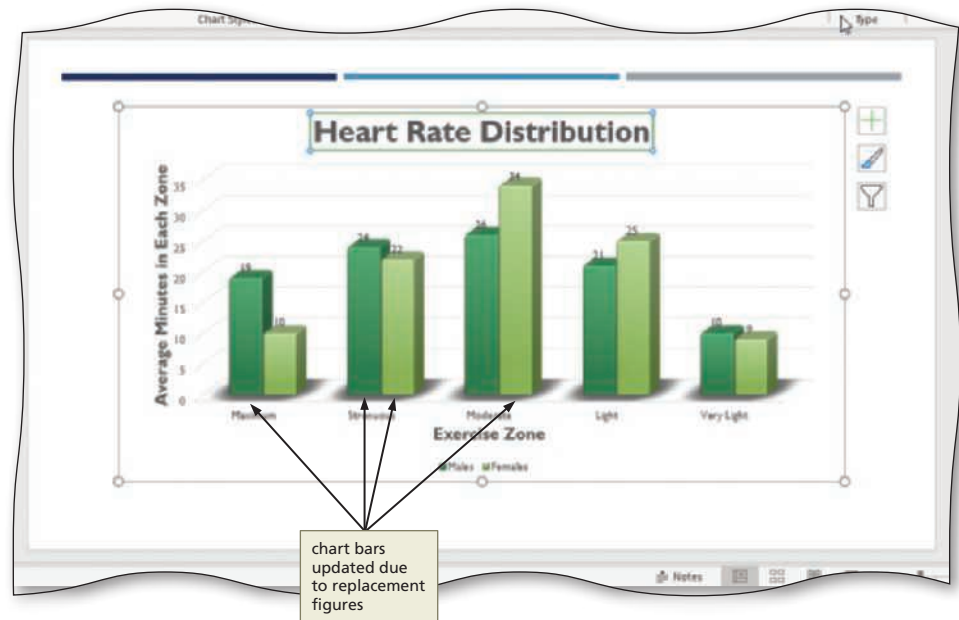


Figure 6–80

BTW

Positioning a Chart or Other Slide Object

At times you might desire to place a table, text box, shape, or other element in a precise location on the slide. To specify a position, right-click the object, click Format Shape on the shortcut menu to display the Format Shape pane, click 'Size & Properties' in the Shape Options tab, if necessary click Position, and then enter the precise measurements of the horizontal and vertical distances from either the top-left corner or the center of the slide.

TO SELECT CHART DATA

Charts always are associated with an Excel-based worksheet and are created from a range of data in a row or column, called a data series. If you want to add, edit, or remove the data used to develop the chart, you need to select a new data series. If you wanted to select this chart data, you would perform the following steps.

1. Select the chart to display the Chart Design tab.
2. Click the Select Data button (Chart Design tab | Data group) to display the chart in PowerPoint and display the 'Select Data Source' dialog box.
3. Click the Legend Entries or the Horizontal Axis Labels check boxes to add, edit, or remove the data series in the chart.
4. Click OK.

To Add a Link to Text

A **hyperlink**, also called a **link**, connects one element on a slide to another slide, presentation, picture, file, webpage, or email address. Presenters use hyperlinks to display these elements to an audience. In this presentation, you will create a hyperlink from title text on Slide 2 to an Adobe PDF file. **Why?** You want to show your audience the flyer they received at the front desk and review the information it contains regarding using heart monitors during workout sessions. When you click this particular text during a slide show, Adobe Acrobat starts and then opens this PDF file. The following steps hyperlink title text to a PDF file.

1

- Display Slide 2 and then select the words, Training Benefits, in the title.
- Display the Insert tab and then click the Link button (Insert tab | Links group) to display the Insert Hyperlink dialog box.

- If necessary, click the 'Existing File or Web Page' button in the Link to area.
- If necessary, click the Current Folder button in the Look in area and then click the Browse button to navigate to the location where your Data Files are stored.
- Click Support_PPT_6_Watch_Flyer.pdf to select this file as the hyperlink (Figure 6–81).

Q&A | **What should I do if I do not see this file in the file list?**
 Click the file type arrow ('Link to File' dialog box) to display the file types and then click 'All Files (*.*)' in the list.

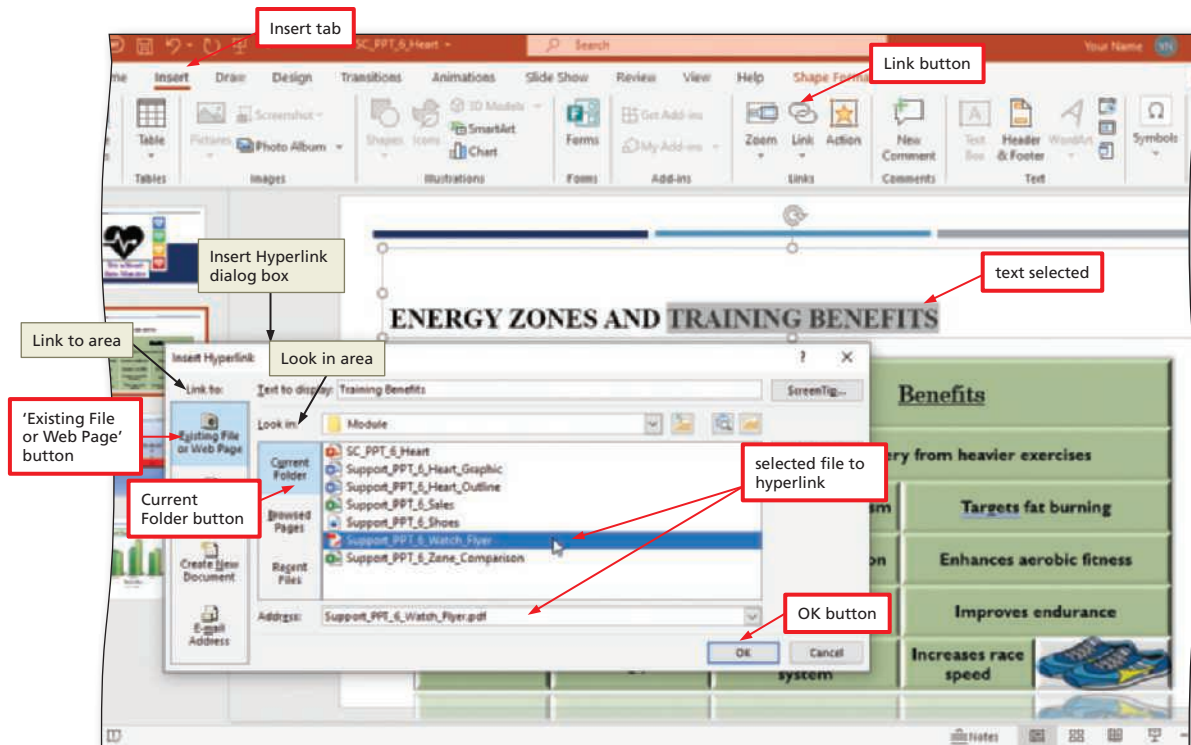


Figure 6–81

- 2**
- Click OK (Insert Hyperlink dialog box) to insert the hyperlink.

Q&A | **How do I remove a hyperlink?**
 Select the text, click the Hyperlink button (Insert tab | Links group), and then click Remove Link (Edit Hyperlink dialog box).

Changing Views

You have been using Normal view to create and edit your slides. Once you completed your slides in projects for previous modules, you reviewed the final products by displaying each slide in Slide Show view, which occupies the full computer screen. You were able to view how the transitions, graphics, and effects will display in an actual presentation before an audience.

PowerPoint has other views to help review a presentation for content, organization, and overall appearance. **Reading view** is similar to Slide Show view because each slide displays individually, but the slides do not fill the entire screen. Using this view, you easily can progress through the slides forward or backward with simple controls at the bottom of the window. Switching between Slide Sorter, Reading, and Normal views helps you review your presentation, assess whether the slides have an attractive design and adequate content, and make sure they are organized for the

most impact. After reviewing the slides, you can change the view to Normal so that you may continue working on the presentation.

You also can display your presentation in **Outline view** to show the titles and main text from each slide. Each title is displayed on the left side of the pane along with a slide icon and slide number. A slide without a title has no text displayed on the right side of the slide number. You can create a presentation in Outline view by typing or copying text.

To Navigate between Slides in Reading View

The following steps change the view from Normal view to Reading view and back to Normal view. **Why?** You want to use Reading view to display all the slides in the presentation in a full screen.

1

- Display Slide 1 and then click the Reading View button on the status bar to display Slide 1 of the presentation in Reading view (Figure 6–82).

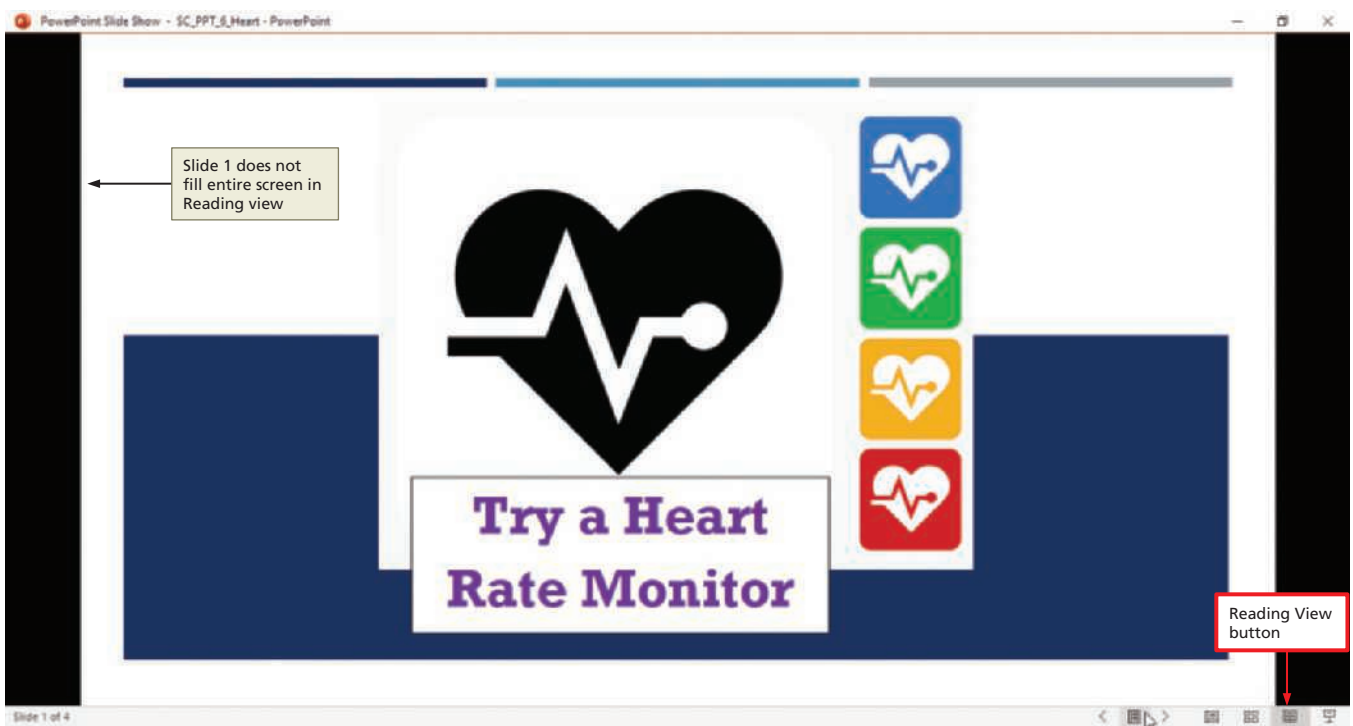


Figure 6–82

2

- Click the Next button three times to advance through the presentation.
- Click the Previous button three times to display Slide 3, Slide 2, and then Slide 1.
- Click the Menu button to display commonly used commands (Figure 6–83).

3

- Click End Show to return to Normal view, which is the view you were using before Reading view.

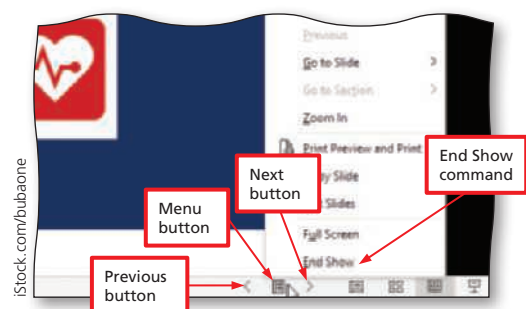


Figure 6–83

To Switch to Outline View

The following step changes the view from Normal view to Outline view. **Why?** You can review the text on your slides without seeing any graphical items.

1

- With Slide 1 displayed, click the View tab and then click the Outline View button (View tab | Presentation Views group) (Figure 6–84).
- If you see a Microsoft PowerPoint dialog box stating, 'Real-time editing is not supported in outline view', click OK to close the dialog box.

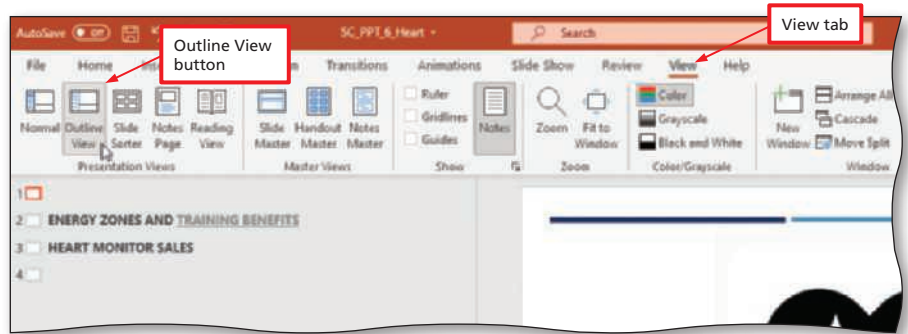


Figure 6–84

To Navigate between Slides in Outline View

The following steps display all four slides in Outline view. **Why?** Using Outline view, you can click a slide icon to display any slide.

1

- Position the pointer on the Slide 2 icon (Figure 6–85).

2

- Press DOWN ARROW to navigate to Slide 2.
- Press DOWN ARROW two times to navigate to Slide 3 and then Slide 4.

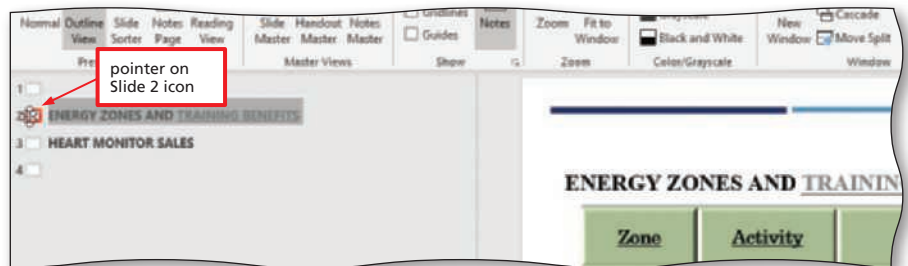


Figure 6–85

To Move a Slide in Outline View

The following steps reverse the order of Slides 2 and 3. **Why?** You desire to change the slide order, which you can do easily in Outline view by dragging the slide icon to the desired location.

1

- Click the Slide 2 icon and then drag the pointer downward between the Slides 3 and 4 icons (Figure 6–86).

2

- Release the mouse to move Slide 2 so that it becomes the new Slide 3.



Figure 6–86

To Enter Text in Outline View

The following steps edit the Slide 3 title text in Outline view. **Why?** You decide that the word, Exertion, rather than Energy, expresses the type of activity occurring in each zone.

- 1 With Slide 3 displayed, select the text, Energy, and then type **Exertion** as the replacement text (Figure 6–87).

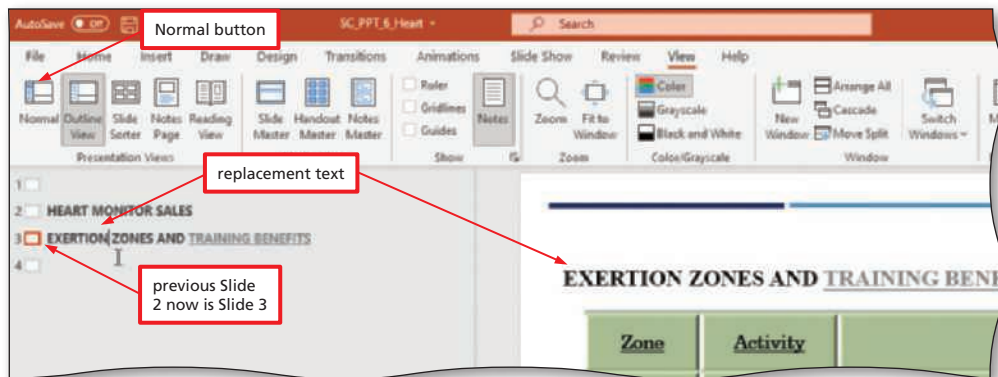


Figure 6–87

- 2 Click the Normal button (View tab | Presentation Views group) (shown in Figure 6–87) to display the slides in Normal view.

Other Ways

1. Click Normal view button on status bar

BTW Printing Document Properties

PowerPoint does not allow you to print document properties. This feature, however, is available in Word.

BTW Conserving Ink and Toner

If you want to conserve ink or toner, you can instruct PowerPoint to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the PowerPoint Options dialog box, clicking Advanced in the left pane (PowerPoint Options dialog box), scrolling to the Print area in the right pane, verifying there is no check mark in the High quality check box, and then clicking OK. Then, use Backstage view to print the document as usual.

To Add a Transition between Slides

The final enhancements you will make in this presentation are to apply a transition, change the transition effect option, and change the transition speed. The following steps apply these transition effects to the presentation.

- 1 Apply the Comb transition in the Exciting category to all slides.
- 2 Change the effect option to Vertical.
- 3 Change the transition speed to 03.00 seconds.

To Run, Print, Save, and Exit PowerPoint

The presentation now is complete. You should run the presentation, view the hyperlinked file, print the slides, save the presentation, and then exit PowerPoint.

- 1 Run the Heart presentation. When Slide 3 is displayed, click Training Benefits in the title text to display the watch flyer document as the hyperlinked file. If the Microsoft PowerPoint Security Notice dialog box is displayed, click Yes, then click OK in the Microsoft Office dialog box, to open the PDF file.
- 2 Review the contents of the watch flyer. Point to the PowerPoint app button on the taskbar to see the PowerPoint window and a live preview of Slide 3.
- 3 Click the thumbnail of Slide 3 to display that slide and then display Slide
- 4 End the slide show. Close the watch flyer document.
- 5 Print the Heart presentation as a handout with two slides per page.
- 6 Save the Heart presentation again with the same file name.
- 7 **save** ↑ Because the project now is complete, you can exit PowerPoint, closing all open documents.

Summary

In this module you have learned how to develop a presentation starting with a Word outline. You then inserted a Word flyer and Excel worksheet and chart. These documents were either embedded or linked, and you edited each of them to make updates. You also drew a table, enhanced and formatted it, and linked an Adobe PDF file to the table. You then altered an Excel object by changing the chart type and layout, applying a style, and adding a title and borders. You reviewed the slides by changing views and then moved a slide and edited text in Outline view.



Consider This: Plan Ahead

What decisions will you need to make when creating your next presentation?

Use these guidelines as you complete the assignments in this module and create your own slide show decks outside of this class.

1. **Use powerful words to accompany the text on your slides.** The slides are meant to enhance your talk by clarifying main points and calling attention to key ideas. Your speech should use words that explain and substantiate your visuals.
 2. **Develop tables that are clear and meaningful.** Tables are extremely useful vehicles for presenting complex relationships. Their design plays an important part in successfully conveying the information to the audience.
 3. **Use appropriate colors when formatting graphics you want people to remember.** Numerous studies have shown that appropriate graphics help audiences comprehend and remember the information presented during a speech. Color has been shown to increase retention by as much as 80 percent. When choosing colors for your graphics, use hues that fit the tone and objective of your message.
-

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Inserting Slides from an Outline, Adding a Link, and Inserting and Formatting a Table and Chart

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

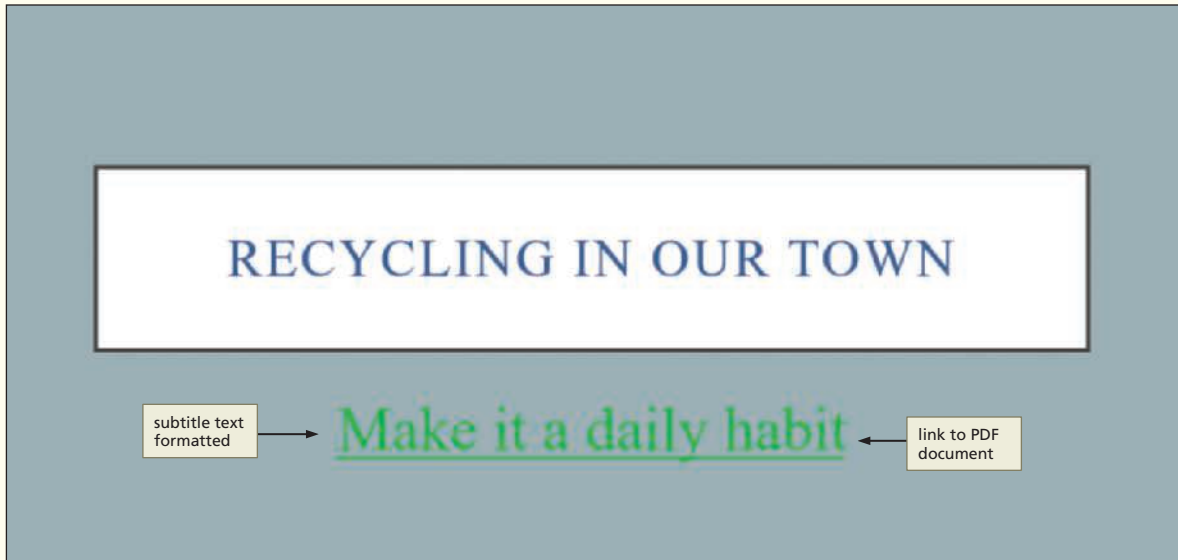
Instructions: Start PowerPoint and create a blank presentation.

The public works supervisor in your town is preparing a presentation for new residents about the recycling program. She has given you a Word document with the topics she wants to cover in her talk. She also has supplied an Excel file that includes a chart showing the amount of materials that were recycled in the past year. You also have a PDF file listing which items can be placed in the curbside recycling bin. You will create the three slides shown in Figure 6–88.

Perform the following tasks:

1. Apply the Parcel theme and then use the Slides from Outline feature to insert slides from the Word outline, Support_PPT_6_Recycle_Outline.docx, which is located in the Data Files. Delete the first slide.
2. Change the Slide 1 layout to Title Slide and then increase the subtitle text font size to 44 point.
3. Add a link from the subtitle text to the file named Support_PPT_6_Curbside.pdf, which is located in the Data Files. Change the subtitle text color to Green (sixth color in Standard Colors row) (Figure 6–88a).
If requested by your instructor, change the words, Our Town, in the title text placeholder to the city where you were born.
4. Display Slide 2, delete the content placeholder, and then draw the table shown in Figure 6–88b. Size the table with a height of 4.5" and a width of 8.45" and then move it directly under the title text placeholder. Merge or split cells as necessary and add the table text as shown in Figure 6–88b.
5. Apply the 'Medium Style 1 – Accent 4' table style (fifth style in first Medium row). Apply the Linear Up shading gradient (second gradient in third Variations row). Apply the 'Perspective: Upper Right' shadow effect (second shadow in first Perspective row). Add borders to all table cells.
6. Increase the font size of the table column headings (Item and Where to recycle) to 28 point and then change the font color to Green.
7. Distribute the table rows.
8. Display Slide 3 and then delete the content placeholder. Insert the picture Support_PPT_6_Waste.jpg, change the height to 1.2" and the width to 0.8", and then move the photo to the right side of the title text placeholder, as shown in Figure 6–88c.
9. Open the Excel file called Support_PPT_6_Recycle.xlsx, which is located in the Data Files, and then copy the bar chart located on Sheet2. Paste the chart onto Slide 3 with the 'Keep Source Formatting and Link Data' option and then resize the chart height to 5" and the width to 8". Use the smart guides to center the chart directly under the title placeholder, as shown in Figure 6–88c.
10. Close Excel.
11. Change the chart style to Style 5.

12. Click the Edit Data button (Chart Design tab | Data group) to display Excel and then, if necessary, click the Sheet1 tab to display the worksheet. Change the Monitors figure in cell B3 from 45 to 56 and then save and close the worksheet.
13. Save the presentation using the file name, **SC_PPT_6_Recycling**.
14. Submit the presentation in the format specified by your instructor.
15. 🌟 Did the formatting and effects enhance the Slide 2 table? What other enhancements could you have made to improve the table? In Step 11, you changed the chart style to Style 5. Was this style a good choice? Why or why not?



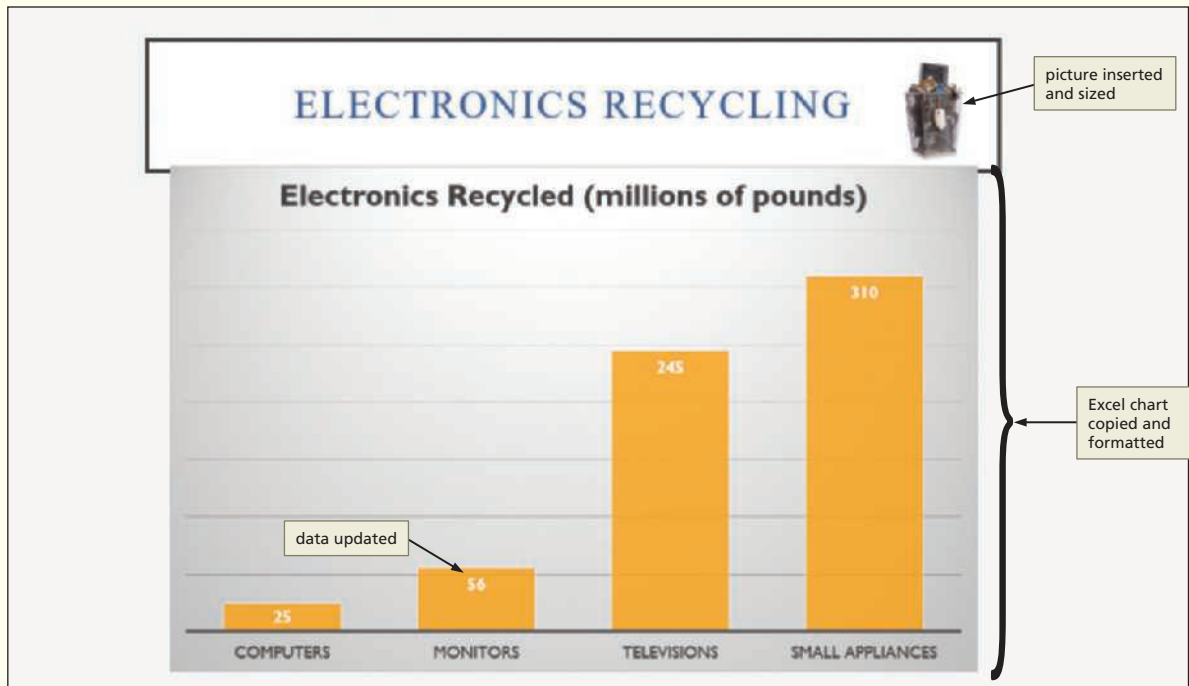
(a) Slide 1



(b) Slide 2

Figure 6–88 (Continued)

Continued >

Apply Your Knowledge *continued*

(c) Slide 3

Figure 6–88

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Modifying a Word Document, Pie Chart, and Table

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start PowerPoint. Open the presentation called SC_PPT_6-2.pptx, which is located in the Data Files.

Financial advisors emphasize the need to create a budget to control spending and save for future expenses. One of their budgeting strategies uses the *50/30/20 rule*, which urges people to use 50 percent of their take-home pay on essential needs, 30 percent on wants such as gifts and entertainment, and 20 percent on lowering debt and increasing savings. These budgeting guidelines are applied in the slides you will create in this assignment. You will insert and format a Word object, copy and modify an Excel pie chart, and format a table.

Perform the following tasks:

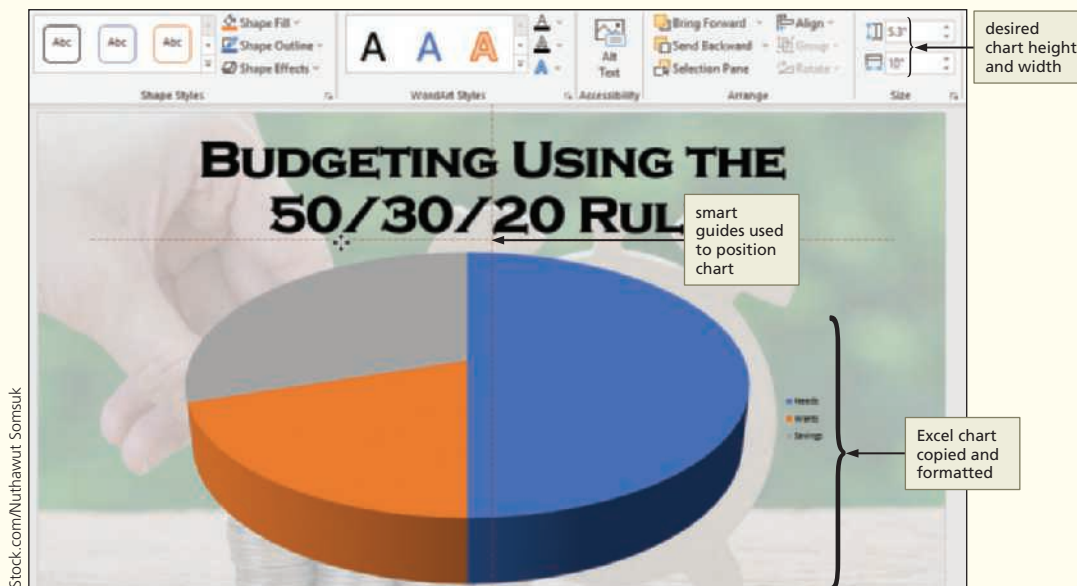
1. On Slide 1, display the Design tab and then click the Format Background button (Design tab | Customize group) to display the Format Background pane.
2. Click Gradient fill and then click the Color button in the Fill area to display the Color gallery. Click Green (sixth color in Standard Colors row) to change the gradient color.
3. In the Position box, located below the Color button, click the Position up arrow several times until 30% is displayed. Close the Format Background pane.

4. Insert the Word object, Support_PPT_6_Money.docx, which is located in the Data Files. Display the Shape Format tab and then click the Size dialog box launcher to display the Format Object pane. Click the 'Lock aspect ratio' check box to uncheck it and then increase the Word object size height to 6" and the width to 13". Align the object in the center and middle of the slide.
5. Change the word, Your, to My in the title text (Figure 6–89a). *Hint:* You may need to scroll up in the Word object to display the title text.



(a) Slide 1

6. Display Slide 2. Open the Excel file called Support_PPT_6_Money.xlsx, which is located in the Data Files, and then copy the pie chart located on Sheet2. Paste the chart onto Slide 2 with the 'Use Destination Theme & Embed Workbook' option and then resize the chart height to 5.3" and the width to 10". Use the smart guides to align the chart, as shown in Figure 6–89b.



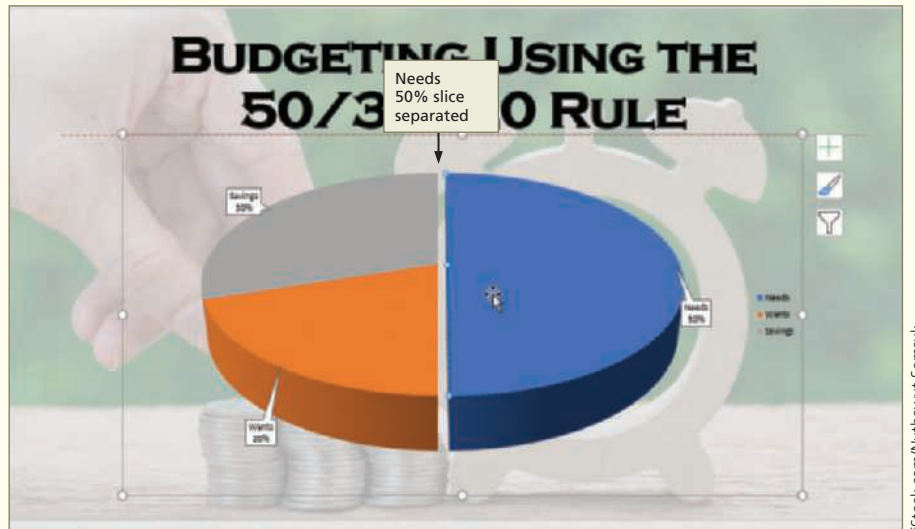
(b) Slide 2 Chart Positioned with Smart Guides

Figure 6–89 (Continued)

Continued >

Extend Your Knowledge *continued*

7. Click the Chart Elements button, select the Data Label box, click the Data Labels arrow, and then click Data Callout to display the Data Labels.
8. Explode the blue Needs 50% pie chart slice. To do this, click this slice to select it and then drag it to the right, as shown in Figure 6–89c. To verify the amount of explosion, right-click the Needs 50% slice and then click ‘Format Data Point’ on the shortcut menu to display the ‘Format Data Point’ pane. If necessary, increase or decrease the Point Explosion to 4%.



(c) Slide 2 Pie Slice Exploded

9. Display Slide 3. In the first table column, merge the five cells below the heading, My Needs: 50%, with the heading cell so that the first column consists of only one cell.
 10. Change the direction of the data in the first table cell so that it displays vertically. To do this, if necessary, select the column title text (My Needs: 50%), display the Layout tab, click the Text Direction button (Layout tab | Alignment group) to display the Text Direction gallery, and then click ‘Rotate all text 270°’ to rotate the text in the cell. Change the font size to 28 point and then center this text.
 11. Change the first column cell size width to 1.5". Change the table height to 4" and the table width to 8" and then align the table in the center and middle of the slide.
- If requested by your instructor, add the name of your high school mascot in the first column.
12. Display the Table Design tab and then click to check the Total Row box (Table Design tab | Table Style Options) to style the total row in the table (Figure 6–89d).

Item	Amount
Rent	\$500
Groceries	\$75
Utilities	\$85
Car payment and gas	\$300
TOTAL	\$960

(d) Slide 3

Figure 6–89

13. Save the presentation using the file name, **SC_PPT_6_Money**.
14. Submit the revised document in the format specified by your instructor.
15. 🌟 In this assignment, you changed the gradient and edited a Word document. You also exploded a pie chart slice and included a total row in the table. Did these changes enhance the slides and increase the audience's understanding of the 50/30/20 budgeting approach? Why or why not?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Locating and Inserting Animated GIF Files

Instructions: In this module you created a presentation for the personal trainers to use during their seminars promoting the benefits of using heart rate monitors at the two fitness centers. You embedded, linked, and edited objects from other applications, and these files greatly enhanced the presentation. The personal trainers now would like you to insert additional objects that have animation. You decide to locate animated GIF files because they generally are simple pictures with a limited number of colors. GIF, or Graphics Interchange Format, images are available on several websites. The images may or may not be animated, and they can be downloaded at no cost or for a minimal fee. Care must be taken, however, to visit and download files from reputable sources so that malware is not embedded in the images. You can use a search engine or another search tool to locate recommended or popular resources.

Perform the following tasks:

1. Visit one of the following websites, or locate other websites that contain animated GIFs: BestAnimations.com, GIFanimations.com, Giphy.com, or AnimationFactory.com.
2. Locate files that could enhance your heart monitor presentation. Some websites have collections of sports activities that could be useful.
3. Download at least two animated GIFs and then insert them into your SC_PPT_6_Heart.pptx presentation.
If requested to do so by your instructor, change the word, Midtown, in the Slide 2 table to the last name of your favorite high school teacher.
4. Save the presentation using the file name, **SC_PPT_6_Heart_GIF**.
5. Submit the assignment in the format specified by your instructor.
6. 🌟 Why did you select these particular images for your slides? Do the animated GIF images enhance or detract from your presentation? Where might you use GIF files other than in PowerPoint slides?

Continued >

In the Lab

Apply your creative thinking and problem-solving skills to design and implement a solution.

Design and Create a Presentation about Traveling Safely with Technology

Part 1: Keeping your personal information safe and secure while traveling can be difficult. Hackers abound in hotels, airports, and restaurants, and they use a variety of techniques to obtain travellers' private financial and work-related account information. The Business Support Services department at the consulting business where you work is developing a set of guidelines to distribute to clients, and you have been tasked with creating a PowerPoint presentation to accompany a webinar on this topic.

You have researched the topic and learned that travellers should not conduct sensitive online activity using public Wi-Fi and should check to be certain the public networks are legitimate. Another guideline is to avoid using public charging stations. Instead, travellers should plug their own AC adapter and charging cable into a wall outlet. When renting a car, drivers should not connect their cell phone to the vehicle's infotainment system because the system can upload contacts and text messages. A final recommendation is to disable Bluetooth, GPS, and Wi-Fi connections on cell phones and laptops.

Perform some research about traveling safely with electronics and then develop slides with this information. Begin by creating a Word outline with the information for each slide and then insert the slides from this outline. Also create a Word document with guidelines so that travellers can keep this flyer for reference. Link this document to one of your PowerPoint slides. The Data Files folder contains pictures you could use. Review and revise your presentation as needed and then save the file using the file name, **SC_PPT_6_Travel**. Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while creating the presentation in this assignment: what content to include, how to format the Word documents, where to insert the link to the Word flyer, and which styles and effects to apply. What was the rationale behind each of these decisions? Where would you recommend showing this slide show? When you reviewed the document, what changes did you make?

7 Adding Media and Enhancing SmartArt

Objectives

After completing this module, you will be able to:

- Insert and edit an audio clip
- Insert and edit a video clip
- Insert a SmartArt graphic
- Add pictures into a SmartArt shape
- Change the SmartArt color
- Move SmartArt shapes up and down
- Promote and demote SmartArt shapes
- Remove a picture background
- Change picture brightness, contrast, and color saturation
- Insert a hyperlink and action button
- Save a presentation as a PDF

Introduction

BTW

Ideal Decibels for Creativity

When you need to be creative, move to an environment filled with moderate background noise, such as a coffee shop. Researchers at the University of British Columbia state that a noise level of approximately 70 decibels, which is the sound of a quiet conversation or highway noise from afar, fosters original ideas. Anything louder than this ambient noise level decreases the thought process.

Well-produced slides are enhanced with a variety of visual content. PowerPoint's themes determine the default characteristics of slide objects, but colors, fills, effects, and other formatting options can give the slides a unique character. Graphics, such as SmartArt, have individual layouts, styles, and color schemes. If a SmartArt design does not meet the specific needs of your slide content, you can modify it by adding shapes, reordering the current shapes, and changing the color and effects.

Audio and video clips can emphasize slide content and focus the audience's attention on the material, particularly when they present a concept that a picture or graphic cannot depict. A simple, uncluttered picture can help audience members comprehend and retain important facts, and removing a picture's background can direct the audience's attention to the material being presented. You can save your presentation as a PDF (Portable Document Format) file, which is an electronic image file format by Adobe® that mirrors the appearance of the original document and allows you to present and exchange your presentation independent of software, hardware, or operating system.

Project: Presentation with Audio and Video Clips, SmartArt, and Hyperlinks

Colds and the flu strike adults and children mainly between September and May. Adults suffer, on average, three colds per year, while children suffer an average of seven. Up to 20 percent of people contract the flu each year. Symptoms of a cold and the flu are similar and include a cough, muscle aches, and a fever, so people sometimes are confused about which illness they have. Both respiratory infections are caused by viruses that pass through the air and enter the body through the nose or mouth. These viruses are highly contagious and often are spread when an infected person sneezes or coughs. Health professionals stress that thorough hand washing is the best method of protection, and they urge people not to touch their faces, to limit using keypads and touchscreens, and to avoid coming in contact with people who are sick. Once people are infected, they should keep themselves hydrated, get sufficient sleep, and eat nutritious foods.

In this module's project you will follow proper design guidelines and learn to use PowerPoint to create the slides shown in Figure 7-1a through 7-1f. You also will create a PDF file of the presentation, shown in Figure 7-1g. The objective is to produce a presentation for health professionals to use during their seminars held in advance of cold and flu season. You begin by opening a file and then changing the image on Slide 1 (Figure 7-1a). You will insert and then edit an audio clip, and later you will insert a screen clipping from another PowerPoint presentation.

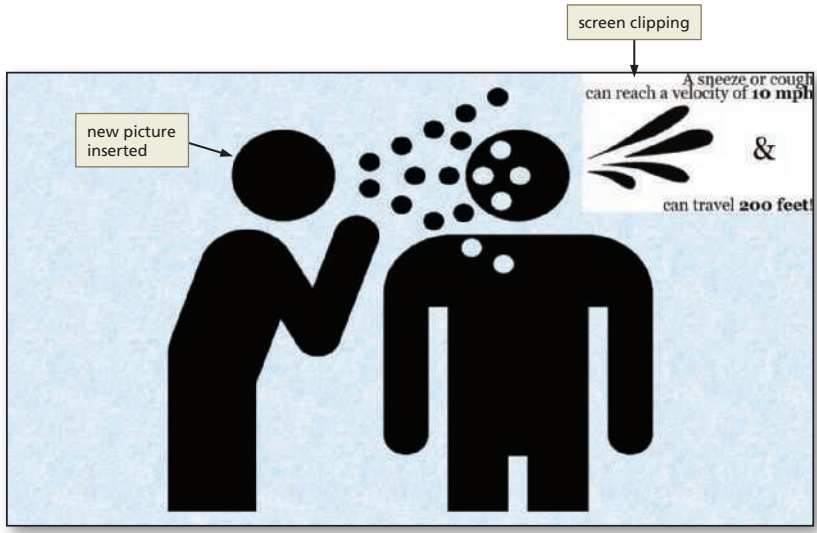
The second slide (Figure 7-1b) includes SmartArt that you will create and enhance. The slide shows a picture of a virus and actions you should avoid to protect yourself from a cold or flu virus. The slide contains a hyperlink from the word, cold, to a slide in another PowerPoint presentation showing the symptoms of a cold (Figure 7-1c). That slide contains an action button that will return the presenter to Slide 2 in the original presentation.

On Slide 3 (Figure 7-1d), you will add a video poster frame that covers the first frame of a video that you will insert on that slide. When the slide is displayed, the poster frame uncovers the video that plays full screen (Figure 7-1e).

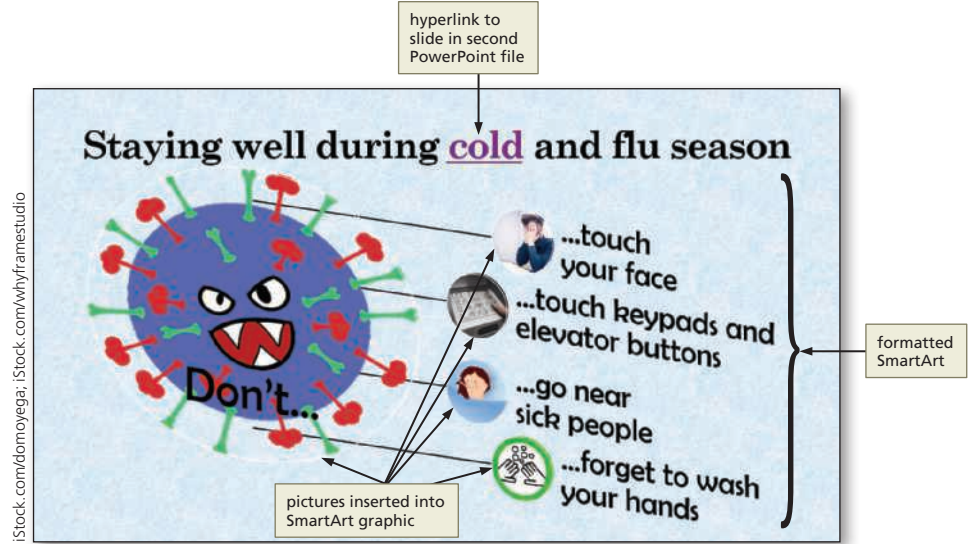
The final slide (Figure 7-1f) shows the actions people can take to help recover from a cold or the flu. The slide contains another SmartArt graphic that you will format by moving the shapes. The Smiley picture on this slide has a background that you will remove, and then you will change the contrast and color saturation and flip the image. The final steps in the project create and save a PDF file (Figure 7-1g) from the presentation.

In this module, you will learn how to create the slides shown in Figure 7-1. You will perform the following general tasks as you progress through this module:

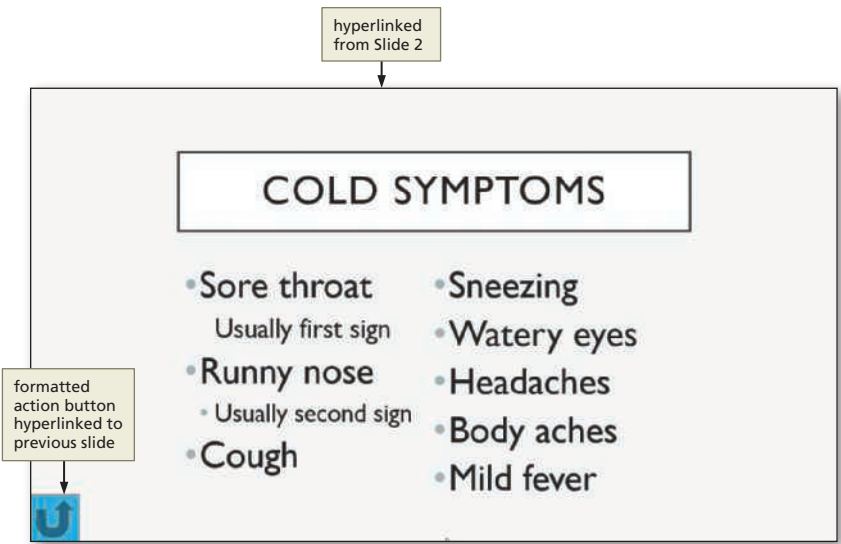
1. Change a picture.
2. Insert and trim an audio and a video clip.
3. Create, format, and modify a SmartArt graphic by inserting pictures, changing colors and effects, and moving shapes.
4. Insert a link to a second PowerPoint presentation.
5. Add a video poster frame.
6. Format a picture by removing the background, changing the contrast and color saturation, and flipping the image.
7. Save the presentation as a PDF.



(a) Slide 1



(b) Slide 2 (SmartArt Enhanced with Pictures)



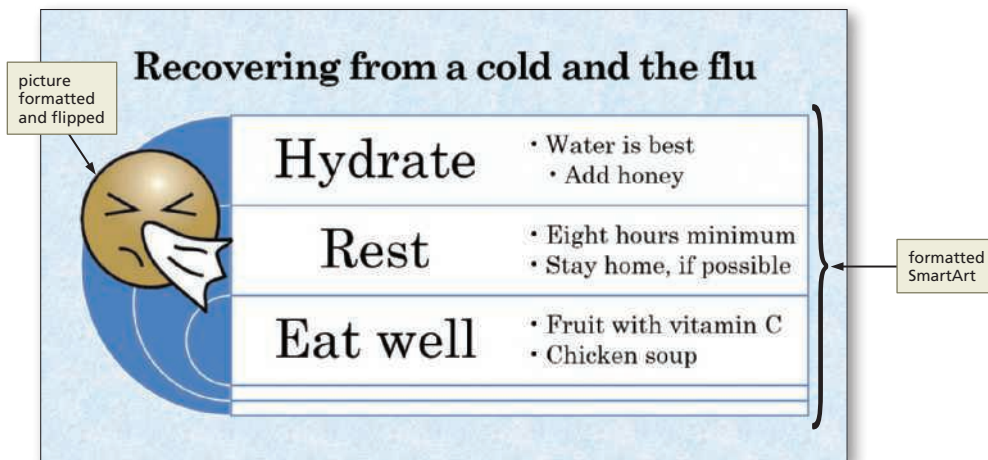
(c) Slide 2 (Hyperlinked from First Presentation)



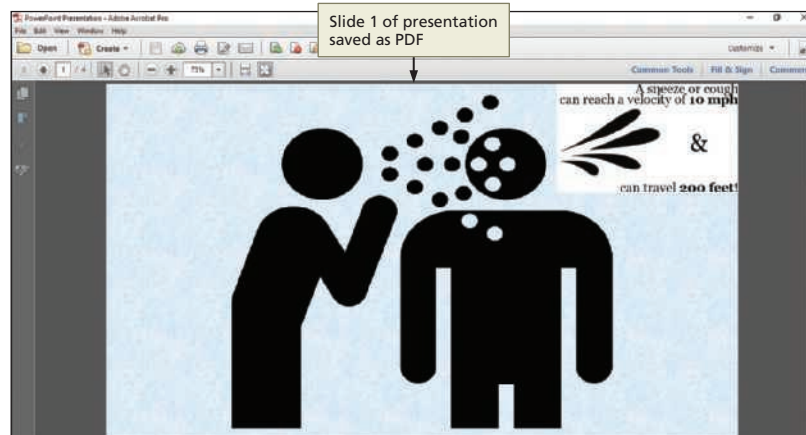
(d) Slide 3 (Video Poster Frame)



(e) Slide 3 (Video Clip)



(f) Slide 4 (SmartArt with Formatted Picture)



(g) Slide 1 of PDF file

Figure 7-1

Modifying a Slide by Changing a Picture and Inserting an Audio and a Video Clip

You begin this module by opening a file containing four partially completed slides. You then will enhance this content by changing a picture and adding audio and video clips.

In the following pages, you will perform these tasks:

1. Change and resize the picture on Slide 1.
2. Insert an audio file into Slide 1.
3. Add audio options that determine the clip's appearance and playback.
4. Trim the audio file to shorten the play time.
5. Insert a video file into Slide 3.
6. Trim the video file to shorten the play time.
7. Add video options that determine the clip's appearance and playback.
8. Resize the Slide 3 video clip.
9. Add a video style to the Slide 3 clip.
10. Compress media files.
11. Add a poster frame to the Slide 3 clip.

BTW

Ribbon and Screen Resolution

PowerPoint may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

BTW

Touch Screen Differences

The Microsoft 365 and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

To Open and Save a Presentation

The following steps open the starting file and then save it with a new file name.

- 1 **sami** ↓ Run PowerPoint. If necessary, maximize the PowerPoint window.
- 2 Open the presentation, `SC_PPT_7_Staying_Well.pptx`, from the Data Files.
- 3 Save the presentation using `SC_PPT_7_Prevent` as the file name.

To Change a Picture

The starting file has a picture on Slide 1 of a person holding a hot water bottle while resting in bed. You want to change that picture to one of the pictures in the Data Files showing one person sneezing near a second person. **Why?** The health professionals who will present this slide show want to emphasize that the cold and flu virus is spread most frequently by people sneezing and coughing, so they want to start their presentation with that concept. The following steps change the Slide 1 picture to the Sneeze picture, which is located in the Data Files folder.

- 1
 - Click the Slide 1 picture to select it and then display the Picture Format tab.
 - Click the Change Picture button (Picture Format tab | Adjust group) to display the Change Picture menu (Figure 7–2).

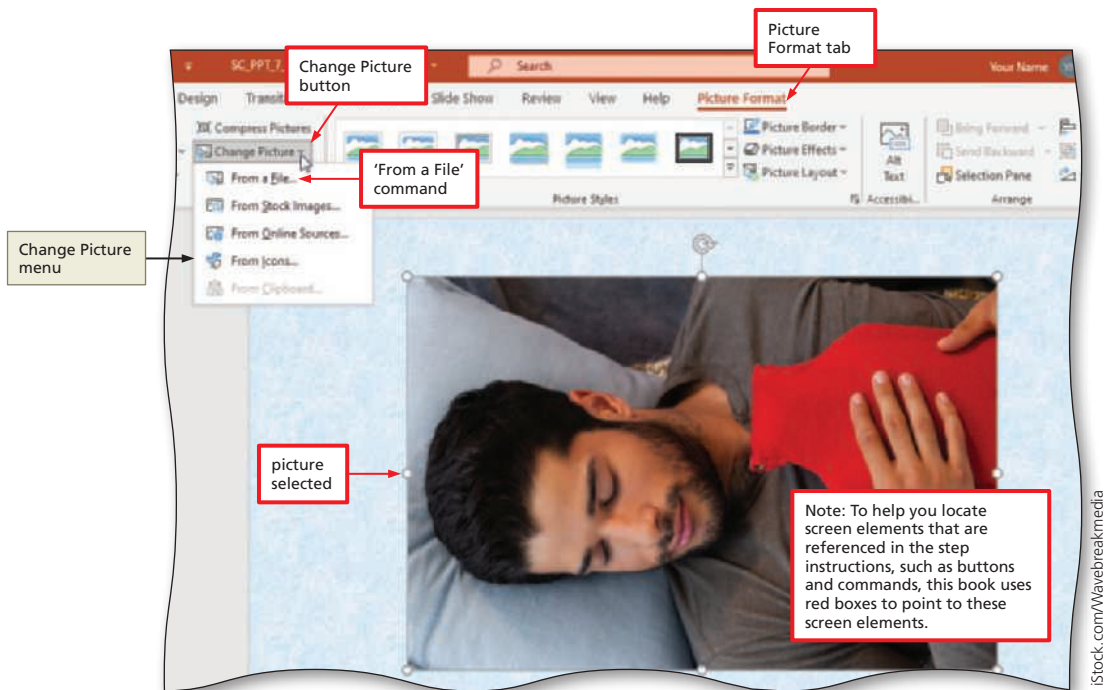


Figure 7-2

- 2
 - Click 'From a File' to display the Insert Picture dialog box.
 - If necessary, navigate to the location where the Data Files are located and then click Support_PPT_7_Sneeze to select the .png file (Figure 7-3).
- 3
 - Click the Insert button (Insert Picture dialog box) to insert the picture into Slide 1 and change the original picture.
 - If the Design Ideas pane is displayed, close it.

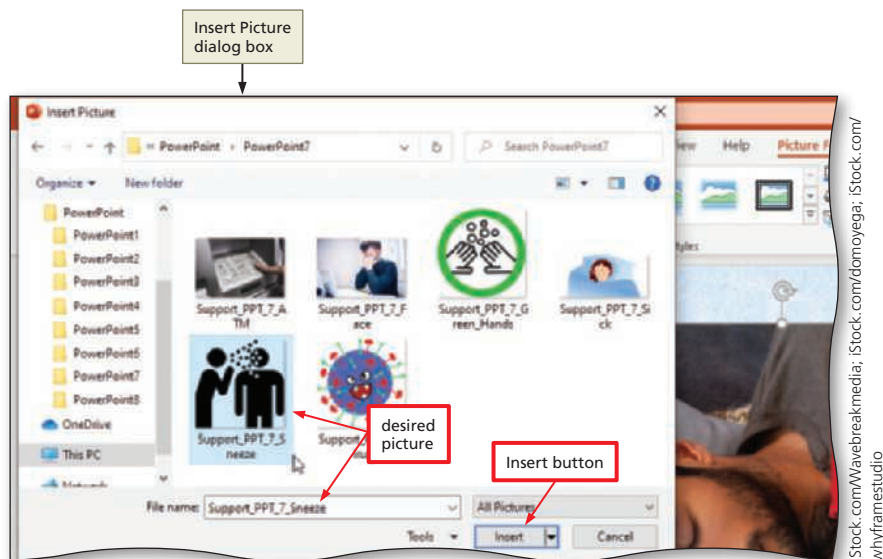


Figure 7-3

Other Ways

1. Right-click picture, click Change Picture on shortcut menu, click 'From a File'

TO INSERT AN ONLINE PICTURE WITHOUT USING A CONTENT PLACEHOLDER

If you wanted to change or insert an online picture into a slide that does not have a content placeholder, you would perform the following steps.

1. Display the Insert tab, click the Pictures button (Insert tab | Images group), and then click Online Pictures to display the Online Pictures dialog box.
2. Select a category and then select the desired picture.
3. Click the Insert button (Online Pictures dialog box).

To Resize a Picture to Exact Dimensions

You can enlarge, reduce, or change the size of a picture in one of two ways. If you resize the picture proportionally, you maintain the same ratio between the height and width. You can, however, uncheck the Lock Aspect Ratio check box and then change the dimensions to a precise number. **Why? You want the height or width to fit a particular area of the slide.** The following steps resize the Slide 1 picture to exact dimensions.

1

- With the Picture Format tab displayed, click the Size dialog box launcher to display the Format Picture pane.
- Select the 'Lock aspect ratio' check box to uncheck the box (Figure 7-4).

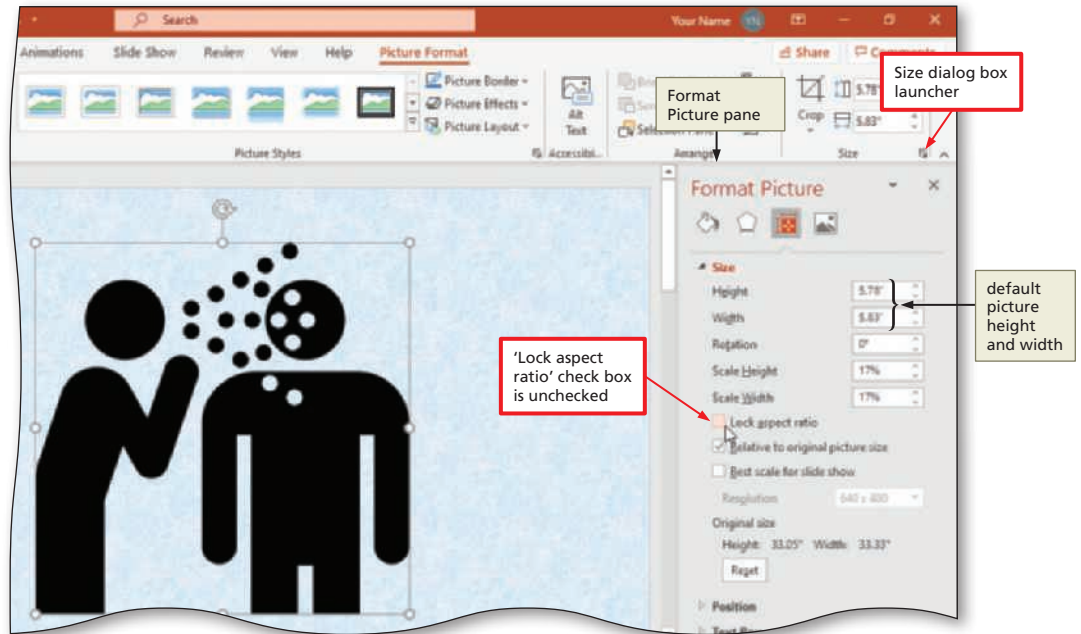


Figure 7-4

2

- Click the Height up arrow several times to change the picture height to 7".
- Click the Width up arrow several times to change the picture width to 8" (Figure 7-5).

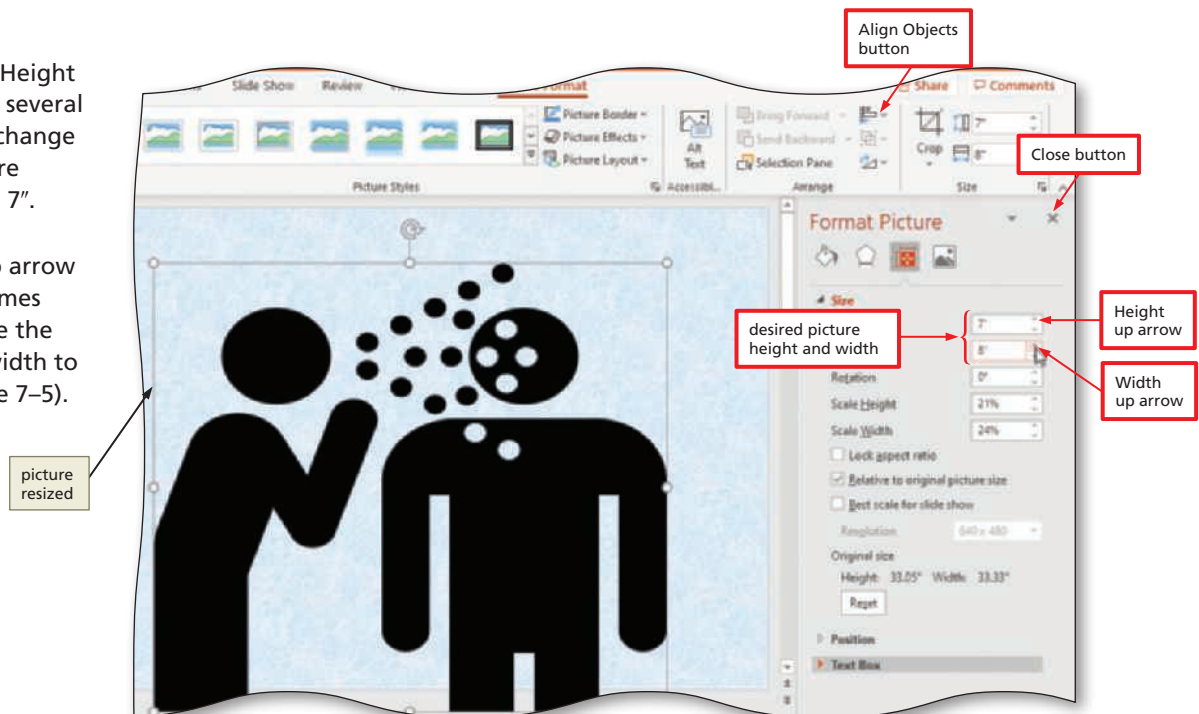


Figure 7-5

3

- Close the Format Picture pane.
- Click the Align Objects button (Picture Format tab | Arrange group) and then click the Align Center button.
- Click the Align Objects button again and then click the Align Middle button.
- Click an area outside the picture so that it no longer is selected.

To Insert an Audio Clip from a File

If your computer has a microphone, you can enable it and record audio for your presentation. In addition, if you have an app on your smartphone or mobile device or a digital audio recorder, you can record sounds to insert into your presentation. You also can locate audio files on a variety of websites. The following steps insert an audio clip into Slide 1. **Why?** An audio clip of sneezing sounds adds interest to the start of your presentation when Slide 1 is displayed.

1

- With Slide 1 displayed, display the Insert tab.
- Click the Audio button (Insert tab | Media group) to display the Audio menu (Figure 7–6).

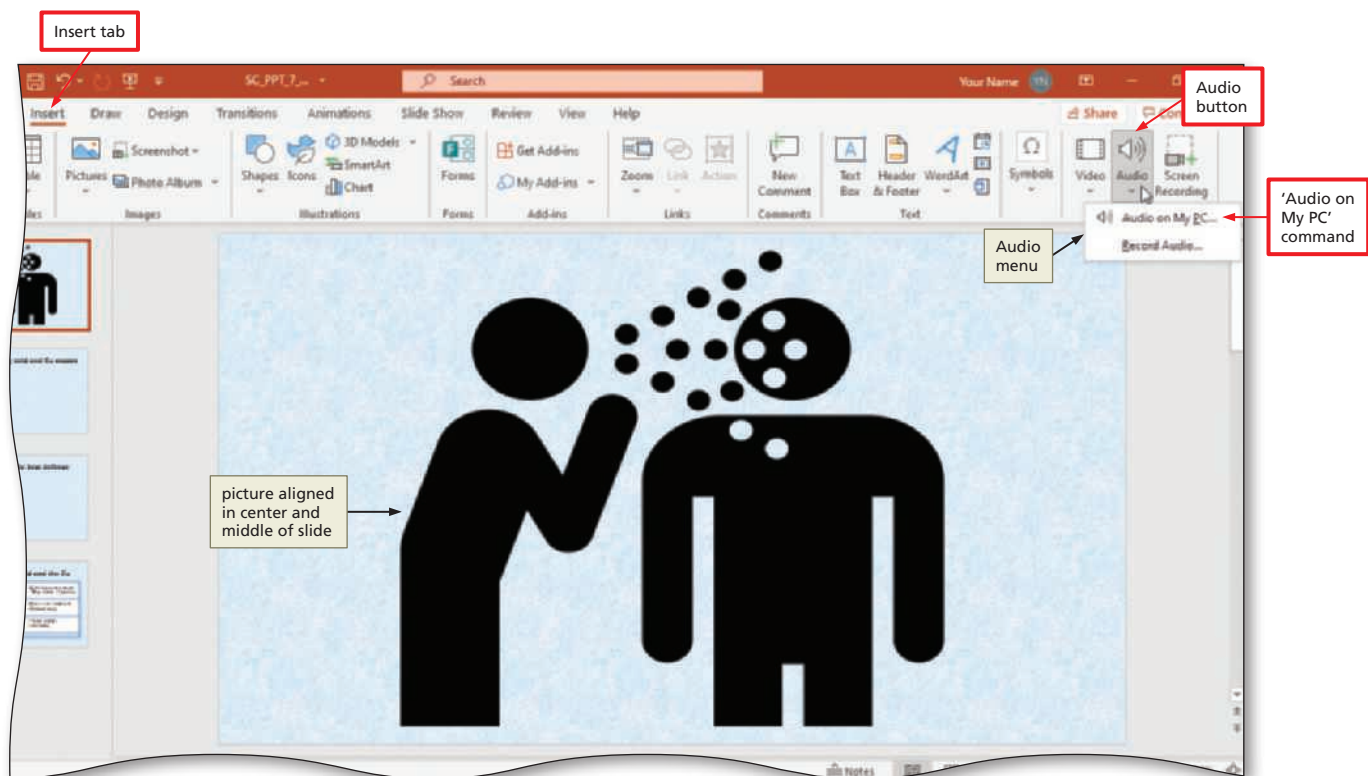


Figure 7–6

2

- Click 'Audio on My PC' on the Insert Audio menu to display the Insert Audio dialog box.
- If necessary, navigate to the location where the Data Files are located.
- Click Support_PPT_7_Sneezing to select the .wav file (Figure 7–7).

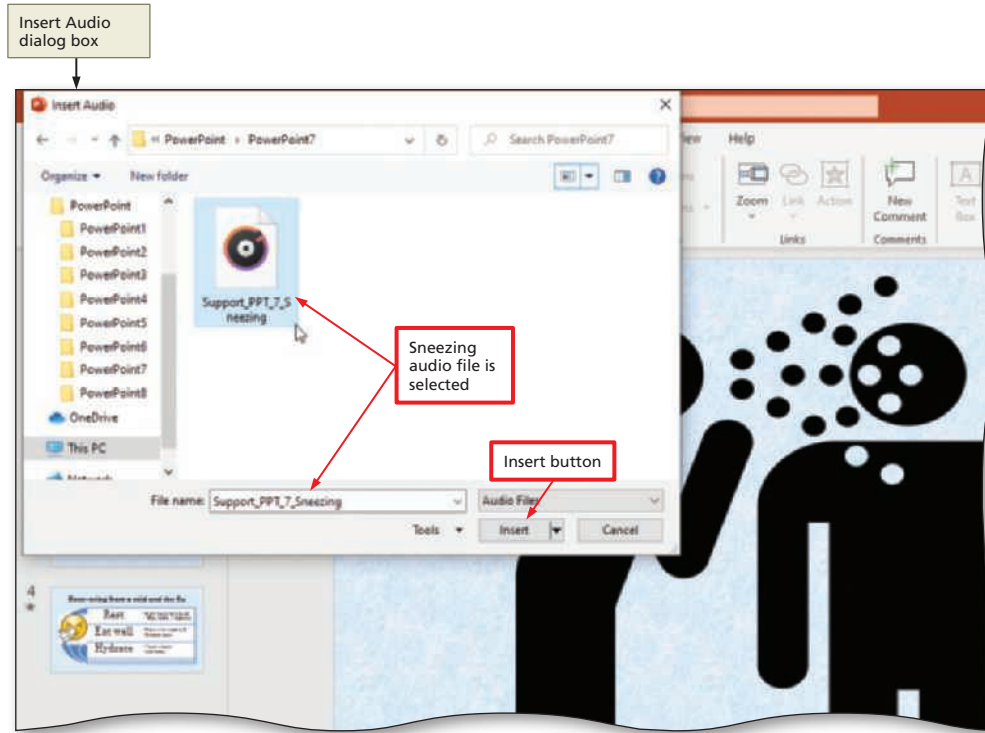


Figure 7-7

3

- Click the Insert button (Insert Audio dialog box) to insert the audio clip into Slide 1 (Figure 7-8).

Q&A Why does a sound icon display on the slide?
 The icon indicates an audio file is inserted.

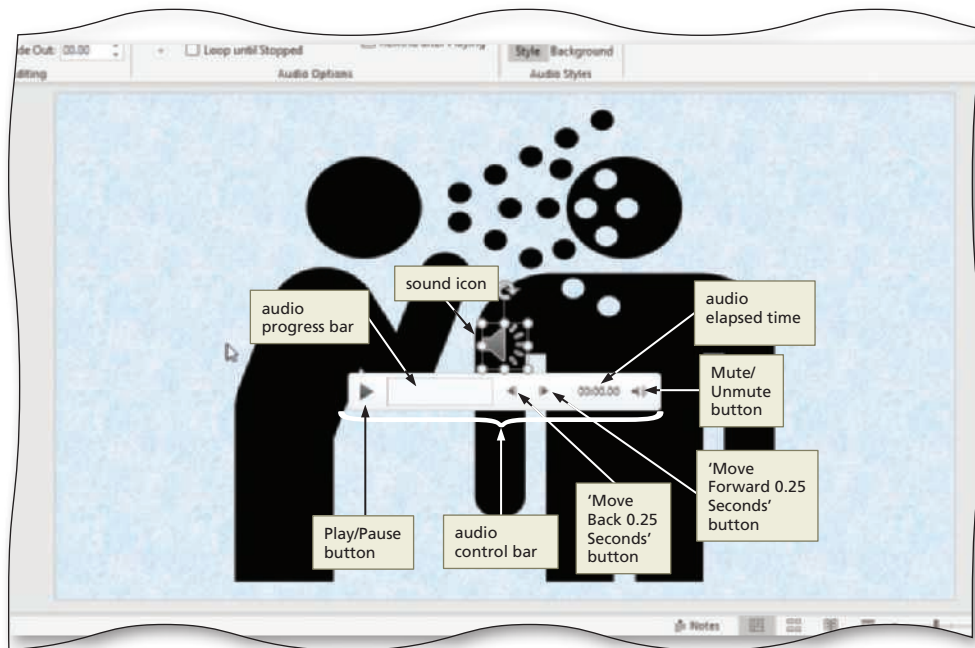


Figure 7-8

- 4**
- Drag the sound icon and the audio control bar near the lower-left corner of the slide (Figure 7-9).

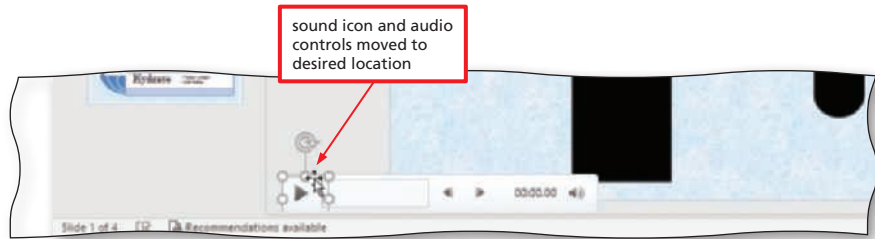


Figure 7-9

Q&A **Must I move the icon on the slide?**
 No. Although your audience will not see the icon when you run the slide show, it is easier for you to see the audio controls in this area of this slide.

To Change the Audio Clip Start Option

Once an audio clip is inserted into a slide, you can specify options that control playback and appearance. The audio clip can play either automatically or when clicked. The following steps add the option of starting automatically. **Why?** You do not want to click the screen to start the sound.

- 1**
- With the Playback tab displayed, click the Start arrow (Playback tab | Audio Options group) to display the Start menu (Figure 7-10).
- 2**
- Click Automatically in the Start menu.

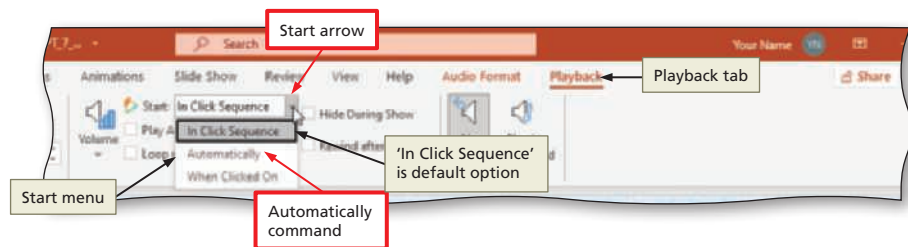


Figure 7-10

Q&A **How do the 'In Click Sequence' and the 'When Clicked On' options function?**
 If you were to select either of these options, the sound would begin playing only after the presenter clicks Slide 1 during a presentation.

To Loop an Audio Clip

Once an audio clip is inserted into a slide, you can specify that it can repeat while a particular slide is displayed. The following step adds the option of playing until the slide no longer is displayed. **Why?** You want the sneezing sound to repeat while the slide is displayed to coordinate with the picture prominently shown and to keep the audience's attention focused on the topic of avoiding colds and the flu.

- 1**
- Click the 'Loop until Stopped' check box (Playback tab | Audio Options group) to place a check mark in it (Figure 7-11).

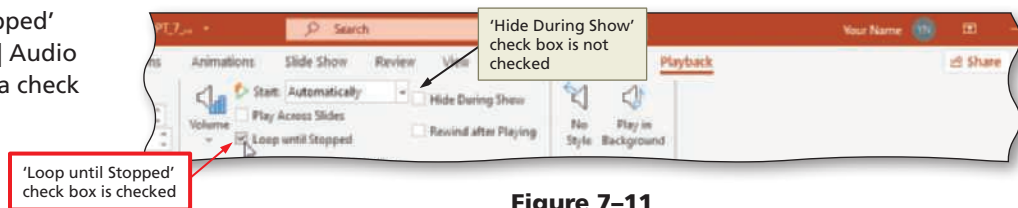


Figure 7-11

Q&A What is the difference between the 'Loop until Stopped' option and the 'Play Across Slides' option? The audio clip in the 'Loop until Stopped' option repeats for as long as one slide is displayed. In contrast, the 'Play Across Slides' option would play the clip only once, but it would continue to play while other slides in the presentation are displayed. Once the end of the clip is reached, the sound would end and not repeat.

To Hide an Audio Clip Object during a Slide Show

Once an audio clip is inserted into a slide, you can specify that the icon does not display when the presentation is running. The following step adds the option of hiding the sound icon on the slide. **Why?** You will not click the screen to start the sound, so you do not need to see the icon.

1

- Click the 'Hide During Show' check box (Playback tab | Audio Options group) to place a check mark in it (Figure 7-12).

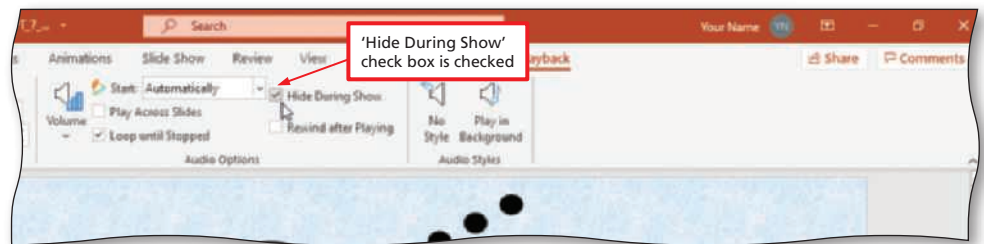


Figure 7-12

Q&A Why would I want the icon to display during the show?

If you had selected the On Click option, you would need to find this icon on the slide and click it to start playing the clip.

To Change the Volume of an Audio Clip

You can adjust the volume or mute the sound to help set the tone of your presentation. **Why?** The sound may emphasize the content being presented, or it may provide a subtle background tone. The following steps change the default volume from High to Medium.

1

- Click the Volume button (Playback tab | Audio Options group) to display the Volume menu (Figure 7-13).

2

- Click Medium to change the clip volume.

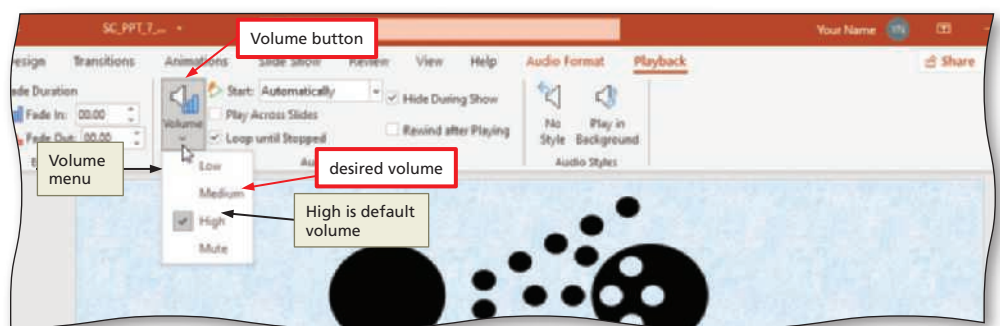


Figure 7-13

Other Ways

- Click Mute/Unmute button on Media Controls bar, adjust volume slider

TO PLAY AN AUDIO CLIP ACROSS SLIDES

If you wanted the audio clip to play during the entire presentation, you would perform the following step.

1. Click the 'Play Across Slides' check box (Playback tab | Audio Options group) to place a check mark in it.

TO REWIND AN AUDIO CLIP AFTER PLAYING

To rewind your audio clip after playing during your presentation, you would perform the following step.

1. Click the 'Rewind after Playing' check box (Playback tab | Audio Options group) to place a check mark in it.

TO GROUP AUDIO CLIPS

You may desire to play several audio clips in sequence while a particular slide is displayed. If so, you can specify that they begin by clicking the slide or performing any other action that activates the next action on the slide, such as pressing the RIGHT ARROW. To group audio clips, you would perform the following steps.

1. With the Audio Tools Playback tab displayed, click the Start arrow (Playback tab | Audio Options group) to display the Start menu.
2. Click 'In Click Sequence' in the Start menu.

To Trim an Audio Clip

PowerPoint's trim audio feature allows you to set the beginning and end of a clip. You select the desired sound to play by designating a Start Time and End Time, which are accurate to one-thousandth of a second. The Start Time is indicated by a green marker and the End Time is indicated by a red marker. The following steps trim the sneezing audio file. **Why?** The audio clip is too long and you want a shorter clip.

1. Click the Play/Pause button in the audio controls to play the entire clip.

Q&A Can I play the clip by clicking the Play button in the Preview group? Yes. This Play button plays the entire clip. You may prefer to click the Play/Pause button displayed in the video controls to stop the video and examine one of the frames.

2. Click the Trim Audio button (Playback tab | Editing group) to display the Trim Audio dialog box.
3. Click and hold the Start Time up arrow or drag the green marker to the right until 00:04.300 is displayed (Figure 7-14).

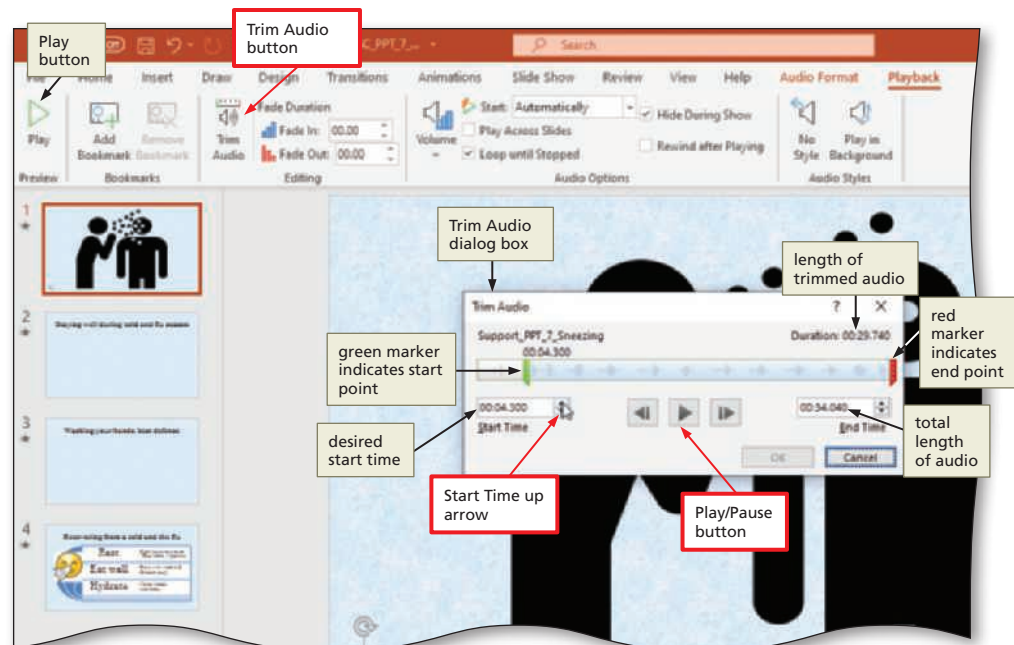


Figure 7-14

2

- Click and hold the End Time down arrow or drag the red marker to the left until 00:15.500 is displayed.
- Click the Play/Pause button (Trim Audio dialog box) to review the shortened audio clip (Figure 7-15).

Q&A

Can I specify the start or end times by entering the time in the Start Time and End time boxes (Trim Audio dialog box)?

Yes. You also can click the Next Frame and Previous Frame buttons.

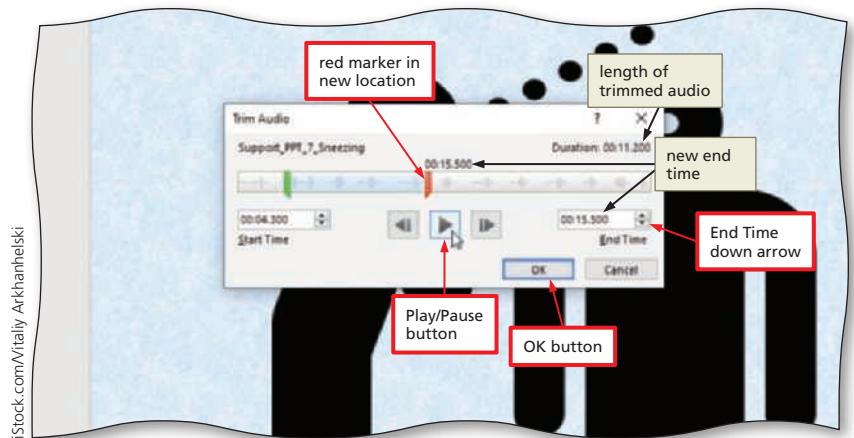


Figure 7-15

3

- Click OK to set the Start Time and End Time and to close the Trim Audio dialog box.

Other Ways

1. Right-click clip, click Trim on Mini toolbar

2. In Trim Audio dialog box, press ALT+S and ALT+E

To Insert a Video File without Using a Content Placeholder

Health professionals have determined that thorough hand washing is essential to help prevent contracting the cold or flu virus, so you want to include a video clip on Slide 3 demonstrating this technique. You have a video clip of a person washing their hands, and you want to retain most of the clip but eliminate a few seconds from the beginning and end. PowerPoint allows you to insert this clip into your slide and then trim the file.

Why? You want to play just a portion of the video when you preview the clip or run the slide show. This clip is available in the Data Files. The following steps insert this video clip into Slide 3.

1

- Display Slide 3 and then display the Insert tab.
- Click the Video button (Insert tab | Media group) to display the Insert Video menu (Figure 7-16).

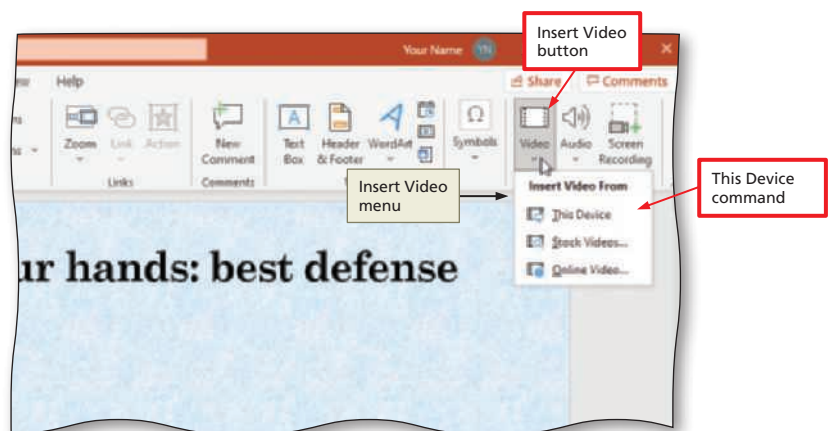


Figure 7-16

2

- Click This Device on the Insert Video menu to display the Insert Video dialog box.

- If necessary, navigate to the location where the Data Files are located and then click Support_PPT_7_Wash to select the .mp4 file (Figure 7-17).

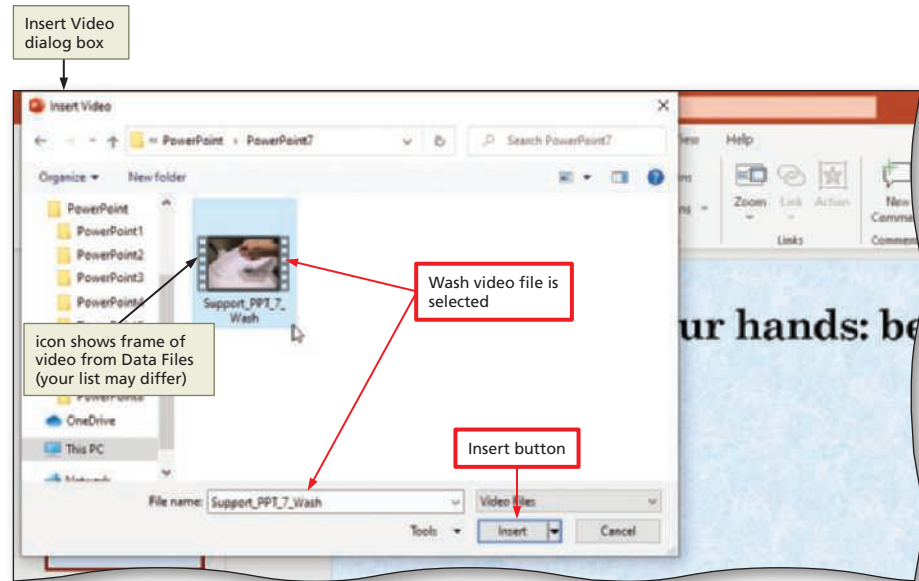


Figure 7-17

3

- Click the Insert button (Insert Video dialog box) to insert the Wash video clip into Slide 3 (Figure 7-18).
- If the Design Ideas pane opens, close it.

Q&A Do the video control buttons have the same functions as the audio control buttons that displayed when I inserted the Sneeze audio clip?

Yes. The controls include playing and pausing the sound, moving back or forward 0.25 seconds, video progress, elapsed time, and muting or unmuting the sound.

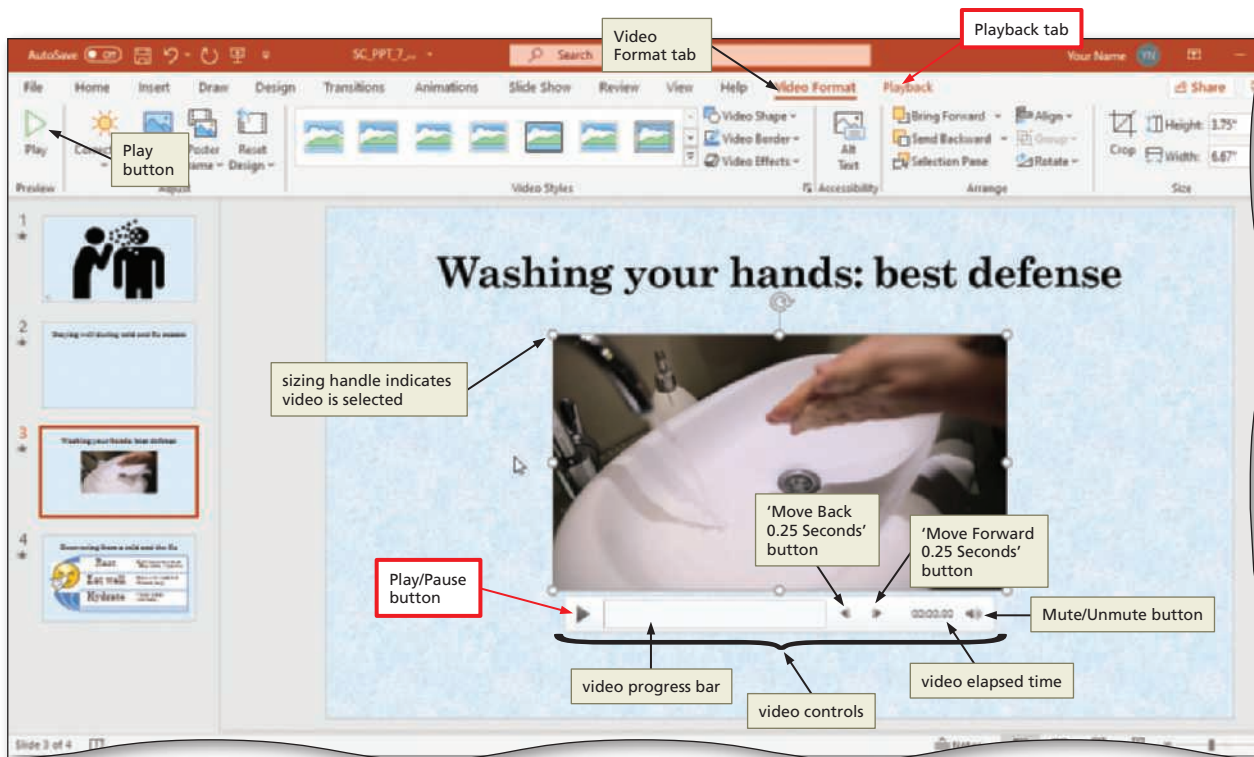


Figure 7-18

To INSERT AN ONLINE VIDEO

PowerPoint allows you to insert or link to an online video, such as those found on YouTube, and then play this file during your presentation. These videos are stored on and played from the website, so you must be connected to the Internet when you play these files. To insert an online video, you would perform the following steps.

1. Display the Insert tab and then click the Video button (Insert tab | Media group) to display the Video menu.
2. Click Online Video to display the Insert Video dialog box.
3. In the search box, enter the web address of a video from a supported video provider to insert a video from a website.
4. Click the Insert button to insert the video clip into the slide.

To Trim a Video File

PowerPoint's Trim Video feature allows you to trim the beginning and end of your clip by designating your desired Start Time and End Time. These precise time measurements are accurate to one-thousandth of a second. The start point is indicated by a green marker, and the end point is indicated by a red marker. As with the audio clip you inserted on Slide 1, you want to shorten the duration of the Wash video clip. **Why?** The Wash video file has a running time of 30 seconds. Much of the video is the same view of the person washing her hands, so you decide to delete a few seconds from the beginning and the end to shorten the duration. The following steps trim the Wash clip.

1

- With the video clip selected on Slide 3, click the Play/Pause button in the video controls underneath the video to play the entire video (Figure 7–19).

Q&A Can I play the video by clicking the Play button in the Preview group?

Yes. This Play button plays the entire clip. You may prefer to click the Play/Pause button displayed in the video controls to stop the video and examine one of the frames.

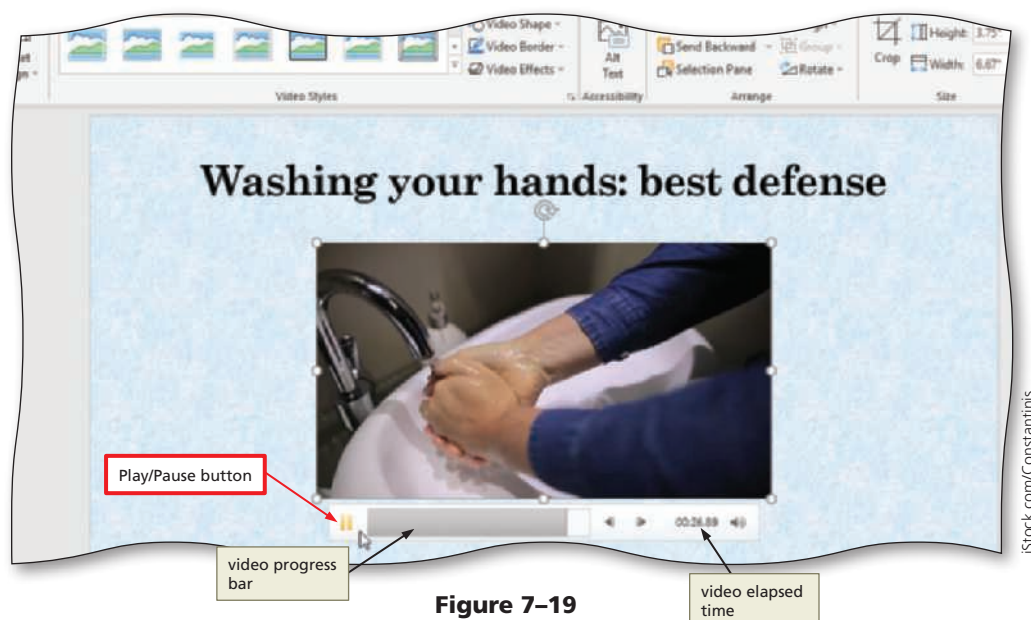


Figure 7–19

2

- With the Playback tab displayed, click the Trim Video button (Playback tab | Editing group) to display the Trim Video dialog box (Figure 7-20).

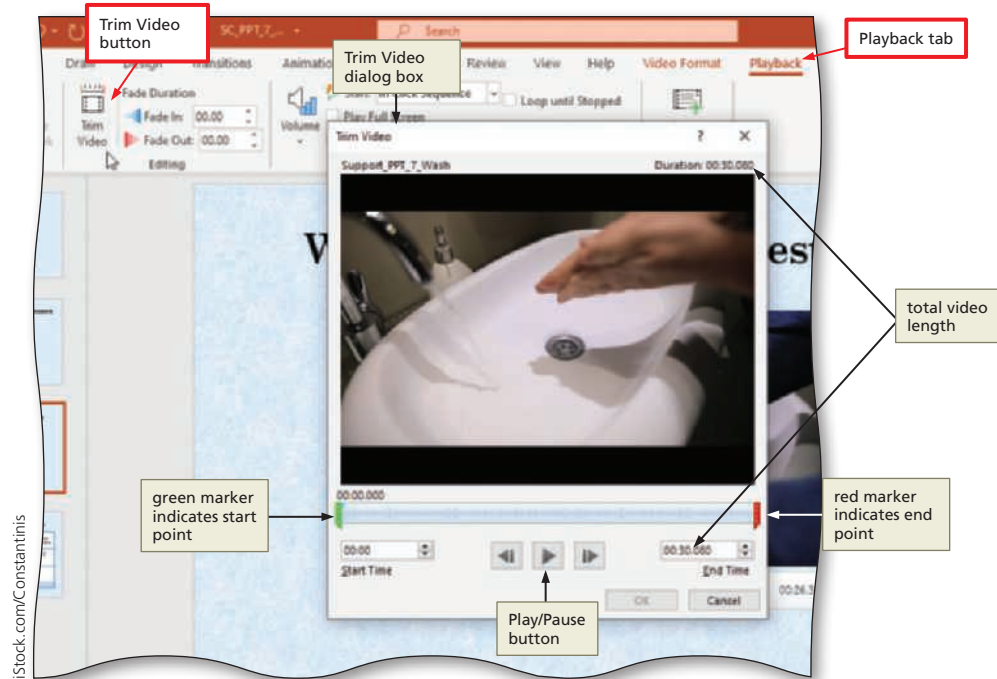


Figure 7-20

3

- Click the Start Time up arrow several times until 00:00.520 is displayed (Figure 7-21).

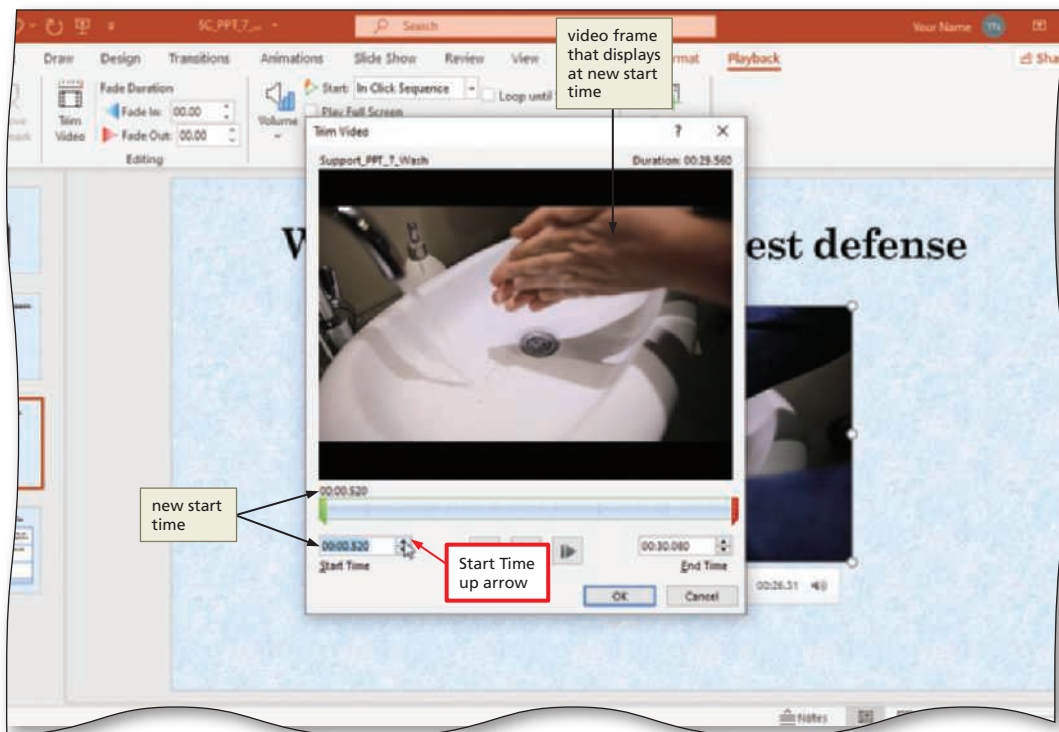


Figure 7-21

4

- Click the End Time down arrow several times until 00:28.600 is displayed (Figure 7–22).

Q&A Can I specify the start or end times by dragging the markers?

Yes. You can drag the green marker to determine the start time and the red marker to determine the end time. You also can click the Next Frame and Previous Frame buttons or enter the time in the Start Time or End Time boxes (Trim Video dialog box).

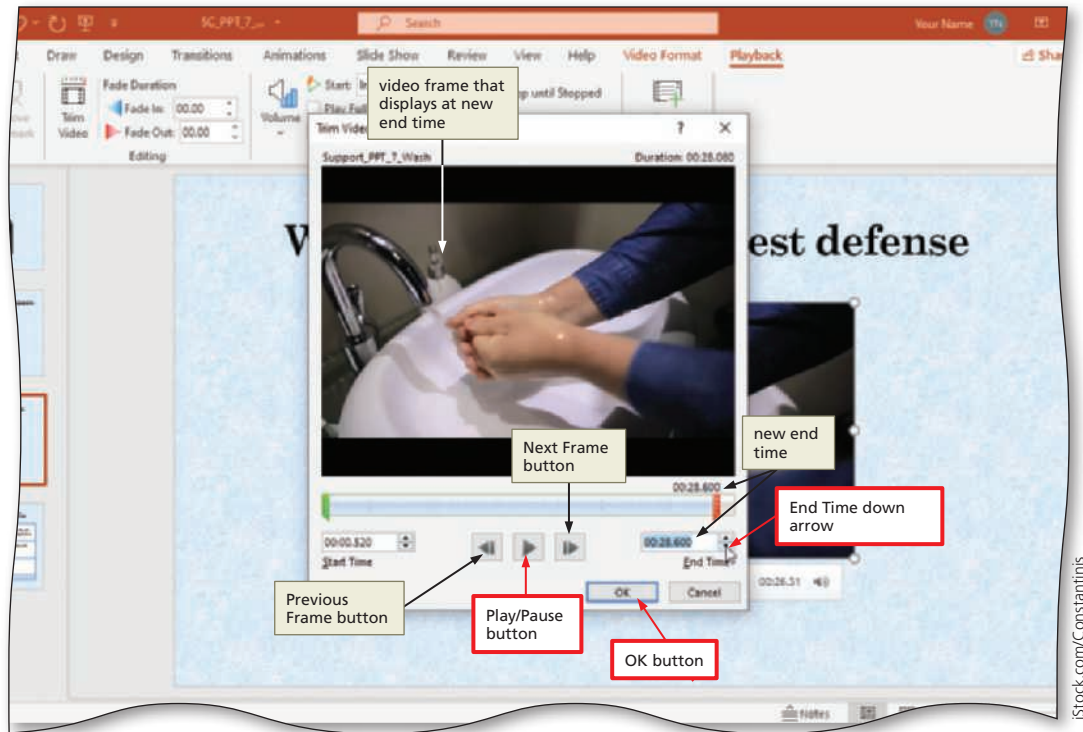


Figure 7–22

5

- Click the Play/Pause button (Trim Video dialog box) to review the shortened video clip.
- Click OK (Trim Video dialog box) to set the Start Time and End Time and to close the Trim Video dialog box.

Other Ways

1. Right-click clip, click Trim on Mini toolbar
2. In Trim Video dialog box, press ALT+S and ALT+E

Q&A Can I preview the movie clip?

Yes. Point to the clip and then click the Play button on the ribbon (Preview group) or the Play/Pause button on the video controls below the video.

To Change the Video Start Option

Once the video clip is inserted into Slide 3, you can specify that the video plays when the presenter clicks the area of the slide with the video after the slide is displayed. Other options are to run the video immediately when the slide is displayed or in a click sequence. **Why?** When you are giving your presentation, you want to

discuss the slide topic and then click the mouse to start the video. The following steps add the option of playing the video when a frame is clicked.

- 1 With the Playback tab displayed, click the Start arrow (Playback tab | Video Options group) to display the Start menu (Figure 7–23).

Q&A **What do the Automatically and In Click Sequence options do?**
 The video clip would begin playing immediately when a slide is displayed during the slide show.



Figure 7–23

- 2 Click 'When Clicked On' in the Start menu.

To Play a Video Full Screen

Once the video clip is inserted into Slide 3, you can specify that the video fills the entire screen when the video plays. **Why?** You want your audience to see the details of thorough hand washing. The following step adds the option of playing the video full screen.

- 1 Click the 'Play Full Screen' check box (Playback tab | Video Options group) to place a check mark in it (Figure 7–24).

BTW
Play Options for Online Videos
 Play options are not available for online videos, such as YouTube videos. They are available only for videos inserted from your computer, network, or OneDrive.

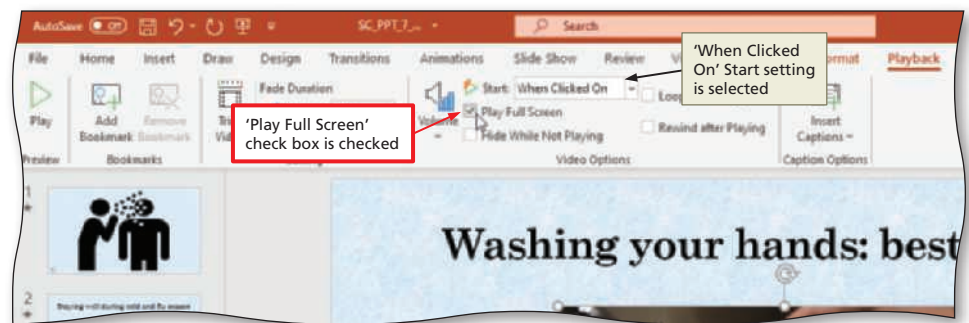


Figure 7–24

To Change the Video Volume

You can adjust the volume of the sound in a video. The default video volume is High, and you want to change it to Medium. **Why?** The running water sound is present during the entire video, and the presenter may want to point out details of the washing technique while the video is playing. The following steps decrease the volume of the clip.

1

- Click the Volume button (Playback tab | Video Options group) to display the Volume menu (Figure 7-25).

2

- Click Medium on the Volume menu to set the audio volume.

Q&A

Will the Mute option silence the video's background sounds?
 Yes. Click Mute if you do not want your audience to hear any recorded sounds.

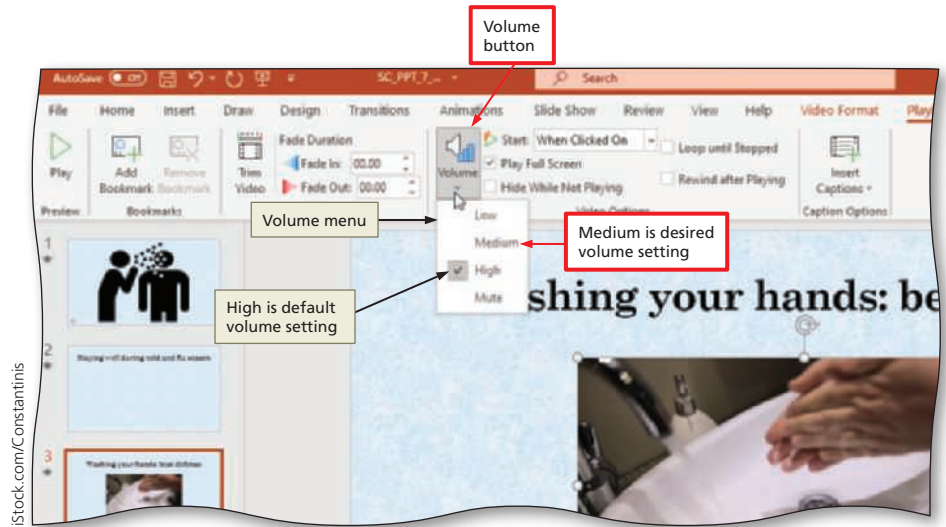


Figure 7-25

To REWIND A VIDEO AFTER PLAYING

To rewind your video clip after playing during your presentation, you would perform the following step.

1. Click the 'Rewind after Playing' check box (Playback tab | Video Options group) to place a check mark in it.

To Resize a Video Proportionally

The default Wash video frame size can be changed. You resize a video clip in the same manner that you resize pictures. The following steps decrease the Wash video frame using a sizing handle. **Why?** You want to fit the video near the center of the slide.

1

- With the video still selected, click Video Format on the ribbon to display the Video Format tab (Figure 7-26).

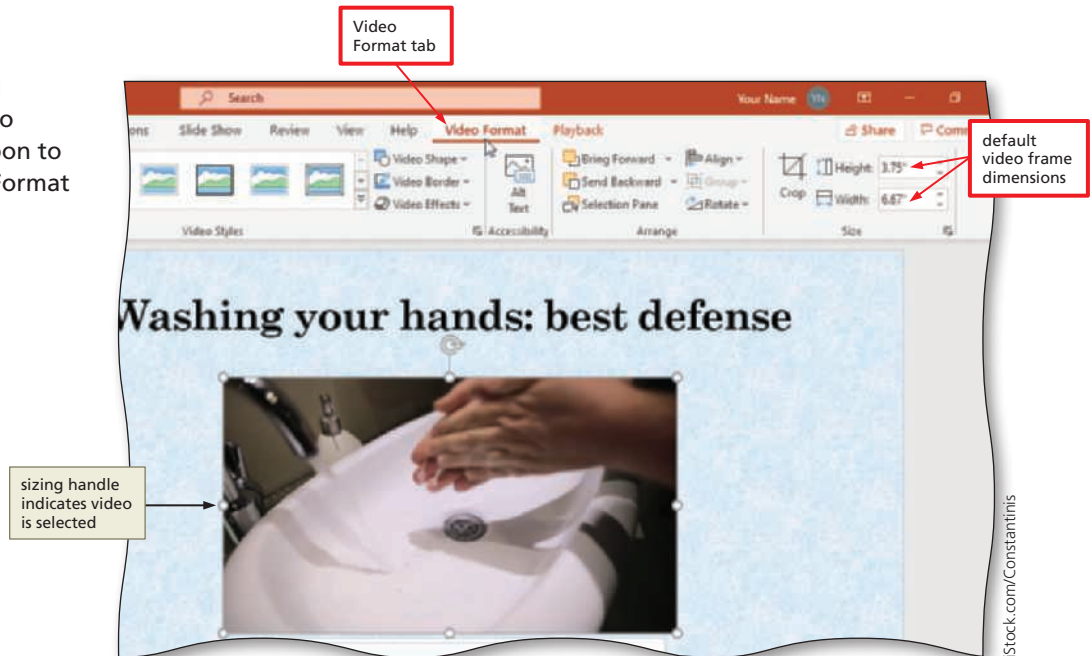


Figure 7-26

2

- Drag any corner sizing handle diagonally outward until the frame is resized to approximately 5.7" x 10.13".
- Use the smart guides to position the clip, as shown in Figure 7-27.

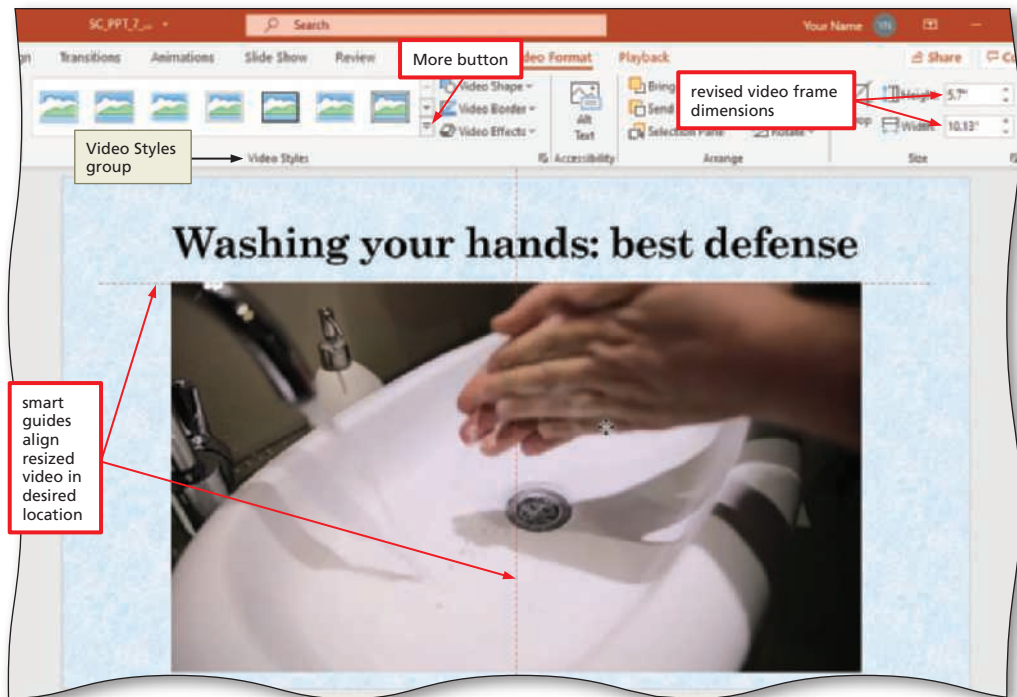


Figure 7-27

To Apply a Video Style

The video styles are similar to the picture styles you applied in previous modules and include various shapes, angles, borders, and reflections. The following steps apply a video style to the Wash video clip on Slide 3. **Why?** The Wash video clip on Slide 3 displays full screen when it is playing, but you decide to increase the visual appeal of the clip when it is not playing by applying a video style.

1

- With the video selected and the Video Format tab displayed, click the More button in the Video Styles gallery (Video Format tab | Video Styles group) (shown in Figure 7-27) to expand the gallery.
- Point to Soft Edge Rectangle in the Subtle area of the Video Styles gallery (third style in first row) to display a live preview of that style applied to the slide's video frame (Figure 7-28).

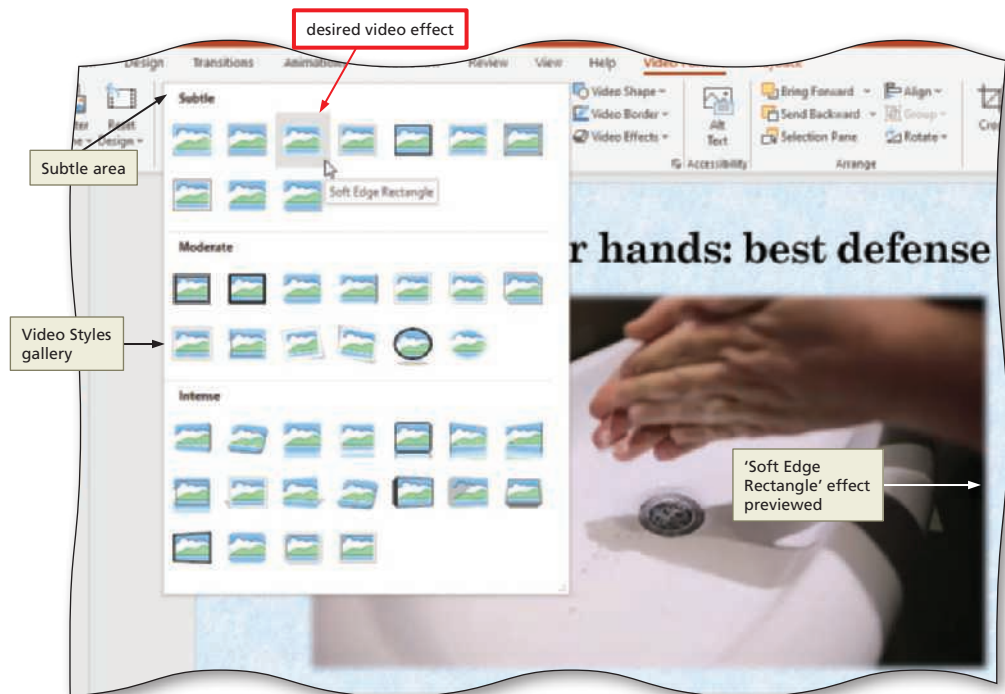


Figure 7-28

Experiment

- Point to various picture styles in the Video Styles gallery and watch the style of the video frame change in the document window.

3

- Click Soft Edge Rectangle in the Video Styles gallery to apply the style to the selected video (Figure 7–29).



Figure 7–29

To Compress a Video and an Audio File

PowerPoint includes a feature that will compress your audio and video files to reduce their size. Media files can be quite large, which can pose a problem if you want to email a presentation or if the space on your storage device is small. You can specify one of three compression qualities: Full HD, HD, or Standard. **Why?** You want to decrease the file size of the audio and video files you have inserted so you can email the presentation if desired. The following steps compress the media files.

1

- With the video clip selected on Slide 3, click the File tab to display Backstage view and then if necessary click the Info tab.
- Click the Compress Media button (Info tab | Media Size and Performance section) to display the Compress Media menu (Figure 7–30).

Q&A Why am I seeing an error message stating that the media could not be compressed?

Graphics cards have acceleration capabilities that allow video, animation, transitions, and other graphics to display smoothly. Your PowerPoint file may have too many graphics that are consuming the resources of your graphics card. If so, you may need to disable hardware graphics acceleration. These settings are found in the Display section of the PowerPoint Options Advanced tab.

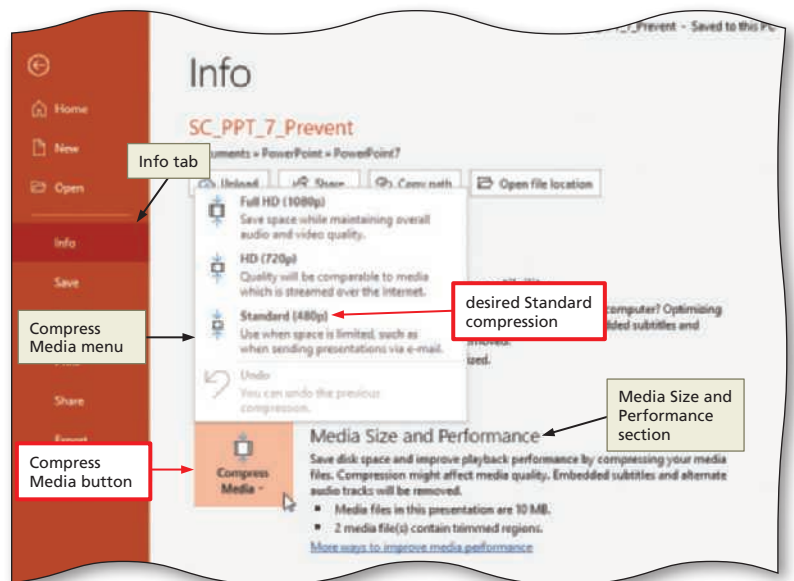


Figure 7–30

2

- Click Standard (480p) to display the Compress Media dialog box and compress the video and audio files (Figure 7–31).

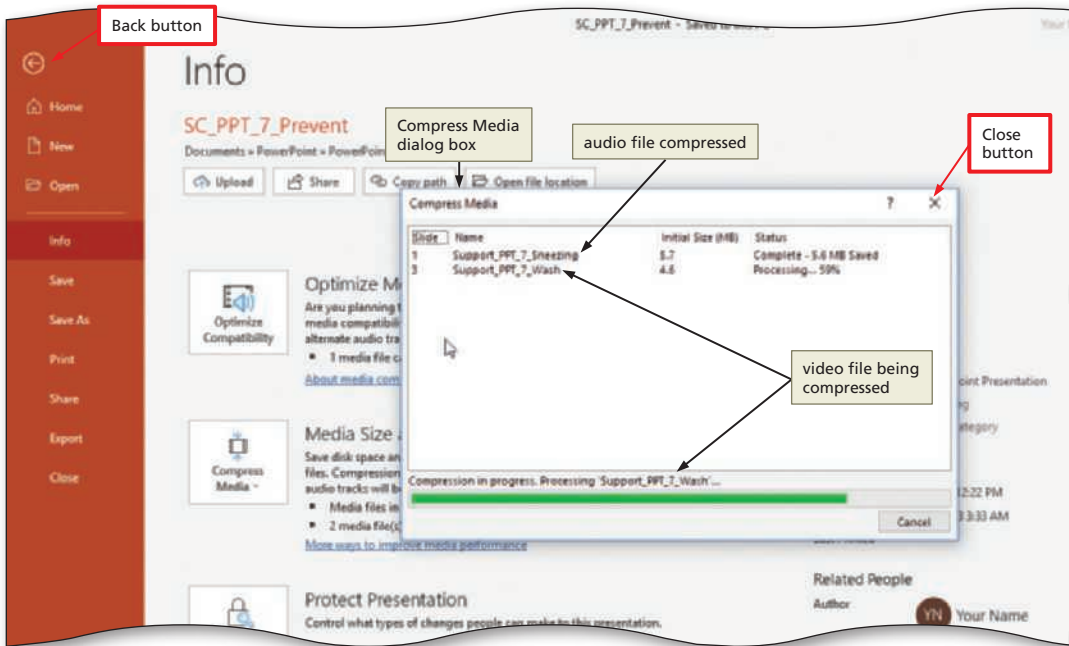


Figure 7–31

3

- When the files have been compressed, click Close (Compress Media dialog box) to return to Backstage view.
- Click the Back button (Info tab) to return to Slide 3.

To ALIGN VIDEOS

If you have multiple videos displayed on one slide, you may desire to arrange them to give the file a professional appearance. PowerPoint includes the feature to help you space these slide elements evenly. To align videos, you would perform the following steps.

1. Select the videos you want to align by pressing SHIFT and clicking each object.
2. Display the Video Format tab, click the Align button (Arrange group), and then click one of the align or distribute options in the Align menu.

To Add a Video Poster Frame

A **poster frame** is the frame that appears on a video object when the video is not playing. This preview image of your video helps an audience anticipate the content of the video. This frame can be a picture or one frame from the video you are going to play. In this module, you will use a picture from the Data Files. **Why?** You will use this same hand washing picture as part of the SmartArt graphic on Slide 2, so your audience will be familiar with this image. The following steps apply a poster frame to the Wash video clip.

1

- With the video clip selected, click the Poster Frame button (Video Format tab | Adjust group) to display the Poster Frame menu (Figure 7-32).

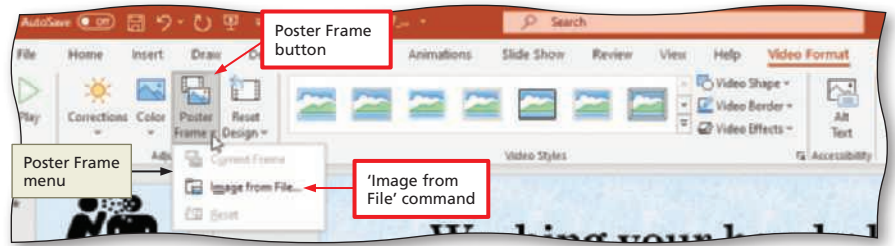


Figure 7-32

2

- Click 'Image from File' to display the Insert Pictures dialog box (Figure 7-33).

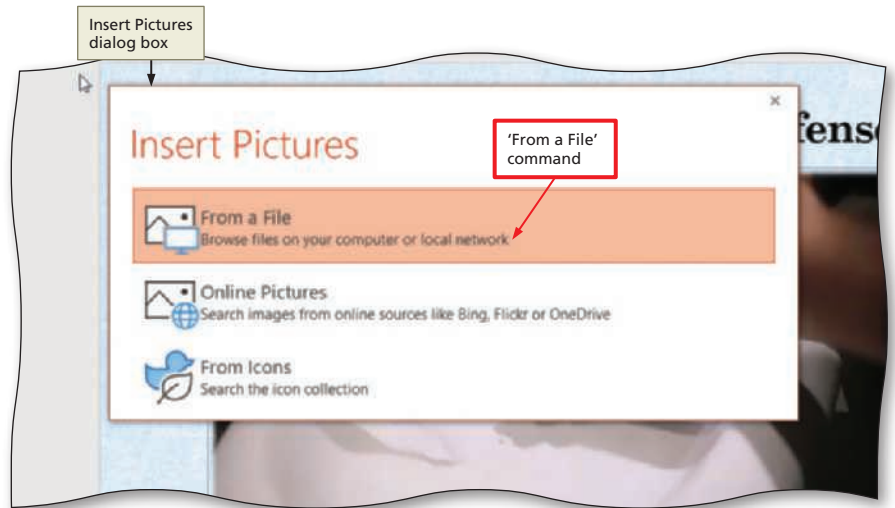


Figure 7-33

3

- Click 'From a File' to display the Insert Picture dialog box.
- If necessary, navigate to the location where the Data Files are located and then click Support_PPT_7_Green_Hands.png to select the file (Figure 7-34).

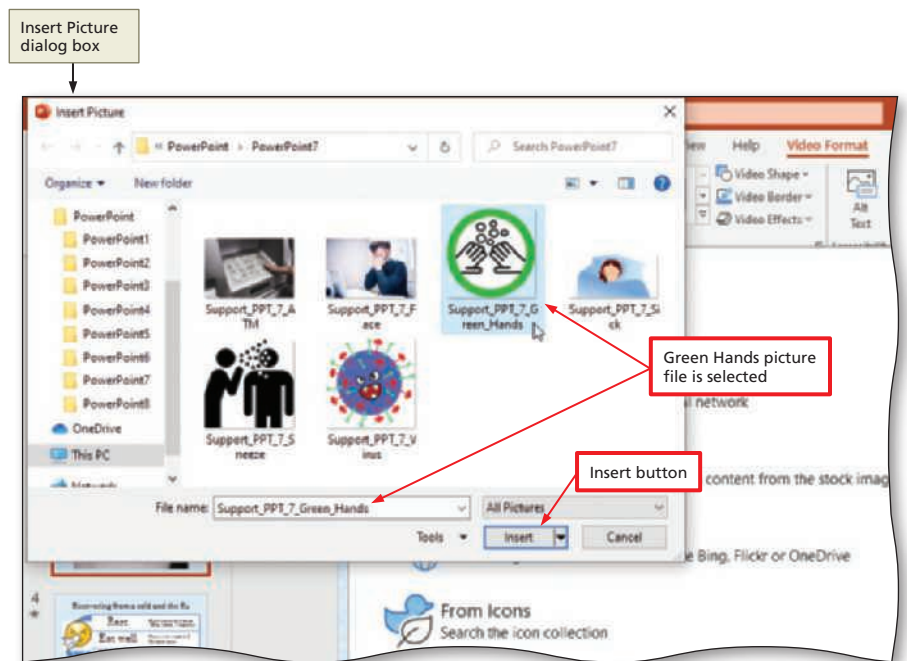


Figure 7-34

4

- Click the Insert button (Insert Picture dialog box) to insert this picture into Slide 3 (Figure 7–35).

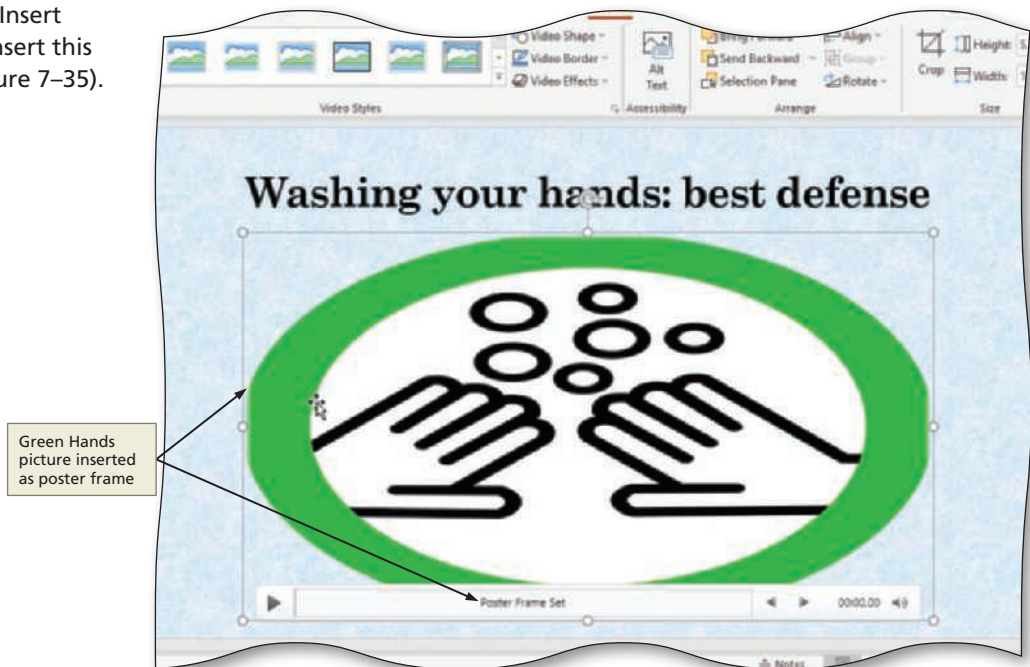


Figure 7–35

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Prevent file is saved and then you can quit PowerPoint. To resume at a later time, start PowerPoint, open the file called Prevent, and continue following the steps from this location forward.

Creating and Formatting a SmartArt Graphic

The predefined SmartArt graphics are visual representations of information to help convey information to your audience. The variety of shapes, arrows, and lines correspond to the major points you want your audience to remember. You can create a SmartArt graphic and then customize the content and design.

In the following pages, you will perform these tasks:

1. Insert a SmartArt graphic.
2. Enter and format text.
3. Add pictures.
4. Add and move shapes.
5. Promote and demote shapes.

To Insert SmartArt Using a Content Placeholder

Several SmartArt layouts have placeholders for one or more pictures, and they are grouped in the Picture category. The ‘Circular Picture Callout’ graphic is appropriate for this presentation. **Why?** It has one large area for a picture and three other areas for smaller pictures. These images would allow you to insert pictures relating to methods of avoiding contact with cold and flu viruses. The following steps insert the ‘Circular Picture Callout’ SmartArt graphic on Slide 2.

- 1
 - Display Slide 2 and then point to the 'Insert a SmartArt Graphic' icon in the content placeholder (Figure 7-36).
- 2
 - Click the 'Insert a SmartArt Graphic' icon to display the 'Choose a SmartArt Graphic' dialog box.
 - Click Picture in the left pane to display the Picture gallery.
 - Click the 'Circular Picture Callout' graphic (second graphic in first row) to display a preview of this layout in the right pane (Figure 7-37).

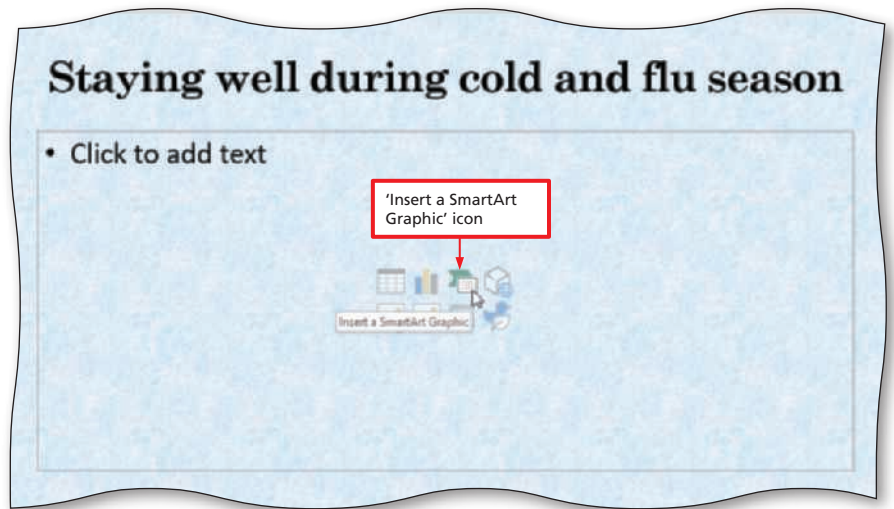


Figure 7-36

 **Experiment**

- Click various categories and graphics in the SmartArt Styles gallery and view the various layouts.

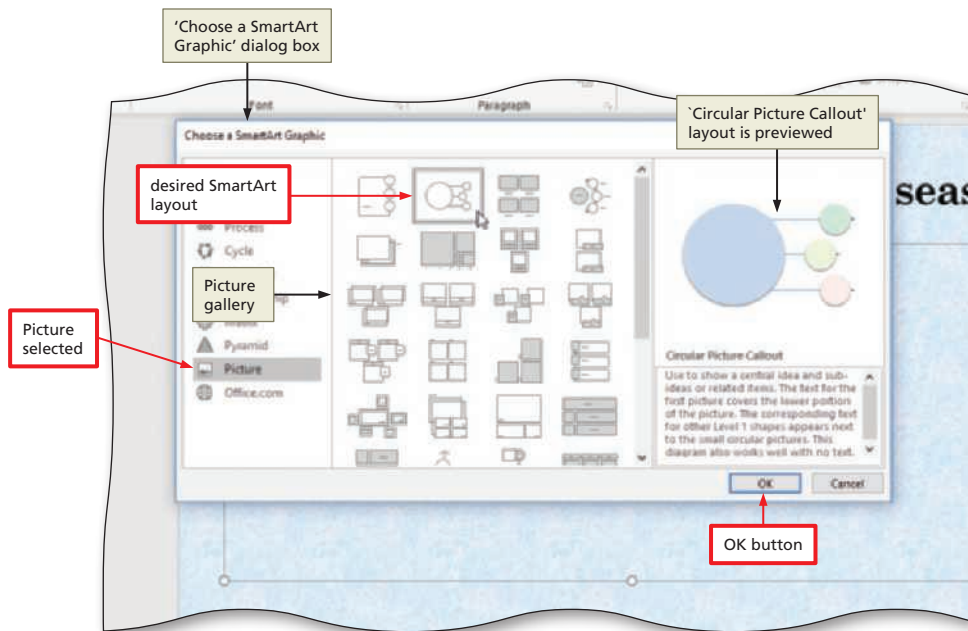


Figure 7-37

- 3
 - Click OK to insert this SmartArt layout into Slide 2.

Other Ways

1. Click SmartArt button (Insert tab | Illustrations group)

TO CONVERT A PICTURE TO SMARTART

You quickly can convert a picture on your slide into a SmartArt graphic. PowerPoint automatically places the picture into a shape and arranges it based on the layout you choose. If you wanted to convert a picture to SmartArt, you would perform the following steps.

1. Select the picture you want to convert and then display the Picture Format tab.
2. Click the Picture Layout button (Picture Format tab | Picture Styles group) to display the Picture Layout gallery.
3. Click the desired layout.

To Show or Hide the SmartArt Text Pane

You can show the Text pane to add or edit text in the SmartArt graphic, or you can hide it to see more of your slide when you are developing the graphic. If you are entering a large amount of text, consider showing the Text pane. **Why?** The bullets in the top portion of the pane function as an outline. You can create new lines of bulleted text and then indent and demote these lines. You also can check spelling. The following step shows the Text pane on Slide 2.

1. If necessary, click the Text Pane button (SmartArt Design tab | Create Graphic group) or the arrow icon in the center-left edge of the graphic to open the Text pane if it does not display automatically (Figure 7–38).

Q&A How do I hide the Text pane?

Click the Close button in the upper-right corner of the Text pane or click the Text Pane button again.

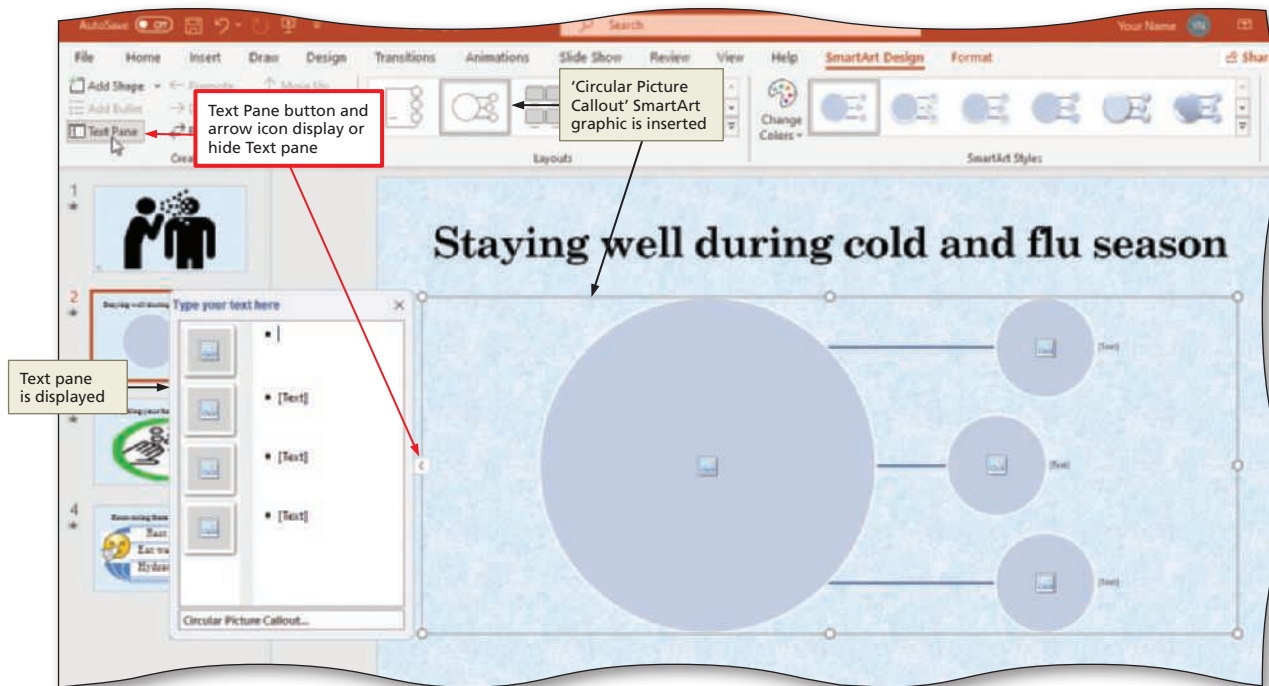


Figure 7–38

To Enter Text in SmartArt

The 'Circular Picture Callout' graphic has placeholders for text that can supplement the visuals. The following steps insert four lines of text in the Text pane and in the corresponding SmartArt shapes on Slide 2.

- 1 If necessary, position the insertion point beside the first bullet in the Text pane. Type **Don't...** in the first bullet paragraph and then click the second bullet line or press DOWN ARROW to move the insertion point to the second bullet paragraph.
- 2 Type **...touch your face** in the second bullet paragraph and then click the third bullet line or press DOWN ARROW to move the insertion point to the third bullet paragraph.
- 3 Type **...touch keypads and elevator buttons** in the third bullet paragraph and then click the fourth bullet line or press DOWN ARROW to move the insertion point to the fourth bullet paragraph.
- 4 Type **...forget to wash your hands** in the fourth bullet paragraph. Do not press DOWN ARROW or ENTER (Figure 7–39).

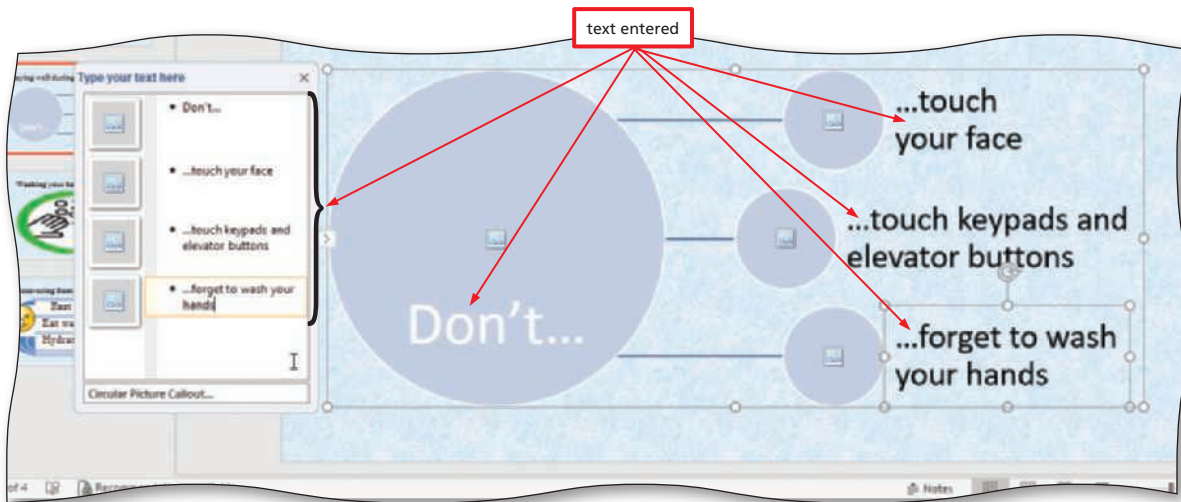


Figure 7–39

Other Ways

1. Right-click SmartArt graphic, click Show Text Pane on shortcut menu, enter text in Text pane

To Format Text Pane Characters

Once the desired characters are entered in the Text pane, you can change the font size and apply formatting features, such as bold, italic, and underlined text. **Why?** Changing the font and adding effects can help draw the audience members to the varied slide content and coordinate with the visual content. The following steps format the text by changing the font.

- 1
 - With the Text pane open, drag through all four bullet paragraphs to select the text and display the Mini toolbar.

2

- Display the Font gallery and change the font to Berlin Sans FB (Figure 7–40).

Q&A These formatting changes did not appear in the Text pane. Why?

Not all the formatting changes are evident in the Text pane, but they appear in the corresponding shape.

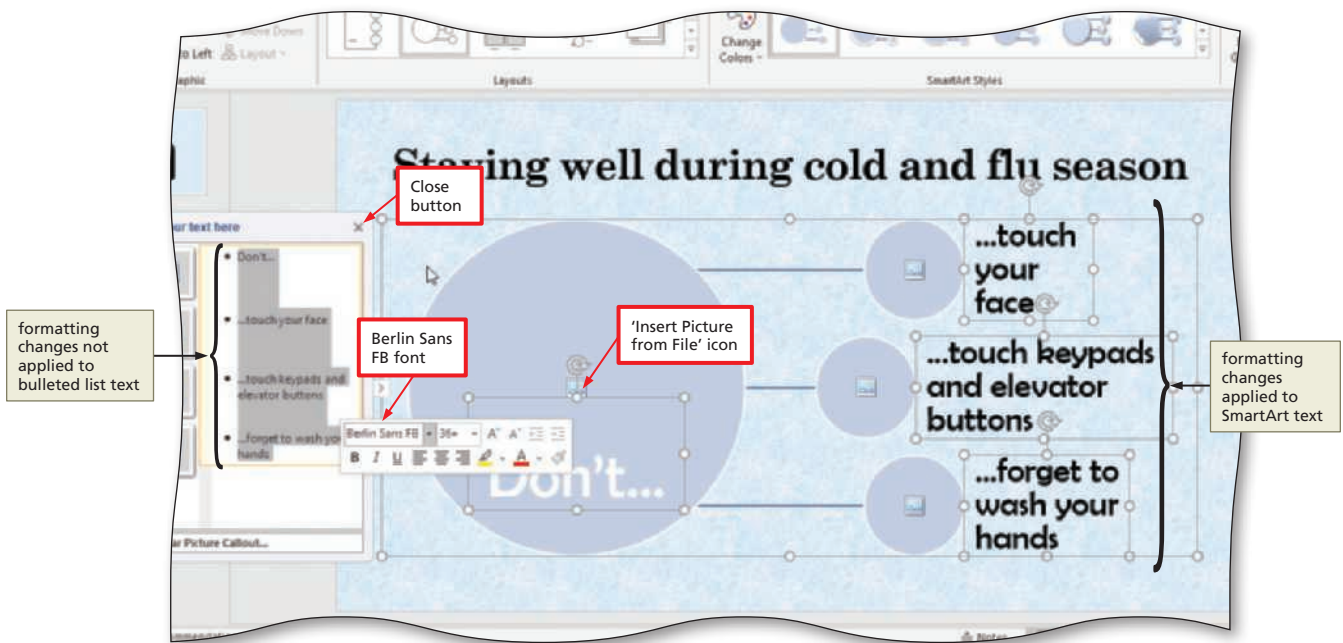


Figure 7–40

3

- Close the SmartArt Text pane so that it no longer is displayed.

To Add a Picture to SmartArt

The picture icons in the middle of the four circles in the ‘Circular Picture Callout’ SmartArt layout indicate that the shapes are designed to hold images. These images can add a personalized touch to your presentation. You can select files from the Internet or from images you have obtained from other sources, such as a picture taken with your digital camera. The following steps insert a picture located in the Data Files into the large SmartArt circle.

- 1 Click the ‘Insert Picture from File’ icon in the SmartArt large circle picture placeholder (shown in Figure 7–40) to display the Insert Pictures dialog box.
- 2 Click ‘From a File’ to display the Insert Picture dialog box.
- 3 If necessary, navigate to the Data Files folder and then click Support_PPT_7_Virus.png to select the file.
- 4 Click the Insert button (Insert Picture dialog box) to insert the virus picture into the SmartArt large circle picture placeholder (Figure 7–41).

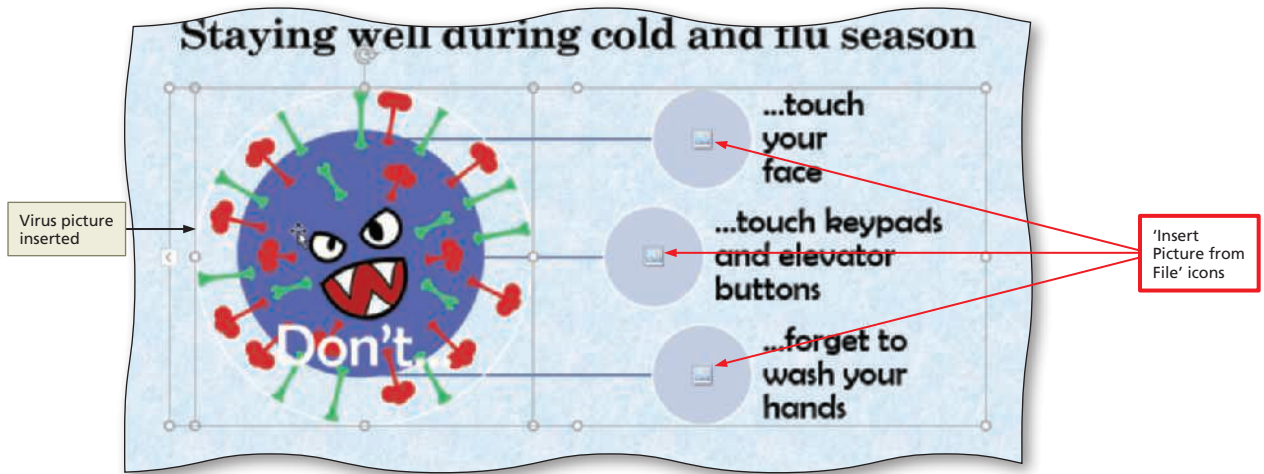


Figure 7-41

To Insert a Picture into a SmartArt Shape

The Virus picture fills the left shape in the SmartArt graphic, and you want to insert additional recycling pictures in the three circles in the right portion of the graphic. These images are located in the Data Files. The following steps insert pictures into the three smaller SmartArt graphic circles.

- 1 Click the 'Insert Picture from File' icon in the top circle to the left of the words, ...touch your face, to display the Insert Pictures dialog box.
- 2 Click 'From a File', click Support_PPT_7_Face.jpg in the list of picture files, and then click the Insert button (Insert Picture dialog box) to insert the picture into the top-right SmartArt circle picture placeholder.
- 3 Click the center 'Insert Picture from File' icon to the left of the words, ...touch keypads and elevator buttons, click 'From a File', and then insert the picture with the file name, Support_PPT_7_ATM.jpg, into the placeholder.
- 4 Click the bottom 'Insert Picture from File' icon to the left of the words, ...forget to wash your hands, and then insert the picture with the file name, Support_PPT_7_Green_Hands.png, into the placeholder (Figure 7-42).



Figure 7-42

To Add a Shape to SmartArt

You can add a new SmartArt shape to the layout if you need to display additional information. PowerPoint gives you the option of adding this shape above or below a selected shape or to the left or the right side of the shape. **Why?** You want to display another method of preventing the spread of the cold or flu virus. The following steps add a SmartArt shape.

- 1 With the Green Hands picture shape selected and the SmartArt Design tab displayed, click the Add Shape arrow (SmartArt Design tab | Create Graphic group) to display the Add Shape menu (Figure 7-43).

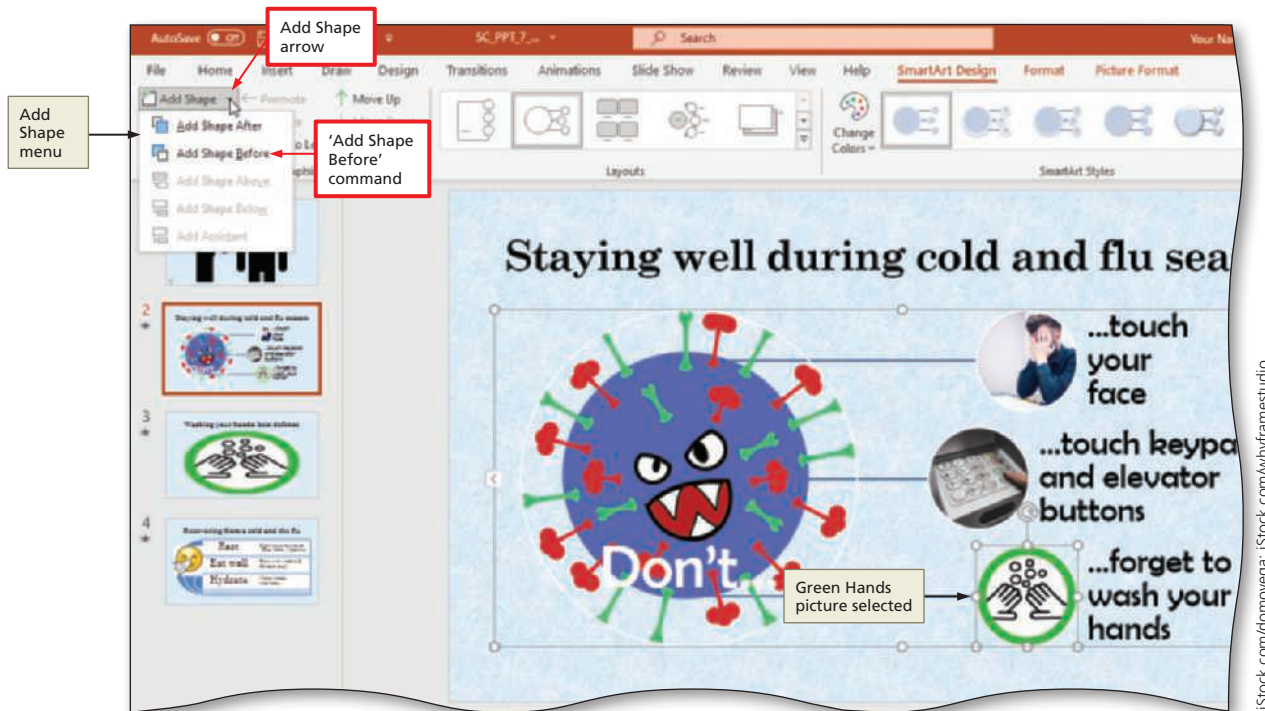


Figure 7-43

- 2
 - Click 'Add Shape Before' to create a new shape above the '...forget to wash your hands' shape.
 - Type `...go near sick people` as the new shape text and then change the font to Berlin Sans FB.
 - Insert the Support_PPT_7_Sick.png file into the placeholder (Figure 7-44).

Q&A What happens if I click the Add Shape button instead of the Add Shape arrow?

A shape would be added below the selected shape by default.



Figure 7-44

To Apply 3-D Effects to SmartArt

You can change the look of your SmartArt graphic easily by applying a SmartArt style. **Why?** These professionally designed effects customize the appearance of your presentation with a variety of shape fills, edges, shadows, line styles, gradients, and dimensions. The following steps add the Brick Scene 3-D effect to the SmartArt.

1

- Select the entire SmartArt graphic by clicking an outer edge of the graphic and then, if necessary, display the SmartArt Design tab (Figure 7-45).

Q&A How will I know the entire graphic is selected?

You will see the Text pane control and sizing handles around the outer edge of the SmartArt.

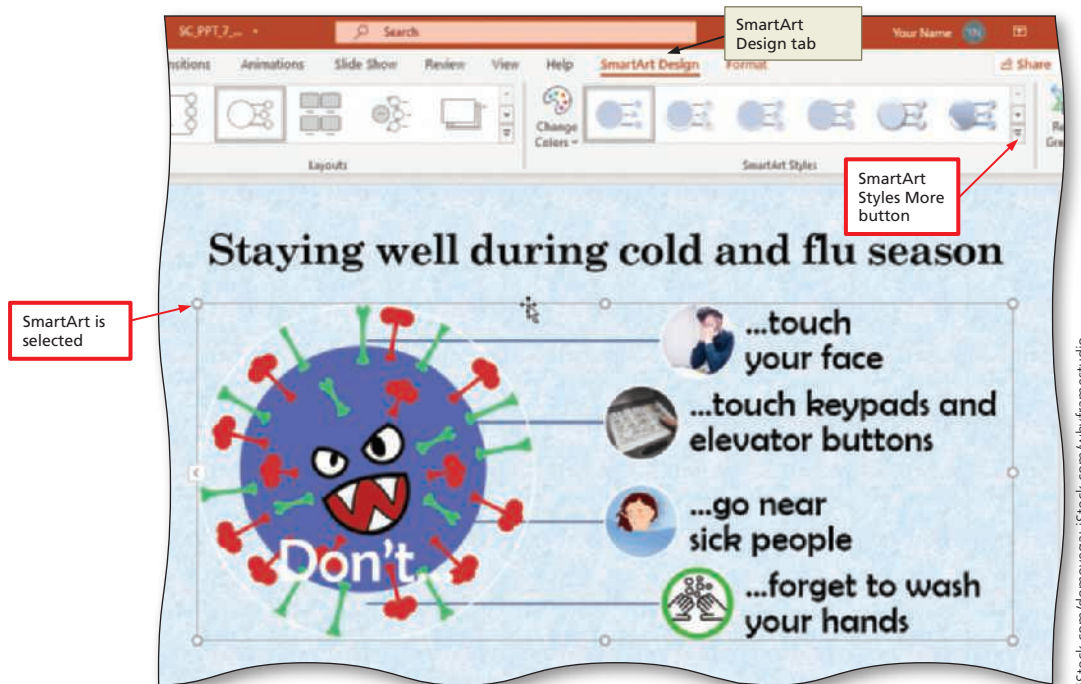


Figure 7-45

2

- Click the SmartArt Styles More button (SmartArt Design tab | SmartArt Styles group) (shown in Figure 7-45) to expand the SmartArt Styles gallery (Figure 7-46).

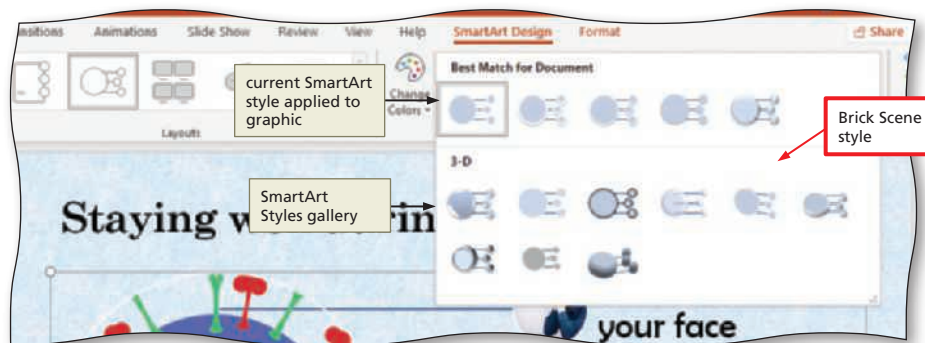


Figure 7-46

3

- Point to the Brick Scene style in the 3-D area (fifth style in first 3-D row) in the SmartArt Styles gallery to display a live preview of this style (Figure 7-47).

Experiment

- Point to various styles in the SmartArt Styles gallery and watch the 'Circular Picture Callout' graphic change styles.

4

- Click Brick Scene to apply this style to the graphic.

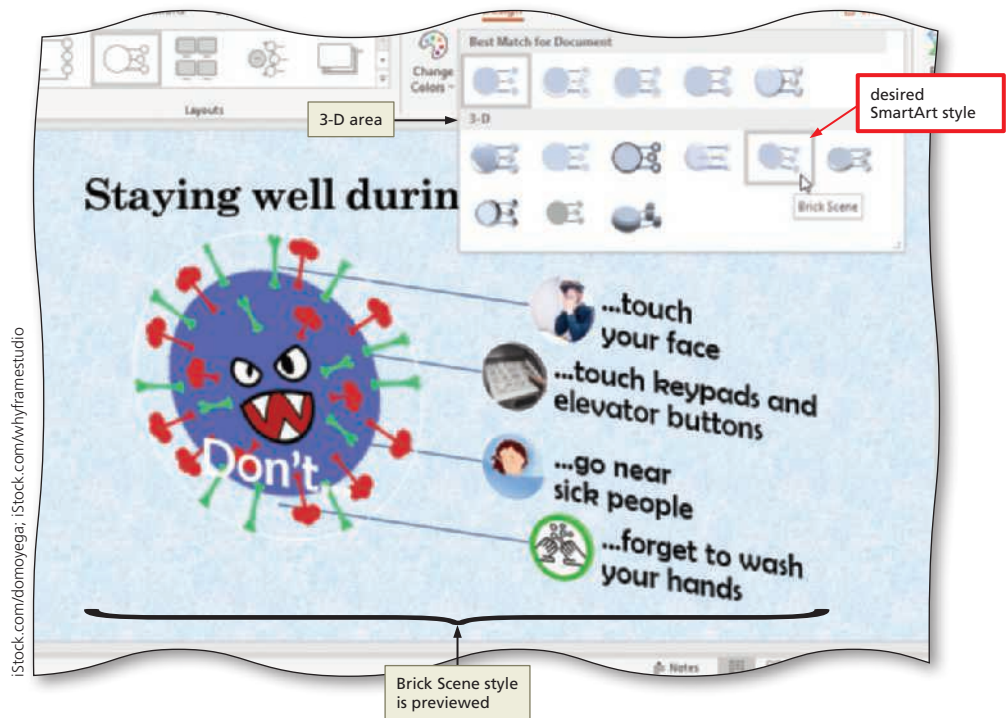


Figure 7-47

Other Ways

1. Right-click SmartArt graphic in an area other than a picture, click Style button

To Change the Color of SmartArt

Another modification you can make to your SmartArt graphic is to change its color. As with the WordArt Style gallery, PowerPoint provides a gallery of SmartArt color options you can preview and evaluate. The following steps change the SmartArt graphic color to a Colorful range. **Why?** The slide background and the images in your SmartArt have a blue accent, and the current line color is blue. You want the SmartArt line elements to change to black so they are more visible against the blue background.

1

- With the SmartArt graphic still selected, click the Change Colors button (SmartArt Design tab | SmartArt Styles group) to display the Change Colors gallery (Figure 7-48).

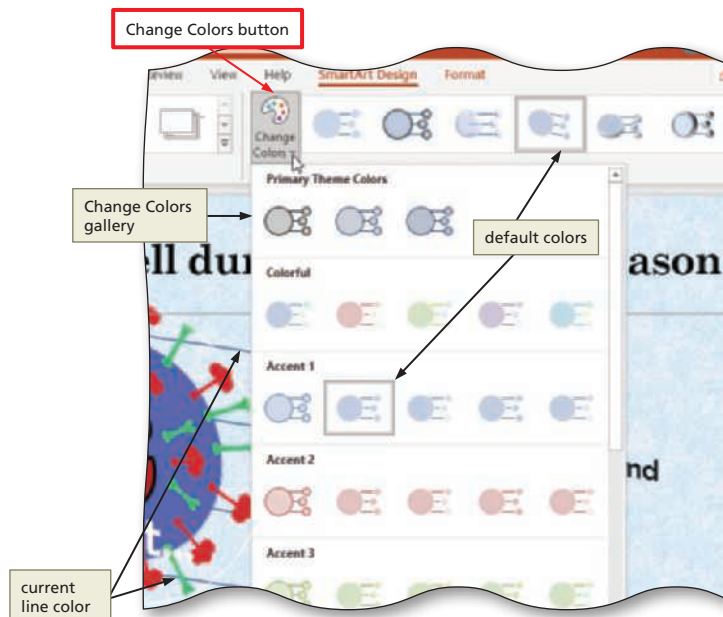


Figure 7-48

2

- Point to 'Dark 1 Outline' (first theme) in the Primary Theme Colors area to display a live preview of these colors (Figure 7-49).

 **Experiment**

- Point to various colors in the Change Colors gallery and watch the shapes change colors.

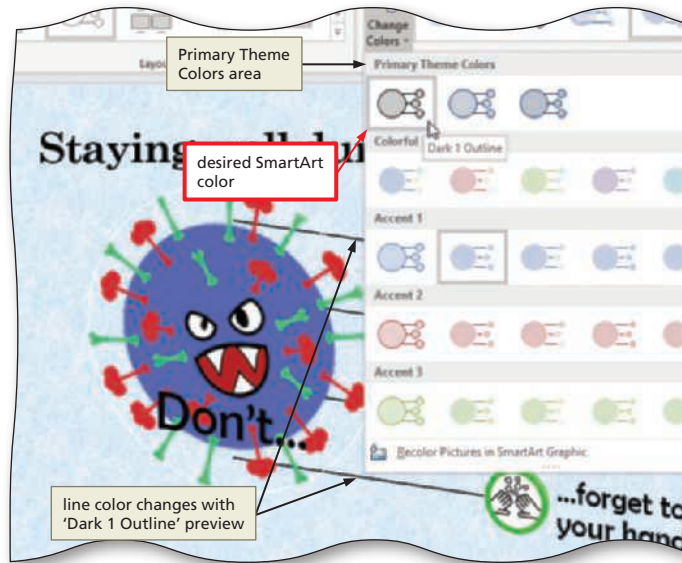


Figure 7-49

3

- Click 'Dark 1 Outline' to apply this color variation to the graphic (Figure 7-50).

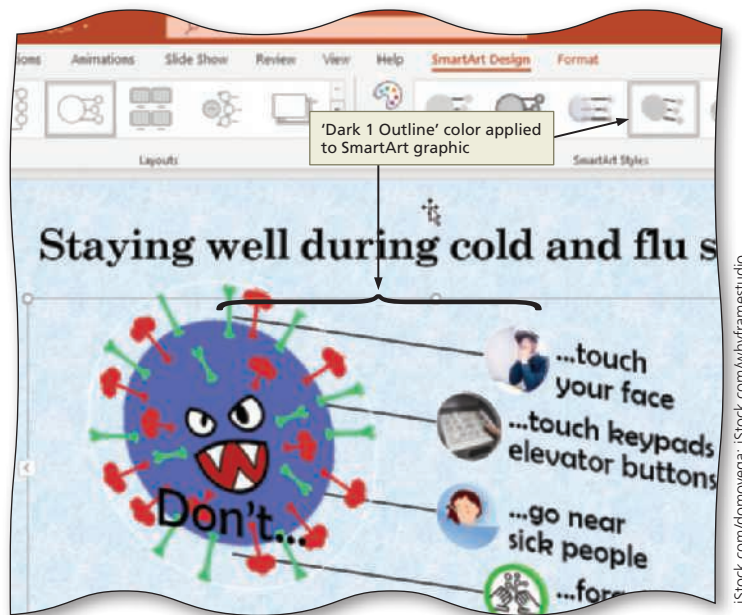


Figure 7-50

Other Ways

1. Right-click SmartArt graphic in an area other than a picture, click Color button

To Increase the Size of a SmartArt Shape

When you view the completed graphic, you may decide that individual shapes or the entire piece of art needs to be enlarged or reduced. All the shapes will enlarge proportionally when you adjust the graphic's height and width to maintain proportions. Likewise, the font size may change in all the shapes if you increase or decrease the font size of one shape. On Slide 2, you want to change the SmartArt graphic size. **Why?** A larger graphic size will fill the empty space on the slide and add readability. The following step resizes one SmartArt graphic shape.

1

- Click the Virus shape to select it.
- Display the Format tab and then click the Larger button (Format tab | Shapes group) twice to increase the shape size (Figure 7-51).

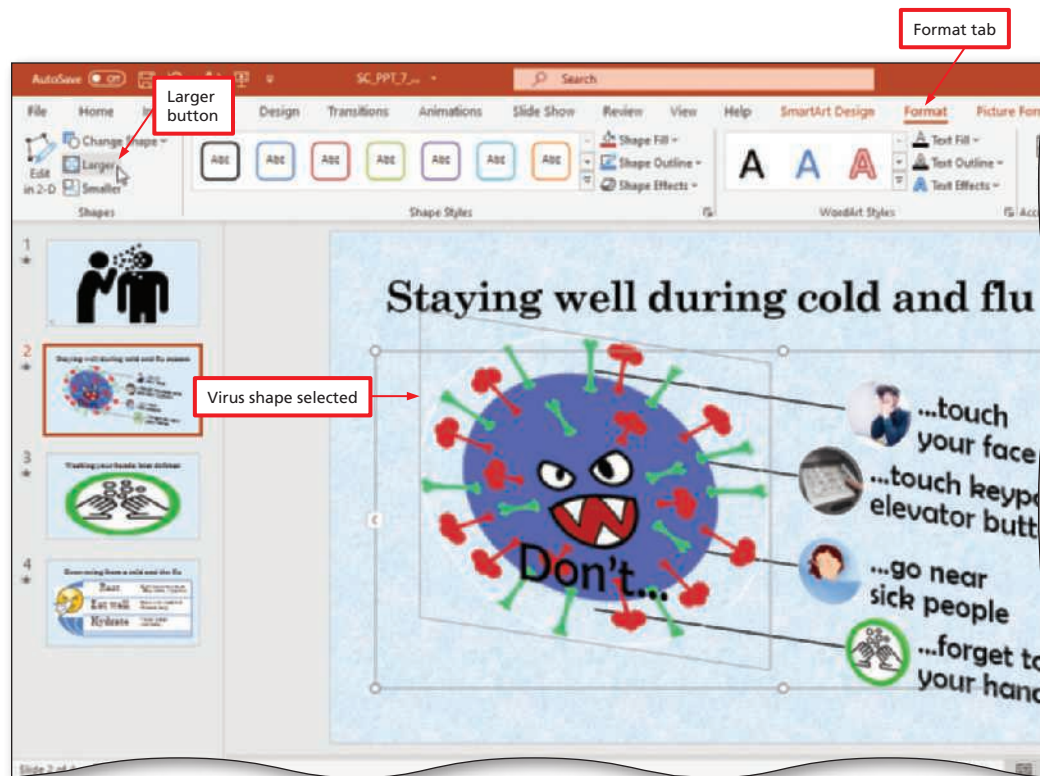


Figure 7-51

Other Ways

- 1 Right-click graphic, click 'Size and Position' on shortcut menu, if necessary click 'Size & Properties' icon (Format Shape pane), if necessary click Size, enter graphic height and width values in boxes, close Format Shape pane

To Resize SmartArt to Exact Dimensions

You can resize a slide element by dragging the sizing handles or by specifying exact measurements for the height and width. On Slide 2, you want to change the SmartArt graphic size. **Why?** Adequate space exists on the slide to increase all the SmartArt shapes. The following steps resize the SmartArt graphic by entering an exact measurement.

1

- Select the entire SmartArt graphic by clicking an outer edge of the graphic.
- With the Format tab displayed, click the Size button (Format tab | Size group) to display the Size menu Height and Width boxes (Figure 7-52).

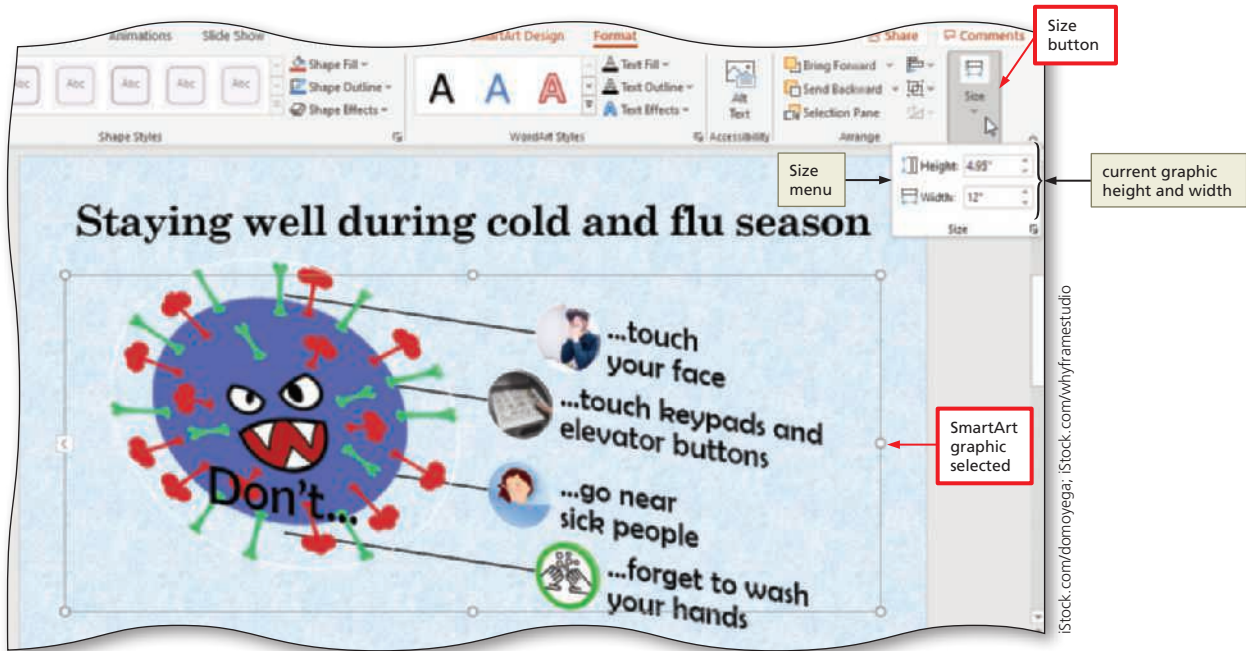


Figure 7-52

2

- Change the Height measurement to 5.3\"/>

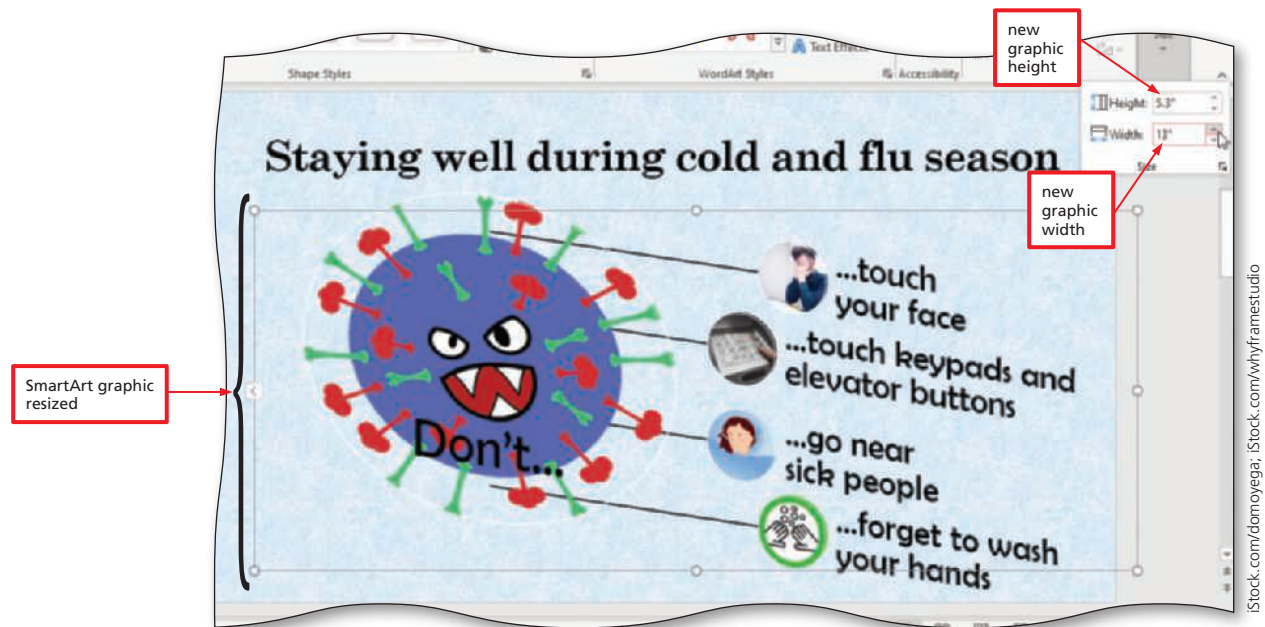


Figure 7-53

3

- Use the smart guides to align the SmartArt object, as shown in Figure 7-54.

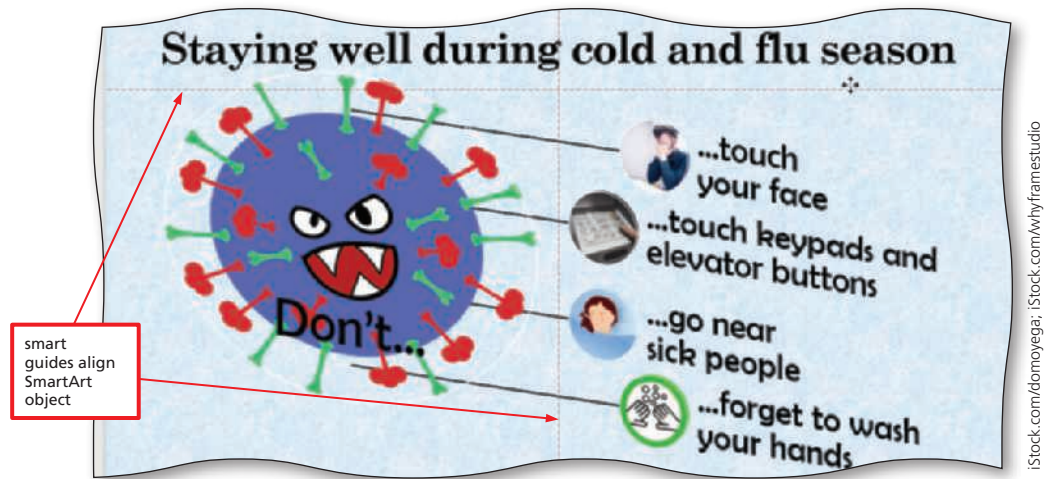


Figure 7-54

Other Ways

1. Right-click graphic, click 'Size and Position' on shortcut menu, if necessary click 'Size & Properties' icon (Format Shape pane), if necessary click Size, enter graphic height and width values in boxes, close Format Shape pane

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Prevent file is saved and then you can quit PowerPoint. To resume at a later time, start PowerPoint, open the file called Prevent, and continue following the steps from this location forward.

To Move a SmartArt Shape Up

One modification that you can make to a SmartArt layout is to change the order of the shapes. Slide 4 contains SmartArt with information about recovering from a cold or the flu. You decide that two items in the graphic should be displayed in a different order. **Why?** Health professionals stress that keeping hydrated can help ease cold and flu symptoms, so you want to display this fact more prominently in the graphic. PowerPoint provides tools to move shapes and paragraphs in a vertical layout up or down. The following steps move the Hydrate shape up in the graphic.

1

- Display Slide 4.
- Position the pointer in the Hydrate shape and then click to select it (Figure 7-55).

Q&A Is all the text selected in the Hydrate shape? Yes. The word, Hydrate, is in a first-level paragraph, and the two bulleted second-level paragraphs are associated with it. When the shape is selected, all related paragraphs are selected with it.

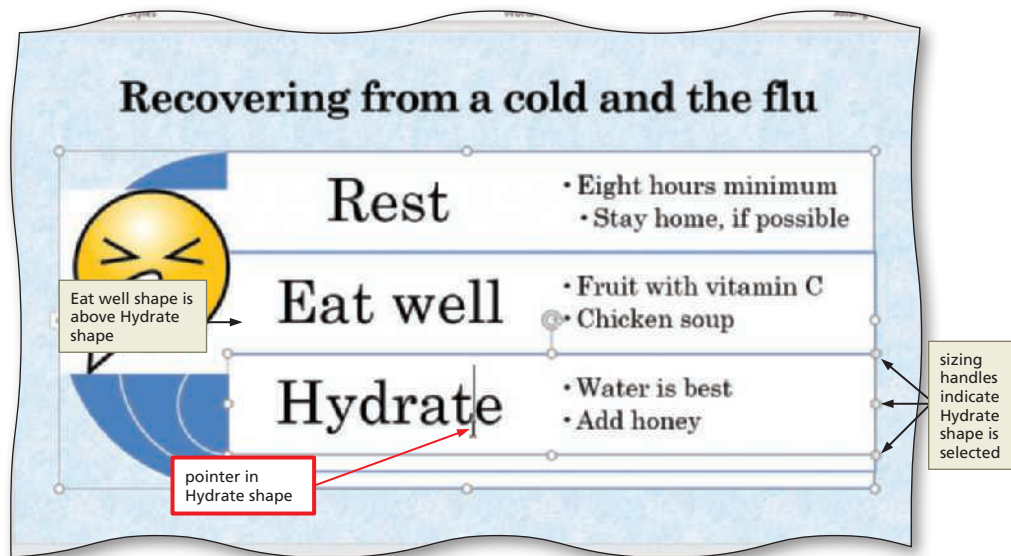


Figure 7-55

2

- Display the SmartArt Design tab.
- Click the Move Up button (SmartArt Design tab | Create Graphic group) to reorder the Hydrate shape above the Eat well shape (Figure 7–56).

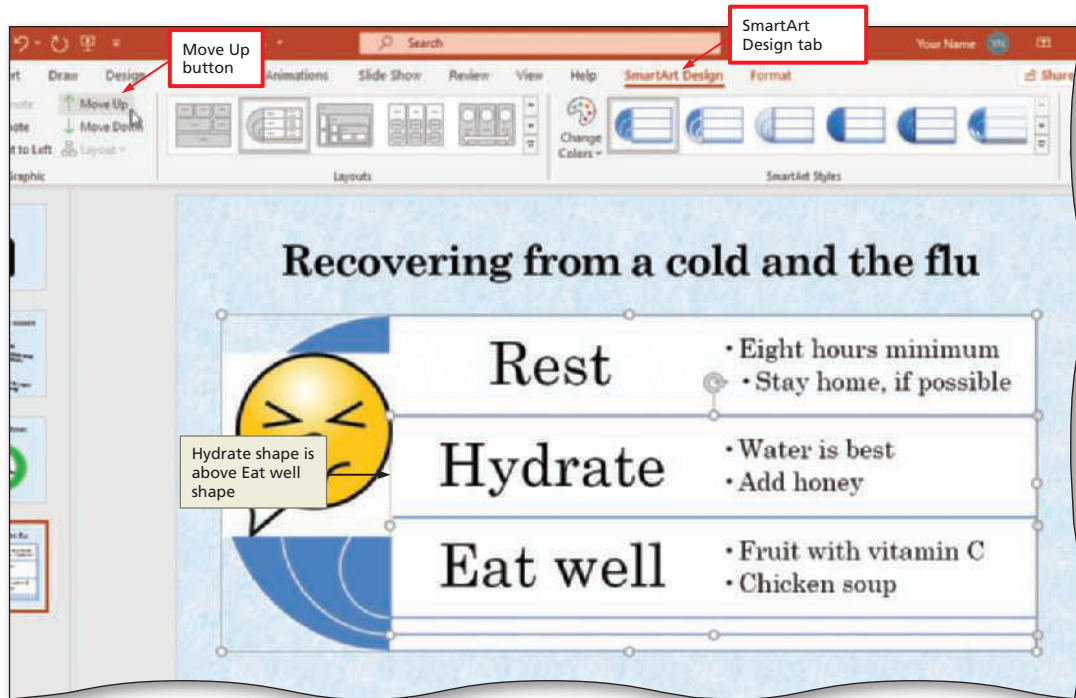


Figure 7–56

To Move a SmartArt Shape Down

You can move shapes down in a SmartArt graphic in a similar manner that you move a shape up. You desire to move the Rest shape down. **Why?** While resting and keeping hydrated both are important steps in the recovery process, many people do not drink sufficient fluids when they are resting. The Hydrate shape, therefore, should be at the top of the graphic so that your audience members remember this information. The following steps move the Rest shape down in the graphic.

1

- Position the pointer in the Rest shape (Figure 7–57).

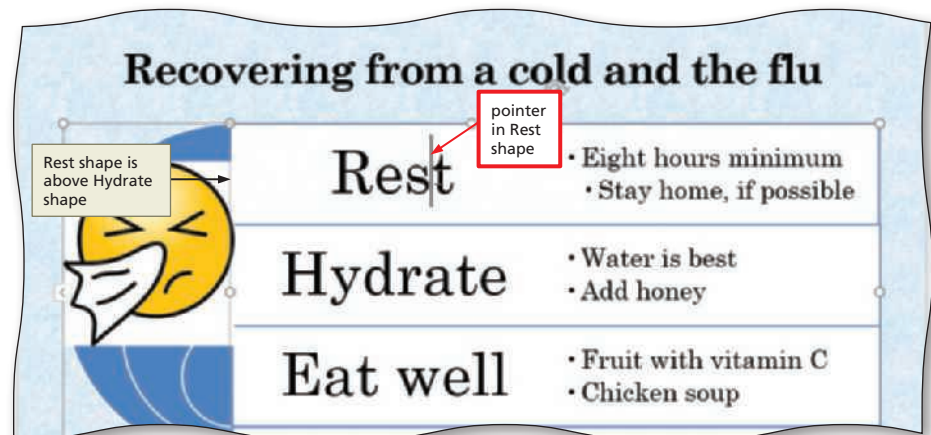


Figure 7–57

2

- Click the Rest shape to select it and the two bulleted paragraphs.
- Click the Move Down button (SmartArt Design tab | Create Graphic group) to reorder the Rest shape below the Hydrate shape (Figure 7-58).

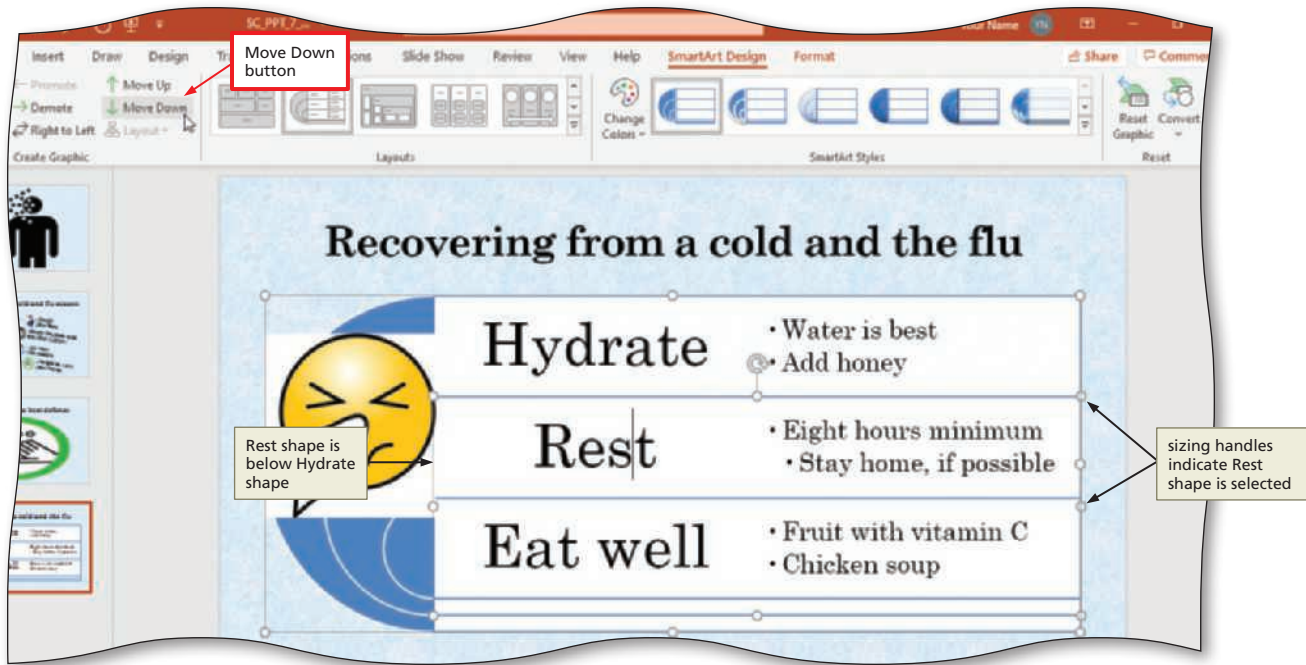


Figure 7-58

To Demote a SmartArt Shape

PowerPoint provides tools that allow you to promote and demote bulleted text to change the indents for these elements. The two bulleted items in the Hydrate shape are second-level paragraphs, but you decide to demote the second paragraph, Add honey. **Why?** People should add honey to water or other liquids they are using to keep hydrated. The following steps demote the second-level bulleted paragraph.

1

- Position the pointer in the bulleted paragraph, Add honey (Figure 7-59).

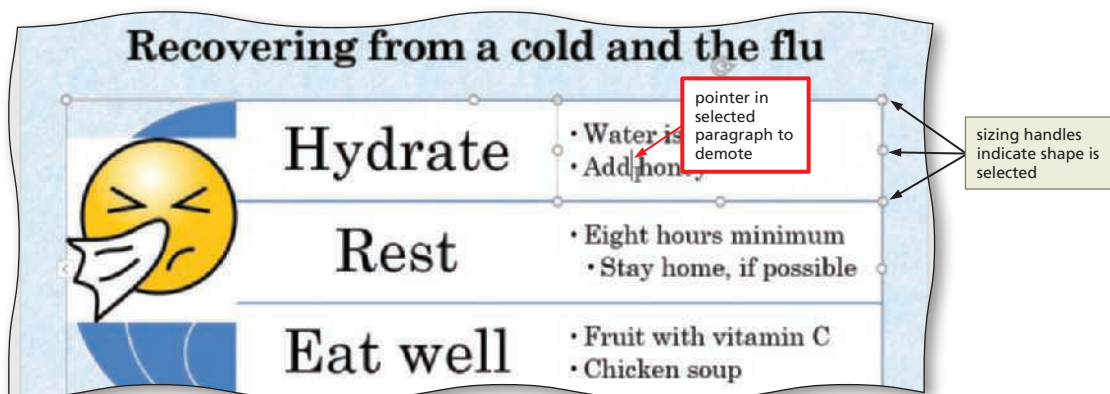


Figure 7-59

2

- Click the Demote button (SmartArt Design tab | Create Graphic group) to increase the indent of the bulleted paragraph (Figure 7-60).



Figure 7-60

To Promote a SmartArt Shape

Another change you want to make on Slide 4 is to promote the bulleted paragraph, Stay home, if possible, to the same level as the bullet above it. **Why?** Both these elements are equally important in encouraging sick people to rest. The following steps promote the second bullet in the Rest shape.

1

- Position the pointer in the bulleted paragraph, Stay home, if possible (Figure 7-61).

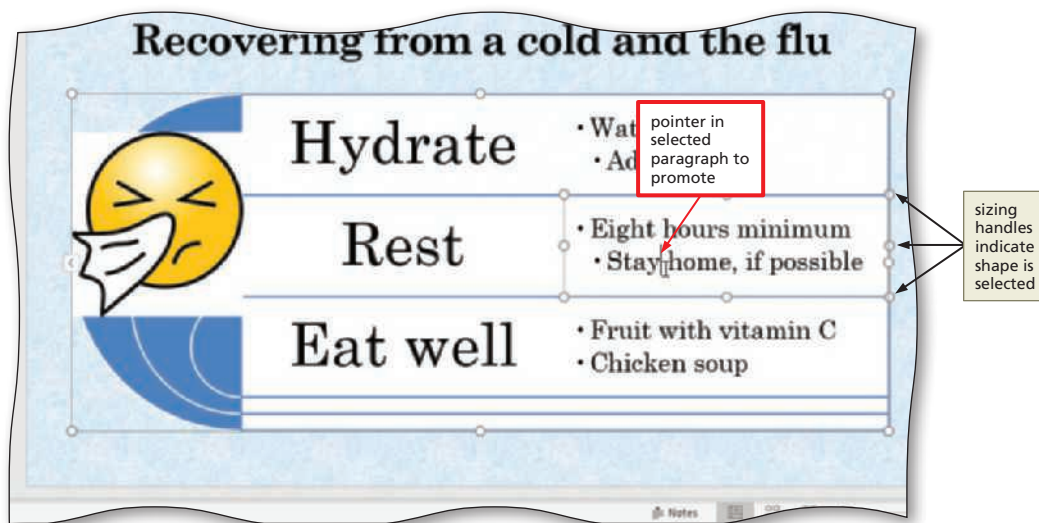


Figure 7-61

2

- Click the Promote button (SmartArt Design tab | Create Graphic group) to decrease the indent of the bulleted paragraph (Figure 7–62).

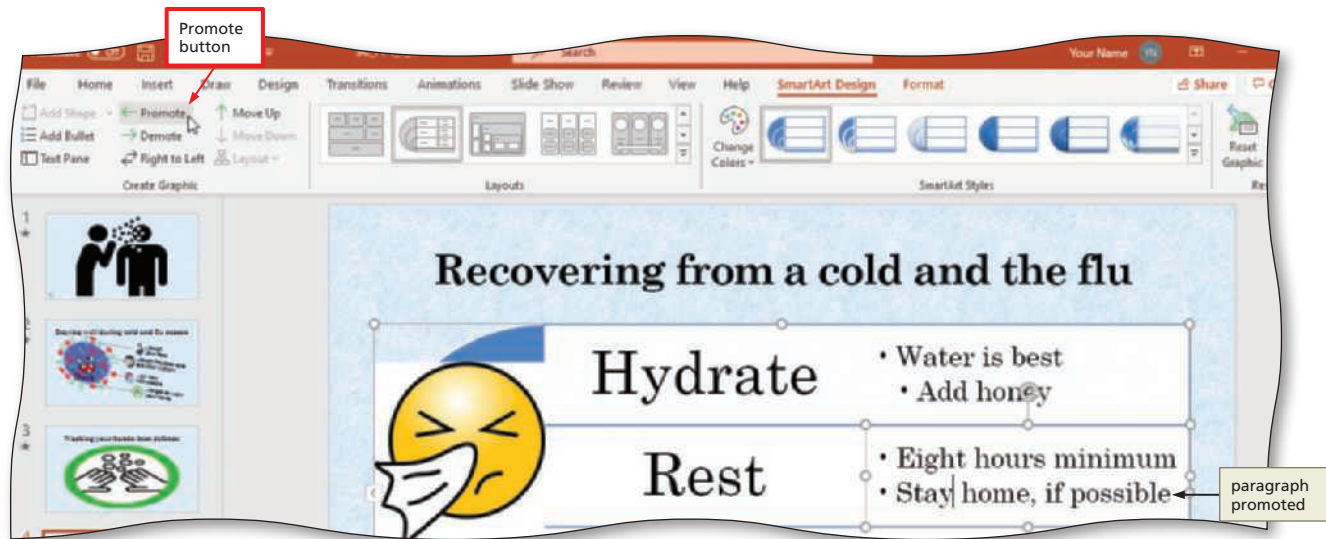


Figure 7–62

TO ADD A BULLET TO A SMARTART SHAPE

If you need to add information to a SmartArt shape, you can create a new bulleted paragraph. This text would display below the last bulleted paragraph in the shape. If you wanted to add a SmartArt bullet, you would perform the following steps.

1. Select the SmartArt graphic shape where you want to insert the bulleted paragraph.
2. Click the Add Bullet button (SmartArt Design tab | Create Graphic group) to insert a new bulleted paragraph below any bulleted text.

TO CHANGE THE SMARTART LAYOUT

Once you begin formatting a SmartArt shape, you may decide that another layout better conveys the message you are communicating to an audience. PowerPoint allows you to change the layout easily. Any graphical changes that were made to the original SmartArt, such as moving shapes or promoting and demoting paragraphs, are applied to the new SmartArt layout. If you wanted to change the SmartArt layout, you would perform the following steps.

1. Display the SmartArt Design tab and then click the More button in the Layouts group to expand the Layouts gallery.
2. Click More Layouts at the bottom of the Layouts gallery to display the Choose a SmartArt Graphic dialog box, click the desired category, and then click the desired layout.
3. Click OK (Choose a SmartArt Graphic dialog box).

TO REMOVE A SMARTART SHAPE

One change you can make to a SmartArt graphic is to delete elements. If you wanted to remove a shape, you would perform the following steps.

1. Click a border of the right SmartArt shape to select the entire shape.
2. Press DELETE to delete the shape.

Formatting Pictures

At times you may desire to emphasize one section of a picture and eliminate distracting background content. PowerPoint includes formatting tools that allow you to edit pictures. The **Remove Background** command isolates the foreground from the background. Once you format the picture to include only the desired content, you can **compress** the image to reduce the file size.

Once you have removed the background, you may want to enhance the image with another formatting tool. You can, for example, improve the picture's brightness and contrast. You also can change the color to match other content on the slide based on the design theme or other elements you have added.

In the following pages, you will perform these tasks:

1. Remove a picture background.
2. Change a picture contrast and brightness.
3. Compress pictures.
4. Insert a screenshot.

To Remove a Picture Background

Slide 4 in the Prevent presentation has a picture of a yellow Smiley in the left side of the SmartArt graphic. You want to eliminate the white background from the image. **Why? You desire to blend this picture with the blue graphical element.** The PowerPoint Background Removal feature makes it easy to eliminate unwanted background aspects. When you click the Remove Background button, PowerPoint attempts to select the foreground of the picture and overlay a magenta marquee selection on this area. You then can adjust the marquee shape and size to contain all foreground picture components you want to keep. The following steps remove the background from the Smiley picture.

1

- Click the Smiley picture to select it and then click the Picture Format tab (Figure 7-63).

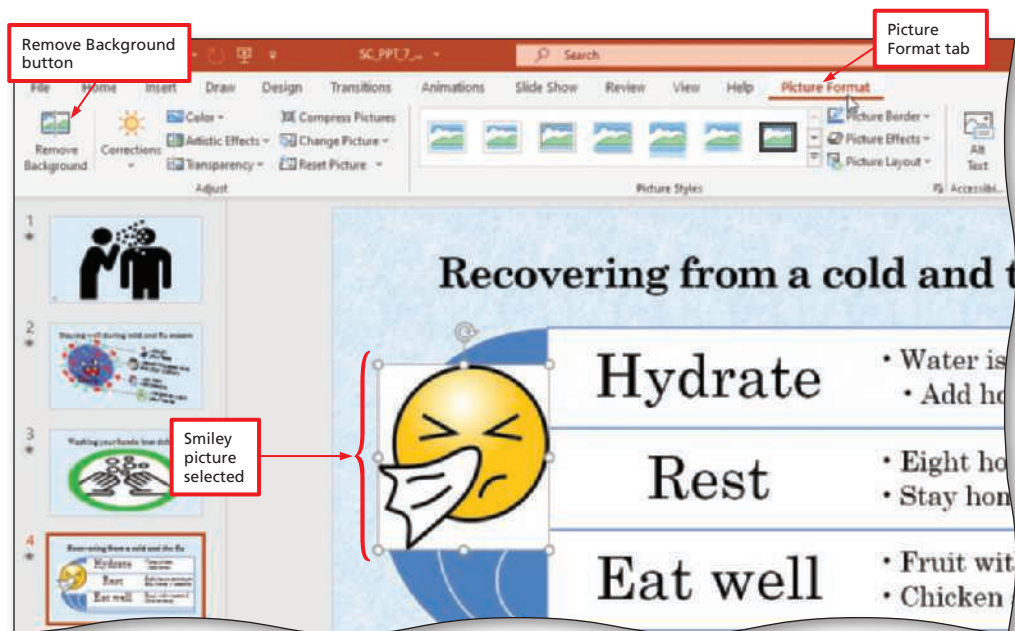


Figure 7-63

2

- Click the Remove Background button (Picture Format tab | Adjust group) to display the Background Removal tab and a marquee selection area.
- Zoom the slide to 180%. If necessary, use the vertical and horizontal scroll bars to adjust the slide so the entire Smiley picture is visible (Figure 7–64).

Q&A How does PowerPoint determine the area to display within the marquee?

Microsoft Research software engineers developed the algorithms that determine the portions of the picture in the foreground.

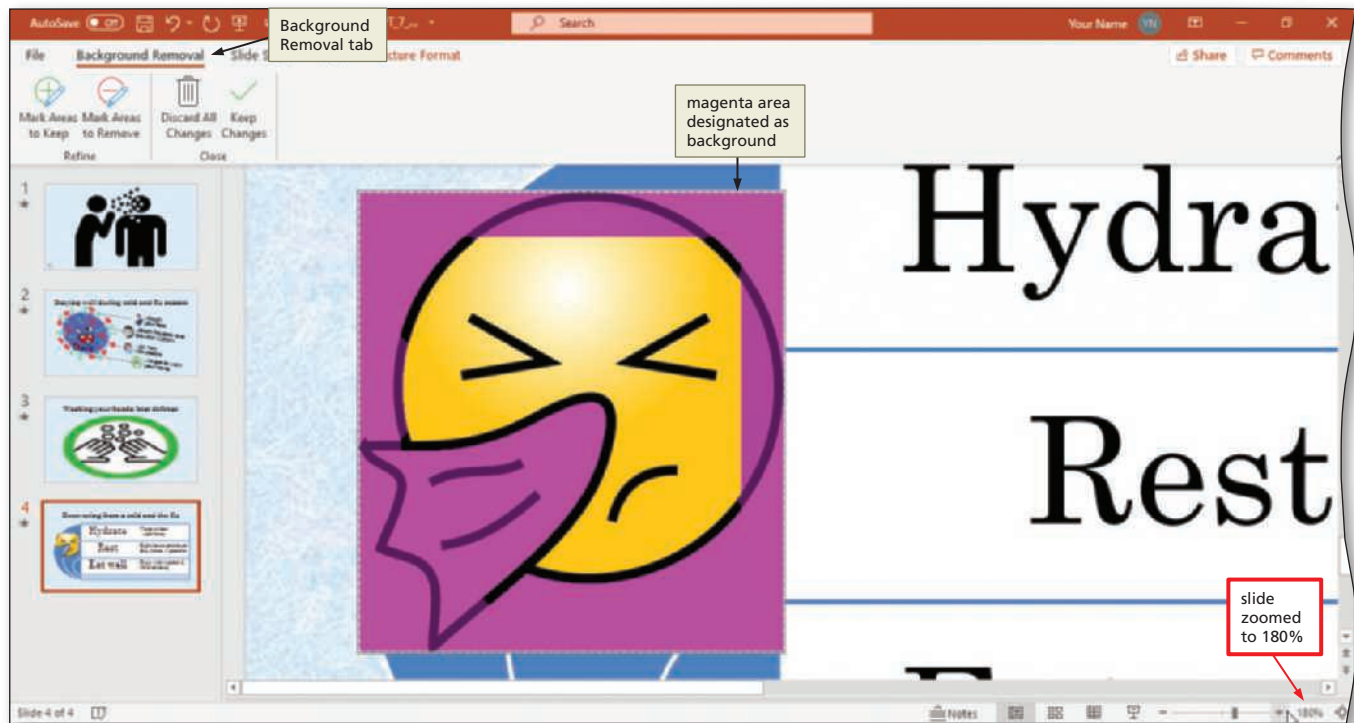


Figure 7–64

To Refine Background Removal

In many cases, the Remove Background command discards all the undesired picture components. When the background is integrated closely with the foreground picture, however, some undesired pieces occasionally remain and other desired pieces are discarded. Tools on the Background Removal tab allow you to mark specific areas to remove and to keep. **Why?** In the title slide Smiley picture, the tissue was removed. In addition, the upper and right areas of the circle also were removed. The following steps mark areas to keep.

1

- Click the 'Mark Areas to Keep' button (Background Removal tab | Refine group) and then position the pointer in the tissue (Figure 7–65).

Q&A What if different areas were kept/removed in my picture?

Read the steps to Keep or Discard areas of a picture, and keep or remove as appropriate to show just the Smiley against the sky.

Why did my pointer change shape?

The pointer changed to a pencil to indicate you are about to draw on a precise area of the picture.

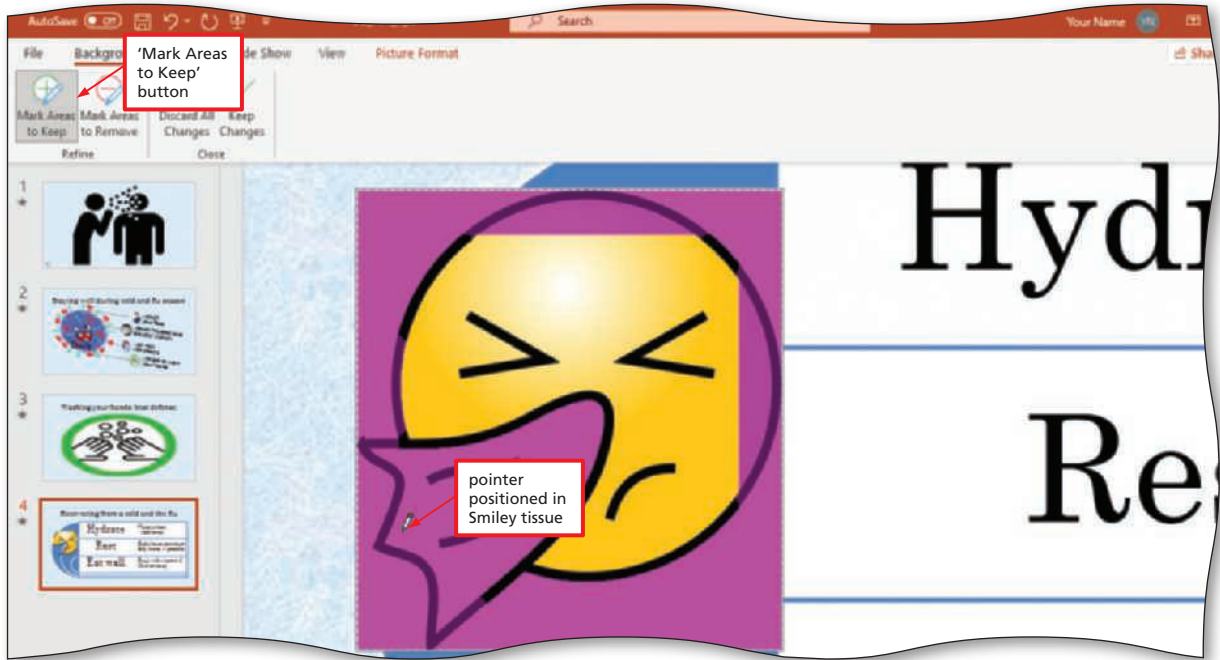


Figure 7-65

2

- Click and then drag the pointer across the tissue to indicate a portion of the tissue to keep (Figure 7-66).

Q&A If I marked an area that I want to delete, can I reverse my action?

Yes. Press CTRL+Z immediately after you draw the line.

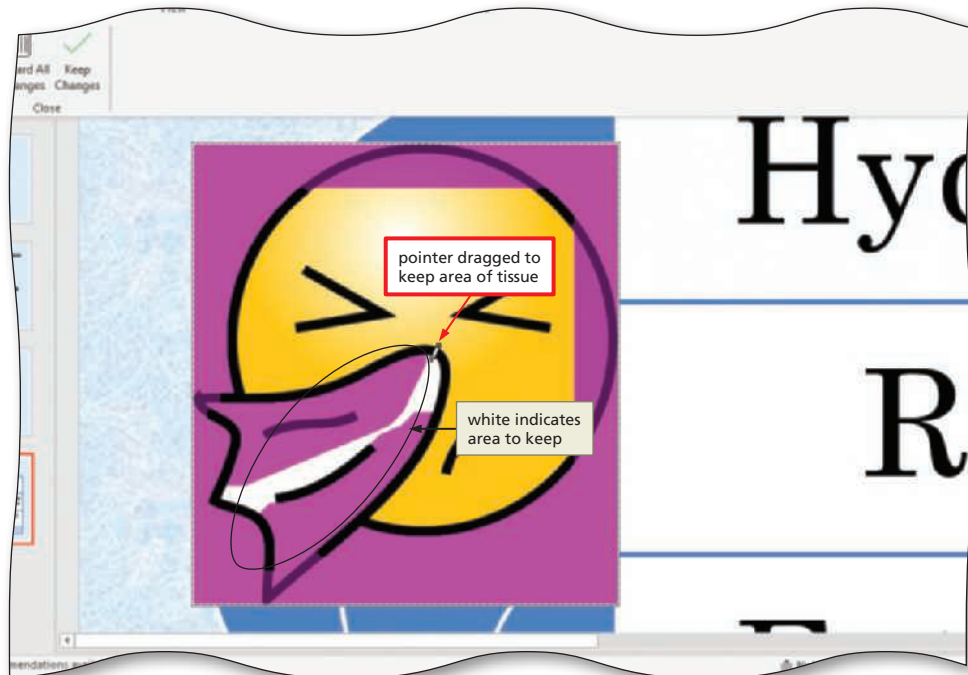


Figure 7-66

3

- Continue to click and drag the pointer across the purple areas inside the tissue to indicate portions of the tissue to keep (Figure 7-67).

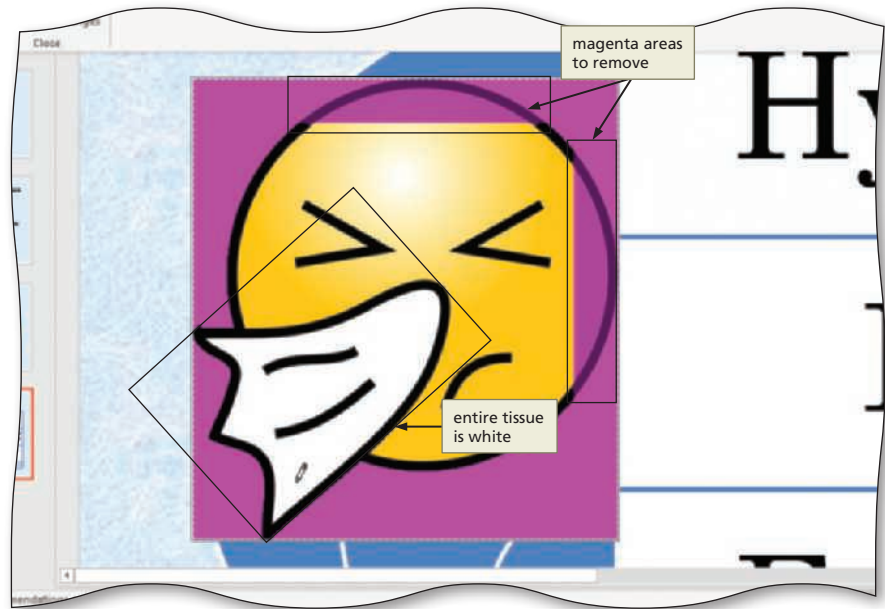


Figure 7-67

4

- Click and drag the pointer in the purple areas at the top and right of the inner circle to indicate portions of the picture to keep (Figure 7-68).

Q&A What if I erased parts of the picture that I want to keep or I did not select all the areas I want to delete?

You may need to make several passes to keep part of the picture.

I marked some areas to keep that I want to delete. How can I remove these areas?

Click the 'Mark Areas to Remove' button, click and drag the pointer over these areas, and then click the Keep Changes button.

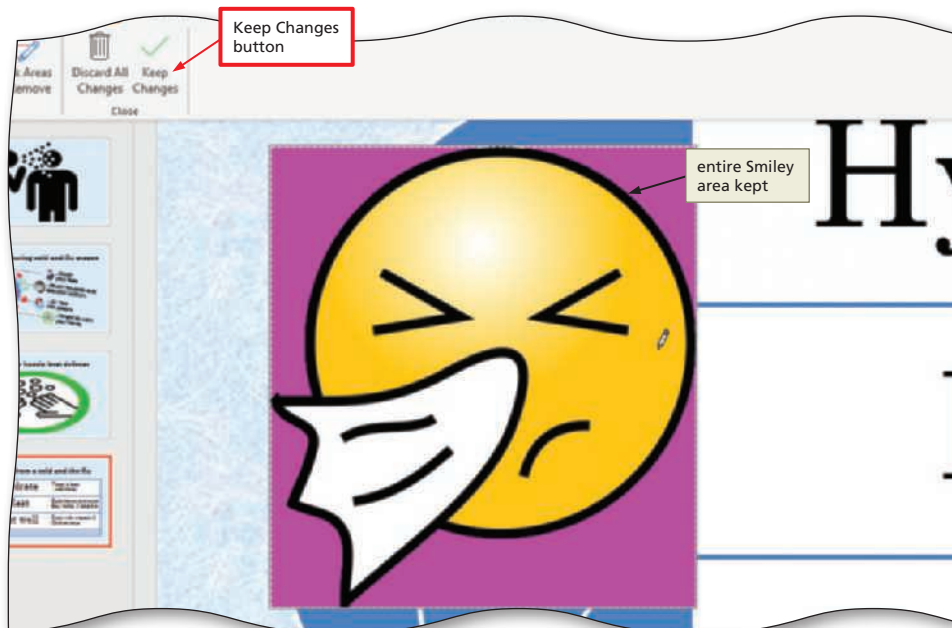


Figure 7-68

5

- Click the Keep Changes button (Background Removal tab | Close group) to discard the unwanted picture background and to review the results of your background refinements (Figure 7-69).

Q&A

Why does some of the background remain on my picture?

The location where you drew your background removal line determines the area that PowerPoint modifies.

If I want to see the original picture at a later time, can I display the components I deleted?

Yes. If you click the 'Discard All Changes' button (Background Removal tab | Close group), all the deleted pieces will reappear.

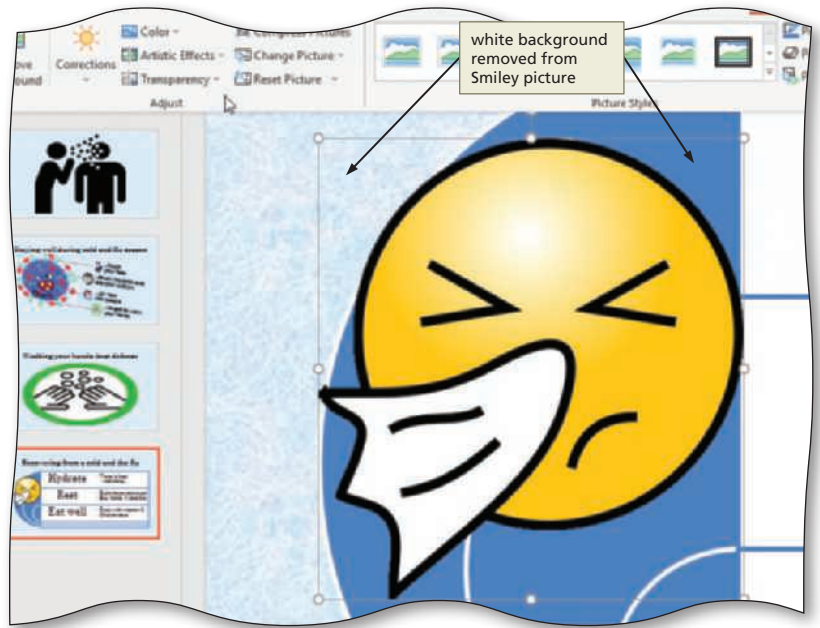


Figure 7-69

To Flip a Picture

Once the text box and picture are inserted on the left side of the title text box, you can flip the picture so that the Smiley is pointed in the opposite direction. **Why?** The tissue will face inward toward the graphic's content and help direct the audience's attention to the relief measures listed. The following steps flip the picture horizontally.

1

- With the Smiley picture selected and the Picture Format tab displayed, click the Rotate Objects button (Picture Format tab | Arrange group) to display the Rotate Objects menu.
- Point to Flip Horizontal in the list to see a preview of the flipped picture (Figure 7-70).



Figure 7-70

2

- Click Flip Horizontal in the Rotate Objects menu to flip the Smiley picture.

To Change the Brightness and Contrast of a Picture

A picture's brightness and contrast can be altered in predefined percentage increments. The overall lightness or darkness of the entire image is determined by the brightness setting, and the difference between the darkest and lightest areas of the image is determined by the contrast setting. **Why?** The Smiley is yellow, which portrays a happy feeling. The slide content, in contrast, concerns sickness. Decreasing the contrast so the Smiley picture is a darker hue adds to the gloominess that people feel when they are sick with a cold or the flu. The following step decreases the contrast while maintaining the brightness.

1

- With the Smiley picture still selected, click the Corrections button (Picture Format tab | Adjust group) to display the Corrections gallery.
- Point to 'Brightness: 0% (Normal) Contrast: -40%' (third picture in first Brightness/Contrast row) to display a live preview of this correction on the picture (Figure 7-71).

Experiment

- Point to various brightness and contrast variations in the gallery and watch the colors change in the picture.
- Click 'Brightness: 0% (Normal) Contrast: -40%' to apply this correction.

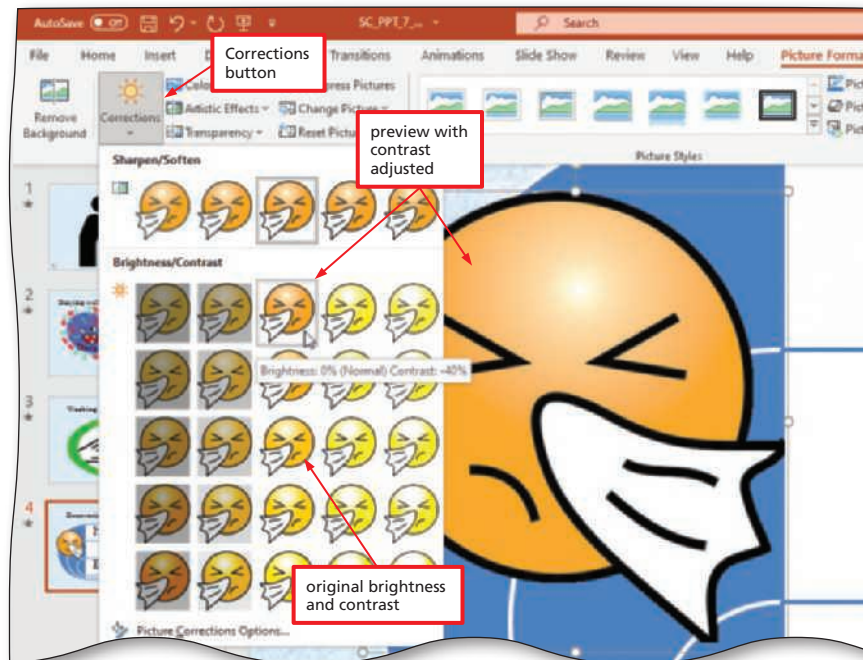


Figure 7-71

To Change the Color Saturation of a Picture

The Color gallery has a wide variety of preset formatting combinations that allow you to match or add contrast to slide elements. High color saturation produces vivid colors, and low saturation produces gray tones. The following steps change the color saturation of the Slide 4 picture. **Why?** You want to subdue the bright yellow color in the Smiley face.

1

- With the Smiley picture still selected, click the Color button (Picture Format tab | Adjust group) to display the Color gallery (Figure 7-72).



Figure 7-72

2

- Point to 'Saturation: 66%' (third thumbnail in Color Saturation row) to display a live preview of this adjustment on the picture (Figure 7-73).

 **Experiment**

- Point to various saturation variations in the gallery and watch the colors change in the picture.
- Click 'Saturation: 66%' to apply this saturation to the Smiley picture.

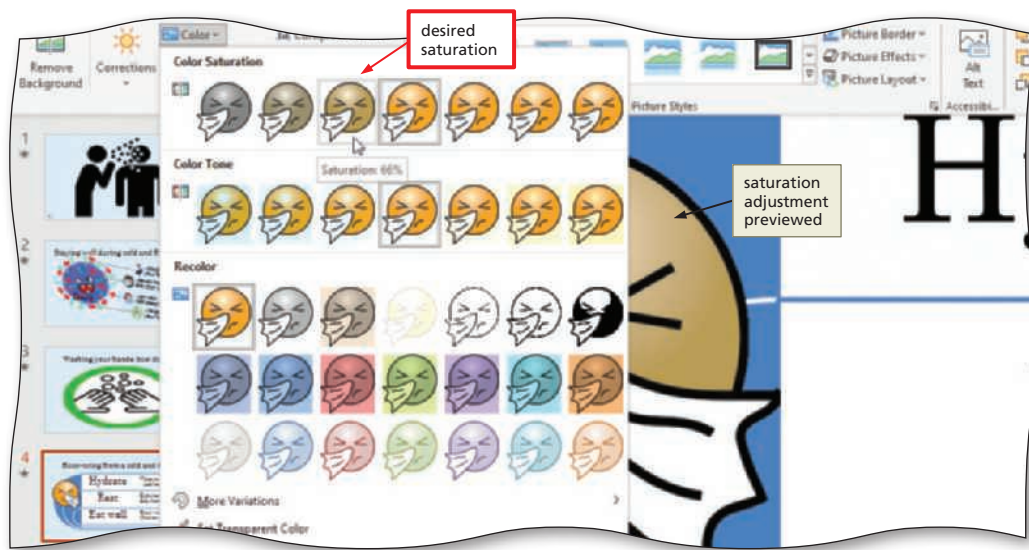


Figure 7-73

3

- Zoom the slide to 72%.

TO RESET A PICTURE

To remove all effects from a picture, you would perform the following step.

1. Click the Reset Picture button (Picture Format tab | Adjust group).

To Compress a Picture

Photos inserted into slides greatly increase the total PowerPoint file size. PowerPoint automatically compresses picture files inserted into slides by eliminating details, generally with no visible loss of quality. You can increase the compression and, in turn, decrease the file size if you instruct PowerPoint to compress a picture you have cropped so you can save space on a storage medium such as a hard disk, USB flash drive, or optical disc. Although these storage devices generally have a large storage capacity, you might want to reduce the file size.

Why? A smaller size reduces the download time from a server or website. Also, some Internet service providers restrict an attachment's file size.

The picture on the title slide is cropped and displays only the Smiley. You will not need any of the invisible portions of the picture, so you can delete them permanently and reduce the picture file size. The following steps compress the size of the Slide 4 Smiley picture.

1

- With the Smiley picture selected, click the Compress Pictures button (Picture Format tab | Adjust group) to display the Compress Pictures dialog box (Figure 7-74).

Q&A | If I want to add an artistic effect, should I apply the effect prior to or after compressing a picture?
Compress a picture and then apply the artistic effect.

2

- Select the 'Apply only to this picture' check box in the Compression options area (Compress Pictures dialog box) to uncheck the box.

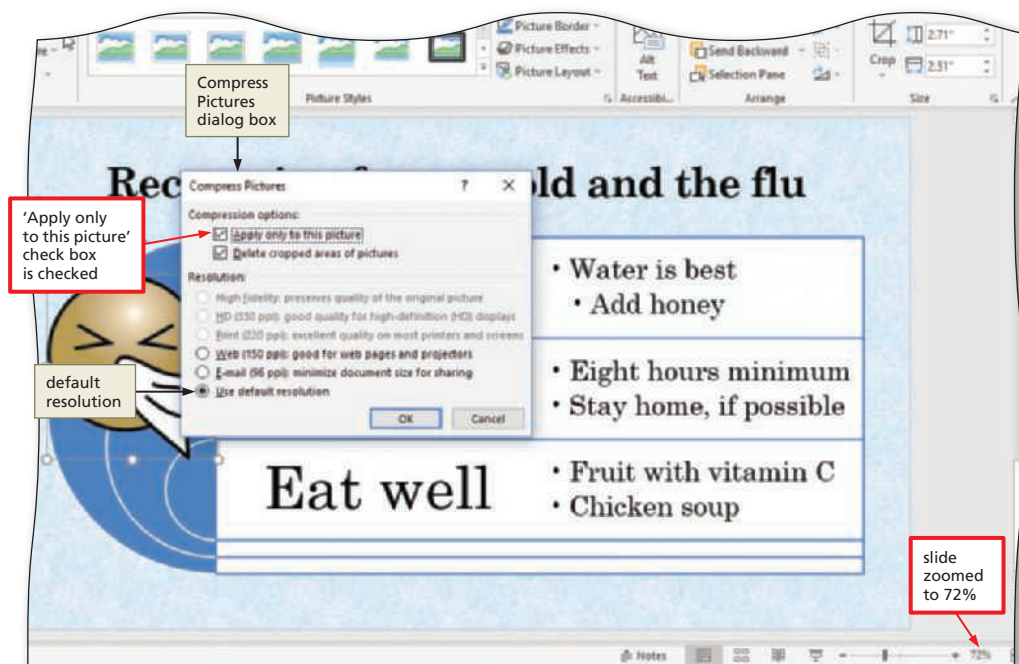


Figure 7-74

- Click the E-mail option button in the Resolution area (Compress Pictures dialog box) to change the resolution to 96 ppi (Figure 7–75).

3

- Click OK (Compress Pictures dialog box) to compress the images on all slides.

Q&A Can I undo the compression?

Yes, as long as you have not saved the file after compressing the pictures.

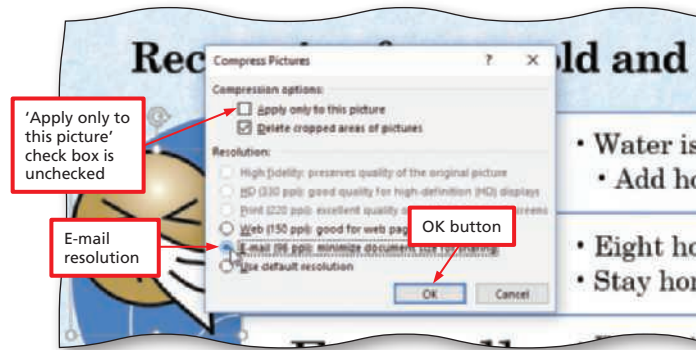


Figure 7–75

To Insert a Screen Clipping

At times you may be developing a presentation and need a portion of a clip or picture in another presentation. You can capture all or part of a slide in another presentation that is open. PowerPoint refers to this presentation as being open or available. Open program windows are displayed as thumbnails in the Available Windows gallery. A **screenshot** is a snapshot of a program or window that is open. A **screen clipping** is a screen capture of part of an open window. When you click the Screen Clipping tool, your window becomes opaque. After you select the part of the window that you desire to capture, your selection is displayed through this opaqueness. The following steps clip part of an image on Slide 4 of another presentation that is available in the Data Files and then paste this selection on Slide 1 of your Present presentation. **Why?** This portion of the slide gives facts about the velocity and distance of particles emitted when a person sneezes.

1

- Open the Support_PPT_7_Cold_or_Flu.pptx file from your Data Files and display Slide 4.
- Display Slide 1 of the Present presentation.
- Display the Insert tab and then click the Screenshot button (Insert tab | Images group) to display the Available Windows gallery (Figure 7–76).

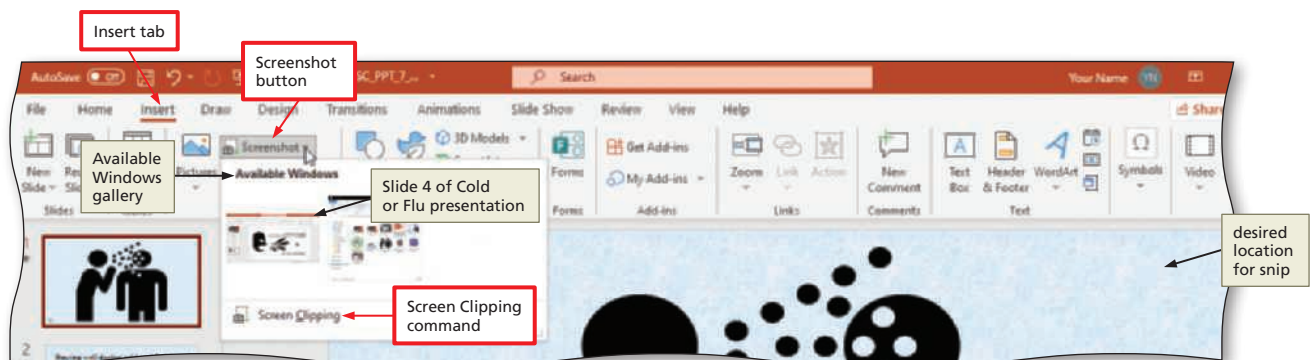


Figure 7–76

2

- Click Screen Clipping (Available Windows gallery) to display Slide 4 of the Cold or Flu presentation.
- When the opaque white overlay displays on Slide 4, move the pointer (the cross hair) above the word, can, as shown in Figure 7-77.

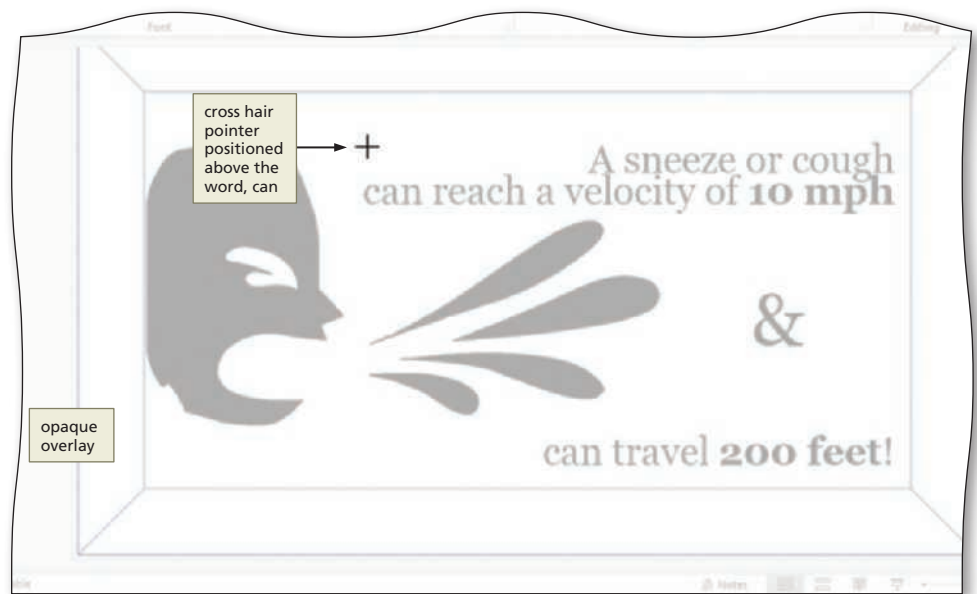


Figure 7-77

- Press and hold the left mouse button and drag diagonally downward to the right to select all the text paragraphs. Do not release the mouse button (Figure 7-78).

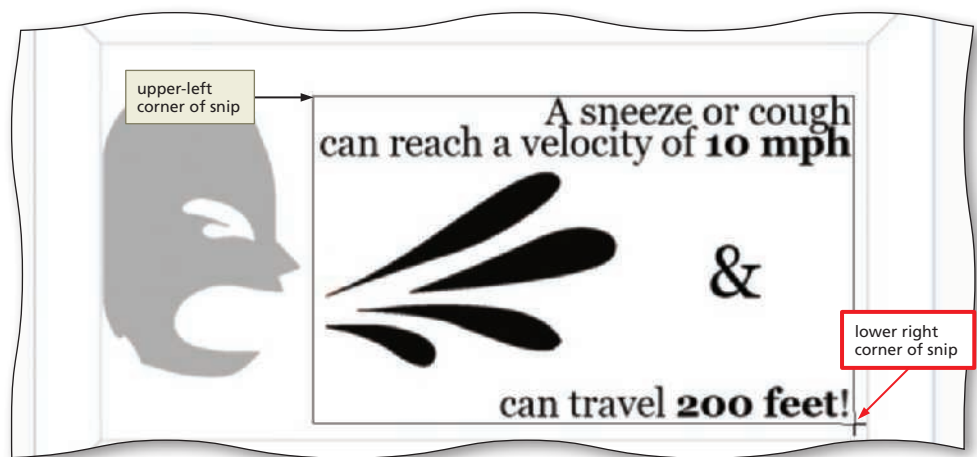


Figure 7-78

3

- Release the mouse button.
- When the clip displays on Slide 1 of the Prevent presentation, resize it to a height of 2.3".
- Drag the clip to the upper-right corner of the slide (Figure 7-79).

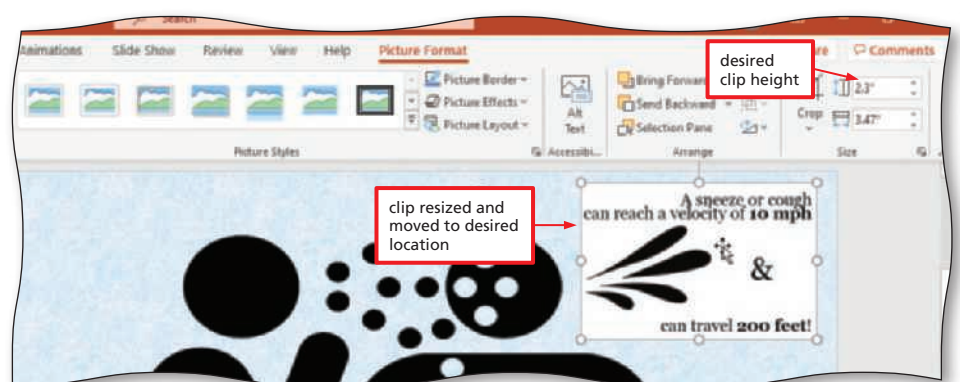


Figure 7-79

To INSERT A SCREENSHOT

To insert a screenshot, you would perform the following steps.

1. Click the slide where you want to insert the screenshot.
2. Display the Insert tab and then click the Screenshot button (Insert tab | Images group).
3. Click the thumbnail of the desired window in the Available Windows gallery.

To INSERT AN EQUATION

The Office apps have built-in equations for common calculations, such as the area of a circle and the Pythagorean Theorem. You can include one of these equations in your slide. If you need a different equation, you can edit, change the existing equation, or insert math symbols to develop your own equation. If you wanted to insert a built-in equation in a slide, you would perform the following steps.

1. Display the Insert tab and then click the Equation button (Insert tab | Symbols group) to display the Equation tab.
2. Choose the equation you want from the gallery.
3. If needed, add symbols and structures available on the Equation tab.

BTW

Creating Equations with Touchscreens

If you are using a touchscreen, use your finger or stylus to write the numbers and symbols, being certain the Math Input Control box understands your handwriting.

Break Point: If you wish to take a break, this is a good place to do so. Be sure the Prevent file is saved and then you can quit PowerPoint. To resume at a later time, start PowerPoint, open the file called Prevent, and continue following the steps from this location forward.

Consider This



Choose outstanding hyperlink images or text.

Good speakers are aware of their audiences and know their speech material well. They have rehearsed their presentations and know where the hypertext is displayed on the slides. During a presentation, however, they sometimes need to divert from their planned material. Audience members may interrupt with questions, the room may not have optimal acoustics or lighting, or the timing may be short or long. It is helpful, therefore, to make the slide hyperlinks as large and noticeable to speakers as possible. The presenters can glance at the slide and receive a visual cue that it contains a hyperlink. They then can decide whether to click the hyperlink to display a webpage or other link.

Adding Hyperlinks and Action Buttons

When presenting the Prevent slide show, you may want to jump nonsequentially to omit some material or to display one or more slides in another presentation in response to audience needs or timing issues. To skip to particular slides, you can click a hyperlink or an action button on a slide. The hyperlink, or link, can be any element of a slide, such as a single letter, a word, a paragraph, or any graphical image such as a picture, shape, or graph. The link connects one slide to another slide, another PowerPoint presentation, a webpage, an email address, or a file.

To Insert a Hyperlink to a Place in the Current Presentation

When you point to a hyperlink, the pointer becomes the shape of a hand to indicate the text or object contains a hyperlink. When you click this hyperlink, PowerPoint connects to the specified slide or other designated area. **Why? In the Prevent presentation, the Sneeze picture on Slide 1 will link to the next slide in the same presentation.** The following steps create the first hyperlink for the Sneeze picture on Slide 1.

1

- With Slide 1 displayed, select the Sneeze picture and then display the Insert tab.
- Click the Link button (Insert tab | Links group) to display the Insert Hyperlink dialog box.
- Click the 'Place in This Document' button in the Link to area.
- Click '2. Staying well during cold and flu season' in the 'Select a place in this document' area (Insert Hyperlink dialog box) to select and display a preview of this slide (Figure 7–80).

Q&A Could I also have selected the Next Slide link in the 'Select a place in this document' area?
 Yes. Either action would create the hyperlink to Slide 2.

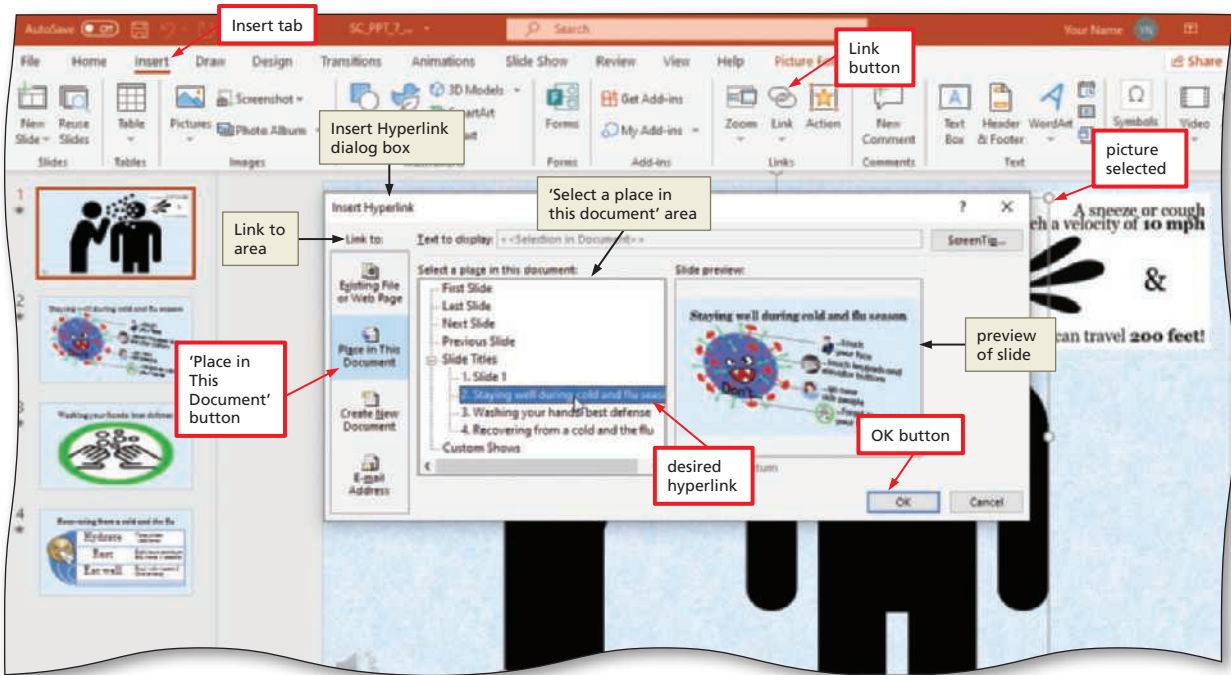


Figure 7–80

2

- Click OK (Insert Hyperlink dialog box) to insert the hyperlink.

Q&A I clicked the Sneeze picture, but Slide 2 did not display. Why?
 Hyperlinks are active only when you run the presentation or are in Reading view, not when you are creating a presentation in Normal or Slide Sorter view.

Other Ways

1. Right-click text or object, click Link, select slide, click OK
2. Select text or object, press CTRL+K, select slide, press ENTER

To Edit a Hyperlink

Once you have created the hyperlink, you may decide to change the specified action. In the Prevent presentation, you want to hyperlink to Slide 4 instead of Slide 2. **Why?** You decide that audience members may want to see methods of gaining relief from cold or flu symptoms rather than how to prevent becoming infected. The following steps edit the hyperlink on Slide 1.

1

- With the Sneeze picture still selected, click the Link button again to display the Edit Hyperlink dialog box.
- Click '4. Recovering from a cold and the flu' in the 'Select a place in this document' area to select and display a preview of this slide (Figure 7–81).

Q&A

Could I also have selected the Last Slide link in the 'Select a place in this document' area?

Yes. Either action would create the hyperlink to Slide 4.

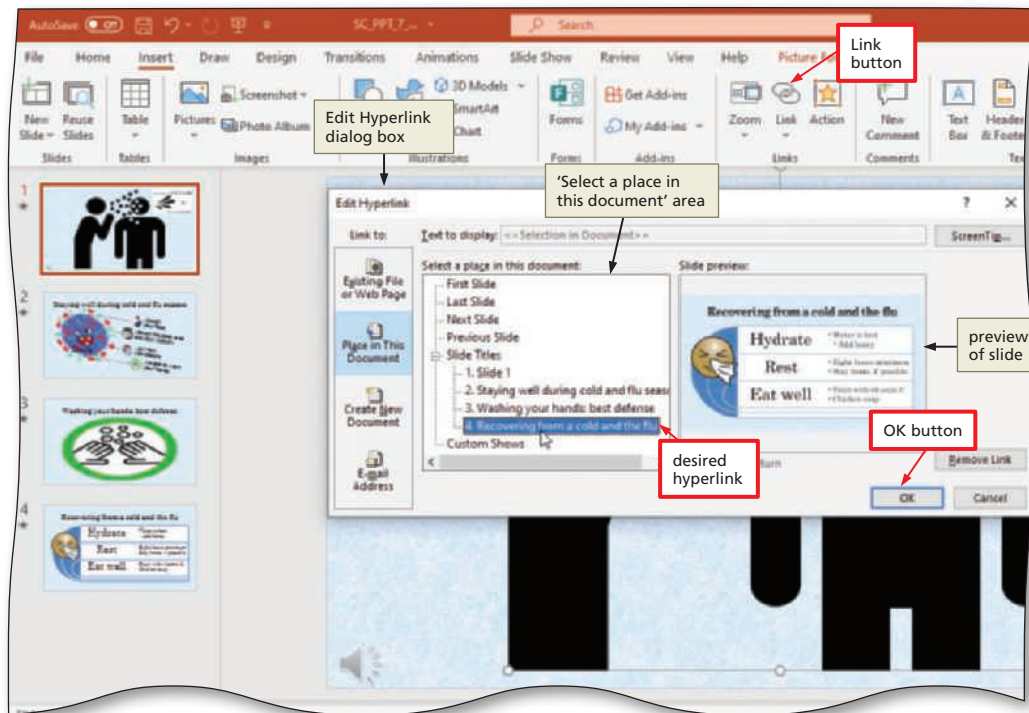


Figure 7–81

2

- Click OK (Edit Hyperlink dialog box) to change the hyperlink.

Other Ways

1. Right-click text or object, click Edit Link, select slide, click OK
2. Select text or object, press CTRL+K, select slide, press ENTER

To Add a ScreenTip to a Hyperlink

You can create a custom ScreenTip that displays when you hover your mouse over a hyperlink. **Why?** This ScreenTip is a visual cue of the action the hyperlink will take. The following steps create a custom ScreenTip for the hyperlink.

1

- With the Sneeze picture selected, click the Link button again to display the Edit Hyperlink dialog box.
- Click the ScreenTip button (Edit Hyperlink dialog box) to display the 'Set Hyperlink ScreenTip' dialog box (Figure 7–82).

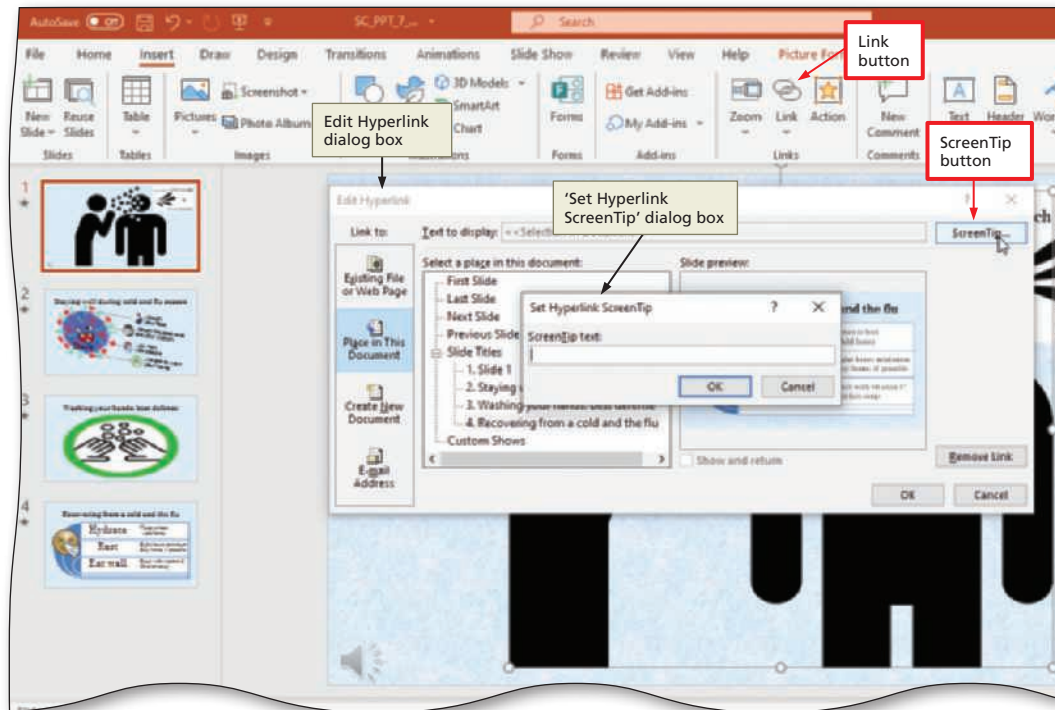


Figure 7-82

2

- Type **Recovering advice** in the 'ScreenTip text' box (Figure 7-83).

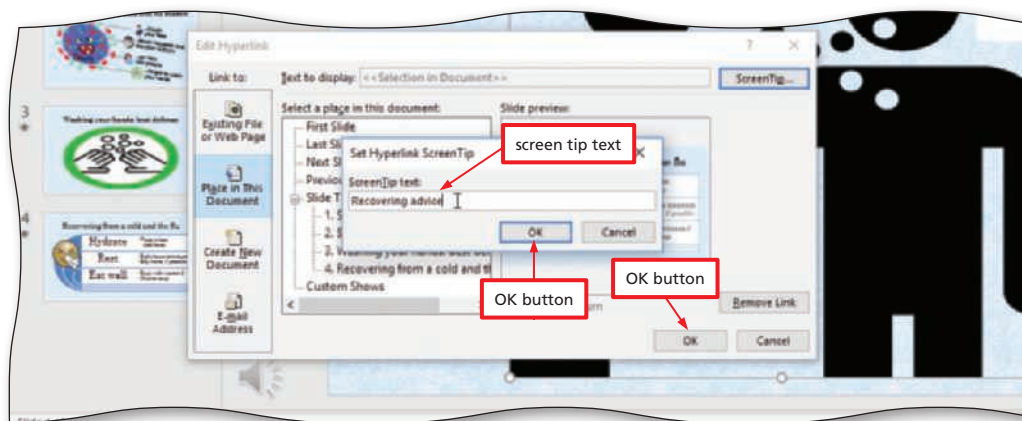


Figure 7-83

3

- Click OK ('Set Hyperlink ScreenTip' dialog box).
- Click OK (Edit Hyperlink dialog box).

4

- Click outside the image to deselect it.
- Hover the mouse over the image until the ScreenTip and 'Ctrl+Click to follow link' are displayed.
- Press CTRL+CLICK to test the link.

To Add a Hyperlink Action Setting to a Picture

You can also use an Action to create a link to another slide or object. In the Prevent presentation, you used the Green Hands picture in the SmartArt and as the poster frame. You can create a hyperlink between these two elements. **Why?** When you are discussing the prevention techniques shown in the SmartArt graphic on Slide 2, you can mention the importance of hand washing and then quickly jump to the hand washing video. The following steps create a hyperlink from the Green Hands picture in the SmartArt to Slide 3.

1

- Display Slide 2 and then click the Green Hands picture to select it.
- Click the Action button (Insert tab | Links group) to display the Action Settings dialog box (Figure 7–84).

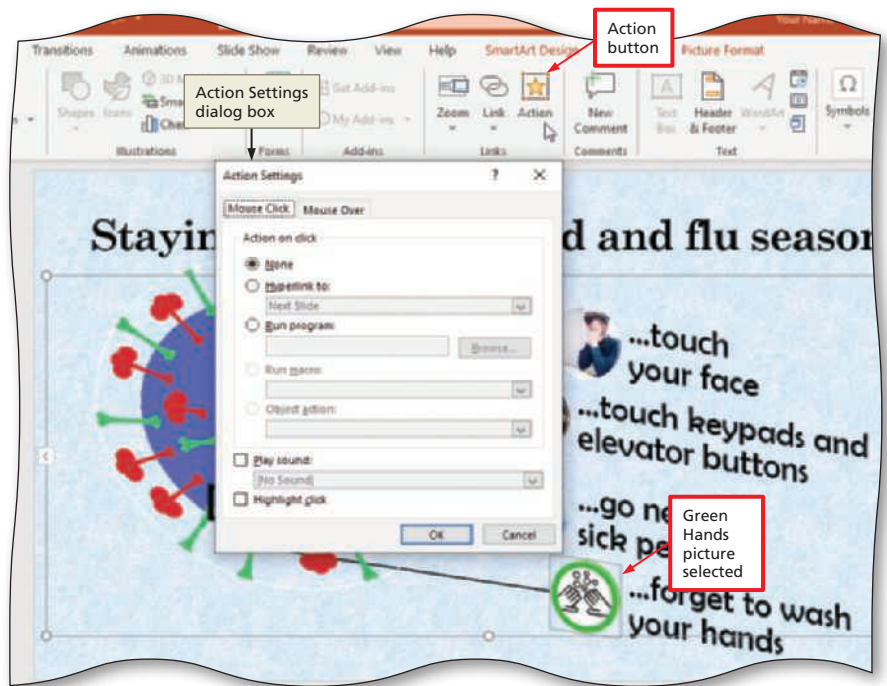


Figure 7–84

2

- Click Hyperlink to, click the Hyperlink to arrow to in the 'Action on click' area to display the Hyperlink to menu, and then point to Slide (Figure 7–85).

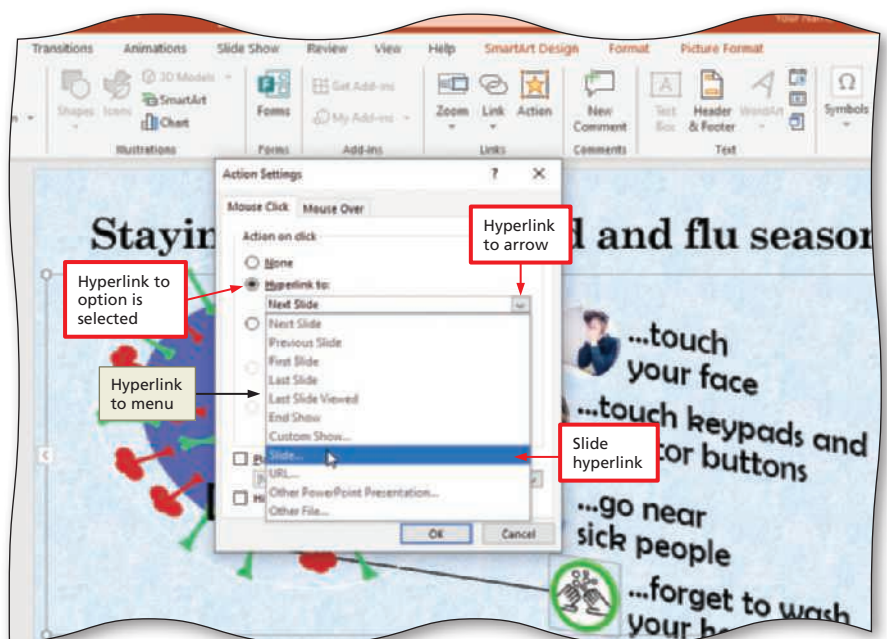


Figure 7–85

- 3
 - Click Slide to display the 'Hyperlink to Slide' dialog box and then click '3. Washing your hands: best defense' to select this slide and display a preview (Figure 7–86).
- 4
 - Click OK ('Hyperlink to Slide' dialog box).
 - Click OK (Action Settings dialog box).

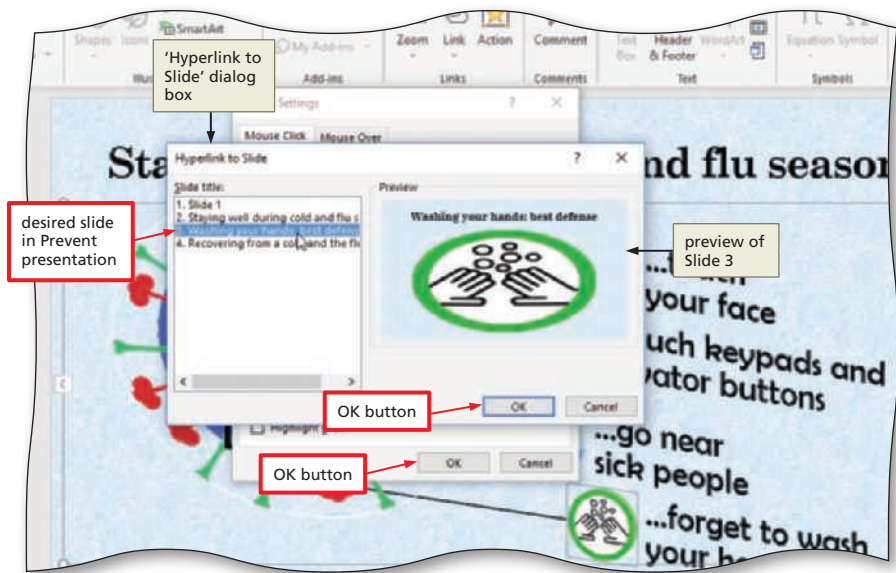


Figure 7–86

To Add a Hyperlink Action Setting to a Shape

Any area of the slide, including shapes, can be designated as a hyperlink element. The SmartArt graphic on Slide 4 has a blue area behind the Smiley picture, and this area can serve as the hyperlink. **Why?** The blue area is large, so it would be relatively easy for a presenter to locate this portion of the slide and then click to jump to another slide or presentation element. The following steps create a hyperlink for the blue area in the SmartArt shape.

- 1
 - Display Slide 4 and then click the blue shape above or below the Smiley picture to select this shape.
 - Click the Action button to display the Action Settings dialog box (Figure 7–87).

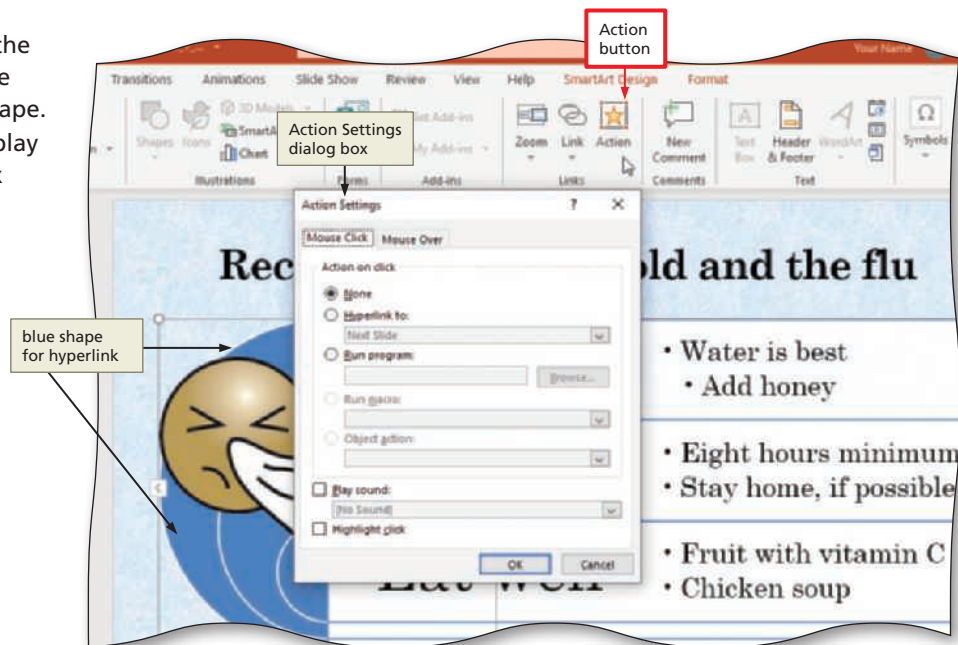


Figure 7–87

2

- Click Hyperlink to, click the Hyperlink to arrow to display the Hyperlink to menu, and then point to First Slide (Figure 7–88).

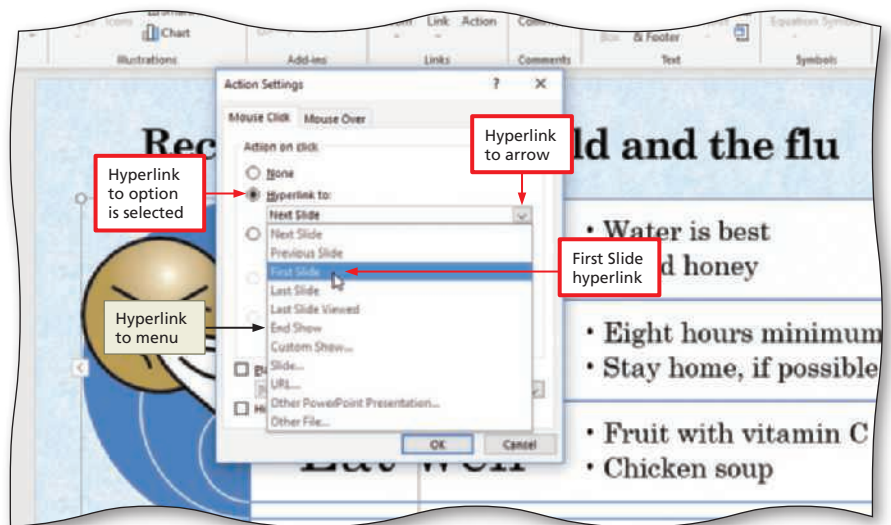


Figure 7–88

3

- Click First Slide to select this slide as the hyperlink (Figure 7–89).

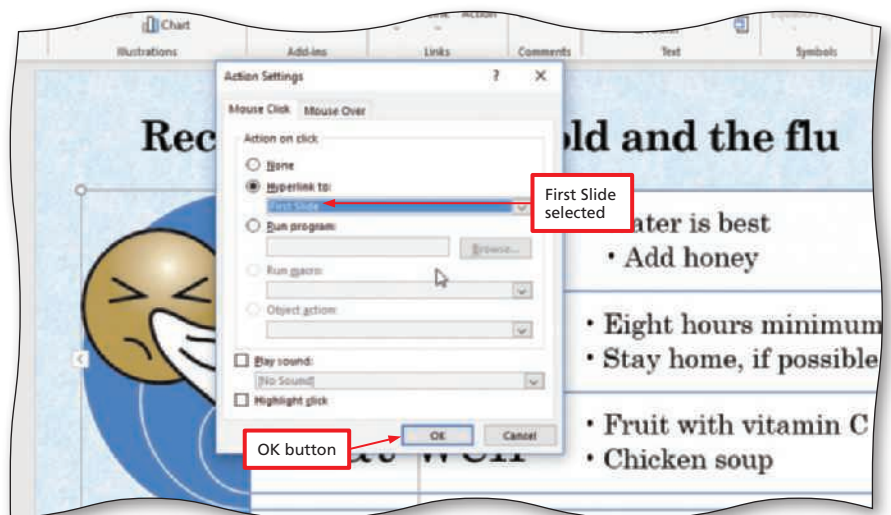


Figure 7–89

4

- Click OK (Action Settings dialog box).

To Insert a Hyperlink to a File

While hyperlinks are convenient tools to navigate through the current PowerPoint presentation, they also allow you to open a second PowerPoint presentation and display a particular slide in that file. A hyperlink offers a convenient method of moving from one presentation to another. A speaker has the discretion to use the hyperlink depending upon the audience's interest in the topic and time considerations. The following steps hyperlink the word, cold, on Slide 2 to the second slide in the Cold or Flu presentation. **Why?** People often are confused about whether they are suffering from a cold or the flu, so you want to display the second slide in the Cold or Flu presentation that shows the symptoms of a cold.

1

- Display Slide 2 and then select the word, cold, in the title text placeholder.
- Click the Action button, click Hyperlink to, and then click the Hyperlink to arrow to display the Hyperlink to menu (Figure 7-90).

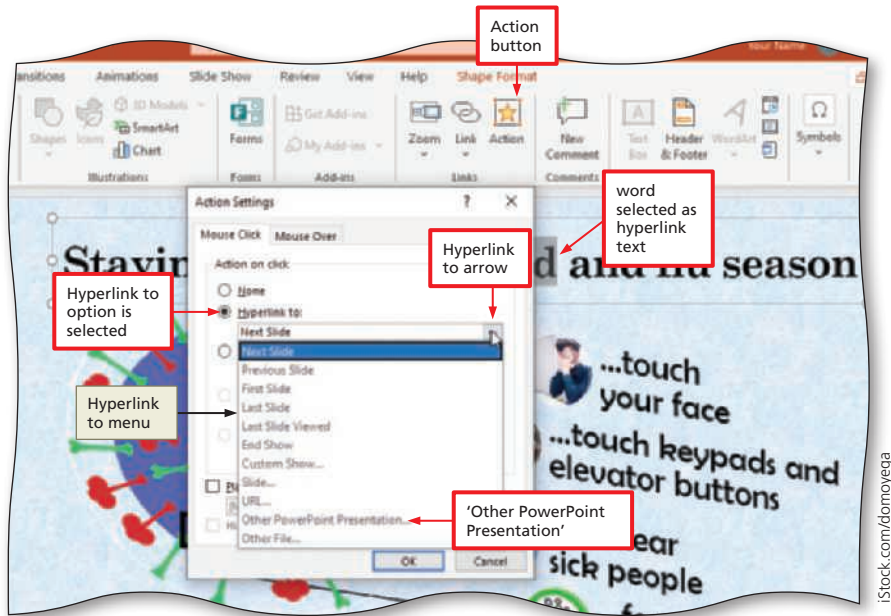


Figure 7-90

2

- Scroll down and then click 'Other PowerPoint Presentation' to display the 'Hyperlink to Other PowerPoint Presentation' dialog box.
- If necessary, navigate to the location of the Data Files.
- Click Support_PPT_7_Cold_or_Flu to select this .pptx file as the hyperlinked presentation (Figure 7-91).

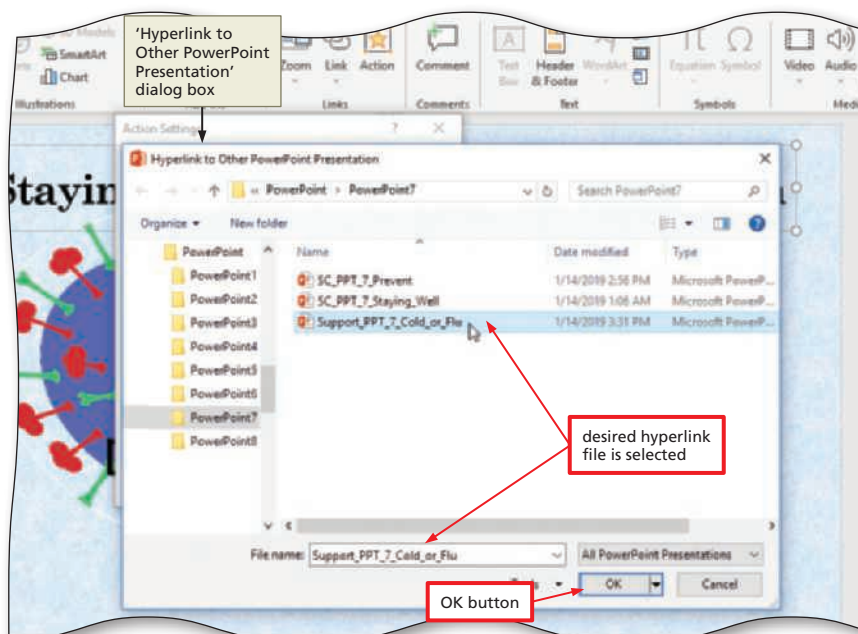


Figure 7-91

3

- Click OK ('Hyperlink to Other PowerPoint Presentation' dialog box) to display the 'Hyperlink to Slide' dialog box.
- Click '2. Cold Symptoms' to hyperlink the second slide (Cold Symptoms) in the Cold or Flu presentation to the word, cold, in the Prevent presentation (Figure 7-92).

Q&A What are the four items listed in the Slide title area?
They are the title text of the four slides in the Cold or Flu presentation.

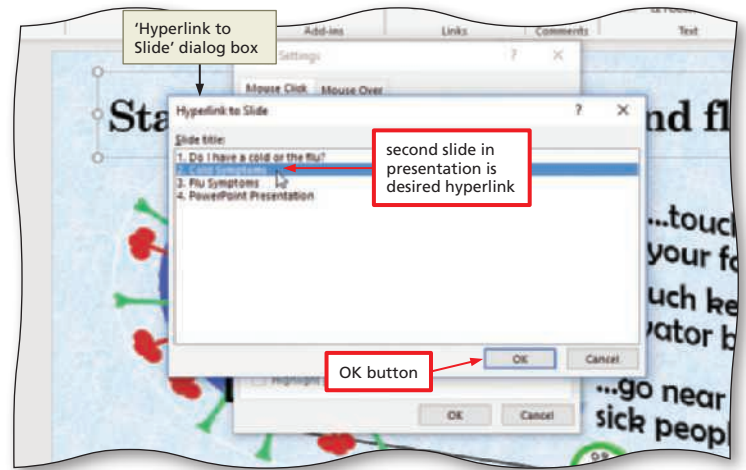


Figure 7-92

4

- Click OK ('Hyperlink to Slide' dialog box) to hyperlink the second slide in the cold or flu presentation to the word, cold (Figure 7-93).

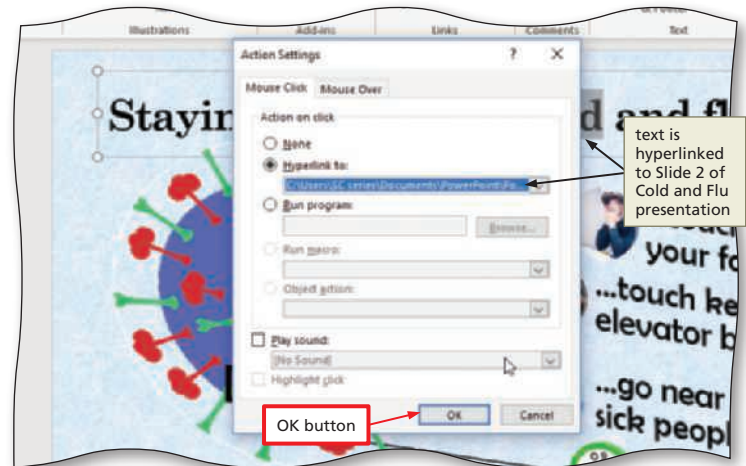


Figure 7-93

5

- Click OK (Action Settings dialog box) to apply the new action setting to the Slide 2 text.

Other Ways

1. Select picture, click Hyperlink button (Insert menu | Links group), click 'Existing File or Web Page' (Link to: area), browse to and select desired file, click OK
2. Right-click picture, click Hyperlink on shortcut menu, click 'Existing File or Web Page' (Link to: area), browse to and select desired file, click OK

TO REMOVE A HYPERLINK













If you wanted to remove a hyperlink, you would perform the following steps.

1. Select the text or object from which you want to remove the hyperlink.
2. Display the Insert tab and then click the Hyperlink button (Insert tab | Links group) to display the Edit Hyperlink dialog box.
3. Click the Remove Link button (Edit Hyperlink dialog box).

Action Buttons

PowerPoint provides 12 built-in action buttons. An **action button** is an interactive button you click in Slide Show view to perform an activity, such as advancing to the next slide. This particular type of hyperlink can activate a hyperlink that allows users to jump to a specific slide in the presentation. The picture on the action button indicates the type of function it performs. For example, the button with the house icon represents the home slide, or Slide 1. To achieve a personalized look, you can customize an action button with a picture, graph, piece of clip art, logo, text, or any graphic you desire. Table 7–1 describes each of the built-in action buttons.

Table 7–1 Built-In Action Buttons

Button Name	Image	Description
Back or Previous		Returns to the previous slide displayed in the same presentation.
Forward or Next		Jumps to the next slide in the presentation.
Beginning		Jumps to Slide 1. This button performs the same function as the Home button.
End		Jumps to the last slide in the presentation.
Home		Jumps to Slide 1. This button performs the same function as the Beginning button.
Information		Does not have any predefined function. Use it to direct a user to a slide with details or facts.
Return		Returns to the previous slide displayed in any presentation. For example, you can place it on a hidden slide or on a slide in a custom slide show and then return to the previous slide.
Movie		Does not have any predefined function. You generally would use this button to jump to a slide with an inserted video clip.
Document		Opens a program other than PowerPoint. For example, you can open Word or Excel and display a page or worksheet.
Sound		Does not have any predefined function. You generally would use this button to jump to a slide with an inserted audio clip.
Help		Does not have any predefined function. Use it to direct a user to a slide with instructions or contact information.
Custom		Does not have any predefined function. You can add a clip, picture, graphic, or text and then specify a unique purpose.

Consider This



Customize action buttons for a unique look.

PowerPoint's built-in action buttons have icons that give the presenter an indication of their function. Designers frequently customize these buttons with images related to the presentation. For example, in a grocery store presentation, the action buttons may have images of a coupon, dollar sign, and question mark to indicate links to in-store coupons, sale items, and the customer service counter. Be creative when you develop your own presentations and attempt to develop buttons that have specific meanings for your intended audience.

To Insert an Action Button

In the Cold or Flu slide show, you will insert an action button shape in Slide 2 and then create a link to the previous slide displayed. **Why?** You will be able to return to the Prevent presentation by clicking this action button. The following steps insert an action button on Slide 2 of the Cold or Flu presentation and link it to the previous slide displayed.

1

- Display Slide 2 of the Support_PPT_7_Cold_or_Flu.pptx file.
- Display the Insert tab and then click the Shapes button (Insert tab | Illustrations group) to display the Shapes gallery.
- Scroll down and then point to the 'Action Button: Return' shape in the Action Buttons area (seventh image) (Figure 7-94).

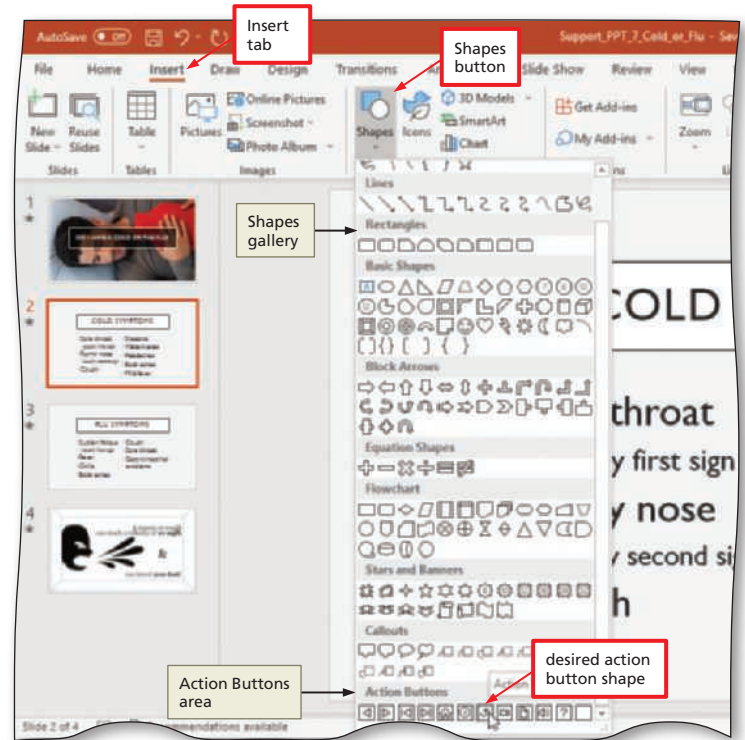


Figure 7-94

2

- Click the 'Action Button: Return' shape.
- Click the lower-left corner of the slide to insert the action button and to display the Action Settings dialog box.
- If necessary, click the Mouse Click tab (Action Settings dialog box) (Figure 7-95).

Q&A Why is 'Last Slide Viewed' the default hyperlink setting?
 The 'Action Button: Return' shape establishes a hyperlink to the previous slide displayed in any presentation.

3

- Click OK (Action Settings dialog box) to apply the hyperlink setting.

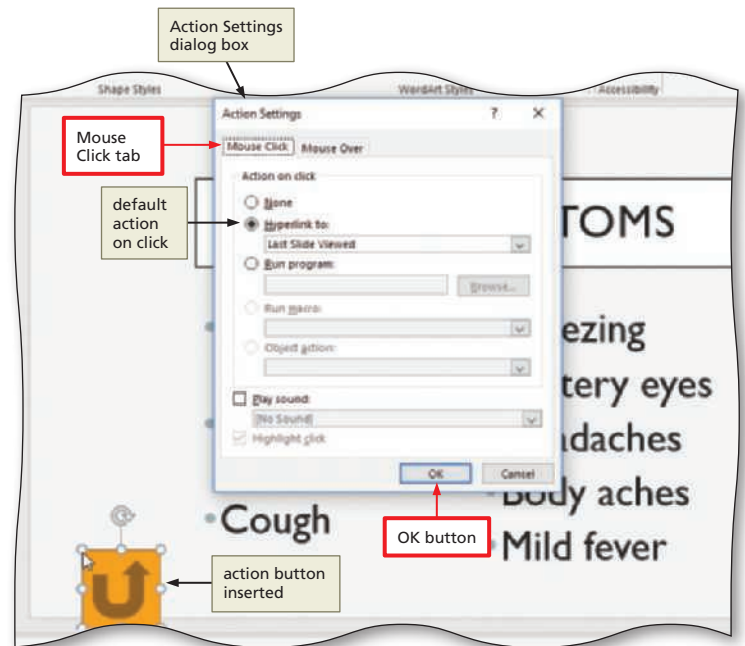


Figure 7-95

To Size an Action Button

The action button size can be decreased to make it less obvious on the slide. The following step resizes the selected action button.

1

- With the action button still selected and the Shape Format tab displayed, size the action button so that the height and width are 0.8". If necessary, move the action button to the lower-left corner of the slide, as shown in Figure 7-96.

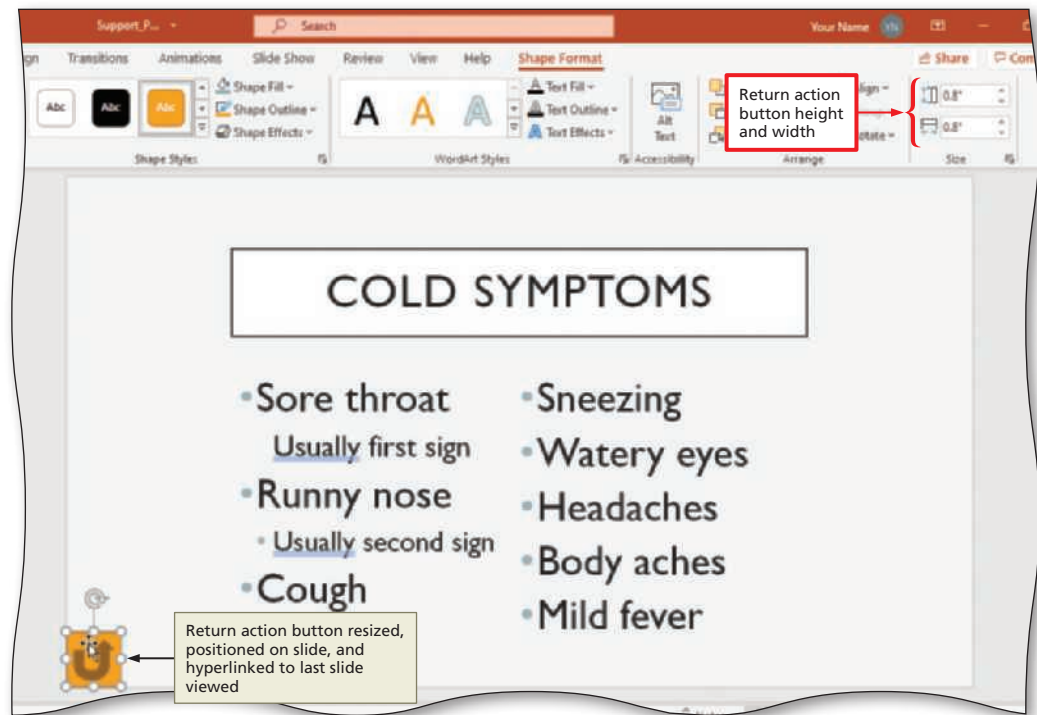


Figure 7-96

To Change an Action Button Fill Color

You can select a new action button fill color to coordinate with slide elements. The following steps change the fill color from gold to blue. **Why?** The action button's gold color does not coordinate well with the background and other slide elements. A blue color will blend with the slide background.

- 1 • With the action button still selected, click the Shape Fill arrow (Shape Format tab | Shape Styles gallery) to display the Shape Fill gallery (Figure 7-97).

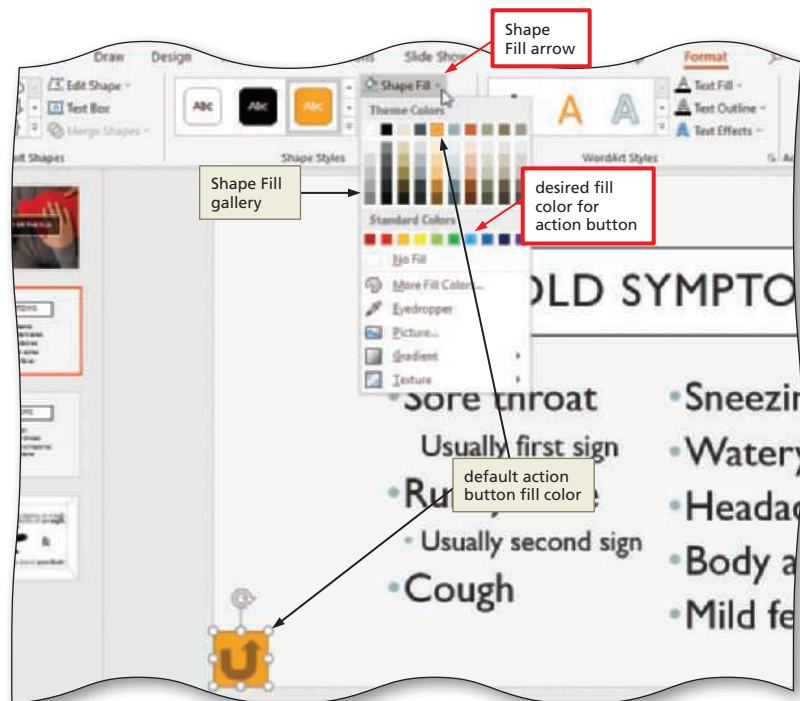


Figure 7-97

2

- Point to Light Blue (seventh color in Standard Colors row) to display a live preview of that fill color on the action button (Figure 7-98).



Experiment

- Point to various colors in the Shape Fill gallery and watch the fill color change in the action button.

3

- Click Light Blue to apply this color to the action button.

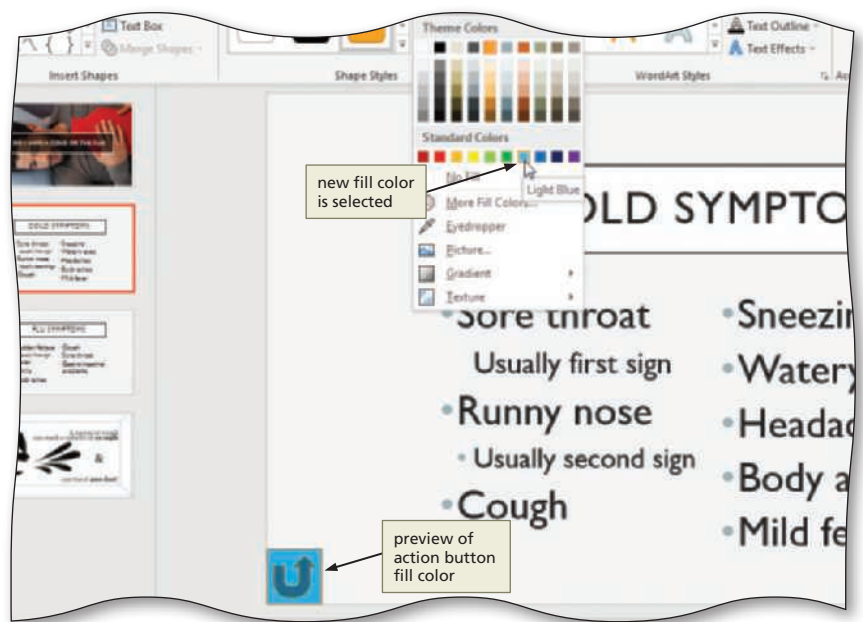


Figure 7-98

Other Ways

- Right-click action button, click Format Shape on shortcut menu, click Fill on Shape Options tab (Format Shape pane), click Fill Color button, click desired color
- Right-click action button, click Shape Fill button on Mini toolbar, click desired color

To Edit an Action Button Setting

To emphasize a hyperlink, you can add a sound. PowerPoint includes a variety of sounds that you can use. The following steps edit the Slide 2 hyperlink by adding a sound. **Why?** For variety, you want a sound to play when the action button is clicked.

1

- With the action button still selected on Slide 2, display the Insert tab and then click the Action button (Insert tab | Links group) to display the Action Settings dialog box.
- Select the Play sound check box to place a check in that box (Figure 7-99).

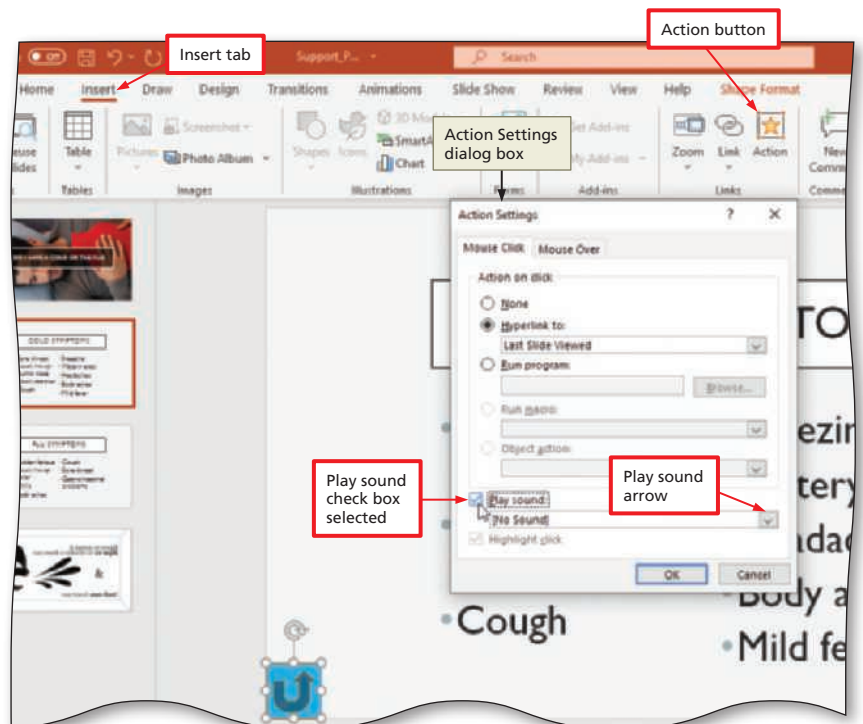


Figure 7-99

2

- Click the Play sound arrow to display the Play sound list (Figure 7-100).

BTW

Using Action Buttons

The action buttons have images representing their functions, such as a right-pointing arrow representing moving forward to the next slide. These buttons are useful when using a touch screen or when a keyboard is not present, such as when a presentation is run at a kiosk. Slide designers also type specific years or descriptive words, such as True or False, on action buttons that link to slides with corresponding information. Be imaginative when developing your own presentations and creating buttons that have a specific meaning for your intended audience.

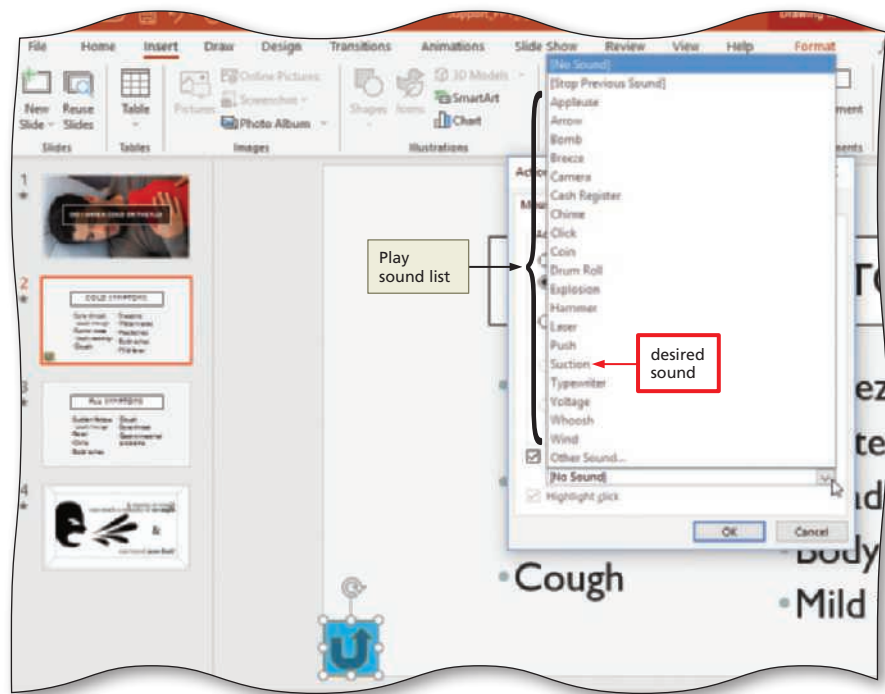


Figure 7-100

3

- Click Suction in the Play sound list to select that sound to play when the action button is clicked (Figure 7-101).

Q&A I did not hear the sound when I selected it. Why not?

The Suction sound will play when you run the slide show and click the action button.

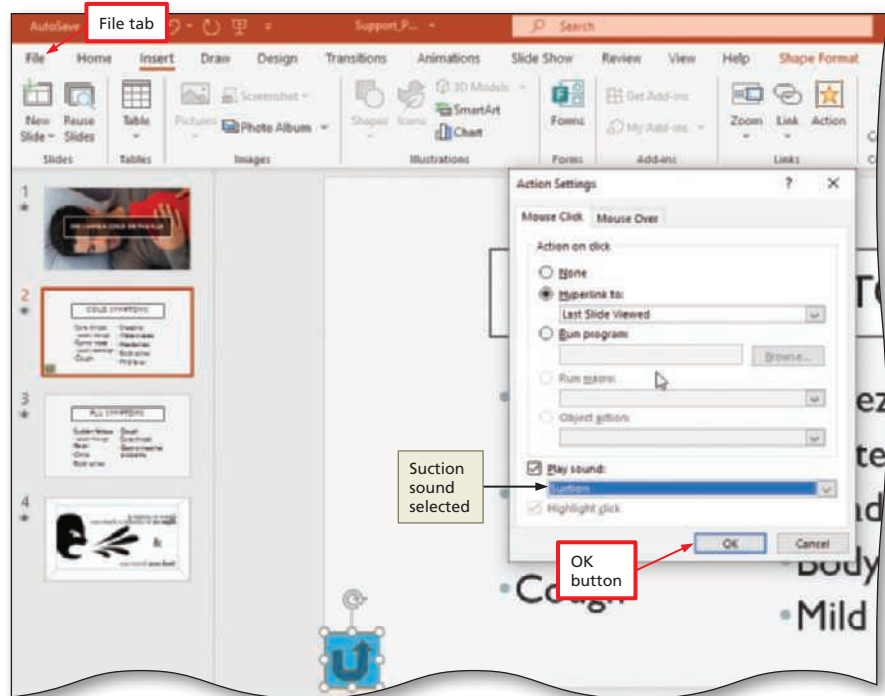


Figure 7-101

4

- Click OK to apply the sound to the action button and to close the Action Settings dialog box.
- Save the Cold or Flu presentation using the same file name.
- Close the Cold or Flu presentation.

To Save the Presentation as a PDF

When you save your presentation as a PDF file, the formatting and layouts cannot be changed. This file format is convenient when you want to distribute your document. **Why?** People who do not have PowerPoint can view the slides, but they cannot make changes to the file. The following steps save the flu presentation as a PDF.

1

- With the Prevent presentation displayed, click the File tab (shown in Figure 7–101) and then click the Export tab to open the Export panel (Figure 7–102).

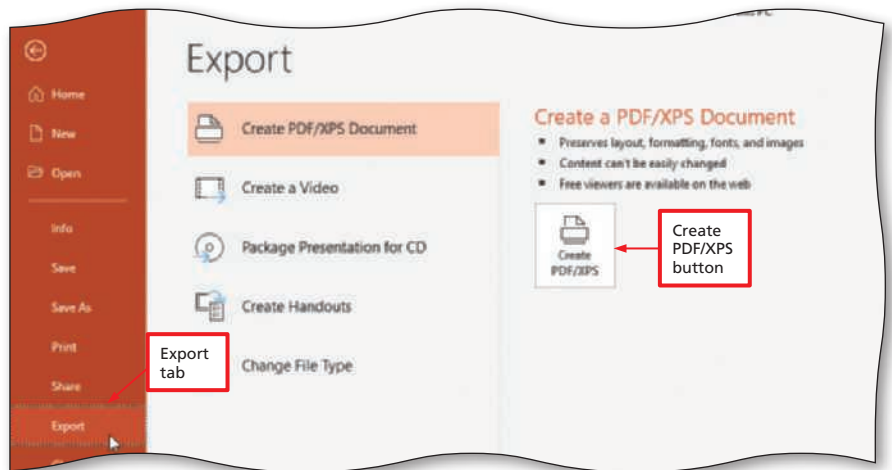


Figure 7–102

2

- Click the Create PDF/XPS button to display the 'Publish as PDF or XPS' dialog box.
- Type SC_PPT_7_Prevent_PDF in the File name box as the new file name and then choose the location to save the document (Figure 7–103).

Q&A

What do the Optimize for options do?

Standard saves the file in high quality, which is good for printing. Minimum size reduces the file size and is preferable if you plan to send the file as an email attachment.

BTW

PDF Option Settings

Your PDF file can include comments, ink notations, handouts, outlines, and non-printing information such as document properties. You can choose the number of slides to include and specify whether the order is horizontal or vertical.

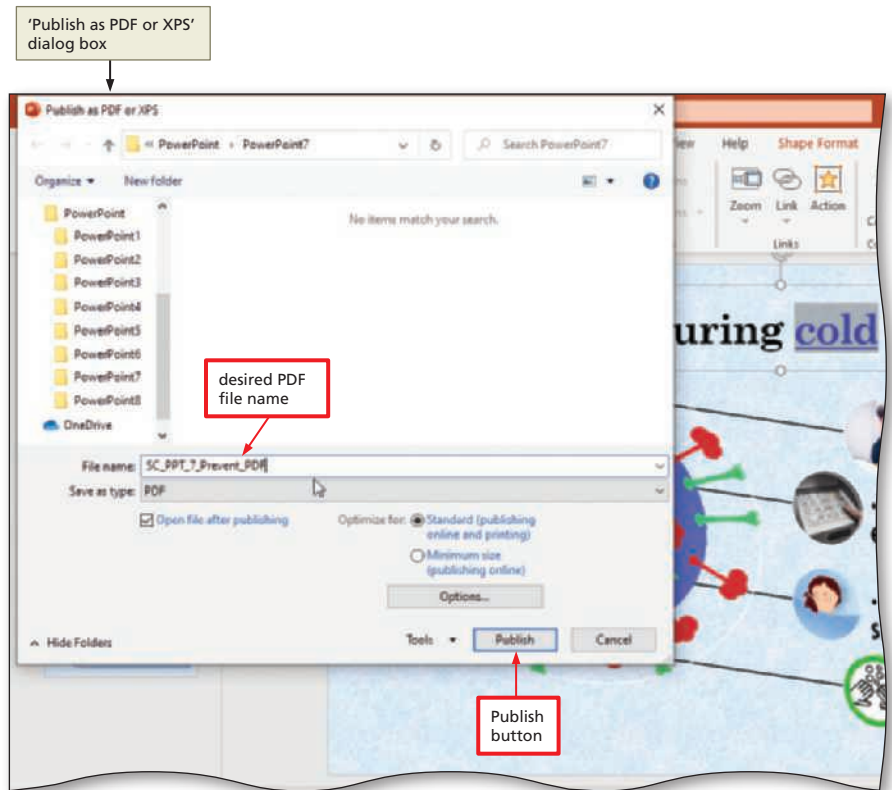


Figure 7–103

- 3**
- Click the Publish button ('Publish as PDF or XPS' dialog box) to create and display the PDF (Figure 7-104).

- 4**
- Click Close ('PowerPoint Presentation – Adobe Acrobat' dialog box).

Q&A What if my PDF displays in a different program?

Depending on your computer settings and available software, the PDF may display in Adobe Acrobat, Word, OneDrive, or a different program.

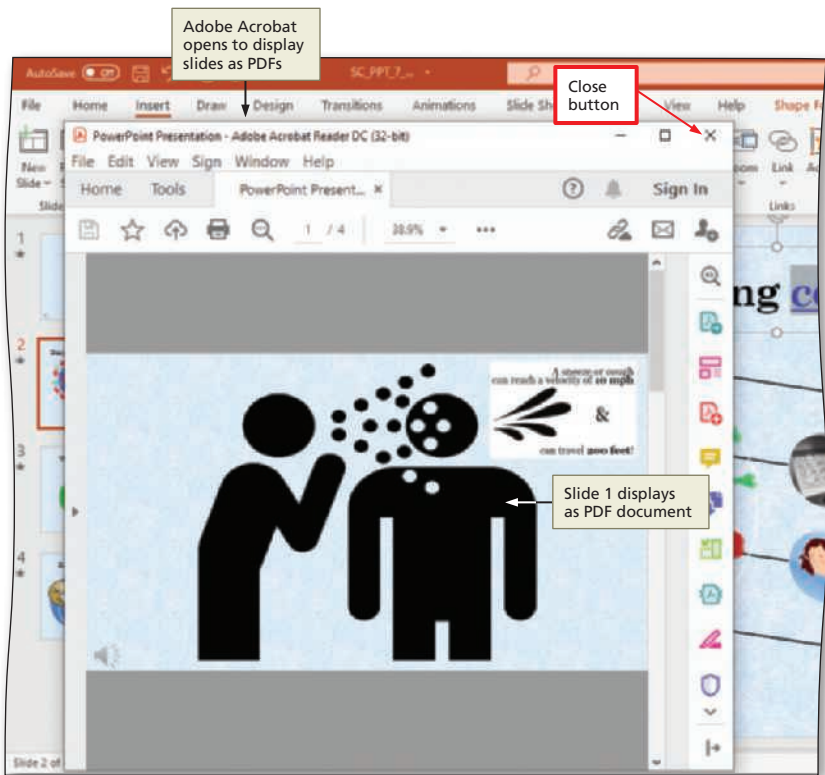


Figure 7-104

Other Ways

1. Click File tab, click Save As, click Save as type arrow, click PDF (*.pdf), click Save

BTW

Conserving Ink and Toner

If you want to conserve ink or toner, you can instruct PowerPoint to print draft quality documents by clicking File on the ribbon to open Backstage view, clicking Options in Backstage view to display the PowerPoint Options dialog box, clicking Advanced in the left pane (PowerPoint Options dialog box), scrolling to the Print area in the right pane, verifying there is no check mark in the High quality check box, and then clicking OK. Then, use Backstage view to print the document as usual.

To Run, Save, and Exit PowerPoint

The presentation now is complete. You should run the presentation, view the hyperlinks, save the presentation, and then exit PowerPoint.

- 1** Run the Present presentation. Click the Sneeze picture on Slide 1 to display Slide 4.
- 2** Display Slide 2 and then click the word, cold, in the title text to open the Support_PPT_7_Cold_or_Flu.pptx file and display its Slide 2. View the Slide 2 contents and then click the action button to return to Slide 2 of the Present presentation.
- 3** Click the Green Hands picture on Slide 2 to display Slide 3. On Slide 3, click the Green Hands picture to view the video.
- 4** When the video is complete, display Slide 4.
- 5** End the slide show.
- 6** **ctrl** + **q** Because the project now is complete, you can exit PowerPoint, closing all open documents.

BTW

Printing Document Properties

PowerPoint does not allow you to print document properties. This feature, however, is available in Word.

Summary

In this module you have learned how to develop a presentation with digital media, SmartArt, and hyperlinks. You started by inserting and editing an audio clip and a video clip. You then inserted, edited, and enhanced a SmartArt graphic. You also removed a picture background and enhanced a picture by changing the contrast and color saturation. You then compressed media to reduce the overall PowerPoint file size. Next, you inserted hyperlinks and an action button. Finally, you saved a presentation as a PDF file.

Consider This: Plan Ahead



What decisions will you need to make when creating your next presentation?

Use these guidelines as you complete the assignments in this module and create your own slide show decks outside of this class.

1. **Choose outstanding hyperlink images or text.** Format hypertext graphics or words that are easy to find on the slide. Make the hypertext graphics or letters large so a speaker is prompted to click them easily during a speaking engagement.
 2. **Customize action buttons.** Create a unique look for your action buttons by adding pictures and other graphical elements to add interest or to make the buttons less obvious to your viewers.
-

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Adding Media and Enhancing SmartArt

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start PowerPoint. Open the presentation called SC_PPT_7-1.pptx, which is located in the Data Files.

Driving in adverse conditions requires skill and patience. Your insurance company is preparing a presentation for vehicle policy holders to inform them about driving safely in rain, snow, and other challenging weather situations, and the media relations director has asked you to help develop slide content. You have received a PowerPoint presentation, video and audio files, and a picture, and you need to format the slides. You will create the three slides shown in Figure 7–105.

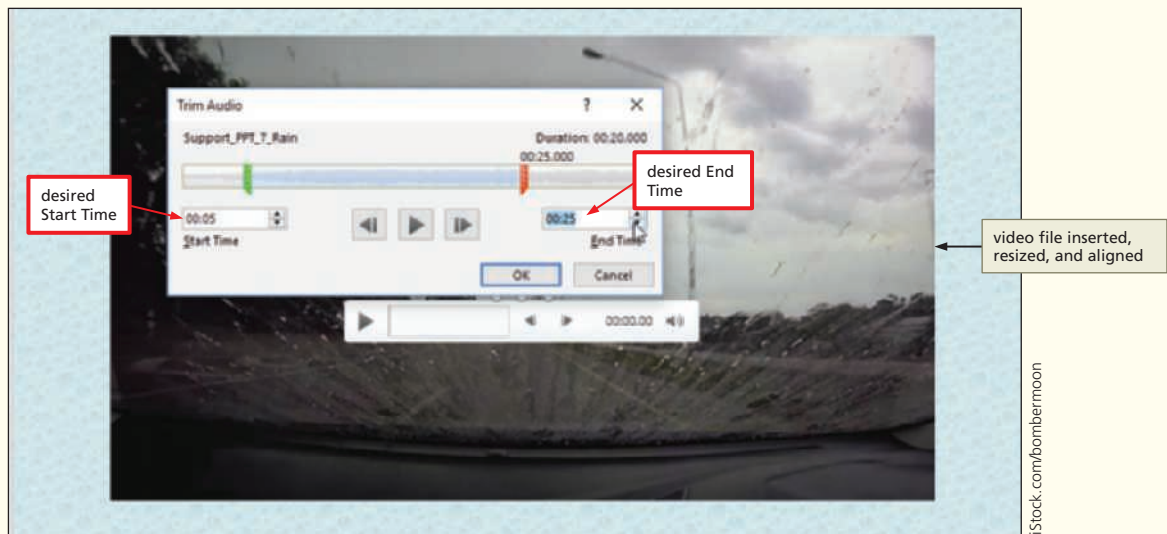
Perform the following tasks:

1. On Slide 1, change the color saturation to 200% (fifth picture) and then change the brightness and contrast setting to 'Brightness: -20% Contrast: +40' (second picture in last Brightness/Contrast row) (Figure 7–105a).
2. Insert a hyperlink to the last slide in the presentation (Slide 3).
3. On Slide 2, insert the video file named Support_PPT_7_Driving.mp4, which is located in the Data Files. Start the video clip to play automatically and to play full screen. Trim the video clip to a Start Time at 00:02 seconds and an End Time at 00:22 seconds. Resize the video height to 6" and then align the video in the center and the middle of the slide.
4. Insert the audio file named Support_PPT_7_Rain.wav, which is located in the Data Files. If necessary, start the audio clip to play in click sequence and then change the volume to Medium. Hide the sound icon during the show. Trim the audio clip to a Start Time at 00:05 seconds and an End Time at 00:25 seconds (Figure 7–105b).
5. Add a poster video frame using the picture named Support_PPT_7_Windshield.jpg, which is located in the Data Files. Apply the 'Glow Rounded Rectangle' video style (third style in first Moderate row) (Figure 7–105c).
6. On Slide 3, delete the white background from the rain picture in the upper-left side of the slide. Flip the picture horizontally. Delete the black background from the snowflake picture on the upper-right side of the slide. You may want to zoom the slide to simplify the background removal process. Resize the height of the rain picture to 2.5" and the snowflake picture to 2.7" and then move them to the upper-left and upper-right corners of the slide.
7. Convert the bulleted list to a SmartArt graphic by right-clicking anywhere in the content placeholder, pointing to 'Convert to SmartArt' in the shortcut menu, and then clicking 'More SmartArt Graphics'. Display the Process gallery and then scroll down and select the Segmented Process graphic (first graphic in eighth row).
8. Move the Reduce speed shape up so that it is the first shape in the SmartArt graphic.
9. Insert the equation shown in Figure 7–105d. To insert the equation, position the pointer after the colon in the 'To convert Fahrenheit to Celsius:' paragraph and then press ENTER. Display the Insert tab and then click the Equation button (Insert tab | Symbols group). Click the °C symbol (Equation tab | Symbols group) to insert that symbol in the 'Type equation here' box. Click the Symbols More button to display the entire Basic Math gallery and then continue inserting the symbols and numbers shown in Figure 7–105d. Click an area other than the equation to close the 'Type equation here' box.

10. Select the entire SmartArt graphic and resize the height to 6" and width to 10" and then align it in the center and bottom of the slide.
11. Change the SmartArt colors to 'Colorful Range – Accent Colors 2 to 3' (second color in Colorful area).
If requested by your instructor, insert your grandmother's first name after the word, tailgating, in the third SmartArt shape.
12. Compress the media in the presentation using the Standard setting.
13. Save the presentation using the file name, **SC_PPT_7_Weather**.
14. Submit the presentation in the format specified by your instructor.
15. 🌟 Did the color and corrections formatting changes enhance the Slide 1 picture? Why would you click the Slide 1 hyperlink? Were the revised lengths of the video and audio clips sufficient? In Step 7 you converted the bulleted list to the Segmented Process SmartArt graphic. Was this layout a good choice? Why or why not? In Step 11, you changed the SmartArt colors. Was the Colorful Range a good choice? Why or why not?



(a) Slide 1



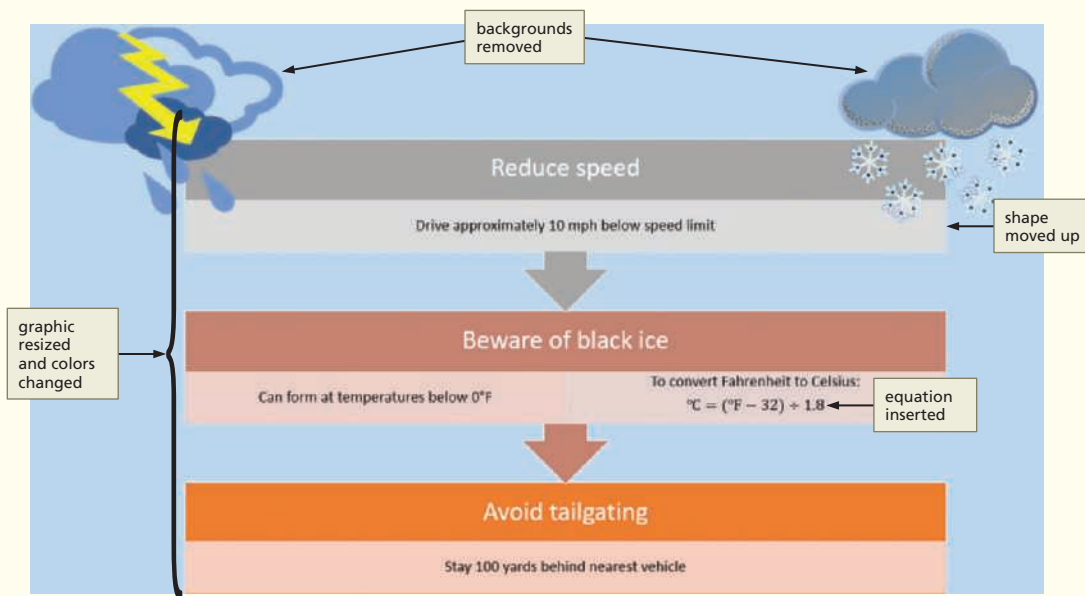
(b) Slide 2 (Trim Audio Dialog Box)

Figure 7-105 (Continued)

Continued >

Apply Your Knowledge *continued*

(c) Slide 2 (Video Poster Frame)



(d) Slide 3

Figure 7-105

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Creating and Modifying SmartArt

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start PowerPoint. Open the presentation called SC_PPT_7-2.pptx, which is located in the Data Files.

Someone's identity is stolen every two seconds. Financial institutions help raise the awareness of identity theft and often sponsor community shredding events to destroy confidential information. The types of documents you should shred are listed in the slides you will create in this assignment. On Slide 1, you will convert WordArt to a SmartArt graphic. You then will duplicate Slide 2 and convert the SmartArt graphic on Slide 2 to text and the SmartArt graphic on Slide 3 to a shape. Finally, you will copy the Slide 3 graphic to Slide 4 and delete Slide 3.

Perform the following tasks:

1. On Slide 1, right-click anywhere in the WordArt bulleted list paragraphs to display the shortcut menu.
2. Point to 'Convert to SmartArt' to display the SmartArt gallery.
3. Click 'More SmartArt Graphics' to display the 'Choose a SmartArt Graphic' dialog box.
4. Click List in the list of graphic categories and then click 'Vertical Bracket List' (third graphic in second row). Click OK to convert the SmartArt.
5. Resize the graphic height to 6" and width to 10" and then align the graphic in the center and bottom of the slide (Figure 7-106a).
6. Display Slide 2 and then duplicate this slide. On Slide 2, select the entire SmartArt graphic. Click the Convert button (SmartArt Design tab | Reset group) and then click 'Convert to Text' to display the four bulleted list paragraphs.
7. Change the font size of the bulleted list paragraphs to 40 point. Increase the list level of the last paragraph, Barcodes contain personal information, to a second-level paragraph. Align the content placeholder in the center and bottom of the slide (Figure 7-106b).
8. Display Slide 3. Select the entire SmartArt graphic and then click the Convert button. Click 'Convert to Shapes' to change the graphic to a shape.
9. Copy the SmartArt shape to Slide 4. Resize the shape height to 5.5" and the width to 10". Align the shape in the center and the bottom of the slide (Figure 7-106c).



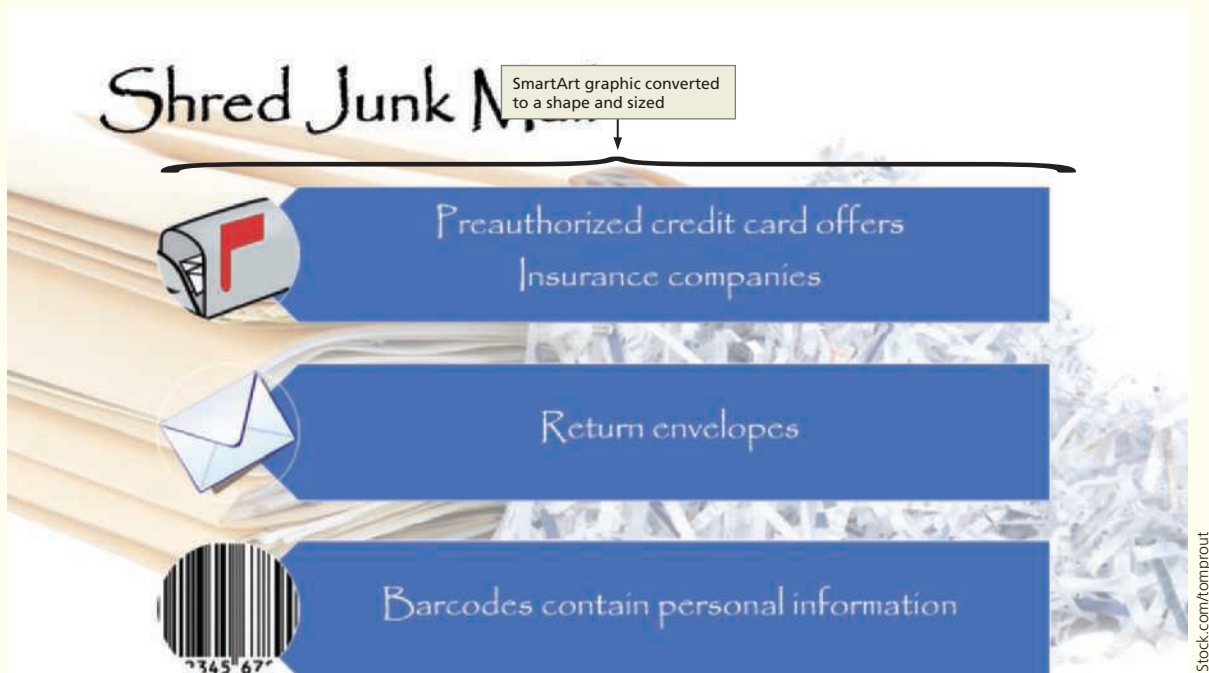
(a) Slide 1 (WordArt Converted to SmartArt)

Figure 7-106 (Continued)

Continued >

Extend Your Knowledge *continued*

(b) Slide 2 (Smart Art Converted to Text)



(c) Slide 3 (SmartArt Converted to a Shape)

Figure 7-106

10. Delete Slide 3.

If requested by your instructor, change the word, Passports, on Slide 1 to the city in which you were born.

11. Save the presentation using the file name, **SC_PPT_7_Shred**.

12. Submit the revised document in the format specified by your instructor.
13. 🌟 In this assignment, you changed WordArt to SmartArt and then changed a SmartArt graphic to text and to a shape. Was the original Slide 1 with WordArt easier or more difficult to comprehend than the revised Slide 1 with SmartArt? Was the Vertical Bracket List a good layout choice? Is Slide 2 or Slide 3 the better choice to display the junk mail information? What are the advantages and disadvantages of converting a SmartArt graphic to a shape?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Reviewing Google Images SmartArt

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: You want to add SmartArt to a presentation you have created to accompany the Prevent presentation you developed in this module. Many people question whether their illnesses are caused by viruses or bacteria, so the health professionals want a second presentation to use at their seminars. You have developed four slides, but you want to add graphical interest and decide to browse Google Images for SmartArt ideas.

Perform the following tasks:

1. Start PowerPoint. Open the presentation called SC_PPT_7-3.pptx, which is located in the Data Files.
2. Open your browser and navigate to Google.com. Click Images at the top of the screen to display the Google Images webpage. Click the Google Images search box, type **smartart powerpoint** as the search text, and then click the Search button (the magnifying glass) or press ENTER.
3. View several SmartArt images with designs that would be appropriate for the material on Slides 2, 3, and 4 and then use these designs as guides to convert the SmartArt on these slides. Recall that to change the SmartArt design you would select the SmartArt, click the More button (SmartArt Design tab | Layouts gallery), click More Layouts, and then select the desired category and layout.
4. If desired, you can change the SmartArt styles and colors and also arrange the slide elements. If requested to do so by your instructor, change the word, You, on the title slide to your mother's name.
5. Save the presentation using the file name, **SC_PPT_7_Bacteria_SmartArt**.
6. Submit the assignment in the format specified by your instructor.
7. 🌟 Which SmartArt images on the Google Images webpage did you use for your presentation? Why did you select these particular examples? Did you change any SmartArt styles and colors or arrange the slide elements? Why or why not?

In the Lab

Apply your creative thinking and problem-solving skills to design and implement a solution.

Design and Create a Presentation about Planning and Organizing a Move

Part 1: Every year more than 40 million people move, with one-half moving between May and September. Relocating to a new community can be trouble-free if the event is planned and organized thoroughly. The Business Development Coordinator at the business where you work is developing materials to distribute to new employees who are in the process of moving to your town. They have asked you to create a PowerPoint presentation giving advice on staying organized when moving.

You have read many articles regarding this subject and have learned that a good place to start is by boxing the objects you do not use regularly, such as seasonal items. Keep an inventory to know what you are taking to the new home and what you are donating, recycling, or discarding. You can use a computer or pencil and paper to list the items and boxes, starting with furniture and other large articles. Obtain clean boxes from supermarkets or moving companies, and mark each box with a label identifying the contents and destination room. For example, one box could contain kitchen utensils while another could contain bath towels. Put heavy items in small boxes to keep the weight manageable. Pack at least one box with essential items that are needed for the first few days at the new location. Take pictures of electronics wiring so you can connect the cords properly once you begin unpacking.

Perform some research to learn additional moving tips and then create slides with this information. The Data Files folder contains pictures you could use, and change the color saturation, brightness, or contrast on at least one of these images. Create at least one slide with SmartArt showing the moving process. Review and revise your presentation as needed and then save the file using the file name, **SC_PPT_7_Moving**. Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while creating the presentation in this assignment: what content to include, how to format the slides and pictures, and which styles and effects to apply. What was the rationale behind each of these decisions? Where would you recommend showing this slide show? When you reviewed the document, what changes did you make?

4 Financial Functions, Data Tables, and Amortization Schedules

Objectives

After completing this module, you will be able to:

- Assign a name to a cell and refer to the cell in a formula using the assigned name
- Determine the monthly payment of a loan using the financial function PMT
- Understand the financial functions PV (present value) and FV (future value)
- Create a data table to analyze data in a worksheet
- Create an amortization schedule
- Control the color and thickness of outlines and borders
- Add a pointer to a data table
- Analyze worksheet data by changing values
- Use range names and print sections of a worksheet
- Set print options
- Protect and unprotect cells in a worksheet
- Hide and unhide worksheets and workbooks
- Use the formula checking features of Excel

Introduction

Two of the more powerful aspects of Excel are its wide array of functions and its capability of organizing answers to what-if questions. In this module, you will learn about financial functions such as the PMT function, which allows you to determine a monthly payment for a loan, and the PV function, which allows you to determine the present value of an investment.

In earlier modules, you learned how to analyze data by using the Excel recalculation feature and goal seeking. This module introduces an additional what-if analysis tool, called a data table. A **data table** is a range of cells that shows the resulting values when one or more input values are varied in a formula. You use a data table to automate data analyses and organize the results returned by Excel. Another important loan analysis tool is an amortization schedule. An **amortization schedule** is a schedule that shows loan balances and the payment amounts applied to the principal and interest for each payment period.

In previous modules, you learned how to print in a variety of ways. In this module, you will learn additional methods of printing using range names and a print area.

Finally, this module introduces you to cell protection, hiding and unhiding worksheets and workbooks, and formula checking. **Cell protection** ensures that users do not inadvertently change values that are critical to the worksheet. Hiding portions of a workbook lets you show only the parts of the workbook that the user needs to see. The **formula checker** examines the formulas in a workbook in a manner similar to the way the spelling checker examines a workbook for misspelled words.

Project: Mortgage Payment Calculator with Data Table and Amortization Schedule

The project in this module follows proper design guidelines and uses Excel to create the worksheet shown in Figure 4–1. Cranford Credit Union provides mortgages (loans) for homes and other types of property. The credit union’s chief financial officer has asked for a workbook that loan officers and customers can use to calculate mortgage payment information, review an amortization schedule, and compare mortgage payments for varying annual interest rates. To ensure that the loan officers and customers do not delete the formulas in the worksheet, they have asked that cells in the worksheet be protected so that they cannot be changed accidentally.

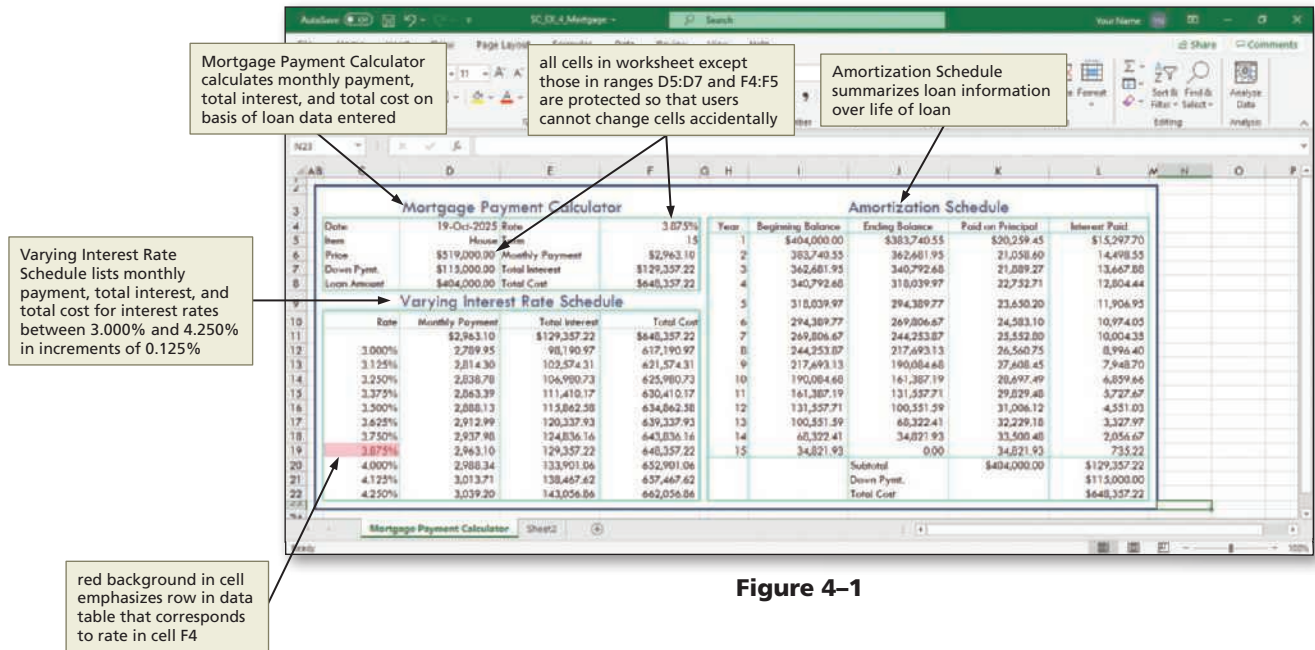


Figure 4–1

The requirements document for the Cranford Mortgage Payment Calculator worksheet is shown in Figure 4–2. It includes the needs, source of data, summary of calculations, and special requirements.

Worksheet Title	Cranford Mortgage Payment Calculator
Needs	<p>An easy-to-read worksheet that</p> <ol style="list-style-type: none"> Determines the monthly payment, total interest, and total cost for a mortgage. Shows a data table that answers what-if questions based on changing interest rates. Highlights the rate in the data table that matches the actual interest rate. Shows an amortization schedule that lists annual summaries of interest paid, principal paid, and balance on principal.
Source of Data	Data supplied by the credit union includes interest rate and term of mortgage. Data supplied by the customer includes item to be purchased, price, and down payment. All other data is calculated or created in Excel.
Calculations	<ol style="list-style-type: none"> The following calculations must be made for each mortgage: <ol style="list-style-type: none"> Mortgage Amount = Price – Down Payment Monthly Payment = PMT function Total Interest = 12 × Term × Monthly Payment – Loan Amount Total Cost = 12 × Term × Monthly Payment + Down Payment The Amortization Schedule involves the following calculations: <ol style="list-style-type: none"> Beginning Balance = Loan Amount Ending Balance = PV function or zero Paid on Principal = Beginning Balance – Ending Balance Interest Paid = 12 × Monthly Payment – Paid on Principal or 0 Paid on Principal Subtotal = SUM function Interest Paid Subtotal = SUM function
Special Requirements	<ol style="list-style-type: none"> Assign names to the ranges of the three major worksheet components separately and together to allow the worksheet components to be printed separately or together easily. Use locked cells and worksheet protection to prevent loan officers and customers from inadvertently making changes to formulas and functions contained in the worksheet.

Figure 4-2

In addition, using a sketch of the worksheet can help you visualize its design. The sketch of the worksheet consists of titles, column and cell headings, the location of data values, and a general idea of the desired formatting (Figure 4-3).

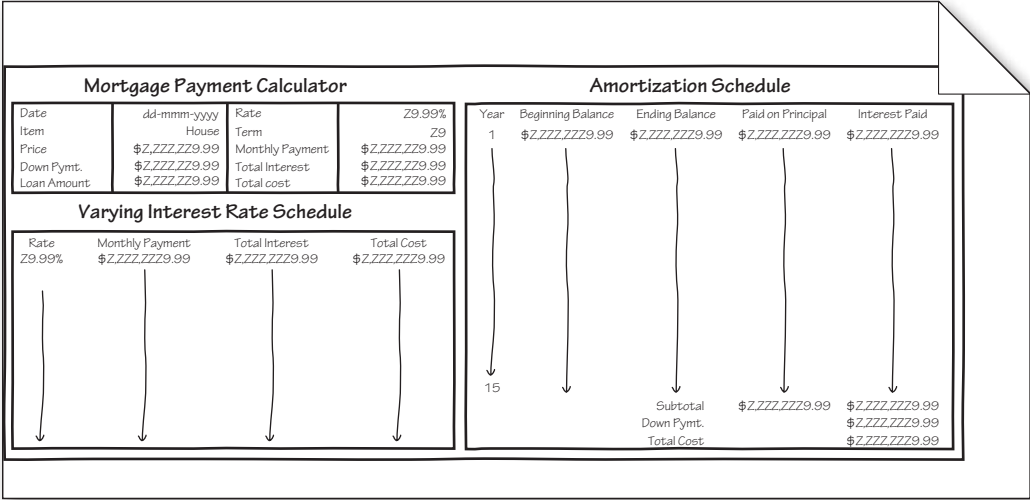


Figure 4-3

BTW
Good Worksheet Design

Consider creating worksheets with an eye toward reusing them in the future. Carefully design worksheets as if they will be on display and evaluated by your fellow workers. Smart worksheet design starts with visualizing the results you need. A well-designed worksheet often is used for many years.

As shown in the worksheet sketch in Figure 4–3, the three basic sections of the worksheet are the Mortgage Payment Calculator on the upper-left side, the Varying Interest Rate Schedule data table on the lower-left side, and the Amortization Schedule on the right side. The worksheet will be created in this order.

With a good understanding of the requirements document, an understanding of the necessary decisions, and a sketch of the worksheet, the next step is to use Excel to create the worksheet.


In this module, you will learn how to create and use the workbook shown in Figure 4–1.

BTW**Ribbon and Screen Resolution**

Excel may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

To Apply a Theme to the Worksheet

The following steps apply the Droplet theme to the workbook.

- 1  Start Excel and create a blank workbook in the Excel window.
- 2 Apply the Droplet theme to the workbook.

To Enter the Section and Row Titles and System Date

The next step is to enter the Mortgage Payment Calculator section title, row titles, and system date. The Mortgage Payment Calculator section title also will be changed to the Title cell style and vertically middle-aligned. The following steps enter the section title, row titles, and system date.

- 1 Select cell C3 and then enter **Mortgage Payment Calculator** as the section title.

Q&A Why did I not begin creating the worksheet in cell A1?

Two rows at the top of the worksheet and two columns on the left of the worksheet will be left blank to provide a border around the worksheet.

- 2 Select the range C3:F3 and then click the Merge & Center button (Home tab | Alignment group) to merge and center the section title in the selected range.
- 3 Click the Cell Styles button (Home tab | Styles group) and then click Title cell style in the Cell Styles gallery to apply the selected style to the active cell.
- 4 Click the Middle Align button (Home tab | Alignment group) to vertically center the text in the selected cell.
- 5 Select cell C4, type **Date** as the row title, and then press **TAB** to complete the entry in the cell and select the cell to the right.
- 6 With cell D4 selected, type **=NOW()** and then click the Enter button to add a function to the cell that displays today's date.
- 7 Right-click cell D4 to open a shortcut menu and then click Format Cells on the shortcut menu to display the Format Cells dialog box. Click the Number tab to display the Number sheet if necessary, click Date in the Category list, scroll down in the Type list, and then click 14-Mar-2012 to select a date format.
- 8 Click OK (Format Cells dialog box) to close the Format Cells dialog box.
- 9 Enter the following text in the indicated cells:

BTW**Global Formatting**

To assign formats to all the cells in all the worksheets in a workbook, click the Select All button, right-click a sheet tab, and click 'Select All Sheets' on the shortcut menu. Next, assign the formats. To deselect the worksheets, hold down **SHIFT** and click the Sheet1 tab or select Ungroup sheets on the shortcut menu. You also can select a cell or a range of cells and then select all worksheets to assign formats to that cell or a range of cells on all worksheets in a workbook.

BTW**Touch Mode Differences**

The Office and Windows interfaces may vary if you are using touch mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

Cell	Text	Cell	Text
		E4	Rate
C5	Item	E5	Term
C6	Price	E6	Monthly Payment
C7	Down Pymt.	E7	Total Interest
C8	Loan Amount	E8	Total Cost

To Adjust the Column Widths and Row Heights

To make the worksheet easier to read, the width of columns A and B will be decreased and used as a separator between the left edge of the worksheet and the row headings. Using a column(s) as a separator between sections on a worksheet is a technique used by spreadsheet specialists. The width of columns C through F will be increased so that the intended values fit. The height of row 3, which contains the title, will be increased so that it stands out. The height of rows 1 and 2 will be decreased to act as visual separators for the top of the calculator.

- 1 Click column heading A and then drag through column heading B to select both columns. Position the pointer on the right boundary of column heading B and then drag to the left until the ScreenTip indicates Width: 0.85 (11 pixels) to change the width of both columns.

Q&A **What if I am unable to drag to set the exact column widths and row heights specified?**
Depending on your display settings, you may be unable to set the exact column widths and row heights by dragging. In this case, right-click the column or row heading to resize, click Column Width (for columns) or Row Height (for rows) to display the Column Width or Row Height dialog box, type the exact column width or row height, and then click OK.

- 2 Position the pointer on the right boundary of column heading C and then drag to the right until the ScreenTip indicates Width: 12.00 (101 pixels) to change the column width.
- 3 Click column heading D to select it and then drag through column headings E and F to select multiple columns. Position the pointer on the right boundary of column heading F and then drag until the ScreenTip indicates Width: 16.00 (133 pixels) to change multiple column widths.
- 4 Click row heading 1 to select it and then drag through row heading 2 to select both rows. Position the pointer on the bottom boundary of row heading 2 and then drag until the ScreenTip indicates Height: 8.25 (11 pixels).
- 5 Select an empty cell to deselect the selected rows (Figure 4–4).

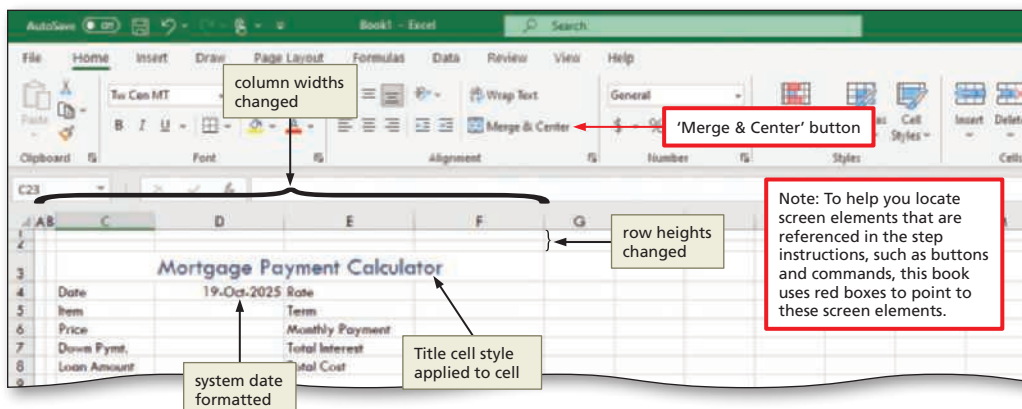


Figure 4–4

To Change the Sheet Tab Name

The following steps change the Sheet1 sheet tab name to a descriptive name and then save the workbook.

- 1** Double-click the Sheet1 tab and then enter **Mortgage Payment Calculator** as the sheet tab name.
- 2** Save the workbook on your hard drive, OneDrive, or location that is most appropriate to your situation using **SC_EX_4_Mortgage** as the file name.

Q&A Why should I save the workbook at this time?

You have performed many tasks while creating this workbook and do not want to risk losing work completed thus far.

Creating Cell Names

BTW

Cell References in Formulas

Are you tired of writing formulas that are difficult to decipher because of cell references? The Name Manager can help add clarity to your formulas by allowing you to assign names to cells. You then can use the names, such as Rate, rather than the cell reference, such as D2, in the formulas you create. To access the Name Manager, click the Name Manager button (Formulas tab | Defined Names group).

A **cell name** is a name you assign to a cell or range. You can then use that name in formulas in place of the cell or range address. Using names instead of addresses makes formulas easier to understand. Using names also lets you build formulas more quickly because you can select them quickly using the Name box (shown in Figure 4-7). Clicking the name will select the corresponding cell or range, and highlight the cell or range on the worksheet. Names are global to the workbook. That is, a name assigned to a cell or cell range on one worksheet in a workbook can be used on other worksheets in the same workbook to reference the named cell or range. You can assign names to cells, ranges, formulas, and constants.

To assign names to selected cells, you can use the Define Name button (Formulas tab | Defined Names group). But worksheets often have column titles at the top of each column and row titles to the left of each row that describe the data within the worksheet, and you can use these titles to create names. If you make a mistake while creating a name, click the Name Manager button (Formulas tab | Defined Names group) to display the Name Manager dialog box. Select the range to edit or delete, and then click the appropriate button to edit or delete the selected range.

To Format Cells before Entering Values

While you usually format cells after you enter values, Excel also allows you to format cells before you enter the values. The following steps assign the currency style format with a floating dollar sign to the ranges D6:D8 and F6:F8 before the values are entered.

- 1** Select the range D6:D8 and, while holding down CTRL, select the nonadjacent range F6:F8.
- 2** Right-click one of the selected ranges to display a shortcut menu and then click Format Cells on the shortcut menu to display the Format Cells dialog box.
- 3** If necessary, click the Number tab (Format Cells dialog box) to display the Number sheet, select Currency in the Category list, and then select the fourth format, (\$1,234.10) (red font color), in the Negative numbers list.
- 4** Click OK (Format Cells dialog box) to assign the currency style format with a floating dollar sign to the selected ranges, D6:D8 and F6:F8 in this case.

Q&A What will happen when I enter values in these cells?

As you enter numbers into these cells, Excel will display the numbers using the currency style format. You also could have selected the range C6:F8 rather than the nonadjacent ranges and assigned the currency style format to this range, which includes text. The currency style format has no impact on text in a cell.

BTW

When to Format

Excel lets you format cells (1) before you enter data; (2) when you enter data, through the use of format symbols; (3) incrementally after entering sections of data; and (4) after you enter all the data. Experienced users usually format a worksheet in increments as they build the worksheet, but occasions do exist when it makes sense to format cells before you enter any data.

To Enter the Loan Data

As shown in the Source of data section of the requirements document in Figure 4–2, five items make up the loan data in the worksheet: the item to be purchased, the price of the item, the down payment, the interest rate, and the term (number of years) over which the loan is paid back. The following steps enter the loan data.

- 1 Select cell D5. Type **House** and then click the Enter button in the formula bar to enter text in the selected cell.
- 2 With cell D5 still active, click the Align Right button (Home tab | Alignment group) to right-align the text in the selected cell.
- 3 Select cell D6 and then enter **519000** for the price of the house.
- 4 Select cell D7 and then enter **115000** for the down payment.
- 5 Select cell F4 and then enter **3.875%** for the interest rate.
- 6 Select cell F4, if necessary, and then click the Increase Decimal button (Home tab | Number group) once to increase the number of decimal places to three.

Q&A How can I decrease the number of decimal places?

You can click the Decrease Decimal button (Home tab | Number group) to decrease the number of decimal places.

- 7 Select cell F5 and then enter **15** for the number of years in the term (Figure 4–5).

Q&A Why are the entered values already formatted?

The values in cells D6 and D7 in Figure 4–5 are formatted using the currency style with two decimal places because you assigned this format to the cells prior to entering the values. Because you typed the percent sign (%) after typing 3.875 in cell F4, Excel formatted the interest rate using the percentage style with two decimal places (thus, the value originally appeared as 3.88). Using the Increase Decimal button increased the number of visible decimal places to three.

BTW

Entering Percentages

When you format a cell to display percentages, Excel assumes that whatever you enter into that cell in the future will be a percentage. Thus, if you enter the number .5, Excel translates the value as 50%. A potential problem arises, however, when you start to enter numbers greater than or equal to one. For instance, if you enter the number 25, do you mean 25% or 2500%? If you want Excel to treat the number 25 as 25% and Excel interprets the number 25 as 2500%, then click Options in Backstage view. When the Excel Options dialog box appears, click Advanced in the left pane, and make sure the 'Enable automatic percent entry' check box in the right pane is selected.

BTW

Entering Interest Rates

An alternative to requiring the user to enter an interest rate as a percentage, such as 3.875%, is to allow the user to enter the interest rate as a number without a percent sign (3.875) and then divide the interest rate by 1,200, rather than 12.

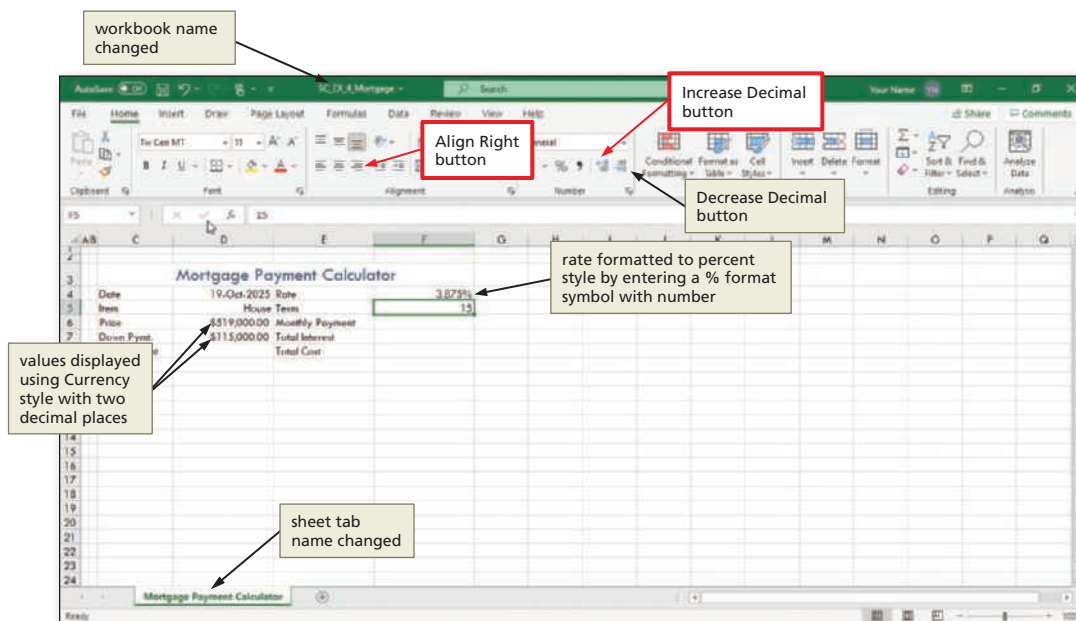


Figure 4–5

To Create Names Based on Row Titles

Why? Naming a cell that you plan to reference in a formula helps make the formula easier to read and remember. For example, the loan amount in cell D8 is equal to the price in cell D6 minus the down payment in cell D7. According to what you learned in earlier modules, you can enter the loan amount formula in cell D8 as $=D6 - D7$. By naming cells D6 and D7 using the corresponding row titles in cells C6 and C7, however, you can enter the loan amount formula as $=Price - Down_Pymt.$, which is clearer and easier to understand than $=D6 - D7$. In addition to assigning a name to a single cell, you can follow the same steps to assign a name to a range of cells. The following steps assign the row titles in the range C6:C8 to their adjacent cell in column D and assign the row titles in the range E4:E8 to their adjacent cell in column F.

- Select the range C6:D8.
 - Display the Formulas tab.
 - Click the 'Create from Selection' button (Formulas tab | Defined Names group) to display the Create Names from Selection dialog box (Figure 4-6).

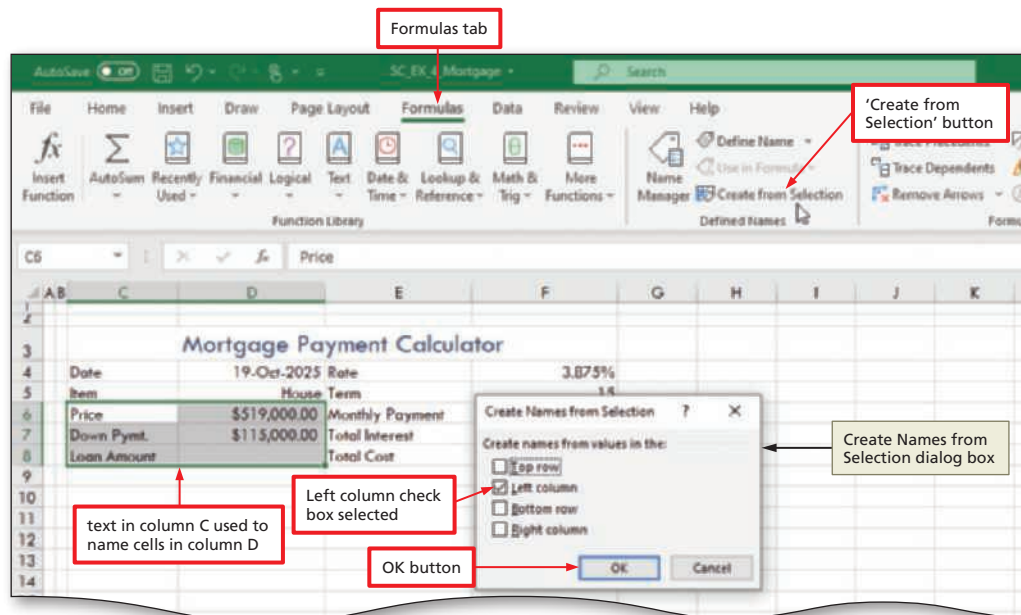


Figure 4-6

- Click OK (Create Names from Selection dialog box) to name the cells selected in the right column of the selection, D6:D8 in this case.
 - Select the range E4:F8 and then click the 'Create from Selection' button (Formulas tab | Defined Names group) to display the Create Names from Selection dialog box.
 - Click OK (Create Names from Selection dialog box) to assign names to the cells selected in the right column of the selection, F4:F8 in this case.

Q&A Are names absolute or relative cell references?
Names are absolute cell references. This is important to remember if you plan to copy formulas that contain names rather than cell references.

- Deselect the selected range and then click the Name box arrow in the formula bar to view the created names (Figure 4-7).

Q&A Is a cell name valid when it contains a period, as with the Down_Pymt. cell name?
Yes. Periods and underscore characters are allowed in cell names. A cell name may not begin with a period or an underscore, however.

Are there any limitations on cell names?
Names may not be longer than 255 characters.

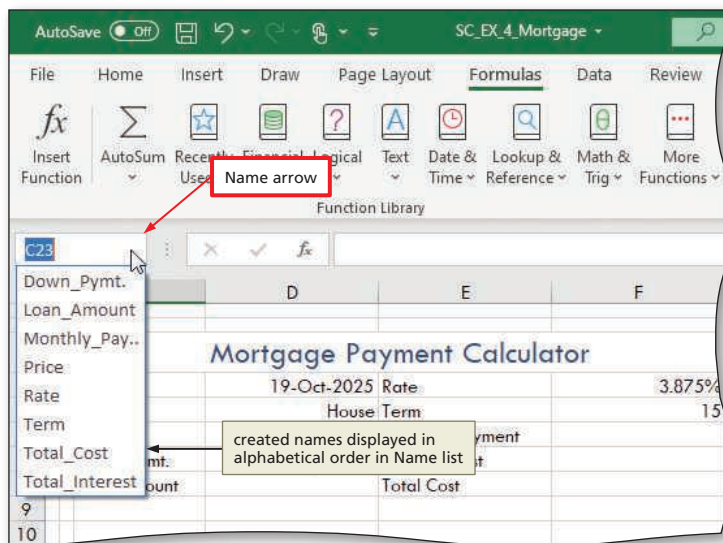


Figure 4-7

Other Ways

- | | | | |
|---|---|---|--------------------------------------|
| 1. Select cell or range, type name in Name box, press ENTER | 2. Select cell or range, click Define Name button (Formulas tab Defined Names group), type name, click OK (New Name dialog box) | 3. Select cell or range, click Name Manager button (Formulas tab Defined Names group), click New (Name Manager dialog box), type name, click OK (New Name dialog box), click Close button (Name Manager dialog box) | 4. Select range, press CTRL+SHIFT+F3 |
|---|---|---|--------------------------------------|

Consider This**What do you do if a cell you want to name does not have a text item in an adjacent cell?**

If you want to assign a name that does not appear as a text item in an adjacent cell, use the Define Name button (Formulas tab | Defined Names group) or select the cell or range and then enter the name in the Name box in the formula bar.

Consider This**What do I need to consider when naming cells, and how can I use named cells?**

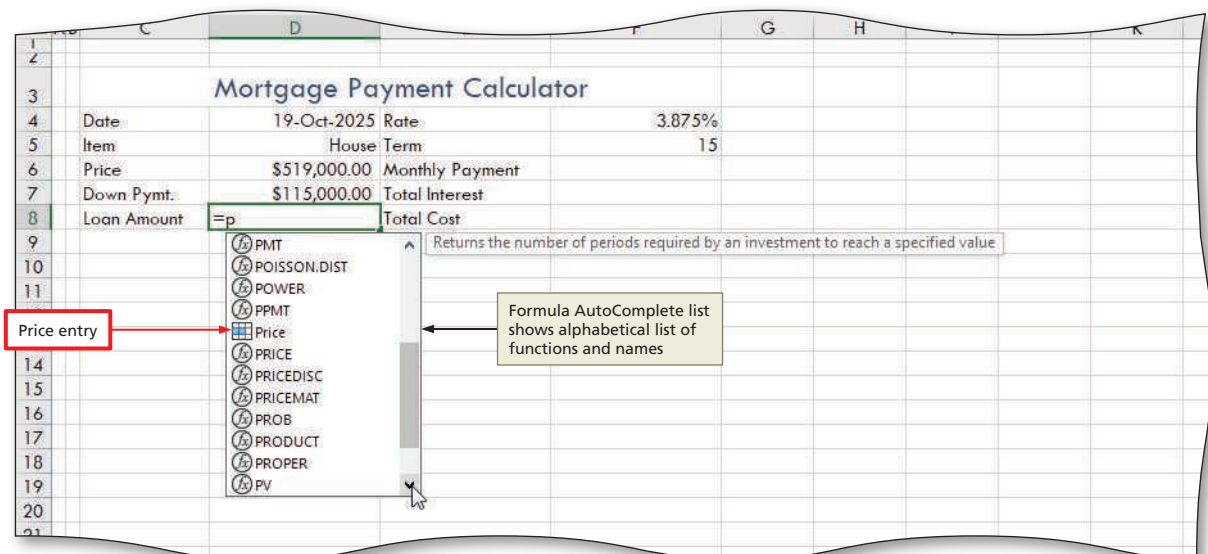
You can use the assigned names in formulas to reference cells in the ranges D6:D8 or F4:F8. Excel is not case sensitive with respect to names of cells. You can enter the cell names in formulas in either uppercase or lowercase letters. To use a name that consists of two or more words in a formula, you should replace any space with the underscore character (_), as this is a commonly used standard for creating cell names. For example, the name, Down Pymt., can be written as down_pymt. or Down_Pymt. when you want to reference the adjacent cell D7. The Name Manager dialog box appears when you click the Name Manager button. The Name Manager dialog box allows you to create new names and edit or delete existing names.

To Enter the Loan Amount Formula Using Names

Why? Once you have created names, you can use them instead of cell references in formulas because they are easier to remember. To determine the loan amount, enter the formula `=Price - Down_Pymt.` in cell D8. Excel makes this easier by including any cell names you have assigned in the list of functions. The following steps enter the formula using names.

1

- Select cell D8.
- Type `=p` and then scroll down the Formula AutoComplete list until you see the Price entry (Figure 4–8).

**Figure 4–8**

2

- Double-click Price to enter it in cell D8.
- Type -d.
- Scroll down to and double-click Down_Pymt. in the Formula AutoComplete list to select it and display the formula in both cell D8 and the formula bar using the cell names instead of the cell references (Figure 4–9).

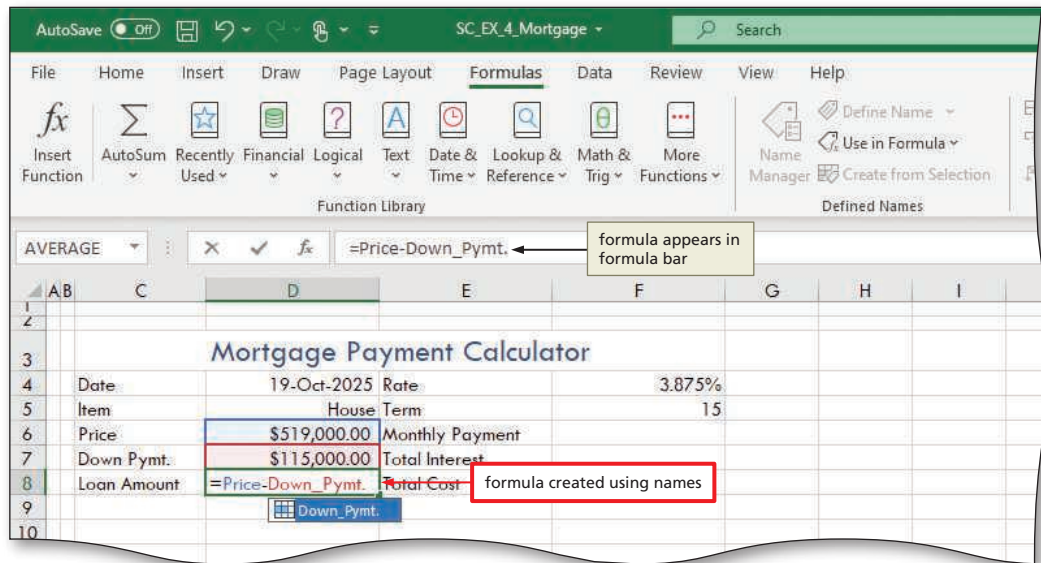


Figure 4–9

3

- Click the Enter button to assign the formula =Price - Down_Pymt. to the selected cell, D8 (Figure 4–10).

Q&A What happens if I enter my formula using Point mode instead of using names?
 If you enter a formula using Point mode and click a cell that has an assigned name, Excel will insert the name of the cell rather than the cell reference.

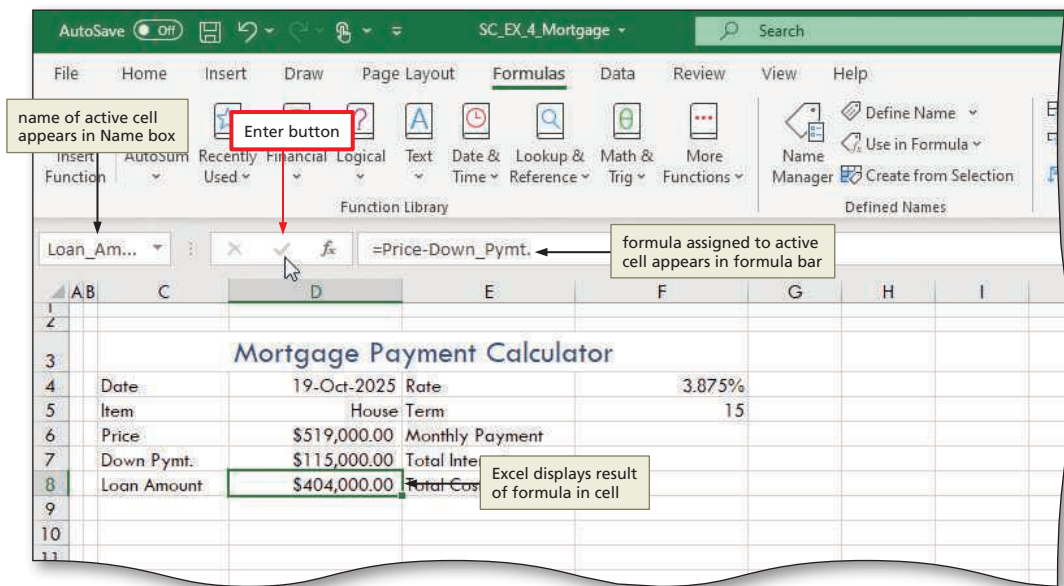


Figure 4–10

The PMT Function

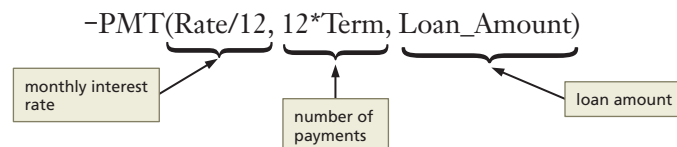
You can use the Excel PMT function to determine the monthly payment. The **PMT function** is the financial function that calculates the payment schedule required to repay a loan based on constant payments and a constant interest rate. The PMT function has three arguments: rate, periods, and loan amount. Its general form is as follows:

$$=PMT(\text{rate}, \text{periods}, \text{loan amount})$$

where rate is the interest rate per payment period, periods is the number of payments over the life of the loan, and loan amount is the amount of the loan.

In the worksheet shown in Figure 4–10, Excel displays the annual interest rate in cell F4. Financial institutions, however, usually calculate interest on a monthly basis. The rate value in the PMT function is, therefore, Rate / 12 (cell F4 divided by 12), rather than just Rate (cell F4). The periods (or number of payments) in the PMT function is 12 * Term (12 times cell F5) because each year includes 12 months, or 12 payments.

Excel considers the value returned by the PMT function to be a debit and, therefore, returns a negative number as the monthly payment. To display the monthly payment as a positive number, begin the function with a negative sign instead of an equal sign. The PMT function for cell F6 is:



To Enter the PMT Function

Why? The next step in building the mortgage payment calculator is to determine the monthly payment for the mortgage. The following steps use the keyboard, rather than Point mode or the Insert Function dialog box, to enter the PMT function to determine the monthly payment in cell F6.

1

- Select cell F6.
- Type the function `-pmt(Rate/12, 12*Term, Loan_Amount)` in cell F6, which also displays in the formula bar (Figure 4–11).

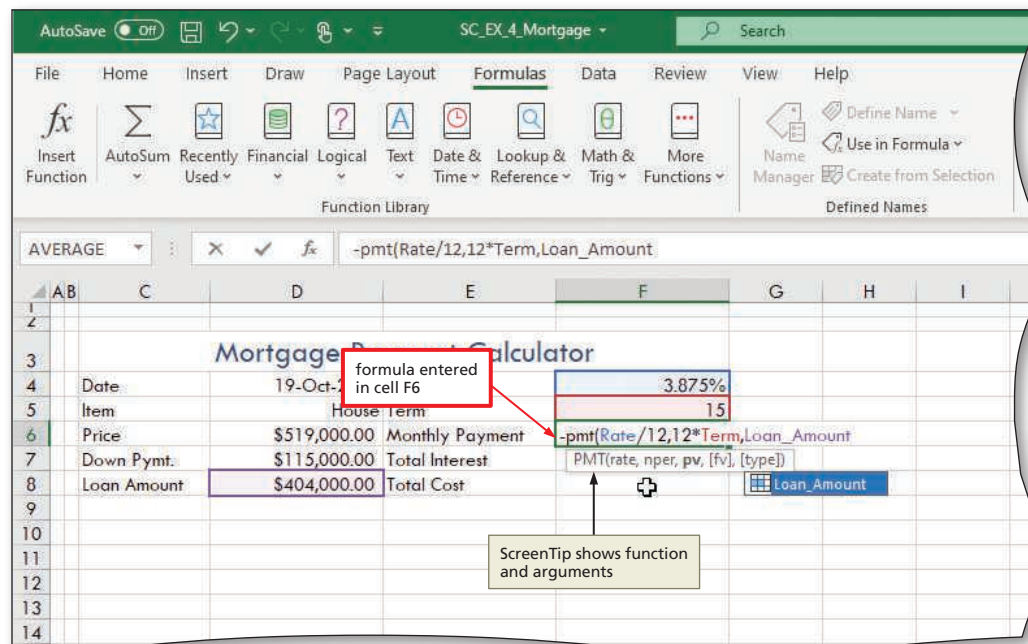


Figure 4–11

Q&A What happens as I begin to enter the function?

The ScreenTip shows the general form of the PMT function (after you type the opening parenthesis). The arguments in brackets in the ScreenTip are optional and not required for the computation required in this project. The Formula AutoComplete list (Figure 4–8) shows functions and cell names that match the letters that you type on the keyboard. You can type the complete cell name, such as Loan_Amount, or double-click the cell name in the list. When you have completed entering the function and click the Enter button or press ENTER, Excel will add the closing parenthesis to the function. Excel also may scroll the worksheet to the right in order to accommodate the ScreenTip.

2

- Click the Enter button in the formula bar to complete the function (Figure 4–12).

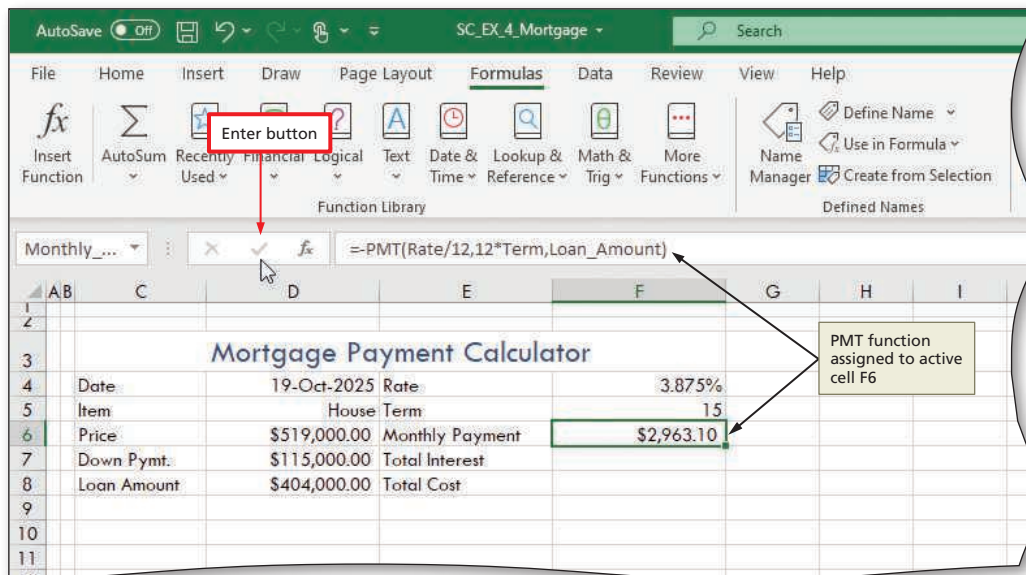


Figure 4–12

Other Ways

1. Click Financial button (Formulas tab | Function Library group), select PMT function, enter arguments, click OK
2. Click Insert Function button in formula bar, select Financial category, select PMT function, click OK, enter arguments, click OK (Function Arguments dialog box)

Other Financial Functions

In addition to the PMT function, Excel provides more than 50 financial functions to help you solve the most complex finance problems. These functions save you from entering long, complicated formulas to obtain needed results. For example, the **FV function** returns the future value of an investment based on scheduled payments and an unchanging interest rate. The FV function requires the following arguments: the interest rate per period, the number of periods, and the payment made each period (which cannot change). For example, if you want to invest \$200 per month for five years at an annual interest rate of 6%, the FV function will calculate how much money you will have at the end of five years. Table 4–1 summarizes three of the more frequently used financial functions.

Table 4–1 Frequently Used Financial Functions

Function	Description
FV (rate, periods, payment)	Returns the future value of an investment based on periodic, constant payments and a constant interest rate.
PMT (rate, periods, loan amount)	Calculates the payment for a loan based on the loan amount, constant payments, and a constant interest rate.
PV (rate, periods, payment)	Returns the present value of an investment. The present value is the total amount that a series of future payments now is worth.

To Determine the Total Interest and Total Cost

The next step is to determine the total interest the borrower will pay on the loan (the lending institution's gross profit on the loan) and the total cost the borrower will pay for the item being purchased. The total interest (cell F7) is equal to the number of payments times the monthly payment, minus the loan amount:

$$=12 * \text{Term} * \text{Monthly_Payment} - \text{Loan_Amount}$$

The total cost of the item to be purchased (cell F8) is equal to the price plus the total interest:

$$=\text{Price} + \text{Total_Interest}$$

The following steps enter formulas to determine the total interest and total cost using names.

- 1 Select cell F7, use the keyboard to enter the formula `=12 * term * monthly_payment - loan_amount` to determine the total interest, and then click the Enter button.
- 2 Select cell F8 and then use the keyboard to enter the formula `=price + total_interest` to determine the total cost.
- 3 Select an empty cell to deselect cell F8.
- 4 Save the workbook again on the same storage location with the same file name (Figure 4-13).

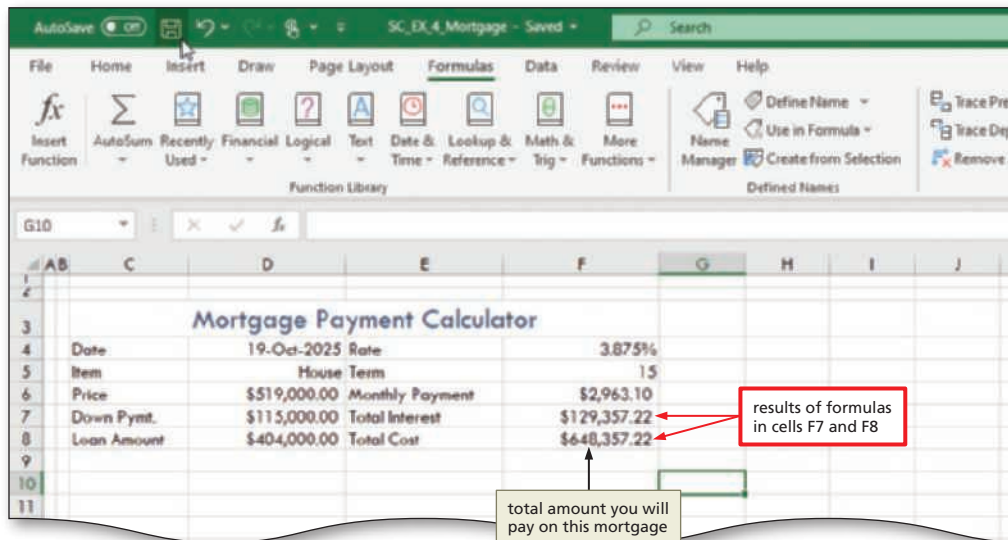


Figure 4-13

To Enter New Loan Data

Assume you want to purchase a condominium for \$200,000. You have \$50,000 for a down payment and you want the loan for a term of 10 years. Cranford Credit Union currently is charging 4.125% interest for a 10-year loan. The following steps enter the new loan data.

- 1 Enter **Condominium** in cell D5.
- 2 Enter **200000** in cell D6.

BTW

Range Finder

Remember to check all your formulas carefully. You can double-click a cell containing a formula and Excel will use Range Finder to highlight the cells that provide data for that formula. While Range Finder is active, you can drag the outlines from one cell to another to change the cells referenced in the formula, provided the cells have not been named.

BTW

Testing a Worksheet

It is good practice to test the formulas in a worksheet repeatedly until you are confident they are correct. Use data that tests the limits of the formulas. For example, you should enter negative numbers, zero, and large positive numbers when testing formulas.

- 3 Enter 50000 in cell D7.
- 4 Enter 4.125% in cell F4.
- 5 Enter 10 in cell F5 and then select an empty cell to recalculate the loan information in cells D8, F6, F7, and F8 (Figure 4–14).

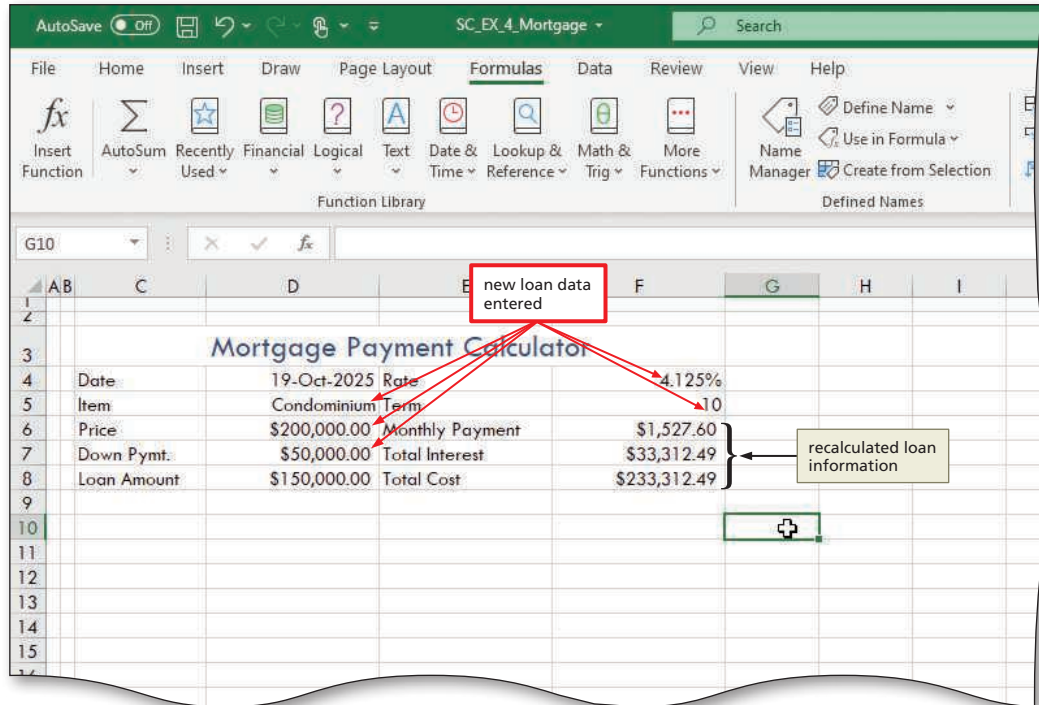


Figure 4–14

To Enter the Original Loan Data

The following steps reenter the original loan data.

- 1 Enter **House** in cell D5.
- 2 Enter 519000 in cell D6.
- 3 Enter 115000 in cell D7.
- 4 Enter 3.875 in cell F4.
- 5 Enter 15 in cell F5 and then select cell C10 to complete the entry of the original loan data.

Q&A What is happening on the worksheet as I enter the original data?

Excel instantaneously recalculates all formulas in the worksheet each time you enter a value. Once you have re-entered all the initial data, Excel displays the original loan information, as shown in Figure 4–13.

Can the Undo button on the Quick Access Toolbar be used to change back to the original data?

Yes. The Undo button must be clicked five times, once for each data item. You also can click the Undo arrow and drag through the first five entries in the Undo list.

Using a Data Table to Analyze Worksheet Data

You already have seen that if you change a value in a cell, Excel immediately recalculates any formulas that reference the cell directly or indirectly. But what if you want to compare the results of the formula for several different values? Writing down or trying to remember all the answers to the what-if questions would be unwieldy. If you use a data table, however, Excel will organize the answers in the worksheet for you.

A data table is a range of cells that shows the resulting values when one or more input values are varied in a formula. Data tables have one purpose: to organize the answers to what-if questions. Data tables must be built in an unused area of the worksheet (in this case, the range C9:F22). Figure 4–15a illustrates the content needed for the Data Table command. A **one-input data table** (also called a **one-variable data table**) is a range of cells that shows resulting values when one input value in a formula is changed (in this worksheet, cell F4, the interest rate). Excel then calculates the results of one or more formulas and fills the data table with the results. Figure 4–15b shows the completed one-input data table.

The interest rates that will be used to analyze the loan formulas in this project range from 3.000% to 4.250%, increasing in increments of 0.125%. The one-input data table shown in Figure 4–15b illustrates the impact of varying the interest rate on three formulas: the monthly payment (cell F6), total interest paid (cell F7), and the total cost of the item to be purchased (cell F8). The series of interest rates in column C are called input values.

BTW

Expanding Data Tables

The data table created in this module is relatively small. You can continue the series of percentages to the bottom of the worksheet and insert additional formulas in columns to create as large a data table as you want.

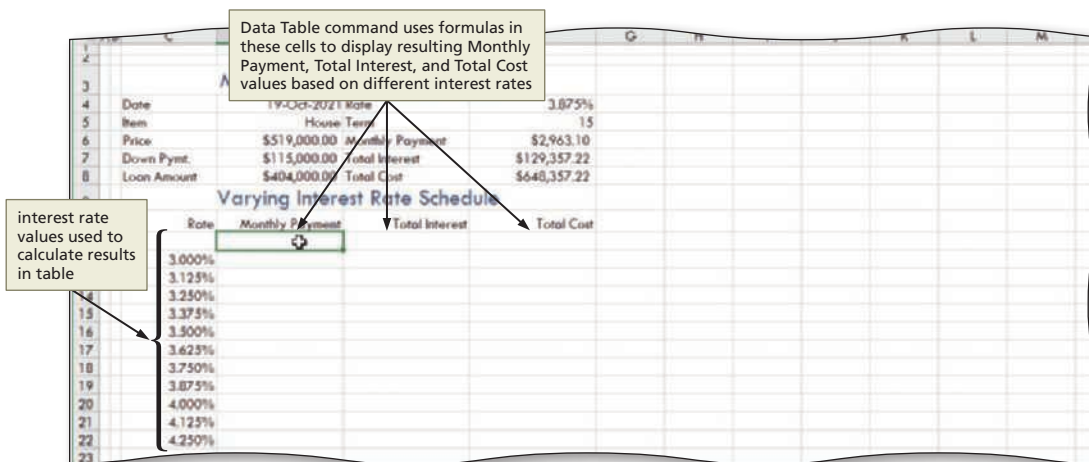


Figure 4–15 (a)

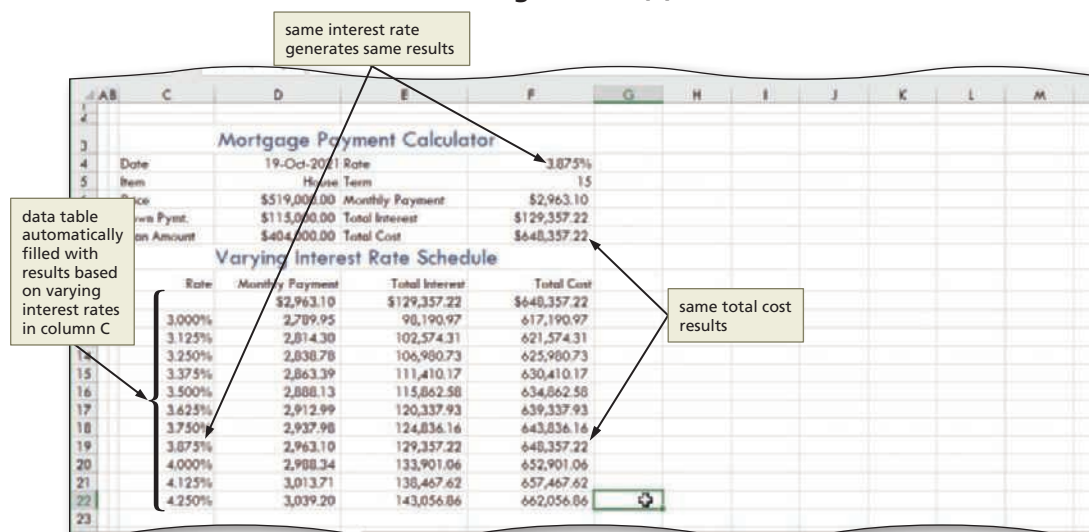


Figure 4–15 (b)

To Enter the Data Table Title and Column Titles

The first step in constructing the data table shown in Figure 4–15b is to enter the data table section title and column titles in the range C9:F10 and adjust the heights of rows 9 and 10.

- 1 Select cell C9 and then enter **Varying Interest Rate Schedule** as the data table section title.
- 2 Select cell C3 and then click the Format Painter button (Home tab | Clipboard group) to copy the format of the cell. Click cell C9 to apply the copied format to the cell.
- 3 Type **Rate** in cell C10, **Monthly Payment** in cell D10, **Total Interest** in cell E10, and **Total Cost** in cell F10 to create headers for the data table. Select the range C10:F10 and right-align the column titles.
- 4 Position the pointer on the bottom boundary of row heading 9 and then drag up until the ScreenTip indicates Height: 20.25 (27 pixels).
- 5 Position the pointer on the bottom boundary of row heading 10 and then drag down until the ScreenTip indicates Height: 17.25 (23 pixels).
- 6 Click cell C12 to deselect the range C10:F10 (Figure 4–16).

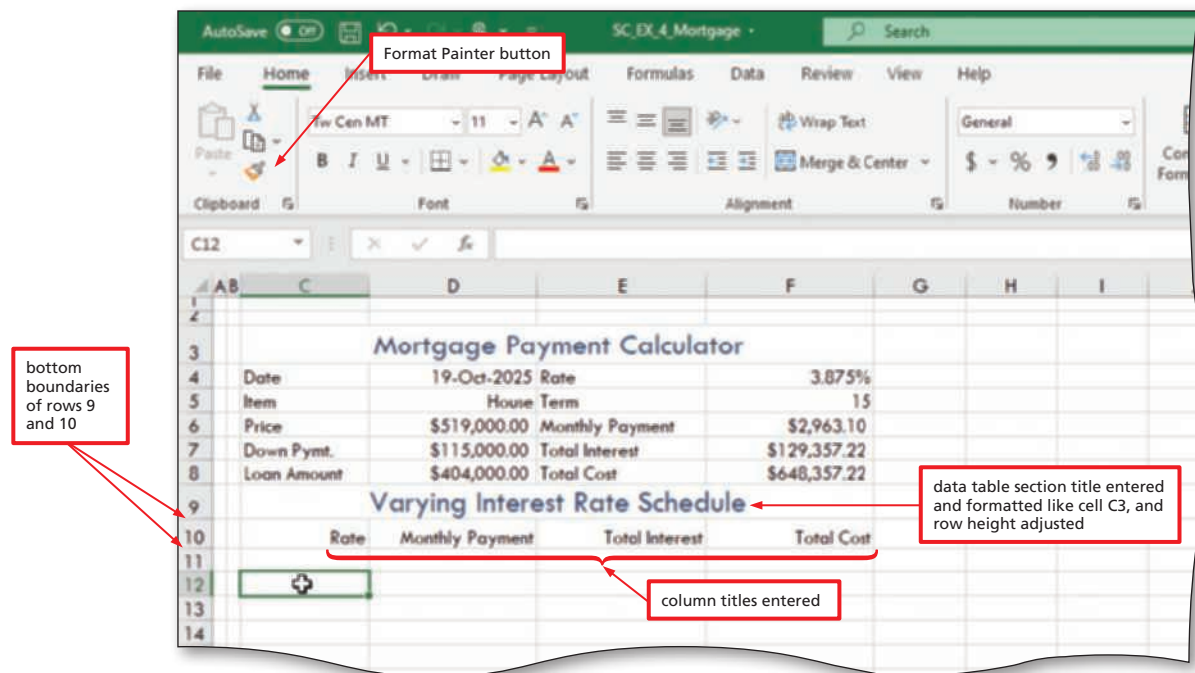


Figure 4–16

To Create a Percentage Series Using the Fill Handle

Why? These percentages will serve as the input data for the data table. The following steps create the percentage series in column C using the fill handle.

1

- With cell C12 selected, enter 3.0% as the first number in the series.
- Select cell C13 and then enter 3.125% as the second number in the series.
- Select the range C12:C13.
- Drag the fill handle through cell C22 to specify the fill area as indicated by the green border (Figure 4-17). Do not lift your finger or release the mouse button.

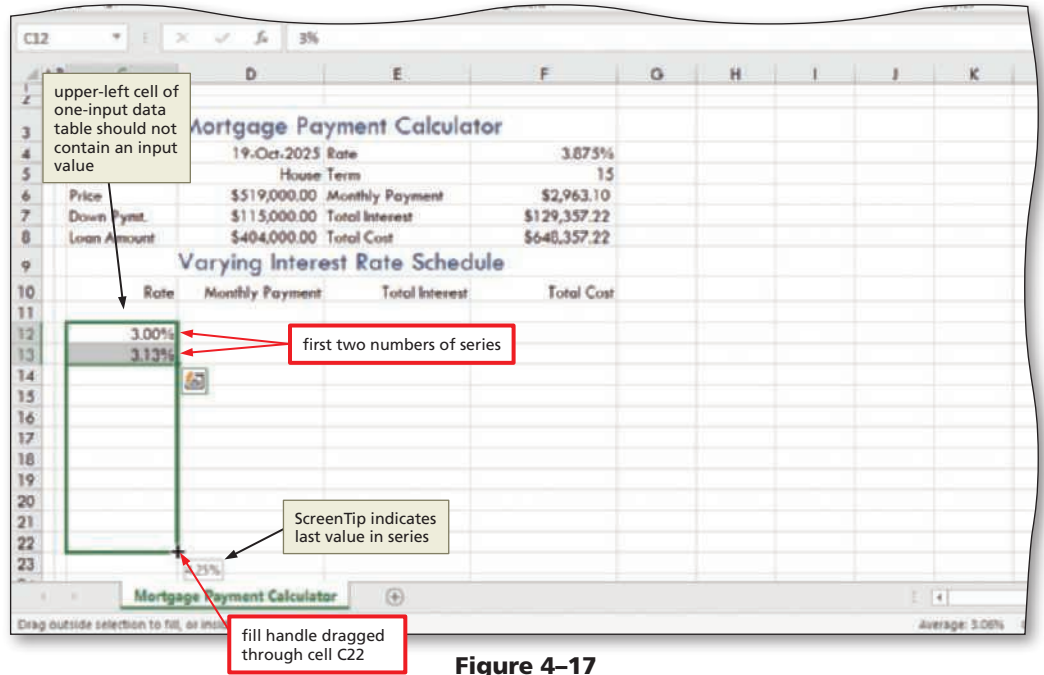


Figure 4-17

2

- Lift your finger or release the mouse button to generate the percentage series, in this case from 3.00% to 4.25%.
- Click the Increase Decimal button (Home tab | Number group) to increase the number of decimal places shown to 3.
- Click cell D11 to deselect the selected range, C12:C22 in this case (Figure 4-18).

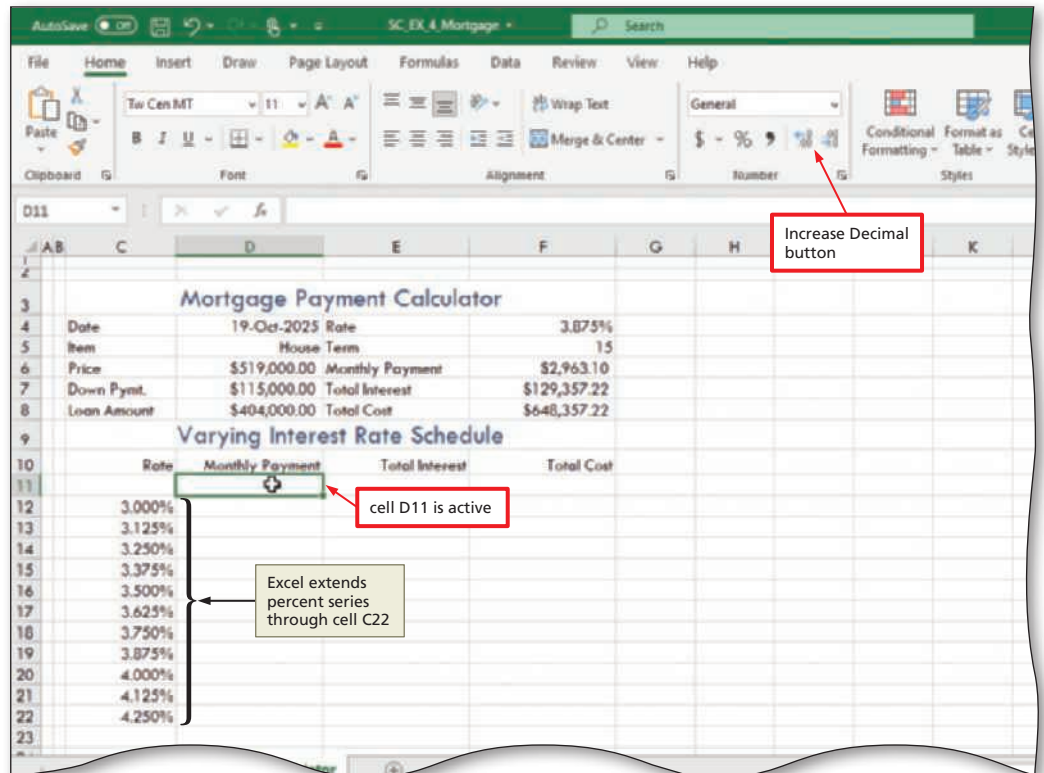


Figure 4-18

Q&A **What is the purpose of the percentages in column C?**

The percentages in column C represent different annual interest rates, which will be used when calculating the data table. The series begins in cell C12, not cell C11, because the cell immediately to the upper left of the formulas in a one-input data table should not include an input value.

Other Ways

1. Right-drag fill handle in direction to fill, click Fill Series on shortcut menu

To Enter the Formulas in the Data Table

The next step in creating the data table is to enter the three formulas at the top of the table in cells D11, E11, and F11. The three formulas are the same as the monthly payment formula in cell F6, the total interest formula in cell F7, and the total cost formula in cell F8. The number of formulas you place at the top of a one-input data table depends on the purpose of the table. Some one-input data tables will have only one formula, while others might have several. In this case, three formulas are affected when the interest rate changes.

Excel provides four ways to enter these formulas in the data table: (1) retype the formulas in cells D11, E11, and F11; (2) copy cells F6, F7, and F8 to cells D11, E11, and F11, respectively; (3) enter the formulas `=monthly_payment` in cell D11, `=total_interest` in cell E11, and `=total_cost` in cell F11; or (4) enter the formulas `=F6` in cell D11, `=F7` in cell E11, and `=F8` in cell F11.

The best alternative to define the formulas in the data table is the fourth alternative, which involves using the cell references preceded by an equal sign. This method is best because (1) it is easier to enter; (2) if you change any of the formulas in the range F6:F8, the formulas at the top of the data table are immediately updated; and (3) Excel automatically will assign the format of the cell reference (currency style format) to the cell. Using the third alternative, which involves using cell names, is nearly as good an alternative, but Excel will not assign formatting to the cells when you use cell names. The following steps enter the formulas of the data table in row 11.

- 1 With cell D11 active, type `=F6` and then press the RIGHT ARROW key to enter the first parameter of the function to be used in the data table.
- 2 Type `=F7` in cell E11 and then press the RIGHT ARROW key.
- 3 Type `=F8` in cell F11 and then click the Enter button to assign the formulas and apply the Currency style format (Figure 4–19).

Q&A Why are these cells assigned the values of cells in the Mortgage Payment Calculator area of the worksheet?

It is important to understand that the entries in the top row of the data table (row 11) refer to the formulas that the loan officer and customer want to evaluate using the series of percentages in column C. Furthermore, recall that when you assign a formula to a cell, Excel applies the format of the first cell reference in the formula to the cell. Thus, Excel applies the currency style format to cells D11, E11, and F11 because that is the format of cells F6, F7, and F8.

Mortgage Payment Calculator			
Date	19-Oct-2025	Rate	3.875%
Item	House	Term	15
Price	\$519,000.00	Monthly Payment	\$2,963.10
Down Pymt.	\$115,000.00	Total Interest	\$129,357.22
Loan Amount	\$404,000.00	Total Cost	\$648,357.22

Varying Interest Rate Schedule			
Rate	Monthly Payment	Total Interest	Total Cost
3.000%	\$2,963.10	\$129,357.22	\$648,357.22
3.125%			
3.250%			
3.375%			
3.500%			
3.625%			
3.750%			
3.875%			
4.000%			
4.125%			
4.250%			

Figure 4–19

To Define a Range as a Data Table

After creating the interest rate series in column C and entering the formulas in row 11, the next step is to define the range C11:F22 as a data table. Cell F4 is the input cell for the data table, which means cell F4 is the cell in which values from column C in the data table are substituted in the formulas in row 11. **Why?** You want Excel to generate the monthly payment, monthly interest, and total cost for the various interest rates.

1

- Select the range C11:F22 as the range in which to create the data table.
- Display the Data tab and then click the 'What-If Analysis' button (Data tab | Forecast group) to display the What-If Analysis menu (Figure 4–20).

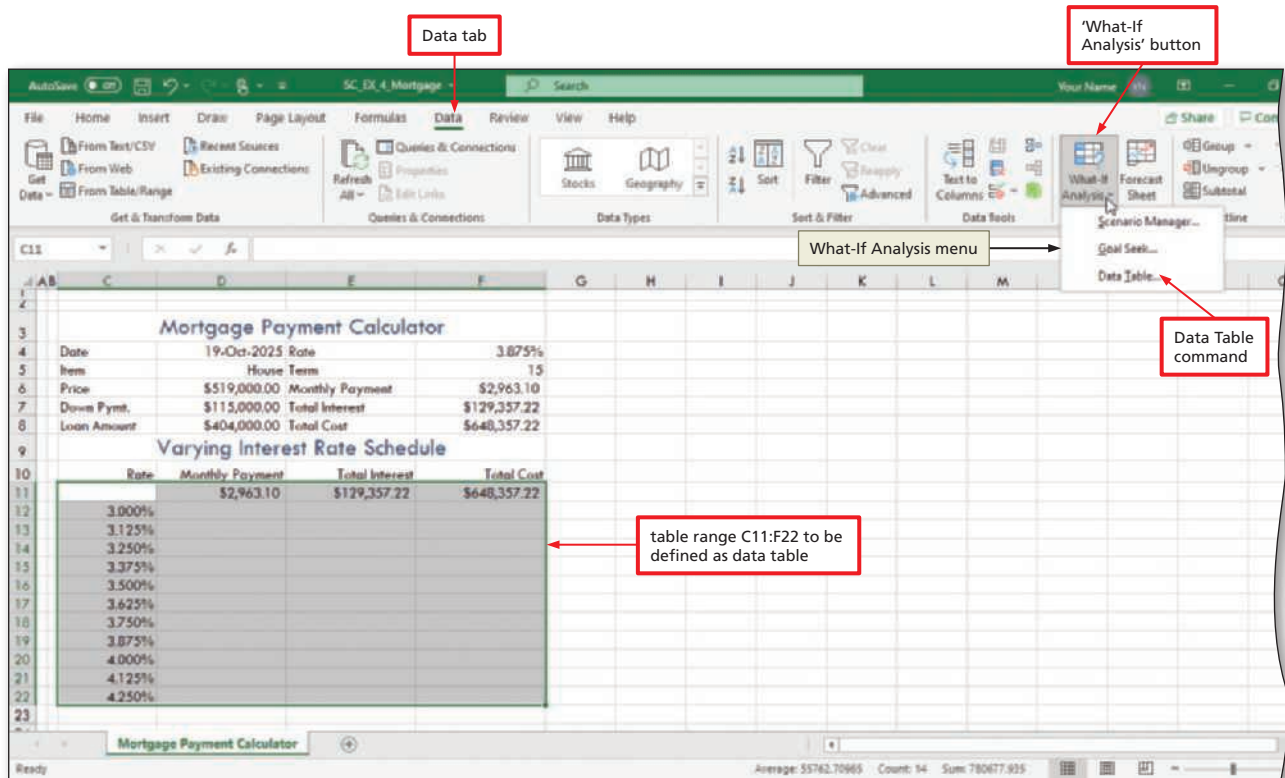


Figure 4–20

2

- Click Data Table on the What-If Analysis menu to display the Data Table dialog box.
- Click the 'Column input cell' box (Data Table dialog box) and then click cell F4 in the Mortgage Payment Calculator section of the spreadsheet to select the input cell for the data table (Figure 4–21).

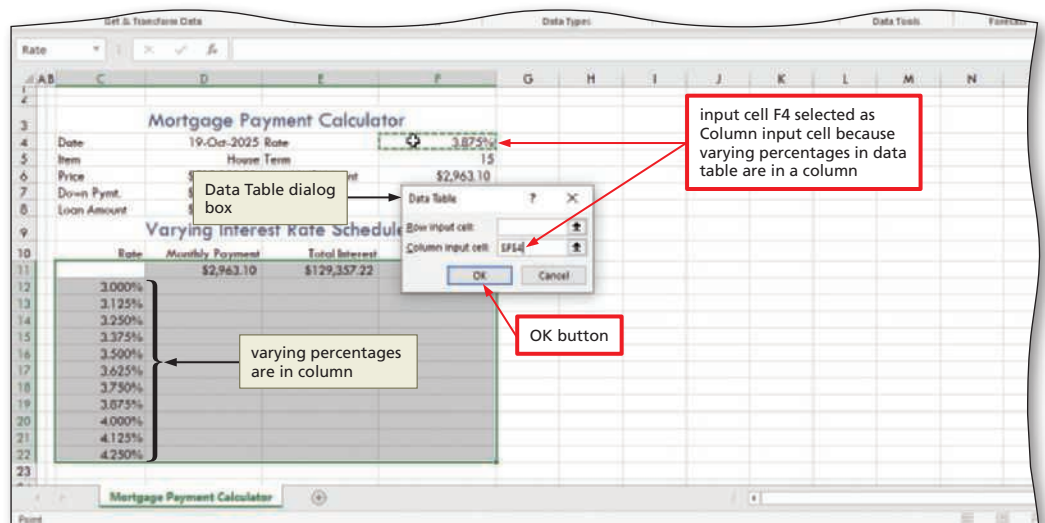


Figure 4–21

Q&A What is the purpose of clicking cell F4?

The purpose of clicking cell F4 is to select it for the Column input cell. A marquee surrounds the selected cell F4, indicating it will be the input cell in which values from column C in the data table are substituted in the formulas in row 11. \$F\$4 now appears in the 'Column input cell' box in the Data Table dialog box.

3

- Click OK (Data Table dialog box) to create the data table.
- Apply the currency style with no currency symbol and the fourth format in the Negative numbers list to the range D12:F22.
- Deselect the selected range, D12:F22 in this case (Figure 4–22).

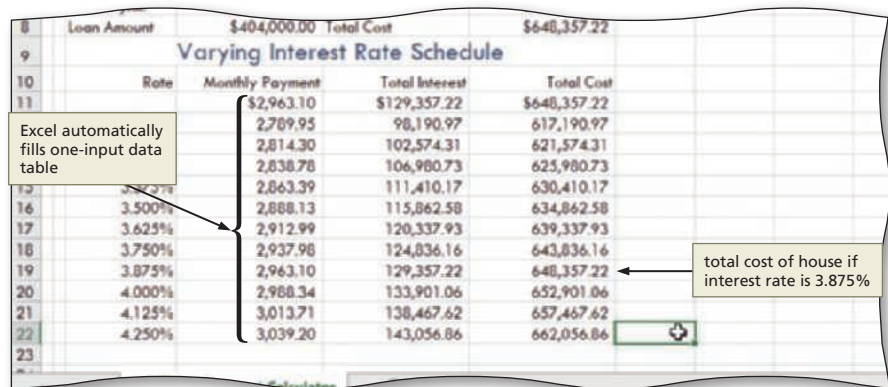


Figure 4–22

Q&A How does Excel create the data table?

Excel calculates the results of the three formulas in row 11 for each interest rate in column C and immediately fills columns D, E, and F of the data table. The resulting values for each interest rate are displayed in the corresponding rows.

More about Data Tables

The following list details important points you should know about data tables:

1. The formula(s) you are analyzing must include a cell reference to the input cell.
2. You can have as many active data tables in a worksheet as you want.
3. While only one value can vary in a one-input data table, the data table can analyze as many formulas as you want.
4. To include additional formulas in a one-input data table, enter them in adjacent cells in the same row as the current formulas (row 11 in Figure 4–22) and then define the entire new range as a data table by using the Data Table command on the What-If Analysis menu.
5. You delete a data table as you would delete any other item on a worksheet. That is, select the data table and then press DELETE.
6. An alternative to a one-input table is a two-input data table. A **two-input data table** allows you to vary the value in two cells and then see the recalculated results. For example, you can use a two-input data table to see how your monthly mortgage payment will be affected by changing both the interest rate and the term of the loan.

Break Point: If you want to take a break, this is a good place to do so. Be sure to save the SC_EX_4_Mortgage file again, and then you can exit Excel. To resume later, start Excel, open the file called SC_EX_4_Mortgage.xlsx, and continue following the steps from this location forward.

BTW

Amortization Schedules

Hundreds of websites offer amortization schedules. To find these websites, use a search engine, such as Google, and search using the keywords, amortization schedule.

Creating an Amortization Schedule

The next step in this project is to create the Amortization Schedule section on the right side of Figure 4–23. An amortization schedule shows the beginning and ending balances of a loan and the amount of payment that applies to the principal and interest for each year over the life of the loan. For example, if a customer wanted to pay off the loan after

six years, the Amortization Schedule section would tell the loan officer what the payoff would be (cell J10 in Figure 4–23). The Amortization Schedule section shown in Figure 4–23 will work only for loans of up to 15 years; however, you could extend the table to any number of years. The Amortization Schedule section also contains summaries in rows 20, 21, and 22. These summaries should agree exactly with the corresponding amounts in the Mortgage Payment Calculator section in the range C3:F8.

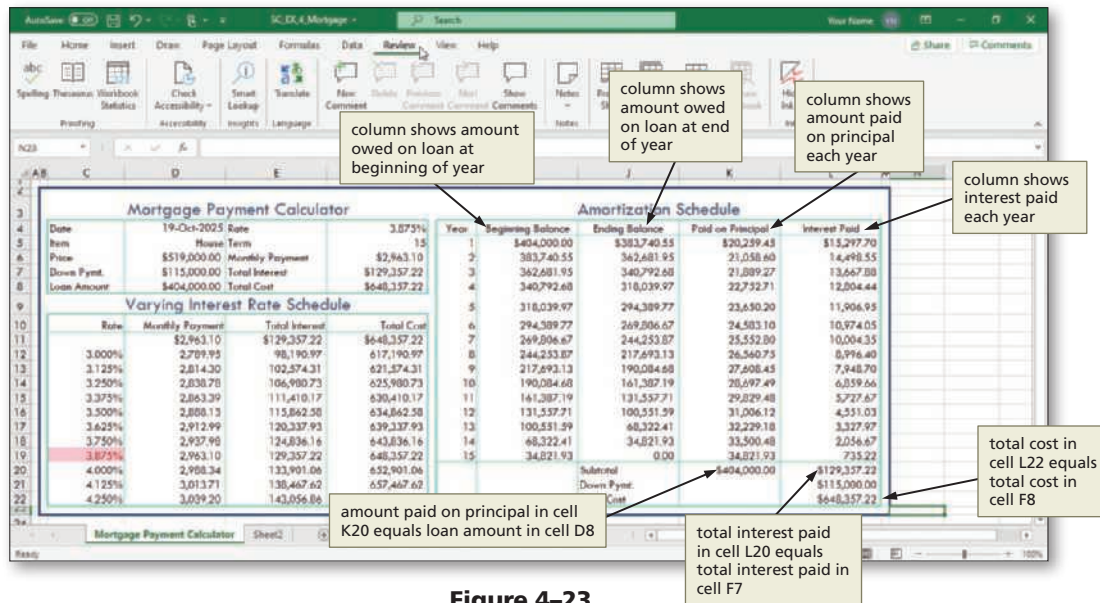


Figure 4–23

To Change Column Widths and Enter Titles

The first step in creating the Amortization Schedule section is to adjust the column widths and enter the title and column titles. The following steps adjust column widths and enter column titles for the Amortization Schedule section.

- 1 Position the pointer on the right boundary of column heading G and then drag to the left until the ScreenTip shows Width: .85 (11 pixels) to change the column width.
- 2 Position the pointer on the right boundary of column heading H and then drag to the left until the ScreenTip shows Width: 6.00 (53 pixels) to change the column width.
- 3 Drag through column headings I through L to select them. Position the pointer on the right boundary of column heading L and then drag to the right until the ScreenTip shows Width: 16.00 (133 pixels) to change the column widths.
- 4 Select cell H3. Type **Amortization Schedule** and then press ENTER to enter the section title.
- 5 Select cell C3, click the Format Painter button (Home tab | Clipboard group) to activate the format painter, and then click cell H3 to copy the format of cell C3.
- 6 Click the 'Merge & Center' button (Home tab | Alignment group) to split the selected cell, cell H3 in this case. Select the range H3:L3 and then click the 'Merge & Center' button (Home tab | Alignment group) to merge and center the section title over the selected range.
- 7 Enter the following column headings in row 4: **Year** in cell H4, **Beginning Balance** in cell I4, **Ending Balance** in cell J4, **Paid on Principal** in cell K4, and **Interest Paid** in cell L4. Select the range H4:L4 and then click the Center button (Home tab | Alignment group) to center the column headings.

BTW

Column Borders

In this module, columns A and G are used as column borders to divide sections of the worksheet from one another, as well as from the row headings. A column border is an unused column with a significantly reduced width. You also can use row borders to separate sections of a worksheet.

- 8 Select cell H5 to display the centered section title and column headings (Figure 4-24).

Q&A **Why was cell H3 split, or unmerged, in Step 6?**
 After using the format painter, Excel attempted to merge and center the text in cell H3 because the source of the format, cell C3, is merged and centered across four columns. The Amortization Schedule section, however, includes five columns. Splitting cell H3 changed cell H3 back to being one column instead of including four columns. Next, the section heading was merged and centered across five columns as required by the design of the worksheet.

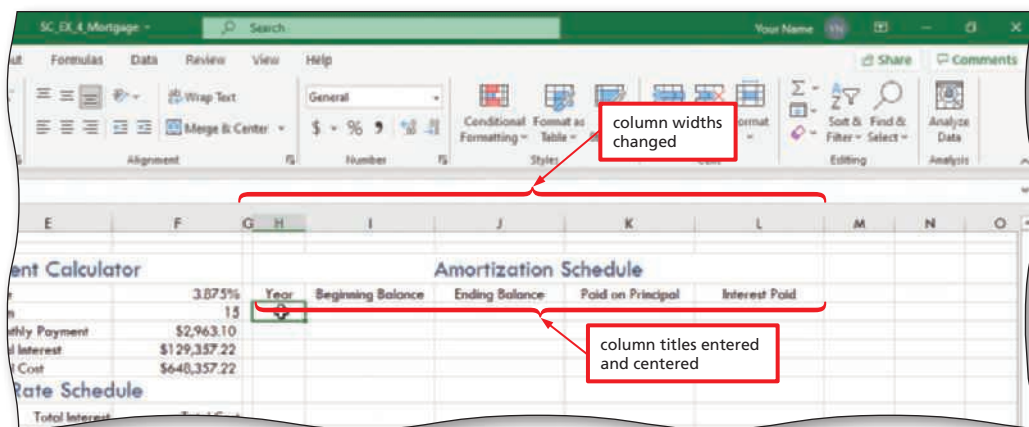


Figure 4-24

To Create a Series of Integers Using the Fill Handle

The next step is to use the fill handle to create a series of numbers that represent the years during the life of the loan. The series begins with 1 (year 1) and ends with 15 (year 15). The following steps create a series of years in the range H5:H19.

- 1 With cell H5 active, enter 1 as the initial year. Select cell H6 and then enter 2 to represent the next year.
- 2 Select the range H5:H6 and then drag the fill handle through cell H19 to complete the creation of a series of integers, 1 through 15 in the range H5:H19 in this case (Figure 4-25).

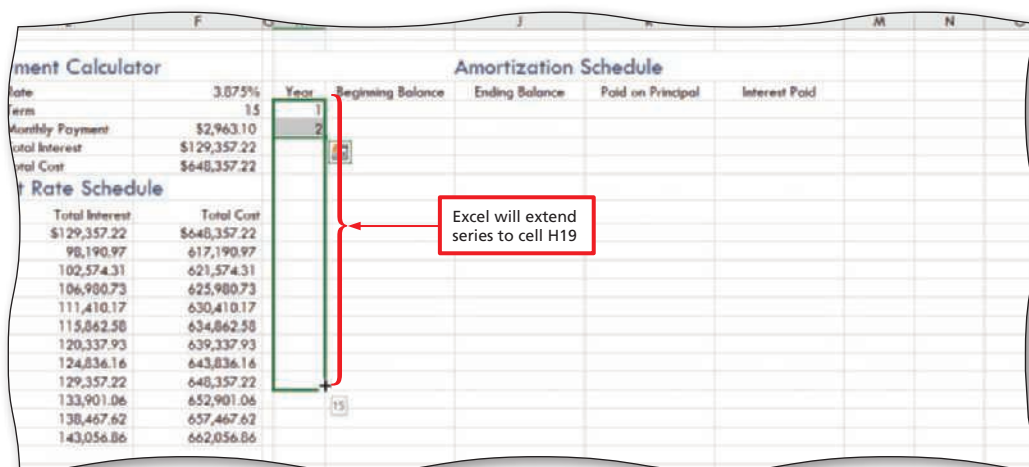


Figure 4-25

- 3 Release the mouse button.

Q&A Why is year 5 of the amortization schedule larger than the other rows in the amortization schedule?

The design of the worksheet called for a large font size for the varying interest rate schedule section of the worksheet, which is in row 9 of the worksheet. To accommodate the larger font size, the height of row 9 was increased. Year 5 of the worksheet is in the taller row 9 and, therefore, is taller than the other years in the amortization schedule.

Formulas in the Amortization Schedule

Four formulas form the basis of the amortization schedule. You will enter these formulas in row 5. Later, you will copy these formulas through row 19. The formulas are summarized in Table 4-2.

Table 4-2 Formulas for the Amortization Schedule

Cell	Column Heading	Formula	Example
I5	Beginning Balance	=D8	The beginning balance (the balance at the end of a year) is the initial loan amount in cell D8.
J5	Ending Balance	=IF(H5<=\$F\$5, PV(\$F\$4/12, 12*(F\$5-H5), -F\$6), 0)	The ending balance (the balance at the end of a year) is equal to the present value of the payments paid over the remaining life of the loan. (This formula is fully explained in the following text.)
K5	Paid on Principal	=I5-J5	The amount paid on the principal at the end of the year is equal to the beginning balance (cell I5) minus the ending balance (cell J5).
L5	Interest Paid	=IF(I5>0, 12*F\$6-K5, 0)	The interest paid during the year is equal to 12 times the monthly payment (cell F6) minus the amount paid on the principal (cell K5).

Of the four formulas in Table 4-2, perhaps the most difficult to understand is the PV function that will be assigned to cell J5. The **PV function** returns the present value of an annuity. An **annuity** is a series of fixed payments (such as the monthly payment in cell F6) made at the end of each of a fixed number of periods (months) at a fixed interest rate. You can use the PV function to determine the amount the borrower still owes on the loan at the end of each year. The PV function has three arguments: rate, number of periods, and payment amount per period. Its general form is as follows:

$$=PV(\text{rate}, \text{period}, \text{payment})$$

where rate is the interest rate per payment period, period is the number of payments remaining in the life of the loan, and payment is the amount of the monthly payment.

The PV function is used to determine the ending balance after the first year (cell J5) by using a term equal to the number of months for which the borrower still must make payments. For example, if the loan is for 15 years (180 months), then the borrower still owes 168 payments after the first year (180 months–12 months). The number of payments outstanding can be determined from the formula $12*(F\$5-H5)$ or $12*(15-1)$, which equals 168. Recall that column H contains integers that represent the years of the loan. After the second year, the number of payments remaining is 156 and so on.

If you assign the PV function as shown in Table 4–2 to cell J5 and then copy it to the range J6:J19, the ending balances for each year will be displayed properly. However, if the loan is for fewer than 15 years, any ending balances for the years beyond the term of the loan are invalid. For example, if a loan is taken out for 5 years, then the rows representing years 6 through 15 in the amortization schedule should be zero. The PV function, however, will display negative numbers for those years even though the loan already has been paid off.

To avoid displaying negative ending balances, the worksheet should include a formula that assigns the PV function to the range I5:I19 as long as the corresponding year in column H is less than or equal to the number of years in the term (cell F5). If the corresponding year in column H is greater than the number of years in cell F5, then the ending balance for that year and the remaining years should be zero. The following IF function causes either the value of the PV function or zero to be displayed in cell J5, depending on whether the corresponding value in column H is greater than—or less than or equal to—the number of years in cell F5. Recall that the dollar signs within the cell references indicate the cell references are absolute and, therefore, will not change as you copy the function downward.

$$=IF(H5<= \$F\$5, PV(\$F\$4/12, 12*(\$F\$5-H5), -\$F\$6), 0)$$

logical test
value if true
value if false

In the preceding formula, the logical test determines if the year in column H is less than or equal to the term of the loan in cell F5. If the logical test is true, then the IF function assigns the PV function to the cell. If the logical test is false, then the IF function assigns zero (0) to the cell. You also could use two double-quote symbols (“ ”) to indicate to Excel to leave the cell blank if the logical test is false.

The PV function in the IF function includes absolute cell references (cell references with dollar signs) to ensure that the references to cells in column F do not change when the IF function later is copied down the column.

To Enter the Formulas in the Amortization Schedule

Why? Creating an amortization schedule allows you to see the costs of a mortgage and the balance still owed for any year in the term of the loan. This information can be very helpful when making financial decisions. The following steps enter the four formulas shown in Table 4–2 into row 5. Row 5 represents year 1 of the loan.

- 1
 - Select cell I5 and then enter =d8 as the beginning balance of the loan.
 - Select cell J5 and then enter =if(h5<= \$f\$5, pv(\$f\$4/12, 12*(\$f\$5-h5), -\$f\$6), 0) as the entry (Figure 4–26).

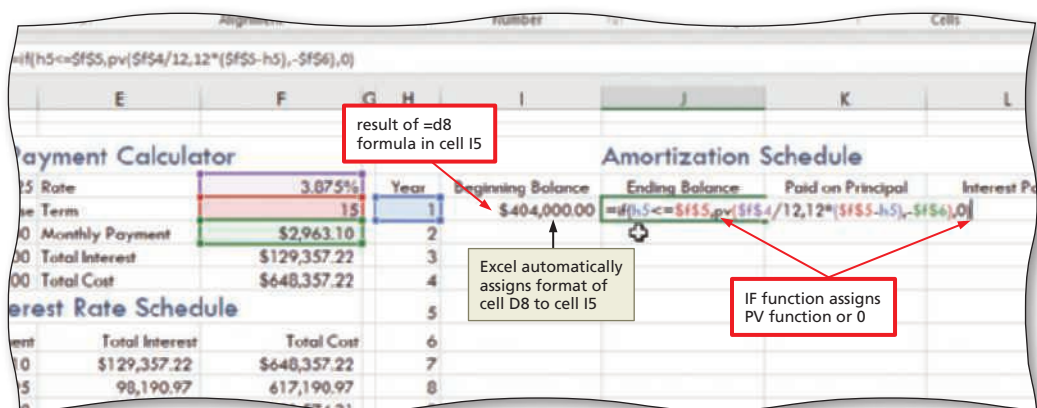


Figure 4–26

2

- Click the Enter button in the formula bar to insert the formula in the selected cell (Figure 4-27).

Q&A What happens when the Enter button is clicked?

Excel evaluates the IF function in cell J5 and displays the result of the PV function (383740.549), because the value in cell H5 (1) is less than the term of the loan in cell F5 (15). With cell J5 active, Excel also displays the formula in the formula bar. If the borrower wanted to pay off the loan after one year, the cost would be \$383,740.55.

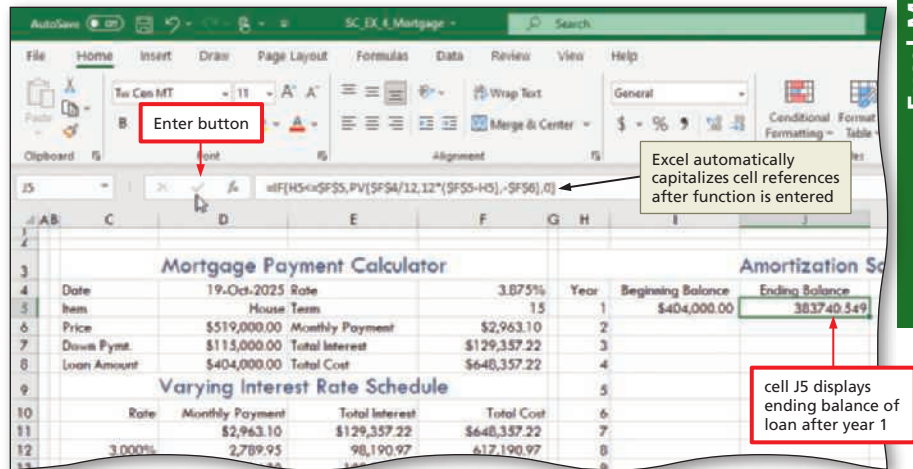


Figure 4-27

3

- Select cell K5. Enter the formula `=I5 - j5` and then press the RIGHT ARROW key to complete the entry and select cell L5.
- Type the formula `=IF(I5 > 0, 12 * F6 - K5, 0)` in cell L5 (Figure 4-28).

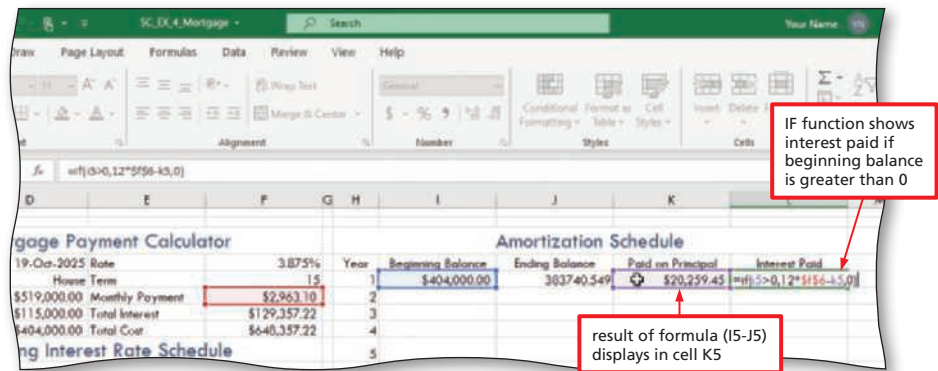


Figure 4-28

4

- Click the Enter button in the formula bar to complete the entry of the formula (Figure 4-29).

Q&A Why are some of the cells in the range I5:L5 not formatted?

When you enter a formula in a cell, Excel assigns the cell the same format as the first cell reference in the formula. For example, when you enter `=D8` in cell I5, Excel assigns the format in cell D8 to cell I5. The same applies to cell K5. Although this method of formatting also works for most functions, it does not work for the IF function. Thus, the results of the IF functions in cells J5 and L5 are formatted using the general style format, which is the default format when you open a new workbook.

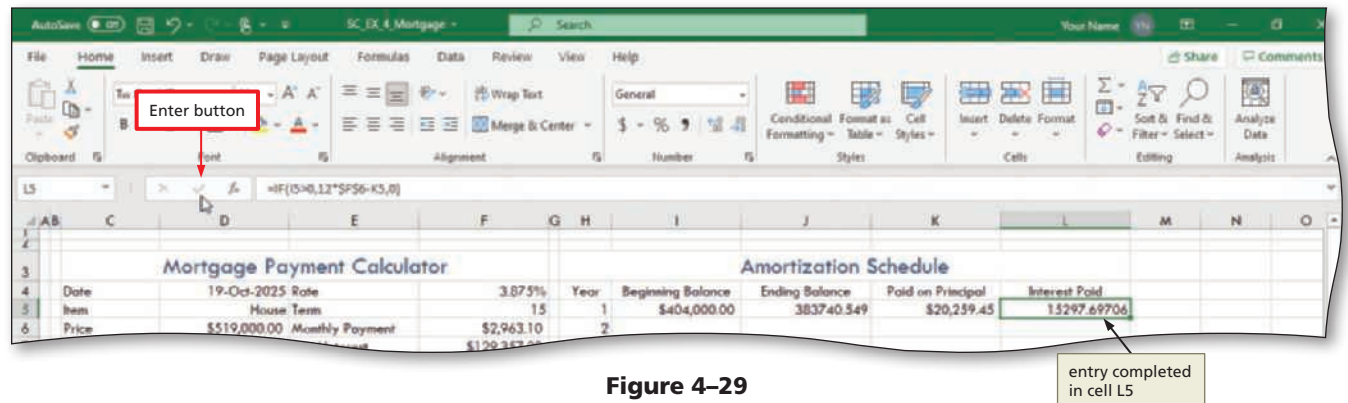


Figure 4-29

To Copy the Formulas to Fill the Amortization Schedule

Why? With the formulas entered into the first row, the next step is to copy them to the remaining rows in the amortization schedule. The required copying is straightforward, except for the beginning balance column. To obtain the next year's beginning balance (cell I6), last year's ending balance (cell J5) must be used. After cell J5 (last year's ending balance) is copied to cell I6 (next year's beginning balance), then I6 can be copied to the range I7:I19. The following steps copy the formulas in the range J5:L5 and cell I6 through to the remainder of the amortization schedule.

- 1 Select the range J5:L5 and then drag the fill handle down through row 19 to copy the formulas through the amortization schedule, J6:L19 in this case (Figure 4–30).

Q&A Why do some of the numbers seem incorrect?
 Many of the numbers are incorrect because the cells in column I, except for cell I5, do not yet contain values.

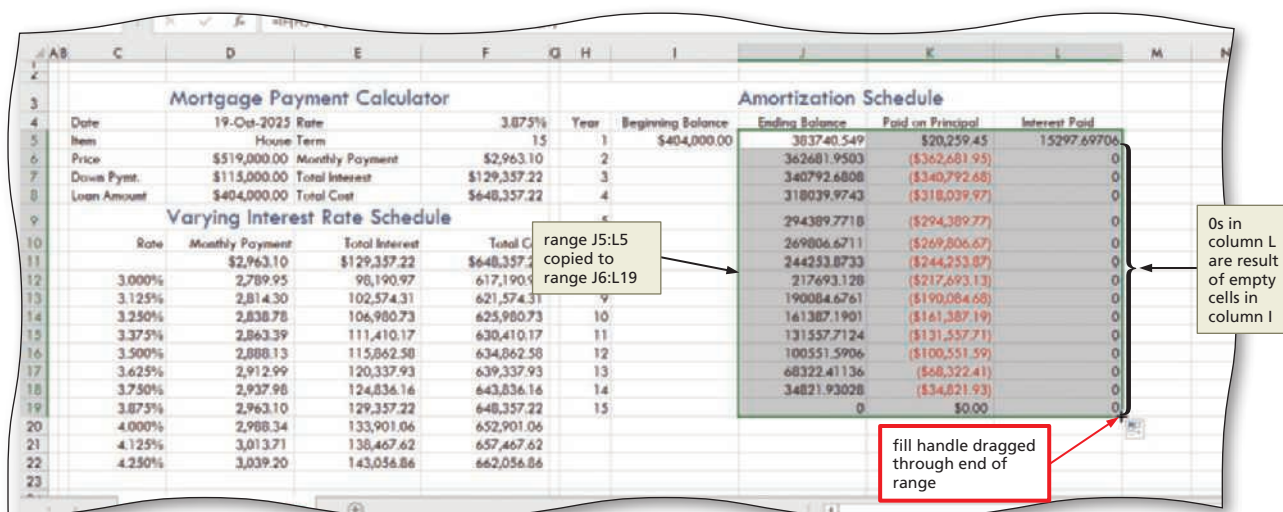


Figure 4–30

- 2 Select cell I6, type =j5 as the cell entry, and then click the Enter button in the formula bar to display the ending balance (383740.549) for year 1 as the beginning balance for year 2 (Figure 4–31).

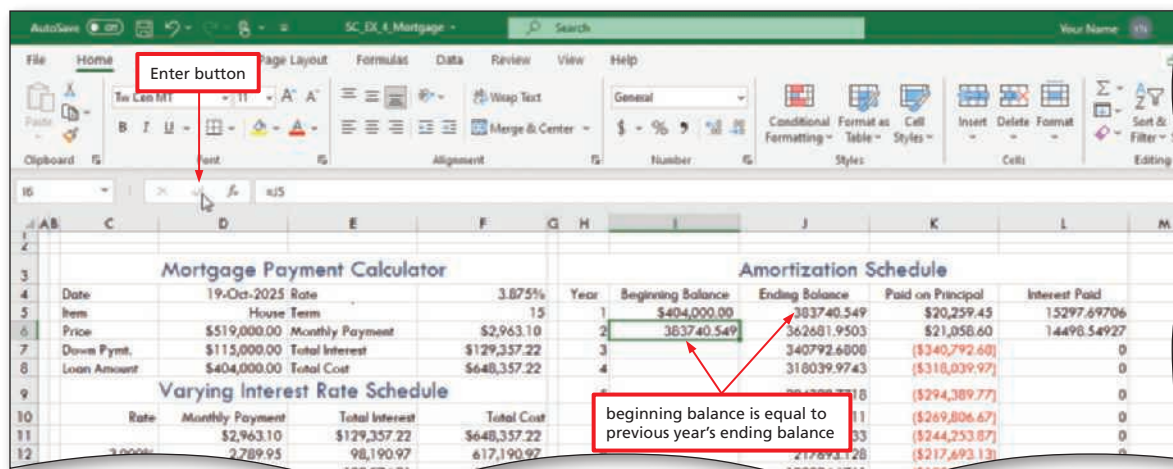


Figure 4–31

3

- With cell I6 active, drag the fill handle down through row 19 to copy the formula in cell I6 (=J5) to the range I7:I19 (Figure 4–32).

Q&A

What happens after the fill operation is complete?

Because the cell reference J5 is relative, Excel adjusts the row portion of the cell reference as it is copied downward. Thus, each new beginning balance in column I is equal to the ending balance of the previous year.

Calculator		Amortization Schedule				
	3.875%	Year	Beginning Balance	Ending Balance	Paid on Principal	Interest Paid
	15	1	\$404,000.00	383740.549	\$20,259.45	15297.69706
Payment	\$2,963.10	2	383740.549	362681.9503	\$21,058.60	14498.54927
Interest	\$129,357.22	3	362681.9503	340792.6808	\$21,889.27	13667.87857
Cost	\$648,357.22	4	340792.6808	318039.9743	\$22,752.71	12804.44149
		5	318039.9743	294389.7718	\$23,650.20	11906.94555
		6	294389.7718	269806.6711	\$24,583.10	10974.04727
		7	269806.6711	244253.8733	\$25,552.80	10004.3502
		8	244253.8733	217693.128	\$26,560.75	8996.402757
		9	217693.128	190084.6761	\$27,608.45	7948.696148
		10	190084.6761	161387.1901	\$28,697.49	6859.662042
		11	161387.1901	131557.7124	\$29,829.48	5727.670247
		12	131557.7124	100551.5906	\$31,006.12	4551.026268
		13	100551.5906	68322.41136	\$32,229.18	3327.968769
		14	68322.41136	34821.93028	\$33,500.48	2056.666938
		15	34821.93028	0	\$34,821.93	735.2177441
Total Interest	Total Cost					
\$129,357.22	\$648,357.22					
98,190.97	cell copied through range I6 to I19					
102,574.31						
106,980.73	625,980.73					
111,410.17	630,410.17					
115,862.58	634,862.58					
120,337.93	639,337.93					
124,836.16	643,836.16					
129,357.22	648,357.22					
133,901.06	652,901.06					
138,467.62	657,467.62					
143,056.86	662,056.86					

Figure 4–32

Other Ways

1. Select cells containing formulas to copy, click Copy (Home tab | Clipboard group), select destination cell or range, click Paste (Home tab | Clipboard group)

To Enter the Total Formulas in the Amortization Schedule

The next step is to determine the amortization schedule totals in rows 20 through 22. These totals should agree with the corresponding totals in the Mortgage Payment Calculator section (range F7:F8). The following steps enter the total formulas in the amortization schedule.

- 1 Select cell J20 and then enter **Subtotal** as the row title.
- 2 Select the range K20:L20 and then click the AutoSum button (Home tab | Editing group) to sum the selected range.
- 3 Select cell J21 and then enter **Down Pymt.** as the row title.
- 4 Select cell L21 and then enter **=d7** to copy the down payment to the selected cell.
- 5 Select cell J22 and then enter **Total Cost** as the row title.

- 6 Select cell L22, type `=K20 + L20 + L21` as the total cost, and then click the Enter button in the formula bar to complete the amortization schedule totals (Figure 4-33).

Q&A What was accomplished in the previous steps?

The formula assigned to cell L22 (`=K20+L20+L21`) sums the total amount paid on the principal (cell K20), the total interest paid (cell L20), and the down payment (cell L21). Excel assigns cell K20 the same format as cell K5 because cell K5 is the first cell reference in `=SUM(K5:K19)`. Furthermore, because cell K20 was selected first when the range K20:L20 was selected to determine the sum, Excel assigned cell L20 the same format it assigned to cell K20. Finally, cell L21 was assigned the currency style format, because cell L21 was assigned the formula `=d7`, and cell D7 has a currency style format. For the same reason, the value in cell L22 appears with the currency style format.

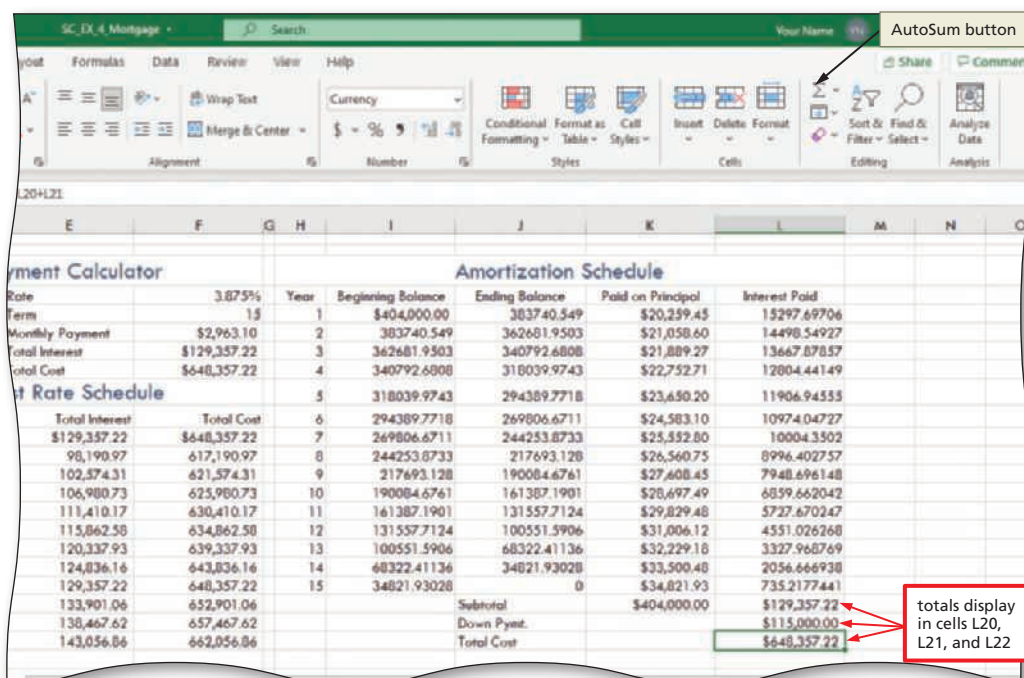


Figure 4-33

To Format the Numbers in the Amortization Schedule

The next step in creating the amortization schedule is to format it so that it is easier to read. When the beginning balance formula (`=d8`) was entered earlier into cell I5, Excel copied the currency style format along with the value from cell D8 to cell I5. The following steps copy the currency style format from cell I5 to the range J5:L5. The comma style format then will be assigned to the range I6:L19.

- 1 Select cell I5 and then click the Format Painter button (Home tab | Clipboard group) to turn on the format painter. Drag through the range J5:L5 to assign the currency style format to the cells.
- 2 Select the range I6:L19 and then right-click the selected range to display a shortcut menu. Click Format Cells on the shortcut menu to display the Format Cells dialog box and then, if necessary, click the Number tab (Format Cells dialog box) to display the Number sheet.

- 3 Select Currency in the Category list to select a currency format, select None in the Symbol list to choose no currency symbol if necessary, and then click the fourth format, (1,234.10), in the Negative numbers list to create a currency format.
- 4 Click OK (Format Cells dialog box) to apply the currency format to the selected range.
- 5 Deselect the range I6:L19 and display the numbers in the amortization schedule, as shown in Figure 4–34.

Amortization Schedule					
3.875%	Year	Beginning Balance	Ending Balance	Paid on Principal	Interest Paid
15	1	\$404,000.00	\$383,740.55	\$20,259.45	\$15,297.70
\$2,963.10	2	383,740.55	362,681.95	21,058.60	14,498.55
\$129,357.22	3	362,681.95	340,792.68	21,889.27	13,667.88
\$648,357.22	4	340,792.68	318,039.97	22,752.71	12,804.44
	5	318,039.97	294,389.77	23,652.90	11,959.95
		294,389.77	269,806.67	24,583.10	11,100.05
\$		269,806.67	244,253.87	25,522.80	10,244.35
617,190.97	8	244,253.87	217,693.13	26,560.75	8,996.40
621,574.31	9	217,693.13	190,084.68	27,608.45	7,948.70
625,980.73	10	190,084.68	161,387.19	28,697.49	6,859.66
630,410.17	11	161,387.19	131,557.71	29,829.48	5,727.67
634,862.58	12	131,557.71	100,551.59	31,006.12	4,551.03
639,337.93	13	100,551.59	68,322.41	32,228.18	3,327.97
643,836.16	14	68,322.41	34,821.93	33,500.25	2,056.67
648,357.22	15	34,821.93	0.00	34,821.93	735.22
652,901.06			Subtotal	\$404,000.00	\$129,357.22
657,467.62			Down Pymt.		\$115,000.00
662,056.86			Total Cost		\$648,357.22

Figure 4–34

BTW**Round-Off Errors**

If you manually add the numbers in column L (range L5:L19) and compare it to the sum in cell L20, you will notice that the total interest paid is \$0.01 off. This round-off error is due to the fact that some of the numbers involved in the computations have additional decimal places that do not appear in the cells. You can use the ROUND function on the formula entered into cell L5 to ensure the total is exactly correct. For information on the ROUND function, click the Insert Function button in the formula bar, click 'Math & Trig' in the 'Or select a category' list, scroll down in the 'Select a function' list, and then click ROUND.

BTW**Undoing Formats**

If you begin assigning formats to a range and then realize you made a mistake and want to start over, select the range, click the Cell Styles button (Home tab | Styles group), and then click Normal in the Cell Styles gallery.

Formatting the Worksheet

Previous modules introduced you to outlining a range using cell borders or cell background colors to differentiate portions of a worksheet. The Borders button (Home tab | Font group), however, offers only a limited selection of border thicknesses. To control the color and thickness, Excel requires that you use the Border sheet in the Format Cells dialog box.

To Add Custom Borders to a Range

Why? Borders can be used to distinguish the different functional parts of a worksheet. The following steps add a medium blue border to the Mortgage Payment Calculator section. To subdivide the row titles and numbers further, light borders also are added within the section, as shown in Figure 4–1.

1

- Select the range C4:F8 and then right-click to display a shortcut menu and mini toolbar (Figure 4–35).

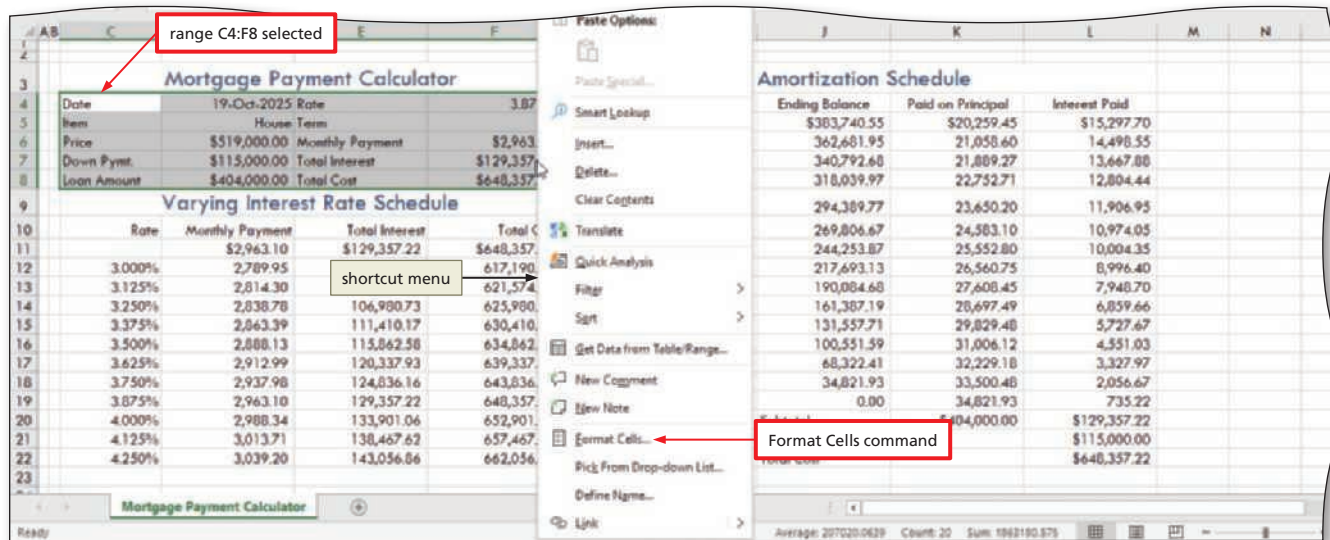


Figure 4–35

2

- Click Format Cells on the shortcut menu to display the Format Cells dialog box.
- Display the Border tab (Format Cells dialog box).
- Click the Color arrow to display the Colors palette and then select the Green, Accent 2 color (column 6, row 1) in the Theme Colors area.
- Click the medium border in the Style area (column 2, row 5) to select the line style for the border.
- Click the Outline button in the Presets area to preview the outline border in the Border area (Figure 4–36).

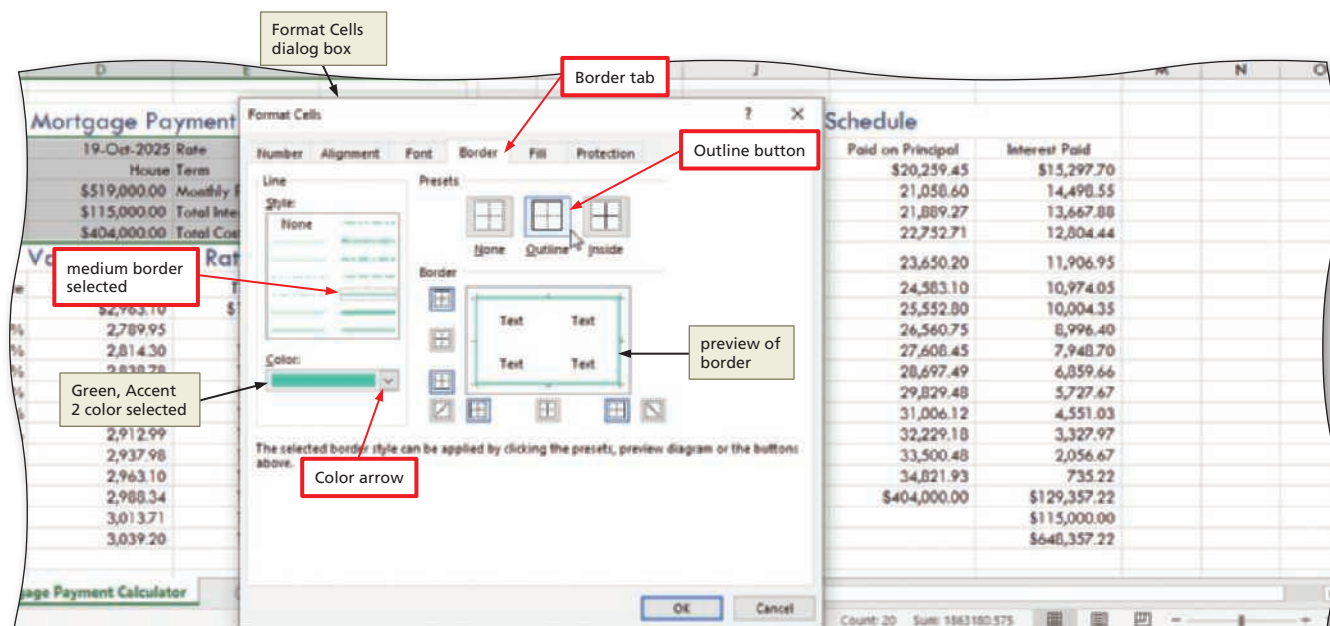


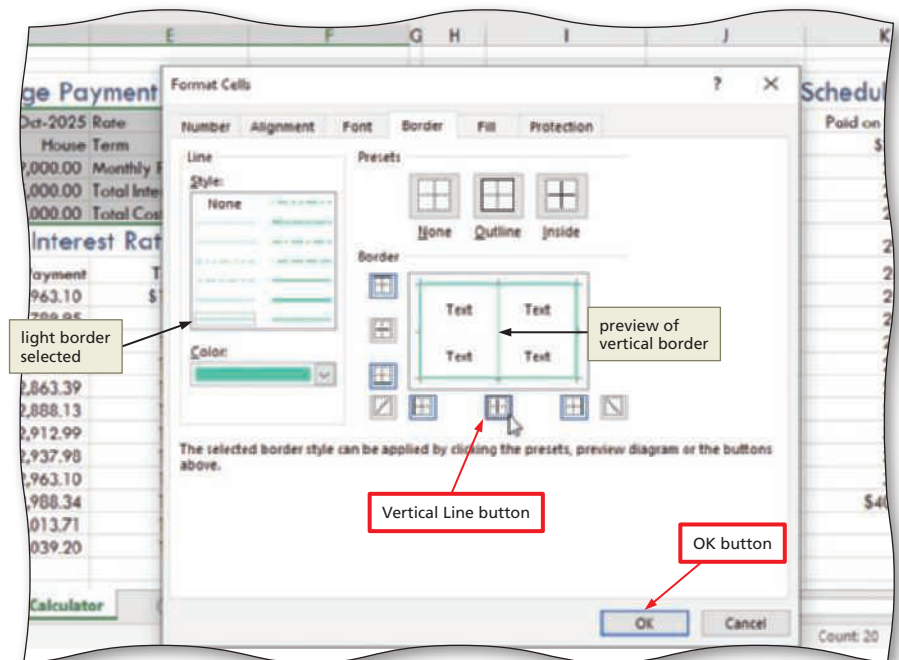
Figure 4–36

3

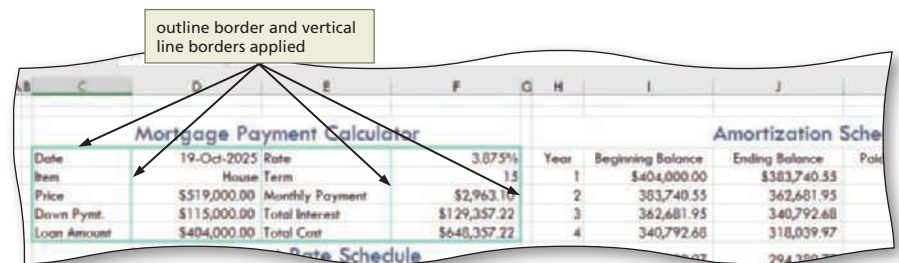
- Click the light border in the Style area (column 1, row 7) and then click the Vertical Line button in the Border area to preview the green vertical border in the Border area (Figure 4–37).

Q&A**How do I create a border?**

As shown in Figure 4–37, you can add a variety of borders with different colors to a cell or range of cells. It is important that you select border characteristics in the order specified in the steps, that is, (1) choose the border color, (2) choose the border line style, and then (3) choose the border type. This order first defines the border characteristics and then applies those characteristics. If you do these steps in any other order, you may not end up with the borders you intended.

**Figure 4–37****4**

- Click OK to add a green outline with vertical borders to the right side of each column in the selected range, C4:F8 in this case. Click cell C10 to deselect the range (Figure 4–38).

**Figure 4–38****Q&A****How else can I add custom borders?**

If you want to specify exactly where borders should be drawn in your worksheet, you can draw the borders manually. To draw borders, click the Border button arrow (Home tab | Font group), click Draw Border, and then click the cell borders where you want to draw a border.

Other Ways

1. Click More Borders arrow (Home tab | Font group), click More Borders, select border options, click OK
2. Click Format button (Home tab | Cells group), click Format Cells, click Border tab, select border options, click OK

To Add Borders to the Varying Interest Rate Schedule

The following steps add the same borders you applied to the Mortgage Payment Calculator to the Varying Interest Rate Schedule.

- 1** Select the range C10:F22. Right-click the selected range to display a shortcut menu and then click Format Cells on the shortcut menu to display the Format Cells dialog box.
- 2** If necessary, click the Border tab (Format Cells dialog box) to display the Border sheet. Click the Color arrow to display the Colors palette and then click Green, Accent 2 (column 6, row 1) in the Theme Colors area to change the border color.
- 3** Click the medium border in the Style area (column 2, row 5). Click the Outline button in the Presets area to preview the border in the Border area.

- 4 Click the light border in the Style area (column 1, row 7). Click the Vertical Line button in the Border area to preview the border in the Border area.
- 5 Click OK (Format Cells dialog box) to apply custom borders to the selected range.
- 6 Select the range C10:F10 and then use the Format Cells dialog box to apply a green, light bottom border to the selected range.
- 7 Deselect the range to display the worksheet, as shown in Figure 4–39.

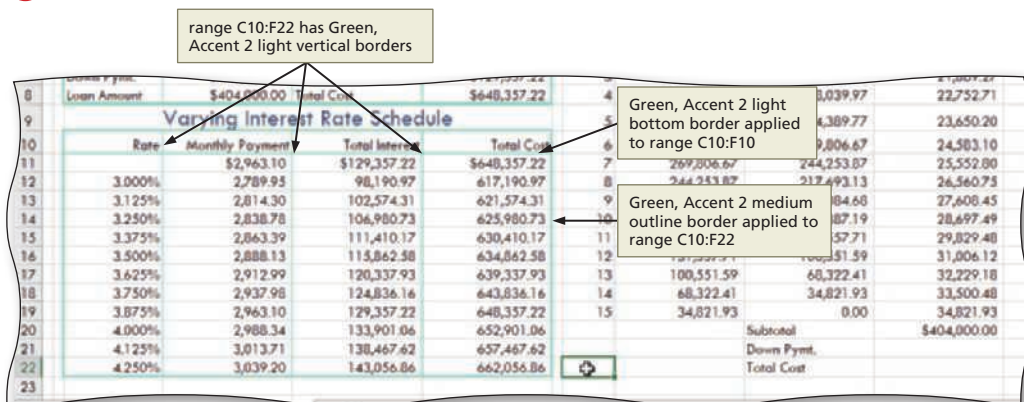


Figure 4–39

To Add Borders to the Amortization Schedule

The following steps add the borders to the Amortization Schedule.

- 1 Select the range H4:L22, and then display the Format Cells dialog box.
- 2 Apply a Green, Accent 2, medium border style using the Outline preset.
- 3 Change the border style to light (column 1, row 7) and then click the Vertical Line button in the Border area to preview the border in the Border area.
- 4 Click OK to apply custom borders to the selected range.
- 5 Select the range H5:L19 and then use the Format Cells dialog box to apply a green, light upper border and a green, light bottom border to the selected range.
- 6 Deselect the range to display the worksheet, as shown in Figure 4–40.

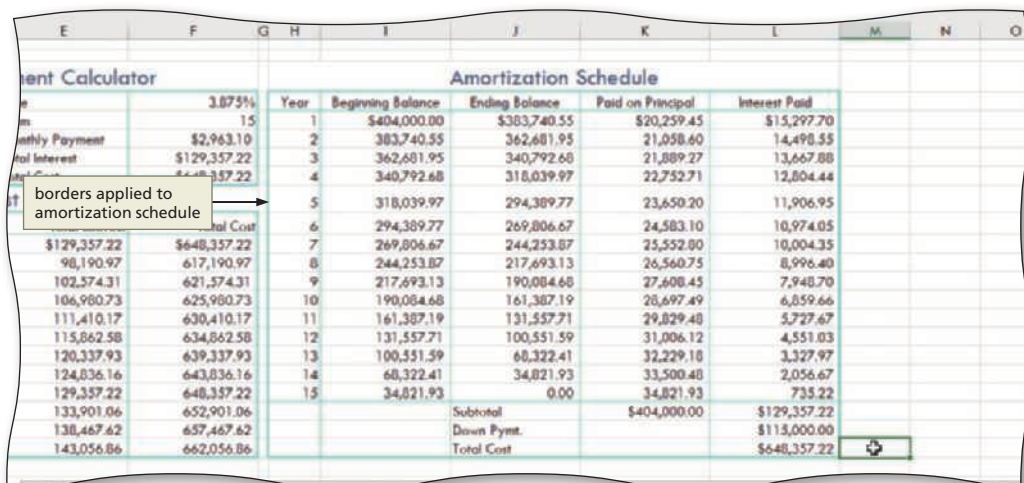


Figure 4–40

To Use Borders and Fill Color to Visually Define and Group the Financial Tools

The following steps add a border and fill color to the entire group of financial tools on the worksheet.

- 1 Change the height of row 23 to 8.25 (11 pixels).
- 2 Change the width of column M to 0.85 (11 pixels).
- 3 Select the range B2:M23.
- 4 Add a Blue-Gray, Text 2, (column 4, row 1) heavy style (column 2, row 6) Outline border to the selected range.
- 5 With the range B2:M23 still selected, click the Fill Color arrow (Home tab | Font group) and apply a fill color of White, Background 1 (column 1, row 1) to the selected range. Deselect the range (Figure 4-41).
- 6 Save the workbook again on the same storage location with the same file name.

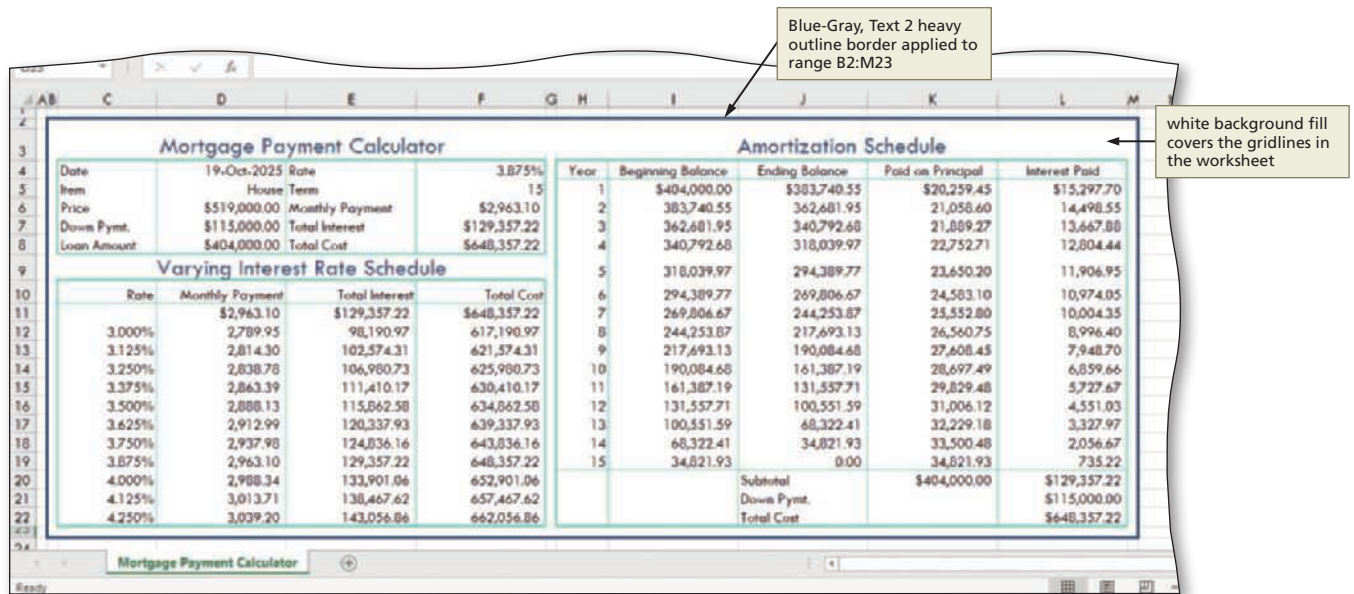


Figure 4-41

Highlighting Cells in the Data Table Using Conditional Formatting

If the interest rate in cell F4 is between 3.000% and 4.250% and its decimal portion is a multiple of 0.125 (such as 4.125%), then one of the rows in the data table agrees exactly with the monthly payment, interest paid, and total cost in the range F6:F8. For example, in Figure 4-41 row 19 (3.875%) in the data table agrees with the results in the range F6:F8, because the interest rate in cell C19 is the same as the interest rate in cell F4. Analysts often look for the row in the data table that agrees with the input cell results. You can use conditional formatting to highlight a row, or a single cell in the row.

BTW Conditional Formatting

You can add as many conditional formats to a range as you like. After adding the first condition, click the Conditional Formatting button (Home tab | Styles group) and then click New Rule to add more conditions. If more than one condition is true for a cell, then Excel applies the formats of each condition, beginning with the first.

To Add a Pointer to the Data Table Using Conditional Formatting

Why? To make the row with the active interest rate stand out, you can add formatting that serves as a pointer to that row. To add a pointer, you can use conditional formatting to highlight the cell in column C that agrees with the input cell (cell F4). The following steps apply conditional formatting to column C in the data table.

- 1
 - Select the range C12:C22 and then click the Conditional Formatting button (Home tab | Styles group) to display the Conditional Formatting gallery.
 - Point to 'Highlight Cells Rules' to display the submenu (Figure 4-42).

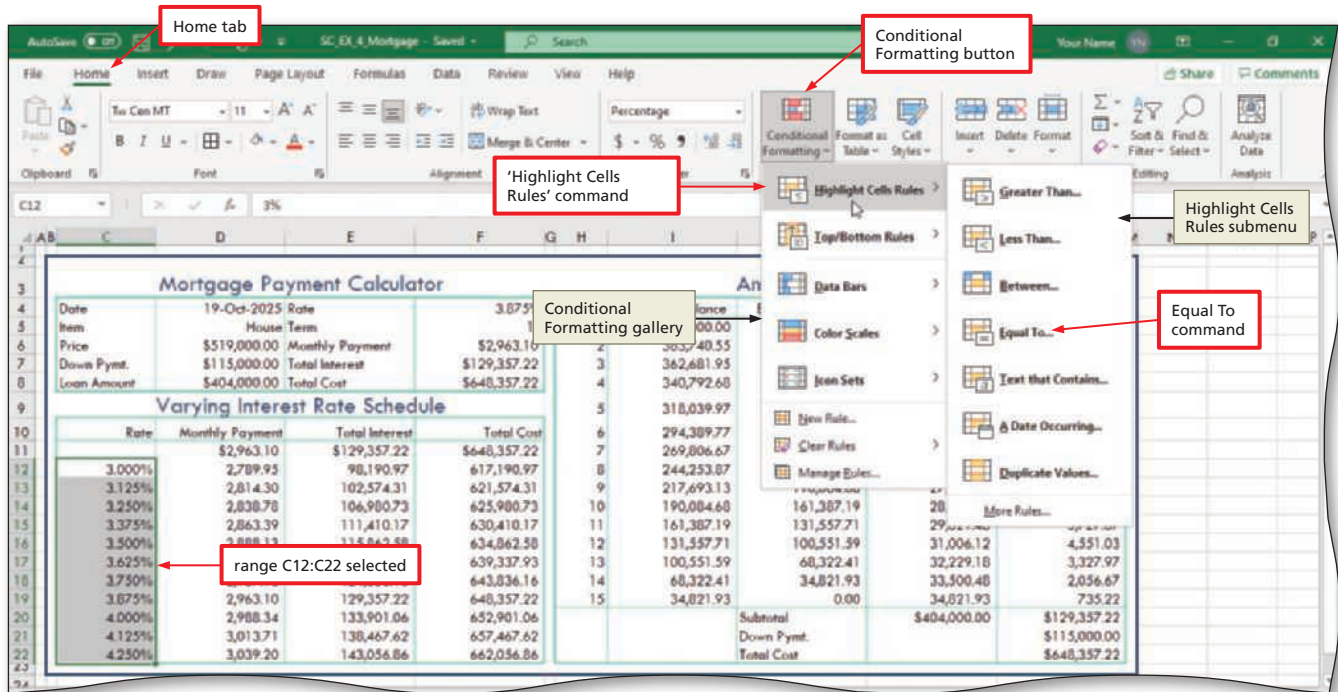


Figure 4-42

- 2
 - Click Equal To on the Highlight Cells Rules submenu to display the Equal To dialog box.
 - Type `=F$4` in the 'Format cells that are EQUAL TO:' box (Equal To dialog box) (Figure 4-43).

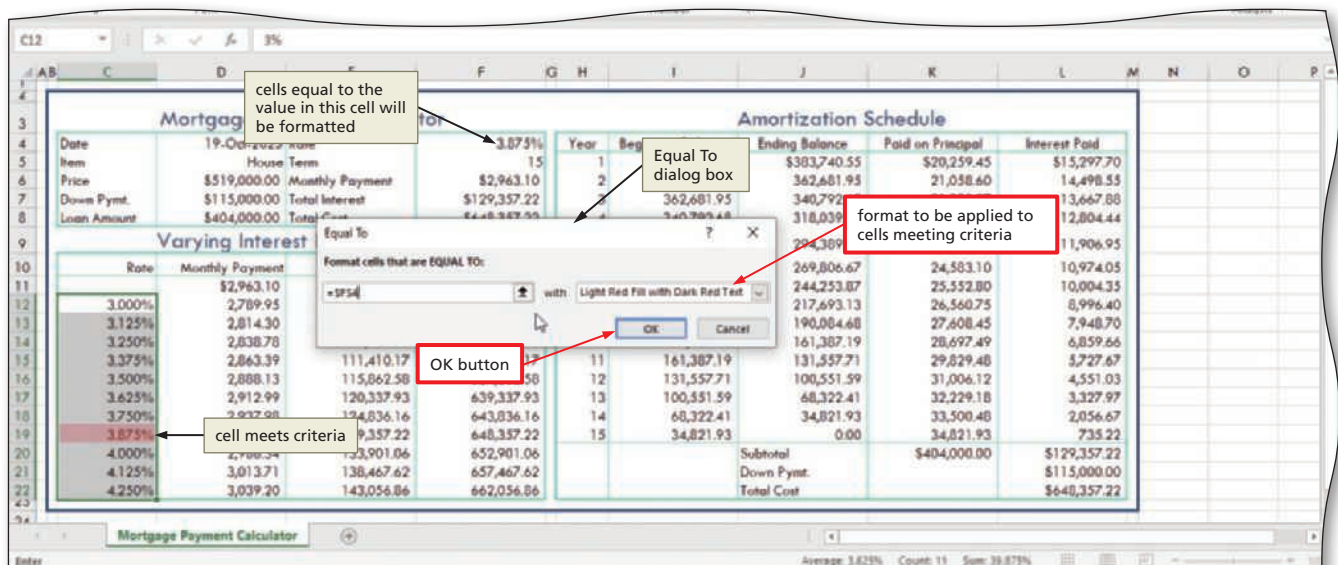


Figure 4-43

3

- Click OK to apply the conditional formatting rule.
- Deselect the range (Figure 4-44).

Q&A

How does Excel apply the conditional formatting?

Cell C19 in the data table, which contains the value, 3.875%, appears with a red background and dark red text, because the value 3.875% is the same as the interest rate value in cell F4.

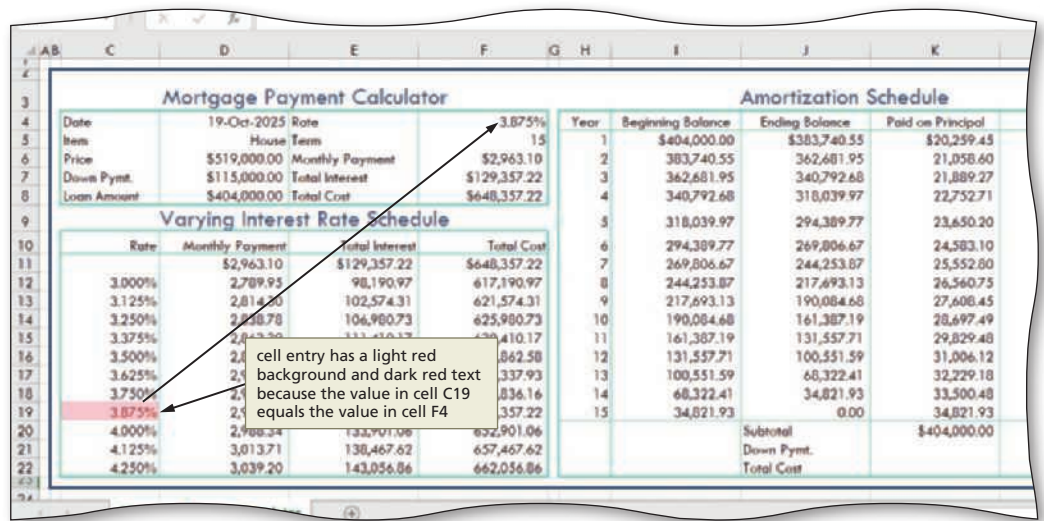


Figure 4-44

4

- Select cell F4 and then enter 4.125 as the interest rate (Figure 4-45).

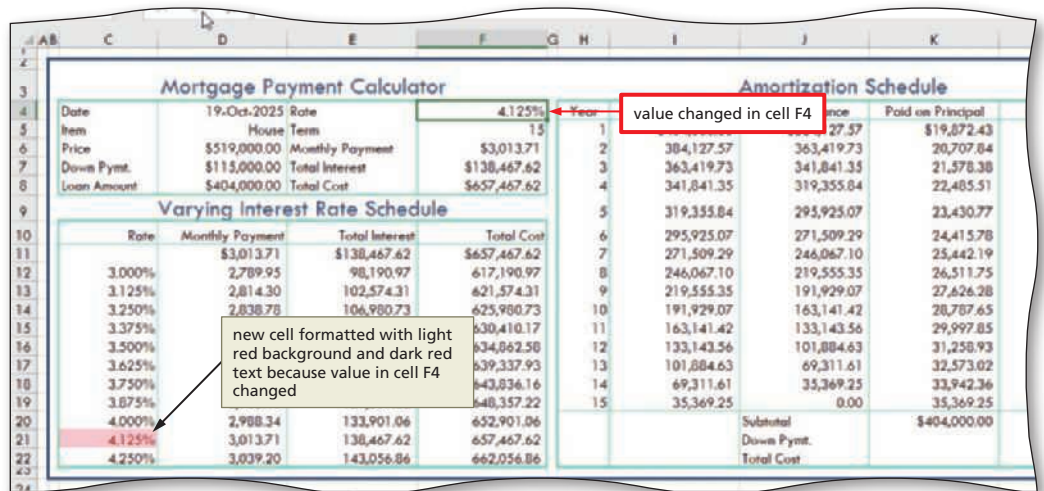


Figure 4-45

5

- Enter 3.875 in cell F4 to return the Mortgage Payment Calculator, Varying Interest Rate Schedule, and Amortization Schedule sections to their original states.

Q&A

What happened when I changed the interest rate from 3.875% to 4.125%?

The cell containing the new rate received a red background and dark red text, while the original cell (cell C21) reverted to its original formatting (Figure 4-45). The red background and dark red text serve as a pointer in the data table to indicate which row agrees with the input cell (cell F4). When the loan officer using this worksheet enters a new percentage in cell F4, the pointer will move or disappear. The formatting will disappear if the interest rate in cell F4 falls outside the range of the data table or does not appear in the data table, for example, if the interest rate is 5.000% or 4.100%.

To Enter New Loan Data

With the Mortgage Payment Calculator, Varying Interest Rate Schedule, and Amortization Schedule sections of the worksheet complete, you can use them to generate new loan information. For example, assume you want to purchase land for \$100,000.00. You have \$25,000.00 for a down payment and want a ten-year loan. Cranford Credit Union currently is charging 3.5% interest for a ten-year loan on land. The following steps enter the new loan data.

- 1 Enter **Land** in cell D5.
- 2 Enter **100000** in cell D6.
- 3 Enter **25000** in cell D7.
- 4 Enter **3.5** in cell F4.
- 5 Enter **10** in cell F5 and then press the DOWN ARROW key to calculate the loan data.
- 6 Click on an empty cell to display the worksheet, as shown in Figure 4-46.

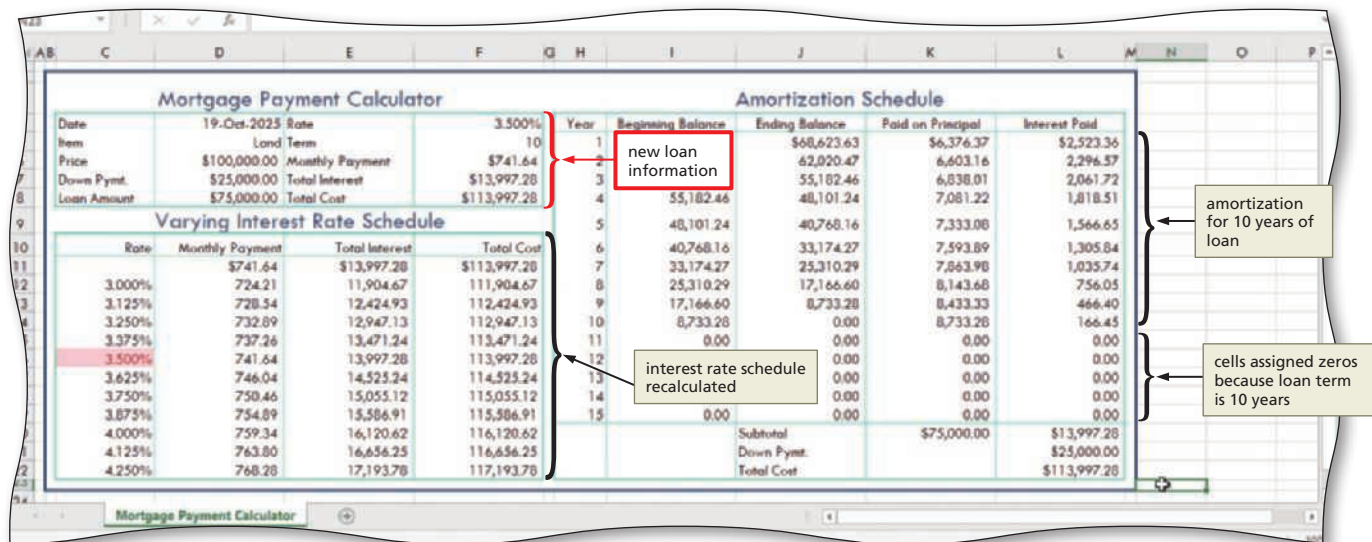


Figure 4-46

To Enter the Original Loan Data

The following steps reenter the original loan data.

- 1 Enter **House** in cell D5.
- 2 Enter **519000** in cell D6.
- 3 Enter **115000** in cell D7.
- 4 Enter **3.875** in cell F4.
- 5 Enter **15** in cell F5.

Printing Sections of the Worksheet

In Module 2, you learned how to print a section of a worksheet by first selecting it and then using the Selection option in the Print dialog box. If you find yourself continually selecting the same range in a worksheet to print, you can set a specific range to print each time you print the worksheet. When you set a range to print, Excel will continue to print only that range until you clear it.

To Set Up a Worksheet to Print

Why? Specifying print options allows you to conserve paper and toner and to customize the layout of your worksheet on the printed page. This section describes print options available in the Page and Sheet tabs in the Page Setup dialog box (Figure 4-47). These print options affect the way the worksheet will appear in the printed copy or when previewed. One important print option is the capability of printing in black and white, even when your printer is a color printer. Printing in black and white not only speeds up the printing process but also saves ink. The following steps ensure any printed copy fits on one page and prints in black and white.

1

- Display the Page Layout tab and then click the Page Setup Dialog Box Launcher to display the Page Setup dialog box.
- If necessary, click the Page tab (Page Setup dialog box) to display the Page sheet and then click Fit to in the Scaling area to set the worksheet to print on one page (Figure 4-47).

Q&A

How can I specify the printed height and width?

Instead of using Backstage view, you can display the Page Layout tab and in the Scale to Fit group, use the Width and Height boxes to specify the number of pages for each direction.

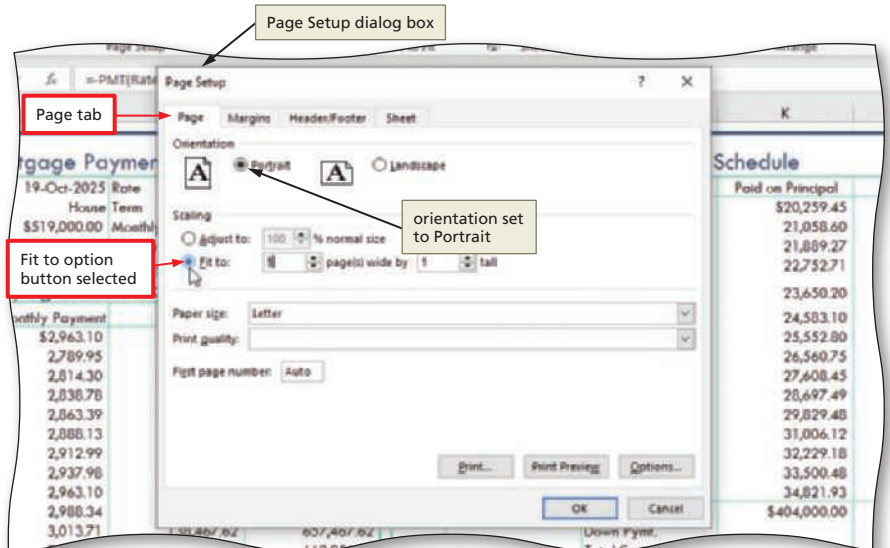


Figure 4-47

2

- Click the Sheet tab (Page Setup dialog box) and then click 'Black and white' in the Print area to select the check box (Figure 4-48).

3

- Click OK (Page Setup dialog box) to close the dialog box.

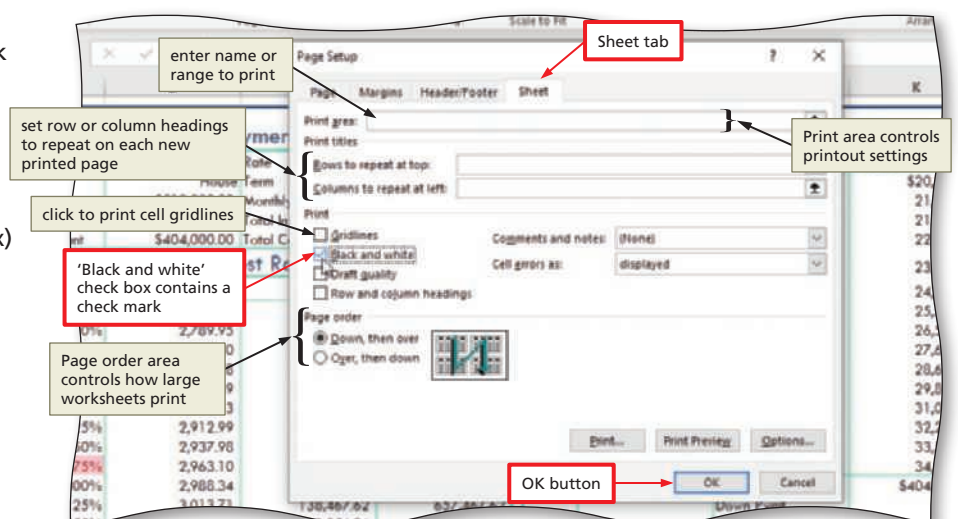


Figure 4-48

Other Ways

1. Click File tab, click Print tab, click Page Setup link, select options

To Set the Print Area

Why? If you do not need to print the entire worksheet, setting the print area allows you to easily specify the section you want to print. The following steps print only the Mortgage Payment Calculator section by setting the print area to the range C3:F8.

1

- Select the range C3:F8 and then click the Print Area button (Page Layout tab | Page Setup group) to display the Print Area menu (Figure 4-49).

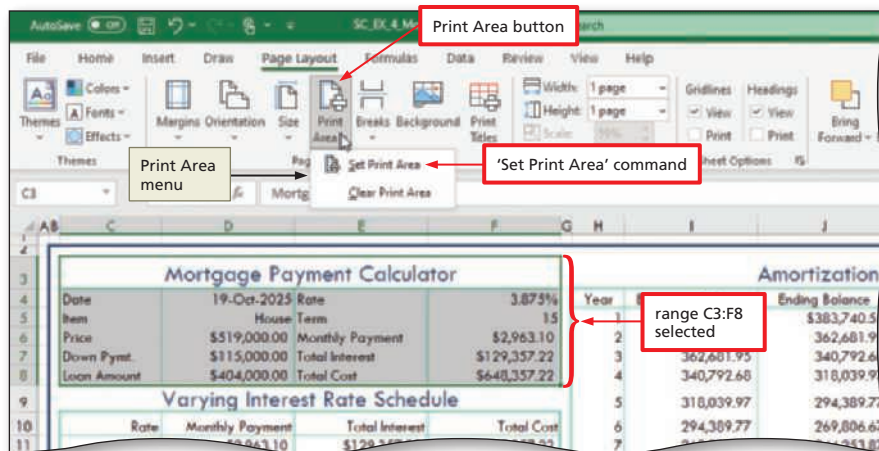


Figure 4-49

2

- Click 'Set Print Area' on the Print Area menu to set the range of the worksheet that Excel should print.
- Click File on the ribbon to open Backstage view and then click Print to display the Print screen.
- Click the Print button on the Print screen to print the selected area (Figure 4-50).

Date	19-Oct-2021	Rate	3.875%
Item	House	Term	15
Price	\$519,000.00	Monthly Payment	\$2,963.10
Down Pymt.	\$115,000.00	Total Interest	\$129,357.22
Loan Amount	\$404,000.00	Total Cost	\$648,357.22

Figure 4-50

3

- Click the Print Area button (Page Layout tab | Page Setup group) to display the Print Area menu and then click the 'Clear Print Area' command to reset the print area to the entire worksheet.

Q&A What happens when I set a print area?

When you set a print area, Excel will print the specified range rather than the entire worksheet. If you save the workbook with the print area set, then Excel will remember the settings the next time you open the workbook and continue to print only the specified range. Clicking 'Clear Print Area' on the Print Area menu, as described in Step 3, will revert the settings so that the entire workbook will print.

To Name and Print Sections of a Worksheet

Why? If you regularly are going to print a particular section of a worksheet, naming the section allows you to specify that section whenever you need to print it. With some spreadsheet apps, you will want to print several different areas of a worksheet, depending on the request. Rather than using the 'Set Print Area' command or manually selecting the range each time you want to print, you can name the ranges using the Name box in the formula bar. You then can use one of the names to select an area before using the 'Set Print Area' command or Print Selection option.

If a worksheet spans multiple pages and you want to print only certain pages, you can enter the page numbers in the Pages text boxes on the Print screen. If you print a worksheet with multiple pages, you can specify print titles that will automatically repeat one or more rows or one or more columns on each page. To specify the rows or columns, click the Print Titles button (Page Layout tab | Page Setup group) and enter the

desired row(s) and/or column(s) in the 'Rows to repeat at top' or 'Columns to repeat at left' text boxes. The following steps name the Mortgage Payment Calculator, the Varying Interest Rate Schedule, the Amortization Schedule sections, as well as the entire worksheet, and then print each section.

1

- Click the Page Setup Dialog Box Launcher to display the Page Setup dialog box, click the Sheet tab and then click 'Black and white' to remove the check mark and ensure that Excel prints in color on color printers.
- Click OK to close the Page Setup dialog box.
- If necessary, select the range C3:F8, click the Name box in the formula bar, and then enter **Mortgage_Payment** to name the range (Figure 4-51). *Hint:* Remember to include the underscore between Mortgage and Payment.

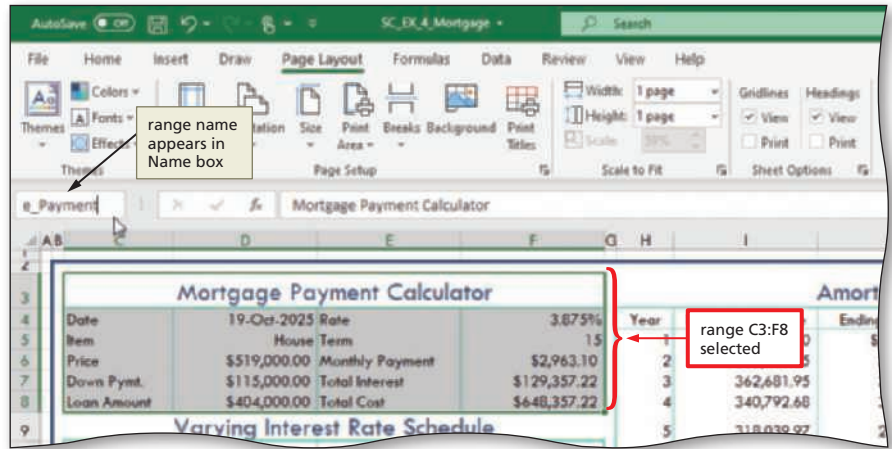


Figure 4-51

2

- Press ENTER to create the range name.
- Select the range C9:F22, click the Name box in the formula bar, type **Interest_Schedule** as the name of the range, and then press ENTER to create a range name.
- Select the range H3:L22, click the Name box in the formula bar, type **Amortization_Schedule** as the name of the range, and then press ENTER to create a range name.
- Select the range B2:M23, click the Name box in the formula bar, type **Financial_Tools** as the name of the range, and then press ENTER to create a range name.
- Select an empty cell and then click the Name box arrow in the formula bar to display the Name box list with the new range names (Figure 4-52).

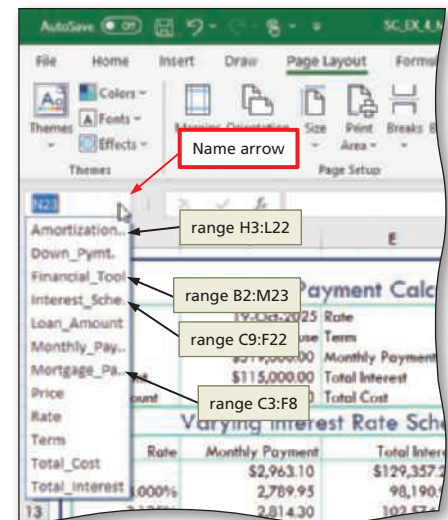


Figure 4-52

3

- Click Mortgage_Payment in the Name list to select the range associated with the name, C3:F8 in this case.
- Click File on the ribbon to open Backstage view and then click Print to display the Print screen.
- Click the 'Print Active Sheets' button in the Settings area and then click Print Selection to select the desired item to print (Figure 4-53).

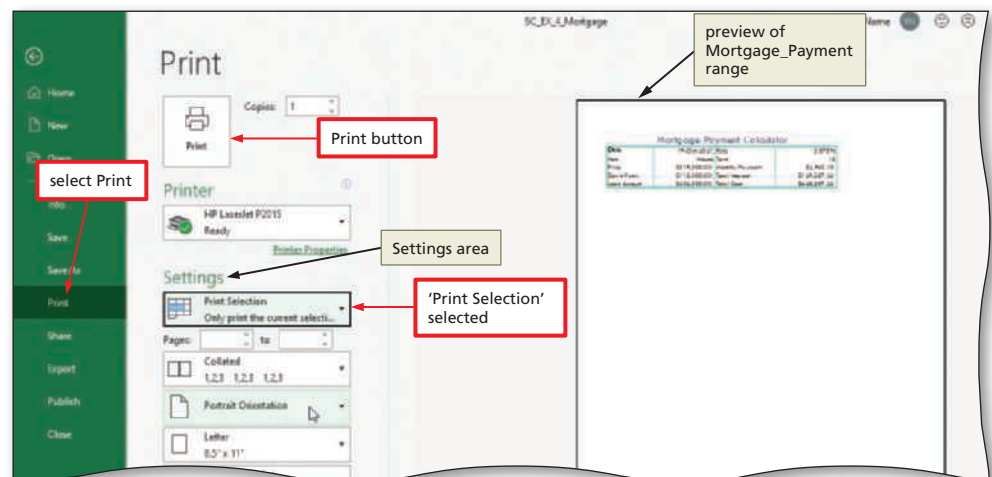


Figure 4-53

- 4**
- Click the Print button in the Print gallery to print the selected named range, Mortgage_Payment in this case.
 - One at a time, use the Name box to select the names Interest_Schedule, Amortization_Schedule, and Financial_Tools, and then print them following the instructions in Step 3 to print the remaining named ranges (Figure 4-54).

- 5**
- Save the workbook again on the same storage location with the same file name.

Mortgage_Payment range printout

Mortgage Payment Calculator

Date	19-Oct-2021	Rate	3.875%
Item	House	Term	15
Price	\$519,000.00	Monthly Payment	\$2,963.10
Down Pymt.	\$115,000.00	Total Interest	\$129,357.22
Loan Amount	\$404,000.00	Total Cost	\$648,357.22

Figure 4-54(a)

Interest_Schedule range printout

Varying Interest Rate Schedule

Rate	Monthly Payment	Total Interest	Total Cost
	\$2,963.10	\$129,357.22	\$648,357.22
3.000%	2,789.95	98,190.97	617,190.97
3.125%	2,814.30	102,574.31	621,574.31
3.250%	2,838.78	106,980.73	625,980.73
3.375%	2,863.39	111,410.17	630,410.17
3.500%	2,888.13	115,862.58	634,862.58
3.625%	2,912.99	120,337.93	639,337.93
3.750%	2,937.98	124,836.16	643,836.16
3.875%	2,963.10	129,357.22	648,357.22
4.000%	2,988.34	133,901.06	652,901.06
4.125%	3,013.71	138,467.62	657,467.62
4.250%	3,039.20	143,056.86	662,056.86

Figure 4-54(b)

Amortization_Schedule range printout

Amortization Schedule

Year	Beginning Balance	Ending Balance	Paid on Principal	Interest Paid
1	\$404,000.00	\$383,740.55	\$20,259.45	\$15,297.70
2	383,740.55	362,681.95	21,058.60	14,498.55
3	362,681.95	340,792.68	21,889.27	13,667.88
4	340,792.68	318,039.97	22,752.71	12,804.44
5	318,039.97	294,389.77	23,650.20	11,906.95
6	294,389.77	269,806.67	24,583.10	10,974.05
7	269,806.67	244,253.87	25,552.80	10,004.35
8	244,253.87	217,693.13	26,560.75	8,996.40
9	217,693.13	190,084.68	27,608.45	7,948.70
10	190,084.68	161,387.19	28,697.49	6,859.66
11	161,387.19	131,557.71	29,829.48	5,727.67
12	131,557.71	100,551.59	31,006.12	4,551.03
13	100,551.59	68,322.41	32,229.18	3,327.97
14	68,322.41	34,821.93	33,500.48	2,056.67
15	34,821.93	0.00	34,821.93	735.22
		Subtotal	\$404,000.00	\$129,357.22
		Down Pymt.		\$115,000.00
		Total Cost		\$648,357.22

Figure 4-54(c)

Q&A Why does the **Financial_Tools** range print on one page?
Recall that you selected the **Fit to option** earlier (Figure 4–47). This selection ensures that each of the printouts fits across the page in portrait orientation.

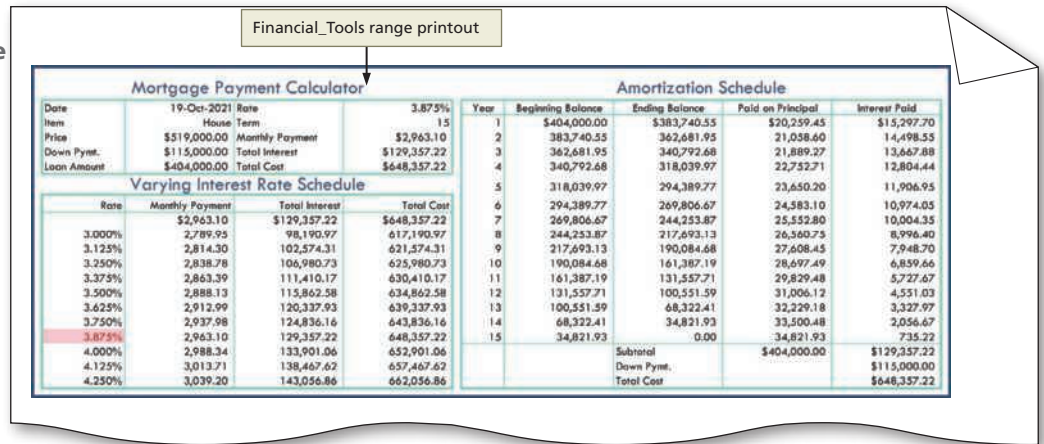


Figure 4–54(d)

Other Ways

1. Select cell or range, click Define Name button (Formulas tab | Defined Names group), type name, click OK (New Name dialog box)
2. Select cell or range, click Name Manager button (Formulas tab | Defined Names group), click New button, type name, click OK (New Name dialog box), click Close button (Name Manager dialog box)
3. Select cell or range, press CTRL+F3

Creating Formulas with Defined Names

Just as you can apply a name to a range of cells for printing, you can also use names to refer to ranges of cells in formulas. Naming a range of cells might make it easier for you to reference those cells as opposed to remembering the cell addresses corresponding to the range.

TO DEFINE A NAME FOR A RANGE OF CELLS

1. Select the cell or range of cells to name.
2. Click the Define Name button (Formulas tab | Defined Names group).
3. Type the desired name in the Name text box.
4. Click OK.

Once you have defined a name for a cell or range of cells, you can use the name in one or more formulas. You can also use table names in formulas; you will learn more about table names in Module 6.

TO USE A DEFINED NAME IN A FORMULA

1. Start typing the formula in the desired cell.
2. When you are ready to reference the cell or range of cells by its defined name, click the 'Use in Formula' button (Formulas tab | Defined Names group) to display a list of defined names.
3. Click the desired defined name to insert it into the formula.
4. Finish typing the formula.

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called **SC_EX_4_Mortgage**, and continue following the steps from this location forward.

Protecting and Hiding Worksheets and Workbooks

When building a worksheet for novice users, you should protect the cells in the worksheet that you do not want changed, such as cells that contain text or formulas. Doing so prevents users from making changes to text and formulas in cells.

When you create a new worksheet, all the cells are assigned a locked status, but the lock is not engaged, which leaves cells unprotected. **Unprotected cells** are cells whose values you can change at any time. **Protected cells** are cells that you cannot change. To protect a workbook so that structural changes cannot be made, click the Protect Workbook button (Review tab | Protect group). If desired, enter a password in the Password (optional) text box, verify the Structure check box contains a check mark, and then click OK.

Consider This



How do you determine which cells to protect in a worksheet?

Deciding which cells to protect often depends upon the audience for your worksheet. In general, the highest level of security would be to protect all cells except those that require an entry by the user of the worksheet. This level of protection might be recommended for novice users, clients, or customers. A lesser safeguard would be to protect any cells containing formulas, so that users of the worksheet cannot modify the formulas. Finally, if you are creating a worksheet for your boss or a trusted team member, you might want to leave the cells unprotected, in case they need to edit the worksheet. In any case, you should protect cells only after the worksheet has been tested fully and the correct results appear. Protecting a worksheet is a two-step process:

1. Select the cells you want to leave unprotected and then change their cell protection settings to an unlocked status.
2. Protect the entire worksheet.

At first glance, these steps may appear to be backward. However, once you protect the entire worksheet, you cannot change anything, including the locked status of individual cells.

To Protect a Worksheet

Why? Protecting a worksheet allows you to determine which cells a user can modify. In the Mortgage Payment Calculator worksheet, the user should be able to make changes to only five cells: the item in cell D5, the price in cell D6, the down payment in cell D7, the interest rate in cell F4, and the term in cell F5 (Figure 4–55). These cells must remain unprotected so that the user can enter data. The remaining cells in the worksheet can be protected so that the user cannot change them. The following steps protect the Mortgage Payment Calculator worksheet.

1

- Select the range D5:D7 and then, while holding down CTRL, select the nonadjacent range F4:F5.
- Right-click one of the selected ranges to display a shortcut menu and mini toolbar (Figure 4–55).

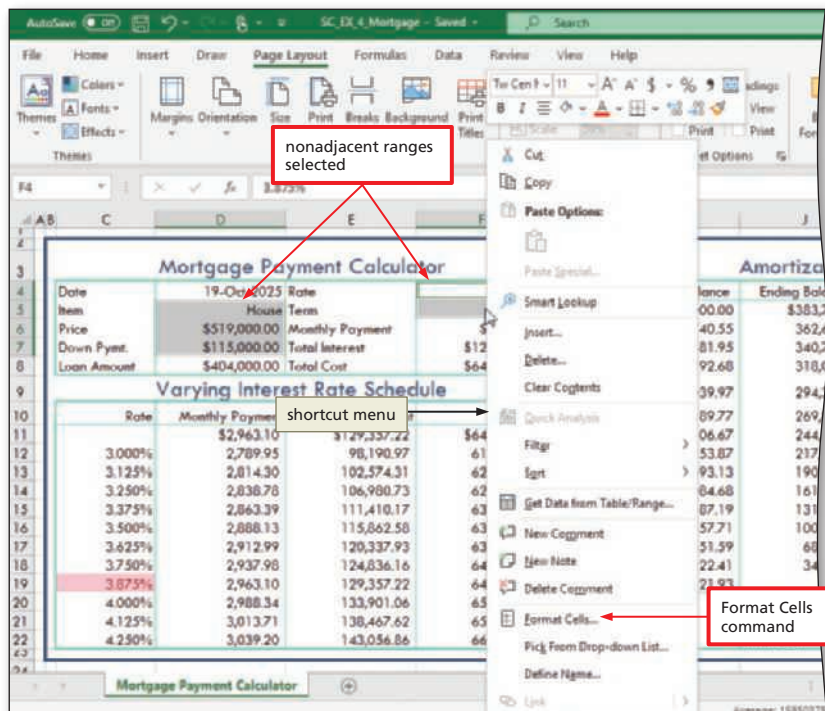


Figure 4–55

2

- Click Format Cells on the shortcut menu to display the Format Cells dialog box.
- Click the Protection tab (Format Cells dialog box) and then click Locked to remove the check mark (Figure 4-56).

Q&A

What happens when I remove the check mark from the Locked check box?

Removing the check mark from the Locked check box allows users to modify the selected cells (D5:D7 and F4:F5) after you use the Protect Sheet command.

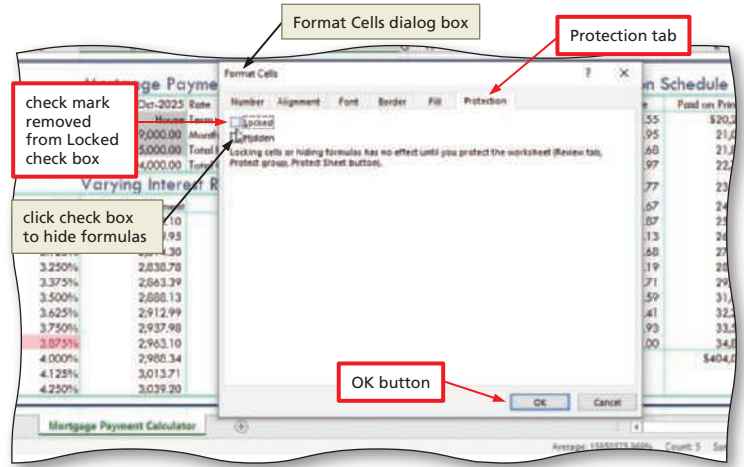


Figure 4-56

3

- Click OK to close the Format Cells dialog box.
- Deselect the ranges, and display the Review tab (Figure 4-57).

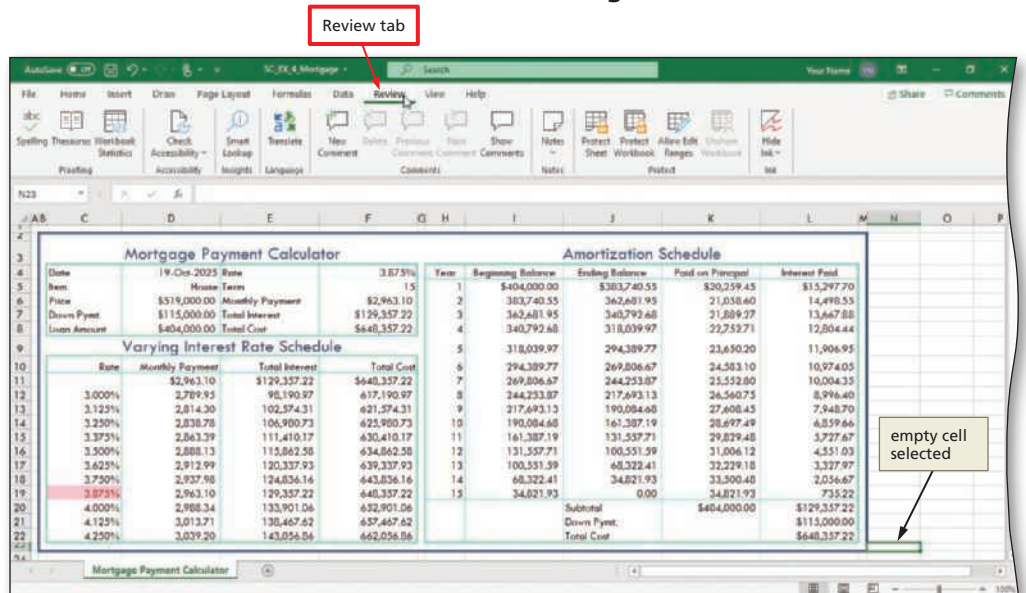


Figure 4-57

4

- Click the Protect Sheet button (Review tab | Changes group) to display the Protect Sheet dialog box.
- Verify that the 'Protect worksheet and contents of locked cells' check box (at the top of the Protect Sheet dialog box) and the first two check boxes in the list contain check marks so that the user of the worksheet can select both locked and unlocked cells (Figure 4-58).

Q&A

What do the three checked settings mean?

With all three check boxes selected, the worksheet (except for the cells left unlocked) is protected from modification. The two check boxes in the list allow users to select any cell on the worksheet, but they only can change unlocked cells.

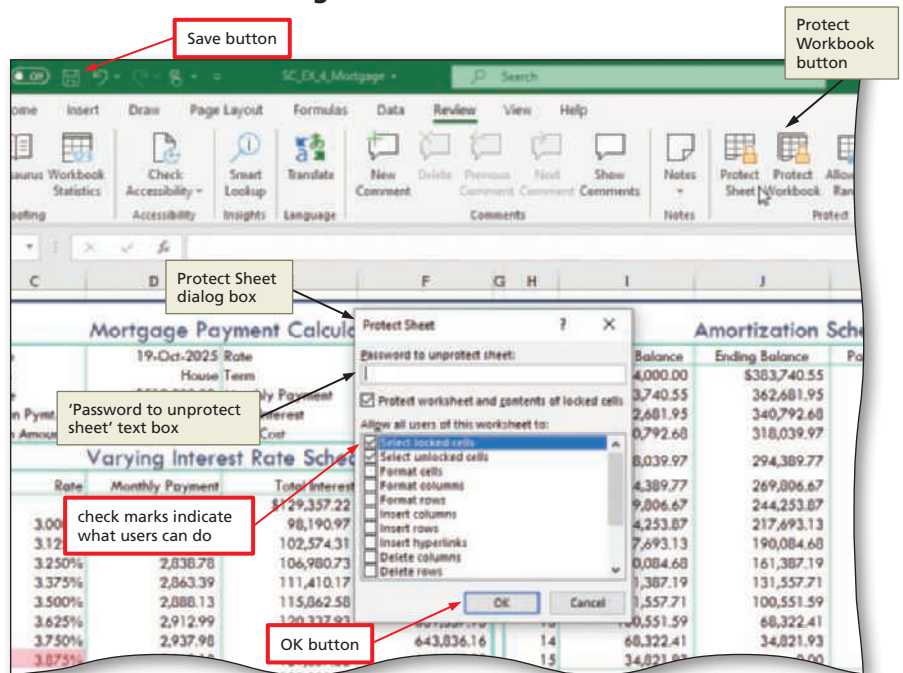


Figure 4-58

Q&A What is the purpose of the 'Password to unprotect sheet' text box?

If you want to protect one or more cells from changes and do not want others to easily unprotect the sheet, you can assign a password that will be required when someone attempts to unprotect the sheet.

5

- Click OK (Protect Sheet dialog box) to close the Protect Sheet dialog box.
- Save the workbook again on the same storage location with the same file name.

Other Ways

1. Click Format Cells Dialog Box Launcher (Home tab | Font, Alignment, or Number group), click Protection tab, remove check mark from Locked check box, click OK
2. Click File tab, click Info tab, click Protect Workbook, click Protect Current Sheet, select options, click OK

BTW**Using Protected Worksheets**

You can move from one unprotected cell to another unprotected cell in a worksheet by using TAB and SHIFT+TAB. This is especially useful when the cells are not adjacent to one another.

BTW**Hiding Worksheets**

When sharing workbooks with others, you may not want them to see some of your worksheets. Hiding worksheets obscures the worksheets from casual inspection; however, it is not only for hiding worksheets from others' eyes. Sometimes, you have several worksheets that include data that you rarely require or that you use only as a reference. To clean up the list of sheet tabs, you can hide worksheets that you do not need on a regular basis.

BTW**Hiding Formulas**

If you want to hide formulas so that users won't see them in the formula bar when they select a cell, select the Hidden check box in the Format Cells dialog box and then select Protect Sheet in the Protect group on the Review tab.

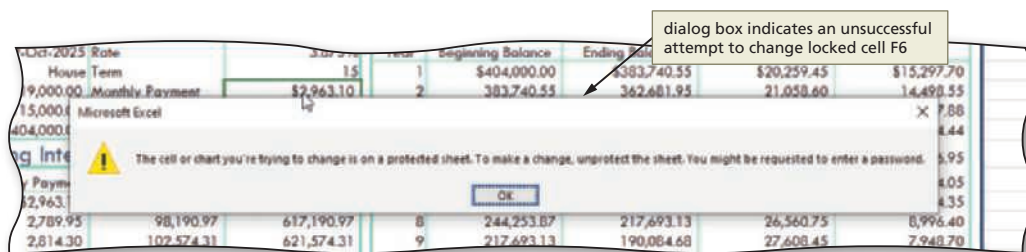
More about Worksheet Protection

Now all of the cells in the worksheet, except for the ranges D5:D7 and F4:F5, are protected. But the protection is not strong, because any user can remove the protection using the Unprotect Sheet button on the Review tab. The Protect Sheet dialog box, shown in Figure 4-58, enables you to protect the worksheet using a password. You can create a password when you want to prevent others from changing the worksheet from protected to unprotected. The additional settings in the list in the Protect Sheet dialog box also give you the option to modify the protection so that the user can make certain changes, such as formatting cells or inserting hyperlinks.

If you want to protect more than one worksheet in a workbook, either select each worksheet before you begin the protection process or click the Protect Workbook button, shown in Figure 4-58. If you want to unlock cells for specific users, you can use the 'Allow Edit Ranges' button (Review tab | Protect group).

When this protected worksheet is made available to users, they will be able to enter data in only the unprotected cells. If they try to change any protected cell, such as the monthly payment in cell F6, Excel will display a dialog box with an error message, as shown in Figure 4-59. You can eliminate this error message by removing the check mark from the 'Select unlocked cells' check box in the Protect Sheet dialog box (Figure 4-58). With the check mark removed, users cannot select a locked cell.

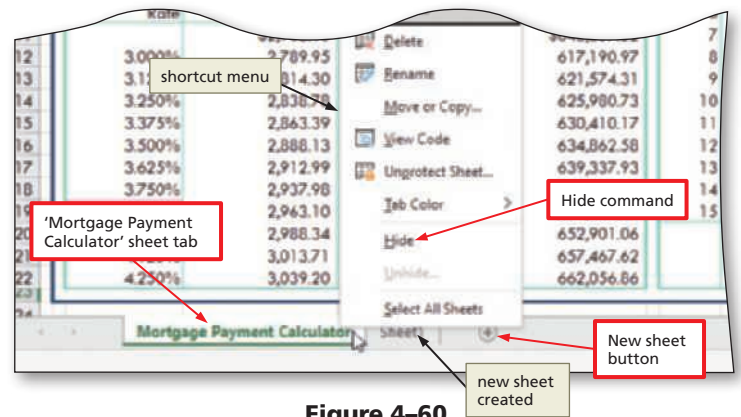
To unprotect the worksheet so that you can change all cells in the worksheet, click the Unprotect Sheet button (Review tab | Changes group).

**Figure 4-59****To Hide and Unhide a Worksheet**

Why? You can hide worksheets that contain sensitive data. Afterwards, when you need to access these hidden worksheets, you can unhide them. If you do not think you will need the worksheet in the future, you may choose to delete the worksheet instead of hiding it. To delete a worksheet, right-click the desired worksheet tab and then click Delete on the shortcut menu. The following steps hide and then unhide a worksheet.

1

- Click the New sheet button to insert a new worksheet in the workbook.
- Right-click the Mortgage Payment Calculator sheet tab to display a shortcut menu (Figure 4–60).

**Figure 4-60****Q&A****Why insert a new worksheet?**

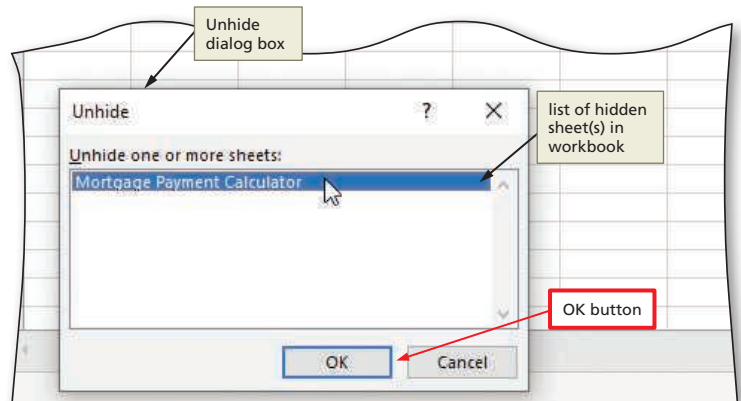
Workbooks must contain at least one visible worksheet. In order to hide the Mortgage Payment Calculator worksheet, there must be another visible worksheet in the workbook.

Why does the Unhide command on the shortcut menu appear dimmed?

The Unhide command appears dimmed when it is unavailable; because no worksheets are hidden, the command is unavailable.

2

- Click Hide on the shortcut menu to hide the Mortgage Payment Calculator worksheet.
- Right-click any sheet tab to display a shortcut menu.
- Click Unhide on the shortcut menu to display the Unhide dialog box.
- If necessary, click Mortgage Payment Calculator in the Unhide sheet list (Unhide dialog box) to select the worksheet to unhide (Figure 4–61).

**Figure 4-61****Q&A****Why should I hide a worksheet?**

Hiding worksheets in a workbook is a common approach when working with complex workbooks that contain one worksheet with the results users need to see and one or more worksheets with essential data that, while important to the functionality of the workbook, is unimportant to users of the workbook. Thus, these data worksheets often are hidden from view. Although the worksheets are hidden, the data and formulas on the hidden worksheets remain available for use by other worksheets in the workbook.

3

- Click OK (Unhide dialog box) to reveal the hidden worksheet.

To Hide and Unhide a Workbook

In addition to hiding worksheets, you also can hide an entire workbook. **Why?** This feature is useful when you have several workbooks open simultaneously and want the user to be able to view only one of them. Also, some users hide the entire workbook when the computer is unattended and they do not want others to be able to see the workbook. The following steps hide and unhide a workbook.

1

- Display the View tab (Figure 4-62).

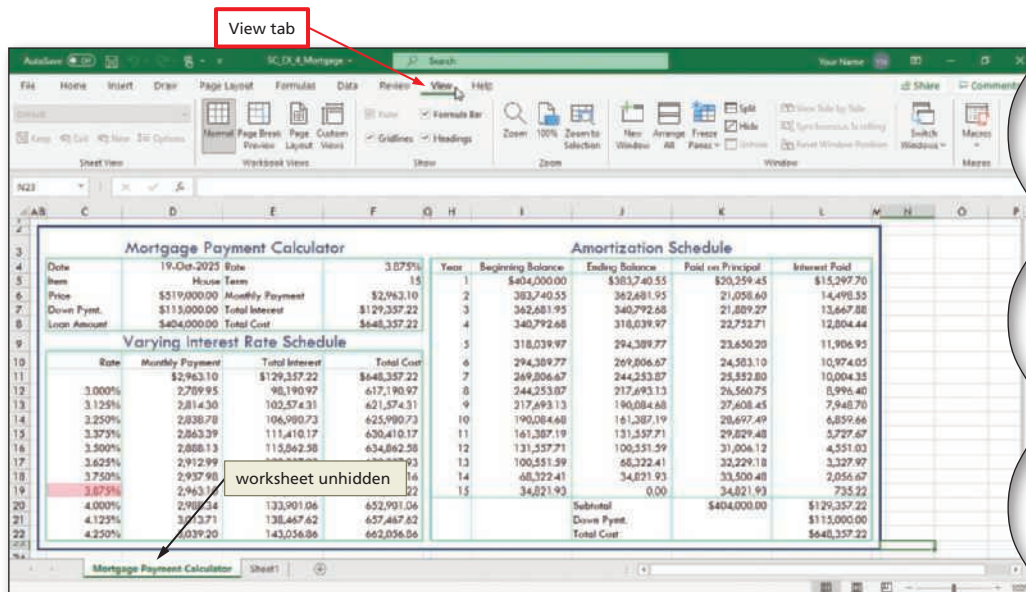


Figure 4-62

2

- Click the Hide button (View tab | Window group) to hide the workbook.
- Click the Unhide button (View tab | Window group) to display the Unhide dialog box.
- If necessary, click SC_EX_4_Mortgage in the Unhide workbook list (Unhide dialog box) to select a workbook to unhide (Figure 4-63).

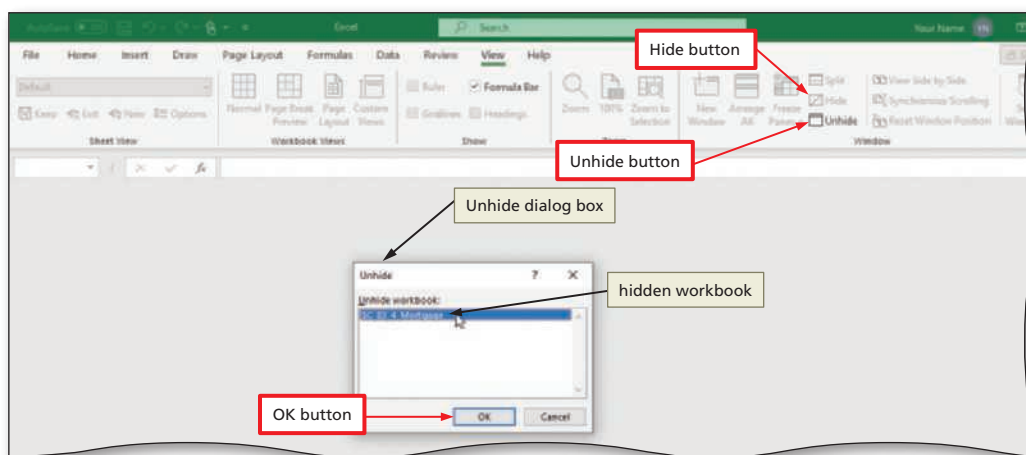


Figure 4-63

3

- Click OK (Unhide dialog box) to unhide the selected hidden workbook and display the workbook in the same state as it was in when it was hidden.

Formula Checking

Before you submit a workbook to a customer, client, or supervisor, you should check it for formula errors, just as you would check any document for spelling errors. Excel has a formula checker that checks all the formulas in a worksheet and alerts you to any problems. You start the formula checker by clicking the Error Checking button (Formulas tab | Formula Auditing group). Each time Excel encounters a cell containing a formula, it applies a series of rules and alerts you if a formula violates any of them. The formula checker displays a dialog box containing information about the formula and a suggestion about how to fix the error. You can view the error-checking

rules, and choose the ones you want Excel to use, in the Formulas pane in the Excel Options dialog box, shown in Figure 4–64. Table 4–3 lists the Excel error-checking rules and briefly describes each one.

Rule	Description
Cells containing formulas that result in an error	The cell contains a formula that does not use the expected syntax, arguments, or data types.
Inconsistent calculated column formula in tables	The cell contains formulas or values that are inconsistent with the column formula or tables.
Cells containing years represented as 2 digits	The cell contains a text date with a two-digit year that can be misinterpreted as the wrong century.
Numbers formatted as text or preceded by an apostrophe	The cell contains numbers stored as text.
Formulas inconsistent with other formulas in the region	The cell contains a formula that does not match the pattern of the formulas around it.
Formulas which omit cells in a region	The cell contains a formula that does not include a correct cell or range reference.
Unlocked cells containing formulas	The cell with a formula is unlocked in a protected worksheet.
Formulas referring to empty cells	The cells referenced in a formula are empty.
Data entered in a table is invalid	The cell has a data validation error.

To Enable Background Formula Checking

While you can run the formula checker at any time using the Formulas tab | Error Checking command, you may want Excel to automatically check your formulas and alert you to errors as you work. This is called working “in the background.” Through the Excel Options dialog box, you can enable background formula checking. **Why?** You want Excel to continually review the workbook for errors in formulas as you create or manipulate data, formulas, and functions. The following steps enable background formula checking.

1

- Click File on the ribbon to open Backstage view and then click Options to display the Excel Options dialog box.

- Click Formulas in the left pane (Excel Options dialog box) to display options related to formula calculation, performance, and error handling in the right pane.

- Click any check box in the ‘Error checking rules’ area that does not contain a check mark so that all error checking rules are enabled (Figure 4–64). As you add check marks, click the ‘Reset Ignored Errors’ button in the Error Checking section to reset error checking.

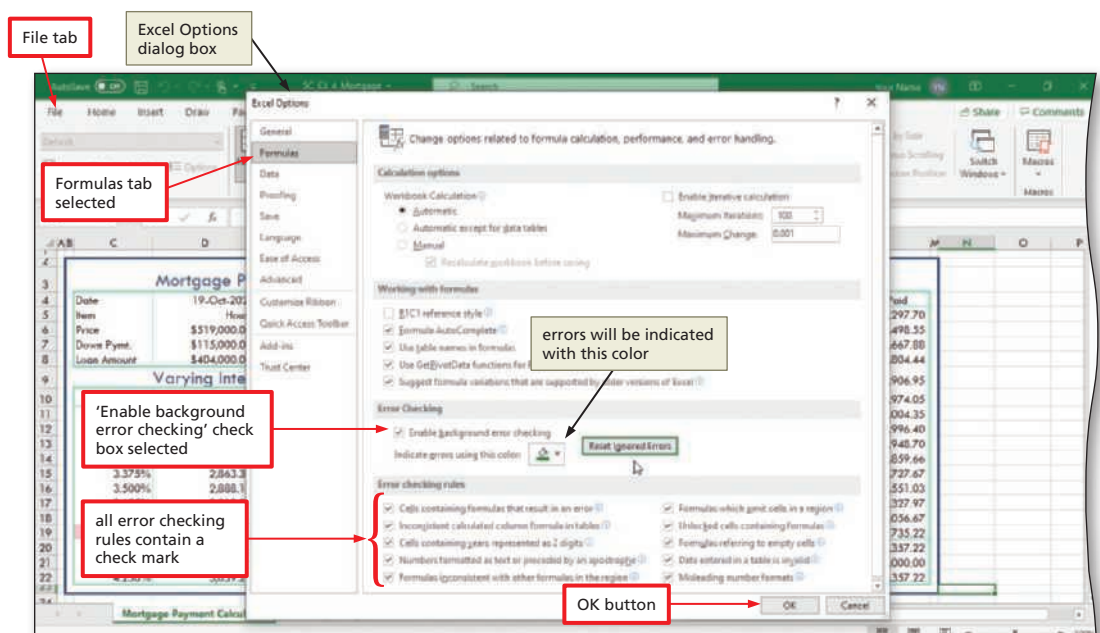


Figure 4–64

2

- Click OK (Excel Options dialog box) to close the Excel Options dialog box.
- If desired, sign out of your Microsoft account.
- **sanj** ↑ Exit Excel.

BTW

Distributing a Workbook

Instead of printing and distributing a hard copy of a workbook, you can distribute the workbook electronically. Options include sending the workbook via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the workbook. You also can create and share a PDF or XPS image of the workbook, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Excel.

More about Background Formula Checking

When background formula checking is enabled and a formula fails to pass one of the rules, Excel adds a small green triangle to the upper-left corner of the cell.

Assume, for example, that background formula checking is enabled and that cell F6, which contains the PMT function in the Mortgage Payment Calculator workbook, is unlocked. Because one of the error checking rules, shown in Table 4-3, stipulates that a cell containing a formula must be locked, Excel displays a green triangle in the upper-left corner of cell F6.

When you select the cell with the green triangle, a Trace Error button appears next to the cell. If you click the Trace Error button, Excel displays the Trace Error menu (Figure 4-65). The first item in the menu identifies the error (Unprotected Formula). The remainder of the menu lists commands from which you can choose. The first command locks the cell. Invoking the Lock Cell command fixes the problem so that the formula no longer violates the rule. Selecting the 'Error Checking Options' command displays the Excel Options dialog box with the Formulas tab active, as shown in Figure 4-64.

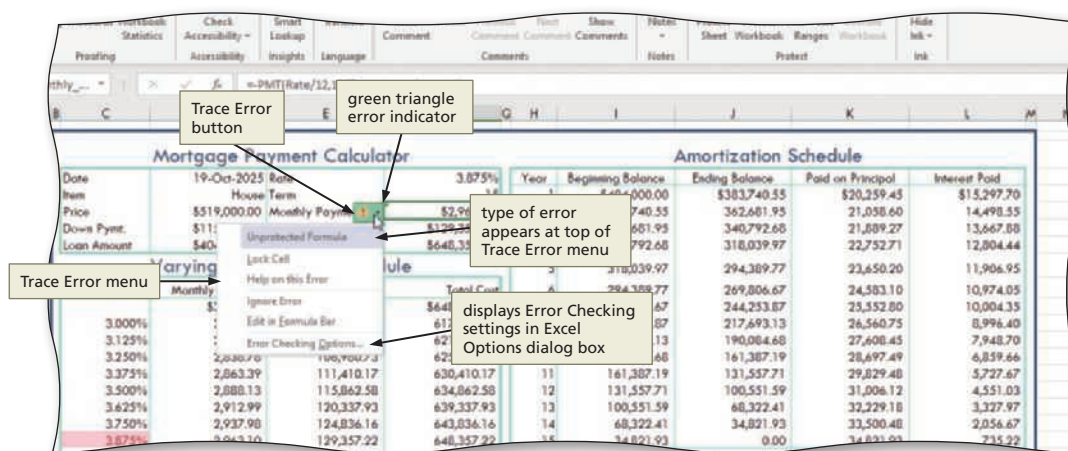


Figure 4-65

The background formula checker can become annoying when you are creating worksheets that may violate the formula rules until referenced cells contain data. You often can end up with green triangles in cells throughout your worksheet. If this is the case, then disable background formula checking by removing the check mark from the 'Enable background error checking' check box (Figure 4-64) and use the Error Checking button (Formulas tab | Formula Auditing group) to check your worksheet once you have finished creating it. Use background formula checking or the Error Checking button during the testing phase to ensure the formulas in your workbook do not violate the rules listed in Table 4-3.

Summary

In this module, you learned how to use names, rather than cell references, to enter formulas; use financial functions, such as the PMT and PV functions; analyze data by creating a data table and amortization schedule; set print options and print sections of a worksheet using names and the Set Print Area command; protect a worksheet or workbook; hide and unhide worksheets and workbooks; and check for errors.



Consider This: Plan Ahead

What decisions will you need to make when creating your next financial decision-making worksheet?

Use these guidelines as you complete the assignments in this module and create your own worksheets for evaluating financial scenarios.

1. Determine the worksheet structure.
 - a) Determine the data you will need.
 - b) Determine the layout of your data.
 - c) Determine the layout of the financial calculator.
 - d) Determine the layout of any data tables.
2. Create the worksheet.
 - a) Enter titles, subtitles, and headings.
 - b) Enter data, functions, and formulas.
 - c) Assign names to cells and cell ranges.
 - d) Create data tables.
3. Format the worksheet.
 - a) Format the titles, subtitles, and headings.
 - b) Format the numbers as necessary.
 - c) Format the text.
4. Perform what-if analyses.
 - a) Adjust values in the assumptions table to review scenarios of interest.
5. Secure the cell contents.
 - a) Lock and unlock cells as necessary.
 - b) Protect the worksheet.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Calculating Loan Payments

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Excel. Open the workbook called SC_EX_4-1.xlsx, which is located in the Data Files. The workbook you open contains loan information from which you will create a data table. You are to recreate the Loan Payment Calculator pictured in Figure 4–66. You will be instructed to print several times in this assignment. If requested or allowed by your instructor, consider saving paper by printing to a PDF file.

Loan Payment Calculator		Interest Rate Schedule			
Item	Value	Interest	Monthly Payment	Total Cost	Total Interest
Down Payment	\$30,000.00	7.75%	1100.85	144321.14	20321.14
Price	\$115,000.00	8.00%	1201.62	145355.30	30355.30
Years	5	8.25%	1212.45	146394.85	31394.85
Interest Rate	9.75%	8.50%	1223.33	147439.77	32439.77
Loan Amount	\$85,000.00	8.75%	1234.27	148489.04	33489.04
Monthly Payment	\$1,278.50	9.00%	1245.27	149545.66	34545.66
		9.25%	1256.32	150606.60	35606.60
		9.50%	1267.43	151672.84	36672.84
		9.75%	1278.59	152744.37	37744.37
		10.00%	1289.80	153821.18	38821.18
		10.25%	1301.08	154903.24	39903.24
		10.50%	1312.40	155990.53	40990.53
		10.75%	1323.78	157083.04	42083.04
		11.00%	1335.22	158180.75	43180.75
		11.25%	1346.70	159283.64	44283.64

Figure 4–66

Perform the following tasks:

1. Select the range B4:C9. Use the 'Create from Selection' button (Formulas tab | Defined Names group) to create names for cells in the range C4:C9 using the row titles in the range B4:B9.
2. Enter the formulas shown in Table 4–4.

Table 4–4 Loan Payment Calculator and Interest Rate Schedule Formulas

Cell	Formula
C8	=Price–Down_Payment
C9	=–PMT(Interest_Rate/12, 12*Years, Loan_Amount)
F4	=Monthly_Payment
G4	=12*Monthly_Payment*Years+Down_Payment
H4	=G4–Price

3. Use the Data Table button in the What-If Analysis gallery (Data tab | Forecast group) to define the range E4:H19 as a one-input data table. Use the Interest Rate in the Loan Payment Calculator as the column input cell.
4. Use the Page Setup dialog box to select the Fit to and 'Black and white' options. Select the range B2:C9 and then use the 'Set Print Area' command to set a print area. Use the Print button on the Print screen in Backstage view to print the worksheet. Use the 'Clear Print Area' command to clear the print area.

5. Name the following ranges: B2:C9 – **Calculator**; E2:H19 – **Rate_Schedule**; and B2:H19 – **All_Sections**. Print each range by selecting the name in the Name box and using the Print Selection option on the Print screen in Backstage view.
6. Unlock the range C3:C7. Protect the worksheet so that the user can select only unlocked cells.
7. Press CTRL+` and then print the formulas version in landscape orientation. Press CTRL+` again to return to the values version.
8. Hide and then unhide the Loan Payment Calculator worksheet. Hide and then unhide the workbook. Delete the extra worksheet you made so that you could hide the Loan Payment Calculator worksheet. Unprotect the worksheet and then hide columns E through H. Select columns D and I and reveal the hidden columns. Hide rows 11 through 19. Print the worksheet. Select rows 10 and 20 and unhide rows 11 through 19. Protect the worksheet.
9. Determine the monthly payment and print the worksheet for each data set: (a) Item = **Motorhome**; Down Payment = **\$75,000.00**; Price = **\$225,000.00**; Years = **7**; Interest Rate = **8.00%**; (b) Item = **Debt Consolidation Loan**; Down Payment = **\$0.00**; Price = **\$40,000.00**; Years = **5**; Interest Rate = **11.25%**. Set the values in cells C3:C7 back to the Boat values after completing the above calculations.
If requested by your instructor, add your initials to cell E3. You will need to unprotect the worksheet and unlock the cell to do so. Make sure to lock the cell and protect the worksheet after adding your initials.
10. Save the workbook with the file name, SC_EX_4_Loan, submit the revised workbook (as shown in Figure 4–66) in the format specified by your instructor, and exit Excel.
11. 🌟 How would you revise the Interest Rate Schedule to be more informative to the user?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Planning Retirement

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Excel. Open the workbook SC_EX_4-2.xlsx, which is located in the Data Files. The workbook you open contains a financial calculator for a 403(b) retirement plan. You are to create a two-input data table that will help employees understand the impact that the amount they invest and the rate of return will have on their retirement earnings (Figure 4-67). Recall from the module that a two-input data table allows for two variables (amount invested and rate of return, in this case) in a formula.

Continued >

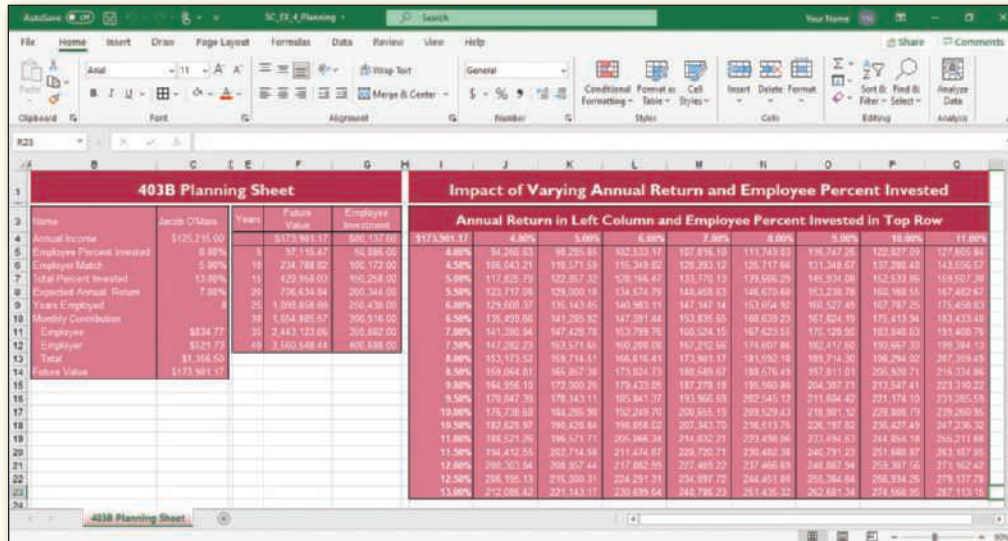
Extend Your Knowledge *continued*

Figure 4-67

Perform the following tasks:

1. Enter **Impact of Varying Annual Return and Employee Percent Invested** in cell I1. Enter **Annual Return in Left Column and Employee Percent Invested in Top Row** in cell I3.
2. Save the workbook using the file name, SC_EX_4_Planning.
3. Change the width of column H to 0.92 (11 pixels). (Depending on your display settings, you may need to use the Column Width dialog box.) Merge and center the titles in cells I1 and I3 over columns I through Q. Format the titles using the Title cell style for both the title and subtitle, a font size of 18 for the title, and a font size of 16 for the subtitle. Change the column widths of columns I through Q to 13.14 (97 pixels). Format cells I1 and I3 to match the fill and font color in cell B1.
4. For a two-input data table, the formula you are analyzing must be assigned to the upper-left cell in the range of the data table. Because cell C14 contains the future value formula to be analyzed, enter **=C14** in cell I4.
5. Use the fill handle to create two lists of percentages: (a) 4.00% through 13.00% in increments of 0.50% in the range I5:I23 and (b) 4.00% through 11.00% in increments of 1.00% in the range J4:Q4.
6. Use the Data Table button in the What-If Analysis gallery (Data tab | Forecast group) to define the range I4:Q23 as a two-input data table. Enter **C8** in the 'Row input cell' box and **C5** in the 'Column input cell' box (Data Table dialog box). Click OK to populate the table.
7. Format the two-input data table using a White, Background 1 font color and the fill color used in cells B3:G12. Bold ranges I4:Q4 and I5:I23. Format cells J5:Q23 to match the number format used in cells F5:G12. Place a light style border around the range I3:Q23, light style borders between columns in that same range, and a light style bottom border on the range I4:Q4.
8. Protect the worksheet so that the user can select only unlocked cells (C3:C6 and C8:C9).
9. If necessary, change the print orientation to landscape. Print the worksheet using the Fit to option. Print the formulas version of the worksheet.
If requested by your instructor, change the name in cell C3 to your name.
10. Save the file with the same filename and submit the revised workbook in the format specified by your instructor.
11. 🌀 How could you improve the design of the worksheet to make the impact of various combinations of Employee Investment and Expected Annual Return more easily identified?

Expand Your World

Create a solution that uses cloud or web technologies by learning and investigating on your own from general guidance.

Down Payment Options for a Home

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: You are planning to buy a home as soon as you can save enough to make a 15% down payment. Your task is to create a calculator that you can use to determine possible savings options, and to share this calculator with family using OneDrive. Start Excel. Open the workbook called SC_EX_4-3.xlsx, which is located in the Data Files. This workbook you open contains a basic structure to create a down payment calculator. You are to create a two-input data table to help determine the future value of savings.

Perform the following tasks:

1. Save the file using the file name SC_EX_4_Calculator.
2. Identify a home for sale in your local housing market that you would consider buying. Use the asking price for that home as the current value of the house, or use an online tool such as Zillow.com to find the current estimated value of the home. Enter this value in your Down Payment Calculator, and calculate the needed down payment.
3. Determine the amount you consider reasonable as a monthly savings toward a down payment, and enter this in your down payment calculator.
4. Use the Future Value function to calculate how much you could save, using the rate of return and years to save in the worksheet. Remember to use a minus sign before the function so that the calculation will appear positive.
5. Create a two-input data table that calculates the future value of savings. You can decide which two inputs you would like to use for your data table.
6. Format the worksheet using techniques you have learned to present the worksheet content in a visually appealing form (Figure 4-68).

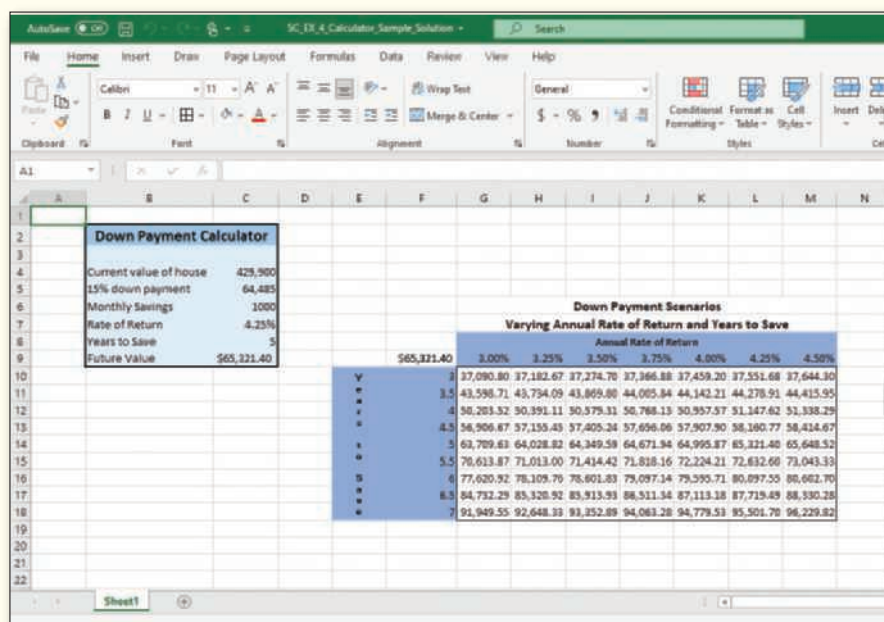


Figure 4-68

Continued >

Expand Your World *continued*

- If requested by your instructor, save the file on OneDrive.
- Submit the workbook as specified by your instructor.
- ☼ Why did you select the two inputs used in your data table? How useful are they for evaluating down payment savings options?

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Determining the Break-Even Point

Problem: You have been hired by Dominic Manero, owner of a small start-up company, to create a data table that analyzes the break-even point for a new product he is developing. He would like you to analyze the break-even point for prices ranging from \$12.99 to \$22.99 per unit, in \$1.00 increments. You can calculate the number of units he must sell to break even (the break-even point) if you know the fixed expenses, the price per unit, and the expense (cost) per unit. The following formula determines the break-even point:

$$\text{Break-Even Point} = \text{Fixed Expenses} / (\text{Price per Unit} - \text{Expense per Unit})$$

Assume Fixed Expenses = \$8,000; Price per Unit = \$14.99; and Expense per Unit = \$8.00.

Perform the following tasks:

Part 1: Use the concepts and techniques presented in this module to determine the break-even point and then create the data table. Use the Price per Unit as the input cell and the break-even value as the result. Protect the worksheet so that only cells with data can be selected. Submit your assignment in the format specified by your instructor.

Part 2: ☼ You made several decisions while creating the worksheet for this assignment. How did you set up the worksheet? How did you decide how to create the data table? What was the rationale behind each of these decisions?

5 Working with Multiple Worksheets and Workbooks

Objectives

After completing this module, you will be able to:

- Format a consolidated worksheet
- Fill using a linear series
- Use date, time, and rounding functions
- Apply a custom format code
- Create a new cell style
- Copy a worksheet
- Drill to add data to multiple worksheets at the same time
- Select and deselect sheet combinations
- Enter formulas that use 3-D cell references
- Use the Paste gallery
- Format a 3-D pie chart with an exploded slice and leader lines
- Save individual worksheets as separate workbook files
- View and hide multiple workbooks
- Consolidate data by linking separate workbooks

Introduction

Typically, a business will need to store data unique to various areas, departments, locations, or regions. If you enter each location's data, for example, on a different worksheet in a single workbook, you can use the sheet tabs at the bottom of the Excel window to move from worksheet to worksheet or location to location. Note, however, that many business applications require data from several worksheets to be summarized on one worksheet. To facilitate this summarization, you can create a cumulative worksheet, entering formulas and functions that reference cells from the other worksheets. The process of combining data on multiple worksheets and displaying the result on another worksheet is called **consolidation**.

Another important concept presented in this module is the use of custom format codes and cell styles. Custom format codes allow you to specify, in detail, how a cell entry will appear. For example, you can create a custom format code to indicate how positive numbers, negative numbers, zeros, and text are displayed in a cell. Custom cell styles store specific font formatting for repeated use.

As you learn how to work with multiple worksheets and workbooks, you also will learn about the many Excel formatting features for pie charts, such as exploding slices and adding leader lines.

Project: Consolidated Expenses Worksheet

The project in the module follows proper design guidelines and uses Excel to create the worksheets shown in Figure 5–1. M&S Provisions manages three different food trucks that serve a variety of food and drinks. The management wants to project consolidated expenses for the next two years, along with separate worksheets for each food truck. The first worksheet shows the projected expenses for 2020, the projected percentage change, and the resulting expenses for 2021 and 2022. The 2020 expenses—consolidated from the three food trucks—will be highlighted in a 3-D pie chart.

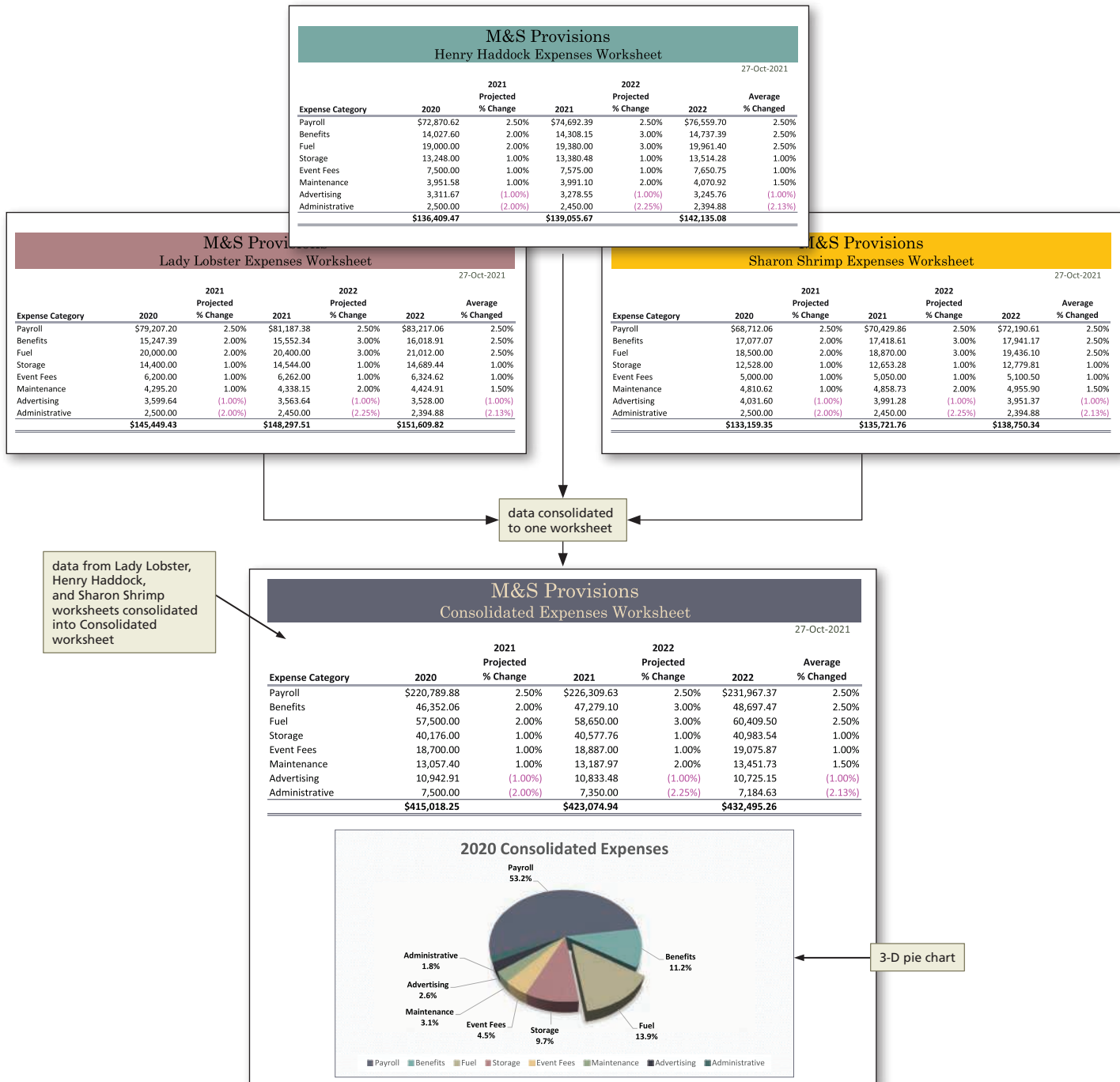


Figure 5–1

The requirements document for the M&S Provisions Consolidated Workbook is shown in Table 5–1. It includes the needs, source of data, summary of calculations, and other facts about its development.

Table 5–1 Requirements Document	
Worksheet Title	M&S Provisions
Needs	<p>The needs are as follows:</p> <ol style="list-style-type: none"> 1. Create a workbook containing three worksheets (one for each of the three food trucks), one worksheet to consolidate the expenses, and a pie chart. 2. Each worksheet should be identical in structure and allow for display of the current expenses and projected expenses for the next two years. 3. The worksheets should print with a common header and footer. 4. The chart should show the 2020 consolidated expenses and draw attention to the largest expense after payroll.
Source of Data	M&S Provisions will provide the data for each of the three food trucks. Projection assumptions also will be provided by M&S Provisions.
Calculations	<p>The following formulas should be included:</p> <ol style="list-style-type: none"> a. 2021 Expenses = 2020 Expenses + (2020 Expenses * 2021 % Change) b. 2022 Expenses = 2021 Expenses + (2021 Expenses * 2022 % Change) c. Average % Change = (2021 % Change + 2022 % Change) / 2 d. Use the SUM function to determine totals <p>Note: Use dummy data in the consolidated worksheet to verify the formulas. Round the percentages. Format other numbers using standard accounting rules, which require a dollar sign only on the first and last numbers in a currency column.</p>
Other Tasks	Investigate a method the company can use to consolidate data from multiple workbooks into a new workbook.

In addition, using a sketch of the worksheet can help you visualize its design. The sketch of the consolidated worksheet (the first of the four worksheets in this workbook) consists of titles, column and row headings, the location of data values, and a general idea of the desired formatting, as shown in Figure 5–2.

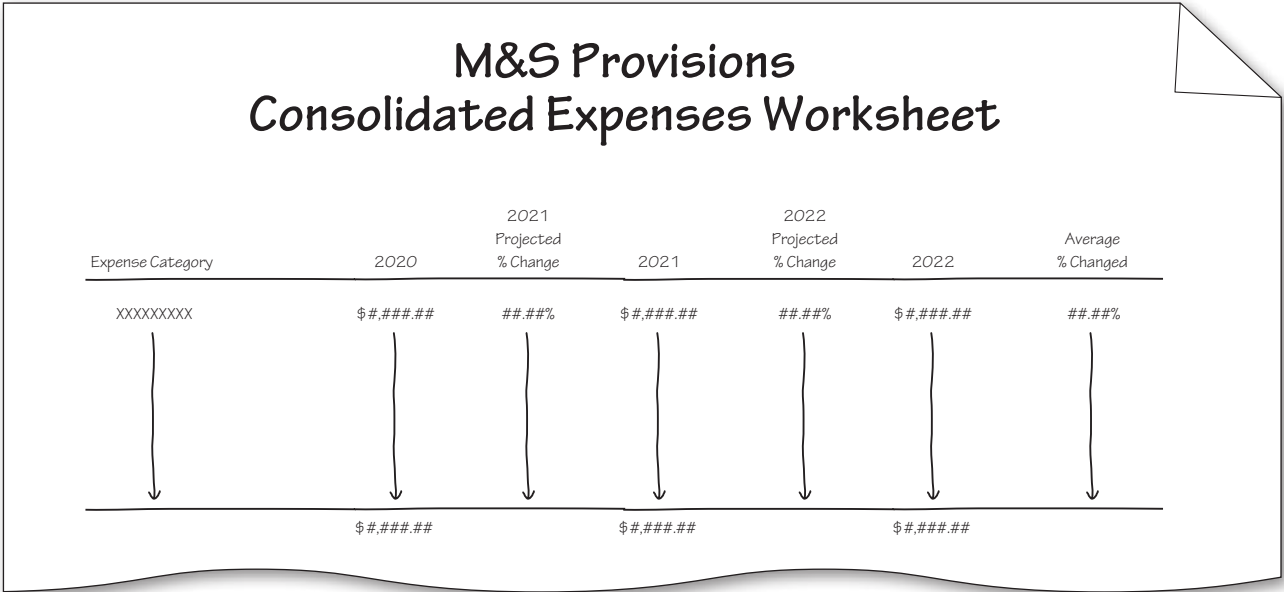


Figure 5–2

BTW

Ribbon and Screen Resolution

Excel may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

Creating the Consolidated Worksheet

The first step in creating the workbook is to create the consolidated expenses worksheet shown in Figure 5–1. This worksheet eventually will contain consolidated data with titles, column and row headings, formulas, and formatting. It also represents the format used on each of the individual locations, which will be copied to the three other worksheets. You will create sample data first, to verify formats and formulas.

To Start Excel and Open a File

The SC_EX_5-1 workbook is located in the Data Files. Please contact your instructor for information about accessing the Data Files. The file contains headings and formatting.

- 1 **scm** ↓ Start Excel and open the file named SC_EX_5-1 (Figure 5-3).
- 2 Click the Zoom In button the required number of times to zoom to approximately 120%.

Q&A What is the best way to zoom?

You can use the Zoom In and Zoom Out buttons on the taskbar or drag the Zoom slider. Some users like using CTRL+WHEEL to zoom. The View tab also has some useful zoom tools.

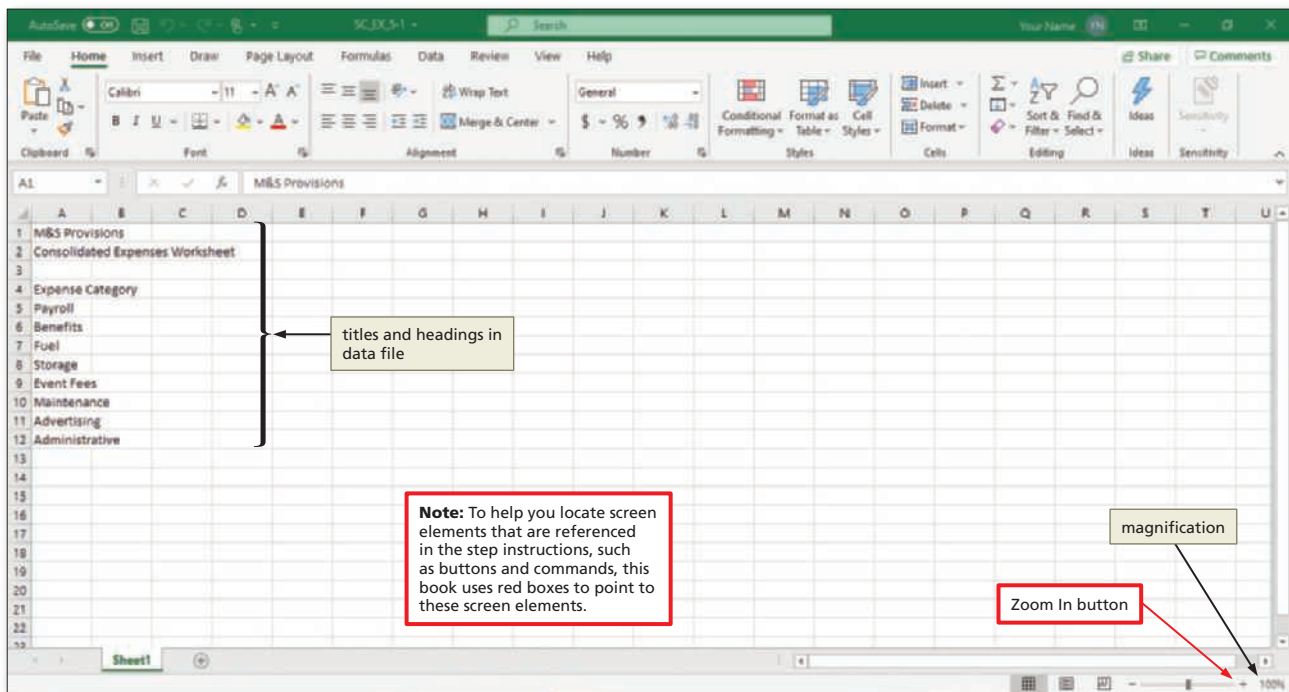


Figure 5–3

To Format the Worksheet

The following steps format the cells in the consolidated worksheet. The row heights and column widths need to be changed to accommodate the data in the worksheet.

- 1 Drag the bottom boundary of the row heading 4 down until the row height is 51.75 (69 pixels) to change the row height.
- 2 Drag the right boundary of column heading A to the right until the column width is 20.57 (149 pixels) to change the column width.
- 3 Click the heading for column B and then **SHIFT+CLICK** the heading for column G to select all the columns in the range.
- 4 Drag the right boundary of column heading G to 13.57 (100 pixels) to change the width of multiple columns.
- 5 Click cell A1 to deselect the columns (Figure 5-4).

BTW

Row Height and Column Width

If you are unable to select the exact row heights and column widths as instructed, it might be because of your display settings. In that case, choose a row height and column width as close as possible to the specified values.

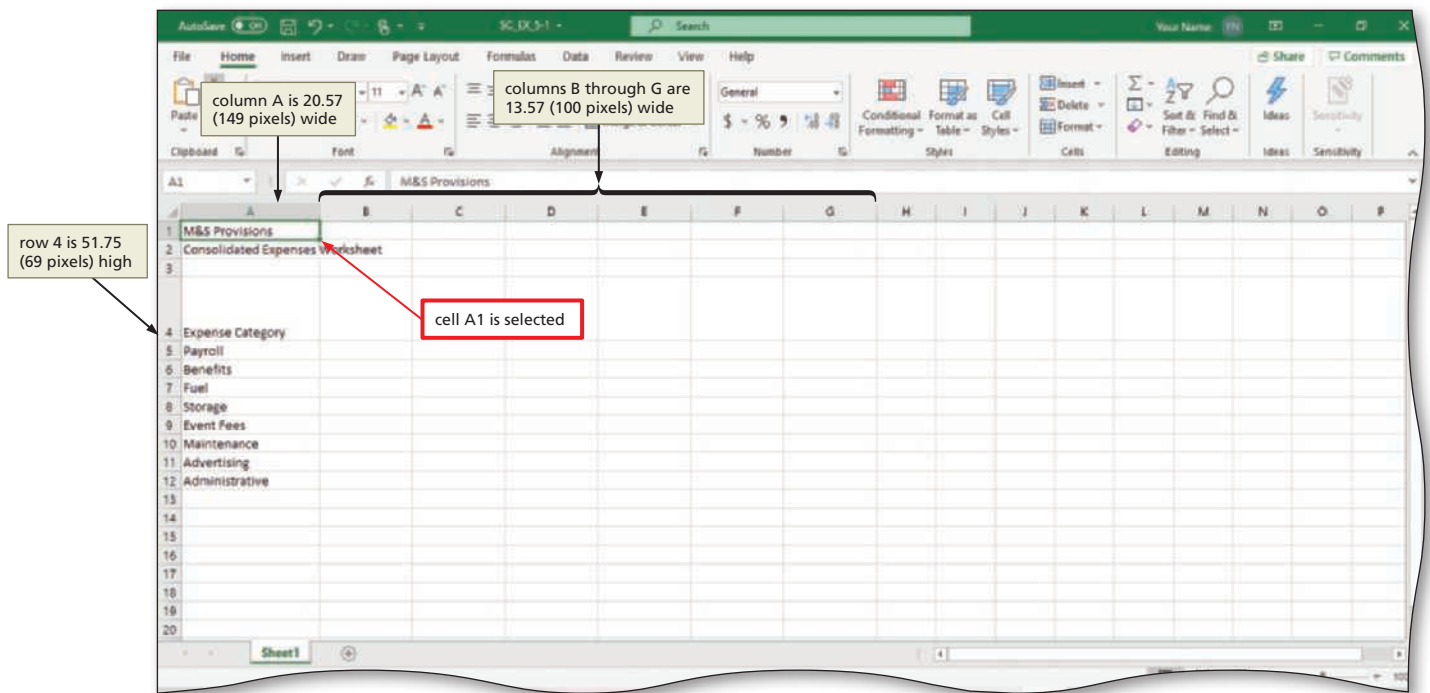


Figure 5-4

To Enter Column Titles

The following steps enter the column titles in row 4. Remember that multi-line titles are created by pressing ALT+ENTER to move to a new line within a cell.

- 1 Select cell B4. Type 2020 and then select cell C4 to enter the column heading.
- 2 Enter the following column titles beginning in row 4, as shown in Figure 5-5, pressing ALT+ENTER to move to a new line within a multi-line cell: 2021 Projected % Change, 2021, 2022 Projected % Change, 2022, and Average % Changed.

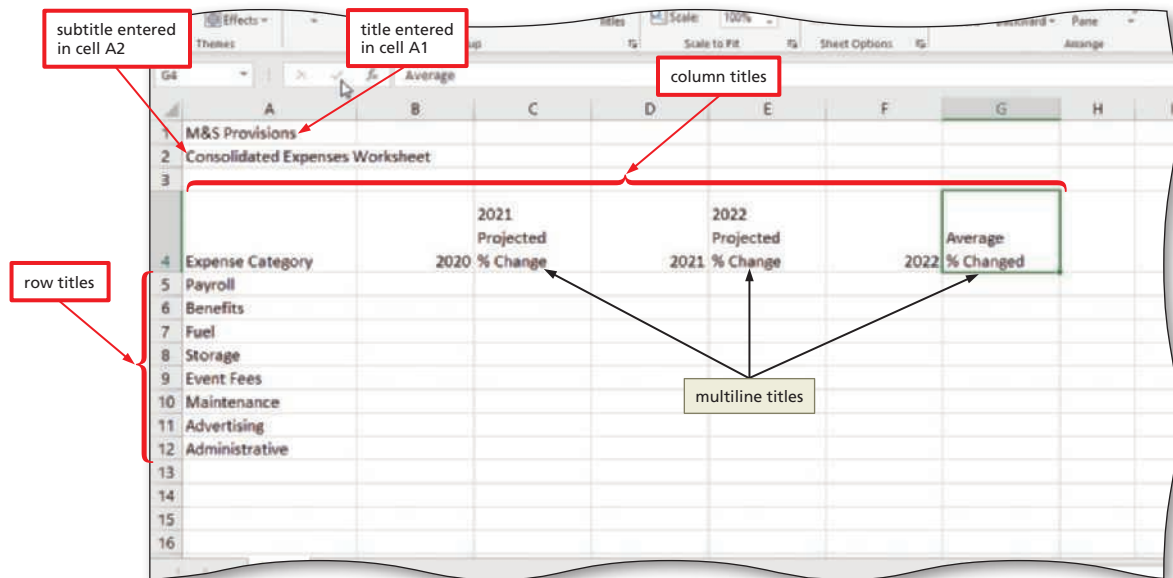


Figure 5-5

BTW

Touch Mode Differences

The Office and Windows interfaces may vary if you are using Touch Mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

Fill Series

In previous modules, you used the fill handle to create a numerical series. By entering the first two numbers in a series, Excel determined the increment amount and filled the cells accordingly. There are other kinds of series, however, including a **date series** (Jan, Feb, Mar, etc.), an **auto fill series** (1, 1, 1, etc.), a **linear series** (1, 2, 3, etc. or 2, 4, 6, etc.), and a **growth series** that multiplies values by a constant factor. For these precise series, you can use the Fill button and the Series dialog box.

To Create Linear Series

While creating the consolidated worksheet in this module, sample data is used for the 2020 expenditures, the 2021 projected % change, and the 2022 projected % change values. **Why? Entering sample data creates placeholder content and assists in the layout of the consolidated worksheet.**

You will use the fill handle to create a series of integers in column B. Normally you would enter the first two numbers in a series so that Excel can determine the increment amount; however, if your series is incremented by 1, you do not have to enter two numbers. You can CTRL+drag the fill handle to increment by 1 across cells.

If you want to increment by a different value, you can use the Series dialog box. In the Series dialog box, you can choose to increment by any step value, including positive and negative decimals, again by entering only a single value. The following steps create sample data in the consolidated worksheet.

1

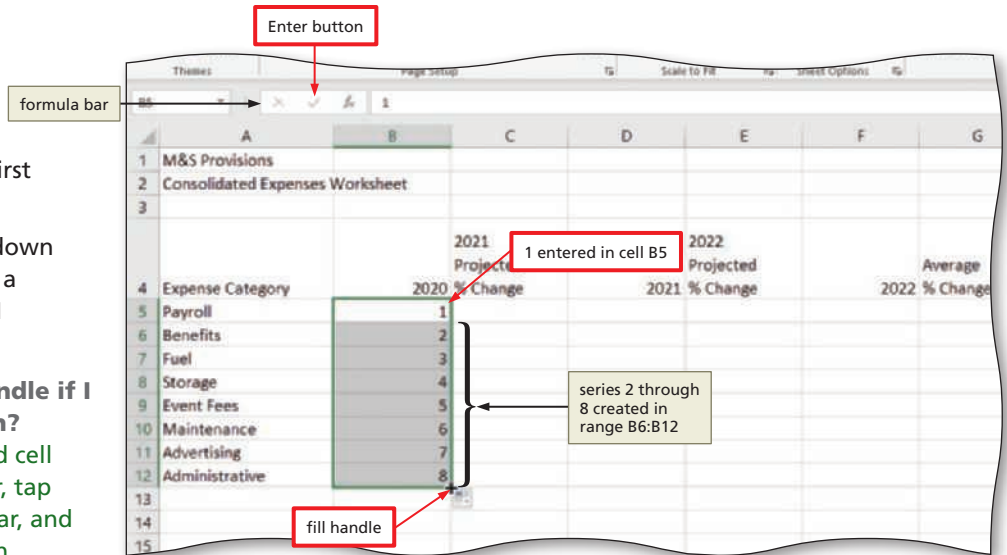
- Select cell B5.
- Type 1 and then click the Enter button in the formula bar to enter the first value in the series.
- CTRL+drag the fill handle down through cell B12 to create a fill series incremented by 1 (Figure 5–6).

Q&A How do I use the fill handle if I am using a touch screen?

Press and hold the selected cell to display the mini toolbar, tap AutoFill on the mini toolbar, and then drag the AutoFill icon.

What would happen if I did not use CTRL?

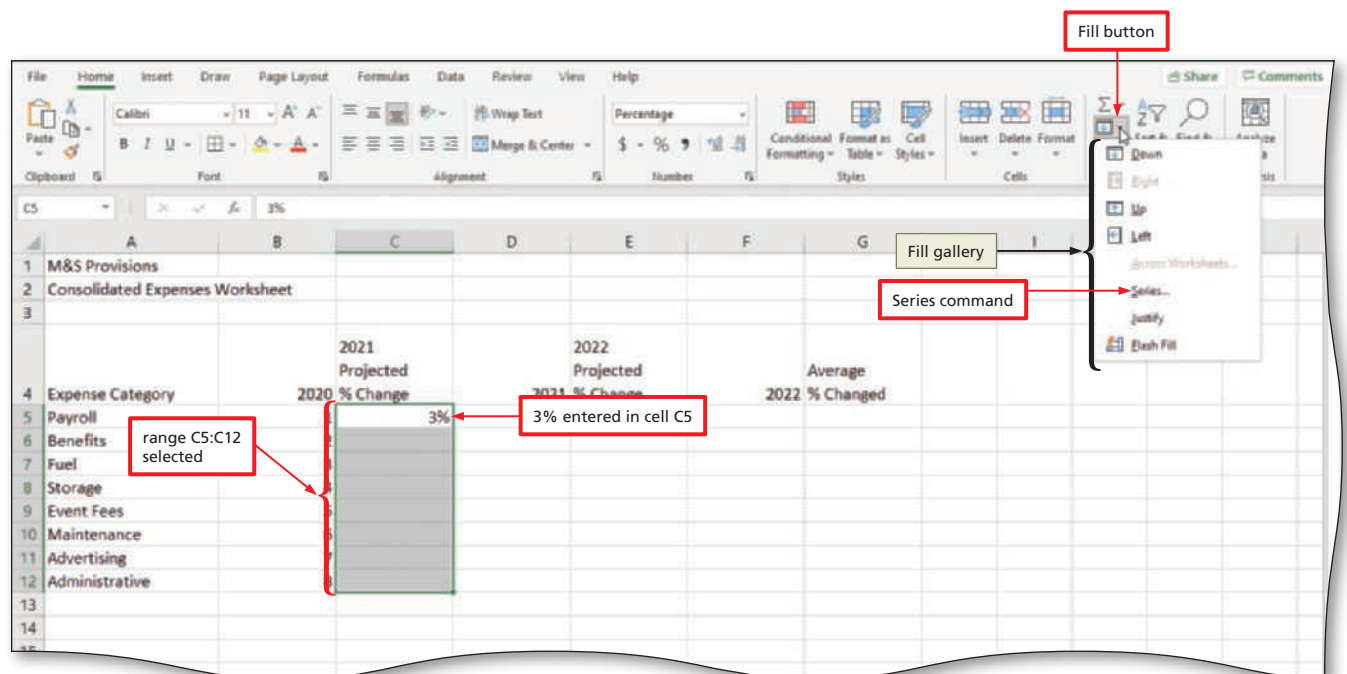
If you drag without CTRL, the cells would be filled with the number, 1.

**Figure 5–6****2**

- Select cell C5 and then type 3% to enter a percentage in this column.
- Display the Home tab.
- Select the range C5:C12 and then click the Fill button (Home tab | Editing group) to display the Fill gallery (Figure 5–7).

Q&A How are the directional commands in the Fill gallery used?

Those commands are alternatives to using the fill handle. Select an empty cell or cells adjacent to the cell that contains the data that you want to use. You then can fill the selection using the Fill button and the appropriate directional command.

**Figure 5–7**

3

- Click Series to display the Series dialog box.
- Type .031 in the Step value box to increment by a decimal number (Figure 5–8).

Q&A Why am I using an increment of .031?

You are generating random placeholder numbers. You can use any increment step; however, since this column will eventually be percentages, a decimal may be appropriate.

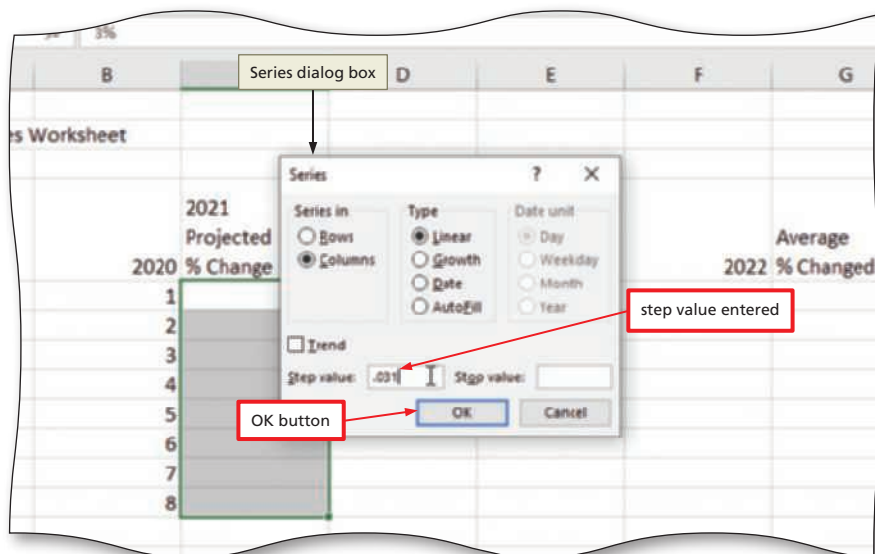


Figure 5–8

4

- Click OK (Series dialog box) to fill the series.
- Click the Increase Decimal button (Home tab | Number group) twice to display two decimal places.
- Repeat Steps 2, 3, and 4 to create a linear series beginning with 4% and incrementing by .02 in the range E5:E12.
- Click an empty cell to remove the selection (Figure 5–9).

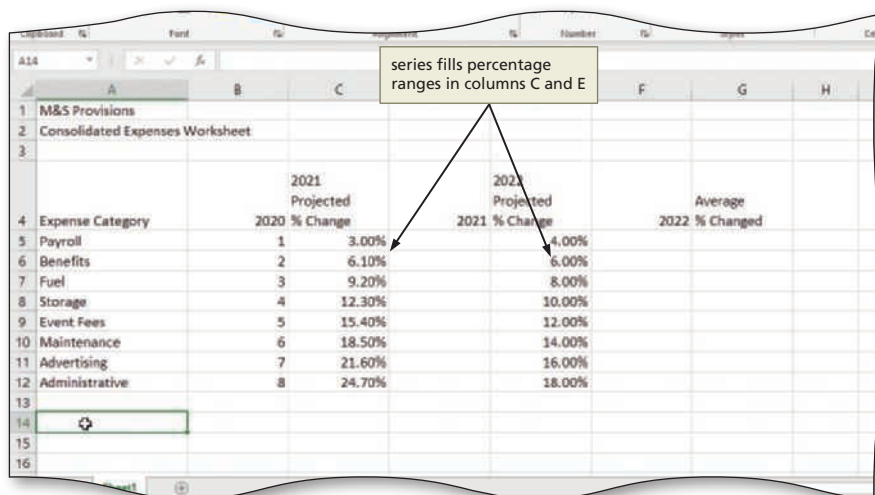


Figure 5–9

Other Ways

1. To increment by 1, enter first number; select original cell and blank adjacent cell, drag fill handle through range

Date, Time, and Round Functions

Entering dates in Excel can be as easy as typing the parts of the date separated by slashes, such as 6/14/2020. However, when you want a date that automatically updates, or you want to access part of the current date for a variety of reasons, Excel has many date and time functions, including those shown in Table 5–2. For example, the **WORKDAY** function provides an end date between a specified start date and a specified number of workdays, which excludes weekends and holidays, and the **WEEKDAY** function returns the day of the week from a serial date. Use Excel Help to search for more information about these and other date and time functions.

Table 5–2 Functions Related to Date and Time

	Function	Definition	Syntax	Example	Sample Result
Date Functions	DATE	Returns the formatted date based on the month, day, and year	DATE(year, month, day)	=DATE(120,6,14)	6/14/2020
	DATEVALUE	Converts a date that is stored as text to a serial number for calculations	DATEVALUE(date_text)	=DATEVALUE("6/14/2020")	43996
	DAY	Returns the day value from a serial date	DAY(serial_number)	=DAY(43996)	14
	MONTH	Returns the month value from a serial date	MONTH(serial_number)	=MONTH(43996)	6
	TODAY	Returns the current date	TODAY()	=TODAY()	6/14/2020
	WEEKDAY	Returns the day of the week from a serial date, with a second option for starting the week on Sunday (1) or Monday (2)	WEEKDAY(serial_number,return_type)	=WEEKDAY(43996,1)	1 (Sunday)
	YEAR	Returns the year value from a serial date	YEAR(serial_number)	=YEAR(43996)	2020
	WORKDAY	Returns the end date after a start date and specified number of workdays, which excludes weekends and holidays. The results of this function should be formatted as a date.	WORKDAY(start_date,days,holidays)	=WORKDAY(A1,100,A2:A4) (start date is formatted as a date in cell A1, and dates for holidays are formatted as dates in the range A2:A4)	4/21/2022
Time Functions	HOUR	Returns the hour value from a serial date	HOUR(serial_number)	=HOUR(0.33605324)	8
	MINUTE	Returns the minute value from a serial date	MINUTES(serial_number)	=MINUTE(0.33605324)	3
	SECOND	Returns the second value from a serial date	SECOND(serial_number)	=SECOND(0.33605324)	55
	TIME	Returns the formatted date based on the hour, minute, and second	TIME(hour, minute, second)	=TIME(8,3,55)	8:03 AM
	TIMEVALUE	Converts a time that is stored as text to a serial number for calculations	TIMEVALUE(time_text)	=TIMEVALUE("8:03:55 am")	0.336053241
Other Functions	NOW	Returns both date and time	NOW()	=NOW()	6/14/2020 8:03

Excel stores the date and time as a **serial number** representing the number of days since January 1900, followed by a fractional portion of a 24-hour day. For example, June 14, 2020, is stored internally as 43996. The time, for example 3:00 p.m., is stored internally as .625. Therefore the entire date and time would be stored as 43996.625. When you format a serial number, you can use the Short Date, Long Date, or Time formats (Format Cells dialog box). If, however, you have generated the serial number from a function such as MONTH, DAY, or YEAR, you must use the Number format because the return value is an integer; formatting it with a date or time format would produce an incorrect date.

If you are performing math with dates and times, your answer will result in a serial number. For example, if you wanted to calculate elapsed time from 9:00 a.m. to 3:30 p.m., subtraction would result in a serial number, 0.2708. You then would need to format the number with the TIME format (h:mm), which would result in 6:30 or 6 hours and 30 minutes (Figure 5–10).

BTW Creating a Growth Series

You can create a growth series by doing the following: enter an initial value in the first cell, select the first cell and the range to fill, click the Fill button (Home tab | Editing group), click Series on the Fill menu, click Growth in the Type area (Series dialog box), and then enter a constant factor in the Step value box.

BTW
Updating the TODAY function

If the TODAY function does not update the date when you expect it to, you might need to change the settings that control when the worksheet recalculates. On the File tab, click Options, and then in the Formulas category under Calculation options, make sure that Automatic is selected.

BTW
Copying

To copy the contents of a cell to the cell directly below it, click in the target cell and press CTRL+D.

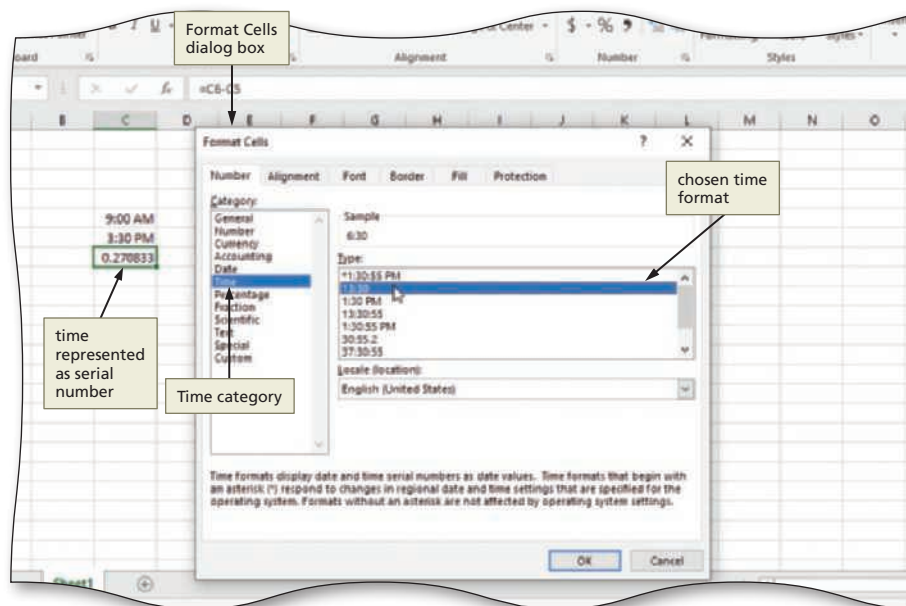


Figure 5-10

Another set of useful functions have to do with rounding. Rounding numbers off, especially for dollars and cents, prevents formulas from creating awkward answers with long decimal notations. Table 5-3 displays some of the more popular round functions.

Table 5-3 Rounding Functions				
Function	Definition	Syntax	Example	Sample Result
ROUND	Rounds a number to a specified number of decimal places	ROUND(number,num_digits)	=ROUND(833.77,0)	834
ROUNDDOWN	Rounds a number down, toward zero	ROUNDDOWN(number, num_digits)	=ROUNDDOWN(833.77,0)	833
ROUNDUP	Rounds a number up, away from zero	ROUNDUP(number,num_digits)	=ROUNDUP(833.77,0)	834
MROUND	Returns a number rounded to the desired multiple	MROUND(number,multiple)	=MROUND(833.77,5)	835

CONSIDER THIS



When should you use the ROUND function?

When you multiply or divide decimal numbers, the answer may contain more decimal places than the format allows. If this happens, you run the risk of the column totals being off by a penny or so; resulting values of calculations could include fractions of a penny beyond the two decimal places that currency formats usually display.

To Use the TODAY Function

Recall that you have used the NOW function to access the system date and time. You also can use the **TODAY function**, which returns only the date. Both functions are designed to update each time the worksheet is opened. The function takes no arguments but accesses the internal clock on your computer and displays the current date. As with the NOW function, you can format the date in a variety of styles.

The TODAY function also is useful for calculating intervals. For example, if you want to calculate an age, you can subtract the birth year from the TODAY function to find that person's age as of this year's birthday. The following steps use the TODAY function to enter the system date into the worksheet. **Why?** The TODAY function will update each time the worksheet is opened.

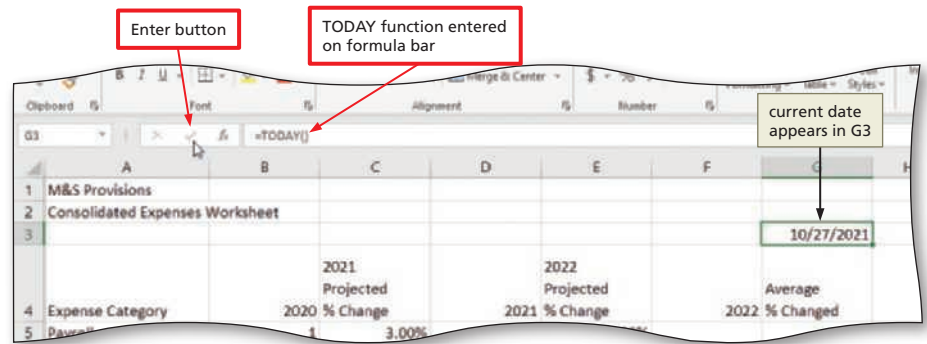
1

- Select cell G3, type `=today()`, and then click the Enter button to enter the system date (Figure 5–11).

Q&A

Should I use lowercase or uppercase on functions?

Either one will work. To delineate functions in the text passages of this book, they are displayed in all caps.

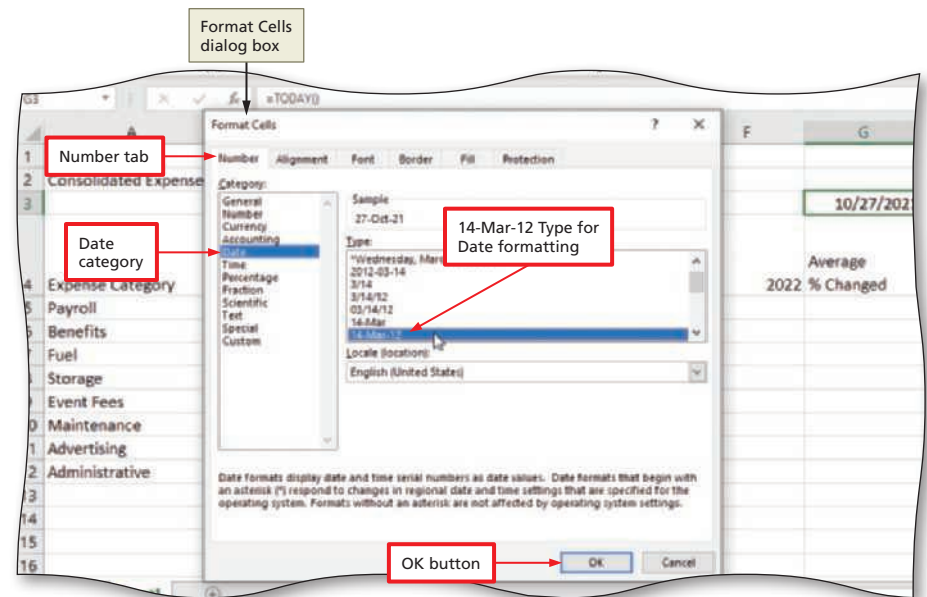
**Figure 5–11****2**

- Right-click cell G3 and then click Format Cells on the shortcut menu.
- If necessary, click the Number tab and then click Date in the Category list (Format Cells dialog box).
- Click 14-Mar-12 in the Type list to format the date (Figure 5–12).

Q&A

Why change the format of the date?

The date might be displayed as a series of number signs if the date, as initially formatted by Excel, does not fit in the width of the cell.

**Figure 5–12****3**

- Click OK (Format Cells dialog box) to close the dialog box.
- Click an empty cell to deselect the previous cell.

Other Ways

1. Select cell, click Date & Time button (Formulas tab | Function Library group), click TODAY, click OK (Function Arguments dialog box)

To Enter Formulas Using the ROUND Function

The **ROUND** function in Excel is used to round numbers to a specified number of decimal places. The general form of the ROUND function is

$$=ROUND(\text{number}, \text{number of digits})$$

where the number argument can be a number, a cell reference that contains a number, or a formula that results in a number; and the number of digits argument can be any positive or negative number used to determine the number of places to which the number will be rounded. Positive numbers round to the right of the decimal point; for example, 18.257 formatted for 1 decimal place would display 18.3. Negative numbers round to the left of the decimal point; for example, 18.257 formatted for -1 decimal place would display 20.

The following is true about the ROUND function:

- If the number of digits argument is greater than 0 (zero), then the number is rounded to the specified number of digits to the right of the decimal point.
- If the number of digits argument is equal to 0 (zero), then the number is rounded to the nearest integer.
- If the number of digits argument is less than 0 (zero), then the number is rounded to the specified number of digits to the left of the decimal point.

The following steps enter the formulas for the first expenditure, Payroll, in cells D5, F5, and G5. (See Table 5-4.)

Cell	Description	Formula	Entry
D5	2021 Expense	ROUND(2020 Expense + 2020 Expense * 2021 % Change, 2)	=ROUND(B5 + B5 * C5, 2)
F5	2022 Expense	ROUND(2021 Expense + 2021 Expense * 2022 % Change, 2)	=ROUND(D5 + D5 * E5, 2)
G5	Average % Change	ROUND((2021 % Change + 2022 % Change) / 2, 4)	=ROUND((C5 + E5) / 2, 4)

The projected expenses will be rounded to two decimal places, while the average will be rounded to four decimal places. **Why?** Because the averages are very small at this point in the process, using four decimal digits provides the most representative results.

- 1**
- Select cell D5, type `=round(b5+b5*c5,2)` and then click the Enter button in the formula bar to display the resulting value (Figure 5-13).

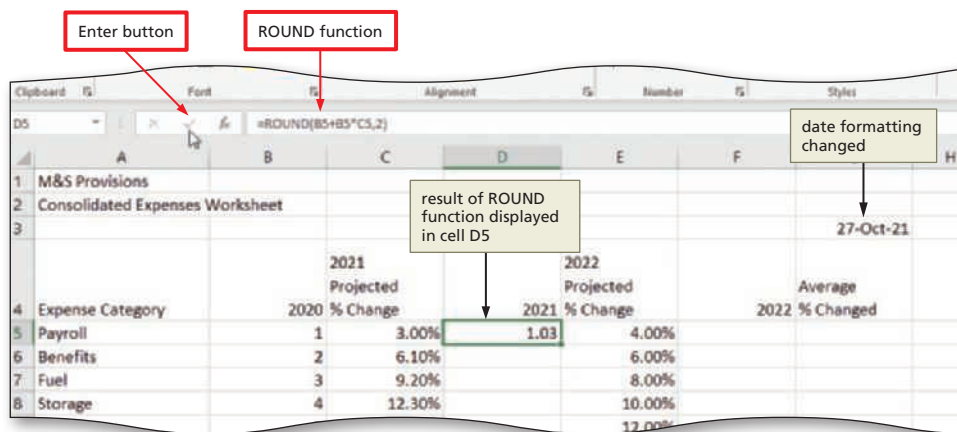


Figure 5-13

- 2**
- Drag the fill handle on cell D5 down to copy the formula to cells D6:D12.
 - Select cell F5, type `=round(d5+d5*e5,2)` and then click the Enter button to display the resulting value (Figure 5-14).

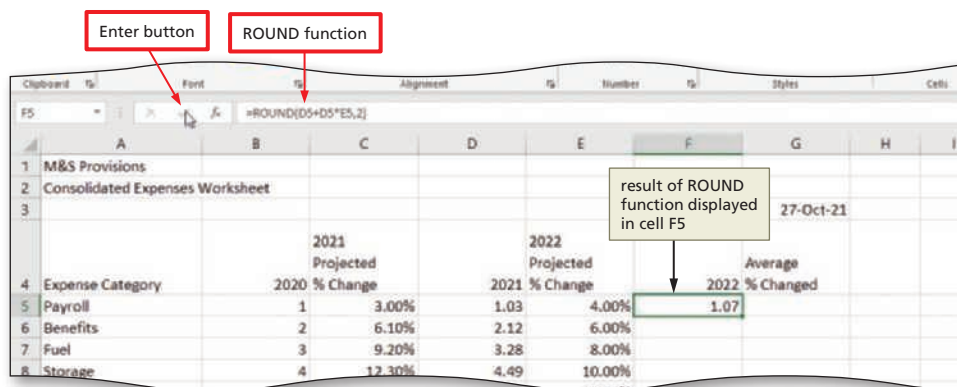


Figure 5-14

3

- Select cell G5, type $=\text{round}((c5+e5)/2,4)$ and then click the Enter button to display the resulting value (Figure 5–15).

Q&A

Do I need to use two sets of parentheses in the function?

Yes; the outer set of parentheses are for the function, and the inner set is to force Excel to add the two values before dividing to calculate the average. Recall that Excel follows the order of operations and performs multiplication and division before addition and subtraction, unless you use parentheses.

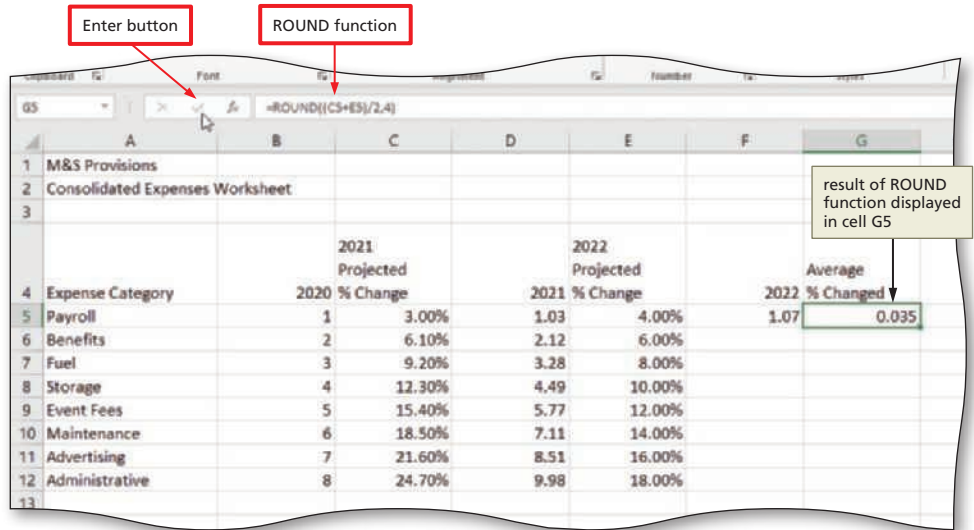


Figure 5–15

4

- Select cells F5:G5.
- Drag the fill handle down through cells F12:G12 to copy both formulas down to the selected range (Figure 5–16).

Q&A

Are the values in column G supposed to display all four decimal places?

Yes, because you entered a 4 at the end of the function, Excel rounds to four decimal places; however, a default setting in Excel is to ignore zeroes at the end of decimal places, because they are not significant. You will change that default setting later in the module.

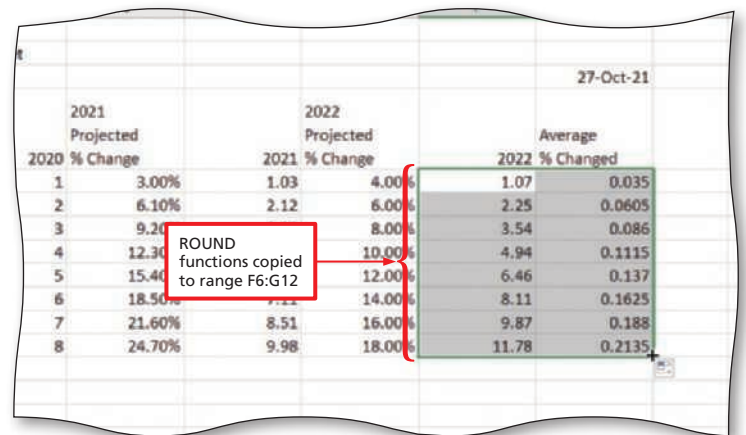


Figure 5–16

5

- Select cell B13.
- Click the AutoSum button (Home tab | Editing group), select the range B5:B12, and then click the Enter button to sum the column (Figure 5–17).
- If the Trace Error button is displayed, click it, and then click Ignore Error on the Trace Error menu to ignore an error that Excel mistakenly reported.

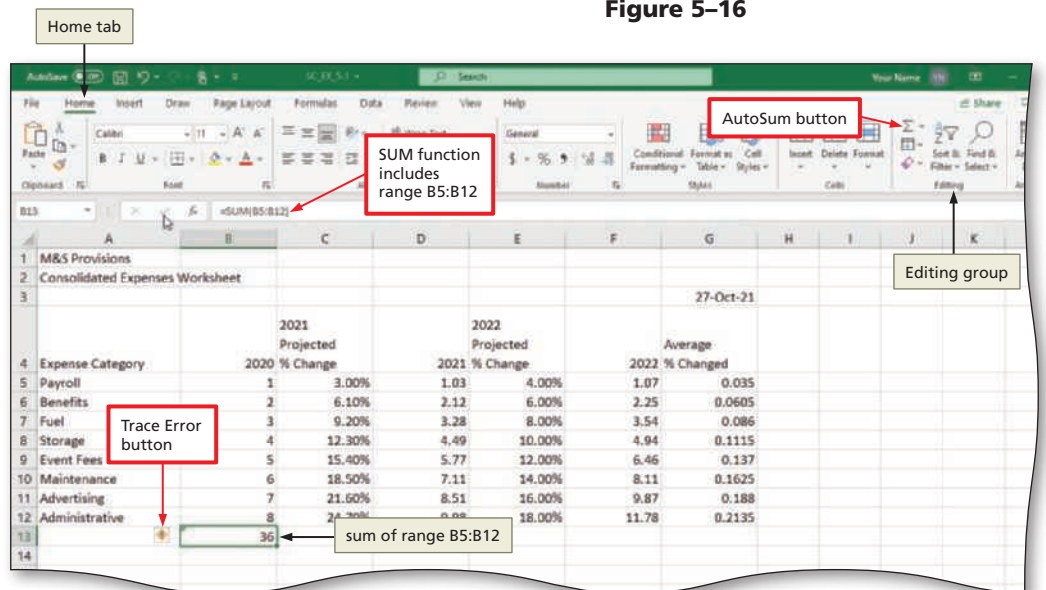


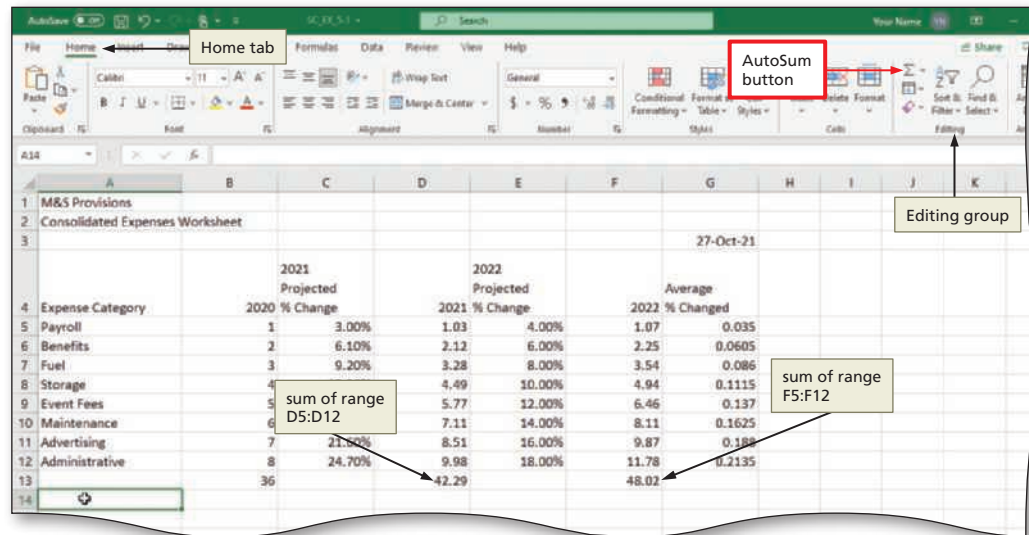
Figure 5–17

Q&A Why did Excel report an error?

When you use the SUM function, Excel assumes that all contiguous numbers should be summed, in this case the range, B4:B12. When you changed the range to B5:B12, Excel flagged this as a potential error, due to the exclusion of cell B4, which also included a numeric value.

6

- Select cell D13, click the AutoSum button (Home tab | Editing group), select the range D5:D12, and then click the Enter button to sum the column.
- In cell F13, calculate the sum for the range F5:F12.
- Click an empty cell to deselect the previous cell (Figure 5–18).

**Figure 5–18****7**

- Save the workbook on your hard drive, OneDrive, or location that is most appropriate to your situation using SC_EX_5_ConsolidatedExpenses as the file name.

Other Ways

1. Select cell, click Math & Trig button (Formulas tab | Function Library group), click ROUND, enter formula in Number box (Formula Arguments dialog box), enter number of digits in Num_digits box, click OK

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_5_ConsolidatedExpenses, and continue following the steps from this location forward.

To Format the Title and Subtitle

The following steps format the worksheet title and subtitle to change the font size, to center both titles across columns A through G, to change the background color, and to change the font color. You will choose colors from the Feathered theme.

- 1 Select the range A1:A2, click the Cell Styles button (Home tab | Styles group), and then click the Title style to apply the style to the range.
- 2 Select cell A1 and change the font size to 20.
- 3 Select the range A1:G1 and then click the 'Merge & Center' button (Home tab | Alignment group) to merge and center the text in the selected range.
- 4 Select cell A2 and change the font size to 16.
- 5 Select the range A2:G2 and then click the 'Merge & Center' button (Home tab | Alignment group) to merge and center the text in the selected range.

- 6 Select the range A1:A2, click the Fill Color arrow (Home tab | Font group), and then click 'Blue-Gray, Accent 1' in the Fill Color gallery to change the fill color.
- 7 Click the Font Color arrow (Home tab | Font group) and then click 'Tan, Accent 5, Lighter 40%' (column 9, row 4) in the Font Color gallery to change the font color.

To Format the Column Titles and Total Row

The following steps center and underline the column titles and create borders on the total row.

- 1 Select the range B4:G4 and then click the Center button (Home tab | Alignment group) to center the text in the cells.
- 2 CTRL+click cell A4 to add it to the selected range, and then use the Cell Styles button (Home tab | Styles group) to apply the Heading 3 cell style.
- 3 Select the range A13:G13 and then assign the Total cell style to the range.
- 4 Click an empty cell to deselect the range (Figure 5–19).

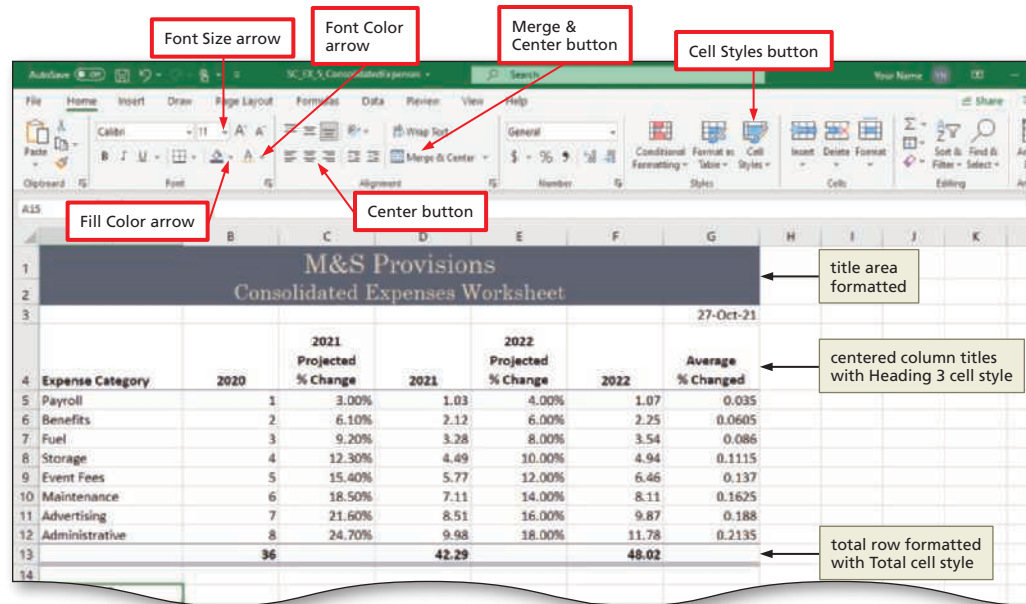


Figure 5–19

To Format with a Floating Dollar Sign

The consolidated worksheet for this module contains floating dollar signs in the first row of numbers and in the totals. The following steps use the Format Cells dialog box to assign a currency style with a floating dollar sign and two decimal places to the appropriate cells. Recall that a floating dollar sign always appears immediately to the left of the first significant digit in the cell, while the Accounting Number Format button (Home tab | Number group) creates a fixed dollar sign.

- 1 Select cell B5. While holding down CTRL, select the nonadjacent cells D5, F5, B13, D13, and F13. Right-click any selected cell to display the shortcut menu.
- 2 Click Format Cells on the shortcut menu to display the Format Cells dialog box. If necessary, click the Number tab (Format Cells dialog box) to display the Number sheet.

- 3 Click Currency in the Category list. If necessary, click the Symbol button and then click \$ in the list.
- 4 Click the red (\$1,234.10) in the Negative numbers list to select a currency format that displays negative numbers in red with parentheses and a floating dollar sign.
- 5 Click OK (Format Cells dialog box) to assign the Currency style.
- 6 Click an empty cell to deselect the previous cells (Figure 5-20).

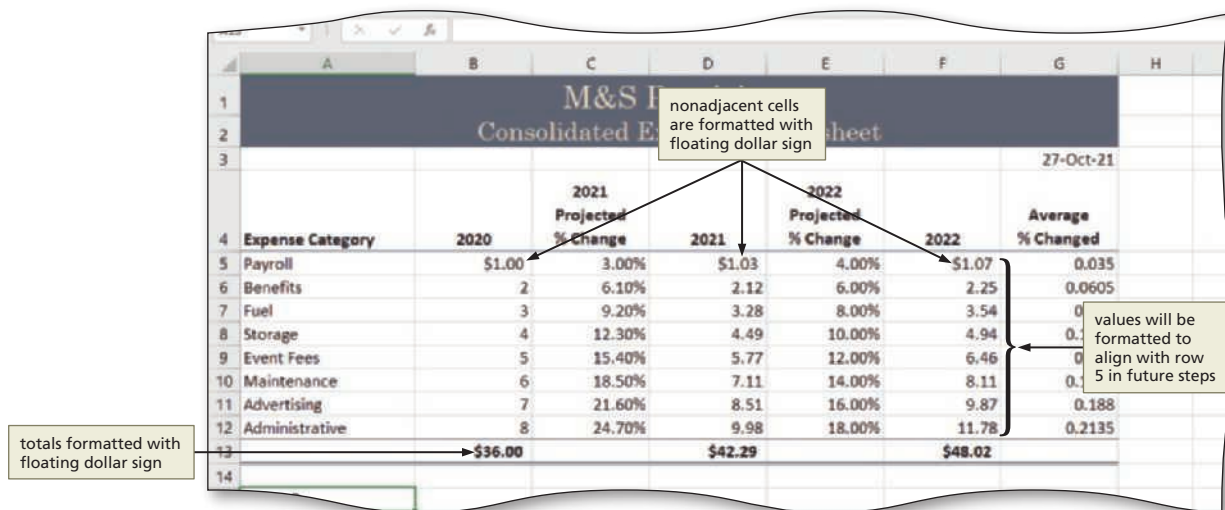


Figure 5-20

BTW

Selecting a Range of Cells

You can select any range of cells with entries surrounded by blank cells by clicking a cell in the range and pressing CTRL+SHIFT+* (asterisk).

BTW

Summing a Row or Column

You can reference an entire column or an entire row in a function argument by listing only the column or only the row. For example, =sum(a:a) sums all the values in all the cells in column A, and =sum(1:1) sums all the values in all the cells in row 1. You can verify this by entering =sum(a:a) in cell C1 of a blank worksheet and then begin entering numbers in a few of the cells in column A. Excel will respond by showing the sum of the numbers in cell C1.

Format Codes

Excel assigns an internal **format code** to every format style listed in the Format Cells dialog box. These format codes do not print, but act as a template, with placeholders to define how you want to apply unique formatting.

Before you create custom format codes or modify existing codes, you should understand their makeup. A format code can have up to four sections: the desired format for positive numbers, the desired format for negative numbers, how zeros should be treated, and any desired format for text. Each section is separated by a semicolon. For example, the following format code would produce results similar to the sample values shown.

\$* #,##0.00; [Magenta]\$(#,##0.00); * -??; “The answer is ”@
 \$ 15.75 \$ (1,238.99) - The answer is yes

A format code need not have all four sections. For most applications, a format code will have a positive section and possibly a negative section. If you omit the zero formatting section, zero values will use the positive number formatting.

Table 5-5 provides a list of some of the format code symbols and how they can be combined into a new format code. To view the entire list of format codes that are provided with Excel, select Custom in the Category list (Format Cells dialog box).

Table 5–5 Format Symbols in Format Codes

Format Symbol	Example of Symbol in Code	Description
# (number sign)	###.##	Serves as a digit placeholder. If the value in a cell has more digits to the right of the decimal point than number signs in the format, Excel rounds the number. All digits to the left of the decimal point are displayed.
0 (zero)	0.00	Works like a number sign (#), except that if the number is less than 1, Excel displays a 0 in the ones place.
. (period)	#0.00	Ensures Excel will display a decimal point in the number. The placement of zeros determines how many digits appear to the left and right of the decimal point.
% (percent)	0.00%	Displays numbers as percentages of 100. Excel multiplies the value of the cell by 100 and displays a percent sign after the number.
, (comma)	#,##0.00	Displays a comma as a thousands separator.
()	#0.00;(##0.00)	Displays parentheses around negative numbers.
\$, +, or –	\$\$,##0.00; (\$,##0.00)	Displays a floating sign (\$, +, or –).
* (asterisk)	\$*##0.00	Displays a fixed sign (\$, +, or –) to the left, followed by spaces until the first significant digit.
[color]	##.##;[Red]##.##	Displays the characters in the cell in the designated color. In the example, positive numbers appear in the default color, and negative numbers appear in red.
" " (quotation marks)	\$0.00 "Surplus"; \$-0.00 "Shortage"	Displays text along with numbers entered in a cell.
_ (underscore)	#,##0.00_	Adds a space. When followed by a parentheses, positive numbers will align correctly with parenthetical negative numbers.

BTW
Creating Customized Formats

Each format symbol within the format code has special meaning. Table 5–2 summarizes the more frequently used format symbols and their meanings.

BTW
Sample Data

As you develop more sophisticated workbooks, it will become increasingly important that you create good test data to ensure your workbooks are free of errors. The more you test a workbook, the more confident you will be in the results generated. Always take the time to select sample data that tests the limits of the formulas.

To Create a Custom Format Code

The following steps create and assign a custom format code to the ranges that contain percentages. **Why?** A workbook may call for a visual presentation of data that cannot be accomplished with the existing Excel format codes. The format code you set will display percentages with two decimal places to the right of the decimal point and also display negative percentages in magenta with parentheses.

1

- CTRL+drag to select the ranges C5:C12, E5:E12, and G5:G12, right-click any of the selected ranges to display the shortcut menu, and then click Format Cells to display the Format Cells dialog box.
- If necessary, click the Number tab (Format Cells dialog box) and then click Custom in the Category list.

- Delete the text in the Type box (Format Cells dialog box) and then type 0.00%; [Magenta] (0.00%) to enter a custom format code (Figure 5-21).

Q&A What does the custom format mean?

The custom format has been modified to show percentages with two decimal places and to show negative percentages in magenta with parentheses. A zero value will display as 0.00%. In the Sample area, Excel displays a sample of the custom format assigned to the first number in the selected ranges.

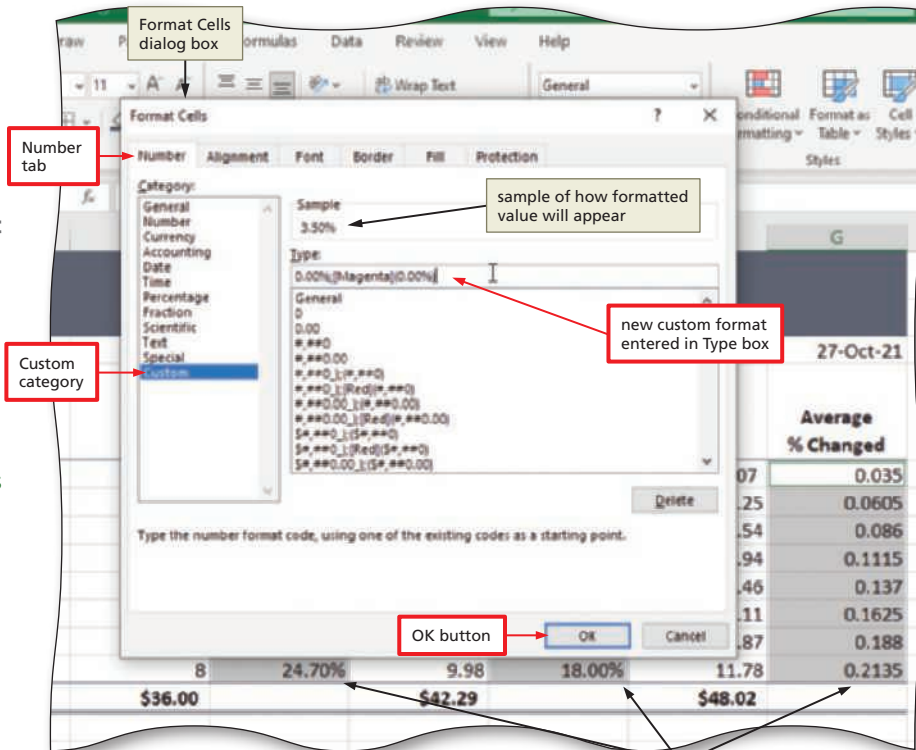


Figure 5-21

2. Click OK (Format Cells dialog box) to display the numbers using the custom format code (Figure 5-22).

Q&A Can I reuse the custom format code?

Yes. When you create a new custom format code, Excel adds it to the bottom of the Type list on the Number sheet (Format Cells dialog box) to make it available for future use.

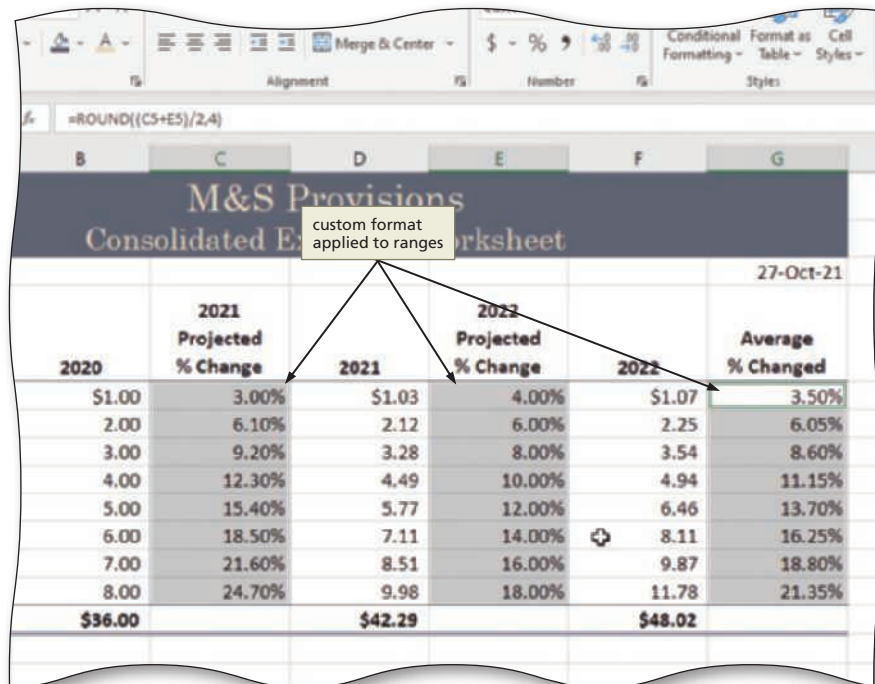


Figure 5-22

Other Ways

1. Select range or ranges, click the dialog box launcher in the Number group (Home tab | Number group), click Custom in Category list (Format Cells dialog box | Number tab), enter format code in Type box, click OK

To Format with the Comma Style

The following steps format the numbers other than the first row or totals with the comma style.

- 1 Select the ranges B6:B12, D6:D12, and F6:F12.
- 2 Click the Comma Style button (Home tab | Number group) to display the numbers in the selected ranges using the comma style.
- 3 Select an empty cell to deselect the range.

Q&A Why is the comma style used for numbers that are not large enough to display commas?

The comma style allows the values in the cells to align properly with the values in row 5, which are formatted with the currency style with floating dollar signs and parentheses for negative numbers.

Creating a Cell Style

Recall that a cell style is a group of built-in format specifications, such as font, font style, color, size, alignment, borders, and shading. A cell style also may contain information regarding nonvisual characteristics, such as cell protection. Earlier you used the Title cell style to format the worksheet headings. Now you will learn how to create a custom cell style.

CONSIDER THIS



Tips to remember when creating a new style

- When you are creating a cell style, pay close attention to the Style Includes area of the Style dialog box (Figure 5–24). A style affects the format of a cell or range of cells only if the corresponding check box is selected. For example, if the Font check box is not selected in the Style dialog box, then the cell maintains the font format it had before the style was assigned.
- If you assign two different styles to a cell or range of cells, Excel adds the second style to the first, rather than replacing it. If the two cell styles include different settings for an attribute, such as fill color, then Excel applies the setting for the second style.
- You can merge styles from another workbook into the active workbook by using the Merge Styles command in the Cell Styles gallery (Home tab | Styles group). Before you use the Merge Styles command, however, you must open the workbook that contains the desired styles.
- The six check boxes in the Style dialog box are identical to the six tabs in the Format Cells dialog box (Figure 5–24).

Once created, new cell styles appear at the top of the Cell Styles gallery and are saved for the current workbook. By right-clicking the style in the Cell Styles gallery, you can modify, duplicate, or delete the style. Create a new style in a workbook or merge styles when you plan to use a group of format specifications over and over.

It is easy to confuse cell styles and format codes. While they overlap slightly in some areas, cell styles have more to do with words, fonts, and borders, while format codes have more to do with values, decimal places, and special characters.

BTW

Normal Style

The Normal style is the format style that Excel initially assigns to all cells in a workbook. If you change the Normal style, Excel applies the new format specifications to all cells that are not assigned another style.

To Create a New Cell Style

The following steps create a new style called 4-Digit Year by modifying the existing Normal style. **Why?** Creating a new style allows you to group a number of cell formats together for ease, reuse, and consistency of application. The **Normal style** is the default style that is applied to all cells when you start Excel. The Normal style includes characteristics such as font, border, alignment, and other settings. You will create a new style to include a date and alignment format, along with other characteristics of the Normal style. The new style will use dark green text and be centered within the cell.

1

- Click the Cell Styles button (Home tab | Styles group) to display the Cell Styles gallery (Figure 5–23).

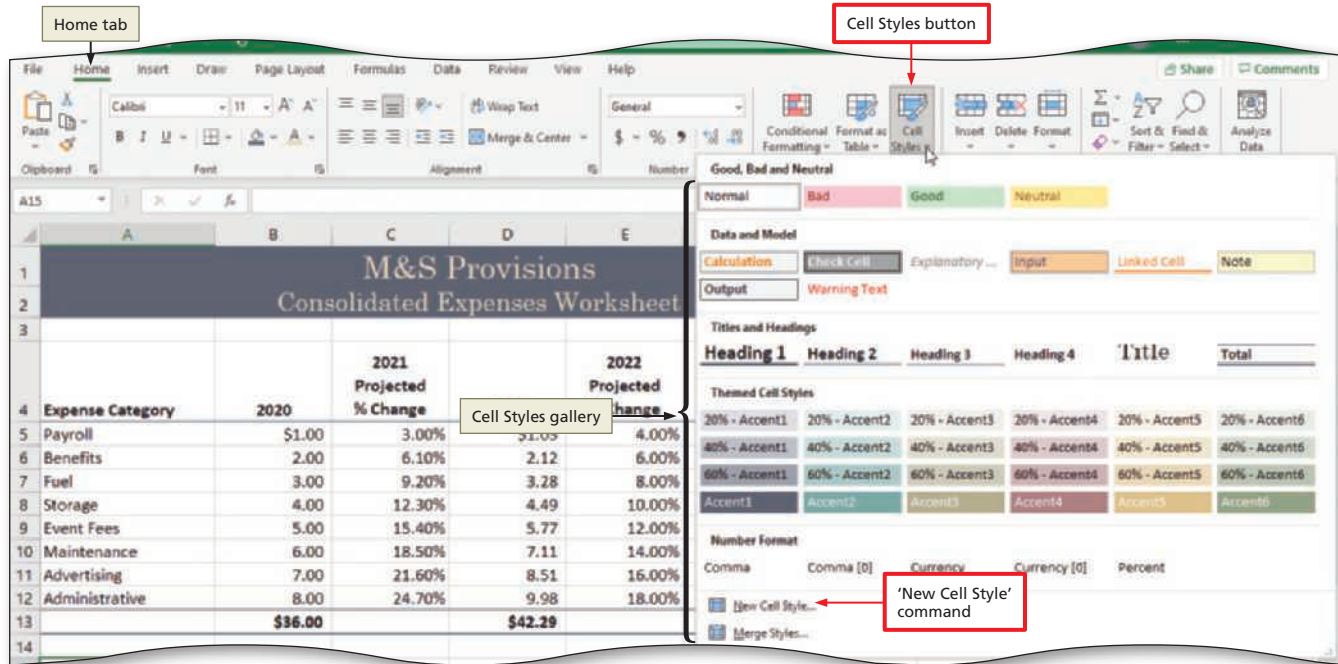


Figure 5-23

2

- Click 'New Cell Style' in the Cell Styles gallery to display the Style dialog box.
- In the Style name text box, type **4-Digit Year** to name the new style (Figure 5–24).

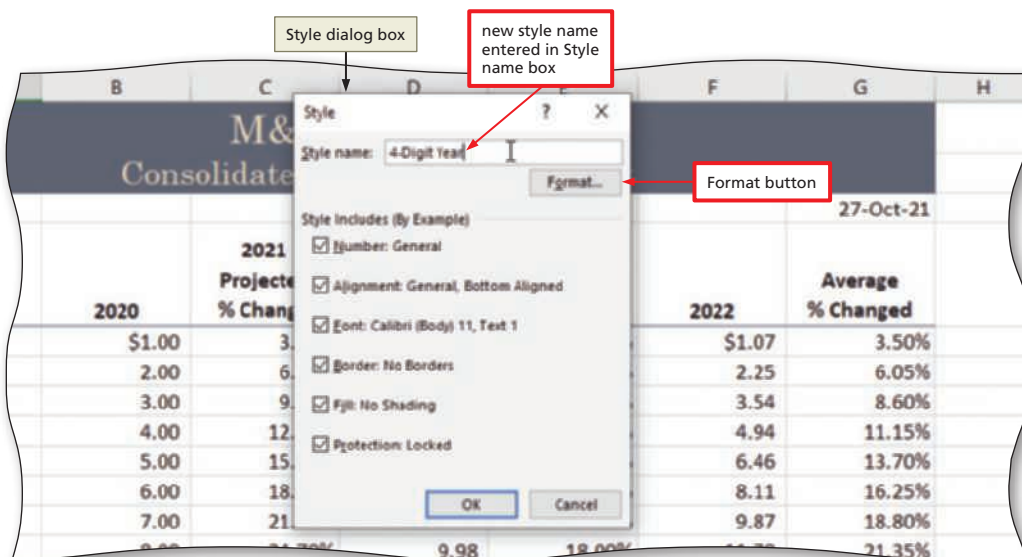


Figure 5-24

3

- Click the Format button (Style dialog box) to display the Format Cells dialog box.
- If necessary, click the Number tab (Format Cells dialog box), click Date in the Category list, and then click '14-Mar-2012' in the Type list to define the new style as a date style (Figure 5-25).

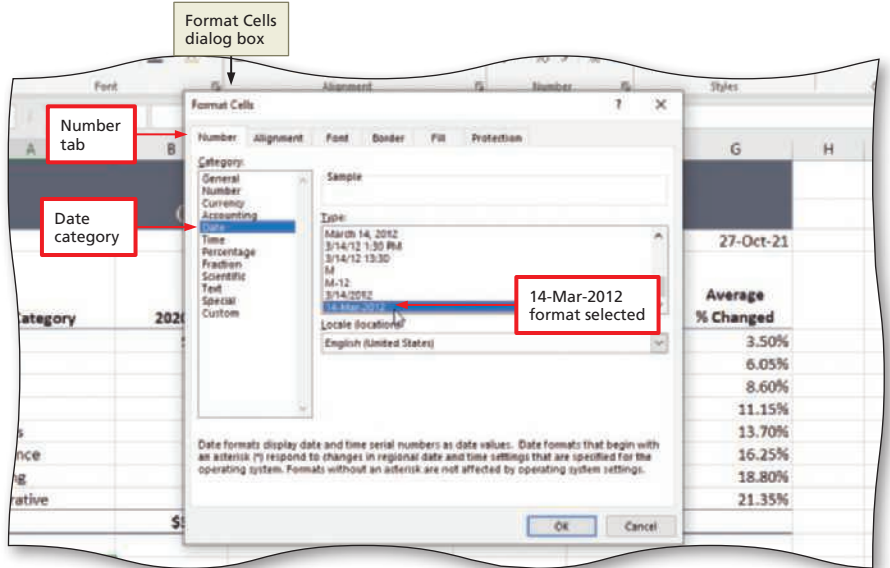


Figure 5-25

4

- Click the Alignment tab (Format Cells dialog box) to display the Alignment sheet. Click the Horizontal button, and then click Center to define the alignment of the new style (Figure 5-26).

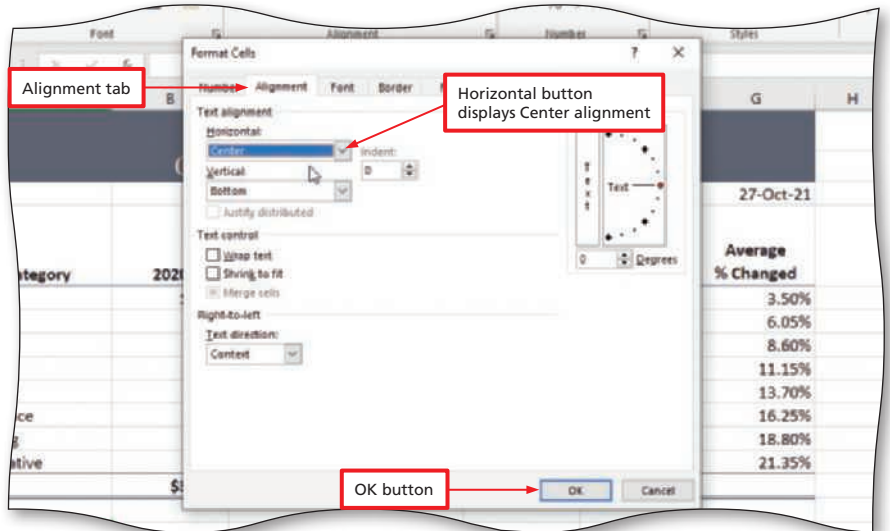


Figure 5-26

Q&A

What is the difference between the text alignment options here and the ones on the Home tab?

Many of them are the same; however, in this dialog box, you can make adjustments that are more precise. Keep in mind that you cannot use the buttons on the Home tab when you are creating a new style.

5

- Click the Font tab (Format Cells dialog box) and then click the Color button to display the Color gallery (Figure 5-27).

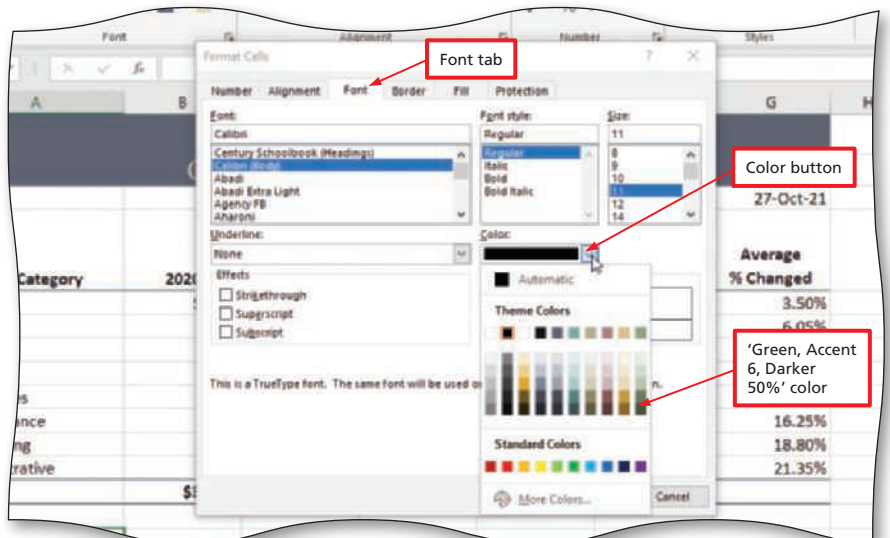


Figure 5-27

Q&A

What are superscript and subscript on the Font sheet?

A **superscript** is a small number placed above the normal text line to indicate exponentiation. A **subscript** is a small number placed below the normal text line such as those used in scientific and chemical notations.

- 6**
- Click 'Green, Accent 6 Darker 50%' (column 10, row 6) to set the new color.
 - Click OK (Format Cells dialog box) to close the Format Cells dialog box.
 - Click Border, Fill, and Protection to clear the check boxes (Style dialog box), indicating that the new style does not use these characteristics (Figure 5–28).
- 7**
- Click OK (Style dialog box) to create the new style.

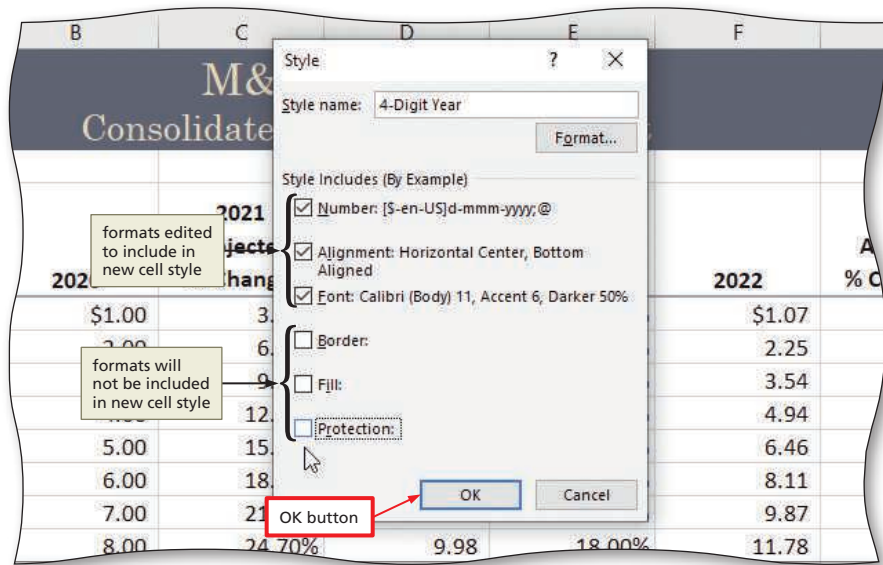


Figure 5–28

To Apply a New Style

In earlier steps, cell G3 was assigned the system date using the TODAY function. The following steps assign cell G3 the new 4-Digit Year style, which centers the content of the cell and assigns it the date format dd-mmm-yyyy in green. **Why?** Using a style ensures a consistent application of formatting instructions.

- 1**
- Select cell G3 and then click the Cell Styles button (Home tab | Styles group) to display the Cell Styles gallery (Figure 5–29).

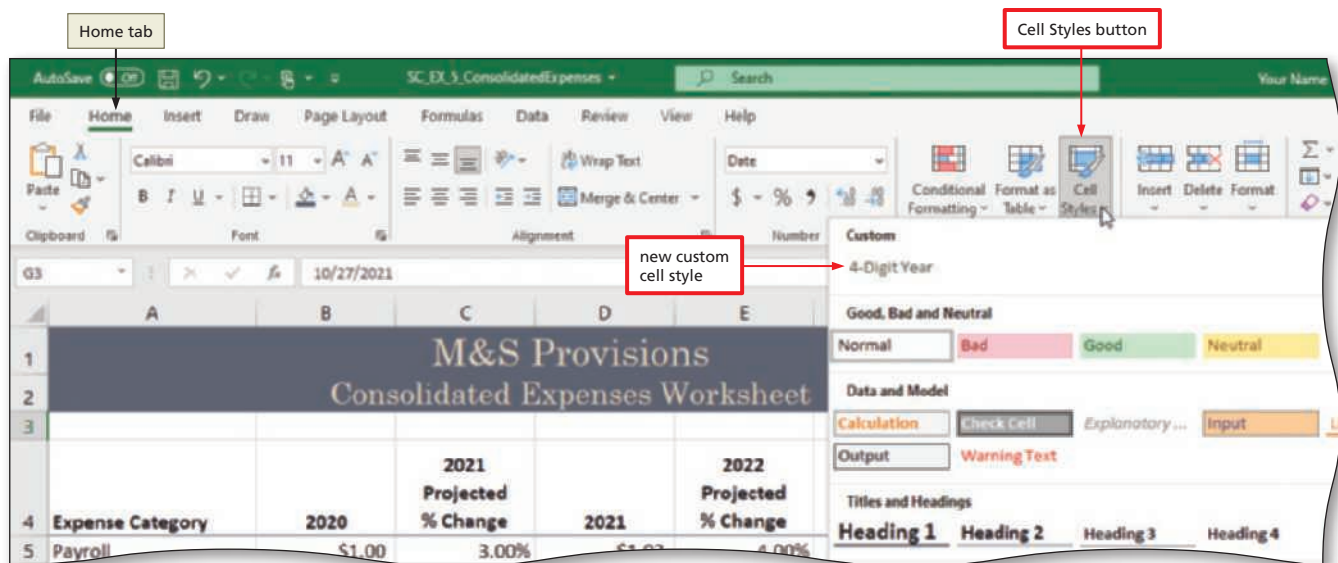
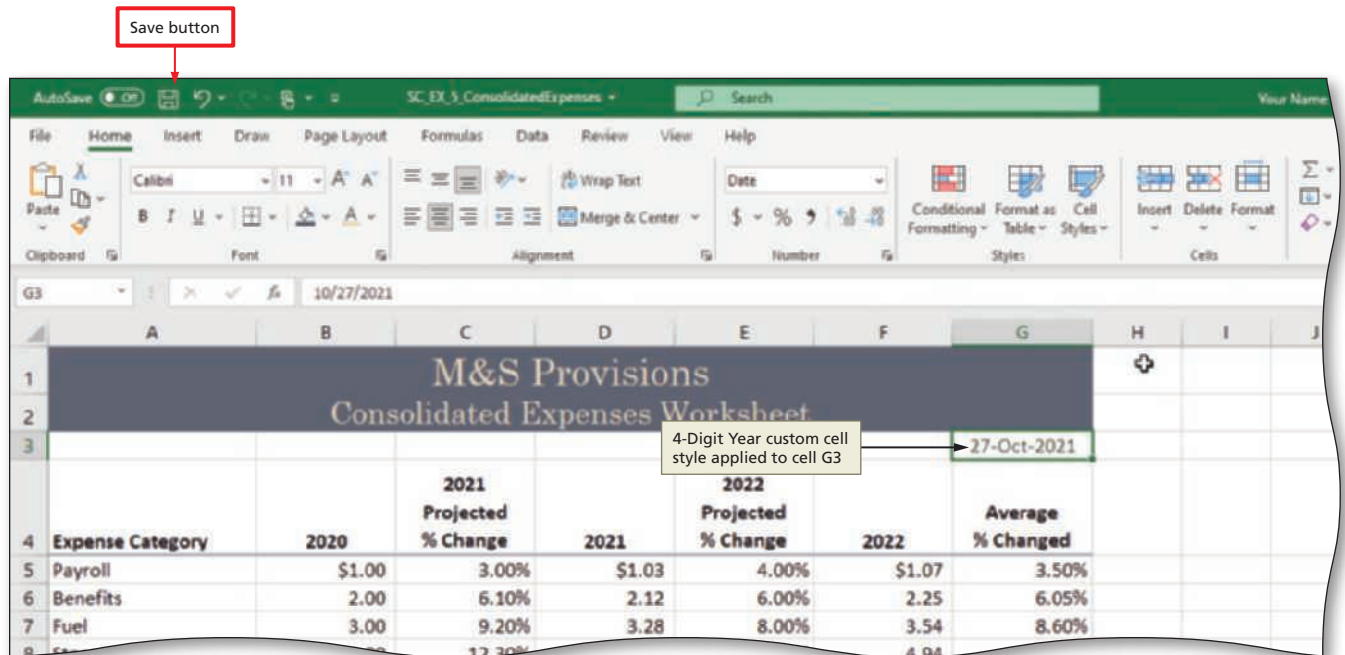


Figure 5–29

2

- Click the 4-Digit Year style to assign the new style to the selected cell (Figure 5–30).

**Figure 5–30**

To Use the Spelling Checker

The formatting is complete. The following steps use the spelling checker to check the spelling in the worksheet, and then save the consolidated worksheet.

- Select cell A1, click the Review tab, and then click the Spelling button (Review tab | Proofing group) to check the spelling in the workbook. Correct any misspelled words.
- Click the Save button on the Quick Access Toolbar to save the workbook.

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_5_ConsolidatedExpenses, and continue following the steps from this location forward.

Working with Multiple Worksheets

A workbook contains one worksheet by default. You can add more worksheets, limited only by the amount of memory in your computer. As workbooks begin to grow, you can search for text in the workbook by clicking the Find & Select button (Home tab | Editing group), clicking Find to display the Find and Replace dialog box, entering the text to find in the 'Find what text' box, and then clicking the Find Next or Find All button. When working with multiple worksheets, you should name and color the sheet tabs so that you can identify them easily. With the consolidated worksheet complete, the next steps are to insert and populate worksheets in the workbook by copying the data from the consolidated worksheet to the location worksheets, and adjusting the formatting and values. You will learn three different ways to copy data across worksheets.

BTW

Default Number of Worksheets

An alternative to adding worksheets is to change the default number of worksheets before you open a new workbook. To change the default number of worksheets in a blank workbook, click Options in the Backstage view and then change the number in the 'Include this many sheets' box in the 'When creating new workbooks' area (Excel Options dialog box).



How do I determine how many worksheets to add to a workbook?

Excel provides three basic choices when you consider how to organize data. Use a single worksheet when the data is tightly related. In this case, you may want to analyze the data in a table and use columnar data, such as department, region, or quarter, to identify groups. Use multiple worksheets when data is related but can stand alone on its own. For example, each region, department, or quarter may contain enough detailed information that you may want to analyze the data in separate worksheets. Use multiple workbooks when data is loosely coupled or when it comes from multiple sources.

To Add a Worksheet to a Workbook

In a previous module, you learned that you could add a worksheet to a workbook by clicking the New sheet button at the bottom of the workbook. The M&S Provisions Consolidated Expenses workbook requires four worksheets—one for each of the three venue sites and one for the consolidated totals. The following step adds the first new worksheet.

- 1 Click the New sheet button at the bottom of the window to add a new worksheet to the workbook.

To Copy and Paste from One Worksheet to Another

With two worksheets in the workbook, the next step is to copy the contents of Sheet1 to Sheet2. **Why?** When the desired content of the new worksheet mirrors or closely follows that of an existing worksheet, copying the existing content minimizes the chances of introducing errors. Sheet1 eventually will be used as the Consolidated worksheet with consolidated data. Sheet2 will be used for one of the three food truck worksheets.

In the process of copying, you must first select the populated cells. You can press CTRL+A to select the rectangular range that contains populated cells. You can press CTRL+A twice to select all of the rows and columns in the worksheet, you can drag around the cells to create a selection, or you can click the Select All button located just below the Name box at the intersection of the row and column headings. The manner in which you select all of the data depends on where you are in the worksheet and your personal preference of using the mouse versus the keyboard. The following steps copy the content of one worksheet to another using the Select All button.

- 1
 - Click the Sheet1 sheet tab to display the worksheet.
 - Click the Select All button to select the entire worksheet.
 - Click the Copy button (Home tab | Clipboard group) to copy the contents of the worksheet (Figure 5–31).

Q&A Can I use the shortcut keys, CTRL+C and CTRL+V, to copy and paste?
Yes. In addition, you can use the shortcut menu to copy and paste.

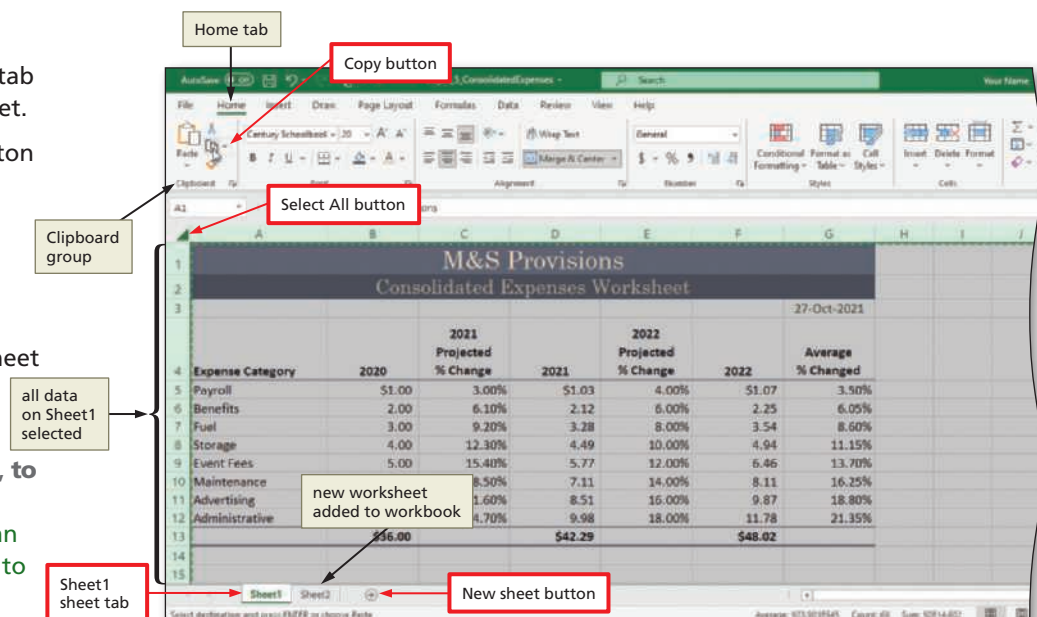


Figure 5–31

2

- Click the Sheet2 sheet tab at the bottom of the worksheet to display Sheet2.
- Press ENTER to copy the data from the Office Clipboard to the selected sheet.
- Zoom to approximately 120% (Figure 5–32).

Q&A

Can I use the Paste button (Home tab | Clipboard group) to paste the data?

Yes. Recall that if you complete a paste operation

using ENTER, however, the marquee disappears and the Office Clipboard is cleared, as it no longer contains the copied data following the action.

Expense Category	2020	2021 Projected % Change	2021	2022 Projected % Change	2022	Average % Changed
Payroll	\$1.00	3.00%	\$1.03	4.00%	\$1.07	3.50%
Benefits	2.00	6.10%	2.12	6.00%	2.25	6.05%
Fuel	3.00	9.20%	3.28	8.00%	3.54	8.60%
Storage	4.00	12.30%	4.49	10.00%	4.94	11.15%
Event Fees	5.00	15.40%	5.77	12.00%	6.46	13.70%
Maintenance	6.00	18.50%	7.11	14.00%	8.11	16.25%
Advertising	7.00	21.60%	8.51	16.00%	9.87	18.80%
Administrative	8.00	24.70%	9.98	18.00%	11.78	21.35%
	\$36.00		\$42.29		\$48.02	

Figure 5–32

Other Ways

1. Select cells, press CTRL+C, select destination cell, press CTRL+V
2. Select cells, press CTRL+C, select destination cell, press ENTER
3. Right-click selected cells, click Copy, right-click destination cell, click appropriate Paste button

To Copy a Worksheet Using a Shortcut Menu

The following steps create a worksheet using the shortcut menu that appears when you right-click a sheet tab. **Why?** The shortcut menu and resulting dialog box allow you more flexibility in exactly where and how to move and copy.

1

- Right-click the Sheet1 sheet tab to display the shortcut menu (Figure 5–33).

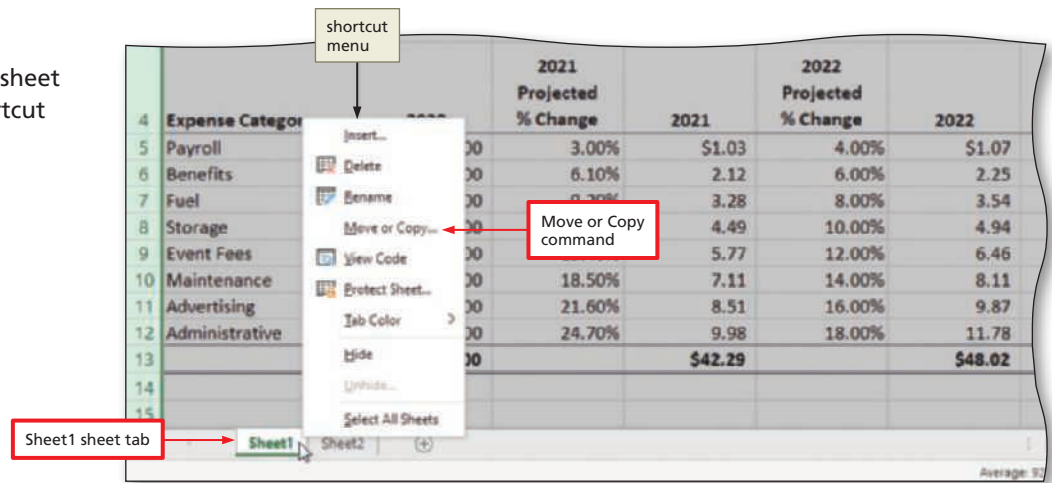


Figure 5–33

2

- Click 'Move or Copy' to display the Move or Copy dialog box.
- In the Before sheet list (Move or Copy dialog box), click '(move to end)' and then click to place a check mark in the 'Create a copy' check box (Figure 5-34).

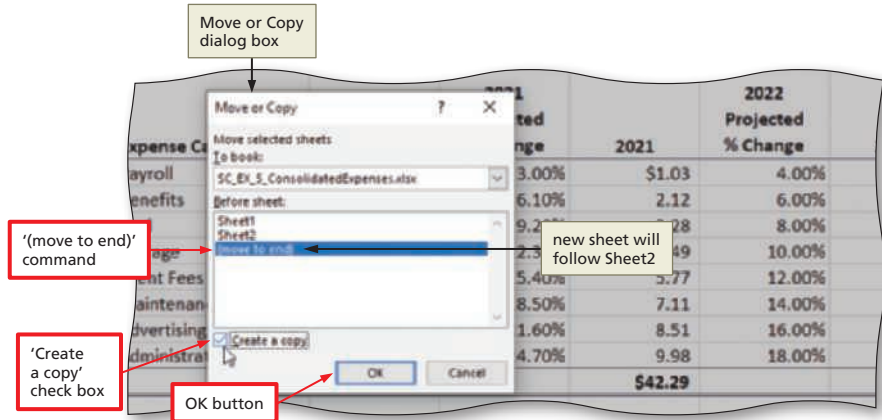


Figure 5-34

3

- Click OK to add a copy of the Sheet1 worksheet to the workbook (Figure 5-35).

Q&A Why is it named Sheet1 (2) instead of Sheet3? Excel indicates that it is a copy by referring to the original sheet.

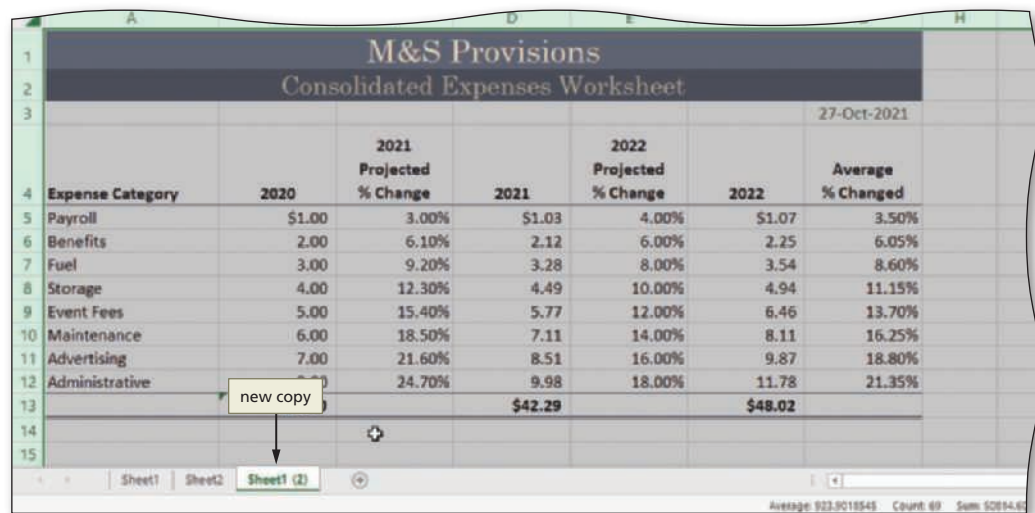


Figure 5-35

To Copy a Worksheet Using CTRL

Another way to create a copy of a worksheet is by pressing CTRL while you drag the sheet tab. **Why? Using CTRL is faster than selecting and copying, then pasting.** As you drag, Excel will display a small triangular arrow to show the destination location of your copy. The following steps create a third copy, for a total of four worksheets in the workbook.

1

- Select Sheet1.
- CTRL+drag the Sheet1 sheet tab to a location to the right of the other sheet tabs. Do not release the drag (Figure 5-36).

2

- Release the drag to create the worksheet copied named Sheet1 (3).

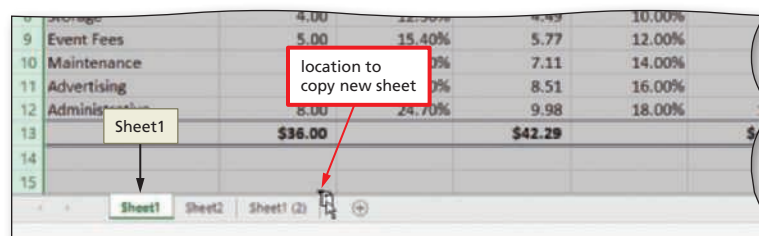


Figure 5-36

To Drill an Entry through Worksheets

The next step is to replace the sample numbers for the 2021 and 2022 projected percentage change. The percentage changes are identical on all four sheets. For example, the 2021 % change for payroll in cell C5 will be changed to 2.50% on all four sheets.

To speed data entry, Excel allows you to enter a number in the same cell through all selected worksheets. This technique is referred to as **drilling an entry**. **Why? In cases where multiple worksheets have the same layout and the same calculations performed on data, drilling entries of data or formulas ensures consistency across the worksheets.** When you drill, all affected sheets must be selected. Table 5–6 contains the new figures for cells C5:C12 and E5:E12.

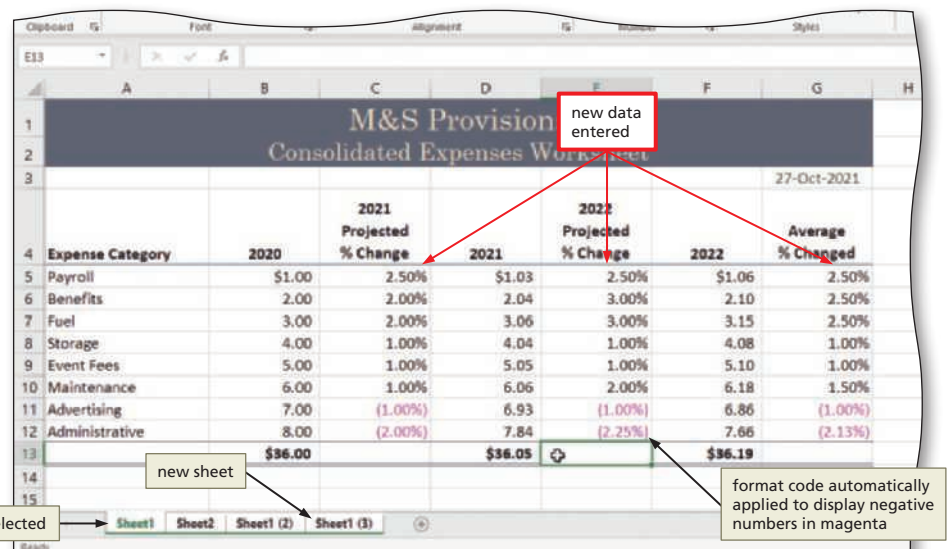
Table 5–6 Projected % Change Values for 2021 and 2022

Category	Cell	2021 Projected % Change	Cell	2022 Projected % Change
Payroll	C5	2.5	E5	2.5
Benefits	C6	2	E6	3
Fuel	C7	2	E7	3
Storage	C8	1	E8	1
Event Fees	C9	1	E9	1
Maintenance	C10	1	E10	2
Advertising	C11	–1	E11	–1
Administrative	C12	–2	E12	–2.25

The following steps select all sheets, drill the 2021 and 2022 projected percentage change entries from Table 5–6 through all four worksheets, and then ungroup the selection.

1

- Right-click Sheet1 and then click 'Select All Sheets' on the shortcut menu to group the sheets.
- Select cell C5. Type 2.5 and then press the DOWN ARROW key to change sample data in the selected cell to the actual value.
- Enter the 15 remaining 2021 and 2022 Projected % Change values from Table 5–6 to the appropriate cells to display the actual percentages (Figure 5–37).



Q&A What is the benefit of drilling data through worksheets?

In these steps, 16 new numbers were entered on one worksheet.

By drilling the entries through

the other worksheets, 64 new numbers now appear, 16 on each of the worksheets. The Excel capability of drilling data through selected worksheets is an efficient way to enter data that is common among worksheets.

Figure 5–37

2

- Right-click Sheet1 and then click Ungroup Sheets on the shortcut menu.

**Experiment**

- One at a time, click the Sheet2 sheet tab, the Sheet1 (2) sheet tab, and the Sheet1 (3) sheet tab to verify that all four worksheets are identical.

BTW**Deleting Worksheets**

Recall from Module 4 that you can delete a worksheet by right-clicking the sheet tab of the worksheet you want to delete, and then clicking Delete on the shortcut menu.

BTW**Selecting Multiple Worksheets**

When multiple worksheets are selected, the Excel title bar reflects the selection by adding the notation, [Group]. All of the sheet tabs also are highlighted.

BTW**Opening Workbooks in New Windows**

If you want to open a copy of the existing workbook in a new window, click the New Window button (View tab | Window group).

Selecting and Deselecting Sheets

Beginning Excel users sometimes have difficulty trying to select and deselect sheets. Table 5–7 summarizes how to select (group) and deselect (ungroup) multiple sheets using a mouse and keyboard.

Table 5–7 Summary of How to Select and Deselect Sheets

Task	How to Carry Out the Task
Select individual sheet	Click sheet tab.
Select all sheets	Right-click any sheet tab, click 'Select All Sheets' on shortcut menu.
Select adjacent sheets	Select the first sheet by clicking its tab, and then hold down SHIFT and click the sheet tab at the other end of the list of adjacent sheet tabs.
Select nonadjacent sheets	Select the first sheet by clicking its tab, then hold down CTRL and click the sheet tabs of the remaining sheets you want to select.
Deselect all sheets	Right-click any sheet tab, click Ungroup Sheets on shortcut menu or click the individual sheet tab that you wish to select.
Deselect one of many sheets	CTRL +click the sheet tab you want to deselect.

Customizing the Individual Worksheets

With the outline of the M&S Provisions Consolidated workbook created, you will modify the individual worksheets by changing the worksheet name, sheet tab color, and worksheet subtitle. You also will change the color of the title area and enter the 2020 Expenses in column B.

To Modify the Lady Lobster Worksheet

The following steps modify the Lady Lobster worksheet (Sheet2).

- 1** Double-click the Sheet2 sheet tab to select it. Type **Lady Lobster** and then press **ENTER** to change the worksheet name.
- 2** Right-click the Lady Lobster sheet tab, point to Tab Color on the shortcut menu, and then click 'Tan, Accent 4' (column 8, row 1) in the Theme Colors area to change the sheet tab color.
- 3** Double-click cell A2. Drag through the word, Consolidated, to select the text, and then type **Lady Lobster** to change the worksheet subtitle.
- 4** Select the range A1:A2. Click the Fill Color arrow (Home tab | Font group) and then click 'Tan, Accent 4' (column 8, row 1) in the Theme Colors area (Fill Color gallery) to change the fill color of the selected range.

- 5 Click the Font Color arrow (Home tab | Font group) and then click Automatic in the Font Color gallery to change the font color of the selected range.
- 6 Enter the following data in the indicated cells:

Cell	Data for Lady Lobster	Cell	Data for Lady Lobster
B5	79207.20	B9	6200.00
B6	15247.39	B10	4295.20
B7	20000.00	B11	3599.64
B8	14400.00	B12	2500.00

- 7 Click an empty cell to deselect the previous cell (Figure 5–38).

M&S Provisions Lady Lobster Expenses Worksheet						
						27-Oct-2021
Expense Category	2020	2021 Projected % Change	2021	2022 Projected % Change	2022	Average % Changed
Payroll	\$79,207.20	2.50%	\$81,187.38	2.50%	\$83,217.06	2.50%
Benefits	15,247.39	2.00%	15,552.34	3.00%	16,018.91	2.50%
Fuel	20,000.00		400.00	3.00%	21,012.00	2.50%
Storage	14,400.00		544.00	1.00%	14,689.44	1.00%
Event Fees	6,200.00		262.00	1.00%	6,324.62	1.00%
Maintenance	4,295.20		338.15	2.00%	4,424.91	1.50%
Advertising	3,599.64	(1.00%)	3,563.64	(1.00%)	3,528.00	(1.00%)
Administrative	2,500.00	(2.00%)	2,450.00	(2.25%)	2,394.88	(2.13%)
	\$145,449.43		\$148,297.51		\$151,609.82	

Figure 5–38

To Modify the Henry Haddock Sheet

The following steps modify the Henry Haddock worksheet Sheet1 (2).

- 1 Double-click the Sheet1 (2) sheet tab to select it. Type **Henry Haddock** and then press ENTER to change the worksheet name.
- 2 Right-click the Henry Haddock sheet tab, point to Tab Color on the shortcut menu, and then click 'Teal, Accent 2' (column 6, row 1) in the Theme Colors area to change the sheet tab color.
- 3 Double-click cell A2. Drag through the word, Consolidated, to select the text, and then type **Henry Haddock** to change the worksheet subtitle.
- 4 Select the range A1:A2. Click the Fill Color arrow (Home tab | Font group) and then click 'Teal, Accent 2' (column 6, row 1) in the Theme Colors area (Fill Color gallery) to change the fill color of the selected range.

- 5 Click the Font Color arrow (Home tab | Font group) and then click Automatic in the Font Color gallery to change the font color of the selected range.
- 6 Enter the following data in the indicated cells:

Cell	Data for Henry Haddock	Cell	Data for Henry Haddock
B5	72870.62	B9	7500.00
B6	14027.60	B10	3951.58
B7	19000.00	B11	3311.67
B8	13248.00	B12	2500.00

- 7 Click an empty cell to deselect the previous cell (Figure 5–39).

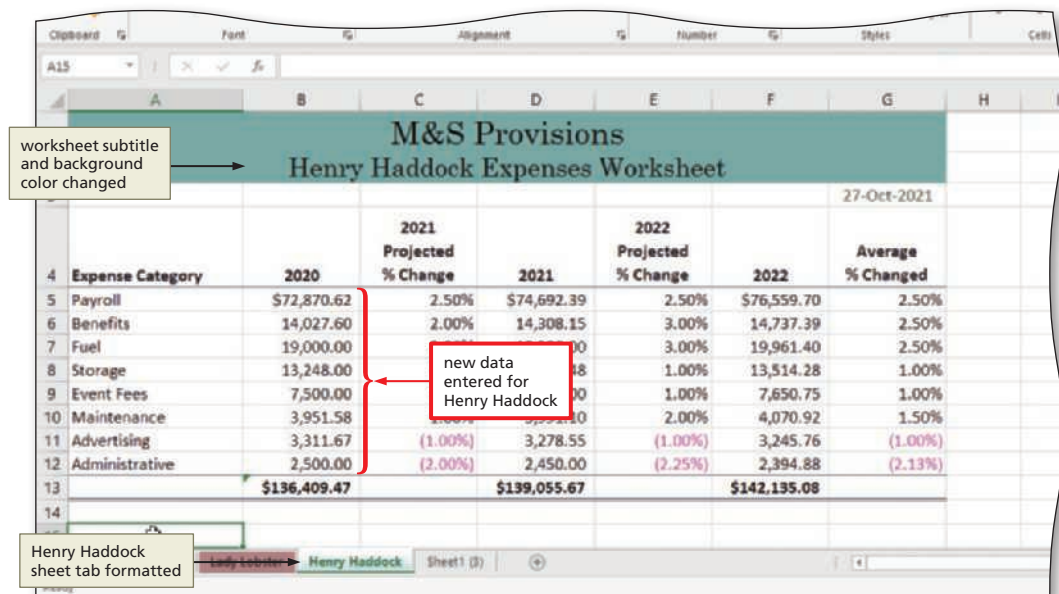


Figure 5–39

To Modify the Sharon Shrimp Worksheet

The following steps modify the Sharon Shrimp worksheet Sheet1 (3).

- 1 Double-click the Sheet1 (3) sheet tab to select it. Type **Sharon Shrimp** and then press ENTER to change the worksheet name.
- 2 Right-click the Sharon Shrimp sheet tab, point to Tab Color on the shortcut menu, and then click Orange in the Standard Colors area to change the sheet tab color.
- 3 Double-click cell A2. Drag through the word, Consolidated, to select the text, and then type **Sharon Shrimp** to change the worksheet subtitle.

- 4 Select the range A1:A2. Click the Fill Color arrow (Home tab | Font group) and then click Orange in the Standard Colors area (Fill Color gallery) to change the fill color of the selected range.
- 5 Click the Font Color arrow (Home tab | Font group) and then click Automatic in the Font Color gallery to change the font color of the selected range.
- 6 Enter the following data in the indicated cells:

Cell	Data for Sharon Shrimp	Cell	Data for Sharon Shrimp
B5	68712.06	B9	5000.00
B6	17077.07	B10	4810.62
B7	18500.00	B11	4031.60
B8	12528.00	B12	2500.00

- 7 Click an empty cell to deselect the previous cell (Figure 5–40).
- 8 Click the Save button on the Quick Access Toolbar.

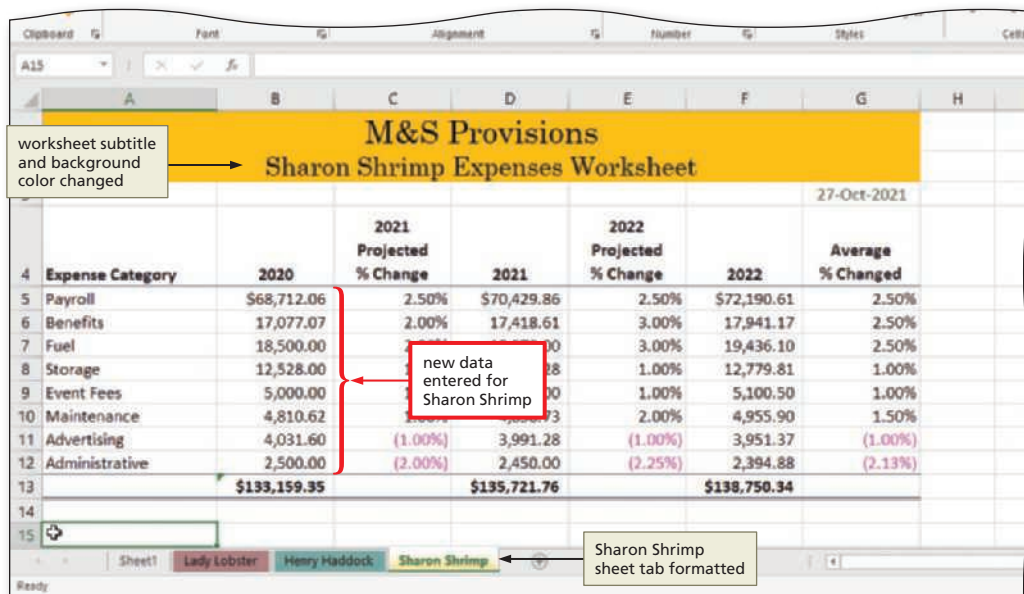


Figure 5–40

Referencing Cells Across Worksheets

With the three location worksheets complete, you now can consolidate the data. Because this consolidation worksheet contains totals of the data, you need to reference cell data from other worksheets.

BTW

Drilling an Entry

Besides drilling a number down through a workbook, you can drill a format, a function, or a formula down through a workbook.

BTW

Importing Data

Expenses, such as those entered into the range B5:B12, often are maintained in another workbook, file, or database. If the expenses are maintained elsewhere, ways exist to link to a workbook or to import data from a file or database into a workbook. Linking to a workbook is discussed later in this module. To see a list of typical sources of outside data, click the 'Get Data' button (Data tab | Get & Transform Data group).

BTW

3-D References

If you are summing numbers on noncontiguous sheets, hold down CTRL rather than SHIFT when selecting the sheets.

To reference cells in other worksheets within a single workbook, you use the worksheet name, which serves as the **worksheet reference**, combined with the cell reference. The worksheet reference must be enclosed within single quotation marks (') when the worksheet name contains a nonalphabetical character such as a space. Excel requires an exclamation point (!) as a delimiter between the worksheet reference and the cell reference. Therefore, the reference to cell B5 on the Lady Lobster worksheet would be entered as

= 'Lady Lobster'!B5

These worksheet and cell references can be used in formulas, such as

= 'Lady Lobster'!B5 + 'Henry Haddock'!B5 + 'Sharon Shrimp'!B5

A worksheet reference such as 'Lady Lobster' always is absolute, meaning that the worksheet reference remains constant if you were to copy the formula to other locations.

Worksheet references also can be used in functions and range references such as

= SUM('Lady Lobster:Sharon Shrimp'!B5)

The SUM argument ('Lady Lobster:Sharon Shrimp'!B5) instructs Excel to sum cell B5 on each of the three worksheets (Lady Lobster, Henry Haddock, and Sharon Shrimp). The colon (:) delimiter between the first worksheet name and the last worksheet name instructs Excel to include these worksheets and all worksheets in between, just as it does with a range of cells on a worksheet. A range that spans two or more worksheets in a workbook, such as 'Lady Lobster:Sharon Shrimp'!C6, is called a **3-D range**. The reference to this range is a **3-D reference**. A 3-D reference is also absolute. You can paste the 3-D reference to other cells on the worksheet.

To Modify the Consolidated Worksheet

The following steps change the worksheet name from Sheet1 to Consolidated and then color the sheet tab.

- 1 Double-click the Sheet1 sheet tab. Type **Consolidated** and then press ENTER to rename the tab.
- 2 Right-click the Consolidated sheet tab, point to Tab Color on the shortcut menu, and then click 'Blue-Gray, Accent 1' (row 1, column 5) in the Theme Colors area to change the sheet tab color.

To Enter a 3-D Reference

To consolidate the payroll expenses, the following steps create 3-D references in cells B5, D5, and F5 on the Consolidated worksheet. **Why? Using 3-D references is the most efficient method of referencing cells that reside in the same location on different worksheets.** You can enter a worksheet reference in a cell by typing the worksheet reference or by clicking the appropriate sheet tab while in Point mode. When you click the sheet tab, Excel activates the worksheet and automatically adds the worksheet name and an exclamation point after the insertion point in the formula bar. Then, click the desired cell or drag through the cells you want to reference on the sheet.

If the range of cells to be referenced is located on several worksheets (as when selecting a 3-D range), click the first sheet tab and then select the cell(s). Finally, SHIFT+click the last sheet tab you want to reference. Excel will include the cell(s) on the first worksheet, the last worksheet, and any worksheets in between.

1

- Select cell B5 and then click the AutoSum button (Home tab | Editing group) to display the SUM function (Figure 5-41).

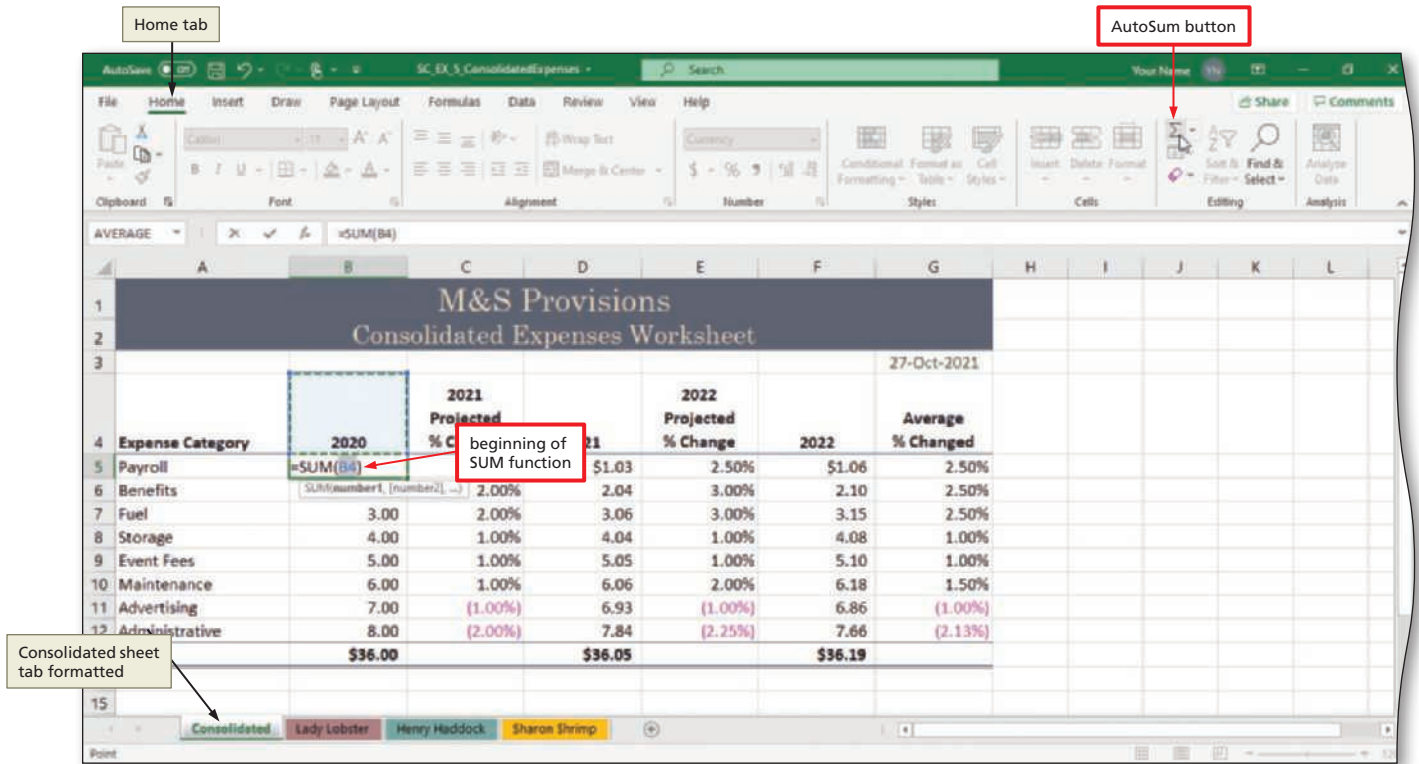


Figure 5-41

2

- Click the Lady Lobster tab and then click cell B5 to select the first portion of the argument for the SUM function.
- SHIFT+click the Sharon Shrimp tab to select the ending range of the argument for the SUM function (Figure 5-42).

Q&A

Could I just type the 3-D reference?

Yes, however the Point mode is used in this step, which prevents any errors in typing the reference.

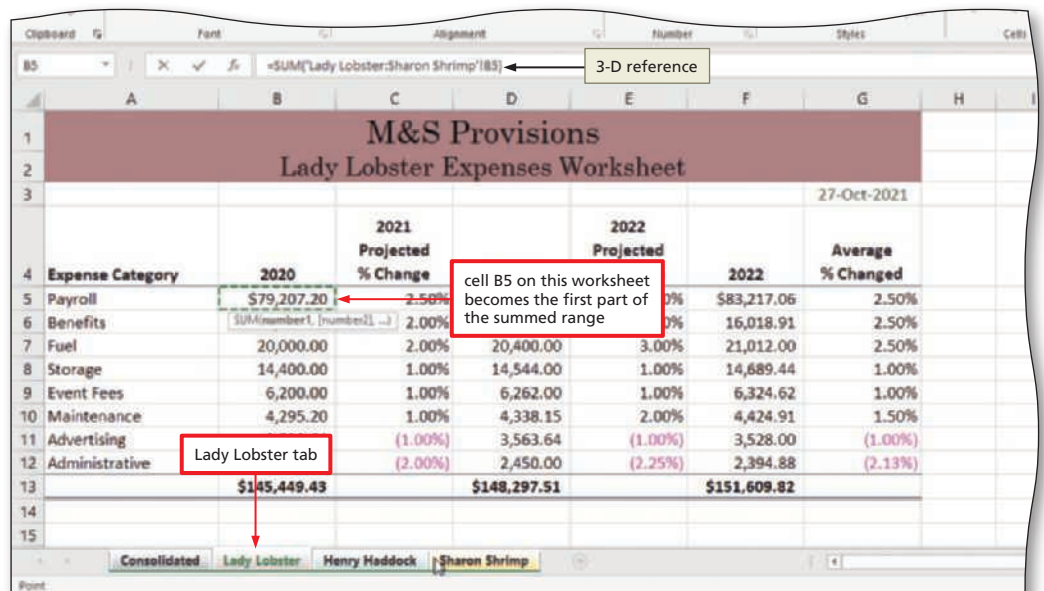


Figure 5-42

- 3**
- Click the Enter button in the formula bar to enter the SUM function with the 3-D references in the selected cell, in this case =SUM('Lady Lobster:Sharon Shrimp'!B5) (Figure 5-43).

Q&A Should each worksheet name in the function have individual sets of single quotes? No, in a 3-D reference that uses a range, Excel requires a single quote before the first worksheet name in the range and an ending single quote after the last worksheet name.

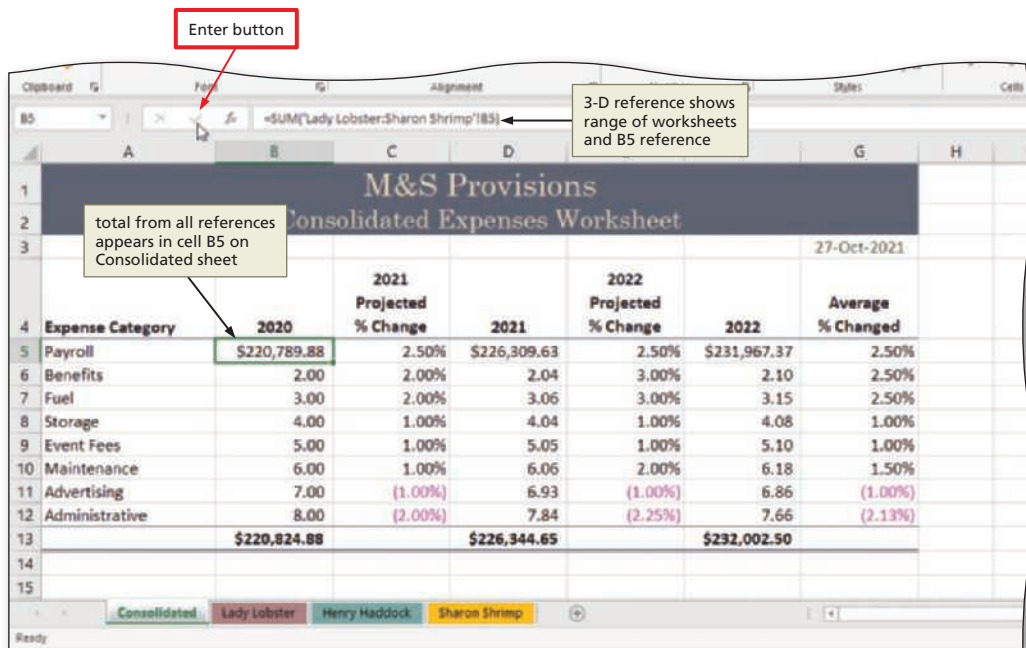


Figure 5-43

To Use the Paste Gallery

In earlier modules, you learned about the Paste Options button, which allows you to choose different ways to paste and copy formulas, values, and functions. The Paste gallery, which appears when you click the Paste arrow (Home tab | Clipboard group), offers many of the same choices, and depending on the type of pasting, many others. When copying a formula that includes a 3-D reference, it is advisable to choose the Formulas button from the Paste gallery to copy without formatting. Using other paste methods such as the fill handle, ENTER, or Paste button could result in changing the formatting of the destination cells.

The following steps copy and paste the 3-D reference using the Paste gallery. **Why? Using the Paste gallery will not change the destination formatting.**

- 1**
- With cell B5 active on the Consolidated worksheet, click the Copy button (Home tab | Clipboard group) to copy the selected cell to the Office Clipboard.
 - Select the range B6:B12 and then click the Paste arrow (Home tab | Clipboard group) to display the Paste gallery (Figure 5-44).

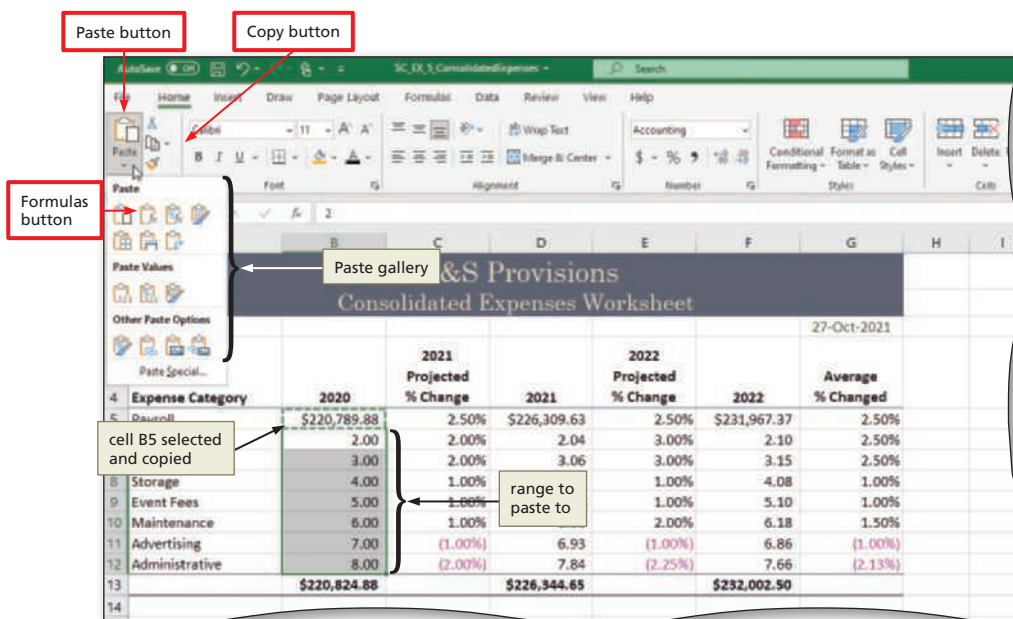
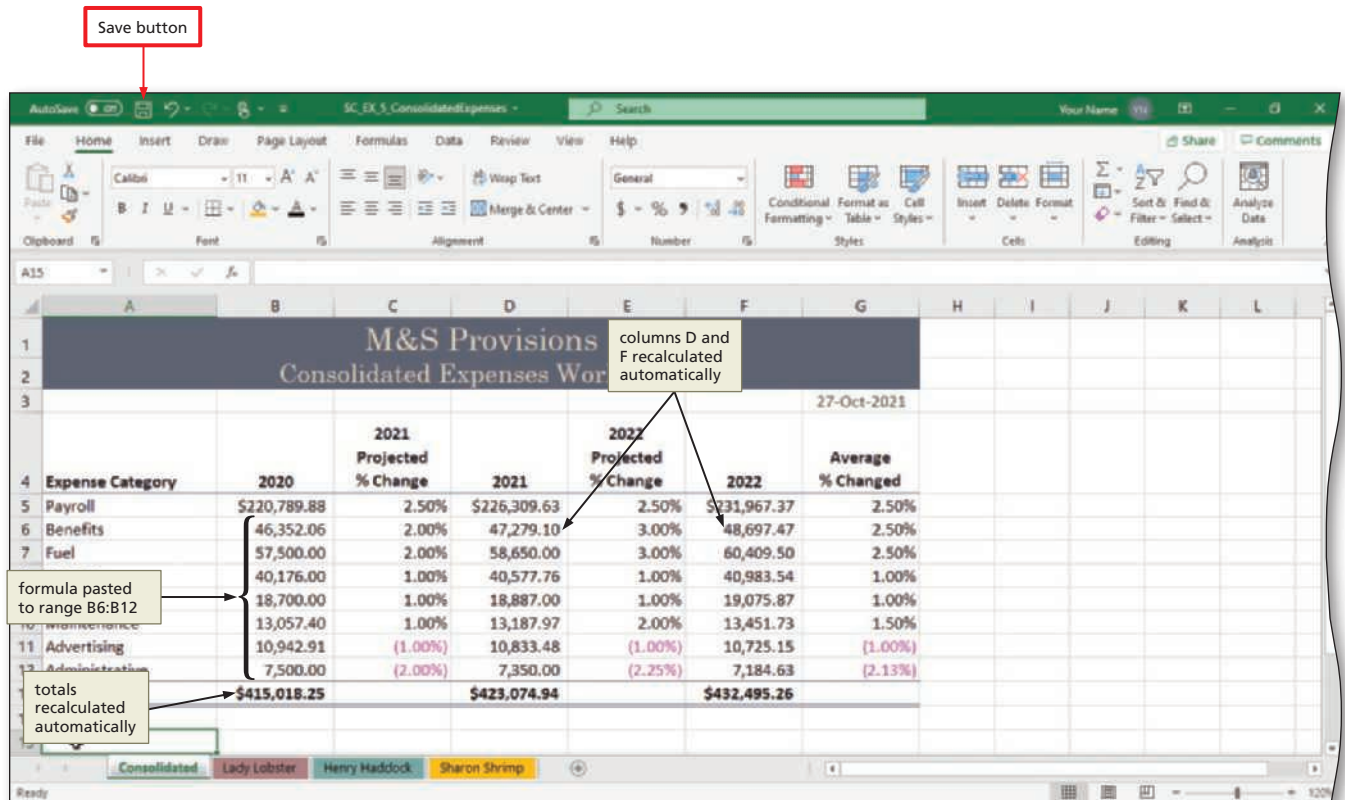


Figure 5-44

2

- Click the Formulas button (column 2, row 1) in the Paste gallery to copy the SUM function to the desired range, replicating the 3-D references.
- Press ESC to clear the marquee.
- Deselect the previous range (Figure 5–45).
- Click the Save button on the Quick Access Toolbar to save the workbook.

**Figure 5–45****Other Ways**

1. Right-click selected cell(s), click Copy, right-click destination cell(s), click appropriate Paste button

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_5_ConsolidatedExpenses, and continue following the steps from this location forward.

Formatting Pie Charts

In Module 1, you created a pie chart. Pie charts show the contribution of each piece of data to the whole, or total, of the data. You can format a pie chart in many ways including resizing, moving, rotating, adding data labels and leader lines, adding a decorative background, and exploding a slice. In addition, if your chart displays numeric data labels, you can format the data by clicking a data label and then entering the desired formatting options and format code in the Number area of the Format Data Labels pane.

As outlined in the requirements document in Table 5–1, the worksheet should include a pie chart to represent graphically the 2020 expenses totals for all three food trucks. The pie chart resides at the bottom of the consolidated worksheet, so it will print on the same page.

BTW

Y-Rotation and Perspective

The Y-Rotation arrows tilt the chart toward the back or front, allowing you to control the elevation of the chart. You can tilt the chart toward or away from you in order to enhance the view of the chart. The Perspective value makes close slices appear larger and those further away appear smaller.

To Insert a 3-D Pie Chart on a Worksheet

The following steps insert the 3-D pie chart on the Consolidated worksheet.

- 1 Select the range A5:B12 to identify the category names and data for the pie chart.
- 2 Display the Insert tab, click the 'Insert Pie or Doughnut Chart' button (Insert tab | Charts group), and then click 3-D Pie in the Insert Pie or Doughnut Chart gallery to create the desired chart type.
- 3 Click the chart title, select the text, and then type **2020 Consolidated Expenses** to change the chart title.
- 4 Deselect the chart title, click the Chart Styles button to display the Chart styles gallery, and then apply Style 9 to the chart.
- 5 Click an empty cell or click the Chart Styles button to close the Chart Styles gallery (Figure 5–46).

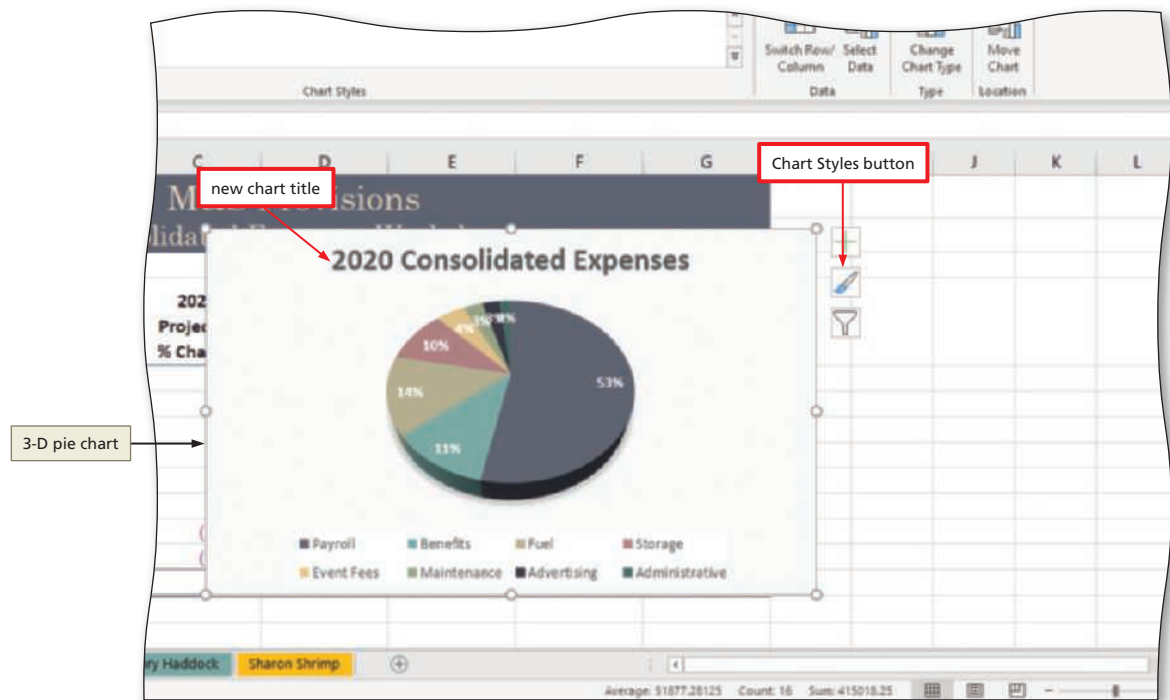


Figure 5–46

To Move a Chart on the Same Worksheet

As you learned in an earlier module, you can move a chart to a new worksheet or move a chart on the same worksheet. If you want move a chart to a different worksheet, select the chart and then select the Move Chart button (Chart Design tab | Location group). Then, select the New sheet radio button, type the name of the new sheet in the corresponding text box, and click OK. The following step moves the chart on the same worksheet to the space below the data that was used to create the chart. **Why?** By default, Excel places charts in the center of the worksheet. You need to move it in order to uncover the data on the worksheet.

1

- Point to the border of the chart. When the pointer changes to a four-headed arrow, drag the chart below the worksheet numbers to the desired location (in this case, approximately cell A15) (Figure 5–47).

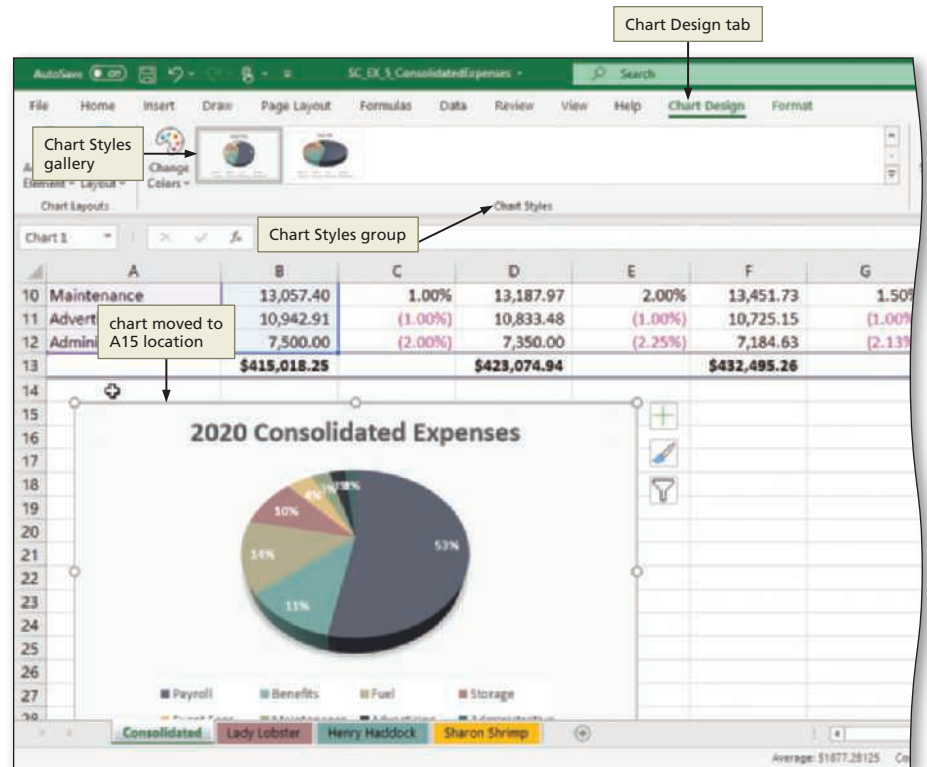
**Experiment**

- Point to each of the styles in the Chart Styles group (Chart Design tab) and watch the chart change to reflect each style.

Q&A

Could I use the Move Chart button (Chart Design tab | Location group) to move the chart?

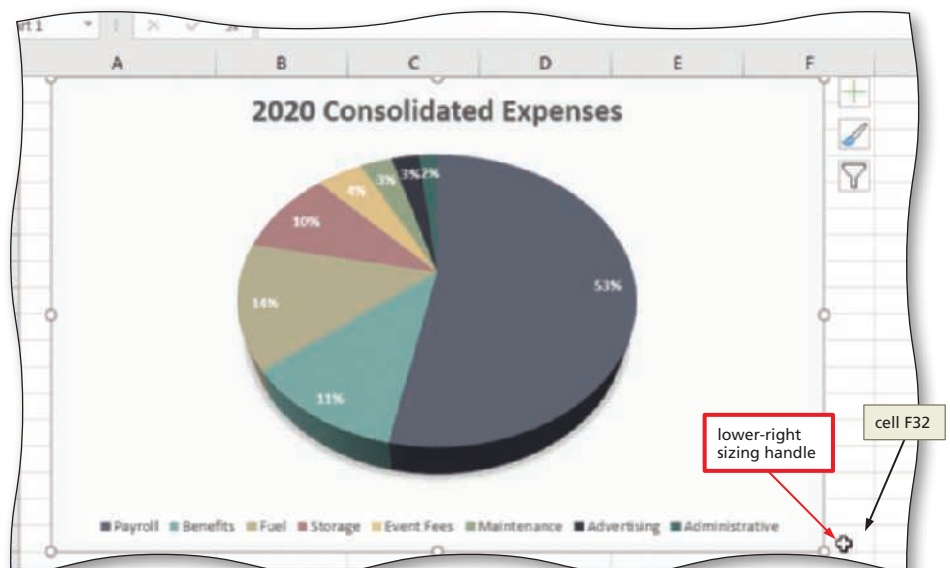
No. That button moves the chart from sheet to sheet rather than to a new location on the same worksheet.

**Figure 5–47****To Resize a Chart**

If you want to resize a chart, you either can do so by dragging the sizing handles until the chart is the desired size, or you can resize the chart to exact dimensions. To resize a chart to exact dimensions, click to select the chart, click the Format tab on the Ribbon, and then enter the desired height and width in the Size group. The following step resizes the chart proportionally by dragging to make it larger and more legible. To resize a chart nonproportionally, do not hold **SHIFT** while dragging the resizing handles. **Why?** The chart as created by Excel may not be the optimal size for your worksheet needs.

1

- If necessary, scroll down until you can see both the bottom of the chart and row 32.
- SHIFT**+drag the lower-right resizing handle of the chart until the chart is the desired size (in this case, approximately to cell F32).
- If necessary, zoom out until you can see the entire chart (Figure 5–48).

**Figure 5–48**

To Explode a Slice

In this chart, the Payroll slice dominates because it is so large. The following steps explode the next-largest slice of the 3-D pie chart to draw attention to the second-largest contributing expense. **Why?** Exploding, or offsetting, a slice in a chart emphasizes it.

1

- Click the Fuel slice (14%) twice to select it. (Do not double-click.)
- Right-click the selected slice to display the shortcut menu (Figure 5–49).

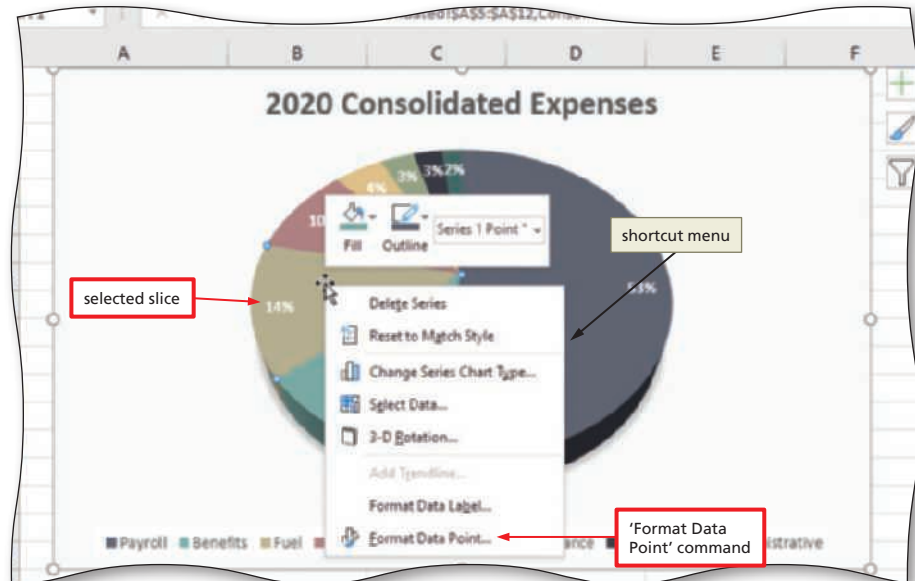


Figure 5–49

2

- Click 'Format Data Point' on the shortcut menu to open the Format Data Point pane.
- Drag the Point Explosion slider to the right until the Point Explosion box reads 15% to edit the offset distance for the slice (Figure 5–50).



Experiment

- Select different slices and use the Point Explosion slider to offset additional slices and note how the size of the chart changes as you offset additional slices. When done, reset the slices so that the Fuel slice is the only slice offset, set to 15%.

Q&A Should I offset more slices?

You can offset as many slices as you want, but remember that the reason for offsetting a slice is to emphasize it. Offsetting multiple slices tends to reduce the impact on the reader and reduces the overall size of the pie chart.

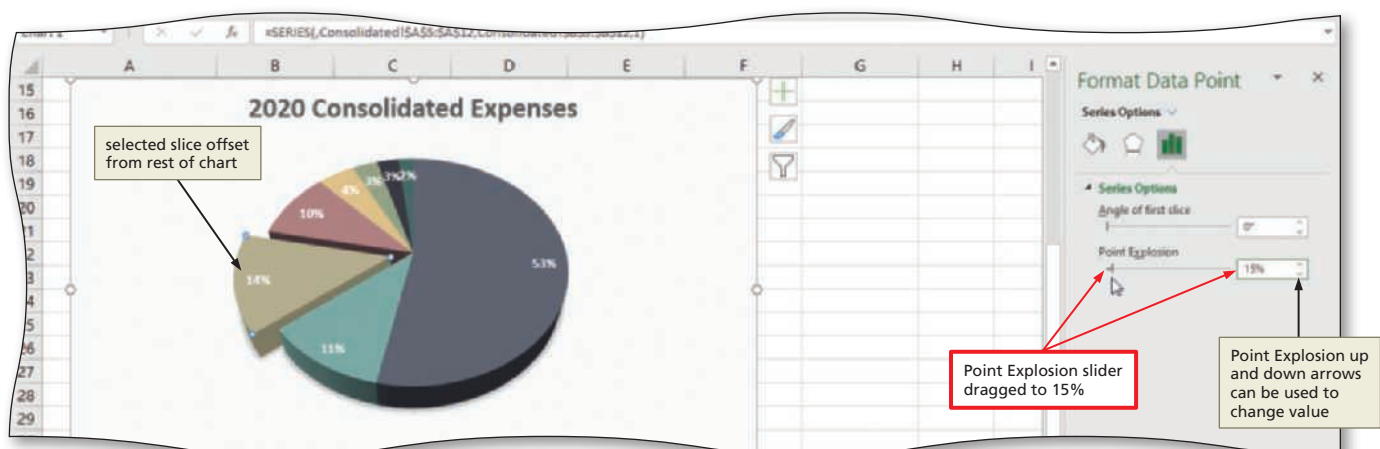


Figure 5–50

Other Ways

1. Click slice twice, drag away from other slices

To Rotate the 3-D Pie Chart

When Excel initially draws a pie chart, it always positions the chart so that one of the dividing lines between two slices is a straight line pointing to 12 o'clock (or 0°). As shown in Figure 5-50, that line currently divides the Administrative and Payroll slices. This line defines the rotation angle of the 3-D pie chart. Excel allows you to control the rotation angle, elevation, perspective, height, and angle of the axes. The following steps rotate the 3-D pie chart. **Why?** With a three-dimensional chart, you can change the view to better show the section of the chart you are trying to emphasize.

1

- Right-click the chart to display the shortcut menu, and then click '3-D Rotation' on the shortcut menu to open the Format Chart Area pane.
- In the X Rotation box (Format Chart Area pane), type 250 to rotate the chart (Figure 5-51).

Q&A What happens if I click the X Rotation up arrow?

Excel will rotate the chart 10° in a clockwise direction each time you click the X Rotation up arrow.

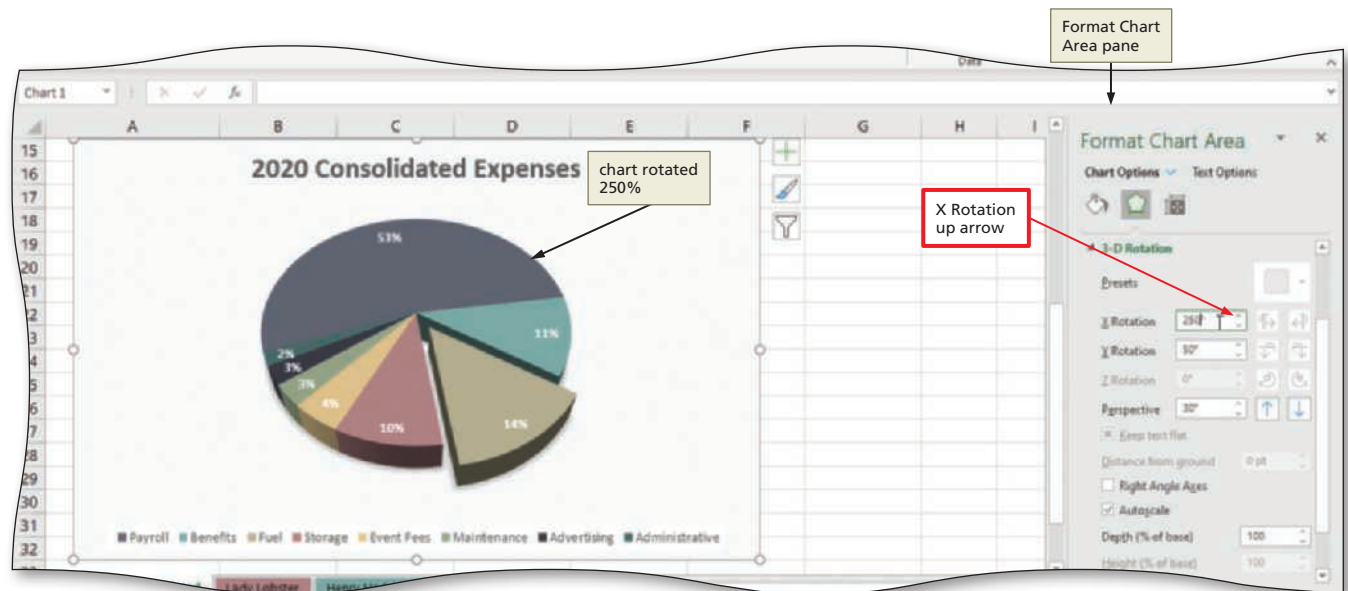


Figure 5-51

2

- Click the Close button (Format Chart Area pane) to close the pane.

To Format Data Labels

The following steps format the data labels using the Format Data Labels pane. You will choose the elements to include in the data label, set the position, choose number formatting, and create leader lines. **Why?** A **leader line** connects a data label with its data point helping you identify individual slices.

- 1
 - Click the Chart Elements button to display the Chart Elements gallery. Point to Data Labels and then click the Data Labels arrow to display the Data Labels submenu (Figure 5-52).

Q&A **How does the Legend check box affect the pie chart?**

If you uncheck the Legend check box, Excel will remove the legend from the chart. If you point to Legend, an arrow will appear. Clicking the arrow displays a list for legend placement.

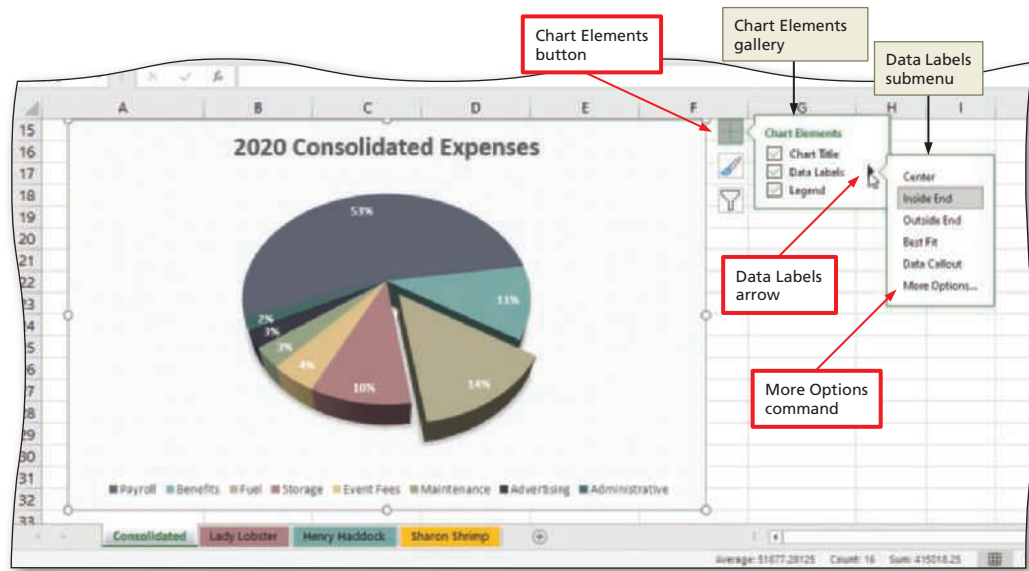


Figure 5-52

- 2
 - Click More Options to display the Format Data Labels pane.
 - In the Label Options area, click to display check marks in the Category Name, Percentage, and 'Show Leader Lines' check boxes. Click to remove check marks in any other check boxes, if necessary.
 - In the Label Position area, click Outside End (Figure 5-53).

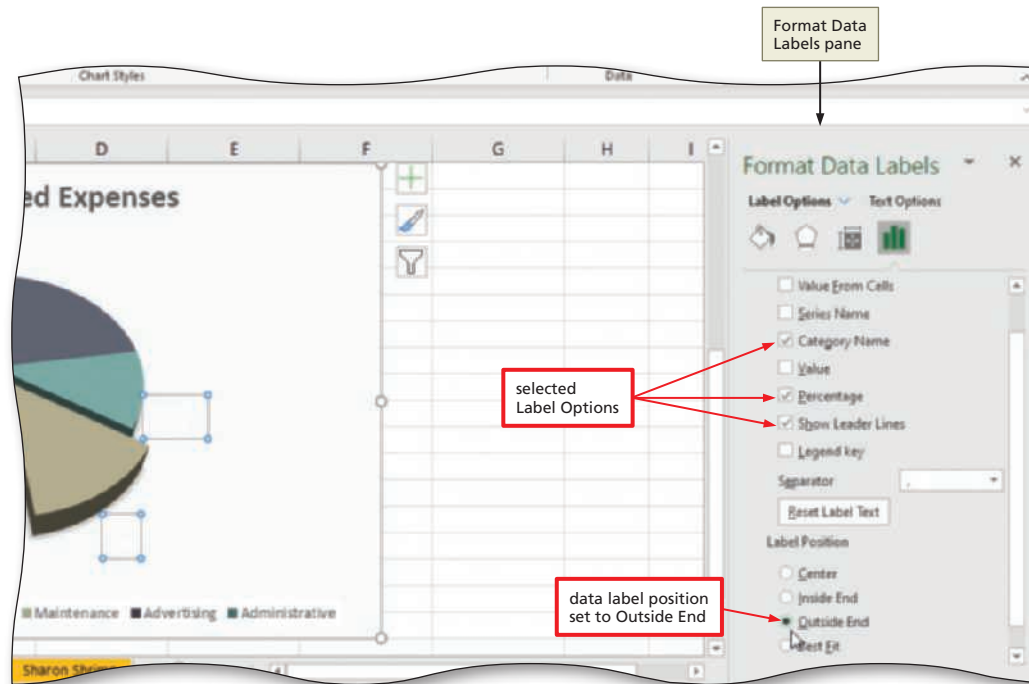


Figure 5-53

- 3
 - Scroll down in the pane and click the Number arrow to display the Number settings.
 - Scroll as necessary to click the Category button and then click Percentage to choose the number style.

- Select any text in the Decimal places text box and then type **1** to format the percentage with one decimal place (Figure 5–54).

Q&A

Why can I not see all the changes to the data labels in the chart?

The data label content uses white text, so when you change the position to Outside End, the white text appears on a white background, making it invisible. You change the text color in the next step.

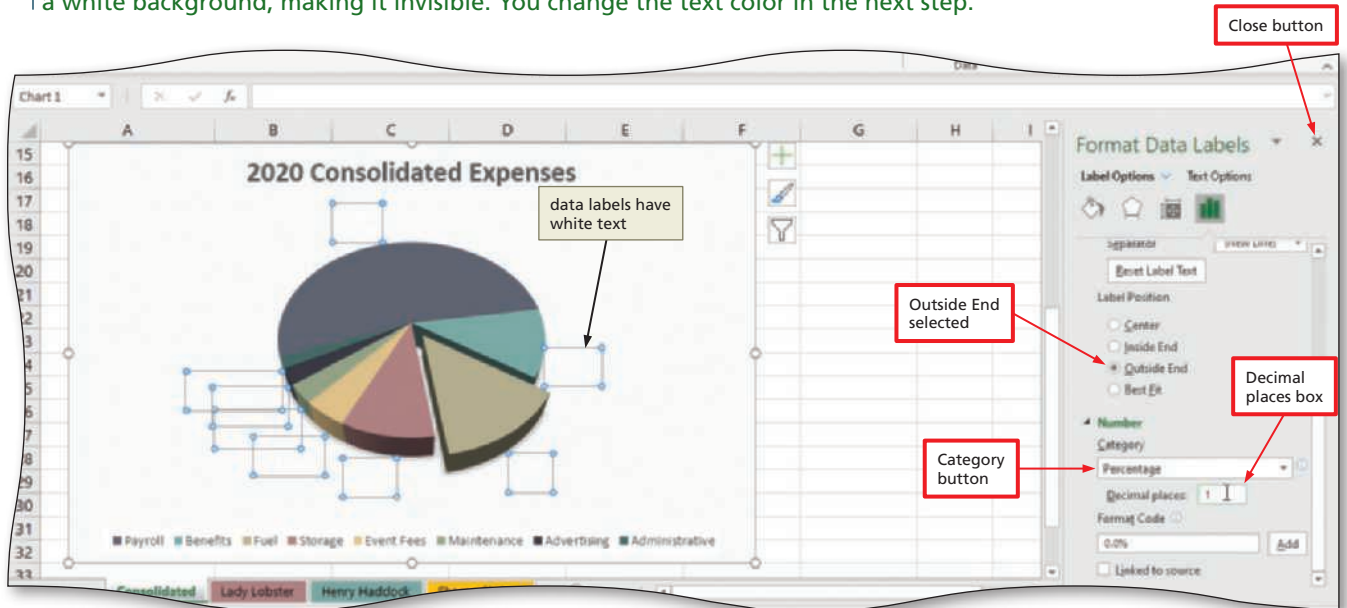


Figure 5–54

4

- Click Text Options in the Format Data Labels pane to display the text options.
- Click the Text Fill arrow to display the text fill options.
- If necessary, click the Solid fill option button.
- Click the Color button arrow to display the text color options, and then click Black, Text 1 (column 2, row 1) to change the color of the text (Figure 5–55).

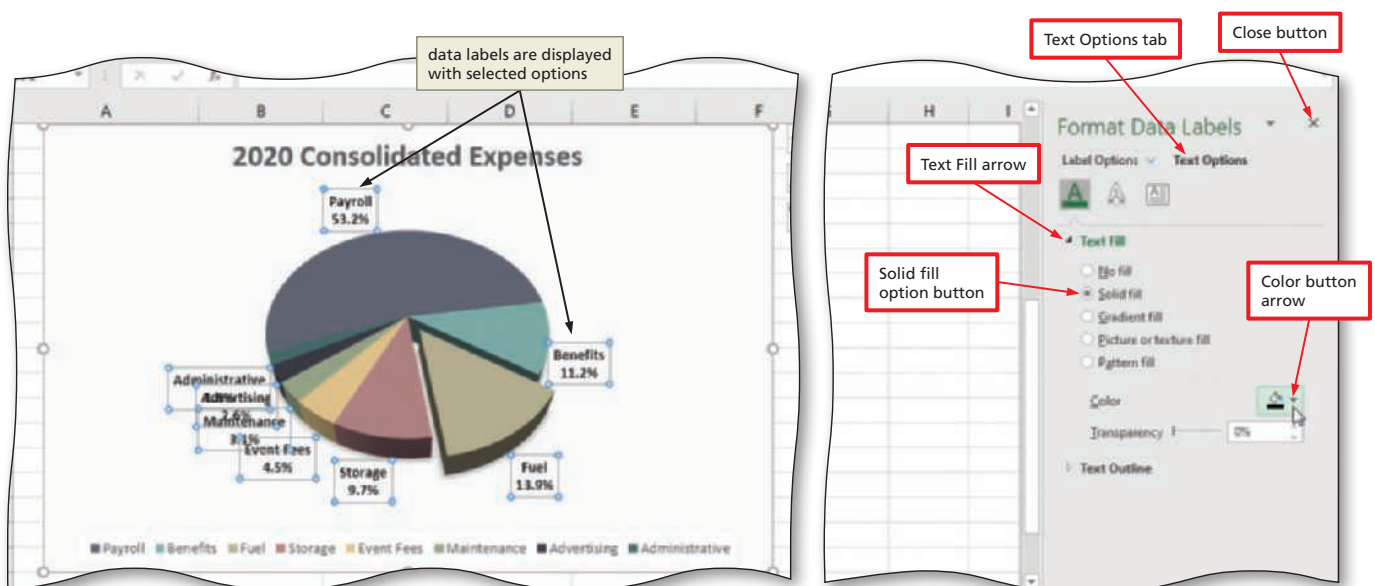


Figure 5–55

5

- Click the Close button on the Format Data Labels pane to close it.
- One at a time, drag each data label out slightly from the chart to make the leader lines visible (Figure 5-56).

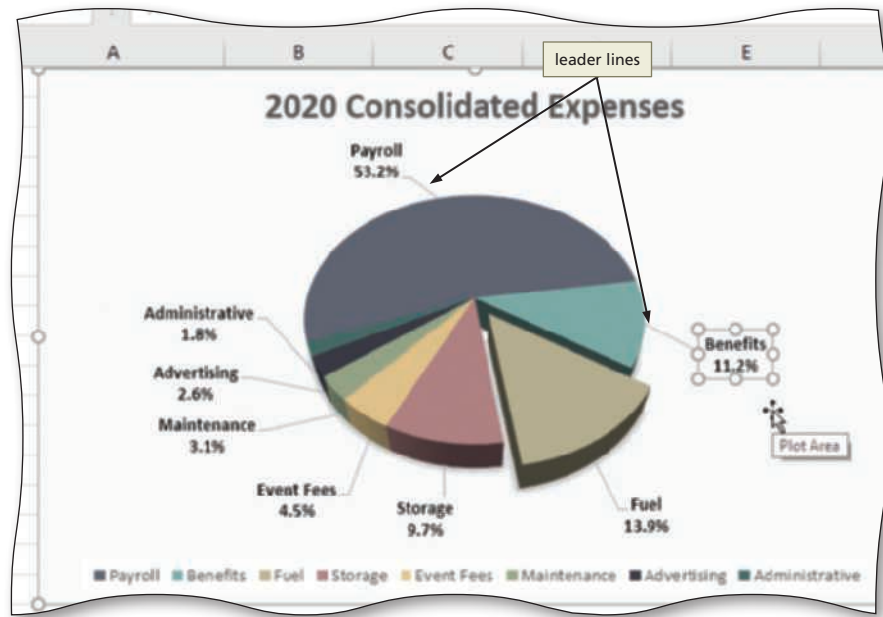


Figure 5-56

To Add a Chart Border

The following steps add a border to the 2020 Consolidated Expenses chart. In addition to adding a border to a chart, you can add a border to a chart element using these same steps. Instead of selecting the entire chart before adding the border, first select the element to which you want to add the border. **Why?** Adding a chart border helps to separate the chart from the other worksheet contents.

1

- If necessary, click to select the chart.
- Click Format on the ribbon to display the Format tab.
- Click the Shape Outline button arrow (Format tab | Shape Styles group) to display the Shape Outline gallery (Figure 5-57).

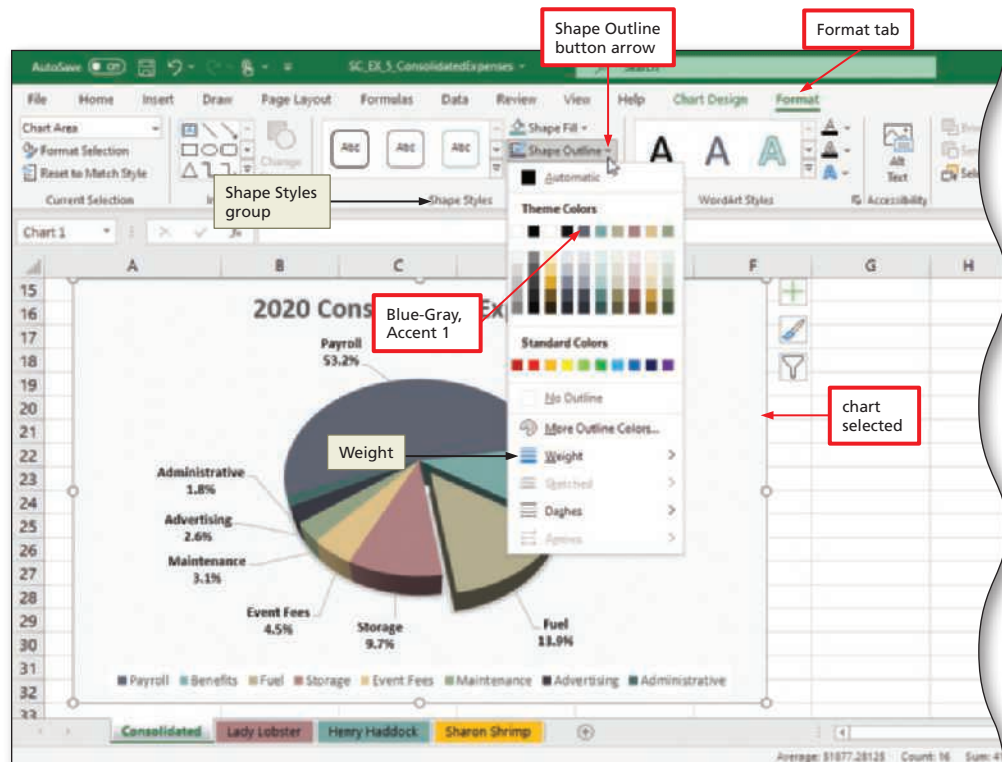


Figure 5-57

2

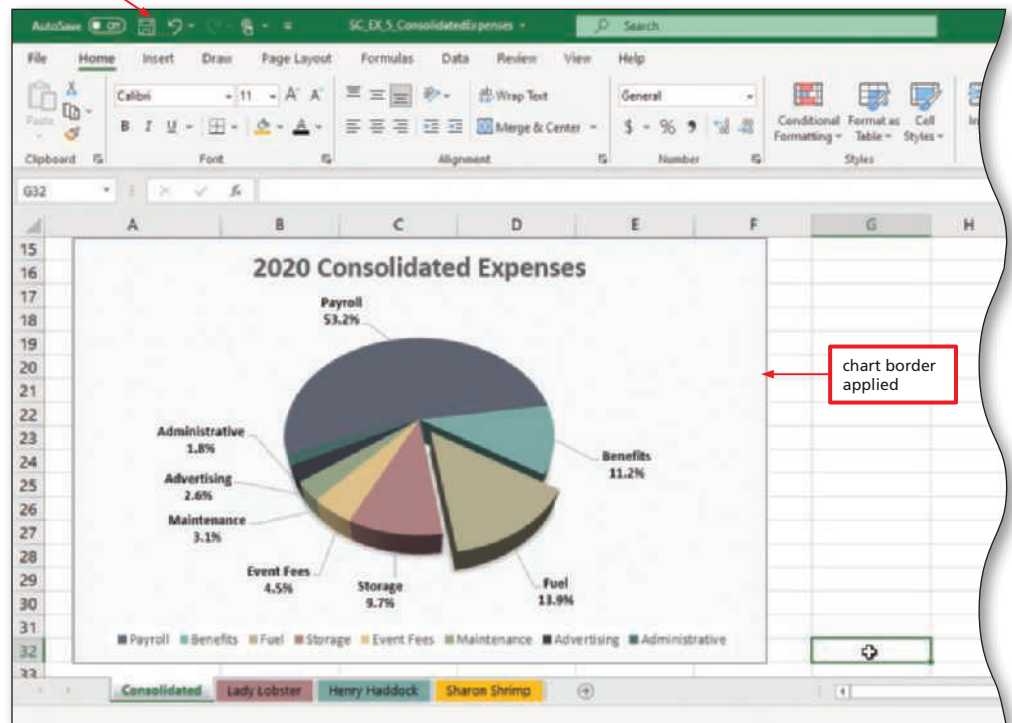
- Click Blue-Gray, Accent 1 (column 5, row 1) in the Theme Color area to apply a chart border.
- Click an empty cell on the worksheet to display the chart border (Figure 5–58).
- Click Save on the Quick Access Toolbar to save the workbook.

Q&A

What if I want to make the border thicker?

In the Shape Options gallery, point to Weight (shown in Figure 5–57) and select the desired weight.

Save button

**Figure 5–58**

Printing Multiple Worksheets

Before printing a workbook with multiple worksheets, you should consider the page setup, which defines the appearance and format of a printed worksheet. You can add a header, which appears at the top of every printed page, and a footer, which appears at the bottom of every printed page. You also can change the margins to increase or decrease the white space surrounding the printed worksheet or chart. As you modify the page setup, remember that Excel does not copy page setup characteristics to other worksheets. Thus, even if you assigned page setup characteristics to the Consolidated worksheet before copying it to each location's worksheet, the page setup characteristics would not be copied to the new worksheet. If you want to change the page setup for all worksheets, you must select all worksheets first.

To Change Margins and Center the Printout Horizontally

The following steps select all of the worksheets and then use the Page Setup dialog box to change the margins and center the printout of each location's worksheet horizontally.

- 1** Right-click the Consolidated sheet tab and then click Select All Sheets on the shortcut menu.
- 2** Display the Page Layout tab and then click the Page Setup Dialog Box Launcher to display the Page Setup dialog box.
- 3** If necessary, click the Page tab (Page Setup dialog box) and then click Landscape to set the page orientation to landscape.

- 4 Click the Margins tab. Enter .5 in both the Left box and Right box to change the left and right margins.
- 5 Click the Horizontally check box in the Center on page area to center the worksheet on the printed page horizontally (Figure 5–59).
- 6 Click OK (Page Setup dialog box) to close the Page Setup dialog box.

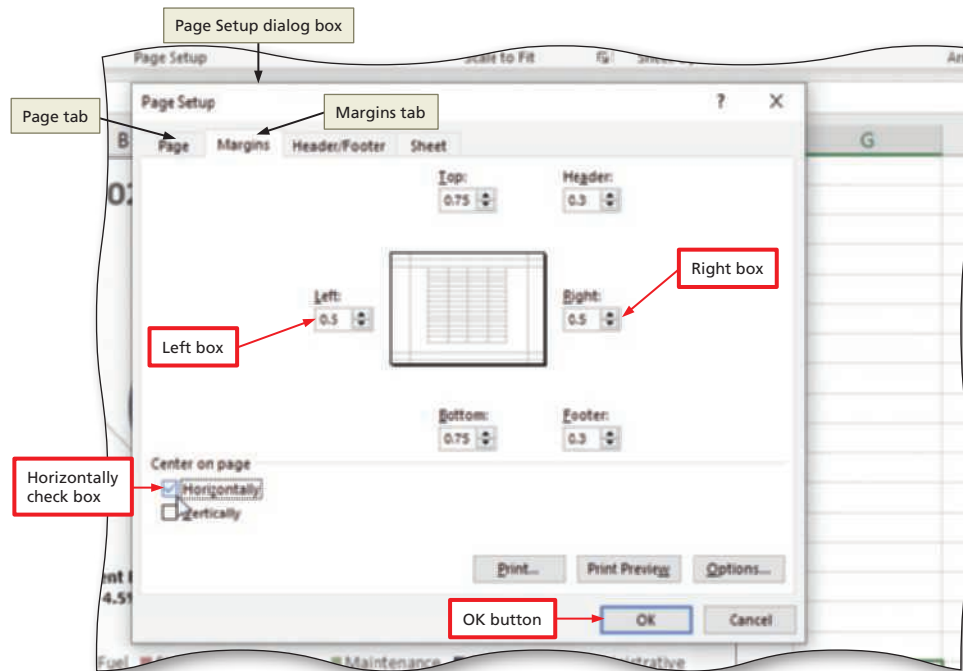


Figure 5–59

To Add a Header

The following steps use Page Layout view to change the headers on the worksheets.

- 1 With all of the worksheets still selected, click the Page Layout button on the status bar to display the first worksheet in Page Layout view.
- 2 If necessary, scroll the worksheet up until the Header area appears. Click the left header box and then type **Shelly Cashman** (or your name) to enter a page header in the left header box.
If requested by your instructor, add your student ID number to the left header box, below the name entry.
- 3 Click the center header box and then type **Expense Worksheet** to enter the title.
- 4 Click the right header box and then click the Current Date button (Header & Footer tab | Header & Footer Elements group) to insert the current date (Figure 5–60).

BTW

Header and Footer Codes

When you click a button in the Header & Footer Elements group (Figure 5–61), Excel enters a code (similar to a format code) into the active header or footer section. A code such as `&[Page]` instructs Excel to insert the page number. When you click outside of the footer box that contains the code, the results of the code are visible.

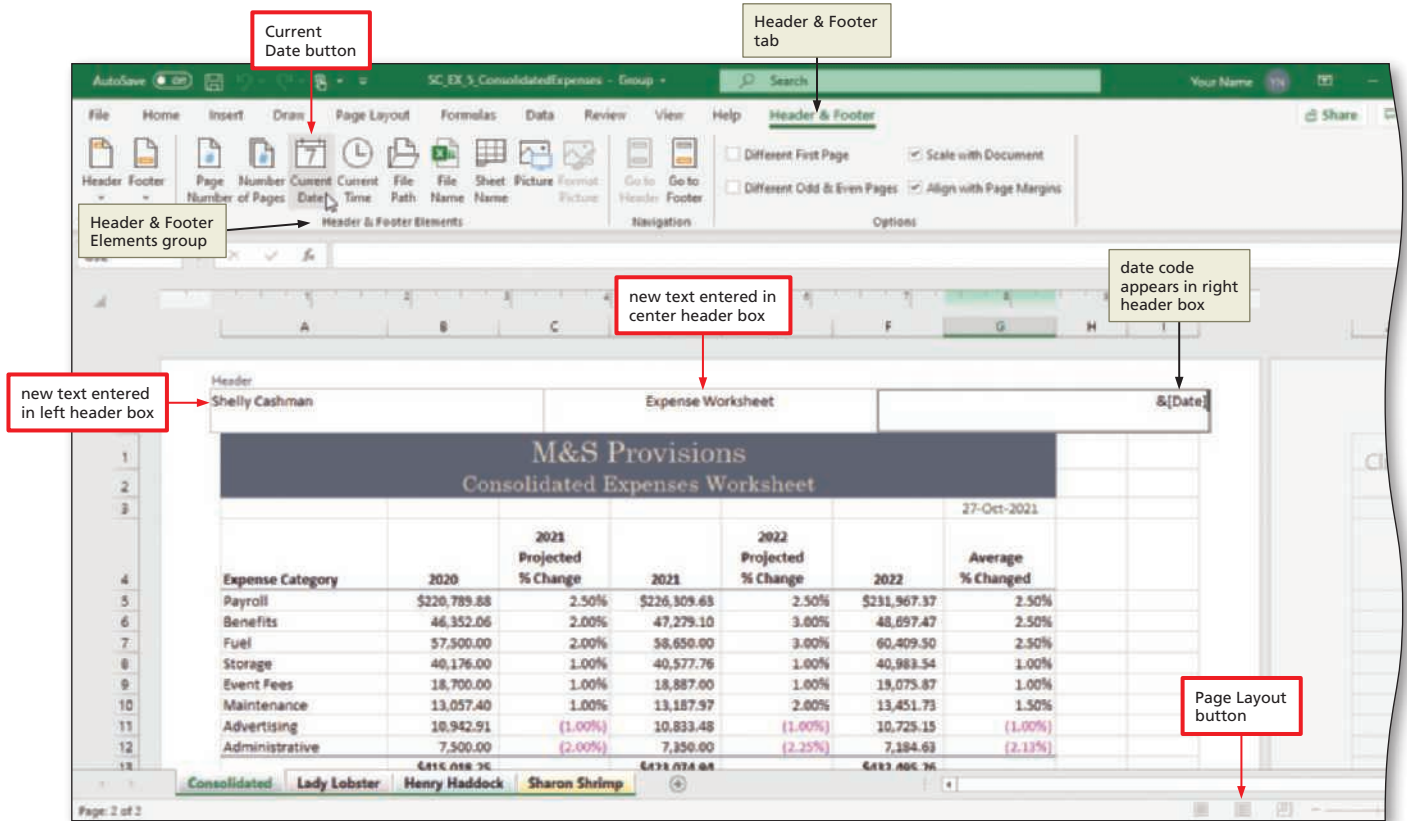


Figure 5-60

To Add a Footer

The following steps change the footers on the worksheets.

- 1 Scroll the workbook down to view the footer area.
- 2 Click the middle footer box to select it and then click the Sheet Name button (Header & Footer tab | Header & Footer Elements group) to insert the sheet name that appears on the sheet tab as part of the footer. Press SPACEBAR to add a space.
- 3 While in the same box, type **Page** as text in the footer. Press SPACEBAR and then click the Page Number button (Header & Footer tab | Header & Footer Elements group) to insert the page number in the footer (Figure 5-61).

Experiment

- Click the left footer box, and then click other buttons in the Header & Footer Elements group on the Header & Footer tab. When finished, delete the contents of the left footer box.
- 4 Click anywhere on the worksheet to deselect the page footer.
 - 5 Click the Normal button on the status bar to return to Normal view.

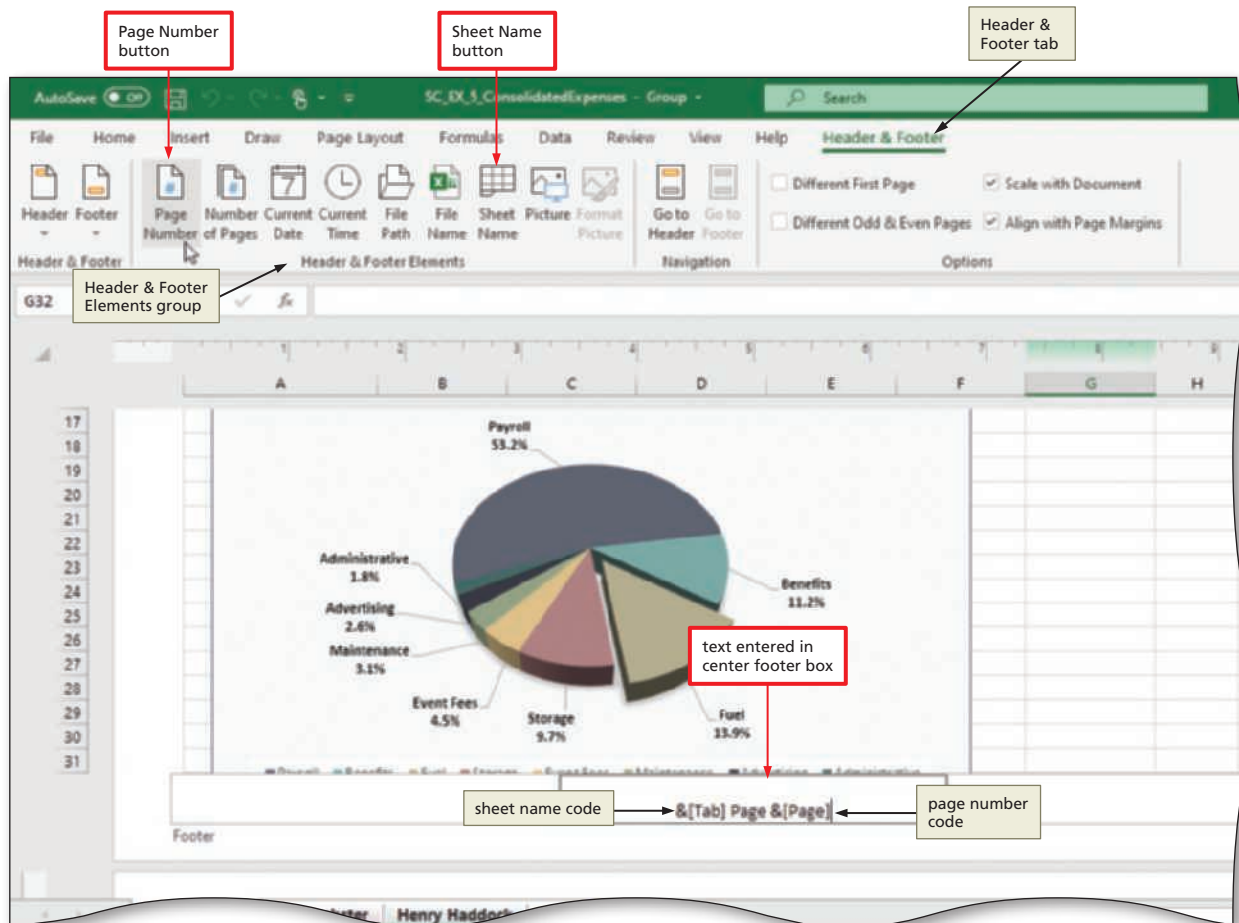


Figure 5-61

To Preview and Print All Worksheets in a Workbook

The following steps print all four worksheets in the workbook.

- 1 If necessary, right-click any sheet tab and then click Select All Sheets on the shortcut menu.
- 2 Ready the printer.
- 3 Click the File tab to open Backstage view. Click Print (Backstage view) to display the Print screen.
- 4 If necessary, click the No Scaling button and select 'Fit Sheet on One Page' so that each sheet prints only on one page.
- 5 Click the Next Page and Previous Page buttons below the preview to preview the other pages.
- 6 Click the Print button to print the workbook as shown in Figure 5-62.
- 7 Right-click the selected tabs and click Ungroup Sheets on the shortcut menu to deselect the four sheets.
- 8 Save the workbook.

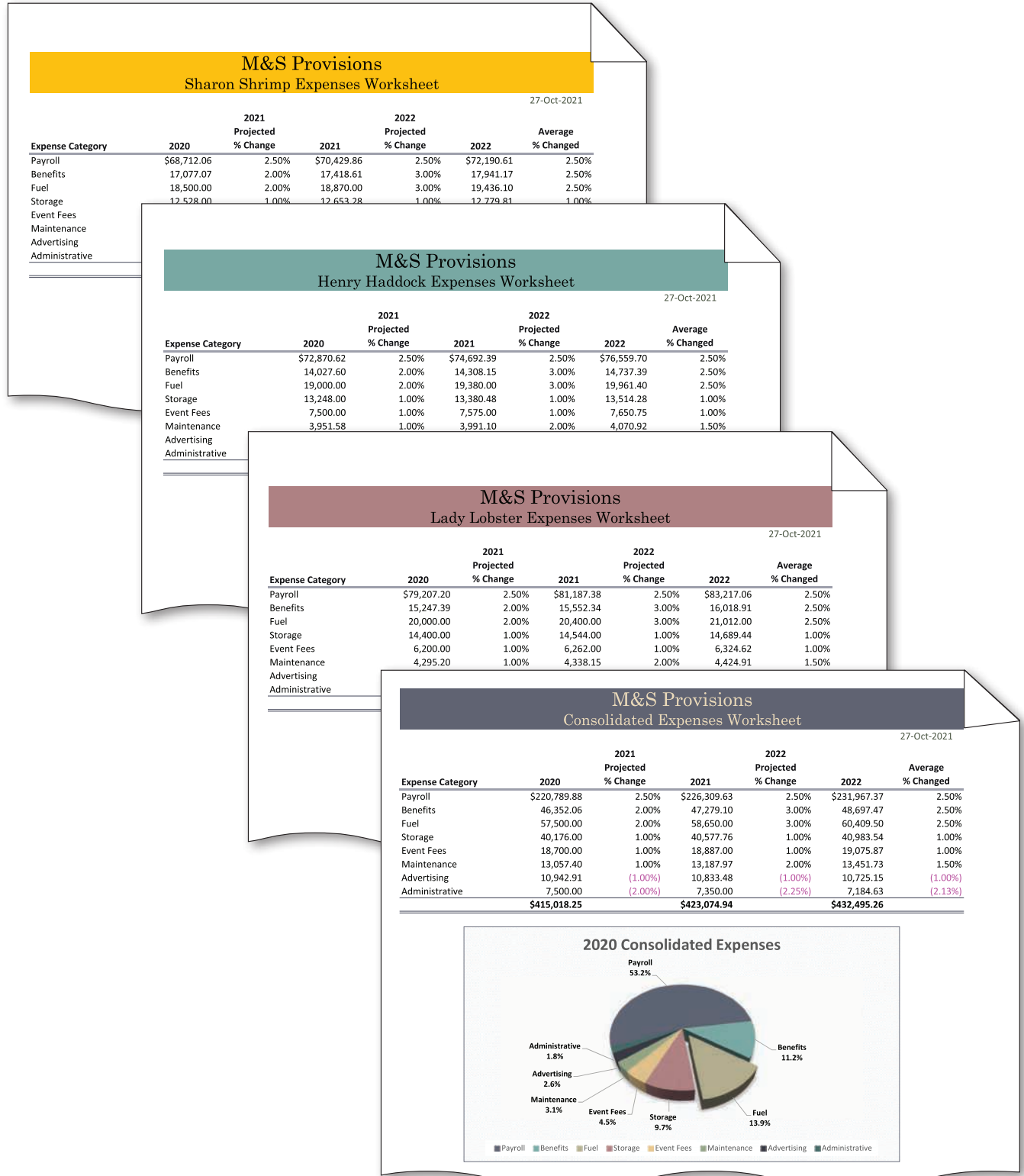


Figure 5-62

TO PRINT NONADJACENT SHEETS IN A WORKBOOK

If you wanted to print nonadjacent sheets in a workbook, you would perform the following steps.

1. With the first sheet active, hold down CTRL, and then click the nonadjacent sheet tab.
2. Display the Print gallery in the Backstage view and then click the Print button to print the nonadjacent worksheets.
3. SHIFT+click the first sheet tab to deselect the nonadjacent sheet.

BTW

Distributing a Workbook

Instead of printing and distributing a hard copy of a workbook, you can distribute the workbook electronically. Options include sending the workbook via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the workbook. You also can create and share a PDF or XPS image of the workbook, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Excel.

Creating Separate Files from Worksheets

Sometimes you may want to save individual worksheets as their own separate workbooks. For example, you may want to reveal only the data in an individual worksheet to certain customers or clients, or individual departments or franchises may want a copy of their own data. Keep in mind that any 3-D references will not work in the newly saved workbook. Saving, moving, or copying a worksheet to a new workbook sometimes is called splitting or breaking out the worksheets.

To Create a Separate File from a Worksheet

The following steps create a new workbook from each location worksheet. **Why?** Each individual food truck would like to receive a file with its own projections for the next two years. None of the three location worksheets contains a 3-D reference.

- 1
 - Right-click the Lady Lobster sheet tab and then click 'Move or Copy' on the shortcut menu to display the Move or Copy dialog box.
 - Click the To book button (Move or Copy dialog box) to display the choices (Figure 5-63).

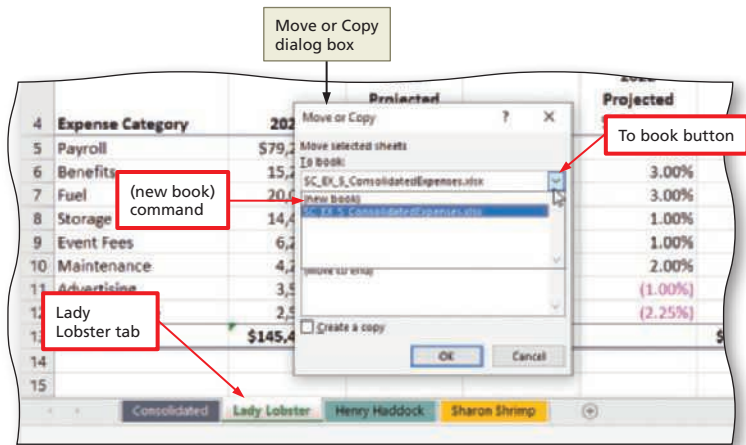


Figure 5-63

- 2
 - Click (new book) in the list to create a new workbook.
 - Click the 'Create a copy' check box to ensure it displays a check mark (Figure 5-64).

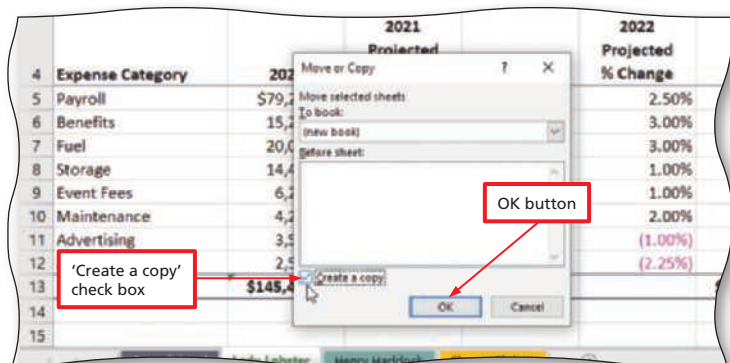


Figure 5-64

Q&A **What if I do not check the check box?**
 In that case, Excel would remove the worksheet from the current workbook in a move function. The Consolidated sheet no longer would display values from the moved worksheet, breaking the 3-D reference.

3

- Click OK to create the new workbook.
- Save the new file with the name SC_EX_5_LadyLobster in the same folder as the SC_EX_5_ConsolidatedExpenses file.

4

- Repeat Steps 1 through 3 to save the Henry Haddock and Sharon Shrimp worksheets as separate workbooks in the same location. Use the new file names, SC_EX_5_HenryHaddock and SC_EX_5_SharonShrimp.
- Close each workbook, including the SC_EX_5_ConsolidatedExpenses workbook.

Consolidating Data by Linking Separate Workbooks

Earlier in this module, the data from three worksheets was consolidated into a fourth worksheet in the same workbook using 3-D references; however, sometimes the data you need is not in the same workbook. In those cases, it is necessary to consolidate data from separate workbooks, which is also referred to as **linking**. A **link** is a reference to a cell, or range of cells, in another workbook. The consolidated main workbook that contains the links to the separate workbooks is called the **dependent workbook**. The separate, individual workbooks from which you need data are called the **source workbooks**.

You can create a link using the point mode if both the source workbook and dependent workbook(s) are open. If the source workbook is not open, you have to type the entire drive path, folder, worksheet name, and cell reference into the formula bar. This is known as an **absolute path**. You must include single quotes (') surrounding the drive, folder, workbook name, and worksheet name. You must surround the workbook name with brackets ([]). You must include an exclamation point (!) as a delimiter between the sheet name and cell reference. The exclamation point is called an **external reference indicator** and is used in a formula to indicate that a referenced cell is outside the active sheet. For example, you might type the following:

'C:\My Documents\[SC_EX_5_ConsolidatedExpenses.xlsx]LadyLobster!D5

The diagram shows the formula: 'C:\My Documents\[SC_EX_5_ConsolidatedExpenses.xlsx]LadyLobster!D5. Brackets and arrows point to the following parts: 'C: (drive), \My Documents\ (folder), [SC_EX_5_ConsolidatedExpenses.xlsx] (workbook name), LadyLobster (worksheet), ! (external reference indicator), and D5 (cell reference name).

Moving Linked Workbooks

Special care should be taken when moving linked workbooks. You should move all of the workbooks together. If you move the dependent workbook without the source workbook(s), all links become absolute—even if you used the point mode to reference them. In addition, if you happen to move the dependent workbook to another computer, without the source workbook(s), the link is broken.

Excel may offer to update or enable your links when you open the dependent workbook independent of the source workbook(s). After moving workbooks, it is best to open the source workbooks first.

BTW

Consolidation

You also can consolidate data across different workbooks using the Consolidate button (Data tab | Data Tools group), rather than by entering formulas. For more information on the consolidate button, type **Consolidate data** in the Search box.

BTW

Circular References

A circular reference is a formula that depends on its own value. The most common type is a formula that contains a reference to the same cell in which the formula resides.

The remainder of this module demonstrates how to search for workbooks and how to link separate workbooks, creating a 2020 Consolidated Expenses Worksheet.

CONSIDER THIS**What happens if I update data in one or more of the linked workbooks?**

If the source workbooks are open, Excel automatically reads the data in the source workbooks and recalculates formulas in the dependent workbook. Any value changes in the open source workbooks will update in the dependent workbook.

If the source workbooks are not open, then Excel displays a security warning in a pane below the ribbon. If you click the Enable Content button in the warning pane, Excel reads the data in the source workbooks and recalculates the formulas in the dependent workbook, but it does not open the source workbooks.

To Open a Data File and Save It to a New Location

The SC_EX_5-2 workbook is located in the Data Files. Please contact your instructor for information about accessing the Data Files. The file contains headings and formatting and is ready for linking. In the following steps, you will open the workbook and save it to the same location as the files created in the previous steps. If the Data Files are saved in the same location as your previously saved solution files, you can omit these steps.

- 1 Start Excel, if necessary, and open the file named SC_EX_5-2.
- 2 Go to Backstage view, click Save As, and then click Browse to open the Save As dialog box.
- 3 Navigate to the location of your previously saved files, and then click the Save button (Save As dialog box) to save the file in a new location.
- 4 Close the file without exiting Excel.

To Search for and Open Workbooks

Excel has a powerful search tool that you can use to locate workbooks (or any file) stored on the hard drive, using the Search box in the Open dialog box. **Why? The search tool can be used when you cannot remember exactly the name of the file or its location.** In this example, the search text will be used to locate the necessary workbooks. The following steps locate and open the four workbooks of interest.

- 1
 - Go to Backstage view and then click Open to display the Open screen.
 - Click Browse in the left pane and then navigate to the location of your previously saved solution files.
 - Type **SC_EX_5** in the Search box as the search text and then click the arrow button to display the files associated with this module.
 - One at a time, CTRL+click each of the workbooks that have the word SC_EX_5 in the title (Figure 5–65). The order and layout of your files may vary.

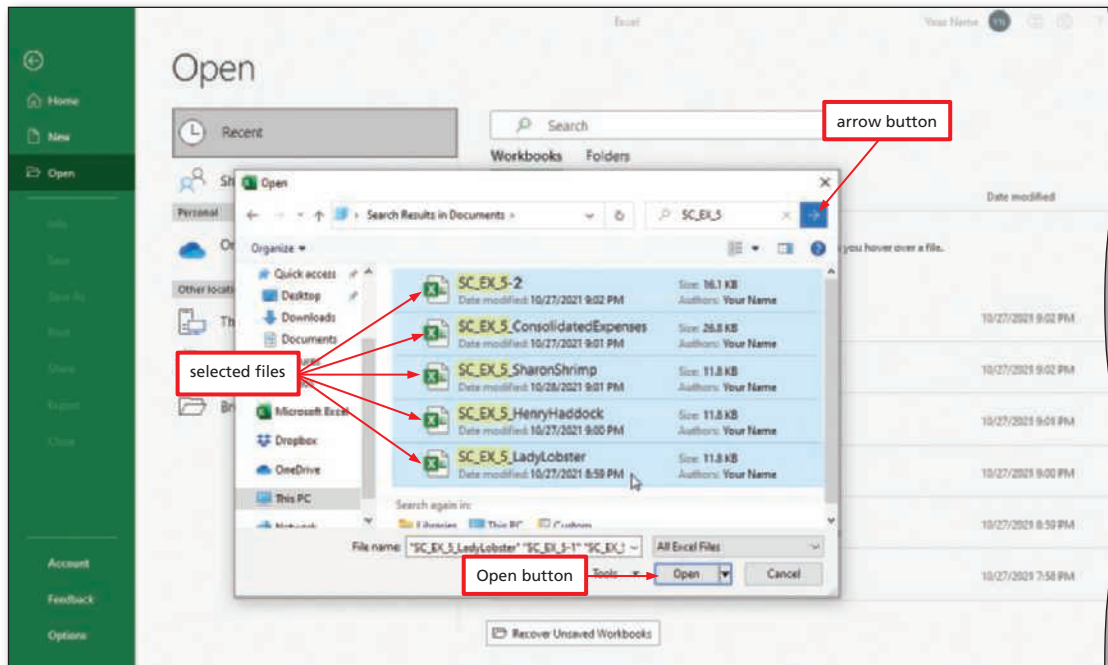


Figure 5–65

2

- Click the Open button (Open dialog box) to open the selected workbooks.

To Switch to a Different Open Workbook

The following steps switch to a different open workbook. **Why?** You may want to change quickly to another workbook to verify data.

1

- Display the View tab and then click the Switch Windows button (View tab | Window group) to display the names of the open workbooks (Figure 5–66). The order of your files may differ.

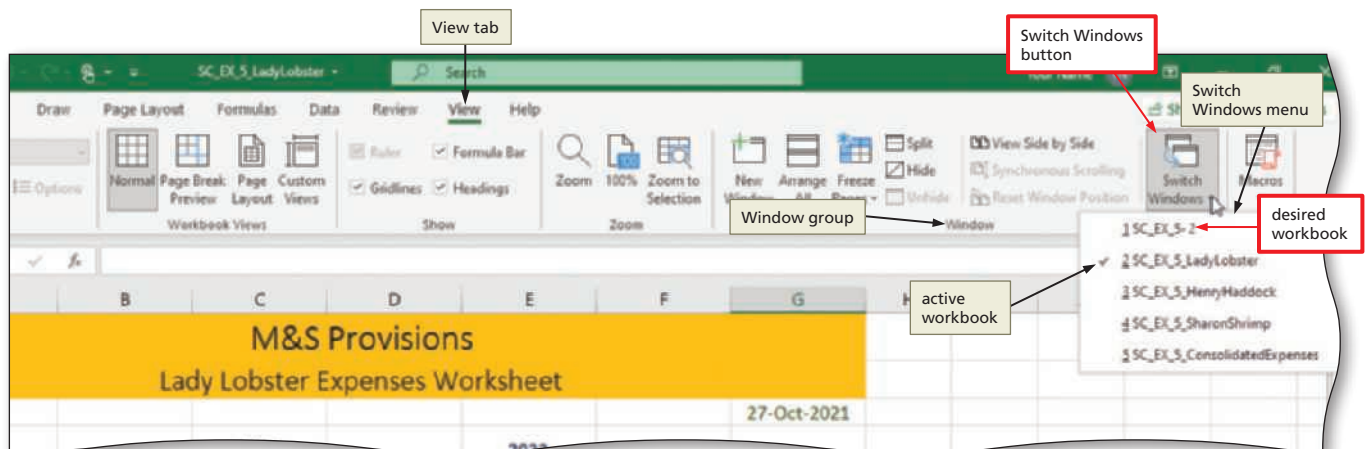


Figure 5–66

2

- Click the name of the desired workbook, in this case, SC_EX_5-2 (Figure 5–67).

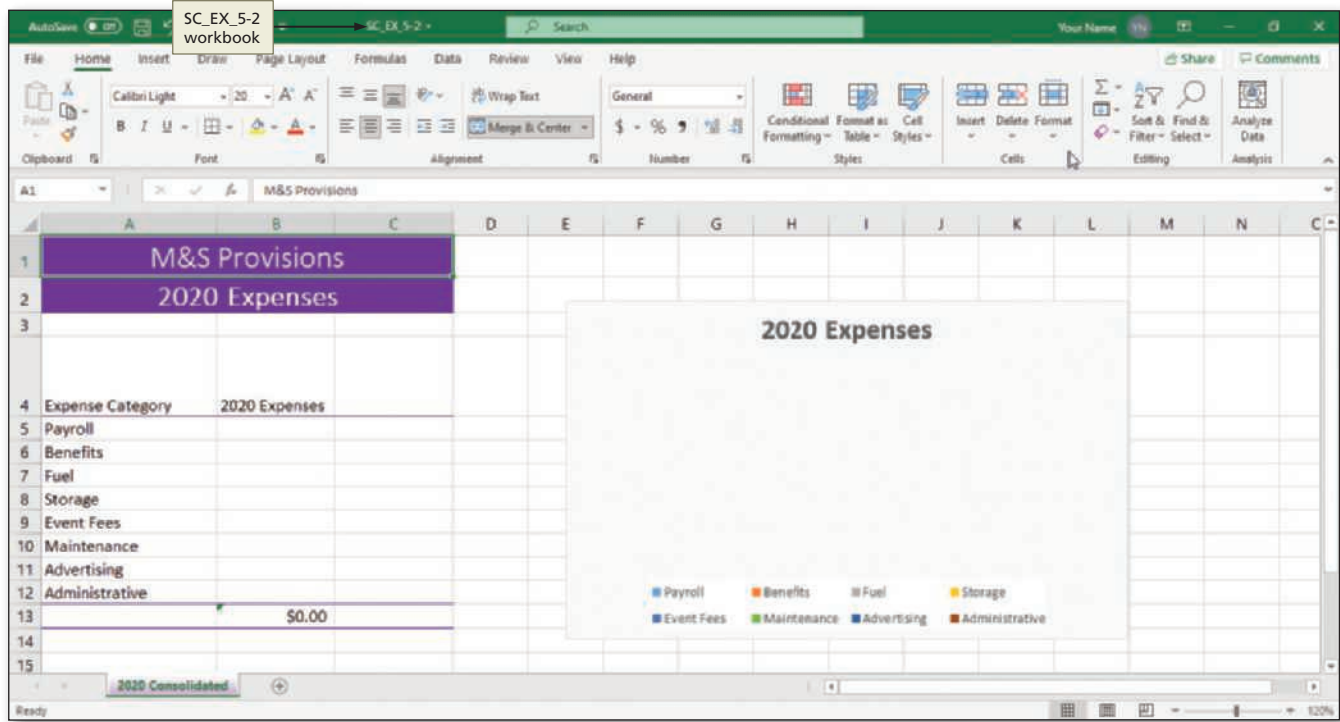


Figure 5–67

Other Ways

1. Point to Excel app button (Windows 10 taskbar), click desired live preview

To Arrange Multiple Workbooks

The following steps arrange the multiple open workbooks on the screen so that each one appears in its own window. **Why?** Viewing multiple workbooks gives you a chance to check for related data and verify formats.

1

- Click the Arrange All button (View tab | Window group) to display the Arrange Windows dialog box.
- Click Vertical (Arrange Windows dialog box) to arrange the windows vertically, and then, if necessary, click the 'Windows of active workbook' check box to clear it (Figure 5–68).

Q&A How can I arrange workbooks in the Excel window?

Multiple opened workbooks can be arranged in four ways as shown in the Arrange Windows dialog box. You can modify any of the arranged workbooks after first clicking within its window to activate it. To return to showing one workbook, double-click its title bar.

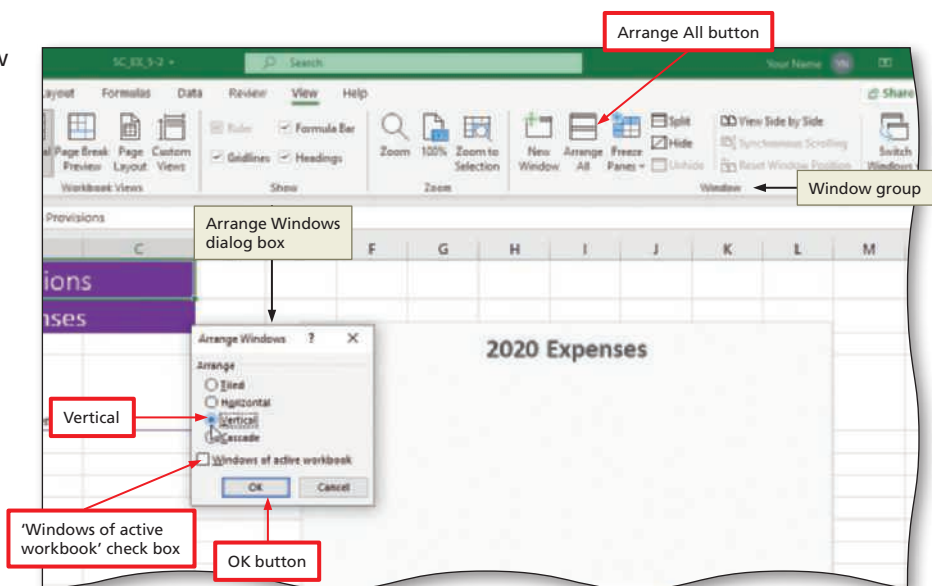


Figure 5–68

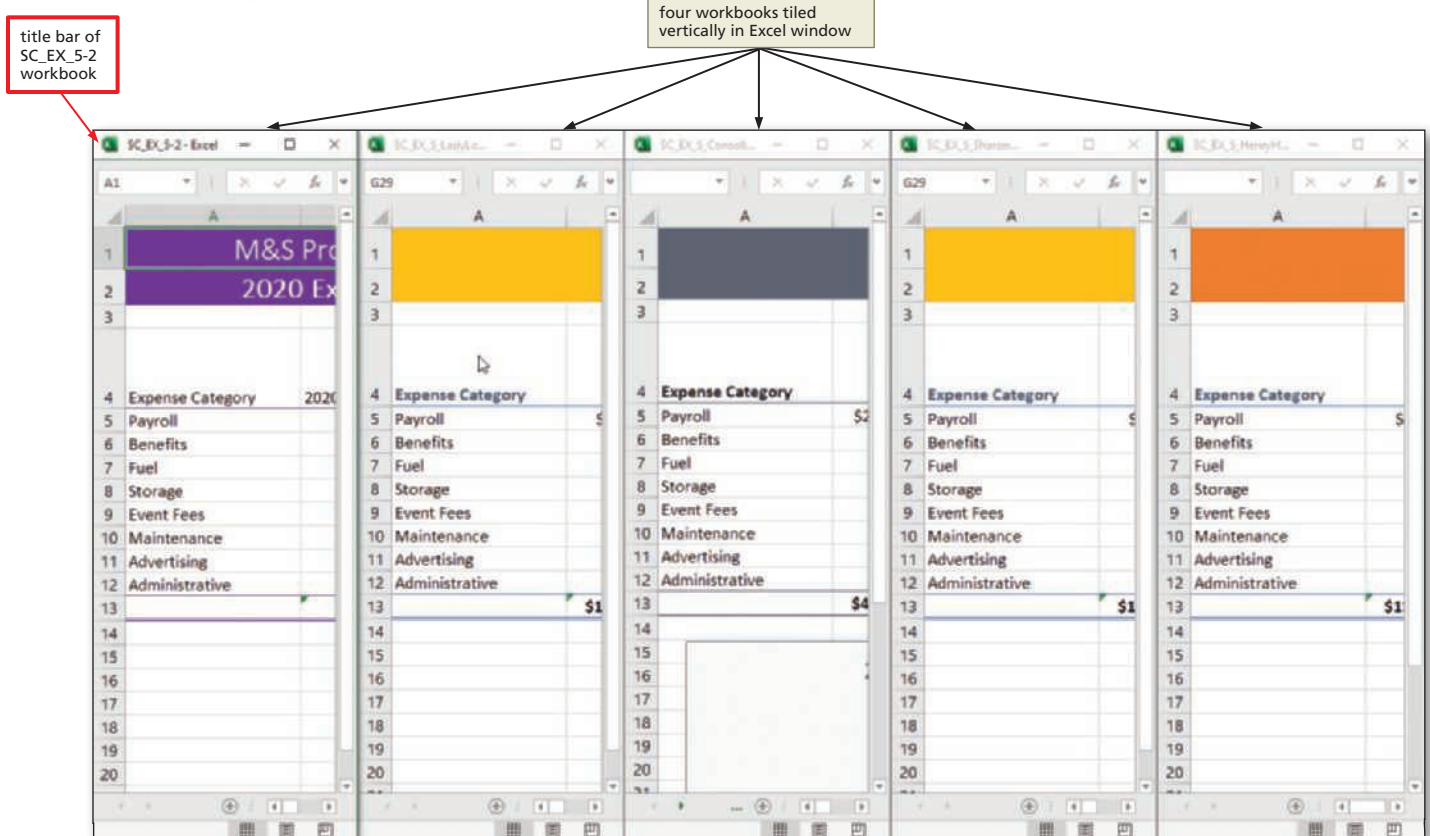
2

- Click OK (Arrange Windows dialog box) to display the opened workbooks arranged vertically (Figure 5–69). The order of your workbooks might vary.

Q&A

Why do the windows display horizontally across the screen, yet the screens were set to Vertical?

The chosen effect determines the change on an individual window, not the group of windows. When you select Vertical, each individual window appears vertically as tall as possible. If you choose Horizontal, the windows appear as wide as possible.

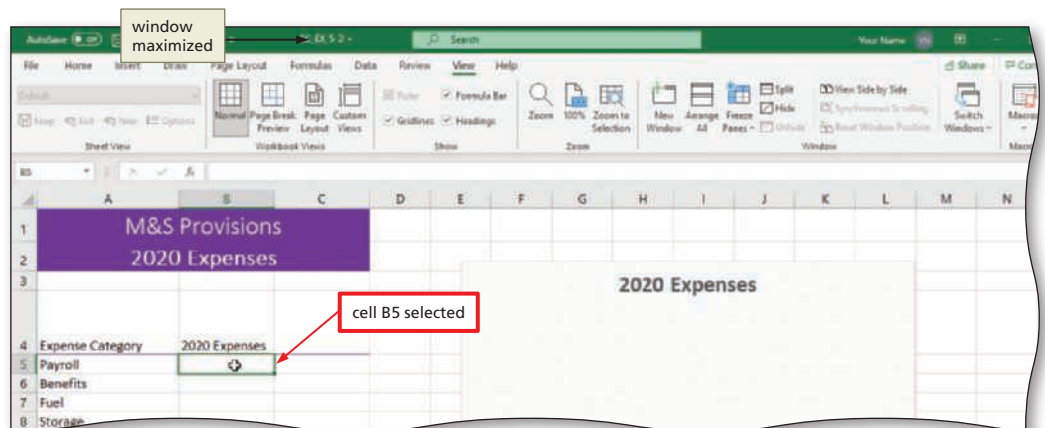
**Figure 5–69**

To Hide Workbooks

The following step hides all open workbooks except one. **Why?** Hiding is the best way to remove any tiling or arrangement.

1

- Double-click the title bar of the desired workbook to hide the other opened workbooks. In this case, double-click the SC_EX_5-2 title bar to maximize the window.
- Select cell B5 (Figure 5–70).

**Figure 5–70**

To Consolidate Data by Linking Workbooks

The following steps consolidate the data from the three location workbooks into the SC_EX_5-2 workbook. **Why?** When set up correctly, linking workbooks provides the user with a simple method of consolidating and updating linked data in the original workbook and any workbook with links to the updated data.

1

- Click the AutoSum button (Home tab | Editing group) to begin a SUM function entry in cell B5.
- Display the View tab and then click the Switch Windows button (View tab | Window group) to display the Switch Windows menu (Figure 5-71).

Q&A Does the workbook have to be open to link to it?

Yes, the workbook needs to be open if you want to use point mode. Otherwise, you would have to type the absolute or relative link.

Could I drill cell references in the formula?

No, drilling only applies to selected worksheets within a single workbook, not multiple open workbooks.

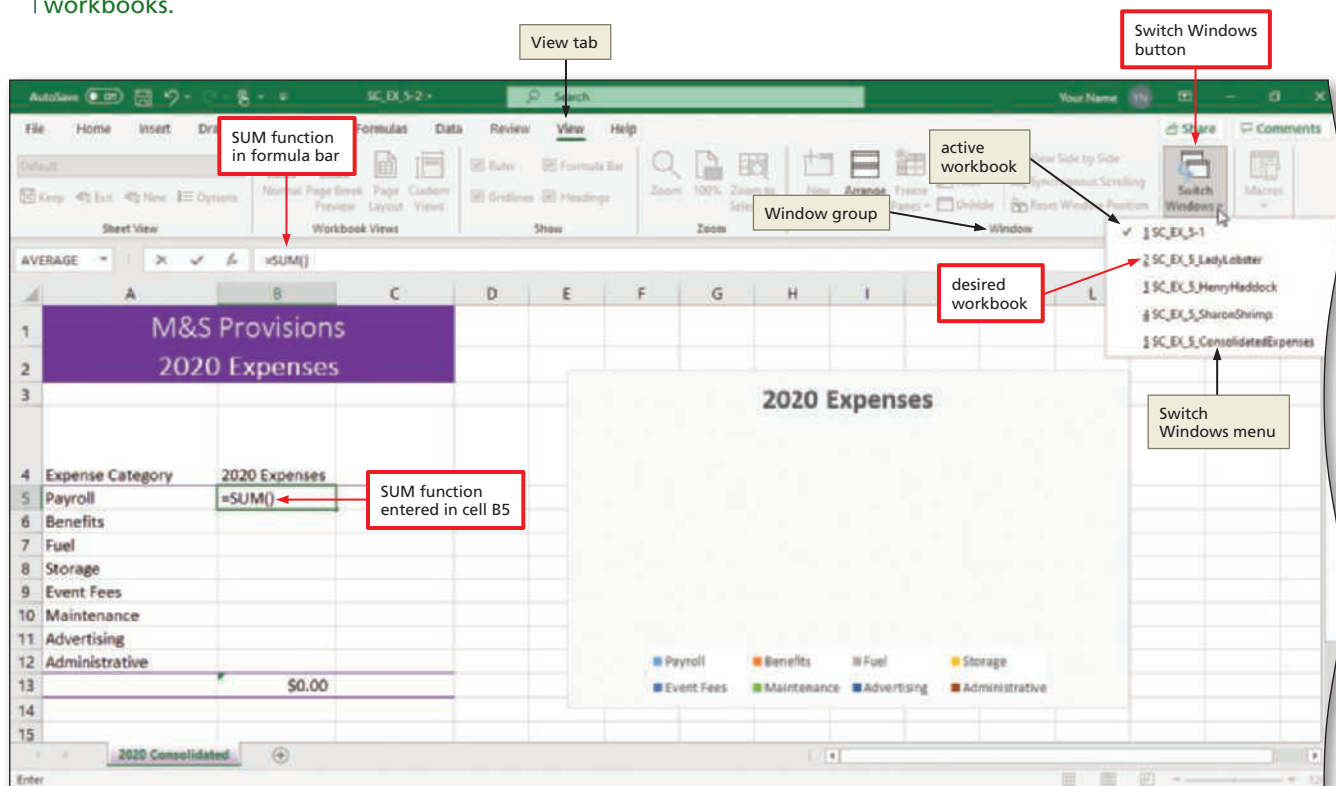


Figure 5-71

2

- Click the SC_EX_5_LadyLobster worksheet name on the Switch Windows menu to select the workbook. Maximize the workbook window.
- Click cell B5 to select it.
- In the formula bar, delete the dollar signs (\$) so that the reference is not absolute.
- In the formula bar, click immediately after B5 and then press COMMA (Figure 5-72).

Q&A Why do I have to remove the dollar signs (\$)?

Linked cell references are absolute (\$B\$5). You must edit the formula and change these to relative cell references because you plan to copy the SUM function in a later step. If the cell references were left as absolute, then the copied function always would refer to cell B5 in the three workbooks no matter where you copy the SUM function.

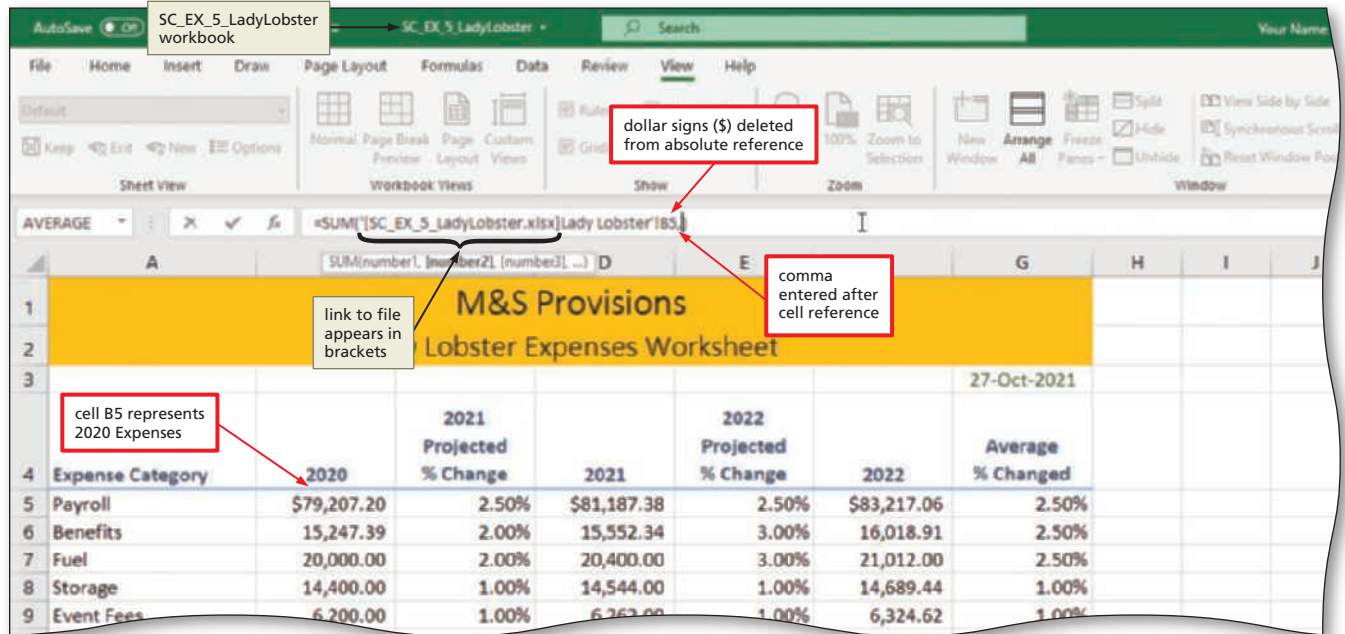


Figure 5-72

3

- Click the Switch Windows button (View tab | Window group) and then click the SC_EX_5_HenryHaddock workbook to display the workbook. Maximize the workbook window.
- Select cell B5 as the next argument in the SUM function.
- If necessary, click the Expand Formula Bar arrow (Formula bar) to display the entire formula. Delete the dollar signs (\$) in the reference. Click immediately after B5 in the formula bar and then press COMMA.
- Click the Switch Windows button (View tab | Window group), and then click the SC_EX_5_SharonShrimp workbook. Maximize the workbook window.
- Select cell B5 as the final argument in the SUM function.
- In the formula bar, delete the dollar signs (\$) in the reference.
- Click the Enter button in the formula bar to complete the SUM function and return to the SC_EX_5-2 workbook (Figure 5-73).

Q&A What if I make a mistake while editing the formula?

If you are still editing, click the Cancel button on the Formula bar, and start again. If you have entered the formula already, click the Undo button. Note that Excel formula error messages do not always indicate the exact location of the error.

Why did the pie chart start filling in?

Excel offers a live preview called **cell animation** that updates as you insert new data. The data file had the pie chart set up to reference the appropriate cells in column B.

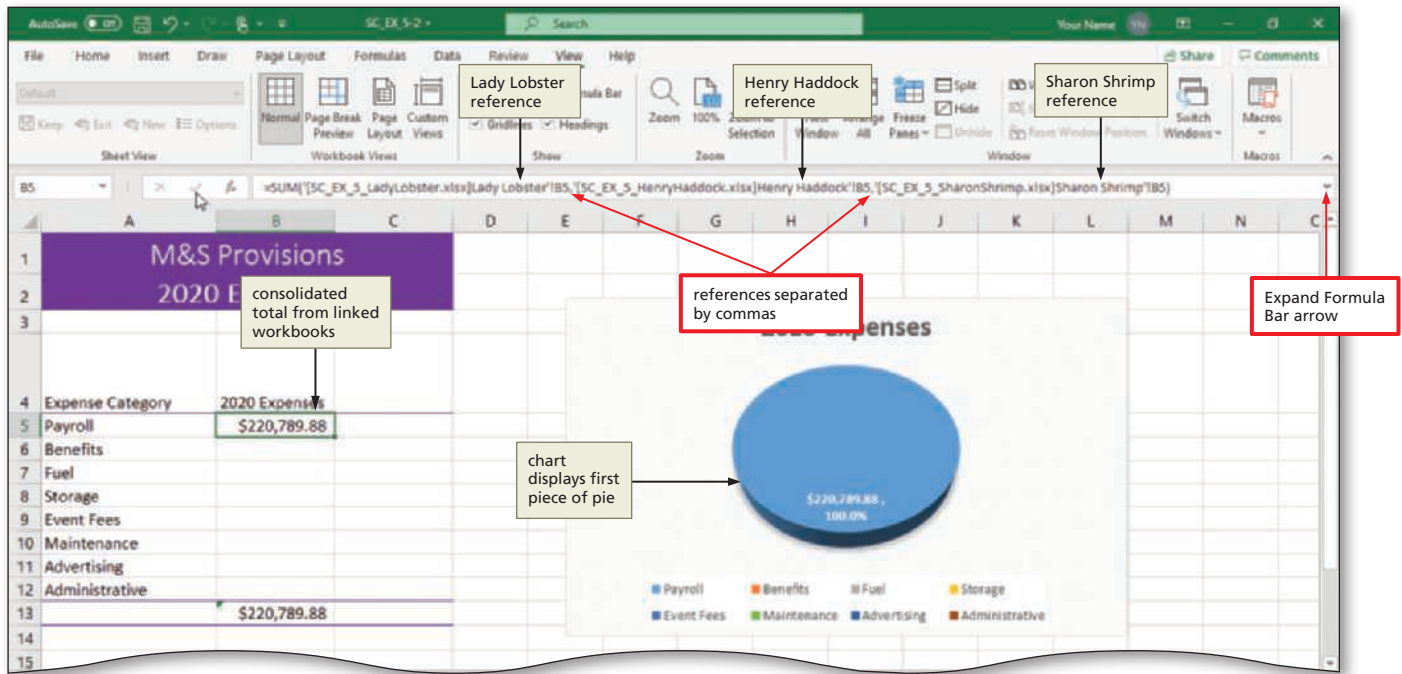


Figure 5-73

- 4
- With cell B5 active in the SC_EX_5-2 workbook, drag the cell's fill handle down through cell B12 to copy the formula to the range.
 - Apply the comma format to cells B6:B12 to remove the floating dollar signs.
 - Format the chart as necessary, exploding the Fuel slice, editing labels, and adding leader lines as shown in Figure 5-74.

Q&A I cannot access the Chart Elements button. What should I do?
 Click the Chart Elements arrow (Format tab | Current Selection group) and then choose the area you wish to format. Click the Format Selection button (Format tab | Current Selection group). The same dialog box or pane will open.

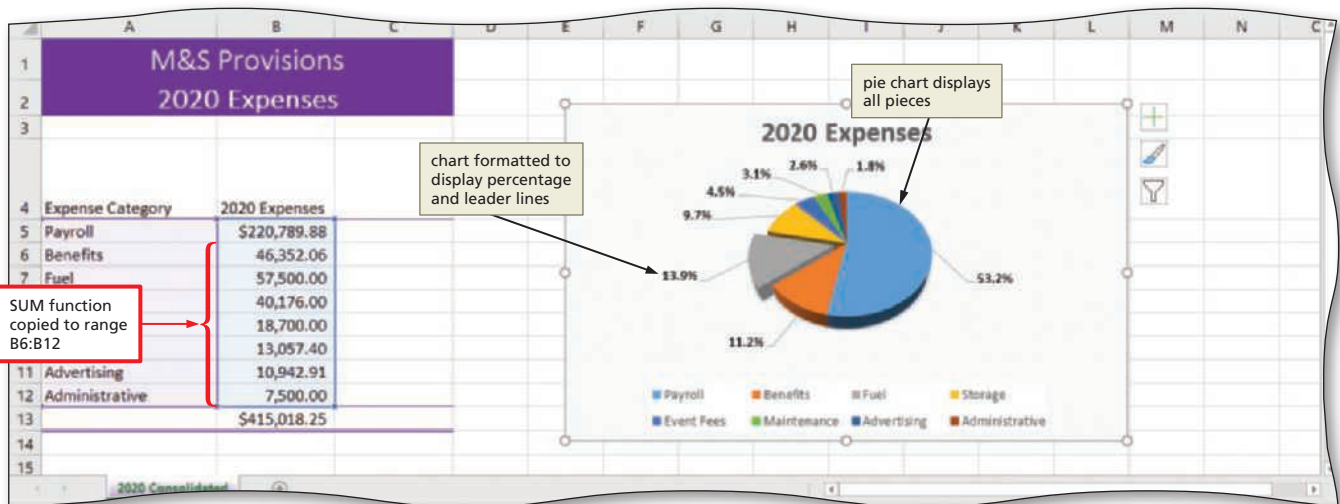



Figure 5-74

5

- Save the workbook with the name, SC_EX_5_2020ProjectedExpenses.
- If Excel displays a dialog box, click OK (Microsoft Excel dialog box) to save the workbook.

To Close All Workbooks at One Time

To close all four workbooks at one time and exit Excel, complete the following steps.

- 1**  Right-click the Excel app button on the taskbar and then click 'Close all windows' on the shortcut menu to close all open workbooks and exit Excel.
- 2** If a dialog box appears, click the Save button to save any changes made to the files since the last save.

BTW

Recovering Unsaved Changes

If you have to recover an unsaved workbook in Excel, you may be able to do so by clicking File on the Ribbon, clicking Info, clicking Manage Workbook, and then clicking Recover Unsaved Workbooks.

Summary

In this module, you learned how to create and use a consolidated worksheet. After using the Fill button to create a series, you used the TODAY and ROUND functions to format data. You created a custom format code for a four-digit year and a custom cell style that used specialized percentage styles for both positive and negative numbers. You learned how to work with multiple worksheets including several ways to copy worksheet data to a new worksheet, and drill an entry through those new worksheets. As you created the consolidated worksheet, you entered a 3-D reference and used the Paste gallery to replicate that reference. You added a pie chart to the consolidated worksheet complete with an exploded slice and formatted data labels with leader lines. You printed the multiple worksheets. Finally, you learned how to break out or split the worksheets into separate workbooks and consolidate the data to a new workbook by linking. With multiple workbooks open, you switched to different worksheets, arranged them in the Excel window, and hid them.



CONSIDER THIS: PLAN AHEAD

What decisions will you need to make when creating your next workbook to evaluate and analyze data using consolidated worksheets?

Use these guidelines as you complete the assignments in this module and create your own worksheets for evaluating and analyzing data outside of this class.

- Determine the workbook structure.
 - Determine how many worksheets and/or workbooks you will need.
 - Determine the data you will need for your worksheets.
 - Determine the layout of your data on the consolidated worksheet.
- Create and format the consolidated worksheet.
 - Enter titles, subtitles, and headings.
 - Enter placeholder data, functions, and formulas.
- Format the worksheet.
 - Format the titles, subtitles, and headings.
 - Format the numbers as necessary.
 - Create and use custom format codes and styles.
- Create the additional worksheets.
 - Determine the best method for adding additional worksheets, based on the data in the consolidated worksheet.
 - Add the new worksheets to the workbook.

- c) Add data and formatting to the new worksheets.
 - d) Create 3-D references where necessary to replace placeholders in the consolidated sheet with calculated values.
5. Create and use charts.
- a) Select the data to chart.
 - b) Select a chart type for selected data.
 - c) Format the chart elements.
6. Consolidate workbooks.
- a) Create separate workbooks from worksheets if necessary.
 - b) Link multiple workbooks to facilitate easy updating of data across workbooks.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Consolidating Payroll Worksheets

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.


Instructions: Start Excel. Open the workbook SC_EX_5-3.xlsx, which is located in the Data Files. The workbook you open contains payroll information for four employees of a small company over the period of four quarters. You are to consolidate the payroll figures. At the conclusion of the instructions, the Annual Totals sheet should resemble the worksheet shown in Figure 5–75.

Employee ID	Hours Worked	Gross Pay
JS214	995.00	\$13,153.90
JH873	2,014.00	20,643.50
SF297	1,972.00	37,626.76
PW122	2,033.00	37,712.16
Total	7,014.00	\$109,135.32

Figure 5–75

Perform the following tasks:

1. One by one, click each of the tabs and review the quarterly totals and formats. Change each tab color to match the background color of cell A1 on the corresponding worksheet.

2. Right-click the Annual Totals tab and then click Select All Sheets on the shortcut menu to group them. Perform the following steps.
 - a. Insert the date in cell D2 using the TODAY function. Create the 4-Digit Year cell style created earlier in this module, but using the font color Black, Text 1 and right (indent) horizontal justification. Apply the cell style to cell D2.
 - b. Format the column headings in the range A3:D3 using Heading 3 cell style. Format the range A8:D8 with the Total cell style.
 - c. Use the SUM function to total columns C and D.
 - d. Switch to Page Layout view. Add a worksheet header with the file name in the center of the header, and the current date in the right header. Add the sheet name, the word, Page, and page number to the center of the footer.
 - e. If requested by your instructor, add your name to the left header.
 - f. Click outside the header area. Click the 'Page Setup Dialog Box Launcher' to display the Page Setup dialog box. Center all worksheets horizontally on the page (Margins tab). Close the Page Setup dialog box. Return to Normal view.
3. Click the Qtr 1 sheet tab to select it. SHIFT+click the Qtr 4 sheet tab to select all four quarters without the Annual Totals worksheet. Perform the following steps:
 - a. Select cell D4. Use the ROUND function with two decimal places to calculate the gross pay by multiplying B4 by C4.
 - b. Use the fill handle to replicate the function to cells D5:D7.
 - c. Select the range C4:C8 and format it with the comma style (Home tab | Number group).
 - d. CTRL+click cells D4 and D8 to select them. Format the cells using the currency format (Format Cells dialog box), with a floating dollar sign and parentheses for negative numbers.
4. To consolidate the worksheets, click the Annual Totals sheet tab to select only the Annual Totals worksheet. To create a SUM function with a 3-D reference, select cell C4, and then click the AutoSum button (Home tab | Editing group). Click the Qtr 1 sheet tab to display the worksheet, and then click cell C4 to select the first portion of the argument for the SUM function. SHIFT+click the Qtr 4 sheet tab to select the ending range of the argument for the SUM function. Click the Enter button in the formula bar to enter the SUM function with the 3-D references in the selected cell.
5. On the Annual Totals sheet, copy the function in cell C4. Paste to the range C5:C7 using the Formulas button in the Paste gallery.
6. Repeat Steps 4 and 5 to create a 3-D reference in cell D4 and copy it to the range D5:D7.
7. On the Annual Totals sheet, format the range C4:D8 with the Comma style format. Next, CTRL+click cells D4 and D8 to select them. Format the cells using the currency format (Format Cells dialog box), with a floating dollar sign and parentheses for negative numbers.
8. Preview the five worksheets and print them if instructed to do so.
9. Click the Annual Totals sheet tab to select the sheet. Save the workbook as SC_EX_5_Payroll. Submit the workbook as requested by your instructor.
10.  What would have been the effect if you had consolidated the workbook before rounding the gross pays for each quarter? If you then rounded all of the numbers, would the answers have been the same? Why or why not?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Creating and Editing Custom Format Codes

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Excel. Open the workbook called SC_EX_5-4.xlsx, which is located in the Data Files and shown in Figure 5–76a. This workbook you open contains data to format using custom format codes. For each of the entries in the Custom Formats sheet, you are to either create a new custom format code or edit the code already applied to the cell entry. When completed, the worksheet should appear as shown in Figure 5–76b. You should not change the entries in the cells, just the formatting code applied to the entries.

Custom Format Codes	
10-digit phone number	4075559917
6-digit number with text	PN-527891
dollars and cents	207.90
negative number with text and color	-752
4-digit year with text	2022
day followed by date	Tue 8/9
text with text	
negative % with parenthesis	
% and text	
hours and minutes	3:25
military time with text	6000


(a) Original Data

Custom Format Codes	
10-digit phone number	407-555-9917
6-digit number with text	PN-527891
dollars and cents	207 dollars and .90 cents
negative number with text and color	752.00 loss
4-digit year with text	Current year: 2022
day followed by date	Tuesday - 8/9/2022
text with text	The month is June
negative % with parenthesis	(-80.4%)
% and text	75% complete
hours and minutes	15 hours and 25 minutes
military time with text	0600 hours

(b) Data with Custom Format Codes

Figure 5–76

Perform the following tasks:

1. Save the workbook as SC_EX_5_FormatCodes.
2. Select cell B3. Display the Format Cells dialog box, and note that the General format has been applied to this cell. Create a custom format code that will display the 10-digit number entered in cell B3 in the format shown in Figure 5–76b.
3. Select cell B4. Display the Format Cells dialog box, and note that a Custom Format code has been applied to this cell. Edit this custom format code to display the 6-digit number with text in cell B4 in the format shown in Figure 5–76b.
4. For each of the remaining cells in the range B5:B13, edit or create a custom format code to produce formatted cell contents that match Figure 5–76b.
5. Add a header to the worksheet that contains the file name (center) and page number (right).
6. If requested by your instructor, enter your phone number in cell B3 in place of the existing 10-digit number.
7. Save your changes to the workbook and submit the revised workbook as specified by your instructor.
8.  For many of the entries, several custom formats can produce the result shown in Figure 5–76b. What criteria would you use to determine which custom format to use in instances where more than one format would produce the result in Figure 5–76b?

Expand Your World

Create a solution that uses cloud and web technologies by learning and investigating on your own from general guidance.

Consolidating and Charting Weather Data in a Workbook

Instructions: Start Excel. You are to gather and analyze weather data from four cities for a group environmental studies project. You decide to use Excel to create the charts and store the data.

Perform the following tasks:

1. Start Excel. Open a blank workbook, and save it with the file name, SC_EX_5_Weather.
2. Search online for average monthly weather statistics by city and state. Choose four different locations or use ones suggested by your instructor. Copy the weather statistics, such as precipitation and temperature, to your workbook. Create a separate worksheet for each city. Format the worksheets using techniques you have used in this module.
3. Create a master worksheet that consolidates all city data into a single table.
4. For each city, create a chart depicting the precipitation for each city. Use a type appropriate to your data. Use the city name as the title. Move all four charts to a single new worksheet (Figure 5–77).

Continued >

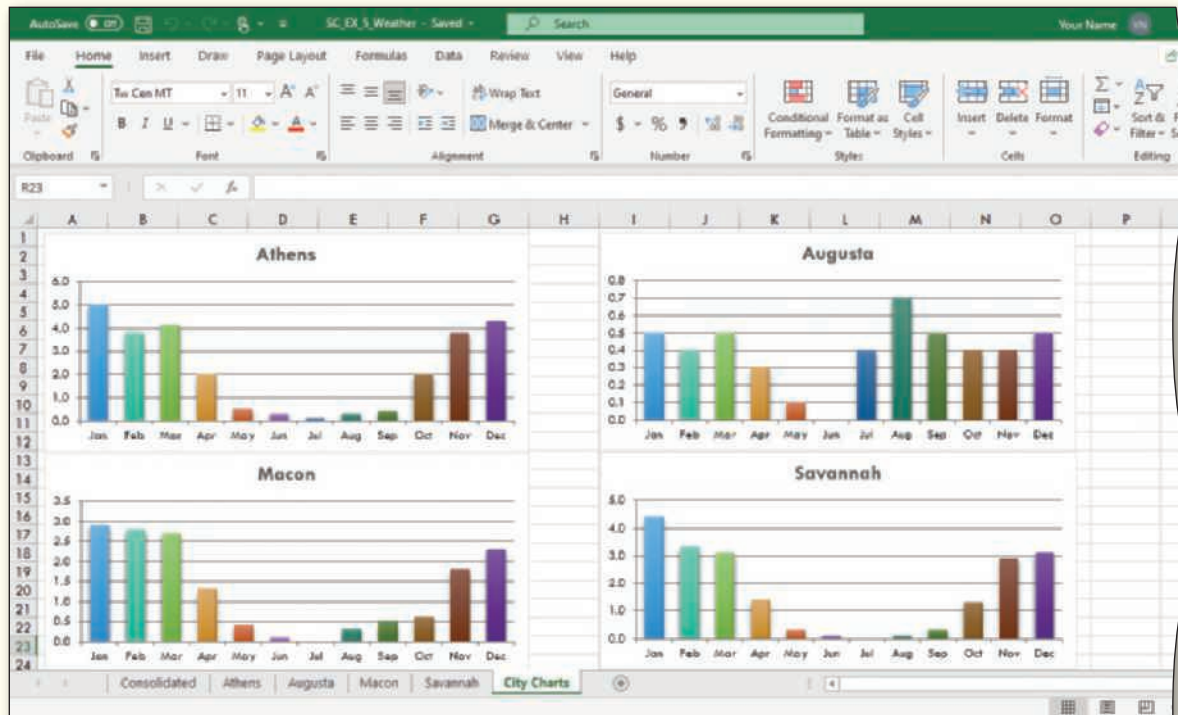
Expand Your World *continued*

Figure 5-77

5. Save the workbook and submit it as specified by your instructor.
6. 🌟 How did you choose your chart type? How could you make the charts more meaningful? Would you include data labels and leader lines? What kind of chart would you use for the consolidated worksheet?

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Track Fitness Data

Problem: You have just started a new biking regimen. You decide to track your progress so that you can evaluate your bike rides. You decide to use Excel to track information about time, distance, and frequency of your rides. You plan to record the data for each ride and to consolidate data on a weekly basis so that you can see how you are progressing from week to week.

Perform the following tasks:

Part 1: Use the concepts and techniques presented in this module to create a workbook for tracking your biking data. You want to create a workbook that contains multiple worksheets to allow you to review daily data, as well as consolidated data. Use your knowledge of consolidation to design a workbook that will allow you to analyze your progress. You should have at least one computed field, such as average miles per ride in your worksheets. You should include at least one chart presenting fitness data. Submit your assignment in the format specified by the instructor.

Part 2: 🌟 This exercise had you create a chart presenting fitness data. List two other ways you could chart the data in Excel. What are the strengths and weaknesses of each of the three chart types for the data you are presenting?

6 | Creating, Sorting, and Querying a Table

Objectives

After completing this module, you will be able to:

- Create and manipulate a table
- Delete duplicate records
- Add calculated columns to a table with structured references
- Use the XLOOKUP function to look up a value in a table
- Use icon sets with conditional formatting
- Insert a total row
- Sort a table on one field or multiple fields
- Sort, query, and search a table using AutoFilter
- Remove filters
- Create criteria and extract ranges
- Apply database and statistical functions
- Use the MATCH and INDEX functions to find a value in a table
- Display automatic subtotals
- Use outline features to group, hide, and unhide data
- Create a treemap chart

Introduction

A **table**, also called a **database**, is an organized collection of rows and columns of similarly structured data on a worksheet. For example, a list of friends, a group of students registered for a class, an inventory list, a club membership roster, or an instructor's grade book—all can be arranged as tables on a worksheet. In these cases, the data related to each person or item is called a **record**, and the individual data items that make up a record are called **fields**. For example, in a table of clients, each client would have a separate record; each record might include several fields, such as name, address, phone number, current balance, billing rate, and status. A record also can include fields that contain references, formulas, and functions.

You can use a worksheet's row-and-column structure to organize and store a table. Each row of a worksheet can store a record, and each column can store one field for each record. Additionally, a row of column headings at the top of the worksheet can store field names that identify each field.

After you enter a table onto a worksheet, you can use Excel to (1) add and delete records, (2) change the values of fields in records, (3) sort the records so that Excel presents them in a different order, (4) determine subtotals for numeric fields, (5) display records that meet comparison criteria, and (6) analyze data using database functions. This module illustrates all six of these table capabilities.

Project: Rating Bank Account Managers

The project in this module follows proper design guidelines and uses Excel to create the worksheet shown in Figures 6-1a and 6-1b, and the chart (Figure 6-1c). A local bank with several branches collects funds for customer checking, savings, and investment accounts and makes loans to customers and businesses. Bank account managers meet with customers to discuss their banking needs, recommend appropriate accounts or loans, and perform all necessary tasks to open them. The account managers are paid a salary plus commission. Bank management produces a monthly workbook that lists the account managers, account or loan amounts, account types, and supervisor ratings, as well as commissions earned. The data in the workbook should be easy to summarize, sort, edit, and query.

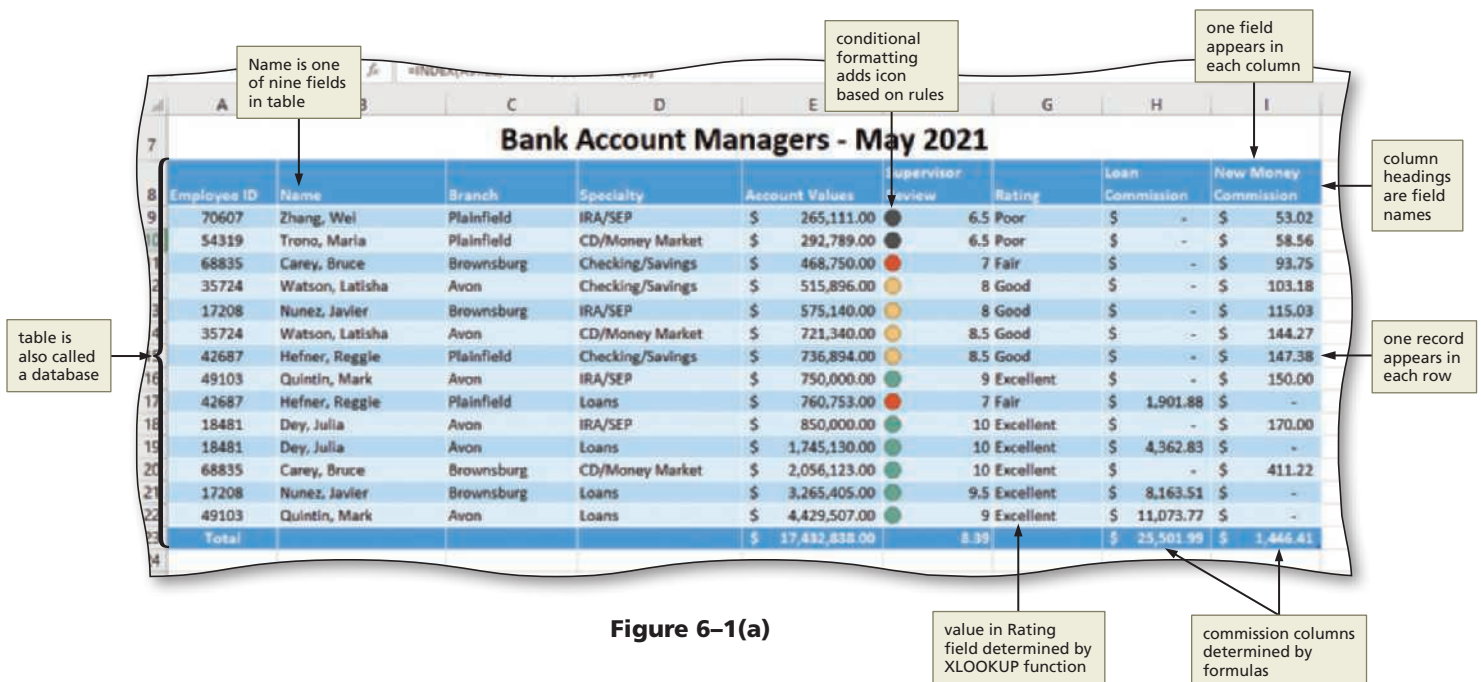


Figure 6-1(a)

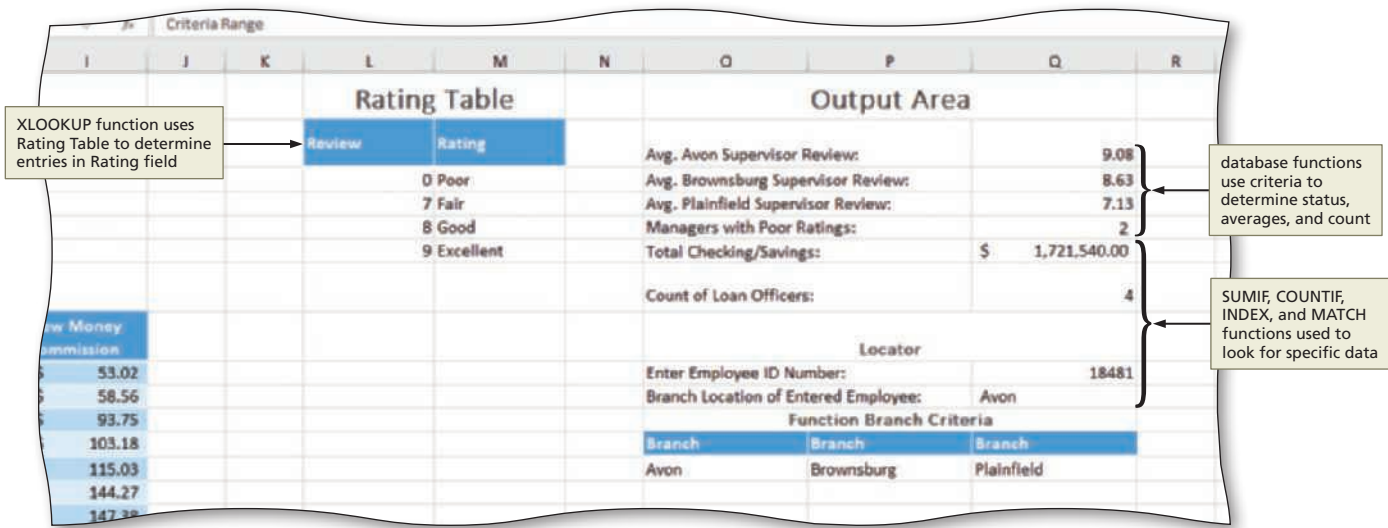


Figure 6-1(b)

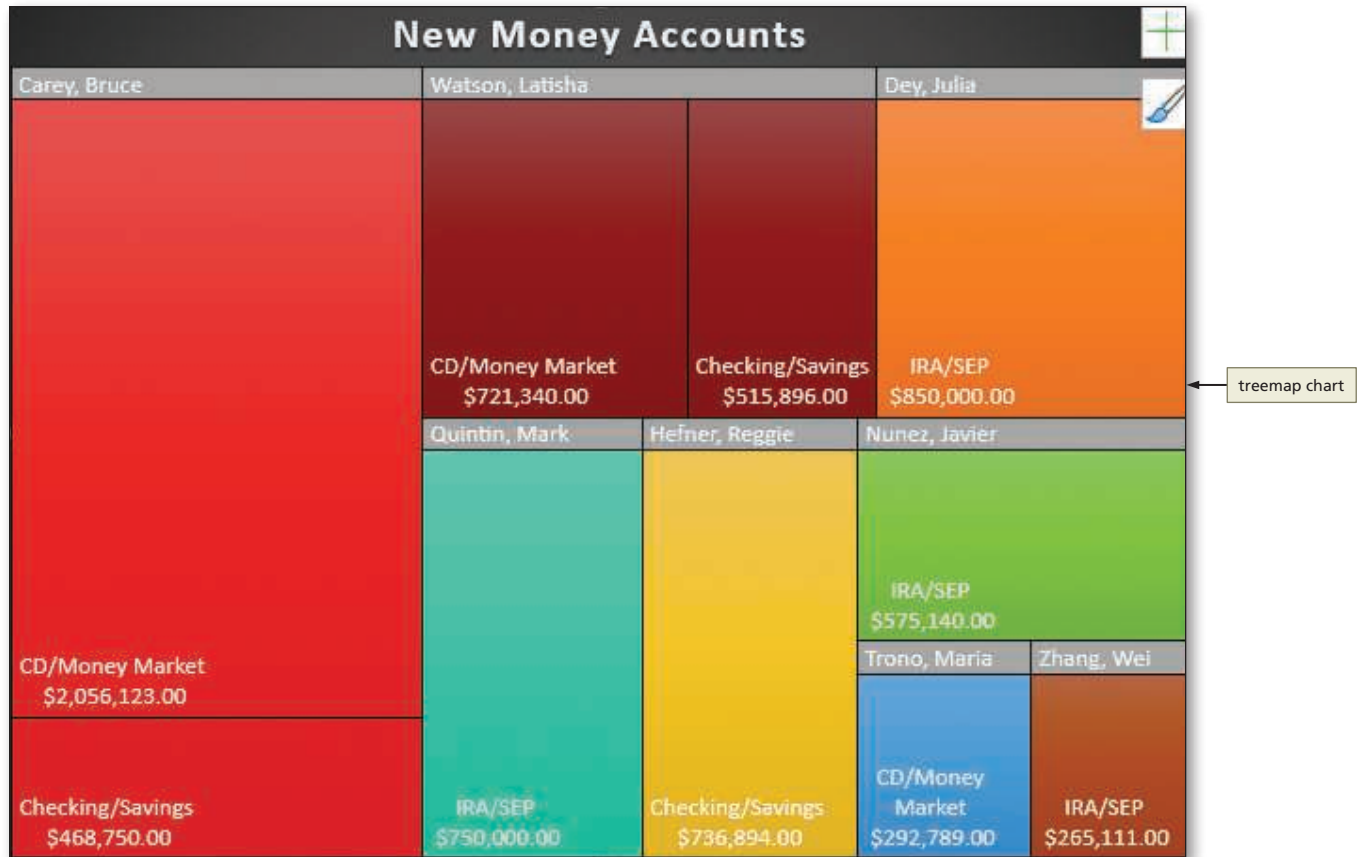


Figure 6-1(c)

Figure 6-2 shows a sample requirements document for the Bank Account Managers Table. It includes the needs, source of data, calculations, special requirements, and other facts about its development.

EX 6-4 Excel Module 6 Creating, Sorting, and Querying a Table

Worksheet Title	Bank Account Managers Table
Needs	<ul style="list-style-type: none"> • A worksheet table that lists the manager's employee ID number, name, branch, type of account, and monthly account values. • The worksheet also should assign an Excellent, Good, Fair, or Poor rating based on the supervisor's review. • The worksheet should calculate each manager's commission based on specialty and account values. • The worksheet should be easy for management to sort, search, filter, and total.
Source of Data	Data supplied by the bank includes the information listed in the first Needs bullet above and detailed in Table 6–1 below. Remaining numbers on the worksheet are based on calculations.
Calculations	<p>The following calculations are needed:</p> <ul style="list-style-type: none"> • Loan Commission = $.0025 * \text{Account Values}$ only for Loans Specialty (IF function) • New Money Commission = $.0002 * \text{Account Values}$ only for Specialty other than Loans (IF function) • Rating that is determined as follows: <ul style="list-style-type: none"> o Excellent = a high score of 9 to 10 o Good = an adequate score of 8 to 8.99 o Fair = a low score of 7 to 7.99 o Poor = a score below 7 • Average Supervisor Review score for each branch (DAVERAGE function) • Count of managers with Poor ratings (DCOUNT function) • Total Checking/Savings account values (SUMIF function) • Total count of loan officers (COUNTIF function) • Look up Branch by Employee ID (INDEX and MATCH functions)
Other Requirements	<ul style="list-style-type: none"> • Provide a way to search, sort, and select data based on certain criteria. • Provide an area to ascertain statistics about account managers, such as averages, counts, and totals based on specific factors. • A criteria area will be created above the table to store criteria for use in a query. An extract area will be created below the table to display records that meet the criteria. • Provide a hierarchical and visual chart to display all of the account managers, the types of accounts they service, and their account totals.

Figure 6–2

Table 6–1 describes the field names, columns, types of data, and descriptions that you can refer to when creating the table.

Table 6–1 Column Information for Bank Account Managers Table			
Column Heading (Field Names)	Column in Worksheet	Type of Data	Description
Employee ID	A	Numeric	5-digit whole number, previously assigned by employer
Name	B	Text	Last name, first name
Branch	C	Text	Avon, Brownsburg, or Plainfield
Specialty	D	Text	CD/Money Market, Checking/Savings, IRA/SEP, or Loans
Account Values	E	Numeric	Dollar value of total money (loaned or new money) brought in for the month
Supervisor Review	F	Numeric	Decimal number with one decimal place, provided by the supervisor
Rating	G	Text calculation (XLOOKUP function)	Standing of Excellent, Good, Fair, or Poor rating based on the supervisor's review
Loan Commission	H	Percentage calculation (total loans made by account manager * .0025)	Dollar amount
New Money Commission	I	Percentage calculation (total new money brought in by account manager * .0002)	Dollar amount

Using a sketch of the worksheet can help you visualize its design. The sketch of the table consists of the title, column headings, location of data values, and an idea of the desired formatting (Figure 6–3a). (The sketch does not show the criteria area above the table or the extract area below the table.) The general layout of the table, output area, and required statistics and query are shown in Figure 6–3b.

Account Managers Table								
Employee ID	Name	Branch	Specialty	Account Values	Supervisor Review	Rating	Loan Commission	New Money Commission
XXXXX	Last, First	XXXXX	XXXXXX	\$9,999,999.99	99.99	XXXXXX	\$99,999.99	\$99,999.99

(a) Data Table

Rating Table		Output Area	
Review	Rating	Avg. Avon Supervisor Review:	9.08
0	Poor	Avg. Brownsburg Supervisor Review:	8.63
7	Fair	Avg. Plainfield Supervisor Review:	7.13
8	Good	Managers with Poor Ratings:	2
9	Excellent	Total Checking/Savings:	\$ 1,721,540.00
		Count of Loan Officers:	4
Locator			
		Enter Employee ID Number:	18481
		Branch Location of Entered Employee:	Avon
Function Branch Criteria			
		Branch	Branch
		Avon	Brownsburg
			Plainfield

(b) Rating Table and Output Area

Figure 6–3

With a good understanding of the requirements document, a clear list of the necessary decisions, and a sketch of the worksheet, the next step is to use Excel to create the worksheet and chart. The raw data provided by the bank is provided in a Data File.

To Open and Save a File

The following steps open a file and save it with a new name. To complete these steps, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

- 1 **Start** Start Excel and open the Data File named SC_EX_6-1.xlsx.
- 2 If the Excel window is not maximized, click the Maximize button on its title bar to maximize the window.
- 3 Save the workbook on your hard drive, OneDrive, or a location that is most appropriate to your situation, using SC_EX_6_BankAccountManagers as the file name.
- 4 If necessary, click cell A1 (Figure 6–4).

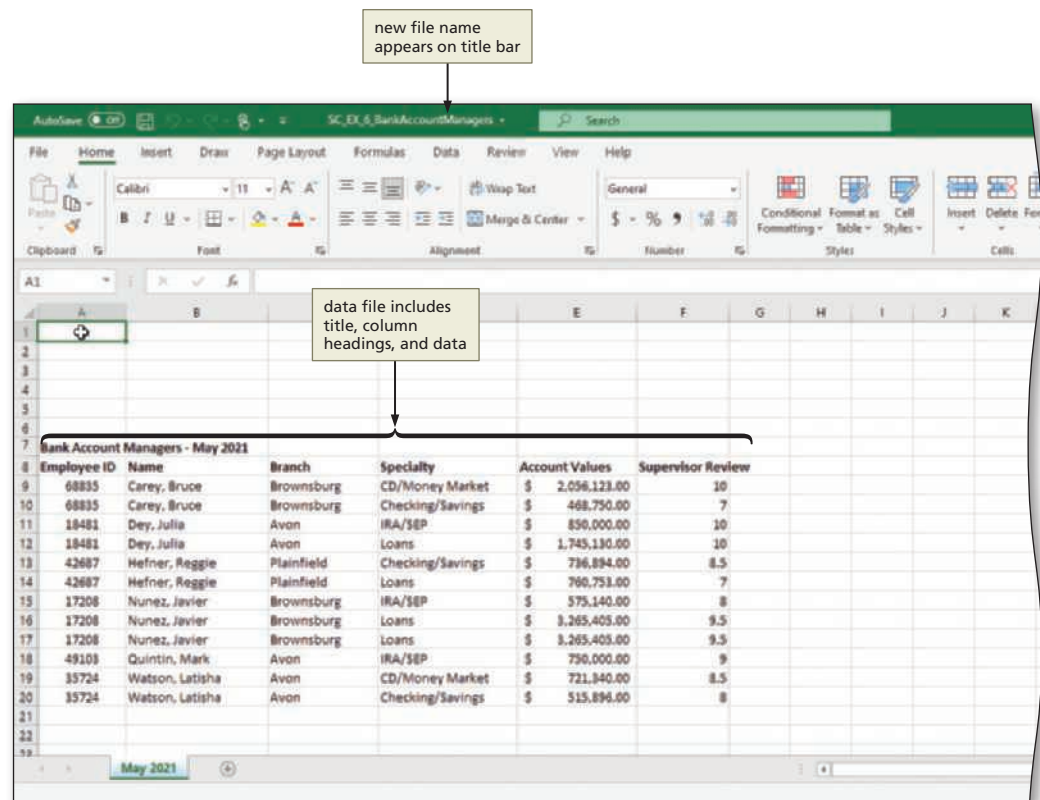


Figure 6–4

Table Guidelines

When you create a table in Excel, you should follow some basic guidelines, as listed in Table 6–2.

Table 6–2 Guidelines for Creating a Table in Excel

Table Size and Workbook Location

1. Do not enter more than one table per worksheet.
2. Maintain at least one blank row between a table and other worksheet entries.
3. A table can have a maximum of 16,384 fields and 1,048,576 records on a worksheet.

Column Headings (Field Names)

1. Place column headings (field names) in the first row of the table.
2. Do not use blank rows or rows with repeating characters, such as dashes or underscores, to separate the column headings from the data.
3. Apply a different format to the column headings than to the data. For example, bold the column headings and format the data below the column headings using a regular style. Most table styles follow these guidelines.
4. While column headings can be up to 32,767 characters in length, it is advisable to keep them short so more information can fit on the screen. The column headings should be meaningful.

Contents of Table

1. Each cell in any given column should have similar data. For example, Speciality entries should use the company standard wording for the types of accounts, such as IRA/SEP.
2. Format the data to improve readability, but do not vary the format of the data within the cells of a column.

BTW

Ribbon and Screen Resolution

Excel may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

Creating a Table

When you create a table in Excel, you can manage and analyze the data in that table independently from the rest of the data on the worksheet. The advantages of creating a table include:

- Automatic expansion of the table to accommodate data
- Header row remains visible while scrolling
- Automatic reformatting such as the recoloring of banded rows or columns
- Integrated filter and sort functionality
- Automatic fill and calculated fields
- Easy access to structured references
- Automatic adjustment of associated charts and ranges

BTW

Touch Mode Differences

The Office and Windows interfaces may vary if you are using Touch Mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

Consider This



How should you format a table?

Format a table so that the records are easy to distinguish from one another. The headings in the table should start several rows from the top in order to leave room for a criteria area. Using banded rows (background colors varying between rows) to format the table provides greater readability. Some columns require calculations that can be created by using the column headings or cell references within formulas. In some cases, calculated columns in tables require looking up values outside of the table. You can use special Excel lookup functions in such cases. Totals also can be added to the table for averages, sums, and other types of calculations.

To Format a Range as a Table

The easiest way to create a table is to apply a table style. **Why?** Table styles are a quick way to increase table readability and usability. Excel automatically creates the table when applying a table style to a range. You can create a table before or after entering column headings and data. Most automatically-applied styles contain banded rows. A **banded row** is a row that is highlighted or delineated in some way, usually applied to every other row in a table. The Table Design tab contains check boxes to turn banded rows or banded columns, on and off.

You also have the option of inserting a table. The Insert Table button (Insert tab | Tables group) will create a blank table in a specified range, using the default color scheme. The following steps format a range as a table.

1

- Zoom to 110% and then scroll down until cell A7 is at the top of the workspace.
- Select the range A8:F20, which includes the column headings.
- Click the 'Format as Table' button (Home tab | Styles group) to display the Format as Table gallery (Figure 6-5).

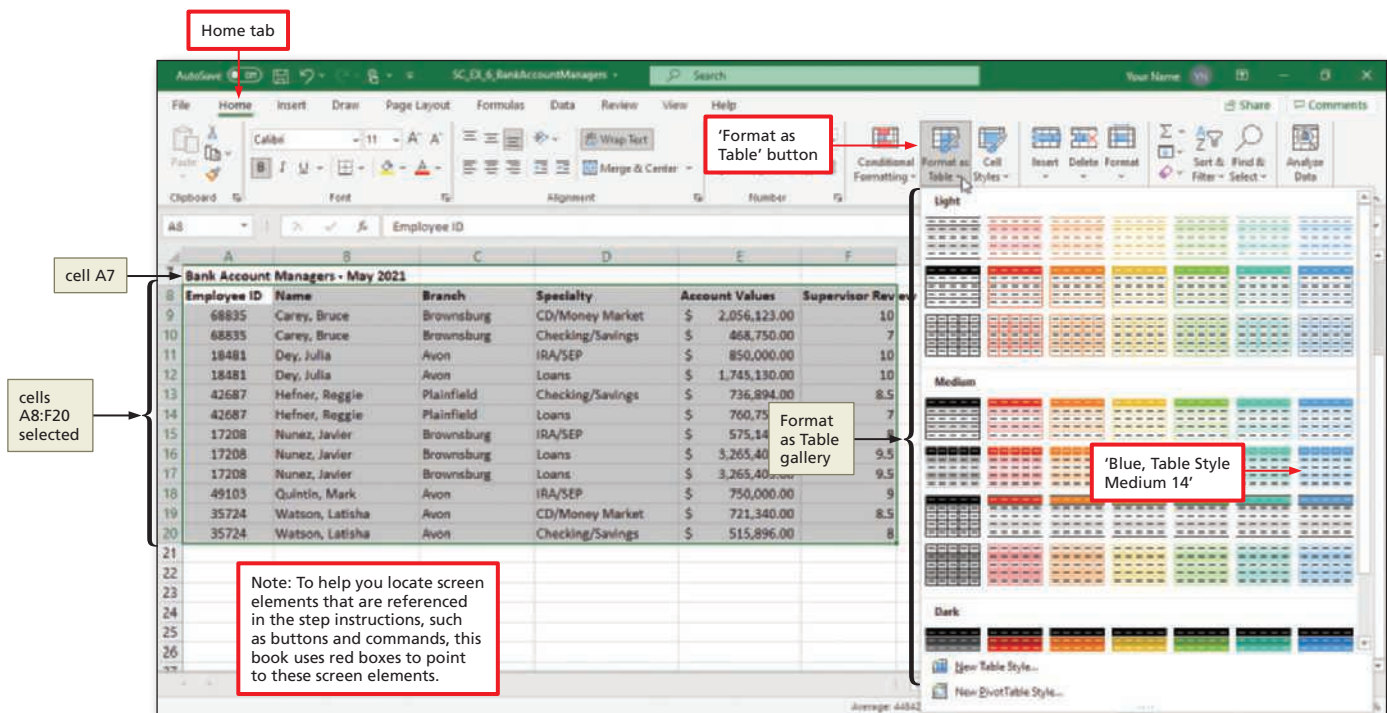


Figure 6-5

2

- Click 'Blue, Table Style Medium 14' in the Format as Table gallery to display the Format As Table dialog box.
- If necessary, click the 'My table has headers' check box to select the option to format the table with headers (Figure 6-6).

Q&A What is a header?

A table header is the column heading that appears above the data. In this case, you want to create the table and include the column headings.

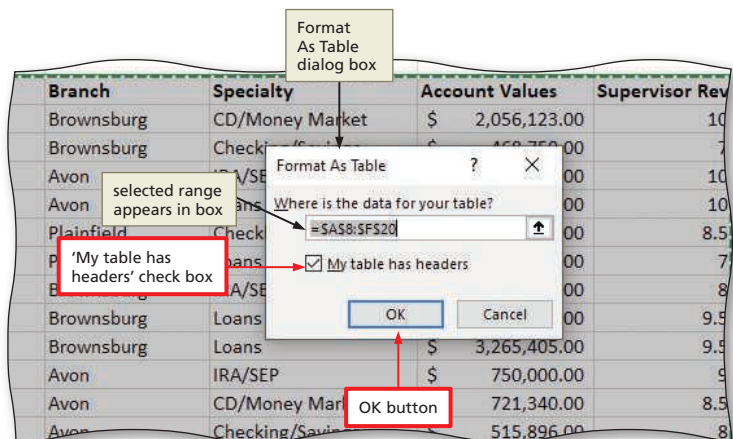


Figure 6-6

3

- Click OK (Format As Table dialog box) to create a table from the selected range.
- Click outside the table to deselect it (Figure 6–7).

Q&A What are the buttons with the arrows beside the column headings? The buttons are part of the AutoFilter that you will learn about later in the module.

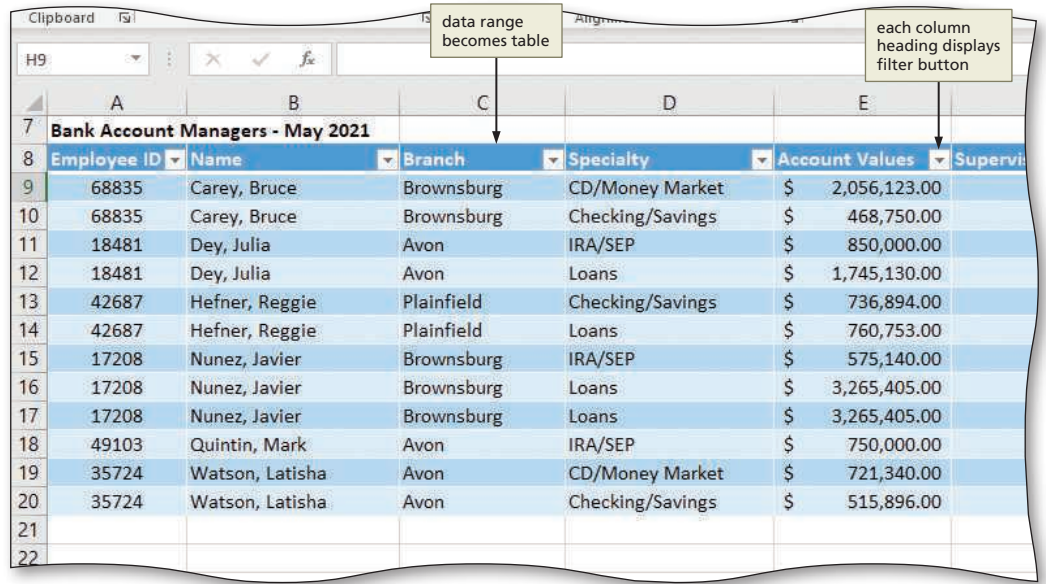


Figure 6–7

Other Ways

1. Select range, click Table button (Insert tab | Tables group), click OK, choose table style
2. Select range, press CTRL+T, click OK (Create Table dialog box), choose table style

To Wrap Text

The following steps wrap the text in cell F8 to make the heading easier to read.

- 1 Change the width of column F to 13. Change the height of row 8 to 30.
- 2 Select cell F8, and then click the Wrap Text button (Home tab | Alignment group) (Figure 6–8).

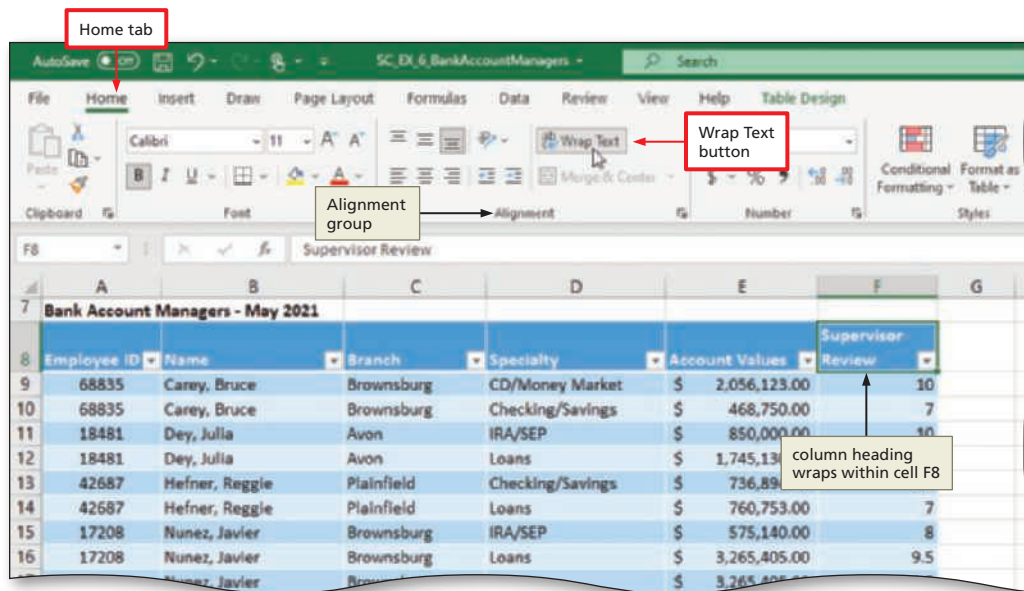


Figure 6–8

BTW

Ranges to Tables

If you select a range before clicking the 'Format as Table' button (Home tab | Styles group), Excel will fill in the range for you in the Format As Table dialog box.

To Name the Table

The following step gives a name to the table. **Why?** Referring to the table by name rather than by range reference will save time.

1

- Click anywhere in the table and then display the Table Design tab.
- Click the Table Name text box (Table Design tab | Properties group).
- Type **Managers** and then press ENTER to name the table (Figure 6–9).

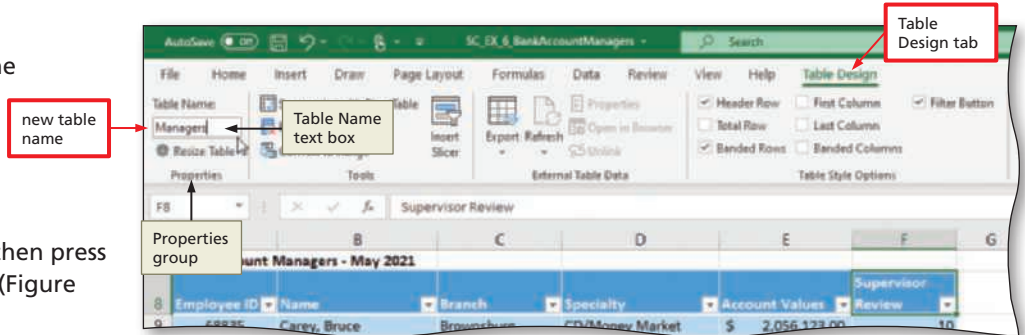


Figure 6–9

Q&A Are there any rules about naming tables?

Excel does not allow spaces in table names. Excel also requires that table names begin with a letter or underscore.

Other Ways

1. Select range, click Name Manager button (Formulas tab | Defined Names group), click New button (Name Manager dialog box), enter name (New Name dialog box), click OK, click Close

To Remove Duplicates

Duplicate entries may appear in tables. **Why?** Duplicates sometimes happen when data is entered incorrectly, by more than one person, or from more than one source. The following steps remove duplicate records in the table. In this particular table, the Loans total for Javier Nunez was entered twice by mistake. (Javier Nunez also has a record in the table for IRA/SEP accounts.)

1

- Click anywhere in the table.
- Click the Remove Duplicates button (Table Design tab | Tools group) to display the Remove Duplicates dialog box.
- If necessary, click the Select All button (Remove Duplicates dialog box) to select all columns (Figure 6–10).

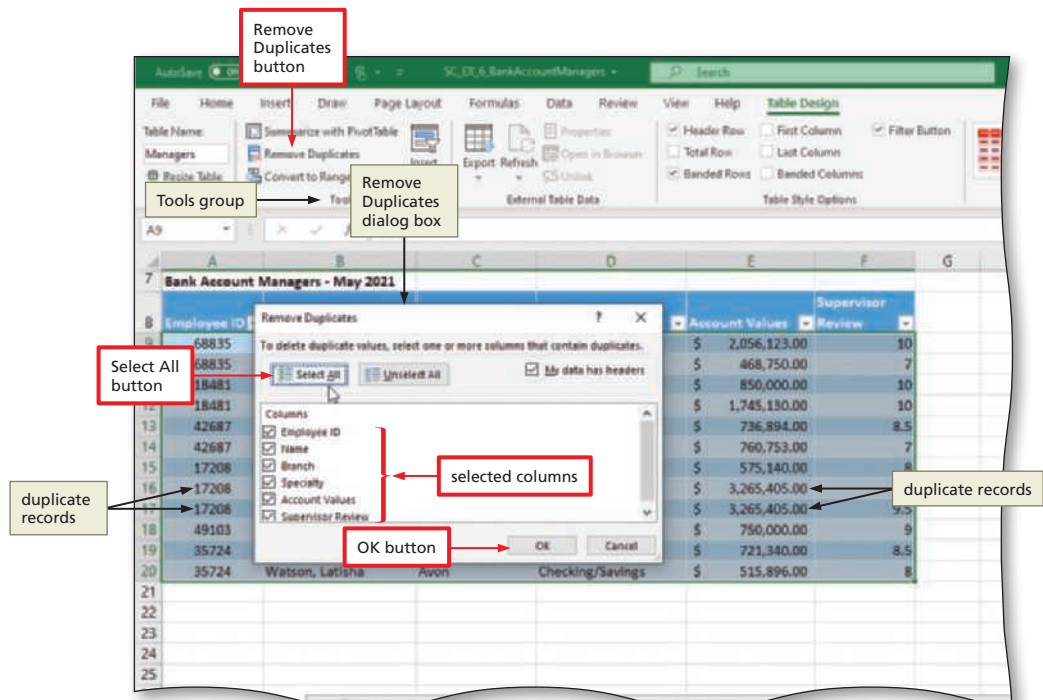


Figure 6–10

2

- Click OK (Remove Duplicates dialog box) to remove duplicate records from the table (Figure 6–11).

Q&A

Did Excel reformat the table?

Yes. The Banded Rows check box (Table Design tab | Table Style Options group) is checked automatically when you selected the table format. **Row banding** causes adjacent rows to have different formatting, even if you delete a row; each row in the table is distinguishable from surrounding rows.

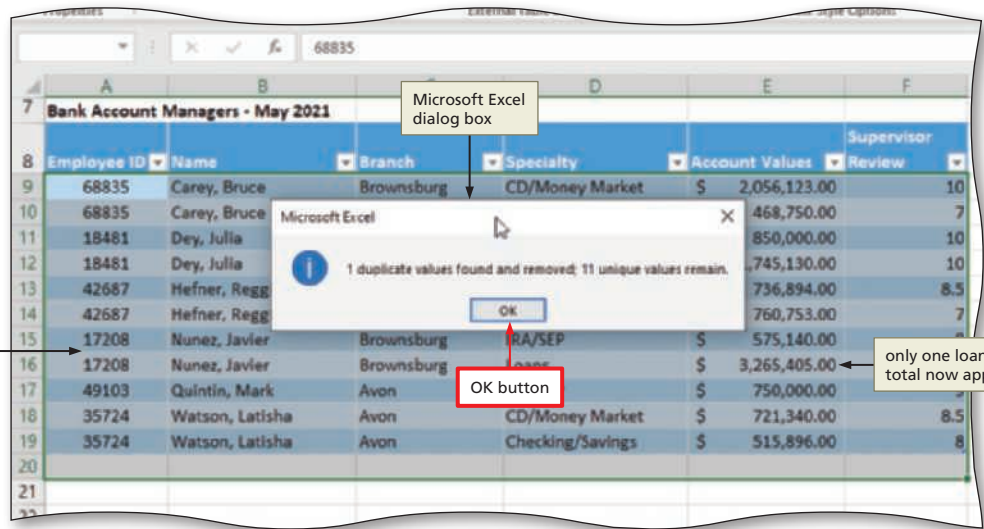


Figure 6–11

3

- Click OK (Microsoft Excel dialog box) to finish the process.



Experiment

- Examine the table to verify removal of the duplicate record for employee 17208 for Loans.

Other Ways

1. Select range, click Remove Duplicates button (Data tab | Data Tools group)

To Enter New Rows and Records into a Table

The following step enters new account managers into the table. You will insert the information just below the table. **Why?** Data entered in rows or columns adjacent to the table becomes part of the table. Excel will format the new table data automatically.

1

- Select cell A20.
- Type the new entries below.



Experiment

- As you enter the data, notice that Excel tries to complete your fields based on previous common entries. You can press TAB to move between cells.

49103	Quintin, Mark	Avon	Loans	4,429,507.00	9
54319	Trono, Maria	Plainfield	CD/Money Market	292,789.00	6.5
70607	Zhang, Wei	Plainfield	IRA/SEP	265,111.00	6.5

EX 6-12 Excel Module 6 Creating, Sorting, and Querying a Table

- Click the Home tab.
If necessary, click outside the table to deselect it (Figure 6–12).

new data entered

	Employee ID	Name	Branch	Specialty	Account Values	Supervisor	Review	Rating	Loan Commission	New Money Commission
10	68835	Carey, Bruce	Brownsburg	CD/Money Market	\$ 2,056,123.00			10		
11	18481	Dey, Julia	Avon	IRA/SEP	\$ 850,000.00			10		
12	18481	Dey, Julia	Avon	Loans	\$ 1,745,130.00			10		
13	42687	Hefner, Reggie	Plainfield	Checking/Savings	\$ 736,894.00			8.5		
14	42687	Hefner, Reggie	Plainfield	Loans	\$ 760,753.00			7		
15	17208	Nunez, Javier	Brownsburg	IRA/SEP	\$ 575,140.00			8		
16	17208	Nunez, Javier	Brownsburg	Loans	\$ 3,265,405.00			9.5		
17	49103	Quintin, Mark	Avon	IRA/SEP	\$ 750,000.00			9		
18	35724	Watson, Latisha	Avon	CD/Money Market	\$ 721,340.00			8.5		
19	35724	Watson, Latisha	Avon	Checking/Savings	\$ 515,896.00			8		
20	49103	Quintin, Mark	Avon	Loans	\$ 4,429,507.00			9		
21	54319	Trono, Maria	Plainfield	CD/Money Market	\$ 292,789.00			6.5		
22	70607	Zhang, Wei	Plainfield	IRA/SEP	\$ 265,111.00			6.5		
23										

Figure 6–12

Other Ways

1. Drag table sizing handle down to add new row, enter data

BTW

Adding Blank Rows and Columns to Tables

If you want to add a blank row or column to a table, the easiest way is to right-click a cell within the table. Then, on the shortcut menu, click Insert. Excel displays options for columns and rows, above and below the selected cell.

To Add New Columns to the Table

When you add a new column heading in a column adjacent to the current column headings in the table, Excel automatically adds the adjacent column to the table's range and copies the format of the existing table heading to the new column heading. The following steps insert column headings for three new columns in the table.

- 1 Change the column width of column G to 13.00. Click cell G8. Type **Rating** and then click the Enter button to enter the heading.
- 2 Change the column width of column H to 13.00. Click cell H8. Type **Loan Commission** and then click the Enter button to enter the heading. If necessary, click the Wrap Text button Home tab | Alignment group) to wrap the text.
- 3 Change the column width of column I to 13.00. Click cell I8. Type **New Money Commission** and then click the Enter button to enter the heading. If necessary, wrap the text in the cell (Figure 6–13).

	Employee ID	Name	Branch	Specialty	Account Values	Supervisor	Review	Rating	Loan Commission	New Money Commission
9	68835	Carey, Bruce	Brownsburg	CD/Money Market	\$ 2,056,123.00			10		
10	68835	Carey, Bruce	Brownsburg	Checking/Savings	\$ 468,750.00			7		
11	18481	Dey, Julia	Avon	IRA/SEP	\$ 850,000.00			10		
12	18481	Dey, Julia	Avon	Loans	\$ 1,745,130.00			10		
13	42687	Hefner, Reggie	Plainfield	Checking/Savings	\$ 736,894.00			8.5		
14	42687	Hefner, Reggie	Plainfield	Loans	\$ 760,753.00			7		
15	17208	Nunez, Javier	Brownsburg	IRA/SEP	\$ 575,140.00			8		
16	17208	Nunez, Javier	Brownsburg	Loans	\$ 3,265,405.00			9.5		
17	49103	Quintin, Mark	Avon	IRA/SEP	\$ 750,000.00			9		
18	35724	Watson, Latisha	Avon	CD/Money Market	\$ 721,340.00			8.5		
19	35724	Watson, Latisha	Avon	Checking/Savings	\$ 515,896.00			8		
20	49103	Quintin, Mark	Avon	Loans	\$ 4,429,507.00			9		
21	54319	Trono, Maria	Plainfield	CD/Money Market	\$ 292,789.00			6.5		
22	70607	Zhang, Wei	Plainfield	IRA/SEP	\$ 265,111.00			6.5		
23										
24										
25										

Figure 6–13

To Center Across Selection

The following steps center the title in cell A7 across a selection using the Format Cells dialog box. In earlier modules, recall you used the 'Merge & Center' button (Home tab | Alignment group) to center text across a range. **Why?** This earlier technique centered the title, but it removed access to individual cells, because the cells were merged. The Center Across Selection format centers text across multiple cells but does not merge the selected cell range into one cell.

- 1 Select the range A7:I7. Right-click the selected range to display the shortcut menu (Figure 6-14).

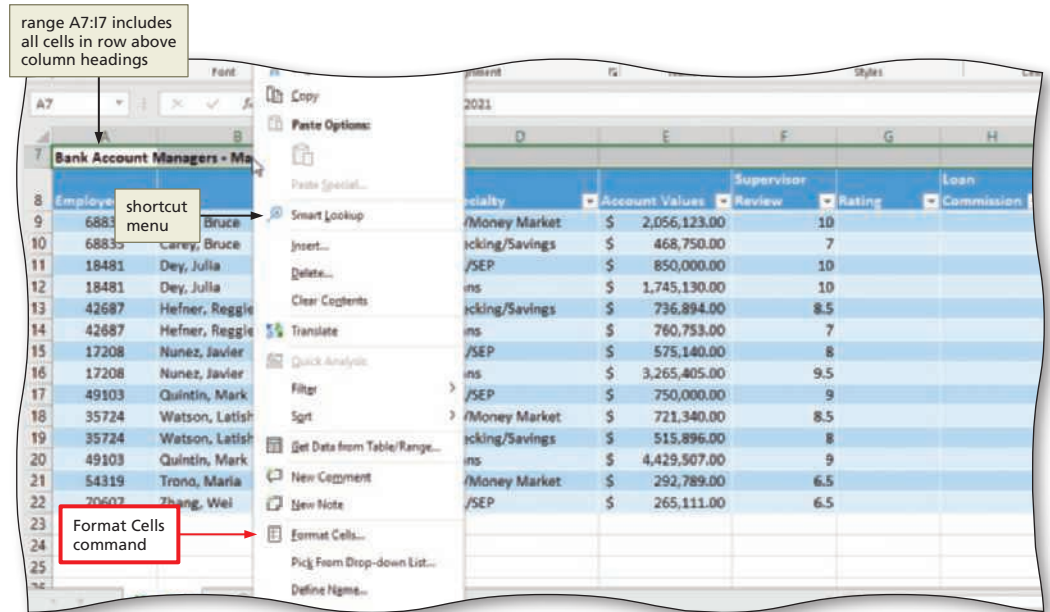


Figure 6-14

- 2 Click Format Cells on the shortcut menu to display the Format Cells dialog box.
 - Click the Alignment tab (Format Cells dialog box) and then click the Horizontal button in the Text alignment area to display a list of horizontal alignments (Figure 6-15).

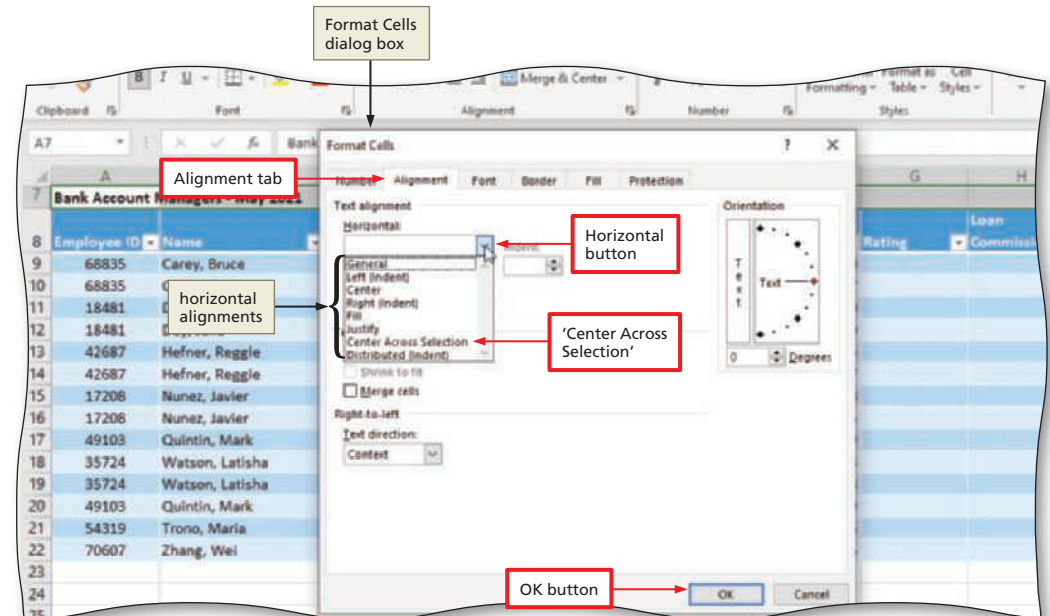


Figure 6-15

3

- Click 'Center Across Selection' in the Horizontal list (Format Cells dialog box) to select the option to center the title across the selection.
- Click OK (Format Cells dialog box) to apply the settings.
- Change the height of row 7 to 30. Change the font size of cell A7 to 22 (Figure 6–16).

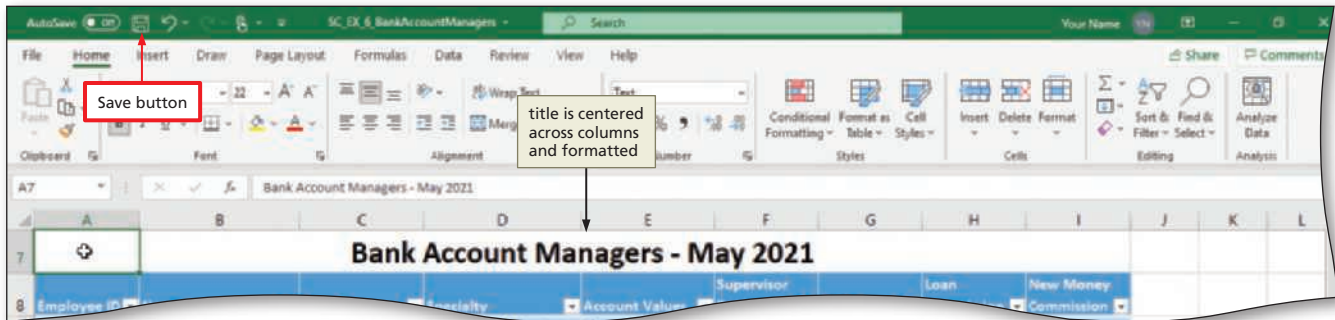


Figure 6–16

4

- Click the Save button on the Quick Access Toolbar to save the workbook again.

Using a Lookup Table

The entries in the Supervisor Review column give the user a numerical evaluation of the rating for each account manager. Some people, however, prefer simple ratings or letter grades. Ranking the account managers groups them in the same way sports teams award their medals or instructors group student grades. Excel contains functions that allow you to assign such rankings based on a range of values that are stored in a separate area on the worksheet. These functions are called **lookup functions** because they look up and retrieve a value from a table or range. If a table stores the data to look up, it is called a **lookup table**.

The most flexible lookup function is XLOOKUP. The **XLOOKUP function** searches for a value in a lookup table or range and returns a corresponding value to the cell containing the function. XLOOKUP is similar to HLOOKUP and VLOOKUP. The **HLOOKUP function** searches for a value in the top row of a lookup table, and then searches down a specified number of rows to return a corresponding value in the same column. The **VLOOKUP function** searches for a value in a column of a lookup table, and then searches a specified number of columns to the right to return a value in the same row.

The XLOOKUP function is more versatile than HLOOKUP or VLOOKUP because it can search a row or column no matter how the data is organized. For example, you can use XLOOKUP to search one column for a value and return a result from the same row in another column, whether it is to the right or the left.

The Rating column in this project rates each account manager with a value of Excellent, Good, Fair, or Poor. As shown in Table 6–3, any account manager receiving a

Table 6–3 How the Ratings Are Determined

Supervisor Review	Rating
0 to 6.99	Poor
7 to 7.99	Fair
8 to 8.99	Good
9 and higher	Excellent

BTW

Other Database Functions

For a complete list of the database functions available for use with a table, click the Insert Function button in the formula bar. When Excel displays the Insert Function dialog box, select Database in the 'Or select a category' list. The 'Select a function' box displays the database functions. If you click a database function name, Excel displays a description of the function.

score of 9 or more receives an Excellent rating. An account manager with a score of 8 or more receives a Good rating. An account manager with a score of 7 or more receives a Fair rating. A score of less than 7 will display a Poor rating.

To facilitate the display of each account manager's rating, you will use the XLOOKUP function. The general form of the XLOOKUP function is

=XLOOKUP(lookup_value, lookup_array, return_array)

The three arguments of the XLOOKUP function represent the data that the function needs to do its job. The first argument is the **lookup value**, which is the data, or the location of the data, that you want to look up. In the case of the Managers table, that data is located in column F, the Supervisor Review. You only need to enter the first occurrence of the data, cell F9.

The second argument, `lookup_array`, is the location of the data to search. In this case, the `lookup_array` will be located away from the main table in the range L3:L6. In this project, the values to search are 0, 7, 8, and 9—the lowest value in each rating.

The third argument, `return_array`, is the location of the return values. The **return value** is the answer you want to appear as a result of the XLOOKUP function. In the Managers table, the return value will be Poor, Fair, Good, or Excellent. In this project, the return values will be located in the range M3:M6.

XLOOKUP has three optional arguments. The first, `if_not_found`, is text to return in case the lookup value is not found, such as "Rating not found." Use the second optional argument, `match_mode`, to specify the type of match you want, such as an exact match. Use the third optional argument, `search_mode`, to specify how to search, such as from bottom to top. In this project, you only need to specify a `match_mode` argument of -1 to look for an exact match in a range of values or return the next smaller number (the lowest value in each rating).

To Create an Area for Lookup and Return Arrays

Before using the XLOOKUP function, you must create the lookup and return arrays. The following steps create the arrays and headings in the range L1:M6.

- 1 Change the width of columns L and M to 14.
- 2 Click cell L1. Type **Rating Table** as the table array title and then click the Enter button in the formula bar.
- 3 Change the font size to 18 and apply bold formatting to cell L1.
- 4 Select the range L1:M1. Right-click the selection and then click Format Cells on the shortcut menu to display the Format Cells dialog box. On the Alignment tab (Format Cells dialog box), click the Horizontal button, and then click 'Center Across Selection'. Click OK to apply the settings.
- 5 In cell L2, type **Review** to enter the column heading.
- 6 In cell M2, type **Rating** to enter the column heading.
- 7 Select cell I8. Click the Format Painter button (Home tab | Clipboard group) and then drag through cells L2:M2 to copy the format of the selected cell to the column headings.

8 Enter the data shown below (Figure 6–17).

Cell	Data	Cell	Data
L3	0	M3	Poor
L4	7	M4	Fair
L5	8	M5	Good
L6	9	M6	Excellent

Q&A Why does the lookup_array contain single digits instead of a range? You only have to enter the least value for each rating. Excel will evaluate all values in the range.

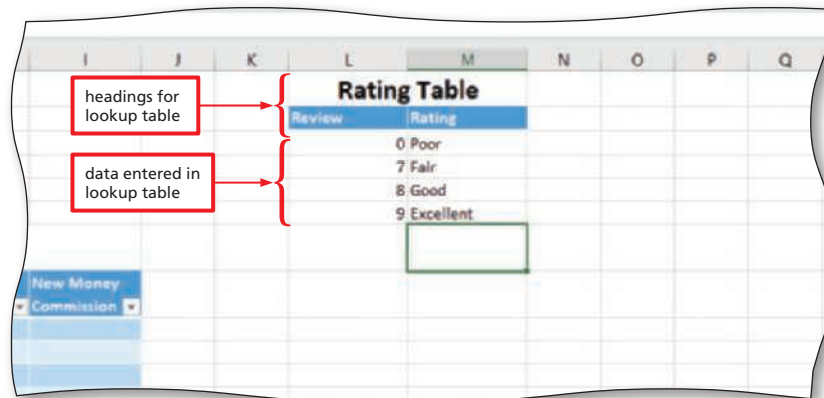


Figure 6–17

To Use the XLOOKUP Function

The following steps use the XLOOKUP function and the lookup and return arrays to determine the Rating for each account manager. **Why?** Using the XLOOKUP function with a table allows Excel to display the ratings, rather than the user typing them in individually.

- 1 Click cell G9. Type `=xlookup(f9, l3:l6, m3:m6, , -1)` as the cell entry (Figure 6–18).

Q&A Why should I use absolute cell references in the function? You need to use absolute cell references, indicated by the dollar signs, so that Excel will not adjust the table array location when it creates the calculated column in the next step. If Excel adjusted the cell references, you would see incorrect results in column G.

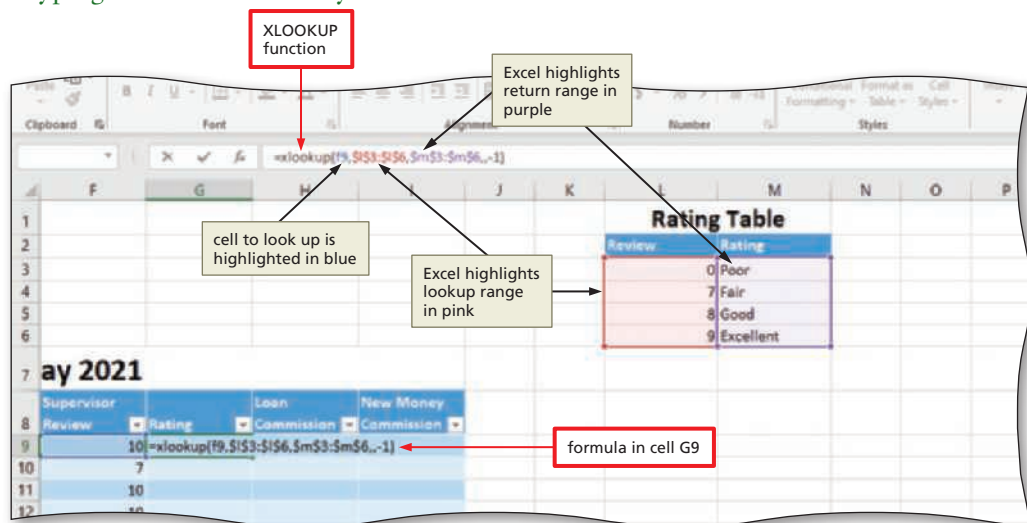


Figure 6–18

2

- Click the Enter button to create a calculated column for the selected field, the Rating field in this case.
- Scroll the worksheet to show the entire table with the completed column G (Figure 6–19).

Q&A What happens when you click the Enter button?

Because cell G9 is the first record in a table, Excel continues the calculated column by replicating the XLOOKUP function through row 22.

How does the XLOOKUP function determine the ratings?

The match_mode argument of -1 means the XLOOKUP function looks for an exact match; if it does not find one, it looks for the closest match less than the lookup value, and then returns the corresponding value from column M.

Specialty	Account Values	Supervisor Review	Rating	Loan Commission	New Money Commission
CD/Money Market	\$ 2,056,123.00	Review	10 Excellent		
Checking/Savings	\$ 468,750.00		7 Fair		
IRA/SEP	\$ 850,000.00		10 Excellent		
Loans	\$ 1,745,130.00		10 Excellent		
Checking/Savings	\$ 736,894.00		8.5 Good		
Loans	\$ 760,753.00		7 Fair		
IRA/SEP	\$ 575,140.00		8 Good		
Loans	\$ 3,265,405.00		9.5 Excellent		
IRA/SEP	\$ 750,000.00		9 Excellent		
CD/Money Market	\$ 721,340.00		8.5 Good		
Checking/Savings	\$ 515,896.00		8 Good		
Loans	\$ 4,429,507.00		9 Excellent		
CD/Money Market	\$ 292,789.00		6.5 Poor		
IRA/SEP	\$ 265,111.00		6.5 Poor		

Figure 6–19

Other Ways

1. Click Insert Function box in formula bar, click 'Or select a category', click 'Lookup & Reference', click XLOOKUP in 'Select a function' list, click OK, enter arguments
2. Click 'Lookup & Reference' button (Formulas tab | Function Library group), click XLOOKUP, enter arguments

Adding Calculated Fields to the Table

A **calculated field** or **computational field** is a field (column) in a table that contains a formula, function, cell reference, structured reference, or condition. When you create a calculated field, Excel automatically fills in the column without the use of a fill or copy command; you do not have to use the fill handle to replicate formulas in a calculated field.

Table 6–4 describes the three calculated fields used in this project. You created the first one in the previous steps.

Table 6–4 Calculated Fields

Column Heading	Column	Calculated Field
Rating	G	Uses the XLOOKUP function to determine a rating based upon the Supervisor Review (column F).
Loan Commission	H	Uses the IF function to evaluate the Specialty column. If it is Loans, multiply the Account Values figure by .0025.
New Money Commission	I	Uses the IF function to evaluate the Specialty column. If it is not Loans, multiple the Account Values figure by .0002.

To Create Calculated Fields

When you type formulas in a calculated field, rather than using normal cell references, Excel allows you to type a structured reference. A **structured reference** is a reference that allows table formulas to refer to table columns by names that are automatically generated when the table is created. A structured reference uses some combination of the table name (such as Managers), the column heading (such as Account Values), or any named or special rows, rather than the usual column letter and row number references (such as E10). If you use a named row in a structured reference, you must use a # sign before the row name (such as #Totals). If a column heading used in a structured reference contains any spaces between words, its name must be enclosed in brackets (such as [Supervisor Review]).

Using structured references has several advantages. **Why?** Excel updates structured references automatically when any column heading changes or when you add new data to the table. Using this notation also makes formulas easier to read. If you have multiple tables, you can include the table name in the structured reference, making it easier to locate data in large workbooks.

In this calculated field, you also will use an IF function. Recall that an IF function has three parts: the condition, the result if the condition is true, and the result if the condition is false. The result can be a value, a reference, or in this case, a calculated field with a structured reference.

The following steps enter structured references for the last two columns of data in the table.

1

- Click cell H9 to select it. Click the 'Accounting Number Format' button (Home tab | Number group) so that data in the selected column is displayed as a dollar amount with two decimal places.
- Type `=if([` to display the list of available fields in the table (Figure 6–20).

Q&A What is the purpose of the [(left bracket)?

The [begins a structured reference and causes Excel to display the list of table fields (column headings).

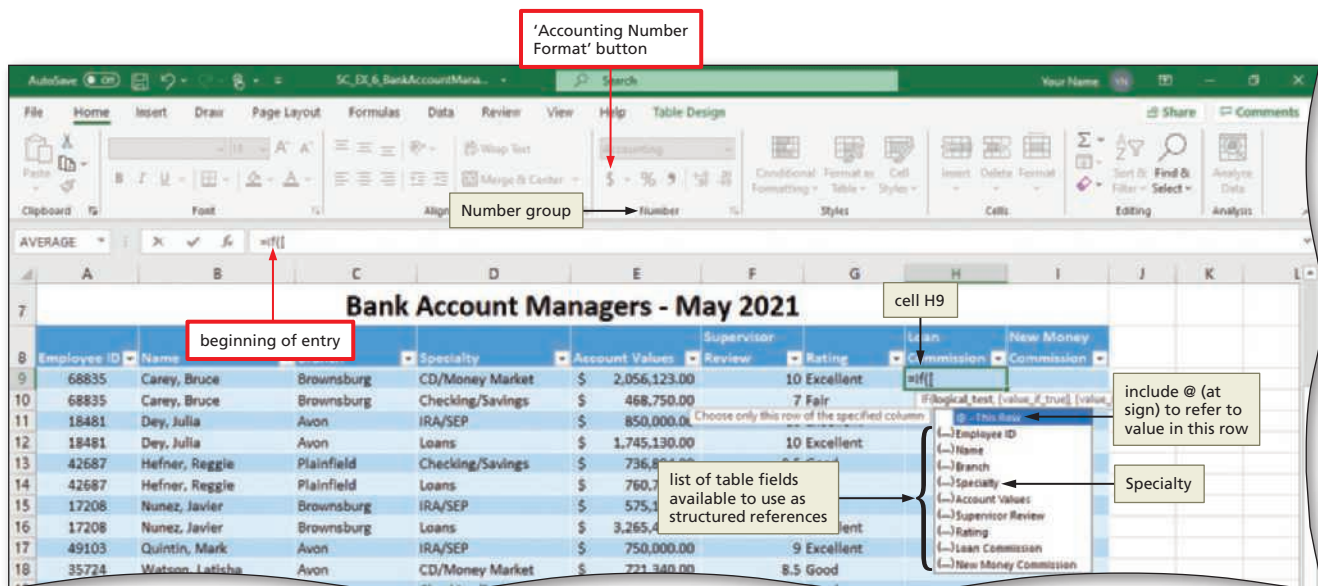


Figure 6–20

2

- Type `@` to refer to the value in this row.
- Double-click Specialty to select the field to use for the IF function.
- Type `]="Loans",`
`[@[Account Values]]`
`*.0025,0)` to complete the structured reference and then click the Enter button to create the calculated column (Figure 6–21).

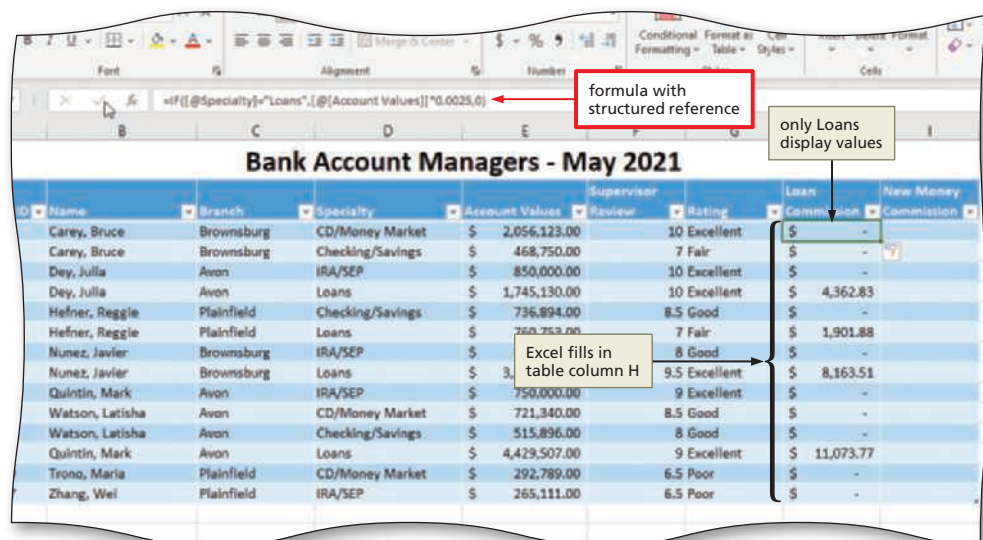


Figure 6–21

Q&A **Do I have to set the formatting before I enter the structured reference formula?**
 No, you do not have to; however, applying formatting before entering the formula prompts Excel to generate the calculated column with your desired formatting. Otherwise, you would have to format the column manually after it generates.

Why am I multiplying by .0025?

The bank awards a commission of .25% to managers who negotiate loans.

Why does the structured reference to the Account Values field use a second set of brackets?

You insert an @ (at sign) and a field name within one set of brackets. If the field name includes a space, add brackets around the name, as in [@[Account Values]].

- 3
- Click cell I9 to select it.
- Click the 'Accounting Number Format' button (Home tab | Number group).
- Type =if (and click cell D9 to insert a field name, type = "Loans", 0, and click cell E9 to insert a field name, type * .0002) and then click the Enter button to create a calculated column (Figure 6-22).

- Click the Save button on the Quick Access Toolbar to save the workbook again.



Figure 6-22

Q&A **How is this IF function different from the one in Step 2?**
 In this entry, if the Specialty is Loans, then no amount will be entered—the “true” part of the function. The “false” part of the function will multiply all others by the commission rate of .0002.

Conditional Formatting

Conditional formatting allows you to create rules that change the formatting of a cell based on its value. For example, you might want negative values to appear highlighted in red. Excel includes five preset types of conditional formats: highlight, top and bottom rules, data bars, color scales, and icon sets, as well as the ability to create your own conditional formats. You can combine different types of formats on any cell or range. For example, based on a cell’s value, you can format it to include both an icon and a specific background color.

The Conditional Formatting Rules Manager dialog box allows you to view all of the rules for the current selection or for an entire worksheet and change the order in which the rules are applied to a cell or range. In addition, you can stop applying subsequent rules after one rule is found to be true. For example, if the first rule specifies that a negative value should appear in red, then you may not want to apply any other conditional formats to the cell.

To Add a Conditional Formatting Rule with an Icon Set

In the Managers table, the Supervisor Review field provides succinct feedback to the user about performance of the account managers. Recall that you also created Rating words based on the XLOOKUP table. Another method to present the information visually is to display an icon next to the Supervisor Review number. Conditional formatting provides a variety of icons, including traffic signals, circles, flags, bars, and arrows. Icon sets include sets of three, four, or five icons. **Why? You choose an icon set depending on how many ways you want to group your data.** In the case of the ratings for the account managers, you will use four different icons. Once you choose an icon set, you define rules for each of the conditions. The following steps add a conditional format to the Supervisor Review field in the Managers table.

- Select the range F9:F22 and then click the Conditional Formatting button (Home tab | Styles group) to display the Conditional Formatting gallery (Figure 6-23).

Experiment

- Point to each item in the Conditional Formatting gallery and then point to various items in the subgalleries to watch how the table changes.

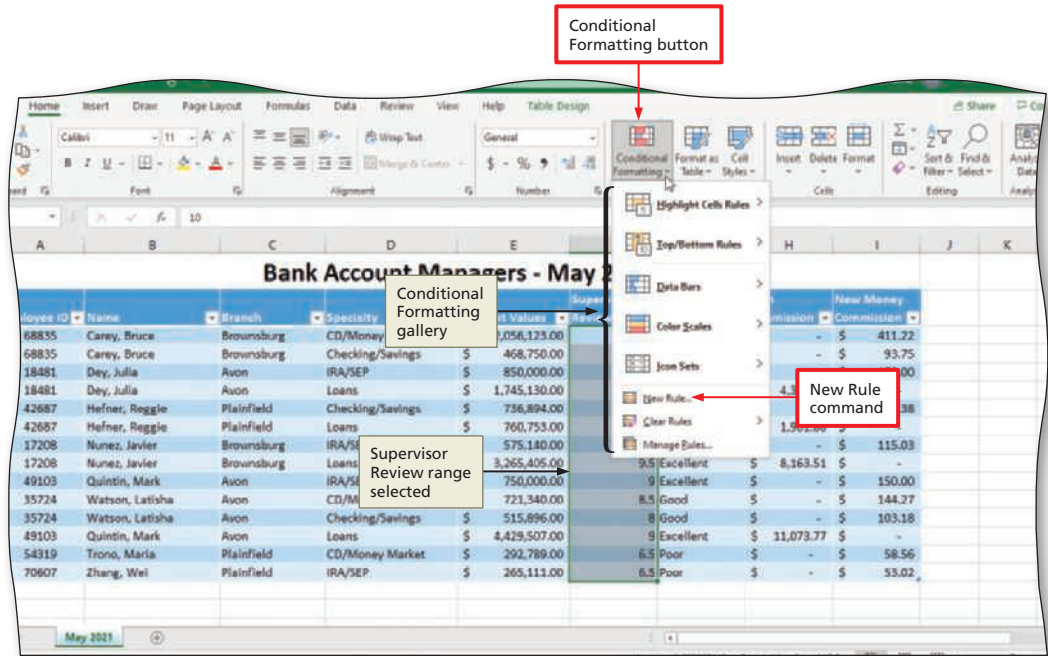


Figure 6-23

- Click New Rule in the Conditional Formatting gallery to display the New Formatting Rule dialog box.
 - Click the Format Style button (New Formatting Rule dialog box) to display the Format Style list (Figure 6-24).

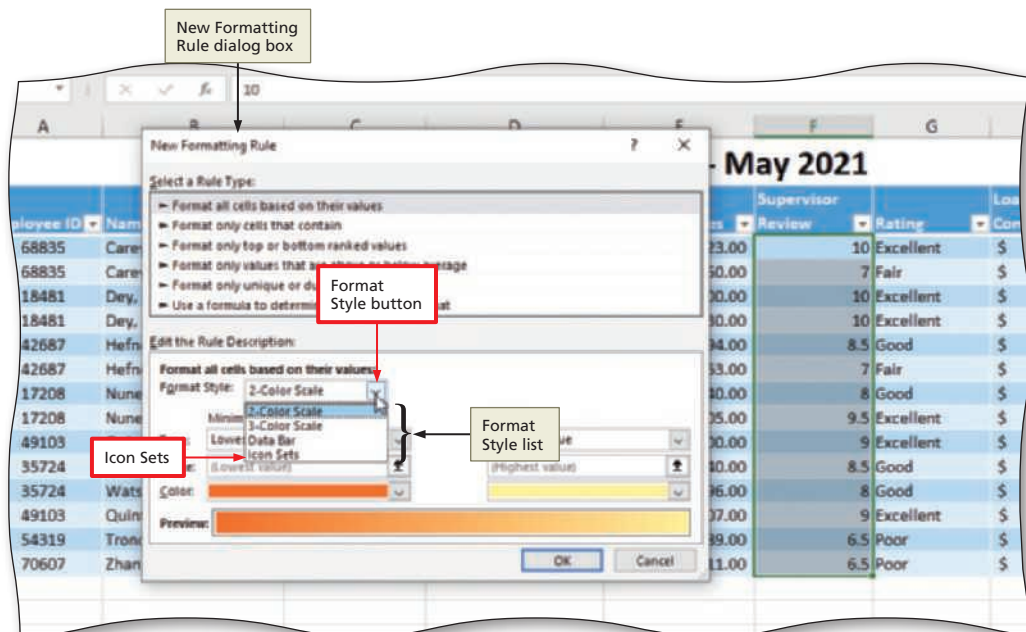


Figure 6-24

Q&A What do the color scale formats do?

You can choose between two or three values and apply different color backgrounds. Excel graduates the shading from one value to the next.

3

- Click Icon Sets in the Format Style list (New Formatting Rule dialog box) to display the Icon Style area.
- Click the Icon Style arrow to display the Icon Style list and then scroll as necessary to display the '4 Traffic Lights' icon style in the list (Figure 6–25).

Experiment

- Click a variety of icon styles in the Icon Styles list to view the options for each style.

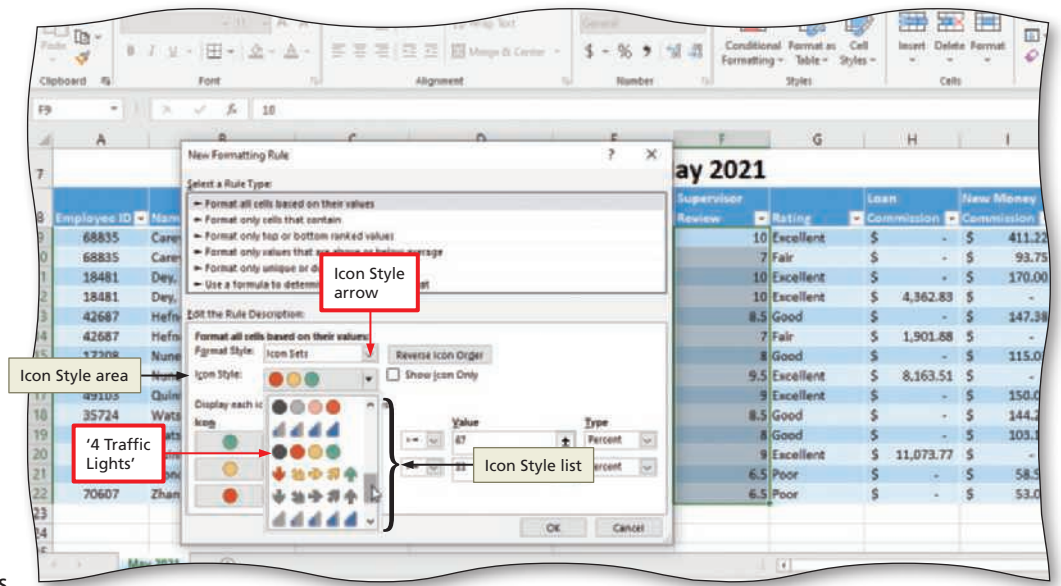


Figure 6–25

4

- Click the '4 Traffic Lights' icon style in the Icon Style list (New Formatting Rule dialog box) to select an icon style that includes four different circles.
- Click the first Type button and then click Number in the list to select a numeric value.
- Click the second Type button and then click Number in the list. Click the third Type button and then click Number in the list.
- Type 9 in the first Value box. Type 8 in the second Value box. Type 7 in the third Value box and then press TAB to complete the conditions (Figure 6–26).

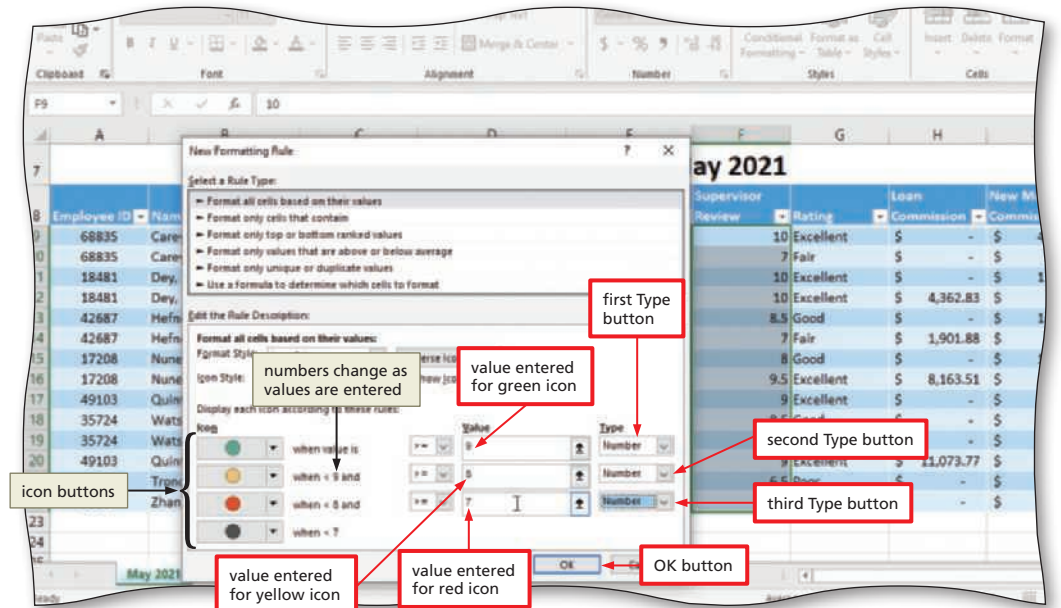


Figure 6–26

Q&A Why do the numbers next to each icon change as I type?

Excel automatically updates this area as you change the conditions. Use this area as an easy-to-read status of the conditions that you are creating.

5

- Click OK (New Formatting Rule dialog box) to display icons in each row of the table in the Supervisor Review field (Figure 6–27).

Employee ID	Name	Branch	Specialty	Account Values	Supervisor Review	Rating	Commission	Loan	New Money
68835	Carney, Bruce	Brownsburg	CD/Money Market	\$ 2,056,123.00	10	Excellent	\$ -	\$ 411.22	
68835	Carney, Bruce	Brownsburg	Checking/Savings	\$ 468,750.00	7	Fair	\$ -	\$ 93.75	
18481	Dey, Julia	Avon	IRA/SEP	\$ 850,000.00	10	Excellent	\$ -	\$ 170.00	
18481	Dey, Julia	Avon	Loans	\$ 1,745,130.00	10	Excellent	\$ 4,362.83	\$ -	
42687	Hefner, Reggie	Plainfield	Checking/Savings	\$ 736,894.00	8.5	Good	\$ -	\$ 147.38	
42687	Hefner, Reggie	Plainfield	Lo	\$ 760,753.00	7	Fair	\$ 1,901.88	\$ -	
37208	Nunez, Javier	Brownsburg	IRA	\$ 575,140.00	8	Good	\$ -	\$ 115.03	
17208	Nunez, Javier	Brownsburg	Lo	\$ 3,265,405.00	9.5	Excellent	\$ 8,163.51	\$ -	
49103	Quintin, Mark	Avon	IRA	\$ 750,000.00	9	Excellent	\$ -	\$ 150.00	
35724	Watson, Latisha	Avon	CD/Money Market	\$ 721,340.00	8.5	Good	\$ -	\$ 144.27	
35724	Watson, Latisha	Avon	Checking/Savings	\$ 515,896.00	8	Good	\$ -	\$ 103.18	
49103	Quintin, Mark	Avon	Loans	\$ 4,429,507.00	9	Excellent	\$ 11,073.77	\$ -	
54319	Trono, Maria	Plainfield	CD/Money Market	\$ 292,789.00	6.5	Poor	\$ -	\$ 58.56	
70607	Zhang, Wei	Plainfield	IRA/SEP	\$ 265,111.00	6.5	Poor	\$ -	\$ 53.02	

Figure 6–27

Finding Duplicates with Conditional Formatting

As you will learn later in the module, you can find duplicate values or records with a filter; however, conditional formatting also can pinpoint duplicates easily. To do so, click the Conditional Formatting button (Home tab | Styles group), and then click New Rule. When Excel displays the New Formatting Rule dialog box, click ‘Format only unique or duplicate values’ in the Select a Rule Type area (see Figure 6–26). You then can choose a highlight, style, or other format for duplicate values.

Data Bars

Another popular conditional formatting option is data bars. Chosen from the Conditional Formatting gallery (see Figure 6–23), **data bars** display as colored, horizontal rectangles in the cell. The larger the number, the wider the data bar. Excel allows you to choose between solid and gradient colors, and select the direction of the rectangle, among other settings.

Working with Tables in Excel

When a table is active, the Table Design tab on the ribbon provides powerful commands that allow you to alter the appearance and contents of a table quickly. For example, you can add and remove header and total rows in a table quickly. You also can change the style of the first or last column. Other commands that you will learn in later modules include inserting slicers, exporting tables, and summarizing the data with a PivotTable.

To Insert a Total Row

The Total Row check box (Table Design tab | Table Style Options group) inserts a total row at the bottom of the table, summing the values in the last column. **Why?** The default setting creates a total in the last column; however, total rows display a button beside each cell to create other totals and functions. If the values are nonnumeric, then Excel counts the number of records and puts that number in the total row. The following steps create a total row.

1

- Click anywhere in the table and then display the Table Design tab (Figure 6–28).

Experiment

- Select a variety of combinations of check boxes in the Table Style Options group on the Table Design tab to see their effect on the table. When finished, make sure that the check boxes are set as shown in Figure 6–28.

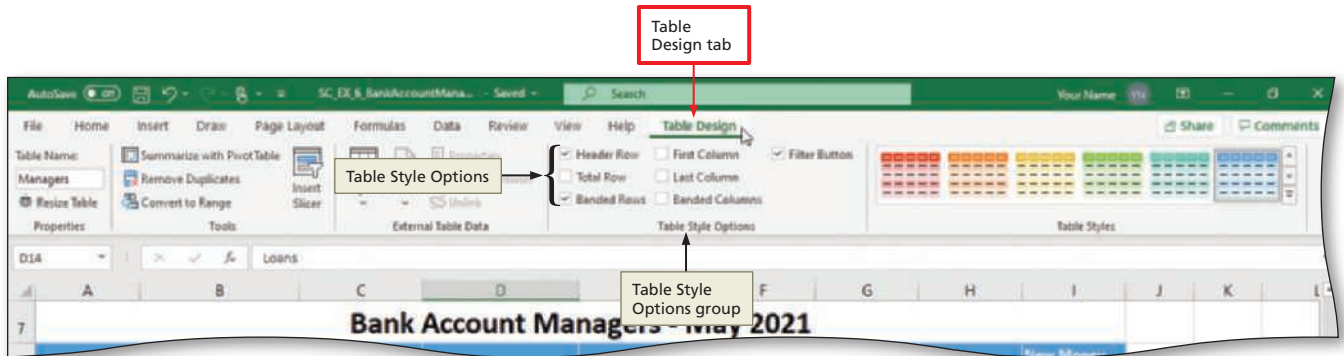


Figure 6–28

2

- Click the Total Row check box (Table Design tab | Table Style Options group) to display the total row and display the sum in the last column of the table, cell I23 in this case.
- Select cell E23 in the total row and then click the arrow on the right side of the cell to display a list of available functions (Figure 6–29).

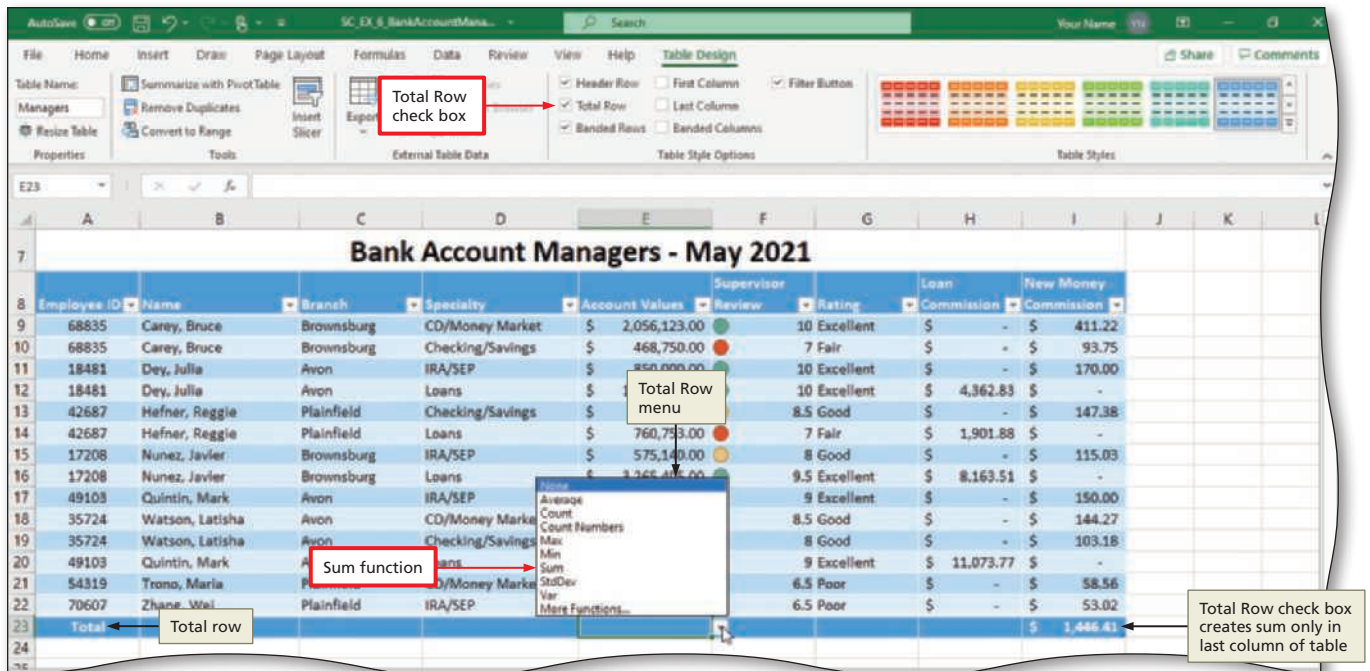


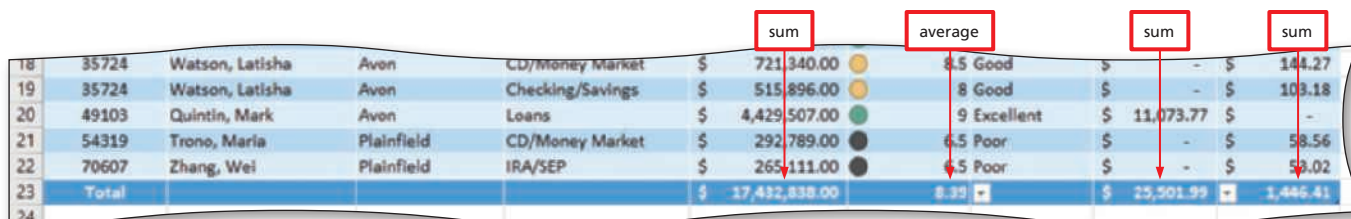
Figure 6–29

3

- Click Sum in the list to select the Sum function for the selected cell in the total row, thus totaling the account values.
- Repeat the process to create an average in cell F23 (Supervisor Review), thus averaging the supervisor reviews. Format the cell by decreasing the decimals to two decimal places. Repeat the process to create a sum in cell H23 (Loan Commission) (Figure 6–30).

Experiment

- Choose cells in the total row and experiment with the different kinds of statistical functions, such as using the MAX function in cell H23 or the COUNT function in cell D23.



18	35724	Watson, Latisha	Avon	CD/Money Market	\$	721,340.00	8.5 Good	\$	-	\$	144.27
19	35724	Watson, Latisha	Avon	Checking/Savings	\$	515,896.00	8 Good	\$	-	\$	103.18
20	49103	Quintin, Mark	Avon	Loans	\$	4,429,507.00	9 Excellent	\$	11,073.77	\$	-
21	54319	Trono, Maria	Plainfield	CD/Money Market	\$	292,789.00	6.5 Poor	\$	-	\$	58.56
22	70607	Zhang, Wei	Plainfield	IRA/SEP	\$	265,111.00	6.5 Poor	\$	-	\$	59.02
23	Total				\$	17,432,838.00	8.39	\$	25,501.99	\$	1,446.41
24											

Figure 6–30

4

- Click the Save button on the Quick Access Toolbar to save the workbook again.

Other Ways

1. Right-click table, point to Table on shortcut menu, click Totals Row on submenu

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_6_BankAccountManagers, and continue following the steps from this location forward.

BTW

Distributing a Workbook

Instead of printing and distributing a hard copy of a workbook, you can distribute the workbook electronically. Options include sending the workbook via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the workbook. You also can create and share a PDF or XPS image of the workbook, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Excel.

To Print the Table

When a table is selected and you display the Print tab in the Backstage view, an option in the Settings area allows you to print the contents of just the active, or selected, table. The following steps print the table in landscape orientation using the Fit Sheet on One Page option.

- 1 If necessary, click anywhere in the table to make it active, and then click File on the ribbon to open Backstage view.
- 2 Click Print to display the Print screen.
- 3 In the Settings area, click the 'Print Active Sheets' button in the Settings area to display a list of printing options.
- 4 Click the 'Print Selected Table' command to print only the selected table.
- 5 Select the option to print the table in landscape orientation. Use the Fit Sheet on One Page option (Figure 6–31).
- 6 Click the Print button to print the table.

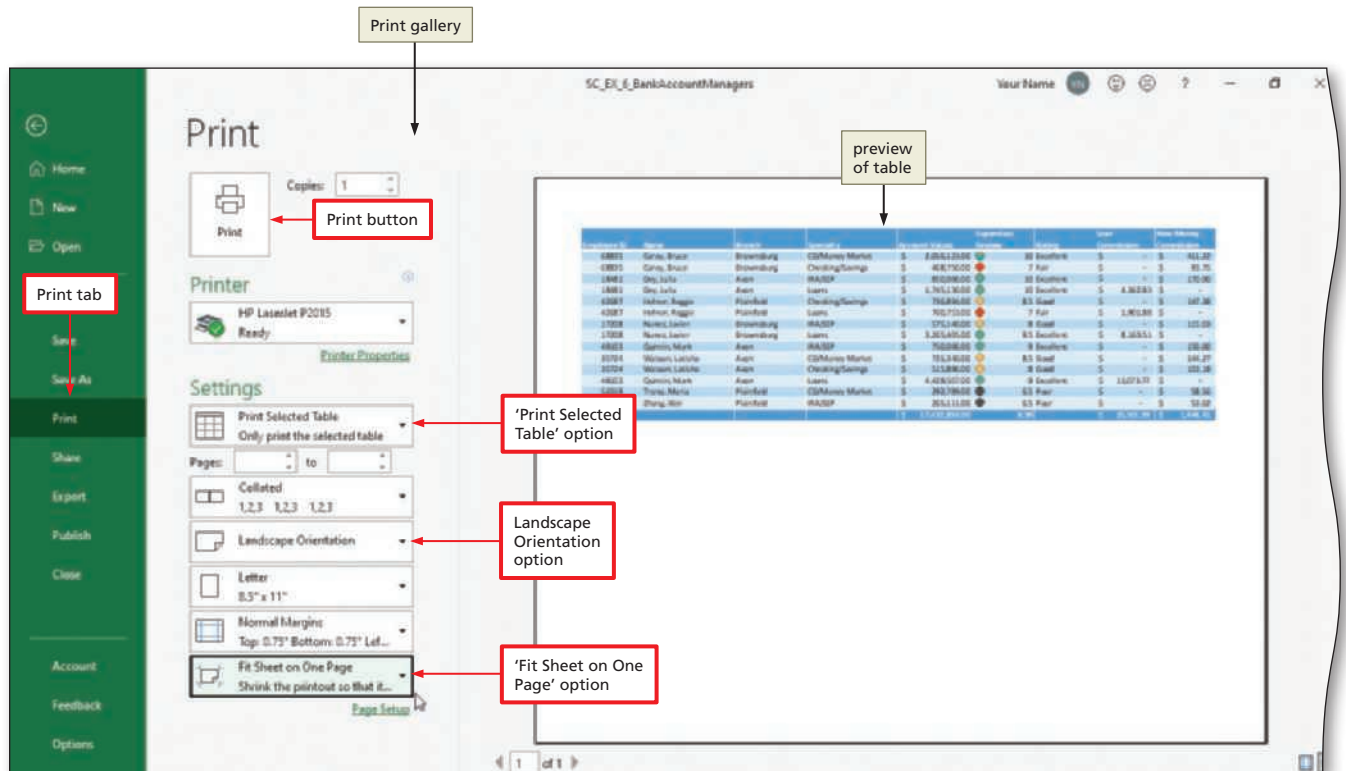


Figure 6-31

Sorting a Table

The data in a table is easier to work with and more meaningful if the records appear sequentially based on one or more fields. Arranging records in a specific sequence is called **sorting**. Data is in **ascending order** if it is sorted from lowest to highest, earliest to most recent, or alphabetically from A to Z. Data is in **descending order** if it is sorted from highest to lowest, most recent to earliest, or alphabetically from Z to A. The field or fields you select to sort are called **sort keys**. When you sort a table, all of the records in each row move together, so even if the selected cell is in the last name column, for example, the first name and all data in the row will be moved when the table is sorted by last name. It is always a good idea to save a copy of your worksheet before applying sorts.

You can sort data in a table by using one of the following techniques:

- Select a cell in the field on which to sort, click the ‘Sort & Filter’ button (Home tab | Editing group), and then click one of the sorting options on the Sort & Filter menu.
- With the table active, click the filter button in the column on which to sort and then click one of the sorting options on the menu.
- Use the Sort button (Data tab | Sort & Filter group).
- Use the ‘Sort A to Z’ or ‘Sort Z to A’ button (Data tab | Sort & Filter group).
- Right-click anywhere in a table and then point to Sort on the shortcut menu to display the Sort submenu.

BTW

Sorting Non-Table Data

If the data you wish to sort is not in a table, highlight the data first, then click the Sort & Filter button (Home tab | Editing group).

BTW

Sorting Dates

When you use AutoFilter to sort date fields, the filter menu will list commands such as ‘Sort Newest to Oldest’ and ‘Sort Oldest to Newest.’



Which field is best for sorting?

Ideally, the user of the worksheet should be able to sort the table on any field using a variety of methods and sort using multiple fields at the same time. Depending on what you want to show, you may sort by a name field or list value, by a numeric field, or by date. You also can sort a table in ascending or descending order.

To Sort Ascending

The following steps sort the table in ascending order by the Name field using the ‘Sort & Filter’ button (Home tab | Editing group). **Why?** Names commonly display in alphabetical order.

1

- Scroll to display the entire table. If necessary, display the Home tab.
- Click cell B9 and then click the ‘Sort & Filter’ button (Home tab | Editing group) to display the Sort & Filter menu (Figure 6–32).

Q&A **What if the column I choose includes numeric or date data?**
 If the column you choose includes numeric data, then the Sort & Filter menu shows the ‘Sort Smallest to Largest’ and ‘Sort Largest to Smallest’ commands. If the column you choose includes date data, then the Sort & Filter menu shows the ‘Sort Oldest to Newest’ and ‘Sort Newest to Oldest’ commands.

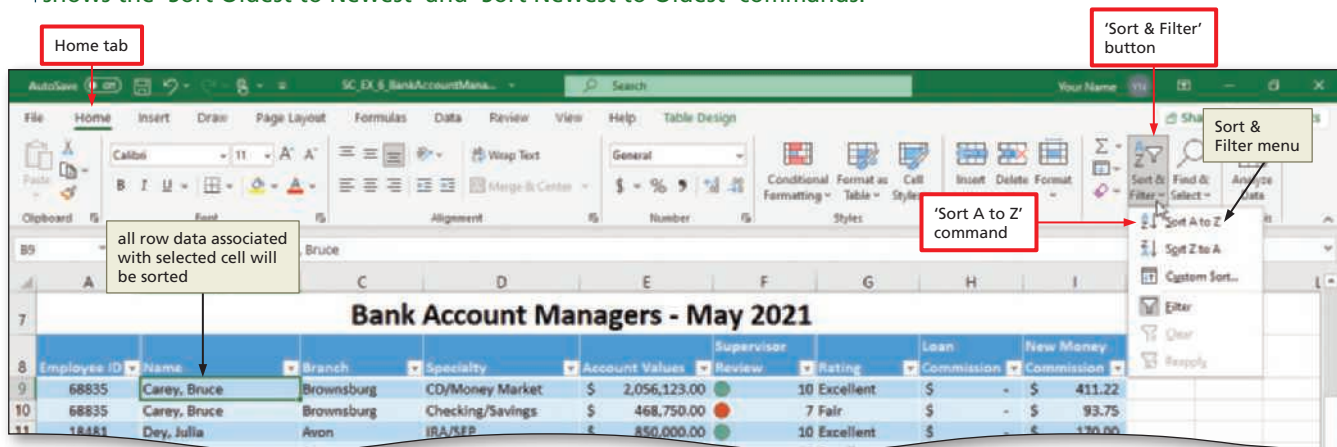


Figure 6–32

2

- Click ‘Sort A to Z’ to sort the table in ascending order by the selected field, Name in this case (Figure 6–33).

Experiment

- Select other fields in the table and use the same procedure to sort on the fields you choose. When you are finished, remove any sorting, select cell A9, and repeat the two steps above.

Q&A **Can I undo the sort?**
 Yes, you can click the Undo button (Quick Access Toolbar) or press CTRL+Z; however, if you close your file, the original order will be lost. If you want to undo a sort, it is a good practice to do so before continuing with other commands.



Figure 6–33

Other Ways

1. Select field in table, click 'Sort A to Z' button (Data tab | Sort & Filter group)
2. Click filter button of field on which to sort, click 'Sort A to Z'
3. Right-click column to sort, point to Sort on shortcut menu, click 'Sort A to Z'

To Sort Descending

The following step sorts the records in descending order by Account Values using the 'Sort Largest to Smallest' button on the Data tab. **Why?** Sometimes it is more convenient to use the Data tab and sort with a single click.

1. Click cell E9 to position the sort in the Account Values column.
2. Display the Data tab.
3. Click the 'Sort Largest to Smallest' button (Data tab | Sort & Filter group) to sort the table in descending sequence by the selected field, Account Values, in this case (Figure 6-34).

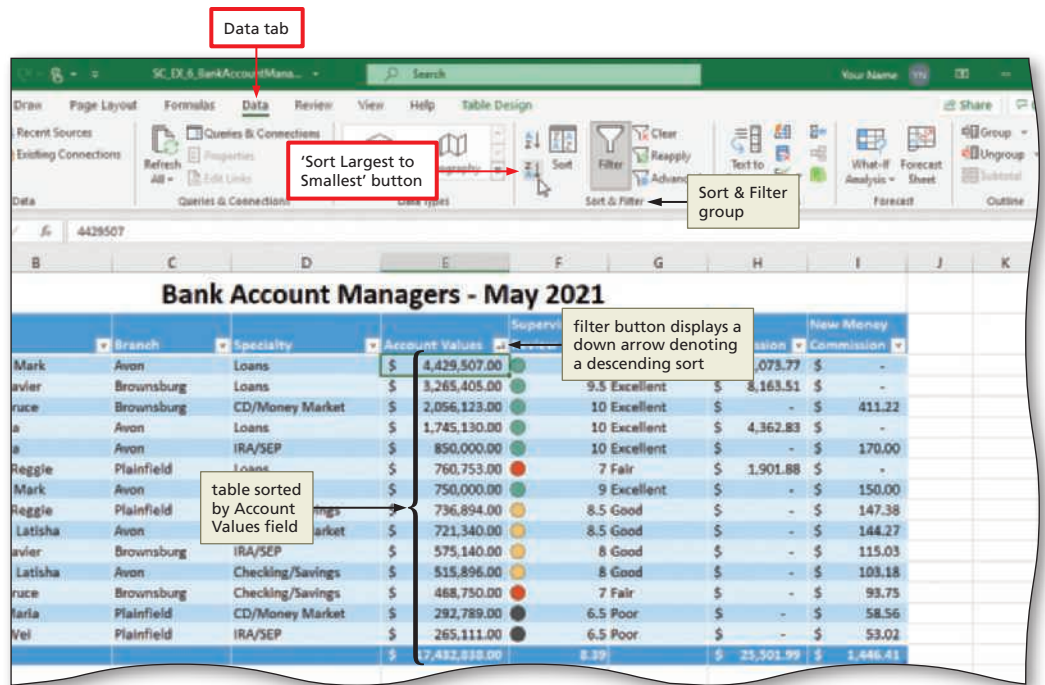


Figure 6-34

Other Ways

1. Select field in table, click 'Sort and Filter' button (Home tab | Editing group), click 'Sort Largest to Smallest'
2. Click filter button of field on which to sort, click 'Sort Largest to Smallest'
3. Right-click column to sort, point to Sort on shortcut menu, click 'Sort Largest to Smallest'

To Custom Sort a Table

While Excel allows you to sort on a maximum of 256 fields in a single sort operation, in these steps you will use the Custom Sort command to sort the Managers table using three fields. You will sort by Supervisor Review within Specialty within Branch. **Why?** That phrase means that the records within the table first are arranged by Branch (Avon, Brownsburg, or Plainfield). Then, within Branch, the records are arranged alphabetically by Specialty (CD/Money Market, Checking/Savings, IRA/SEP, Loans). Finally, within Specialty, the records are arranged from largest to smallest by the Supervisor Review number. In this case, Branch is the major sort key, Specialty is the intermediate sort key, and Supervisor Review is the minor sort key. You can sort any field in ascending or descending order, depending on how you want the data to look. The following steps sort the Managers table on multiple fields.

1

- Display the Home tab.
- With a cell in the table active, click the 'Sort & Filter' button (Home tab | Editing group) to display the Sort & Filter menu.
- Click Custom Sort on the Sort & Filter menu to display the Sort dialog box.
- Click the 'Column Sort by' button (Sort dialog box) to display the field names in the table (Figure 6–35).

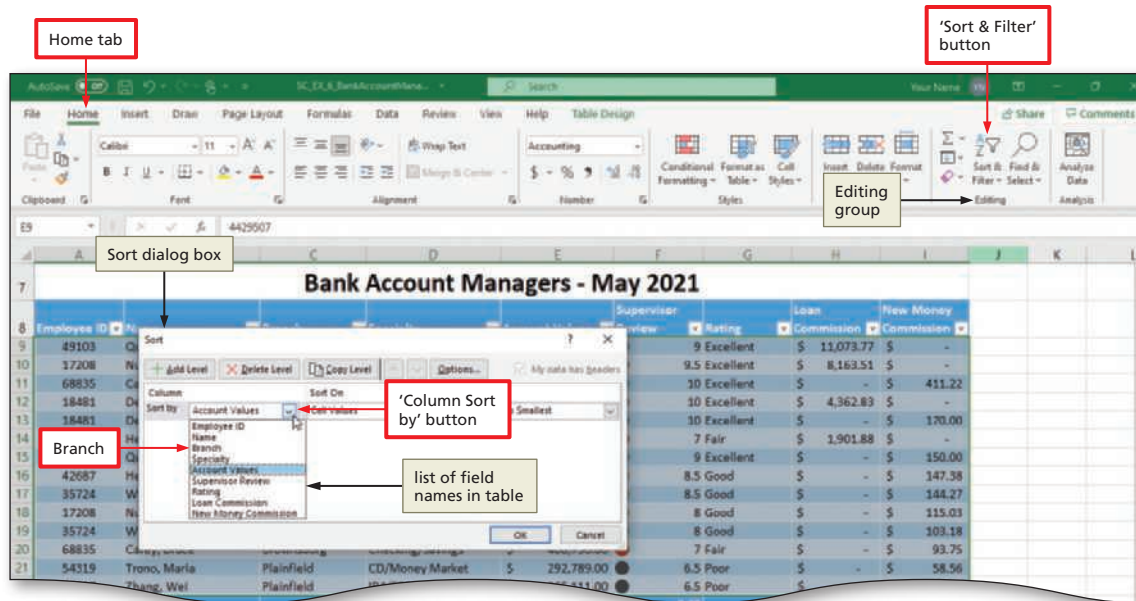


Figure 6–35

2

- Click Branch to select the first sort level, or major sort key.
- If necessary, click the Sort on button (Sort dialog box) and then click Cell Values in the Sort On list.
- If necessary, click the Order button and then click 'A to Z' to sort the field alphabetically (Figure 6–36).

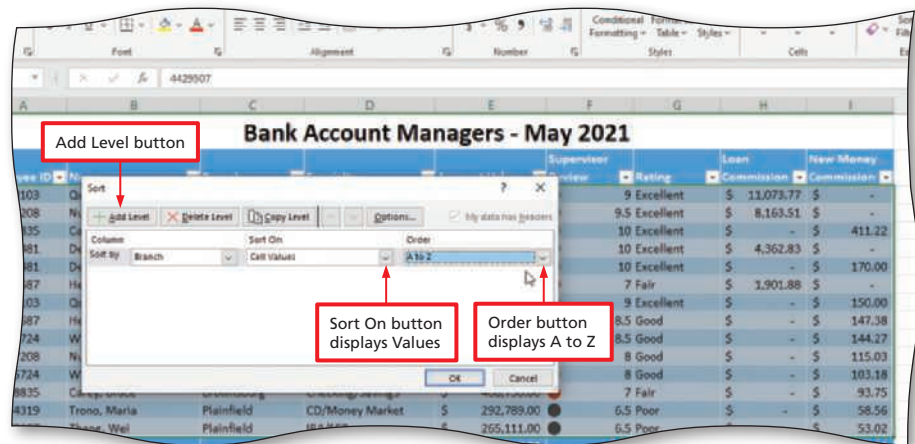


Figure 6–36

3

- Click the Add Level button (Sort dialog box) to add a second sort level.
- Click the Then by button and then click Specialty in the Then by list to select an intermediate sort key.

- If necessary, select Cell Values in the Sort On list.
- If necessary, select 'A to Z' in the Order list to sort the field alphabetically (Figure 6–37).

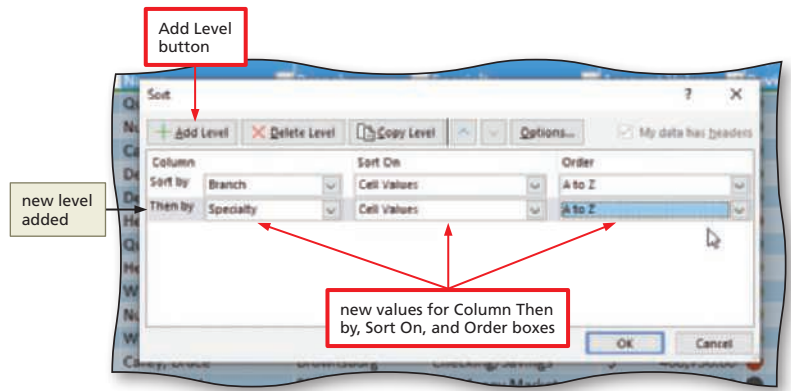


Figure 6–37

- 4
 - Click the Add Level button to add a new sort level.
 - Click the second Then by button and then click Supervisor Review to select a minor sort key.
 - If necessary, select Cell Values in the Sort On list. Select 'Largest to Smallest' in the Order list to specify that the field should be sorted in reverse order (Figure 6–38).

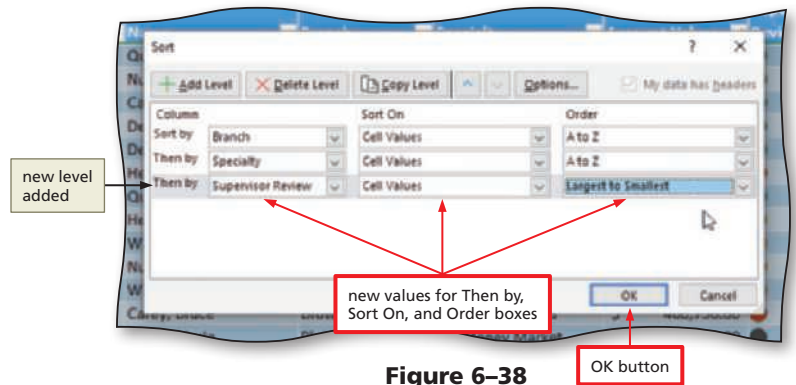


Figure 6–38

- 5
 - Click OK to sort the table, in this case by Supervisor Review (descending) within Specialty (ascending) within Branch (ascending) (Figure 6–39).

Q&A What should I do if I make a sorting error?

If you make a mistake in a sort operation, you can return the records to their previous order by clicking the Undo button on the Quick Access Toolbar or by pressing CTRL+Z. You can undo all steps back to when you originally opened the file—even if you have saved multiple times. Once you close the file however, you cannot undo a sorting error, and you would have to perform another sort.

Bank Account Managers - May 2021

Employee ID	Name	Branch	Specialty	Account Values	Review	Rating	Commission	New Money
35724	Watson, Latisha	Avon	CD/Money Market	\$ 721,340.00	8.5 Good	8	\$ -	\$ 144.2
35724	Watson, Latisha	Avon	Checking/Savings	\$ 232,800.00	8 Good	8	\$ -	\$ 144.2
18481	Dey, Julia	Avon	IRA/SEP	\$ 427,800.00	10 Excellent	10	\$ -	\$ 144.2
49103	Quintin, Mark	Avon	IRA/SEP	\$ 427,800.00	9 Excellent	9	\$ -	\$ 144.2
18481	Dey, Julia	Avon	Loans	\$ 427,800.00	10 Excellent	10	\$ -	\$ 144.2
49103	Quintin, Mark	Avon	Loans	\$ 4,429,507.00	9 Excellent	9	\$ 11,073.77	\$ -
6883		Brownsburg	CD/Money Market	\$ 2,056,123.00	10 Excellent	10	\$ -	\$ 411.22
6883		Brownsburg	Checking/Savings	\$ 468,750.00	7 Fair	7	\$ -	\$ 93.75
17208	Nunez, Javier	Brownsburg	IRA/SEP	\$ 575,140.00	8 Good	8	\$ -	\$ 115.03
17208	Nunez, Javier	Brownsburg	Loans	\$ 3,265,405.00	9.5 Excellent	9.5	\$ 8,163.51	\$ -
54319	Trono, Maria	Plainfield	CD/Money Market	\$ 292,789.00	6.5 Poor	6.5	\$ -	\$ 58.56
42687	Hefner, Reggie	Plainfield	Checking/Savings	\$ 736,894.00	8.5 Good	8.5	\$ -	\$ 147.36
70607	Zhang, Wei	Plainfield	IRA/SEP	\$ 265,111.00	6.5 Poor	6.5	\$ -	\$ 53.00
42687	Hefner, Reggie	Plainfield	Loans	\$ 760,753.00	7 Fair	7	\$ 1,901.88	\$ -
				\$ 17,432,838.00	8.5	8.5	\$ 23,444.46	\$ 1,446.4

Callouts in the image: 'records are sorted by Branch' points to the Branch column. 'Specialty field is sorted from A to Z within same Branch' points to the Specialty column. 'Supervisor Review field is sorted from highest to lowest within same Specialty' points to the Review column.

Figure 6–39

Querying a Table Using AutoFilter

When you first create a table, Excel automatically enables AutoFilter, a tool used to sort, query, and filter the records in a table. While using AutoFilter, the filter buttons appear to the right of the column headings. Clicking a button displays the filter menu for the column with various commands and a list of all items in the field (shown in Figure 6–40).

The sort commands work the same way as the sort buttons that you learned about earlier. The filter commands let you choose to display only those records that meet specified criteria such as color, number, or text. In this context, **criteria** means a logical rule by which data is tested and chosen. For example, you can filter the table to display a specific name or item by typing it in a Search box. The name you selected acts as the criterion for filtering the table, which results in Excel displaying only those records that match the criterion. Alternately, the selected check boxes indicate which items will appear in the table. By default, all of the items are selected. If you deselect an item from the filter menu, it is removed from the filter criterion. Excel will not display any record that contains the unchecked item.

As with the previous sort techniques, you can include more than one column when you filter by clicking a second filter button and making choices. The process of filtering records based on one or more filter criteria is called a **query**. After you filter data, you can copy, find, edit, format, chart, or print the filtered data without rearranging or moving it.

BTW

Scrolling Tables

When you scroll down in a table to display more rows, the column headings remain on the screen in a manner similar to using the Freeze Panes command (View tab | Window group).

To Sort a Table Using AutoFilter

The following steps sort the table by Account Values using the ‘Sort Smallest to Largest’ command on the filter menu. **Why?** Using the filter menu sometimes is easier than other sort methods; you do not have to leave the table area and move to the ribbon to perform the sort.

- 1
 - Click the filter button in the Account Values column to display the filter menu (Figure 6–40).
 - Experiment**
 - Click filter buttons for other fields. Notice that the filter menu is context sensitive, which means it changes depending on what you are trying to filter. When you are finished, again click the Filter button in the Account Values column.

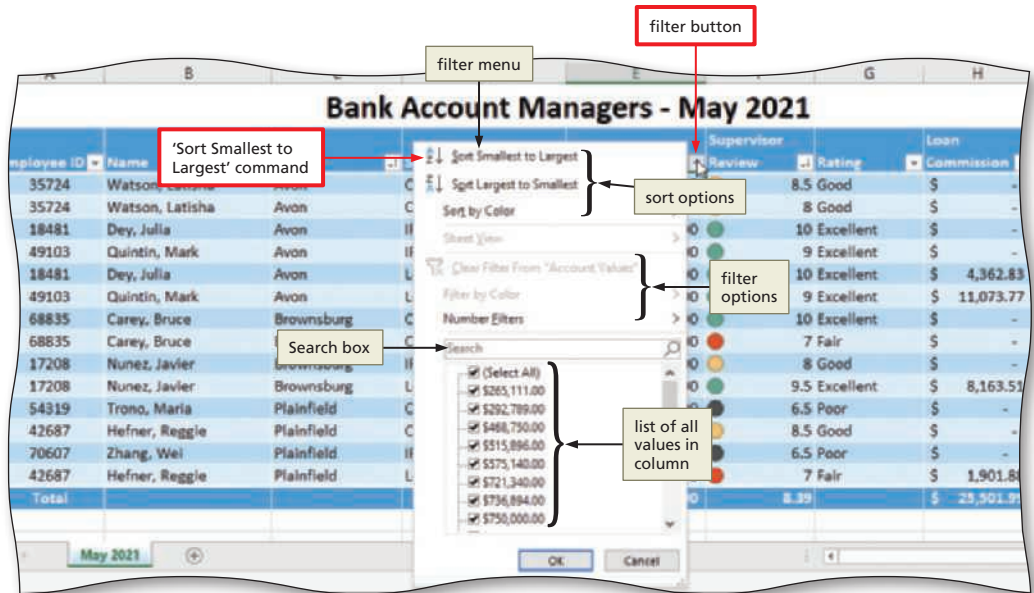


Figure 6–40

2

- Click 'Sort Smallest to Largest' on the filter menu to sort the table in ascending sequence by the selected field (Figure 6-41).

Q&A Does performing a new sort overwrite the previous sort? Yes. A new sort undoes the previous sort, even if it is a custom sort or a sort based on multiple sort keys.

Name	Branch	Specialty	Account Values	Review	Rating	Loan	New Money
Zhang, Wei	Plainfield	IRA/SEP	\$ 265,111.00	6.5	Poor	\$ -	\$ 53.02
Trono, Maria	Plainfield	CD/Money Market	\$ 292,789.00	6.5	Poor	\$ -	\$ 58.56
Carey, Bruce	Brownsburg	Checking/Savings	\$ 468,750.00	7	Fair	\$ -	\$ 93.75
Watson, Latisha	Avon	Checking/Savings	\$ 515,896.00	8	Good	\$ -	\$ 103.18
Nunez, Javier	Brownsburg	IRA/SEP	\$ 575,140.00	8	Good	\$ -	\$ 115.03
Watson, Latisha	Avon	CD/Money Market	\$ 721,340.00	8.5	Good	\$ -	\$ 144.27
Hefner, Reggie	Plainfield	Checking/Savings	\$ 736,894.00	8.5	Good	\$ -	\$ 147.38
Quintin, Mark	Avon	IRA/SEP	\$ 750,000.00	9	Excellent	\$ -	\$ 150.00
Hefner, Reggie	Plainfield	Loans	\$ 760,753.00	7	Fair	\$ 1,901.88	\$ -
Dey, Julia	Avon	IRA/SEP	\$ 850,000.00	10	Excellent	\$ -	\$ 170.00
Dey, Julia	Avon	Loans	\$ 1,745,130.00	10	Excellent	\$ 4,362.83	\$ -
Carey, Bruce	Brownsburg	CD/Money Market	\$ 2,056,123.00	10	Excellent	\$ -	\$ 411.22
Nunez, Javier	Brownsburg	Loans	\$ 3,265,405.00	9.5	Excellent	\$ 8,163.51	\$ -
Quintin, Mark	Avon	Loans	\$ 4,429,507.00	9	Excellent	\$ 11,073.77	\$ -
			\$ 17,432,838.00	8.99		\$ 25,501.99	\$ 1,446.41

Figure 6-41

To Query a Table Using AutoFilter

The following steps query the Managers table using AutoFilter. **Why?** The AutoFilter will cause the table to display only specific records, which may be helpful in very large tables. In this case, using the check boxes on the filter menu, you will choose those records with a Specialty not equal to Loans and whose Rating is equal to Excellent.

1

- Click the filter button in cell D8 to display the filter menu for the Specialty column.
- Click Loans in the filter menu to remove the checkmark and cause Excel to hide rows for all managers who specialize in loans (Figure 6-42).

Figure 6-42

Q&A What else appears on the filter menu?

Below the Text Filters command is a list of all of the values that occur in the selected column. A check mark in the top item, (Select All), indicates that all values for this field are displayed in the table.

2

- Click OK to apply the AutoFilter criterion and display the records for all specialties except Loans.
- Click the filter button in cell G8 to display the filter menu for the Rating column.

- Click to remove the check marks beside Fair, Good, and Poor, so that only the Excellent check box contains a check mark (Figure 6–43).

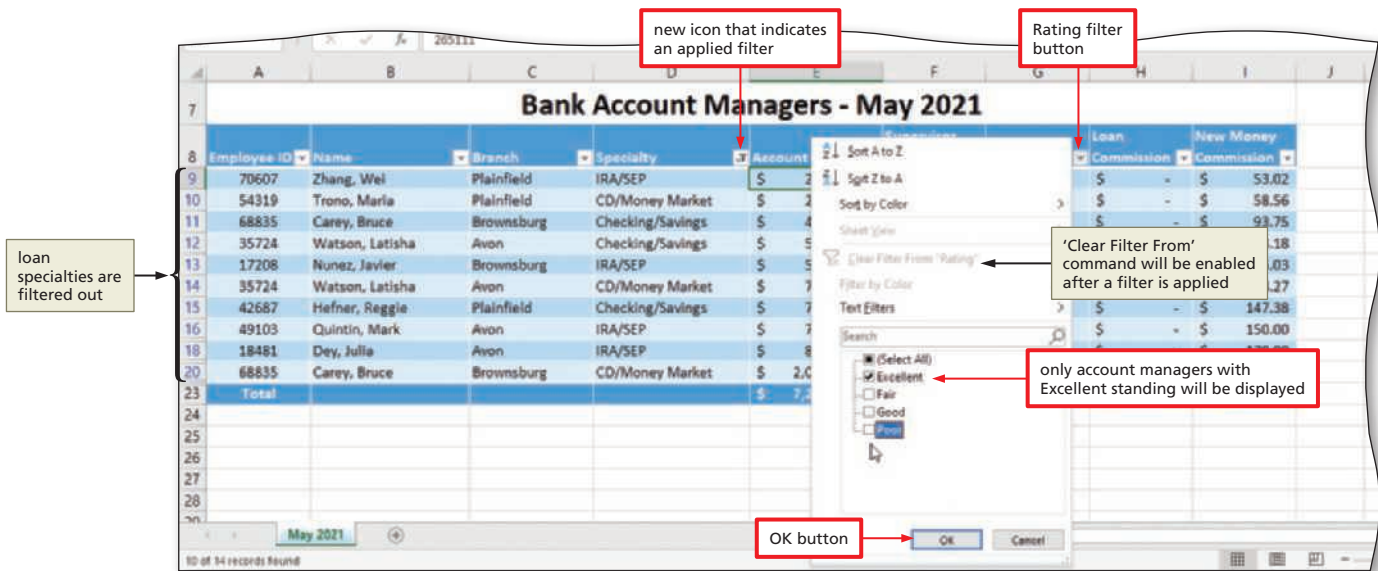


Figure 6–43

3

- Click OK to apply the AutoFilter criterion (Figure 6–44).

Q&A Are both filters now applied to the table?
 Yes. When you select a second filter criterion, Excel adds it to the first; hence, each record must pass two tests to appear as part of the final subset of the table.

Did the filter remove the previous sort?
 No. Notice in Figure 6–44 that the records still are sorted in ascending order by Account Values.

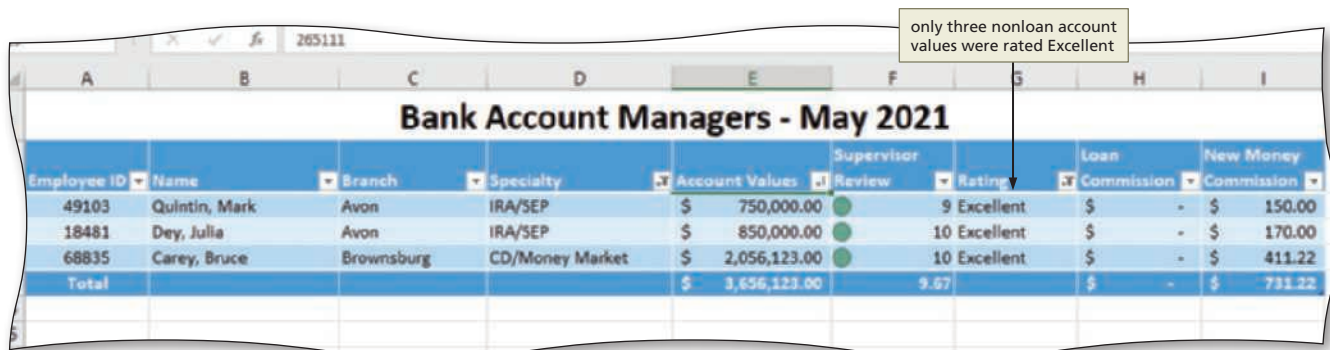


Figure 6–44

Other Ways

1. Click filter button, enter desired data in Search box (filter menu), click OK

To Remove Filters

You can remove a filter from a specific column or remove all of the filters in a table at once. Each filter menu has a ‘Clear Filter From’ command that removes the column filter (shown in Figure 6–43). The Clear button (Data tab | Sort & Filter group) removes all of the filters. The following step removes all filters at once to show all records in the table. **Why?** The filters, or query, hid some of the records in the previous steps.

1

- Click anywhere in the table and display the Data tab.
- Click the Clear button (Data tab | Sort & Filter group) to display all of the records in the table (Figure 6–45).



Figure 6–45

Other Ways

1. Click desired filter button, click (Select All) on filter menu
2. Right-click filtered column, point to Filter on shortcut menu, click 'Clear Filter From' command

To Search a Table Using AutoFilter

Using AutoFilter, you can search for specific records by entering data in the Search box. The sequence of data you enter is called the **search string**. For example, in a student table, you might want to search for a specific student ID number that might be difficult to locate in a large set of records. If an exact match exists, the value appears in the filter menu; then, if you click OK, the entire record appears in the table. Table searches are not case sensitive.

Alternately, you can search for similar or related data. In the Search box, you can type ? (question mark) to represent any single character. For example in a quiz table, if you wanted to find answer1, answer2, and answer3, you could type **answer?** as the search string. Another way to search includes using an * (asterisk) to represent a series of characters. For example, in an inventory table, to find all of the items that relate to drive, you could type ***drive*** in the Search box. The filter would display results such as flash drives, CD-R drive, and drivers. The ? and * are called **wildcard characters**.

The following steps search for a specific record in a table using the filter menu. **Why? When tables are large, searching for individual records using the filter menu is quick and easy.**

1

- Click the filter button in the Name column to display the filter menu.
- Click the Search box, and then type **nunez** as the search string (Figure 6–46).

Q&A Is this search the same as using the Find command? No. This command searches for data within the table only and then displays all records that match the search string. Two records matching the search appear in Figure 6-47. The Find command looks over the entire worksheet and highlights one cell.

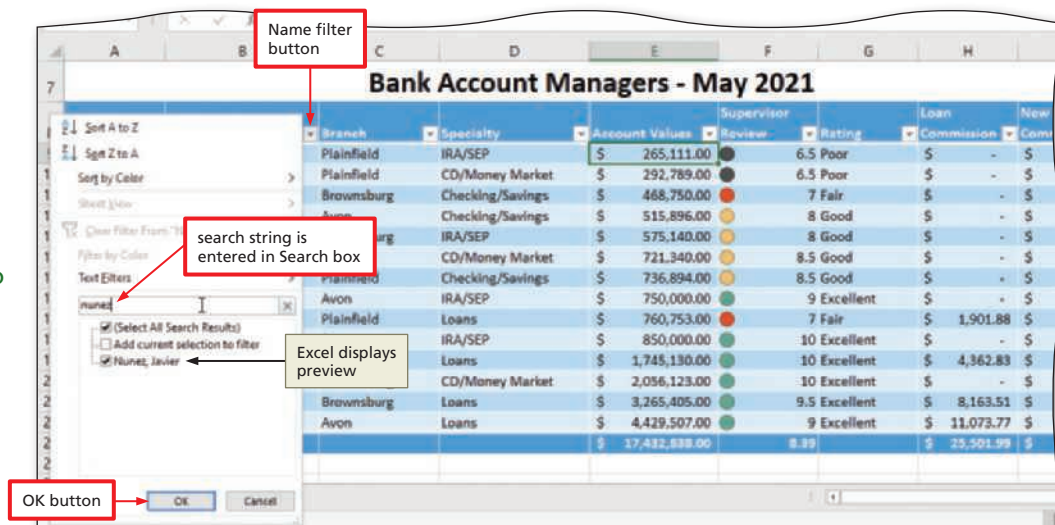


Figure 6-46

- Click OK to perform the search (Figure 6-47).

Experiment

- Search other columns for different kinds of data. Note that the total row reflects only the records displayed by the filter.

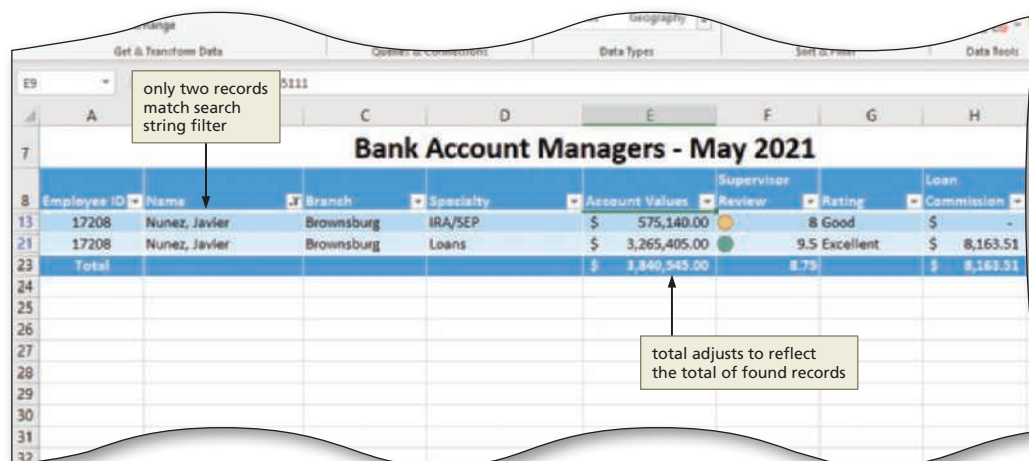


Figure 6-47

- Click the Clear button (Data tab | Sort & Filter group) to display all of the records in the table.

To Enter Custom Criteria Using AutoFilter

Another way to query a table is to use the Custom Filter command. The Custom Filter command allows you to enter custom criteria, such as multiple options or ranges of numbers. **Why? Not all queries are exact numbers; many times a range of numbers is required.** The following steps enter custom criteria to display records that represent managers whose Supervisor Review number is between 7 and 9, inclusive; that is, the number is greater than or equal to 7 and less than or equal to 9 ($7 \leq \text{Supervisor Review} \leq 9$).

1

- Click the filter button in cell F8 to display the filter menu for the Supervisor Review column.
- Point to Number Filters to display the Number Filters submenu (Figure 6-48).

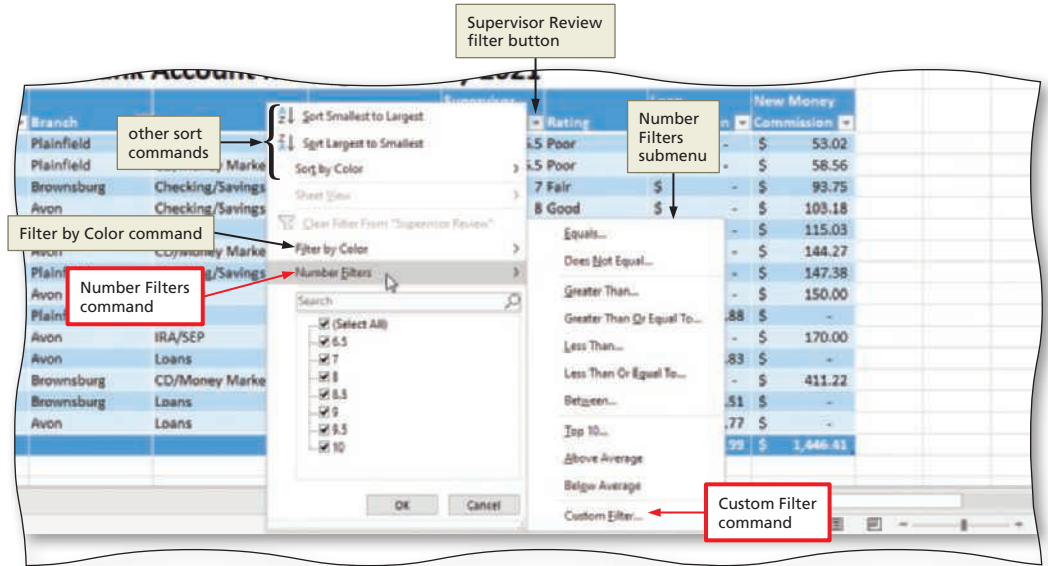


Figure 6-48

2

- Click Custom Filter on the Number Filters submenu to display the Custom AutoFilter dialog box.
- Click the first Supervisor Review button (Custom AutoFilter dialog box), click 'is greater than or equal to' in the list, and then type 7 in the first value box.
- Click the second Supervisor Review button. Scroll as necessary, and then click 'is less than or equal to' in the list. Type 9 in the second value box (Figure 6-49).

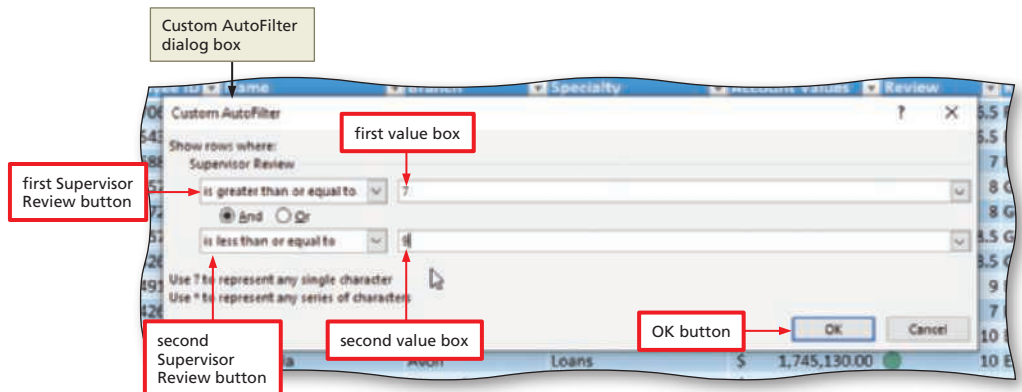


Figure 6-49

Q&A

How are the And and Or option buttons used?

You can click option buttons to select the appropriate operator. The AND operator indicates that both parts of the criteria must be true; the OR operator indicates that only one of the two must be true.

3

- Click OK (Custom AutoFilter dialog box) to display records in the table that match the custom AutoFilter criteria, in this case, service calls in which the Supervisor Review number is between 7 and 9, inclusive (Figure 6-50).



Figure 6-50

4

- Click the Clear button (Data tab | Sort & Filter group) to display all of the records in the table.

More about AutoFilters

Other important points regarding AutoFilter include the following:

- When you query a table to display some records and hide others, Excel displays a filter icon on the filter buttons used to establish the filter.
- Excel does not sort hidden records.
- If the filter buttons do not appear, then you must manually enable AutoFilter by clicking the Filter button (Data tab | Sort & Filter group).
- To remove a filter criterion for a single piece of data in a field, click the Select All check box on the filter menu for that field.
- When you create a formula in the total row of a table, the formula automatically recalculates the values even when you filter the list. For example, the results shown in the Total row in Figure 6–50 update automatically if you apply a filter to the table.
- You can filter and sort a column by color or conditional formatting using the ‘Sort by Color’ and ‘Filter by Color’ commands on the filter menu (shown in Figure 6–48).
- To reapply a filter or sort, click the Sort & Filter button (Home tab | Editing group), and then click Reapply.

To Turn Off AutoFilter

You can turn the AutoFilter feature off and on by hiding or showing the filter buttons. **Why? Sometimes you may want to view the table without the distraction of the buttons.** The following steps hide and then redisplay the AutoFilter.

- 1 Click the Filter button (Data tab | Sort & Filter group) to hide the filter buttons in the table (Figure 6–51).
- 2 Click the Filter button (Data tab | Sort & Filter group) again to display the filter buttons in the table.
- 3 Click the Save button on the Quick Access Toolbar to save the workbook.

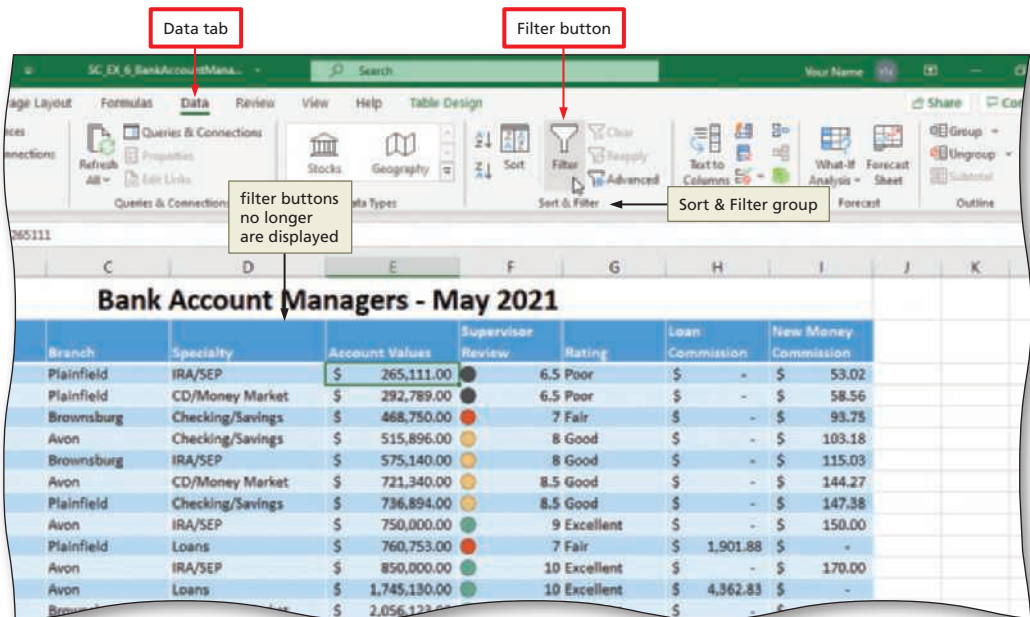


Figure 6–51

Other Ways

1. Click ‘Sort & Filter’ button (Home tab | Editing group), click Filter command in ‘Sort & Filter’ list
2. CTRL+SHIFT+L

Using Criteria and Extract Ranges

Another advanced filter technique called a criteria range manipulates records that pass comparison criteria. A **criteria range** is a location separate from the table used to list specific search specifications. Like a custom filter, a criteria range compares entered data with a list or table, based on column headings. Using a criteria range is sometimes faster than entering criteria through the AutoFilter system because once the range is established, you do not have to access any menus or dialog boxes to perform the query. You also can create an **extract range** in which Excel copies the records that meet the comparison criteria in the criteria range to another part of the worksheet.

Consider This



Does Excel provide another way to pull data out of a table?

Yes. You can create a criteria area and extract area on the worksheet. The criteria area can be used to enter rules regarding which records to extract, without having to change the AutoFilter settings. For example, the criteria area might ask for all full-time students with a grade of A from the table. The extract area can be used to store the records that meet the criteria. Extracting records allows you to pull data from a table so that you can analyze or manipulate the data further. For example, you may want to know which customers are delinquent on their payments. Extracting records that meet this criterion allows you then to use the records to create a mailing to such customers.

To Create a Criteria Range

When creating a criteria range, it is important to place it away from the table itself. Commonly, criteria ranges are located directly above the table. That way, if the table grows downward or to the right in the future, the criteria range will not interfere. Criteria ranges must include identical column headings to perform the search. It is a good practice to copy the necessary column headings rather than type them, to prevent errors. The following steps create a criteria range and copy the column headings.

- 1 Select the range A7:I8 and then press CTRL+C to copy the range.
- 2 Select cell A1 and then press ENTER to paste the Clipboard contents.
- 3 Change the title to **Criteria Range** in cell A1.
- 4 If necessary, use the format painter to copy the formatting from row 8 to row 2.
- 5 Select the range A2:I3, click the Name box, type **Criteria** as the range name, and then press ENTER (Figure 6–52).

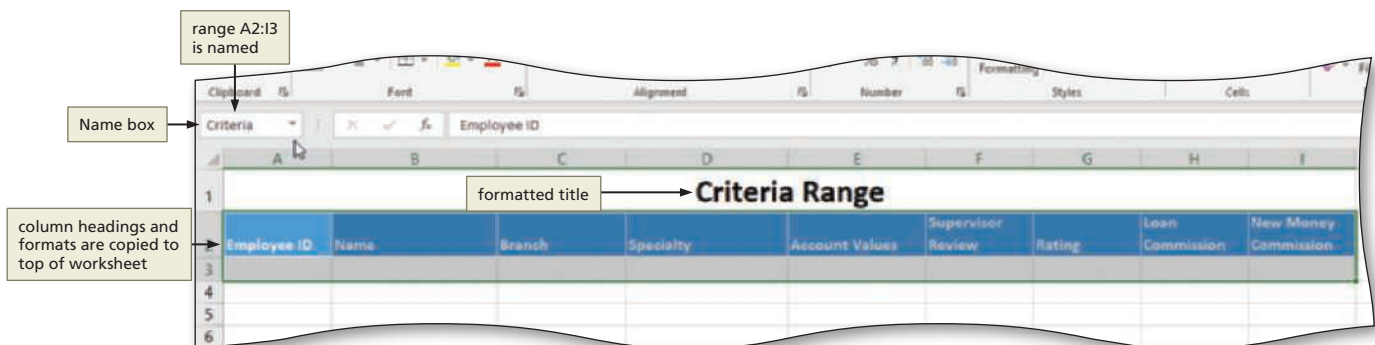


Figure 6–52

To Query Using a Criteria Range

The following steps use the criteria range and the Advanced Filter dialog box to query the table and display only the records that pass the test: Specialty = IRA/SEP AND Account Values > 300,000 AND Supervisor Review >= 8. The criteria data is entered directly below the criteria range headings. **Why?** Because the Advanced Filter dialog box searches for a match using column headings and adjacent rows.

- In cell D3, enter the criteria **IRA/SEP**, in cell E3 type **>300000**, and in cell F3 type **>=8** (Figure 6-53).
 - If Excel turns off your filter buttons, click the Filter button (Data tab | Sort & Filter group).

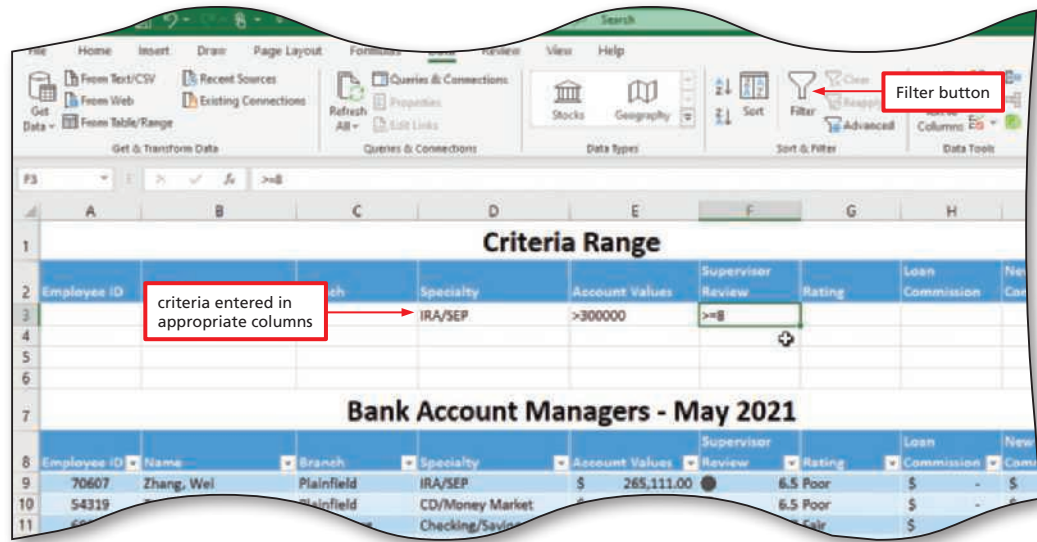


Figure 6-53

- Click the table to make it active.
 - Click the Advanced button (Data tab | Sort & Filter group) to display the Advanced Filter dialog box (Figure 6-54).

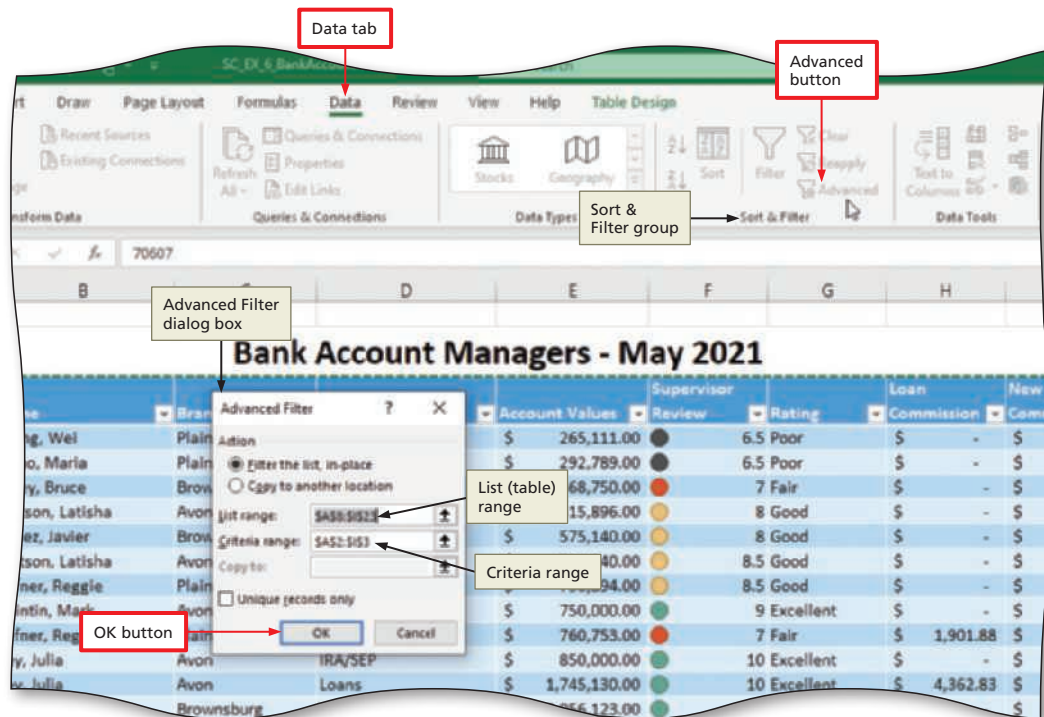


Figure 6-54

Q&A My values in the Advanced Filter dialog box are different. Did I do something wrong?

If your values are different, type **\$A\$8:\$I\$23** in the List range box. Excel selects the criteria range (**\$A\$2:\$I\$3**) in the Criteria range box, because you assigned the name **Criteria** to the range **A2:I3** earlier.

3

- Click OK (Advanced Filter dialog box) to hide all records that do not meet the comparison criteria (Figure 6–55).

Q&A

What is the main difference between using the AutoFilter query technique and using the Advanced Filter dialog box with a criteria range?

Like the AutoFilter query technique, the Advanced Filter command displays a subset of the table.

The primary difference between the two is that the Advanced Filter command allows you to create more complex comparison criteria, because the criteria range can be as many rows long as necessary, allowing for many sets of comparison criteria.

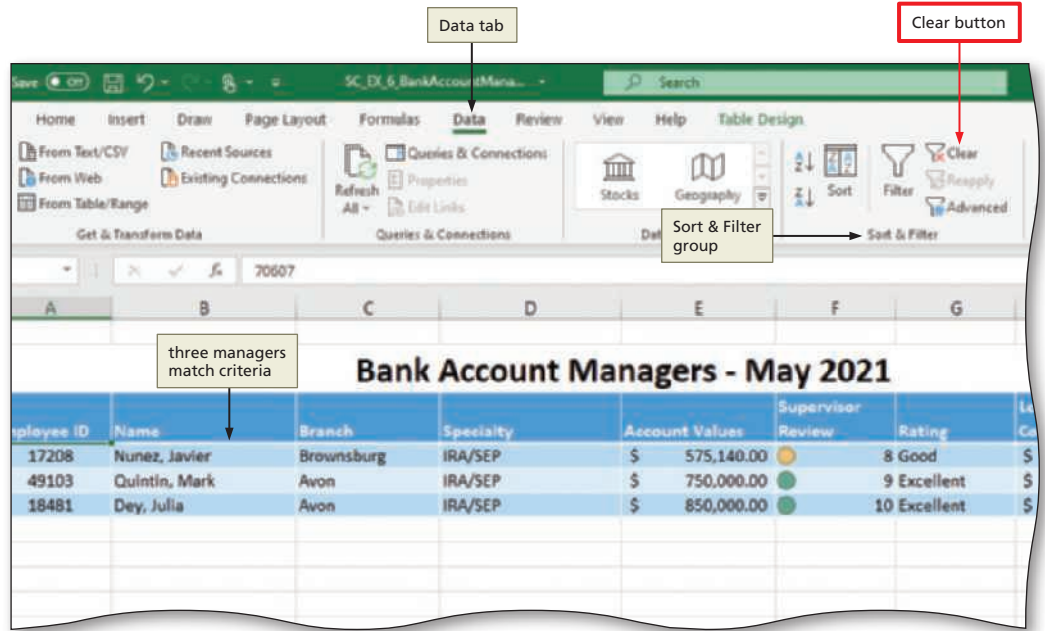


Figure 6–55

4

- Click the Clear button (Data tab | Sort & Filter group) to show all records. If your banded rows no longer display correctly, click the 'Blue, Table Style Medium 14' button (Table Design tab | Table Styles group).

To Create an Extract Range

In the previous steps, you filtered data in place within the table itself; however, you can copy the records that meet the criteria to another part of the worksheet, rather than displaying them as a subset of the table. **Why? Extracting the filtered data to another location leaves the table intact; and, it allows you to compare the data more easily.** The following steps create an extract range below the table.

- Select the range A7:I8 and then press CTRL+C to copy the range.
- Select cell A25 and then press ENTER to paste the contents.
- Change the title to **Extract Area** in cell A25.
- Select the range A26:I45, click the Name box, type **Extract** as the range name, and then press ENTER.

Q&A

Why am I including so many rows in the extraction range?

The table has many records; you want to make sure you have enough room for any search that the company might desire.

- If necessary, use the format painter to copy the formatting and wrap column headings to match the table headings (Figure 6–56).

BTW

AND and OR Queries

If you want to create a query that includes searches on two fields, you enter the data across the same row in the criteria range. If you want to search for one piece of data OR another, enter the second piece of data on the next row.

Employee ID	Name	Branch	Speciality	Account Values	Supervisor Review	Rating	Loan Commission	New Money Commission
68835	Carey, Bruce	Brownsburg	CD/Money Market	\$ 2,056,123.00	10 Excellent	8.39	\$ -	\$ 411.22
17208	Nunez, Javier	Brownsburg	Loans	\$ 3,265,405.00	9.5 Excellent		\$ 8,163.51	\$ -
49103	Quintin, Mark	Avon	Loans	\$ 4,429,507.00	9 Excellent		\$ 11,073.77	\$ -
Total				\$ 17,482,838.00			\$ 23,501.99	\$ -1,446.41

Figure 6-56

To Extract Records

The following steps extract records that meet the previous criteria, using the Advanced Filter dialog box. **Why?** The Advanced Filter dialog box allows you to use the complex criteria from a criteria range on the worksheet and send the results to a third location, leaving the table undisturbed.

1

- Click the table to make it active.
- Click the Advanced button (Data tab | Sort & Filter group) to display the Advanced Filter dialog box.
- Click the 'Copy to another location' option button in the Action area (Advanced Filter dialog box) to cause the records that meet the criteria to be copied to a different location on the worksheet (Figure 6-57).

Figure 6-57

2

- Click OK to copy any records that meet the comparison criteria in the criteria range from the table to the extract range. Scroll to display the entire extraction area (Figure 6-58).

Employee ID	Name	Branch	Speciality	Account Values	Supervisor Review	Rating	Loan Commission	New Money Commission
35724	Watson, Latisha	Avon	CD/Money Market	\$ 721,340.00	8.5 Good		\$ -	\$ 144.27
42687	Hefner, Reggie	Plainfield	Checking/Savings	\$ 736,894.00	8.5 Good		\$ -	\$ 147.38
49103	Quintin, Mark	Avon	IRA/SEP	\$ 750,000.00	9 Excellent		\$ -	\$ 150.00
42687	Hefner, Reggie	Plainfield	Loans	\$ 760,753.00	7 Fair		\$ 1,901.88	\$ -
18481	Dey, Julia	Avon	IRA/SEP	\$ 850,000.00	10 Excellent		\$ -	\$ 170.00
18481	Dey, Julia	Avon	Loans	\$ 1,745,130.00	10 Excellent		\$ 4,362.83	\$ -
68835	Carey, Bruce	Brownsburg	CD/Money Market	\$ 2,056,123.00	10 Excellent		\$ -	\$ 411.22
17208	Nunez, Javier	Brownsburg	Loans	\$ 3,265,405.00	9.5 Excellent		\$ 8,163.51	\$ -
49103	Quintin, Mark	Avon	Loans	\$ 4,429,507.00	9 Excellent		\$ 11,073.77	\$ -
Total				\$ 17,482,838.00		8.39	\$ 23,501.99	\$ -1,446.41

Figure 6-58

Q&A | **What happens to the rows in the extract range if I perform another advanced filter operation?**
 Each time you use the Advanced Filter dialog box with the 'Copy to another location' option, Excel clears cells below the field names in the extract range before it copies a new set of records that pass the new test.

3

- Click the Save button on the Quick Access Toolbar to save the workbook again.

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_6_BankAccountManagers, and continue following the steps from this location forward.

More about the Criteria Range

The comparison criteria in the criteria range determine the records that will pass the test when the Advanced Filter dialog box is used. As you have seen, multiple entries in a single data row of the criteria range create an AND condition. The following examples describe different comparison criteria.

- If the criteria range contains a blank row, it means that no comparison criteria have been defined. Thus, all records in the table pass the test and will be displayed.
- If you want an OR operator in the same field, your criteria range must contain two (or more) data rows. Enter the criteria data on separate rows. Records that pass either (or any) comparison criterion will be displayed.
- If you want an AND operator in the same field name, you must add a column in the criteria range and duplicate the column heading.
- If you want an OR operator on two different fields, your criteria range must contain two (or more) data rows. Enter the criteria for each field on a separate row. Records will display that pass either (or any) comparison criterion.
- When the comparison criteria below different field names are in the same row, then records pass the test only if they pass all the comparison criteria, an AND condition. If the comparison criteria for the field names are in different rows, then the records must pass only one of the tests, an OR condition.

BTW

Keeping Data in Order

If you want to perform various sorts but need to have a way to return to the original order, you might consider adding a column that numbers the entries before sorting.

Using Database Functions

Excel includes 12 database functions that allow you to evaluate numeric data in a table. These functions each begin with the letter D for data table, to differentiate them from their worksheet counterparts. As the name implies, the **DAVERAGE function** calculates the average of numbers in a table field that pass a test. The general form of the DAVERAGE function is

=DAVERAGE(table range, "field name", criteria range)

Another often-used table function is the DCOUNT function. The **DCOUNT function** counts the number of numeric entries in a table field that pass a test. The general form of the DCOUNT function is

=DCOUNT(table range, "field name", criteria range)

In both functions, table range is the location of the table, field name is the name of the field in the table, and criteria range is the comparison criteria or test to pass. The criteria range must include a column heading with the data. Note that Excel requires that you surround field names with quotation marks unless you previously named the field.

Other database functions that are similar to the functions described in previous modules include the DMAX, DMIN, and DSUM functions. See Excel Help for a complete list of database functions.

BTW

The DGET Function

The DGET function extracts a single value from a column of a list or database that matches conditions that you specify. The three arguments include database, column number, and criteria.

BTW

Functions and Ranges

When using a function such as DAVERAGE or DCOUNT, Excel automatically adjusts the first argument if the table grows or shrinks. With functions such as SUMIF and COUNTIF, you have to correct the function argument to reflect the new range if the range grows or shrinks.

To Create an Output Area

In order to demonstrate the database functions and other functions, the following steps set up an output area in preparation for entering functions.

- 1** Change the width of columns O, P, and Q to 18.00.
- 2** Select cell O1 and then type **Output Area** to enter a criteria area title. Center the title across the selection O1:Q1.
- 3** Enter other labels as shown below. Bold the title cells O8 and O11, and center them across columns O through Q. Use the format painter to copy the formatting from cell L1 to cell O1, and then copy the formatting from cell L2 to cells O12:Q12. If necessary, ensure that cell O7 matches the formatting of cell O6 (Figure 6–59).

Cell	Text
O2	Avg. Avon Supervisor Review:
O3	Avg. Brownsburg Supervisor Review:
O4	Avg. Plainfield Supervisor Review:
O5	Managers with Poor Ratings:
O6	Total Checking/Savings:
O7	Count of Loan Officers:
O8	Locator
O9	Enter Employee ID Number:
O10	Branch Location of Entered Employee:
O11	Function Branch Criteria
O12	Branch
O13	Avon
P12	Branch
P13	Brownsburg
Q12	Branch
Q13	Plainfield

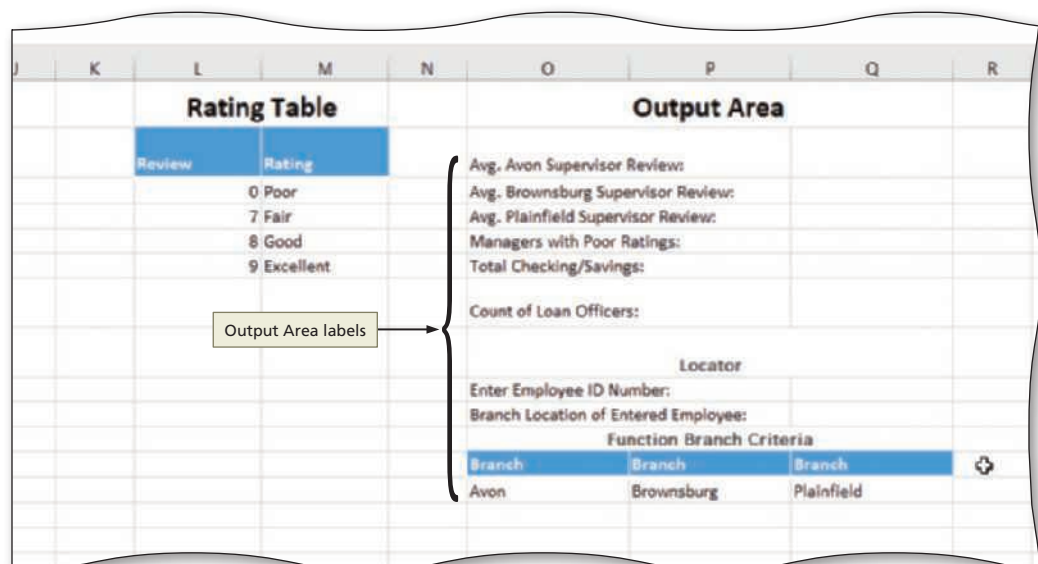


Figure 6–59

To Use the DAVERAGE and DCOUNT Database Functions

The following steps use the DAVERAGE function to find the average supervisor review at each branch. You will use the DCOUNT function to count the number of managers that have a Poor rating. **Why?** The DAVERAGE and DCOUNT functions allow you to enter a range to average, and criteria with which to filter the table. The DAVERAGE function requires a numeric field from the table range; therefore, you will use “Supervisor Review” as the second argument. Field names used as numeric arguments in these functions should be surrounded with quotation marks unless previously named.

1

- Select cell Q2 and then type `=DAVERAGE` (`a8:i22`, “Supervisor Review”, `o12:o13`) to enter the database function (Figure 6–60).

Q&A

My function wraps. Did I do something wrong?

No, it depends on how far to the right you are scrolled. If there is not enough room on the screen, Excel will wrap long cell entries.

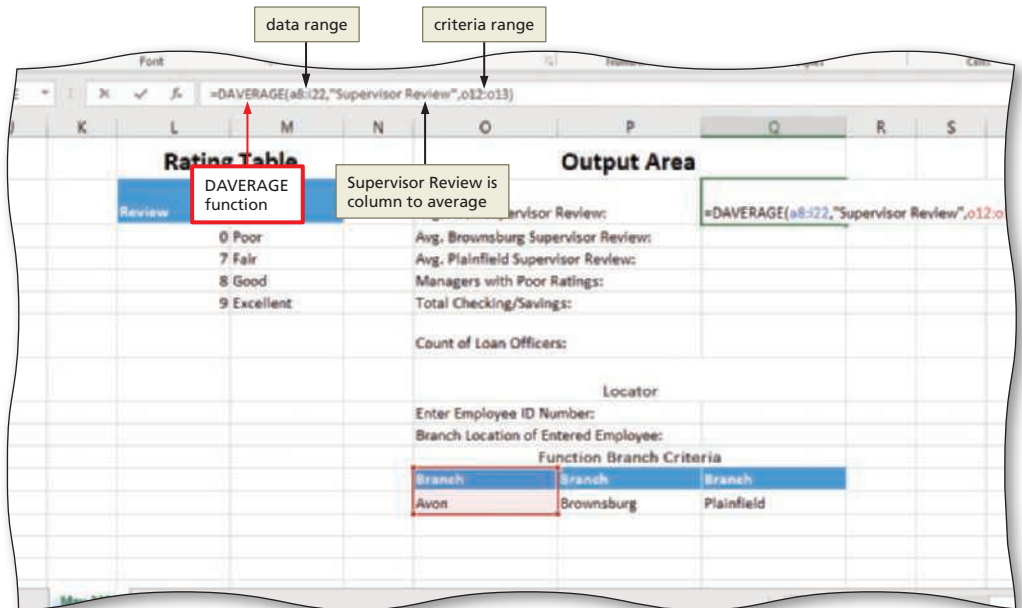


Figure 6–60

2

- Click the Enter button to finish the function and display the answer.
- Select cell Q3 and then type `=daverage` (`a8:i22`, “Supervisor Review”, `p12:p13`)
- Select cell Q4 and then type `=daverage` (`a8:i22`, “Supervisor Review”, `q12:q13`) (Figure 6–61).

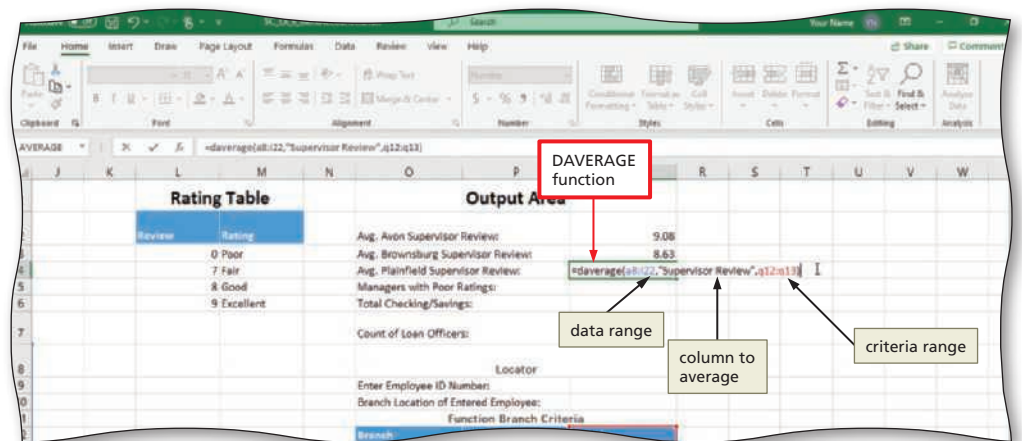


Figure 6–61

Q&A

Why do the three DAVERAGE functions, which use the Supervisor Review, generate different answers? The criteria range differentiates the entries. The range O12:O13 averages the Supervisor Review results for the Avon branch. The range P12:P13 averages Brownsburg managers. The range Q12:Q13 averages Plainfield managers.

Could I use the table name instead of the range, A8:I22, as the first argument in the function?

To use a table name, you would have to enter a structured reference such as `Managers[#All]` to reference the entire table.

3

- Click the Enter button to finish the function.
- If necessary, format cells Q2:Q4 with the number format and 2 decimal places.
- Select cell Q5 and then type `=dcount(a8:i22,"Supervisor Review",m2:m3)` to enter the database function.
- Click the Enter button to finish the function (Figure 6–62).

Q&A What is the DCOUNT function actually counting?

The DCOUNT function is counting the number of Poor ratings in the table, as referenced by the M2:M3 criteria.

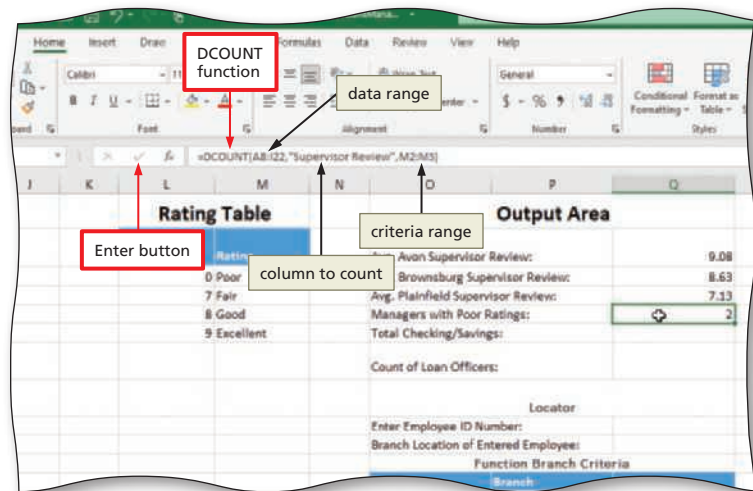


Figure 6–62

Other Ways

1. Click Insert Function box in formula bar, click 'Or select a category' button, click 'Database', double-click DAVERAGE or DCOUNT in 'Select a function' list, enter arguments

BTW

Using Quotation Marks

Many of the database functions require a field name as one of the arguments. If your field name is text, rather than a cell reference, number, or range, the argument must be enclosed in quotation marks.

Using the SUMIF, COUNTIF, MATCH, and INDEX Functions

Four other functions are useful when querying a table and analyzing its data. The SUMIF and COUNTIF functions sum values in a range, or count values in a range, only if they meet a criteria. The MATCH function returns the position number of an item in a range or table. For example, if you search for a specific student name, the MATCH function might find it in position 3 (or the third column in the table). You then can use that number with other functions, cell references, or searches. The INDEX function returns the value of a cell at the intersection of a particular row position and column position within a table or range. For example, you might want to know the age of the fifth student in a table, where ages are stored in the second column. Using the numbers 5 and 2 would eliminate the need to know the exact cell reference because the positions are relative to the table or range. Unlike the database functions, the range for these functions need not be a table.

To Use the SUMIF Function

The following step uses the SUMIF function to ascertain the sum of the account values for Checking/Savings accounts. **Why?** The SUMIF function allows you to sum a range based on criteria. The general format of the SUMIF function is

$$=SUMIF(criteria_range, data, sum_range)$$

The first argument is the criteria range, or the range you want to search. The second argument is the desired piece of data in that range; it must be enclosed in quotes if the data is alphanumeric. The third argument is the location of the values you want summed. In this case, you are searching column D (Specialty) for "Checking/Savings", and then summing column E (Account Values).

1

- Click cell Q6 and then type `=sumif` (d9:d22, "Checking/Savings", e9:e22).
- Press ENTER to enter the function.
- Apply the accounting number format style to cell Q6 (Figure 6-63).

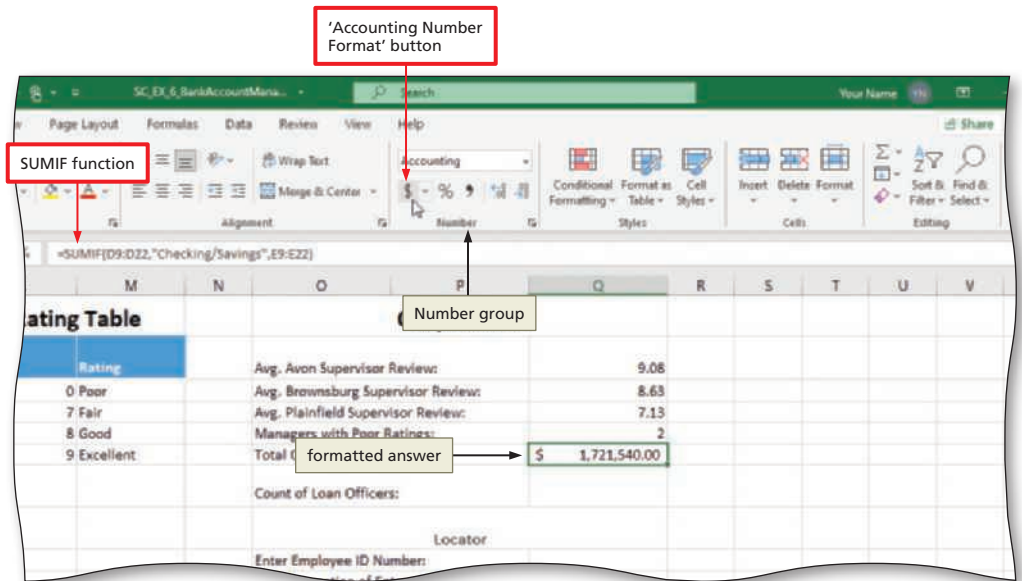


Figure 6-63

Other Ways

1. Click Insert Function box in formula bar, click 'Or select a category' button, click 'Math & Trig', double-click SUMIF in 'Select a function' list, enter arguments
2. Click 'Math & Trig' button (Formulas tab | Function Library group), click SUMIF, enter arguments

To Use the COUNTIF Functions

The following step uses the COUNTIF to ascertain the number of account managers who handle loans. **Why?** In large tables, counting the number of records that match certain conditions provides useful data for analysis. The general format of the COUNTIF function is

$$=COUNTIF(\text{count_range}, \text{data})$$

The first argument is the range containing the cells with which to compare the data in the second argument. Again, if the data is text rather than numbers, the data must be enclosed in quotes. In this case, you are counting the number of "Loans" in Column D.

1

- In cell Q7, type `=countif` (d9:d22, "Loans") and then click the Enter button to enter the function (Figure 6-64).

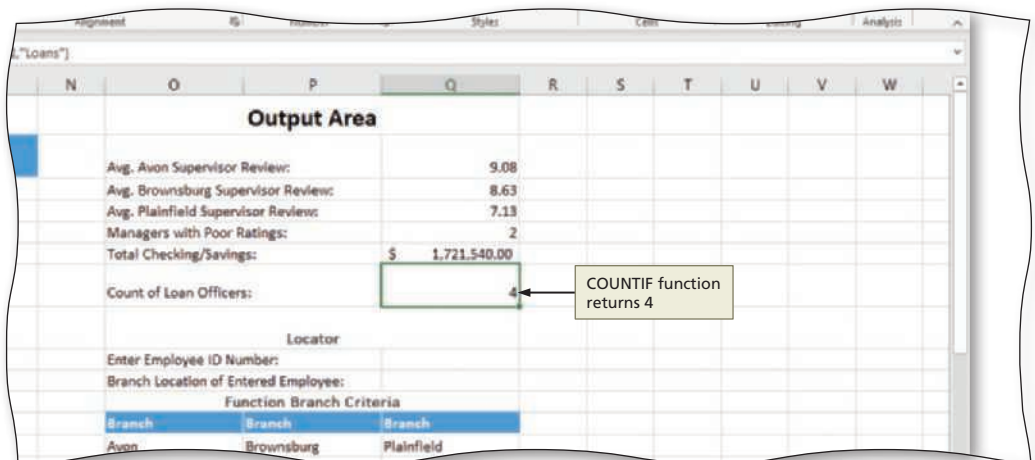


Figure 6-64

Other Ways

1. Click Insert Function box in formula bar, click 'Or select a category' button, click 'Statistical', double-click COUNTIF in 'Select a function' list, enter arguments
2. Click 'More Functions' button (Formulas tab | Function Library group), point to 'Statistical', click COUNTIF, enter arguments

To Use the MATCH and INDEX Functions

The MATCH function can be used to find the position number of a piece of data in a table or range, using the general format

$$=MATCH(\text{lookup_value}, \text{lookup_array}, \text{match_type})$$

The first argument is the search data (or cell reference). The second argument is the range to search. The range must be a group of cells in a row or column. The third argument specifies the type of search: -1 for matches less than the lookup value, 0 (zero) for an exact match, and 1 for matches higher than the lookup value. The MATCH function returns a numeric reference to the column or row within the search area.

The INDEX function finds a specific value in a table or range based on a relative row and column. The general format is

$$=INDEX(\text{range}, \text{row}, \text{column})$$

When used together, the MATCH and INDEX functions provide the ability to look up a particular value in a table based on criteria. Because the MATCH function returns the row location in this case, you can use it as the second argument in the INDEX function. For example, to find the Branch for a specific manager in the table, the combined functions would be

$$=INDEX(A9:I22, MATCH(Q9, A9:A22, 0), 3).$$

Within the INDEX function, A9:I22 is the table range; the MATCH function becomes the second argument and refers to the row; and the last argument, 3, refers to column C, the branch data. That final argument must be an integer rather than an alphabetic reference to the column. Within the MATCH function, Q9 is the location of the employee ID you wish to search for, followed by the range of IDs in A9:A22, followed by a designation of 0 for an exact match. Sometimes called nesting, the inner function is performed first.

The following steps assume you want to look up the Branch for any given manager by using the employee ID. **Why?** The table is not sorted by employee ID; this method makes it easier for the company to find the branch for a specific manager.

1

- Click cell Q9 and then type **18481** to enter a lookup value.
- In cell Q10, type **=index(a9:i22, match(q9, a9:a22, 0), 3)** and then press ENTER to enter the function (Figure 6-65).

2

- Click the Save button on the Quick Access Toolbar to save the workbook again.

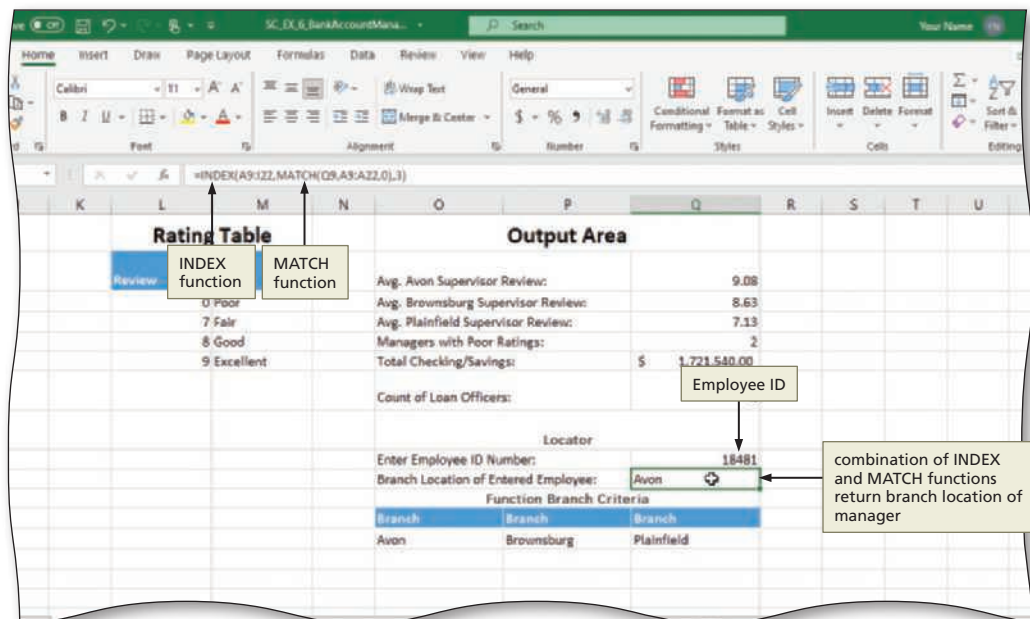


Figure 6-65

Other Ways

- Click Insert Function box in formula bar, click 'Or select a category' button, click 'Lookup & Reference', double-click MATCH or INDEX in 'Select a function' list, enter arguments
- Click 'Lookup & Reference' button (Formulas tab | Function Library group), click MATCH or INDEX, enter arguments

Other Functions

You have learned that logical operators help you compare cells and ranges. You used the IF function to evaluate a logical test containing a comparison operator. The IF function returns a value or reference if true and a different value or reference if false. Four logical functions are similar to their operator counterparts as they use function keywords with two or more logical comparisons as arguments. The **AND function** returns the word TRUE if the both arguments are true. The **OR function** returns TRUE if either part of the condition is true. A rarely used **XOR function** returns TRUE if *either* argument is true and returns FALSE if both are true or false. Finally, the **NOT function** uses a single argument and returns TRUE if the condition is false. Table 6–5 displays examples of the four logical functions.

Table 6–5 Examples of Logical Functions

Function	Description	Example	Explanation
AND	Returns TRUE if all of the arguments are TRUE	=AND(A1="Yes", B2<5)	Returns TRUE if cell A1 is equal to "Yes" and B2 is less than 5. Otherwise, it returns FALSE.
OR	Returns TRUE if either argument is TRUE	=OR(A1="Yes", B2<5)	Returns TRUE if either cell A1 is equal to "Yes" or B2 is less than 5. If neither of the conditions is met, it returns FALSE.
XOR	Returns a logical Exclusive Or of all arguments	=XOR(A1="Yes", B2<5)	Returns TRUE if either cell A1 is equal to "Yes" or B2 is less than 5. If neither of the conditions is met or both conditions are met, it returns FALSE.
NOT	Returns the reversed logical value of its argument; if the argument is FALSE, then it returns TRUE, and vice versa	=NOT(A1="Yes")	Returns TRUE if cell A1 is anything other than "Yes."

In a previous module, you learned about the Transpose paste option, which return a vertical range of cells as a horizontal range, or vice versa. The **TRANSPOSE function** works in a similar manner. For example, if you have the values 100, 200, and 300 in a column running down (cells A1, A2, and A3), you could change them to display in a row running across. To do so, select the first cell in the destination location and then type

=TRANSPOSE(A1:A3).

The **AVERAGEIF function** returns the average of values within a range that meet a given criteria. The function takes two arguments: range and criteria. For example, you could find the average A-level test score in a named range using

=AVERAGEIF(scores, >=90).

An optional third argument allows the criteria to be measured against the first range, while averaging a different range.

Summarizing Data

Another way to summarize data is by using subtotals. A subtotal is the sum of a subset of data while a grand total sums all of the data in a row or column. You can create subtotals automatically, as long as the data is sorted. For subtotals, the field on which you sort is called the **control field**. For example, if you choose the Branch field as your control field, all of the Avon, Brownsburg, and Plainfield entries will be grouped together within the data range. You then might request subtotals for the Account Values and Customer Bill field. Excel calculates and displays the subtotal each time the Branch field changes. A grand total displays at the bottom of the range. The most common subtotal uses the SUM function, although you can use other functions. If you change the control field, Excel updates the subtotal automatically. Note that the subtotal feature cannot be used with the table feature, only with normal ranges of data.

The Subtotal command displays outline symbols beside the rows or above the columns of the data you wish to group. The **outline symbols** include plus and minus signs for showing and hiding grouped portions of the worksheet, as well as brackets identifying the groups. For example, you might want to minimize the display of account managers who have a Poor rating and show only those with Fair, Good, and Excellent ratings. Outlining is extremely useful for making large tables more manageable in size and appearance.

To Sort the Data

Subtotals can only be performed on sorted data. The following step sorts the table by Branch.

- 1 Scroll to display the table. Click any cell within the table. If necessary, click the Filter button (Data tab | Sort & Filter group) to display the filter arrows. Click the filter button in cell C8 and then click the 'Sort A to Z' command to sort the Branch data.

To Convert a Table to a Range

In preparation for creating subtotals, the following steps convert the table back to a range. **Why?** The Subtotal command is not available for tables.

- 1
 - Right-click anywhere in the table and then point to Table on the shortcut menu to display the Table submenu (Figure 6-66).
- 2
 - Click 'Convert to Range' (Table submenu) to display a Microsoft Excel dialog box.
 - Click Yes (Microsoft Excel dialog box) to convert the table to a range.

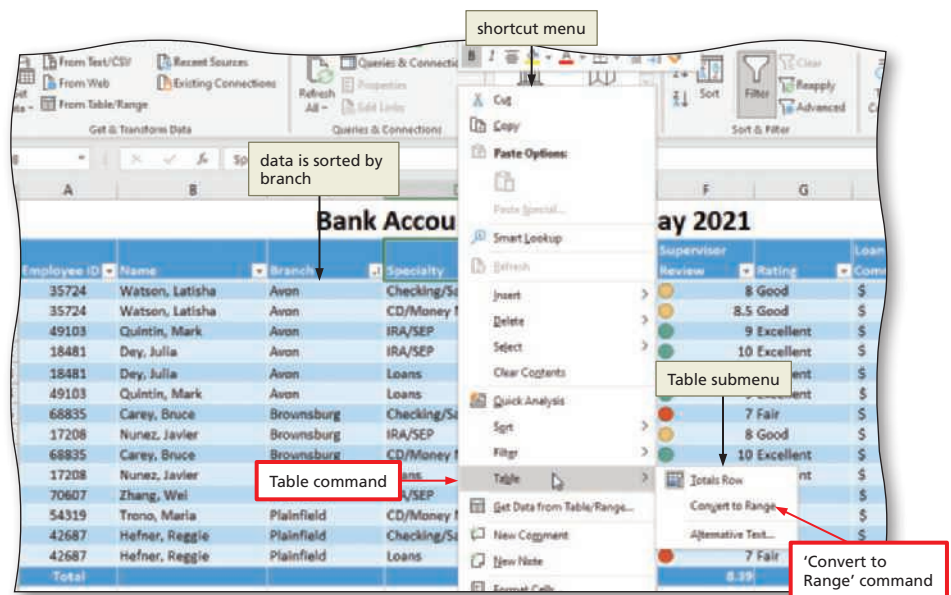


Figure 6-66

Other Ways

1. Click 'Convert to Range' button (Table Design tab | Tools group), click Yes (Microsoft Excel dialog box)

To Display Subtotals

The following steps display subtotals for the Account Values based on Branch. **Why?** Subtotals are useful pieces of data for comparisons and analysis.

- 1
 - Click in one of the numeric fields you wish to subtotal (in this case, column E).
 - Click the Subtotal button (Data tab | Outline group) to display the Subtotal dialog box.
 - Click the 'At each change in' button (Subtotal dialog box) and then click Branch to select the control field.

- If necessary, click the Use function button and then select Sum in the Use function list.
- In the 'Add subtotal to' list (Subtotal dialog box), click Account Values to select values to subtotal. Clear any other check boxes (you may need to scroll to see all check boxes) (Figure 6-67).

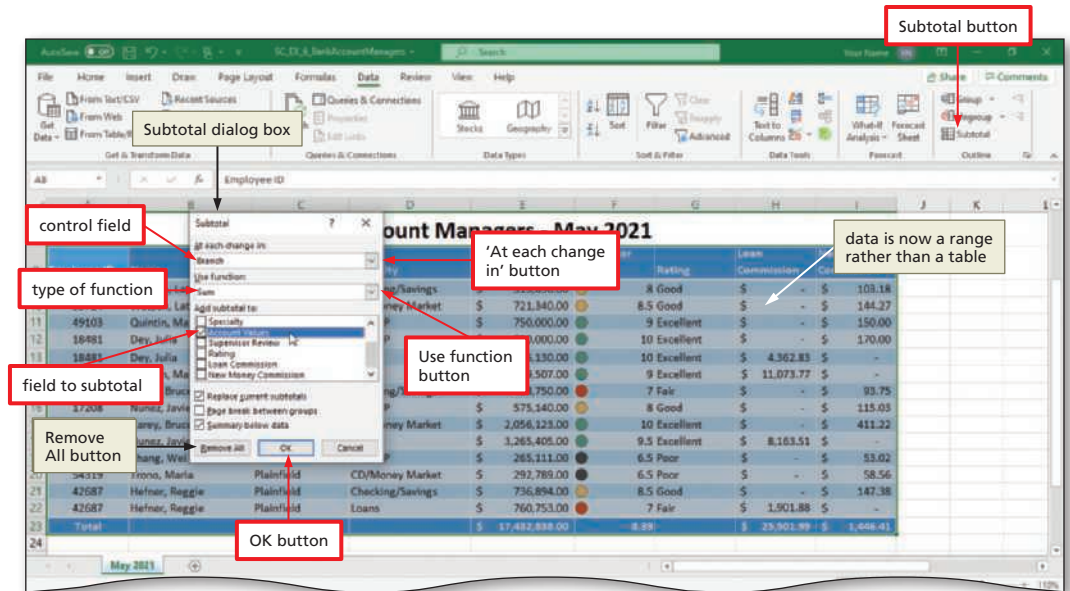


Figure 6-67

2

- Click OK (Subtotal dialog box) to add subtotals to the range. Deselect the range, if necessary.
- Zoom to 100% magnification.
- Scroll as necessary so that you can see the entire subtotal and outline area (Figure 6-68).

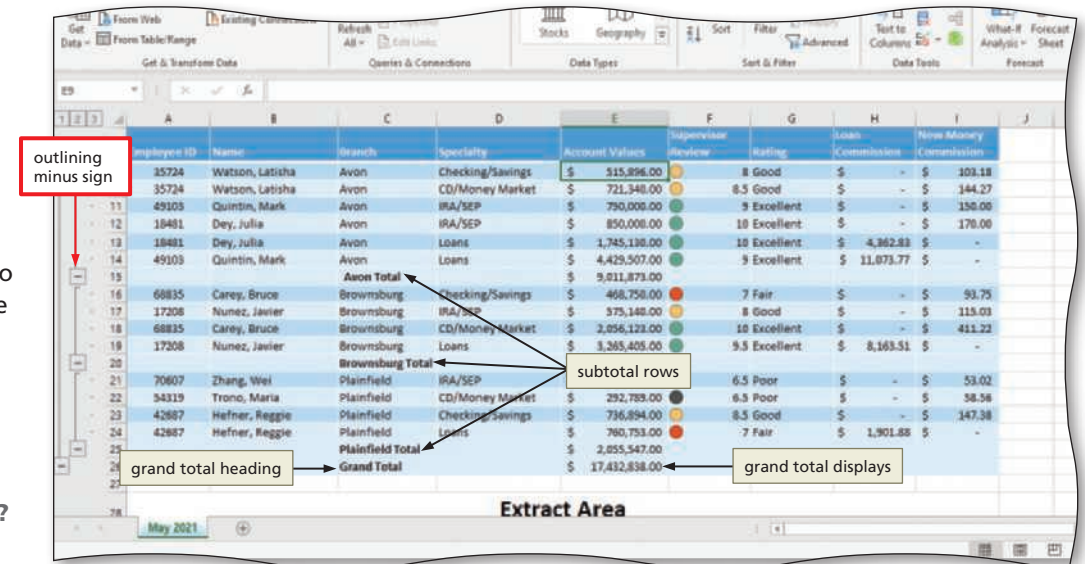


Figure 6-68

Q&A What changes does Excel make to the worksheet?

Excel adds three subtotal rows—one subtotal for each different Branch—and one grand total row for the entire table. The names for each subtotal row come from the sorted control field and appear in bold. Thus, the text, Avon Total, in cell C15 identifies the row that contains the subtotal for Account Values for the Avon branch. Excel also displays the outlining feature to the left of the row numbers.

To Use the Outline Feature

Excel turns on the outline feature automatically when you create subtotals. The following steps use the outline feature of Excel. **Why?** The outline feature allows you to hide and show data and totals.

1

- Click the second outlining column header to collapse the outline and hide the data (Figure 6-69).

Experiment

- One at a time, click each of the plus signs (+) in column two on the left side of the window to display detail records for each Branch.

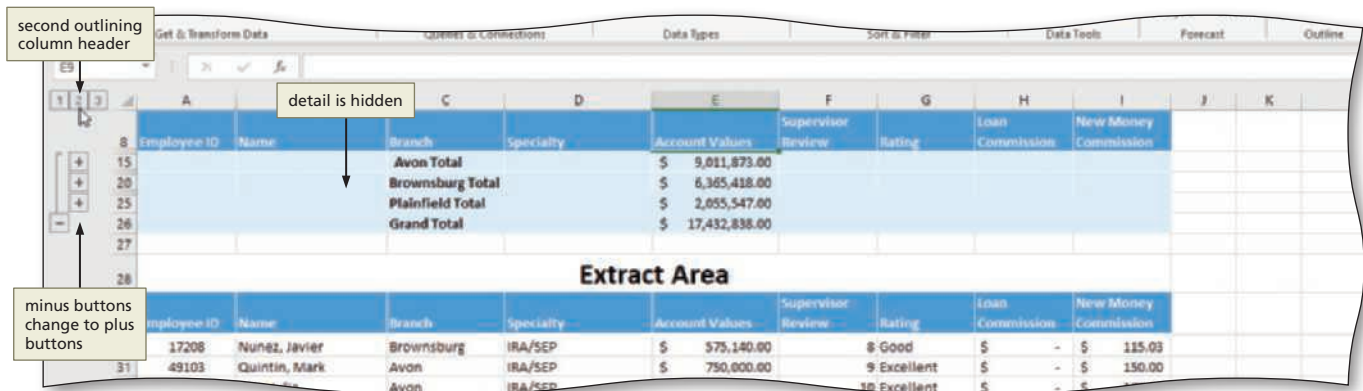


Figure 6-69

2

- Save the file with a new name, SC_EX_6_BankAccountManagersWithSubtotals.

Auto Outline

The Group and Ungroup buttons (Data tab | Outline group) provide another outlining feature for larger amounts of data. When you click the Auto Outline command on the Group button menu, Excel displays only the header column or columns, and various numeric fields, including any totals. Outlining headers display above the data and can be collapsed or expanded just as you did with the subtotals.

To Remove Automatic Subtotals

The following step removes the subtotals. **Why?** In order to prepare the data for other subtotals or sorts, you may want to remove subtotals.

1

- Click the Subtotal button (Data tab | Outline group) to display the Subtotal dialog box.

2

- Click the Remove All button (Subtotal dialog box) to remove all subtotals (Figure 6-70).

3

- Close the file without quitting Excel. If you are prompted to save the file, click the Don't Save button (Microsoft Excel dialog box).

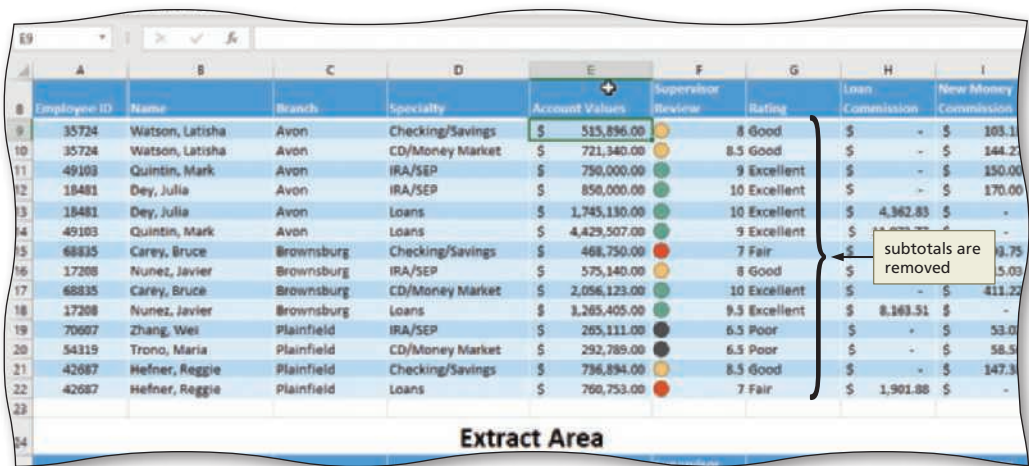


Figure 6-70

Treemap Charts

A **treemap chart** provides a hierarchical, visual view of data, making it easy to spot patterns and trends. Instead of hierarchical levels, treemap charts use rectangles to represent each branch and subbranch (or data category) by size, enabling users to display categories by color and proximity, and to compare proportions. One of the fields in a treemap chart must be numeric, in order to generate the size of each rectangle. The data series, or selected range of data, must be contiguous—you cannot chart multiple data series with a treemap chart. As with other types of charts, you can format fonts, colors, shape, and text effects, as well as add data fields and adjust data labels. Treemap charts compare values and proportions among large amounts of data that might be difficult to show with other types of charts.

To Create a Treemap Chart

The following steps create a treemap chart to compare account managers who have brought in new money (money other than loans). **Why?** The company would like to see the general proportion of money related to various account types using the manager's name as the tree branch and the Specialty as the subbranch. The Account Values will be reflected by the size of the rectangles.

1

- Open the file named SC_EX_6_BankAccountManagers. Scroll as necessary to display the table.
- Click any cell in the table. If necessary, click the Filter button (Data tab | Sort & Filter group) to display the filter buttons. Sort the data in ascending order by Name. Click the Filter button in cell D8, click Loans to remove the check mark, and click OK.
- Drag to select cells B8:E22.
- Display the Insert tab and then click the 'Insert Hierarchy Chart' button (Insert tab | Charts group) to display the gallery (Figure 6–71).

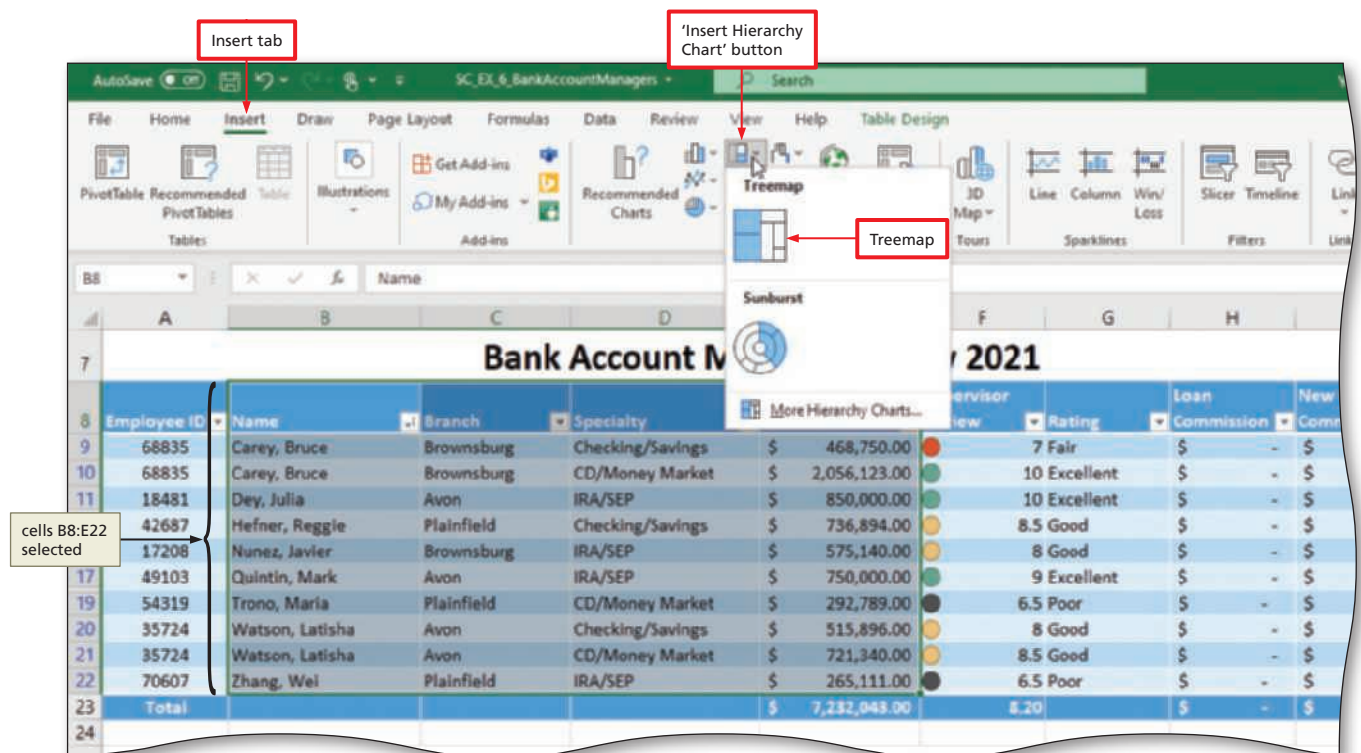


Figure 6–71

Q&A Do I have to use the table file rather than the file with subtotals?

Recall that you removed the table formatting in the file with subtotals. It is easier to start with the data stored as a table.

2

- Click Treemap (Insert Hierarchy Chart gallery) to insert the chart.
- Click Style 6 (Chart Design tab | Chart Styles group) to select the style.
- Click the Chart Elements button located to the right of the chart and then click the Legend check box to remove the check mark (Figure 6–72).

Experiment

- Point to each rectangle in the chart to see a ScreenTip showing from which data points the rectangle was created.

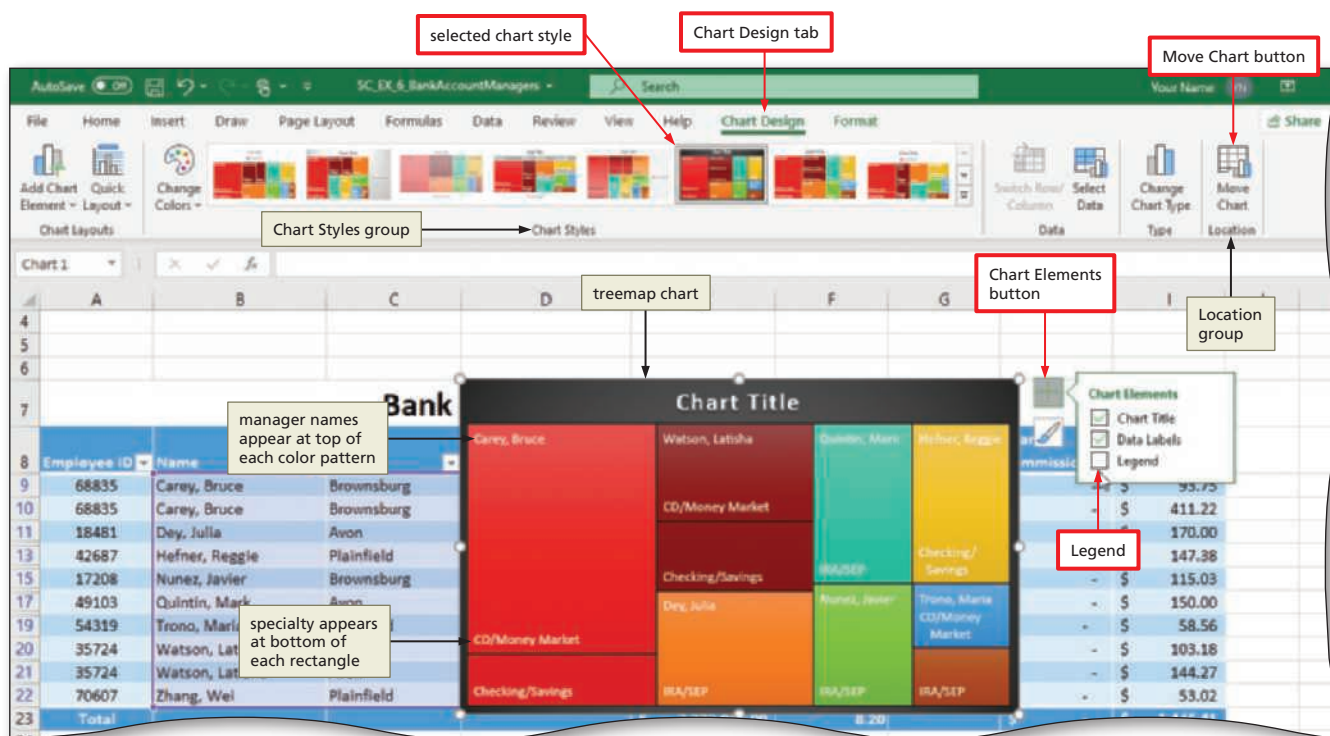


Figure 6–72

Other Ways

1. Select data, click the Recommended Charts button (Insert tab | Charts group), click All Charts tab (Insert Chart dialog box), click Treemap, click OK

BTW

Removing Data Series in Charts

While a treemap chart has only one data series, other kinds of charts may have more than one. If you want to delete a data series, click the Select Data button (Chart Design tab | Data Group). Excel displays the Select Data Source dialog box. Select the series and then click the Remove button.

To Move the Chart and Edit Fonts

The following steps move the chart to its own named worksheet and then edit the chart title and data label fonts.

- 1 Click the Move Chart button (Chart Design tab | Location group) and then click New sheet in the Move Chart dialog box.
- 2 Type **Managers Treemap** in the New sheet text box (Move Chart dialog box) and then click OK.
- 3 Right-click the Chart Title and then click Edit Text on the shortcut menu. On the Home tab, change the font size to 24. Type **New Money Accounts** to change the title.
- 4 Click any of the data labels in the chart. Change the font size to 14 (Figure 6–73).

Q&A How is the data presented in this chart?

The treemap allows you to compare each manager with other managers: how much money they handled (size of color block) and specialties (number of subdivisions within each color block).

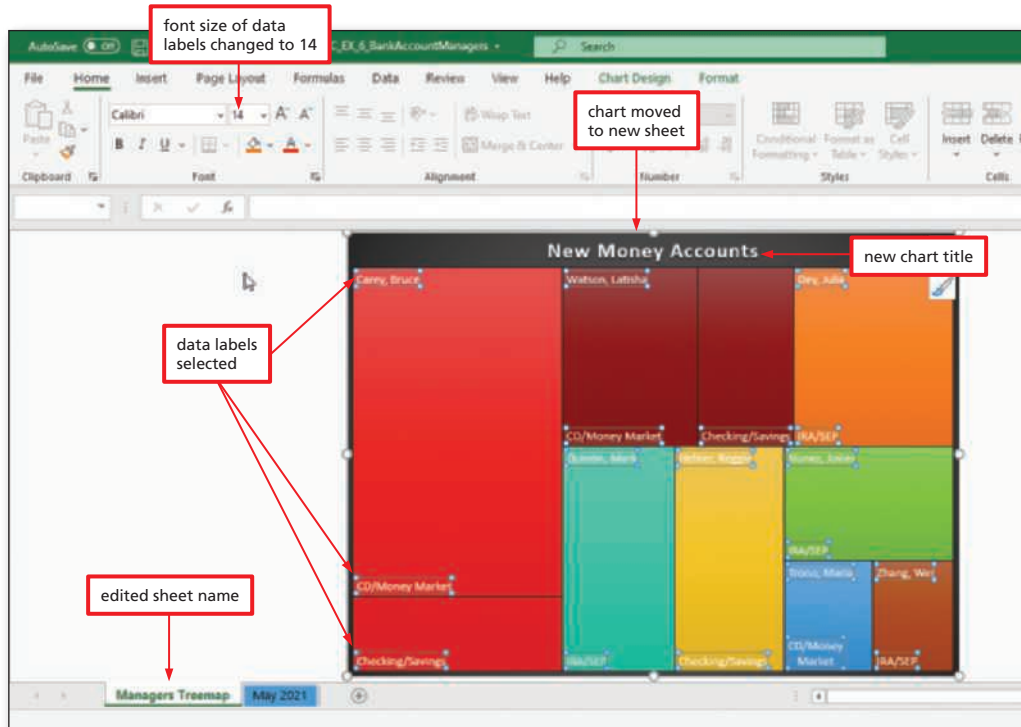


Figure 6-73

To Edit Treemap Settings

The following steps format the chart with settings that are unique to treemaps. **Why?** Changing some of the settings will make the branches stand out and make the chart more user-friendly.

1

- Right-click any of the rectangles to display the shortcut menu. Do not right-click a data label (Figure 6-74).

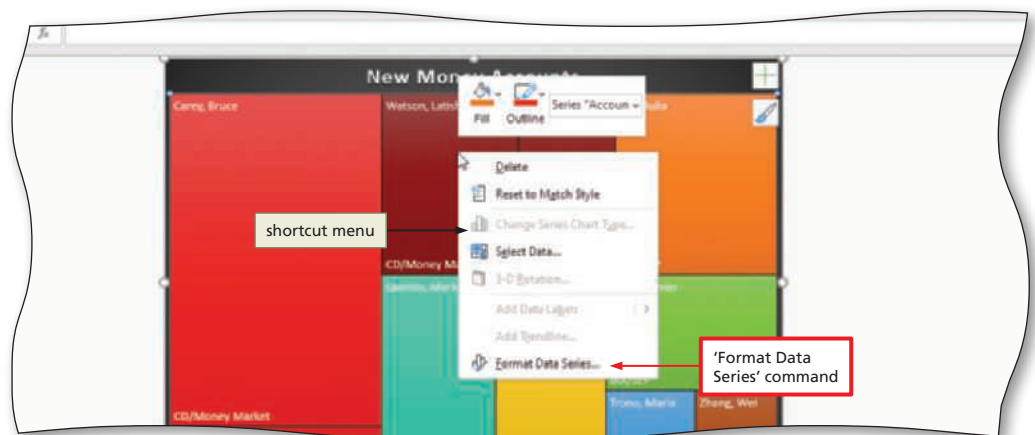


Figure 6-74

2

- Click 'Format Data Series' on the shortcut menu to display the Format Data Series pane.
- Click Banner in the Label Options area (Figure 6-75).

Experiment

- Click each of the label options and watch the chart change. When you are finished experimenting, click Banner.

Q&A **What other choices can I make in the Format Data Series pane?**

In the Effects section, you can add shadows, a glow, or other special effects. In the Fill & Line section, you can change the color of the fill and the borders for each rectangle.

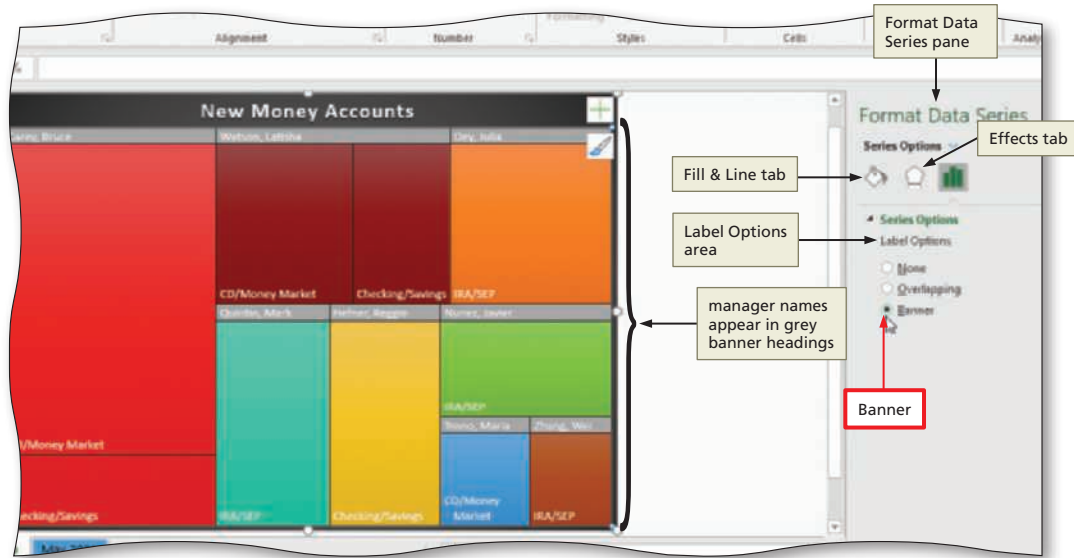


Figure 6-75

- 3**
- Right-click any of the data labels, and then click 'Format Data Labels' on the shortcut menu to display the Format Data Labels pane.
 - Click to display a check mark in the Value check box. The Category Name check box should contain a check mark already.
 - Click the Separator arrow and then click (New Line) in the list to display each value on a new line under its category name (Figure 6-76).

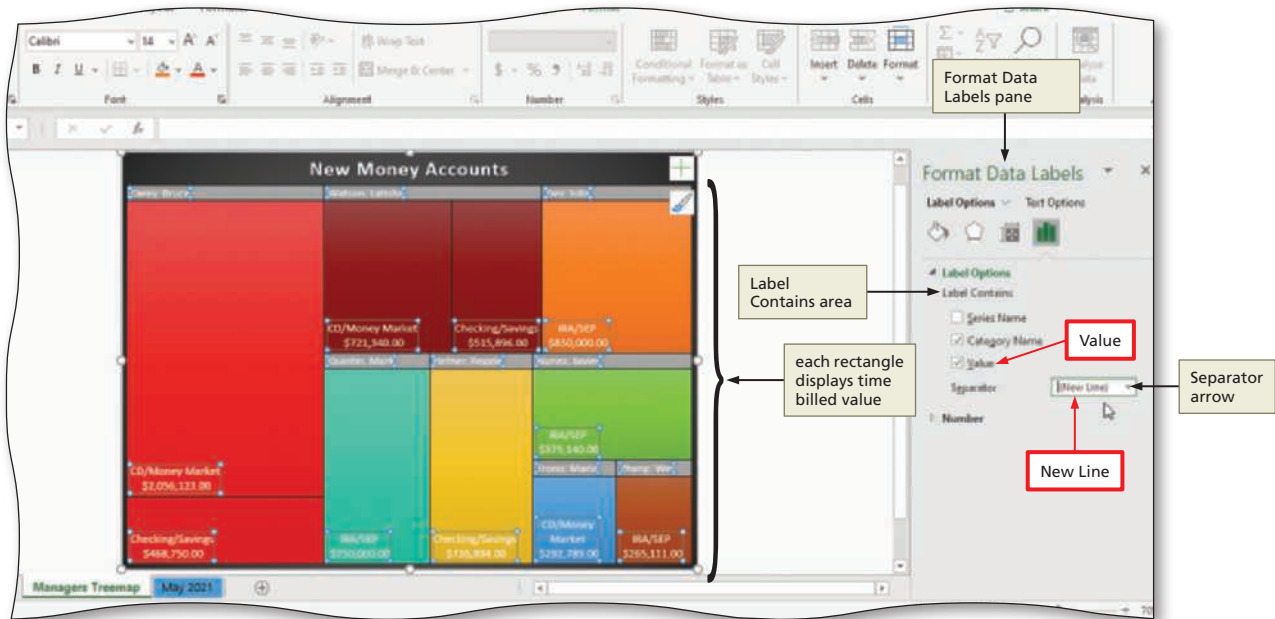


Figure 6-76

Experiment

- Click various combinations of the check marks and watch the chart change. When you are finished experimenting, select only Category Name and Value.

- 4** **save** Save the file with SC_EX_6_BankAccountManagersWithTreemap as the file name.
- 5** Click the Close button on the right side of the title bar to close the file and close Excel.
- 6** If the Microsoft Office Excel dialog box is displayed, click the Don't Save button.

More about Data Series

While a treemap chart has only one data series, other kinds of charts may have more than one. If you want to delete a data series, click the Select Data button (Chart Design tab | Data Group). Excel displays the Select Data Source dialog box. Select the series and then click the Remove button.

If you want to change the color of an individual data series or category, select the series on the chart, click the Shape Fill button (Format tab | Shape Styles group) and then click the desired style.

Summary

In this module, you learned how to use Excel to create, sort, format, and filter a table (also called a database) of managers. Topics covered included calculated fields using structured references, looking up values with the XLOOKUP function, conditional formatting using icon sets, querying a table using AutoFilters with customized criteria, creating criteria and extracting ranges to an output area using SUMIF, COUNTIF, MATCH, and INDEX database functions, summarizing data with subtotals and outlines, as well as creating a treemap chart.

BTW

Large Labels in a Treemap

When you have large numbers and labels in small boxes, you sometimes will have to get creative. Your options include reducing the font size, removing the decimal places or dollar signs, limiting the data further, or editing the longer labels in the data table itself.

Consider This



What decisions will you need to make when creating your next worksheet with a table to create, sort, and query?

Use these guidelines as you complete the assignments in this module and create your own worksheets for evaluating and analyzing data outside of this class.

1. Enter data for the table.
 - a) Use columns for fields of data.
 - b) Put each record on a separate row.
 - c) Create user-friendly column headings.
 - d) Format the range as a table.
 - e) Format individual columns as necessary.
2. Create other fields.
 - a) Use calculated fields with structured references.
 - b) To apply rankings or settings, use a lookup table.
 - c) To apply conditional formatting, consider icon sets or color groupings.
 - d) Use total rows.
3. Sort the table.
 - a) Sort ascending, descending, or combinations using tools on the Home tab and the Data tab.
4. Employ table AutoFilters for quick searches and sorts.
5. Create criteria and extract ranges to simplify queries.
6. Use functions.
 - a) Use DAVERAGE and DCOUNT for database functions analyzing table data.
 - b) Use SUMIF, COUNTIF, MATCH, and INDEX to find answers based on conditions.
7. Summarize data with subtotals and use outlining.
8. Create a treemap chart.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Creating a Table with Conditional Formatting

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Excel. Open the workbook called SC_EX_6-2.xlsx, which is located in the Data Files. The spreadsheet you open contains a list from Sport Physical Therapy, including billing codes, times, and therapists. You are to create a table to include the name of the therapists based on a lookup table as shown in Figure 6–77. The conditional formatting is based on the unit of time billed to insurance.

Physical Therapy Codes						Lookup Table		
Therapy Code	Description	Unit/OffTime	Therapist ID	Last Name	First Name	TherapistID	LastName	FirstName
90901	Biofeedback training by any modality	45	A5648	Shields	Anthony	A5648	Shields	Anthony
92240	Shoulder strapping	30	A5648	Shields	Anthony	BM273	McClain	Bridgette
92507	Treatment of speech	15	JR085	Risk	Jonathan	JR085	Risk	Jonathan
92530	Knee strapping	15	SW124	Wilder	Steven	SN852	Nair	Saritha
92540	Ankle and/or foot strapping	15	BM273	McClain	Bridgette	SW124	Wilder	Steven
95831	Extremity or trunk muscle testing	30	BM273	McClain	Bridgette			
97010	Hot or cold pack application	15	A5648	Shields	Anthony			
97012	Mechanical traction	60	JR085	Risk	Jonathan			
97014	Electrical stimulation	30	BM273	McClain	Bridgette			
97022	Whirlpool Bath	30	A5648	Shields	Anthony			
97026	Infrared	15	BM273	McClain	Bridgette			
97032	Electrical stimulation	15	A5648	Shields	Anthony			
97033	Iontophoresis	15	SN852	Nair	Saritha			
97035	Ultrasound	15	JR085	Risk	Jonathan			
97039	Unlisted modality	45	JR085	Risk	Jonathan			
97110	Therapeutic, development exercises	45	SW124	Wilder	Steven			
97112	Neuromuscular re-education	15	BM273	McClain	Bridgette			

Figure 6–77

Perform the following tasks:

1. Save the file with the name, SC_EX_6_PhysicalTherapyTableComplete.
2. Select the range, A6:D36. Click the 'Format as Table' button (Home tab | Styles group) and then click 'Red, Table Style Medium 3' in the Format as Table gallery. When Excel displays the Format As Table dialog box, if necessary, click the 'My table has headers' check box to select the option to format the table with headers.
3. Name the table, Therapies, by using the Table Name text box (Table Design tab | Properties group).
4. Remove duplicates in the table by clicking the Remove Duplicates button (Table Design tab | Tools group). When Excel displays the Remove Duplicates dialog box, click the Select All button and then click OK.
5. Insert a new column in the table (column E), with the column heading, Last Name.
6. Insert a new column in the table (column F), with the column heading, First Name. Change both column widths to 14.5.

7. Change the row height of row 5 to 39. Click cell A5. Apply the Title cell style, the Rockwell font, and a font size of 28. Center the title across the selection, A5:F5, using the Format Cells dialog box and the 'Center Across Selection' command.
8. To create the lookup table, enter the data from Table 6–6, beginning with Lookup Table in cell H5. Use the format painter to copy the format from cell A5 to cell H5. Copy the headings from cells D6:F6 to cells H6:J6.

Lookup Table		
Therapist ID	Last Name	First Name
AS648	Shields	Anthony
BM273	McClain	Bridgette
JR085	Risk	Jonathan
SN852	Nair	Saritha
SW124	Wilder	Steven

9. Change the column width of columns H, I, and J to 13. Center the heading, Lookup Table, across cells H6:J6.
10. In cell E7, type `=xlookup(d7,h7:h11,i7:i11)` to enter the Last Name column in the main table. Repeat the process to enter a function for the First Name in cell F7. (Hint: The return_array argument of the function will be absolute references to the values in the range J7:J11.)
11. To apply conditional formatting:
 - a. Select the range C7:C35, click the Conditional Formatting button (Home tab | Styles group), and then click New Rule to display the New Formatting Rule dialog box.
 - b. Click the Format Style button (New Formatting Rule dialog box) to display the Format Style list.
 - c. Click Icon Sets in the Format Style list (New Formatting Rule dialog box) to display the Icon area.
 - d. Click the Icon Style arrow and then click 5 Quarters in the Icon Style list (New Formatting Rule dialog box) to select an icon style that includes five different black and white circles.
 - e. Click the first Type button and then click Number in the list to select a numeric value. Repeat the process for the other three Type buttons.
 - f. Type **60** in the first Value box, type **45** in the second Value box, type **30** in the third Value box, and type **15** in the fourth Value box. Press TAB to complete the conditions.
 - g. Click OK (New Formatting Rule dialog box) to display icons in each row of the table.
12. Save the file again.
13. Use the Sort Ascending button on the Data tab to sort the table in ascending order by description.
14. Use the 'Sort & Filter' button on the Home tab to sort in descending order by unit of time.
15. Use the Sort button on the Data tab to create a custom sort by Therapist ID in ascending order, and then within Therapist ID by Therapy Code in ascending order.
16. Change the name of the sheet tab to Therapies.
17. Save the file, and then submit the workbook in the format specified by your instructor, and exit Excel.
18. 🌟 What other kind of criteria, filter, or output might be helpful if the table were larger? When might you use some of the database and statistical functions on this kind of data? Why?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Using Functions

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Excel. Open the workbook called SC_EX_6-3, which is located in the Data Files. The workbook you open contains a list of IT employees along with their gender, age, years on the job, and knowledge of programming languages. You are to summarize the data in a variety of ways as shown in Figure 6–78.

Output Area	
Total count of women	7
Total count of men	11
Average age of women	28.71
Average age of men	32.18
Median age of all consultants	30
Average years of experience	7.28
Total years of Java experience (all consultants)	60
Name of consultant who knows all languages	Li, Jian

Figure 6–78

Perform the following tasks:

1. Save the workbook using the file name, SC_EX_6_ConstantTableComplete.
2. Create a new column called Count in column L. Use the COUNTIF function in cell L11 to count all of the Y entries in the row—indicating the number of languages in which the consultant is proficient.
3. Select cells A9:L9. Merge and center the heading.
4. Name the table, Consultants.
5. Beside the table, create summary title and row headings as shown in Figure 6–78, and adjust the height of row 10 (the table column headings) to 15.75.
6. Use the COUNTIF function to obtain a total count for women and men. Use the AVERAGEIF function for the average ages. (Hint: Use Help to learn about the AVERAGEIF function.) Round off the averages to two decimal places.
7. Use the MEDIAN function to find the median age of all consultants. (Hint: If necessary, use Help to learn about the MEDIAN function.)
8. Use the AVERAGE function to average the years of experience.
9. Use the SUMIF function to find the total years of Java experience in the company.
10. Use the MATCH function wrapped inside the INDEX function, as you did in the module, to find the one consultant who is proficient in all seven languages. Right-align the cell contents.

11. Round off the averages to two decimal places, if necessary.
12. Save the file again and submit the assignment as requested by your instructor.
13. 🌟 Which functions used structured references? Why?

Expand Your World

Create a solution that uses cloud and web technologies by learning and investigating on your own from general guidance.

Converting Files

You would like to place your Excel table on the web in a user-friendly format. You decide to investigate a Web 2.0 tool that will help you convert your table to HTML.

Instructions: Start Excel. Open any completed exercise from this module.

Perform the following tasks:

1. Drag through the table and column headings to select them. Press CTRL+C to copy the table cells.
2. Start a browser and navigate to <https://tableizer.journalistopia.com/> (Figure 6–79).

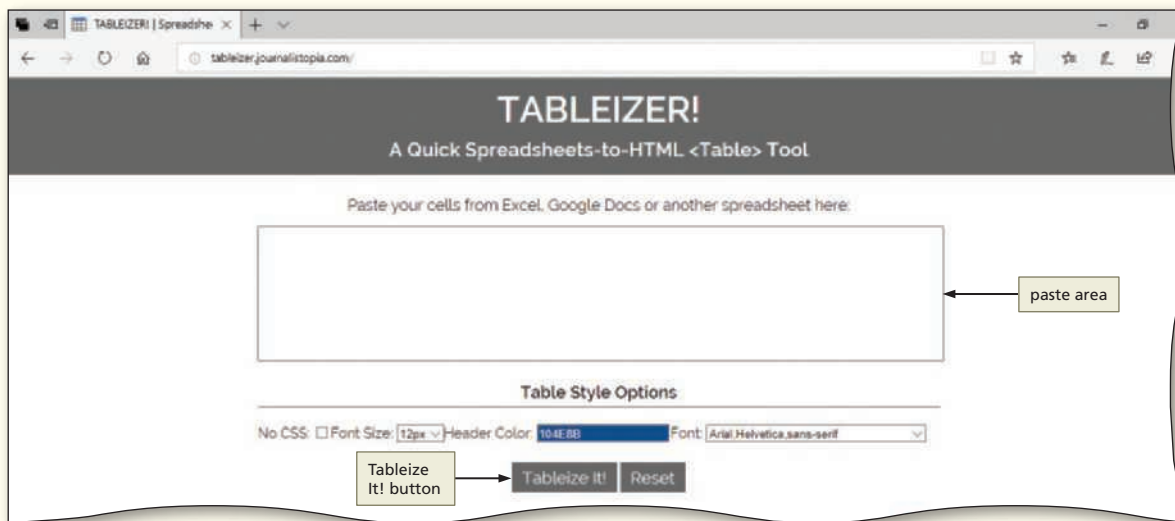


Figure 6–79

3. Click inside the gray paste area, and then press CTRL+V to paste the cells.
4. Click the Tableize It! button and wait a few seconds.
5. If you want to create an HTML page, copy the HTML code generated by Tableizer into a text editor such as Notepad. Save the Notepad file with the file name, SC_EX_6_MyTable.html. Display the file in a browser.
6. 🌟 Many websites use tables to compare products, services, and pricing plans. Research HTML tables and web accessibility. What kinds of issues do screen readers have with HTML tables? Is it the best way to present information on the web?

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Create and Query an Inventory

Problem: A local company would like to be able to search their shipping supplies inventory in an easy manner. They have given you sample data shown in Table 6–7.

Table 6–7 Inventory Data


Inventory Number	Description	Unit	Quantity in Stock	List Price
CX1D1	mailing labels	carton	25	\$12.86
ED7XL	bubble wrap	roll	4	\$27.59
T562W	packing tubes	single	14	\$ 1.75
VP45L	corrugated boxes	bundle	17	\$26.80
DC30W	packing tape	case	11	\$65.00
LX550	poly mailers	carton	9	\$ 8.99
SR123	packing peanuts	bag	5	\$21.00

Perform the following tasks:

Part 1: Create the criteria range, the table, and the extract range with formatted headings and data.

Save the workbook. Perform the following extractions.

- all inventory items with more than 10 in stock
- all inventory items in cartons
- all inventory items under \$25
- all inventory items with 10 or less in stock and a list price of less than \$10

Part 2:  Do you think small companies without extensive database experience might use tables such as this every day? What would be some advantages and disadvantages? What calculated fields might you add to this table?

7 Creating Templates, Importing Data, and Working with SmartArt, Images, and Screenshots

Objectives

After completing this module, you will be able to:

- Create and use a template
- Import data from a text file, an Access database, a webpage, and a Word document
- Use text functions
- Paste values and paste text
- Transpose data while pasting it
- Convert text to columns
- Replicate formulas
- Use the Quick Analysis gallery
- Find and replace data
- Insert and format a bar chart
- Insert and modify a SmartArt graphic
- Add pictures to a SmartArt Graphic
- Apply text effects
- Include a hyperlinked screenshot
- Use ALT text
- Differentiate ways to link and embed

Introduction

In today's business environment, you often find that you need to create multiple worksheets or workbooks that follow the same basic format. A **template** is a special-purpose workbook you can create and use as a pattern for new, similar workbooks or worksheets. A template usually consists of a general format (worksheet title, column and row titles, and numeric formatting) and formulas that are common to all the worksheets. Templates can be saved to a common storage location so that everyone in a company can use them to create standardized documents.

Another important concept to understand is the Excel capability to use and analyze data from a wide variety of sources. In this module, you will learn how to **import**, or bring in, data from various external sources into an Excel worksheet and then analyze that data. Excel allows you to import data from a number of types of sources, including text files, webpages, database tables, data stored in Word documents, and XML files.

Finally, a chart, graphic, image, icon, or screenshot often conveys information or an idea better than words or numbers. You can insert and modify graphics, images, and screenshots to enhance the visual appeal of an Excel workbook and illustrate its contents. Many of the skills you learn when working with graphics in Excel will be similar when working in other Office programs, such as Word, Publisher, or PowerPoint.

Project: Meyor Insurance

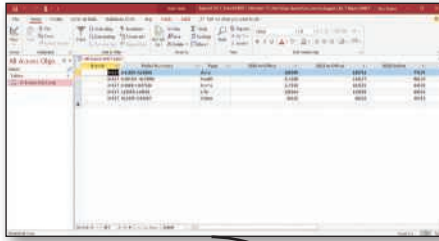
Meyor Insurance (MI) is a retail and online outlet for individual insurance policies. The company owner has requested that the in-office and online sales results for the last two years be compared among its four branch offices. One of the branches provides the requested data in a plain text format (Figure 7-1a) rather than in an Excel workbook. To make use of that data in Excel, the data must be imported before it can be formatted and manipulated. The same is true of formats in which the other locations store data, such as Microsoft Access tables (Figure 7-1b), webpages (Figure 7-1c), or Microsoft Word documents (Figure 7-1d). Excel provides the tools necessary to import and manipulate the data from these sources into a single worksheet (Figure 7-1e). Using the data from the worksheet, you will create a bar chart to summarize total sales by category (Figure 7-1f). Finally, you will add SmartArt graphics that include images (Figure 7-1g) and a hyperlinked screenshot to support your work (Figure 7-1h).

Figure 7-2 illustrates the requirements document for the MI Sales Analysis workbook. It includes the needs, sources of data, calculations, charts, and other facts about the workbook's development.

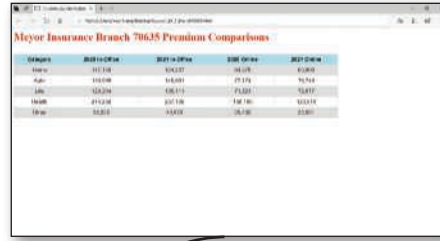
In addition, using a sketch of the main worksheet can help you visualize its design. The sketch of the worksheet consists of titles, column and cell headings, the location of data values, and a general idea of the desired formatting in the worksheet. The data will include 2020 and 2021 data, with a summary on the right (Figure 7-3a). Figure 7-3b displays a basic sketch of the requested graph, a bar chart, showing the 2021 totals by category.

With a good understanding of the requirements document, an understanding of the necessary decisions, and a sketch of the worksheet and graph, the next step is to use Excel to create the workbook.

(b) Access File



(c) Webpage

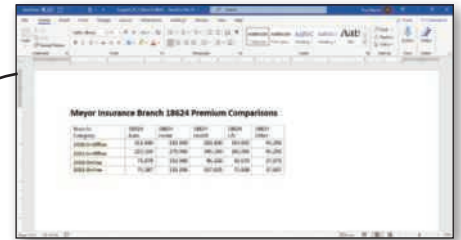


(a) Text File

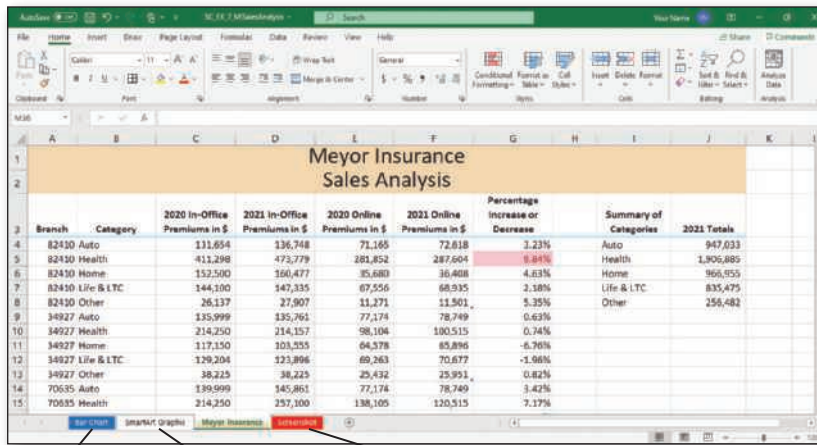


Imports

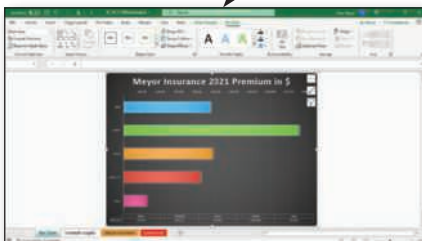
(d) Word File



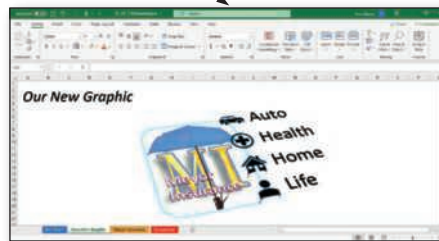
(e) Data Imported into Worksheet



(f) Bar Chart



(g) SmartArt with Images



(h) Screenshot in Worksheet

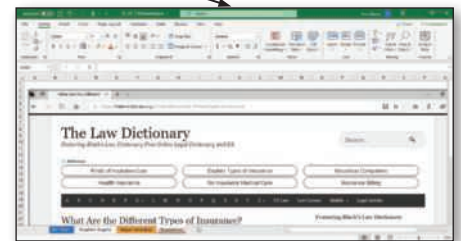


Figure 7-1

Worksheet Title	Meyor Insurance Sales Analysis
Needs	<ul style="list-style-type: none"> • A template with headings, sample data, and formulas than can be used to create similar worksheets • A workbook, made from the template, containing a worksheet that combines sales data from the four branches • A chart that compares the 2021 total sales for each category of insurance products that the branch sells
Source of Data	<p>The four agents will submit data from their respective branches as follows:</p> <ul style="list-style-type: none"> • Branch 82410 saves data in a text file. • Branch 34927 uses an Access database. • Branch 70635 maintains web data. • Branch 18624 uses Word to store data in a table.
Calculations	<p>Include the following formula in the template for each line item:</p> <ul style="list-style-type: none"> • $=((D4+F4)/(C4+E4))-1$ This formula takes the total of 2021 in-office and online sales divided by the total of 2020 in-office and online sales to arrive at a percentage, and then subtracts 1 to arrive at just the increase or decrease. <p>Include the following two functions to help summarize the data:</p> <ul style="list-style-type: none"> • $=IF(COUNTIF(\\$B\\$4:B4,B4)=1,B4,"")$ This formula finds the unique categories in column B. It includes the COUNTIF function that will return true if there is only one occurrence; the IF function will then display that occurrence. If no match is made, the IF function will display a blank. • $=SUMIF(\\$B\\$4:\\$B\\$100,I4,\\$D\\$4:\\$D\\$100)+SUMIF(\\$B\\$4:\\$B\\$100,I4,\\$F\\$4:\\$F\\$100)$ This function will add the 2021 in-office and online sales on a category basis. It adds the value in column D plus the value in column F, if cell I4 matches the value from column B. The function will look through row 100 as the maximum number of records.
Chart Requirements	Create a bar chart to compare the categories for sales in 2021. Include the chart on a separate worksheet.
Other Requirements	<ul style="list-style-type: none"> • Design a SmartArt graphic to include the picture and icon given to you by the company, to be placed on a separate worksheet. • On a separate worksheet, include a screenshot of the website they recommend for questions about insurance (https://thelawdictionary.org/article/what-are-the-different-types-of-insurance).

Figure 7-2

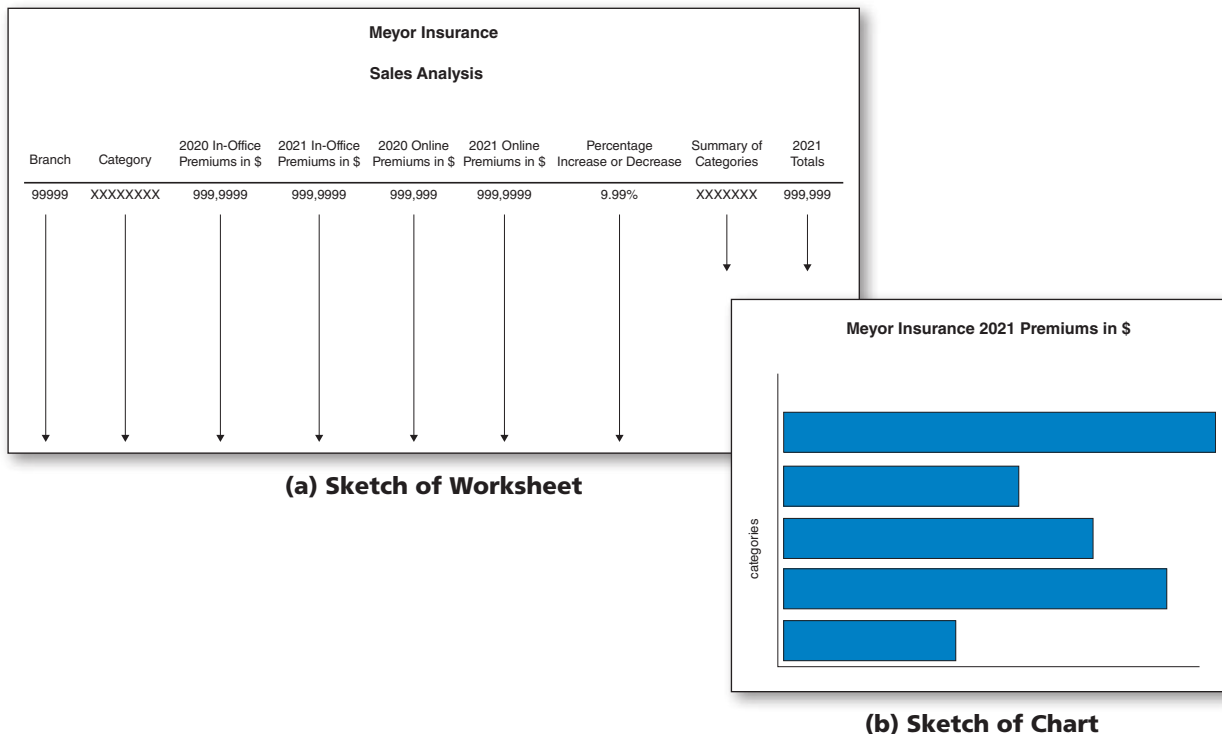


Figure 7-3

Creating Templates

The first step in building the project in this module is to create and save a template that contains the titles, column and row headings, formulas, and formats. After the template is saved, it can be used every time a similar workbook is developed. Because templates help speed and simplify their work, many Excel users create a template for each project on which they work. Templates can be simple—possibly using a special font or worksheet title; or they can be more complex—perhaps using specific formulas and format styles, such as the template for the MI Sales Analysis workbook.

Consider This



What factors should you keep in mind when building a template?

A template usually contains data and formatting that will appear in every workbook created from that template. Because the template will be used to create a number of other worksheets, make sure you consider the layout, cell formatting, and contents of the workbook as you design the template. Set row heights and column widths. Use placeholders for data when possible and use dummy data to verify formulas. Format the cells in the template.

Creating a template, such as the one shown in Figure 7–4, follows the same basic steps used to create a workbook. The main difference between developing a workbook and a template is the file type used when saving the template.

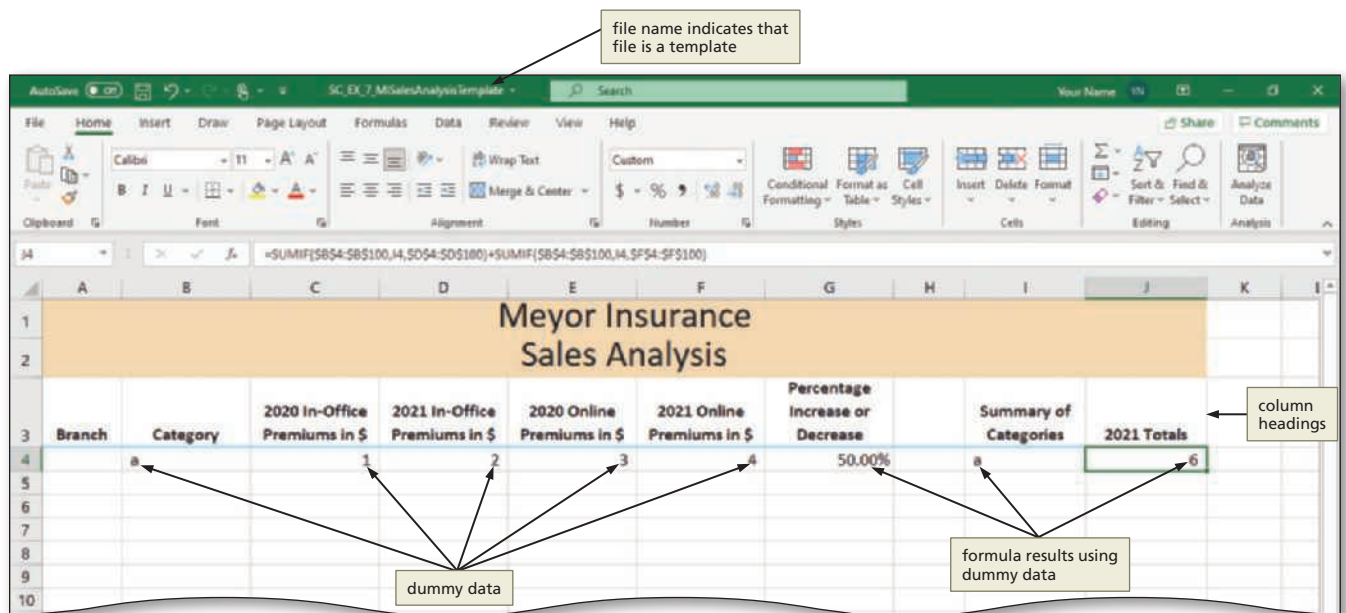


Figure 7–4

To Open a Blank Workbook and Format the Rows and Columns

The following steps open a blank workbook and set the row height and column widths.

- 1 **Start** ↓ Start Excel.
- 2 Click the Blank workbook thumbnail on the Excel start screen to create a blank workbook and display it in the Excel window.

BTW Ribbon and Screen Resolution

Excel may change how the groups and buttons within the groups appear on the ribbon, depending on the screen resolution of your computer. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 × 768.

BTW

Touch Mode Differences

The Office and Windows interfaces may vary if you are using Touch Mode. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a workbook, you can distribute the workbook electronically. Options include sending the workbook via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on social media, a blog, or other website; and sharing a link associated with an online location of the workbook. You also can create and share a PDF or XPS image of the workbook, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Excel.

- 3 If the Excel window is not maximized, click the Maximize button on its title bar to maximize the window.
- 4 Change the row height of rows 1 and 2 to 25. Change the height of row 3 to 45.

To Enter Titles in the Template

The following steps enter and format the titles in cells A1 and A2.

- 1 In cell A1, enter **Meyor Insurance** as the worksheet title.
- 2 In cell A2, enter **Sales Analysis** as the worksheet subtitle.
- 3 Display the Page Layout tab. Click the Themes button (Page Layout tab | Themes group) and then click Parallax in the gallery to apply the Parallax theme to the worksheet.
- 4 Click the Fonts button (Page Layout tab | Themes group) and then click Calibri in the Fonts gallery to apply the Calibri font to the worksheet.
- 5 Set the column widths as follows: A = 9.00, B through G = 15.00, H = 8.00, I and J = 14.00.
- 6 Select the range A1:A2. Click the Cell Styles button (Home tab | Styles group) and then apply the Title cell style to the range. Change the font size to 24.
- 7 Select the range A1:J1. Click the 'Merge & Center' button (Home tab | Alignment group) to merge and center the selected cells.
- 8 Repeat Step 7 to merge and center the range A2:J2.
- 9 Select the range A1:A2, click the Fill Color arrow (Home tab | Font group), and then click 'Orange, Accent 3, Lighter 60%' (column 7, row 3) in the Fill Color gallery to set the fill color for the range.
- 10 Select cell A3 and zoom to 120% (Figure 7-5).

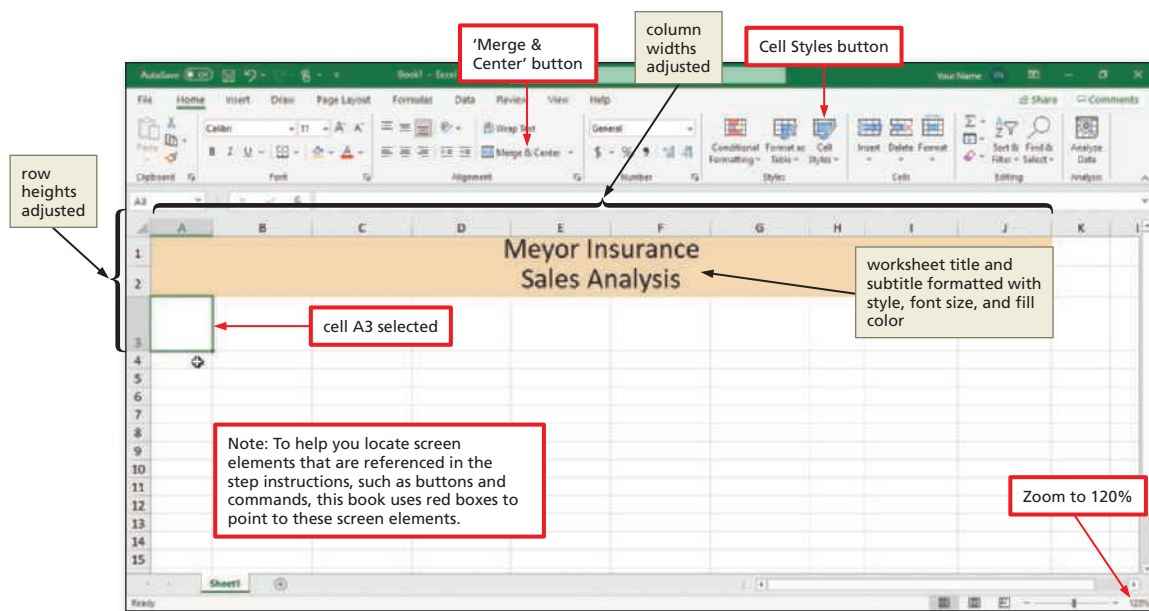


Figure 7-5

To Enter Column Titles in the Template

The following steps enter and format the column titles in row 3.

- 1** Select cells A3:J3 and then click the Wrap Text button (Home tab | Alignment group) to apply the formatting. Click the Center button (Home tab | Alignment group) and then apply the Heading 3 cell style to the range.
- 2** Type the following column titles into the appropriate cells (Figure 7–6).

A3	Branch
B3	Category
C3	2020 In-Office Premiums in \$
D3	2021 In-Office Premiums in \$
E3	2020 Online Premiums in \$
F3	2021 Online Premiums in \$
G3	Percentage Increase or Decrease
H3	<blank>
I3	Summary of Categories
J3	2021 Totals

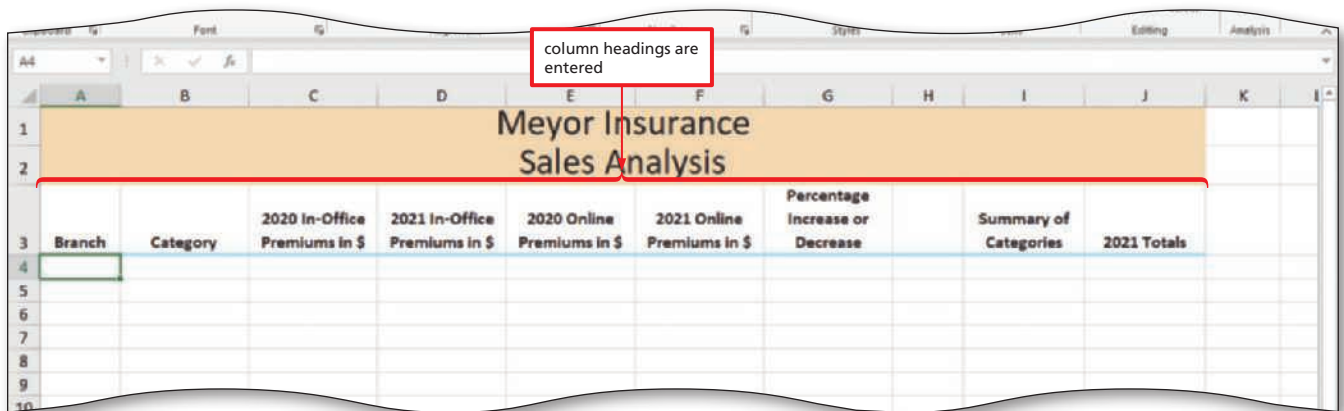


Figure 7–6

To Enter Sample Data in the Template

When you create a template, it is good practice to use sample data or dummy data in place of actual data to verify the formulas in the template. Entering simple text, such as a, b, or c, and numbers, such as 1, 2, or 3, allows you to check quickly to see if the formulas are generating the proper results. In templates with more complex formulas, you may want to use numbers that test the extreme boundaries of valid data, such as the lowest or highest possible number, or a maximum number of records.

In preparation for entering formulas, the following steps enter sample data in the template.

- 1** Select cell B4. Type **a** to enter the first piece of sample data.
- 2** Select cell C4. Type **1** to enter the first number in the series.

- 3 Enter the other dummy data as shown in Figure 7-7.
- 4 Select the range C4:F4. Apply the comma style with no decimal places to the selected range.

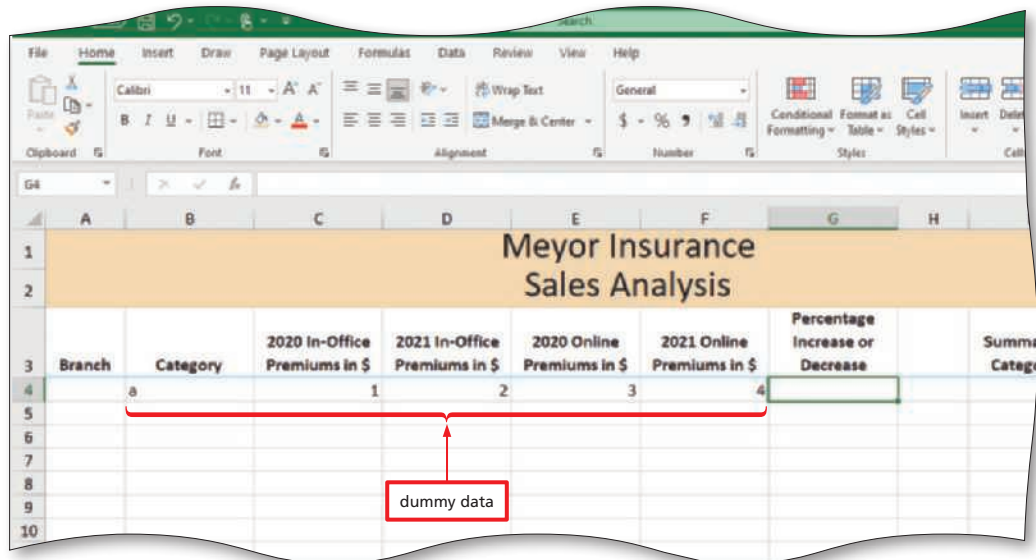


Figure 7-7

To Enter Formulas and Functions in the Template

The following steps enter formulas and functions to summarize data in the template, as described in the requirements document. The percentage formula adds the 2021 in-office and online sales and divides that by the 2020 sales. It subtracts 1 to include only the increase or decrease. The summary of categories uses a function to look for unique values in future imported data. The 2021 totals add any imported values from columns D and F that match the unique category identified in column I.

- 1 Select cell G4. Type $=((d4+f4)/(c4+e4))-1$ as the formula for calculating the percentage increase or decrease from 2020 to 2021 and then click the Enter button.
- 2 Format cell G4 with a percent sign and two decimal places.
- 3 Select cell I4. Type `=if(countif(b4:b4,b4)=1,b4,"")` to enter a function that displays a value from the Category list if it is unique. Click the Enter button.
- 4 Select cell J4. Type `=sumif(b4:b100,i4,d4:d100)+sumif(b4:b100,i4,f4:f100)` to enter a function that adds columns d and f, if the value returned in cell I4 matches the data in the Category list in column B. The function will look through row 100 as the maximum number of records. Click the Enter button.
- 5 Format cell J4 with a comma and no decimal places.
- 6 Change the sheet tab name to Meyor Insurance to provide a descriptive name for the worksheet.
- 7 Change the sheet tab color to Orange, Accent 3 to format the tab (Figure 7-8).

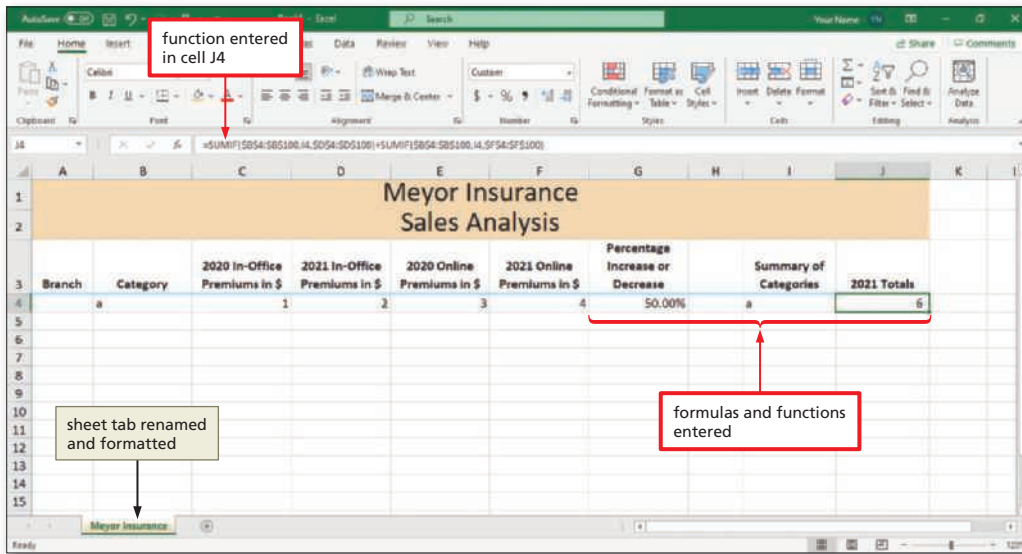


Figure 7-8

To Save the Template

Saving a template is similar to saving a workbook, except that the file type, Excel Template, is selected in the ‘Save as type’ box (Save As dialog box). Excel saves the file with the extension, .xltx, to denote its template status. Saving in that format prevents users from accidentally saving over the template file, and causes Excel to open new workbooks based on the template with the proper format. In business situations, it is a good idea to save the template in the default Templates folder location. **Why?** Company templates saved in the Templates folder appear with other templates when users need to find them. In lab situations, however, you should save templates on your personal storage device. The following steps save the template using the file name, SC_EX_7_MISalesAnalysisTemplate.xltx, on your storage device.

1

- Click cell A4 to position the current cell.
- Click the File tab and click Save As to display the Save As screen and then click the Browse button to display the Save As dialog box.
- Type `SC_EX_7_MISalesAnalysisTemplate` in the File name box to enter a name for the file.
- Click the ‘Save as type’ arrow and then click Excel Template (or Excel Template (*.xltx)) in the list to specify that this workbook should be saved as a template.
- Navigate to your storage device and desired folder, if any (Figure 7-9).

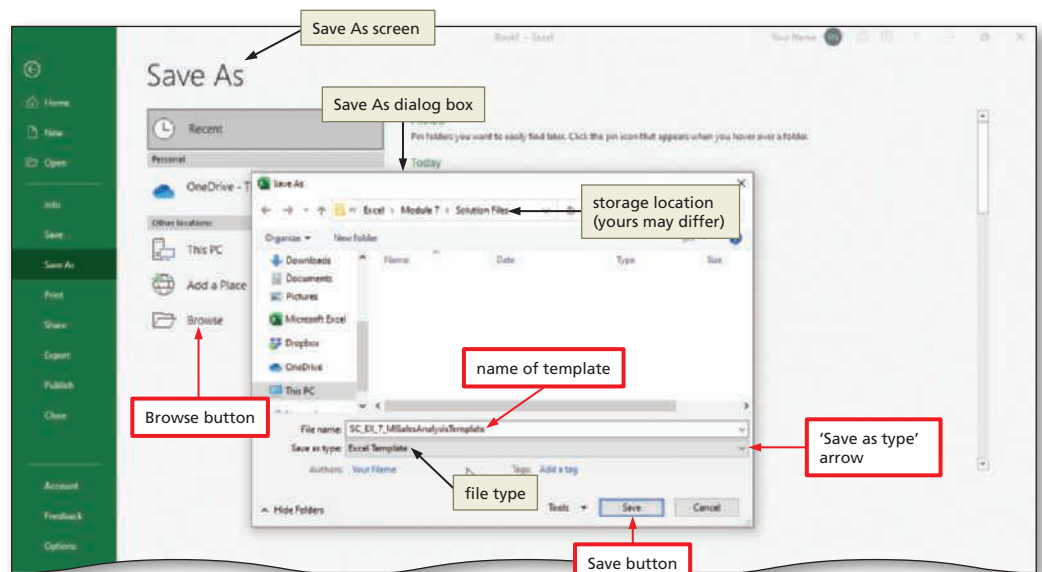


Figure 7-9

Q&A Why does Excel change the folder location when the Excel Template file type is chosen?

When the Excel Template file type is chosen in the 'Save as type' box, Excel automatically changes the location to the Templates folder created when Office was installed. In a production environment—that is, when you are creating a template for a business, a school, or an application—the template typically would be saved in the Templates folder, not on your personal storage device.

2

- Click Save (Save As dialog box) to save the template in the selected folder on the selected save location with the entered file name.
- Exit Excel.

Other Ways

1. Press CTRL+S, click More options ('Save this file' box), click Browse button (Save As screen), type file name (Save As dialog box), select Excel Template in 'Save as type' box, select drive or folder, click Save

TO CHANGE THE DEFAULT LOCATION OF TEMPLATES

If you wanted to change the default location where templates are stored, you would perform the following steps.

1. Click File on the ribbon to open Backstage view.
2. Click Options to display the Excel Options dialog box.
3. Click Save in the left pane (Excel Options dialog box) and then in the Save workbooks area, enter the desired path in the 'Default personal templates location' box.
4. Click OK (Excel Options dialog box).

TO SET THE READ-ONLY ATTRIBUTE

Once a template is created, you may want to change the file's attribute, or classification, to read-only. With a **read-only file**, you can open and access the file normally, but you cannot make permanent changes to it. That way, users will be forced to save changes to the template with a new file name, keeping the original template intact and unchanged for the next user.

While you can view system properties in Excel, you cannot change the read-only attribute from within Excel. Setting the read-only attribute is a function of the operating system. If you wanted to set the read-only property of the template, you would perform the following steps.

1. Click the File Explorer app button on the taskbar. Navigate to your storage location.
2. Right-click the template file name to display the shortcut menu.
3. Click Properties on the shortcut menu to display the Properties dialog box.
4. If necessary, click the General tab (Properties dialog box) to display the General sheet.
5. Verify that the file is the one you previously saved on your storage device by looking at the Location information. If the path is long, click in the path and then press the RIGHT-ARROW key to see the rest of the path.
6. Click to place a check mark in the Read-only check box in the Attributes area.
7. Click OK (Properties dialog box) to close the dialog box and apply the read-only attribute.

Break Point: If you want to take a break, this is a good place to do so. To resume later, continue following the steps from this location forward.

To Open a Template-Based File and Save It as a Workbook

As with other Office apps, you can open an Excel template in one of several ways:

- If you use the Open gallery in Backstage view, you will open the template file itself for editing.
- If you have stored the template in the default template storage location, you can click the New tab in Backstage view and then click Personal. Clicking the template file in the Personal gallery will open a new file based on the template.
- If you stored the template in another location, you must double-click the file in the File Explorer window to create a new file based on the template.

When you open a file based on a template, Excel names the new workbook using the template name with an appended digit 1 (e.g., Monthly Budget Template1). **Why?** Adding a 1 to the file name delineates it from the template; it is similar to what Excel does when you first run Excel and it assigns the name Book1 to the new workbook. You can save the file with a new file name if you want.

The following steps open a file based on the template. You then will save it in the .xlsx format with a new file name in order to proceed with data entry.

1

- Click the File Explorer button on the taskbar to start the File Explorer app.
- Navigate to your Data File storage location (Figure 7–10).

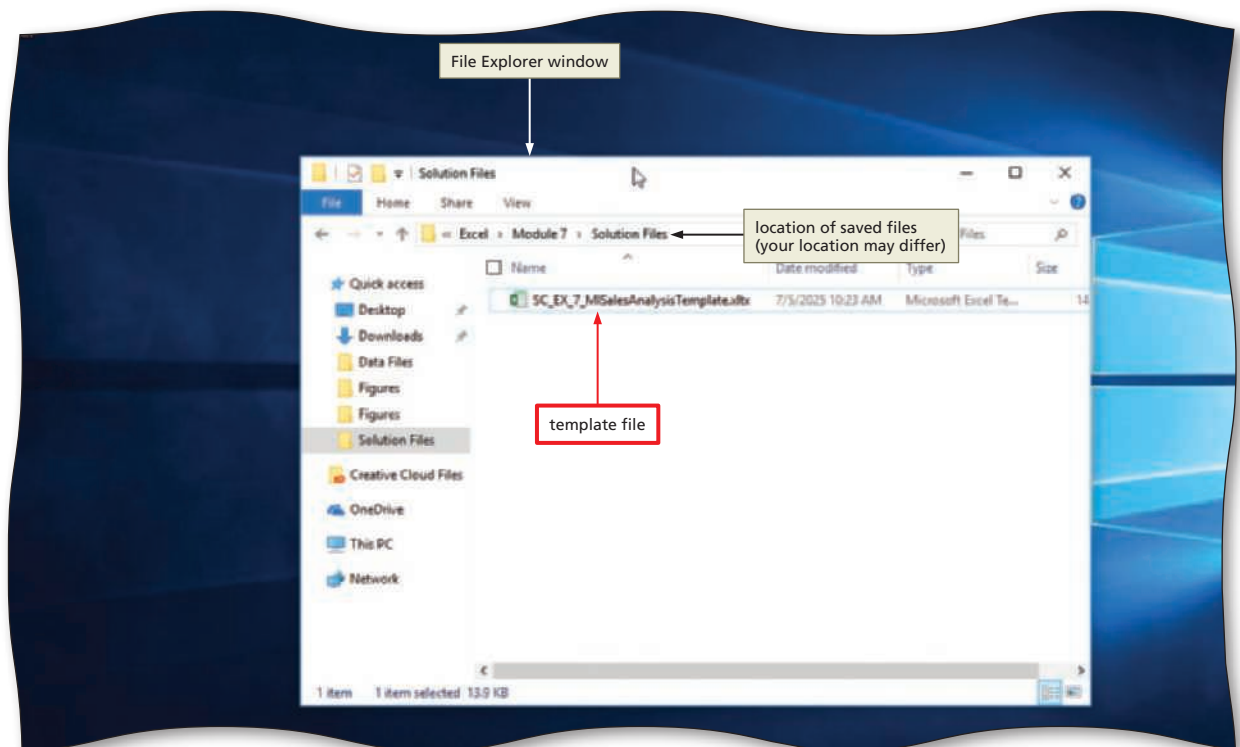


Figure 7–10

- 2**
- Double-click the file named SC_EX_7_MISalesAnalysisTemplate.xlsx to open a new file based on the template (Figure 7-11).

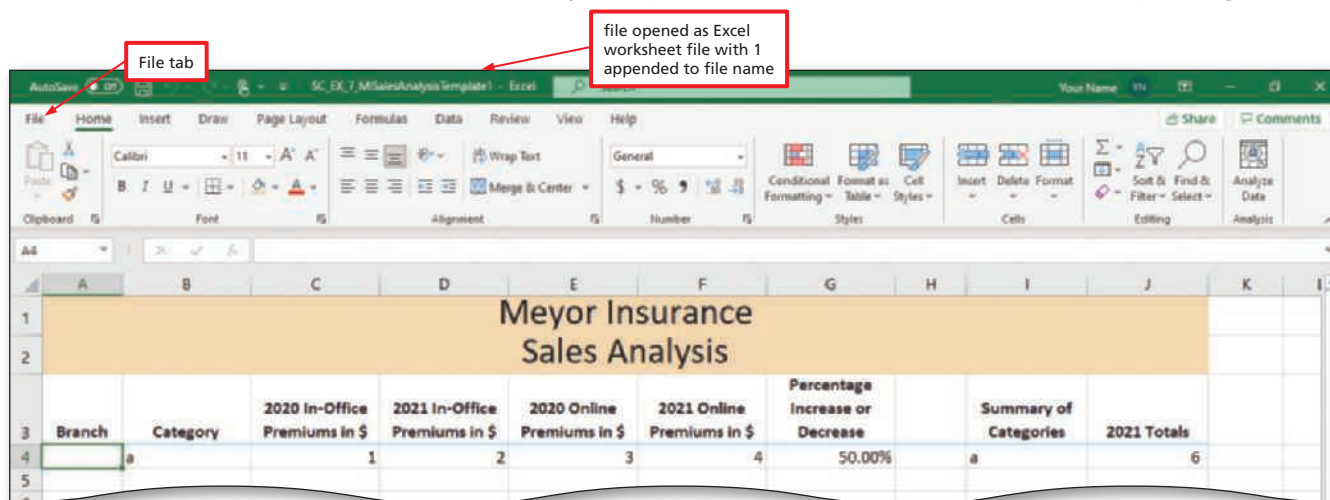


Figure 7-11

- 3**
- Click the File tab and then click Save As to display the Save As screen in Backstage view.
 - Click Browse to display the Save As dialog box.
 - Type **SC_EX_7_MISalesAnalysis** in the File name box (Save As dialog box) and then navigate to your storage location (Figure 7-12).

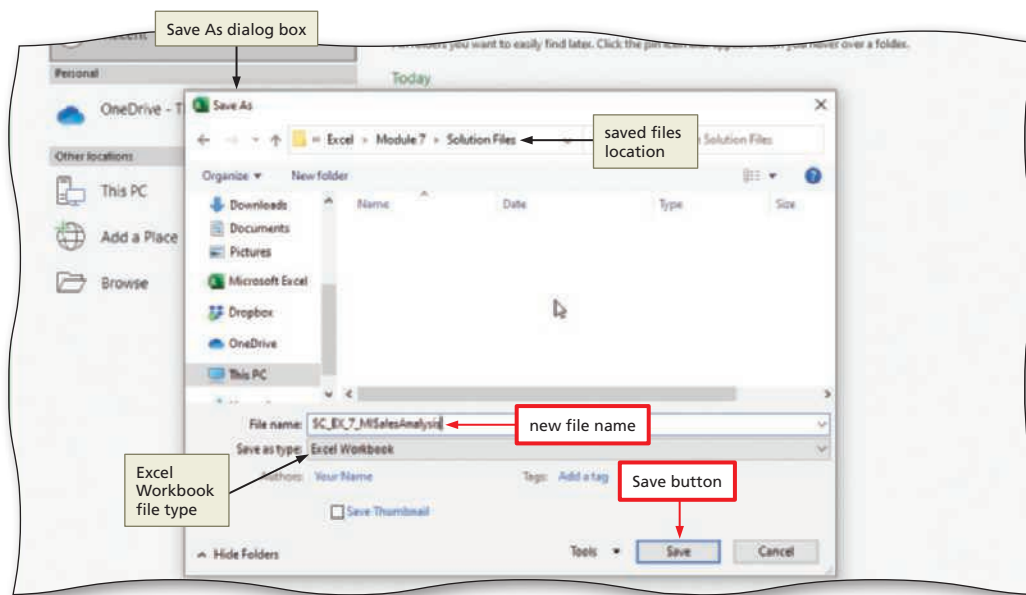


Figure 7-12

Q&A **Should I change the file type?**
 No. Excel automatically selects Excel Workbook as the file type when you attempt to save a file based on a template.

- 4**
- Click Save (Save As dialog box) to save the file with the new file name.

BTW

Importing from Databases

Excel can import data from a wide variety of sources including databases stored in XML files and those stored on SQL servers. You also can use Microsoft Query to retrieve data from corporate databases. The Get Data button (Data tab | Get & Transform Data group) presents an extensive list with submenus.

Importing Data

Data may come from a variety of sources and in a range of formats. Even though many users keep data in databases, such as Microsoft Access, it is common to receive text files with fields of data separated by commas. More and more companies are creating HTML files and posting data on the web. Word documents, especially those including tables of data, often are used in business as a source of data for workbooks. **XML (Extensible**

Markup Language), a popular format for data exchange, is a set of encoding rules that formats data to be readable by both humans and devices.

Excel uses query tools to assist you in importing data. You can load the data directly to your worksheet, or first shape that data in ways that meet your needs. For example, you can remove a column or row, change a data type, or merge data before moving it into your worksheet. Excel keeps track of your changes in a special pane.

Excel has an extensive selection of file formats. You can import data from databases such as Oracle, MySQL, and Sybase; from online services such as Salesforce and Sharepoint; and from **Azure**, the Microsoft cloud service, which allows you to build, manage, and deploy applications. A special From Folder command even imports data about the files in a folder to which you are connected. These and many more forms of data are listed when you click the Get Data button (Data tab | Get & Transform Data group). Importing data into Excel can create a link that can be used to update data whenever the original file changes.

BTW

Importing Azure Data

While the Windows Azure Marketplace is no longer available, some of the specific kinds of data are available with Power Query. Click the Get Data button (Data tab | Get & Transform Data group) and then click From Azure to see a complete list.

BTW

Data Connection Wizard

If you import some kinds of data that require authentication, such as Analysis Services or OData Data Feeds, Excel will present a series of dialog boxes called the Data Connection Wizard, as it tries to help you enter server names, database names, passwords, etc.

Consider This



How should you plan for importing data?

Before importing data, become familiar with the layout of the data, so that you can anticipate how each data element will be arranged in the worksheet. In some cases, the data will need to be transposed, meaning that the rows and columns need to be switched. You also might need to format the data, move it, or convert it from or to a table.

In the following sections, you will import data from four different insurance branches and in four different popular formats, including a text file, an Access file, web data, and a Word document. Using a variety of import techniques, you will look for data inconsistencies, format the data as necessary, and replicate the formulas to create the consolidated worksheet shown as a printout in Figure 7-13.

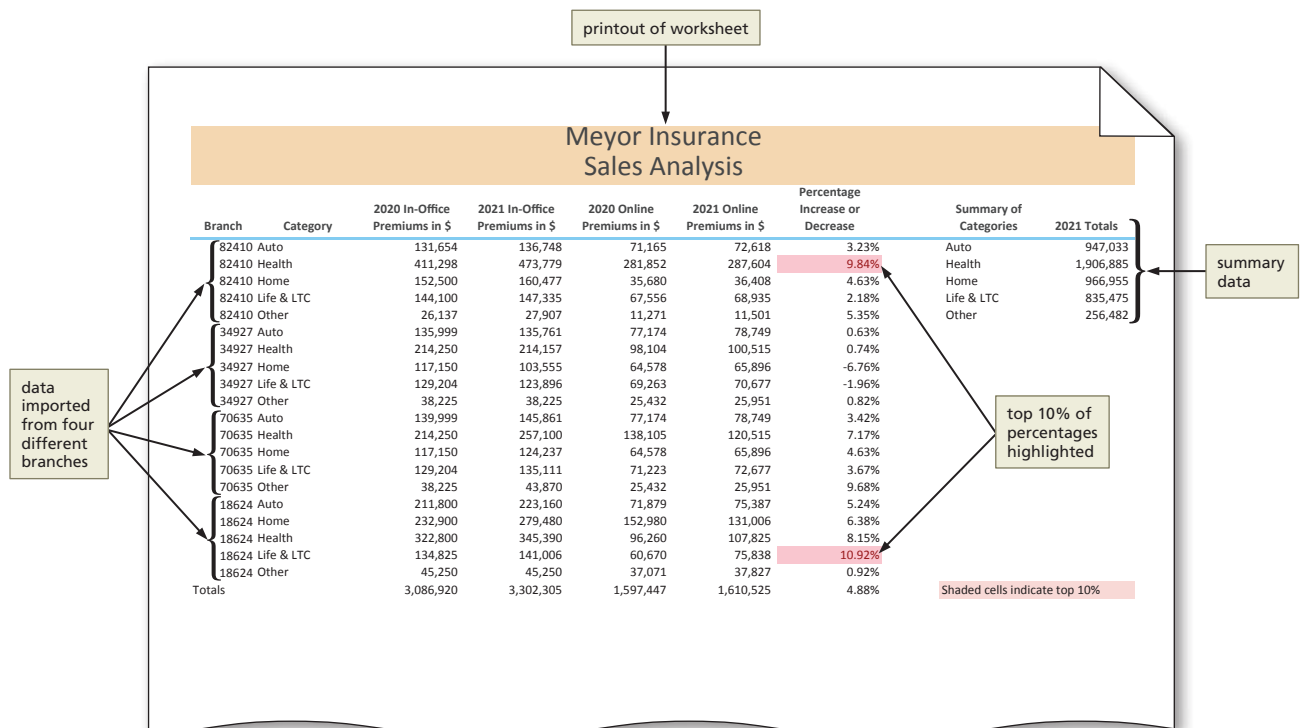


Figure 7-13

Text Files

A **text file** contains data with little or no formatting. Many programs, including Excel, offer an option to import data from a text file. Text files may have a file extension such as .txt, .csv, .asc, or .cdl, among others. Companies sometimes generate these text files from input fields via proprietary business applications.

In text files, commas, tabs, or other characters often separate the fields. Alternately, the text file may have fields of equal length in columnar format. Each record usually exists on a separate line. A **delimited file** is a file in which each record is on a separate line and the fields are separated by a special character, called a **delimiter**. A delimited file in which the data is separated by commas is called a **comma-delimited text file**. A **fixed-width file** contains data fields of equal length with spaces between the fields. In the case of a fixed-width file, a special character need not separate the data fields. During the import process, Excel provides a preview to help identify the type of text file being imported.

To Import Data from a Text File

The following steps import a comma-delimited text file into the MI Sales Analysis workbook using the Load To command. **Why?** The Load To command imports data as a table, directly into the current worksheet. Alternately, the Load command imports data into a new sheet within the workbook. The text file contains data about sales for Branch #82410 (shown in Figure 7–1a). To complete these steps, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

1

- With the Meyer Insurance worksheet active, select cell A5.
- Click Data on the ribbon to display the Data tab.
- Click the 'From Text/CSV' button (Data tab | Get & Transform Data group) to display the Import Data dialog box.
- If necessary, navigate to the location of the Data Files to display the files (Figure 7–14).

Q&A Should I import data to cell A4?

No. The import process will not overwrite current data, as in cell B4. You will delete the dummy data later in the module.

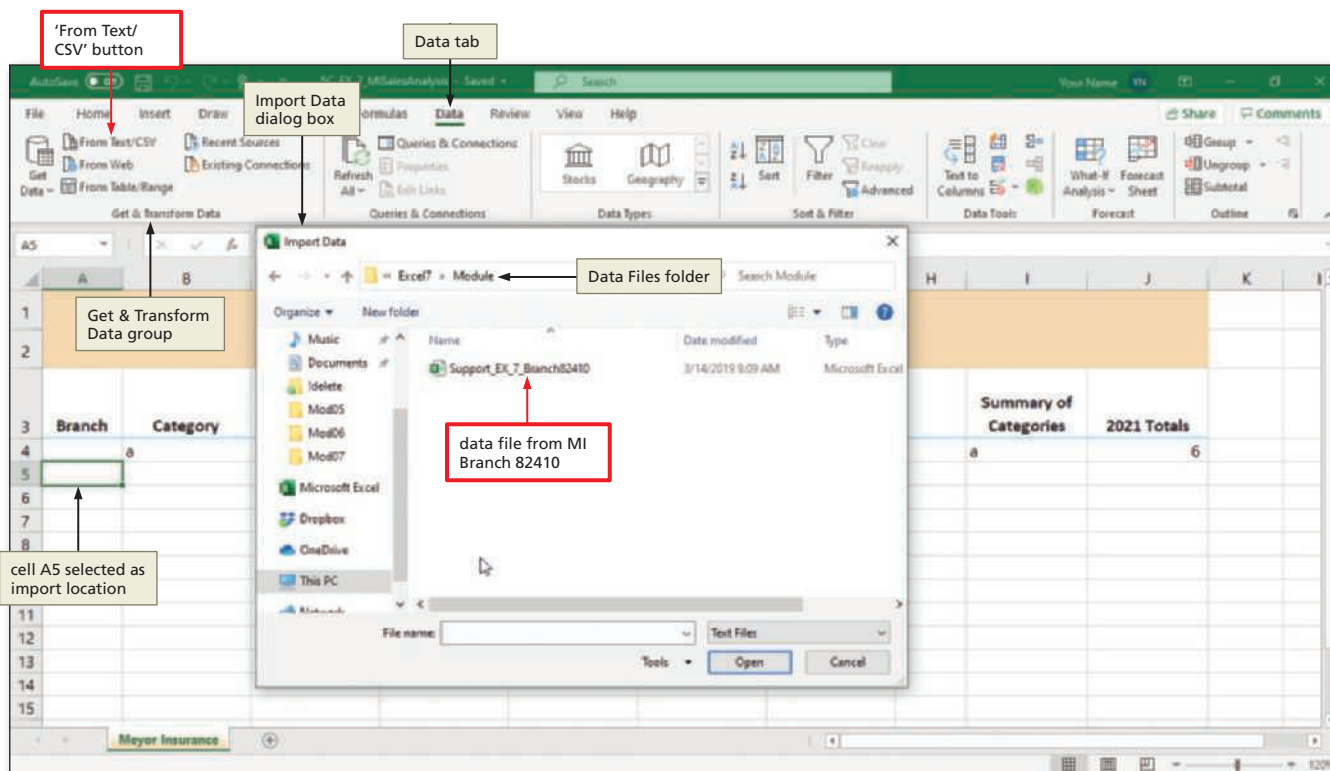


Figure 7–14

2

- Double-click the file name 'Support_EX_7_Branch82410.csv' to display the preview window.
- Click the Load arrow (Figure 7-15).

Q&A What happened to the Text Import Wizard?

The Text Import Wizard has been replaced by the query functions. If you want to use the wizard, click File, click Options, and then click Data (Excel Options dialog box). Click to display a check mark in the 'From Text (Legacy)' check box. Click the OK button. A Legacy Wizards option will be added to the Get Data list.

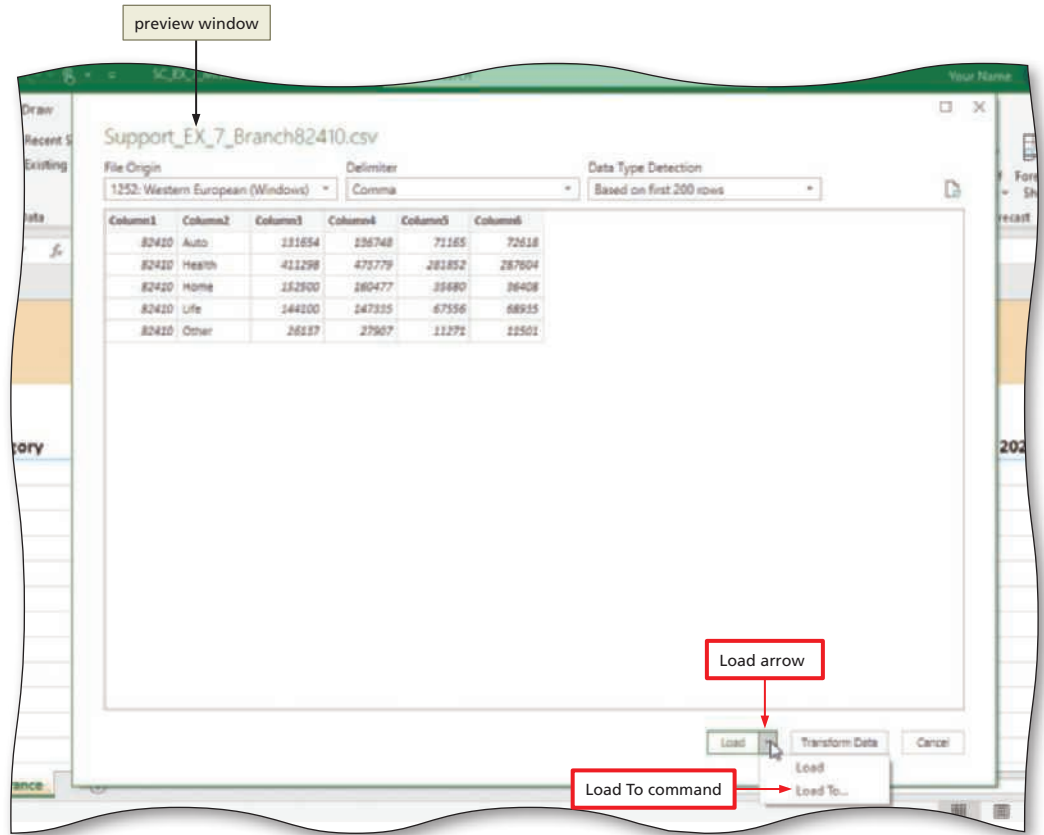


Figure 7-15

3

- Click Load To to display the Import Data dialog box.
- Click the Existing worksheet option button to place the data in the current worksheet rather than on a new sheet (Figure 7-16).

Q&A What is shown in the Import Data dialog box when importing from a text file?

The Import Data dialog box allows you to choose whether to import the data into a table, a PivotTable Report, a PivotChart, or only create a connection to the data. You also can choose to import the data to an existing worksheet or a new worksheet.

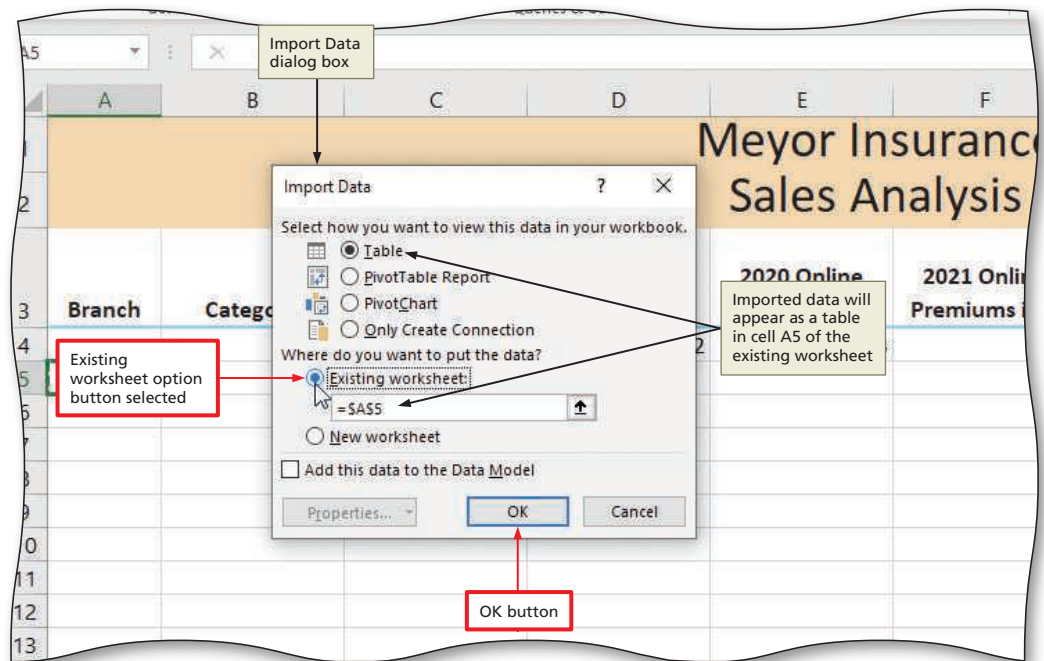


Figure 7-16

4

- Click OK (Import Data dialog box) to import the data (Figure 7–17).

 **Experiment**

- Point to the green bar in the Queries & Connections pane to view details about the imported data.

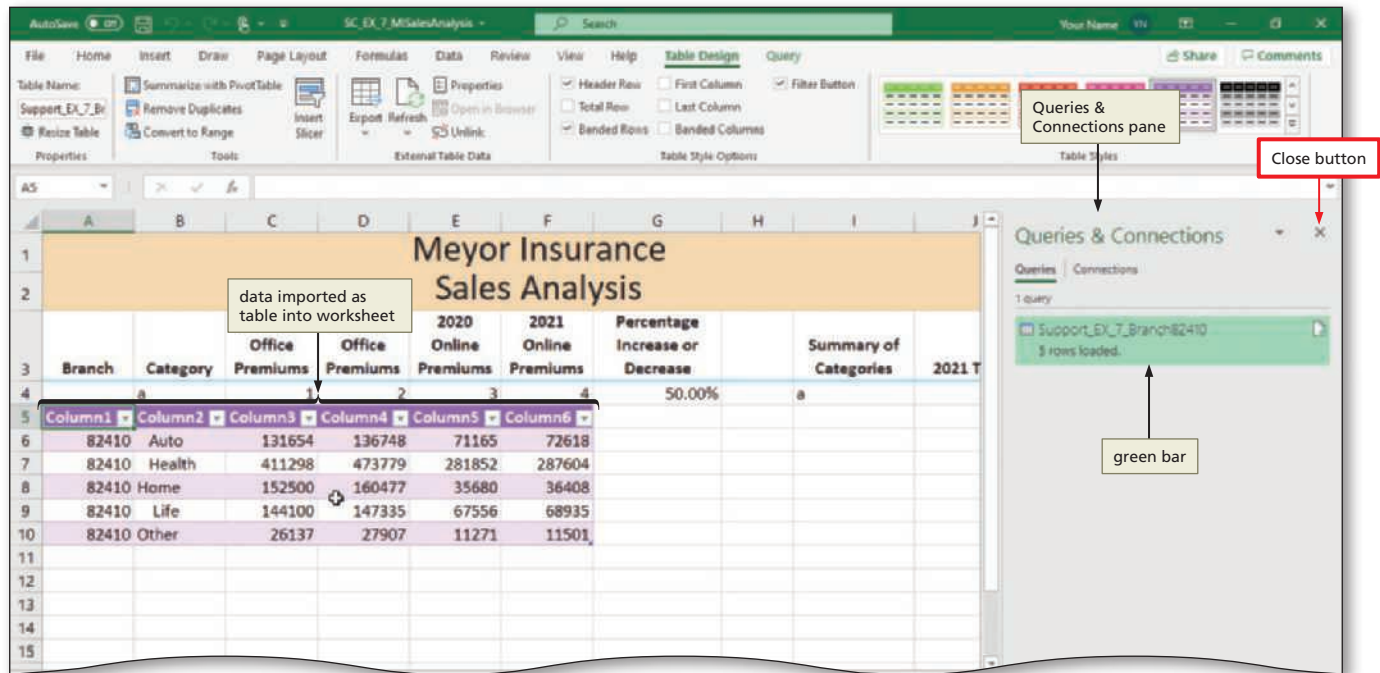


Figure 7–17

5

- Close the Queries & Connections pane.

To Format the CSV Data

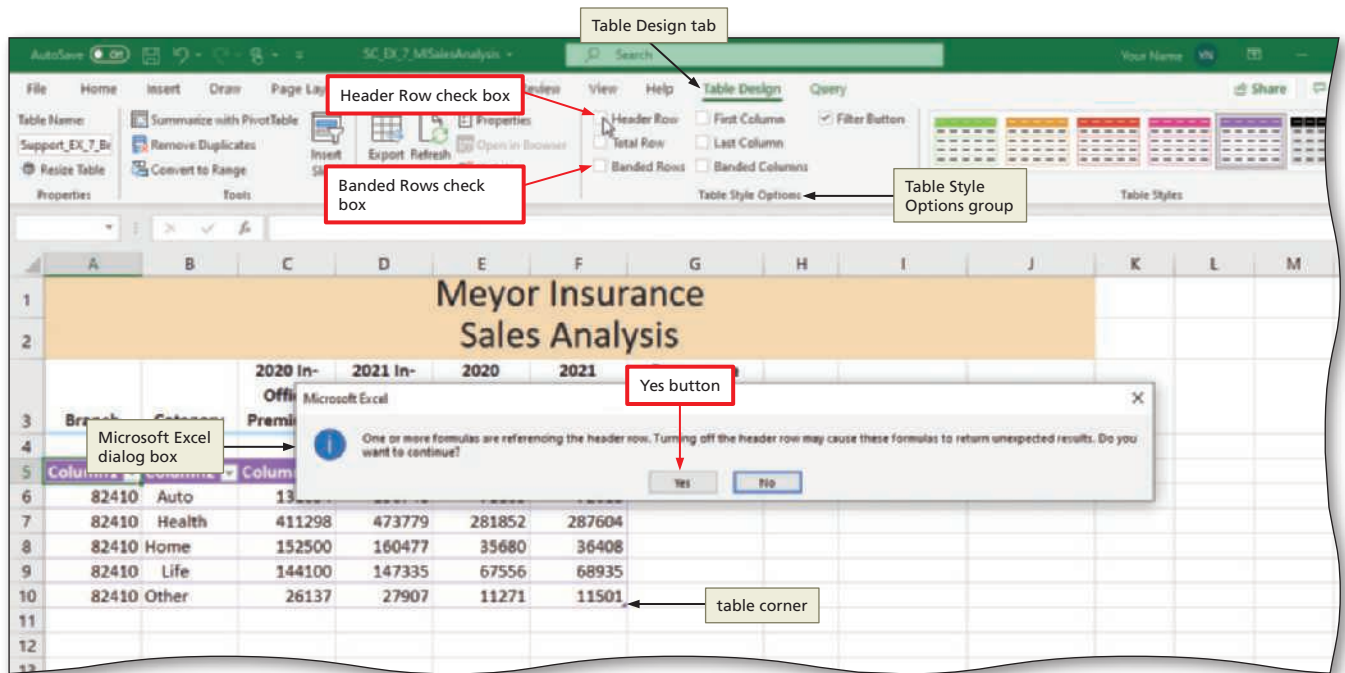
When Excel imports text or CSV data, it comes in as a table; thus, you will need to remove features specific to tables, such as banded rows and a header row. **Why?** Removing those table features will format the data to match the worksheet.

1

- Display the Table Design tab, if necessary.
- Click to remove the check mark in the Banded Rows check box (Table Design tab | Table Style Options group).
- Click to remove the check mark in the Header Row check box (Table Design tab | Table Style Options group) to display a Microsoft Excel dialog box (Figure 7–18).

Q&A **What is the small, blue corner indicator in cell F10?**

That indicator is a table corner. You can drag it to add more row or columns to the table, if adjacent cells are empty.


Figure 7-18
2

- Click the Yes button to remove the header row.
- Delete row 5.
- Because the import changed the column widths, select columns B:G and change the column width back to 15.

Text Formatting

Sometimes imported data will have some input inconsistencies and will need to be reformatted. It is important to check imported data closely and make corrections as necessary, without changing any values. Excel has a series of text functions to help you convert numbers to text, correct inconsistencies in capitalization, and trim off excess spaces, as well as functions to retain only parts of a cell's contents or join pieces of text together.

For example, the **CONCAT function** (which stands for “concatenate,” or join) joins two or more text data items into a single expression. The **LEFT function** displays a specified number of characters from the beginning of a specified text string, and the **RIGHT function** displays a specified number of characters from the end of a specified text string. The **PROPER function** converts the first letter of each word in a text string to uppercase, similar to title case in word processing.

Table 7-1 displays some of the available text functions.

Table 7-1 Text Functions

Function	Purpose	Syntax	Example	Result
TEXT	Converts a numeric value to text and lets you specify the display formatting by using special format strings (Once converted, you cannot use it in calculations.)	TEXT(value, format_text)	TEXT(42.5, "\$0.00")	\$42.50
TRIM	Removes all spaces from text except for single spaces between words	TRIM(text)	TRIM(" Roy S. Lyle ")	Roy S. Lyle
RIGHT	Returns the rightmost characters from a text value	RIGHT(text,[num_chars])	RIGHT("Joyce",1)	e
LEFT	Returns the leftmost characters from a text value	LEFT(text,[num_chars])	LEFT("Joyce",2)	Jo
MID	Returns a specific number of characters starting at a specified position	MID(text, start_num, num_chars)	MID("Joyce",2,3)	oyc
UPPER	Converts text to uppercase	UPPER(text)	UPPER("Joyce")	JOYCE
LOWER	Converts text to lowercase	LOWER(text)	LOWER("Joyce")	joyce
CONCAT	Joins several text items into one text item	CONCAT(text1, [text2], ...)	CONCAT("Mari","lyn")	Marilyn
PROPER	Converts the first letter of each word in a text string to uppercase	PROPER(text or cell reference)	PROPER("my name")	My Name

To Use the Trim Function

The following steps trim extra spaces from the category data you imported. **Why?** You notice that the data was stored with extra spaces, making it impossible to align the words in the column. In a separate part of the workspace, you will use the TRIM function to remove all spaces from text except for single spaces between words. You then will paste the trimmed values to replace the originals.

1

- Select cell B11, type `=trim(b5)` and then click the Enter button to trim the spaces from the data in cell B5 and display it in cell B11 (Figure 7-19).

The screenshot shows an Excel spreadsheet titled "Meyor Insurance Sales Analysis". The spreadsheet has columns for Branch, Category, 2020 In-Office Premiums in \$, 2021 In-Office Premiums in \$, 2020 Online Premiums in \$, 2021 Online Premiums in \$, Percentage Increase or Decrease, and Summary of Categories. The data is as follows:

Branch	Category	2020 In-Office Premiums in \$	2021 In-Office Premiums in \$	2020 Online Premiums in \$	2021 Online Premiums in \$	Percentage Increase or Decrease	Summary of Categories
82410	Auto	131654	136748	71165	72618	50.00%	a
82410	Health	411298	473779	281852	287604		
82410	Home	152500	160477	35680	36408		
82410	Life	144100	147335	67556	68935		
82410	Other	26137	27907	11271	11501		

In the screenshot, cell B5 contains "Auto" with extra spaces. Cell B11 contains the result of the TRIM function, "Auto", with the formula bar showing `=TRIM(B5)`. A callout box points to the formula bar with the text "TRIM function trims spaces around text in cell B5". Another callout box points to the "Auto" text in cell B11 with the text "trimmed text appears in cell B11". A third callout box points to the "Auto" text in cell B5 with the text "extraneous spaces".

Figure 7-19

2

- Drag the fill handle of cell B11 down through cell B15 to display the trimmed data for all categories.
- Do not deselect the data (Figure 7–20).

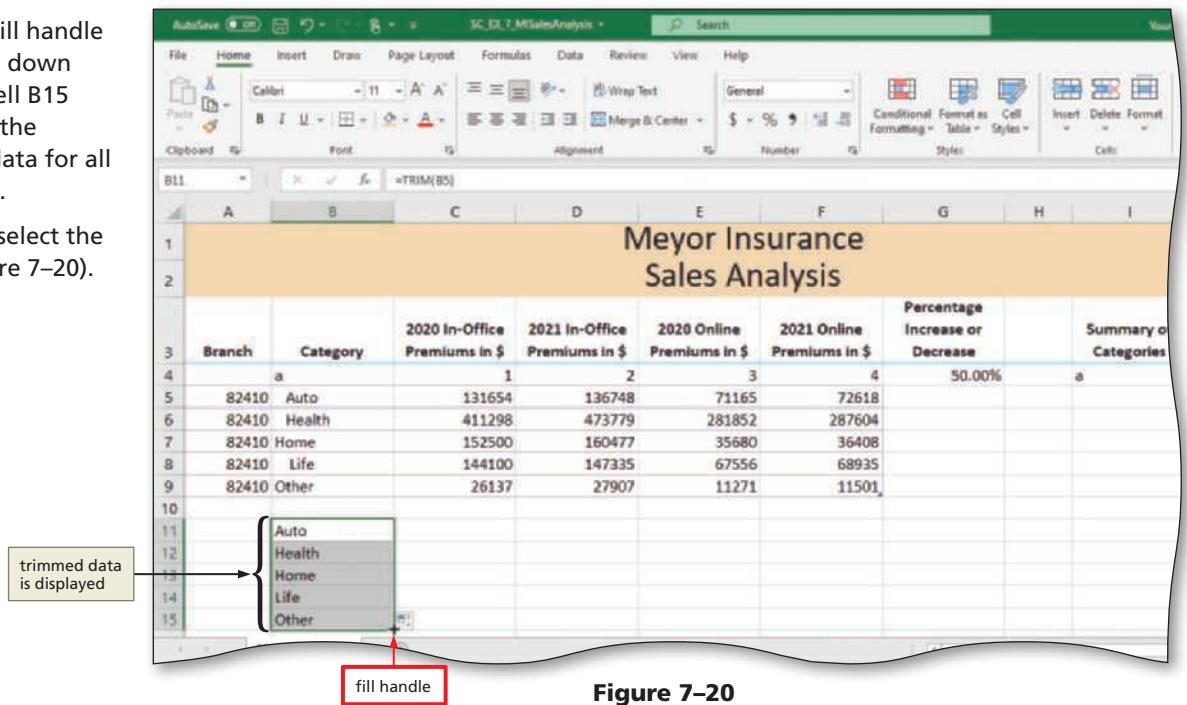


Figure 7–20

To Paste Values Only

The following steps cut the data from cells B11 through B15 and paste only the trimmed values back to cells B5 through B9. **Why?** If you simply paste the contents of the clipboard using CTRL+V, you will retain the trim function notation. You want only the trimmed values. To paste values, you will use Paste Options.

1

- With the range B11:B15 still selected, press CTRL+C to copy the data.
- Right-click cell B5 to display the shortcut menu (Figure 7–21).

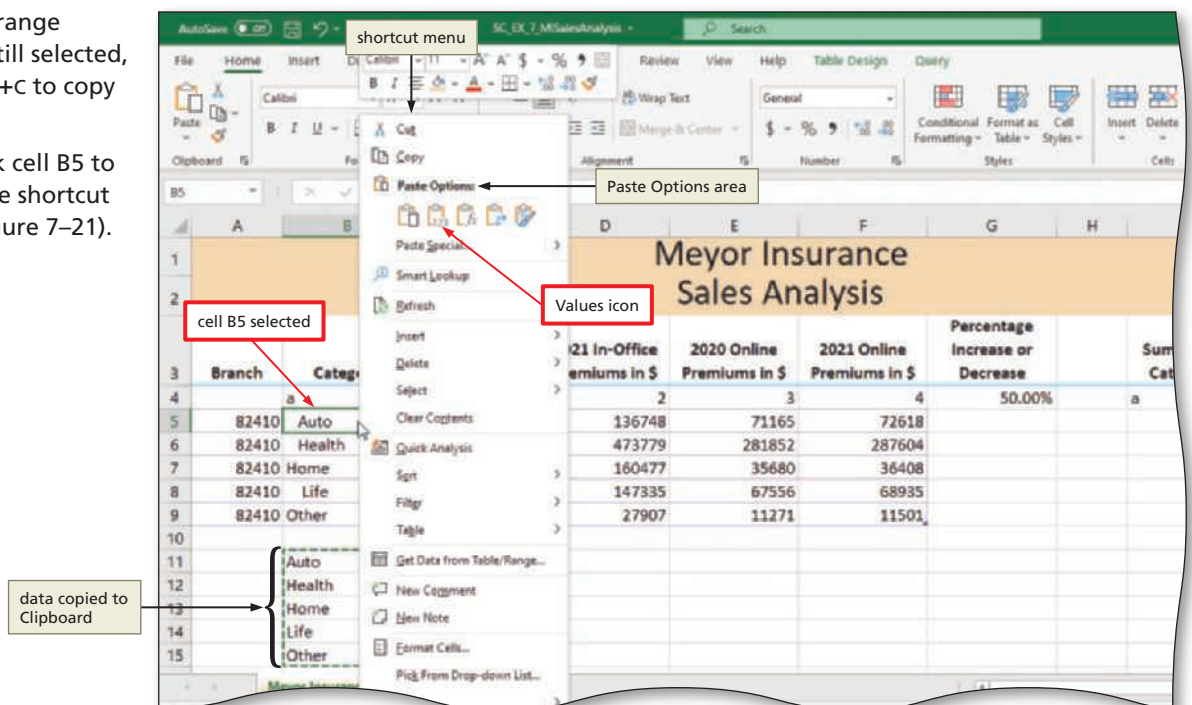


Figure 7–21

2

- In the Paste Options area, click the Values icon to paste only the values.
- Delete the data in the range B11:B15 because you have already pasted it to the correct location and no longer need it.
- Select cell A10 (Figure 7–22).
- Click the Save button on the Quick Access Toolbar to save the file with the new data.

Experiment

- Click various cells in the range B5:B9 to verify that the values were pasted, rather than the TRIM function.

Meyor Insurance Sales Analysis							
Branch	Category	2020 In-Office Premiums in \$	2021 In-Office Premiums in \$	2020 Online Premiums in \$	2021 Online Premiums in \$	Percentage Increase or Decrease	Sum Cat
	a	1	2	3	4	50.00%	a
82410	Auto	131654	136748	71165	72618		
82410	Health		473779	281852	287604		
82410	Home		160477	35680	36408		
82410	Life		147335	67556	68935		
82410	Other	26137	27907	11271	11501		

Figure 7–22

Access Files

Data from Microsoft Access files are stored in tabular format. Each row is a record; columns represent fields. When you import Access files, you usually import an entire table, which includes column headings and sometimes extra data. Excel will display a preview. If you need to edit the data before completing the import, Excel uses **Power Query**, a tool that allows you to perform advanced editing or querying of the database before committing it to your worksheet.

There are advantages to editing the data this way. Power Query has many tools to help you make changes easily, and if the Access file is updated in the future, you will not have to redo the edits. The changes are brought into Excel automatically the next time you open the file.

You will learn more about Power Query in a future module.

To Import Data from an Access Table

The following steps begin the process of importing a table from an Access database. **Why?** Access is used by many businesses, and importing an Access file is representative of how you would work with many other different kinds of database files. To complete these steps, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files. The table in the Access database contains data about sales revenue for Branch #34927 (shown in Figure 7–1b).

1

- Verify that cell A10 is selected so that the Access table is imported starting in cell A10.
- Click the Get Data button (Data tab | Get & Transform Data group) to display the Get Data menu.
- Point to the From Database command to display the submenu (Figure 7–23).

 **Experiment**

- Point to other commands on the Get Data menu, noting the wide variety of sources that Excel will accept. When you are finished, point to the From Database command again.

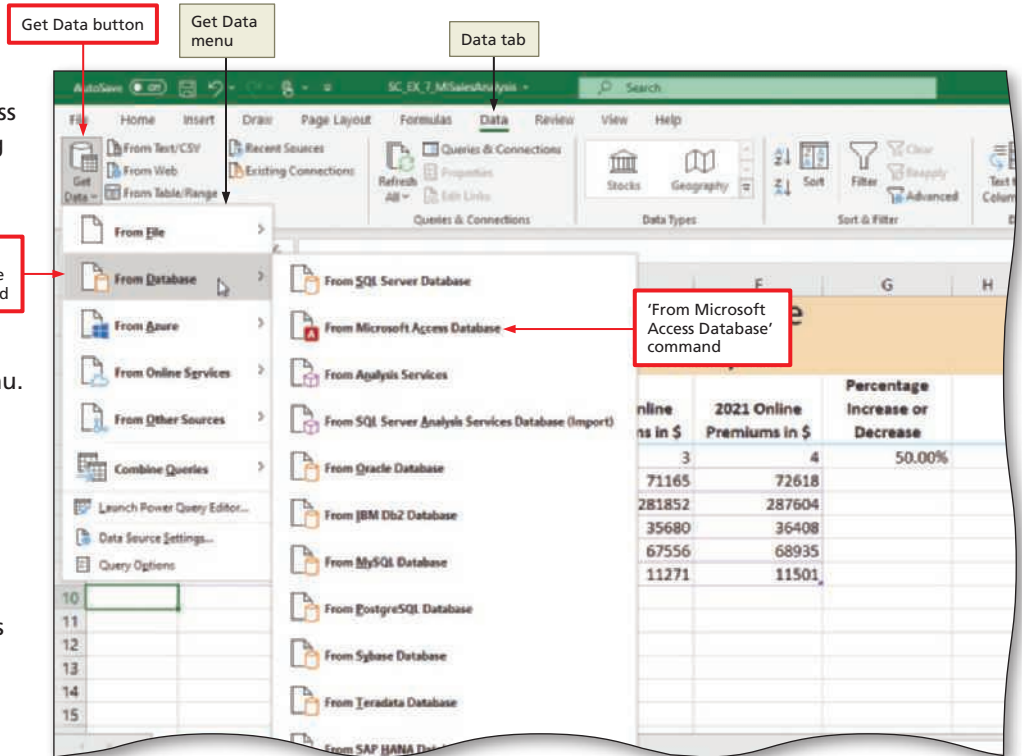


Figure 7–23

2

- Click 'From Microsoft Access Database' to display the Import Data dialog box.
- If necessary, navigate to the location of the Data Files (Figure 7–24).

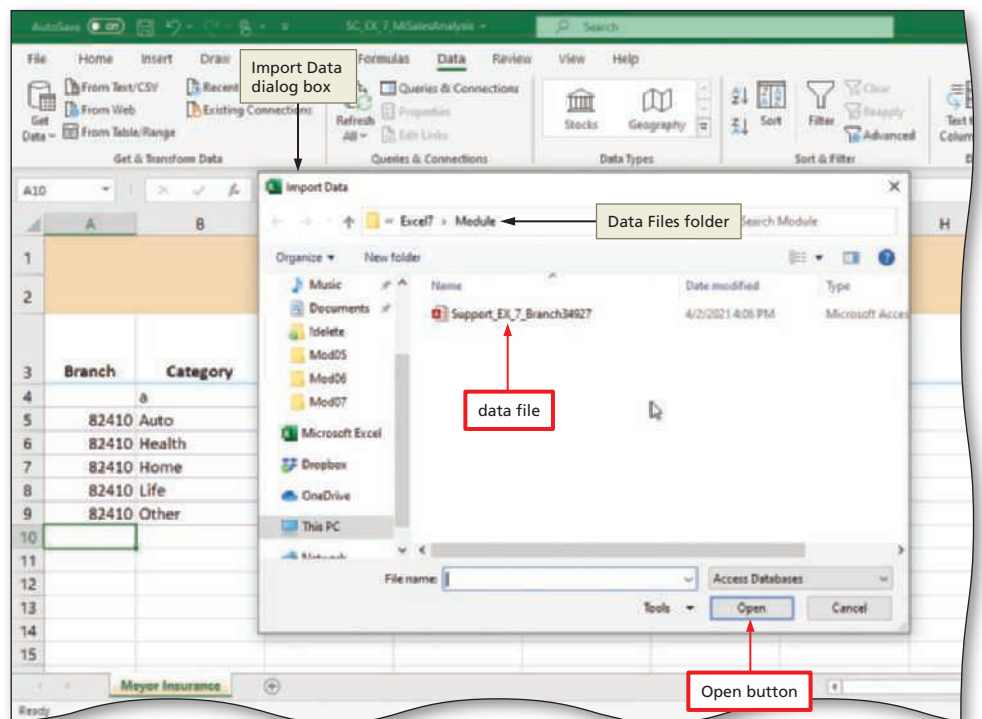


Figure 7–24

3

- Double-click the file, Support_EX_7_Branch34927.accdb, to display the Navigator dialog box.
- Click the name of the table, 'MI Branch 34927 Sales' to display the preview (Figure 7-25).

Q&A **What if the database contains more than one table?**
 The Navigator dialog box will display all available tables. You can import only one table at a time.

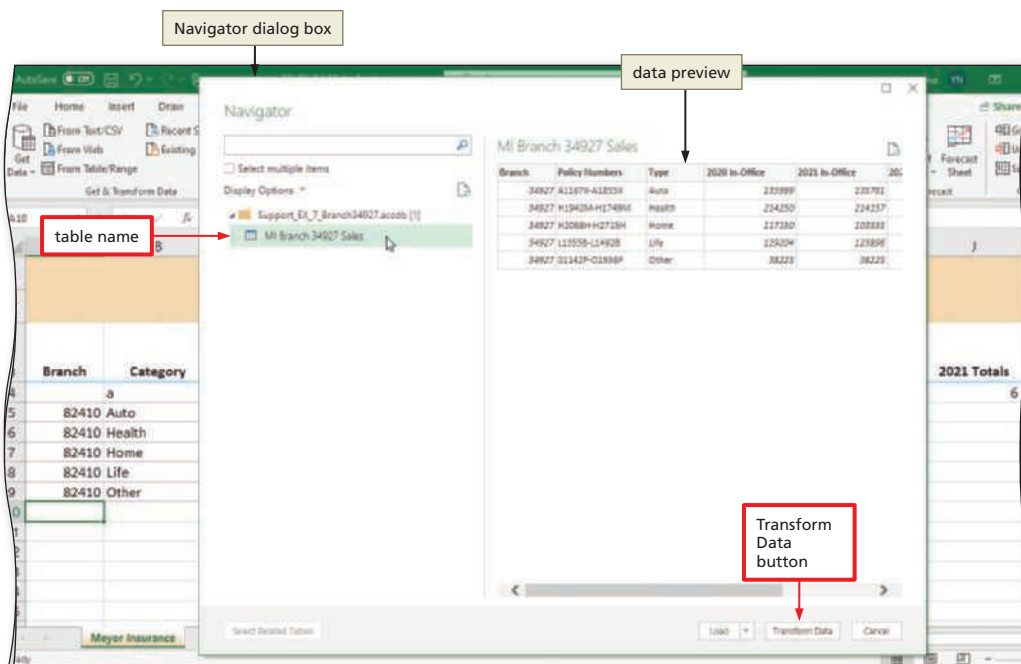


Figure 7-25

To Delete a Column Using Power Query

Sometimes imported files contain data that is not needed, such as total rows, extra columns, or undesired records. The Excel Power Query opens in a new window, allowing you to edit many kinds of imported data. In this database, one column with policy numbers will not be used. Removing the column before importing will cause only the appropriate data to be transferred to Excel, and, if the Access file is updated later, you will not have to remove the extra column again.

1

- In the Navigator dialog box, click the Transform Data button to display the Power Query Editor window.
- Click the desired column heading you wish to delete, in this case, Policy Numbers, to select the column (Figure 7-26).

Experiment

- Examine all of the editing choices in the Power Query Editor window.

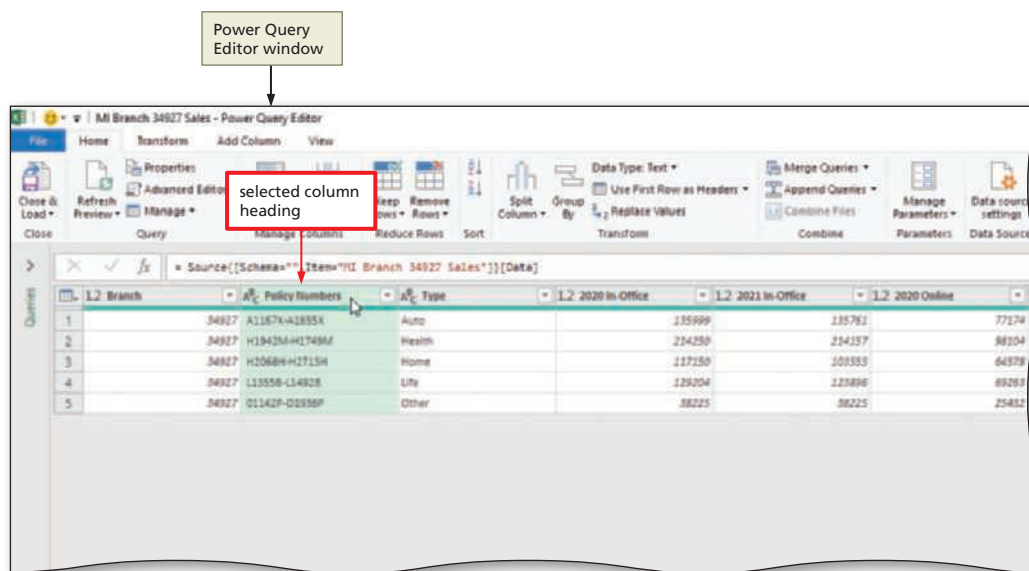


Figure 7-26

2

- Click the Remove Columns button (Power Query Editor Home tab | Manage Columns group) to remove the column from the import.
- Click the 'Close & Load' arrow (Power Query Editor Home tab | Close group) to display the 'Close & Load' menu (Figure 7-27).

Q&A | **What is the purpose of the APPLIED STEPS area?**
 The APPLIED STEPS area allows you to track edits to the data and undo them if necessary.

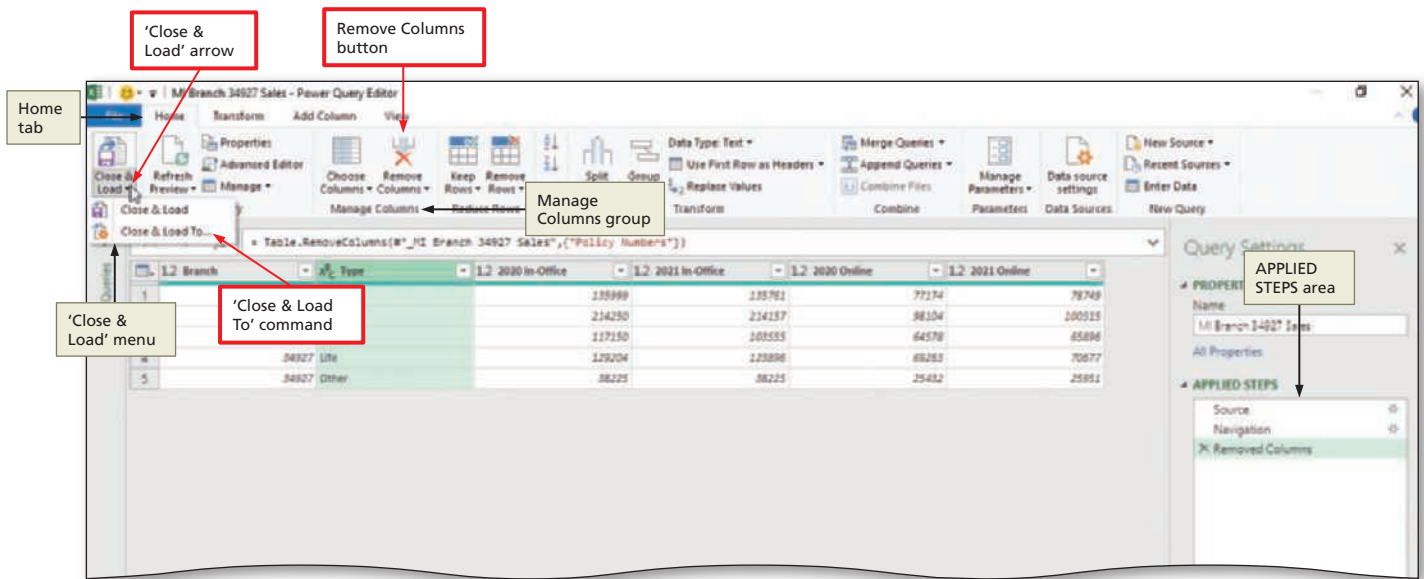


Figure 7-27

3

- Click the 'Close & Load To' command to close the Power Query Editor Window and to display the Import Data dialog box.
- If necessary, click the Existing worksheet option button to place the data in the current worksheet rather than on a new sheet (Figure 7-28).
- Click OK (Import Data dialog box) to import the data.

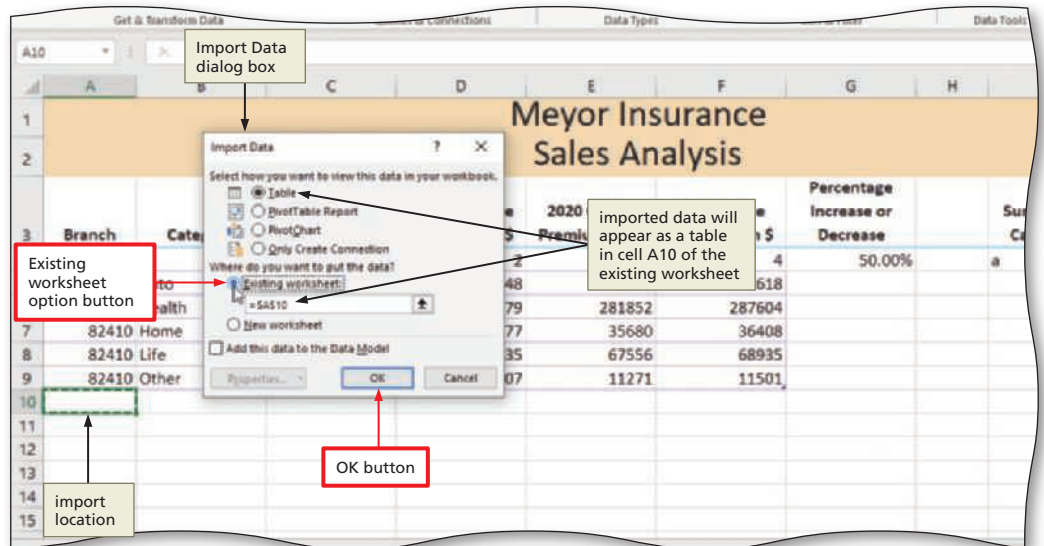


Figure 7-28

To Format the Access Data

The following steps format the Access data.

- 1 With cell A10 selected, click the Banded Rows check box (Table Design tab | Table Style options) to remove its check mark.
- 2 Click the Header Row check box (Table Design tab | Table Style options) to remove its check mark. When Excel displays a dialog box, click the Yes button.
- 3 Delete row 10 to move the data up.
- 4 Click the Save button on the Quick Access Toolbar to save the file.
- 5 Close the Queries & Connections pane (Figure 7–29).

Branch	Category	2020 In-Office Premiums in \$	2021 In-Office Premiums in \$	2020 Online Premiums in \$	2021 Online Premiums in \$	Percentage Increase or Decrease	Summary of Categories
			2	3	4	50.00%	a
8241			136748	71165	72618		
8241			473779	281852	287604		
82410	Home	152500	160477	35680	36408		
82410	Life	144100	147335	67556	68935		
82410	Other	26137	27907	11271	11501		
34927	Auto	135999	135761	77174	78749		
34927	Health	214250	214157	98104	100515		
34927	Home	117150	103555	64578	65896		
34927	Life	129204	123896	69263	70677		
34927	Other	38225	38225	25432	25951		

Figure 7–29

Web Data

Webpages use a file format called HTML. **HTML** stands for **Hypertext Markup Language**, which is a special language that software developers use to create and format webpage elements and that browsers can interpret. Excel can import data from a webpage into preformatted areas of the worksheet using a web query. A **web query** selects data from the Internet or from an HTML file to add to the Excel worksheet. The New Web Query dialog box includes options to specify which parts of the webpage to import and how much of the HTML formatting to keep.

Using a web query has advantages over other methods of importing data from a webpage. For example, copying data from webpages to the Office Clipboard and then pasting it into Excel does not maintain all of the webpage formatting. In addition, copying only the desired data from a webpage can be tedious.

To Import Data from a Webpage

The following steps create a new web query and then import data from a webpage into the worksheet. To complete these steps, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files. Performing these steps does not require being connected to the Internet. **Why?** In this case, the webpage (shown in Figure 7–1c) is stored with the Data Files; normally you would have to be connected to the Internet.

1

- Select cell A15 to specify the destination location and then display the Data tab.
- Click the From Web button (Data tab | Get & Transform Data group) to display the From Web dialog box.
- In the URL box, type the web address, in this case the location of the data file: Type the drive letter followed by a COLON (:), the path location of the Data Files, followed by the name of the desired file, in this case, Support_EX_7_Branch70635.html. Separate the name of each folder with a BACKSLASH (\). For example, type `c:\users\username\documents\cis 101\data files\Support_EX_7_Branch70635.html` to insert the file name. Your file path will differ (Figure 7–30).

Q&A **Could I navigate to the file and double-click?**
 No, double-clicking the file would open it in a browser, rather than creating a query. You must type in the location, just as you would for a URL. Contact your instructor for the exact path and location.

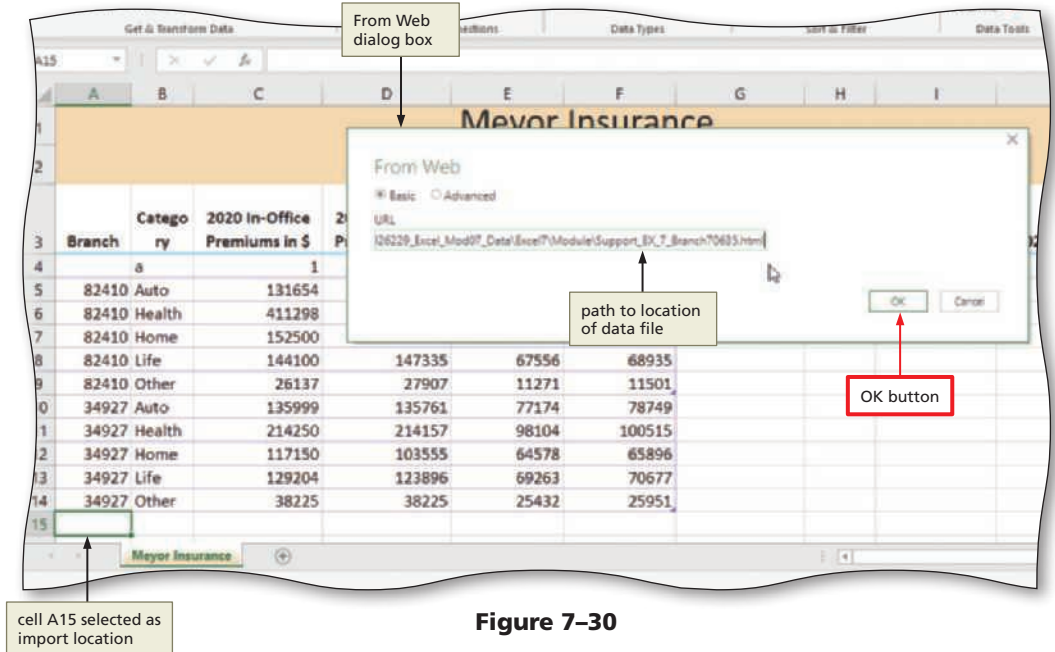


Figure 7–30

2

- Click OK (From Web dialog box) to display the Navigator dialog box.
- If necessary, click the table name, then click the Web View tab to look at the data (Figure 7–31).

Q&A **Can I accept the data as is?**
 No. Notice the data categories are not in the same order as in your worksheet. The data is not right-aligned, and the first column is Category, not the branch number.

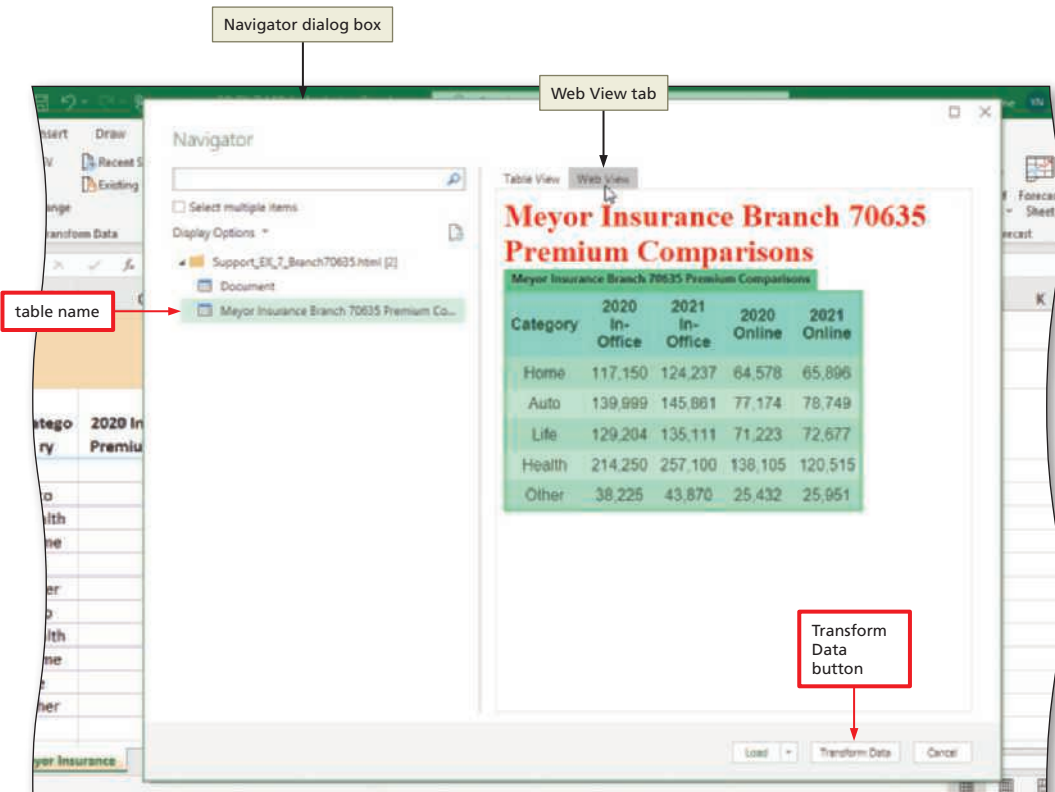


Figure 7–31

3

- Click the Transform Data button to display the Power Query Editor window.
- With the first column selected, click the Sort Ascending button (Power Query Editor Home tab | Sort group) to sort the data alphabetically.
- Click the column heading in the second column, then SHIFT+click the column heading in the 2021 Online column to select all of the numeric data.

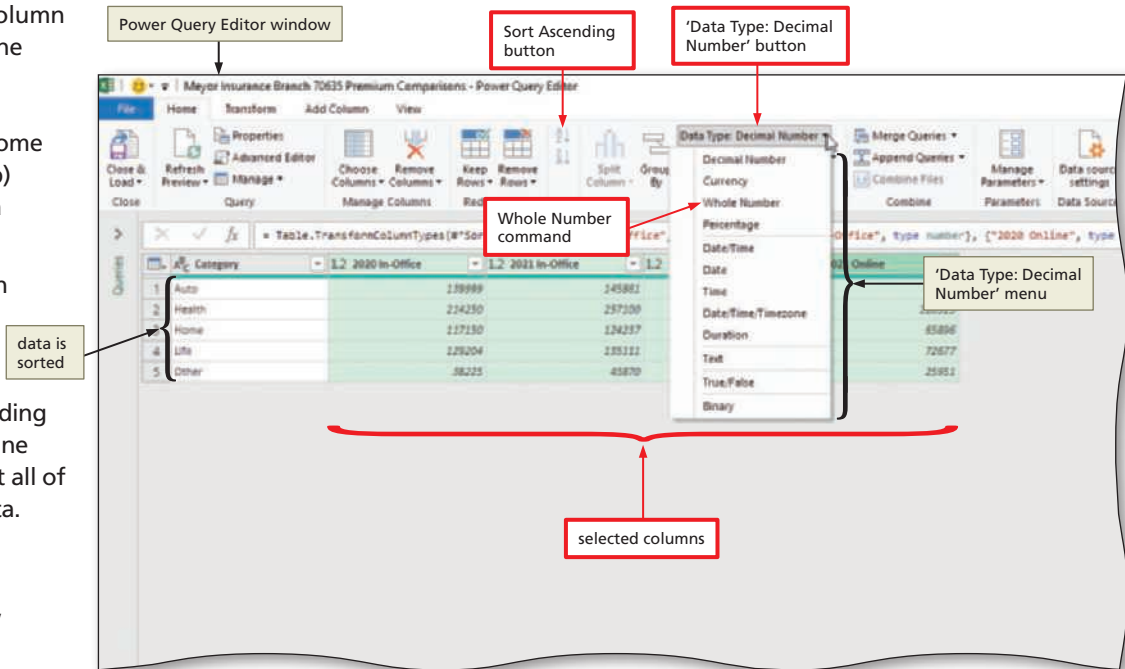


Figure 7-32

Q&A What should I do if my button is named 'Data Type: Whole Number'?

You can click the button and then perform Step 4 without affecting the data.

4

- Click Whole Number to convert the data to numbers and right-align them. If the Change Column Type dialog box is displayed, click the Replace Current button (Figure 7-33).

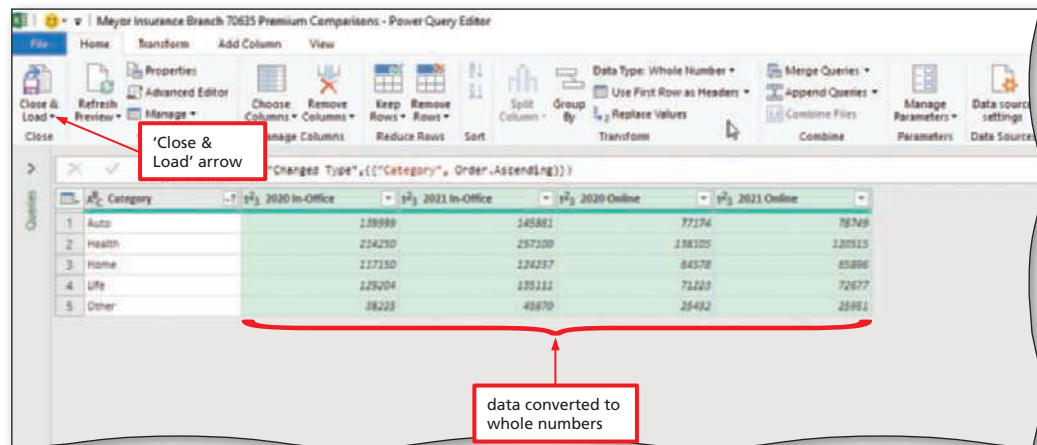


Figure 7-33

Q&A Should I try to insert the missing Branch column?

No. You can add that directly to the worksheet.

5

- Click the 'Close & Load' arrow (Power Query Editor Home tab | Close group) and then click the 'Close & Load To' command to close the Power Query Editor Window.
- When Excel displays the Import Data dialog box, click the Existing worksheet option button. Because there is no Branch data in the imported file, change the location of the import to =B\$15 (Figure 7-34).
- Click the OK button (Import Data dialog box) to import the data.

Q&A **Why should I use a web query instead of copying and pasting from a webpage?**
 Using a web query has advantages over other methods of importing data from a webpage. For example, copying data from webpages to the Office Clipboard and then pasting it into Excel does not maintain all of the webpage formatting. In addition, copying only the desired data from a webpage can be tedious. Finally, copying and pasting does not create a link to the webpage for future updating.

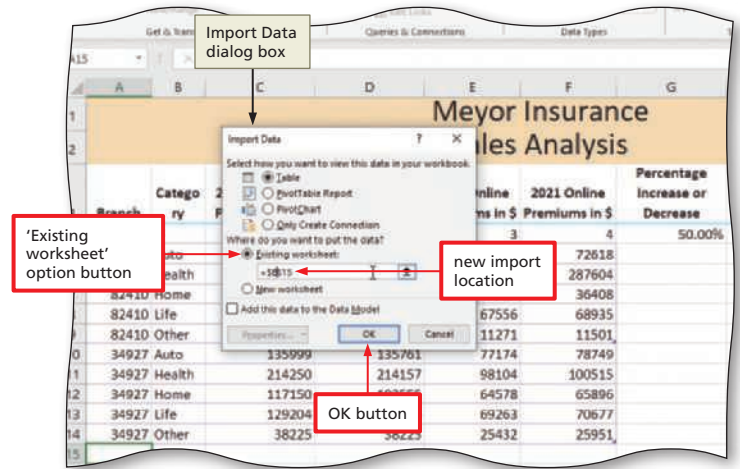


Figure 7-34

6

- Select cell B15, and then click the Banded Rows check box (Table Design tab | Table Style options) to remove its check mark.
- Click the Header Row check box (Table Design tab | Table Style options) to remove its check mark. When Excel displays a dialog box, click the Yes button.
- Delete Row 15 to move the data up.
- In cell A15, enter 70635. Drag the fill handle down through A19.
- Close the 'Queries & Connections' pane (Figure 7-35).

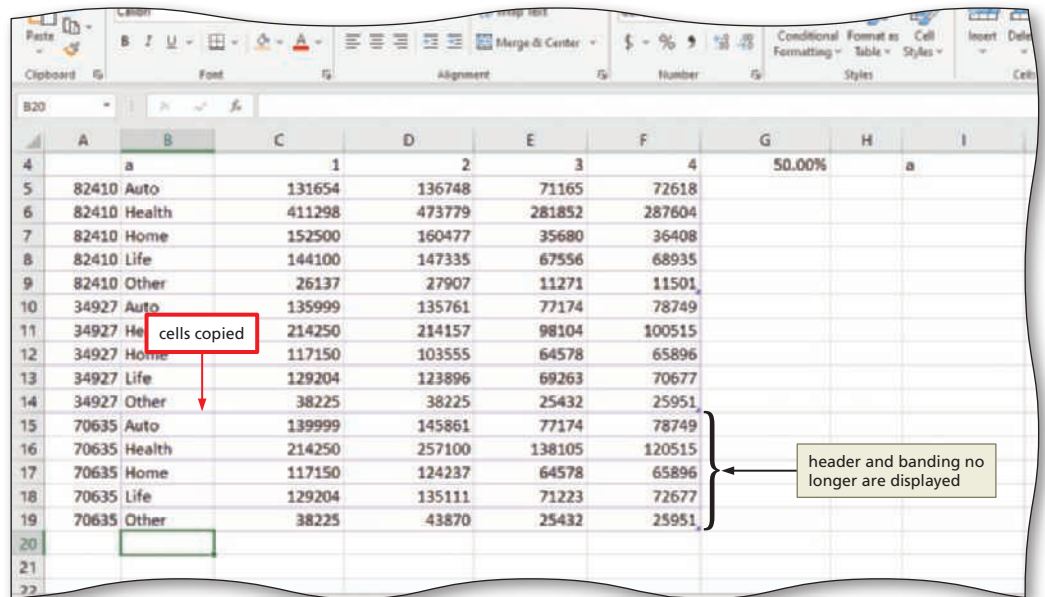


Figure 7-35

7

- Click the Save button on the Quick Access Toolbar to save the file.

Using Word Data

A Word document often contains data stored in a table. While you could save your Word data in a text format such as .txt and import it as you did earlier, you can copy and paste directly from Word to Excel. A few things should be taken into consideration, however. On some occasions, Word data requires some manipulation once you paste it into Excel. For example, the Word data may be easier to work with if the rows and columns were switched, and, thus, you will need to transpose the data. In other situations, you may find that Excel did not paste the data into separate columns, and, thus, you will need to split the data or convert the text into columns. Finally, some text-to-column conversions need extra space or columns when the data is split, requiring you to move other data out of the way. An example of each will occur in the following sections, as you copy, paste, transpose, move, and split data from Word to Excel.

To Copy from Word and Paste to Excel

The Word document that contains data from Branch #18624 (Figure 7–1d) includes a Word table with rows and columns. The following steps copy and paste that data from Word into Excel. **Why?** The manipulations that you will need to make to the Word data are performed more easily in Excel. The Paste Special command allows you to choose to paste text only without any kind of formatting from the source or the destination locations; it also provides options for pasting HTML, pictures, and hyperlinks. To complete these steps, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

1

- Scroll as necessary to select cell A30.

Q&A **Why did I select cell A30 in Excel?**
You will paste the data to that location, out of the way, in order to manipulate it.

- Start Word and then open the Word document named, Support_EX_7_Branch18624.docx, from the Data Files.
- In the Word document, drag through all of the cells in columns 2 through 6 in the table to select the table cells without selecting the row headings in column 1.
- Press CTRL+C to copy the contents of those columns to the Office Clipboard (Figure 7–36).

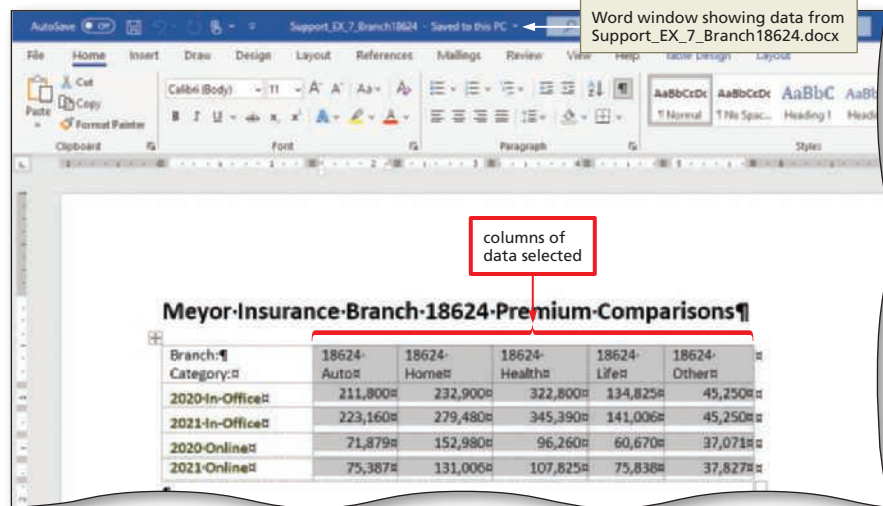


Figure 7–36

2

- Close Word and, if necessary, click the Excel app button on the taskbar to make Excel the active window.
- With cell A30 still selected, press CTRL+V to paste the data.
- Scroll as necessary to display the data, but do not select any other cells (Figure 7–37).

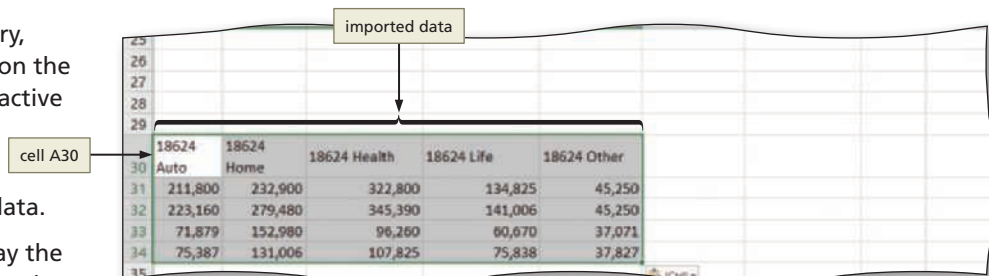


Figure 7–37

To Transpose Columns and Rows

Recall that the Paste gallery may display many different kinds of paste options, depending upon the data on the Office Clipboard and the paste location. When you copy and paste within Excel (rather than across apps), the Paste gallery displays many more options for pasting, such as pasting only the formulas, pasting only the values, pasting as a picture, and pasting transposed data, among others. The Transpose option in the Paste gallery automatically flips the rows and columns during the paste. In other words, the row headings become column headings or vice versa. All pasted data is switched as well. The following steps copy the data and paste it, transposed. **Why?** The original Word data had category titles across the top; the spreadsheet template expects titles down the left side.

1

- With the range A30:E34 still selected, press CTRL+C to copy the selection to the Office Clipboard.
- Scroll as necessary, and then select cell A20 to prepare for pasting the data to that location.
- Click the Paste arrow (Home tab | Clipboard group) to display the Paste gallery (Figure 7–38).

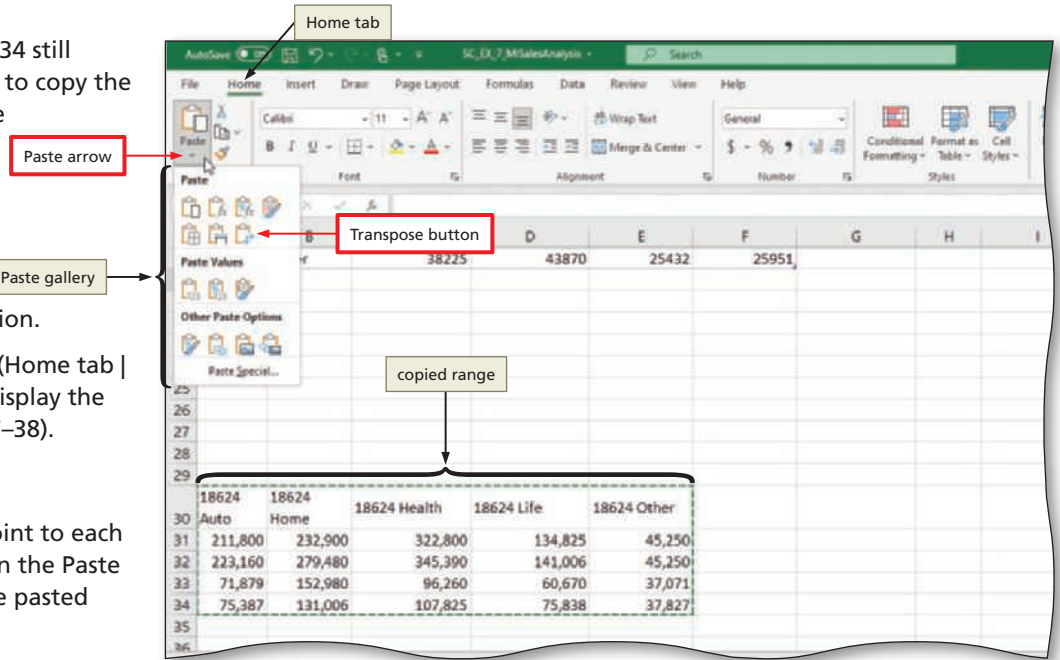


Figure 7–38

Q&A Why do I have to copy the data to the clipboard again?

The Transpose paste command is available only when Excel recognizes the cell format. You cannot transpose directly from copied Word tables.

Experiment

- Using live preview, point to each of the paste options in the Paste gallery to see how the pasted format changes.

2

- Click the Transpose button in the Paste gallery to transpose and paste the copied cells to the range beginning with cell A20.
- If necessary, select cells A20:A24, and then click the Wrap Text button (Home tab | Alignment group) to turn off text wrapping (Figure 7–39).

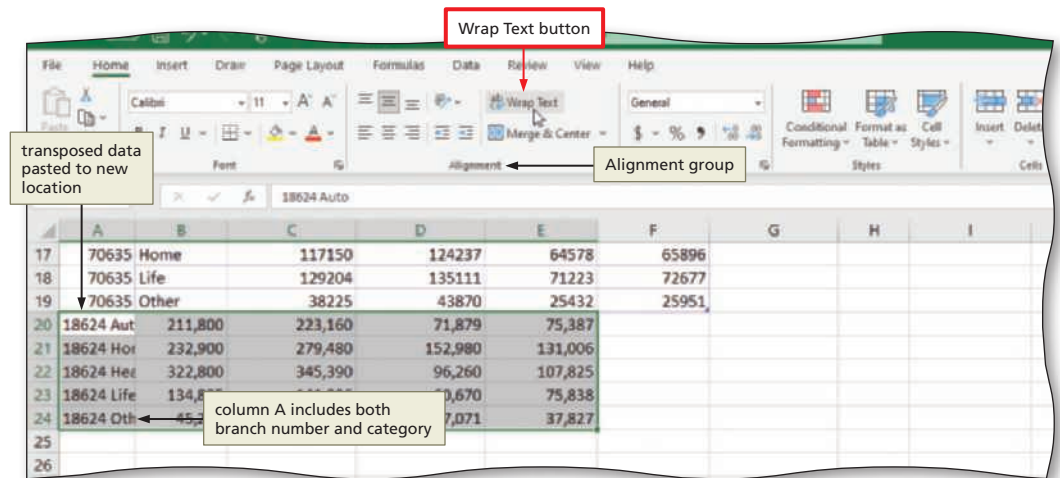


Figure 7–39

To Delete, Cut, and Paste Data

The following steps delete the original Word data from range A30:E34 because you no longer need it. The steps also move some of the transposed data to make room for splitting column A into two columns. You will format the data later in this module.

- 1 Delete the data in the range A30:E34.
- 2 To move the dollar values to the correct columns, select the range B20:E24 and then press CTRL+X to cut the data.
- 3 Select cell C20 and then press CTRL+V to paste the data (Figure 7–40).

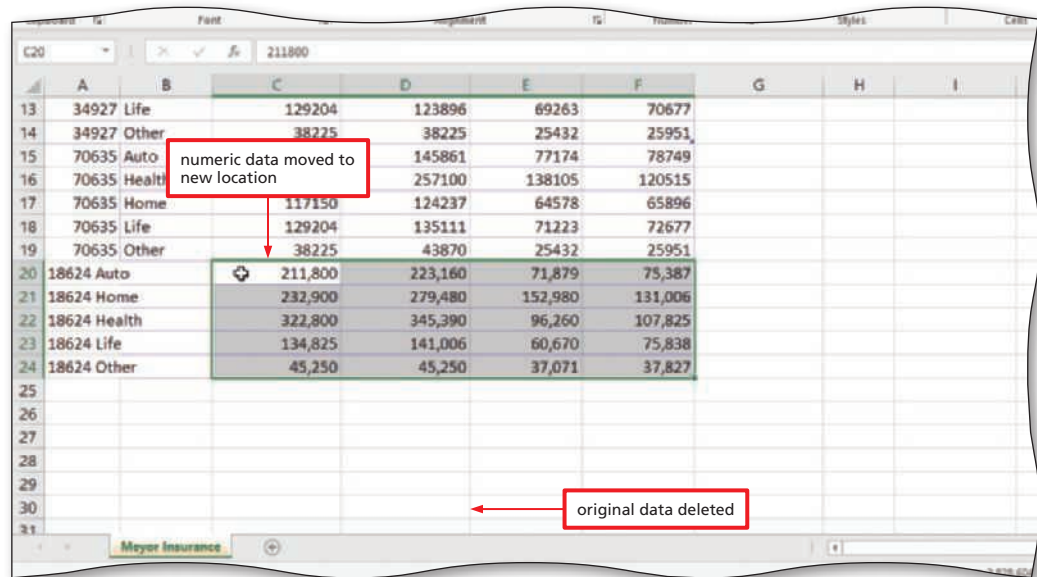


Figure 7-40

To Convert Text to Columns

Column A of the imported data from Branch #18624 includes both the branch and category in the same cell. The following steps split the data. **Why?** The data must be separated using the Excel ‘Text to Columns’ command so that the category information is in column B. You have two choices when splitting the column. You can have Excel split the data based on a specific character, such as a space or comma, or you can have Excel split the data based on a certain number of characters or fixed width.

- Select the range A20:A24 to prepare for converting the text to columns.
 - Display the Data tab.
 - Click the ‘Text to Columns’ button (Data tab | Data Tools group) to display the Convert Text to Columns Wizard - Step 1 of 3 dialog box.
 - Click the Fixed width option button (Figure 7-41).

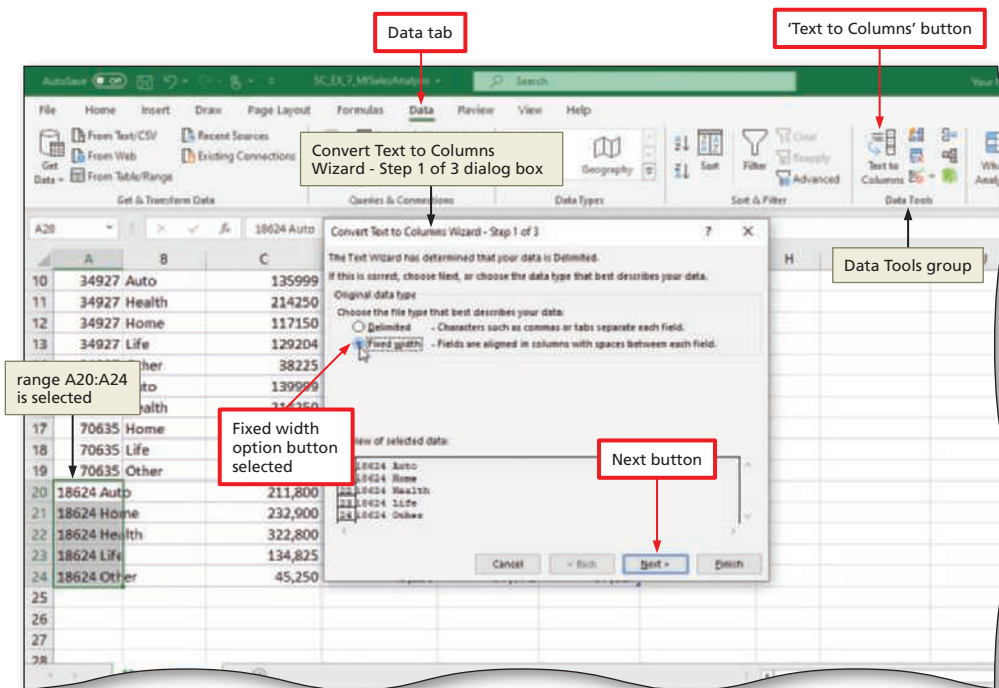


Figure 7-41

Q&A What other tasks can be accomplished using the Convert Text to Columns Wizard?

With the Delimited option, you can split the data into separate columns by specifying a break at a specific character.

2

- Click the Next button (Convert Text to Columns Wizard - Step 1 of 3 dialog box) to accept a fixed width column and to display the Convert Text to Columns Wizard - Step 2 of 3 dialog box (Figure 7-42).

Experiment

- Click the Next button to view options related to formatting or skipping parts of the data before splitting it. Do not make any changes.

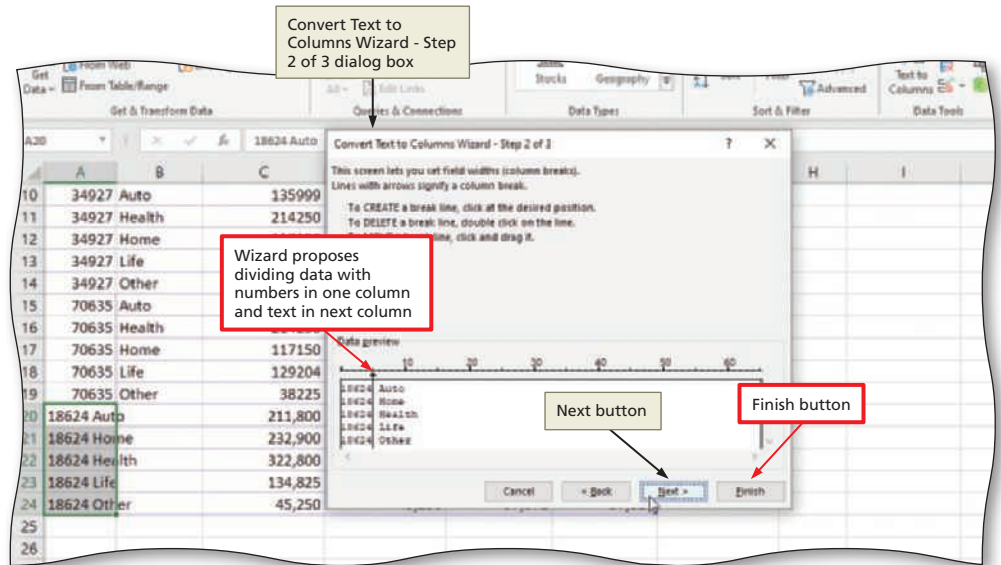


Figure 7-42

3

- Click the Finish button (Convert Text to Columns Wizard - Step 2 of 3 dialog box) to close the dialog box. If Excel displays a dialog box, click the Yes button to separate the data in column A into two columns (Figure 7-43).
- If necessary, adjust column widths to match those shown in the figure.

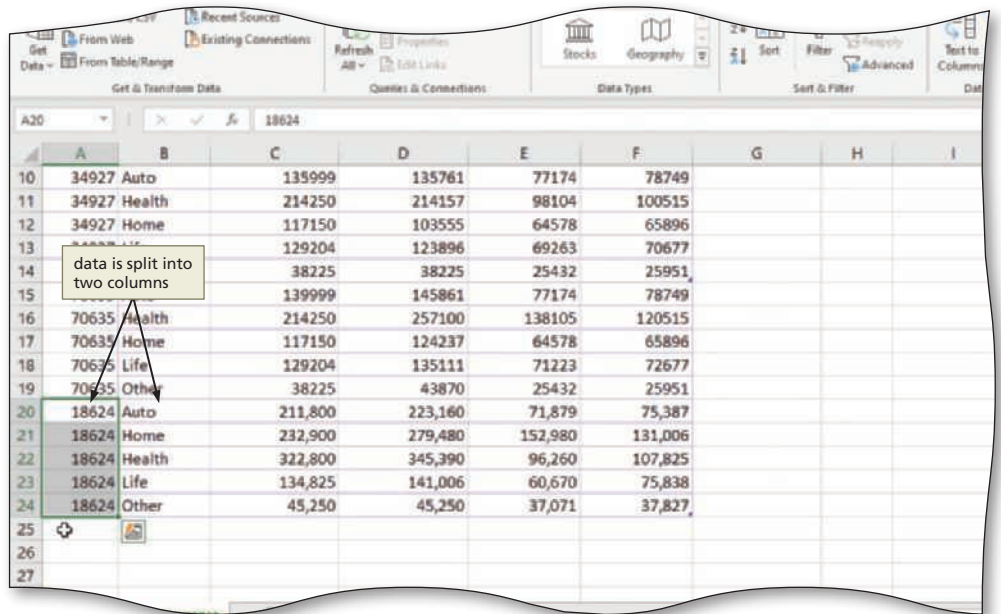


Figure 7-43

To Replicate Formulas

When you opened the workbook derived from the template, it contained a worksheet title, headings for each column, and a formula to calculate the percentage increase or decrease from 2020 to 2021. The formula and functions in cells G4, I4, and J4 must be copied or filled to complete the calculations. Some spreadsheet specialists refer to copying formulas as **replication**. You often replicate formulas after completing an import. **Why?** Usually, the total number of records to be imported is unknown when you first begin a workbook. The following steps use the fill handle to replicate the formulas. You also will perform some final formatting edits.

1

- Select the location of the formula you wish to replicate (in this case, cell G4).
- Drag the fill handle down through the end of the data (in this case, row 24) to replicate the formula (Figure 7–44).

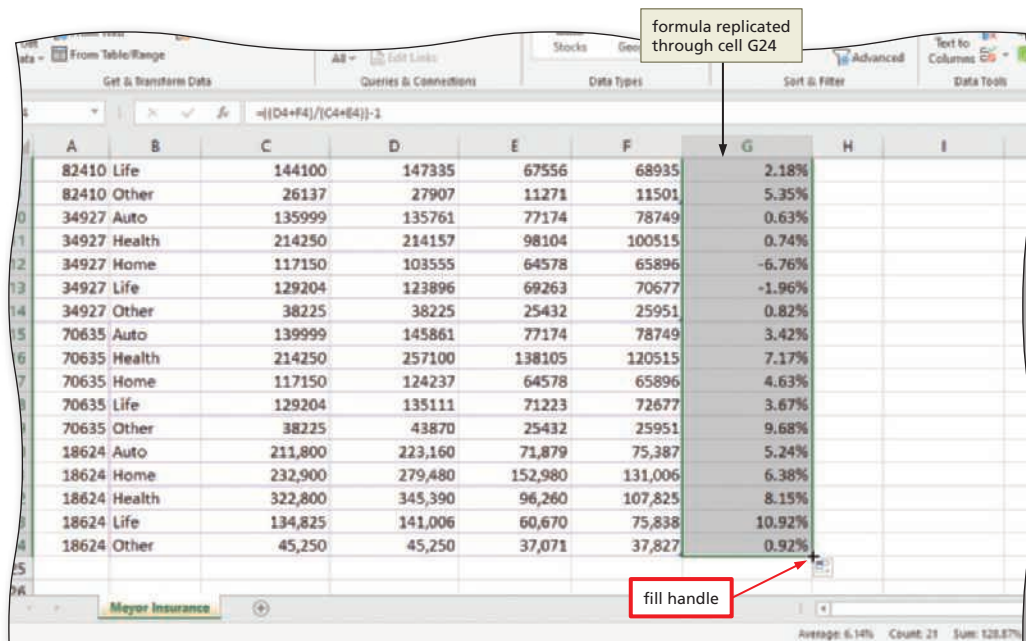


Figure 7–44

2

- Select cells I4:J4.
- Drag the fill handle down through row 9 to replicate the formulas and functions.
- Because you no longer need the dummy data from the template, delete row 4 (Figure 7–45).

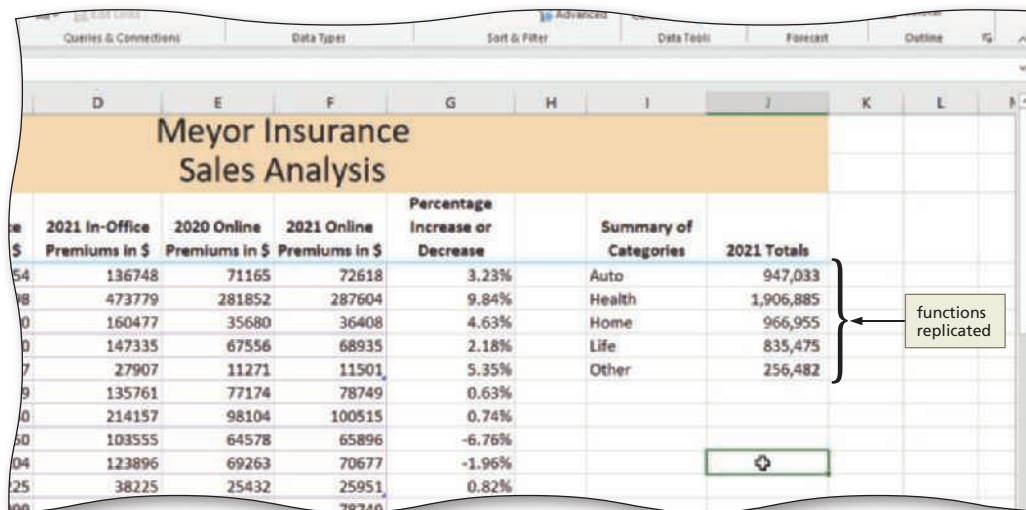


Figure 7–45

Q&A Why did I stop the replication of the summary at row 10? Only five categories are used for the branches; however, you can replicate further if more categories are added.

3

- Click the Save button (Quick Access Toolbar) to save the workbook with the same name in the same location.

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_7_MISalesAnalysis, and continue following the steps from this location forward.

Using the Quick Analysis Gallery

Recall that in a previous module you used the status bar to see a basic analysis of selected data. Another tool for analyzing data quickly is the Quick Analysis gallery. Quick Analysis first appears as a button below and to the right of selected data. When you click the button, Excel displays the Quick Analysis gallery (Figure 7-46).

Each tab at the top of the gallery displays its own set of buttons to help you complete a task easily. For example, notice in Figure 7-46 that the Formatting tab displays conditional formatting options. The tabs always apply to the selected area of the worksheet. In addition, the Quick Analysis gallery uses live preview—in other words, you can preview how the feature will affect your data by pointing to the button in the gallery.

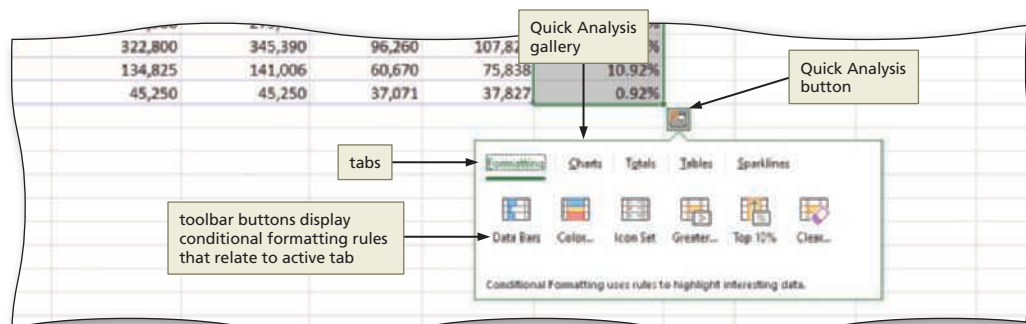


Figure 7-46

The Totals tab in the Quick Analysis toolbar can be used to create totals quickly, as long as none of the data is in tables. When you click Totals, Excel displays a variety of formulas and functions as thumbnails, including SUM, AVERAGE, and COUNT. Pointing to any thumbnail gives you a live preview of the answer. Clicking the thumbnail inserts the formula into the worksheet.

To Format Using the Quick Analysis Gallery

The following steps use the Quick Analysis gallery to format the top 10% of column G, the percentage increase or decrease in sales. **Why?** The company executives want to see the branches and categories with the highest increase in sales. Formatting using the Quick Analysis gallery is much faster than using the ribbon to apply conditional formatting.

1

- Select the range you want to analyze, in this case G4:G23.
- Click the Quick Analysis button to display the Quick Analysis gallery.
- If necessary, click the Formatting tab to display the Quick Analysis gallery formatting options (Figure 7-47).

 **Experiment**

- Point to each of the buttons on the Quick Analysis gallery to display a live preview.

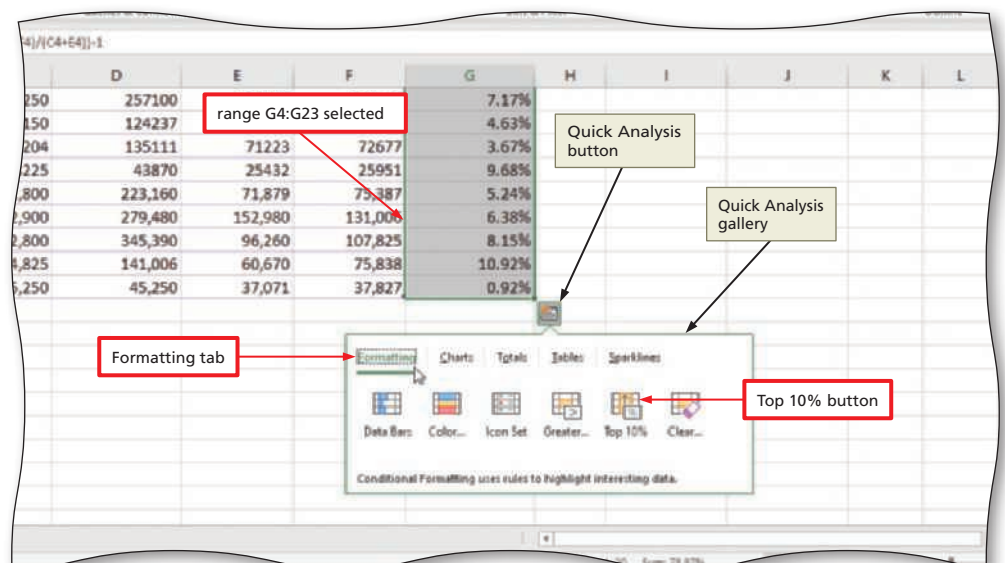


Figure 7-47

2

- Click the Top 10% button (Quick Analysis gallery).
- Click outside the selection and scroll as necessary to display the cells highlighted by the conditional formatting (Figure 7–48).

Office	2021 In-Office Premiums in \$	2020 Online Premiums in \$	2021 Online Premiums in \$	Change in %	Increase or Decrease	Summary of Categories	2021 Totals
654	136748	71165	72618	3.23%		Auto	947,033
298	473779	281852	287604	9.84%		Health	1,906,885
500	160477	35680	36408	4.63%		Home	966,955
100	147335	67556	68935	2.18%		Life	835,475
137	27907	11271	11501	5.35%		Other	256,482
999	135761	77174	78749	0.63%			
4250	214157	98104	100515	0.74%			
7150	103555	64578	65896	-6.76%			

Figure 7–48

Q&A Why did Excel highlight the numbers in light red? The default value for conditional formatting is light red.

Experiment

- Scroll through the list to display see other top 10% highlighting.

3

- Click cell I24. Type **Shaded cells indicate top 10%** and then press ENTER to create a legend for the formatting.
- Drag through cells I24:J24 and display the Home tab.
- Click the Fill Color arrow (Home tab | Font Group) and then click Red, Accent 4, Lighter, 80% (second row, eighth column).
- Click outside the selection to view the formatting (Figure 7–49).

	129204				-1.96%		
34927 Other	38225	38225	25432	25951	0.82%		
70635 Auto	139999	145861	77174	78749	3.42%		
70635 Health	214250	257100	138105	120515	7.17%		
70635 Home	117150	124237	64578	65896	4.63%		
70635 Life	129204	135111	71223	72677	3.67%		
70635 Other	38225	43870	25432	25951	9.68%		
18624 Auto	211,800	223,160	71,879	75,387	5.24%		
18624 Home	232,900	279,480	152,980	131,006	6.38%		
18624 Health	322,800	345,390	96,260	107,825	8.15%		
18624 Life	134,825	141,006	60,670	75,838	10.92%		
18624 Other	45,250	45,250	37,071	37,827	0.92%		

Figure 7–49

To Total Data

The following steps total the sales data from the four stores. **Why?** Companies routinely want to examine grand totals for all branches.

1

- Click cell C24. Type `=sum(c4:c23)` and then click the ENTER button.
- Drag the fill handle to the right, to replicate the totals for columns D through F (Figure 7–50).

Q&A **Could I use the Quick Analysis Gallery to create the totals?**
 No. The Quick Analysis button will not appear because the data crosses multiple table imports.

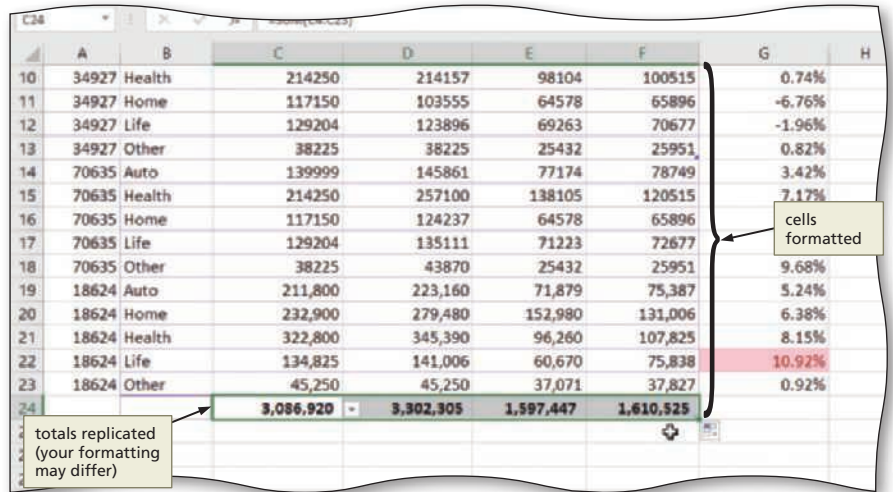


Figure 7–50

2

- Select cell A24 and then type **Totals** to enter a row heading.
- Replicate cell G23 down to G24 to indicate the total percentage increase or decrease (Figure 7–51).

3

- Add the Comma Style formatting with no decimal places to the premium figures in columns C:F.

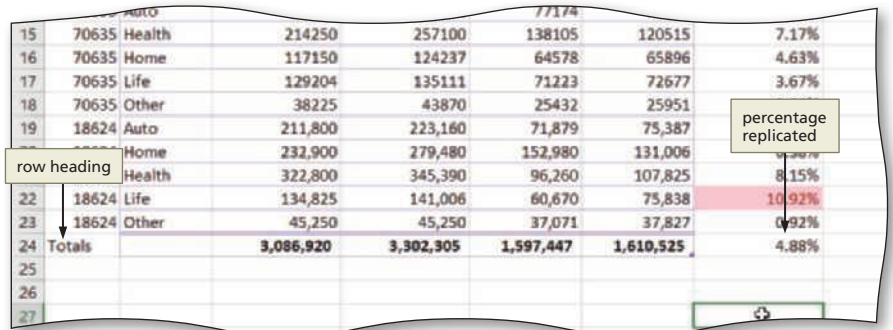


Figure 7–51

Q&A **What if the pasted Word values don't align exactly with the other worksheet values?**
 You can clear the formatting from the pasted Word values using the Clear Formats button (Home tab | Editing group | Clear arrow) and reapply the Comma Style.

Using the Find and Replace Commands

To locate a specific piece of data in a worksheet, you can use the Find command on the Find & Select menu. The data you search for sometimes is called the **search string**. To locate and replace the data, you can use the Replace command on the Find & Select menu. If you have a cell range selected, the Find and Replace commands search only the range; otherwise, the Find and Replace commands begin at cell A1, regardless of the location of the active cell. The Find and Replace commands are not available for charts.

Selecting either the Find or Replace command displays the Find and Replace dialog box. The Find and Replace dialog box has two variations. One version displays minimal options, while the other version displays all of the available options. When you select the Find or Replace command, Excel displays the dialog box variation that was used the last time either command was selected.

To Find Data

The following steps show how to locate the search string, Health. The Find and Replace dialog box that displays all the options will be used to customize the search by using the Match case and 'Match entire cell contents' options. **Why?** Match case means that the search is case sensitive and the cell contents must match the data exactly the way it is typed. 'Match entire cell contents' means that the data cannot be part of another word or phrase and must be unique in the cell.

1

- If necessary, display the Home tab and select cell A1.
- Click the 'Find & Select' button (Home tab | Editing group) to display the Find & Select menu (Figure 7-52).

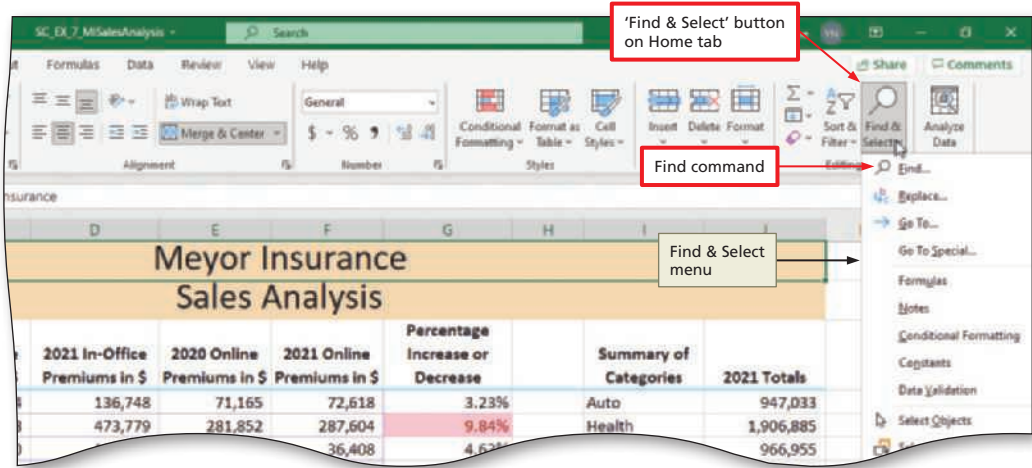


Figure 7-52

2

- Click Find on the Find & Select menu to display the Find and Replace dialog box.
- Click the Options button (Find and Replace dialog box) to expand the dialog box so that it appears as shown in Figure 7-53.
- Type **Health** in the Find what box to enter the search string.
- Click Match case and then click 'Match entire cell contents' to place check marks in those check boxes (Figure 7-53).

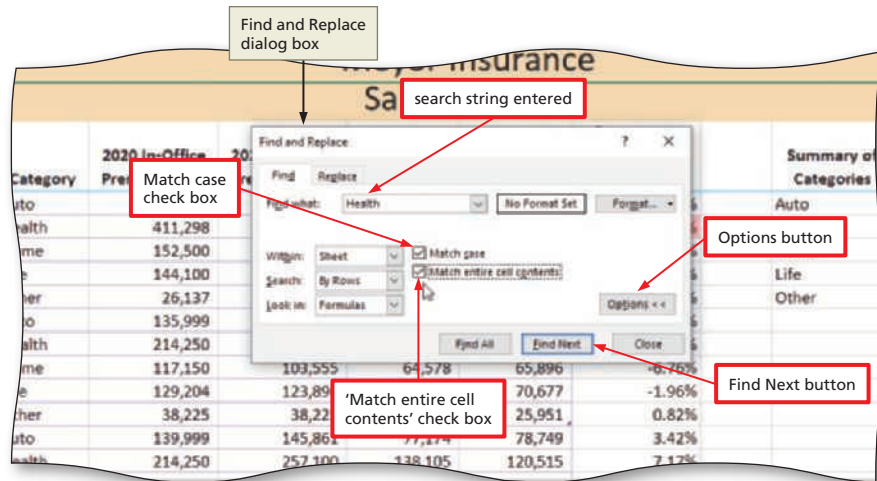


Figure 7-53

Q&A Why does the appearance of the Options button change?

The two arrows pointing to the left on the Options button indicate that the more comprehensive Find and Replace dialog box is active.

3

- Click the Find Next button (Find and Replace dialog box) to cause Excel to begin the search and locate an occurrence of the search string (Figure 7-54).

Q&A What if Excel does not find any occurrences of the search string?

If the Find command does not find the string for which you are searching, Excel displays a dialog box indicating it searched the selected worksheets and cannot find the search string.

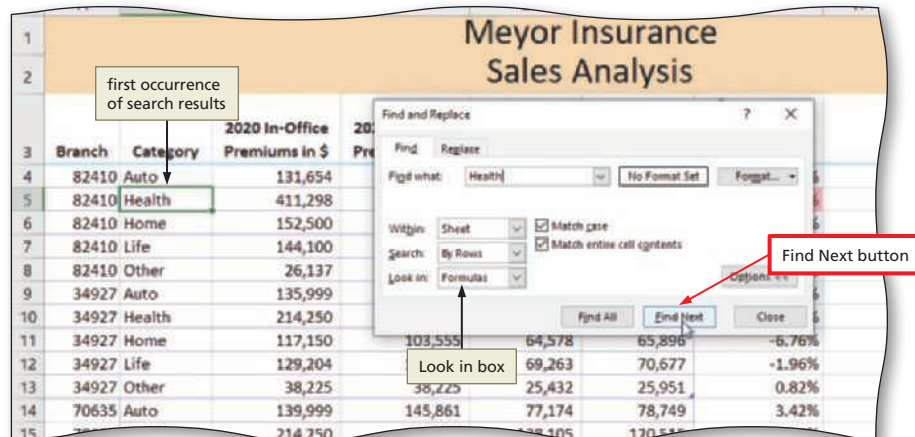


Figure 7-54

4

- Continue clicking the Find Next button (Find and Replace dialog box) to find the string, Health, in three other cells on the worksheet.
- Click the Close button (Find and Replace dialog box) to stop searching and close the Find and Replace dialog box.

Q&A**What happens if you continue clicking the Find Next button?**

Excel will cycle through the cells again. You have to watch the row and column references to determine if you have found them all.

What happens when you click the Find All button (Find and Replace dialog box)?

Excel further expands the Find and Replace dialog box to list all occurrences and their locations in a table format below the buttons.

Why did Excel not find the word Health in cell I5?

The default value in the Look in box (shown in Figure 7–55) was to search for formulas, which includes cells with entered text but does not include the result of functions such as the one from the template, replicated in cell I5.

Other Ways

1. Press CTRL+F, enter search string, click Find Next button (Find and Replace dialog box)

Working with the Find and Replace Dialog Box

The Format button in the Find and Replace dialog box allows you to fine-tune the search by adding formats, such as bold, font style, and font size, to the search string. The Within box options include Sheet and Workbook. The Search box indicates whether Excel will search vertically through rows or horizontally across columns. The Look in box allows you to select Formulas, Values, or Comments. If you select Formulas, Excel will look in all cells except those containing functions or comments. If you select Values, Excel will look for the search string in cells that do not contain formulas, such as text or functions. If you select Comments, Excel will look only in comments.

If you select the Match case check box, Excel will locate only cells in which the string is in the same case. For example, when matching the case, accessories is not the same as Accessories. If you select the ‘Match entire cell contents’ check box, Excel will locate only the cells that contain the search string and no other characters. For example, Excel will find a cell entry of Other, but not Others.

To Find and Replace

The Replace command replaces the found search string with new data. You can use it to find and replace one occurrence at a time, or you can use the Replace All button to replace the data in all locations at once. The following steps show how to use the Replace All button. **Why?** You want to replace the string, Life, with the string, Life & LTC, to indicate that long-term-care policies are included with the life premiums. You also can change cell formatting using the Format button in the Find and Replace dialog box.

1

- Click the Find & Select button (Home tab | Editing group) to display the Find & Select menu.
- Click Replace on the Find & Select menu to display the Find and Replace dialog box.
- Type **Life** in the Find what box and then type **Life & LTC** in the Replace with box to specify the text to find and to replace.

- If necessary, click Match case and then click 'Match entire cell contents' to place check marks in those check boxes (Figure 7-55).

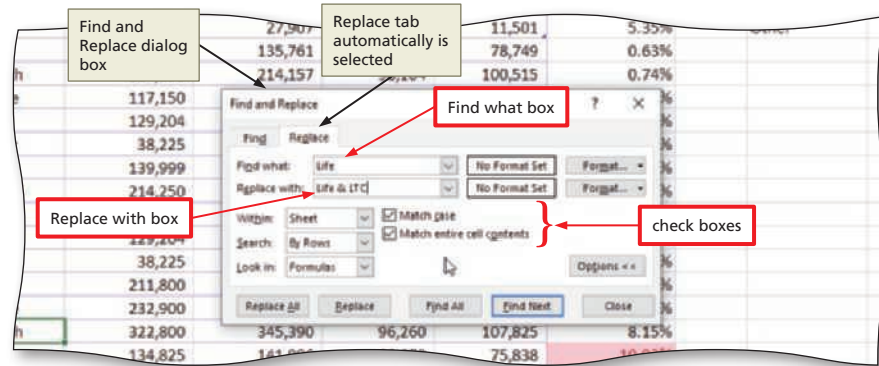


Figure 7-55

2

- Click the Replace All button (Find and Replace dialog box) to replace the string (Figure 7-56).

Q&A What happens when Excel replaces the string?

Excel replaces the string, Life, with the replacement string, Life & LTC, throughout the entire worksheet. If other worksheets contain matching cells, Excel replaces those cells as well. Excel displays the Microsoft Excel dialog box indicating four replacements were made.

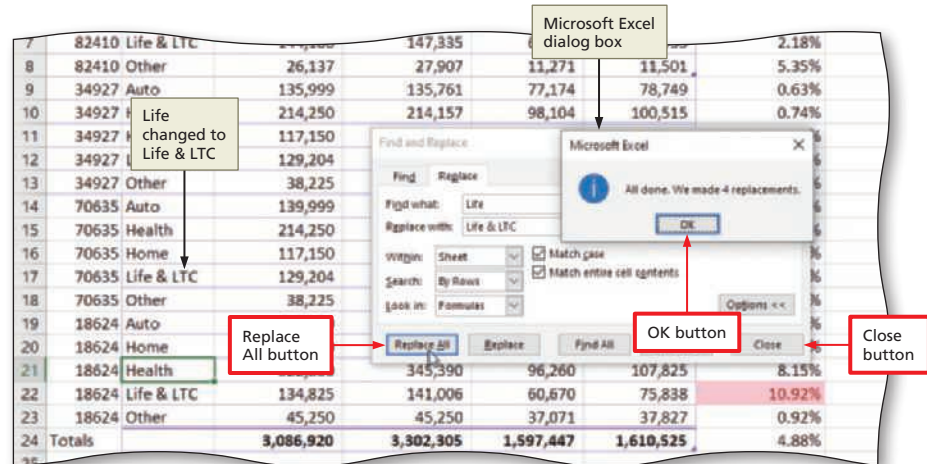


Figure 7-56

3

- Click OK (Microsoft Excel dialog box).
- Click Close (Find and Replace dialog box).
- Click the Save button (Quick Access Toolbar) to save the file again.

Q&A Why did Excel change the function value in cell I7?

Cell I7 is a function and therefore would not be changed because of the Formula designation in the Find and Replace dialog box; however, cell I7 searches column B. So, when Excel changed column B, the function itself changed cell I7.

Other Ways

1. Press CTRL+H, enter search string, enter replace string, click Replace All button (Find and Replace dialog box)

To Format Styles and Borders

The following steps remove the table styles from cells A4:F23 and remove the borders from cells G5:J23 so all the cells in the range display the same style. G4:J4 will retain the top border for the title cells directly above them.

- 1 Drag to select cells A4:F23.
- 2 Display the Table Design tab.
- 3 Click the More button (Table Design tab | Table Styles group).
- 4 When Excel displays the Table Styles gallery, click the None style in the Light area.

- 5 Select cells G5:J23.
- 6 Right-click the selection and then click Format Cells on the shortcut menu.
- 7 Click the Border tab (Format Cells dialog box) and then click None in the Presets area.
- 8 Click OK to close the dialog box.
- 9 Click the Save button (Quick Access Toolbar) to save the file.

Inserting a Bar Chart

The requirements document shown in Figure 7–2 specifies that the workbook should include a bar chart, sometimes called a bar graph. A bar chart uses parallel, horizontal bars of varying lengths to measure and compare categories of data or amounts, such as sales, counts, or rates. The bars can be all one color, or each bar may be a different color.

Consider This



When should you use a bar chart?

You should use a bar graph when you want to compare different groups of data. Because bar charts plot numerical data in rectangular blocks against a scale, viewers can visualize the categories by distinguishing the relative lengths of the bars. You also can use a bar graph to display numerical data when you want to present distributions of data. Bar charts tend to be better than column charts for positive numbers, larger numbers of categories, and longer data labels.

If you are comparing more than one piece of data per category, the chart becomes a clustered bar chart. The only differences between a bar chart and a column chart are in orientation and the amount of room for data labels. Longer data labels display better using bar charts. If you have any negative values, the bars appear pointing left; columns would appear pointing down. You will create the bar chart shown in Figure 7–57 by using the Quick Analysis gallery and formatting the data, axes, and title.

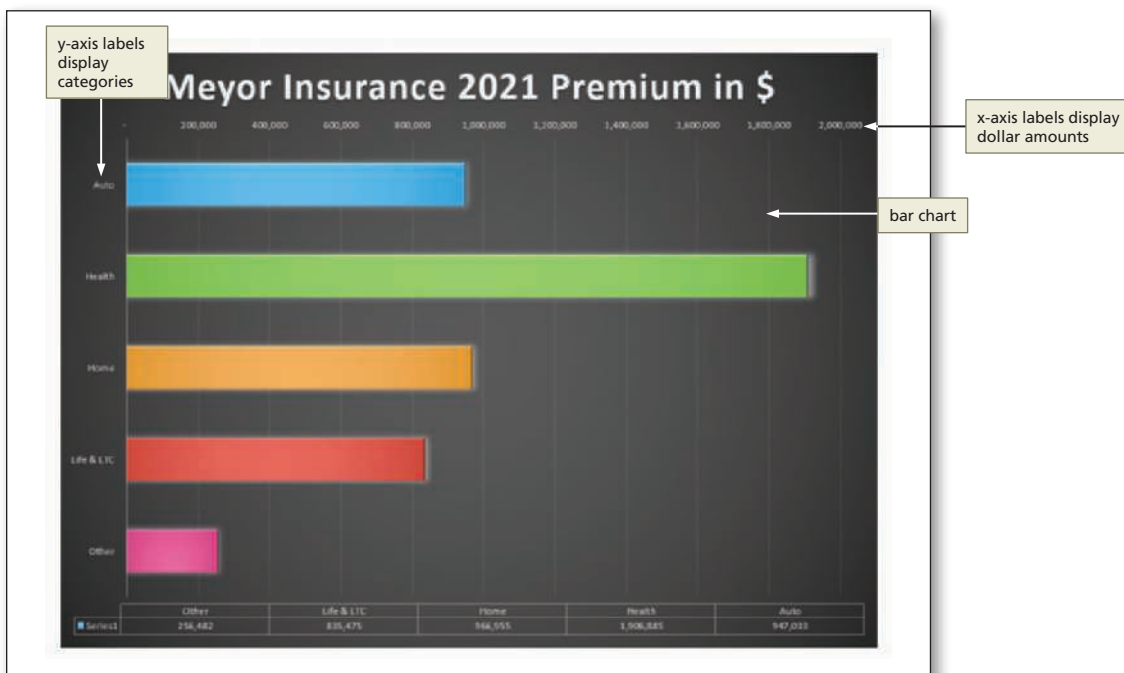


Figure 7–57

To Insert a Chart Using the Quick Analysis Gallery

The following steps insert a chart using the Quick Analysis gallery. **Why?** The Quick Analysis gallery is near the data and provides an easy way to access charts. The Quick Analysis gallery recommends charts that match the data.

1

- Select the range I4:J8 to select the data to include in the chart.
- Click the Quick Analysis button to display the Quick Analysis gallery.
- Click the Charts tab to display the buttons related to working with charts in the gallery (Figure 7-58).

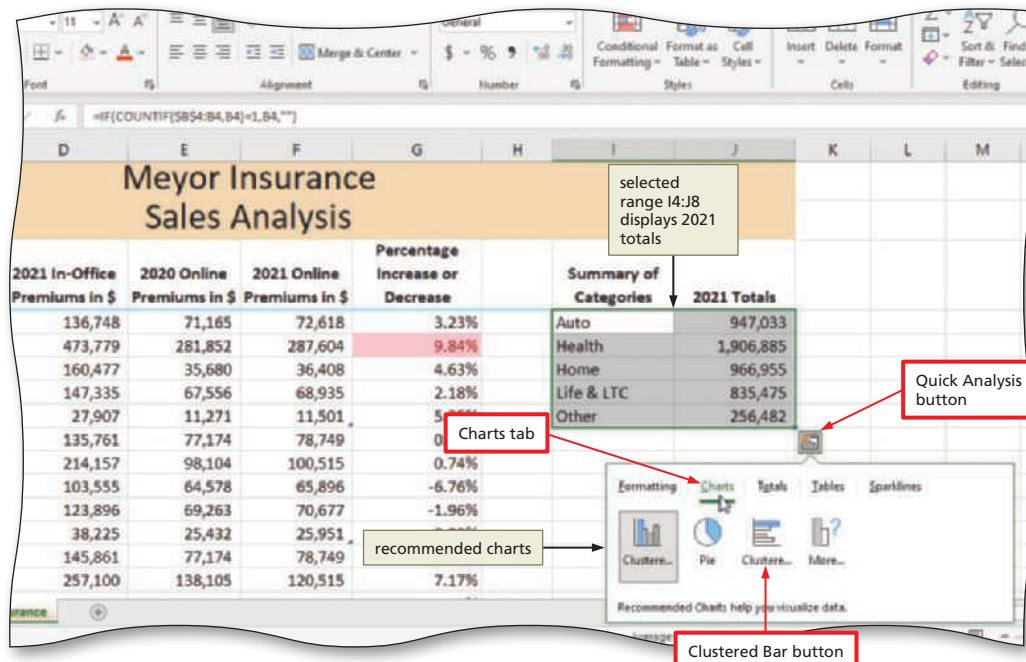


Figure 7-58

2

- Click the Clustered Bar button (Quick Analysis gallery) to insert the chart (Figure 7-59).

Q&A Why are only three charts displayed? Excel lists the charts that it recommends for your data. You can click the More Charts button (Quick Analysis gallery) to open the Insert Chart dialog box and choose another chart style.

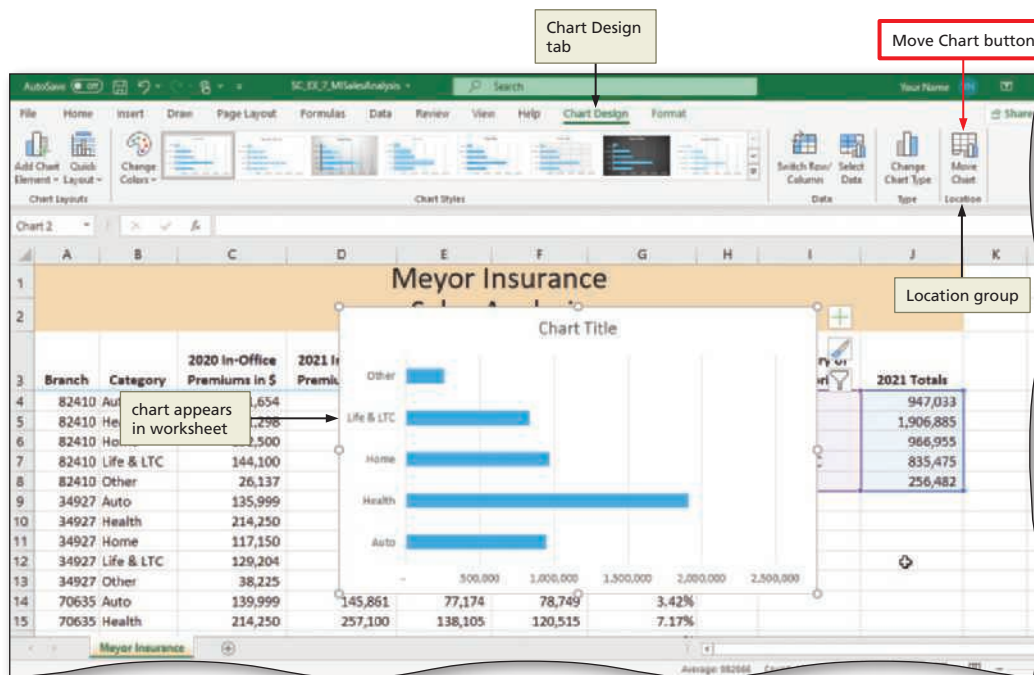


Figure 7-59

3

- Click the Move Chart button (Chart Design tab | Location group) to display the Move Chart dialog box.
- Click the New sheet option button and then type **Bar Chart** as the sheet name in the New sheet box (Figure 7-60).

4

- Click OK (Move Chart dialog box) to move the chart to the new sheet.
- Change the sheet tab color to Blue (Standard Colors area).

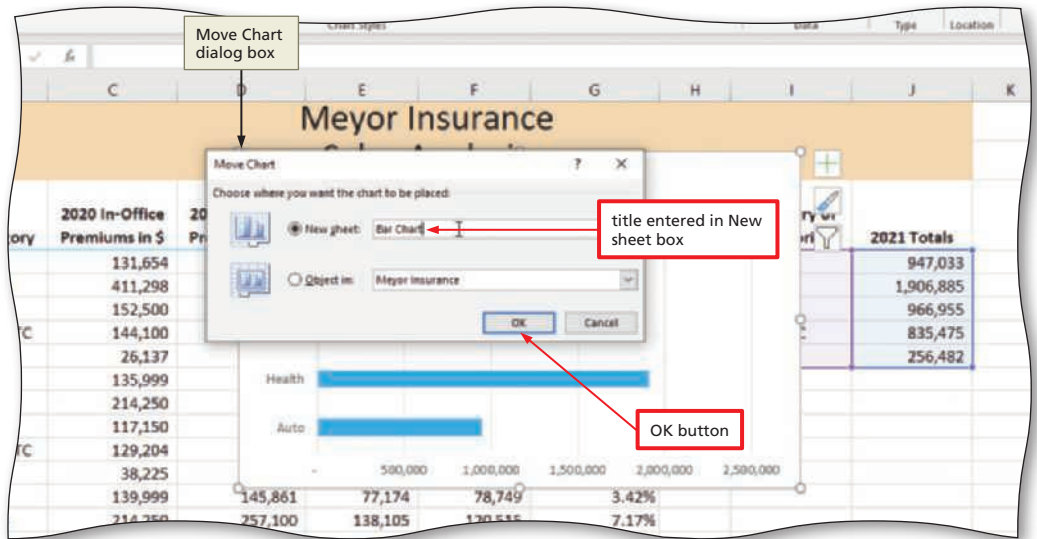


Figure 7-60

To Format the Chart

The Chart Design tab contains many buttons and tools to format a chart, including legends, styles, outlines, and the data bars. You can switch rows and columns using the Switch Row/Column button in the Data group, which changes the bars from horizontal to vertical or vice versa. You can also change the fill of any chart element (such as its background, a data series element, or a title) using the Shape Fill button in the Shape Styles group. The fill can be a color or a picture. The following steps change the style of the chart, as well as the color, bevel, and shadow of all the category bars, using the Format Data Series command on the shortcut menu. **Why? You always should customize the chart with formatting that applies to the data and the concept you are trying to portray.**

1

- If necessary, click the chart to select it. Click the Style 7 button (Chart Design tab | Chart Styles group) to change the style of the chart.
- Right-click any of the data bars on the chart to display the shortcut menu (Figure 7-61).

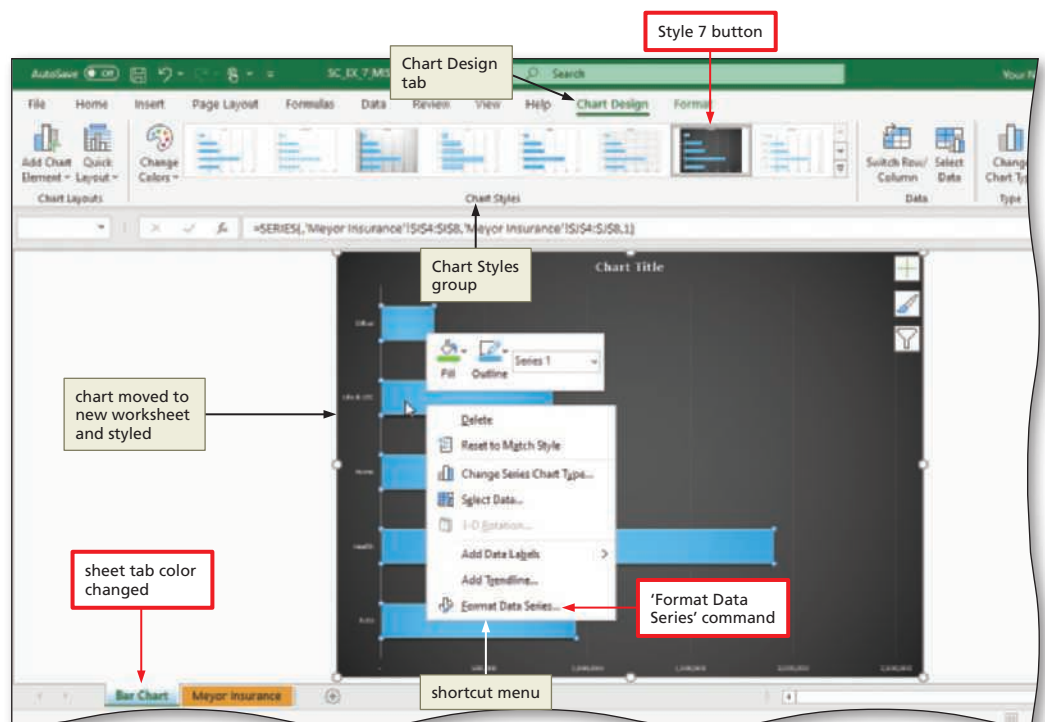


Figure 7-61

2

- Click 'Format Data Series' on the shortcut menu to display the Format Data Series pane.
- Click the 'Fill & Line' button (Format Data Series pane) to display the Fill & Line sheet.
- If necessary, display the Fill settings and then click the 'Vary colors by point' check box to display the bars in various colors (Figure 7-62).

Experiment

- Click the Series Options button (Format Data Series pane) to view the settings. Notice that you can set the Series Overlap (for clustered charts) and the Gap Width (the interval between bars).

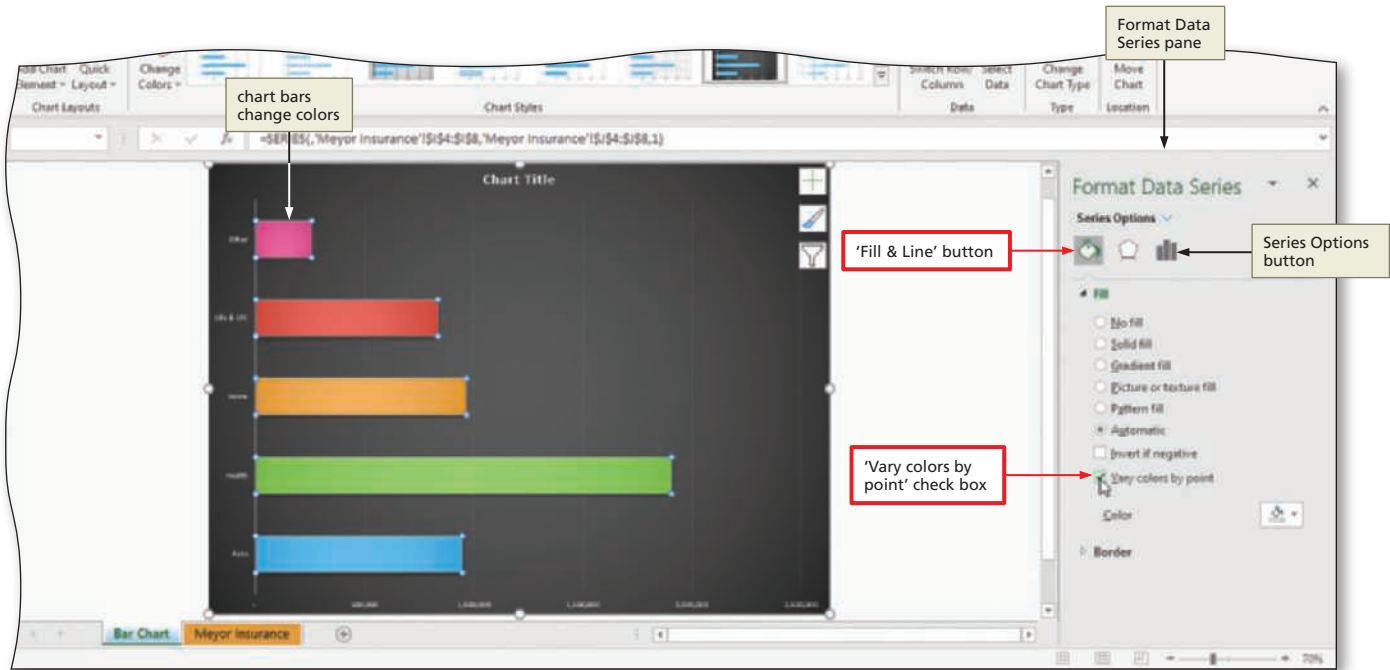


Figure 7-62

3

- Click the Effects button to display the Effects sheet. If necessary, display the 3-D Format settings (Figure 7-63).

Q&A What kinds of effects can I change on the Effects sheet?
 You can change the shadow, glow, edges, bevel, and 3-D format of the bars.

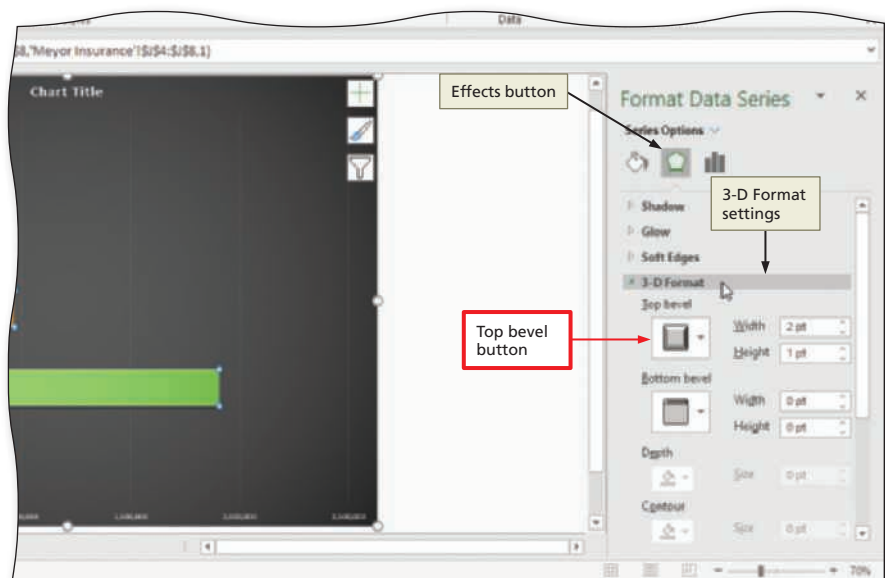


Figure 7-63

4

- Click the Top bevel button to display the Top bevel gallery (Figure 7-64).

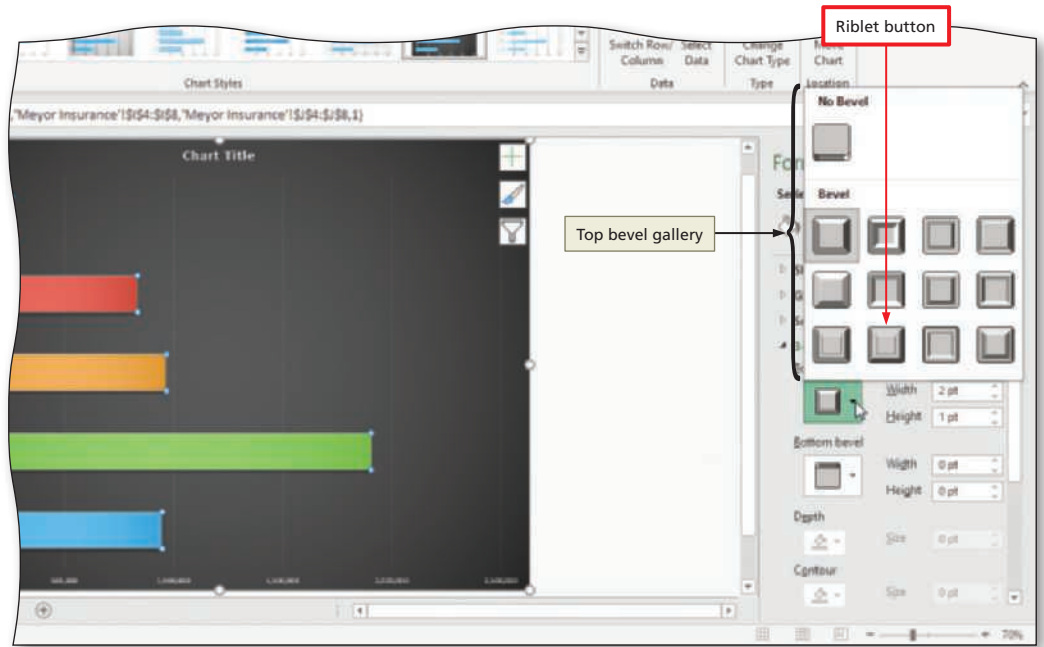


Figure 7-64

5

- Click the Riblet button (Top bevel gallery) to apply a Riblet bevel to the bars in the chart.
- Click Shadow in the Format Data Series pane, and then click the Presets button to display the Shadow gallery (Figure 7-65).
- In the Outer area, click the Offset: Center thumbnail to select a placement for the shadow.

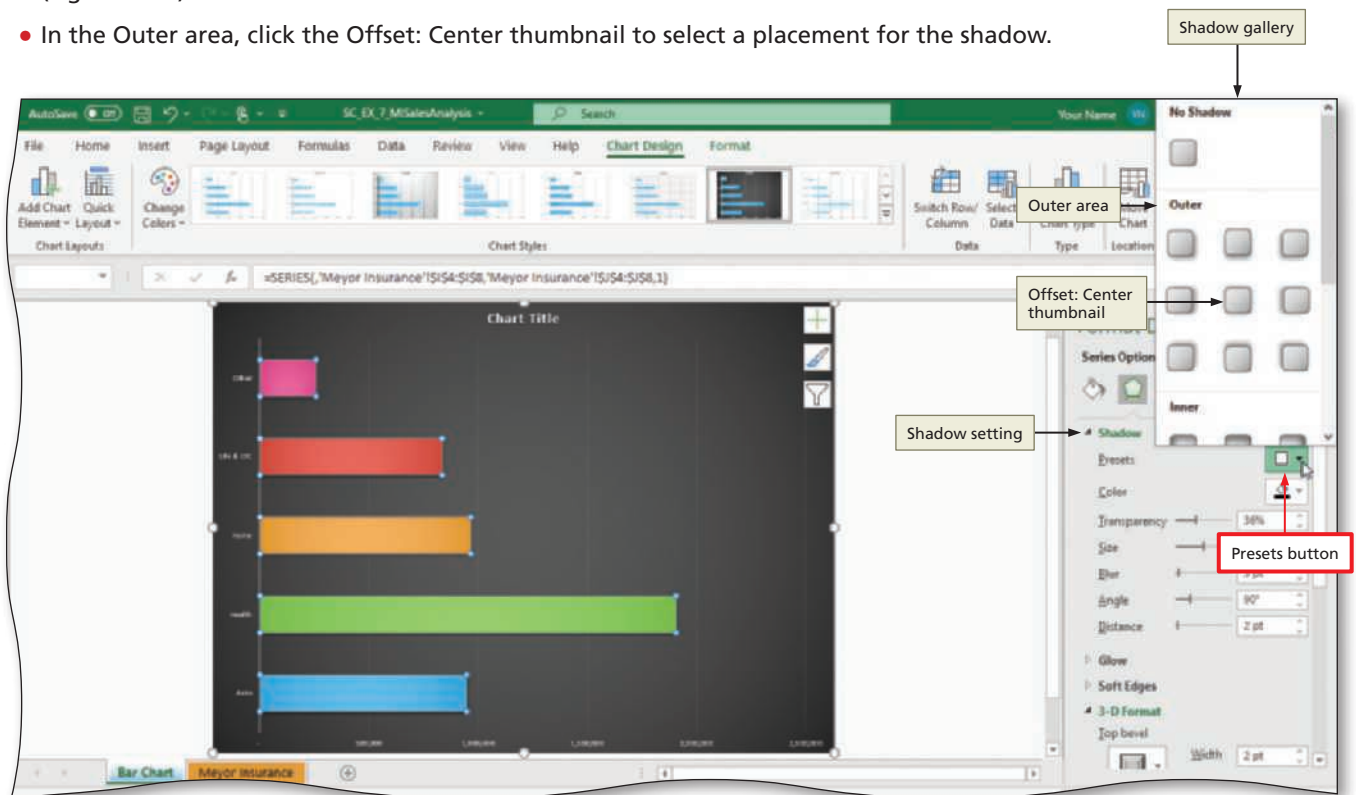


Figure 7-65

6

- Click the Color button to display the Color gallery (Figure 7-66).

7

- Click 'White, Background 1' to change the color of the shadow (shown in Figure 7-67).

Q&A Can I format other chart elements? Yes, select the chart element and then use the Format tab to apply shape styles or WordArt styles.

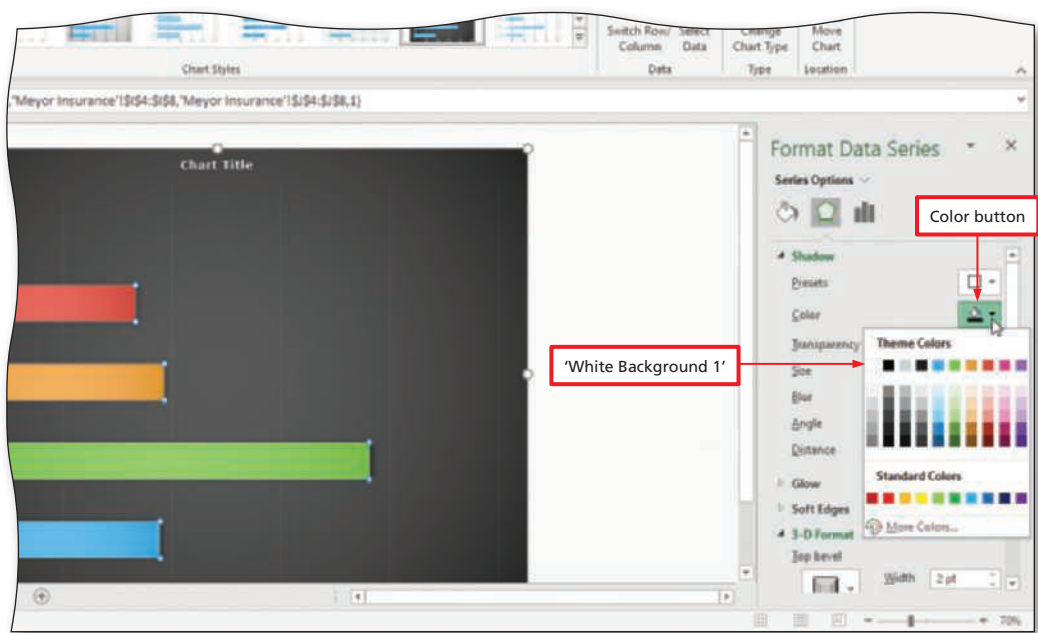


Figure 7-66

To Format Axis Options

The following steps format the y axis and x axis of the clustered bar chart. You also will change the order of the categories. **Why?** Changing the order will put the minor category of Other at the bottom of the chart. You also will lengthen the bars by changing the maximum value on the x axis.

1

- Right-click the y-axis or vertical category labels and then click Format Axis on the shortcut menu to display the Format Axis pane.
- If necessary, click the Axis Options button (Format Axis pane) to display the sheet.
- In the Axis position area, click the 'Categories in reverse order' check box (Figure 7-67).

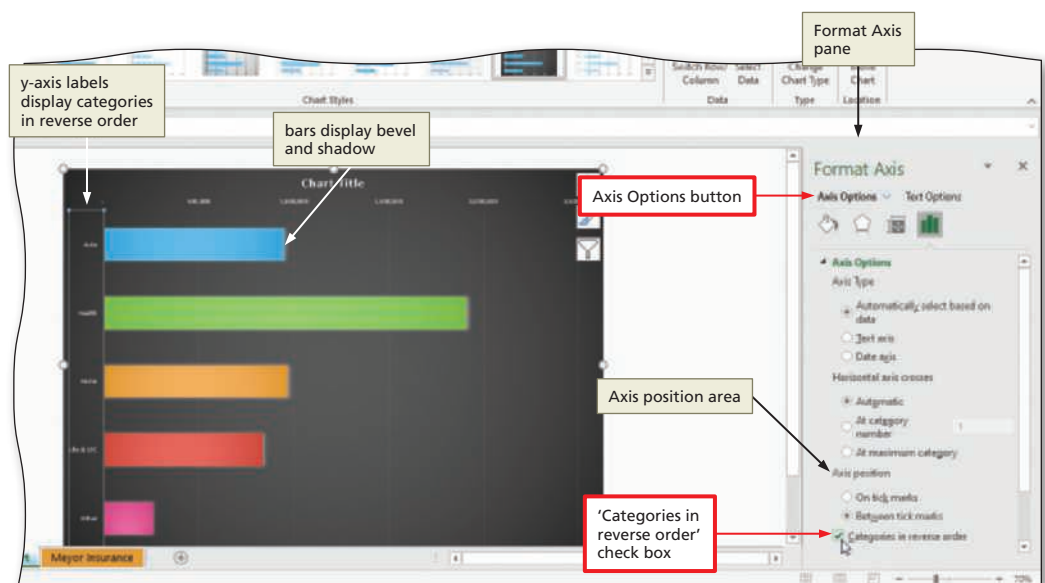


Figure 7-67

Q&A What other options can I set using the Format Axis pane?

You can change how tick marks, labels, and numbers display. On the Size & Properties tab, you can set the alignment, text direction, and margins of the axes. The Fill & Line tab and the Effects tab are similar to the Format Data Series pane that you used earlier.

2

- Right-click the x-axis or horizontal labels across the top of the chart and then click Format Axis on the shortcut menu to display the Format Axis pane.
- If necessary, click the Axis Options tab (Format Axis pane) to display the Bounds area.
- In the Maximum box, type $2.0E6$ and then press ENTER to indicate that two million will be the maximum value (Figure 7-68).

Q&A **What is the meaning of 2.0E6?**
 The entry 2.0E6 is the scientific notation for two million.

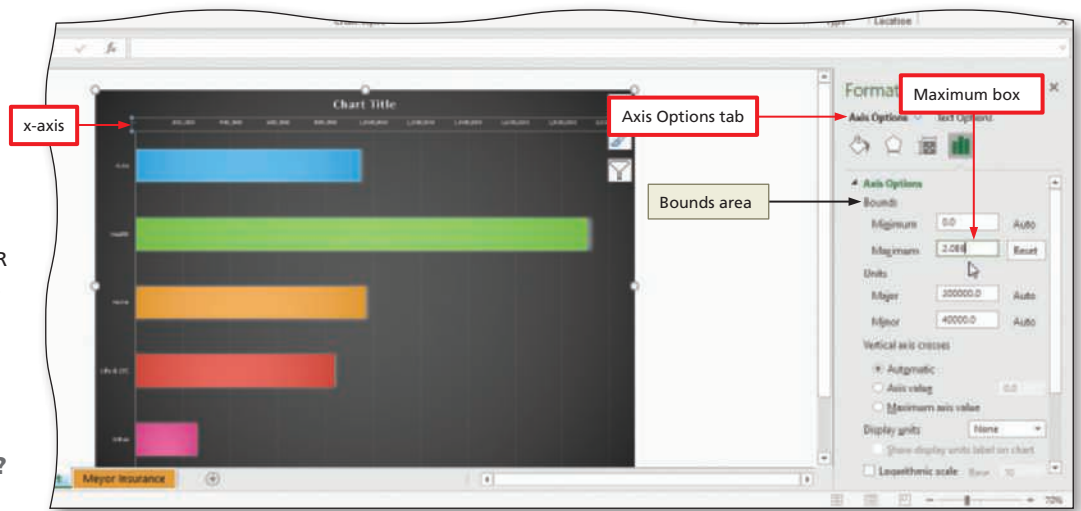


Figure 7-68

To Add Data Labels

The following steps add data labels to the bars. **Why?** Data labels will show viewers the exact value for each category, rather than having them estimate based on the x axis.

1

- Click the Chart Elements button, which displays as a plus sign when you point to the upper-right corner of the chart, to display the Chart Elements list.
- Click Data Labels, and then click the Data Labels arrow to display the Data Labels submenu (Figure 7-69).



Figure 7-69

2

- Click Outside End (Figure 7–70).

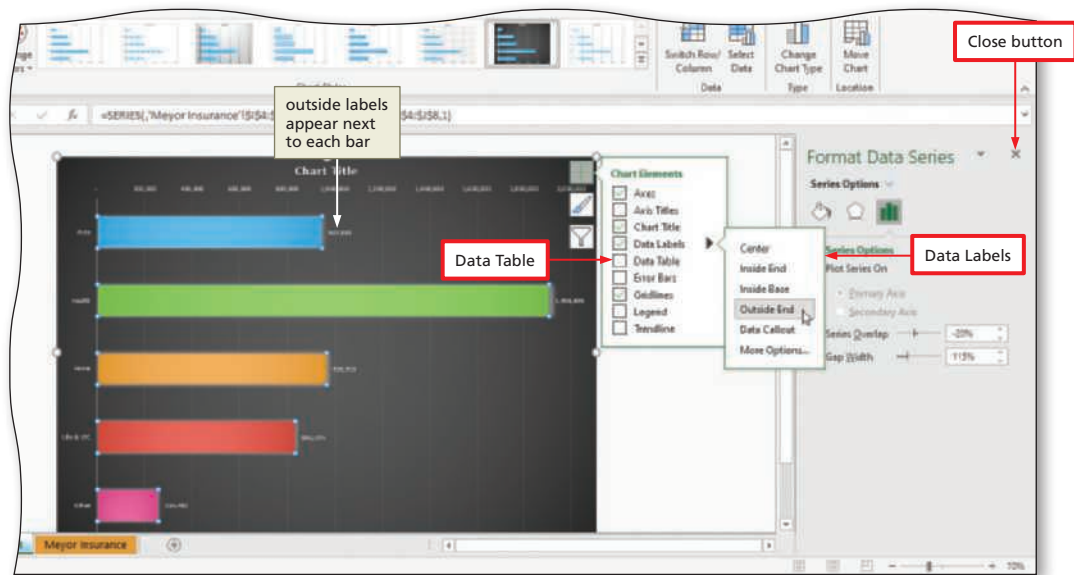


Figure 7–70

To Display a Data Table

In Excel, you can add a data table to a chart. A **data table** is a chart element that displays the data as a grid below the chart itself. Data tables are available for line charts, area charts, column charts, or bar charts. You can format a data table using fills, borders, legends, and other text effects. In the following step, you will turn off data labels and display a data table. **Why? Displaying the data both ways is probably unnecessary.**

1

- In the Chart Elements list, click Data Labels again to turn off the feature.
- Click Data Table to display the data table below the chart (Figure 7–71).

2

- Close the Format Axis pane.

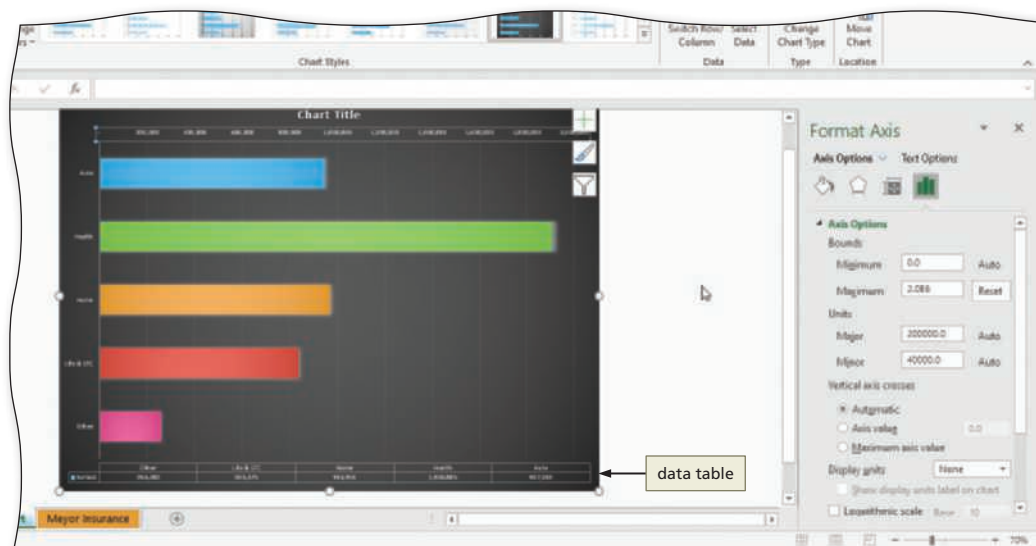


Figure 7–71

To Format the Chart Title

The following steps format the chart title by changing the font size, editing the text, and applying a chart text outline.

- 1 Click the chart title and select all of the text.
- 2 Display the Home tab and change the font size to 32.
- 3 Type **Meyor Insurance 2021 Premiums in \$** to change the title (Figure 7–72).
- 4 Click the Save button (Quick Access Toolbar).

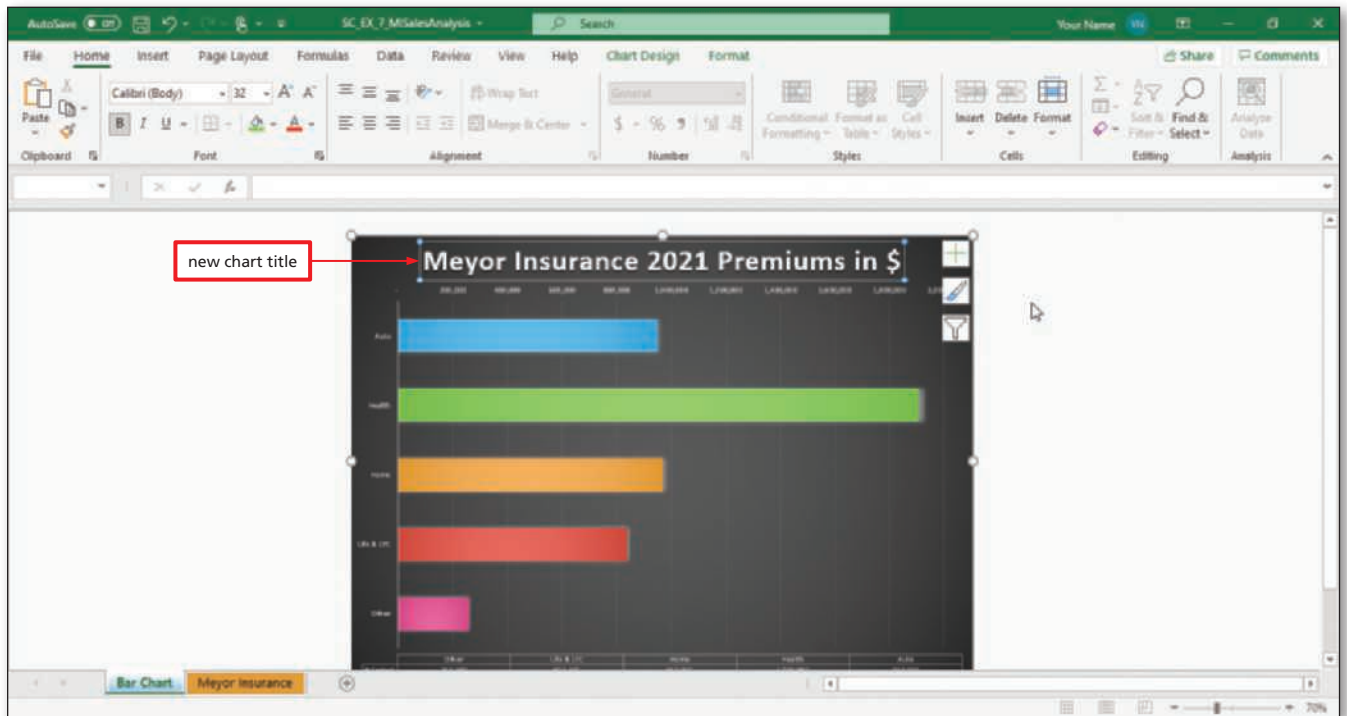


Figure 7–72

To CHANGE THE CHART TEXT OUTLINE

If you wanted to outline the text in the chart, you would perform the following steps.

1. Select the text on the chart.
2. Right-click the text and then, depending on the location of the text, click either Format Axis, Format Legend, or Format Chart on the shortcut menu.
3. When Excel displays the appropriate Format pane, click the Text Options tab.
4. In the Text Outline area, click the Solid Line option button, and set the desired color, width, and other formatting.

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel now. To resume later, start Excel, open the file called SC_EX_7_MISalesAnalysis, and continue following the steps from this location forward.

Working with SmartArt Graphics

A **SmartArt graphic** is a customizable diagram that you use to pictorially present lists, processes, and relationships. For example, you can use a SmartArt graphic to illustrate the manufacturing process to produce an item. Excel includes nine types of SmartArt graphics: List, Process, Cycle, Hierarchy, Relationship, Matrix, Pyramid, Picture, and

Office.com. Each type of graphic includes several layouts, or templates, from which to choose. After selecting a SmartArt graphic type and layout, you customize the graphic to meet your needs and present your information and ideas in a compelling manner.

In the following sections, you will create a SmartArt graphic with shapes, pictures, and text. You then will add a style to the SmartArt graphic.

Consider This



How do you choose the type of SmartArt graphics to add?

Consider what you want to illustrate in the SmartArt graphic. For example, if you are showing nonsequential or grouped blocks of information, select a SmartArt graphic in the List category. To show progression or sequential steps in a process or task, select a Process diagram. After inserting a SmartArt graphic, increase its visual appeal by formatting the graphic, for example, with 3-D effects and coordinated colors.

To Create a New Sheet

In preparation for inserting a SmartArt graphic, the following steps create a new sheet and hide gridlines.

- 1 Click the New sheet button to create a third sheet in the workbook.
- 2 Rename the worksheet **SmartArt Graphic** to provide a descriptive name for the worksheet.
- 3 Change the color of the tab to 'White, Background 1' to distinguish it from other sheets.
- 4 Click View on the ribbon to display the View tab.
- 5 Click the Gridlines check box (View tab | Show group) to turn off gridlines.
- 6 Select cell A1 (Figure 7–73).

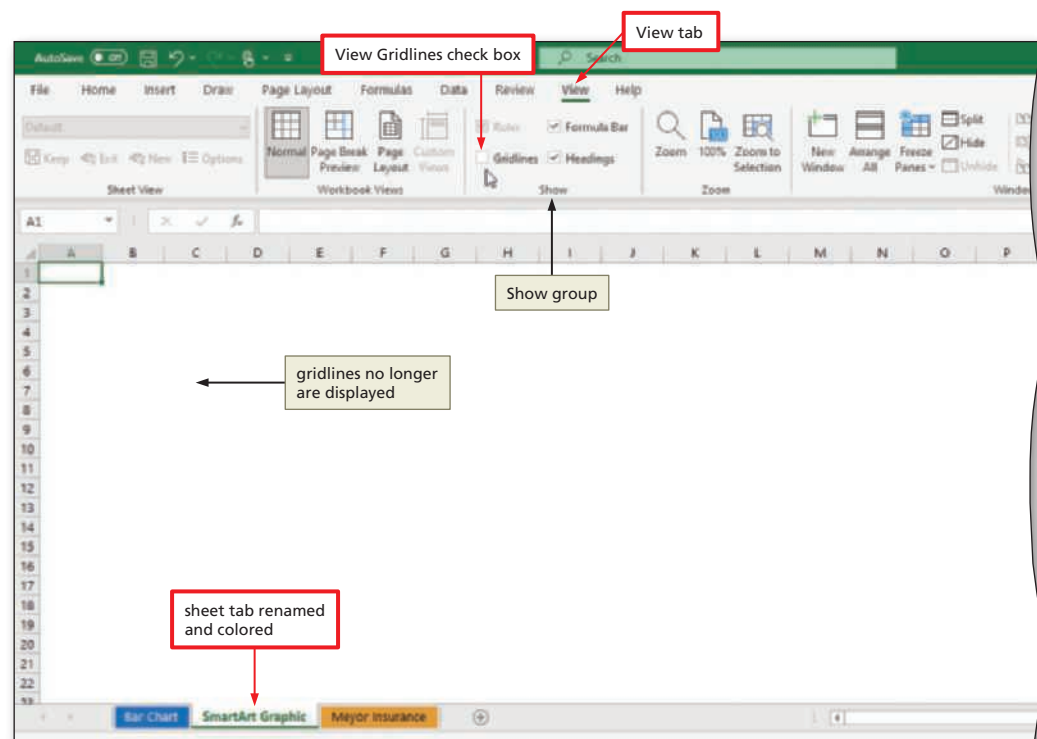


Figure 7–73

To Insert a SmartArt Graphic

To illustrate the categories of policies sold by MI, you decide to use a SmartArt graphic. **Why?** A SmartArt graphic with pictures can be used in marketing and promotional material for the company. The following steps insert a SmartArt graphic named Accented Picture.

1

- Display the Insert tab.
- Click the Illustrations button (Insert tab | Illustrations group), and then click the SmartArt button to display the Choose a SmartArt Graphic dialog box.

- Click the desired type of SmartArt in the left pane; in this case, click Picture to display the available SmartArt layouts in the middle pane (Choose a SmartArt Graphic dialog box).

- Click the desired layout, in this case, the Accented Picture layout, to see a preview of the chart in the preview area (Figure 7-74).

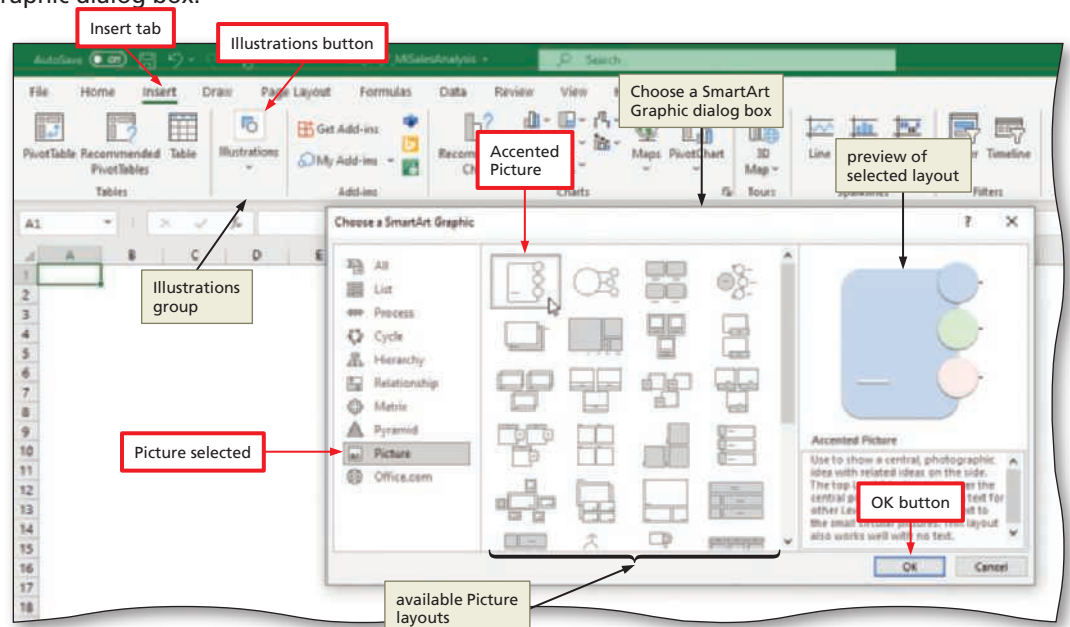


Figure 7-74

Q&A

What do the middle and right panes of the dialog box display?

The middle pane of the dialog box (the layout gallery) displays available types of picture charts, and the right pane (the preview area) displays a preview of the selected SmartArt graphic.

Experiment

- Click the various SmartArt graphics to see a preview of each in the preview area. When you are finished, click Accented Picture in the middle pane.

2

- Click OK (Choose a SmartArt Graphic dialog box) to insert an Accented Picture SmartArt graphic in the worksheet (Figure 7-75).

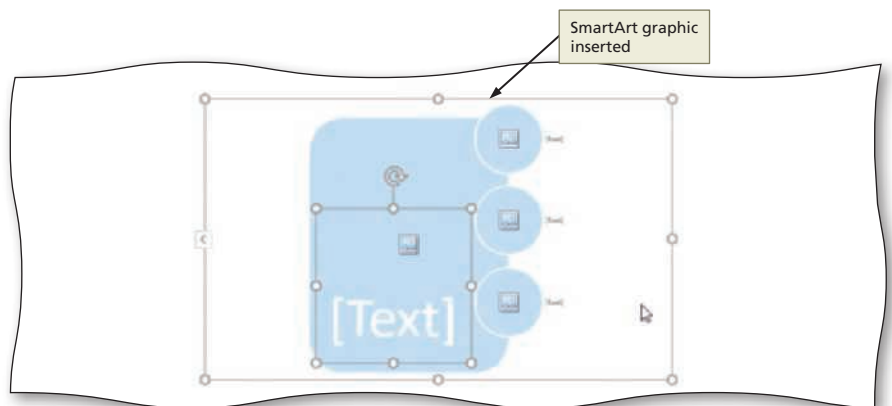


Figure 7-75

To Color and Resize the SmartArt Graphic

The following steps change the color of the SmartArt graphic and then resize it. **Why?** You want the graphic to appear visually pleasing and as large as possible in the given space.

1

- Click the Change Colors button (SmartArt Design tab | SmartArt Styles group) to display the Change Colors gallery (Figure 7-76).

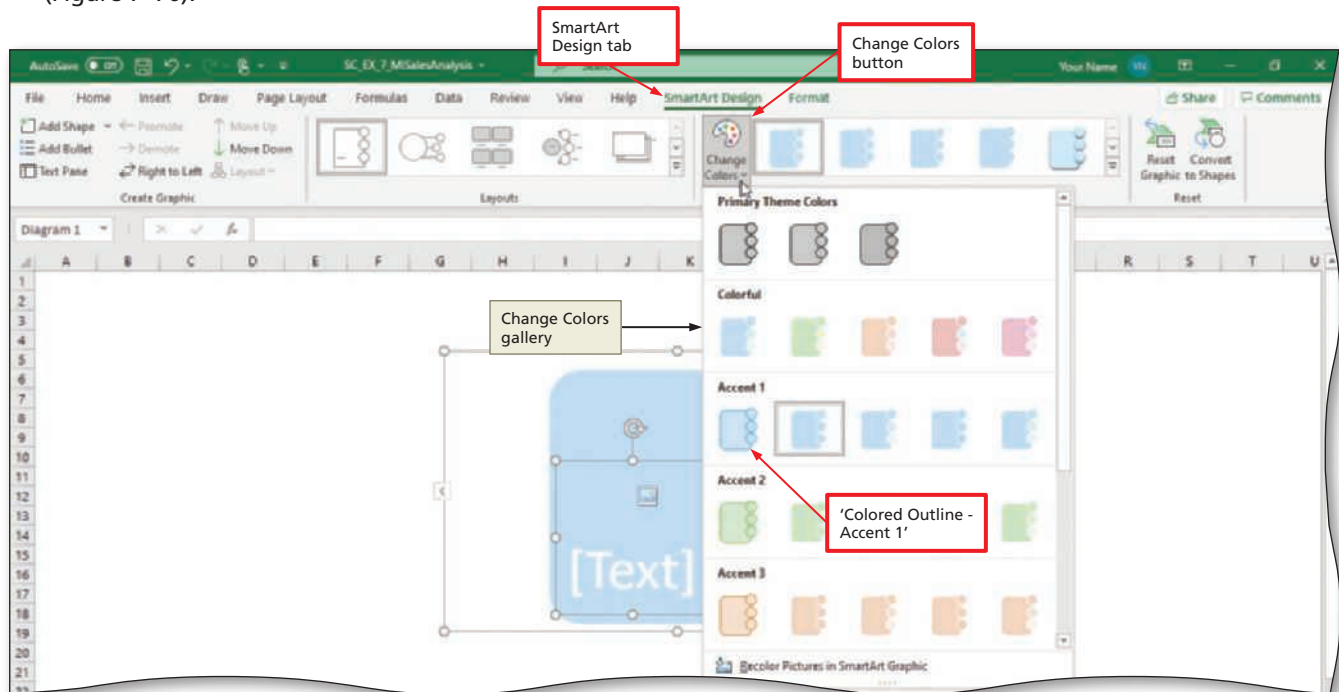


Figure 7-76

2

- Click 'Colored Outline - Accent 1' in the gallery to change the color.
- Drag the sizing handles to resize the SmartArt graphic to fill the range F1:Q23 (Figure 7-77).

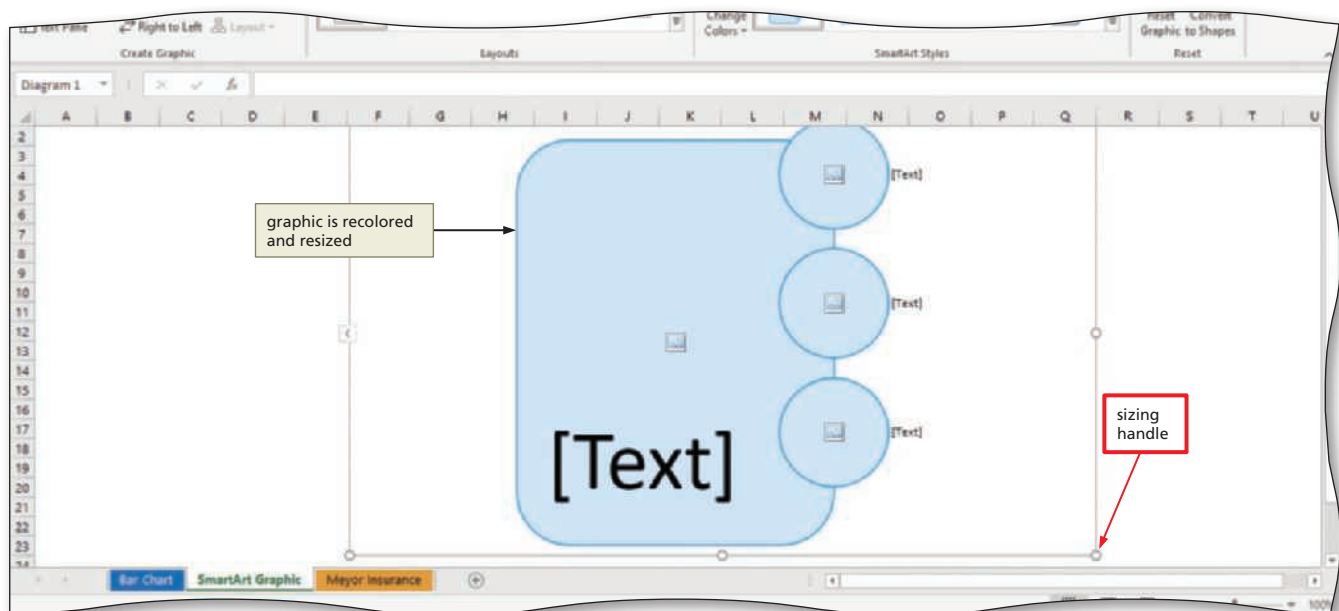


Figure 7-77

 **Experiment**

- Click the Format tab and look at the various groups, buttons, and galleries available to format SmartArt graphics.

To Add a Shape to a SmartArt Graphic

Many SmartArt graphics include more than one shape, such as a picture, text box, or combinations, grouped in levels. Level 1 is considered the largest object or main level. Level 2 is a sublevel and may display one to three shapes when first created. You can add a shape or text box to each level. You also can **demote** or **promote** a shape, which means you can move the shape to a lower level or an upper level, respectively.

The default Accented Picture SmartArt graphic layout includes a large shape for level 1 and three smaller shapes at level 2. The following step adds a new shape to level 2 in the SmartArt graphic. **Why?** You decide to show four categories in the SmartArt graphic.

- 1**
- Click the Add Shape button (SmartArt Design tab | Create Graphic group) to add another level 2 shape (Figure 7–78).

Q&A **Can I add a style to the shape?**
 Yes. To do so, select the shape, and then click the More button (Format tab | Shape Styles group). Excel displays a gallery with many Theme Styles and Presets.

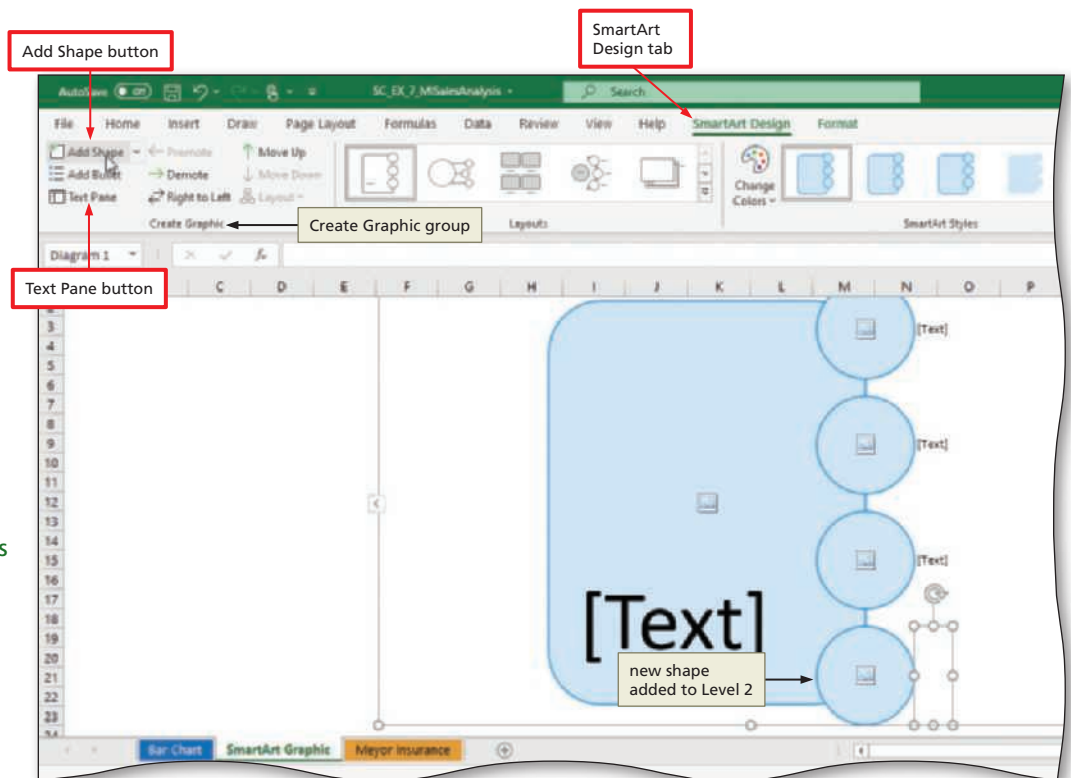


Figure 7–78

Other Ways

1. Right-click SmartArt graphic, point to Add Shape on shortcut menu, click 'Add Shape After' or 'Add Shape Before' on Add Shape submenu

To Add Text to a SmartArt Graphic

The following steps add text to the SmartArt graphic. You can type text directly in the text boxes of the SmartArt graphic, or you can display a Text Pane and add text to the shape through the Text Pane. The Text Pane displays a bulleted outline corresponding to each of the shapes in the SmartArt graphic. **Why?** You may find it easier to enter text in the Text Pane because you do not have to select any object to replace the default text.

1

- If the Text Pane does not appear, click the Text Pane button (SmartArt Design tab | Create Graphic group) to display the Text Pane.
- Click the first bulleted item in the Text Pane and then type **Meyor Insurance** to replace the default text (Figure 7-79).

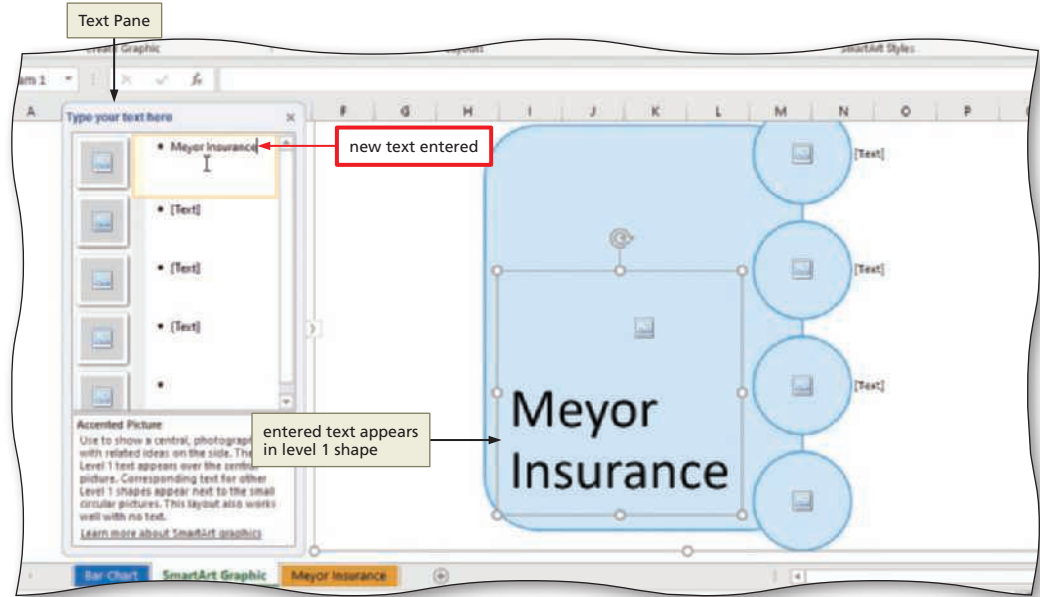


Figure 7-79

2

- Enter text in the other Text Pane boxes as shown in Figure 7-80.

Q&A

Did Excel resize my font?

Yes. Excel resizes all of the level 2 fonts to autofit the text in the graphic. Thus, it is important to resize the graphic before adding text.

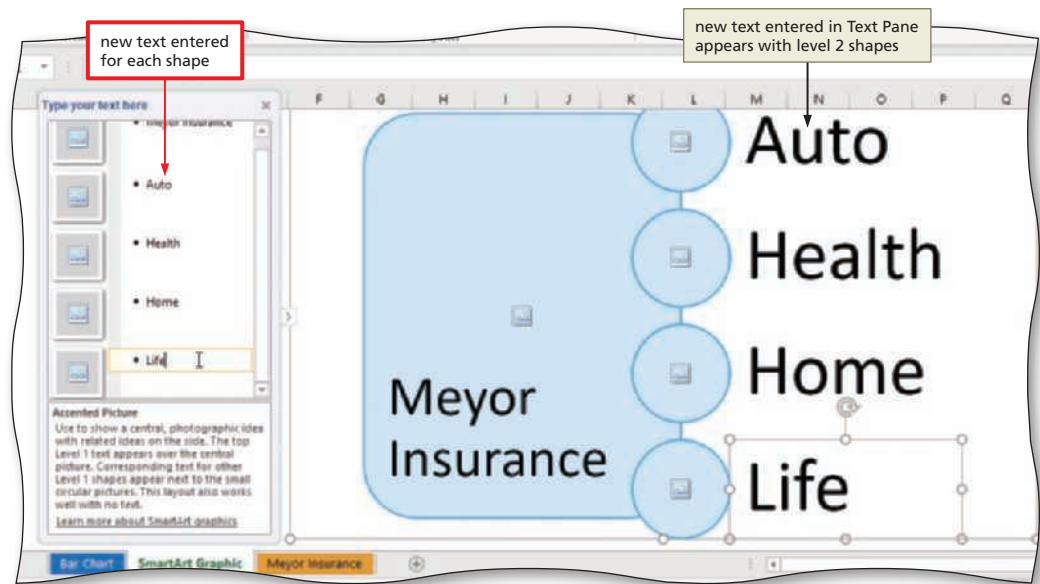


Figure 7-80

Other Ways

1. Click left arrow on edge of SmartArt graphic border to open Text Pane, type text
2. Click individual text box in SmartArt graphic, type text

To Add a Style to a SmartArt Graphic

Excel allows you to change the style of your SmartArt graphic. **Why?** The SmartArt styles create different special effects for added emphasis or flair. The following steps change the style of the SmartArt graphic.

1

- If necessary, display the SmartArt Design tab.
- Click the More button (SmartArt Design tab | SmartArt Styles group) to display the SmartArt Styles gallery (Figure 7–81).

Experiment

- Point to each of the SmartArt styles in the gallery to see a live preview of the effect on the worksheet.

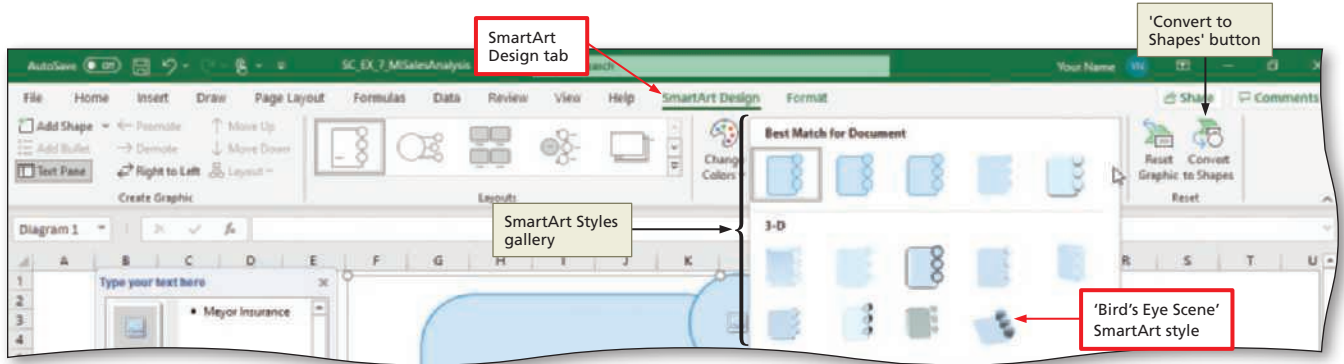


Figure 7–81

2

- Click the 'Bird's Eye Scene' style to apply it to the SmartArt graphic (Figure 7–82).

Q&A

What does the 'Convert to Shapes' button do?

Clicking the 'Convert to Shapes' button (SmartArt Design tab | Reset group) converts the SmartArt graphic to individual shapes that can be resized, moved, or deleted independently of the others.

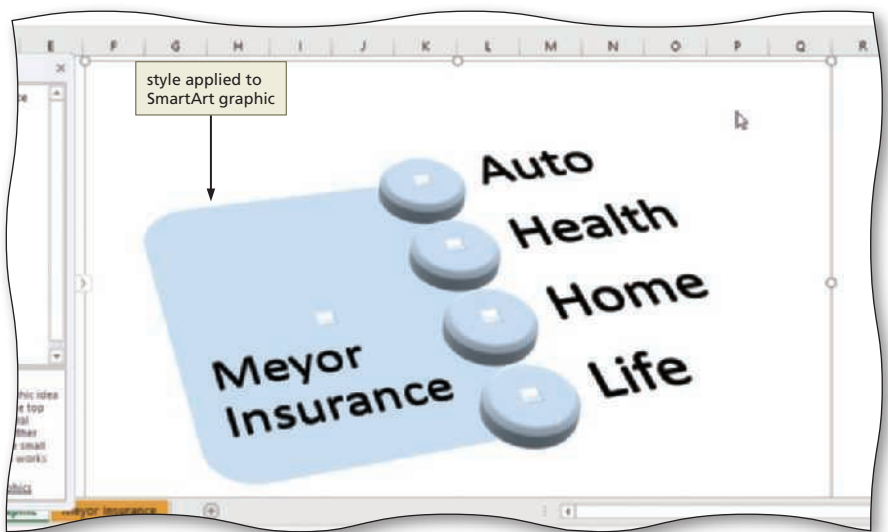


Figure 7–82

Pictures and Icons

The next step is to add pictures and icons to the SmartArt Graphic. Excel offers three different choices when inserting a picture. The 'From a File' command allows you to choose a digital picture of almost any file type that is stored on an accessible storage device. If you choose Online Pictures, Excel opens a Bing search with various categories (Figure 7–83). You can search one of the categories or enter a keyword. The third command, From Icons, lets you choose an icon from an online collection. An **icon** is usually a graphic representation of a picture, idea, or process. Excel includes a large number of icons, which can be formatted once they are added to the worksheet.

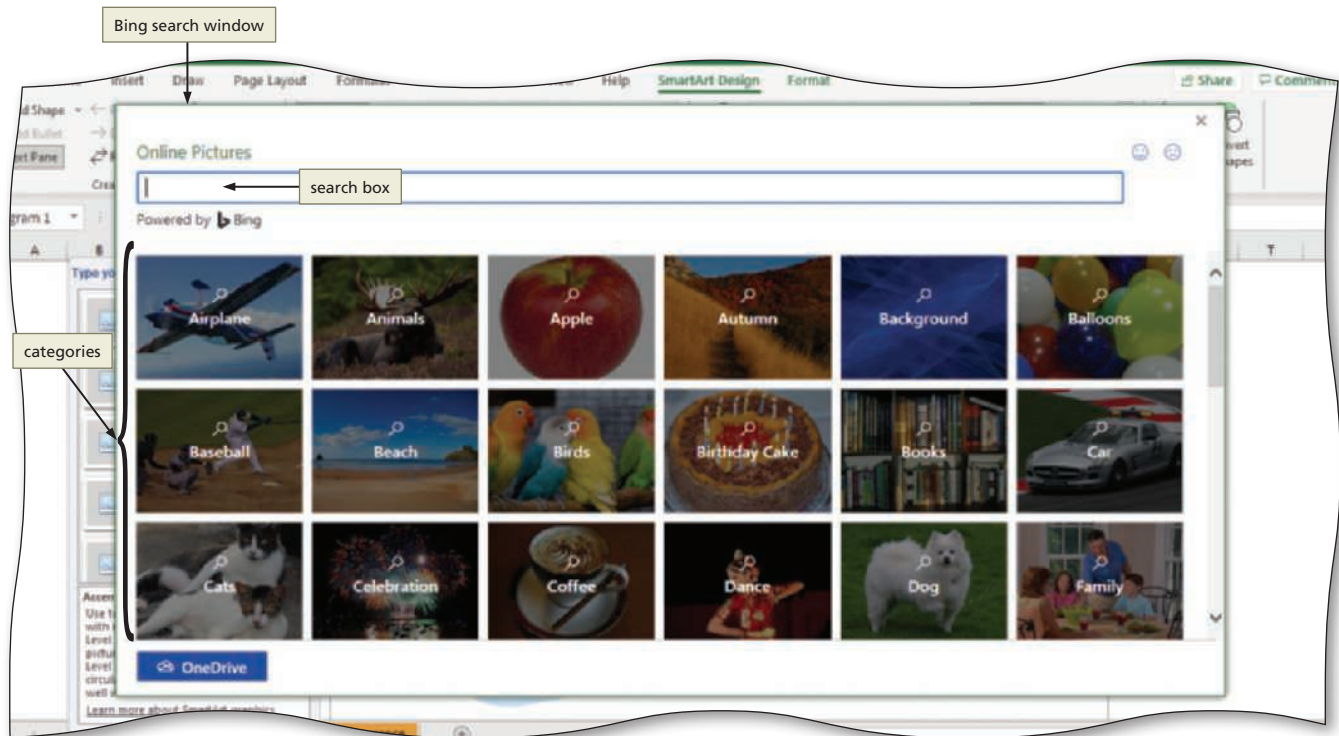


Figure 7-83

Consider This**How do I locate a picture to use in a worksheet?**

To use a picture in a Excel worksheet, the image must be stored digitally in a file. Files containing pictures are available from a variety of sources:

- The web has pictures available, some of which are free, while others require a fee.
- You can take a picture with a digital camera or smartphone and **download** it, which is the process of copying the picture (or other file) from the camera or phone to your computer.
- With a scanner, you can convert a printed picture, drawing, diagram, or other object to a digital file.

If you receive a picture from a source other than yourself, do not use the file until you are certain it does not contain a virus. A **virus** is a computer program designed to copy itself into other programs with the intention of causing mischief, harm, or damage to files, programs, and apps on your computer, usually without your knowledge or permission. Use an **antivirus program** or app to locate and destroy viruses or other malware before they infect a device.

In the following sections, you will insert a picture from a file for the Level 1 part of the SmartArt graphic. The Level 2 graphics will be icons.

To Add a Picture to a SmartArt Graphic

The following steps add a picture to the SmartArt graphic. **Why?** The CEO wants to highlight the concept of protection by using an umbrella graphic. Other times, you may want to locate stock images categorized by image type, or images or clip art from the web, also called online pictures. Excel uses a Bing Image Search to help you locate images licensed under Creative Commons. **Creative Commons** is a nonprofit organization that makes it easy for content creators to license and share their work by supplying easy-to-understand copyright licenses; the creator chooses the conditions under which the work can be used. The

resulting images may or may not be royalty and copyright free. You must read the specific license for any image you plan to use, even for educational purposes. In this module, you will add pictures from the Data Files. Please contact your instructor for information about accessing the Data Files.

1

- In the Text Pane, click the first Insert Picture icon (next to Meyer Insurance) to display the Insert Pictures dialog box (Figure 7–84).

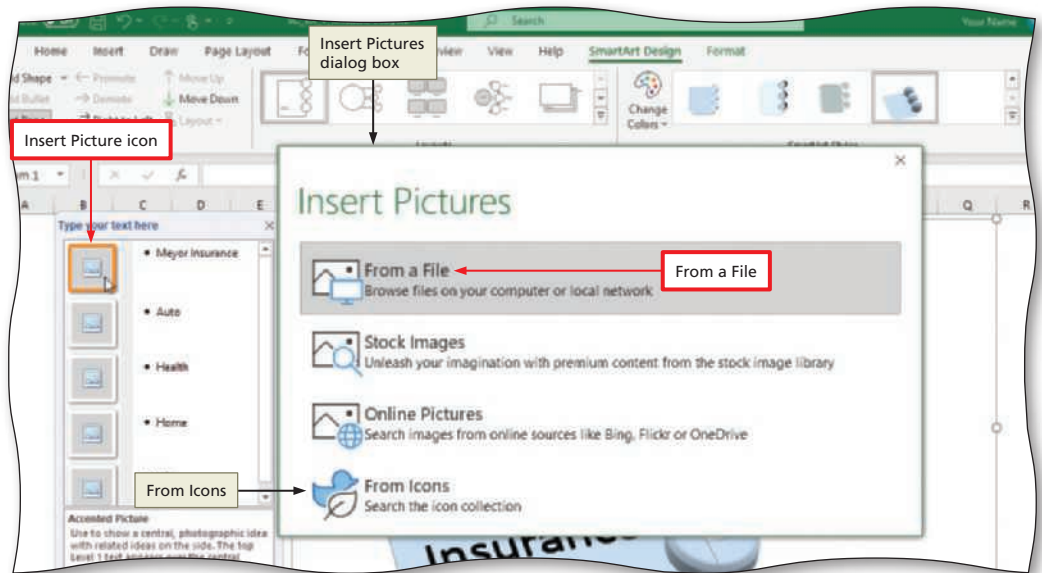


Figure 7–84

2

- Click the From a File button to display the Insert Picture dialog box and then browse to the Data Files (Figure 7–85).

Q&A

Why do the files in my dialog box appear differently?
 Your system may display a different view. If you want to match the display in Figure 7–85, click the 'Change your view' arrow, and then click Large icons.



Figure 7–85

3

- Double-click the file named Support_EX_7_InsuranceLogo.gif Insurance Logo to place it in the SmartArt graphic (Figure 7-86).

Q&A Do I need to use a special type of picture file or format?
Excel accepts a wide variety of formats including .png, .gif, .bmp, .jpg, and .tif, among others. Excel will resize the graphic as necessary to fit the space in the SmartArt graphic.

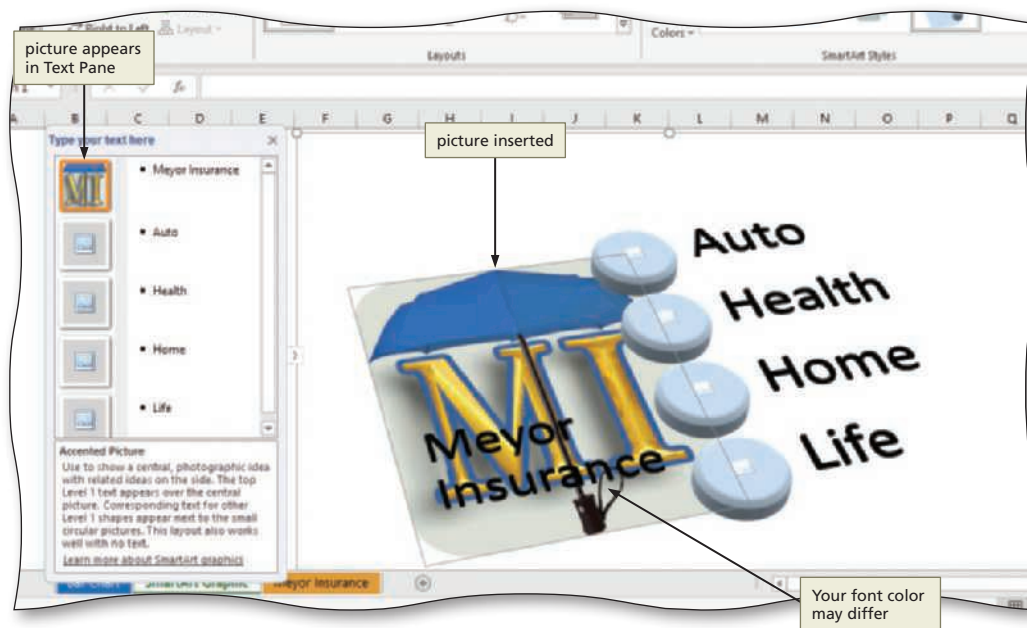


Figure 7-86

Other Ways

1. Click Insert Picture icon in SmartArt graphic, select location (Insert Pictures dialog box), double-click picture

To Apply Picture Effects

The following steps apply a picture effect and change the brightness of the picture. **Why?** You want to make the SmartArt graphic as attractive as possible. You also will sharpen the picture. **Sharpening** increases the contrast at color changes to emulate a more defined edge.

1

- With the picture still selected, click Picture Format on the ribbon to display the tab.
- Click the Picture Effects button (Picture Format tab | Picture Styles group), and then point to Glow on the Picture Effects menu to display the Glow gallery (Figure 7-87).

Experiment

- Point to each item on the Picture Effects menu to view the galleries. When you are finished, point to Glow again.

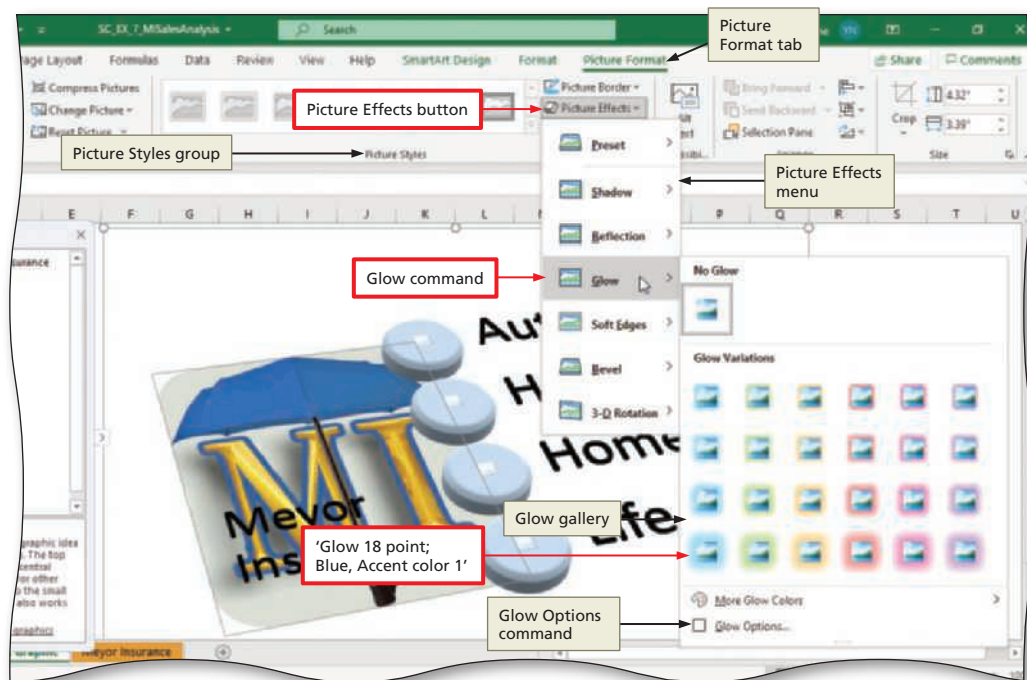


Figure 7-87

Q&A What does the Glow Options command do?

Each of the Picture Effects menu's Options commands opens the Format Picture pane. The Glow Options include controls to manipulate the color, size, and transparency.

2

- In the Glow Variations area (Glow gallery), click 'Glow 18 point; Blue, Accent color 1' to select a blue glow that complements the umbrella in the picture.
- Click the Corrections button (Picture Format tab | Adjust group) to display the Corrections gallery (Figure 7-88).

Experiment

- Point to each preview in the Corrections gallery to preview its effect on the picture.

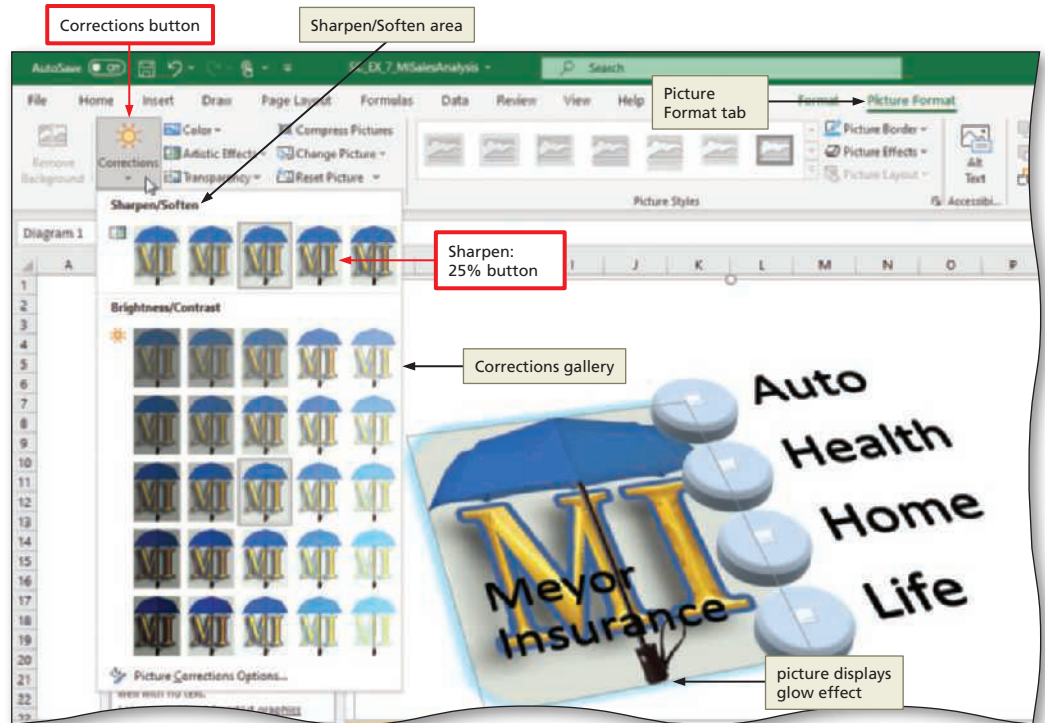


Figure 7-88

3

- In the Sharpen/Soften area, click the Sharpen: 25% button to sharpen the picture.
- Click the Corrections button (Picture Format tab | Adjust group) again to display the Corrections gallery (Figure 7-89).

Q&A What does the Compress Pictures command do?

The Compress Pictures command reduces the size of the pictures by deleting any cropped areas and flattening any grouped objects.

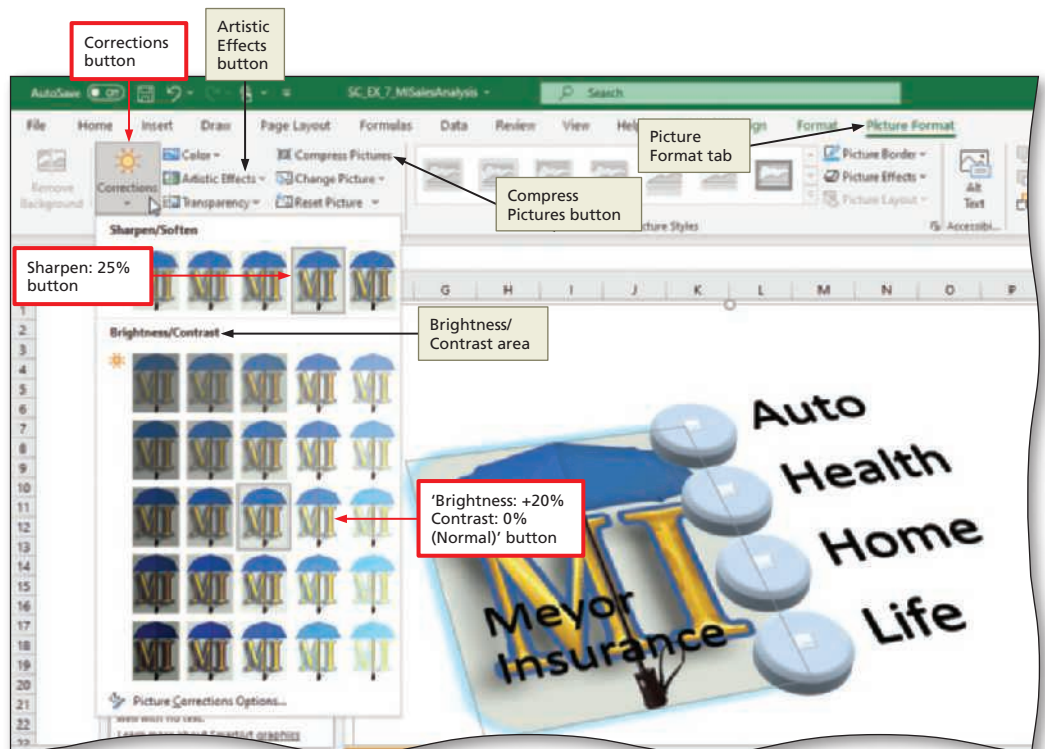


Figure 7-89

4

- In the Brightness/Contrast area, click the 'Brightness: +20% Contrast: 0% (Normal)' button to increase the brightness in the picture (Figure 7-90).

Experiment

- Click the Artistic Effects button (Picture Format tab | Adjust group) to view the available effects for the picture.

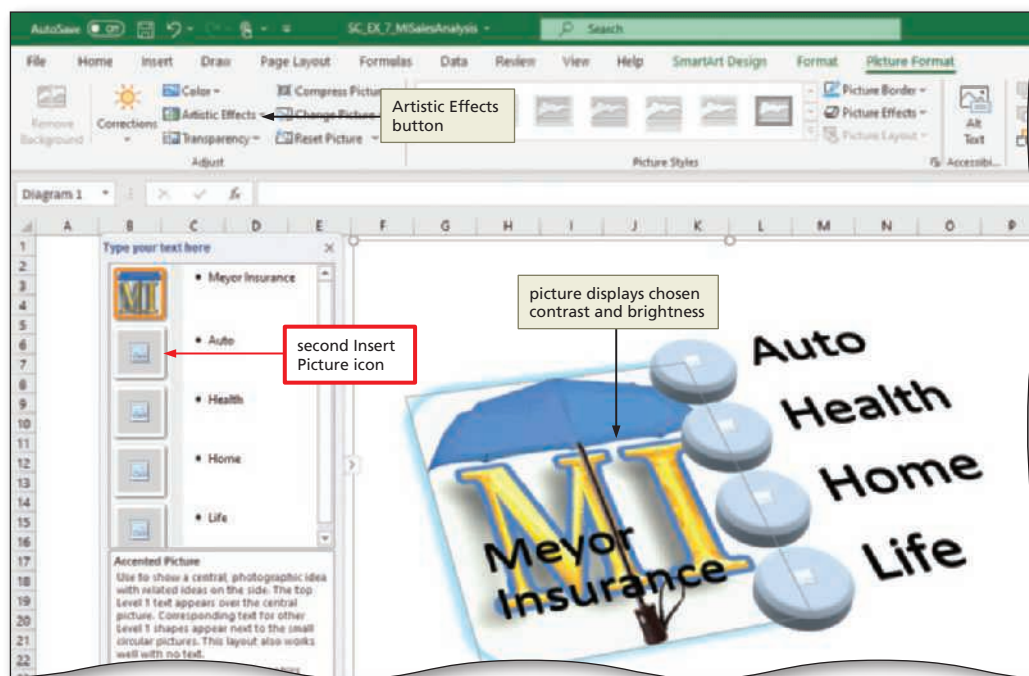


Figure 7-90

To Insert Icons

Excel includes a library of icons you can use in your worksheets. The following steps insert icons for the four Level 2 graphics. **Why?** Icons will represent the kinds of policies sold by the insurance company.

1

- In the Text Pane, click the second Insert Picture icon (next to Auto) to display the Insert Pictures dialog box.
- Click From Icons (shown in Figure 7-84) to display the Insert Icons dialog box.
- At the top of the dialog box, click the Vehicles category, and then click the automobile icon shown in Figure 7-91. The categories displaying on your screen may differ.

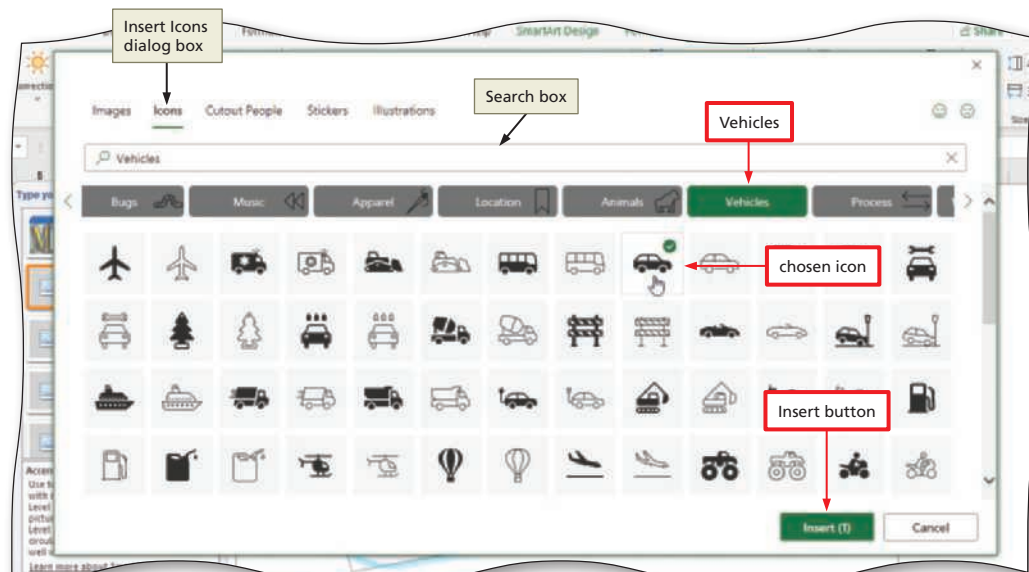


Figure 7-91

Experiment

- Scroll through the Insert Icons dialog box to see the categories and varieties of icons.

2

- Click Insert (1) (Insert Icons dialog box) to insert the icon.
- Click the Graphics Format tab on the ribbon to display the tab.
- Click the Graphics Fill button (Graphics Format tab | Graphics Styles group) to display the Graphics Fill gallery (Figure 7–92).

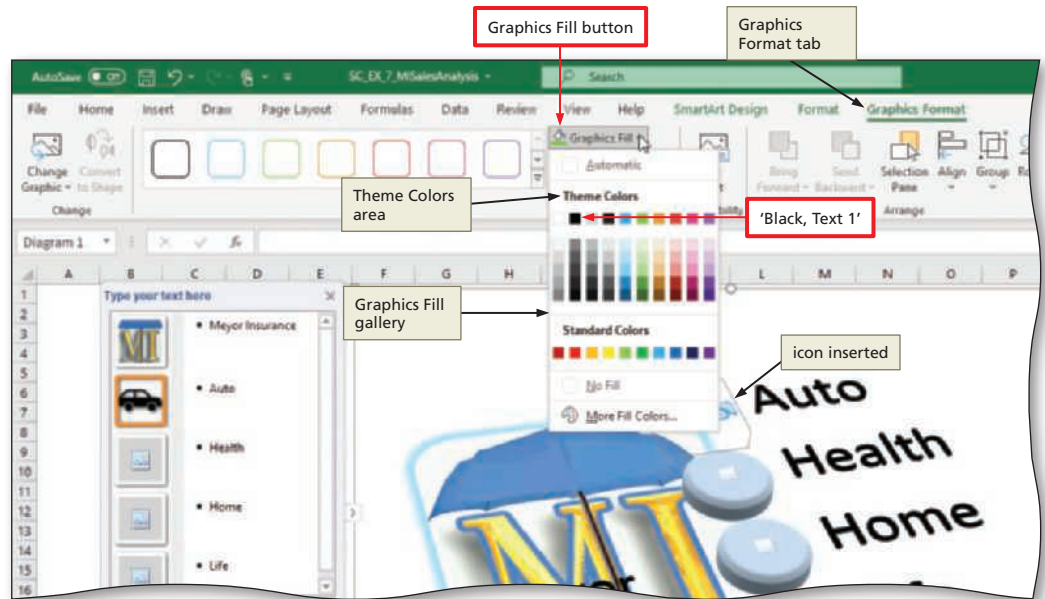


Figure 7–92

Q&A

Why did Excel change the color when the icon was inserted?

Excel matched the color to the chosen color scheme of the SmartArt graphic.

3

- Click 'Black, Text 1' in the Theme Colors area (Graphics Fill gallery) to recolor the icon.
- With the icon still selected, click the Graphics Outline button in the Graphics Styles group, and then select the Blue, Accent 1 theme color (Figure 7–93).

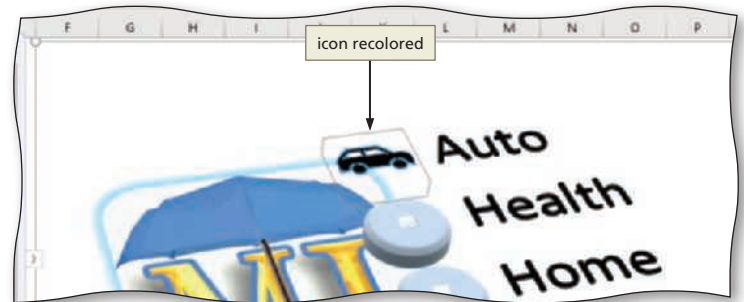


Figure 7–93

4

- Repeat Steps 1 through 3 to insert and recolor icons for Health, Home, and Life as shown in Figure 7–94.

Q&A

What if I cannot find the correct icon to insert?

If you want to search for an icon, enter the search text in the Search box (shown in Figure 7–91) to display search results matching the text you entered.

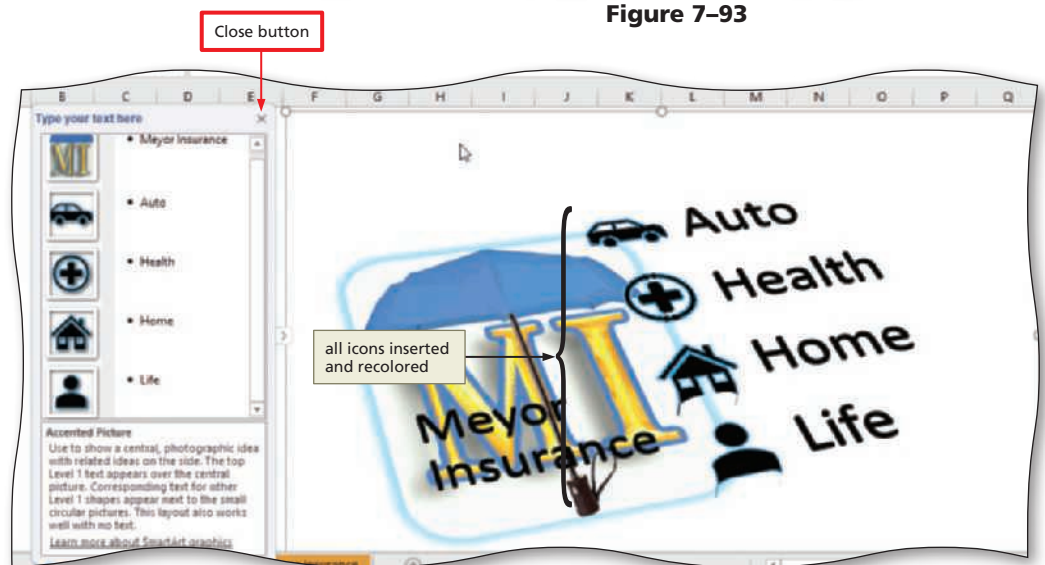


Figure 7–94

- Close the Text Pane.
- Click the Save button (Quick Access Toolbar) to save the file.

To Format Text Using WordArt Styles

WordArt is a formatted, decorative text in a text box. In Excel, WordArt displays a gallery of text styles that work with Excel to create fancy text effects and artistic flair. With WordArt you can create eye-catching headlines, banners, or watermark images. In addition to WordArt styles, you can change the text fill color of WordArt by clicking the Text Fill arrow (Format tab (or Shape Format tab) | WordArt Styles group). Most designers agree that you should use WordArt sparingly and, at most, only once per page, unless you are trying to achieve some kind of special effect or illustration. The following steps format the text, Meyor Insurance, with a WordArt style that creates an outline. **Why? Outlining, also called stroking the letters, will make them easier to read with the picture background.**

- 1**
 - Select the text, Meyor Insurance.
 - Bold the text.
 - Display the Format tab.
 - Click the More button (Format tab | WordArt Styles group) to display the WordArt gallery (Figure 7–95).

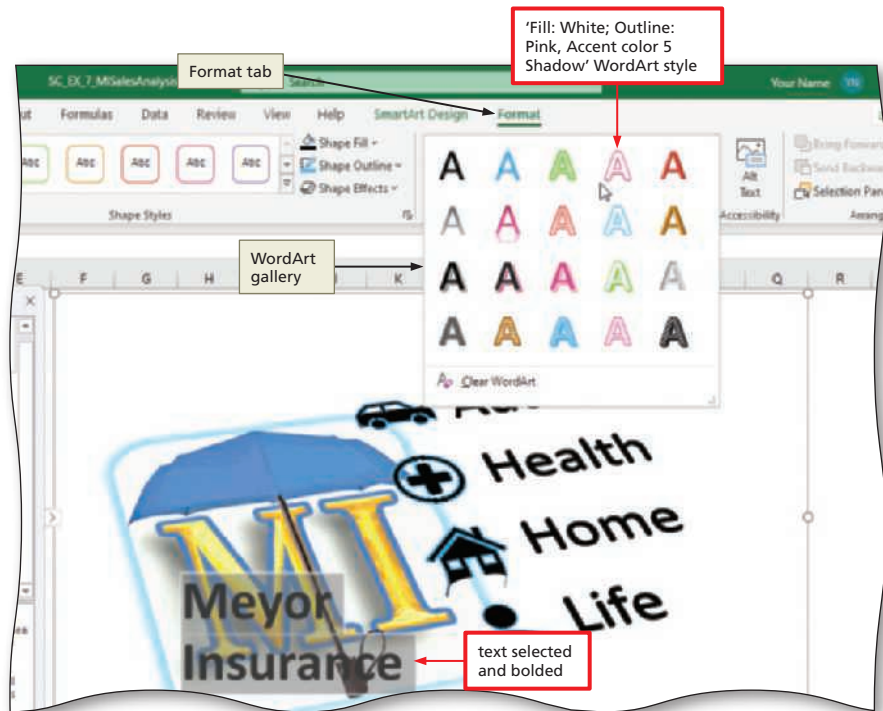


Figure 7–95

- 2**
 - Click 'Fill: White; Outline: Pink, Accent color 5; Shadow' in the WordArt gallery to add a WordArt style to the text.
 - Click outside of the SmartArt graphic to remove the selection and view the formatting.
 - Close the Text Pane, if necessary (Figure 7–96).

- 3**
 - Save the workbook.



Figure 7–96

To INSERT AN INDIVIDUAL IMAGE INTO A WORKBOOK

If you wanted to insert an individual image into your workbook, you would perform the following steps.

1. Select the cell at which you wish the image to display.
2. Display the Insert tab.
3. Click the Illustrations button (Insert tab | Illustrations group), click Pictures, and then click This Device to display the Insert Picture dialog box.
4. Navigate to the location of the picture to insert and then double-click the file to insert the picture in the worksheet.
5. Resize the picture as necessary.
6. To format the picture, display the Picture Format tab.
7. Click the Picture Styles More button (Picture Format tab | Picture Styles group) to display the Picture Styles gallery.
8. Click the desired picture style to apply the style to the image.

Break Point: If you want to take a break, this is a good place to do so. You can exit Excel. To resume later, start Excel, open the file called SC_EX_7_MISalesAnalysis, and continue following the steps from this location forward.

Text Boxes

To add text to a workbook that is separate from the text in cells, chart titles, or labels, you can insert a text box. You then can enter the text that you want. Text boxes can be static, presenting read-only information, or they can be bound or linked to a cell by typing an equal sign (=) in the formula bar and then a cell reference, formula, or function. The text inside the box is easily formatted. You can edit the shape of the text box by using the Edit Shapes button (Shape Format tab | Insert Shapes group).

To Draw a Text Box

The following steps draw a text box to create a decorative heading for the SmartArt graphic. **Why use text boxes in Excel?** The advantage to using a text box is that you can move the text box and resize it; it floats freely in the worksheet and is independent of row and column boundaries, preserving the layout of the data on the worksheet.

1

- Select cell A1 on the SmartArt Graphic sheet and display the Insert tab.
- Click the Text button (Insert tab | Text group) to display a gallery with additional buttons related to inserting text objects (Figure 7-97).

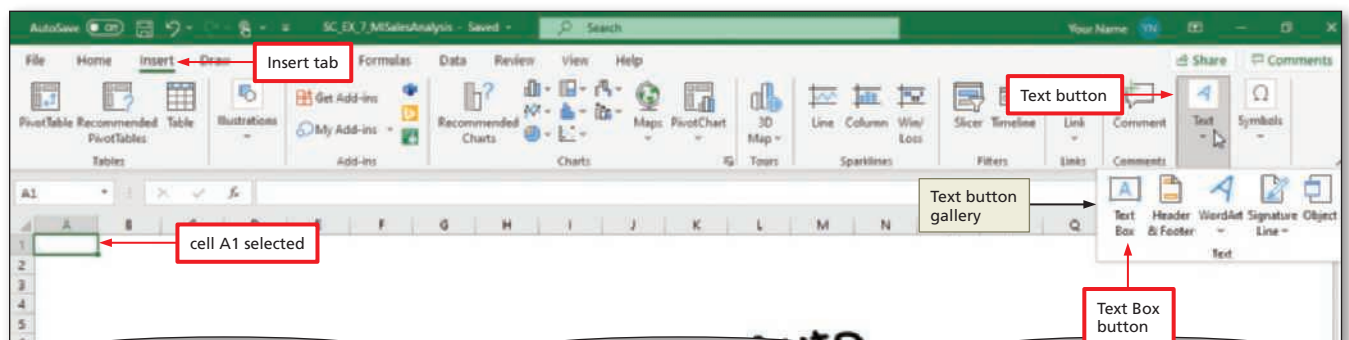


Figure 7-97

2

- Click the Text Box button and then move the pointer into the worksheet.
- Drag to create a text box in the upper-left corner of the worksheet, approximately 6 columns wide and 7 rows tall.
- Type **Our New Graphic** to enter the text (Figure 7-98).

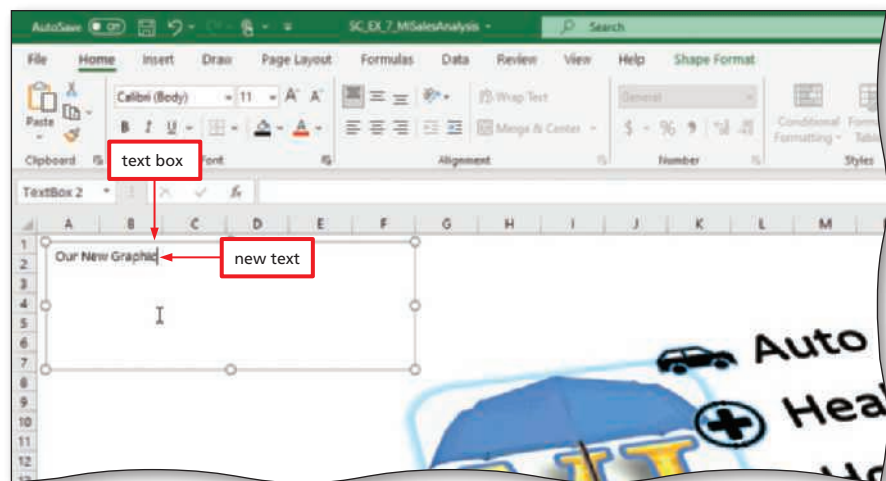


Figure 7-98

3

- Select the text and then change the font size to 36. Bold and italicize the text.
- Click the Shape Outline button (Shape Format tab | Shape Styles group) and then click No Outline to remove the border of the text box.
- Click away from the text box to view it without selection (Figure 7-99).

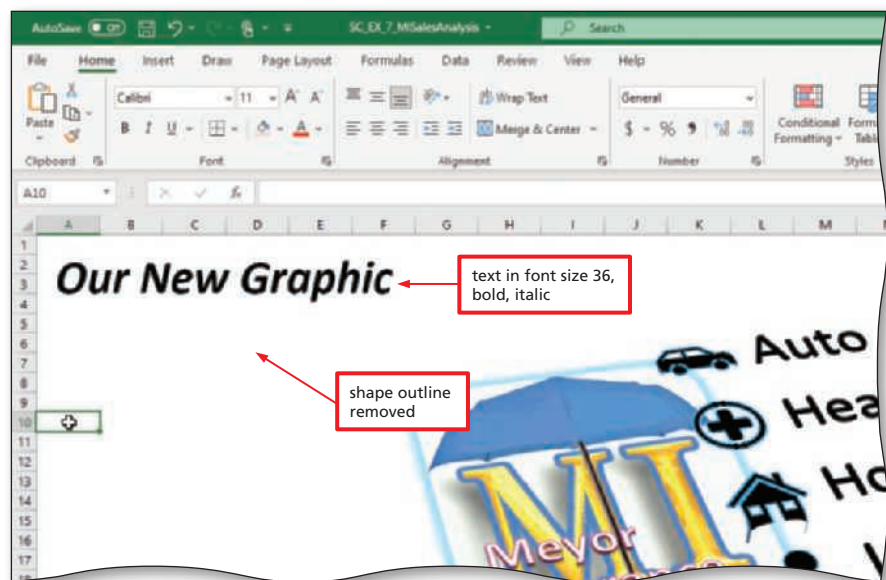


Figure 7-99

Alternative Text

A special consideration when using graphics is accessibility. Screen readers that read worksheets and webpages for people with disabilities can provide feedback about pictures, but only if the picture has alternative text. **Alternative text**, also called **ALT text** or an **ALT tag**, is descriptive text that appears as an alternative to a graphic image. Screen readers read the alternative text aloud. Graphics without alternative text are not usable by screen readers, so people with disabilities will not hear picture descriptions. Browsers may display alternative text while graphics are loading or when graphics are missing.

To Add ALT Text

The following steps insert alternative text for the SmartArt graphic. **Why?** You want the worksheet to be accessible by everyone, including those who use screen readers.

1

- Right-click the border of the SmartArt graphic to display the shortcut menu (Figure 7–100).

Q&A

Are there rules about appropriate alternative text?

Sources vary on appropriate alternative text; however, most users agree that alternative text should not be redundant of other text, and should convey the meaning or purpose.

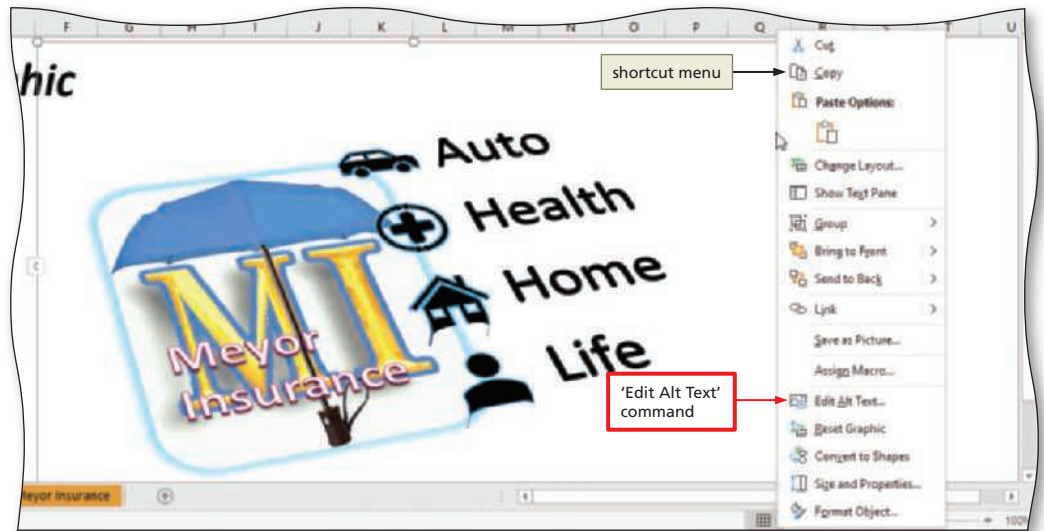


Figure 7–100

2

- Click 'Edit Alt Text' to display the Alt Text pane and click in its text box
- In the text box (Alt Text pane), type **Meyor Insurance SmartArt graphic representing the types of available policies** to enter an appropriate alternative text (Figure 7–101).

Q&A

Some of my text has a red underline. Is that a problem? Make sure your words are spelled correctly. A red underline indicates a misspelled word, or a word that is not in the Excel dictionary. Many names are not in the dictionary.

3

- Close the Alt Text pane.
- Save the workbook.

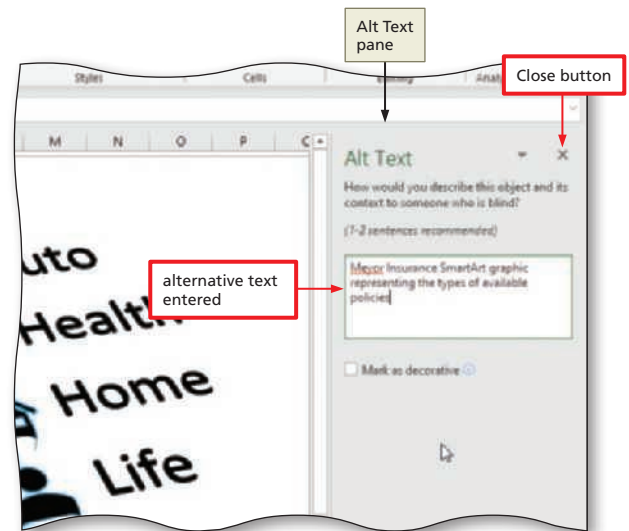


Figure 7–101

Object Linking and Embedding

In this module, you inserted a chart, a SmartArt graphic, and a SmartArt shape. With Office 365, you also can insert an **object** which is an independent element on a worksheet (such as a document, chart, or graphic)—even if that object were created in another app. For example, you could insert a PowerPoint slide into an Excel worksheet. In this case, the PowerPoint slide (the object) is called the **source document** (the document from which items are being copied) and the Excel worksheet is called the **destination document** (the document to which items are being pasted). You can use one of three techniques to insert objects from one app to another: copy and paste, embed, or link. The combining of objects and data from two or more applications using linking or embedding is known as **integration**.

Copy and Paste

When you copy an object from another application, the source object appears in Excel. You then edit a **pasted object**, using the features of Excel. For example, earlier you edited the data from a Word file by transposing the rows and columns in Excel.

Embedded Objects

When you embed an object, it becomes part of the destination document. The difference between an embedded object and a pasted object is that you edit the contents of an **embedded object** using the editing features of the source app. For example, an embedded PowerPoint slide appears as a PowerPoint document within Excel. To edit the slide, double-click the slide. Excel will display PowerPoint menus and toolbars within the worksheet. When you edit an embedded object, the original PowerPoint slide (file) is unchanged.

TO EMBED AN OBJECT FROM ANOTHER APP

If you wanted to embed an object, you would perform the following steps.

1. Start Excel.
2. Click the Text button (Insert tab | Text group), and then click the Object button to display the Object dialog box.
3. Click the 'Create from File' tab and then click the Browse button. Navigate to the location of your object and double-click the file.
4. Ensure that the Link checkbox does **not** display a check mark.
5. Click the OK button (Object dialog box) to embed the object.

Linked Objects

A **linked object**, by contrast, does not become a part of the destination document, even though it appears to be a part of it. Rather, a connection is established between the source and destination documents so that when you open the destination document, the linked object displays as part of it. When you edit a linked object, the source app starts and opens the source document that contains the linked object. For example, a linked PowerPoint slide remains as a PowerPoint slide. To edit the slide from Excel, double-click the slide to start PowerPoint and display the slide in a PowerPoint window. Unlike an embedded object, if you edit the PowerPoint slide by opening it from PowerPoint, the linked object will be updated in the Excel worksheet.

You would use linking when the contents of an object are likely to change and when you want to ensure that the most current version of the object appears in the source document. Another reason to link an object is if the object is large, such as a video clip or a sound clip.

TO LINK AN OBJECT FROM ANOTHER APP

If you wanted to link an object, you would perform the following steps.

1. Start Excel.
2. Click the Text button (Insert tab | Text group), and then click the Object button to display the Object dialog box.
3. Click the 'Create from File' tab and then click the Browse button. Navigate to the location of your object and double-click the file.
4. Click the Link to file checkbox so that it displays a check mark.
5. Click the OK button (Object dialog box) to link the object.

If you wanted to link or embed Excel data into another app, you would perform the same techniques, but starting in the other app. For example, to link worksheet data

to a Word document, you would open Word, click the Object button (Insert tab | Text group) and proceed to link the worksheet.

To Edit the Link to a File

To edit the link to a file, you would perform the following steps.

1. Start Excel and open the file with the link.
2. Click File to open Backstage View. On the Info screen, click the 'Edit Links to Files' button to display the Edit Links dialog box.
3. Click the Change Source button (Edit Links dialog box).
4. Edit the location in the Change Links dialog box.
5. Click OK (Change Links dialog box).
6. Click Close (Edit Links dialog box).

To Create a New Object

Integration tools also let you create a new object in Excel based on another app. For example, you can create a WordPad document to include further text information or create a PowerPoint slide to illustrate an example. The command opens the app associated with the new object. Once created, the new object is embedded, and can be edited as described above. To create a new object, perform the following steps.

1. Start Excel.
2. Click the Text button (Insert tab | Text group), and then click the Object button to display the Object dialog box.
3. Click the 'Create New' tab.
4. In the Browse box, scroll as necessary to choose the type of embedded object you wish to create.
5. Click OK (Object dialog box) to embed the object.
6. While the tools of the source app are visible, insert content or formatting as necessary.
7. Click outside the object to redisplay the tools of the destination app.

To Break an External Link

Sometimes you may want to break an external link between Excel and another app, so that the destination object will no longer update when the source object is modified. To do so, perform the following steps. When Excel breaks the link, the object becomes an Excel picture or shape, depending on the source app.

1. Click the Edit Links button (Data tab | 'Queries & Connections' group) to display the Edit Links dialog box.
2. In the Source area, select the desired file.
3. Click the Break Link button (Edit Links dialog box).
4. When Excel displays a dialog box, click the Break Links button.
5. Click Close (Edit Links dialog box).

To Update a Linked Object from Another App

When you open an Excel file that contains linked objects (as opposed to embedded objects), Excel checks for changes and offers you the chance to update the linked object. To update a linked object from another app, you would perform the following steps.

1. Start the app that created the linked object (e.g., Word).
2. Edit the file as necessary, save, and then close the app.

3. Start Excel.
4. When Excel displays the Microsoft Excel dialog box, click Update.
5. If Excel displays a dialog box about trusting the file, click OK.

Using Screenshots on a Worksheet

Excel allows you to take a screenshot of any open window and add it to a workbook. Using the screenshot feature, you can capture whole windows or only part of a window. For example, if your company has a webpage, you can take a screenshot of the page and insert it into a workbook before presenting the workbook at a meeting. In addition, you can capture a screen clipping to include in your Excel workbook. A **screen clipping** is a portion of the screen, usually of one object or a section of a window. You first will create a new worksheet in the workbook to hold the screenshot and then insert a screenshot of a webpage.

To Create Another New Sheet

In preparation for inserting the screenshot, the following steps create another new sheet.

- 1 Click the New sheet button to create a fourth sheet in the workbook. If necessary, drag the sheet tab to the right of the other tabs.
- 2 Rename the worksheet **Screenshot** to provide a descriptive name for the worksheet.
- 3 Change the color of the tab to Red (Standard Colors area) and hide the gridlines on the worksheet.
- 4 If necessary, click cell A1 to make it the active cell (Figure 7–102).

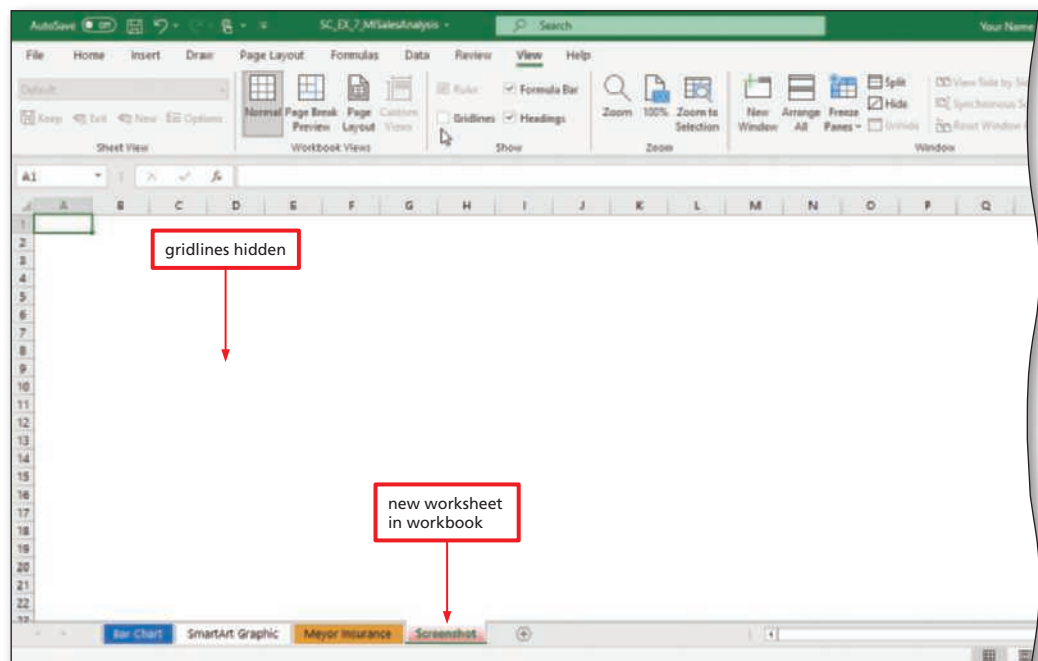


Figure 7–102

To Insert a Screenshot on a Worksheet

The staff at Meyor Insurance often shares helpful insurance websites with customers. The following steps add a screenshot to a worksheet. **Why?** In anticipation of an upcoming meeting where the sales analysis will be reviewed, the CEO requests a screenshot of a popular website that answers typical insurance questions.

1

- Start Microsoft Edge or a similar browser.
- Type <https://thelawdictionary.org/article/what-are-the-different-types-of-insurance/> in the address bar and then press ENTER to display the webpage (Figure 7–103).

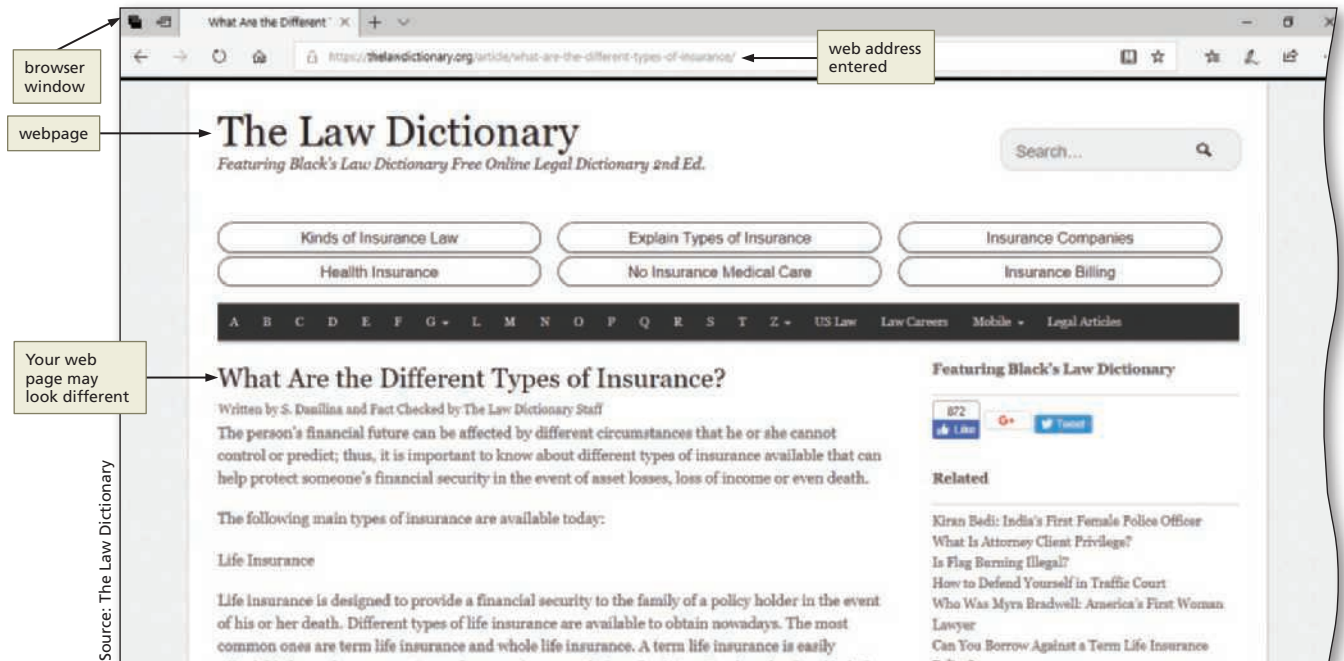


Figure 7–103

2

- Click the Excel app button on the taskbar to return to Excel.
- Display the Insert tab.
- Click the Illustrations button (Insert tab | Illustrations group), and then click the Screenshot button to display the Screenshot gallery (Figure 7–104).

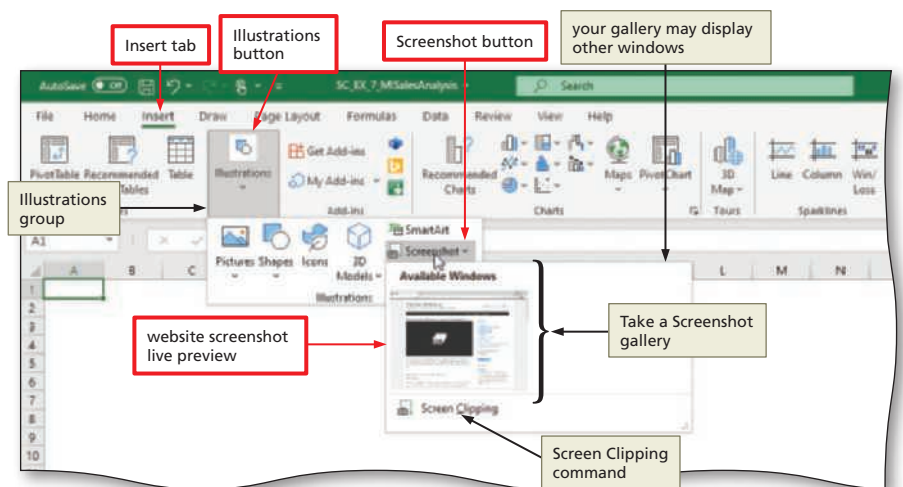


Figure 7–104

Q&A My browser window is not displayed in the gallery. Did I do something wrong?

If Excel cannot link to your browser, you may have to insert a screen clipping instead of a screenshot. To do so, click Screen Clipping (Take a Screenshot gallery), navigate to the desired window, and then draw a rectangle over the portion of the screen you want to insert into the Excel workbook. Note that this process inserts a picture rather than a hyperlinked screenshot and displays the Picture Format tab.

3

- Click the live preview of the Law Dictionary web page to start the process of inserting a screenshot (Figure 7-105).

Q&A Should I include the hyperlink?

If you plan to present your workbook to an audience and wish to view the updated website in a browser, you should insert the screenshot with a hyperlink.

Inserting the hyperlink also gives you access to the link at a later time without retyping it.

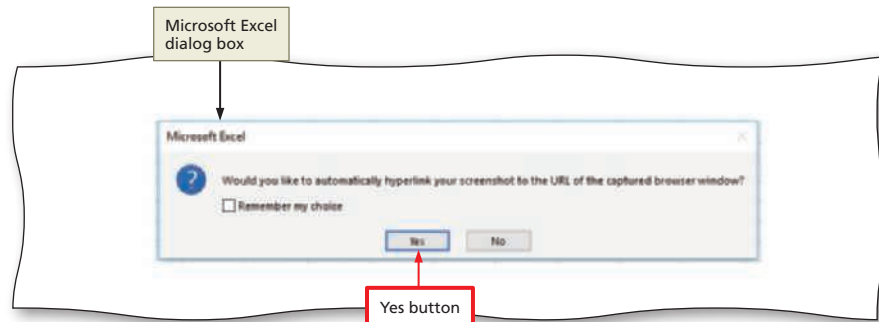


Figure 7-105

4

- Click Yes (Microsoft Excel dialog box) to insert the screenshot with a hyperlink (Figure 7-106).

Experiment

- Scroll to view the entire screenshot. Note that the screenshot displays only the part of the webpage displayed in the browser.

Q&A How do you use the hyperlink?

You can right-click the screenshot and then click Open Hyperlink on the shortcut menu. Clicking Open Hyperlink opens a browser and displays the website.

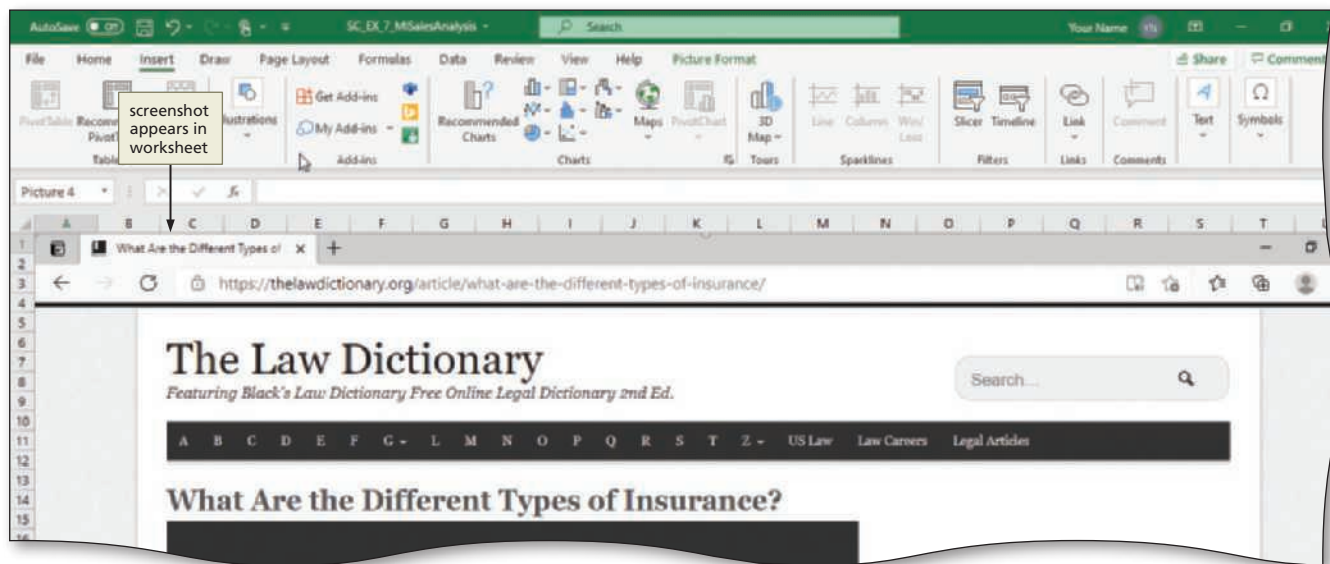


Figure 7-106

5

- Right-click the browser app button on the taskbar and then click Close window on the shortcut menu to exit the browser.

To Move an Object

The following steps move the screenshot. **Why?** You need to make room for some new shapes later in the module.

1

- Right-drag the screenshot to a location near cell D3 (Figure 7–107).

Q&A Can you drag the screenshot to a new location without holding down the right mouse button? No. Because the screenshot is a hyperlink, clicking it opens the linked website. If you do not have the ability to right-drag, you would have to click the Selection Pane button (Page Layout tab | Arrange group) and then select the screenshot in the Selection pane. Once selected, you could move it in the normal way.

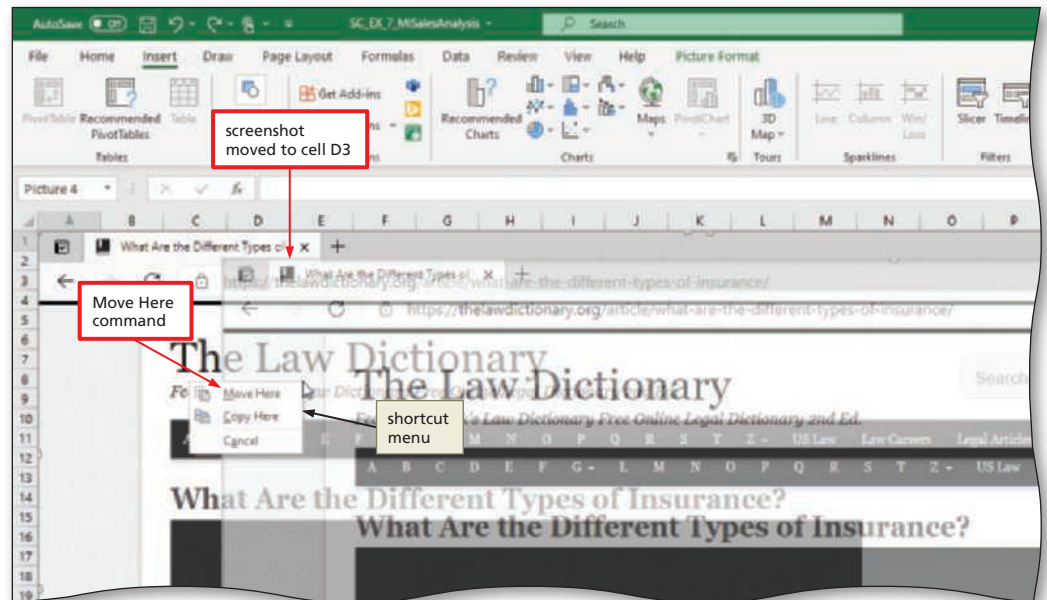


Figure 7–107

2

- When Excel displays the shortcut menu, click Move Here to move the screenshot (Figure 7–108).

Q&A Is right-dragging the best way to move a picture? If the picture is a hyperlink, yes. If the picture is not a hyperlink, you can simply drag it to a new location on the same worksheet. If you need to move the picture to a different worksheet, you should cut and paste.

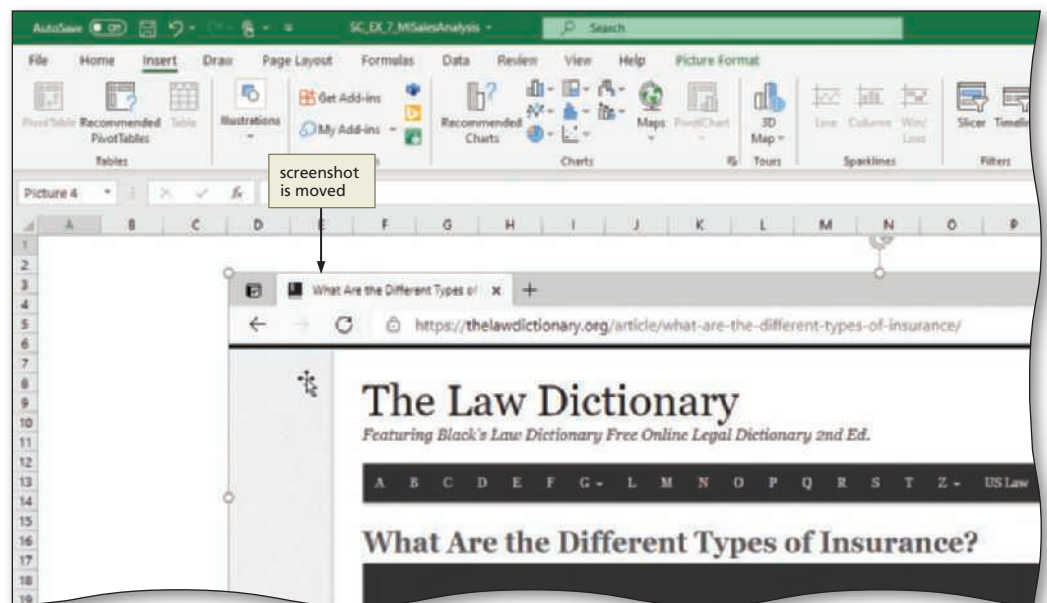


Figure 7–108

To Add a Picture Border

The following steps add a border to the screenshot. **Why?** A border helps to delineate the edges of the screenshot from the worksheet itself.

1

- Right-click the screenshot to display the shortcut menu (Figure 7–109).

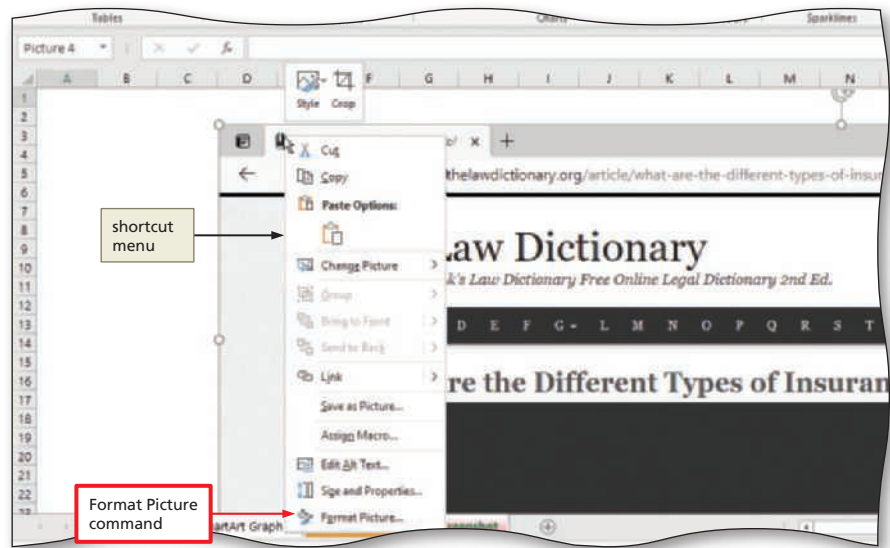


Figure 7–109

2

- Click Format Picture to display the Format Picture pane.
- In the Format Picture pane, click the 'Fill & Line' button, click Line to display the options, then click the Solid Line option button.
- Click the Color button to display the Color gallery (Figure 7–110).

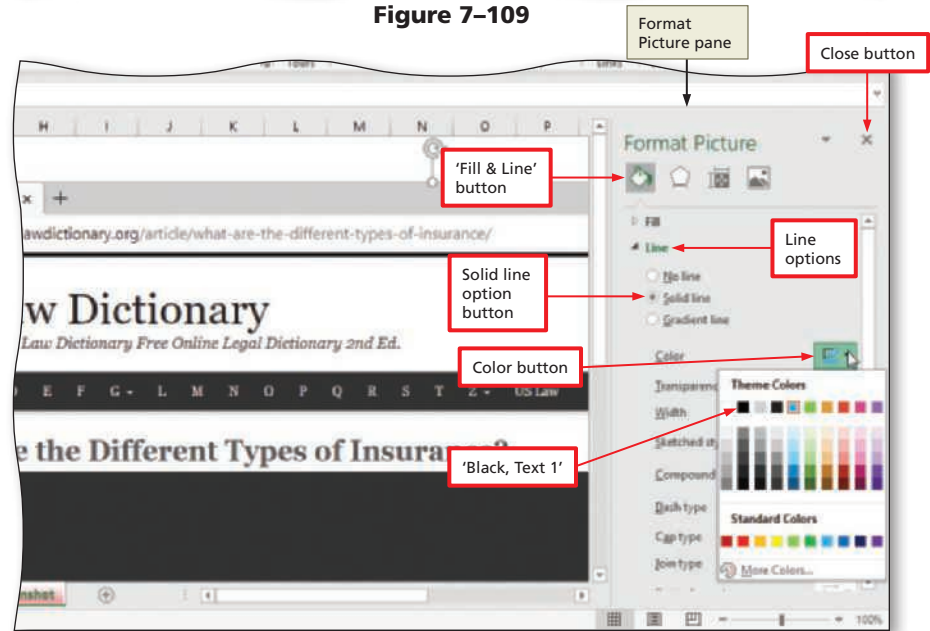


Figure 7–110

3

- Click 'Black Text 1' to apply a border.
- Close the Format Picture pane and click cell A1 to deselect the picture and display the border (Figure 7–111).

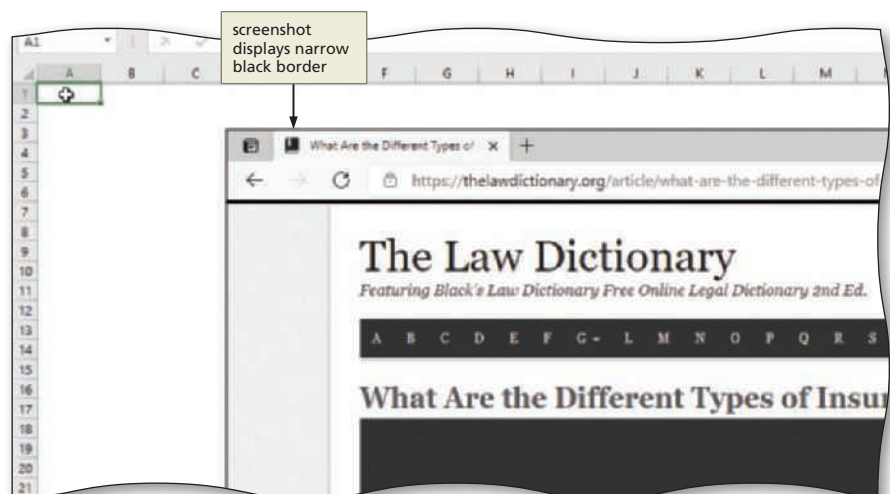


Figure 7–111

Q&A Is there a different method to apply borders to pictures than on screenshots?

No, you apply borders the same way.

Other Ways

1. Click Picture Border button (Picture Format tab | Picture Styles group), choose color, choose format

Shapes

Excel has more than 150 shapes that you can use to create, graphics, banners, illustrations, logos and other ornamental objects. A **shape** is a drawing object, such as a rectangle, oval, triangle, line, block arrow, or other shape. You can change the color and weight of shape outlines, and can apply fill effects, shadows, reflections, glows, pictures, and other special effects to shapes. Adding text, bullets, or numbering to shapes increases the graphic possibilities. You even can edit points, which creates sizing handles along the edge to convert your shape into something new and unique.

To Create a Shape and Copy It

Earlier in the module you added a new shape to the SmartArt graphic. Now you will create a shape using the Shapes gallery **Why?** A shape can improve and upgrade the look of your worksheet. Shapes also can be used as buttons or hyperlinks. Text within shapes can be dynamic when linked to a formula.

The following steps create a block arrow to point out the source of the screenshot.

- 1
 - Click the Illustrations button (Insert tab | Illustrations group), and then click the Shapes button to display the Shapes gallery (Figure 7-112).

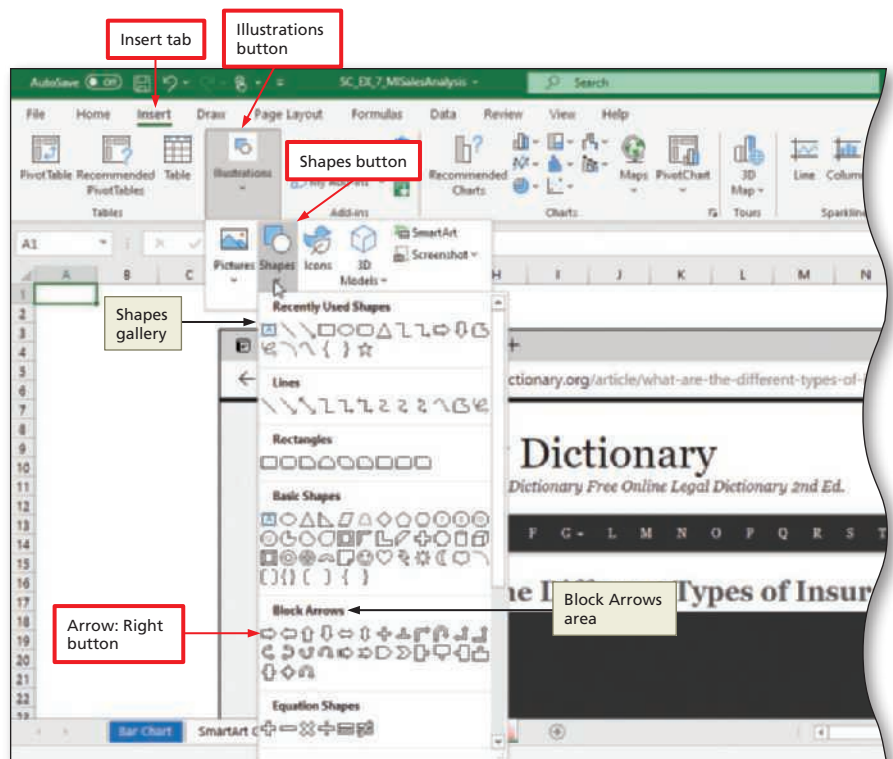


Figure 7-112

- 2
 - In the Block Arrows area, click the Arrow: Right button.
 - Move the pointer into the worksheet, to the left of the screenshot.

- Drag right to create an arrow, approximately four columns wide, that points to the words, The Law Dictionary. Do not deselect the arrow (Figure 7–113).

Q&A **How do I add text to a shape?**
Once you draw the shape, right-click it, and then click Edit Text on the shortcut menu.

Why is the arrow filled in with blue?

The default fill color in the Parallax theme is blue. You can change the color using the Shape Fill button (Shape Format tab | Shape Styles group).

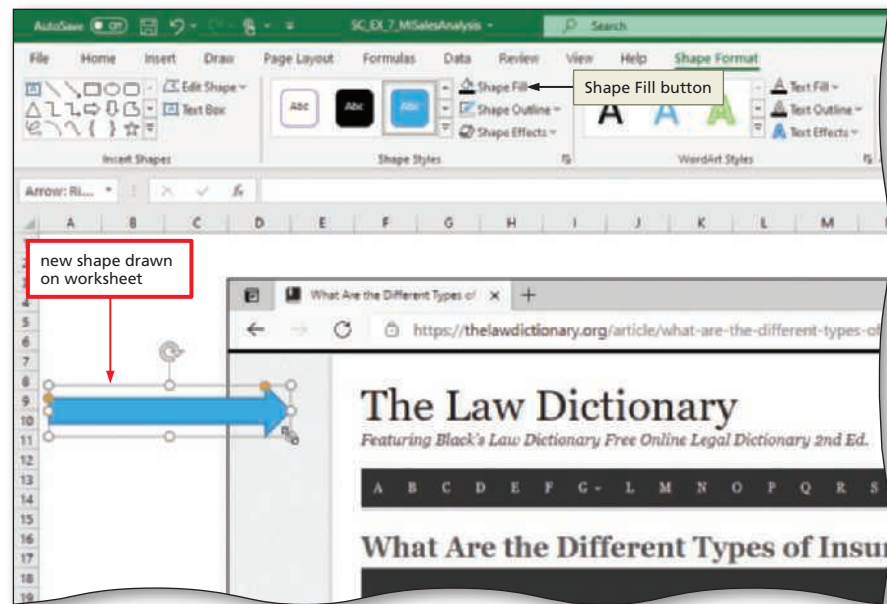


Figure 7–113

3

- With the arrow still selected, press CTRL+C to copy the arrow.
- Press CTRL+V to paste the copy of the arrow into the spreadsheet.
- Move the pasted arrow to a location pointing to the heading, What are the different types of insurance? (Figure 7–114).

Your arrow placement may differ, based on the content of your web page

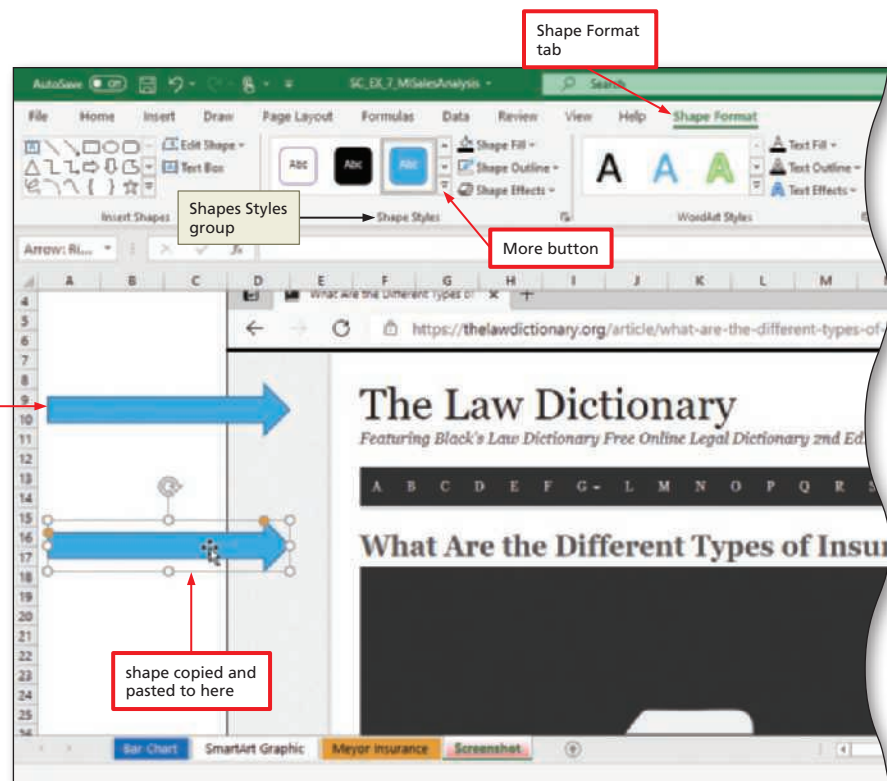


Figure 7–114

To Add a Shape Style and Shape Effect

In the following steps, you will add a shape style and a shape effect. **Why?** A shape style can help to add contrast between the shape and the background. Adding an effect to a shape can make it appear as though it is floating above the page.

1

- With the pasted arrow still selected, click the More button (Shape Format tab | Shape Styles group) to display the Shape Styles gallery (Figure 7–115).

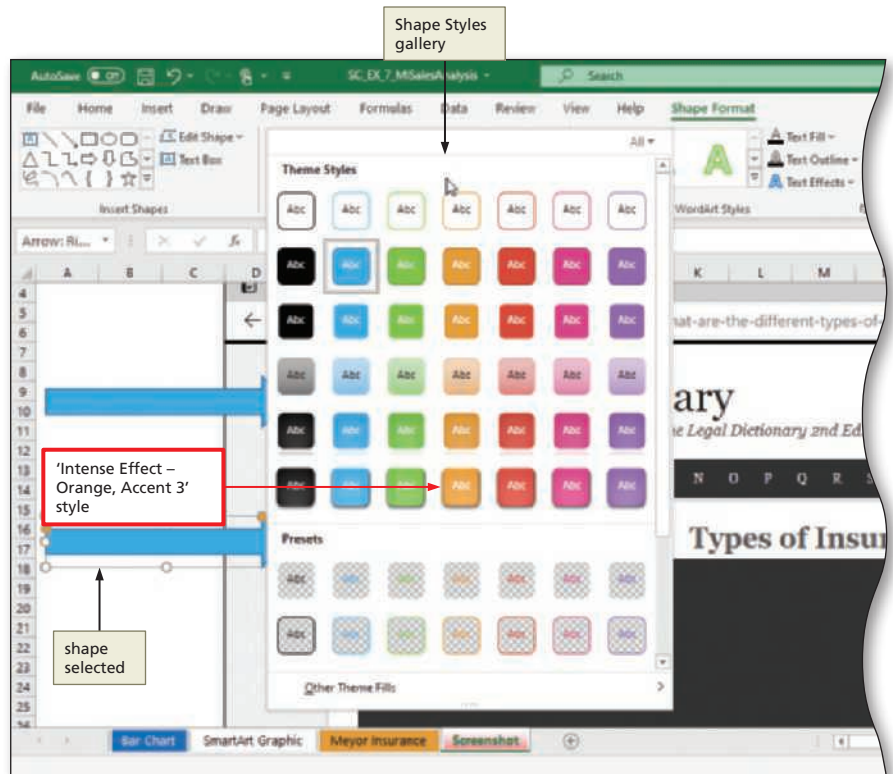


Figure 7–115

2

- Click 'Intense Effect – Orange, Accent 3' to choose the style.
- Click the Shape Effects button (Shape Format tab | Shape Styles group) and point to Shadow to display the Shadow gallery (Figure 7–116).

Experiment

- Point to different thumbnails in the Shadow gallery and watch the live preview change the selected shape.

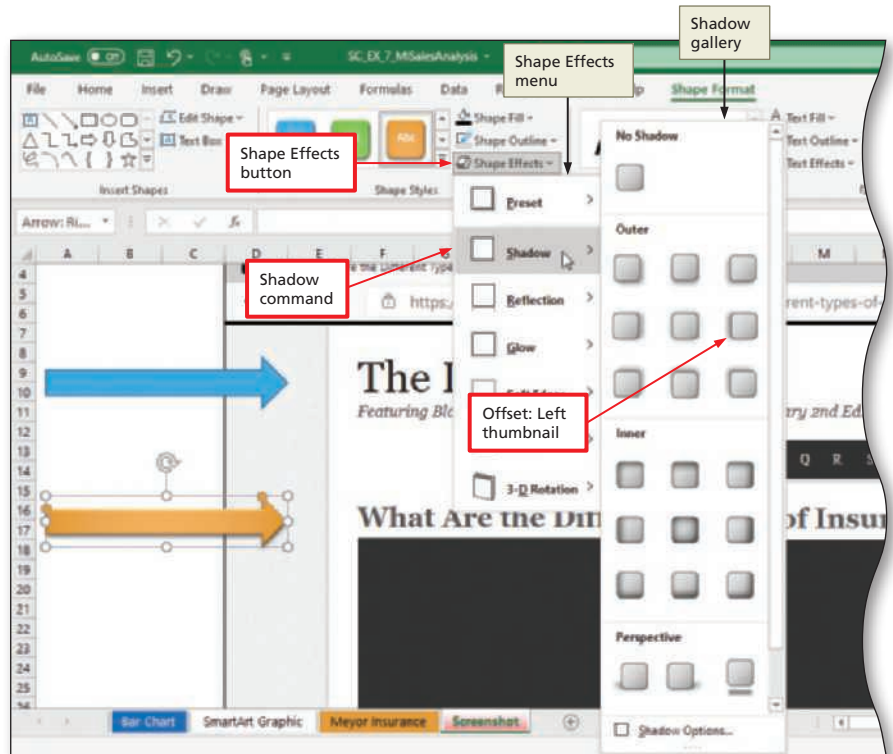


Figure 7–116

3

- In the Outer area, click Offset: Left to apply the shadow to the shape (Figure 7–117).

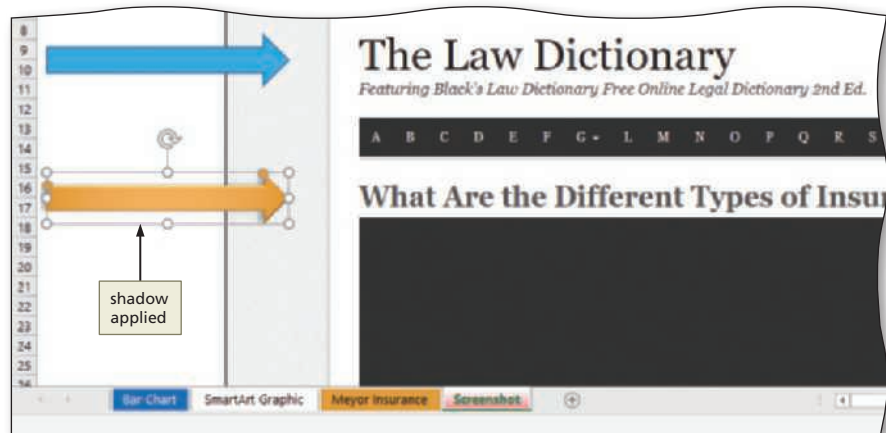


Figure 7-117

Other Ways

1. Click Style button (Mini toolbar), choose settings
2. Right-click shape, click Format Shape, click Effects button (Format Shape pane), click Shadow, choose settings

Using the Format Painter with Objects

Just as you have copied text and number formatting from one cell to another with the Format Painter, you can use it to copy all of the formatting from one object and apply it to another one. In the case of shapes, the Format painter applies formats such as color, style, special effects, and borders—even to different shapes (rectangles, circles, arrows, etc.). If the shape contains text, the format of the text also is copied.

1

- With the lower arrow still selected, click the Format Painter button (Home tab | Clipboard group).
- Click the original blue arrow to apply the formatting. Do not deselect (Figure 7–118).

Q&A Can I edit the form of the shape?

Yes. Click the Edit Shape button (Shape Format tab | Insert Shapes group) to change to a different shape or to edit points or edges of the current shape.

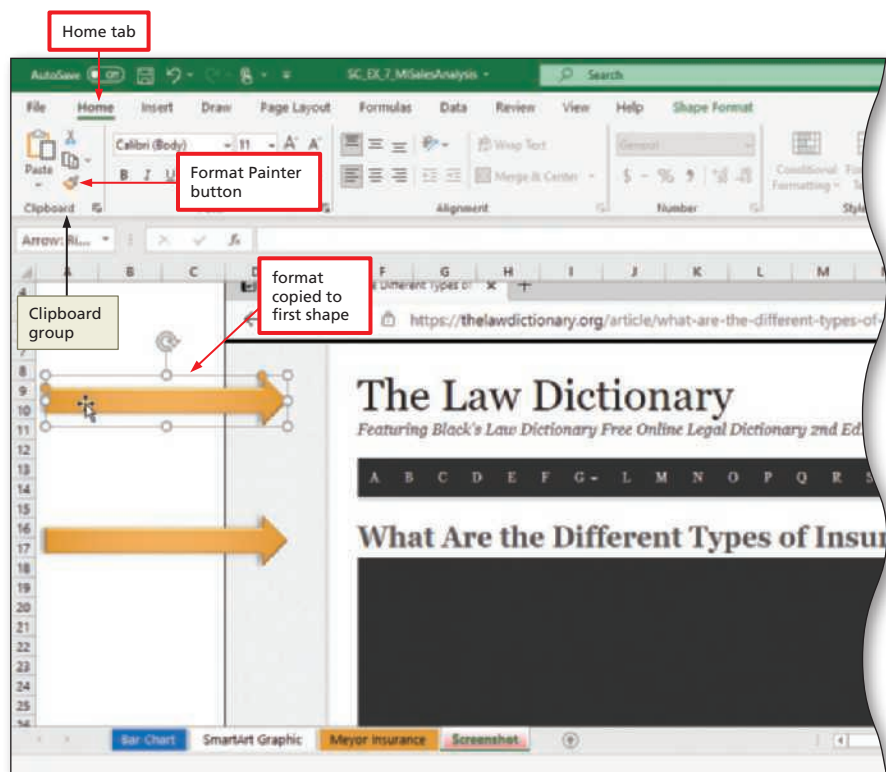


Figure 7-118

Other Ways

1. Select source object, press CTRL+SHIFT+C, select destination object, press CTRL+SHIFT+V

To Align Shapes

In the following steps, you will align the two arrows. **Why?** Aligning shapes makes the worksheet look more professional.

1

- SHIFT+click the second arrow so that both arrows are selected.
- Click the Align button (Shape Format tab | Arrange group) to display the Align menu (Figure 7-119).

Q&A

What do the Snap commands do?

When you click a Snap command, Excel turns on the ability to **snap** or align objects to the nearest grid intersection or snap to other shapes and objects. The snapping takes place as you draw, resize, or move a shape or other object in Excel.

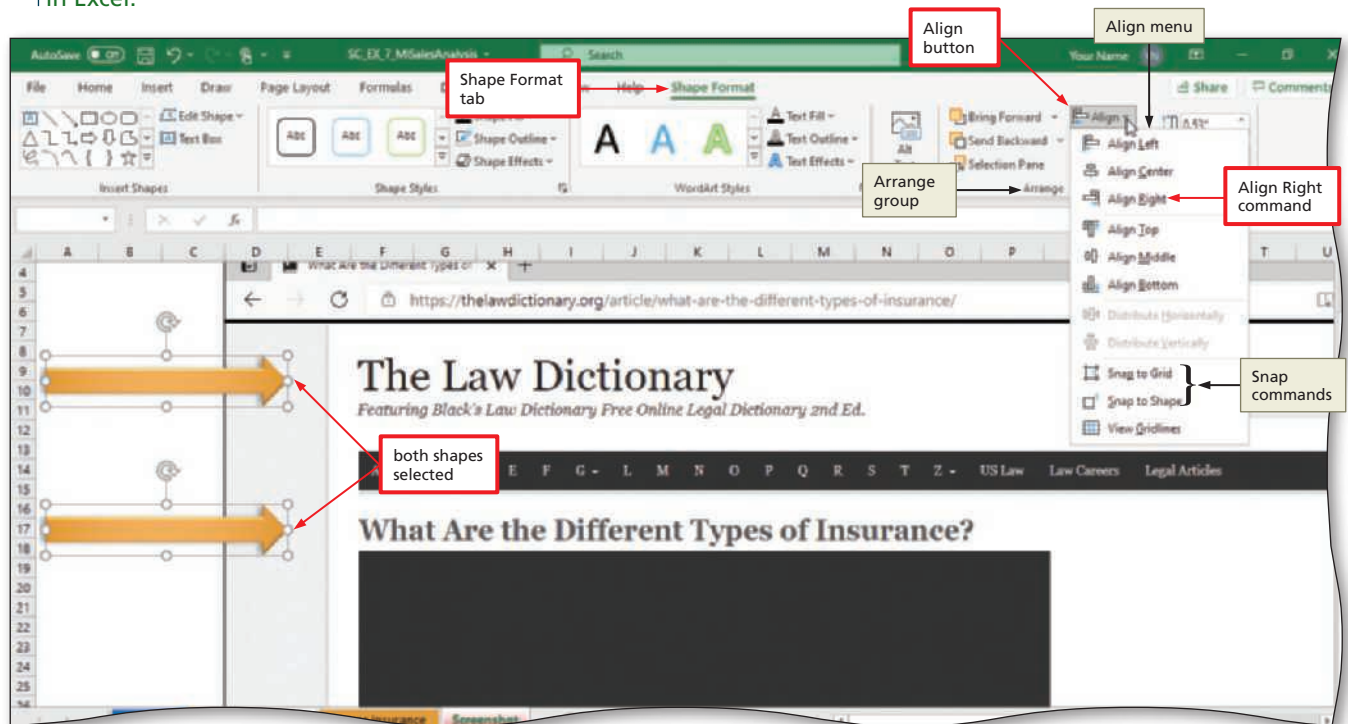


Figure 7-119

2

- Click Align Right in the Align gallery to align the right margin of the shapes (Figure 7-120).

Q&A

Why are the distribute commands unavailable?

The **distribute** commands apply even spacing between more than two shapes or objects.

3

- In Excel, click the Save button on the Quick Access Toolbar.
- **ctrl** + **w** Click the Close button in the upper-right corner of the title bar to exit Excel.

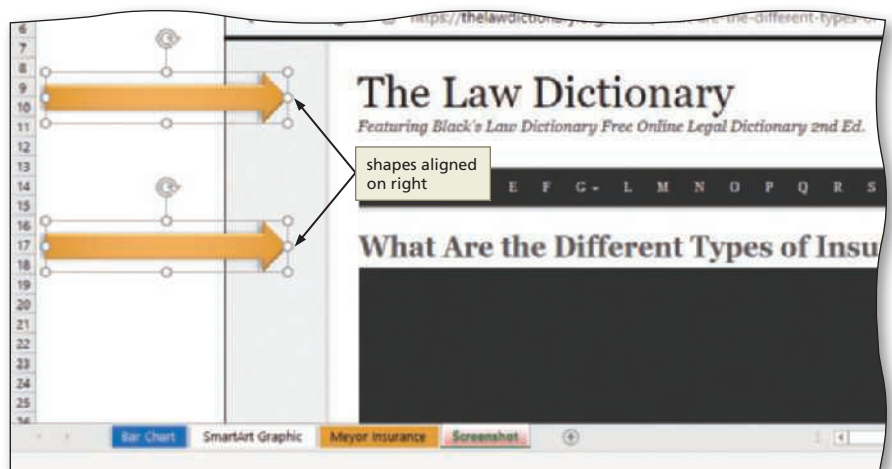


Figure 7-120

Summary

In this module, you learned how to create a template that can be used every time a similar workbook is developed. Starting from the template, you gathered external data by importing a text file, an Access database, a Word document, and a website. You formatted the data and transposed it when necessary. You replicated the formulas and functions, and then used Quick Analysis to display specific formatting. Then, you created a bar chart, formatting the bars with a style, color, and bevel. After reversing the order of the categories, you edited the number format of the horizontal labels. While creating a SmartArt graphic, you inserted pictures relevant to the spreadsheet and formatted the SmartArt with text, styles, and ALT text. You learned about object linking and embedding and inserted a hyperlinked screenshot as well as shapes in the workbook.



Consider This: Plan Ahead

What decisions will you need to make when creating your next workbook based on a template to analyze data including a chart, SmartArt graphic, and screenshot?

Use these guidelines as you complete the assignments in this module and create your own worksheets for evaluating and analyzing data outside of this class.

1. Create a template.
 - a) Format rows and columns.
 - b) Enter titles and headings.
 - c) Enter sample or dummy data.
 - d) Enter formulas and functions.
 - e) Save as a template file type.
 2. Create a new workbook based on the template and import data.
 - a) Open a template file and save it as a workbook file.
 - b) Import data corresponding to type of data.
 - c) Format imported data.
 - d) Paste special and transpose data when necessary.
 3. Format using the Quick Analysis gallery.
 - a) Apply formatting or totals using the Quick Analysis gallery.
 4. Create new sheets for each part of your analysis workbook.
 5. Use SmartArt graphics to illustrate data.
 - a) Gather appropriate pictures.
 - b) Use text effects to enhance text.
 - c) Insert icons and alt text.
 - d) Add effects to enhance graphics.
 6. Use screenshots to aid in presenting analysis.
 - a) Hyperlink screenshots from the web, if necessary.
 7. Insert shapes where it makes sense to point out data.
-

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Using a Template to Create a Consolidated Workbook

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: You are to create the consolidated workbook and SmartArt graphic for Vegas Tourism shown in Figure 7–121.

Vegas Tourism -- February Top Four Airlines and Cities					
Airline	City	Tickets Sold	Average Price per Ticket	Final Destination Percentage	Total Revenue
A	Denver	130,235	\$ 184.00	85%	\$ 20,368,754.00
A	Newark	161,600	\$ 317.75	88%	\$ 45,186,592.00
A	Chicago	448,000	\$ 299.25	76%	\$ 101,888,640.00
A	Los Angeles	407,990	\$ 383.00	88%	\$ 137,498,838.40
B	Denver	99,486	\$ 212.40	96%	\$ 20,285,593.34
B	Newark	60,412	\$ 348.70	92%	\$ 19,390,411.25
B	Chicago	357,123	\$ 328.90	91%	\$ 106,886,556.78
B	Los Angeles	188,490	\$ 421.30	92%	\$ 73,057,970.04
C	Denver	166,500	\$ 249.75	86%	\$ 35,761,702.50
C	Newark	177,785	\$ 383.57	88%	\$ 60,003,082.52
C	Chicago	492,823	\$ 361.00	87%	\$ 154,780,919.61
C	Los Angeles	448,756	\$ 463.43	83%	\$ 172,612,604.26
D	Denver	109,435	\$ 132.26	75%	\$ 10,855,404.83
D	Newark	66,453	\$ 264.39	73%	\$ 12,825,741.33
D	Chicago	292,865	\$ 242.95	76%	\$ 54,075,179.33
D	Los Angeles	207,339	\$ 34	78%	\$ 54,986,302.80
Total					\$1,080,454,292.98

(a) Imported Data in Worksheet



(b) SmartArt Graphic

Figure 7–121

Perform the following tasks:

1. Open a File Explorer window and double-click the file named SC_EX_7-6.xlsx from the Data Files.
2. Add a second sheet to the workbook, named SmartArt Graphic. Color the tab red.

Continued >

Apply Your Knowledge *continued*

3. To import a text file:
 - a. Make the Vegas Tourism worksheet active, and then select cell A5. Use the Data tab to import the text file named, Support_EX_7_AirlineA.csv, from the Data Files.
 - b. When Excel displays the dialog box, click the Load arrow and then click Load To.
 - c. When Excel displays the Import Data dialog box, click the Existing Worksheet option button to select it. Click OK (Import Data dialog box).
 - d. Click the new table and then use the Table Design tab to remove the banded rows and the header row. If Excel displays a dialog box, referencing the header row, click Yes. Close the Queries & Connections pane.
 - e. Select cells A5:E5. Right-click the selection and then click Delete on the shortcut menu. When Excel displays the Delete dialog box, click the 'Shift cells up' option button, if necessary. Click OK (Delete dialog box).
 - f. Use a separate area of the worksheet to trim the extra spaces from cells B5:B8. Copy the trimmed values back to the range. Delete the data you no longer need.
4. To import an Access table:
 - a. Select cell A9. Import the Access file named, Support_EX_7_AirlineB.accdb, from the Data Files.
 - b. When Excel displays the dialog box, click the Las Vegas Flights February table. Notice that the table has no airline column. Click the Load arrow and then click Load To.
 - c. When Excel displays the Import Data dialog box, click the Existing Worksheet option button and then choose to import into cell B9, as the data does not contain the airline designation. Click OK (Import Data dialog box).
 - d. Remove the banded rows and the header row. If Excel displays a dialog box, referencing the header row, click Yes. Close the Queries & Connections pane. Delete the resulting empty row.
 - e. Type **B** in cell A9. Copy cell A9 to cells A10:A12.
5. To paste data from Word:
 - a. Select cell A20. Start Word and open the file named, Support_EX_7_AirlineC.docx. In the Word table, select all of the data in columns 2 through 5 and copy it. Close Word.
 - b. Return to Excel and use the Paste Special command to paste the data as Text (Paste Special dialog box) in cell A20.
 - c. Copy the Excel range A20:D23. Click cell A13 and transpose the data while pasting it.
 - d. Delete the original imported data in cells A20:D23.
 - e. Cut the data in cells B13:D16 and paste it to cell C13 to move it one column to the right.
 - f. Select cells A13:A16. Click the 'Text to Columns' button (Data tab | Data Tools group). In the Convert Text to Columns Wizard dialog box, choose the Fixed Width option button, and then click Finish.
6. To import Web data:
 - a. Select cell A17. Click the From Web button (Data tab | Get & Transform Data group). In the URL box, enter the location of the HTML data file, such as c:\users\username\documents\cis 101\data files\Support_EX_7_AirlineD.html, and then press ENTER.
 - b. When Excel displays the Navigator dialog box, click the name of the table, February Flights to Vegas – Top Four Cities, and click the Web View tab. Click the Transform Data button (Navigator dialog box) to open the Power Query Editor window.

- c. Remove the Airport column. Click the 'Close & Load' arrow (Power Query Editor Home tab | Close group) and then click the 'Close & Load To' command to close the Power Query Editor Window.
 - d. When Excel displays the Import Data dialog box, if necessary, click the Existing worksheet option button, and then click OK.
 - e. Remove the banded rows and the header row. If Excel displays a dialog box, referencing the header row, click Yes.
 - f. Delete the blank row. Close the Queries & Connections pane.
7. Use the fill handle to replicate cell F4 to F5:F20.
 8. Copy the formatting from C4:F4 to C5:F20.
 9. Delete row 4.
 10. Select cells F4:F19. Click the Quick Analysis button and create a total in cell F20. In cell A20, type the word, **Total**.
 11. Adjust column widths as necessary.

If directed by your instructor, insert your name and course number in cell A21.

12. Go to the SmartArt Graphic sheet. Click the Gridlines check box (View tab | Show group) to turn off gridlines.
13. Click the Illustrations button (Insert tab | Illustrations group) and then click the SmartArt button. Click List in the left pane (Choose a SmartArt Graphic dialog box) and then click Picture Strips in the middle pane. Click the OK button to insert the graphic.
14. Click the Add Shape button (SmartArt Design tab | Create Graphic group).
15. One at a time, using the Text Pane, replace the word, Text, with the words, Denver, Newark, Chicago, and Los Angeles, respectively.
16. Change the SmartArt style to Brick Scene.
17. One at a time, click the picture icon in each part of the graphic, and search the web for a graphic related to the city. Make sure you review the license to ensure you can comply with any copyright restrictions.
18. Resize the graphic to fill the area D1:L24.
19. Save the file with the file name, SC_EX_7_VegasTourismAnalysis, and submit the revised workbook in the format specified by your instructor.
20. 🌟 In what format do you think most companies submit data? Why? If the data changes, how do consolidated workbooks adjust? Do all the formats lend themselves to recalculating? Why or why not?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Inserting a SmartArt Organization Chart and Image on a Worksheet

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Excel. Open the workbook SC_EX_7-7, which is located in the Data Files. You are to add a SmartArt graphic and an image to the workbook and then format both graphics.

Continued >

Extend Your Knowledge *continued*

Perform the following tasks:

1. Insert a SmartArt graphic on the Billing Department sheet using the Hierarchy type and the Hierarchy layout.
2. Select the last shape on the right in the third row of the SmartArt graphic and then add a shape.
3. Display the Text Pane and drag its border to the right side of the chart. Use copying and pasting techniques to insert the names from column A into the SmartArt, as shown in Figure 7–122. Insert your name in place of one of the employees.

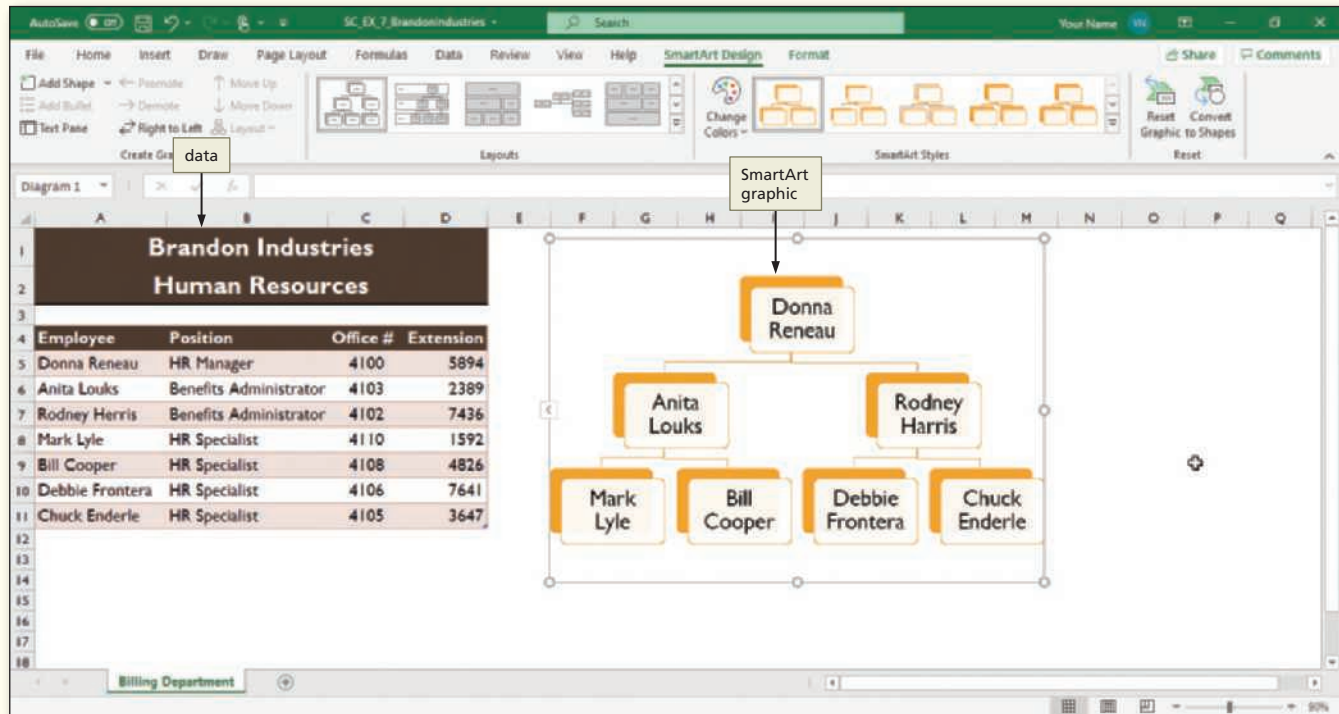


Figure 7–122

4. Change the color scheme of the hierarchy chart to 'Dark 2 Fill' in the Change Colors gallery.
5. Use the SmartArt Styles gallery to change the style to Cartoon.
6. Move the SmartArt Graphic to the right of the data.
7. Use Help to read about formatting pictures. Insert an online picture related to the search term, business meeting. Format the picture using the Metal Rounded Rectangle picture style (Picture Format tab | Picture Styles group).
8. Change the picture border to 'Orange, Accent 6, Lighter 60%'.
9. Add a Picture Effect (Picture Format tab | Picture Styles group) using the 3-D Rotation named 'Perspective: Contrasting Left'.
10. Add ALT text that says **This is a picture of the HR team at Brandon Industries.**
11. Move and resize the picture so that it fits beside the SmartArt graphic.
12. Add your name and course number to the worksheet.
13. Save the file with the file name SC_EX_7_BrandonIndustries, and submit the revised workbook in the format specified by your instructor.
14. 🌟 When do you think a company would use a spreadsheet like this? What formatting and changes might make it even more useful?

Expand Your World

Create a solution that uses cloud and web technologies by learning and investigating on your own from general guidance.

Using Web Data

Problem: You would like to import some web statistics about your state. You decide to retrieve U.S. census data from the web (Figure 7–123).

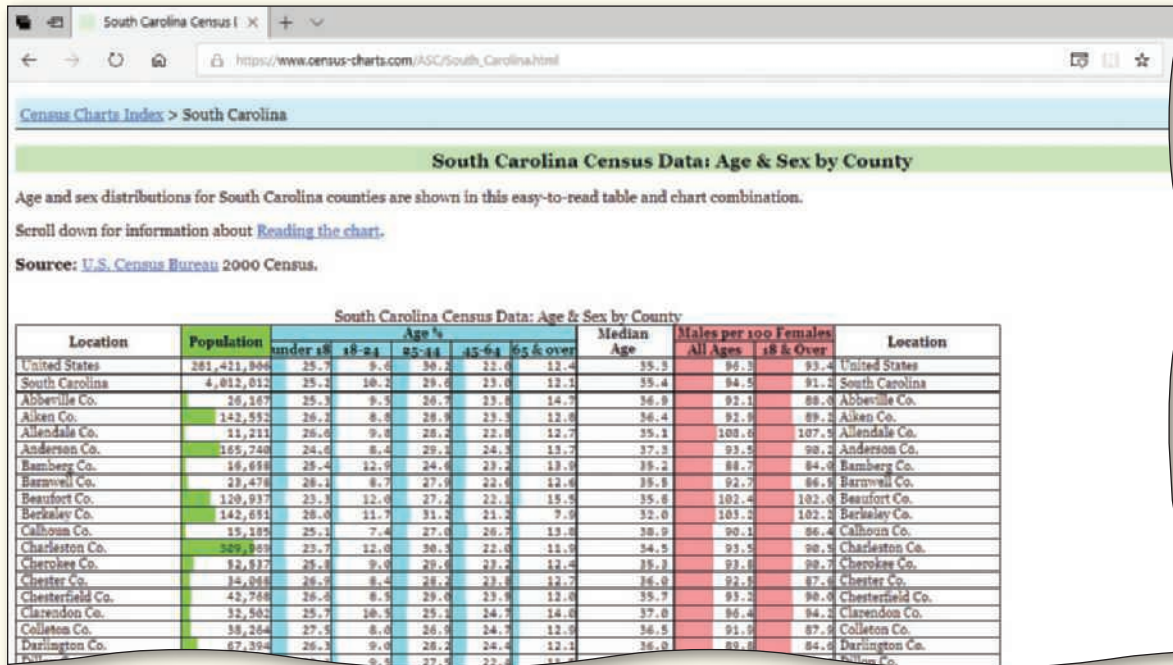



Figure 7–123

Instructions:

1. Start a browser and navigate to <https://www.census-charts.com/>.
2. In the Data by State and County area, click ‘Age and Sex’ and then click your state.
3. When the website presents the data, copy the URL address.
4. Start Excel and open a blank workbook.
5. Hide the gridlines and rename the sheet, Screenshot. Use the Screenshot button (Insert tab | Illustrations group) to insert a screenshot of your data, or if necessary, use screen clipping. Close the browser.
6. Add a new sheet to the workbook, named Web Data.
7. Select cell B2. Click the ‘From Web’ button (Data tab | Get & Transform Data group). Paste the URL into the address text box in the From Web dialog box. Click the OK button (From Web dialog box).
8. If Excel displays the Access Web content dialog box, click the Connect button.
9. When Excel displays the Navigator dialog box, click the state table and then click the Transform Data button.
10. When Excel displays the Power Query Editor window, delete the last four columns and the first two rows. Use the ‘Close and Load To’ command to load the data to the existing worksheet.

Continued >

Expand Your World *continued*


11. When Excel displays the data, add and format a title, format the column headings, and adjust column widths, if necessary. Save the file with the file name, SC_EX_7_WebData, and submit the revised workbook in the format specified by your instructor.
12.  What kinds of analysis could you perform in Excel on the data you downloaded from the census website? What would make the data more meaningful and useful? Why?

In the Lab

Design and implement a solution using creative thinking and problem-solving skills.

Create a Cover Sheet

Part 1: You are competing to design a cover sheet for an academic department at your school to include in their workbooks when they send out statistics. Start a browser and view the webpage for your chosen department at your school. Create a workbook and turn off the viewing of gridlines for the first sheet. Insert a screenshot of the department webpage and size it appropriately. Insert a SmartArt list to highlight three or four of the best qualities of your department. Use text effects to enhance the text. Change the colors to match more closely your school colors. Choose an appropriate SmartArt style. Below the SmartArt graphic, add a screen clipping of the school's logo. Finally, next to the logo add your name and format it so that it appears as a title. Below your name, in a smaller font, insert the name of your department.

Part 2:  How did you decide on which SmartArt layout and style to use?

4 Creating Reports and Forms

Objectives

You will have mastered the material in this module when you can:

- Create reports and forms using wizards
- Modify reports and forms in Layout view
- Group and sort data in a report
- Add totals and subtotals to a report
- Conditionally format controls
- Resize columns
- Filter records in reports and forms
- Print reports and forms
- Apply themes
- Add a field to a report or form
- Add a date
- Change the format of a control
- Move controls
- Create and print mailing labels

Introduction

One of the advantages to maintaining data in a database is the ability to present the data in attractive reports and forms that highlight certain information. Reports present data in an organized format that is usually printed. The data can come from one or more tables. On the other hand, you usually view forms on the screen, although you can print them. In addition to viewing data, you can also use forms to update data. That is, you can use forms to add records, delete records, or change records. Like reports, the data in the form can come from one or more tables. This module shows how to create reports and forms by creating two reports and a form. There are several ways to create both reports and forms. One approach is to use the Report or Form Wizard. You can also use either Layout view or Design view to create or modify a report or form. In this module, you will use Layout view for this purpose. In later modules, you will learn how to use Design view. You will also use the Label Wizard to produce mailing labels.

Project — Reports and Forms

CMF Vets is now able to better keep track of its customer information and to target the needs of the practice by using its database. CMF Vets hopes to improve its decision-making capability further by using custom reports that meet the practice's specific needs. Figure 4–1 shows the Appointments and Treatments report, which is a modified version of an existing report. The report features grouping. The report shown in

The screenshot shows the top portion of a report titled "Appointments and Treatments Report". The report is grouped by "Animal Type". The first group is "Canine", with a group header above the records. The second group is "Feline", also with a group header. Each record includes columns for "Appointment Date", "Treatment", "Animal Type", and "Cost". A subtotal for each group is shown in a Group Footer section. Callouts point to the Report Header, the title control, the Page Header, the Group Header, the Detail section, and the Group Footer section.

Appointment Date	Treatment	Animal Type	Cost
Canine			
10/25/2021	Microchip	Canine	\$10.00
9/23/2021	Dog Rabies Shot	Canine	\$20.00
10/25/2021	Dog Rabies Shot	Canine	\$20.00
8/23/2021	Heartworm	Canine	\$25.00
10/25/2021	Heartworm	Canine	\$25.00
1/18/2021	Dog Wellness Exam	Canine	\$50.00
			\$150.00
Feline			
6/30/2021	Feline Rabies Shot	Feline	\$18.00
6/30/2021	Heartworm	Feline	\$20.00
6/30/2021	Wellness Exam	Feline	\$20.00
6/30/2021	Neuter	Feline	\$25.00
			\$83.00
			\$233.00

Figure 4-1a Top Portion of Appointments and Treatment Report

The screenshot shows the bottom portion of the report, including the footer section. The data is grouped by "Animal Type". The "Feline" group is visible, with records for various treatments and their costs. A subtotal for the "Feline" group is shown. The footer section includes the date "Thursday, November 15, 2021" and the page number "Page 1 of 1". A callout points to the Page Footer section.

Appointment Date	Treatment	Animal Type	Cost
Feline			
6/30/2021	Feline Rabies Shot	Feline	\$18.00
6/30/2021	Heartworm	Feline	\$20.00
6/30/2021	Wellness Exam	Feline	\$20.00
6/30/2021	Neuter	Feline	\$25.00
			\$83.00
			\$233.00

Figure 4-1b Bottom Portion of Appointments and Treatment Report

BTW

Consider Your Audience

Always design reports and forms with your audience in mind. Make your reports and forms accessible to individuals who may have problems with colorblindness or reduced vision.

Figure 4-1 groups records by Animal Type. There are two separate groups, one each for the two animal types, Canine and Feline. The appropriate type appears above each group. The totals of the Cost field for the animal types in the group (called a **subtotal**) appear after the group. At the end of the report is the grand total of the same field.

Figure 4-2 shows the second report. This report encompasses data from both the Appointments and Treatment Costs tables. Like the report in Figure 4-1, the data is grouped, although this time it is grouped by animal type. Not only does the treatment appear in each group, but its cost appears as well. This report contains conditional formatting.

Appointment Date	Treatment	Animal Type	Cost
		Canine	
10/25/2021	Microchip		\$10.00
8/23/2021	Dog Rabies Shot		\$20.00
10/25/2021	Dog Rabies Shot		\$20.00
8/23/2021	Heartworm		\$25.00
10/25/2021	Heartworm		\$25.00
1/10/2021	Dog Wellness Exam		\$50.00
			\$150.00
		Feline	
6/30/2021	Feline Rabies Shot		\$18.00
6/30/2021	Heartworm		\$20.00
6/30/2021	Wellness Exam		\$20.00
6/30/2021	Neuter		\$25.00
			\$83.00
			\$233.00

Tuesday, October 16, 2021 Page 1 of 1

Figure 4-2

CMF Vets also wants to improve the process of updating data by using a custom form, as shown in Figure 4-3. The form has a title, but unlike the form you can create by clicking the Form button, this form does not contain all the fields in the Appointments table. In addition, the fields are in a different order than in the table. For this form, CMF Vets likes the appearance of including the fields in a stacked layout.

Appointments and Treatments Form

Appointments: A_j 1/10/2021

Treatment: Cost: T Dog Wellness Exam

Treatment: Cost: L Canine

Treatment: Cost: K \$50.00

only fields selected in Form Wizard appear

Records: 1 of 10 | No Filter | Search

Figure 4-3

CMF Vets also wants to be able to produce mailing labels for its clients. These labels must align correctly with the particular labels CMF Vets uses and must be sorted by postal code (Figure 4-4).

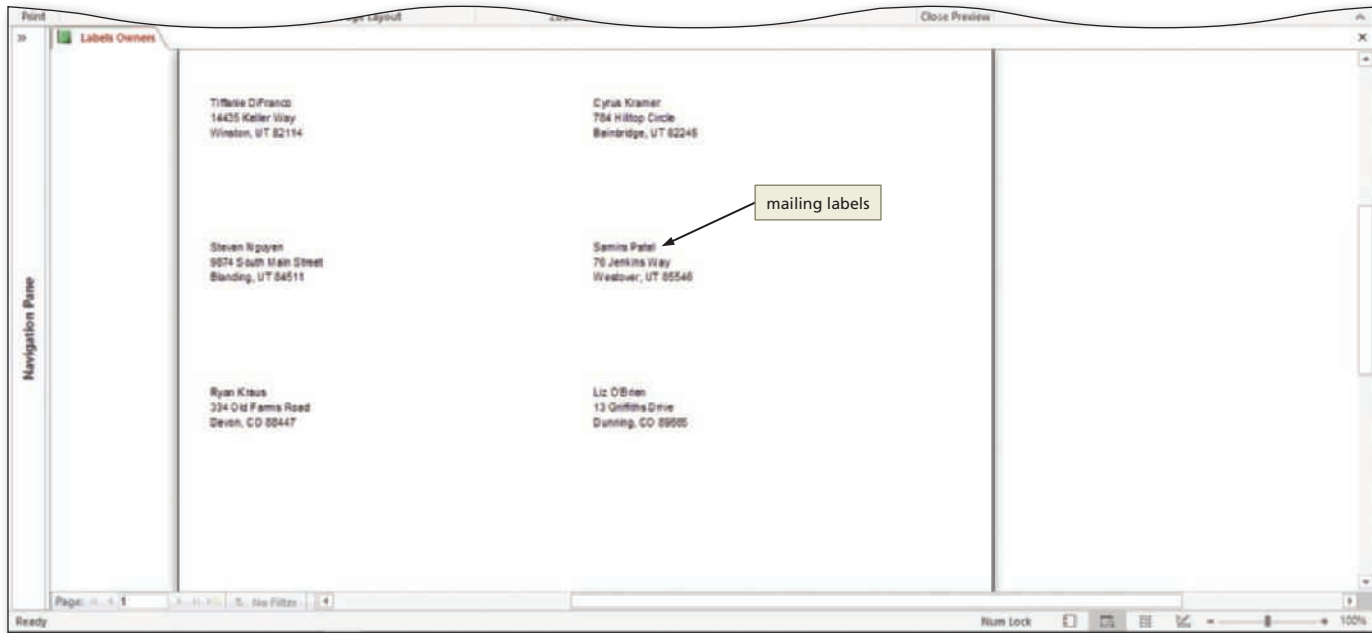


Figure 4-4

BTW

The Ribbon and Screen Resolution

Access may change how the groups and buttons within the groups appear on the ribbon, depending on the computer's screen resolution. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

Report Creation

When working with a report in Access, there are four different ways to view the report: Report view, Print Preview, Layout view, and Design view. Report view shows the report on the screen. Print Preview shows the report as it will appear when printed. Layout view is similar to Report view in that it shows the report on the screen, but it also allows you to make changes to the report. Using Layout view is usually the easiest way to make such changes. Design view also allows you to make changes, but it does not show you the actual report. It is most useful when the changes you need to make are complex. In this module, you will use Layout view to modify the report.

BTW

Touch Screen Differences

The Office and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

Report Sections

A report is divided into various sections to help clarify the presentation of data. A typical report consists of a Report Header section, Page Header section, Detail section, Page Footer section, and Report Footer section (Figure 4-1).

The contents of the Report Header section appear once at the beginning of the report. In the Appointments and Treatments Report, the report title is in the Report Header section. The contents of the Report Footer section appear once at the end of the report. In the Appointments and Treatments Report, the Report Footer section contains the grand totals of Costs. The contents of the Page Header section appear once at the top of each page and typically contain the column headers. The contents of the Page Footer section appear once at the bottom of each page; Page Footer sections often contain a date and a page number. The contents of the Detail section appear once for each record in the table; for example, once for Feline Rabies Shot, once for Canine microchip, and so on. In this report, the detail records contain the treatments for canines and felines and the cost for the treatments.

BTW

Enabling the Content

For each of the databases you use in this module, you will need to enable the content.

When the data in a report is grouped, there are two additional sections. The contents of the Group Header section are printed above the records in a particular group, and the contents of the Group Footer section are printed below the group. In the Appointments and Treatments Report shown in Figure 4–1, the Group Header section contains the Animal Type, and the Group Footer section contains the subtotals of costs for the treatments.

To Group and Sort in a Report

In Layout view of the report, you can specify both grouping and sorting by using the Group & Sort button on the Design tab. The following steps open the Appointments and Treatments Report in Layout view and then specify both grouping and sorting in the report. *Why? CMF Vets managers have determined that the records in the report should be grouped by animal type. That is, all the costs of a given animal type should appear together immediately after the type. Within the given animal types, costs are to be ordered from lowest to highest cost.*

- 1 **san** ↓ Right-click the Appointments and Treatments Report in the Navigation Pane to produce a shortcut menu.
 - Click Layout View on the shortcut menu to open the report in Layout view. Scroll through the report to view the subtotal or total fields that are already in the report.
 - Close the Navigation Pane.
 - If a field list appears, close the field list by clicking the 'Add Existing Fields' button (Report Layout Tools Design tab | Tools group).
 - Click the Group & Sort button (Report Layout Tools Design tab | Grouping & Totals group) to display the Group, Sort, and Total pane (Figure 4–5).

Q&A My report is in a different order. Do I need to change it?
 No. You will change the order of the records in the following steps.

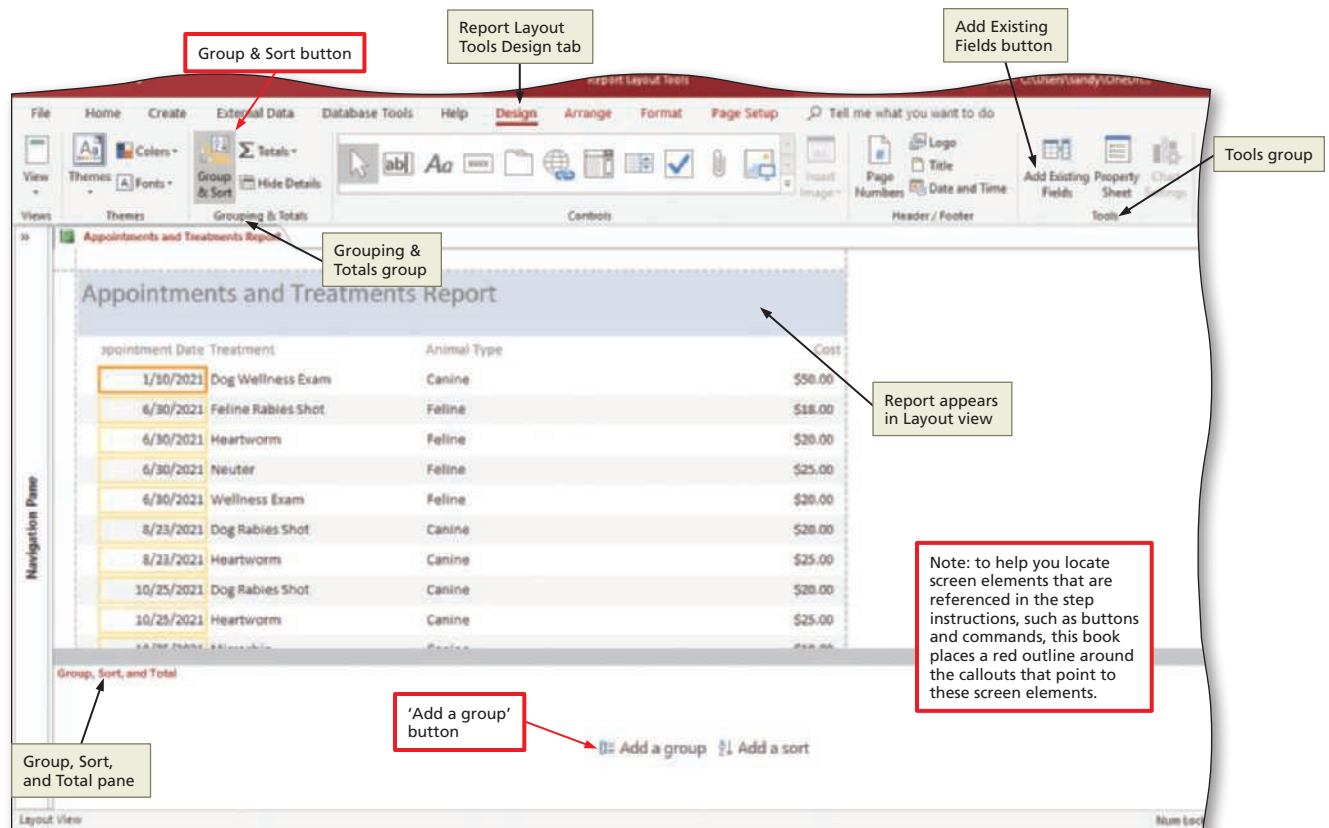


Figure 4–5

2

- Click the 'Add a group' button to add a group (Figure 4-6) and display a field list.

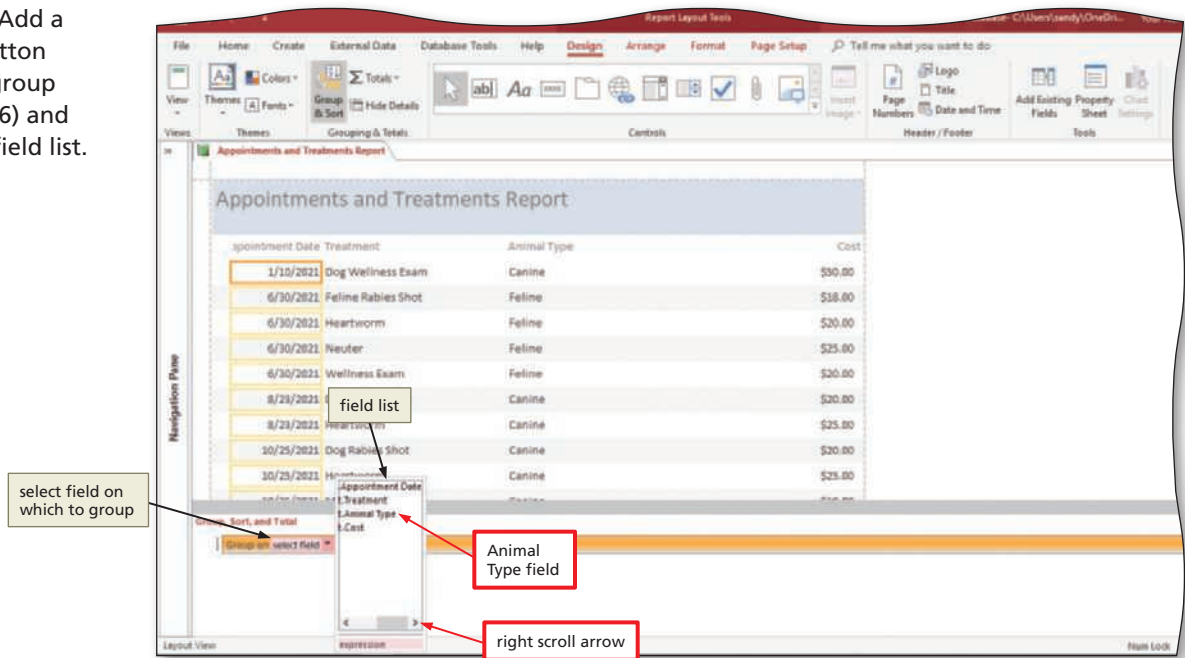


Figure 4-6

3

- Click the Treatment Cost.Animal Type field in the field list to select a field for grouping and group the records on the selected field (Figure 4-7).

Q&A Does the field on which I group have to be the first field?
 No. If you select a field other than the first field, Access will move the field you select into the first position.

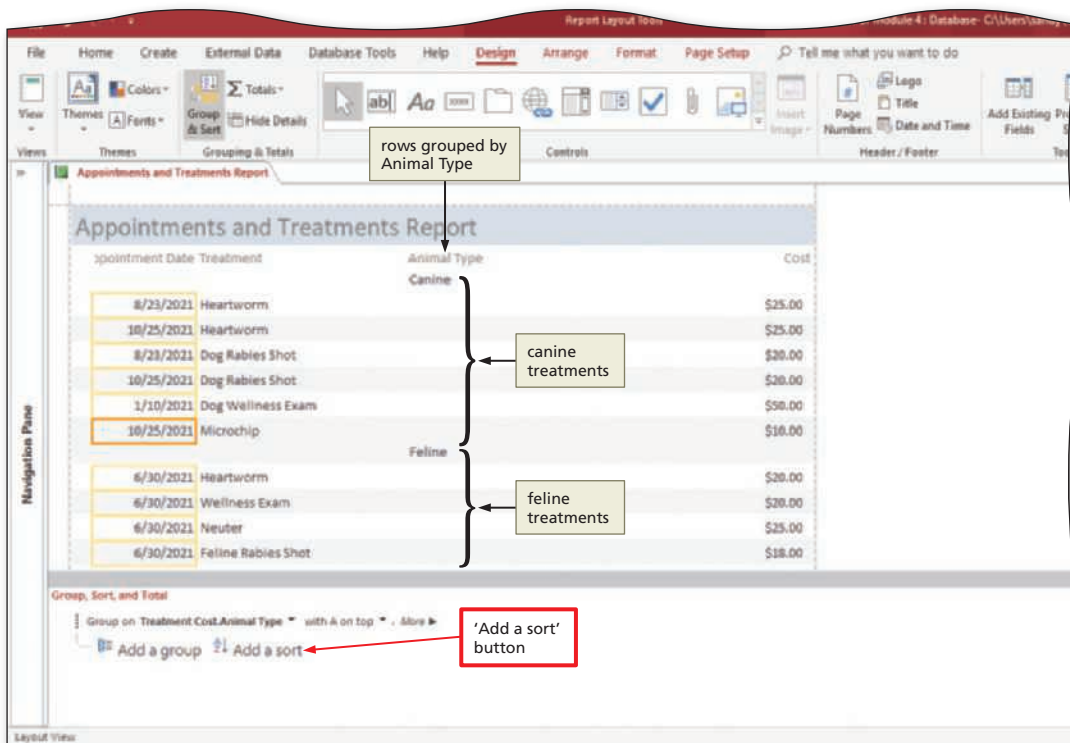


Figure 4-7

4

- Click the 'Add a sort' button to add a sort (Figure 4-8).

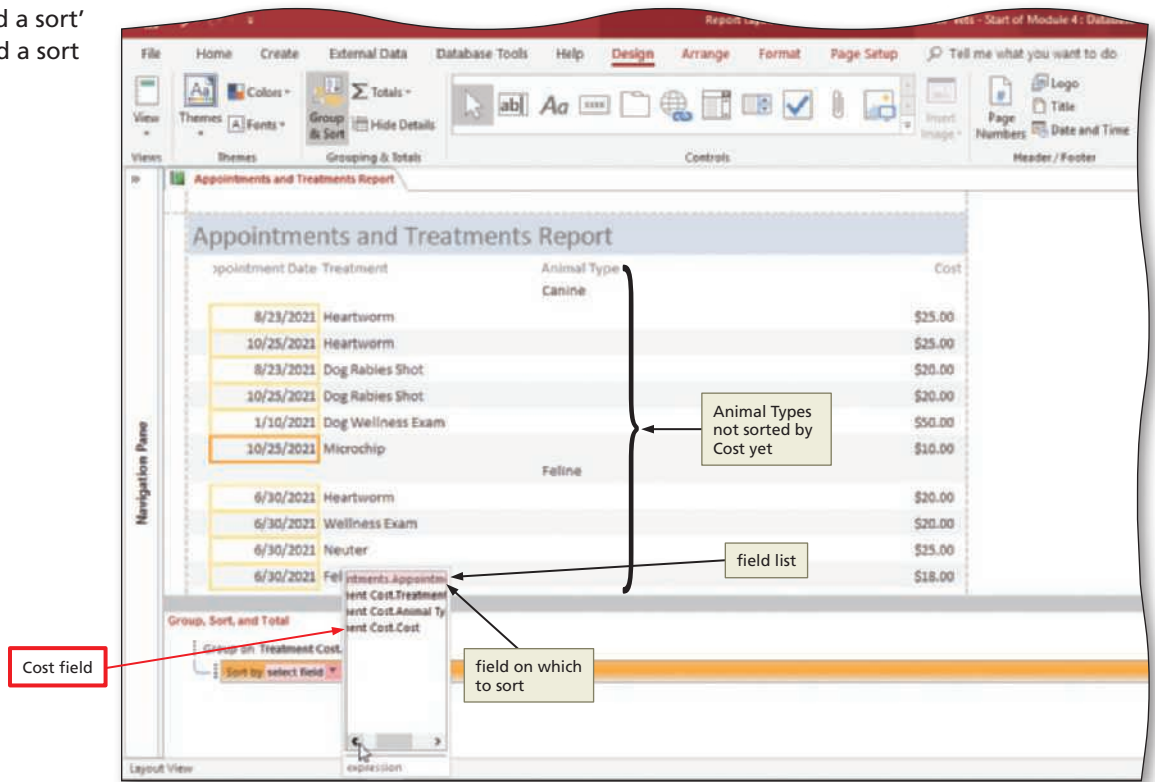


Figure 4-8

5

- Click the Cost field in the field list to specify the field on which the records in each group will be sorted (Figure 4-9).

Q&A I thought the report would be sorted by Animal Type, because I chose to group on that field. What is the effect of choosing to sort by Cost? This sort takes place within groups. You are specifying that within the list of the same Animal Types, the rows will be ordered by Cost.

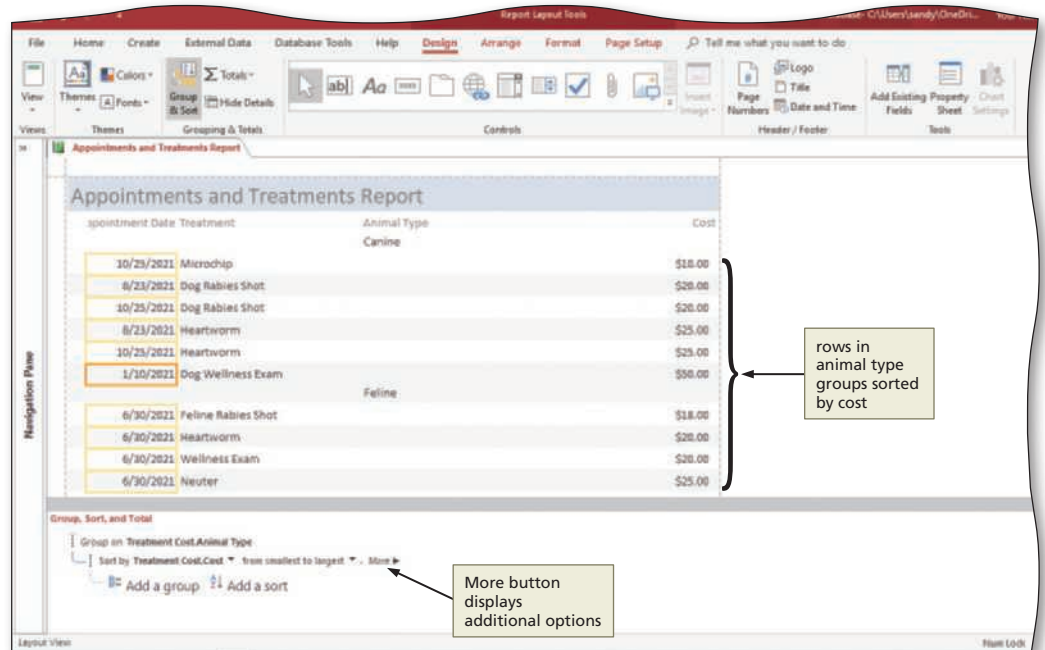


Figure 4-9

Grouping and Sorting Options

For both grouping and sorting, you can click the More button to specify additional options (Figure 4–10).

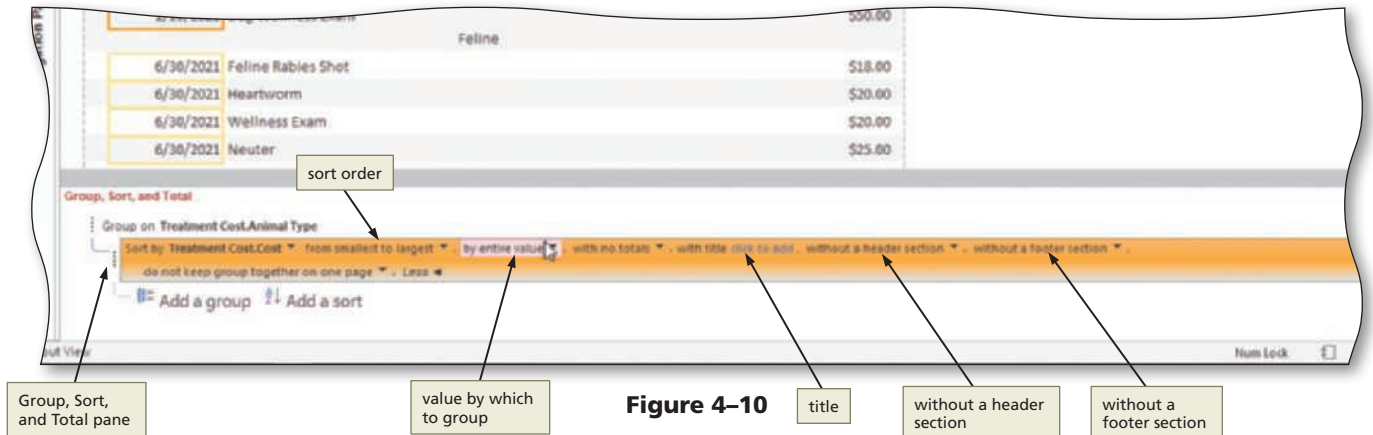


Figure 4–10

CONSIDER THIS

What is the purpose of the additional options?

- **Value.** You can choose the number of characters of the value on which to group. Typically, you would group by the entire value, for example, the entire city name. You could choose, however, to only group on the first character, in which case all accounts in cities that begin with the same letter would be considered a group. You could also group by the first two characters or by a custom number of characters.
- **Totals.** You can choose the values to be totaled. You can specify whether the totals are to appear in the group header or in the group footer and whether to include a grand total. You can also choose whether to show group totals as a percentage of the grand total.
- **Title.** You can customize the group title.
- **Header section.** You can include or omit a header section for the group.
- **Footer section.** You can include or omit a footer section for the group.
- **Keep together.** You can indicate whether Access should attempt to keep portions of a group together on the same page. The default setting does not keep portions of a group together, but you can specify that Access should keep a whole group together on one page, when possible. If the group will not fit on the remainder of the page, Access will move the group header and the records in a group to the next page. Finally, you can choose to have Access keep the header and the first record together on one page. If the header would fit at the bottom of a page, but there would not be room for the first record, Access will move the header to the next page.

BTW

Grouping

You should allow sufficient white space between groups. If you feel the amount is insufficient, you can add more space by enlarging the group header or group footer.

Report Controls

The various objects on a report are called **controls**. You can manipulate these controls to modify their location and appearance. The report title, column headers, contents of various fields, subtotals, and so on are all contained in controls. When working in Layout view, as you will do in this module, Access handles details concerning placement, sizing, and format of these controls for you automatically. When working in Design view, you will see and manipulate the controls. Even when working in Layout view, however, it is useful to understand the concepts of controls.

The report shown in Figure 4–1 has a control containing the title, Appointments and Treatments Report. The report also includes controls containing each column

header (Appointment Date, Treatment, Animal Type, and Cost). A control in the Group Header section displays the animal type.

There are two controls in the Group Footer section: One control displays the subtotal of Cost and a second displays the subtotal of Costs for all the groups. The Detail section has controls containing the appointment date, treatment, animal type, and cost.

Access has three types of controls: bound controls, unbound controls, and calculated controls. **Bound controls** are used to display data that comes from the database, such as the account number and name. **Unbound controls** are not associated with data from the database and are used to display such things as the report's title. Finally, **calculated controls** are used to display data that is calculated from other data, such as a total.

BTW

Report Design Considerations

The purpose of any report is to present specific information. Make sure that the meaning of the row and column headings is clear. You can use different fonts and sizes by changing the appropriate properties, but do not overuse them. Finally, be consistent when creating reports. Once you decide on a general report style or theme, stick with it throughout your database.

To Add Totals and Subtotals

To add totals or other statistics, use the Totals button on the Design tab. You then select from a menu of aggregate functions, which are functions that perform some mathematical function against a group of records. The available aggregate functions, or calculations, are Sum (total), Average, Count Records, Count Values, Max (largest value), Min (smallest value), Standard Deviation, and Variance. Because the report is grouped, each group will have a **subtotal**, that is, a total for just the records in the group. At the end of the report, there will be a **grand total**, that is, a total for all records.

The following steps specify totals for the Cost field. *Why? Along with determining to group data in this report, CMF Vets managers have also determined that subtotals and a grand total of the Cost field should be included.*

1

- Click any record in the Cost field, and then click the Totals button (Report Layout Tools Design tab | Grouping & Totals group) to display the list of available calculations (Figure 4-11).

Q&A

Can I click the column header?

Yes, you can try to click the column header, but if you are unable to select the field, click the Cost field on any record. If you click the column header and the Totals button does not become available, you will need to click a Cost field in a record.

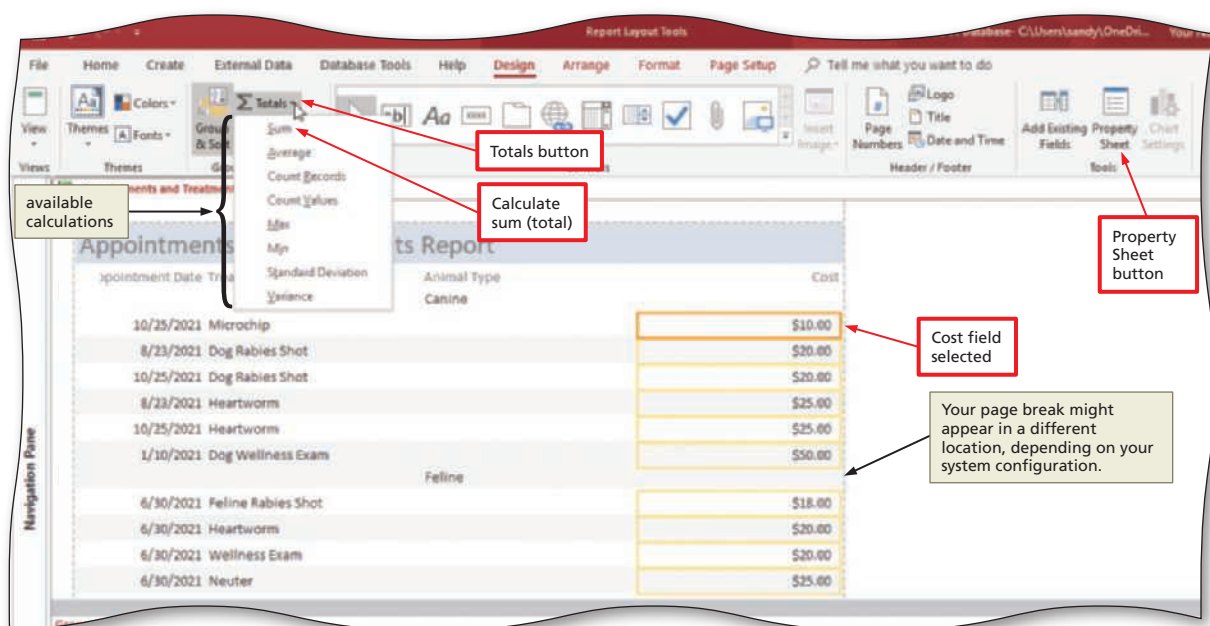


Figure 4-11

2

- Click Sum to calculate the sum of the Cost values.
- If the subtotal does not appear completely, click the subtotal and then drag the lower boundary of the control for the subtotal to the approximate position shown in Figure 4–12.

Q&A I moved the control rather than resizing it. What did I do wrong?

You dragged the control rather than dragging its lower boundary. Click the Undo button on the Quick Access Toolbar to undo your change and then drag again, making sure you are pointing to the lower boundary.

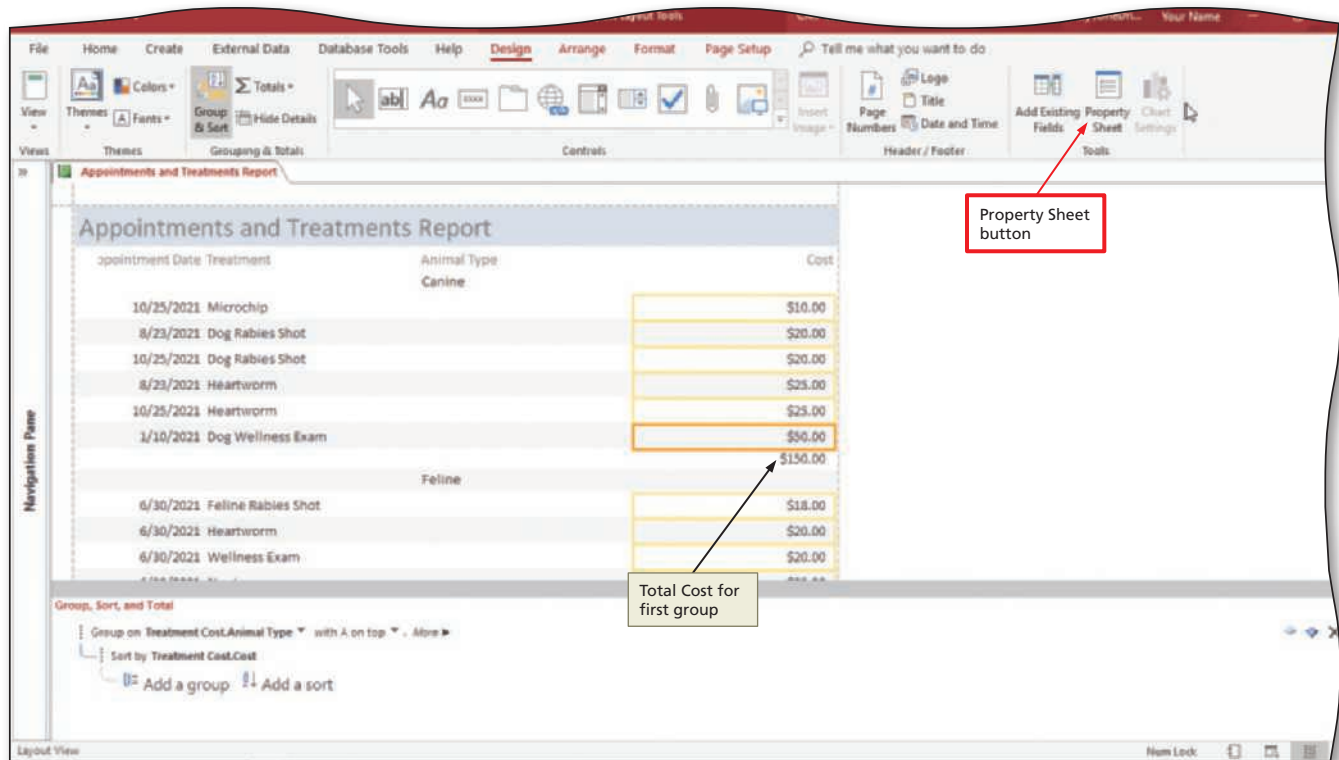


Figure 4–12

3

- Click the subtotal of the Canine Cost field to select it.
- Click the Property Sheet button (Report Layout Tools Design tab | Tools group) to display the property sheet for the subtotal control.
- Click the All tab in the Property Sheet, click the Format option to produce an arrow, and then click the arrow to display available currency formats for the selected item.
- Click Currency to apply the Currency style to the subtotal of the Cost field.
- Click the Font Weight property to produce an arrow, click the arrow, and then click Bold to format the Cost with bold font (Figure 4–13)

Q&A Why am I applying a currency style if the cost is already in currency format?

Access contains many options for currency. Confirming and applying the correct format will ensure that the format is correct even if you make other changes to the report.

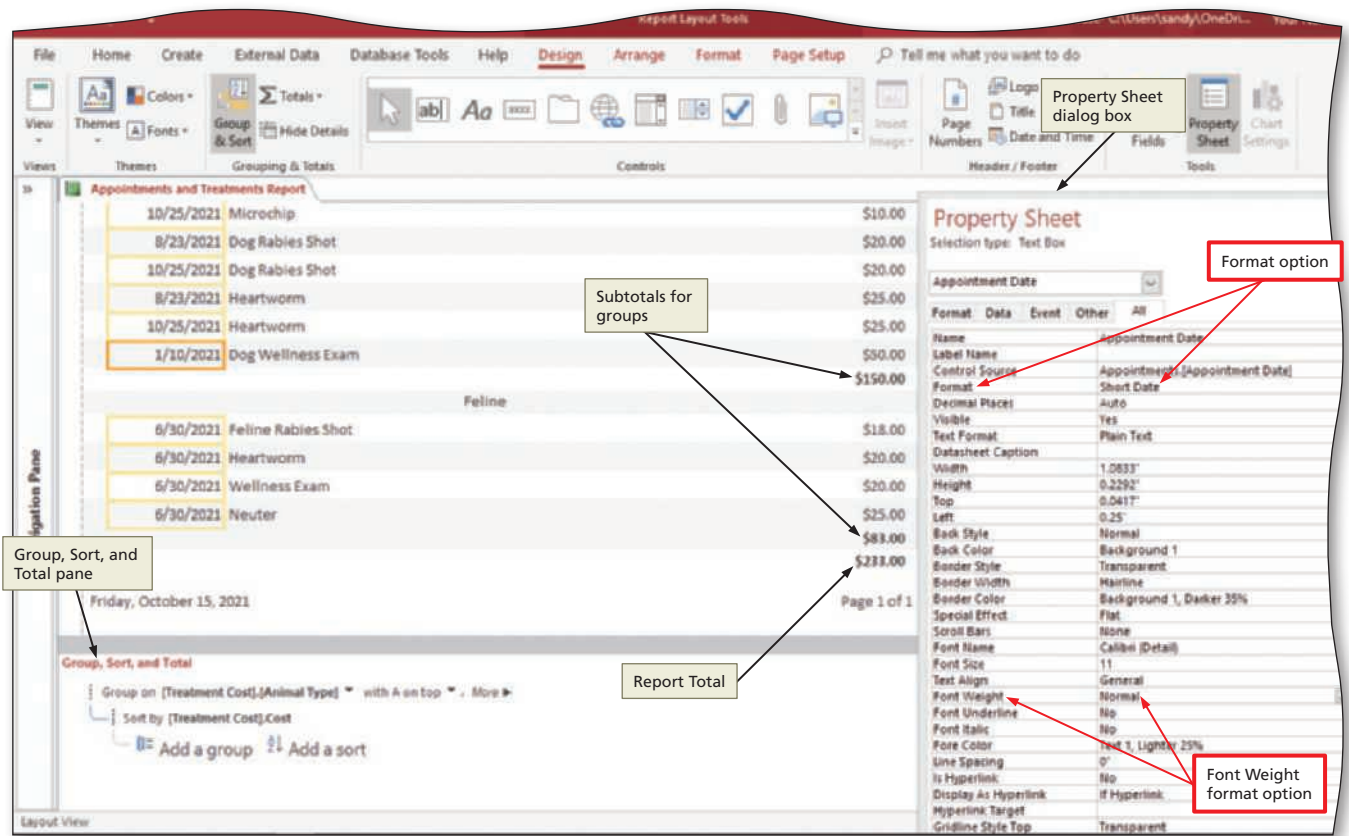


Figure 4-13

4

- Click the Property Sheet button (Report Layout Tools Design tab | Tools group) to close the property sheet.
- Scroll to the bottom of the report and use the same technique to change the format for the grand total of Cost to Currency and Bold.
- If necessary, drag the lower boundaries of the controls for the grand total so that the numbers appear completely.
- Click Save to save the report.

Other Ways

1. Right-click column header for field on which to group, click Group On (field name)

To Remove the Group, Sort, and Total Pane

The following step removes the Group, Sort, and Total pane from the screen. *Why? Because you have specified the required grouping and sorting for the report, you no longer need to use the Group, Sort, and Total pane.*

1

- Click the Group & Sort button (Report Layout Tools Design tab | Grouping & Totals group) to remove the Group, Sort, and Total pane (Figure 4-14).

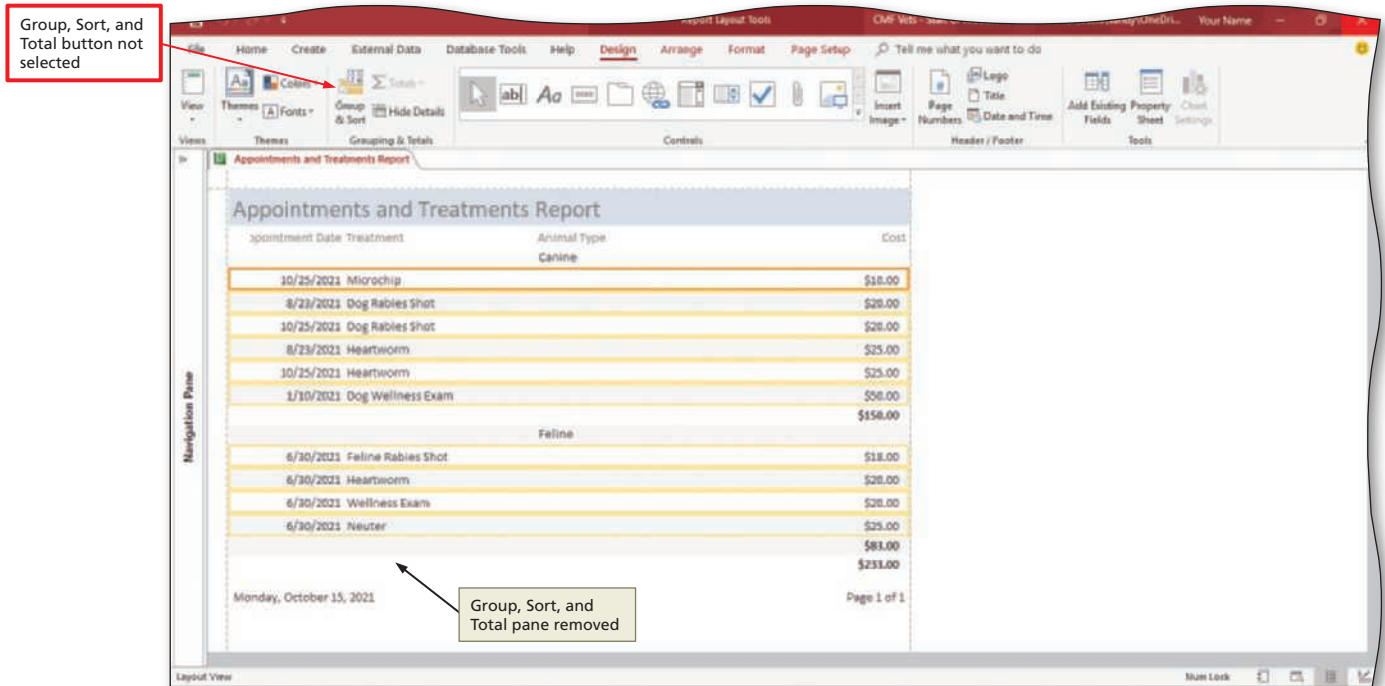


Figure 4-14

Q&A Do I need to remove the Group, Sort, and Total pane?
 No. Doing so provides more room on the screen for the report, however. You can easily display the pane whenever you need it by clicking the Group & Sort button again.

Other Ways

1. Click 'Close Grouping Dialog Box' button



CONSIDER THIS

How do you determine the organization of the report or form?

Determine various details concerning how the data in your report or form is to be organized.

Determine sort order. Is there a special order in which the records should appear?

Determine grouping. Should the records be grouped in some fashion? If so, what should appear before the records in a group? If, for example, records are grouped by city, the name of the city should probably appear before the group. What should appear after the group? For example, does the report include some fields for which subtotals should be calculated? If so, the subtotals would come after the group. Determine whether you need multiple levels of grouping.

To Conditionally Format Controls

Conditional formatting is special formatting that is applied to values that satisfy some criterion. CMF Vets management has decided to apply conditional formatting to the Cost field. *Why? They would like to emphasize values in the Cost field that are greater than or equal to \$20.00 by changing the font color to red.* By emphasizing the treatments equal to or higher in cost than \$20, they can review the higher treatment costs that may be affected by price increases from vendors. The following steps conditionally format the Cost field by specifying a **rule** that states that if the values in the field are greater than or equal to \$20.00, such values will be formatted in red.

1

- Confirm that you are still in Layout View and scroll to the top of the report.
- Click Format on the ribbon to display the Report Layout Tools Format tab.

- Click the Cost field on the first record to select the field (Figure 4-15).

Q&A Does it have to be the first record?
 No. You could click the field on any record.

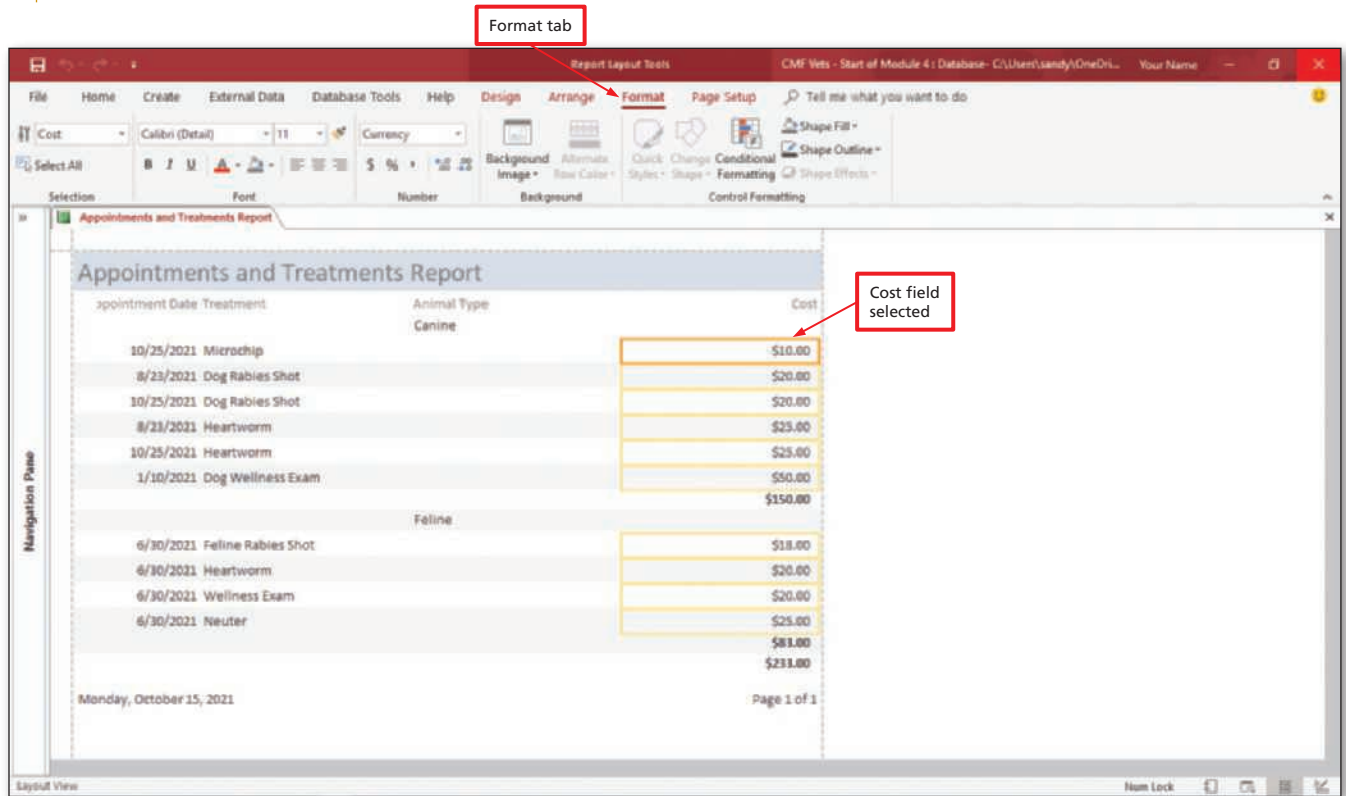


Figure 4-15

- 2 • Click the Conditional Formatting button (Report Layout Tools Format tab | Control Formatting group) to display the Conditional Formatting Rules Manager dialog box (Figure 4-16).

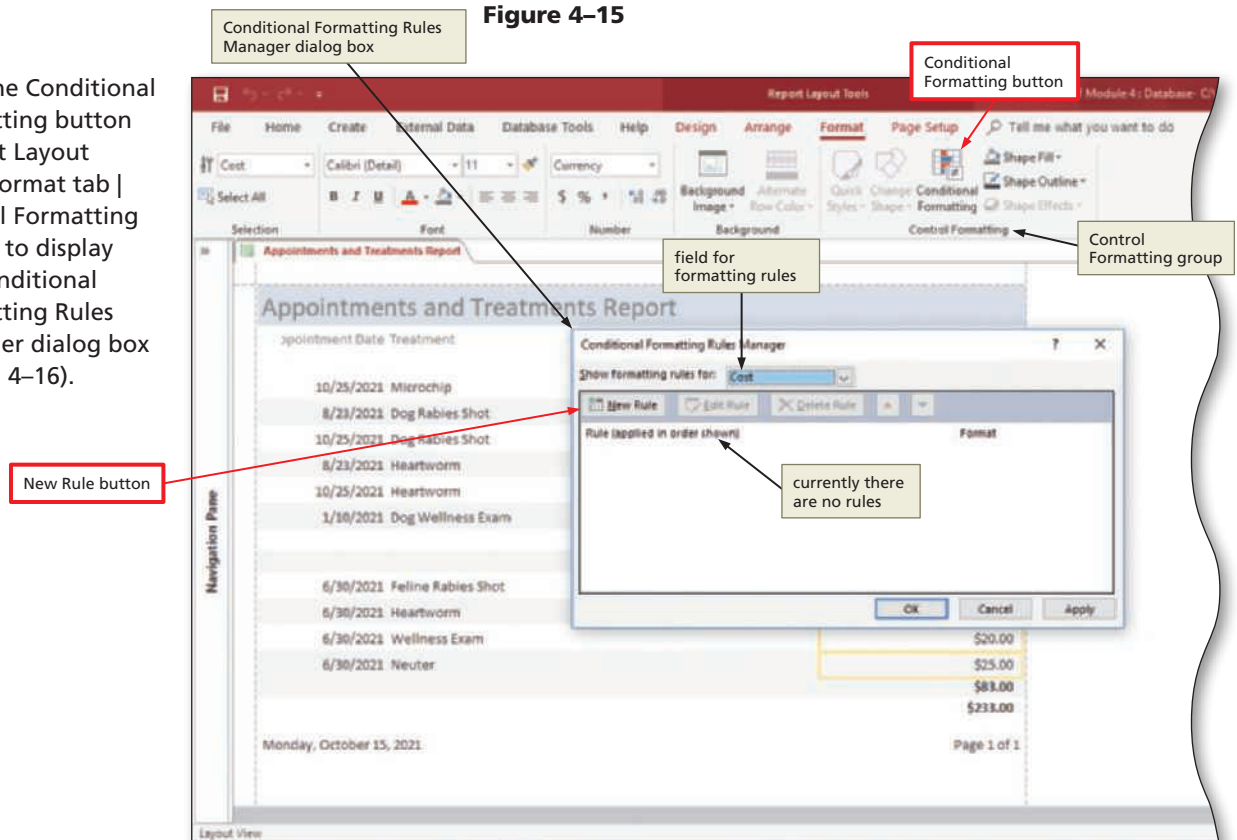


Figure 4-16

- 3**
- Click the New Rule button (Conditional Formatting Rules Manager dialog box) to display the New Formatting Rule dialog box (Figure 4-17).

Q&A I see that there are two boxes to enter numbers. I only have one number to enter, 20. Am I on the right screen? Yes. Next, you will change the comparison operator from “between” to “greater than or equal to.” Once you have done so, Access will only display one box for entering a number.

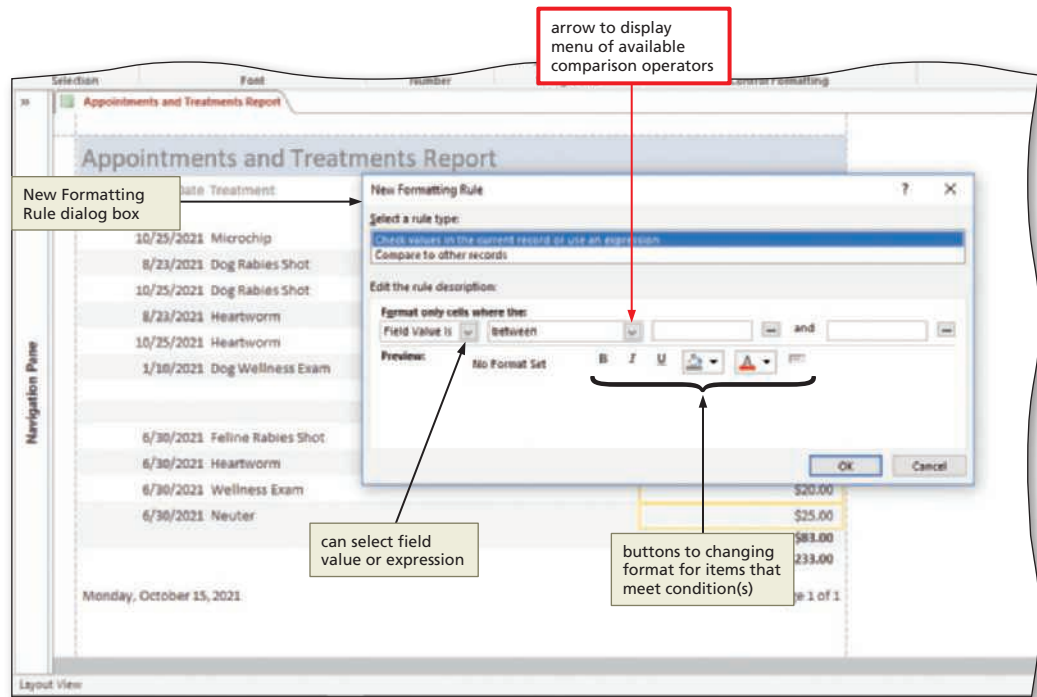


Figure 4-17

- 4**
- Click the arrow to display the list of available comparison operators (New Formatting Rule dialog box) (Figure 4-18).

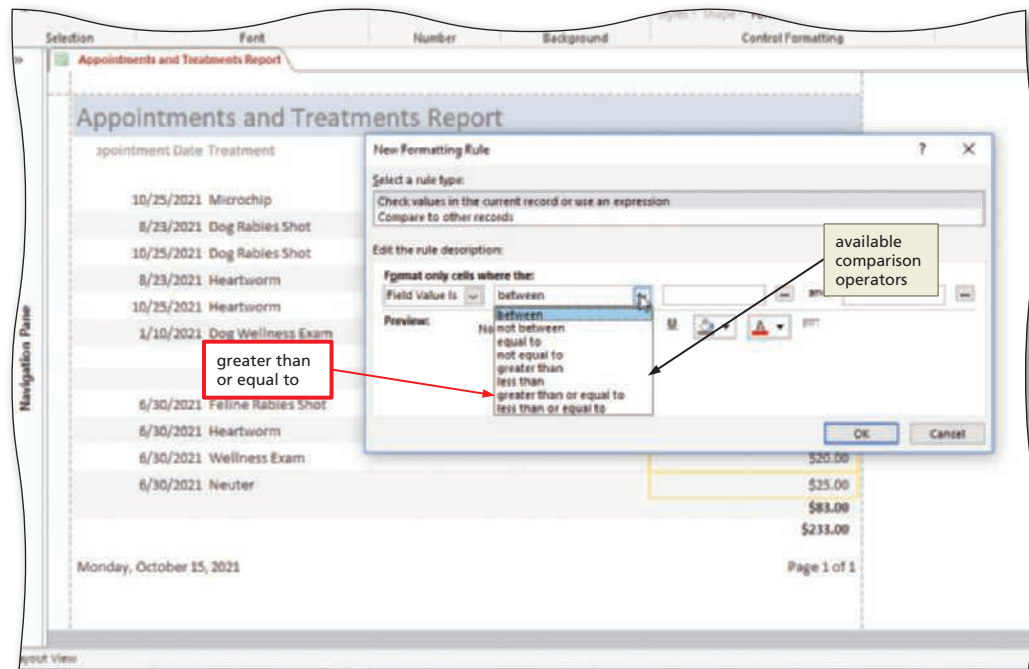


Figure 4-18

- 5**
- Click “greater than or equal to” to select the comparison operator.
 - Click the box for the comparison value, and then type 20 as the comparison value.

Q&A What is the effect of selecting this comparison operator and entering this number? Values in the field that are greater than or equal to 20 satisfy this rule. Any formatting that you now specify will apply to those values and no others.

- Click the Font Color arrow (New Formatting Rule dialog box) to display a color palette (Figure 4–19).

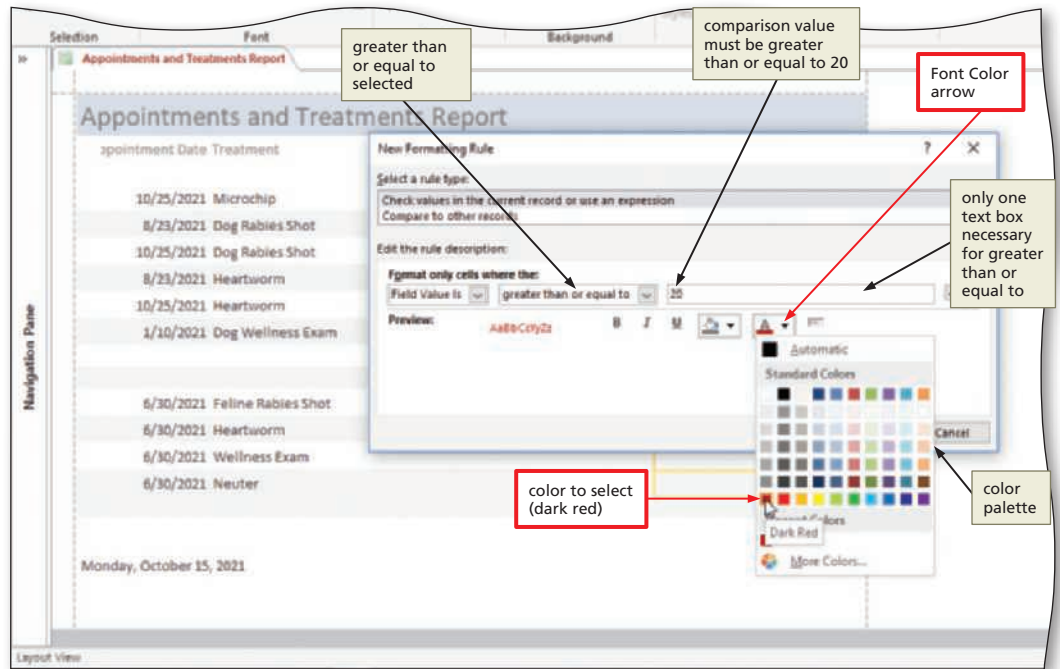


Figure 4–19

- 6 • Click the dark red color in the lower-left corner of the color palette to select the color (Figure 4–20).

Q&A What other changes could I specify for those values that satisfy the rule?
 You could specify that the value is bold, italic, and/or underlined. You could also specify a background color.

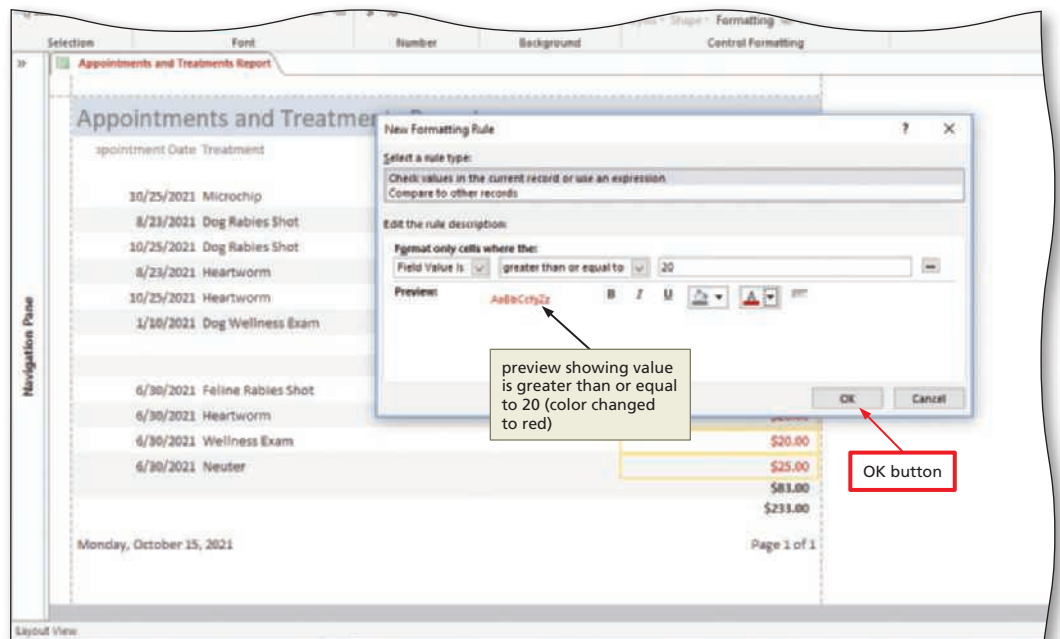


Figure 4–20

- 7 • Click OK (New Formatting Rule dialog box) to enter the rule (Figure 4–21).

Q&A What if I have more than one rule?
 The rules are applied in the order in which they appear in the dialog box. If a value satisfies the first rule, the specified formatting will apply, and no further rules will be tested. If not, the value will be tested against the second rule. If it satisfies the rule, the formatting for the second rule would apply. If not, the value would be tested against the third rule, and so on.

Q&A Can I change this conditional formatting later?

Yes. Select the field for which you had applied conditional formatting on any record, click the Conditional Formatting button (Report Layout Tools Format tab | Control Formatting group), click the rule you want to change, click the Edit Rule button, and then make the necessary changes. You can also delete the selected rule by clicking the Delete Rule button, or move the selected rule by clicking the Move Up or Move Down buttons.

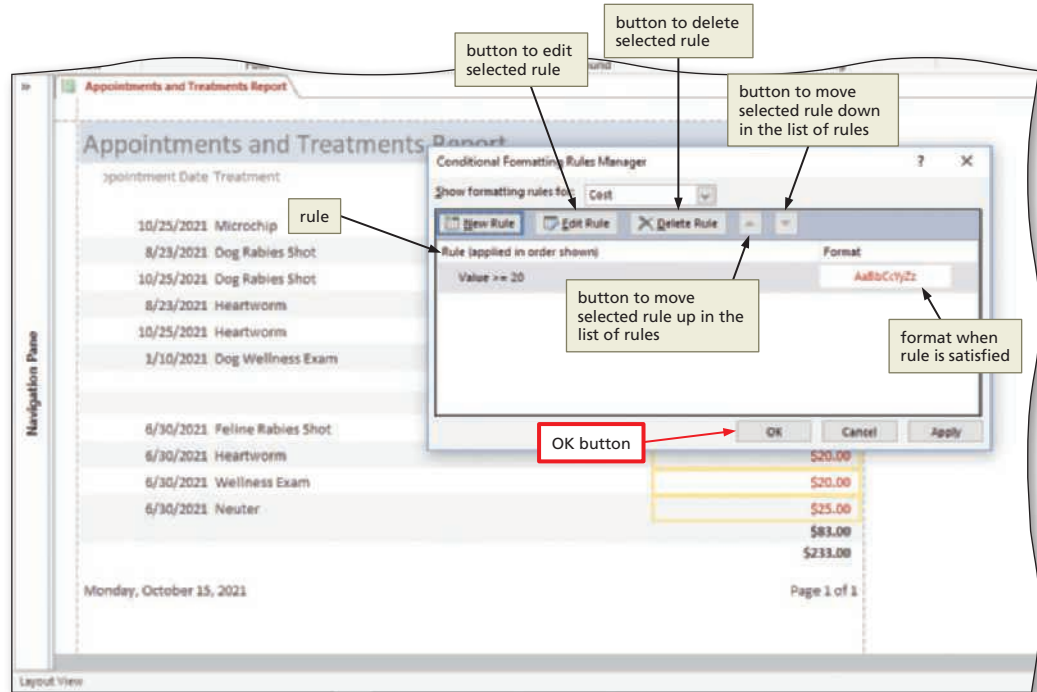


Figure 4-21

- 8**
 - Click OK (Conditional Formatting Rules Manager dialog box) to complete the entry of the conditional formatting rules and apply the rule (Figure 4-22).

- 9**
 - Save your changes by clicking Save on the Quick Access Toolbar.

Experiment

- After saving your changes, experiment with different rules. Add a second rule that changes the format for any current due amount that is greater than or equal to \$25 to a different color to see the effect of multiple rules. Change the order of rules to see the effect of a different order. When you have finished, delete any additional rules you have added so that the report contains only the one rule that you created earlier.



Figure 4-22

To Filter Records in a Report

You sometimes might want to filter records in a report. *Why? You may want to include in a report only those records that satisfy some criterion and be able to change that criterion easily.* To filter records in a report, you can use the filter buttons in the Sort & Filter group on the Home tab. If the filter involves only one field, however, right-clicking the field provides a simple way to filter. The following steps filter the records in the report to include only those records on which the cost amount is not \$25.

1

- While still in Layout View, right-click the Cost field on the first record where Cost is 25 to display the shortcut menu (Figure 4–23).

Q&A Did I have to pick the first record where the value is \$25.00?
 No. You could pick any record on which the Cost value is \$25.00.

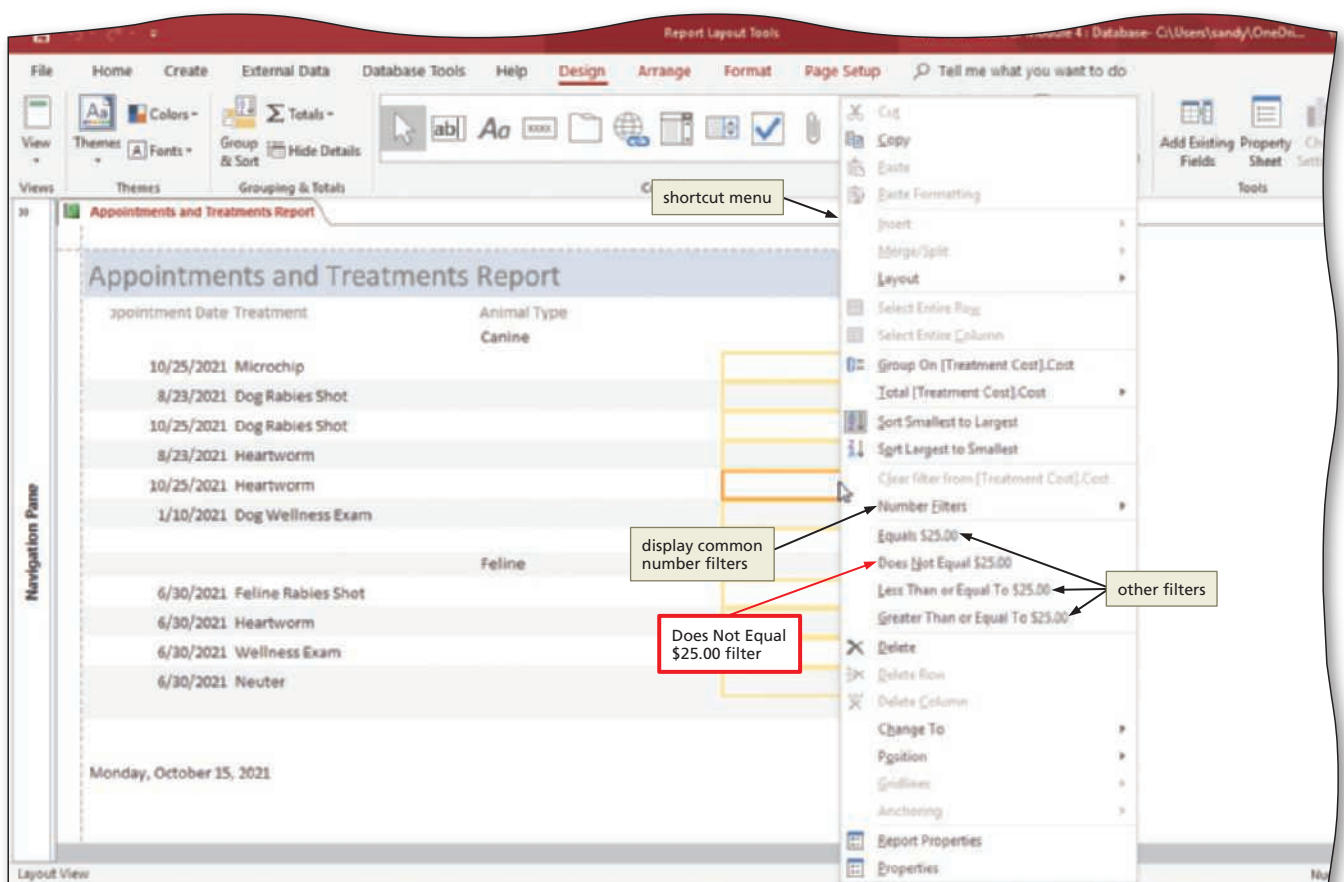


Figure 4–23

2

- Click 'Does Not Equal \$25.00' on the shortcut menu to restrict the records in the report to those on which the Cost value is not \$25.00 (Figure 4–24).

Q&A When would you use Number Filters?
 You would use Number Filters if you need filters that are not on the main shortcut menu or if you need the ability to enter specific values other than the ones shown on the shortcut menu. If those filters are insufficient for your needs, you can use Advanced Filter/Sort, which is accessible through the Advanced button (Home tab | Sort & Filter group).

Appointment Date	Treatment	Animal Type	Cost
10/25/2021	Microchip	Canine	\$10.00
8/23/2021	Dog Rabies Shot	Canine	\$20.00
10/25/2021	Dog Rabies Shot	Canine	\$20.00
1/10/2021	Dog Wellness Exam	Canine	\$50.00
			\$100.00
Feline			
6/30/2021	Feline Rabies Shot	Feline	\$18.00
6/30/2021	Heartworm	Feline	\$20.00
6/30/2021	Wellness Exam	Feline	\$20.00
			\$58.00
			\$158.00

Figure 4-24

Other Ways

1. Click Selection button (Home tab | Sort & Filter group)

To Clear a Report Filter

The following steps clear the filter on the Cost field. *Why? When you no longer want the records to be filtered, you clear the filter so that all records are again included.*

1

- Right-click the Cost field on the first record to display the shortcut menu (Figure 4-25).

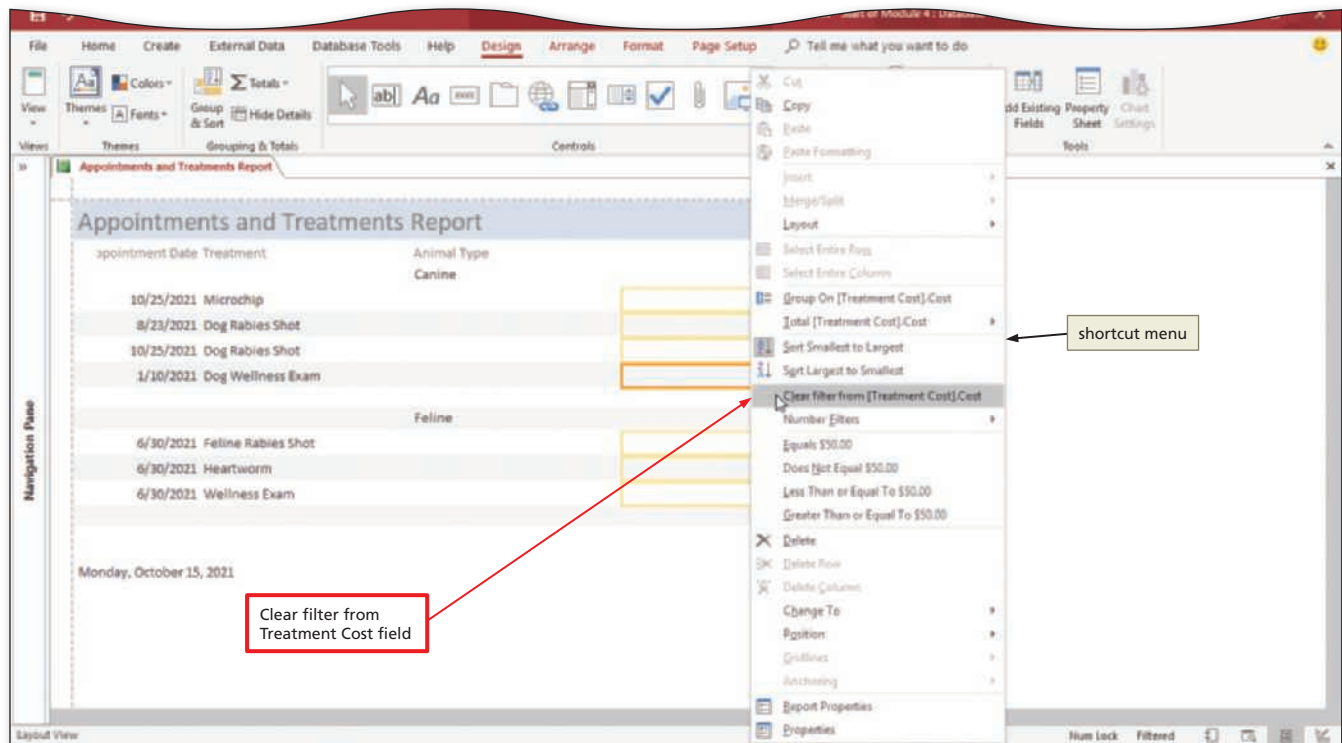


Figure 4-25

Q&A Did I have to pick the first record?
No. You could pick the Cost field on any record.

- Click Clear filter from [Treatment Cost]. Cost on the shortcut menu to clear the filter and redisplay all records.

 **Experiment**

- Try other filters on the shortcut menu for the Cost field to see their effect. When you are done with each, clear the filter.
- Save your work.
- Close the Appointments and Treatments Report.

Other Ways

1. Click Advanced button (Home tab | Sort & Filter group)

The Arrange and Page Setup Tabs

When working on a report in Layout view, you can make additional layout changes by using the Report Layout Tools Arrange and/or Page Setup tabs. The Arrange tab is shown in Figure 4–26. Table 4–1 shows the buttons on the Arrange tab along with the Enhanced ScreenTips that describe their function.



Figure 4–26

Table 4–1 Arrange Tab	
Button	Enhanced ScreenTip
Gridlines	Gridlines.
Stacked	Create a layout similar to a paper form, with labels to the left of each field.
Tabular	Create a layout similar to a spreadsheet, with labels across the top and data in columns below the labels.
Insert Above	Insert above.
Insert Below	Insert below.
Insert Left	Insert left.
Insert Right	Insert right.
Select Layout	Select layout.
Select Column	Select column.
Select Row	Select row.
Merge	Merge cells.
Split Vertically	Split the selected control into two rows.
Split Horizontally	Split the selected control into two columns.
Move Up	Move up.
Move Down	Move down.
Control Margins	Specify the location of information displayed within the control.
Control Padding	Set the amount of spacing between controls and the gridlines of a layout.

BTW

Using the Arrange Tab

Because the commands located on the Arrange tab are actions associated with previously selected controls, be sure to select the desired control or controls first.

BTW

Searching for Records in a Report

You can use the Find button to search for records in a report. To do so, open the report in Report view or Layout view and select the field in the report on which to search. Click the Find button (Home tab | Find group) to display the Find and Replace dialog box. Type the desired value on which to search in the Find What text box (Find and Replace dialog box), and then click the Find Next button.

The Report Layout Tools Page Setup tab is shown in Figure 4–27. Table 4–2 shows the buttons on the Page Setup tab along with the Enhanced ScreenTips that describe their function.

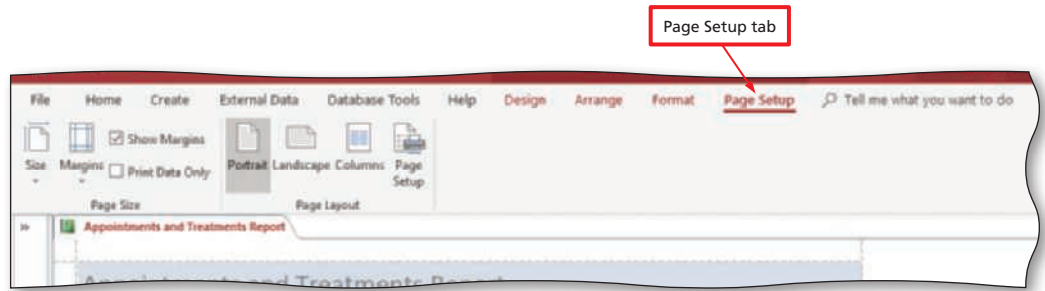


Figure 4–27

Table 4–2 Page Setup Tab	
Button	Enhanced ScreenTip
Size	Choose a paper size for the current document.
Margins	Select the margin sizes for the entire document or the current section.
Show Margins	Show margins.
Print Data Only	Print data only.
Portrait	Change to portrait orientation.
Landscape	Change to landscape orientation.
Columns	Columns.
Page Setup	Show the Page Setup dialog box.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on a social networking site, blog, or other website; and sharing a link associated with an online location of the document. You can also create and share a PDF or XPS image of the document, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Access.

TO PRINT A REPORT

If you want to print your report, you would use the following steps.

1. With the report selected in the Navigation Pane, click File on the ribbon to open the Backstage view.
2. Click the Print tab in the Backstage view to display the Print gallery.
3. Click the Quick Print button to print the report.

Q&A

How can I print multiple copies of my report?

Click File on the ribbon to open the Backstage view. Click the Print tab, click Print in the Print gallery to display the Print dialog box, increase the number in the Number of Copies box, and then click OK (Print dialog box).

Break Point: If you wish to take a break, this is a good place to do so. You can quit Access now. To resume at a later time, start Access, open the database called CMF Vets, and continue following the steps from this location forward.

Multiple-Table Reports

Sometimes you will create reports that require data from more than one table. You can use the Report Wizard to create a report based on multiple tables just as you can use it to create reports based on single tables or queries. The following steps use the Report Wizard to create a report that includes fields from the Appointments, Treatment Cost, and Owners tables.

To Create a Report that Involves Multiple Tables

Currently, the Owners and the Patients tables are the only tables with an existing relationship that was created previously. In order to produce the report currently needed by the managers, you will need to add the Appointments and Treatment Costs tables. *Why? CMF Vets managers need a report that shows detailed appointment information that includes the Appointment Date, Treatment Number, Treatment Cost, Treatment Name, and Owner Last Name information from existing tables.*

Before starting to create reports from multiple tables, it is always a good idea to check the current relationships between tables and add any necessary tables to the relationship. The Appointments table will be the basis for much of the information in the report requested by CMF Vets managers. The following steps review the existing relationships and add the necessary tables. You previously created the relationship between the Owners and Patient tables.

1

- Click the Database Tools tab, click the Relationships button, click the Edit Relationships button to display the Edit Relationships box, and then close the Edit Relationships box (Figure 4–28).

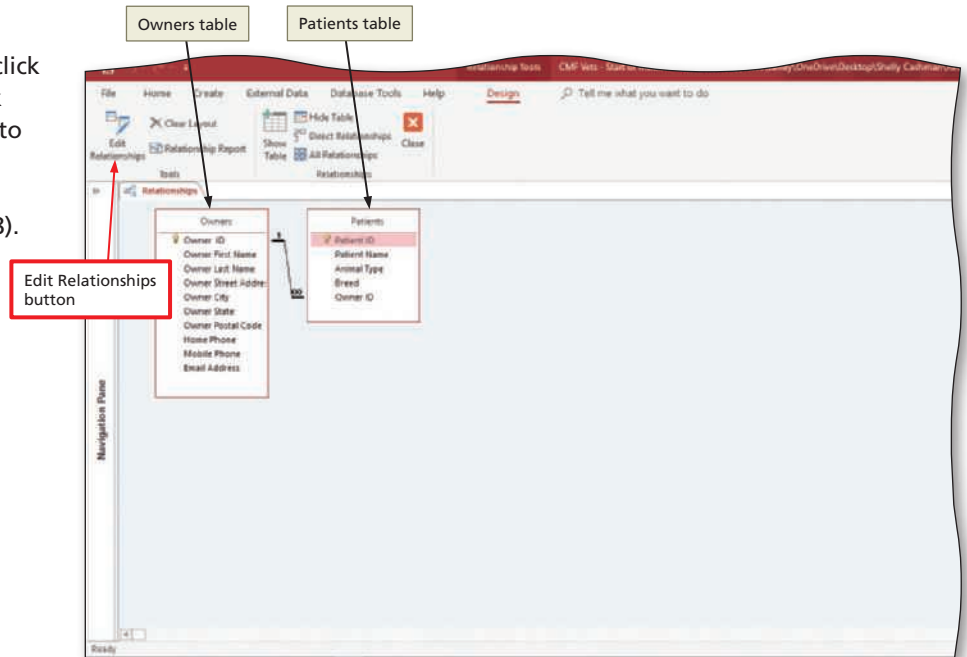


Figure 4–28

2

- Click the Show Table button to view available tables.
- Click the Appointments table and then click the Add button to add this table to the Relationships window (Figure 4–29).
- Close the Show Table dialog box.
- Click the Owner ID field in the Owners table and drag to the Owner field in the Appointments table to create the relationship.

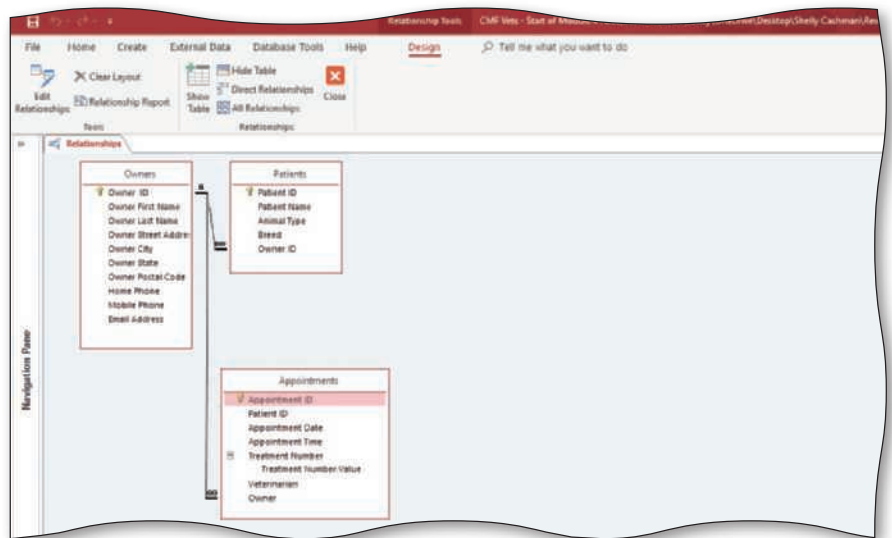


Figure 4–29

Q&A

What are the lines that appear between the tables in the Relationships window?

The lines depict the relationships between tables. The relationship between the Patients and

Appointments tables is based on the Patient ID field. A relationship exists between the Owners ID field in the Owners table and the Owners field in the Appointments table.

- Click the Enforce Referential Integrity check box, and then click the Create button.

3

- Next, you will add the Treatment Cost table, so you can view the cost of the appointment.
- Click the Treatment Cost table in the Show Table dialog box and click the Add button to add the table to the Relationship window (Figure 4–30), and then close the Show Table dialog box.
- Click the Treatment Number.Value field in the Appointments table and drag to the Treatment Number field in the Treatment Cost table to create the relationship.
- Click the Enforce Referential Integrity check box, and then click the Create button.

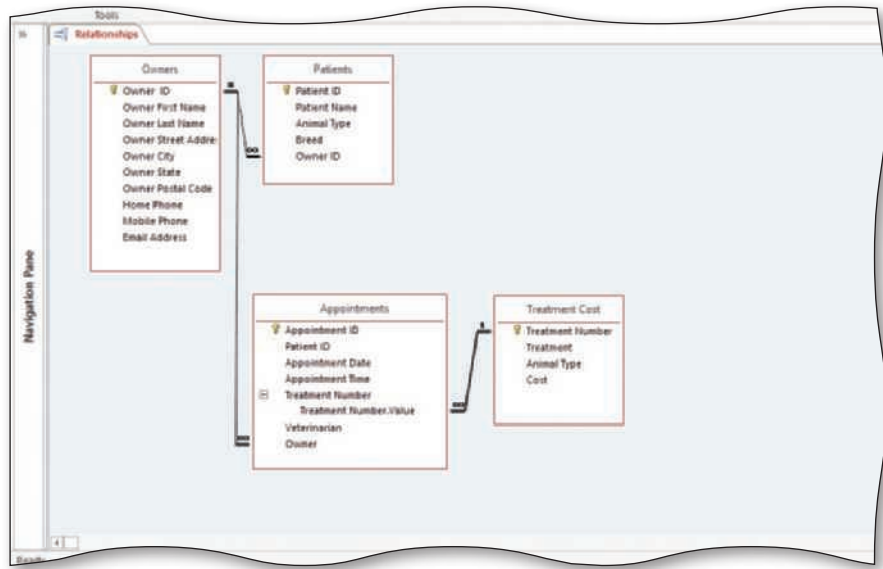


Figure 4–30

Q&A How does the Access relate the Appointments and Treatment Cost tables?

Access recognizes there is a relationship between the Treatment Number.Value field in the Appointments table and the Treatment Number field in the Treatment Costs table. Treatment Number and Treatment Number.Value are displayed on two lines in the Appointments table for the same field because this field was previously updated to a multivalued lookup field that displays the field on two multiple lines.

4

- Save your changes by clicking Save on the Quick Access Toolbar.
- Close the Relationships window.

5

- Open the Navigation Pane if it is currently closed and then select the Appointments table.
- Click Create on the ribbon to display the Create tab.
- Click the Report Wizard button (Create tab | Reports group) to open the Report Wizard.
- Click the Appointment Date field and then click the Add Field button to add the date to the report.
- Use the Add Field button to add the Treatment Number and Treatment Number.Value fields to the report (Figure 4–31).

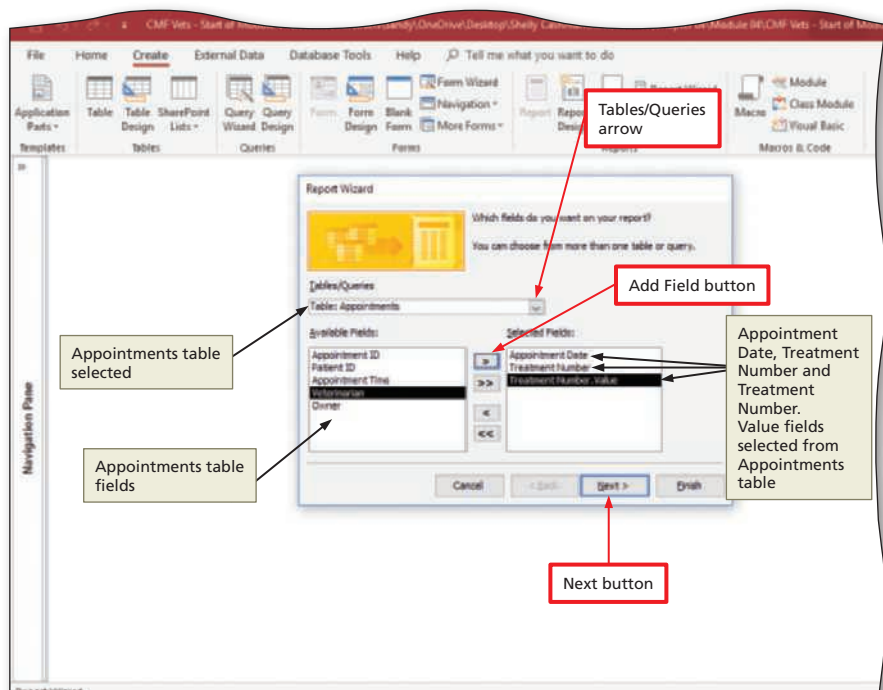


Figure 4–31

Q&A Why was the word, Value, added to the Treatment Number field name?

Access changes the field name automatically when it is a multivalued lookup field.

6

- Click the Tables/Queries arrow to display available tables and then click the Treatment Cost table.
- Click the Cost field and then click the Add Field button.
- Click the Treatment field and then click the Add Field button (Figure 4–32).
- Click the Tables/Queries arrow to display available tables and then click the Owners table to select it as the data source.

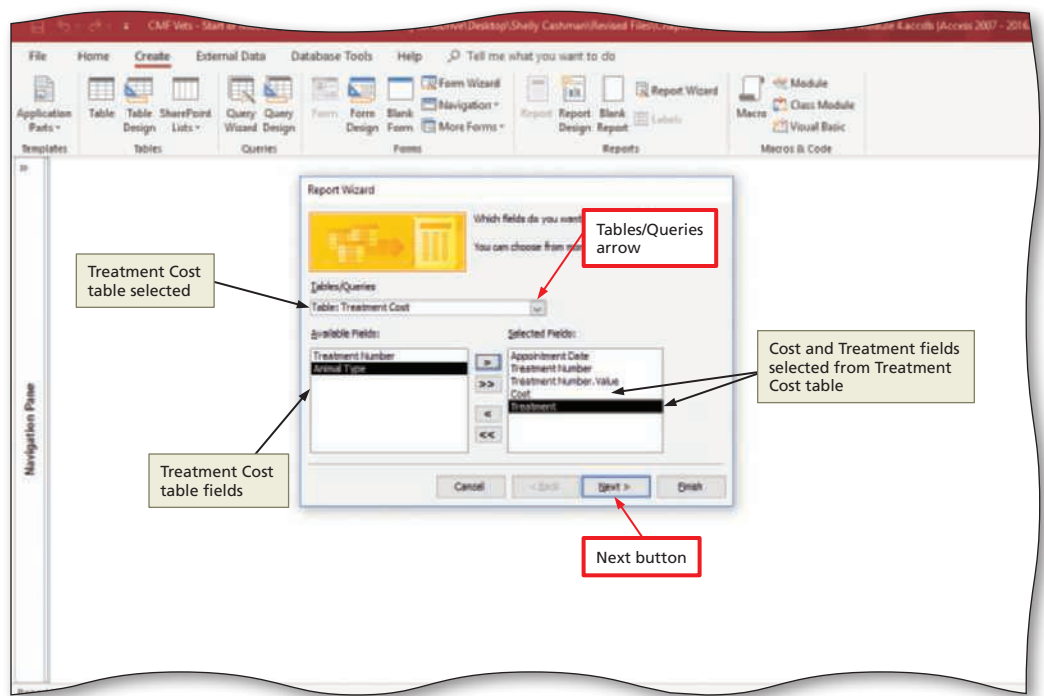


Figure 4–32

7

- Click the Owner Last Name field and then click the Add Field button to add the Owner Last Name field to the report (Figure 4–33).

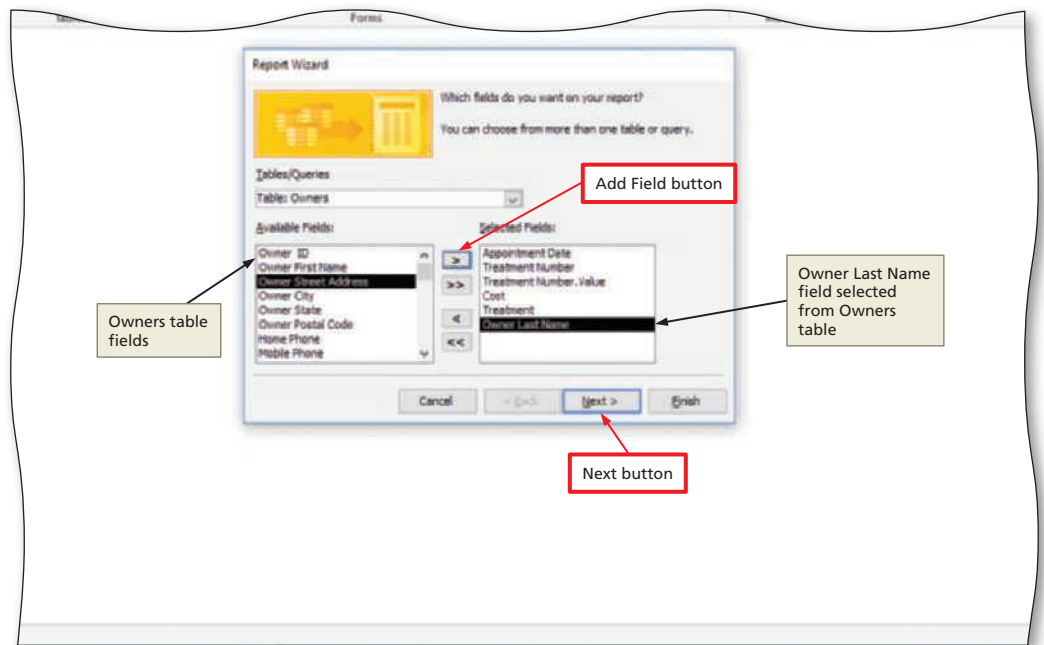


Figure 4–33

8

- Now that all the fields have been added, click Next.
- Because the report is to be based on the Appointments table and that table already is selected, click Next.

- Click the Appointment Date field and then click the Add Field button to add a grouping level (Figure 4-34)

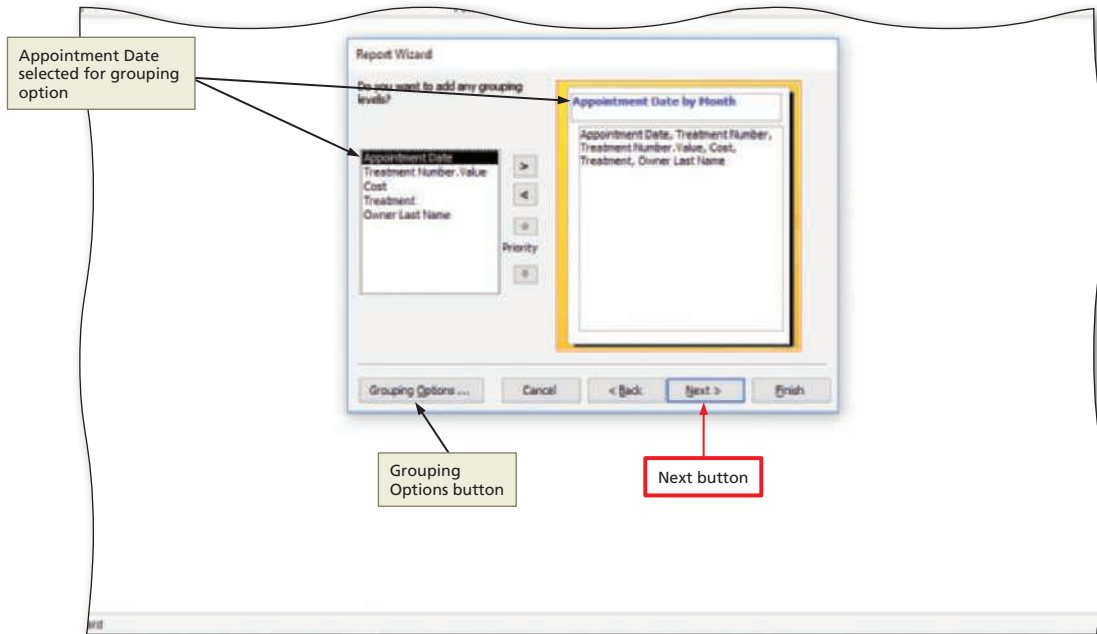


Figure 4-34

- 9
 - Click Next to move to the next Report Wizard screen.
 - To sort by Appointment Date, click the arrow to select sort order, and then click the Appointment Date (Figure 4-35).

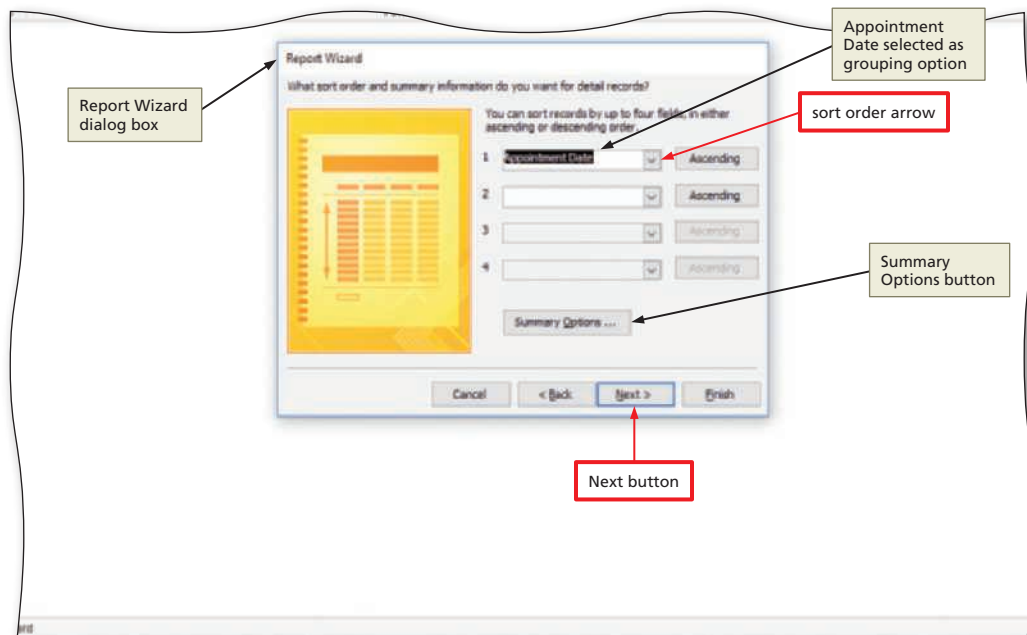


Figure 4-35

- 10
 - Click the Summary Options button to display the Summary Options dialog box.
 - Click the Sum check box to calculate the sum of Cost.

- If necessary, click the Detail and Summary option button to select it (Figure 4–36).

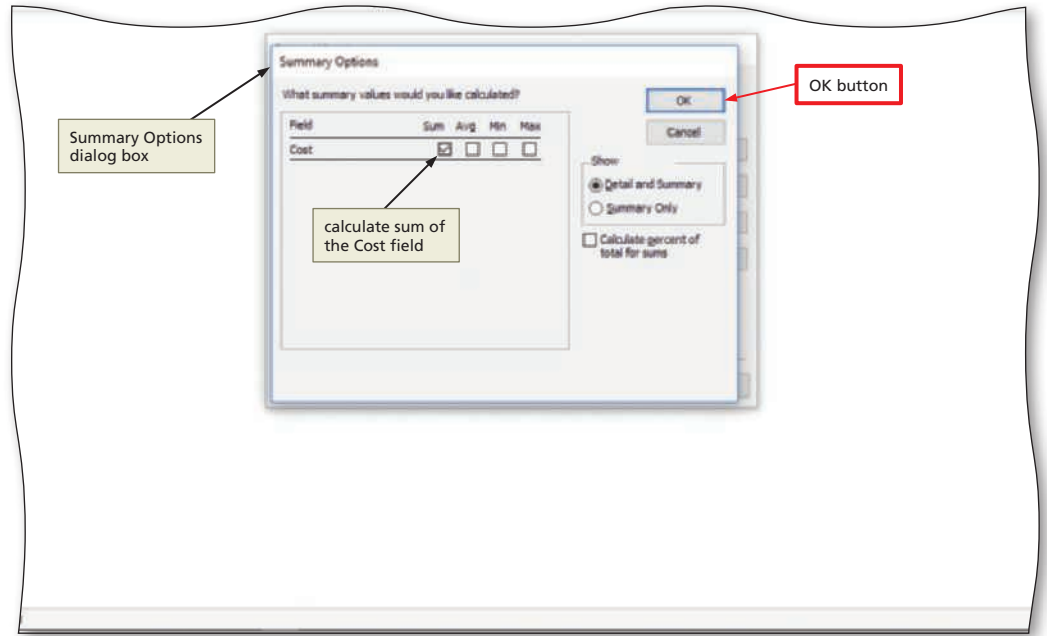


Figure 4–36

11

- Click OK (Summary Options dialog box) to close the Summary Option dialog box.
- Click Next to move to the next screen in the wizard, confirm that Stepped layout is selected, and then click the Landscape option button to select the orientation.
- Click Next to move to the next screen
- Click the text box for the title, delete any existing text, and then type **Owner Appointment Cost** as the title (Figure 4–37).

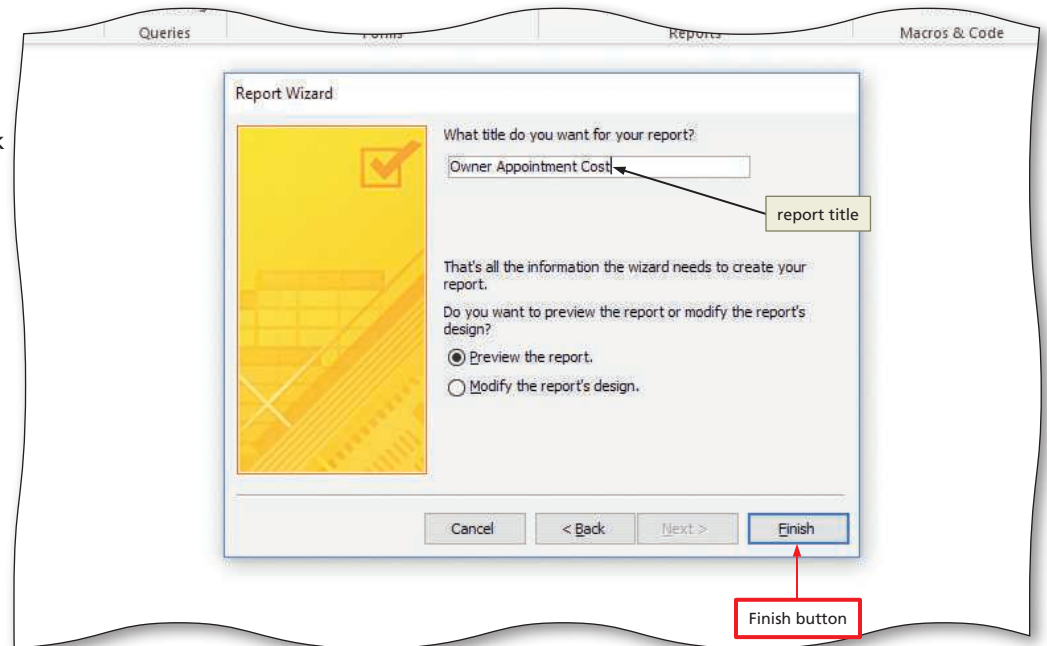


Figure 4–37

12

- Click Finish to produce the report (Figure 4–38).
- Save the report as Owner Appointment Cost.

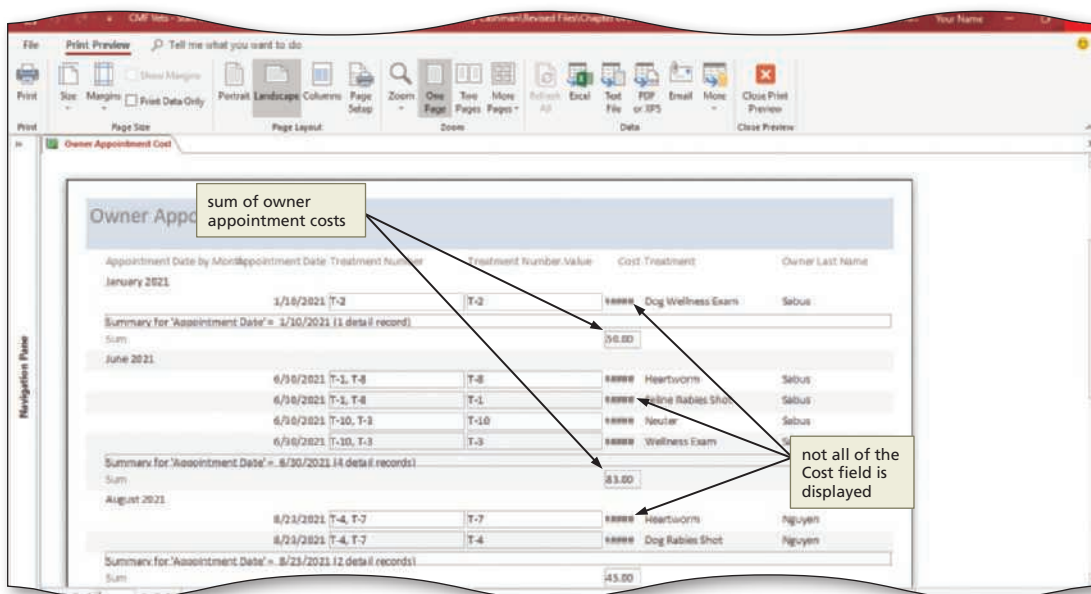


Figure 4-38

To Modify the Report

CMF Vets needs to change the sizes of some of the objects that appear in the Owner Appointment Cost report. *Why? The size of the controls does not allow all of the data to appear in some of the controls.* The following steps resize the Cost, Sum, and Total Cost Controls so that all of the data is visible.

1

- If necessary, open the Owner Appointment Cost report.
- Click the View button arrow (Home tab | Views group), and then click Layout View to change the view (Figure 4-39).

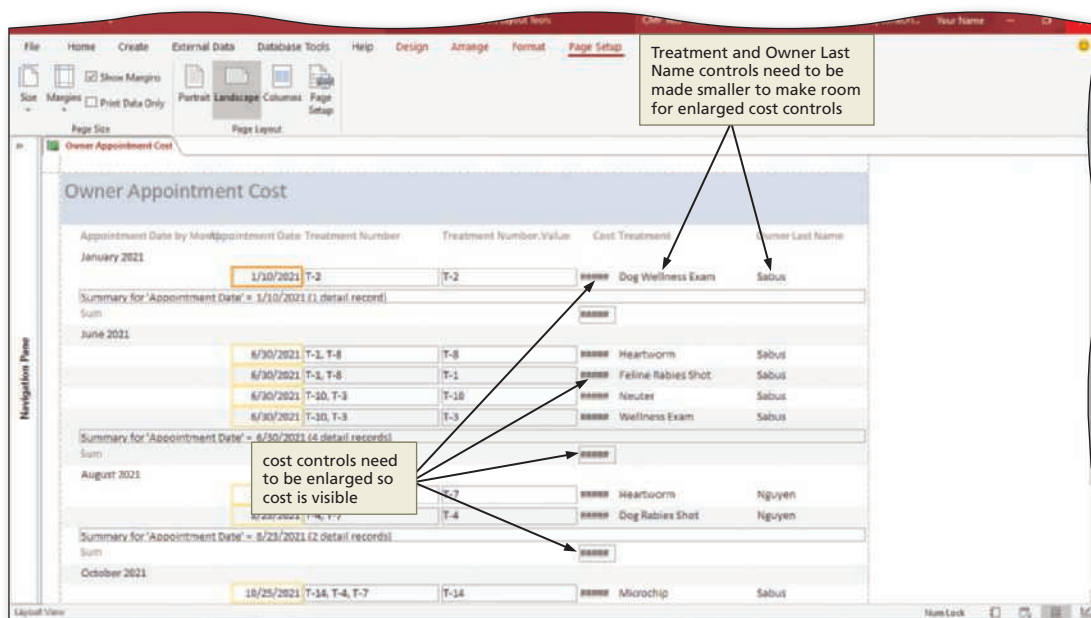


Figure 4-39

2

- Click the Owner Last Name control under the Owner Last Name heading to select it.
- Point to the left border of the Owner Last Name control until the pointer becomes double-headed arrow (Figure 4-40). Then, drag the pointer to the right to make the control smaller.

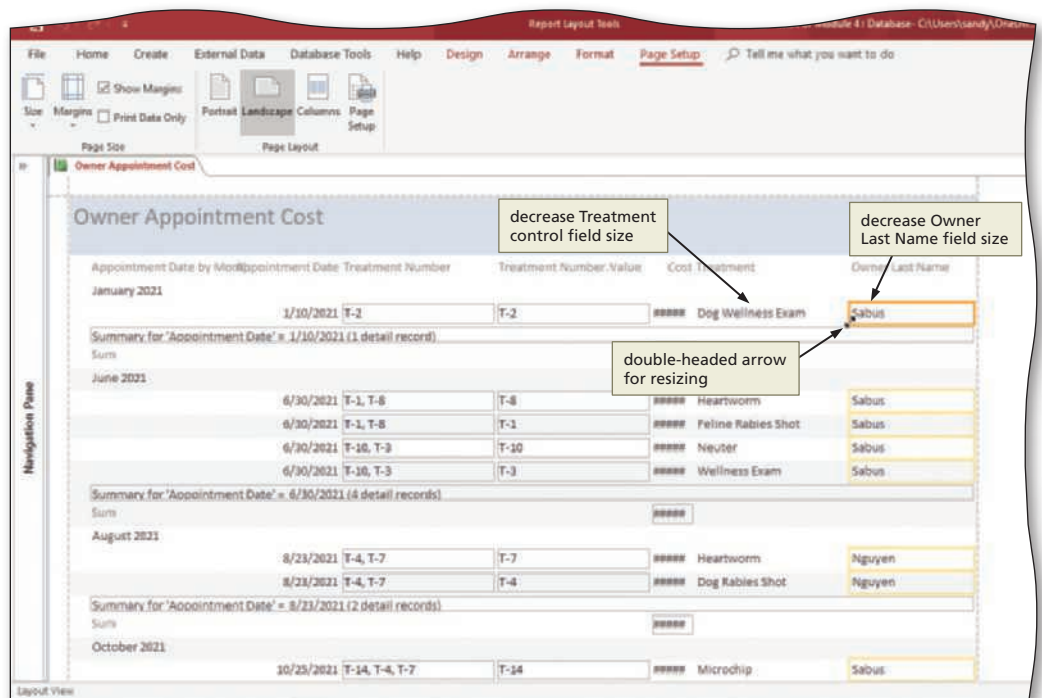


Figure 4-40

3

- Using the process you followed in Step 2, decrease the size of the Treatment Control.
- Click the Cost control and point to the right border of the selection handle, and then drag the border to the right to increase size of the control until all of the cost is displayed (see Figure 4-41).
- Reduce the size of the Sum control so that it resembles Figure 4-41.

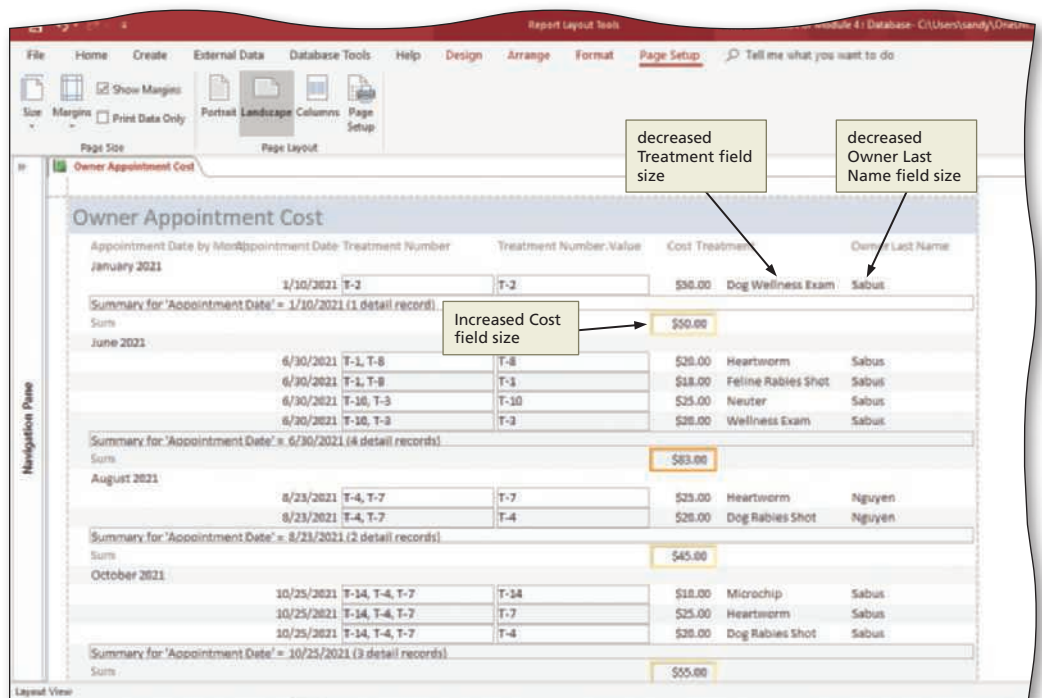


Figure 4-41

4

- Using the same technique, resize is the Grand Total Cost control at the end of the report. You will have to scroll to the bottom of the report to display the control.

5

- Click the Treatment header to select it, click the Center button (Report Layout Tools Format tab | Font group) to center the header (Figure 4-42).

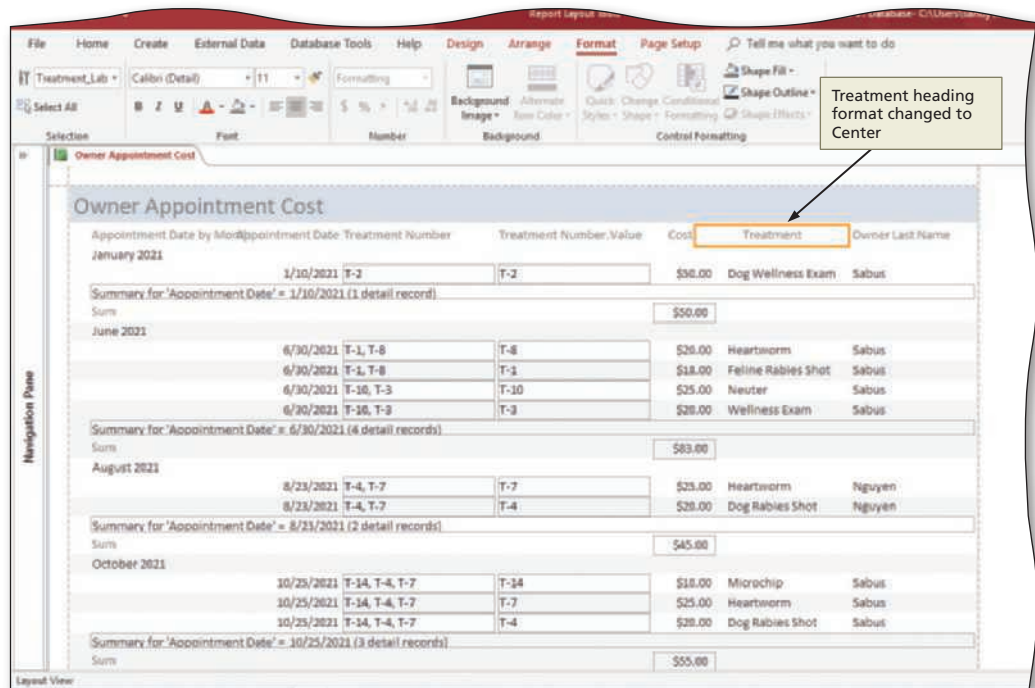


Figure 4-42

6

- Save the changes to the report.
- Click the View button arrow, and then click Print Preview to view the report. Click the magnifying glass pointer to view more of the report (Figure 4-43).

 Experiment

- Zoom in on various positions within the report. When finished, view a complete page of the report.

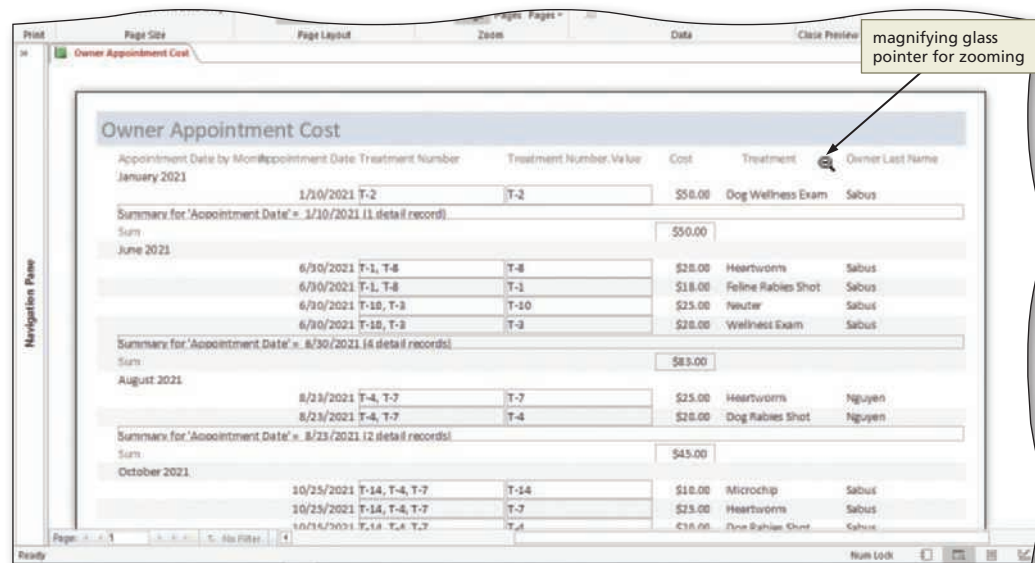


Figure 4-43

7

- Click the 'Close Print Preview' button (Print Preview tab | Close Preview group) to close Print Preview.

Q&A What is the purpose of the dashed vertical line near the right edge of the screen? The line shows the right border of the amount of the report that will print on one page. If any portion of the report extends beyond the line, the report may not print correctly.

- If necessary, drag the right border of a control to the approximate position to resize the control so that no portion of the control extends beyond the dashed vertical line. Close the field list, if necessary.

Q&A | Do I have to resize all the controls that begin with Summary individually?

No. When you resize one of them, the others will all be resized the same amount automatically.

- Ensure that the control for the Page Number is visible, click the Page number to select it, and then drag it to the left, if necessary, so that no portion of the control extends beyond the dashed line.
- Save your work.
- Click the Close button for the report to close the report and remove it from the screen.

Q&A | When would I use the Summary Options button?

You would use the Summary Options button if you want to specify subtotals or other calculations for the report while using the wizard. You can also use it to produce a summary report by selecting Summary Only, which will omit all detail records from the report.

How do you determine the tables and fields that contain the data needed for the report?

First, you need to know the requirements for the report. Precisely what data is the report intended to convey? Once you understand those requirements, follow these guidelines:

Examine the requirements for the report to determine the tables. Do the requirements only relate to data in a single table, or does the data come from multiple tables? What is the relationship between the tables?

Examine the requirements for the report to determine the fields necessary. Look for all the data items specified for the report. Each should correspond to a field in a table or be able to be computed from fields in a table. This information gives you the list of fields to include.

Determine the order of the fields. Examine the requirements to determine the order in which the fields should appear. Be logical and consistent in your ordering. For example, in an address, the city should come before the state and the state should come before the postal code, unless there is some compelling reason for another order.



CONSIDER THIS

Creating a Report in Layout View

You can use the Report button initially to create a report containing all the fields in a table. You can then delete the unwanted fields so that the resulting report contains only the desired fields. At that point, you can use Layout view to modify the report and produce the report you want.

You can also use Layout view to create single- or multiple-table reports from scratch. To do so, you first create a blank report and display a field list for the table containing the first fields you want to include on the report.

There are times when you might want to create a report that has multiple columns. For example, a telephone list with employee name and phone number could print in multiple columns. To do so, create the report using Layout view or Design view and then click the Page Setup tab, click the Columns button, enter the number of columns, select the desired column layout, and then click OK.

You then would drag any fields you want from the table onto the report in the order you want them to appear. You would then change the size of the controls as you did previously by clicking the control, pointing to the edge of the edge of the selected control, and dragging to the desired size.

If the report involves a second table, you display the fields from the second table in the field list and then drag the fields from the second table onto the report in the desired order.

When you create a report in Layout view, the report does not automatically contain a title, but you can add one by clicking the Title button (Report Layout Tools Design tab | Header/Footer group).

Once you have added the title, you can type whatever title you want for the report.

BTW

Adding a Second Table to a Report

If the report involves a second table, be sure the fields in the second table appear, and then drag the fields from the second table onto the report in the desired order. (If the field list covers the portion of the report where you want to drag the fields, move the field list to a different position by dragging its title bar.)

To Create a Report in Layout View by Creating a Blank Report

CMF Vets needs an additional report that shows information related to treatments and their costs. Managers at the practice want to create the report in Layout view. *Why? Layout view works best when you need to change the look and feel of a report because you can rearrange fields and change their sizes.* The following steps create a report in Layout view.

1

- Click Create on the ribbon to display the Create tab.
- Click the Blank Report button (Create tab | Reports group) to create a blank report.
- If a field list does not appear, display it by clicking the 'Add Existing Fields' button (Report Layout Tools Design tab | Tools group) (Figure 4–44).

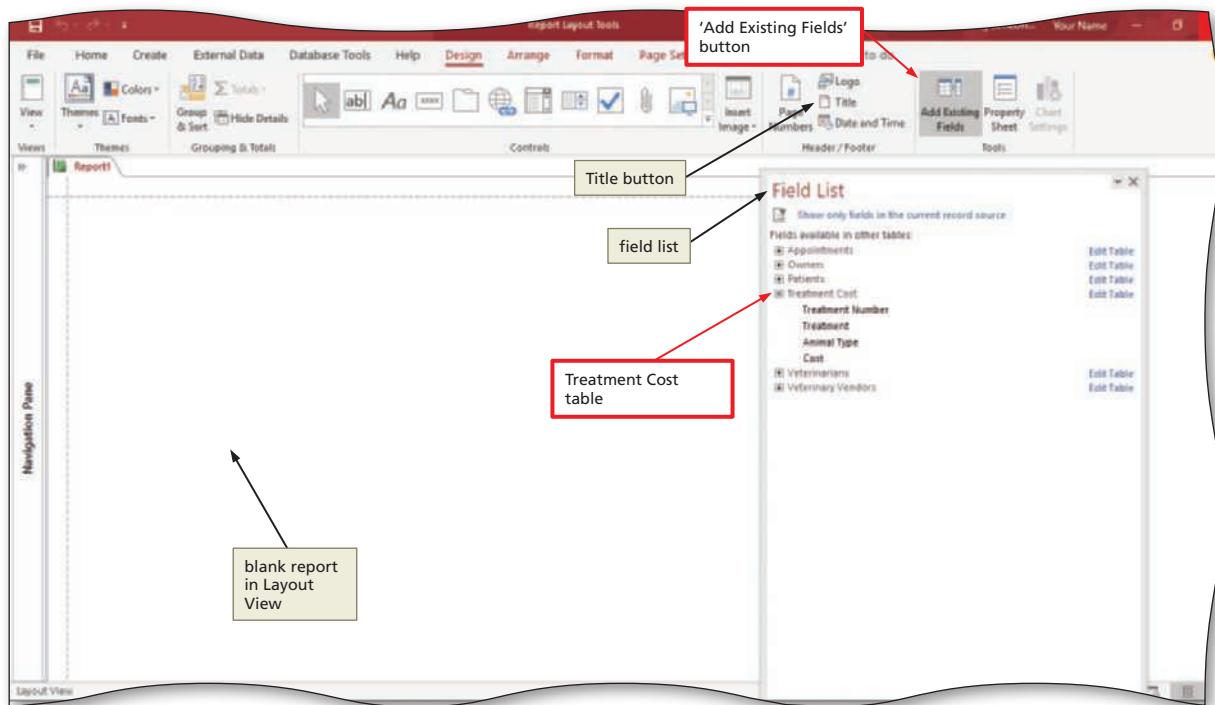


Figure 4–44

2

- If the tables do not appear in the field list, click 'Show all tables.'
- Click the Treatment Cost table to display its fields in the field list.

Q&A | I do not see the fields for the Treatment Cost table.

If the fields in the table do not appear, click the plus sign in front of the name of the table.

- Drag the Treatment Number, Treatment, Animal Type, and Cost fields from the field list to the report, positioning the fields as shown in Figure 4–45.

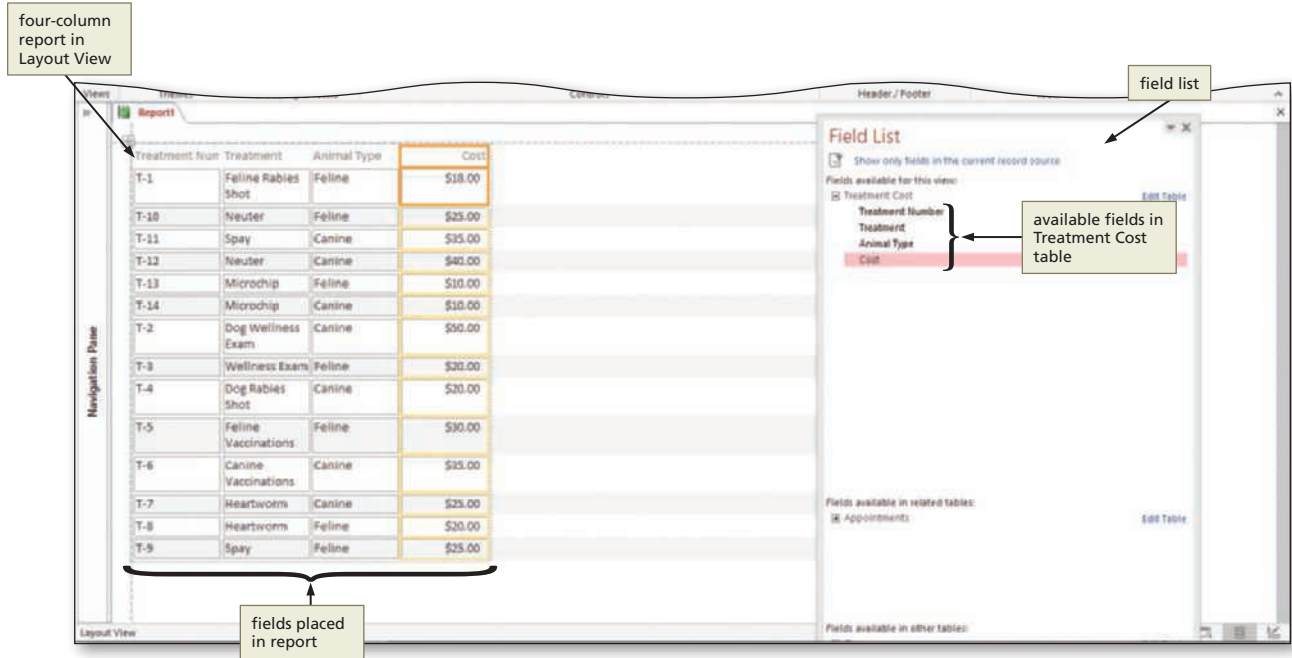


Figure 4-45

3

- To add a title, click the Title button (Report Layout Tools Design tab | Header/Footer group) and then type **Treatment Cost Report** (Figure 4-46).
- Save the report as Treatment Cost Report.

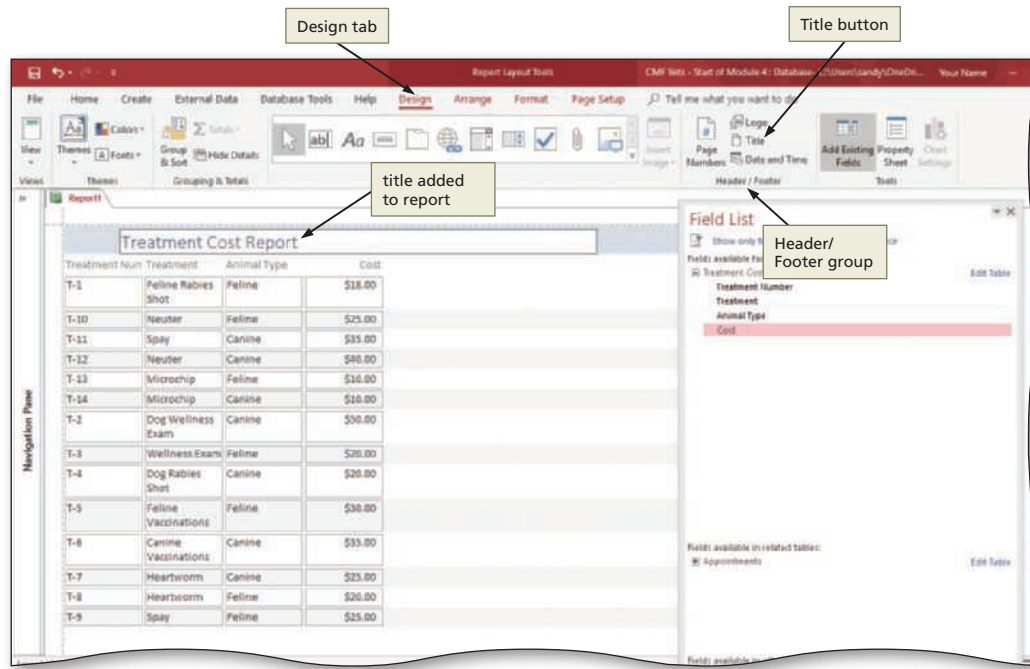


Figure 4-46

Using Themes

The most important characteristic of a report or form is that it presents the desired data in a useful arrangement. Another important characteristic, however, is the general appearance of the form. The colors and fonts that you use in the various sections of a report or form contribute to this look. You should keep in mind two important goals when assigning colors and fonts. First, the various colors and fonts should complement each other. Colors that clash or two fonts that do not go well together can produce a report that looks unprofessional or is difficult to read. Second, the choice of colors and fonts should be consistent. That is, all the reports and forms within a database should use the same colors and fonts unless there is some compelling reason for a report or form to look different from the others.

Fortunately, Access themes provide an easy way to achieve both goals. A **theme** consists of a selection of colors and fonts that are applied to the various sections in a report or form. The colors and fonts in any of the built-in themes are designed to complement each other. When you assign a theme to any object in the database, the theme immediately applies to all reports and forms in the same database, unless you specifically indicate otherwise. To assign a theme, you use the Theme picker, which is a menu of available themes (Figure 4-47).

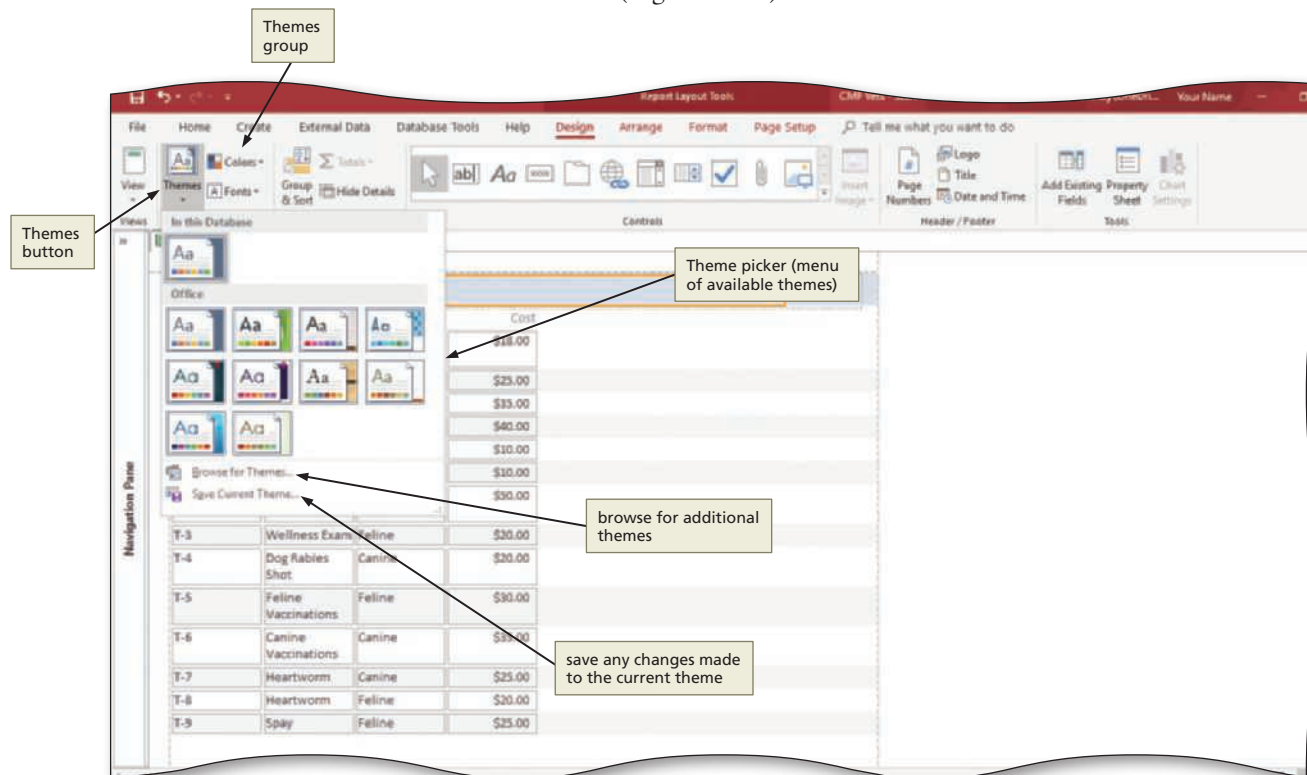


Figure 4-47

If you point to any theme in the Theme picker, you will see a ScreenTip giving the name of the theme. When you select a theme, the colors and fonts represented by that theme will immediately be applied to all reports and forms. If you later decide that you would prefer a different theme, you can change the theme for all of the objects in the database by repeating the process with a different theme.

You can also use the Browse for Themes command to browse for themes that are not listed as part of a standard Access installation, but which are available for download. You can also create your own customized theme by specifying a combination of fonts and colors and using the Save Current Theme command to save your combination. If, after selecting a theme using the Themes button, you do not like

BTW

Using Themes

Office themes are designed to enhance an organization's brand identity. Many organizations consistently use themes, styles, and color schemes to visually assist in identifying their products and/or services.

the colors in the current theme, you can change the theme's colors. Click the Colors button (Report Layout Tools Design tab | Themes group) (Figure 4-48), and then select an alternative color scheme.

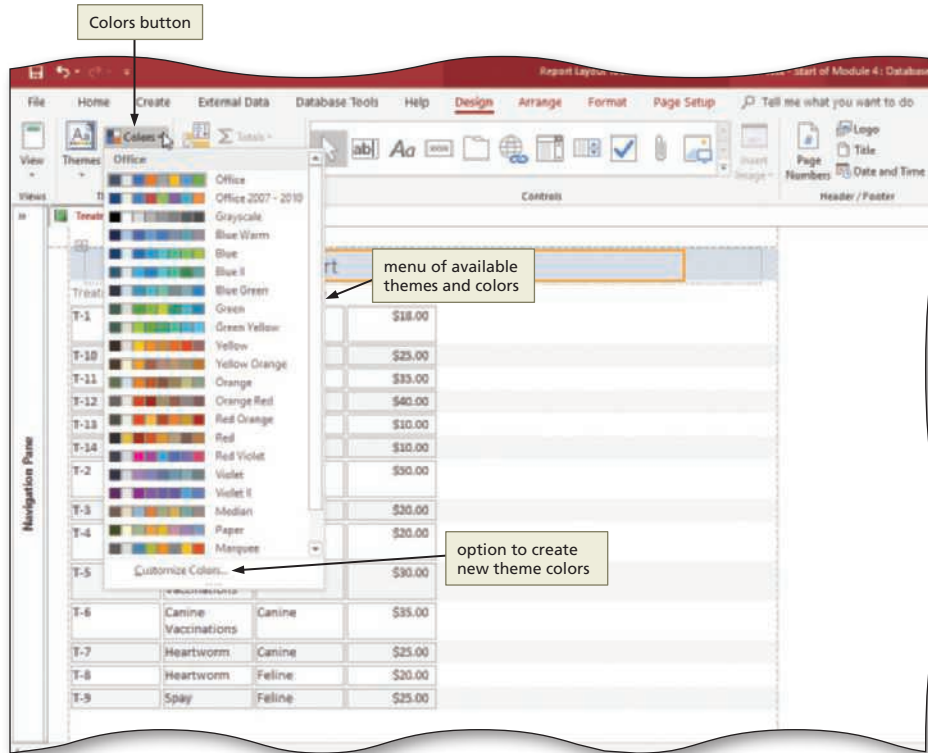


Figure 4-48

Similarly, if you do not like the fonts in the current theme, you can click the Fonts button (Report Layout Tools Design tab | Themes group) (Figure 4-49). You can then select an alternative font for the theme.

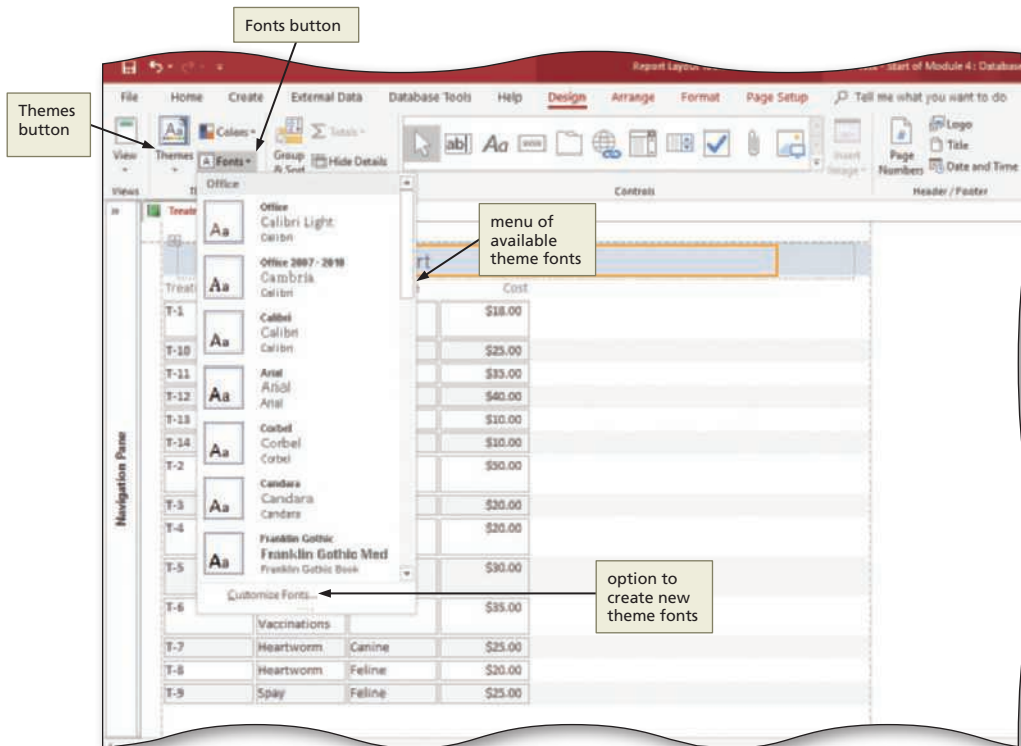


Figure 4-49

To Assign a Theme To All Objects

To assign a theme, it is easiest to use Layout view. You can use Design view as well, but it is easier to see the result of picking a theme when you are viewing the report or form in Layout view. To assign a theme to all reports and forms, you would use the following steps.

1. Open any report or form in Layout view.
2. Click the Themes button (Report Layout Tools Design tab | Themes group) to display the Theme picker.
3. Click the desired theme.

To Assign a Theme To a Single Object

In some cases, you might only want to apply a theme to the current report or form, while all other reports and forms would retain the characteristics from the original theme. To assign a theme to a single object, you would use the following steps.

1. Open the specific report or form to which you want to assign a theme in Layout view.
2. Click the Themes button (Report Layout Tools Design tab | Themes group) to display the Theme picker.
3. Right-click the desired theme to produce a shortcut menu.
4. Click the Apply Theme to This Object Only command on the shortcut menu to apply the theme to the single object on which you are working.

Live Preview for Themes

When selecting themes, Access provides a **live preview** showing what the report or form will look like with the theme before you actually select and apply the theme. The report or form will appear as it would in the theme to which you are currently pointing (Figure 4–50). If you like that theme, you then can select the theme by clicking the left mouse button.

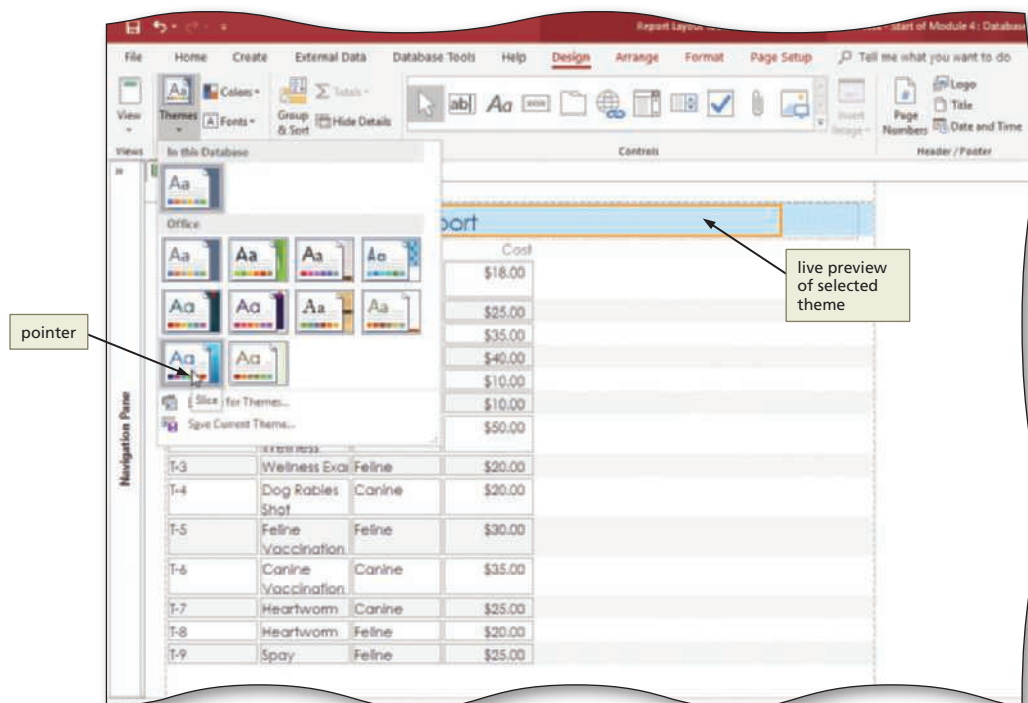


Figure 4–50

To Create a Summary Report

A report that includes group calculations such as subtotals, but does not include the individual detail lines, is called a **summary report**. *Why?* You might need a report that only shows the overall group calculations, but not all the records. The following steps hide the detail lines in the Appointments and Treatments report, thus creating a summary report.

1

- If necessary, apply the Slice theme to all objects in the Treatment Cost Report, and then save the report.
- Open the Appointments and Treatments report in Layout view and close the Navigation Pane.
- Click the Hide Details button (Report Layout Tools Design tab | Grouping & Totals group) to hide the details in the report (Figure 4-51).

Q&A How can I see the details once I have hidden them?
Click the Hide Details button a second time.

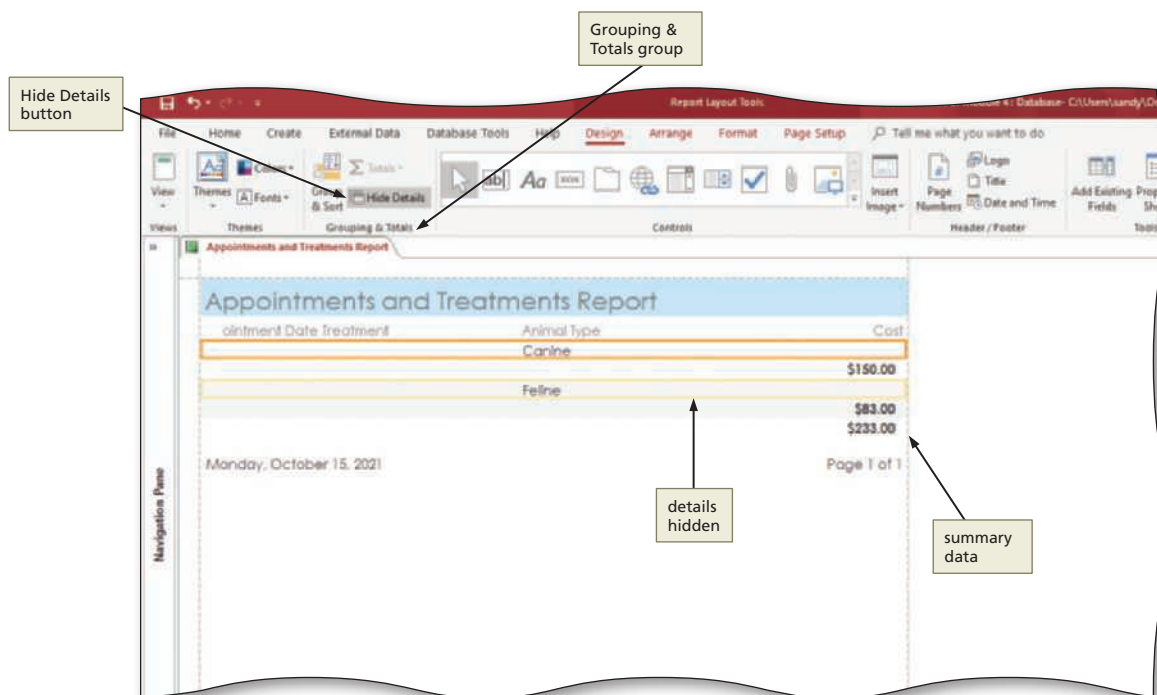


Figure 4-51

- Close the report without saving your changes.

Q&A What would happen if I saved the report?
The next time you view the report, the details would still be hidden. If that happened and you wanted to show all the details, just click the Hide Details button a second time.

Break Point: If you wish to take a break, this is a good place to do so. You can quit Access now. To resume at a later time, start Access, open the database called CMF Vets, and continue following the steps from this location forward.

Form Creation

You can create a simple form consisting of all the fields in the Appointments table using the Form button (Create tab | Forms group). To create more customized forms, you can use the Form Wizard. Once you have used the Form Wizard to create a form, you can modify that form in either Layout view or Design view.

BTW

Summary Reports

You can create a summary report in either Layout view or Design view.

To Use the Form Wizard to Create a Form

The following steps use the Form Wizard to create an initial version of the Veterinary Vendors Form. *Why? Using the Form Wizard is the easiest way to create this form.* The initial version will contain the Vendor Name, Street Address, City, State, ZIP Code, Veterinary Supply, Product Type, Quantity, Cost, and Total Amount fields.

- 1
 - Open the Navigation Pane and select the Veterinary Vendors table.
 - Click Create on the ribbon to display the Create tab.
 - Click the Form Wizard button (Create tab | Forms group) to start the Form Wizard (Figure 4-52).

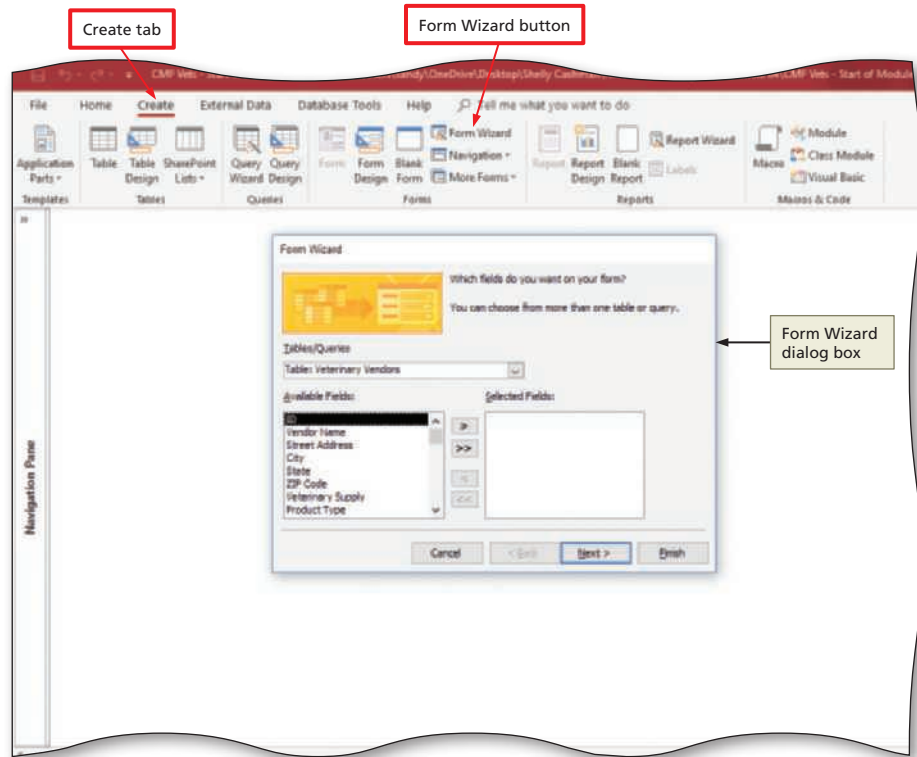


Figure 4-52

- 2
 - Add the Vendor Name, Street Address, City, State, ZIP Code, Veterinary Supply, Product Type, Quantity, Cost, and Total Amount fields to the form (Figure 4-53).

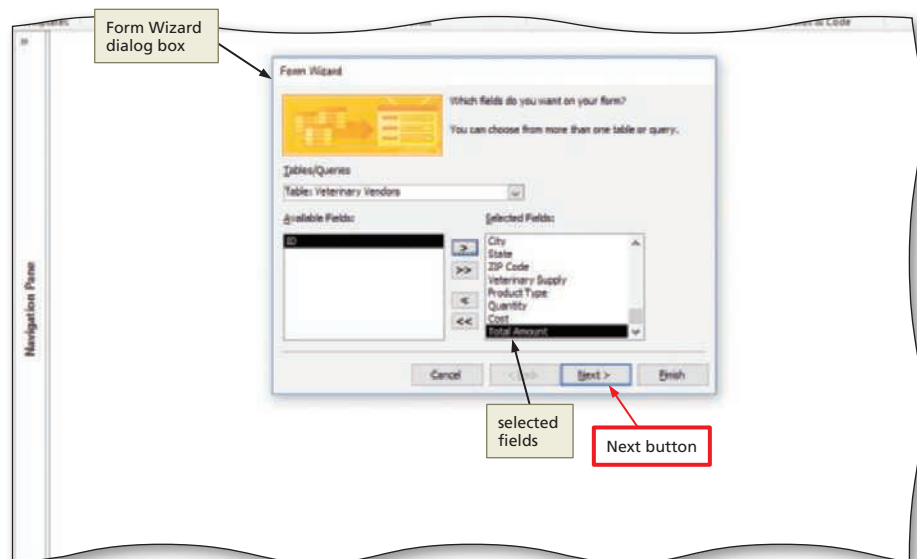


Figure 4-53

3

- Click Next to display the next Form Wizard screen (Figure 4–54).

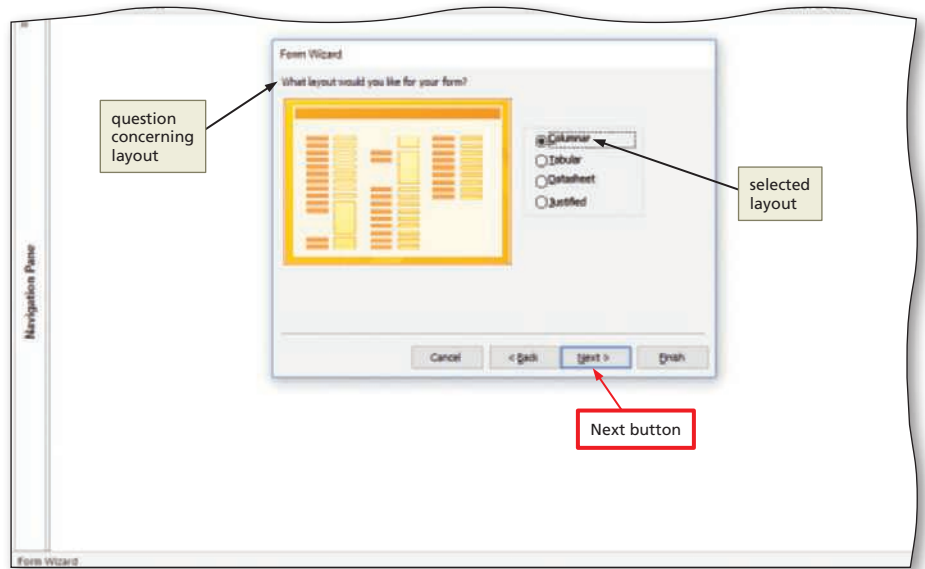


Figure 4–54

4

- Be sure the Columnar layout is selected, and then click Next to display the next Form Wizard screen.
- Click in the Title text box and delete existing text. Type **Veterinary Vendors Form** for the title (Figure 4–55).

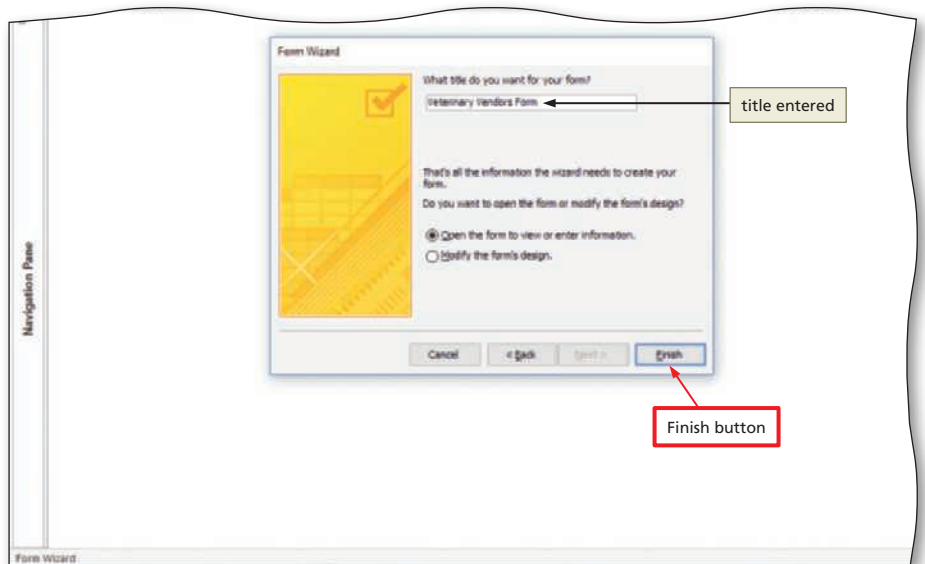


Figure 4–55

5

- Click Finish to complete and display the form (Figure 4–56).
- Click the form's Close button to close the Veterinary Vendors Form.

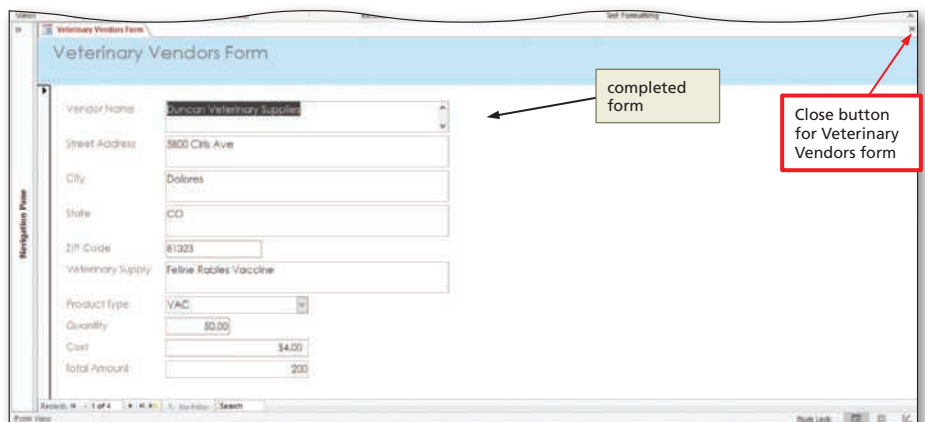


Figure 4–56

BTW

Form Design**Considerations**

Forms should be appealing visually and present data logically and clearly. Properly designed forms improve both the speed and accuracy of data entry. Forms that are too cluttered or contain too many different effects can be hard on the eyes. Some colors are more difficult than others for individuals to see. Be consistent when creating forms. Once you decide on a general style or theme for forms, stick with it throughout your database.

Form Sections

A form typically has only three sections. The Form Header section appears at the top of the form and usually contains the form title. It may also contain a logo and/or a date. The body of the form is in the Detail section. The Form Footer section appears at the bottom of the form and is often empty.

Form Controls

Just as with reports, the various items on a form are called controls. Forms include the same three types of controls: bound controls, unbound controls, and calculated controls. Bound controls have attached labels that typically display the name of the field that supplies the data for the control. The **attached label** for the Vendor Name field, for example, is the portion of the screen immediately to the left of the field. It contains the words, Vendor Name.

BTW

Conditional Formatting

Conditional formatting is available for forms as well as reports. To conditionally format controls on a form, open the Form in Layout view or Design view, select the control to format, click the Conditional Formatting button, and then follow the steps found within the To Conditionally Format Controls section.

Views Available for Forms

When working with a form in Access, there are three different ways to view the form: Form view, Layout view, and Design view. Form view shows the form on the screen and allows you to use the form to update data. Layout view is similar to Form view in that it shows the form on the screen. In Layout view, you cannot update the data, but you can make changes to the layout of the form, and it is usually the easiest way to make such changes. Design view also allows you to make changes, but it does not show you the actual form. It is most useful when the changes you need to make are especially complex. In this module, you will use Layout view to modify the form.

To Place Controls in a Control Layout

*Why? To use Layout view with a form, the controls must be placed in a control layout. A control layout is a guide that aligns the controls to give the form or report a uniform appearance. Access has two types of control layouts. A **stacked layout** arranges the controls vertically with labels to the left of the control and is commonly used in forms. A **tabular layout** arranges the controls horizontally with the labels across the top and is typically used in reports. The following steps place the controls and their attached labels in a stacked control layout.*

1

- Open the Veterinary Vendors Form in Layout view and close the Navigation Pane.
- If a field list appears, close the field list by clicking the 'Add Existing Fields' button (Report Layout Tools Design tab | Tools group).
- Click Arrange on the ribbon to display the Form Layout Tools Arrange tab.
- Click the attached label for the Vendor Name control to select the control.
- While holding the SHIFT key down, click the remaining attached labels and all the controls (Figure 4-57).

Q&A Did I have to select the attached labels and controls in that order?

No. As long as you select all of them, the order in which you selected them does not matter.

When I clicked some of the controls, they moved so they are no longer aligned as well as they are in the figure. What should I do?

You do not have to worry about it. Once you complete the next step, they will once again be aligned properly.

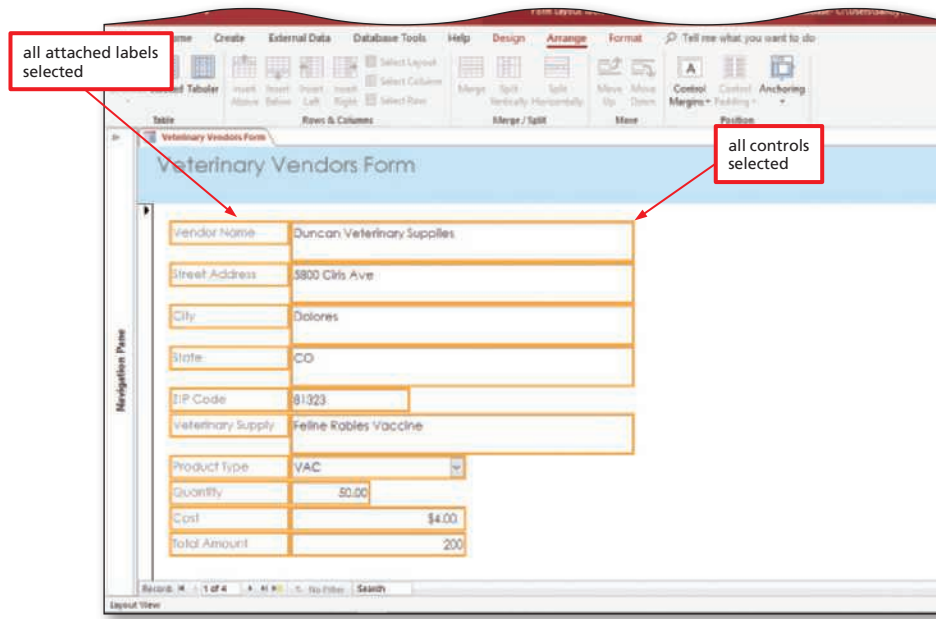


Figure 4-57

2

- Click the Stacked button (Form Layout Tools Arrange tab | Table group) to place the controls in a stacked layout (Figure 4-58).

Q&A

How can I tell whether the controls are in a control layout?

Look for the Control Layout indicator in the upper-left corner of the control layout.

What is the difference between stacked layout and tabular layout?

In a stacked layout, which is more often used in forms, the controls are placed vertically with the labels to the left of the controls. In a tabular layout, which is more often used in reports, the controls are placed horizontally with the labels above the controls.

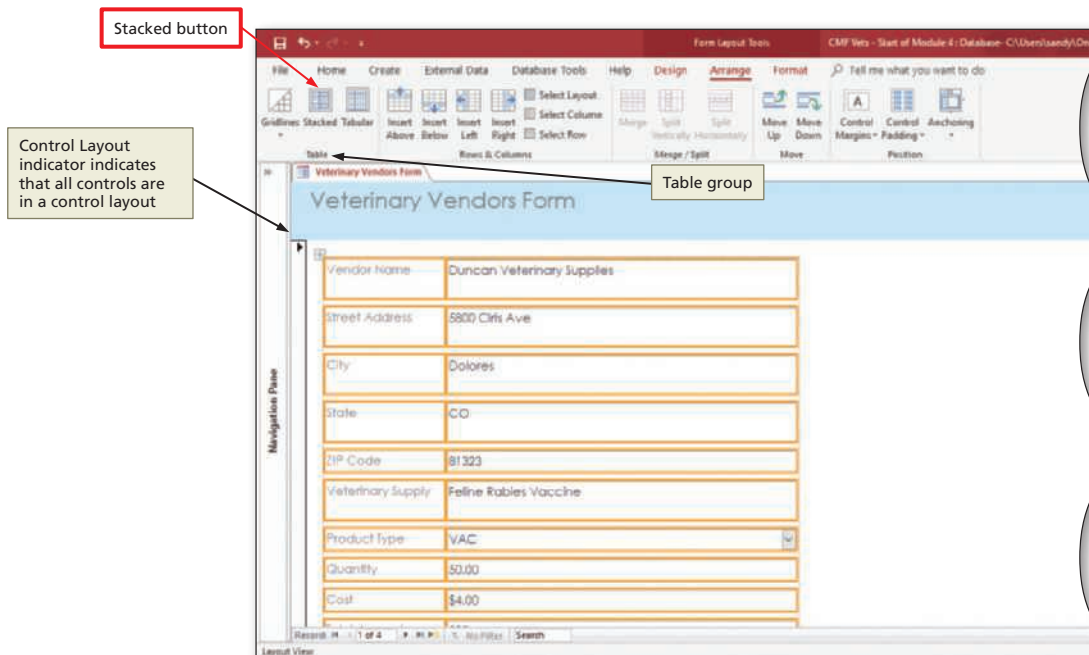


Figure 4-58

To Enhance a Form by Adding a Date

Why? To enhance the look or usability of a report or form, you can add special items, such as a logo or title. You can also add the date and/or the time. In the case of reports, you can add a page number as well. To add any of these items, you use the appropriate button in the Header/Footer group of the Design tab. The following steps use the 'Date and Time' button to add a time to the Veterinary Vendors Form.

1

- Click Design on the ribbon to display the Form Layout Tools Design tab.
- Click the 'Date and Time' button (Form Layout Tools Design tab | Header/Footer group) to display the Date and Time dialog box (Figure 4–59).

Q&A What is the purpose of the various check boxes and option buttons? If the Include Date check box is checked, you must pick a date format from the three option buttons underneath the check box. If it is not checked, the option buttons will be dimmed. If the Include Time check box is checked, you must pick a time format from the three option buttons underneath the check box. If it is not checked, the option buttons will be dimmed.

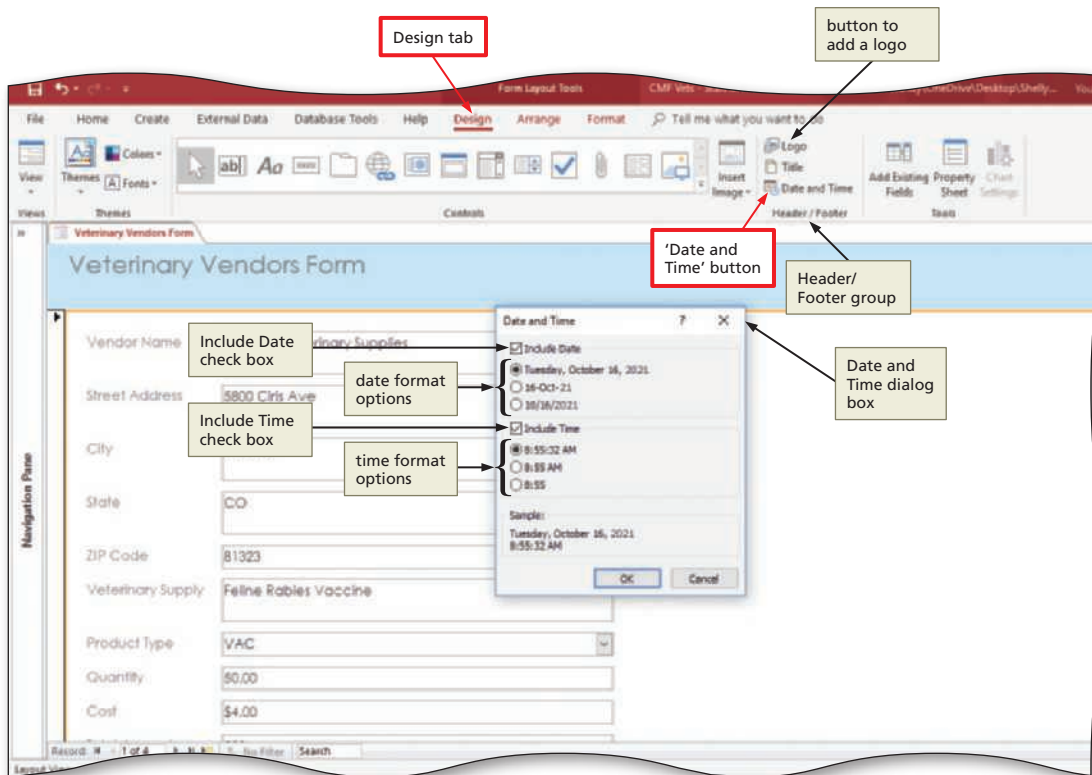


Figure 4–59

2

- Click the Include Date check box to deselect it and remove the check mark (Figure 4–60).
- Click the option button for the second Time format to select the format that shows the time of day without the seconds.

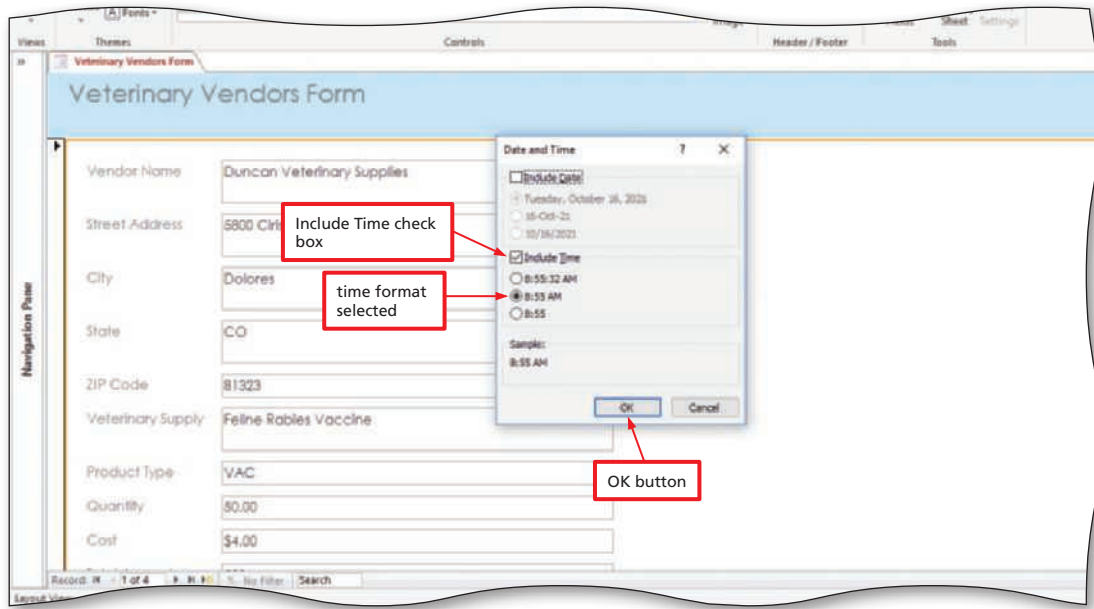


Figure 4-60

3

- Click OK (Date and Time dialog box) to add the time to the form (Figure 4-61).

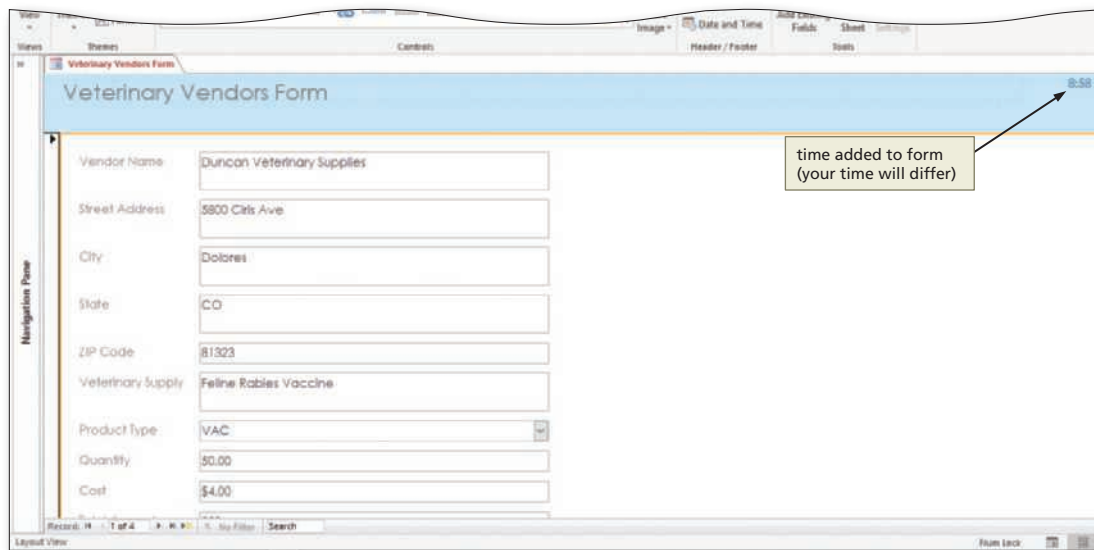


Figure 4-61

To Change the Format of a Control

You can change the format of a control by clicking the control and then clicking the appropriate button on the Format tab. The following step uses this technique to bold the date. *Why? Formatting controls on a form lets you visually emphasize certain controls.*

- 1
 - Click the Time control to select it.
 - Click Format on the ribbon to display the Form Layout Tools Format tab.
 - Click the Bold button (Form Layout Tools Format tab | Font group) to bold the date (Figure 4–62).

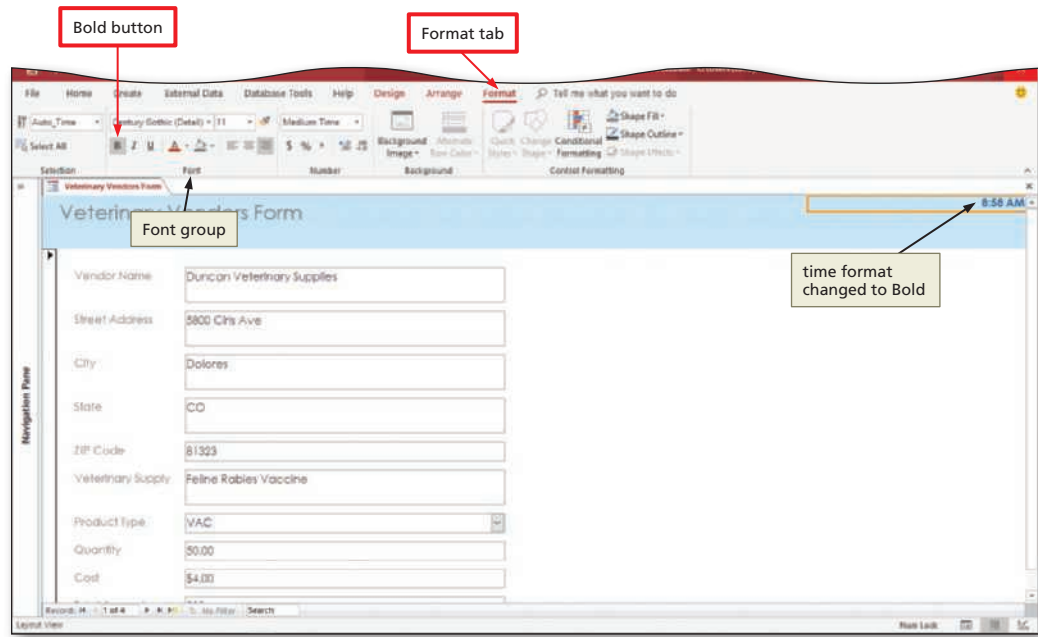


Figure 4–62

To Move a Control

You can move a control by dragging the control. The following step moves the Time control to the lower edge of the form header. *Why? The default location of some controls might not be ideal; moving controls lets you adjust the design to your specifications.*

- 1
 - Point to the Time control so that the pointer changes to a four-headed arrow, and then drag the Time control to the lower boundary of the form header in the approximate position shown in Figure 4–63.

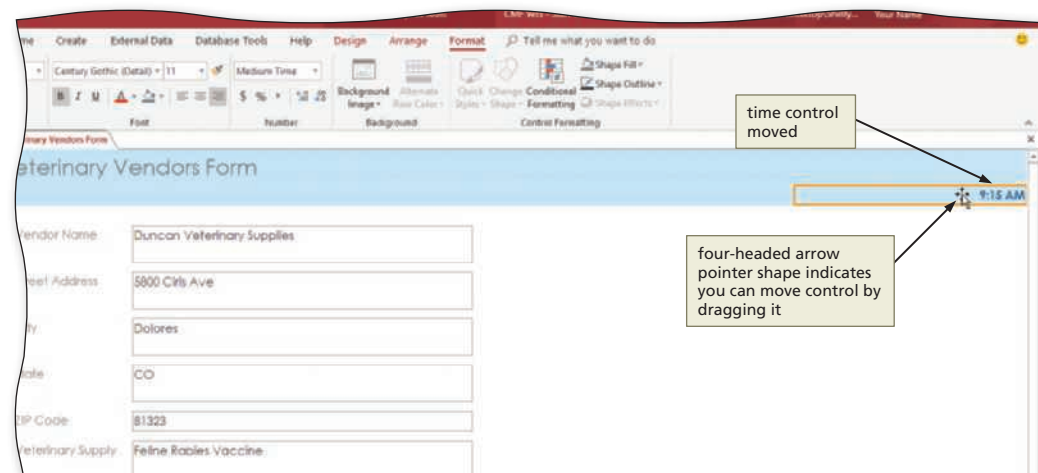


Figure 4–63

Q&A I moved my pointer a little bit and it became a two-headed arrow. Can I still drag the pointer?
 If you drag when the pointer is a two-headed arrow, you will resize the control. To move the control, it must be a four-headed arrow.
 Could I drag other objects as well? For example, could I drag the title to the center of the form header?
 Yes. Just be sure you are pointing at the object and the pointer is a four-headed arrow. You can then drag the object to the desired location.

To Move Controls in a Control Layout

Just as you moved the Date control in the previous section, you can move any control within a control layout by dragging the control to the location you want. As you move it, a line will indicate the position where the control will be placed when you release the mouse button or your finger. You can move more than one control in the same operation by selecting multiple controls prior to moving them.

The following steps move controls in the Owners form. These steps will move the Home Phone and Mobile Phone fields so that they follow the Owner Last Name field. *Why? The home phone and mobile phone fields are the primary fields used to contact the owners, and these fields would be easier to access while viewing the Owner's Last Name.*

1

- Save changes to the Veterinary Vendors Form and then close the form.
- Open the Owners Form in Layout View.
- Click the label for the Home Phone field to select it.
- Hold the SHIFT key down and click the control for the Home Phone field, then click the label and the control for the Mobile Phone field to select both fields and their labels (Figure 4-64).

Q&A Why did I have to hold the SHIFT key down when I clicked the remaining controls?
If you did not hold the SHIFT key down, you would only select the control for the Home Phone field (the last control selected). The other controls no longer would be selected.

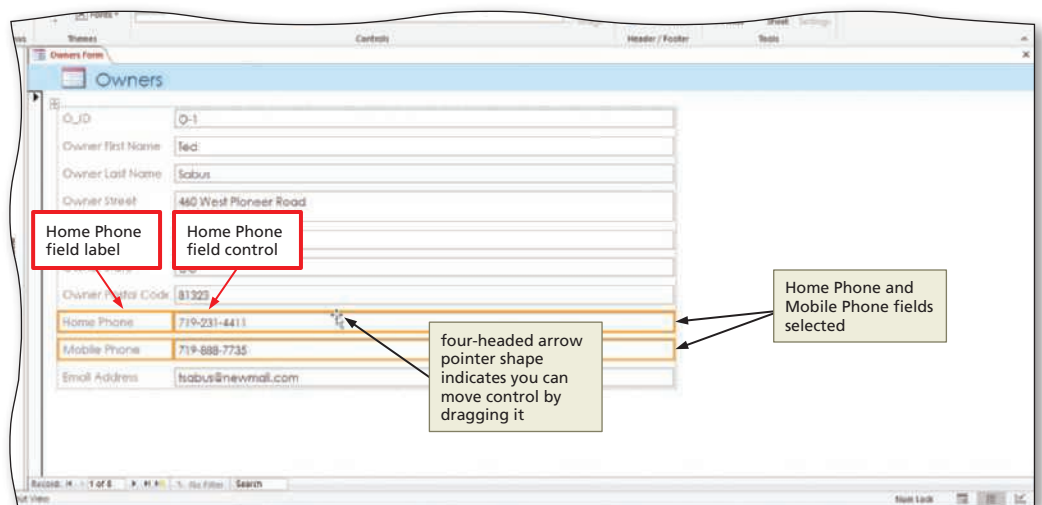


Figure 4-64

2

- Drag the fields straight up to the position shown in Figure 4-65; you will see a line as you move the fields to their new location

Q&A What is the purpose of the line by the pointer?
It shows you where the fields will be positioned.

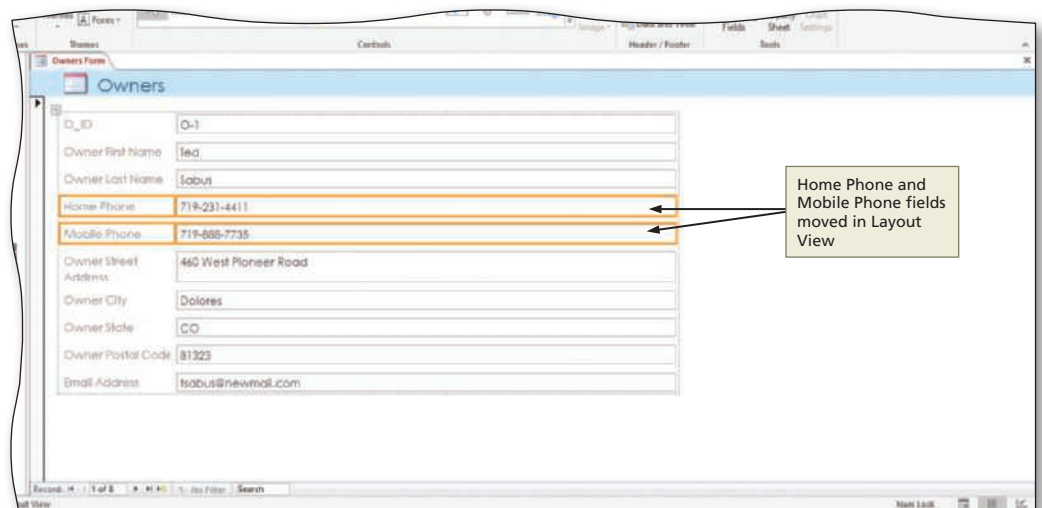


Figure 4-65

3

- Release the mouse button to complete the movement of the fields (Figure 4–66).
- Save and Close the Owners Form.

Q&A

I inadvertently had the line under the label rather than the data when I released the mouse button. The data that I moved is now under the field names. How do I fix this?

You can try to move it back where it was, but that can be tricky. The easiest way is to use the Undo button on the Quick Access Toolbar to undo your change.

I inadvertently moved my pointer so that the line became vertical and was located between a label and the corresponding data when I released the mouse button. It seemed to split the form. The data I moved appears right where the line was. It is between a label and the corresponding data. How do I fix this?

Use the Undo button on the Quick Access Toolbar to undo your change.

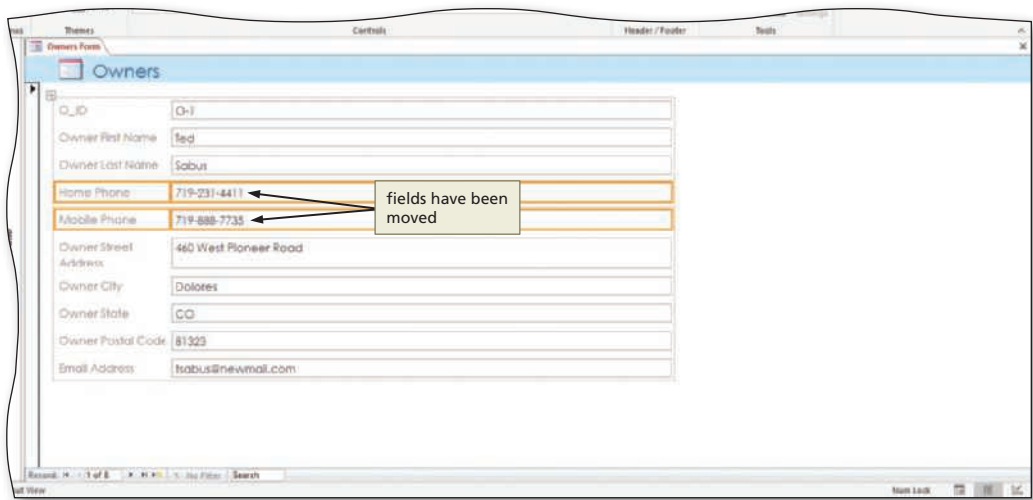


Figure 4–66

To Add a Field

After reviewing the Veterinary Vendors Form, management decided that ID fields would help keep information straight between multiple tables, forms, and reports. *Why? Just as with a report, once you have created an initial form, you might decide that the form should contain an additional field.* The following steps use a field list to add the ID field to the Veterinary Vendors Form.

1

- Open the Veterinary Vendors Form in Design view.
- Click Design on the ribbon to display the Form Design Tools Design tab.
- Click the 'Add Existing Fields' button (Form Design Tools Design tab | Tools group) to display a field list (Figure 4–67).

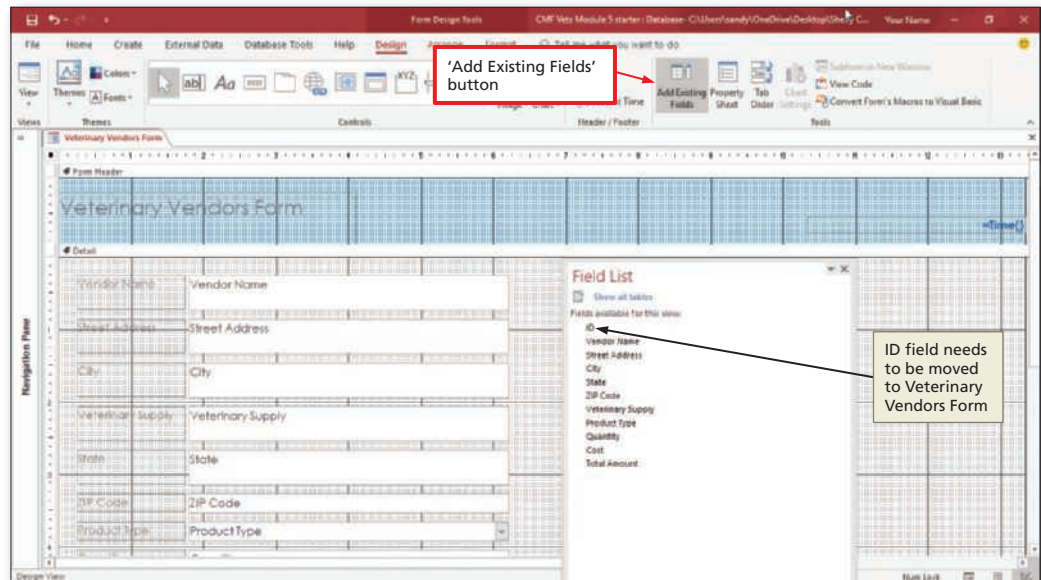


Figure 4–67

2

- Point to the ID field in the field list, and then drag the pointer to the position shown in Figure 4-68. For illustration purposes do not release the mouse button yet.

Q&A

Does it have to be exact?
The exact position is not critical at this time as long the pointer is in the general position shown in the figure.

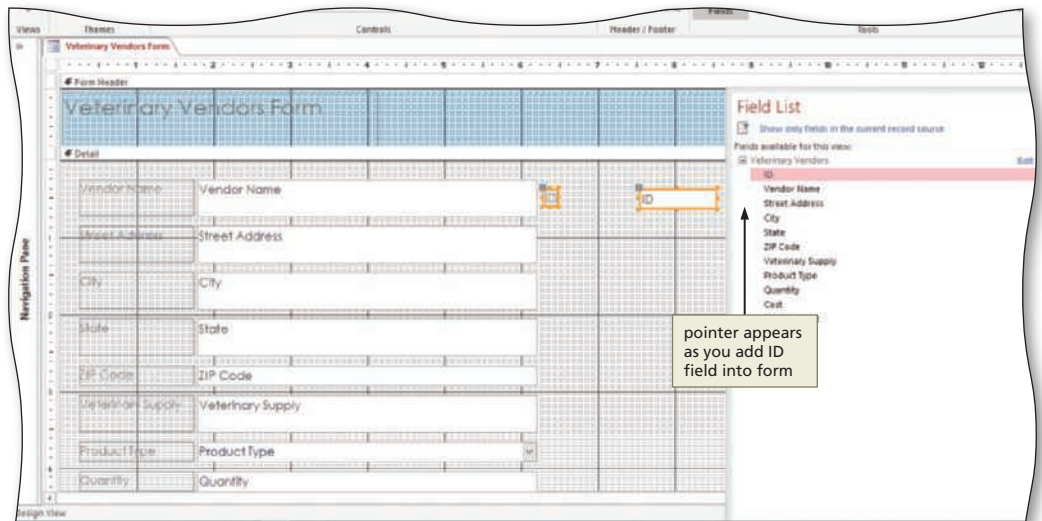


Figure 4-68

3

- Release the mouse button to place the field (Figure 4-69).

Q&A

What if I make a mistake?
Just as when you are modifying a report, you can delete the field by clicking the field and then pressing DELETE. You can move the field by dragging it to the correct position.

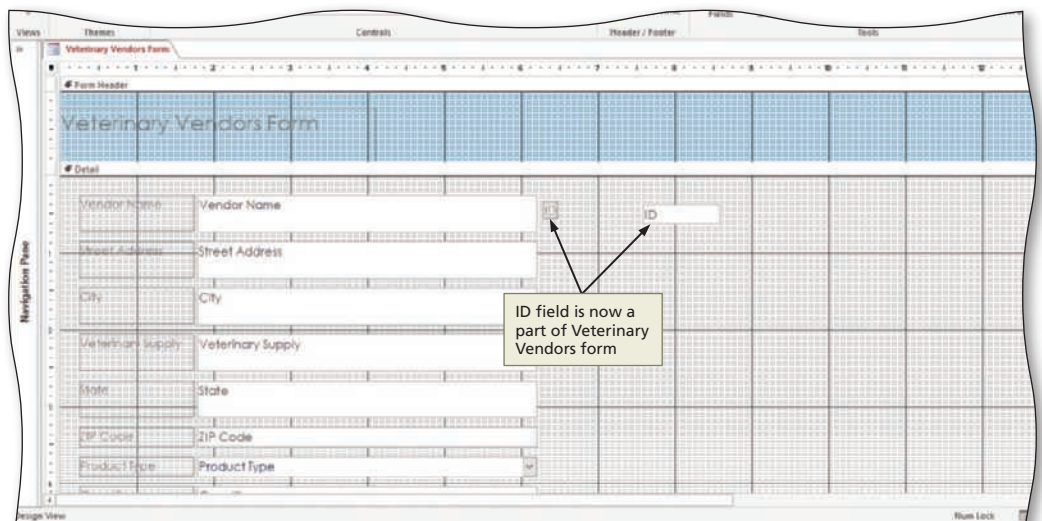


Figure 4-69

4

- Click the 'Add Existing Fields' button (Form Design Tools Design tab | Tools group) to remove the field list.
- Switch between Layout view and Form view to confirm that the form resembles the figure; adjust the field placement as necessary.
- Save your work.

To Filter and Sort Using a Form

Why? Just as in a datasheet, you often need to filter and sort data when using a form. You can do so using Advanced Filter/Sort, which is a command on the Advanced menu. The following steps use Advanced Filter/Sort to filter the records to records whose state begins with the letter C. The effect of this filter and sort is that you use the form to view only view those vendors whose state begins with C. In addition, you will see the order of the vendors you will need to set up with appointments.

1

- Click the Home tab, click the View button arrow, and then select Layout View to change the view.
- Click the Advanced button (Home tab | Sort & Filter group) to display the Advanced menu (Figure 4-70).

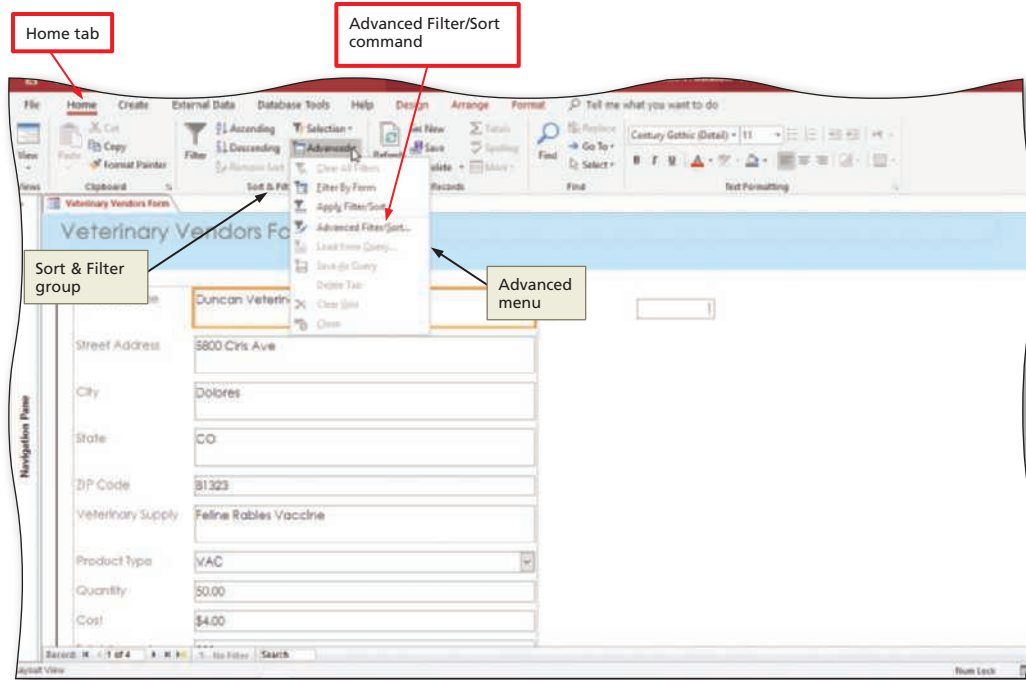


Figure 4-70

2

- Click Advanced Filter/Sort on the Advanced menu.
- If necessary, resize the field list so that the Vendor Name and State fields appear.
- Add the Vendor Name field to the design grid and select Ascending sort order.
- Add the State field and type C* as the criterion for the State field (Figure 4-71).

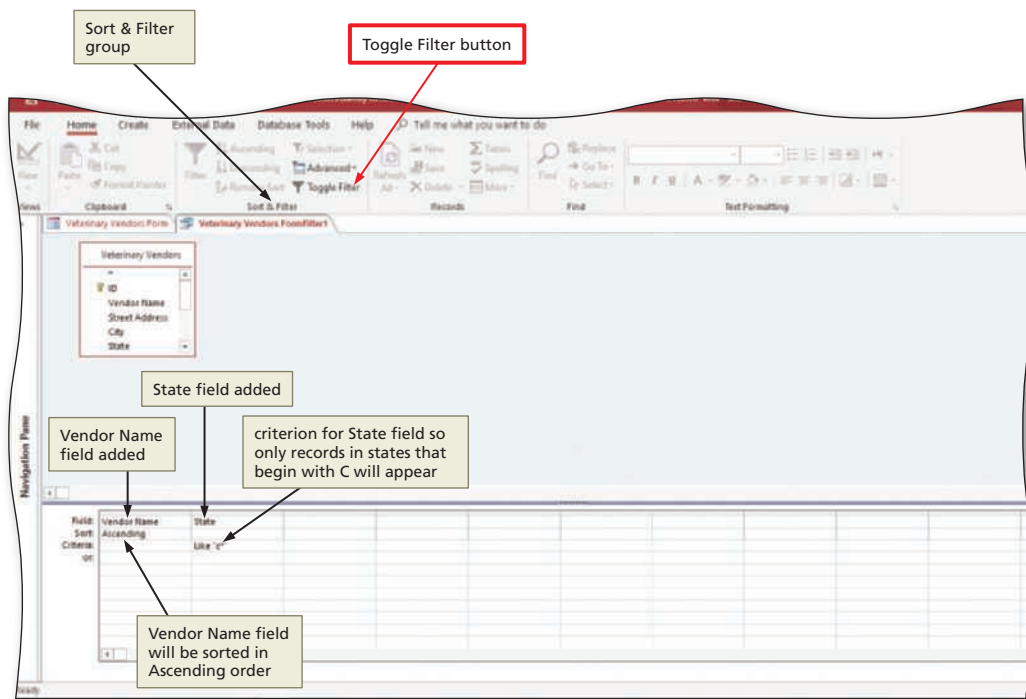
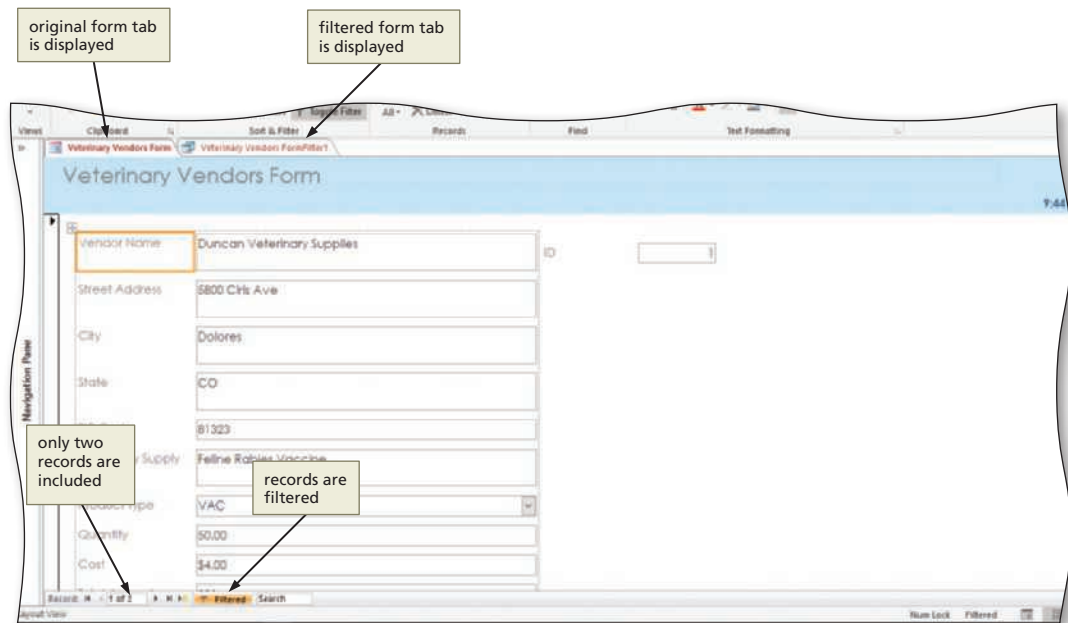


Figure 4-71

3

- Click the Toggle Filter button (Home tab | Sort & Filter group) to filter the records (Figure 4-72).

Q&A | I can only see one record at a time in the form. How can I see which records are included?
 You need to scroll through the records using the arrows in the Navigation bar.

**Figure 4–72**

To Clear a Form Filter

When you no longer want the records to be filtered, you clear the filter. The following steps clear the current filter for the Veterinary Vendors Form.

- 1 Click the Advanced button (Home tab | Sort & Filter group) to display the Advanced menu.
- 2 Click Clear All Filters on the Advanced menu to clear the filter.
- 3 Save your work.
- 4 Close the form.

BTW

Printing Forms

To change the page setup and page layout options, such as adjusting margins and changing the orientation, for a form, use the Print Preview window. To open the Print Preview window for a form, click File on the ribbon, click Print, and then click Print Preview.

To PRINT A FORM

You can print all records, a range of records, or a selected record of a form by selecting the appropriate print range. To print the selected record, the form must be open. To print all records or a range of records, you can simply highlight the form in the Navigation Pane. To print a specific record in a form, you would use the following steps.

1. Be sure the desired form is open and the desired record is selected.
2. Click File on the ribbon to open the Backstage view.
3. Click the Print tab in the Backstage view to display the Print gallery.
4. Click the Print button to display the Print dialog box.
5. Click the Selected Record(s) option button in the Print Range section, and then click OK.

The Arrange Tab

Forms, like reports, have an Arrange tab that you can use to modify the form's layout. However, the Page Setup tab is not available for forms. The buttons on the Arrange tab and the functions of those buttons are just like the ones described in Table 4–1.

Mailing Labels

Organizations need to send all kinds of correspondence—such as invoices, letters, reports, and surveys—to accounts and other business partners on a regular basis. Using preprinted mailing labels eliminates much of the manual labor involved in preparing mailings. In Access, mailing labels are a special type of report. When this report prints, the data appears on the mailing labels aligned correctly and in the order you specify.

To Create Labels

To create labels, you will typically use the Label wizard. *Why? Using the wizard, you can specify the type and dimensions, the font, and the content of the label.* The following steps create the labels.

- 1
 - If necessary, open the Navigation Pane and select the Owners table.
 - Click Create on the ribbon to display the Create tab.
 - Click the Labels button (Create tab | Reports group) to display the Label Wizard dialog box.
 - Ensure that English is selected as the Unit of Measure and that Avery is selected in the Filter by manufacturer box.
 - If necessary, scroll through the product numbers until C2163 appears, and then click C2163 in the Product number list to select the specific type of labels (Figure 4-73).

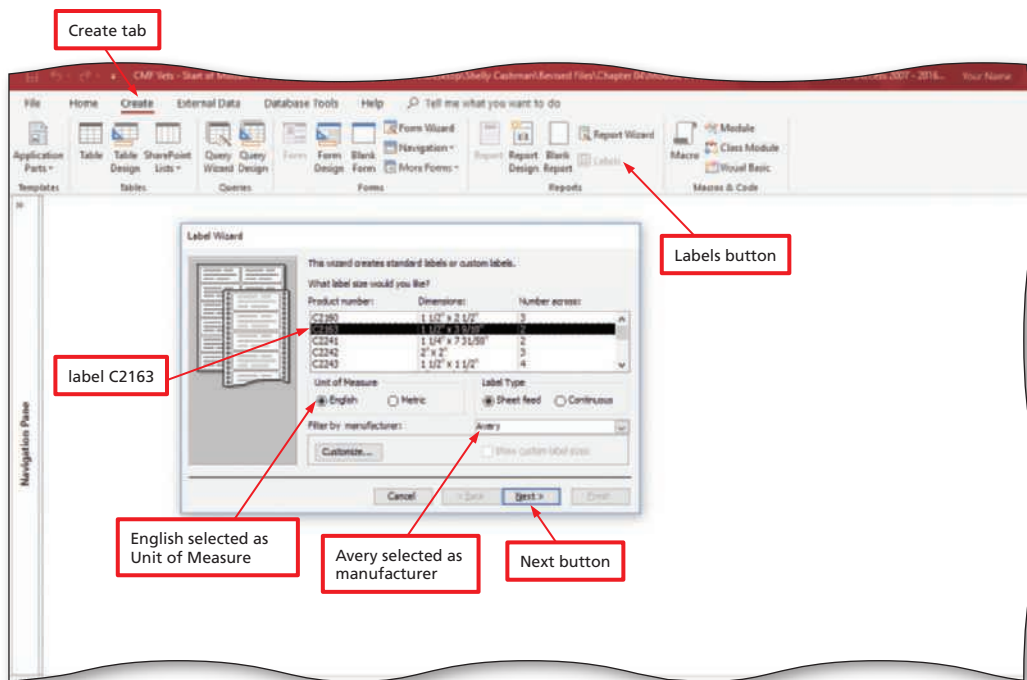


Figure 4-73

- 2
 - Click Next (Figure 4-74).

Q&A What font characteristics could I change with this screen? You could change the font, the font size, the font weight, and/or the font color. You could also specify italic or underline.

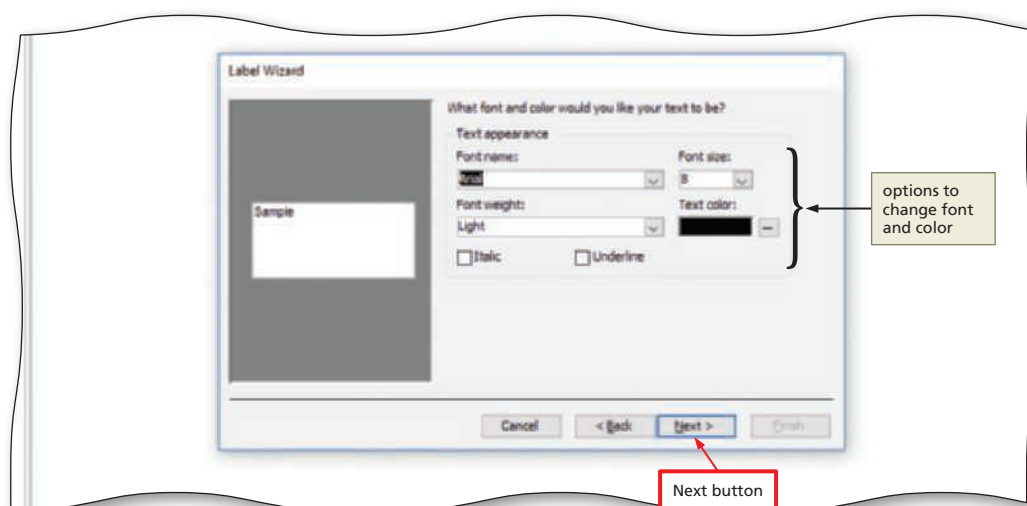


Figure 4-74

3

- Click Next to accept the default font and color settings.
- Click the Owner First Name field, and then click the Add Field button (Figure 4–75).

Q&A

What should I do if I make a mistake? You can erase the contents of any line in the label by clicking in the line to produce an insertion point and then using DELETE or BACKSPACE to erase the current contents. You then can add the correct field by clicking the field and then clicking the Add Field button.

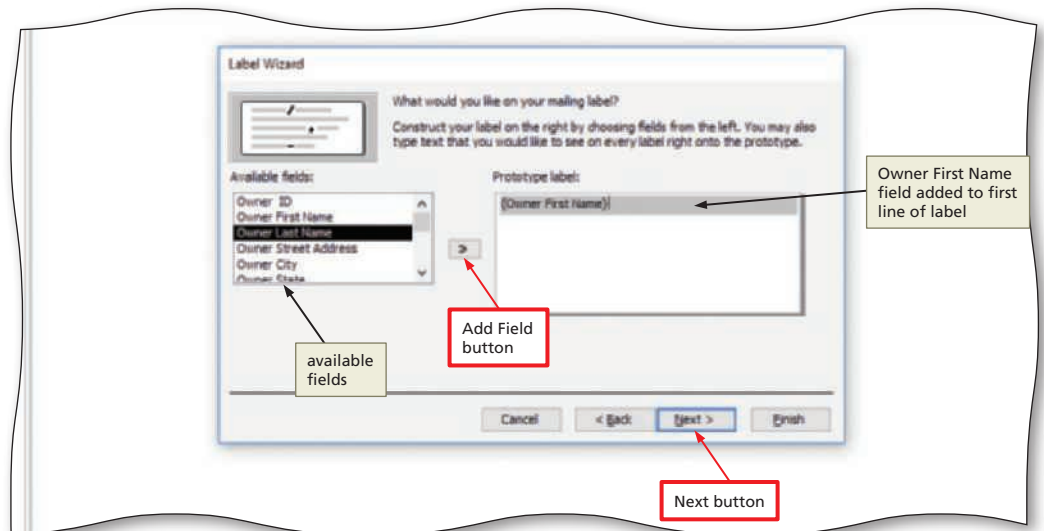


Figure 4–75

4

- Press the SPACEBAR, add the Owner Last Name field.
- Click the second line of the label, and then add the Owner Street Address field.
- Click the third line of the label.
- Add the Owner City field, type, (a comma), press the SPACEBAR, add the Owner State field, press the SPACEBAR, and then add the Owner Postal Code field (Figure 4–76).

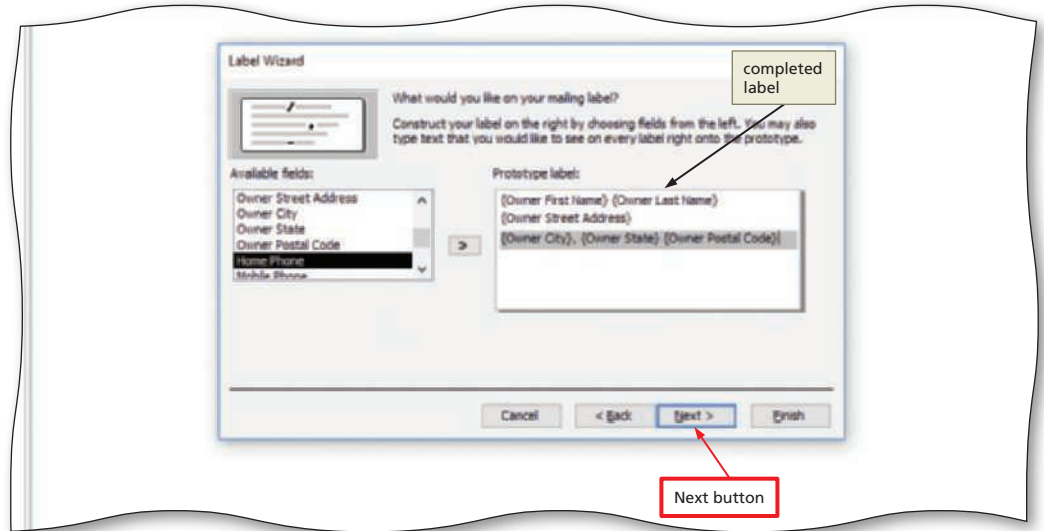


Figure 4–76

5

- Because you have now added all the necessary fields to the label, click Next.
- Select the Owner Postal Code field as the field to sort by, and then click the Add Field button (Figure 4–77).

Q&A

Why am I sorting by postal code? When you need to do a bulk mailing, that is, send a large number of items using a special postage rate, businesses that provide mailing services often require that the mail be sorted in postal code order.

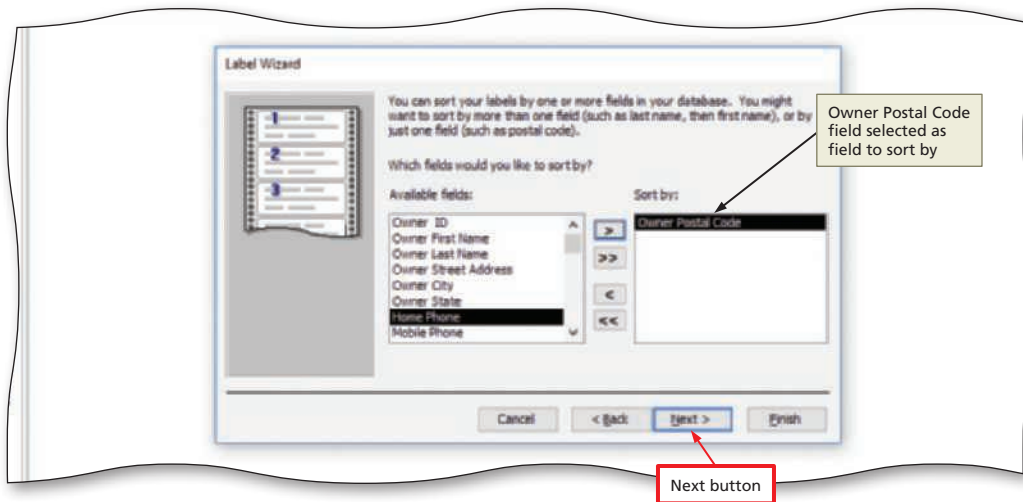


Figure 4-77

- 6
 - Click Next.
 - Ensure the name for the report (that is, the labels) is Labels Owners (Figure 4-78).
 - If requested to do so by your instructor, name the labels report as Labels FirstName LastName where FirstName and LastName are your first and last names.

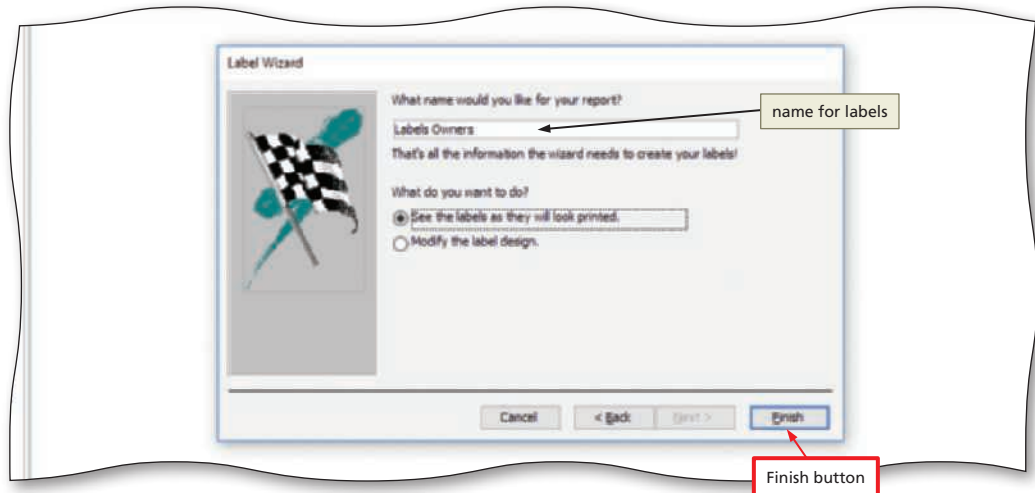


Figure 4-78

- 7
 - Click Finish to complete the labels (Figure 4-79).

- 8
 - Close the Labels Owners report.
 - If desired, sign out of your Microsoft account.
 - **sami** ↑ Exit Access.

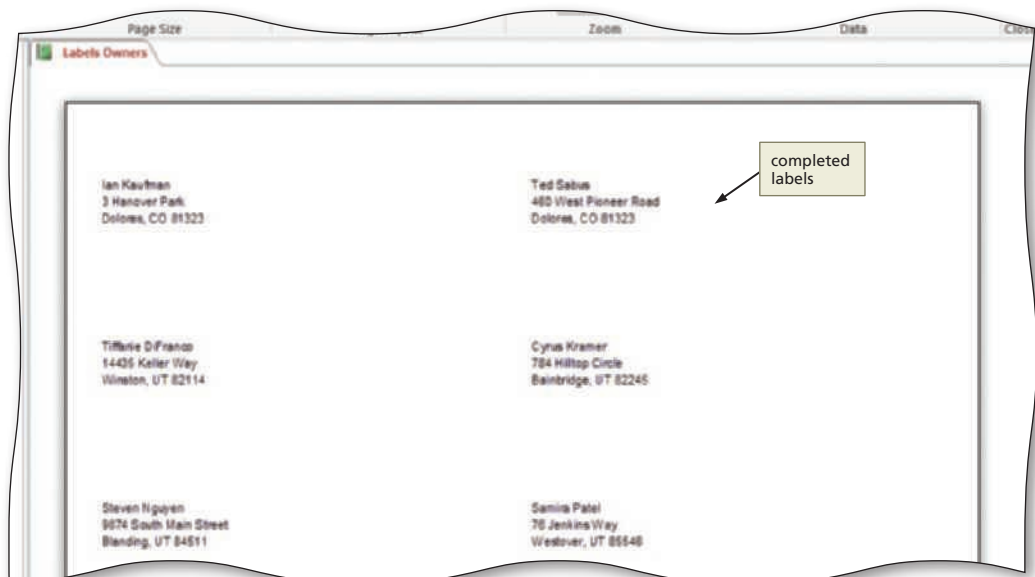


Figure 4-79

To PRINT LABELS

You print labels just as you print a report. The only difference is that you must load the labels in the printer before printing. If you want to print labels, you would use the following steps once you have loaded the labels in your printer.

1. With the labels you wish to print selected in the Navigation Pane, click **File** on the ribbon to open the Backstage view.
2. Click the **Print** tab in the Backstage view to display the Print gallery.
3. Click the **Quick Print** button to print the report.

Q&A

I want to load the correct number of labels. How do I know how many pages of labels will print?

If you are unsure how many pages of labels will print, open the label report in **Print Preview** first. Use the **Navigation** buttons in the status bar of the **Print Preview** window to determine how many pages of labels will print.

BTW**Customizing Mailing Labels**

Once you create mailing labels, you can customize them just as you can customize other reports. In **Design view**, you can add a picture to the label, change the font size, adjust the spacing between controls, or make any other desired changes.

Summary

In this module you have learned to use wizards to create reports and forms, modify the layout of reports and forms using **Layout view**, group and sort in a report, add totals to a report, conditionally format controls, filter records in reports and forms, resize and move controls, add fields to reports and forms, create a stacked layout for a form, add a date/time, move controls in a control layout, apply themes, and create mailing labels.

What decisions will you need to make when creating your own reports and forms?

Use these guidelines as you complete the assignments in this module and create your own reports and forms outside of this class.

1. Determine whether the data should be presented in a report or a form.
 - a. Do you intend to print the data? If so, a report would be the appropriate choice.
 - b. Do you intend to view the data on the screen, or will the user update data? If so, a form would be the appropriate choice.
2. Determine the intended audience for the report or form.
 - a. Who will use the report or form?
 - b. Will the report or form be used by individuals external to the organization? For example, many government agencies require reports from organizations. If so, government regulations will dictate the report requirements. If the report is for internal use, the user will have specific requirements based on the intended use.
 - c. Adding unnecessary data to a report or form can make the form or report unreadable. Include only data necessary for the intended use.
 - d. What level of detail should the report or form contain? Reports used in day-to-day operations need more detail than weekly or monthly reports requested by management.
3. Determine the tables that contain the data needed for the report or form.
 - a. Is all the data found in a single table?
 - b. Does the data come from multiple related tables?
4. Determine the fields that should appear on the report or form.
5. Determine the organization of the report or form.
 - a. In what order should the fields appear?
 - b. How should they be arranged?
 - c. Should the records in a report be grouped in some way?
 - d. Are any calculations required?

**CONSIDER THIS**

- e. Should the report be used to simply summarize data?
 - f. Should the data for the report or form be filtered in some way?
 - 6. Determine the format of the report or form.
 - a. What information should be in the report or form header?
 - b. Do you want a title and date?
 - c. Do you want a logo?
 - d. What information should be in the body of the report or form?
 - e. Is any conditional formatting required?
 - f. What style should be applied to the report or form? In other words, determine the visual characteristics that the various portions of the report or form should have.
 - g. Is it appropriate to apply a theme to the reports, forms, and other objects in the database?
 - 7. Review the report or form after it has been in operation to determine whether any changes are necessary.
 - a. Is the order of the fields still appropriate?
 - b. Are any additional fields required?
 - 8. For mailing labels, determine the contents, order, and type of label.
 - a. What fields should appear on the label?
 - b. How should the fields be arranged?
 - c. Is there a certain order (for example, by postal code) in which the labels should be printed?
 - d. Who is the manufacturer of the labels and what is the style number for the labels?
 - e. What are the dimensions for each label?
 - f. How many labels print across a page?
-

How should you submit solutions to questions in the assignments identified with a symbol?

Every assignment in this book contains one or more questions identified with a symbol. These questions require you to think beyond the assigned database. Present your solutions to the questions in the format required by your instructor. Possible formats may include one or more of these options: write the answer; create a document that contains the answer; present your answer to the class; discuss your answer in a group; record the answer as audio or video using a webcam, smartphone, or portable media player; or post answers on a blog, wiki, or website.



CONSIDER THIS

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Creating Two Reports and a Form

Instructions: Start Access. Open the Support_AC_Financial Services database (If you do not have the database, see your instructor for a copy of the modified database.)

Perform the following tasks:

1. Create a report from the Accounting table that shows clients who owe money to Financial Services. Group the report by Client number and sort the report by Current Due in Ascending order. Add subtotals and a total to the Current Due field. Save the report as Clients with Current Due Amounts. Your finished report should look like Figure 4–80.
2. Create a report that counts the number of clients for each Advisor. Group the report by Advisor and use the title Count of Clients by Advisor Report. Save the report. Your finished report should look like Figure 4–81.

CL #	Current Due	Client Name	AD #
AT13	\$0.00	Alton Repart	103
Summary for 'CL #' = AT13 (1 detail record)			
Sum	\$0.00		
BB35	\$25.00	Barbara Black	114
Summary for 'CL #' = BB35 (1 detail record)			
Sum	\$25.00		
BS24	\$0.00	Bob Schwartz	120
Summary for 'CL #' = BS24 (1 detail record)			
Sum	\$0.00		
CI45	\$25.00	Carl Jones	110
Summary for 'CL #' = CI45 (1 detail record)			
Sum	\$25.00		
KC13			

Figure 4–80

Advisor Number	Client Name	Street	City	Count
103	Kirk D'Elia	378 Stout Ave.	Cardron	4
	Heidi Croft	245 Beard St.		
	Cindy Platt	178 Fletcher Rd.		
	Alton Repart	220 Beard St.	Kady	
110	Paul Leon	734 Lanton Blvd.	Conradt	5
	Henry Neimer	346 Magee Ave.	Conradt	
	Carl Jones	234 Fairlawn Ave.		
	Barbara Black	105 Main St.		
	Amanda Zito	413 Beechwood Ave.	Conradt	
114	Patricia Singer	234 Hartwell Dr.		3
	Moss Manni	109 Fletcher Rd.		
	Carly Cohen	87 Fletcher Rd.	Conradt	
120	Timothy Edwards	876 Redfern Rd.	Kady	2
	Katy Cline	255 Main St.	Kady	

Figure 4–81

Continued >

Apply Your Knowledge *continued*

3. Create the Client Financial Form shown in Figure 4–82. The form has a columnar layout and includes the current date. Bold the date control and change the Alignment to Left-Align. Include the Client's Current Due amount. Decrease the size of the CL# and Client Name controls so they reflect the appropriate size for these fields. Use Figure 4–82 for reference. Save the form.

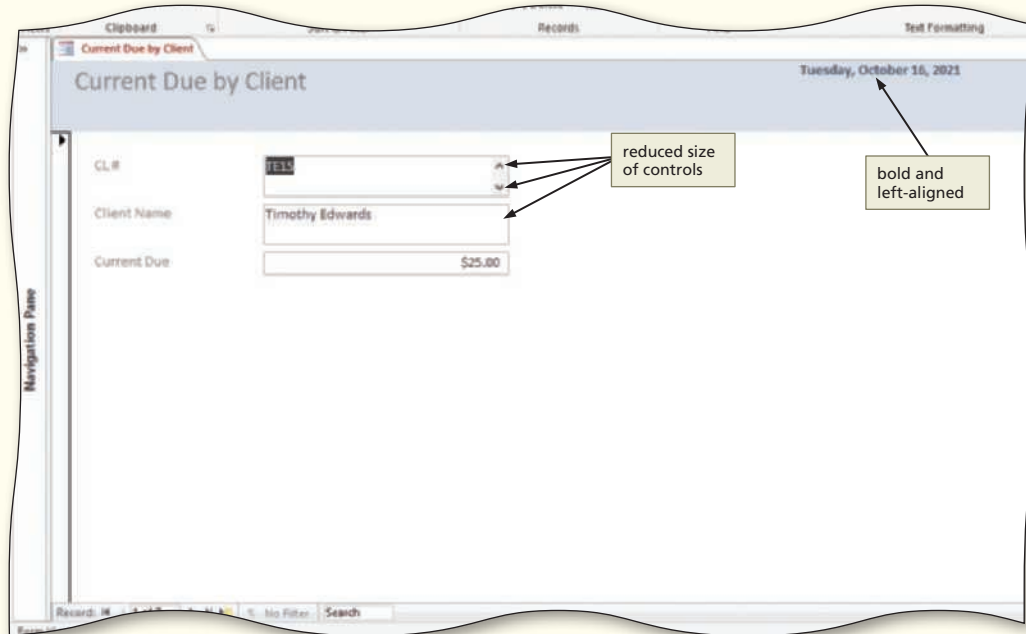


Figure 4–82

4. If requested to do so by your instructor, rename the Client Advisor Report as Clients by LastName where LastName is your last name.
5. Submit the revised database in the format specified by your instructor.
6. 🌟 How would you add the City field to the Advisor-Client Report so that the field appears below the Client Name field?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Creating a Summary Report and Assigning Themes to Reports and Forms

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Access. Open the Support_AC_Healthy Pets database from the Data Files. Healthy Pets is a small veterinary practice that is run by a veterinarian who would like to retire. CMF Vets has been approached about buying the Healthy Pets practice. Healthy Pets needs to update its database reports and forms. You will create a summary report for the Healthy Pets database, assign a theme to an existing report, and create a form.

Perform the following tasks:

1. Use the Report Wizard to create the summary report shown in Figure 4–83. Name the report Client Balances Summary Report. Apply the Organic theme. Group the report by Client ID Number and sort by Client Name. Sum the Balance Due field for the Summary option. Save your report as Client Amount Due Summary.

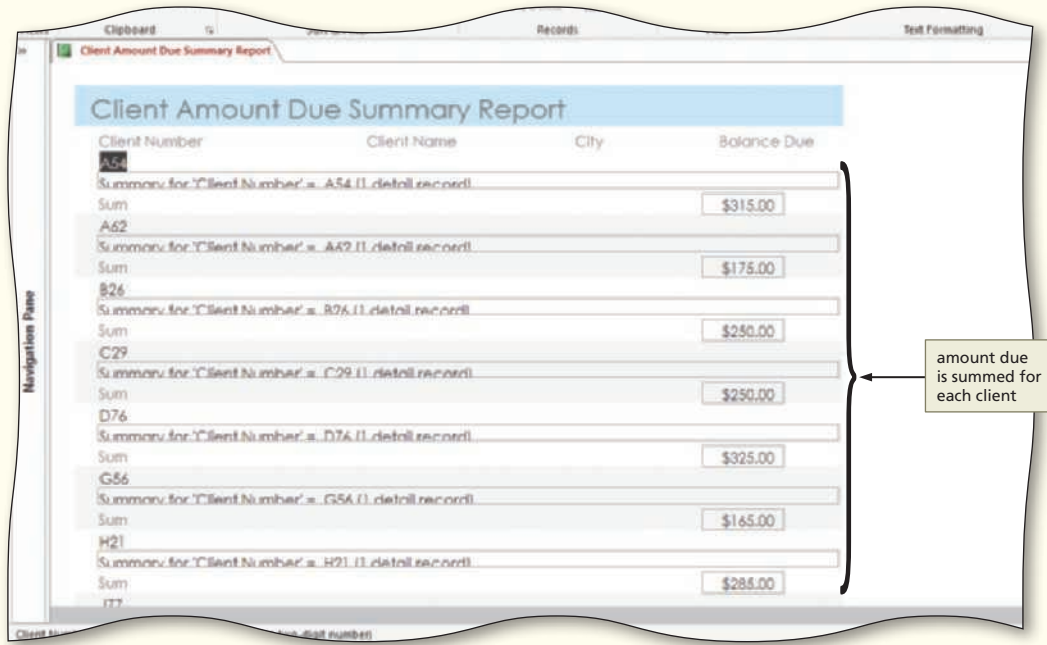


Figure 4-83

2. Create the Technician Form shown in Figure 4-84. The form has a Columnar control layout. Save the changes to the form.

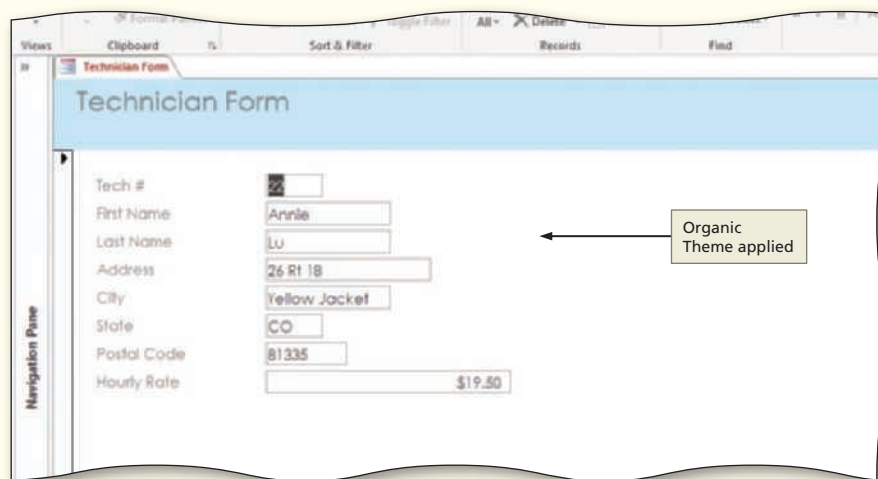


Figure 4-84

3. If requested to do so by your instructor, open the Technician Form in Form view and change the first name and last name for Tech# 22 to your first and last names.
4. Submit the revised database in the format specified by your instructor.
5. 🌟 How would you change the theme font for the Technician Form to Arial?

Expand Your World

Create a solution, which uses cloud and web technologies, by learning and investigating on your own from general guidance.

Problem: The Physical Therapy clinic wants to ensure that all clients are matched with therapists. The clinic needs you to create a report that documents these relationships. Employees of the clinic need to view this report when they travel to client locations.

Perform the following tasks:

Start Access and open the Support_AC_Physical Therapy database (If you do not have the database, see your instructor for a copy of the modified database.)

- Using your favorite search tool, do some research on design considerations for online documents. Specifically, you want to know how to create reports that employees can easily view on their smartphones or tablets while traveling to client sites in various cities. Summarize your findings in a blog or Word document and include the references on which you based your conclusions.
- Create a report based on the Therapist Serving Empeer or Portage query so that therapists and managers can easily view each of the clients and their associated therapists.
- Group the report by Therapist Number and sort the report by Client Last Name using a Stepped Layout in Portrait orientation. Increase the size of the Report Title control so that the entire report name is displayed. Save the report as Clients Served by Therapists as shown in Figure 4–85.

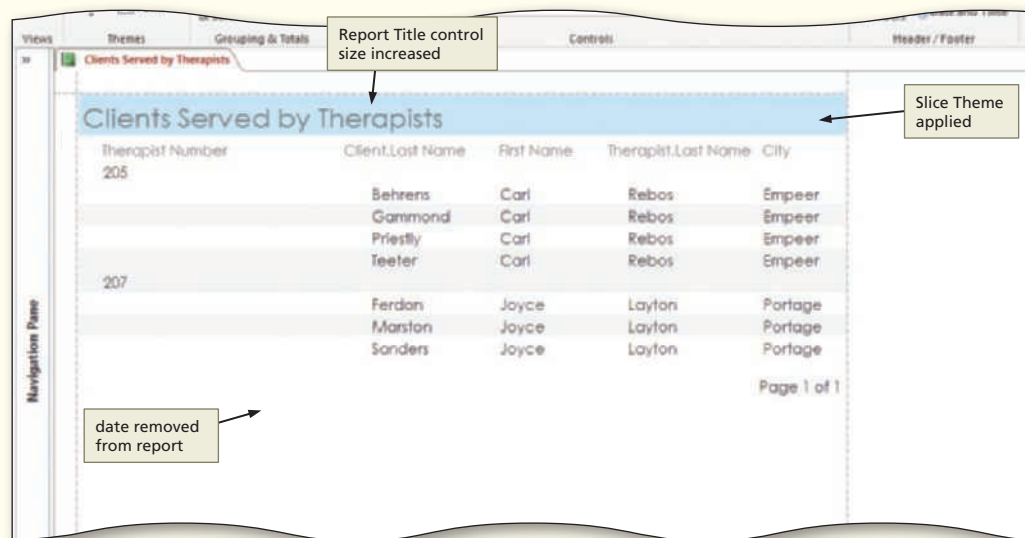


Figure 4–85

- Add the Slice theme to the Clients Served by Therapists report. Remove the Date fields from the report and save the revised report with the new theme.
- After completing the report, submit the revised database and update the blog Word document you created in Step 1. Submit the files in the format specified by your instructor.
- Physical Therapy clinic managers want to know available options for an online network other than SharePoint, which is cost prohibitive at this time. Discuss the creation of an Access app and how Microsoft simplifies this process in Microsoft Access. Post your findings to the blog or document in the format specified by your instructor.
- 🌟 Should all reports and forms for a particular company use the same basic design and themes? Why or why not?

In the Labs

Design, create, modify, and/or use a database following the guidelines, concepts, and skills presented in this module.

Lab: Updating Reports and Forms in the Lancaster College Database

Instructions: Open the Support_AC_Lancaster College database (If you do not have the database, see your instructor for a copy of the modified database.)

Part 1: Use the concepts and techniques presented in this module to create reports and forms so that the data is easily viewed and understood.

- a. The athletic director wants to see student ID numbers for all students, and she wants to be able to quickly see which students, and how many of them, have waivers. Using a Tabular layout, create a report that does not contain grouping. Include sorting, formatting, and a calculation that will produce a report similar to that shown in Figure 4–86.

ID	Name	Waiver
87865	Jeanie O'Neal	Yes
87868	Michael Brunger	Yes
87887	Ron Fielden	Yes
72347	Ellen Krithivasan	Yes
72837	Jennie Mahoney	Yes
78779	Mason Francois	Yes
78797	Greta VonLectin	Yes
78798	Daniel Freeman	Yes
78978	Franklin Curley	Yes
87879	Phillipe Ochalla	Yes
87898	Shannon McDaniel	Yes
87899	Michelle Greer	Yes
87987	Shelley Smith	Yes
89127	Faye Dunlap	Yes
89789	Daisy Fuentes	Yes

conditional formatting set to apply light blue highlight to background if student does need a waiver (Yes)

count of students who need waivers 28

Figure 4–86

- b. Create a one-page report that includes all fields in the Team table. Apply grouping and sorting as shown in Figure 4–87. Adjust the size of the controls and the layout as necessary

Sport Name	Captain ID	Team ID	Equipment ID
Basketball	87978	BAS-CRT-1	BAS-2
	89789	BAS-CRT-4	BAS-1
Football	72837	FTB-FLD-1	FTB-1
	78978	PNG-TBU-1	PNG-1
Pool	28374	POU-TBU-1	POU-1
	54348	SOC-FLD-2	SOC-BAG-2
Soccer	67898	SOC-FLD-1	SOC-BAG-1
	34872	SOF-FLD-4	SOF-BAG-4
Softball	34872	SOF-FLD-1	SOF-BAG-3
	56757	SOF-FLD-2	SOF-BAG-1
			SOC-BAG-1

sports grouped by sport name

report sorted by Captain ID

Figure 4–87

Continued >

In the Labs *continued*

- c. Create a form for the Student table that includes each student's name, ID, phone numbers, and waiver status. Filter the form to display all students who need a waiver and sort the results in descending order by last name. Save the form as Filtered Student Form.
- d. Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while creating these reports and forms, including conditionally formatting values. What was the rationale behind your decisions? Which formatting option did you choose for the conditional formatting? Why? What other options are available?

5 Multiple-Table Forms

Objectives

You will have mastered the material in this module when you can:

- Add Yes/No, Long Text, and Attachment fields
- Use the Input Mask Wizard
- Update fields and enter data
- Change row and column size
- Create a form with a subform in Design view
- Modify a subform and form design
- Enhance the form title
- Change tab stops and tab order
- Use the form to view data and attachments
- View object dependencies
- Use Date/Time, Long Text, and Yes/No fields in a query
- Create a form with a datasheet

Introduction

This module adds to the CMF Vets database several new fields that require special data types. It then creates a form incorporating data from two tables. Recall that the two tables, Veterinarians and Appointments, contain information about the veterinarians in the practice and the appointments those veterinarians have. These two tables should be related in a one-to-many relationship, with one veterinarian being related to many appointments, but each appointment being related to only one veterinarian. The form that you create will show one veterinarian at a time, but also will include the many appointments of that veterinarian. This module also creates queries that use the added fields.

Project — Multiple-Table Forms

CMF Vets uses its database to keep records about veterinarians and appointments. The practice is in the process of hiring some specialty veterinarians to cover complicated cases. The increase in personnel means that CMF Vets needs to maintain additional data on its veterinarians. The practice wants to promote the newly hired specialty veterinarians and their status as board-certified professionals. They also want to include each veterinarian's specialty as well as the veterinarian's picture. Additionally, CMF Vets wants to connect the new clinicians' online resources, such as a Linked In profile. These files are separate from the database; some are maintained in Word and

BTW

Touch Screen Differences

The Office and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

BTW

Touch and Pointers

Remember that if you are using your finger on a touch screen, you will not see the pointer.

others as PDFs. CMF Vets would like a way to attach these files to the corresponding veterinarian's record in the database. Finally, CMF Vets wants to adjust the Phone Numbers fields in the Veterinarians table. Users should type only the digits in the telephone number and then have Access format the number appropriately. If the user enters 8255553455, for example, Access will format the number as (825) 555-3455.

After the proposed fields have been added to the database, CMF Vets want users to be able to use a form that incorporates the Veterinarians and Appointment tables and includes the newly added fields as well as some of the existing fields in the Veterinarians table. The form should also include the veterinarian ID, the first and last name of the veterinarian, and their office phone and cell phone. CMF Vets would like to see multiple appointments for each veterinarian on the screen at the same time (Figure 5-1). The database should allow users to scroll through all the appointments and see the patient ID, date and time of the appointment and the treatment requested. At any time, the veterinarian's resume can be opened for viewing. Finally, CMF Vets will need queries that use the board-certified, Start Date, and Specialty fields.

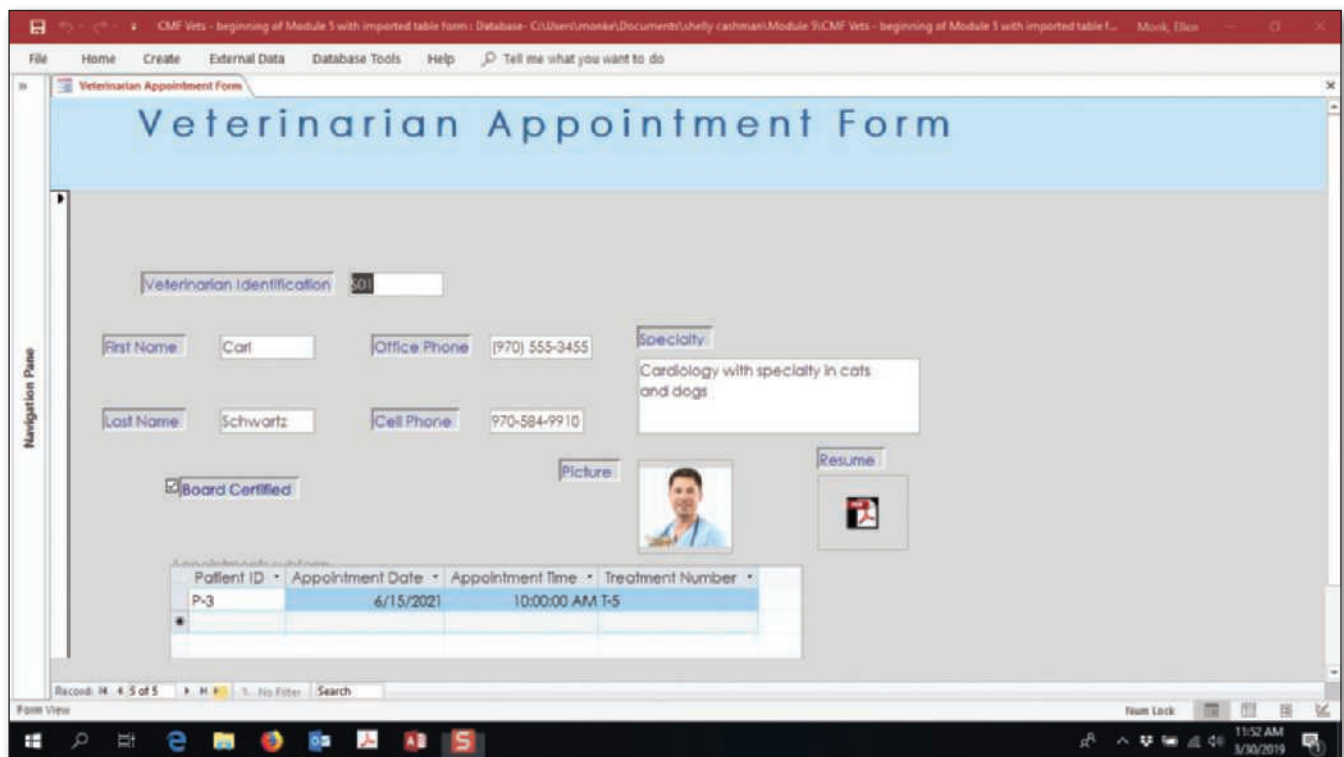


Figure 5-1

BTW

The Ribbon and Screen Resolution

Access may change how the groups and buttons within the groups appear on the ribbon, depending on the computer's screen resolution. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

Adding Special Fields

Having analyzed its requirements, the management of CMF has identified a need for some new fields for the Veterinarians table. They need a Board-certified field, which uses a value of Yes or No to indicate whether a specialist veterinarian has attained the Board certification; this field's data type will be Yes/No. They need a Specialty field that identifies each veterinarian's unique abilities, which will be a Long Text field.

The Resume field, which must be able to contain multiple attachments for each veterinarian, will be an Attachment field. The Picture field is the only field whose data type is uncertain — it could be either OLE Object, which can contain objects created by a variety of applications, or Attachment. CMF Vets has decided to attach the pictures in order to store the picture data more efficiently. An OLE Object, which stands for Object Linking and Embedding, creates a bitmap of the picture file, which can be very large.

The office wants to assist users in entering the correct format for a phone number, so the field will use an input mask. An **input mask** specifies how data is to be entered and how it will appear. For example, an input mask can indicate that a phone number has parentheses around the first three digits and a hyphen between the sixth and seventh digits.

The form shown in Figure 5–1 contains two attachment fields, the Picture field and the Resume field. When viewed as a table, these both appear as paper clips, not as the actual attachment. However, when the table’s attachment fields are displayed in a form, you can view the picture itself and an icon of the document, in this case, a PDF file.

BTW

OLE Object Fields

OLE Object Fields can store video clips, sound, and other objects from Windows-based apps.

BTW

Long Text Fields

Long Text fields can store up to a gigabyte of text. If you need to keep a historical record of changes to a Long Text field, set the value for the Append Only property to Yes. To use formatting such as bold and underline in a Long Text field, set the value for the Text Format property to Rich Text.

BTW

Adding Captions to Attachment Fields

You can add a caption to an Attachment field. To add a caption in Design view, use the Caption property box.

To Add Fields with New Data Types to a Table

You add the new fields to the Veterinarians table by modifying the design of the table and inserting the fields at the appropriate position in the table structure. The following steps add the Board Certification, Specialty, Picture, and Resume fields to the Veterinarian table. *Why? CMF has determined that they need these fields added to the table.*

- 1 **Start**
 - **Start** Access and open the database named CMF Vets from your hard disk, OneDrive, or other storage location. If you do not have the CMF Vets database, contact your instructor for the required file.
 - If necessary, enable the content and open the Navigation Pane.
 - Right-click the Veterinarians table to display a shortcut menu (Figure 5–2).

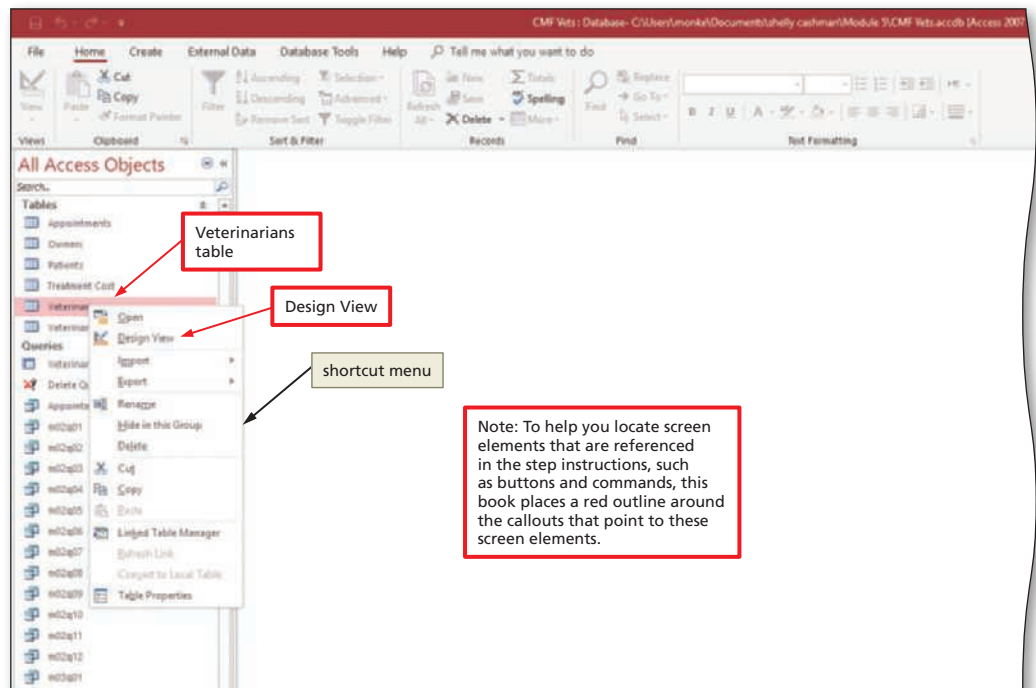


Figure 5–2

2

- Click Design View on the shortcut menu to open the table in Design view (Figure 5-3).

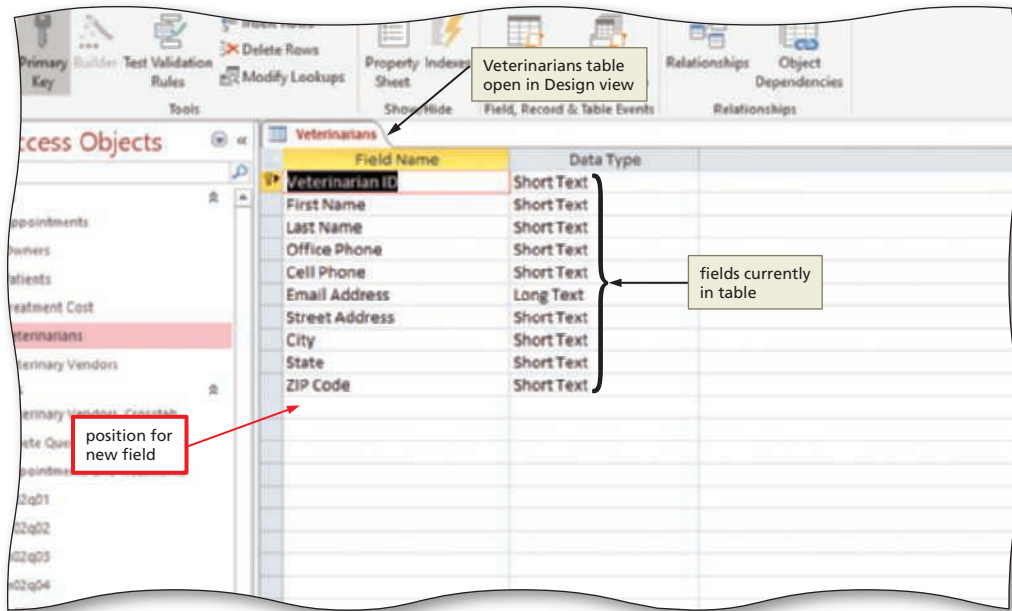


Figure 5-3

3

- Click the first open field to select the position for the first additional field.
- Type **Board Certified** as the field name, press the TAB key, click the Data Type arrow, select Yes/No as the data type, and then press the TAB key twice to move to the next field.
- Use the same technique to add a field with **Specialty** as the field name and Long Text as the data type, a field with **Picture** as the field name and Attachment as the data type, and a field with **Resume** as the field name and Attachment as the data type (Figure 5-4).

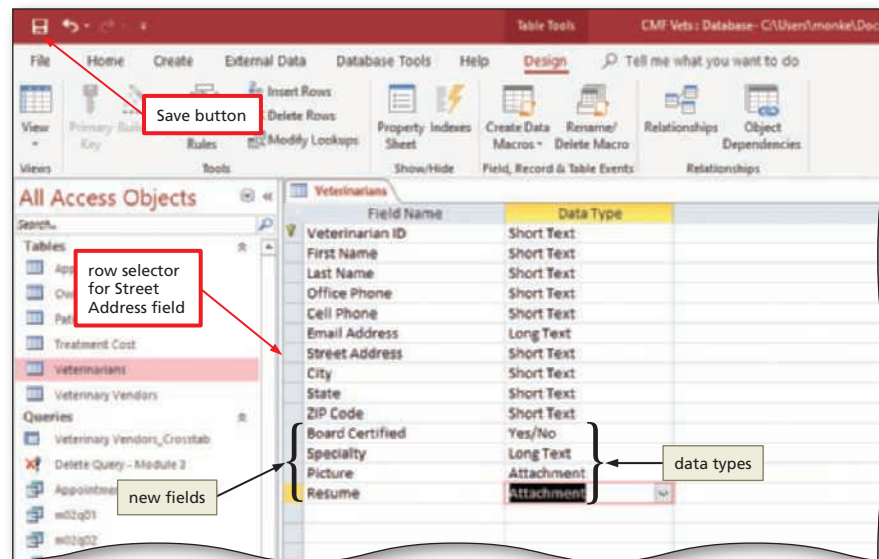


Figure 5-4

4

- Click the Save button on the Quick Access Toolbar to save your changes.

To Use the Input Mask Wizard

As mentioned previously, an input mask specifies how data, such as a phone number, is to be entered and how it will appear. You can enter an input mask directly, but you usually will use the Input Mask Wizard. *Why? The wizard assists you in the creation of the input mask by allowing you to select from a list of the most frequently used input masks.*

To use the Input Mask Wizard, select the Input Mask property in the field's property sheet and then select the Build button. The following steps specify how both telephone numbers, office and cell, are to appear by using the Input Mask Wizard.

- 1
 - Click the Office Phone field.
 - Click the Input Mask property box (Figure 5-5).

Q&A Do I need to change the data type?
 No. Short Text is the appropriate data type for the Phone Number field.



Figure 5-5

- 2
 - Click the Build button to use a wizard to enter the input mask.
 - If a dialog box appears asking you to save the table, click Yes. (If a dialog box displays a message that the Input Mask Wizard is not installed, check with your instructor before proceeding with the following steps.)
 - Ensure that Phone Number is selected (Figure 5-6).

Experiment

- Click different input masks and enter data in the Try It text box to see the effect of the input mask. When you are done, click the Phone Number input mask.

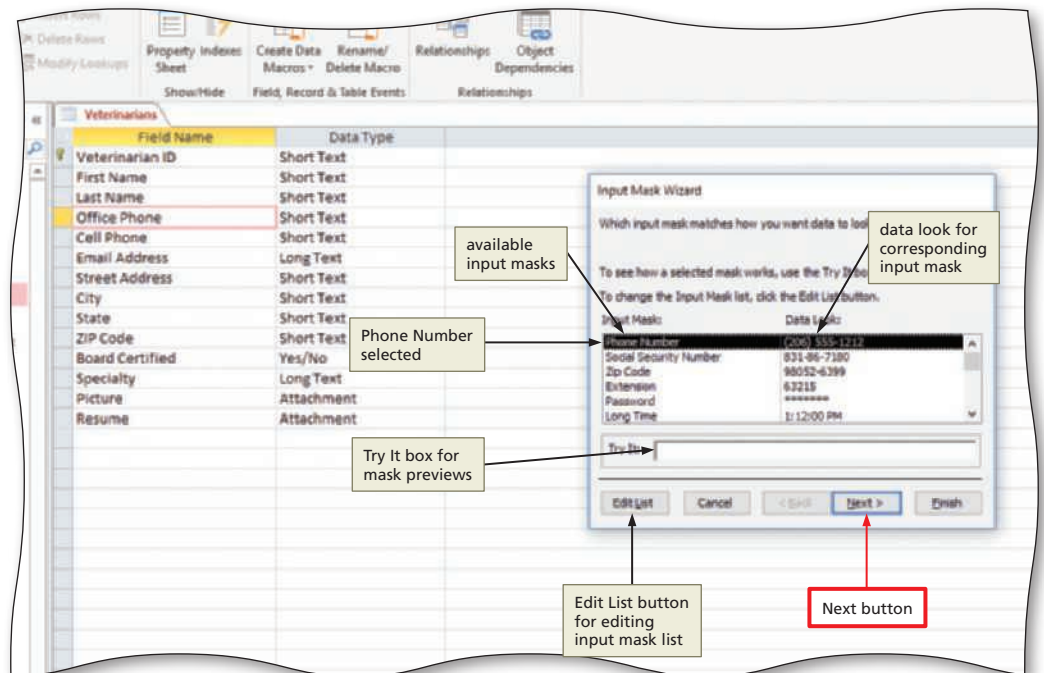


Figure 5-6

3

- Click the Next button to move to the next Input Mask Wizard screen, where you can change the input mask, if desired.
- Because you do not need to change the mask, click the Next button a second time (Figure 5–7).

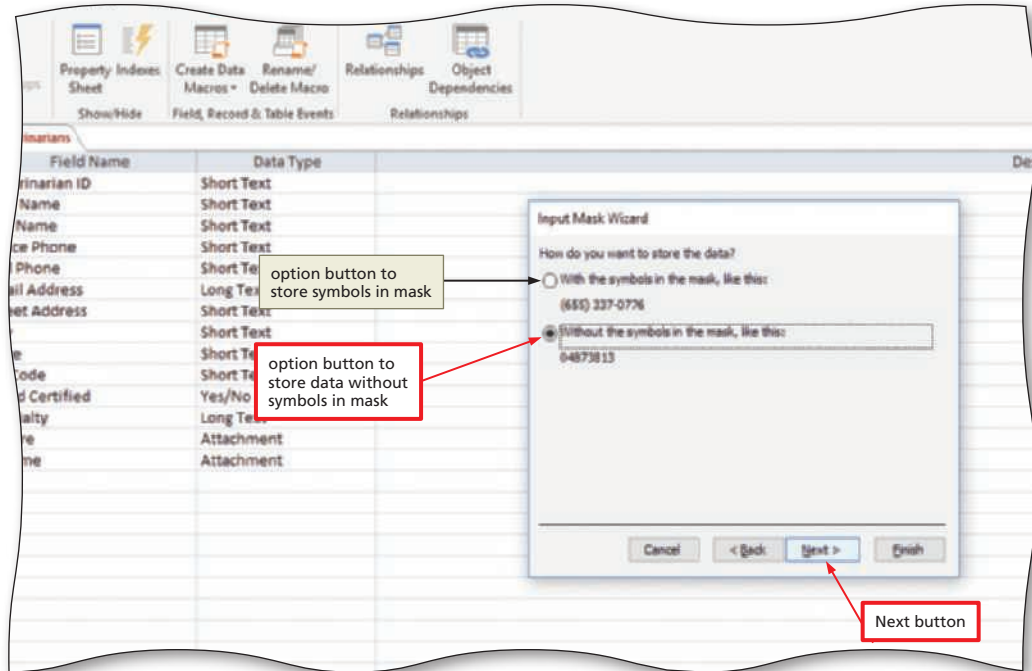


Figure 5–7

4

- Be sure the 'Without the symbols in the mask, like this:' option button is selected, click the Next button to move to the next Input Mask Wizard screen, and then click the Finish button (Figure 5–8).
- Repeat the steps for the Cell Phone field.

Q&A

Why does the data type not change to Input Mask?
 The data type of the Phone Number field is still Short Text. The only thing that changed is one of the field properties, the Input Mask property.

Could I have typed the value in the Input Mask property myself, rather than using the wizard?
 Yes. Input masks can be complex, however, so it is usually easier and safer to use the wizard.

5

- Click the Save button on the Quick Access Toolbar to save your changes.
- Close the Veterinarians table.

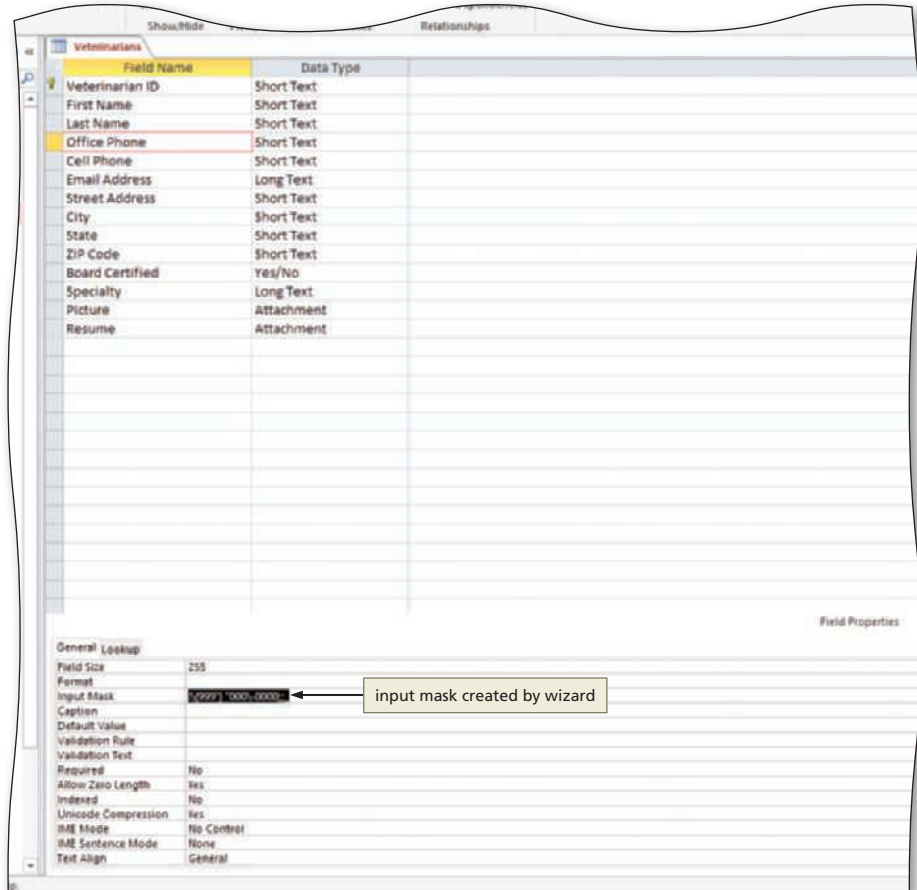


Figure 5–8

Adding Fields in Datasheet View

Previously you added fields to a table using Design view. You can also add fields in Datasheet view. One way to do so is to use the Add & Delete group on the Table Tools Fields tab (Figure 5–9). Select the field that precedes the position where you want to add the new field, and then click the appropriate button. You can click the Short Text button to add a Short Text field, the Number button to add a Number field, the Currency button to add a Currency field, and so on. Alternatively, you can click the More Fields button as shown in the figure to display the Data Type gallery. You then can click a data type in the gallery to add a field with that type.

The gallery provides more options for ways to display various types of data. For example, if you click the Check Box version of a Yes/No field, the field will be displayed as a check box, which is the common way to display such a field. If instead you click the Yes/No version of a Yes/No field, the value in the field will be displayed as either the word, Yes, or the word, No.

If you scroll down in the Data Type gallery, you will find a Quick Start section. The commands in this section give you quick ways of adding some common types of fields. For example, clicking Address in the Quick Start section immediately adds several fields: Address, City, State Province, Zip Postal, and Country Region. Clicking Start and End Dates immediately adds both a Start Date field and an End Date field.

BTW

Input Mask Characters

When you create an input mask, Access adds several characters. These characters control the literal values that appear when you enter data. For example, the first backslash in the input mask in Figure 5–8 displays the opening parenthesis. The double quotations marks force Access to display the closing parenthesis and a space. The second backslash forces Access to display the hyphen that separates the first and second part of the phone number.

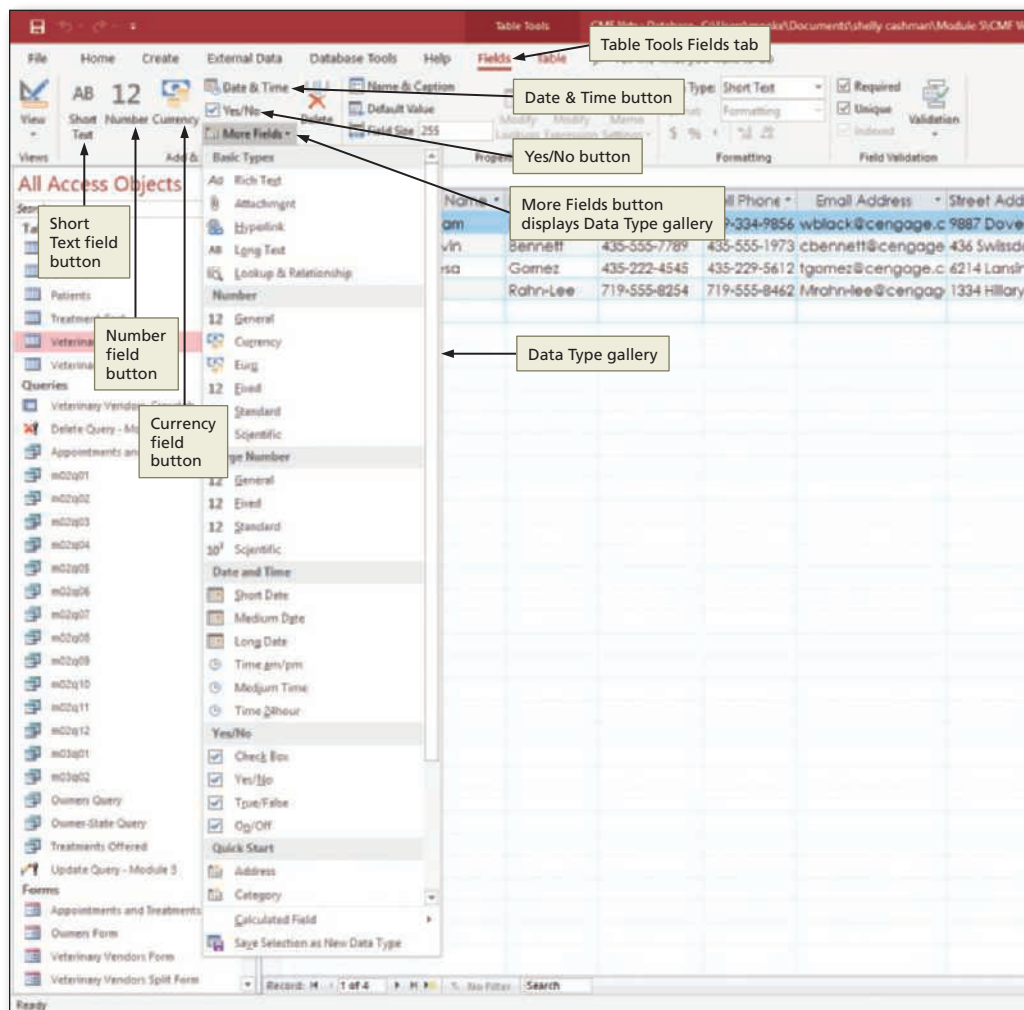


Figure 5–9

In Datasheet view, you can rename fields by right-clicking the field name, clicking Rename Field on the shortcut menu, and then typing the new name. Delete a field by clicking the field and then clicking the Delete button (Table Tools Fields tab | Add & Delete group). Move a field from one location to another by dragging the field.



CONSIDER THIS

How do you determine if fields need special data types or an input mask?

Determine whether an input mask is appropriate. Sometimes the data in the field should be displayed in a special way, for example, with parentheses and a hyphen like a phone number, or separated into three groups of digits, like a Social Security number. If so, should Access assist the user in entering the data in the right format? For example, by including an input mask in a field, Access can automatically insert the parentheses and a hyphen when a user enters phone number digits.

Determine whether the Yes/No data type is appropriate. A field is a good candidate for the Yes/No data type if the only possible field values are Yes or No, True or False, or On or Off.

Determine whether the Long Text data type is appropriate. A field that contains text that is variable in length and potentially very long is an appropriate use of the Long Text data type. If you want to use special text effects, such as bold and italic, you can assign the field the Long Text data type and change the value of the field's Text Format property from Plain Text to Rich Text. You can also collect history on the changes to a Long Text field by changing the value of the field's Append Only property from No to Yes. If you do so, when you right-click the field and click Show Column History on the shortcut menu, you will see a record of all changes made to the field.

Determine whether the Attachment data type or the OLE Object data type is appropriate for a picture. Does the field contain a picture? Does it contain an object created by other applications that support **OLE (Object Linking and Embedding)**? Is your storage space limited? If storage space is limited, you should use the Attachment data type.

Determine whether the Attachment data type is appropriate for documents. Will the field contain one or more attachments that were created in other applications? If so, the Attachment data type is appropriate. It allows you to store multiple attachments on each record. You can view and manipulate these attachments in their original application.

Determine whether the Hyperlink data type is appropriate. A field with the hyperlink data type contains a hyperlink, that is, a link to another location such as a webpage or a file. Will the field contain an email address, links to other Office documents, or links to webpages? If so, Hyperlink is appropriate.

Updating the New Fields

After adding the new fields to the table, the next task is to enter data into the fields. The data type determines the manner in which this is accomplished. CMF has just hired a new veterinarian who specializes in cardiology. The following sections cover the methods for updating fields with an input mask, Yes/No fields, Long Text fields, OLE fields, and Attachment fields. They also show how you would enter data in Hyperlink fields.

To Enter Data Using an Input Mask

Why? When you are entering data in a field that has an input mask, Access will insert the appropriate special characters in the proper positions. This means Access will automatically insert the parentheses around the area code, the space following the second parenthesis, and the hyphen in the Phone Number field. The following steps use the input mask to add the telephone numbers.

1

- Open the Veterinarians table and close the Navigation Pane.
- Click on a blank Veterinarian ID and type, S01. Using the tab key, type Carl as the first name and Schwartz as the last name.

- Click at the beginning of the Office Phone field on the first record to display an insertion point in the field (Figure 5–10).

Q&A

I do not see the parentheses and hyphen as shown in the figure. Did I do something wrong? Depending on exactly where you click, you might not see the symbols. Regardless, as soon as you start typing in the field, the symbols should appear.

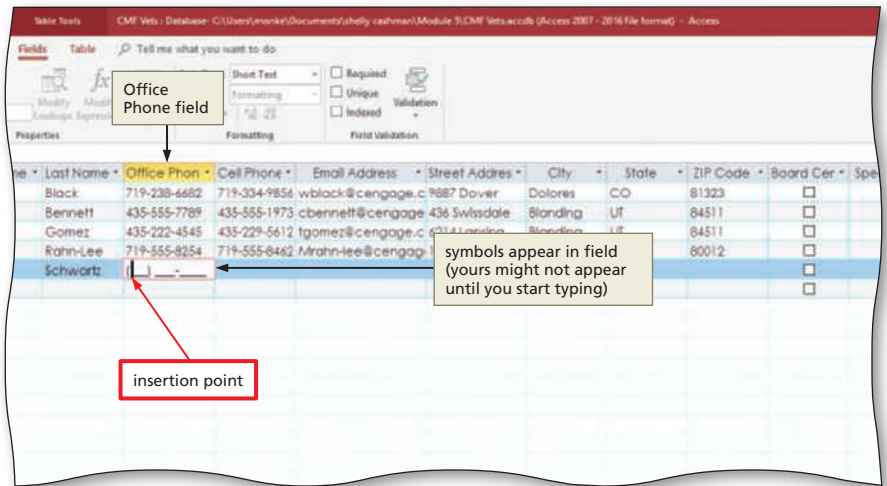


Figure 5–10

2

- Type 9705553455 as the telephone number (Figure 5–11).

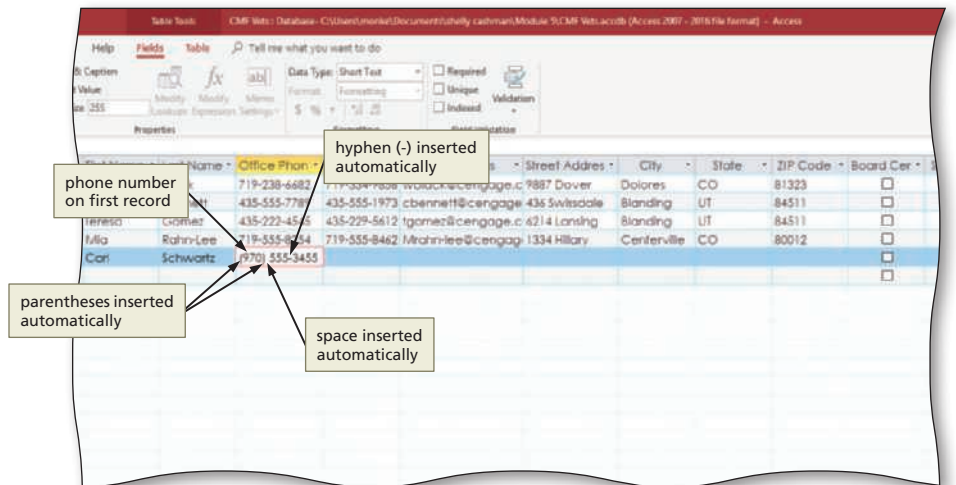


Figure 5–11

3

- Use the same technique to enter the Cell Phone, and the rest of the data for the record, as shown in Figure 5–12.

Q&A

Do I need to click at the beginning of the field for the phone numbers? Yes. If you do not, the data will not be entered correctly.



Figure 5–12

BTW

Input Mask on New Records

When you place an input mask on a field with existing data, only the new records added will adhere to that input mask.

To Enter Data in Yes/No Fields

Fields that are Yes/No fields contain check boxes. To set the value to Yes, place a check mark in the check box. *Why?* A check mark indicates the value is Yes or True. To set a value to No, leave the check box blank. The following step sets the value of the Board Certified field, a Yes/No field, to Yes for the new specialty veterinarian. The other veterinarians do not yet have board certification.

1

- Tab over to the Board Certified field.
- Click the check box in the Board Certified field for this new record to place a check mark in the box (Figure 5–13).



Figure 5–13

To Enter Data in Long Text Fields

To update a long text field, simply type the data in the field. You will later change the spacing to allow more room for the text. *Why?* With the current row and column spacing on the screen, only a small portion of the text will appear. The following steps enter each veterinarian's specialty.

1

- Tab over to the Specialty field.
- For the new record type **Cardiology with a specialty in cats and dogs** as the entry (Figure 5–14).



Figure 5–14

To Change the Row and Column Size

Only a small portion of the special skills data appears in the datasheet. To allow more of the information to appear, you can expand the size of the rows and the columns. You can change the size of a column by using the field selector. The **field selector** is the bar containing the field name. To change the size of a row, you use a record's record selector.

The following steps resize the column containing the Specialty field and the rows of the table. *Why?* Resizing the column and the rows allows the entire Specialty field text to appear.

1

- If your screen does not display all the fields, use the right scroll arrow to scroll the fields to the position shown in Figure 5–15, and then drag the right edge of the field selector for the Specialty field to the right to resize the Specialty column to the approximate size shown in the figure.

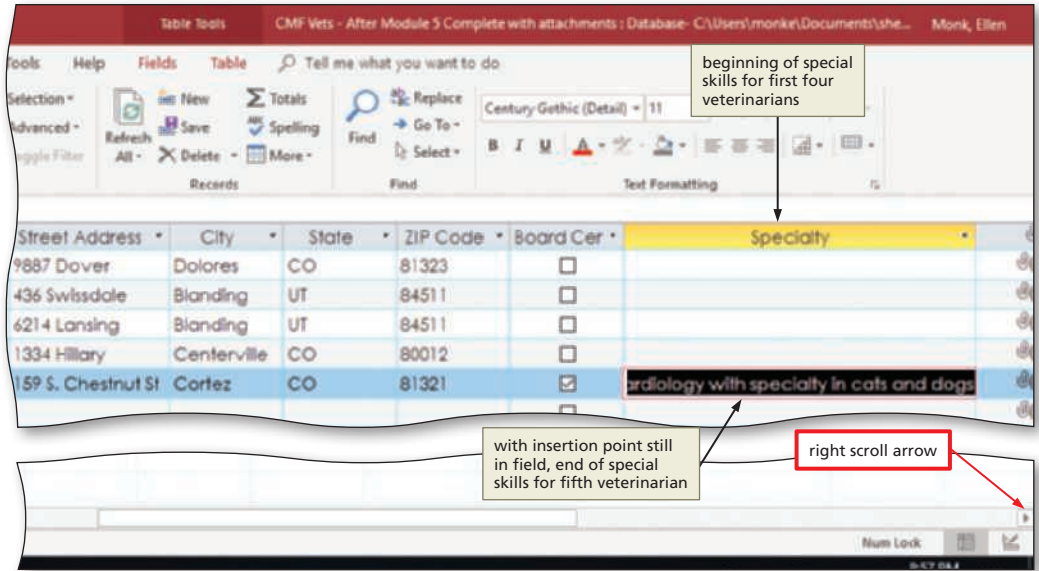


Figure 5–15

2

- Drag the lower edge of the record selector to approximately the position shown in Figure 5–16.

Q&A

Can rows be different sizes?
No. Access formats all rows to be the same size.

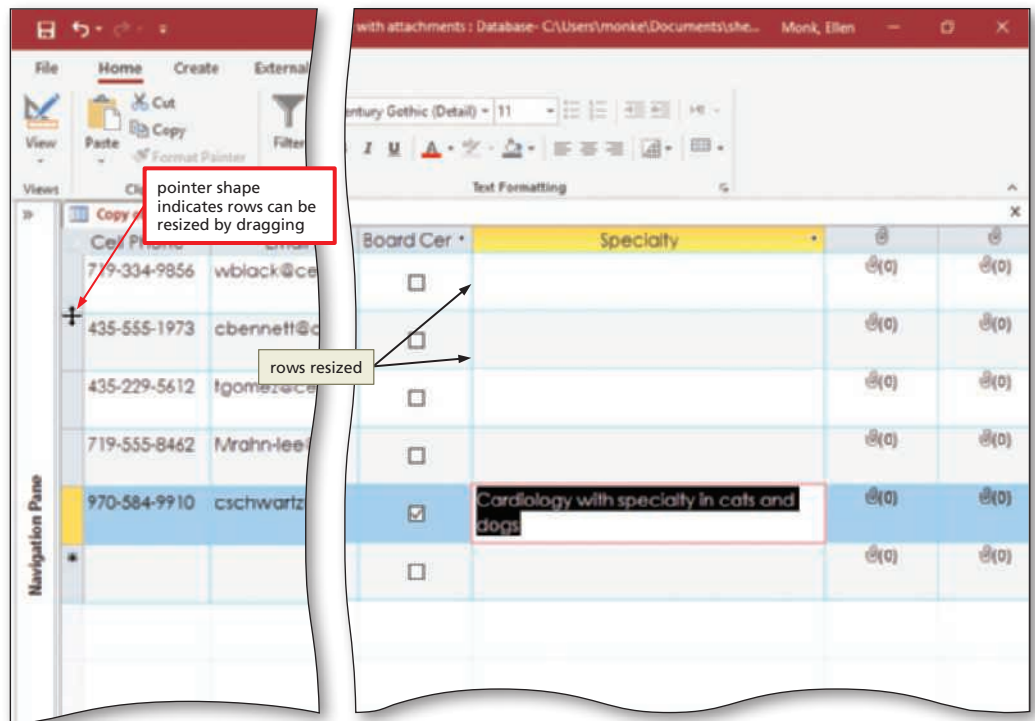


Figure 5–16

Other Ways

1. Right-click record selector, click Row Height to change row spacing
2. Right-click field selector, click Field Width to change column size

Undoing Changes to Row Height and Column Width

If you later find that the changes you made to the row height or the column width are no longer appropriate, you can undo them. To undo changes to the row height, right-click the row selector, click Row Height on the shortcut menu, and then click the Standard Height check box in the Row Height dialog box. To undo changes to the column width, right-click the field selector, click Field Width on the shortcut menu, and then click the Standard Width check box in the Column Width dialog box.

BTW

Entering Data in Long Text Fields

You also can enter data in a long text field using the Zoom dialog box. To do so, click the long text field and then press SHIFT+F2 to open the Zoom dialog box.

To Enter Images in Attachment Fields

To insert a picture into an Attachment field, you use the Manage Attachments command on the Attachment field's shortcut menu. The picture should already be created and stored in a file, and then you could choose to insert it directly from the file. The Manage Attachments command makes it easy to attach a picture to a field rather than using an OLE object field. *Why? The OLE object field requires Access to open the Paint application before you can insert the picture.*

The following steps insert pictures into the Picture field. The pictures will appear as paper clips in the datasheet. The steps assume that the pictures are located in the same folder as your database.

1

- Ensure the Picture field appears on your screen, and then right-click the Picture field on the last record to produce a shortcut menu (Figure 5–17).

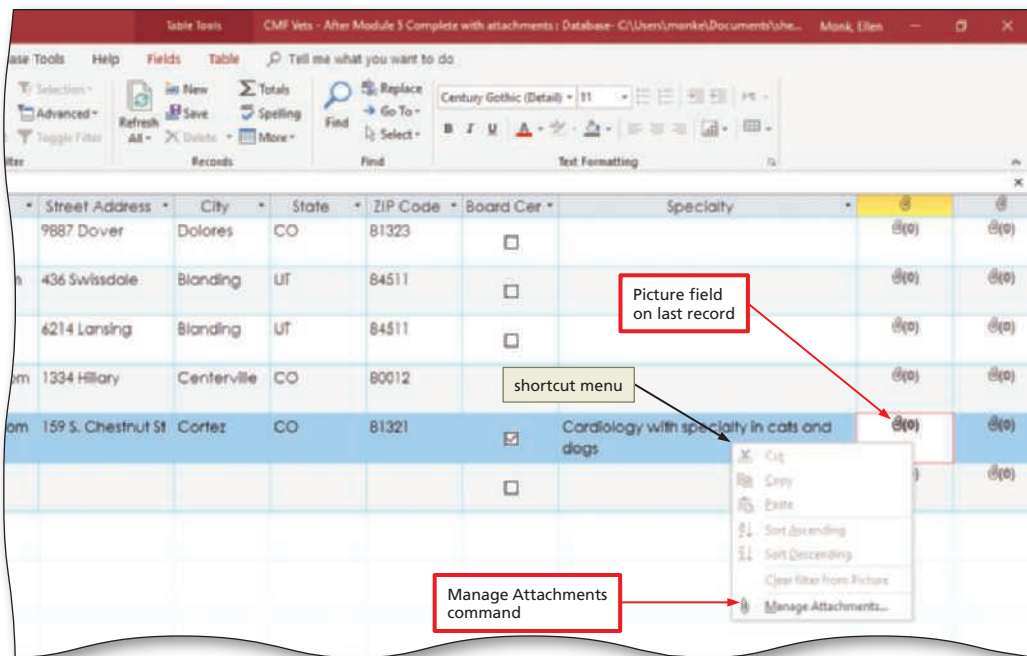


Figure 5–17

2

- Click Manage Attachments on the shortcut menu to display the Attachments dialog box (Figure 5–18).

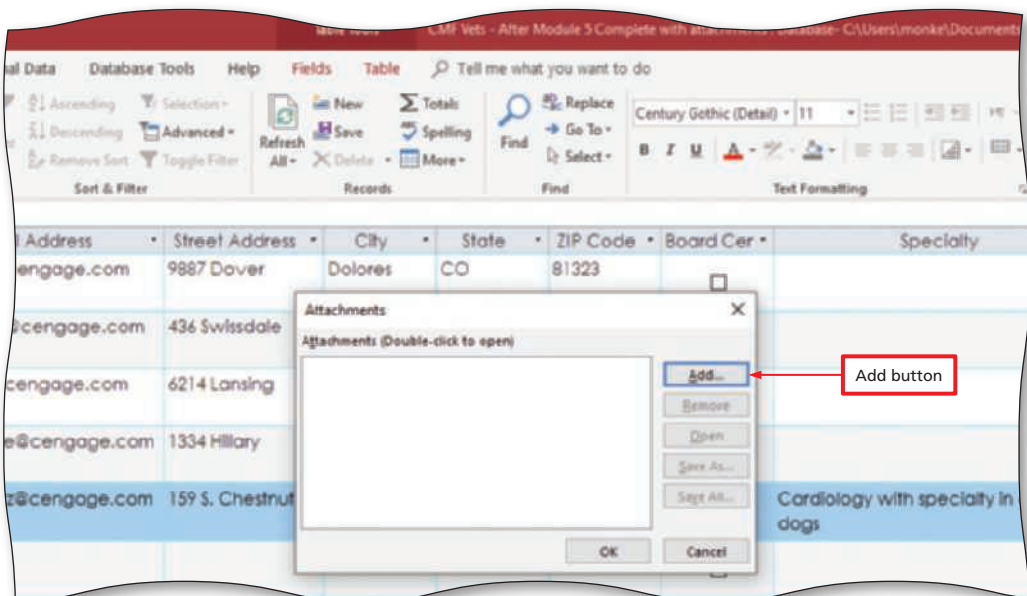


Figure 5–18

3

- Click the Add button

Q&A Unlike the figure, my window is maximized. Does that make a difference? No. The same steps will work in either case.

- Navigate to the image file for Carl Schwartz, click to select it, and then click Open (Figure 5–19).

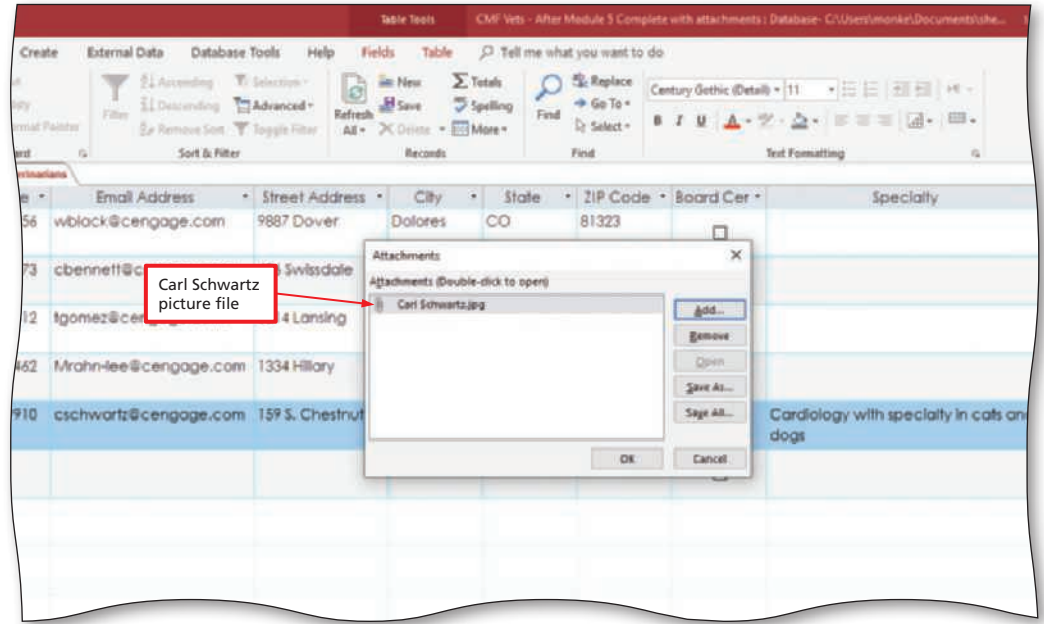


Figure 5–19

4

- Click the OK button to attach the picture (Figure 5–20).

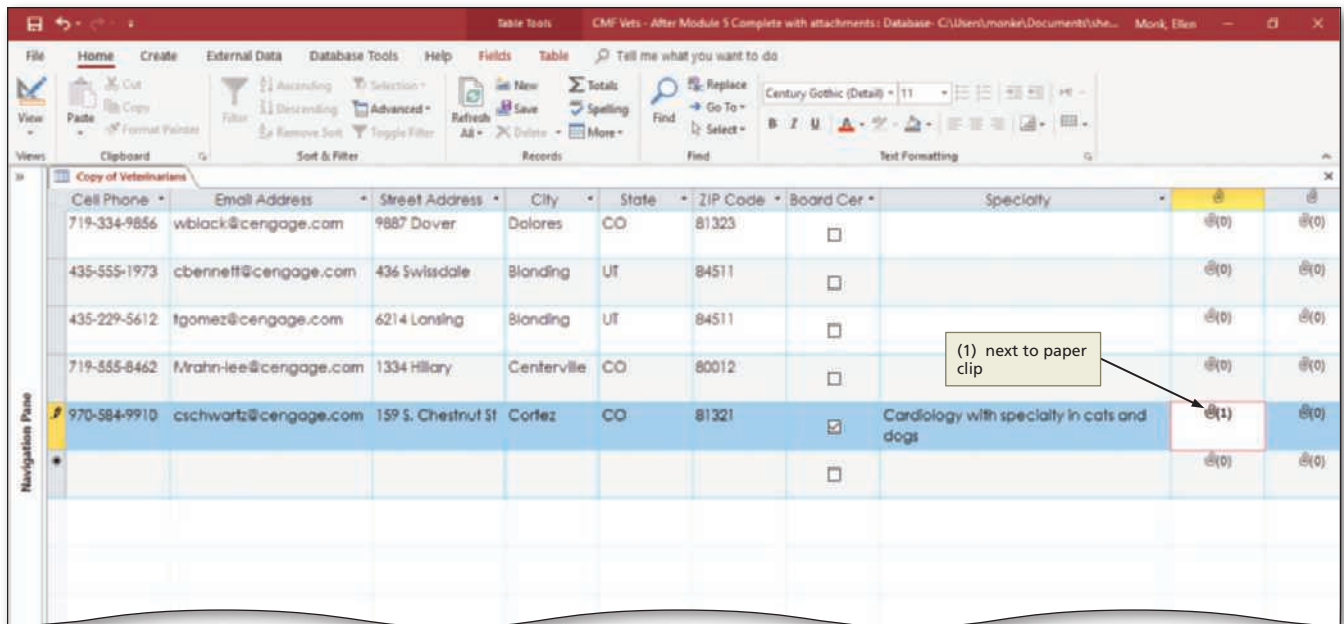


Figure 5–20

Q&A I do not see the picture. I just see the paper clip. Is that correct?
Yes. You will see the actual picture when you use this field in a form.

To Insert the Remaining Pictures

The following step adds the remaining pictures.

- 1 Insert pictures into the remaining veterinarians records using the techniques illustrated in the previous set of steps. Use the pictures named Calvin Bennet, Teresa Gomez, Mia RahnLee, and William Black as the photos of the veterinarians.

To Enter More Data in Attachment Fields

To insert Word documents or PDFs into an Attachment field, you use the Manage Attachments command on the Attachment field's shortcut menu. *Why? The Manage Attachments command displays the Attachments dialog box, which you can use to attach as many files as necessary to the field.* The following steps attach two files to the first account manager and one file to the third account manager. The second and fourth account managers currently have no attachments.

- 1
 - Ensure the Resume field, which has a paper clip in the field selector, appears on your screen, and then right-click the Resume field on the record of Carl Schwartz to produce a shortcut menu (Figure 5-21).

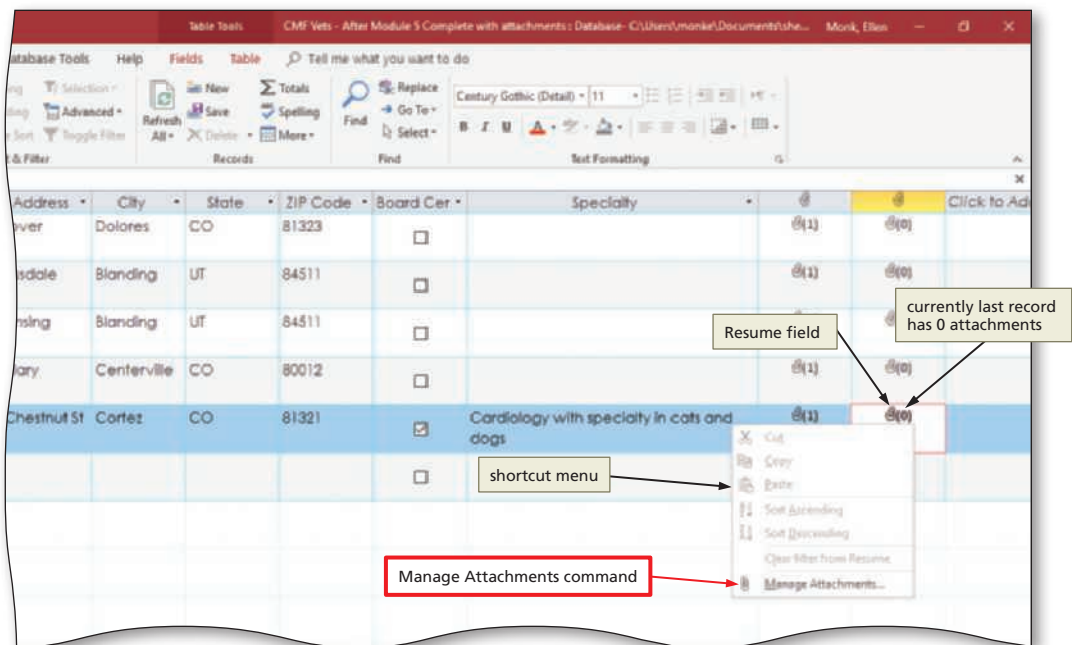


Figure 5-21

- 2
 - Click Manage Attachments on the shortcut menu to display the Attachments dialog box (Figure 5-22).

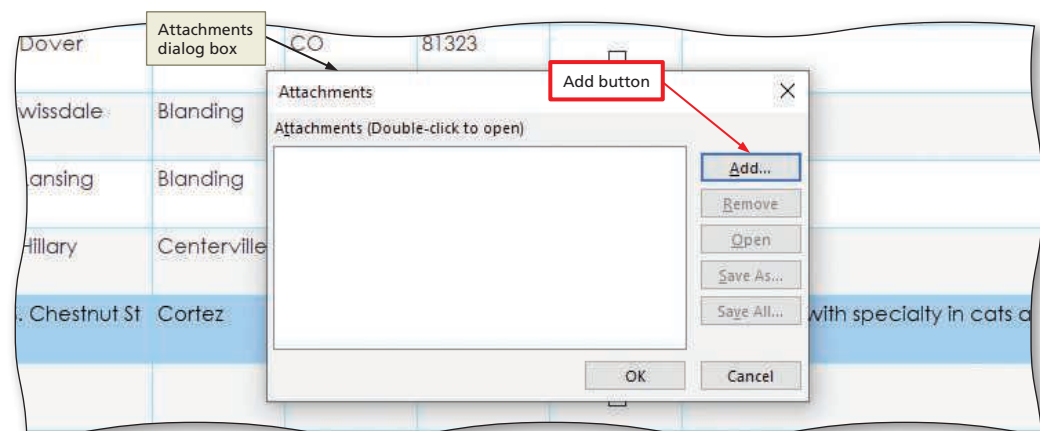


Figure 5-22

3

- Click Add (Attachments dialog box) to display the Choose File dialog box, where you can add an attachment.
- Navigate to the location containing your attachment files.
- Click Resume Carl Schwartz, a Word file, and then click the Open button (Choose File dialog box) to attach the file.
- Click Add (Attachments dialog box).
- Click Innovations in Cat Cardiology by C Schwartz, a PDF file, and then click Open to attach the second file (Figure 5–23).

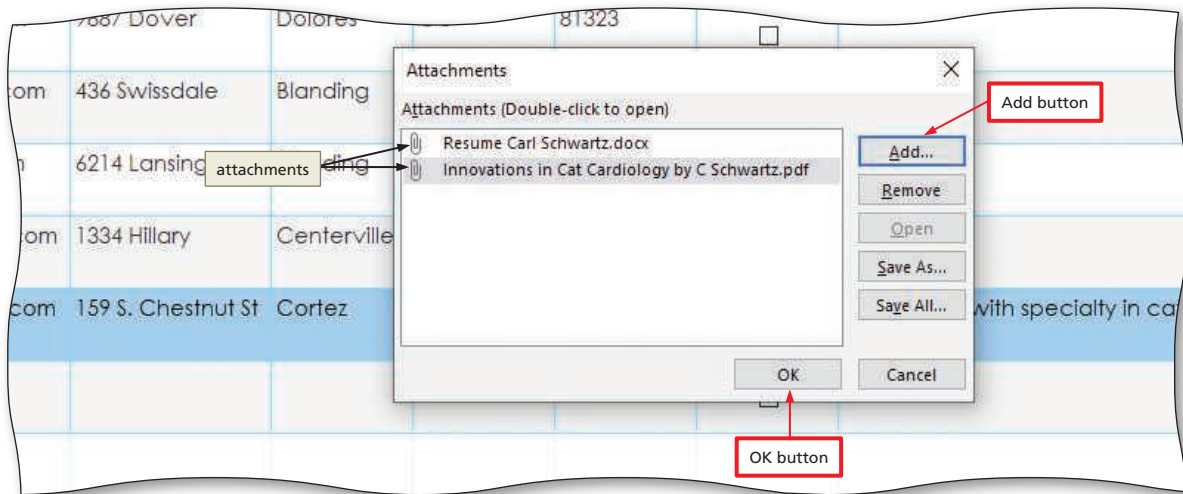


Figure 5–23

4

- Click OK (Attachments dialog box) to close the Attachments dialog box (Figure 5–24). The other records have no attachments.

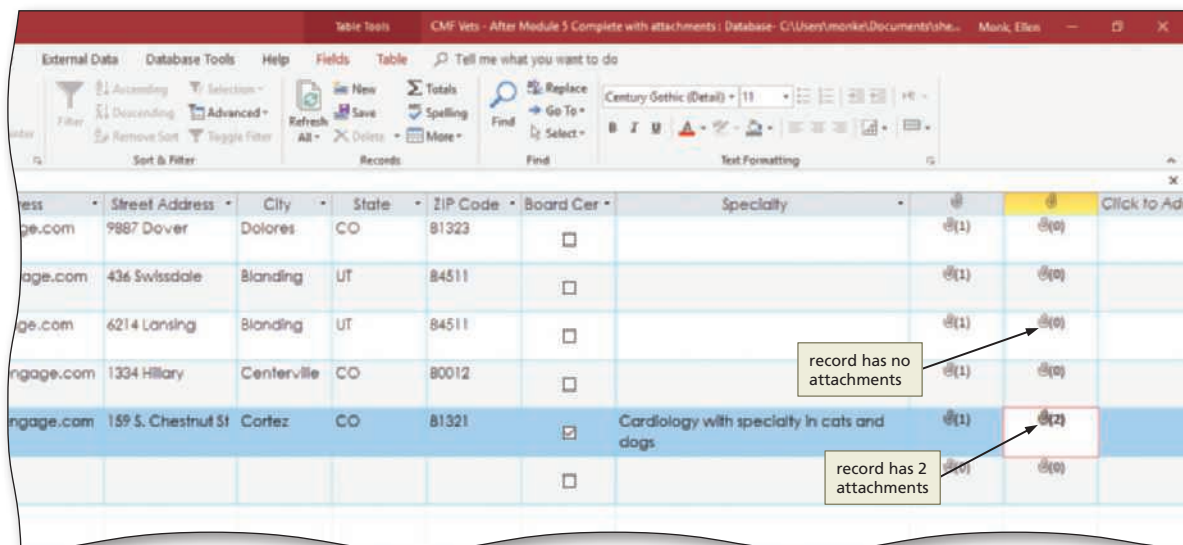


Figure 5–24

BTW

Hyperlink Fields

Hyperlink fields are used to store web or other Internet addresses and email addresses. Hyperlinks can find webpages, intranet servers, database objects (reports, forms, and such), and even documents on your computer or another networked mobile device.

TO ENTER DATA IN HYPERLINK FIELDS

If your database contained a Hyperlink field, you would insert data using the following steps.

1. Right-click the Hyperlink field in which you want to enter data to display a shortcut menu.
2. Point to Hyperlink on the shortcut menu to display the Hyperlink submenu.
3. Click Edit Hyperlink on the Hyperlink submenu to display the Insert Hyperlink dialog box.
4. Type the desired web address in the Address text box.
5. Click OK (Insert Hyperlink dialog box).

To Save the Properties

The row and column spacing are table properties. When changing any table properties, the changes apply only as long as the table is active *unless they are saved*. Once you have saved them, they will apply every time you open the table.

The following steps first save the properties and then close the table.

- 1 Click the Save button on the Quick Access Toolbar to save the changes to the table properties.
- 2 Close the table.

BTW

Viewing Attachments of Documents

To view attachments of documents, such as a Word document or a PDF, you must have the application that created the attachment file installed on your computer.

Viewing Document Attachments in Datasheet View

You can view the attachments in the Resume field by right-clicking the field and then clicking Manage Attachments on the shortcut menu. The attachments then appear in the Attachments dialog box. To view an attachment, click the attachment and then click the Open button (Attachments dialog box). The attachment will appear in its original application. After you have finished viewing the attachment, close the original application and close the dialog box.

Break Point: If you wish to stop working through the module at this point, you can resume the project at a later time by starting Access, opening the database called CMF Vets, and continuing to follow the steps from this location forward.

Multiple-Table Form Techniques

With the additional fields in place, CMF Vets is ready to incorporate data from both the Veterinarian and Appointments tables in a single form. The form will display data concerning one veterinarian at a time. It will also display data concerning the many appointments assigned to the veterinarian. The relationship between veterinarians and appointments is a one-to-many relationship in which the Veterinarian table is the “one” table and the Appointments table is the “many” table.

To include the data for the many appointments of a veterinarian on the form, the appointments will appear in a **subform**, which is a form that is contained within another form. The form in which the subform is contained is called the **main form**. Thus, the main form will contain veterinarian data, and the subform will contain appointment.



CONSIDER THIS

When a form includes data from multiple tables, how do you relate the tables?

Once you determine that you need data from more than one table, you need to determine the main table and its relationship to any other table.

Determine the main table the form is intended to view and/or update. You need to identify the purpose of the form and the table it is really intended to show, which is the *main* table.

Determine how the additional table should fit into the form. If the additional table is the “many” part of the relationship, the data should probably be in a subform or datasheet. If the additional table is the “one” part of the relationship, the data should probably simply appear as fields on the form.

To Create a Form in Design View

You can create a form in Design view. *Why? Design view gives you increased flexibility in laying out a form by using a blank design on which you place objects in the precise locations you want.* The following steps create a form in Design view. Before you create this form, you must form a relationship between the Veterinarians table and the Appointments table.

1

- Click the Relationships button (Database Tools tab | Relationships group) to display the Relationships window.
- Click the Show Table button to display the Show Table dialog box. Click Veterinarians table, click the Add button, and then click Close to add the Veterinarians table to the relationship.
- Double-click the join line that connects the Veterinarians and Appointments tables to display the Edit Relationships dialog box.
- If necessary, click the ‘Enforce Referential Integrity’ check box to check it.
- Close the Relationships window and save the changes.
- If necessary, open the Navigation Pane and be sure the Veterinarians table is selected.
- Click Create on the ribbon to display the Create tab (Figure 5–25).

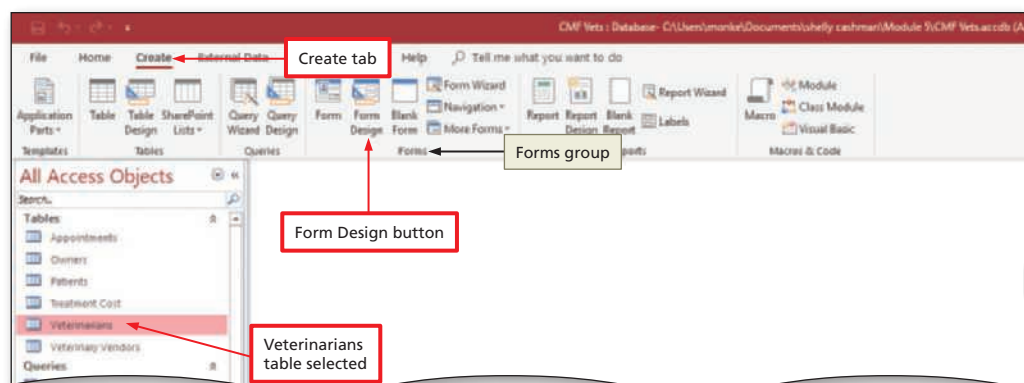


Figure 5–25

2

- Click the Form Design button (Create tab | Forms group) to create a new form in Design view.

- Close the Navigation Pane.

- If a field list does not appear, click the 'Add Existing Fields' button (Form Design Tools Design tab | Tools group) to display a field list (Figure 5-26). If you do not see the tables listed, click 'Show all tables'. (Your list might show all fields in the Veterinarians table.)

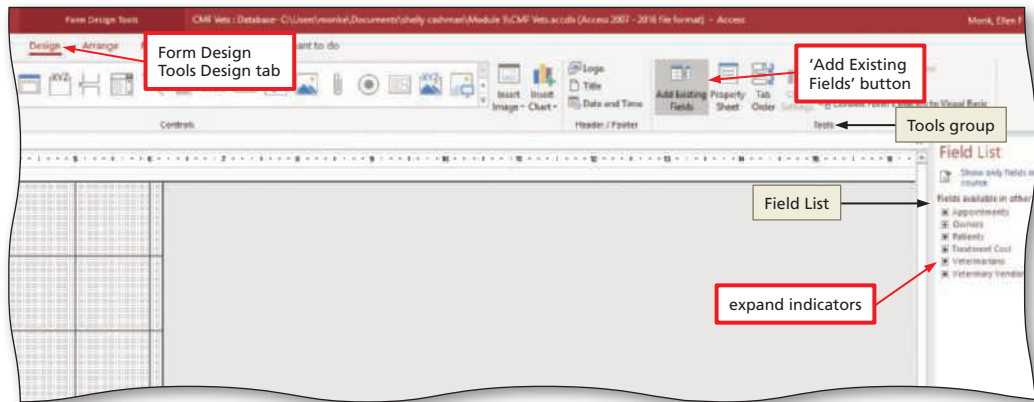


Figure 5-26

Q&A Can I join tables on common fields even though the names of the fields are different?
 Yes, you can join tables on fields with different names as long as the data and the data types are the same for both fields.

To Add a Control for a Field to the Form

To place a control for a field on a form, drag the field from the field list to the desired position. The following steps place the Veterinarian ID field on the form. *Why? Dragging is the easiest way to place a field on a form.*

1

- If necessary, click the expand indicator for the Veterinarians table to display the fields in the table. Drag the Veterinarian ID field in the field list for the Veterinarians table to the approximate position shown in Figure 5-27. (For illustration purposes, do not release the mouse button yet.)

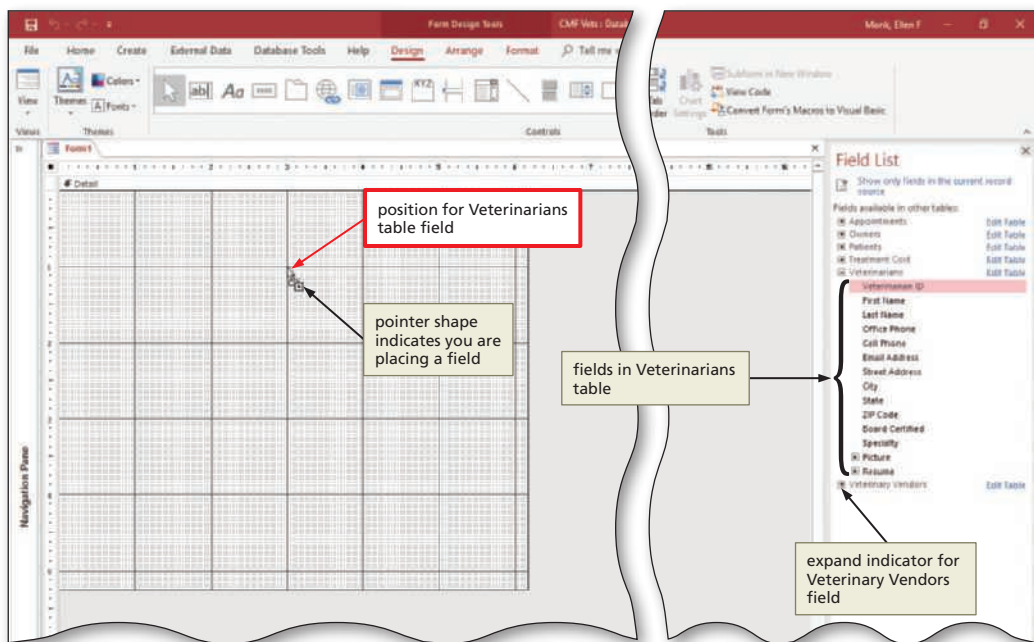


Figure 5-27

Q&A Do I have to be exact?
 No. Just be sure you are in the same general location.

2

- Release the mouse button to place a control for the field (Figure 5–28).

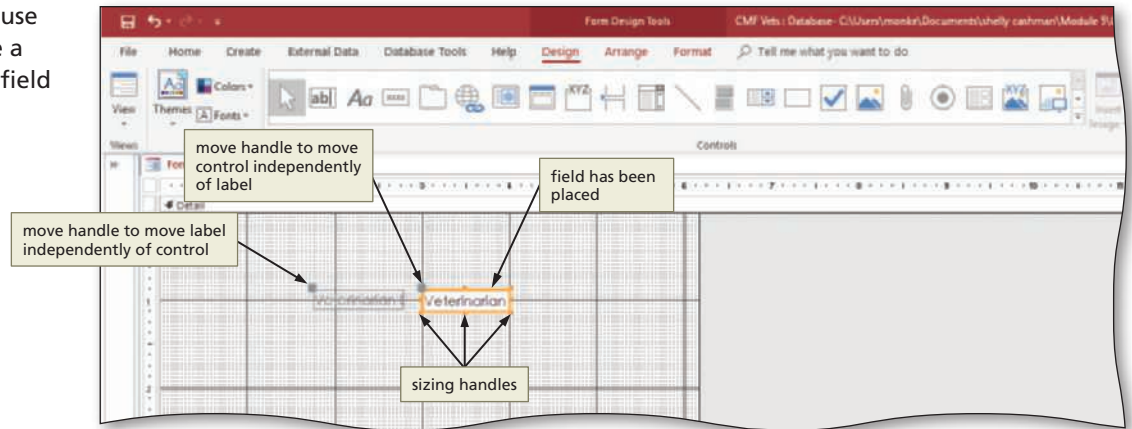


Figure 5–28

To Add Controls for Additional Fields

The following step places controls for the First Name, Last Name, Office Phone, Cell Phone, Specialty, and Board Certification fields on the form by dragging the fields from the field list. *Why? These fields all need to be included in the form.*

1

- Drag the First Name, Last Name, Office Phone, and Cell Phone fields and their labels to the approximate positions shown in Figure 5–29.

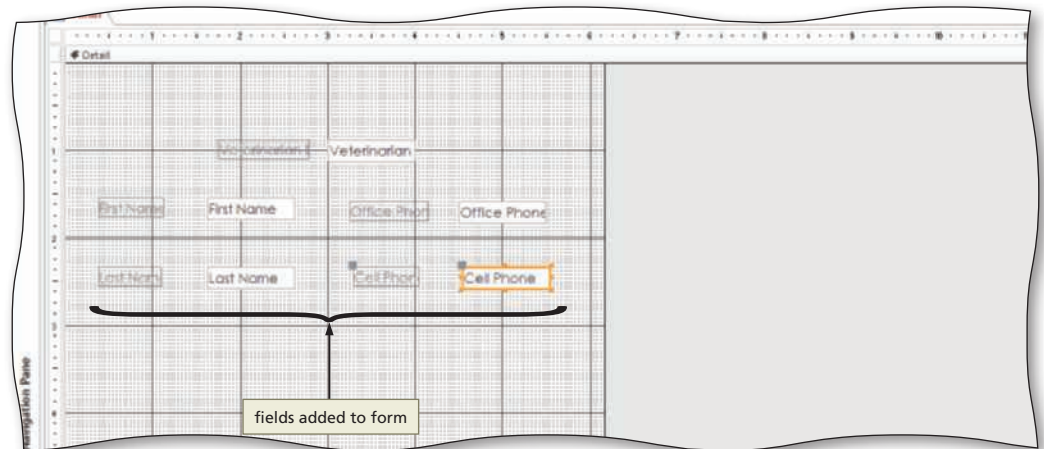


Figure 5–29

Q&A

Do I have to align them precisely? You can, but you do not need to. In the next steps, you will instruct Access to align the fields properly.

What if I drag the wrong field from the field list? Can I delete the control? Yes. With the control selected, press DELETE.

To Align Controls on the Left

Why? Often, you will want form controls to be aligned in some fashion. For example, the controls might be aligned so their right edges are even with each other. In another case, controls might be aligned so their top edges are even. To ensure that a group of controls is aligned properly with each other, select all of the affected controls, and then use the appropriate alignment button on the Form Design Tools Arrange tab.

You can use one of two methods to select multiple controls. One way is to use a ruler. If you click a position on the horizontal ruler, you will select all the controls for which a portion of the control is under that position on the ruler. Similarly, if you click a position on the vertical ruler, you will select all the controls for which a portion of the control is to the right of that position on the ruler.

The second way to select multiple controls is to select the first control by clicking it. Then, select all the other controls by holding down **SHIFT** while clicking the control.

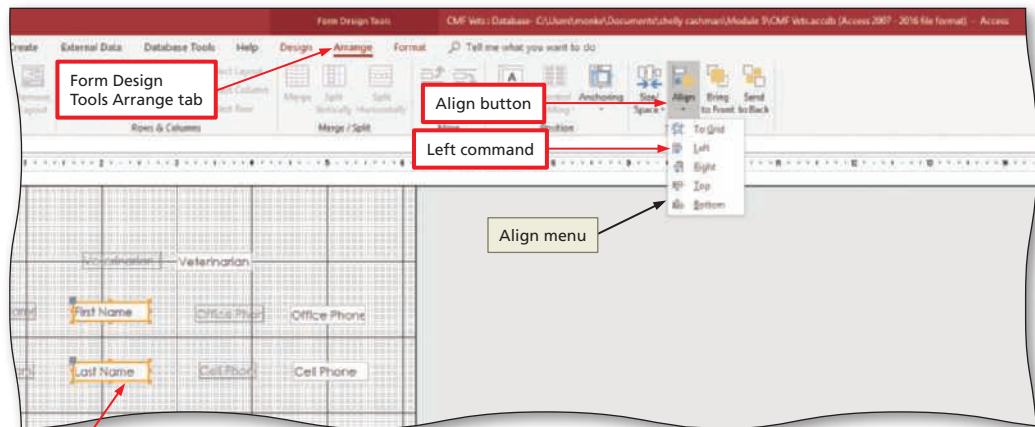
The following steps select the First Name, Last Name, Specialty and Board Certification controls and then align them so their left edges line up.

1

- Click the First Name control (the white space, not the label) to select the control.
- Press and hold **SHIFT** and click the Last Name control to select an additional control.

Q&A | I selected the wrong collection of fields. How can I start over?
Simply begin the process again, making sure you do not hold the **SHIFT** key down when you select the first field.

- Click **Arrange** on the ribbon to display the Form Design Tools Arrange tab.
- Click the **Align** button (Form Design Tools Arrange tab | Sizing & Ordering group) to display the Align menu (Figure 5–30).



First Name and Last Name fields selected

Figure 5–30

2

- Click the **Left** command on the Align menu to align the controls on the left (Figure 5–31).

3

- Click outside any of the selected controls to deselect the controls.
- Using the same technique, if necessary, align the labels for the First Name and Last Name fields on the left.
- Using the same technique, align the Office Phone and Cell Phone fields on the left.
- If necessary, align the labels for the Office Phone and Cell Phone fields on the left.

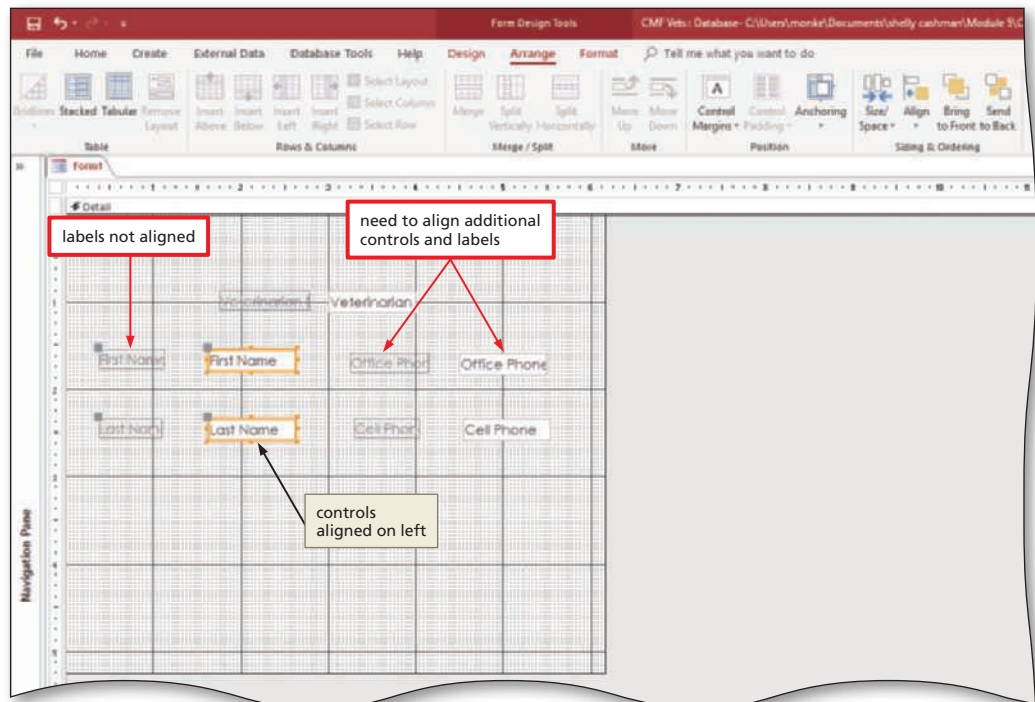


Figure 5–31

Other Ways

1. Right-click selected controls, point to **Align**

To Align Controls on the Top and Adjust Vertical Spacing

Why? Aligning the top edges of controls improves the neatness and appearance of a form. In addition, you might want the vertical spacing between controls to be the same. The following steps align the First Name and Office Phone controls so that they are aligned on the top. Once these controls are aligned, you adjust the vertical spacing so that the same amount of space separates each row of controls.

1

- Select the label for the First Name control, the First Name control, the label for the Office Phone control, and the Office Phone control.
- Click the Align button (Form Design Tools Arrange tab | Sizing & Ordering group) to display the Align menu (Figure 5–32).

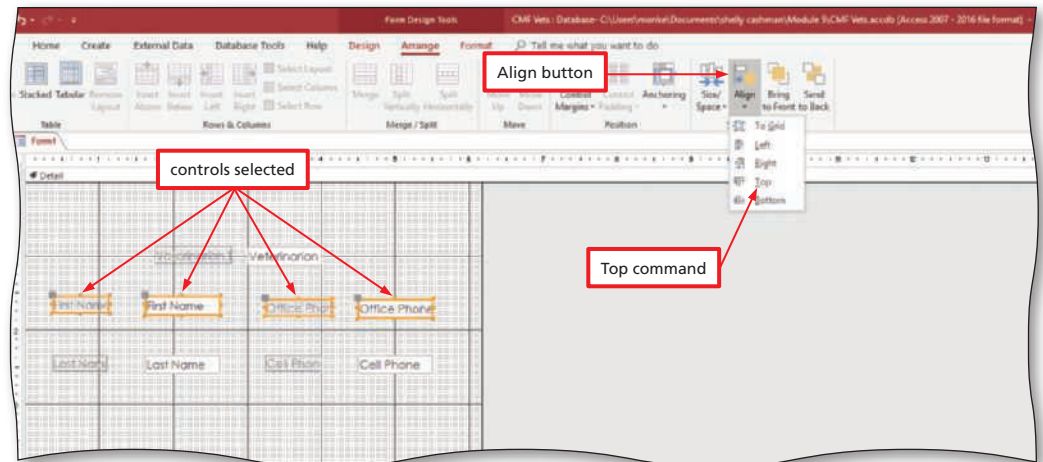


Figure 5–32

2

- Click the Top command on the Align menu to align the controls on the top.
- Select the Last Name and Cell Phone fields and their labels and align the controls to the top.
- Click outside any of the selected controls to deselect the controls.
- Select the four fields.
- Click the Size/Space button (Form Design Tools Arrange tab | Sizing & Ordering group) to display the Size/Space menu (Figure 5–33).

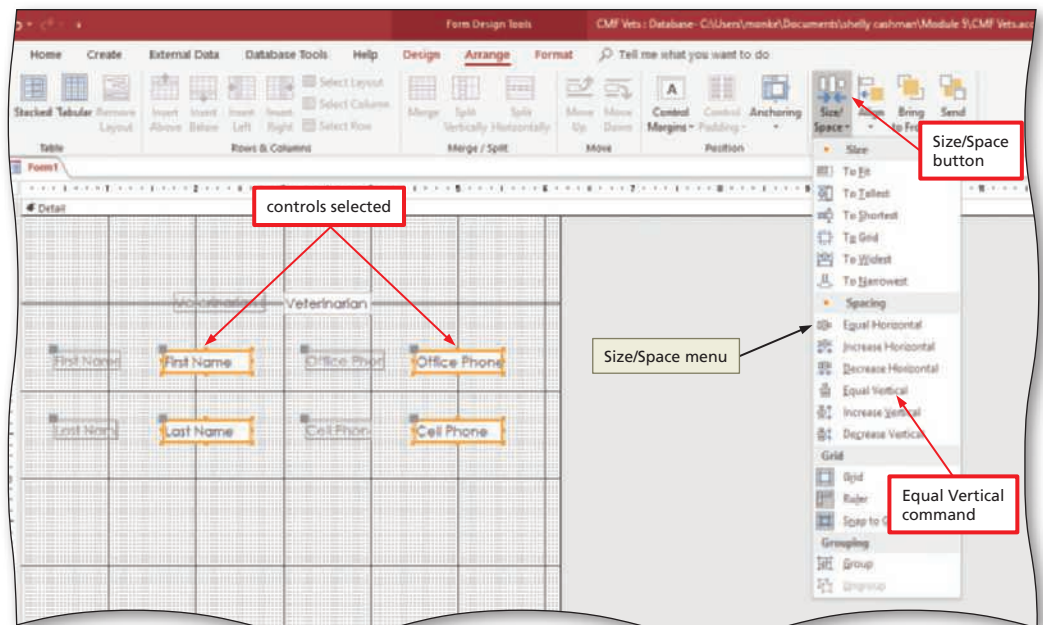


Figure 5–33

Q&A Do I need to select the labels too?
No. If you select the control, its label also is selected.

3

- Click Equal Vertical on the Size/Space menu to specify the spacing.

Q&A What is the purpose of the other commands on the Size/Space menu?
You can adjust the spacing to fit the available space. You can adjust the space to match the tallest, shortest, widest, or narrowest section. You can adjust the space to match the closest grid points. You can specify equal horizontal spacing. Finally, you can increase or decrease either the vertical or the horizontal spacing.

Q&A What do you do if the field list obscures part of the form, making it difficult to place fields in the desired locations? You can move the field list to a different location by dragging its title bar. You can also resize the field list by pointing to the border of the field list so that the pointer changes to a double-headed arrow. You then can drag to adjust the size.

- Because it is a good idea to save the form before continuing, click the Save button on the Quick Access Toolbar.
- Type **Veterinarian Appointment Form** as the name of the form, and then click OK to save the form.

To Add Controls for the Remaining Fields

The following steps place controls for the Board Certification, Specialty, Picture, and Resume fields and also move their attached labels to the desired position. *Why? Controls for these fields are to be included in the completed form.*

- 1**
- Drag the control for the Specialty field from the field list to the approximate position shown in Figure 5–34.

Q&A Is there enough space on the form to add the Specialty field? Yes. The size of the form will expand as you drag the field to the form.

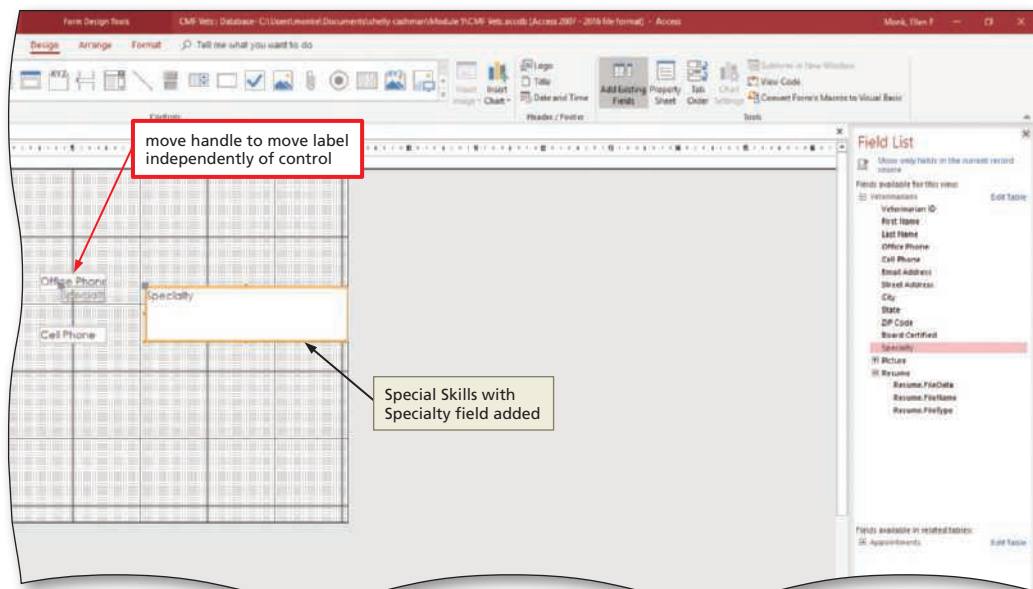


Figure 5–34

- 2**
- Move the label for the Specialty field to the position shown in Figure 5–35 by dragging its move handle.

Q&A I started to move the label and the control moved along with it. What did I do? You were not pointing at the handle to move the label independently of the control. Make sure you are pointing to the little box in the upper-left corner of the label.

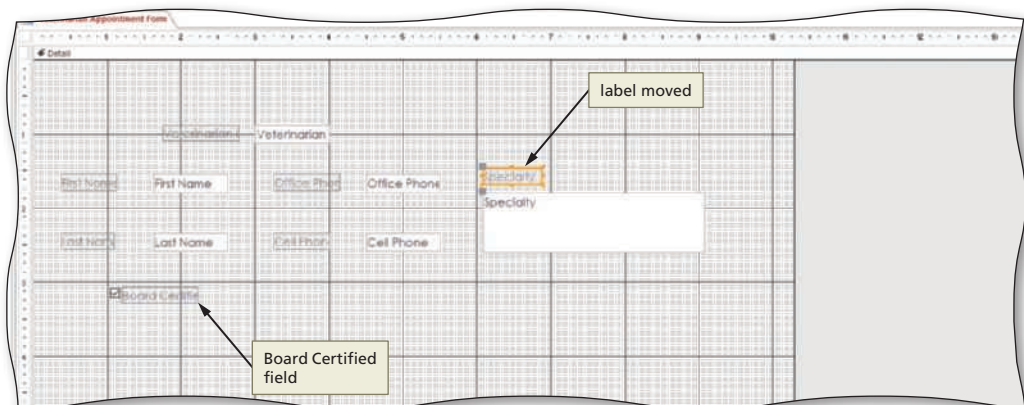


Figure 5–35

- Drag the Board Certified field to the position shown in Figure 5–35.

3

- Using the same techniques, move the control for the Picture field to the approximate position shown in Figure 5–36 and move its label to the position shown in the figure.

Q&A

My picture label is next to the field, not above it as shown in the figure. Is that a problem?

This is fine. You will rearrange the labels later in the module.

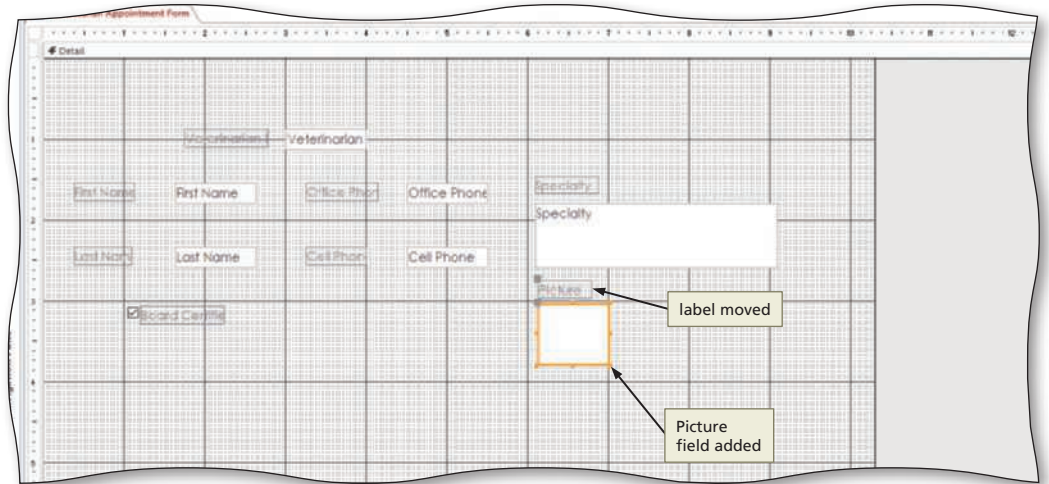


Figure 5–36

4

- Click the control for the Picture field and drag the lower-right corner to the approximate position shown in Figure 5–37 to resize the control.
- Add the control for the Resume field in the position shown in the figure and move its attached label to the position shown in the figure.

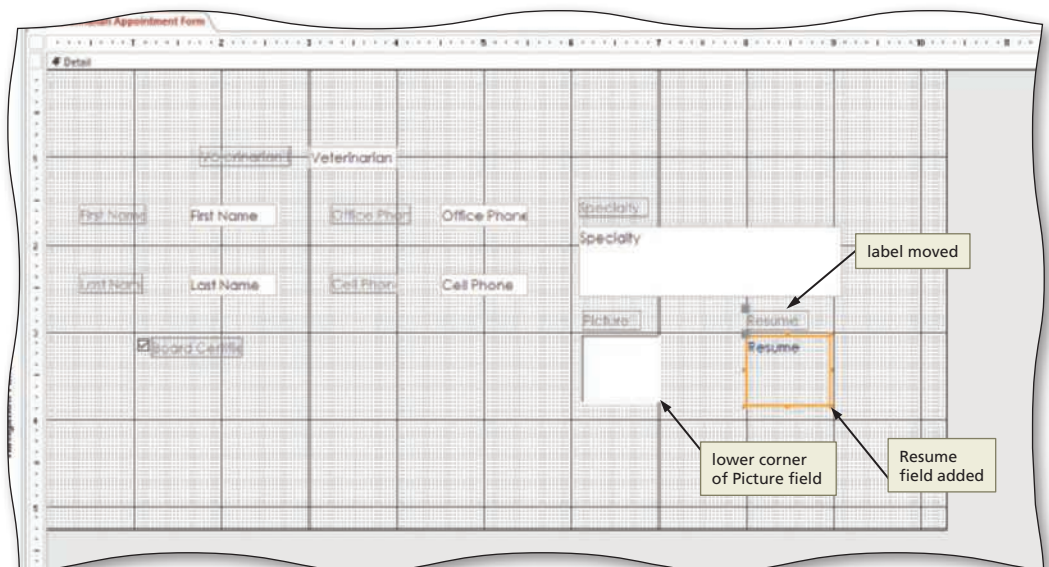


Figure 5–37

To Use a Shortcut Menu to Change the Fill/Back Color

You can use the Background Color button on the Form Design Tools Format tab to change the background color of a form. You can also use a shortcut menu. The following steps use a shortcut menu to change the background color of the form to gray. *Why?* Using a shortcut menu is a simple way to change the background color.

1

- Right-click in the approximate position shown in Figure 5–38 to produce a shortcut menu.

Q&A Does it matter where I right-click? You can right-click anywhere on the form as long as you are outside of all the controls.

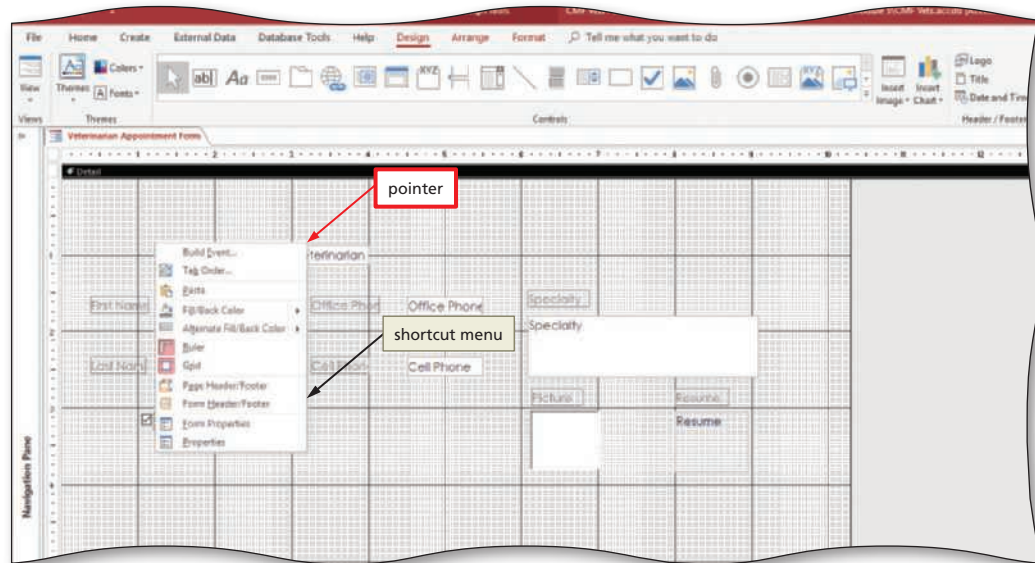


Figure 5–38

2

- Point to the Fill/Back Color arrow on the shortcut menu to display a color palette (Figure 5–39).

3

- Click the gray color (row 3, column 1) shown in Figure 5–39 to change the fill/back color to gray.

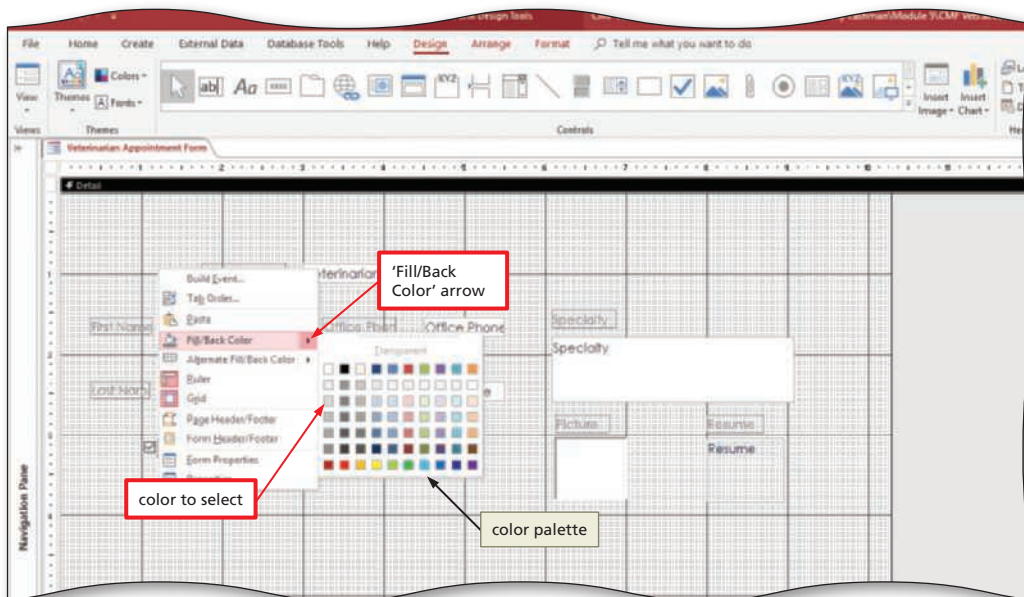


Figure 5–39

To Add a Title

A form should have a descriptive title. *Why?* The title gives a concise visual description of the purpose of the form. The following step adds a title to the form.

1

- Click Design on the ribbon to select the Form Design Tools Design tab.
- Click the Title button (Form Design Tools Design tab | Header/Footer group) to add a title to the form (Figure 5–40).

Q&A Could I change this title if I want something different?
Yes. Change it just like you change any other text.

Why is there a new section?

The form title belongs in the Form Header section. When you clicked the Title button, Access added the Form Header section automatically and placed the title in it.

Could I add a Form Header section without having to click the Title button?

Yes. Right-click anywhere on the form background and click Form Header/Footer on the shortcut menu.

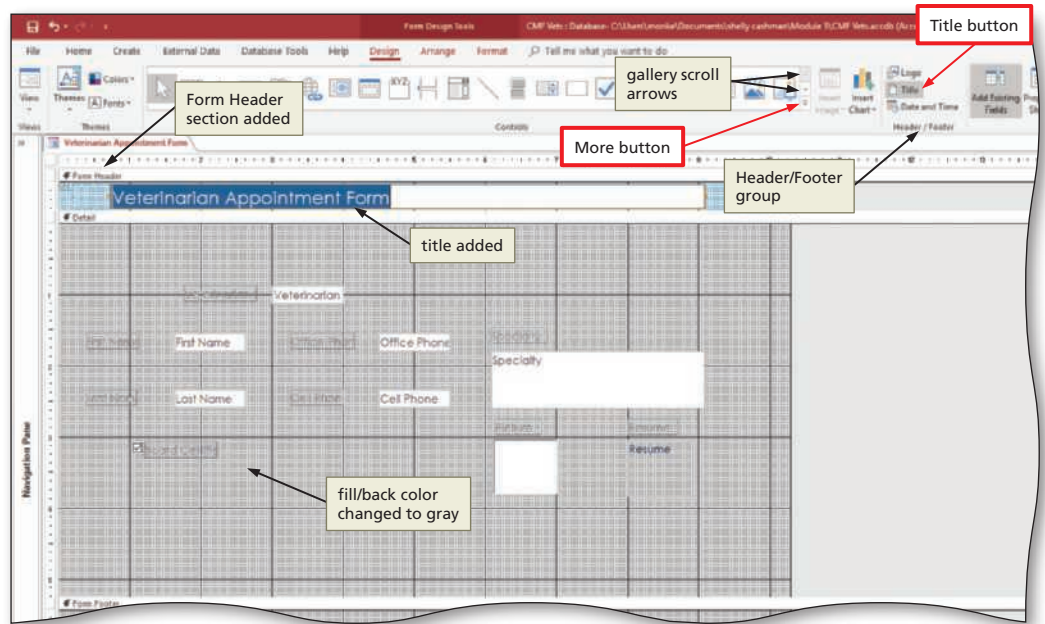


Figure 5–40

To Place a Subform

The Controls group on the Form Design Tools Design tab contains buttons called tools that you use to place a variety of types of controls on a form. To place a subform on a form, you use the Subform/Subreport tool. Before doing so, however, you should ensure that the ‘Use Control Wizards’ button is selected. *Why?* If the ‘Use Control Wizards’ button is selected, a wizard will guide you through the process of adding the subform. The following steps use the SubForm Wizard to place a subform.

1

- Click the More button (Form Design Tools Design tab | Controls group) (shown in Figure 5–40) to display a gallery of available tools (Figure 5–41).

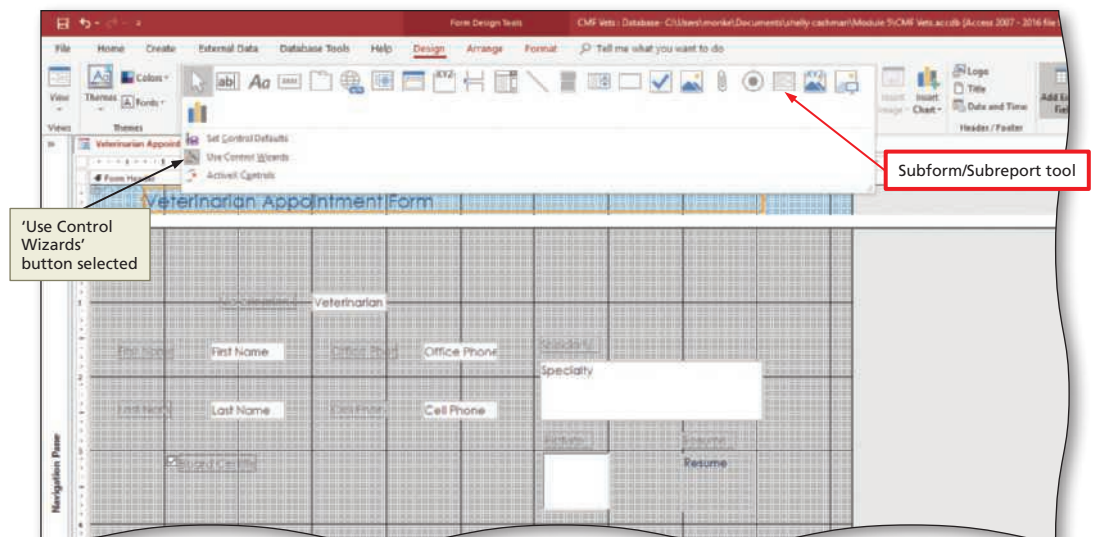


Figure 5–41

2

- Be sure the 'Use Control Wizards' button is selected, click the Subform/Subreport tool on the Form Design Tools Design tab, and then move the pointer to the approximate position shown in Figure 5-42.

Q&A How can I tell whether the 'Use Control Wizards' button is selected? The icon for the 'Use Control Wizards' button will be highlighted, as shown in Figure 5-41. If it is not, click the 'Use Control Wizards' button to select it, click the More button, and then click the Subform/Subreport tool.

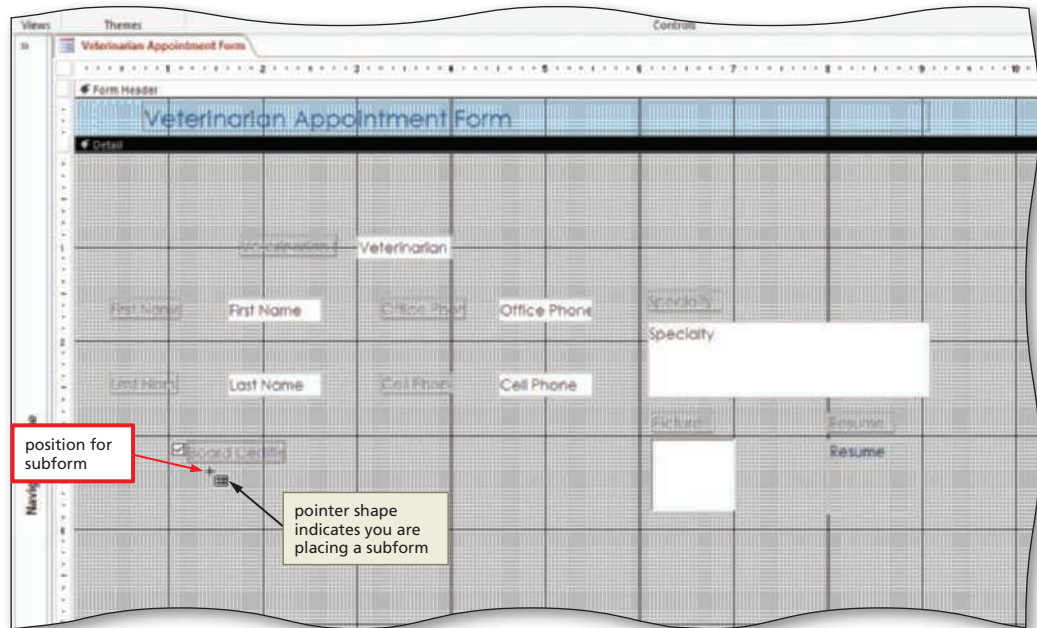


Figure 5-42

3

- Click the position shown in Figure 5-42 and then ensure the 'Use existing Tables and Queries' option button is selected (SubForm Wizard dialog box) (Figure 5-43).

Q&A My control is placed on the screen, but no wizard appeared. What should I do? Press the DELETE key to delete the control you placed. Ensure that the 'Use Control Wizards' button is selected, as described previously.

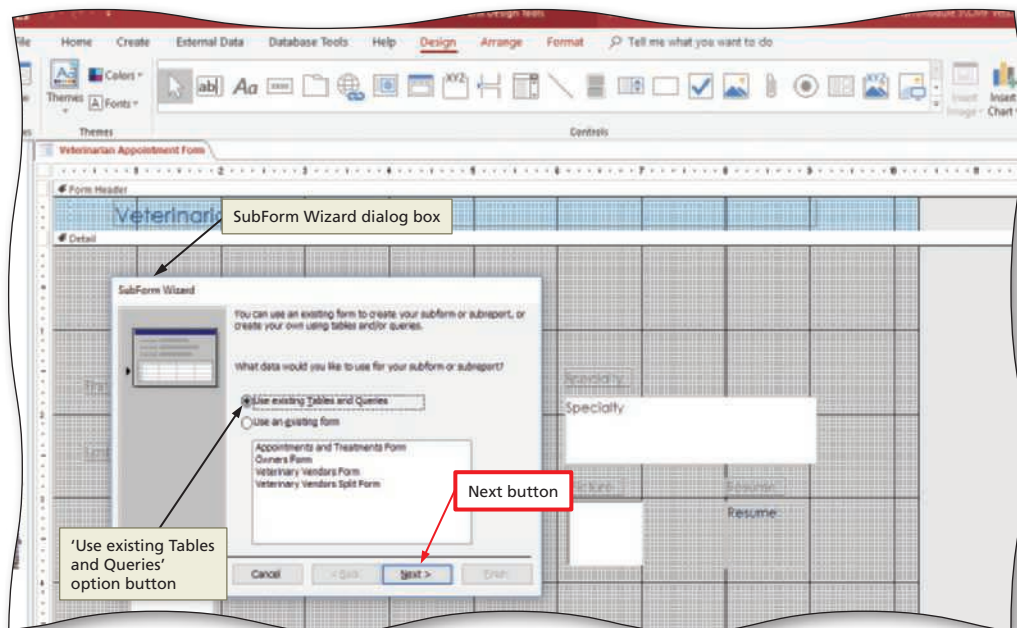


Figure 5-43

4

- Click the Next button.
- If the Appointments table is not already selected, click the Tables/Queries arrow, and then click the Appointments table to select it as the table that contains the fields for the subform.

- Add the Patient ID, Appointment Date, Appointment Time, and Treatment Number fields by clicking the field, and then clicking the Add Field button (SubForm Wizard dialog box) (Figure 5-44).

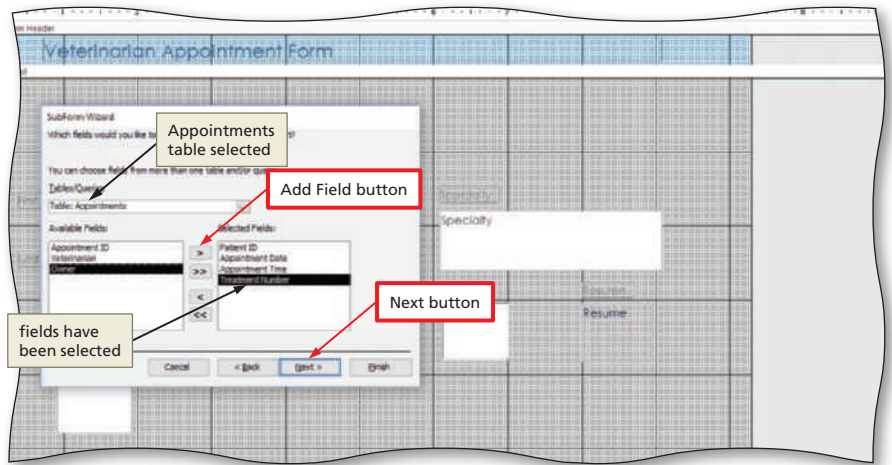


Figure 5-44

- 5
 - Click Next to move to the next SubForm Wizard dialog box.
 - Be sure the 'Choose from a list.' option button is selected (Figure 5-45).

Q&A Why do I use this option? Most of the time, Access will have determined the appropriate fields to link the subform and the main form and placed an entry specifying those fields in the list. By choosing from the list, you can take advantage of the information that Access has created for you. The other option is to define your own, in which case you would need to specify the appropriate fields.

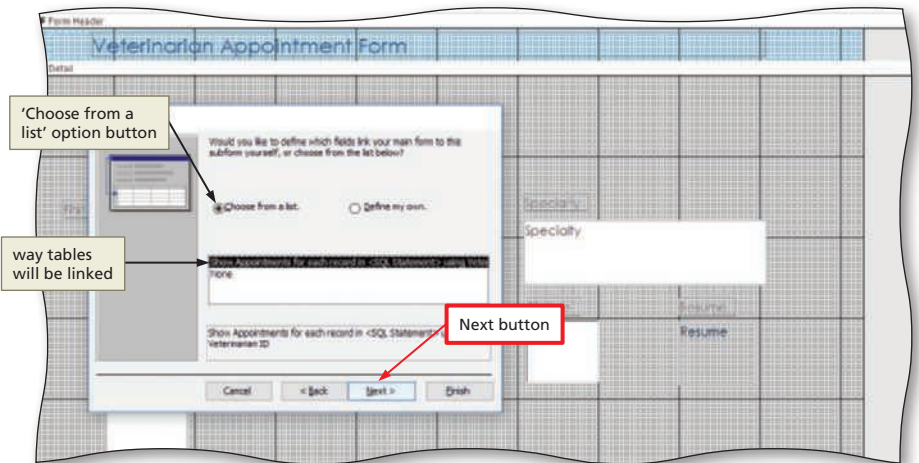


Figure 5-45

- 6
 - Click the Next button.
 - Type **Appointments** as the name of the subform (Figure 5-46).

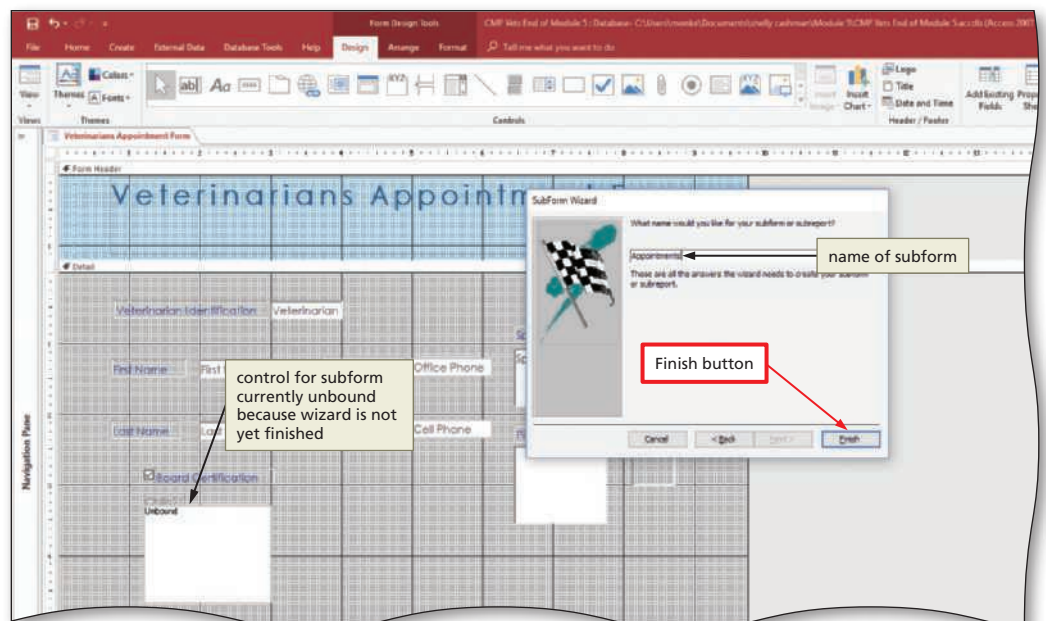


Figure 5-46

7

- Click the Finish button to place the subform.
- If necessary, move the subform control so that it does not overlap any other controls on the form (Figure 5-47).

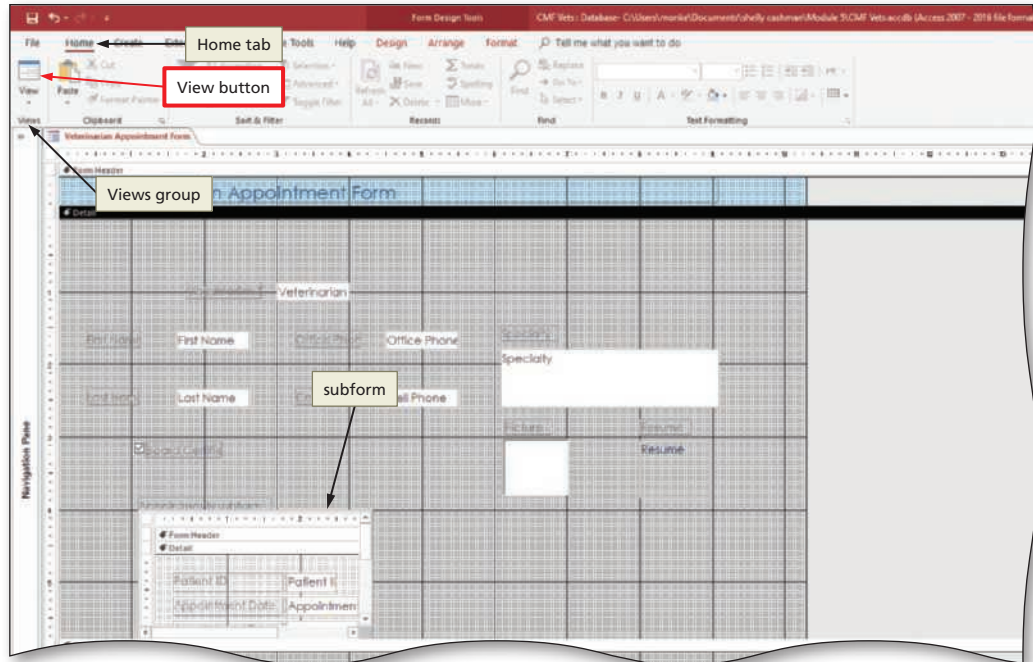


Figure 5-47

8

- Click the View button (Home tab | Views group) to view the form in Form view and scroll to the fifth record (Figure 5-48).

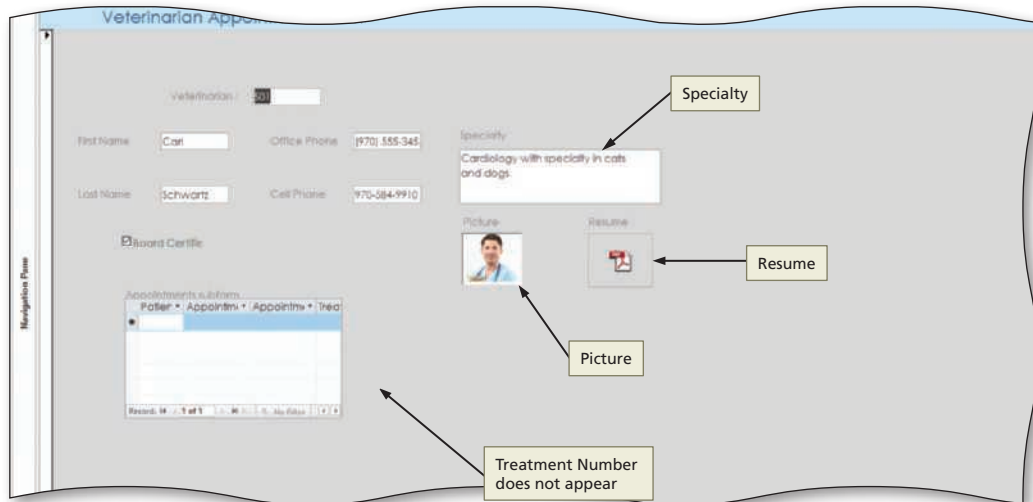


Figure 5-48

Q&A Everything looks good except the subform. I do not see all the fields I should see. What should I do?
 You need to modify the subform, which you will do in the upcoming steps.

9

- Save and then close the form.

Break Point: If you wish to stop working through the module at this point, you can resume the project at a later time by starting Access, opening the database called CMF Vets, and continuing to follow the steps from this location forward.

To Modify a Subform and Move the Picture

The next task is to resize the columns in the subform, which appears on the form in Datasheet view. The subform exists as a separate object in the database; it is stored independently of the main form. The following steps open the subform and then resize the columns. *Why? The column sizes need to be adjusted so that the data is displayed correctly.* The steps then view the form and finally move and resize the picture.

1

- Open the Navigation Pane.
- Right-click the Appointments subform to produce a shortcut menu.
- Click Open on the shortcut menu to open the form.
- If a field list appears, click the 'Add Existing Fields' button (Form Tools Datasheet tab | Tools group) to remove the field list.
- Resize the columns to best fit the data by double-clicking the right boundaries of the field selectors (Figure 5-49).

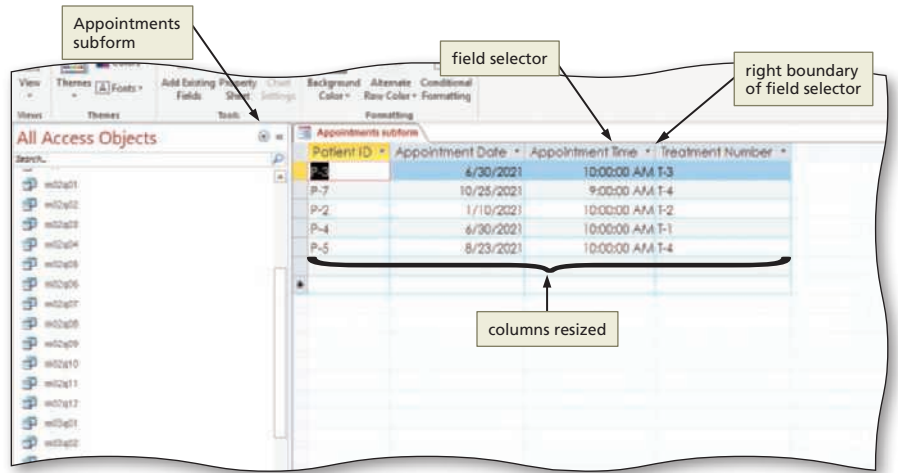


Figure 5-49

2

- Save your changes, and then close the subform.
- Open the Veterinarian Appointment Form in Design view, and then close the Navigation Pane.
- Click the boundary of the subform to select it.
- Adjust the approximate size and position of your subform to match the one shown in Figure 5-50.

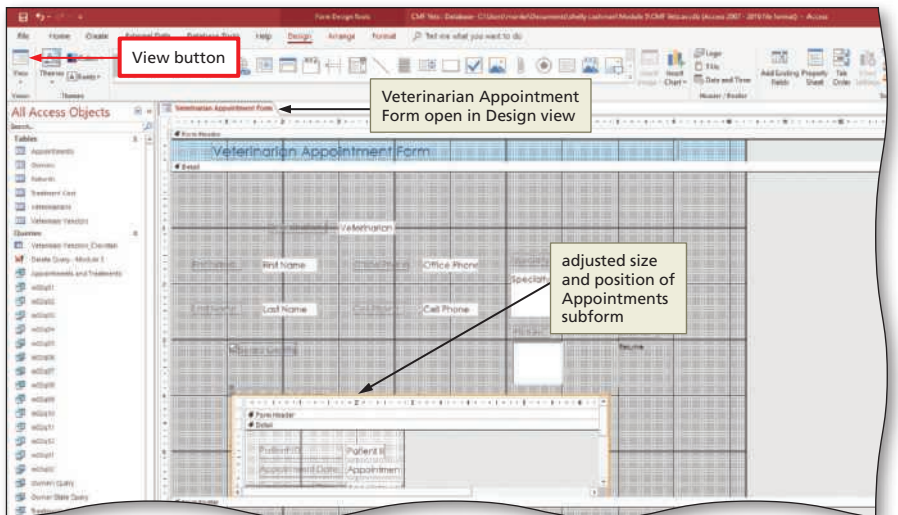


Figure 5-50

3

- Adjust the size of any labels in the main form whose names are obscured.
- Click the View button (Form Design Tools Design tab | Views group) to view the form in Form view (Figure 5-51).

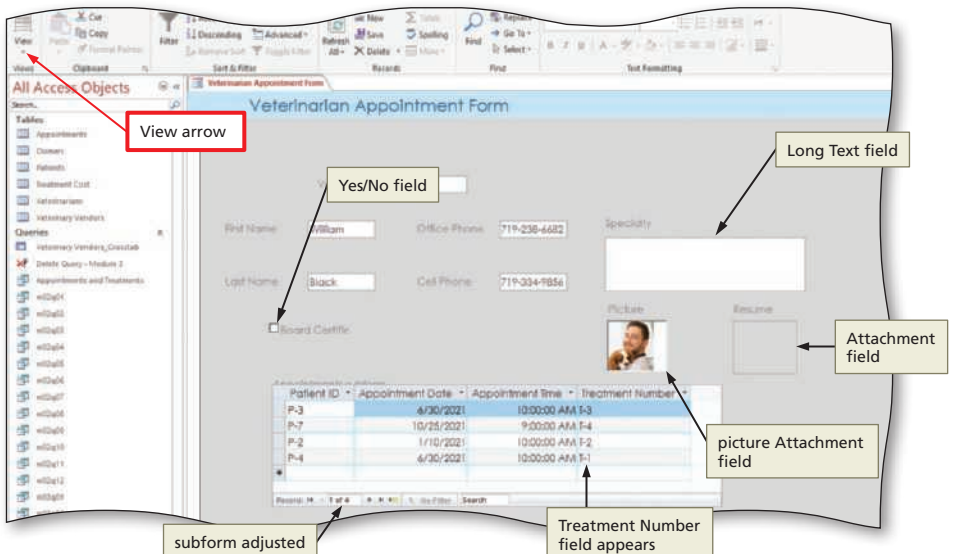


Figure 5-51

Q&A

Could I have clicked the View arrow and then clicked Form View?

Yes. You can always use the arrow. If the icon for the view you want appears on the face of the View button, however, you can just click the button.

The picture seems to be a slightly different size from the one in Figure 5-51. How do I fix this?

You can move and also resize the picture, which you will do in the next step.

4

- Return to Design view, and then resize the picture to the approximate size and location shown in Figure 5–52.

Q&A How can I tell if the new size and location is correct? View the form. If you are not satisfied with the size or location, return to Design view and make the necessary adjustments. Repeat the process until you are satisfied. You may have to allow a small amount of white on one of the borders of the picture. You will learn about some options you can use to adjust the specific look of the picture later in this module.

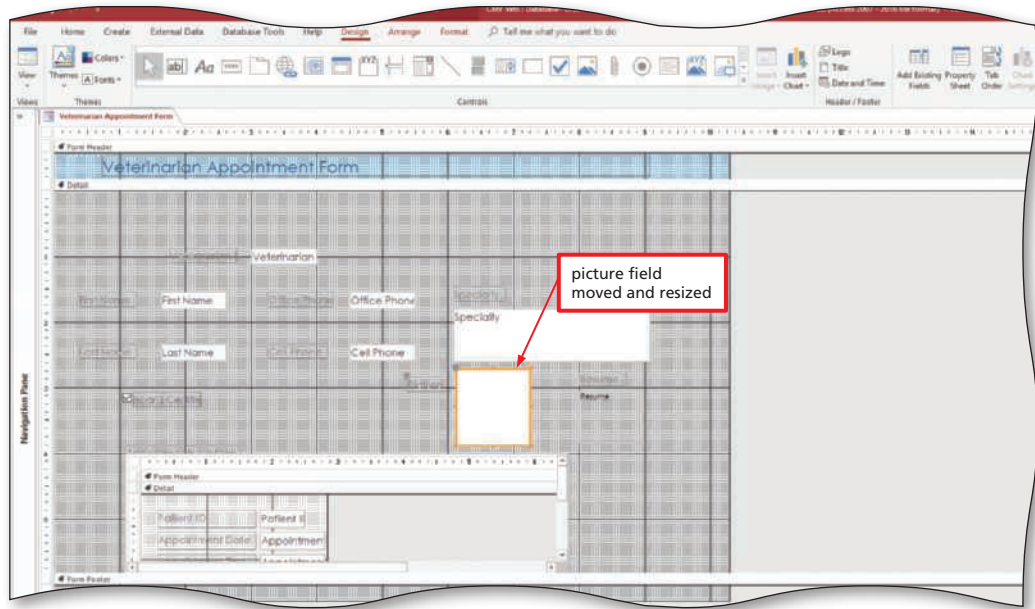


Figure 5–52

To Change a Label

Labels can be changed in a form to be more descriptive. *Why? The form has enough room to display more than the entire field name, so adding extra information adds clarity.* In the form, there is plenty of room for more than the full field name to appear in the label. The following steps change the contents of the label from Veterinarian ID to Veterinarian Identification.

1

- If necessary, return to Design view.
- Click the label for the Veterinarian ID to select the label.
- Click the label a second time to produce an insertion point.
- Erase the current label (Veterinarian ID), and then type **Veterinarian Identification** as the new label (Figure 5–53).

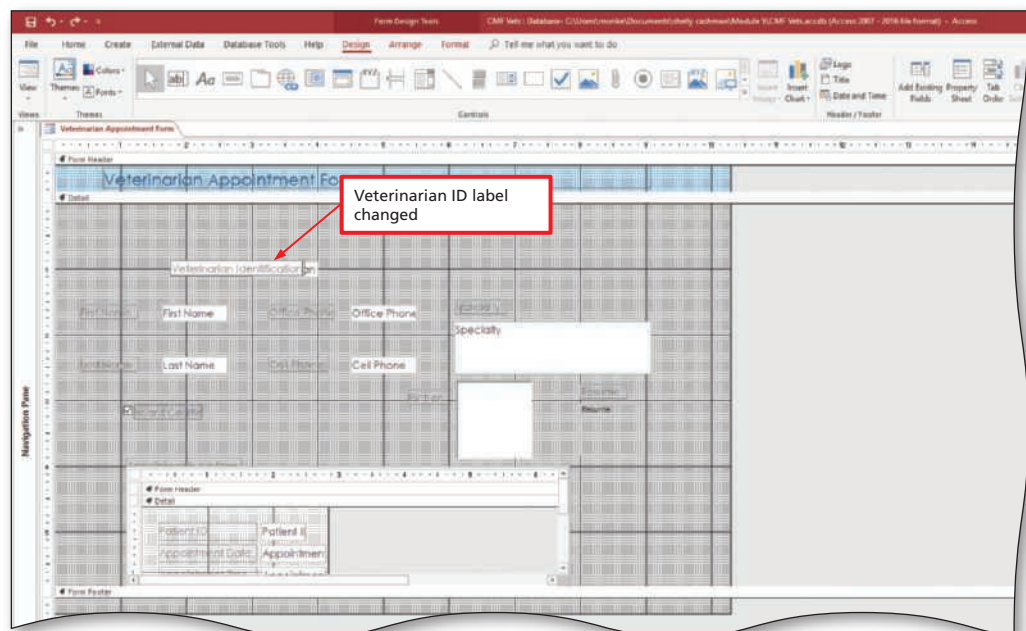


Figure 5–53

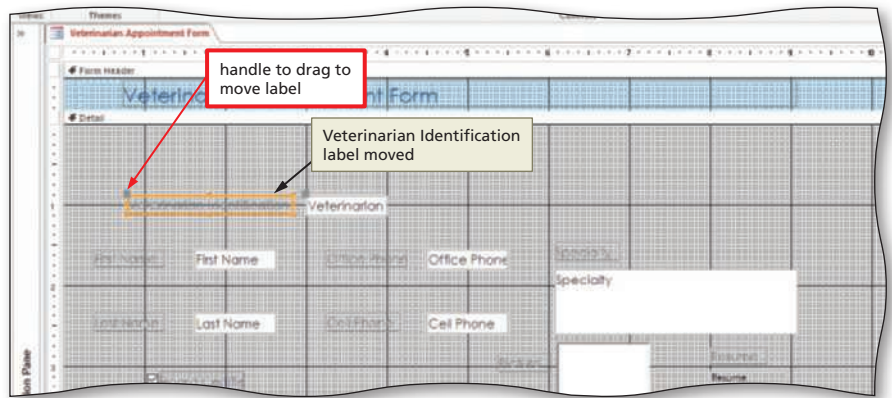
2

- Click outside the label to deselect it.
- Click the label to select it.

Q&A

Why did I need to deselect the label and then select it again? With the insertion point appearing in the label, you could not move the label. By deselecting it and then selecting it again, the label will be selected, but there will be no insertion point.

- Drag the move handle in the upper-left corner to move the label to the approximate position shown in Figure 5–54.

**Figure 5–54****3**

- Save your changes.

Is there any way to determine the way pictures fit within the control?

Yes. Access determines the portion of a picture that appears as well as the way it appears using the **size mode** property. The three size modes are as follows:

Clip: This size mode displays only a portion of the picture that will fit in the space allocated to it.

Stretch: This size mode expands or shrinks the picture to fit the precise space allocated on the screen. For photographs, usually this is not a good choice because fitting a photograph to the allocated space can distort the picture, giving it a stretched appearance.

Zoom: This size mode does the best job of fitting the picture to the allocated space without changing the look of the picture. The entire picture will appear and be proportioned correctly. Some white space may be visible either above or to the right of the picture, however.

**CONSIDER THIS**

To Change the Size Mode

Currently, the size mode for the picture should be Zoom, which is appropriate. If it were not and you wanted to change it, you would use the following steps.

1. Click the control containing the picture, and then click the Property Sheet button (Form Design Tools Design tab | Tools group) to display the control's property sheet.
2. Click the Size Mode property, and then click the Size Mode property arrow.
3. Click Zoom, and then close the property sheet by clicking its Close button.

BTW

Moving Controls

When you are dragging a label or control, you might need to make very small movements. You can use the arrow keys on the keyboard to make fine adjustments to control placement.

To Change Label Effects and Colors

Access allows you to change many of the characteristics of the labels in the form. You can change the border style and color, the background color, the font, and the font size. You can also apply special label effects, such as raised or sunken. The following steps change the font color of the labels and add special effects. *Why? Modifying the appearance of the labels improves the appearance of the form.*

1

- Click the Veterinarian Identification label to select it, if necessary.
- Select each of the remaining labels by holding down SHIFT while clicking the label. Be sure to include the label for the subform (Figure 5-55).

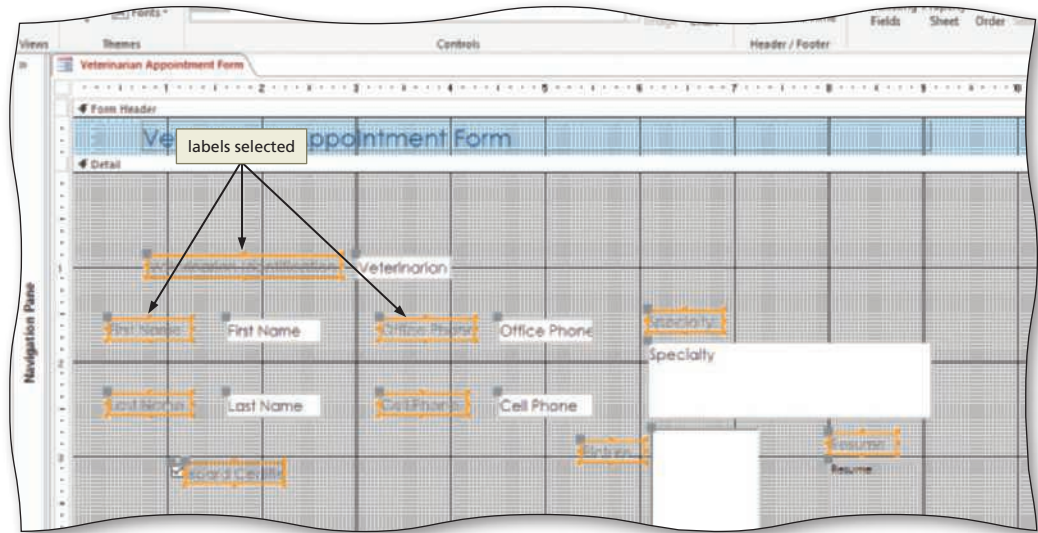


Figure 5-55

Q&A

Does the order in which I select the labels make a difference?

No. The only thing that is important is that they are all selected when you are done.

2

- Display the Form Design Tools Format tab.
- Click the Font Color arrow (Form Design Tools Format tab | Font group) to display a color palette (Figure 5-56).

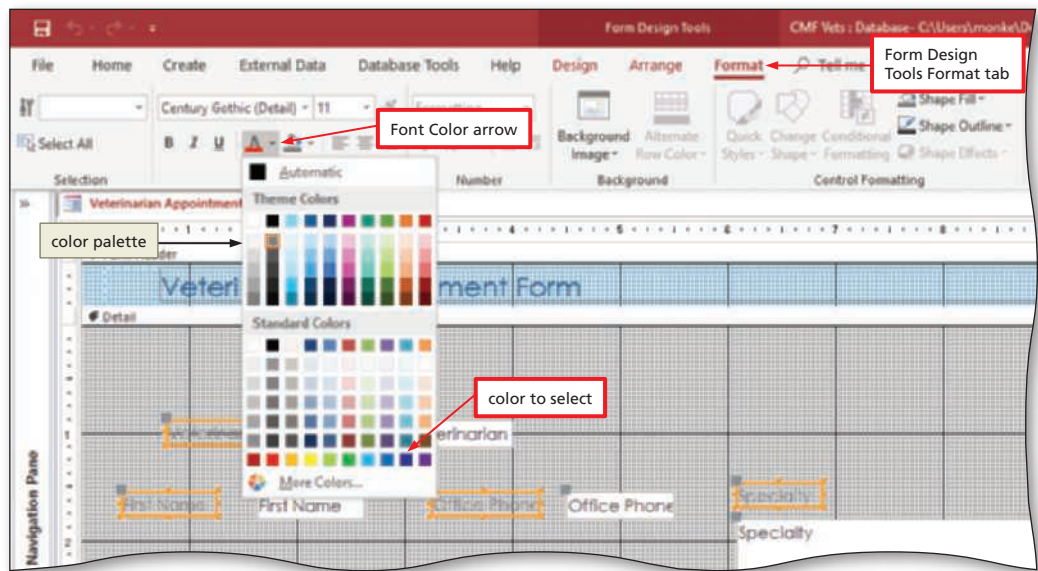


Figure 5-56

3

- Click the dark blue color in the second position from the right in the bottom row of Standard Colors to change the font color for the labels.

 Experiment

- Try other colors by clicking the Font Color arrow and then clicking the other color to see which colors you think would be good choices for the font. View the form to see the effect of your choice, and then return to Design view. When done, select the blue color.
- Display the Form Design Tools Design tab.
- Click the Property Sheet button (Form Design Tools Design tab | Tools group) to produce the property sheet for the selected labels. If your property sheet appears on the left side of the screen, drag it to the right. Make sure the All tab is selected.

- Click the Border Style property box to display the Border Style property arrow, and then click the arrow to display a menu of border styles (Figure 5–57).

Q&A The property sheet is too small to display the property arrow. Can I change the size of the property sheet?
 Yes. Point to the border of the property sheet so that the pointer changes to a two-headed arrow. You then can drag to adjust the size.

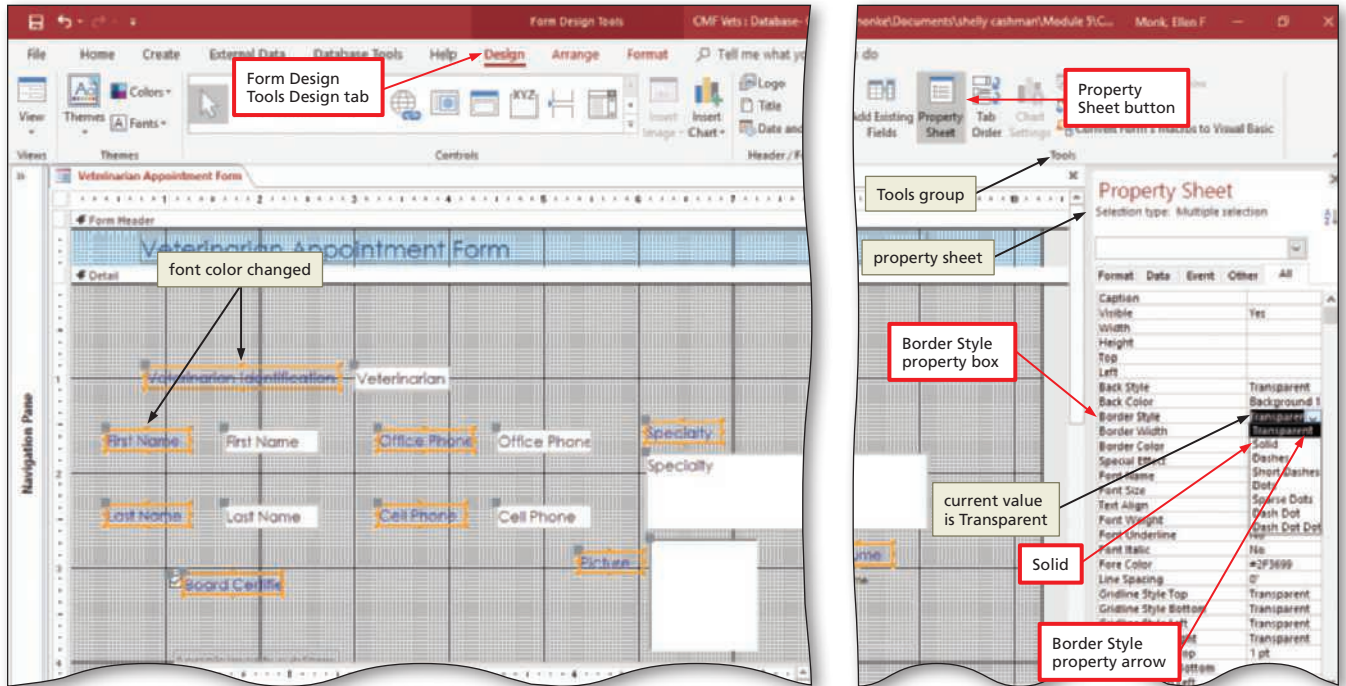


Figure 5–57

4

- Click Solid in the menu of border styles to select a border style.
- Click the Border Width property box to display the Border Width property arrow, and then click the arrow to display a menu of border widths.
- Click 3 pt to change the border width to 3 pt.
- Click the Special Effect property box to display the Special Effect property arrow, and then click the arrow to display a menu of special effects (Figure 5–58).

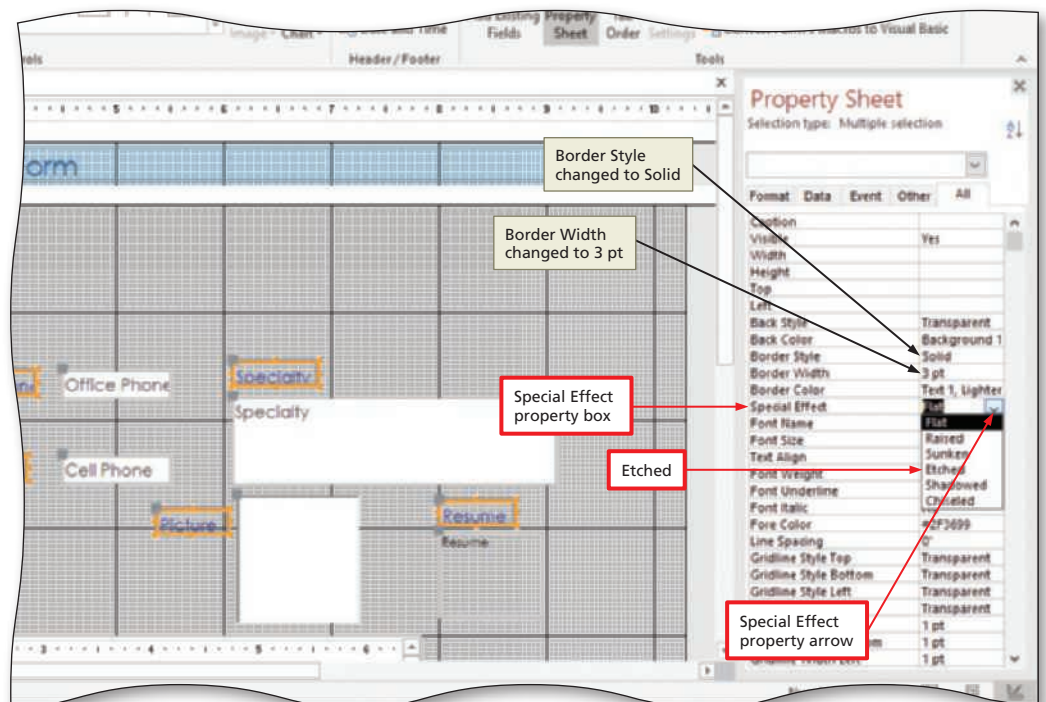


Figure 5–58

5

- Click Sunken in the menu of special effects to select a special effect (Figure 5–59).

 Experiment

- Try other special effects. In each case, view the form to see the special effect you selected and then return to Design view. When you are done, select Sunken.

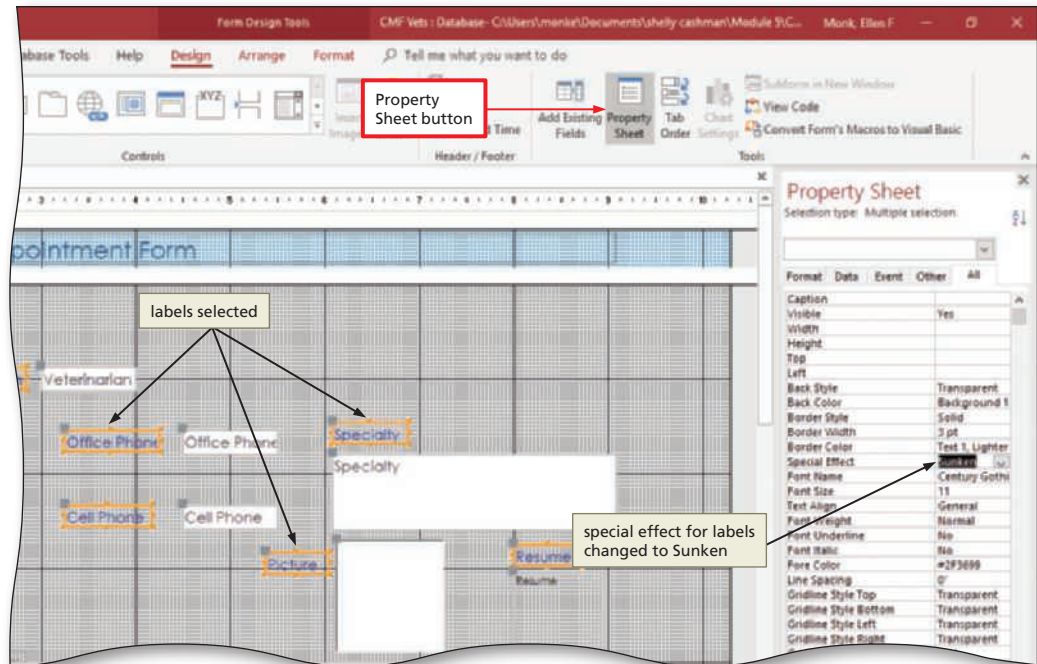


Figure 5–59

6

- Close the property sheet by clicking the Property Sheet button (Form Design Tools Design tab | Tools group).
- Click the View button to view the form in Form view (Figure 5–60).

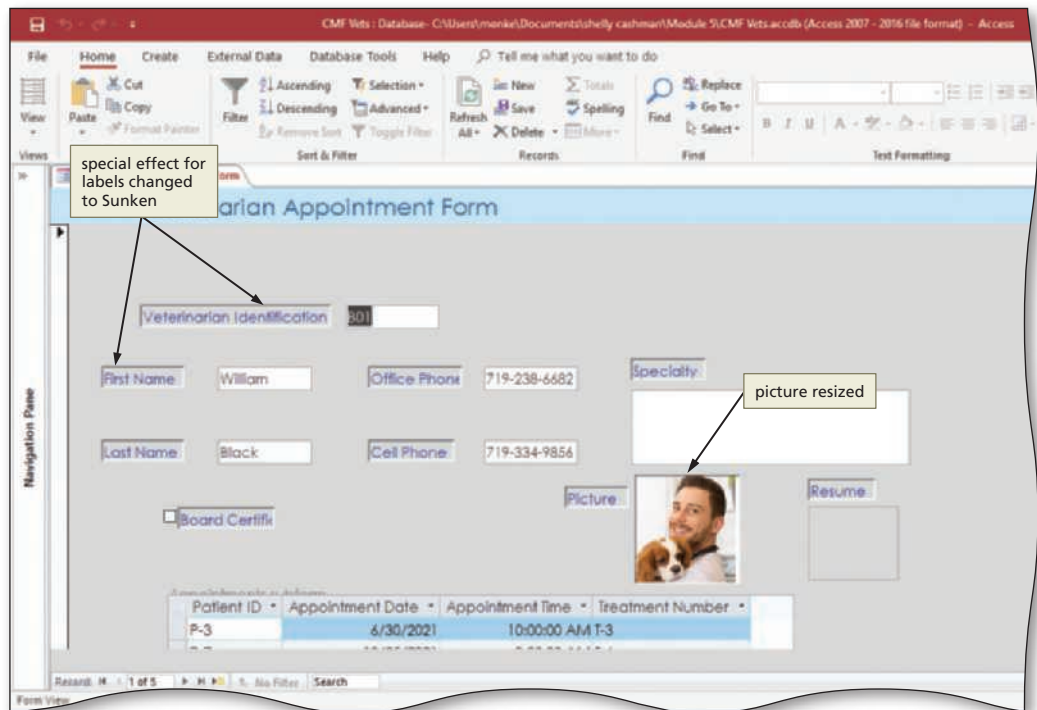


Figure 5–60

To Modify the Appearance of a Form Title

Why? You can enhance the title in a variety of ways by changing its appearance. These options include moving it, resizing it, changing the font size, changing the font weight, and changing the alignment. The following steps enhance the form title.

1

- Return to Design view.
- Resize the Form Header section by dragging down the lower boundary of the section to the approximate position shown in Figure 5-61.

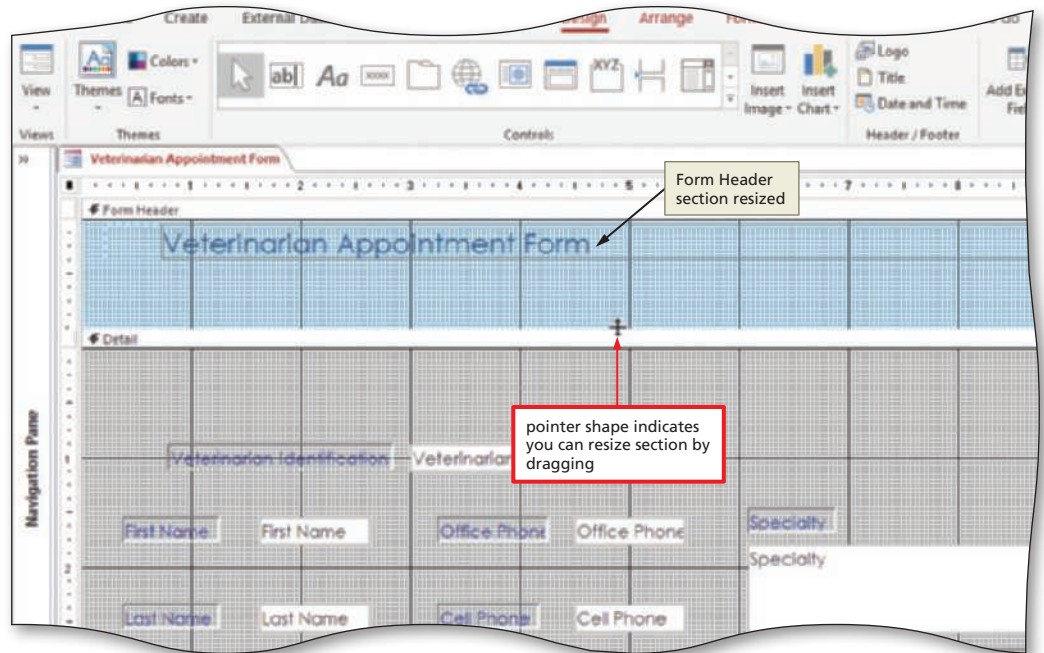


Figure 5-61

2

- Click the control containing the form title to select the control.
- Drag the lower-right sizing handle to resize the control to the approximate size shown in Figure 5-62.

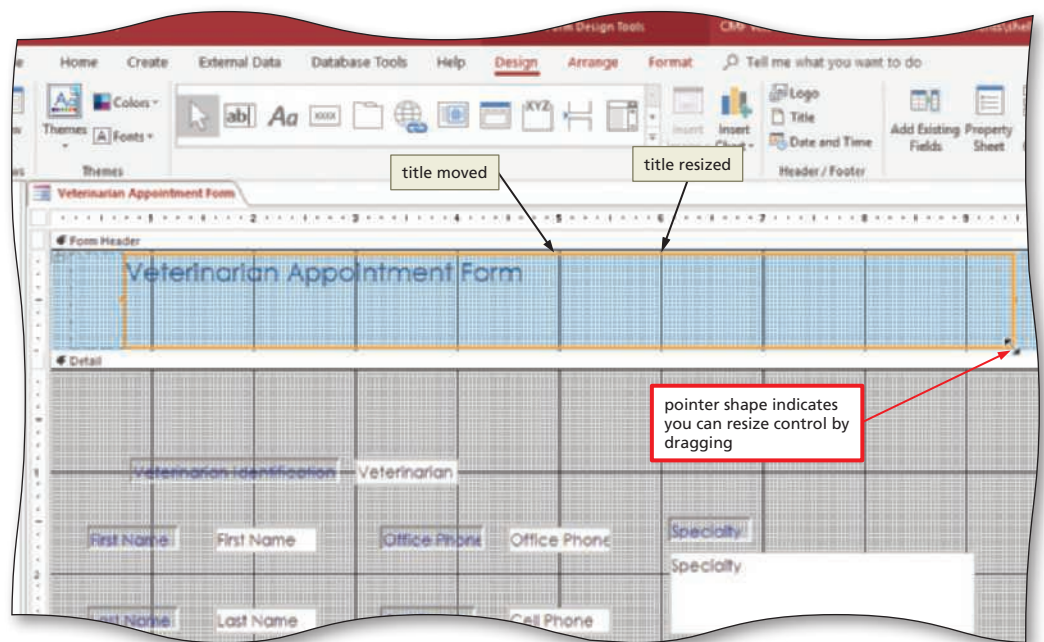


Figure 5-62

- 3
 - Click the Property Sheet button (Form Design Tools Design tab | Tools group) to display the control's property sheet.
 - Click the Font Size property box, click the Font Size property arrow, and then type 28 to change the font size.
 - In a similar fashion, change the Text Align property value to Distribute and the Font Weight property value to Semi-bold (Figure 5–63).
- 4
 - Close the property sheet by clicking the Property Sheet button (Form Design Tools Design tab | Tools group).

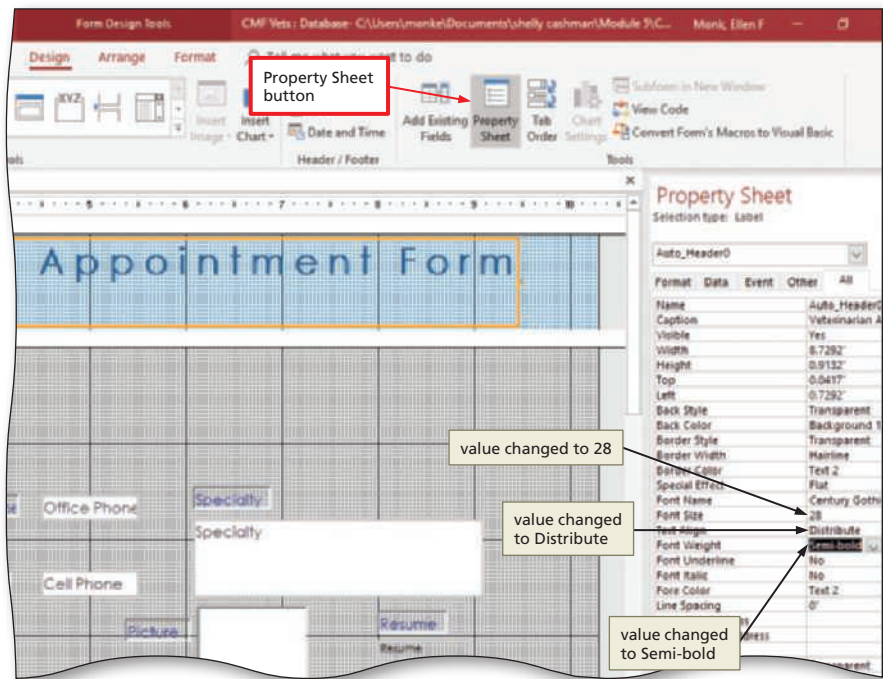


Figure 5–63

Other Ways

1. Enter font size value in Font Size box

To Change a Tab Stop

Users can repeatedly press the TAB key to move through the controls on the form; however, they should bypass the Picture and Resume controls because users do not enter data into these fields. To omit these controls from the tab stop sequence, the following steps change the value of the Tab Stop property for the controls from Yes to No. *Why? Changing the Tab Stop property for these fields to No removes them from the Tab Stop sequence.*

- 1
 - Click the Picture control to select it.
 - Hold down SHIFT while clicking the Resume control to select it as well (Figure 5–64).
- 2
 - Click the Property Sheet button (Form Design Tools Design tab | Tools group) to display the property sheet.

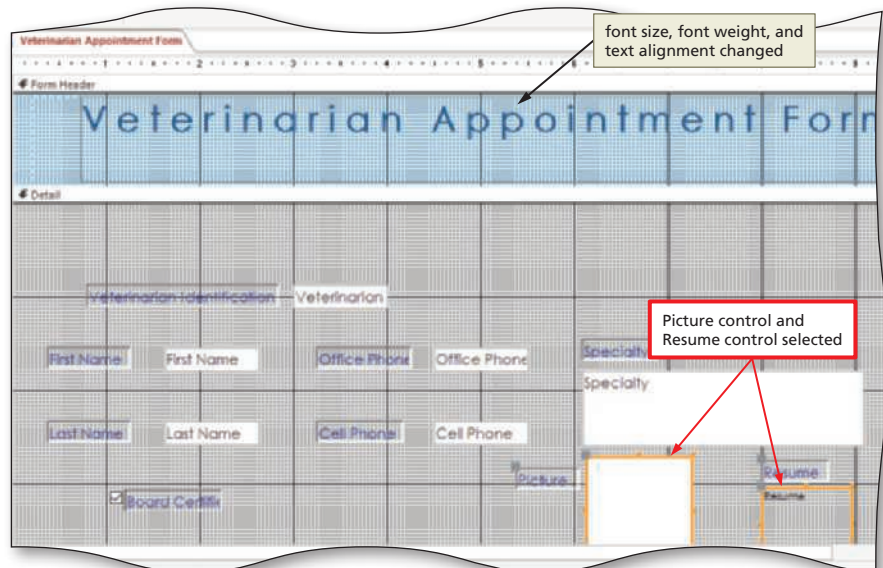


Figure 5–64

- Make sure the All tab (Property Sheet) is selected, click the down scroll arrow until the Tab Stop property appears, click the Tab Stop property, click the Tab Stop property arrow, and then click No to instruct Access to skip the Picture and Resume fields in the tab sequence.
- Close the property sheet.

Q&A | I do not see the Tab Stop property. What did I do wrong?
You clicked the labels for the controls, not the controls.

- Save your changes.
- Click the View button to view the form in Form view. It should look like the form shown in Figure 5–1.
- Close the form.

Break Point: If you wish to stop working through the module at this point, you can resume the project at a later time by starting Access, opening the database called CMF Vets, and continuing to follow the steps from this location forward.

Changing the Tab Order

Users can repeatedly press the TAB key to move through the fields on a form. Access determines the order in which the fields are encountered in this process. If you prefer a different order, you can change the order by clicking the Tab Order button (Form Design Tools Design tab | Tools group). You then can use the Tab Order dialog box (Figure 5–65) to change the order by dragging rows (fields) to their desired order as indicated in the dialog box.

BTW

Auto Order Button

If you click the Auto Order button in the Tab Order dialog box, Access will create a top-to-bottom and left-to-right tab order.

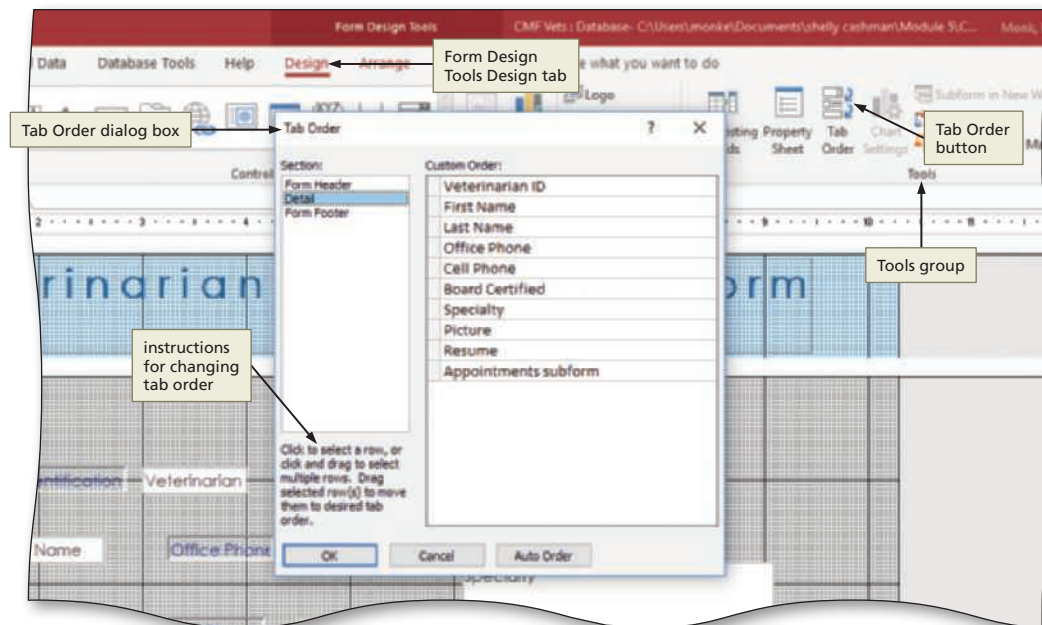


Figure 5–65

To Use the Form

The form gives you flexibility in selecting both veterinarians and the appointments. *Why?* You can use the Navigation buttons at the bottom of the screen to move among veterinarians. You can use the Navigation buttons in the subform to move among the appointments currently shown on the screen. The following steps use the form to display desired data.

1

- Open the Navigation Pane if it is currently closed.
- Right-click the Veterinarian Appointment Form, and then click Open on the shortcut menu.
- Scroll to the fifth record, Carl Schwartz.
- Close the Navigation Pane.
- Right-click the Resume field to display a shortcut menu (Figure 5–66).

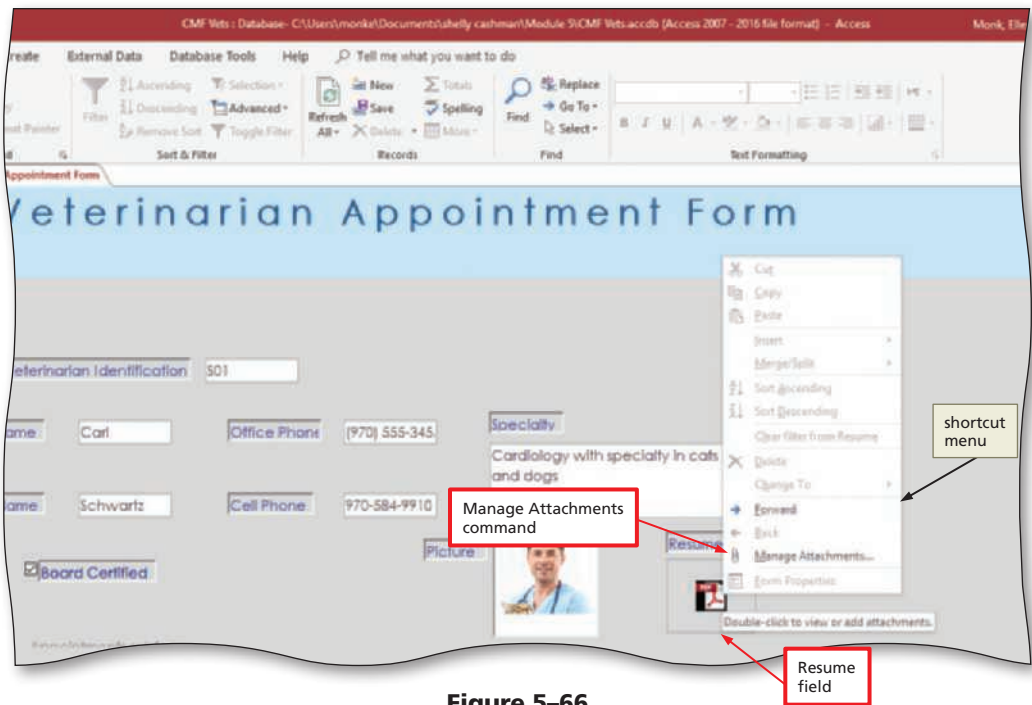


Figure 5–66

2

- Click the Manage Attachments command on the shortcut menu to display the Attachments dialog box (Figure 5–67).

Q&A

How do I use this dialog box? Select an attachment and click the Open button to view the attachment in its original application. Click the Add button to add a new attachment or the Remove button to remove the selected attachment. By clicking the Save As button, you can save the selected attachment as a file in whatever location you specify. You can save all attachments at once by clicking the Save All button.

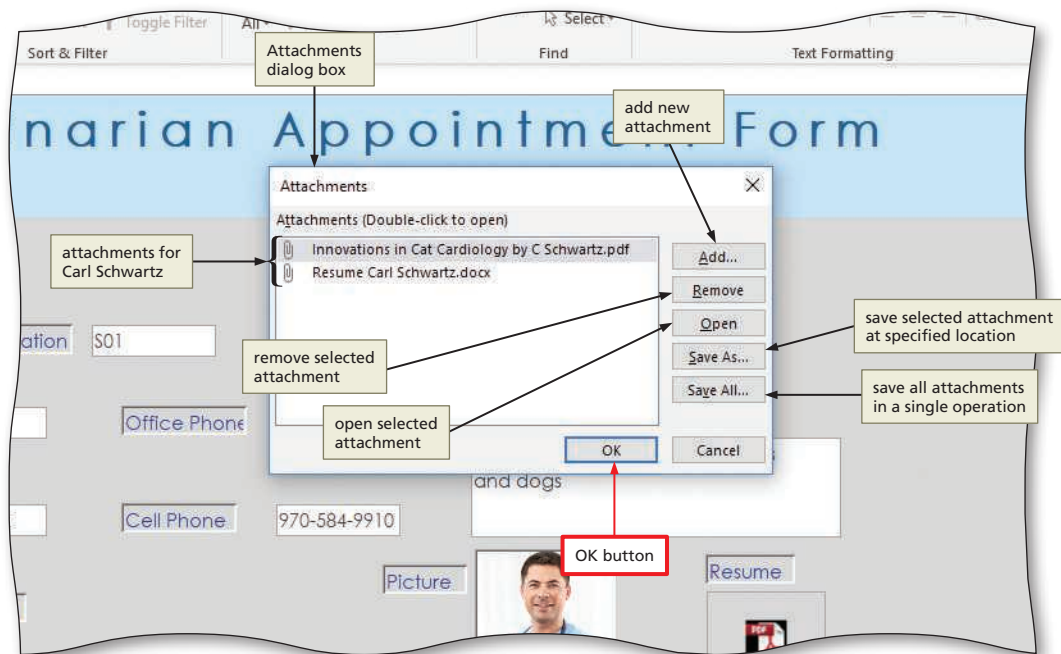


Figure 5–67

 Experiment

- Open both attachments to see how they look in the original applications. When finished, close each original application.

3

- Click the OK button to close the Attachments dialog box.
- Click the form's Previous record button four times to record number 1 to display the data for William Black (Figure 5–68).

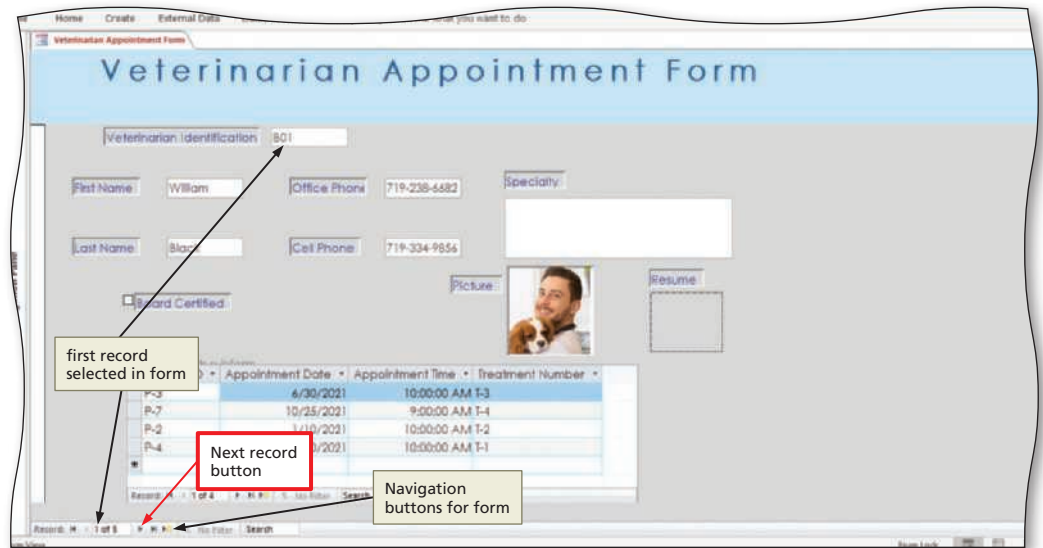


Figure 5–68

4

- Click the subform's Next record button once to highlight the veterinarian's appointment on 10/25/2021. (Figure 5–69).

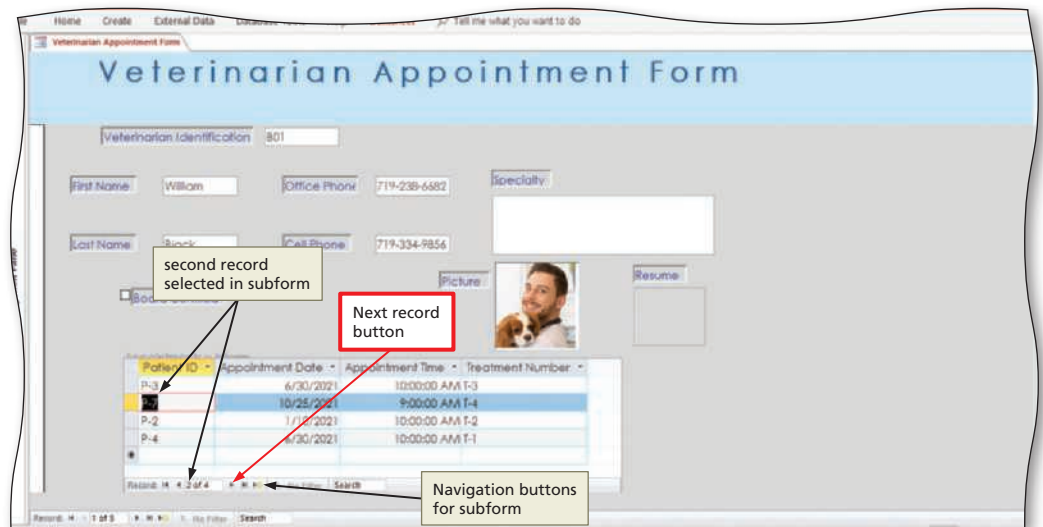


Figure 5–69

5

- Close the form.

Other Ways

1. Double-click Attachments control

Navigation in the Form

BTW

Navigation

To go to a specific record in the main form, enter the record number in the Current Record box for the main form. To go to a specific record in the subform, enter the record number in the Current Record box for the subform.

The previous steps illustrated the way you work with a main form and subform. Clicking the Navigation buttons for the main form moves to a different veterinarian. Clicking the Navigation buttons for the subform moves to different appointments of the veterinarian who appears in the main form. The following are other actions you can take within the form:

1. To move from the last field in the main form to the first field in the subform, press **TAB**. To move back to the last field in the main form, press **SHIFT+TAB**.
2. To move from any field in the subform to the first field in the next record's main form, press **CTRL+TAB**.
3. To switch from the main form to the subform using touch or the mouse, click anywhere in the subform. To switch back to the main form, click any control in the main form. Clicking the background of the main form will not cause the switch to occur.

Object Dependencies

In Access, objects can depend on other objects. For example, a report depends on the table or query on which it is based. A change to the structure of the table or query could affect the report. For example, if you delete a field from a table, any report based on that table that uses the deleted field would no longer be valid.

You can view information on dependencies between database objects. Viewing a list of objects that use a specific object helps in the maintenance of a database and avoids errors when changes are made to the objects involved in the dependency. For example, many items, such as queries and forms, use data from the Appointments table and thus depend on the Appointments table. By clicking the Object Dependencies button, you can see what items are based on the object. You also can see the items on which the object depends.

If you are unfamiliar with a database, viewing object dependencies can help you better understand the structure of the database. Viewing object dependencies is especially useful after you have made changes to the structure of tables. If you know which reports, forms, and queries depend on a table, you will be better able to make changes to a table without negatively affecting the related database objects.

To View Object Dependencies

The following steps view the objects that depend on the Appointments table. *Why?* The objects that depend on the Appointments might be affected by any change you make to the Appointments table.

1

- Open the Navigation Pane and click the Appointments table.
- Display the Database Tools tab.
- Click the Object Dependencies button (Database Tools tab | Relationships group) to display the Object Dependencies pane.
- If necessary, click the 'Objects that depend on me' option button to select it (Figure 5–70).

Experiment

- Click the 'Objects that I depend on' option button to see the objects on which the Appointments table depends. Then try both options for other objects in the database.

2

- Close the Object Dependencies pane by clicking the Object Dependencies button (Database Tools tab | Relationships group) a second time.

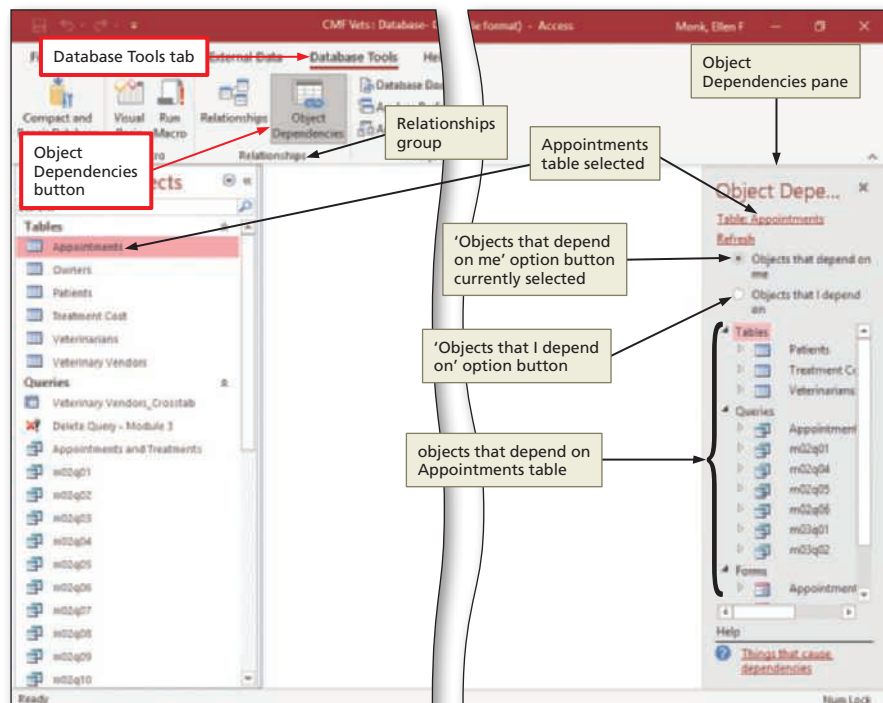


Figure 5–70

Date/Time, Long Text, and Yes/No Fields in Queries

By specifying appointment dates using Date/Time fields, CMF Vets can run queries to find veterinarians' appointments before or after a certain date. Similarly, management of the practice can search for veterinarians with specific qualifications by adding Long Text and Yes/No fields.

To use Date/Time fields in queries, you simply type the dates, including the slashes. To search for records with a specific date, you must type the date. You can also use comparison operators. To find all the appointments whose date is after June 1, 2021, for example, you type >6/1/2021 as the criterion.

You can also use Long Text fields in queries by searching for records that contain a specific word or phrase in the Long Text field. To do so, you use wildcards. For example, to find all the veterinarians who have the word, cardiology, somewhere in the Specialty field, you type *cardiology* as the criterion. The asterisk at the beginning indicates that any characters can appear before the word, cardiology. The asterisk at the end indicates that any characters can appear after the word, cardiology.

To use Yes/No fields in queries, type the word, Yes, or the word, No, as the criterion. The following steps create and run queries that use Date/Time, Long Text, and Yes/No fields.

BTW

Long Text Fields in Queries

When you query long text fields, consider alternative spellings and phrases. For example, Computer Science also can be referenced as CS.

BTW

Date Fields in Queries

To test for the current date in a query, type Date() in the Criteria row of the appropriate column. Typing <Date() in the Criteria row for the Appointment Date, for example, finds those veterinarians who are scheduled for appointments today.

To Use Date/Time, Long Text, and Yes/No Fields in a Query

The following steps use Date/Time, Long Text, and Yes/No fields in queries to search for veterinarians and appointments that meet specific criteria. *Why?* CMF wants to find veterinarian appointments after 6/1/2021 and who have the word, cardiology, in their specialty field and who have met their board certification.

1

- Create a query for the Veterinarians and Appointments tables and include the Veterinarian's Last Name, First Name, Appointment Date, Specialty, and Board Certified fields in the query (Figure 5-71).

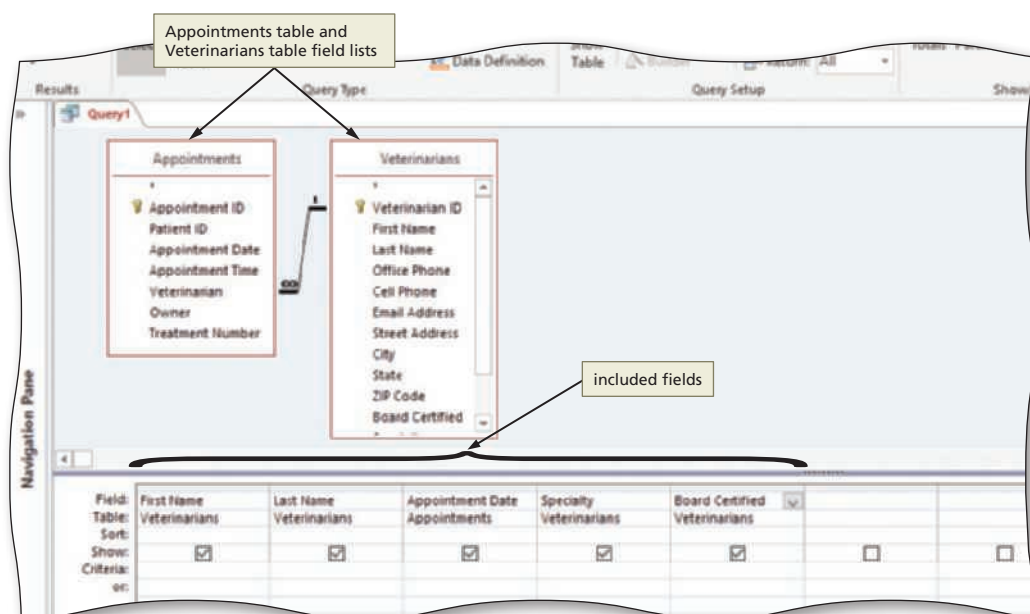


Figure 5-71

- 2
 - Click the Criteria row under the Appointment Date field, and then type >6/1/2021 as the criterion.
 - Click the Criteria row under the Specialty field, and then type *cardiology* as the criterion (Figure 5-72).

Q&A Why does the date have number signs (#) around it?
 This is the date format in Access. Access reformatted the date appropriately as soon as you selected the Criteria row for the Specialty field.
 Are wildcard searches in long text fields case-sensitive?
 No.

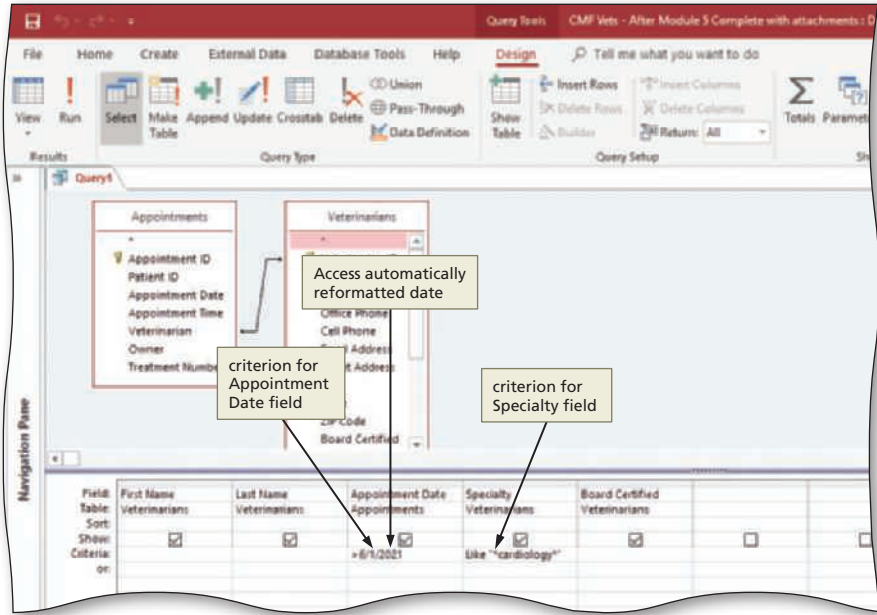


Figure 5-72

- 3
 - View the results (Figure 5-73). Expand the Specialty field to display the entire record, if necessary.

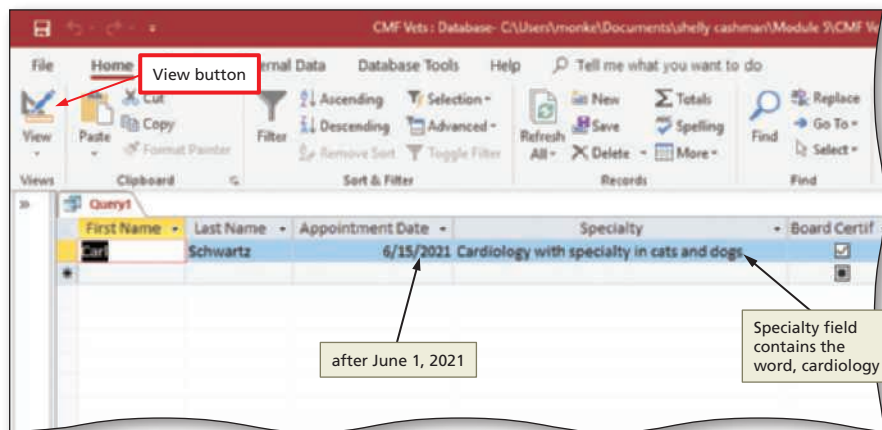


Figure 5-73

- 4
 - Click the View button to return to Design view (Figure 5-74).

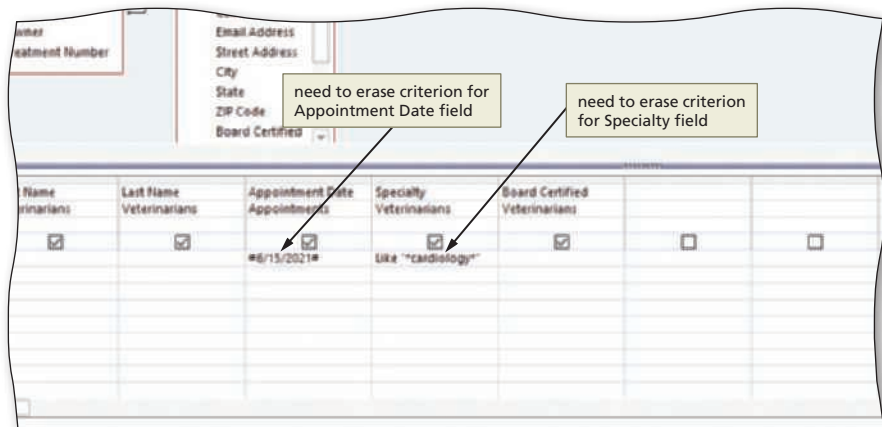


Figure 5-74

5

- Erase the criteria in the Appointment Date and Specialty fields.
- Click the Criteria row under the Board Certification field, and then type **Yes** as the criterion (Figure 5-75).

Q&A Do I have to type Yes?
You could also type True.

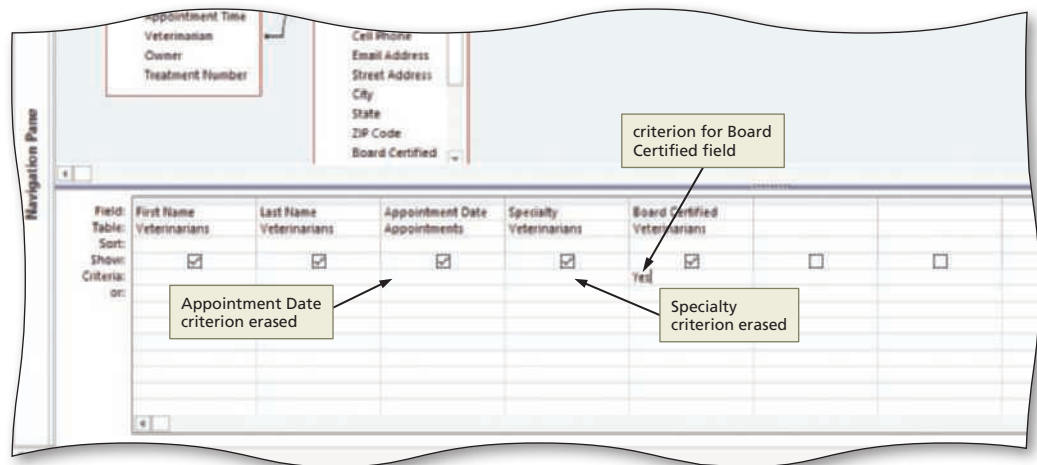


Figure 5-75

6

- View the results (Figure 5-76).

Experiment

- Try other combinations of values in the Appointment Date field, the Specialty field, and/or the Board Certification field. In each case, view the results.

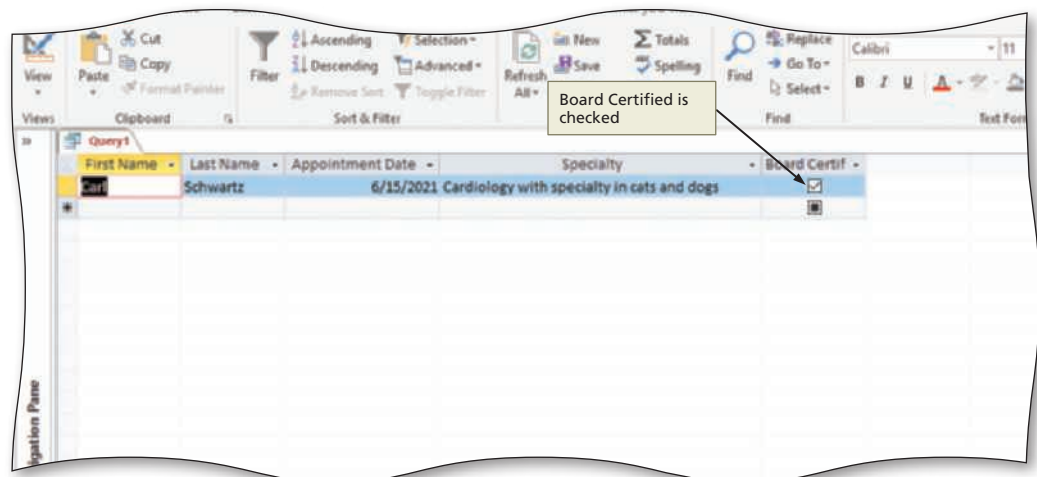


Figure 5-76

7

- Close the query without saving the results.
- If desired, sign out of your Microsoft account.
- Exit Access.

BTW

Date Formats

To change the date format for a date in a query, change the format property for the field using the field's property sheet. To change the date format for a field in a table, open the table in Design view and change the format property for the field.

Datasheets in Forms

Subforms are not available in forms created in Layout view, but you can achieve similar functionality to subforms by including datasheets. Like subforms, the datasheets contain data for the “many” table in the relationship.

Creating a Simple Form with a Datasheet

If you create a simple form for a table that is the “one” table in a one-to-many relationship, Access automatically includes the “many” table in a datasheet within the form. If you create a simple form for the Veterinarians table, for example, Access will

include the Appointments table in a datasheet within the form, as in Figure 5–77. The appointments in the datasheet will be the appointments of the veterinarian currently on the screen, in this case, William Black.

Patient ID	Appointment Date	Appointment Time	Treatment Number
P-3	6/30/2021	10:00:00 AM	T-3
P-7	10/25/2021	9:00:00 AM	T-4
P-2	1/10/2021	10:00:00 AM	F-2

Figure 5–77

TO CREATE A SIMPLE FORM WITH A DATASHEET

To create a simple form with a datasheet, you would use the following steps.

1. Select the table in the Navigation Pane that is the “one” part of a one-to-many relationship.
2. Display the Create tab.
3. Click the Form button (Create tab | Forms group).

Creating a Form with a Datasheet in Layout View

You can create a form with a datasheet in Layout view. To create a form based on the Veterinarians table that includes the appointments, which is stored in the Appointments table, you would first use the field list to add the required fields from the “one” table. In Figure 5–78, fields from the Veterinarians table have been added to the form.

Figure 5–78

Next, you would use the field list to add a single field from the “many” table, as shown in Figure 5–79, in which the Appointment Date field has been added. Access will automatically create a datasheet containing this field.

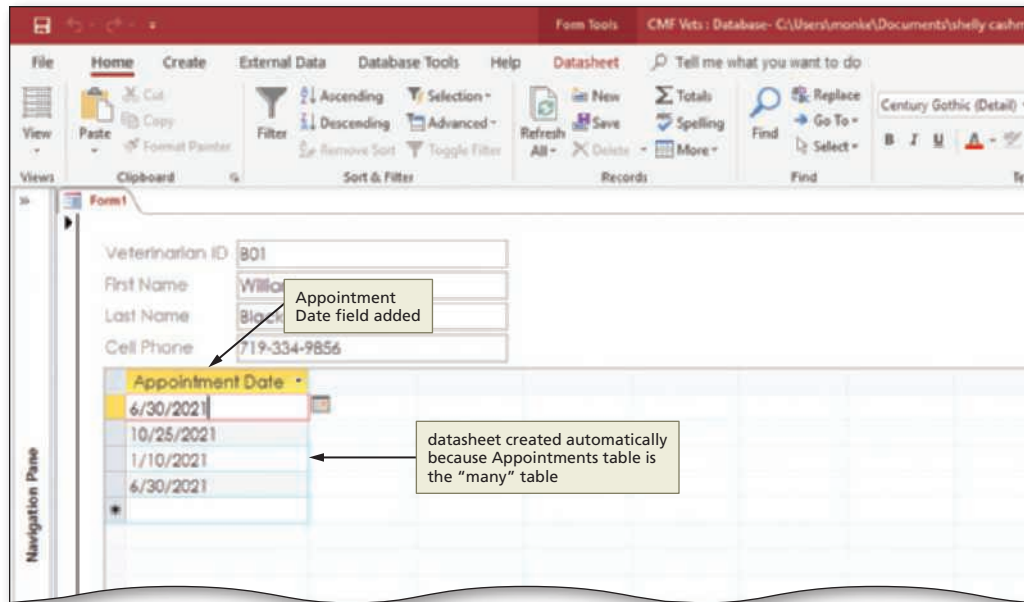


Figure 5–79

Finally, you would click the datasheet to select it and then use the field list to add the other fields from the “many” table that you want to include in the form, as shown in Figure 5–80.

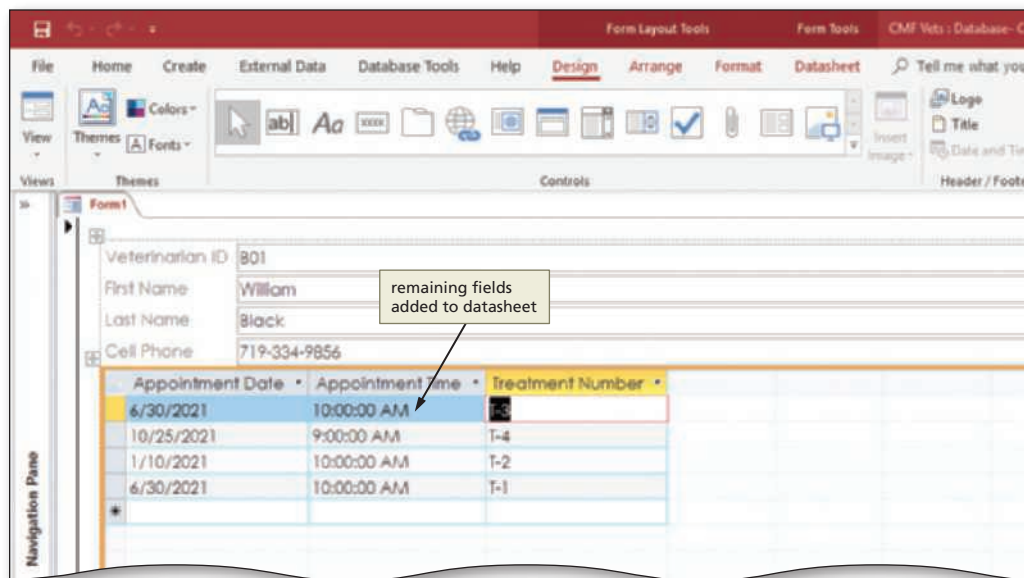


Figure 5–80

BTW

Placing Fields on a Datasheet

Be sure to select the datasheet before adding additional fields to the datasheet. When dragging a field from the field list to the datasheet, drag the field to the right boundary of the previous field. The pointer will change to show that you are placing a control and you will see a vertical line.

Can you modify the form so that the complete labels for the veterinarian fields appear?

Yes. Click any of the labels for the account manager fields to select the label, and then click the Select Column button (Arrange tab | Rows & Columns group) to select all the labels. You can then drag the right boundary of any of the labels to resize all the labels simultaneously.



CONSIDER THIS

TO CREATE A FORM WITH A DATASHEET IN LAYOUT VIEW

Specifically, to create a form with a datasheet in Layout view, you would use the following steps.

1. Display the Create tab.
2. Click the Blank Form button (Create tab | Forms group) to create a form in Layout view.
3. If a field list does not appear, click the 'Add Existing Fields' button (Form Layout Tools Design tab | Tools group) to display a field list.
4. If necessary, click 'Show all tables' to display the available tables.
5. Click the expand indicator (the plus sign) for the "one" table to display the fields in the table, and then drag the fields to the desired positions.
6. Click the expand indicator for the "many" table and drag the first field for the datasheet onto the form to create the datasheet.
7. Select the datasheet and drag the remaining fields for the datasheet from the field list to the desired locations in the datasheet.

Creating a Multiple-Table Form Based on the Many Table

All the forms discussed so far in this module were based on the "one" table, in this case, the Veterinarian table. The records from the "many" table were included in a subform. You can also create a multiple-table form based on the "many" table, in this case, the Appointments table. Such a form is shown in Figure 5-81.

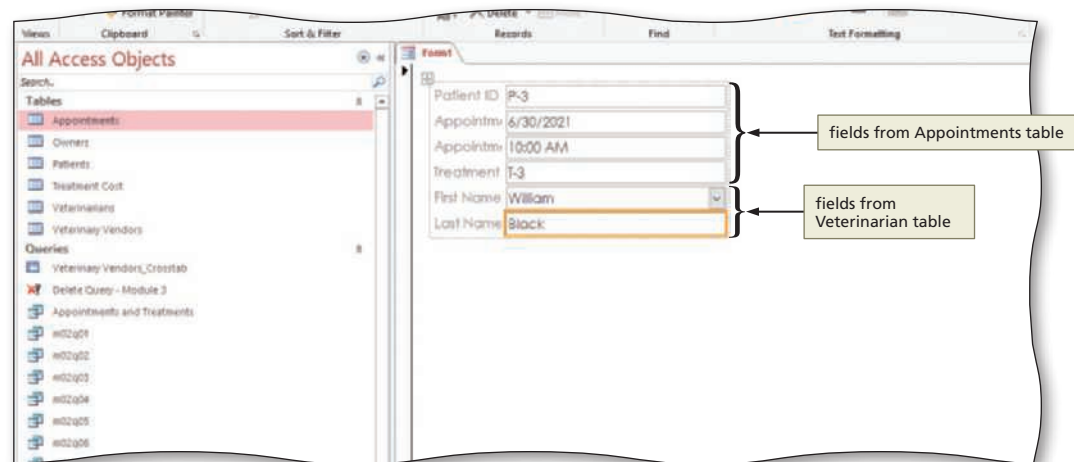


Figure 5-81

In this form, the Patient ID, Appointment Date, Appointment Time, and Treatment Number fields are in the Veterinarian table. The First Name and Last Name fields are found in the Veterinarian table and are included in the form to help to identify the veterinarian whose appointment is appearing in the upper fields.

To Create a Multiple-Table Form Based on the Many Table

To create a multiple-table form based on the “many” table, you would use the following steps.

1. Click the Blank Form button (Create tab | Forms group) to create a form in Layout view.
2. If a field list does not appear, click the ‘Add Existing Fields’ button on the Design tab to display a field list.
3. Drag the fields for the “many” table to the desired positions.
4. **smart** ↑ Drag the fields for the “one” table to the desired positions.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on a social networking site, blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Access.

Summary

In this module you have learned to use Yes/No, Long Text, and Attachment data types; create and use an input mask; create a form and add a subform; enhance the look of the controls on a form; change tab order and stops; use a form with a subform; create queries involving Yes/No, Date/Time, and Long Text fields; view object dependencies; and create forms containing datasheets in Layout view.

What decisions will you need to make when creating your own forms?

Use these guidelines as you complete the assignments in this module and create your own forms outside of this class.

1. Determine the purpose of the fields to see if they need special data types.
 - a. If the field only contains values such as Yes and No or True and False, it should have Yes/No as the data type.
 - b. If the field contains an extended description, it should have Long Text as the data type.
 - c. If the field contains a picture and you need to conserve storage space, its data type should be Attachment.
 - d. If the field contains attachments, its data type should be Attachment.
2. Determine whether the form requires data from more than one table.
3. If the form requires data from more than one table, determine the relationship between the tables.
 - a. Identify one-to-many relationships.
 - b. For each relationship, identify the “one” table and the “many” table.
4. If the form requires data from more than one table, determine on which of the tables the form is to be based.
 - a. Which table contains data that is the focus of the form, that is, which table is the main table?
5. Determine the fields from each table that need to be on the form.
 - a. Decide exactly how the form will be used, and identify the fields that are necessary to support this use.
 - b. Determine whether there are any additional fields that, while not strictly necessary, would make the form more functional.
6. When changing the structure of a table or query, examine object dependencies to see if any report or form might be impacted by the change.
7. Determine the tab order for form controls.
 - a. Change the tab order if the form requires a certain progression from one control to the next.
 - b. Remove tab stops for those controls for which form navigation is not required.
8. Review the form to determine whether any changes are necessary.
 - a. Are there visual changes, such as different colors or a larger font, that would make the form easier to use?
 - b. Does the form have a similar look to other forms in the database?
 - c. Does the form conform to the organization’s standards?



CONSIDER THIS



CONSIDER THIS

How should you submit solutions to questions in the assignments identified with a symbol?

Every assignment in this book contains one or more questions identified with a symbol. These questions require you to think beyond the assigned database. Present your solutions to the questions in the format required by your instructor. Possible formats may include one or more of these options: write the answer; create a document that contains the answer; present your answer to the class; discuss your answer in a group; record the answer as audio or video using a webcam, smartphone, or -portable media player; or post answers on a blog, wiki, or website.

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Adding Phone Number, Yes/No, Long Text, and Picture Attachment Fields, Using an Input Mask Wizard, and Querying Long Text Fields

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Access, and then open the Support_AC_Financial Services database (If you do not have the database, see your instructor for a copy of the modified database.)

Perform the following tasks:

1. Open the Advisor table in Design view.
2. Add the Phone Number, CFA Certification, Other Skills, and Picture fields to the Advisor table structure, as shown in Figure 5–82. Create an input mask for the new Phone Number field. Store the phone number data without symbols. CFA Certification is a field that indicates whether the advisor has completed all the exams for a chartered financial analyst.

Field Name	Data Type
Advisor Number	Number
Last Name	Short Text
First Name	Short Text
Street	Short Text
City	Short Text
State	Short Text
Postal Code	Short Text
Phone Number	Short Text
CFA Certification	Yes/No
Other Skills	Long Text
Picture	Attachment

Figure 5–82

3. Add the data shown in Table 5–1 to the Advisor table. Adjust the row and column spacing to best fit the data. Save the changes to the layout of the table.

Table 5–1 Data for Advisor Table

Advisor Number	Phone Number	CFA Certification	Other Skills	Picture
103	615-555-2222	Yes	Worked 10 years in the financial industry.	Pict1.jpg
110	931-555-4433	Yes	Has a master's degree in computational finance.	Pict2.jpg
114	423-555-8877	No	Worked as an accountant for 20 years.	Pict3.jpg
120	931-555-5498	No	Working on a master's degree in finance.	Pict4.jpg

4. If requested to do so by your instructor, change the phone number for advisor number 103 to your phone number.
5. Query the Advisor table to find all supervisors who have CFA Certification. Include the Advisor Number, Last Name, First Name, and Phone Number fields in the query result. Save the query as Apply 5 Step 5 Query.
6. Query the Advisor table to find all advisors with a master's degree or pursuing a master's degree who have completed the CFA Certification. Include the Advisor Number, Last Name, First Name, and Other Skills fields in the query result. Save the query as Apply 5 Step 6 Query.
7. Submit the revised database in the format specified by your instructor.
8. 🌀 What value did you enter in the criteria row for the CFA Certification field in the query in Step 6 above? Could you have entered the criteria differently? If yes, then how would you enter the criteria?

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Adding Hyperlink Fields and Creating Multiple-Table Forms Using Layout View

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files. Start Access, and then open the Support_AC_Healthy Pets database (If you do not have the database, see your instructor for a copy of the modified database.)

Instructions: Healthy Pets is a veterinarian practice that is being closed due to retirements. CMF is thinking of buying the practice to expand its client base. Before the management makes any decisions on this, they need more information about the technicians who work at Healthy Pets. Each technician has a webpage about their qualifications. You will add a Hyperlink field to the Technician table. You will also create the form shown in Figure 5–83.

Continued >

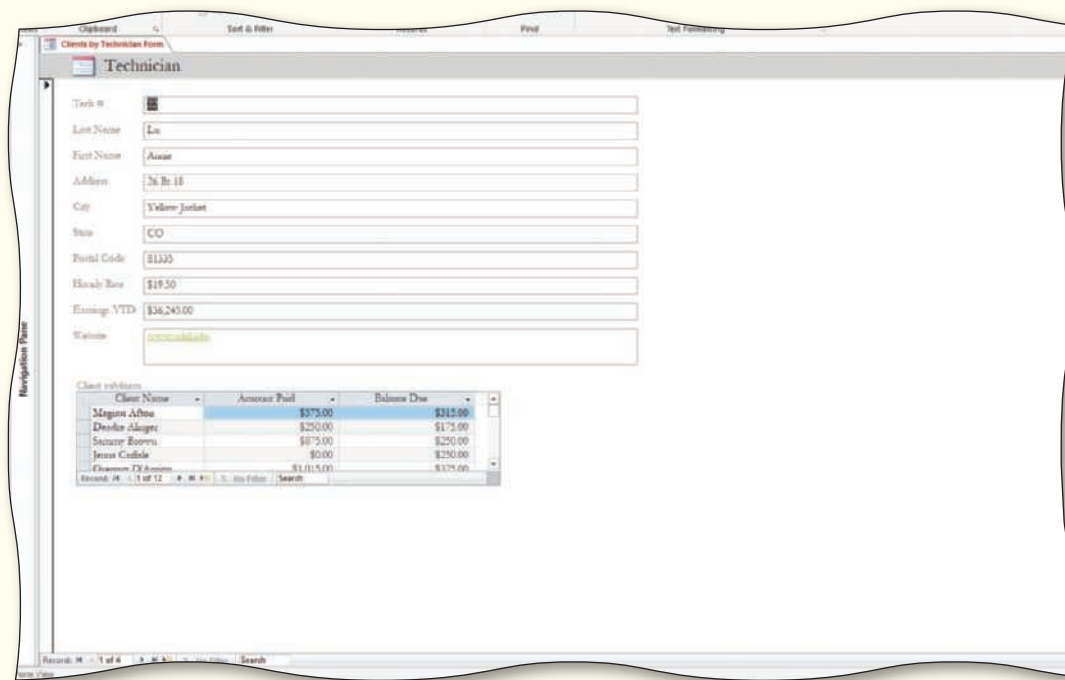
Extend Your Knowledge *continued*

Figure 5–83

Perform the following tasks:

1. Start Access and open the Support_AC_Healthy Pets database. Open the Technician table in Design view and add a field with the Hyperlink data type. Insert the field after the Earnings YTD field. Use Website as the name of the field.
2. Switch to Datasheet view and add data for the Website field to the first record. Use your school website as the URL. If necessary, resize the column so the complete URL is displayed.
3. If requested to do so by your instructor, enter your name as the technician name for the first record of the Technician table.
4. Use Layout view to create the multiple-table form shown in Figure 5–83. The Client table appears as a subform in the form. The Technician table is the “one” table in the form. Use Clients by Technician as the form name.
5. Submit the revised database in the format specified by your instructor.
6. 🌟 How would you add a field for an email address to the Technician table?

Expand Your World

Create a solution, which uses cloud and web technologies, by learning and investigating on your own from general guidance.

Problem: Support_AC_Physical Therapy is a database of clients and therapists. To understand the difference between Attachment and OLE Object data types, you will add those fields to the Clients table. Then, you will insert images that you download from the Internet. Finally, you will create a multiple-table form for the database.

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files. Start Access, and then open the Physical Therapy database (If you do not have the database, see your instructor for a copy of the modified database.)

Instructions: Perform the following tasks:

1. Access any website containing royalty-free images and search the images to find four different pictures of parts of the body that might require physical therapy. As a suggestion, you might choose knee, shoulder, back, and foot.
2. Save these images to a storage location of your choice.
3. Open the Support_AC_Physical Therapy database and open the Client table in Design view. Add a Body Part Image field with an Attachment data type. Add a Picture field with an Attachment data type. Assign the caption, Picture, to the Picture field. The fields should appear after the Therapist Number field.
4. Use the techniques shown in the module to add the images to the Body Part Image field. Reuse the 4 images as needed throughout the records. Add pictures of yourself, your friends, or family members as attachments to the Picture field.
5. Create a multiple-table form based on the Client table. Include the Client Number, First Name, Last Name, and Therapist Number fields from the Client table. Include the therapist's first and last name on the form from the Therapist table.
6. Include a title for the form and the current date. Save the form as Client Therapist Form, and then open the form in Design view.
7. Add the Body Part Image field and the Picture field to the form. If necessary, use the size mode property to adjust your images in the Body Part Image field so that they appear appropriately.
8. Submit the revised database in the format specified by your instructor.
9. 🌟 In this assignment you stored images as OLE Object and Attachment fields. What differences did you notice on the form? Which storage method do you prefer and why?

In the Labs

Design, create, modify, and/or use a database following the guidelines, concepts, and skills presented in this module.

Lab: Adding Fields and Creating Multiple-Table Forms for the Lancaster College Database

Instructions: Open the Support_AC_Lancaster College database (If you do not have the database, see your instructor for a copy of the modified database.)

Part 1: The sports department of Lancaster College would like you to add some fields to the Coach table. They would also like to create a form for the Sport table that shows the details of each coach. Use the concepts and techniques presented in this module to perform each of the following tasks:

- a. For the Coach table, add a picture field and a notes field.
- b. For the coach pictures, use your own photos. For the Notes field, add the notes shown in Table 5–2. Make sure all data appears in the datasheet.

Continued >

In the Lab *continued*

Coach ID	Notes
17893	Runner up for national Olympics team
18797	Competed in the Australian Open 2012
18798	Wrestling coach at Lancaster for 25 years
18990	Experience in NFL
18999	All-star softball championship, 2015
78978	Junior Olympian Freestyle
78979	Ping Pong Coach at Lancaster for 20 years
79798	State Champion, Butterfly
79879	Played in Premier League, 1998
82374	Played semi-professionally in 1995

- c. First change the Coach ID in both the Sport table and the Coach table to Short text with a field size of 10. Form a relationship between the two tables on the Coach ID.
- d. Create a Coach Sport Master Form for the Coach table that is similar in design to the form shown in Figure 5-1. Include the Coach ID, First Name, Last Name, Picture, and Notes fields from the Coach table on the form. The subform should display the SportName, Coach ID, Min Players, Max Players, and Begin Date fields from the Sport table. Customize the form by adding special effects to controls and labels and by changing the background color of the form. Add a title and the current date to the form header.
- e. Create a query that finds all sports with a minimum players of at least 5 and whose coach played in the NFL.

Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while adding the fields and creating the form for this assignment. What was the rationale behind your decisions? Would you add any additional fields to the Coach table?

6 | Advanced Report Techniques

Objectives

You will have mastered the material in this module when you can:

- Create and relate additional tables
- Create queries for reports
- Create reports in Design view
- Add fields and text boxes to a report
- Format report controls
- Group and ungroup report controls
- Update multiple report controls
- Add and modify a subreport
- Modify section properties
- Add a title, page number, and date to a report
- Preview, print, and publish a report
- Add totals and subtotals to a report
- Include a conditional value in a report

Introduction

Previously you created forms in Design view. In this module, you will create two reports in Design view. Both reports feature grouping and sorting. The first report contains a subreport, which is a report that is contained within another report. The subreport contains data from a query and is related to data in the main report. The second report uses aggregate functions to calculate subtotals and totals. It also uses a function to calculate a value where the actual calculation will vary from record to record depending on whether a given criterion is true.

Project — Creating Detailed Reports

CMF Vets managers want a master list of owners and the veterinarian assigned to each owner. This list should be available as an Access report and will have the name Owners and Account Information Master List. For each owner, the report will include full details for all the owners assigned to the veterinarian. In addition to offering its veterinarian services, CMF Vets offers workshops designed to educate owners on various aspects of pet products, health trends, and new health procedures. Data on workshop participation is stored in the database. For veterinarians who are participating in workshops, the report should list the specific workshops being offered to the owners and the pets assigned to the owners.

The Owners and Account Information Master List report is shown in Figure 6–1a. The report is organized by Owner ID, with the data for each Owner ID beginning on a new page. For each veterinarian, the report lists the Veterinarian ID number; the report then lists data for each owner served by that veterinarian. The owner data includes the Owner ID, owner first name, owner last name, veterinarian, appointment dates, treatment numbers, and cost of those treatments. For each workshop the owner is taking, the report lists the workshop code, description, total hours the workshop requires, hours already spent, and hours remaining.

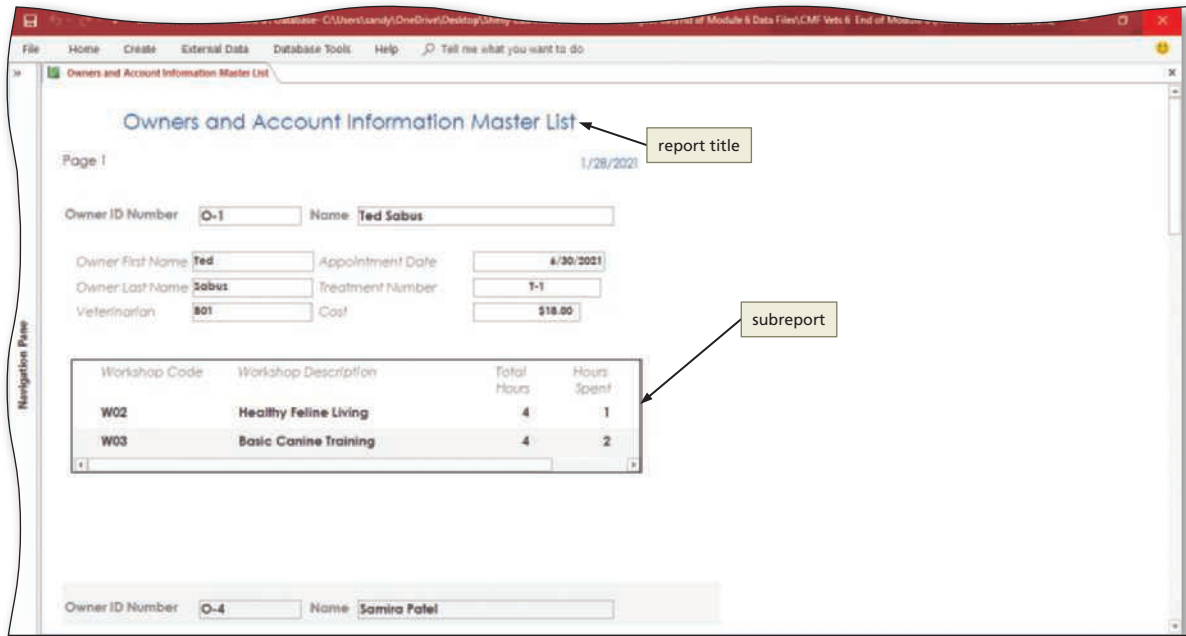


Figure 6–1a

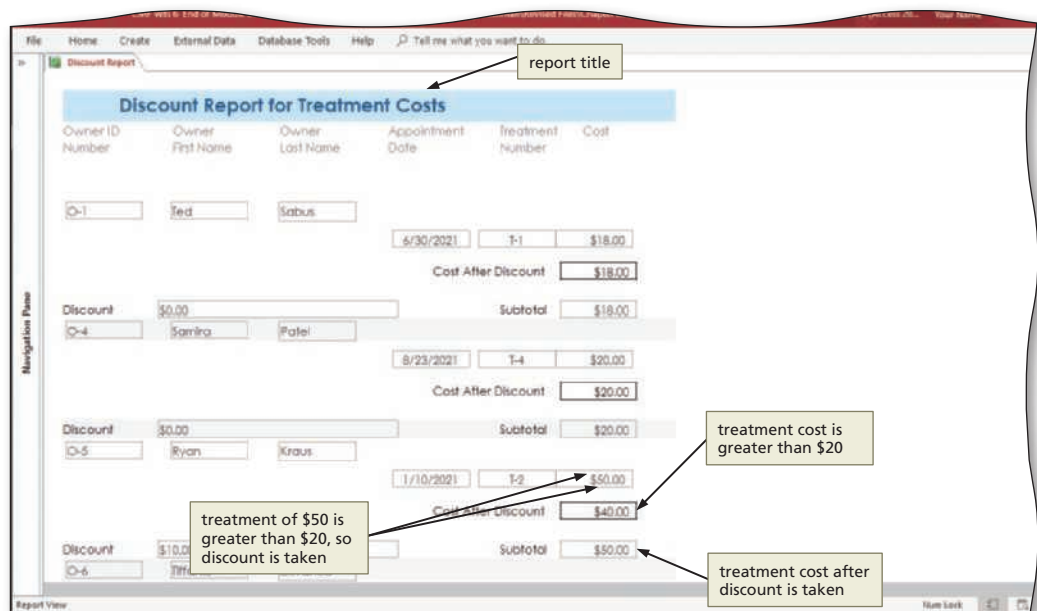


Figure 6–1b

To attract new clients and reward current clients, some companies offer discounts. CMF Vets managers are considering offering a discount on the treatment costs over \$20 to their current clients. The exact amount of the discount depends on how much the treatment costs. If treatment cost is more than \$20, the discount will be 20 percent of the treatment cost amount. If the treatment cost is \$20 or less, then no discount will be given. To assist in determining the discount, CMF Vets managers need a report like the one shown in Figure 6–1b. The report groups clients by appointments. It includes a subtotal of the treatment costs for the appointment. In addition, the report includes a discounted cost for the treatment, if the treatment cost is more than \$20. Finally, it shows the cost of the treatment less the discount amount.

Additional Tables

CMF Vets veterinarians are frequently asked to present workshops on various aspects of canine and feline health tips, canine training classes, and latest canine and feline health news. CMF Vets would like to incorporate the workshop data into the CMF Vets database.

Before creating the reports, you need to create two additional tables for the CMF Vets database. The first table, Workshop, is shown in Table 6–1a. As described in Table 6–1a, each workshop has a code and a description. The table also includes the total hours for which the workshop is usually offered and its increments; that is, the standard time blocks in which the workshop is usually offered. Table 6–1b contains the specific workshops that the veterinarians at CMF Vets offer to their clients. The first row, for example, indicates that workshop W01 is called Dealing with Healthy Canine Living. It is typically offered in two-hour increments for a total of four hours.

Table 6–1a Structure of Workshop Table

Field Name	Data Type	Field Size	Description
Workshop Code	Short Text	3	Primary Key
Workshop Description	Short Text	50	
Hours	Number	Integer	
Increments	Number	Integer	

Table 6–1b Workshop Table

Workshop Code	Workshop Description	Hours	Increments
W01	Healthy Canine Living	4	2
W02	Healthy Feline Living	4	2
W03	Basic Canine Training	3	1
W04	Intermediate Canine Training	3	1
W05	Advanced Canine Training	3	1

BTW

The Ribbon and Screen Resolution

Access may change how the groups and buttons within the groups appear on the ribbon, depending on the computer's screen resolution. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

BTW

Touch Screen Differences

The Office and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

BTW

Touch and Pointers

Remember that if you are using your finger on a touch screen, you will not see the pointer.

BTW

Enabling the Content

For each of the databases you use in this module, you will need to enable the content.

The second table, Workshop Offerings, is described in Table 6–2a and contains an owner ID, a workshop code, the total number of hours that the workshop is scheduled for the owner, and the number of hours already spent by the owner in the workshop. The primary key of the Workshop Offerings table is a combination of the Owner ID and Workshop Code fields.

BTW

AutoNumber Field as Primary Key

When you create a table in Datasheet view, Access automatically creates an ID field with the AutoNumber data type as the primary key field. As you add records to the table, Access increments the ID field so that each record will have a unique value in the field. AutoNumber fields are useful when there is no data field in a table that is a suitable primary key.

Field Name	Data Type	Field Size	Description
Owner ID	Short Text	5	Part of Primary Key
Workshop Code	Short Text	3	Part of Primary Key
Total Hours	Number	Integer	
Hours Spent	Number	Integer	

Table 6–2b gives the data for the Workshop Offerings table. For example, the first record shows that Owner ID O-1 currently has scheduled workshop W03 (Basic Canine Training). The workshop is scheduled for four hours, and the owner has so far spent two hours in class.

Owner ID	Workshop Code	Total Hours	Hours Spent
O-1	W03	4	2
O-2	W01	4	1
O-5	W03	4	2
O-1	W02	4	1
O-6	W04	4	0
O-8	W03	4	0
O-3	W02	4	1

BTW

Copying the Structure of a Table

If you want to create a table that has a structure similar to an existing table, you can copy the structure of the table only. Select the table in the Navigation Pane and click Copy, then click Paste. In the Paste Table As dialog box, type the new table name and click the Structure Only option button. Then, click the OK button. To modify the new table, open it in Design view.

If you examine the data in Table 6–2b, you see that the Owner ID field cannot be the primary key for the Workshop Offerings table. The first and fourth records, for example, both have an Owner ID of O-1. The Workshop Code field also cannot be the primary key. The fourth and seventh records have the same workshop code.

To Create the New Tables

You will use Design view to create the new tables. The steps to create the new tables are similar to the steps you used previously to add fields to an existing table and to define primary keys. The only difference is the way you specify a primary key. *Why? In the Workshop Offerings table, the primary key consists of more than one field, which requires a slightly different process.* To specify a primary key containing more than one field, you must select both fields that make up the primary key by clicking the row selector for the first field, and then hold down the SHIFT key while clicking the row selector for the second field. Once the fields are selected, you can use the Primary Key button to indicate that the primary key consists of both fields. The following steps create the tables in Design view.

- 1**

 - Start **san** and access and open the CMF Vets database from your hard disk, OneDrive, or other storage location.
 - If necessary, close the Navigation Pane.
 - Display the Create tab (Figure 6–2).

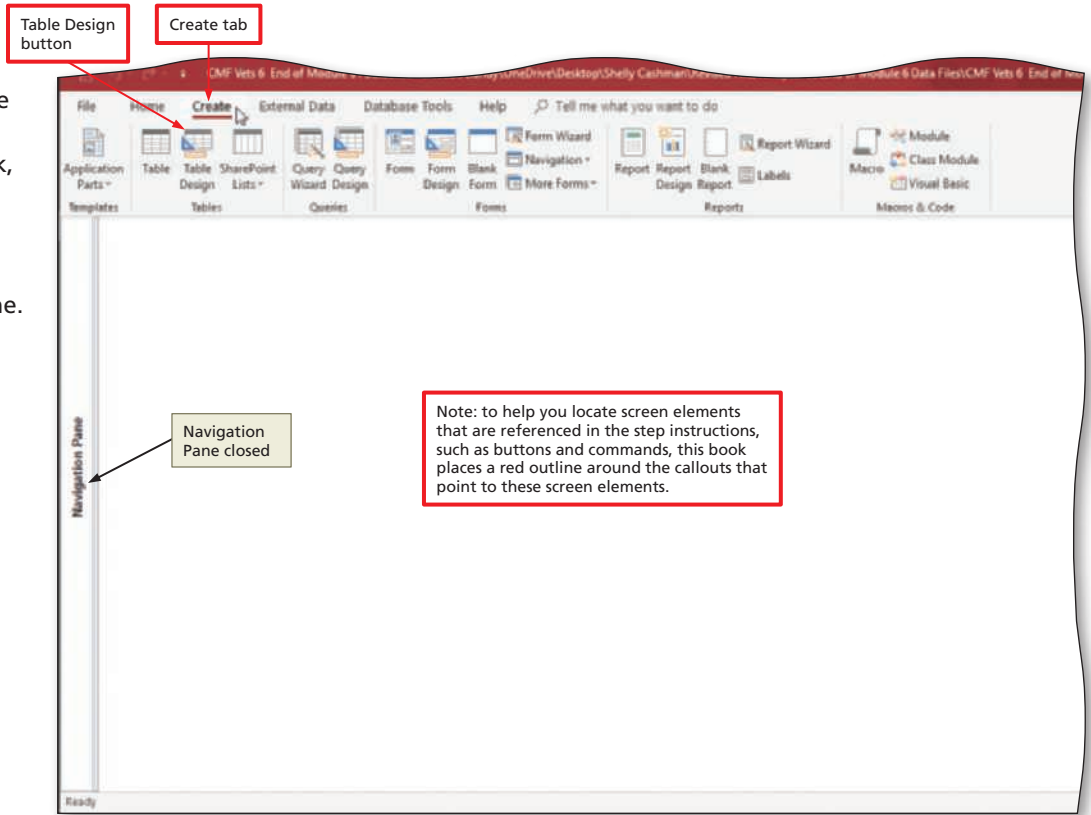


Figure 6–2

- 2**

 - Click the Table Design button (Create tab | Tables group) to create a table in Design view.
 - Enter the information for the fields in the Workshop table as indicated in Table 6–1a, making Workshop Code the primary key, and specifying the indicated field sizes.
 - Save the table using the name **Workshop** and close the table.

- Display the Create tab and then click the Table Design button (Create tab | Tables group) to create a second table in Design view.
- Enter the information for the fields in the Workshop Offerings table as indicated in Table 6–2a.
- Click the row selector for the Owner ID field.
- Hold down **SHIFT** and then click the row selector for the Workshop Code field so that both fields are selected.
- Click the Primary Key button (Table Tools Design tab | Tools group) to select the combination of the two fields as the primary key (Figure 6–3).

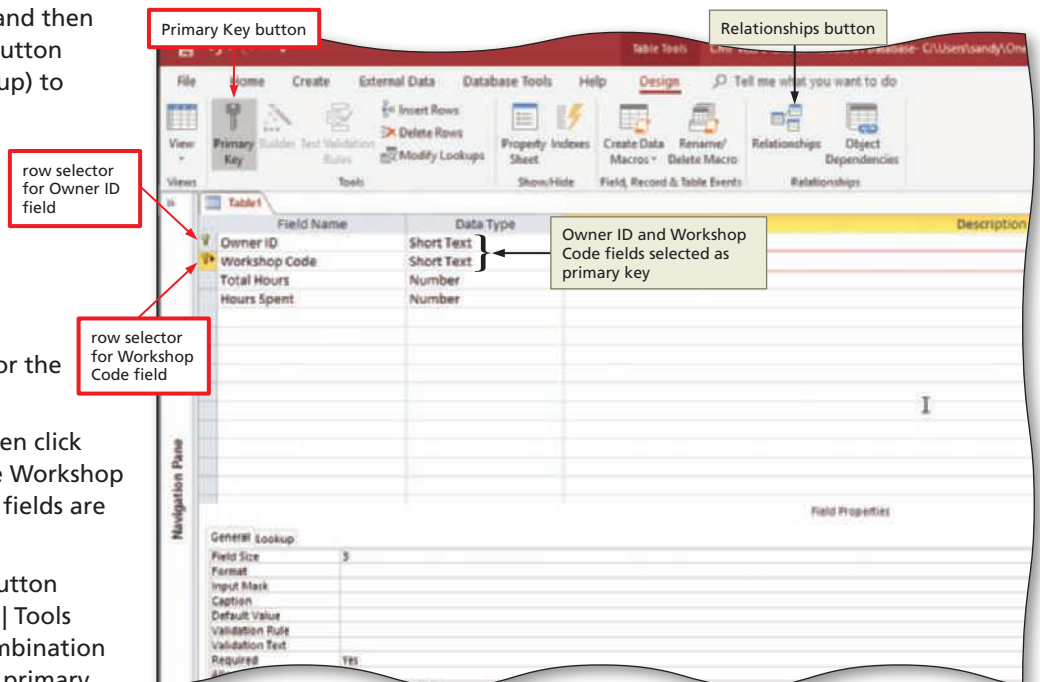


Figure 6–3

3

- Save the table using the name Workshop Offerings and close the table.

Q&A I realized I designated the wrong fields as the primary key. How can I correct the primary key?
Click any field that currently participates in the primary key, and click the Primary Key button to remove the primary key. You can then specify the correct primary key.

BTW

Many-to-Many Relationships

There is a many-to-many relationship between the Owners table and the Workshop table. To implement a many-to-many relationship in a relational database management system such as Access, you create a third table, often called a junction or intersection table, that has as its primary key the combination of the primary keys of each of the tables involved in the many-to-many relationship. The primary key of the Workshop Offerings table is the combination of the Owner ID and the Workshop Code fields.

To Import the Data

Now that the tables have been created, you need to add data to them. You could enter the data manually, or if the data is already in electronic form, you could import the data. The data for the Workshop and Workshop Offerings tables is included in the Data Files. The files are text files formatted as delimited files. The Workshop data is in a tab-delimited text (.txt) file, and the Workshop Offerings data is in a comma-separated values (.csv) file, which is also a delimited text file. The following steps import the data.

- 1 With the CMF Vets database open, click the External Data tab, click the New Data Source button arrow (External Data tab | Import & Link group), point to From File, and then click Text File to display the Get External Data – Text File dialog box.
- 2 Click the Browse button (Get External Data - Text File dialog box) and then navigate to the location containing the text file as specified by your instructor.
- 3 Click the Workshop file, click Open, and then click OK.
- 4 If necessary, click the 'Append a copy of the records to the table' option button, select the Workshop table from the list, and then click OK. With the Delimited option button selected, click Next.
- 5 With the Tab option button selected, click the 'First Row Contains Field Names' check box, click Next, and then click Finish.
- 6 Click the Close button to close the Get External Data - Text Box dialog box without saving the import steps.
- 7 Use the technique shown in Steps 1 through 6 to import the Workshop Offerings.csv file into the Workshop Offerings table. Be sure the Comma option button is selected and there is a check mark in the 'First Row Contains Field Names' check box.

Q&A I got an error message after I clicked the Finish button that indicated there were errors. The data was not imported. What should I do?
First, click the Cancel button to terminate the process. Then, review the structure of the table in Design view to ensure that the field names are all spelled correctly and that the data types are correct. Correct any errors you find, save your work, and then redo the steps to import the data.

Linking versus Importing

When an external table or worksheet is imported into an Access database, a copy of the data is placed in a table in the database. The original data still exists, just as it did before, but no further connection exists between it and the data in the database. Changes to the original data do not affect the data in the database. Likewise, changes in the database do not affect the original data.

It is also possible to link data stored in a variety of formats to Access databases. To do so, you would select the ‘Link to the data source by creating a linked table’ option button when importing data, rather than the ‘Import the source data into a new table in the current database’ or ‘Append a copy of the records to the table’ option buttons. With linking, the connection is maintained; changes made to the data in the external table or worksheet affect the Access table.

To identify that a table is linked to other data, Access displays an arrow in front of the table in the Navigation Pane. In addition, an icon is displayed in front of the name that indicates the type of file to which the data is linked. For example, an Excel icon in front of the name indicates that the table is linked to an Excel worksheet.

To MODIFY LINKED TABLES

After you link tables between a worksheet and a database or between two databases, you can modify many of the linked table’s features. To rename the linked table, set view properties, and set links between tables in queries, you would use the following steps.

1. Click the ‘Linked Table Manager’ button (External Data tab | Import & Link group) to update the links.
2. Select the linked table for which you want to update the links.
3. Click the OK button.

BTW Linking

Two of the primary reasons to link data from another program to Access are to use the query and report features of Access. When you link an Access database to data in another program, all changes to the data must be made in the source program. For example, if you link an Excel workbook to an Access database, you cannot edit the linked table in Access. You must make all changes to the data in Excel.

To Relate the New Tables

The following steps relate, or create a relationship between, the tables. *Why? The new tables need to be related to the existing tables in the CMF Vets database. The Owners and Workshop Offerings tables are related through the Owner ID field that exists in both tables. The Workshop and Workshop Offerings tables are related through the Workshop Code fields in both tables.*

1. If necessary, close any open datasheet on the screen by clicking its Close button, and then display the Database Tools tab.
 - Click the Relationships button (Database Tools tab | Relationships group), shown in Figure 6–3, to open the Relationships window (Figure 6–4).

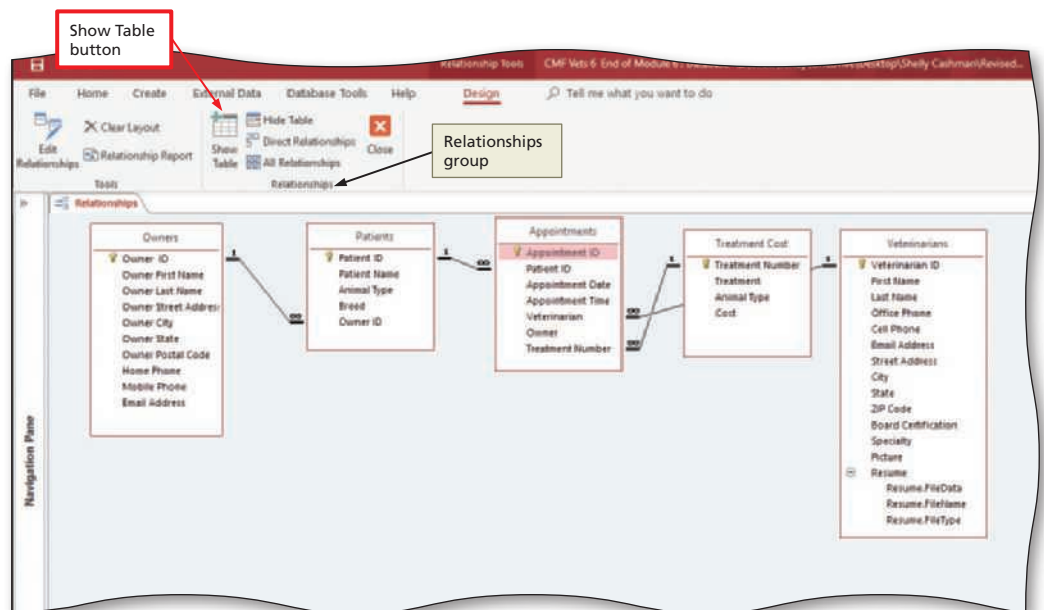


Figure 6–4

Q&A I only see one table; did I do something wrong?

Click the All

Relationships button to display all the tables in relationships.

2

- Click the Show Table button (Relationship Tools Design tab | Relationships group) to display the Show Table dialog box (Figure 6–5).

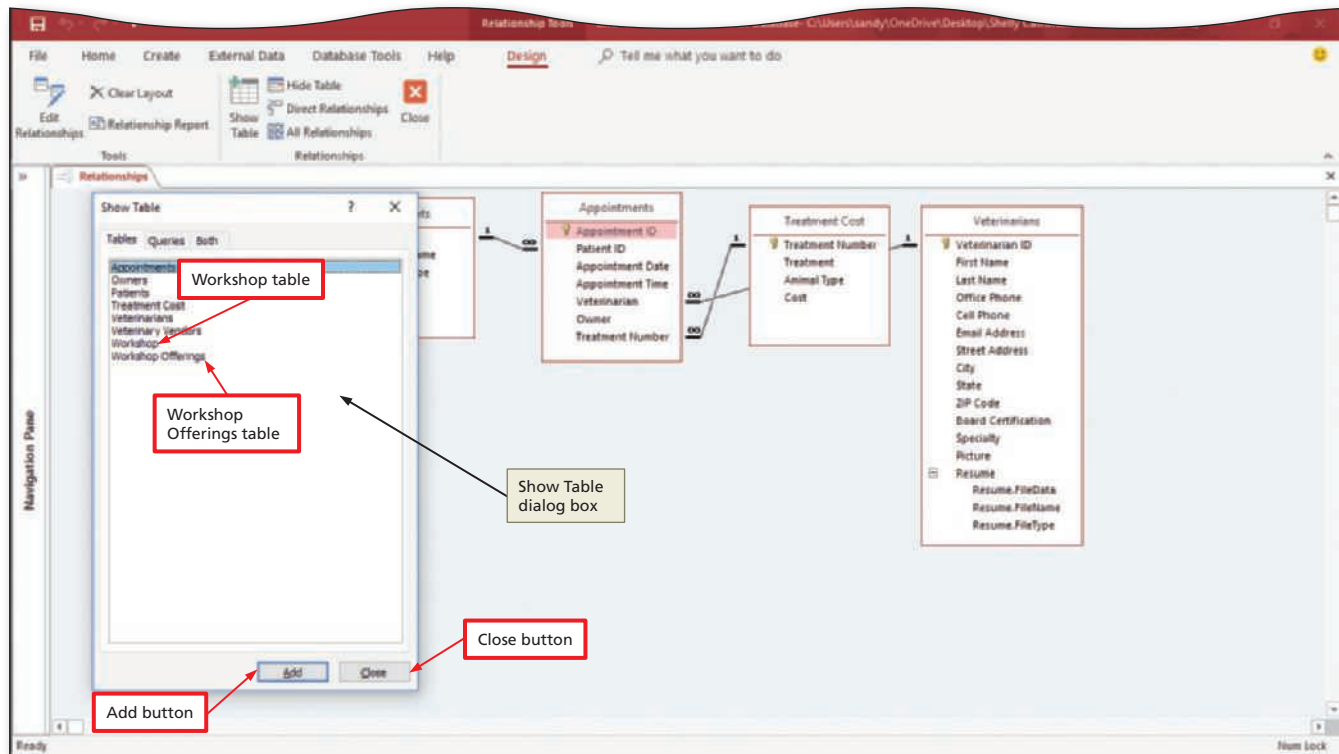


Figure 6–5

3

- Click the Workshop Offerings table, click the Add button (Show Table dialog box), click the Workshop table, and then click the Add button again to add the tables to the Relationships window.
- Click Close to close the Show Table dialog box.

Q&A

I cannot see all of the tables; some are obscured.

Drag the tables to another location in the Relationship window for easier viewing.

I cannot see the Workshop Offerings table. Should I repeat the step?

If you cannot see the table, it is behind the dialog box. You do not need to repeat the step.

- Drag the Owner ID field in the Owners table to the Owner ID field in the Workshop Offerings table to display the Edit Relationships dialog box. Click the 'Enforce Referential Integrity' check box (Edit Relationships dialog box) and then click the Create button to create the relationship.
- Drag the Workshop Code field from the Workshop table to the Workshop Code field in the Workshop Offerings table. Click the 'Enforce Referential Integrity' check box (Edit Relationships dialog box) and then click the Create button to create the relationship (Figure 6–6).

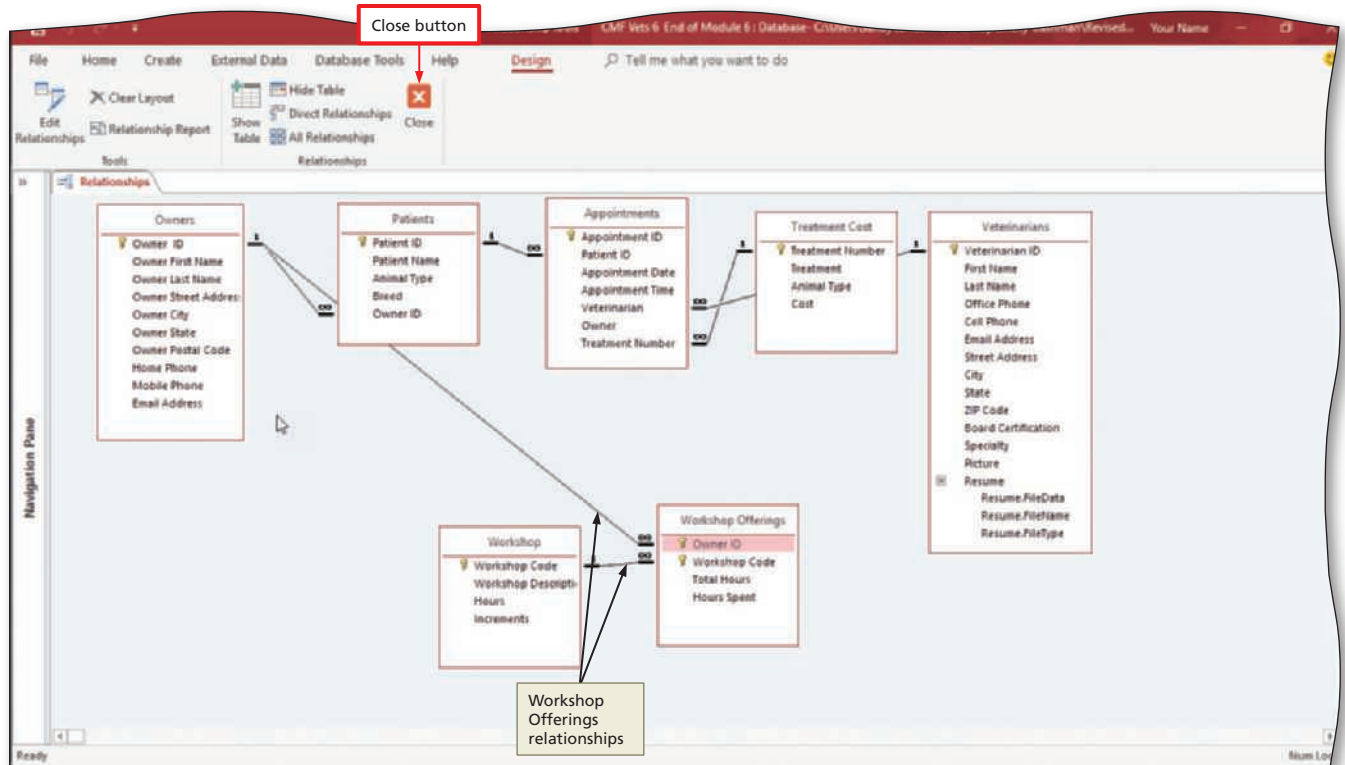


Figure 6-6

4

- Save the changes and then click the Close button (Relationship Tools Design tab | Relationships group).

Creating Reports in Design View

Previously, you have used both Layout view and the Report Wizard to create reports. However, you can simply create the report in Design view. You can also use Design view to modify a report you previously created. If you create a report in Design view, you must place all the fields in the desired locations. You must also specify any sorting or grouping that is required.

Whether you use the wizard or simply use Design view to create a report, you must determine on which table or query to base the report. If you decide to base the report on a query, you must first create the query, unless it already exists.

To Create a Query for the Report

CMF Vets management requirements for the reports specify that it would be convenient to use two queries. These queries do not yet exist, so you will need to create them. The first query relates owners and their account information. The owner account information consists of appointments, treatments scheduled, and expected treatment costs for the owner's pets. The second query relates workshops and workshop offerings. The following steps create the Owners and Account Information query.

BTW

Invalid Relationships

If Access will not allow you to create a relationship and enforce referential integrity, it could be because the two matching fields do not have the same data type. Open the tables in Design view and check the data types and field sizes. You should also check to be sure you do not have a foreign key value in the many table that does not match the primary key value in the one table. Create a Find Unmatched Query using the Query Wizard to find the unmatched records in the many table.

- 1 If necessary, close the Navigation Pane, display the Create tab, and then click the Query Design button (Create tab | Queries group) to create a new query.
- 2 Click the Owners table, click the Add button (Show Table dialog box), click the Appointments table, click the Add button, click the Treatment Cost table, click the Add button, close the Show Table dialog box by clicking its Close button, and then resize the field lists to display as many fields as possible.
- 3 Create a relationship between the Owners table and the Appointments table by selecting the Owner ID field in the Owners table and dragging it to the Owner field in the Appointments table.
- 4 Double-click the Owner ID, Owner First Name, and Owner Last Name fields from the Owners table to display them in the design grid.
- 5 Double-click the Appointment Date and Treatment Number fields from the Appointments table to add the fields to the design grid.
- 6 Select Sort in Ascending Order on the Appointment Date field.
- 7 Double-click the Cost field from the Treatment Cost table to add the field to the design grid.
- 8 Double-click the Veterinarian field from the Appointments table to add the field to the design grid.
- 9 Run the query to view the results and scroll through the fields to make sure you have included all the necessary fields. If you have omitted a field, return to Design view and add it (Figure 6–7).

Q_ID	Owner First Name	Owner Last Name	Appointment Date	Treatment Number	Cost	Veterinarian
D-5	Ryan	Kraus	1/10/2011 T-2		\$50.00	B01
D-1	Ted	Sabos	6/30/2011 T-1		\$18.00	B01
D-6	Tiffanie	DiFrancis	6/30/2011 T-3		\$20.00	B01
D-4	Samina	Patel	8/23/2011 T-4		\$20.00	G01
D-8	Ian	Kaufman	10/25/2011 T-4		\$20.00	B01

Figure 6–7

- 10 Click the Save button on the Quick Access Toolbar to save the query, type **Owners and Account Information** as the name of the query, and then click OK.
- 11 Close the query.

To Create an Additional Query for the Report Using Expression Builder

The following steps create the Workshop Offerings and Workshops query, which includes a calculated field for hours remaining, that is, the total number of hours minus the hours spent. *Why?* *CMF Vets managers need to include in the Owners and Account Information Master List the number of hours that remain in a workshop offering.*

1

- Display the Create tab and then click the Query Design button (Create tab | Queries group) to create a new query.
- Click the Workshop table, click the Add button (Show Table dialog box), click the Workshop Offerings table, click the Add button, and then click Close to close the Show Table dialog box.
- Double-click the Owner ID and Workshop Code fields from the Workshop Offerings table to add the fields to the design grid.
- Double-click the Workshop Description field from the Workshop table.
- Double-click the Total Hours and Hours Spent fields from the Workshop Offerings table to add the fields to the design grid.
- Click in the top cell in the Field row of the first open column in the design grid to select it.
- Click the Builder button (Query Tools Design tab | Query Setup group) to display the Expression Builder dialog box (Figure 6–8).

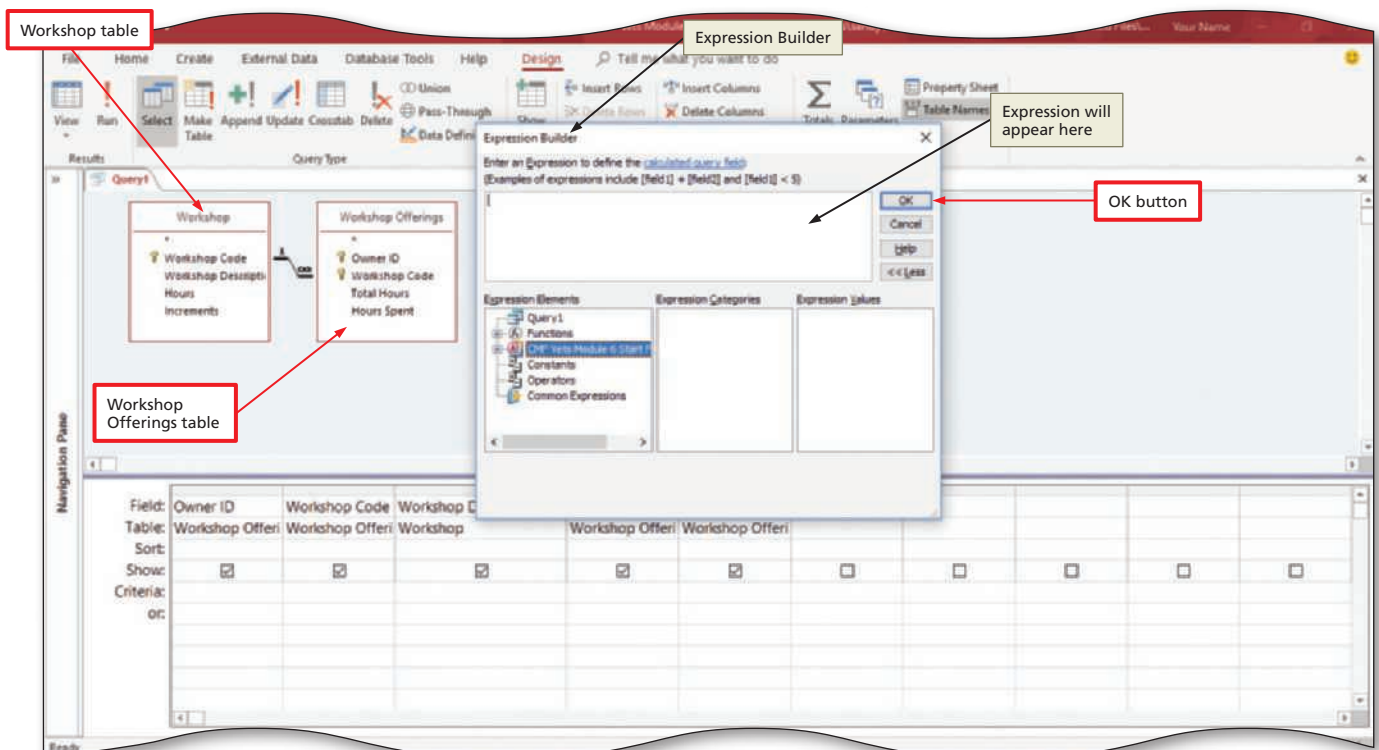


Figure 6–8

2

- Double-click CMF Vets in the Expression Elements section to display the categories of objects within the CMF Vets database, and then double-click Tables to display a list of tables.
- Click the Workshop Offerings table to select it.
- Double-click the Total Hours field to add it to the expression.
- Type a minus sign (–) to add it to the expression.
- Double-click the Hours Spent field to add it to the expression (Figure 6–9).

Q&A

Why are the fields preceded by a table name and an exclamation point?

This notation qualifies the field; that is, it indicates to which table the field belongs.

Could I type the expression instead of using the Expression Builder?

Yes. You could type it directly into the design grid. You could also right-click the column and click Zoom to allow you to type the expression in the Zoom dialog box. Finally, you could use the Expression Builder, but simply type the expression rather than clicking any buttons. Use whichever method you find most convenient.

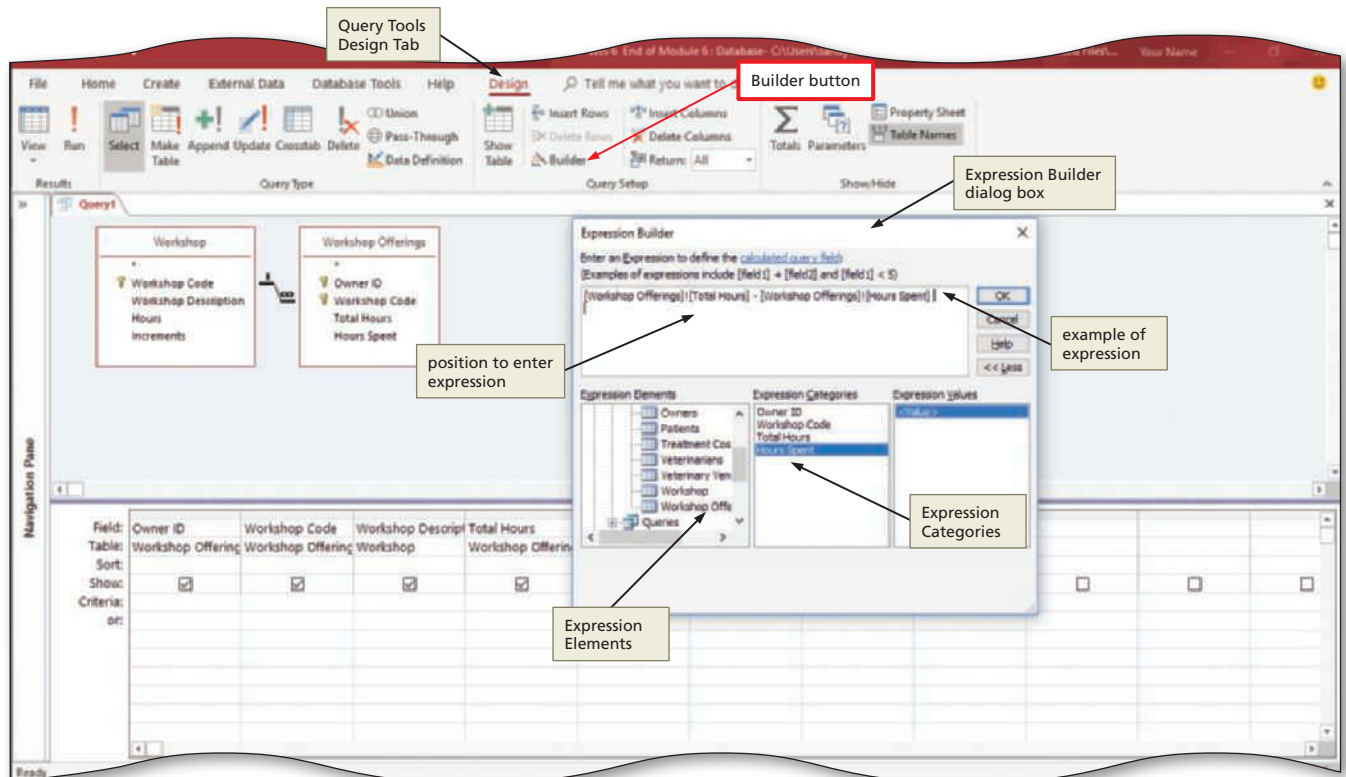


Figure 6-9

- 3
 - Click OK (Expression Builder dialog box) to close the dialog box and add the expression you entered to the design grid.
 - If necessary, select the field in the grid containing the expression, and then click the Property Sheet button (Query Tools Design tab | Show/Hide group) to display the property sheet for the new field.
 - Ensure that the General tab is selected, click the Caption property box and type **Hours Remaining** as the caption (Figure 6-10).

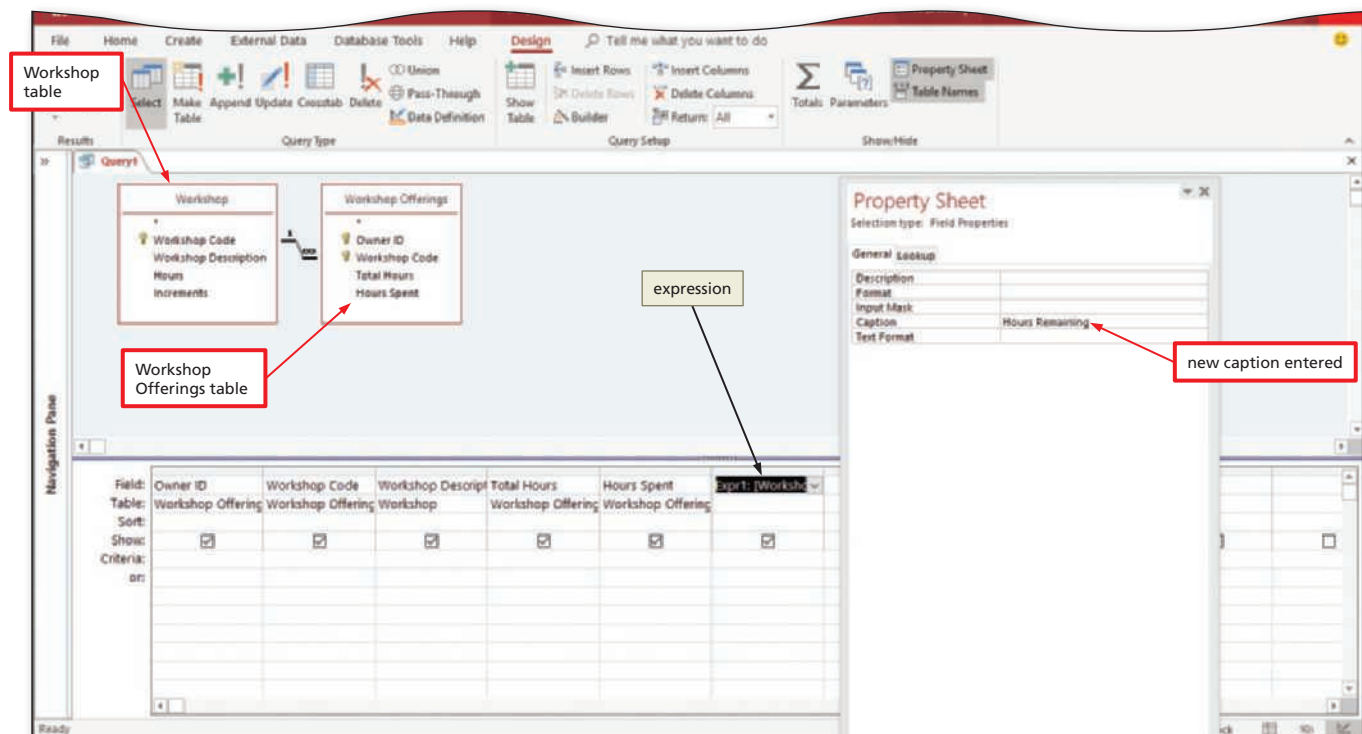


Figure 6-10

Q&A I do not have a Caption property in my property sheet. What went wrong? What should I do?
 You either inadvertently clicked a different location in the grid, or you have not yet completed entering the expression. The easiest way to ensure you have done both is to click any other column in the grid and then click the column with the expression.

- 4**
- Close the property sheet and then view the query (Figure 6–11). (Your results might be in a different order.)

Owner ID	Workshop Code	Workshop Description	Total Hours	Hours Spent	Hours Remaining
D-1	W01	Healthy Canine Living	4	1	3
D-1	W02	Healthy Feline Living	4	1	3
D-3	W02	Healthy Feline Living	4	1	3
D-1	W03	Basic Canine Training	4	2	2
D-3	W03	Basic Canine Training	4	2	2
D-6	W03	Basic Canine Training	4	0	4
D-6	W04	Intermediate Canine Training	4	0	4

Figure 6–11

- 5**
- Increase the width of the fields in the Design Grid to view the entire field name, and then verify that your query results match those in the figure. If not, return to Design view and make the necessary corrections.
 - Click the Save button on the Quick Access Toolbar, type **Workshop Offerings and Workshops** as the name of the query, and then click the OK button to save the query.
 - Close the query.

Other Ways

1. Right-click field in grid, click Build

How do you determine the tables and fields for the report?

If you determine that data should be presented as a report, you need to then determine what tables and fields contain the data for the report.

Examine the requirements for the report in general to determine the tables. Do the requirements only relate to data in a single table, or does the data come from multiple tables? Is the data in a query, or could you create a query that contains some or all of the fields necessary for the report?

Examine the specific requirements for the report to determine the fields necessary. Look for all the data items that are specified for the report. Each item should correspond to a field in a table, or it should be able to be computed from a field or fields in a table. This information gives you the list of fields to include in the query.



CONSIDER THIS

Determine the order of the fields. Examine the requirements to determine the order in which the fields should appear. Be logical and consistent in your ordering. For example, in an address, the city should come before the state, and the state should come before the postal code, unless there is some compelling reason for another order.

What decisions do you make in determining the organization of the report?

Determine sort order. Is there a special order in which the records should appear?

Determine grouping. Should the records be grouped in some fashion? If so, what information should appear before the records in a group? If, for example, owners are grouped by veterinarian ID number, the ID number of the veterinarian should probably appear before the group. Should the veterinarian's name also appear? What should appear after the group? For example, are there some fields for which subtotals should be calculated? If so, the subtotals would come after the group.

Determine whether to include a subreport. Rather than use grouping, you can include a subreport, as shown in the Owners and Account Information Master List shown in Figure 6–1a. The data concerning workshop offerings for the owners could have been presented by grouping the workshop offerings' data by Owner ID. The headings currently in the subreport would have appeared in the group header. Instead, it is presented in a subreport. Subreports, which are reports in their own right, offer more flexibility in formatting than group headers and footers. More importantly, in the Owners and Account Information Master List, some owners do not have any workshop offerings. If this information were presented using grouping, the group header will still appear for these owners. With a subreport, owners that have no workshop offerings do not appear.

To Create an Initial Report in Design View

Creating the report shown in Figure 6–1a from scratch involves creating the initial report in Design view, adding the subreport, modifying the subreport separately from the main report, and then making the final modifications to the main report. When you want to create a report from scratch, you use Design view rather than the Report Wizard. *Why? The Report Wizard is suitable for simple, customized reports. Using the Report Design screen, you can make advanced design changes, such as adding subreports.* The following steps create the initial version of the Owners and Account Information Master List and select the **record source** for the report; that is, the table or query that will furnish the data for the report. The steps then specify sorting and grouping for the report.

1

- Display the Create tab.
- Click the Report Design button (Create tab | Reports group) to create a report in Design view.
- Ensure the selector for the entire report, the box in the upper-left corner of the report, contains a small black square, which indicates that the report is selected.
- Click the Property Sheet button (Report Design Tools Design tab | Tools group) to display a property sheet.

Q&A Can I make the property sheet box wider so I can see more of the items in the Record Source list?
Yes, you can make the property sheet wider by dragging its left or right border.

- Drag the left border, if necessary, to increase the width of the property sheet.
- With the All tab (Property Sheet) selected, click the Record Source property box arrow to display the list of available tables and queries (Figure 6–12).

Q&A Can I move the property sheet?
Yes, you can move the property sheet by dragging its title bar.

Can I increase the size of the Record Sources list?
You cannot change the width of the Record Source list, because it is determined by the dialog box, but you can scroll down in the list to view additional record sources.

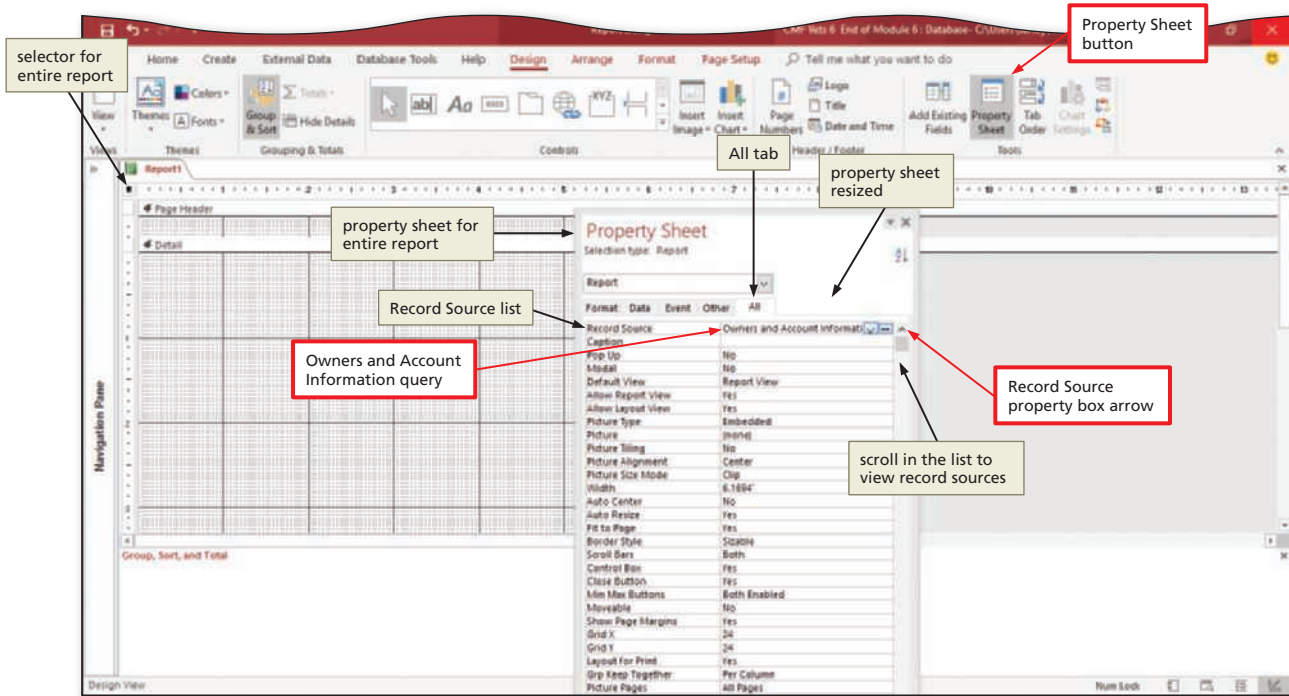


Figure 6-12

2

- Click the Owners and Account Information query to select the query as the record source for the report.
- Close the property sheet by clicking the Property Sheet button (Report Design Tools Design tab | Tools group).

To Group and Sort

In Design view of the report, you can specify both grouping and sorting by using the Group & Sort button on the Design tab, just as you did in Layout view. The following steps specify both grouping and sorting in the report. *Why?* CMF Vets managers have determined that the records in the report should be grouped by Owner ID. That is, all the information of a given owner should appear together. Within the account information of a given owner, they have determined that appointments are to be ordered by appointment date.

1

- Click the Group & Sort button (Report Design Tools Design tab | Grouping & Totals group) to display the Group, Sort, and Total pane (Figure 6-13).

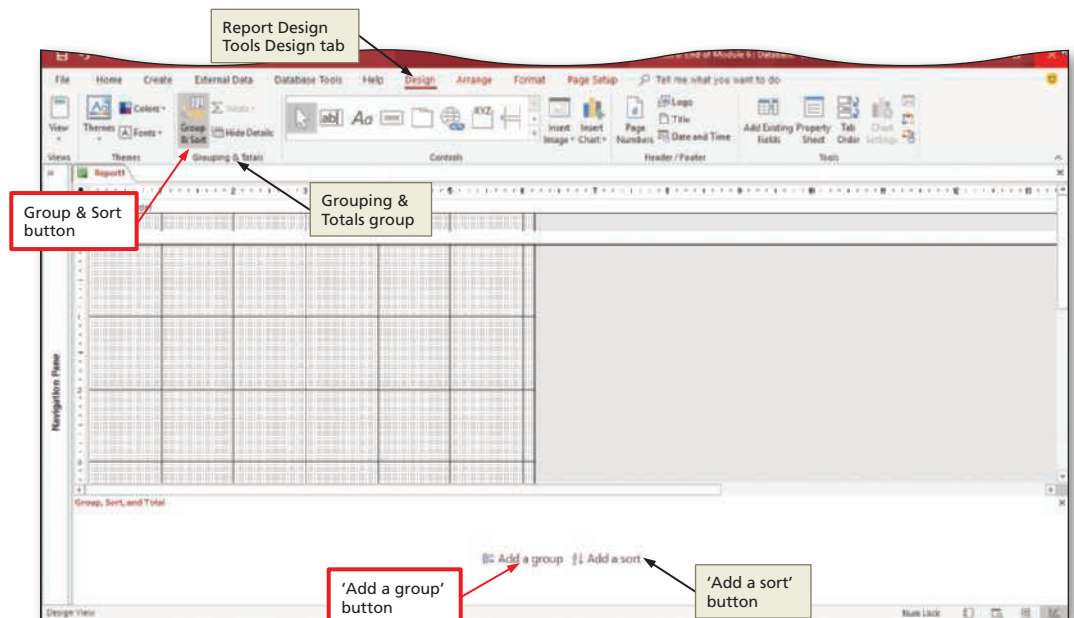


Figure 6-13

2

- Click the 'Add a group' button to display the list of available fields for grouping (Figure 6-14).

Q&A The list of fields disappeared before I had a chance to select a field. What should I do?
Click the select field arrow to once again display the list of fields.

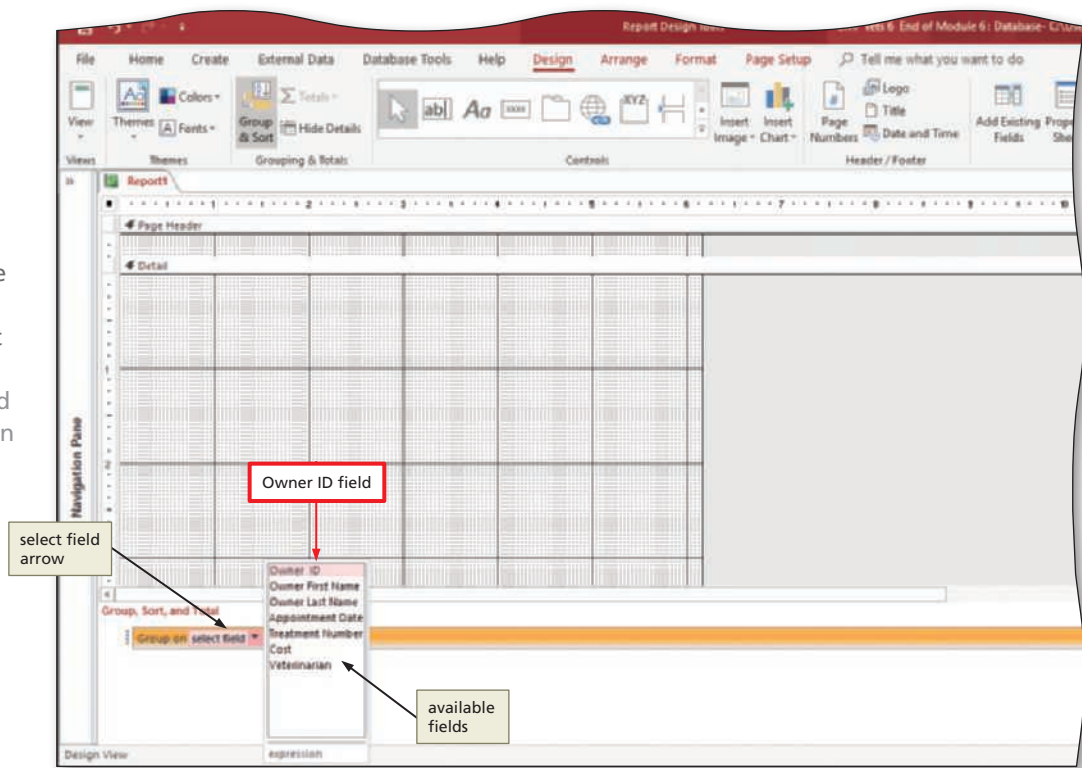


Figure 6-14

3

- Click the Owner ID field to group by owner ID number (Figure 6-15).

Owner ID Header added

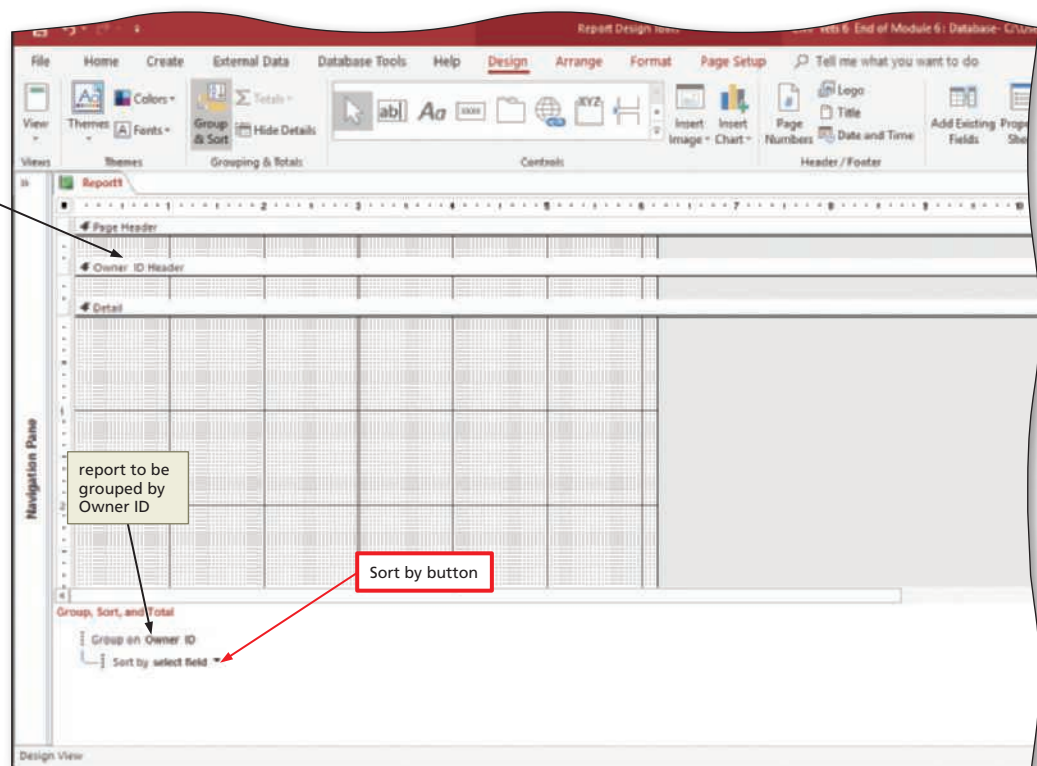


Figure 6-15

4

- Click the Sort by button to display the list of available fields for sorting (Figure 6-16).

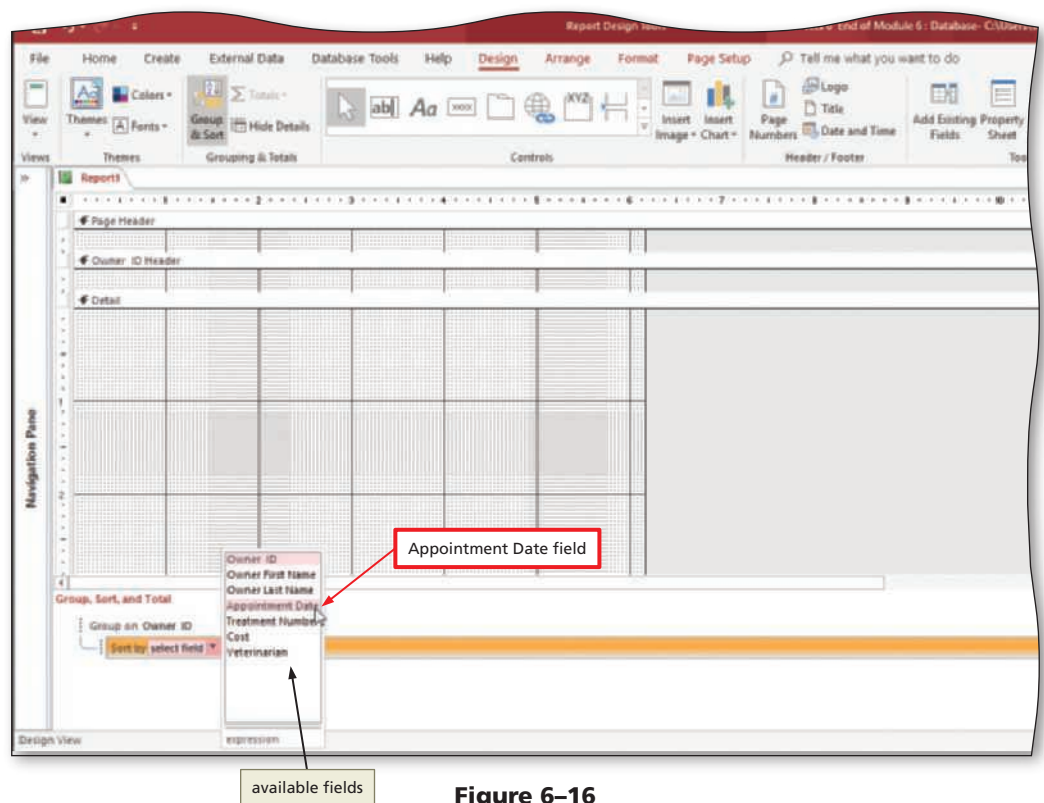


Figure 6-16

5

- Click the Appointment Date field to sort appointments by date of the appointment (Figure 6-17).
- Save the report, using Owners and Account Information Master List as the report name.

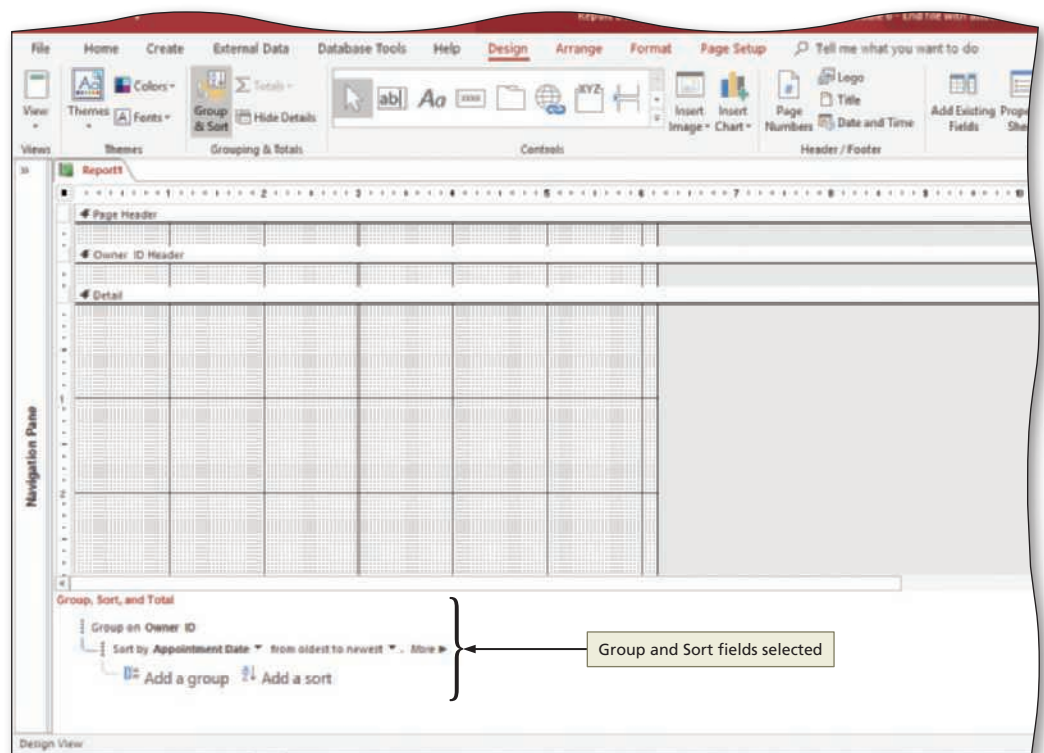


Figure 6-17

Other Ways

- Right-click any open area of report, click Sorting & Grouping

BTW

Default Names for Controls

Because each control has properties associated with it, Access assigns a default name to each new control. The default name includes a control identifier and a number. For example, if you create a text box on a report, the default name could be Text32. You should change the default name to something meaningful to make it easier to remember the purpose of the control.

Controls and Sections

Recall earlier that a report contains three types of controls: bound controls, unbound controls, and calculated controls. As you learned previously, reports contain standard sections, including the Report Header, Report Footer, Page Header, Page Footer, and Detail sections. When the data in a report is grouped, there are two additional possible sections. The contents of the **Group Header section** are printed before the records in a particular group, and the contents of the **Group Footer section** are printed after the group. In the Discount Report (Figure 6–1b), for example, which is grouped by Owner ID number, the Group Header section contains the Owner ID number and owner first name and owner last name, and the Group Footer section contains subtotals of the Treatment Costs and the Discount Amount for Treatment Costs fields.

To Add Fields to the Report in Design View

Why? Once you have determined the fields that are necessary for the report, you need to add them to the report design. You can add the fields to the report by dragging them from the field list to the appropriate position on the report. The following steps add the fields to the report.

1

- Remove the 'Group, Sort, and Total' pane by clicking the Group & Sort button, which is shown in Figure 6–13 (Report Design Tools Design tab | Grouping & Totals group).
- Click the 'Add Existing Fields' button (Report Design Tools Design tab | Tools group) to display a field list.
- Drag the Owner ID field to the approximate position shown in Figure 6–18. (The pointer shape appears as an arrow with a plus sign as you drag a field.)

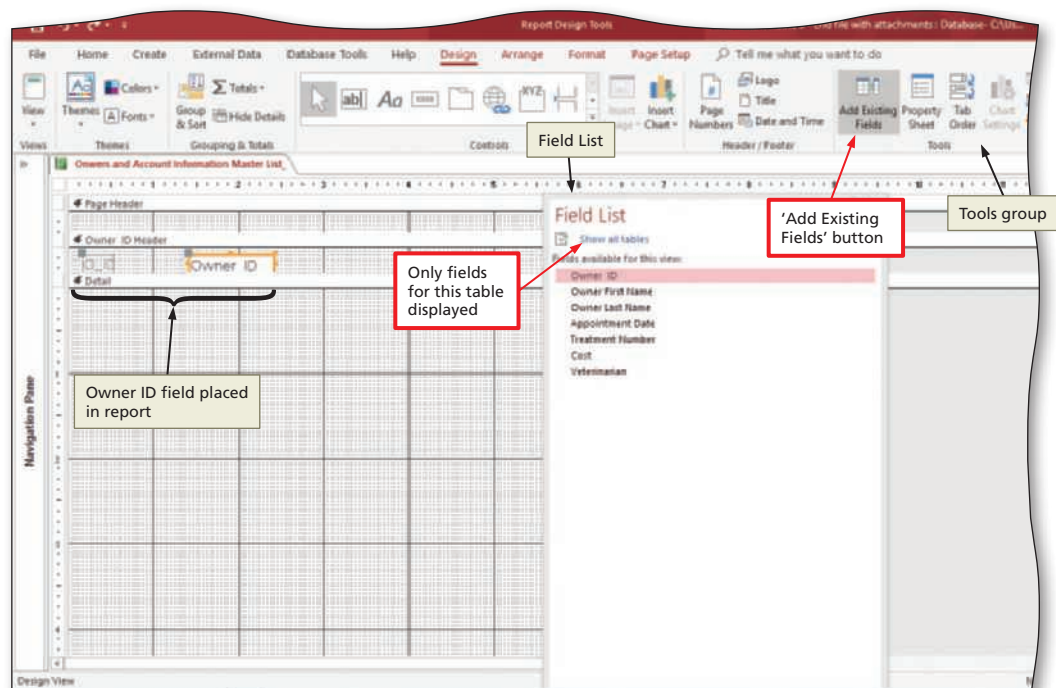


Figure 6–18

Q&A My field list does not look like the one in the figure. It has several tables listed, and at the top it has 'Show only fields in the current record source.' Yours has 'Show all tables.' What should I do?
Click the 'Show only fields in the current record source' link. Your field list should then match the one in the figure.

2

- Release the mouse button to place the field and then align the Owner ID field as shown (Figure 6–19).
- Place the remaining fields in the positions shown in Figure 6–19.

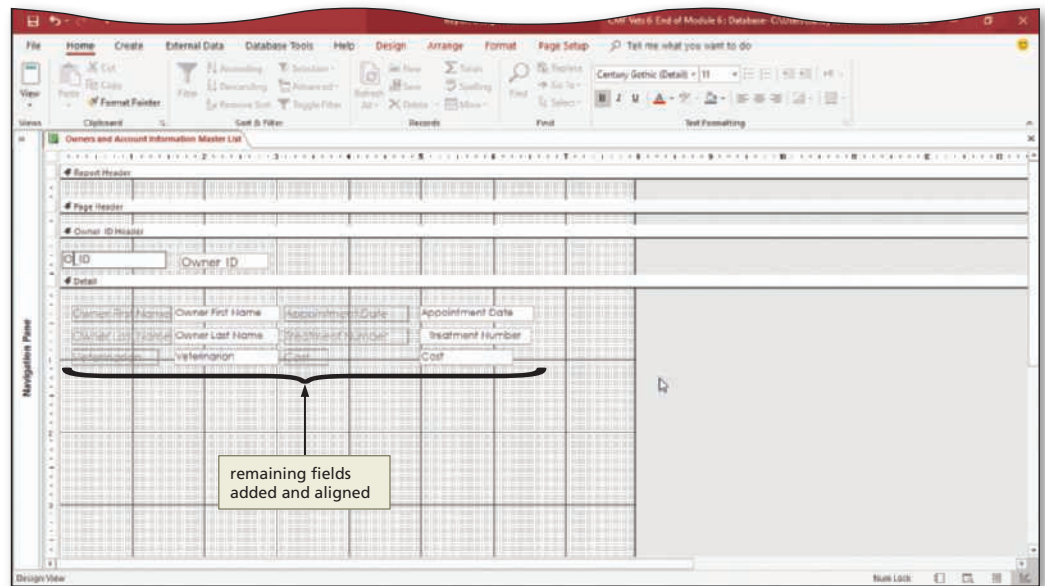


Figure 6–19

3

- Adjust the positions of the labels to those shown in the figure. If any field is not in the correct position, drag it to its correct location. To move the control or the attached label separately, drag the large handle in the upper-left corner of the control or label. You can align controls using the Align button (Report Design Tools Arrange tab | Sizing & Ordering group) or adjust spacing by using the Size/Space button (Report Design Tools Arrange tab | Sizing & Ordering group).

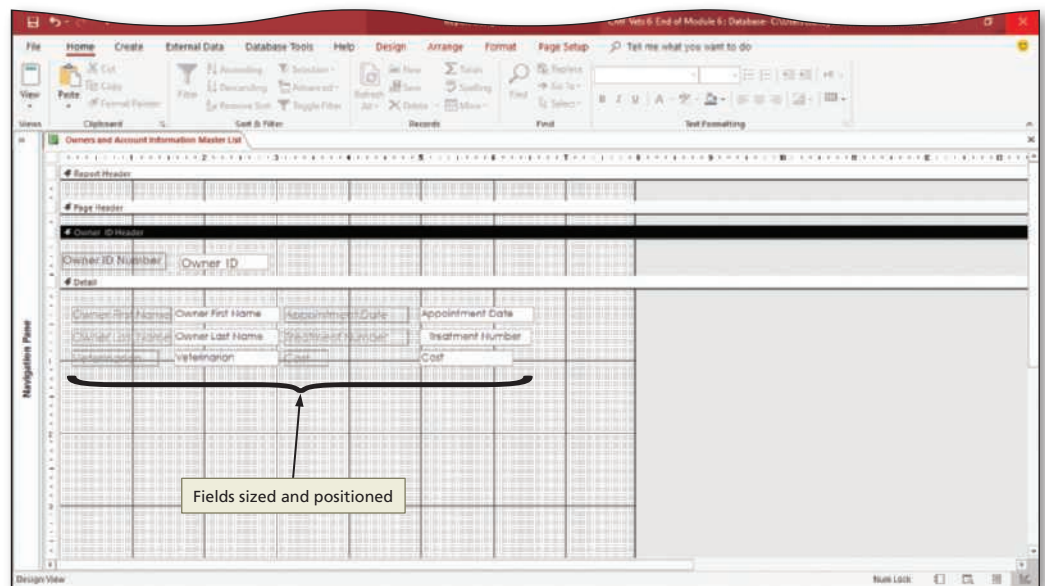


Figure 6–20

Q&A Sometimes I find it hard to move a control a very small amount. Is there a simpler way to do this other than dragging it with a mouse?

Yes. Once you have selected the control, you can use the arrow keys to move the control a very small amount in the desired direction.

Could I drag several fields from the field list at once?

Yes. You can select multiple fields by selecting the first field, holding down the CTRL key and selecting the additional fields. Once you have selected multiple fields, you can drag them all at once. How you choose to select fields and drag them onto the report is a matter of personal preference.

Experiment

- Select more than one control and then experiment with the Size/Space and the Align buttons (Report Design Tools Arrange tab | Sizing & Ordering group) to see their effects. After trying each one, click the Undo button to undo the change. If you used the Arrange tab, redisplay the Design tab.

To Change Labels

The label for the Owner ID field currently contains the caption O_ID for that field. The following step changes the contents of the label for the Owner ID field from O_ID to Owner ID Number. *Why? Because there is plenty of room on the report to display longer names for the field, you can make the report more descriptive by changing the label.*

1

- Click the label for the Owner ID field to select the label.
- Click the label for the O_ID field a second time to produce an insertion point.
- Use BACKSPACE or DELETE to erase the current entry in the label, and then type **Owner ID Number** as the new entry.
- Click outside the label to deselect the label and then click the label a second time to select it.
- Move the control to the position indicated in Figure 6–21 by dragging the move handle in the upper-left corner of the label.

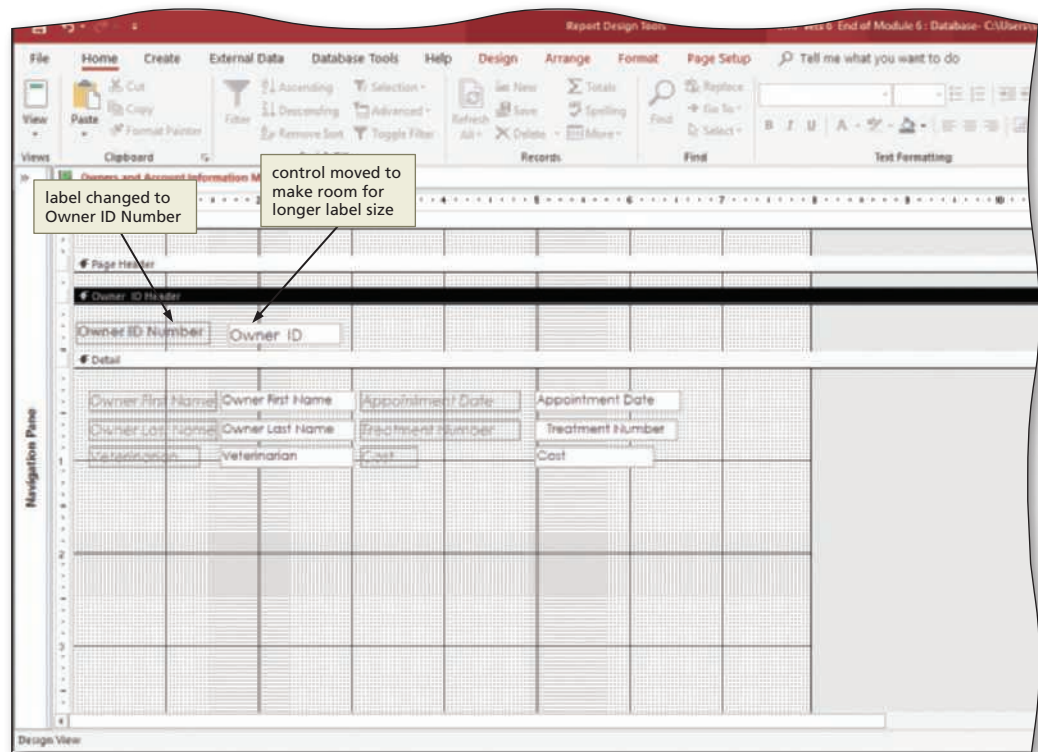


Figure 6–21

Using Other Tools in the Controls Group

Previously, you used the Subform/Subreport tool within the Controls group on the Design tab to place special controls on a form. The Controls group has additional tools available that can be used with forms and reports. A description of the additional tools appears in Table 6–3.

Table 6-3 Additional Tools in the Controls Group

Tool	Description
Select	Select to be able to size, move, or edit existing controls. If you click another tool and want to cancel the effect of the tool before using it, you can click the Select tool.
Text Box	Create a text box for entering, editing, and displaying data. You can also bind the text box to a field in the underlying table or query.
Label	Create a label, a box containing text that cannot be edited and is independent of other controls, such as a title.
Button	Create a command button.
Tab Control	Create a tab control, which contains a series of tabbed pages. Each tabbed page can contain its own controls.
Hyperlink	Inserts a hyperlink to an existing file, Web page, database object, or email address.
Option Group	Create an option group, which is a rectangle containing a collection of option buttons. To select an option, you click the corresponding option button.
Insert or Remove Page Break	Insert or remove a physical page break (typically in a report).
Combo Box	Create a combo box, which is a combination of a text box and a list box.
Chart	Create a chart.
Line	Draw a line on a form or report.
Toggle Button	Add a toggle button. With a toggle button, a user can make a Yes/No selection by clicking the button. The button either appears to be pressed (for Yes) or not pressed (for No).
List Box	Create a list box, a box that allows the user to select from a list of options.
Rectangle	Create a rectangle.
Check Box	Insert a check box. With a check box a user can make multiple Yes/No selections.
Unbound Object Frame	Insert an OLE object (for example, a graph, picture, sound file, or video) that is not contained in a field in a table within the database.
Attachment	Insert an Attachment field.
Option Button	Insert an option button. With an option button, a user can make a single Yes/No selection from among a collection of at least two choices.
Subform/ Subreport	Create a subform (a form contained within another form) or a subreport (a report contained within another report).
Bound Object Frame	Insert an OLE object (for example, a graph, picture, sound file, or video) that is contained in a field in a table within the database.
Image	Insert a frame into which you can insert a graphic. The graphic will be the same for all records.

To Add Text Boxes

You can place a text box in a report or form by using the Text Box tool in the Controls group on the Design tab. The text box consists of a control that is initially unbound and an attached label. The next step is to update the **control source**, which is the source of data for the control. You can do so by entering the expression in the text box or by updating the Control Source property in the property sheet with the expression.

Once you have updated the control source property with the expression, the control becomes a **calculated control**. If the expression is just a single field (for example, =[Cost]), the control would be a **bound control**. *Why? The control is bound (tied) to the corresponding field.* The process of converting an unbound control to a bound control is called **binding**. Expressions can also be arithmetic operations: for example, calculating the sum of Cost and current due. Many times, you need to **concatenate**, or combine, two or more text data items into a single expression; the process is called **concatenation**. To concatenate text data, you use the **ampersand (&)** operator. For example, =[Owner First Name] & ' ' & [Owner Last Name] indicates the concatenation of a first name, a single blank space, and a last name.

The following steps add text boxes and create calculated controls. Remember that controls can be resized by clicking the control to select it and then dragging the edge of the control to the desired size.

1

- Click the Text Box tool (Report Design Tools Design tab | Controls group) and move the pointer to the approximate position shown in Figure 6–22.

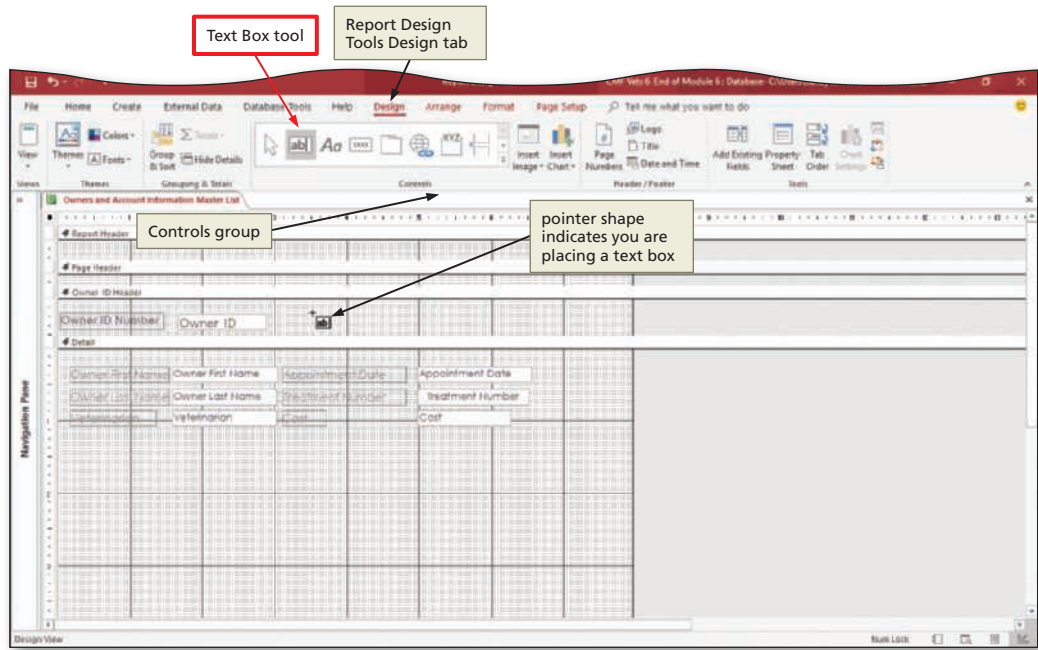


Figure 6–22

2

- Click the position shown in Figure 6–22 to place a text box on the report (Figure 6–23).

Q&A My text box overlapped an object already on the screen. Is that a problem?
 No. You can always move and/or resize your text box to the desired location and size later.

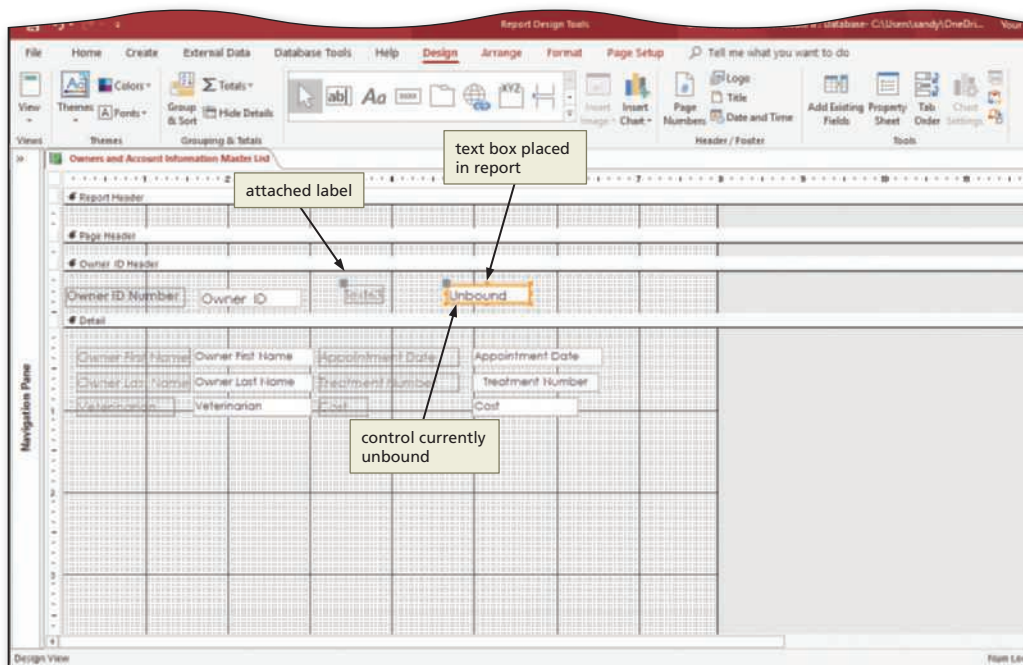


Figure 6–23

3

- Click in the text box to produce an insertion point (Figure 6–24).

Q&A I inadvertently clicked somewhere else, so the text box was no longer selected. When I clicked the text box a second time, it was selected, but there was no insertion point. What should I do? Simply click another time.

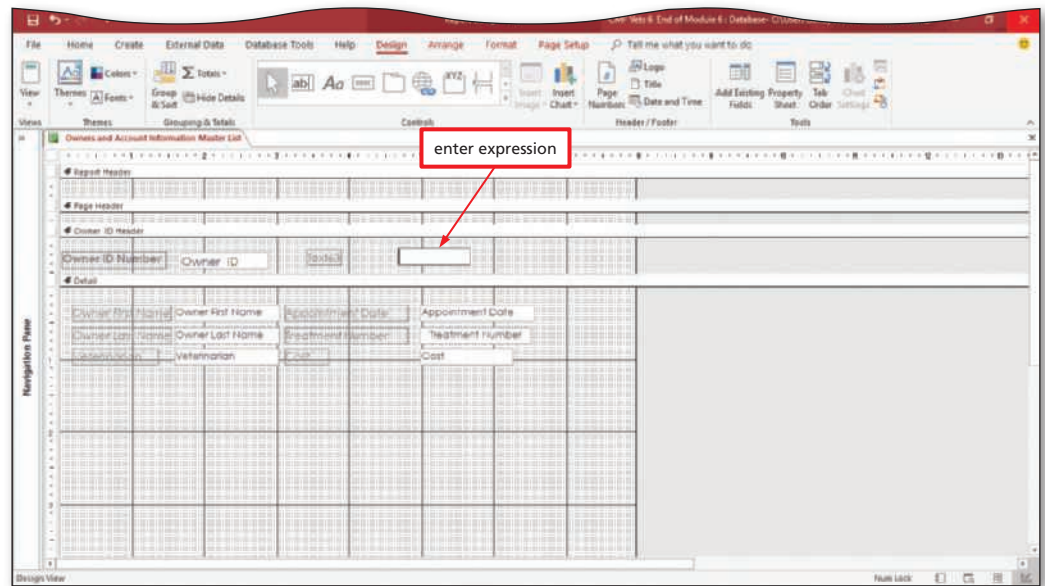


Figure 6–24

4

- In the text box, type `= [Owner First Name] & ' ' & [Owner Last Name]` to display the first name of the owner, followed by a space, and then the last name of the owner.

Q&A Could I use the Expression Builder instead of typing the expression? Yes. Click the Property Sheet button and then click the Build button, which contains three dots, next to the Control Source property.

Do I need to use single quotes (')?

No. You could also use double quotes (").

- Click in the text box label to select the label and then click the label a second time to produce an insertion point (Figure 6–25).

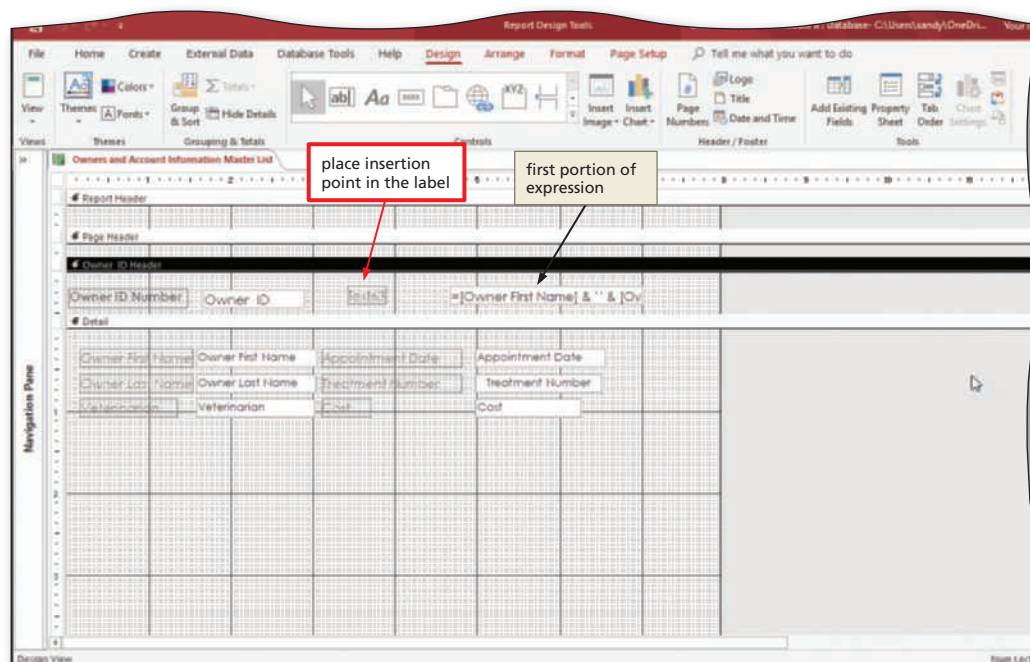


Figure 6–25

5

- Use BACKSPACE or DELETE to erase the current entry in the label and then type **Name** as the new entry.
- Click outside the label to deselect it and then drag the label to the position shown in the figure by dragging the Move handle in the upper-left corner of the label (Figure 6–26).

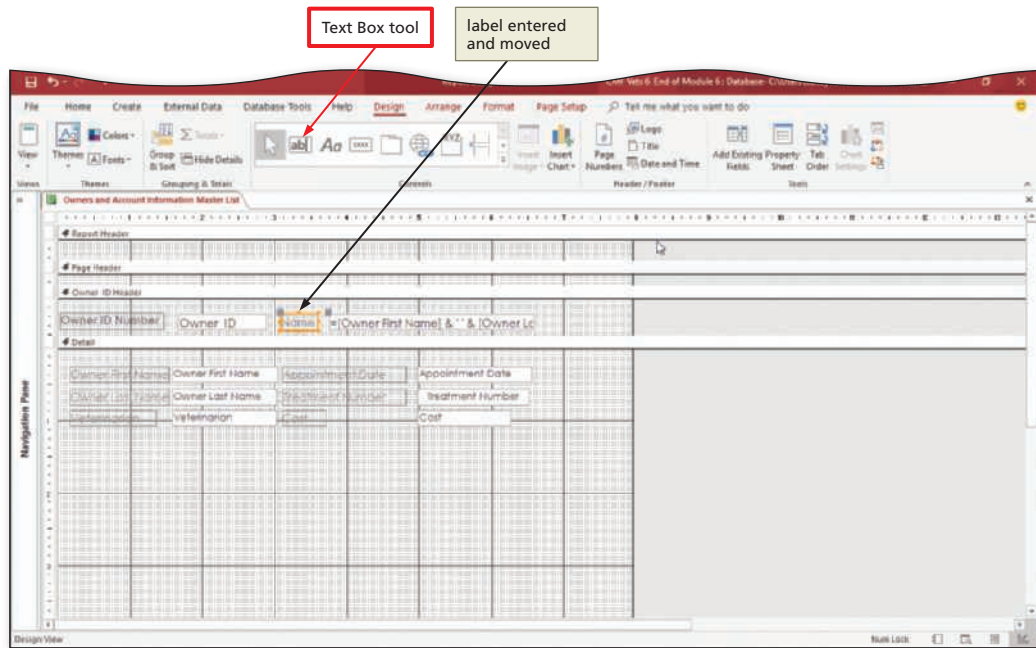


Figure 6–26

6

- Save the report.

Q&A My label is not in the correct position. What should I do?
Click outside the label to deselect it, click the label, and then drag it to the desired position.

To View the Report in Print Preview

The following steps view the report in Print Preview. *Why? As you are working on a report in Design view, it is useful to periodically view the report to gauge how it will look containing data. One way to do so is to use Print Preview.*

1

- Click the View button arrow (Report Design Tools Design tab | Views group) to produce the View menu.
- Click Print Preview on the View menu to view the report in Print Preview (Figure 6–27).

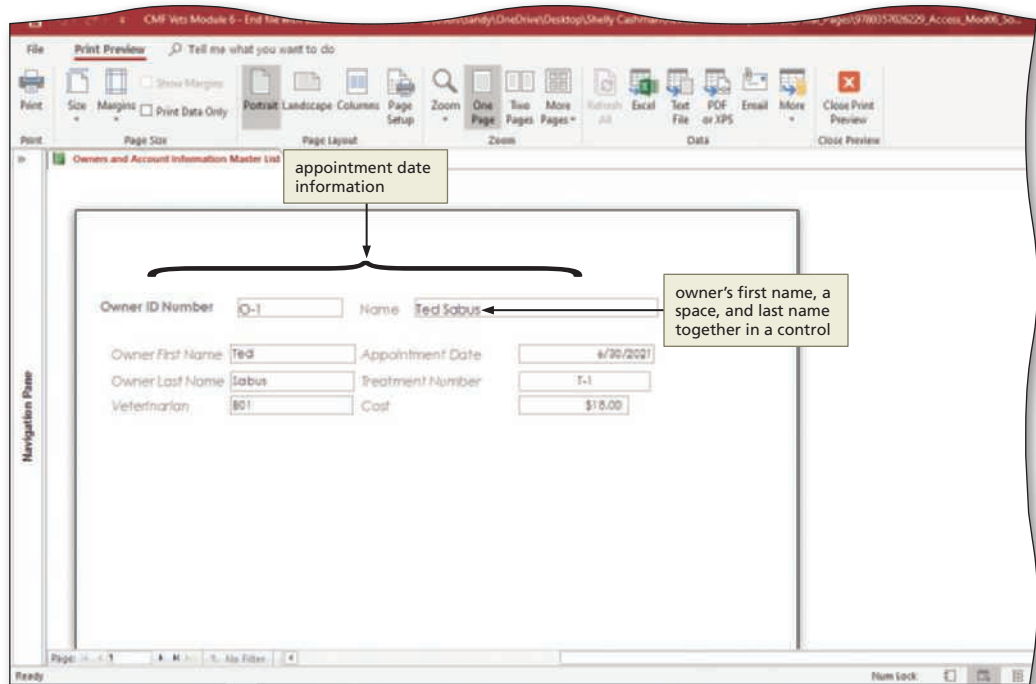


Figure 6–27

Q&A What would happen if I clicked the View button instead of the View button arrow? The icon on the View button is the icon for Report View, so you would view the results in Report view. This is another useful way to view a report, but compared with Print Preview, Report View does not give as accurate a picture of how the final printed report will look.

Q&A The treatment number field does not appear centered in the control. Also, the fields from the next appointment appear at the bottom of the report. How can I address these issues?
You will address these issues in the next sections.

2

- Click the 'Close Print Preview' button (Print Preview tab | Close Preview group) to return to Design view.

Other Ways

1. Click Print Preview button on status bar

To Format a Control

Why? When you add controls to a report, you often need to format the control, for example, to add a bold or an alignment format. You can use a control's property sheet to change the control's property. If a property does not appear on the screen, you have two choices. You can click the tab on which the property is located. For example, if it were a control related to data, you would click the Data tab to show only data-related properties. Many people, however, prefer to click the All tab, which shows all properties, and then simply scroll through the properties, if necessary, until locating the appropriate property. You can also increase or decrease the size of a control by clicking the control to select it and then dragging the edge of the control to the desired size. The following steps change the format of the Treatment Number control to Center by changing the Text Align of the Format property.

1

- If the field list is open, remove it by clicking the 'Add Existing Fields' button (Report Design Tools Design tab | Tools group).
- Click the control containing Treatment Number to select it, and then click the Property Sheet button (Report Design Tools Design tab | Tools group) to display the property sheet.
- If necessary, click the All tab (Figure 6–28).

Experiment

- Click the other tabs in the property sheet to see the types of properties on each tab. When finished, once again click the All tab.

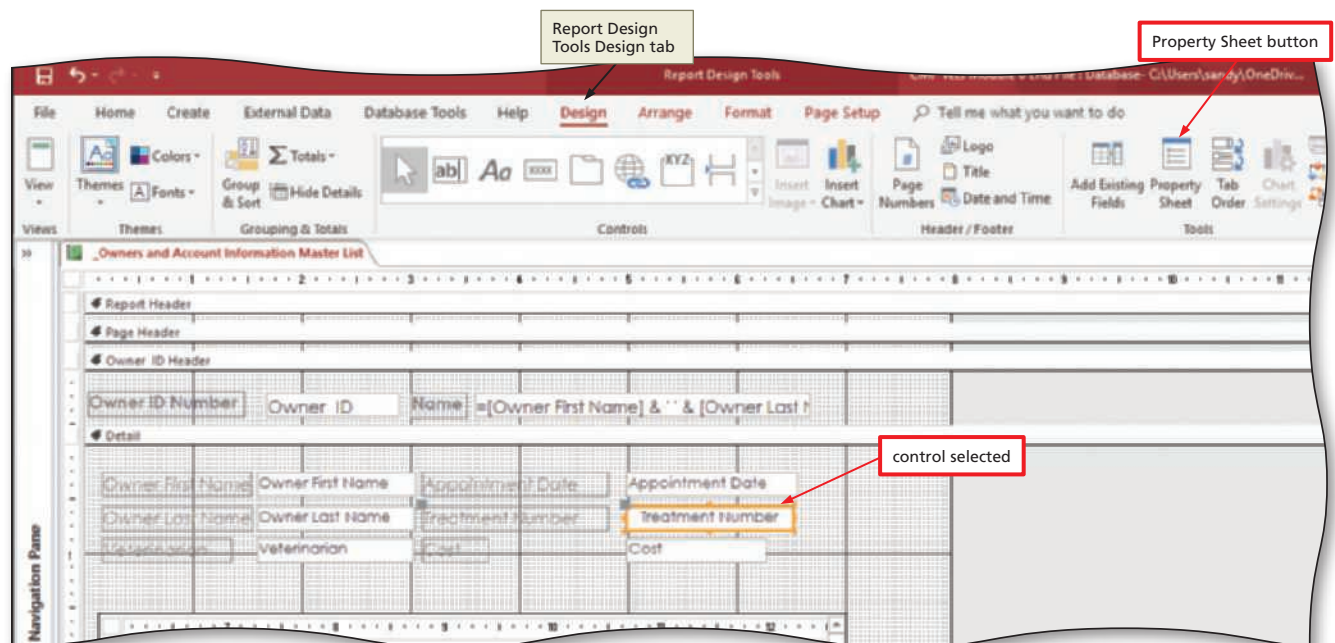


Figure 6–28

2

- If necessary, click the Text Align property box, click the arrow that appears, and then click Center to select Center as the control's alignment.
- Remove the property sheet by clicking the Property Sheet button (Report Design Tools Design tab | Tools group) a second time.
- Preview the report using Print Preview to see the effect of the property changes.
- Click the 'Close Print Preview' button (Print Preview tab | Close Preview group) to return to Design view.

Other Ways

1. Right-click control, click Properties

To Group Controls

The following steps group the controls within the Detail section. *Why? If your report contains a collection of controls that you will frequently want to format in the same way, you can simplify the process of selecting all the controls by grouping them. Once they are grouped, selecting any control in the group automatically selects all of the controls in the group. You can then apply the desired change to all the controls.*

1

- Click the Owner First Name control to select it.

Q&A Do I click the white space or the label?
Click the white space.

- While holding the SHIFT key down, click all the other controls in the Detail section to select them.

Q&A Does it matter in which order I select the other controls?
No. It is only important that you ultimately select all the controls.

- Release SHIFT.
- Display the Report Design Tools Arrange tab.
- Click the Size/Space button (Report Design Tools Arrange tab | Sizing & Ordering group) to display the Size/Space menu (Figure 6–29)

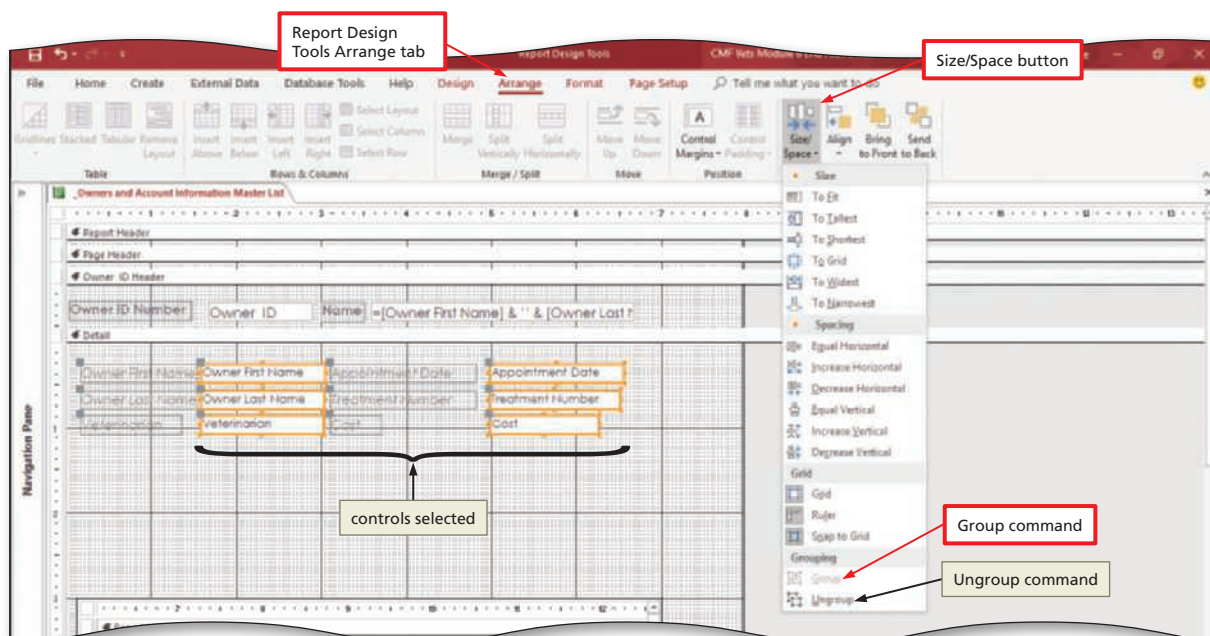


Figure 6–29

2

- Click Group on the Size/Space button menu to group the controls.

Q&A What if I make a mistake and group the wrong collection of controls?
Ungroup the controls using the following steps, and then group the correct collection of controls.

To UNGROUP CONTROLS

If you no longer need to simultaneously modify all the controls you have placed in a group, you can ungroup the controls. To do so, you would use the following steps.

1. Click any of the controls in a group to select the entire group.
2. Display the Report Design Tools Arrange tab.
3. Click the Size/Space button (Report Design Tools Arrange tab | Sizing & Ordering group) to display the Size/Space button menu.
4. Click the Ungroup button on the Size/Space button menu to ungroup the controls.

Can you group controls in forms?

Yes. The process is identical to the process of grouping controls in reports.



CONSIDER THIS

To Modify Grouped Controls

To modify grouped controls, click any control in the group to select the entire group. *Why? Any change you make then affects all controls in the group.* The following steps bold the controls in the group, resize them, and then change the border style.

1

- If necessary, click any one of the grouped controls to select the group.
- Display the Report Design Tools Format tab.
- Click the Bold button (Report Design Tools Format tab | Font group) to bold all the controls in the group (Figure 6–30).

Q&A How do I change only one control in the group?
Double-click the control to select just the one control and not the entire group. You then can make any change you want to that control.

Do I need to use the Owner First Name field or could I use another field?

Any field in the group will work. Click the Property Sheet button (Report Design Tools Design tab | Tools group) to display the property sheet for the grouped controls.

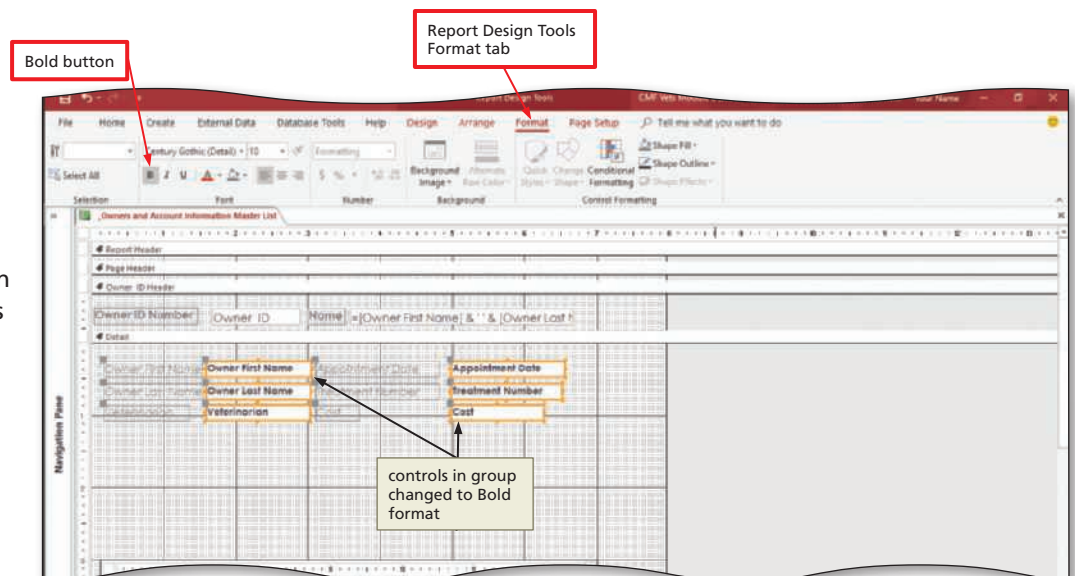


Figure 6–30

2

- With the All tab (Property Sheet) selected, ensure the Border Style property is set to Solid. If it is not, click the Border Style property box to display an arrow, click the arrow to display the list of available border styles, and click Solid.
- Click the Border Width property box to display an arrow and then click the arrow to display the list of available border widths (Figure 6–31).

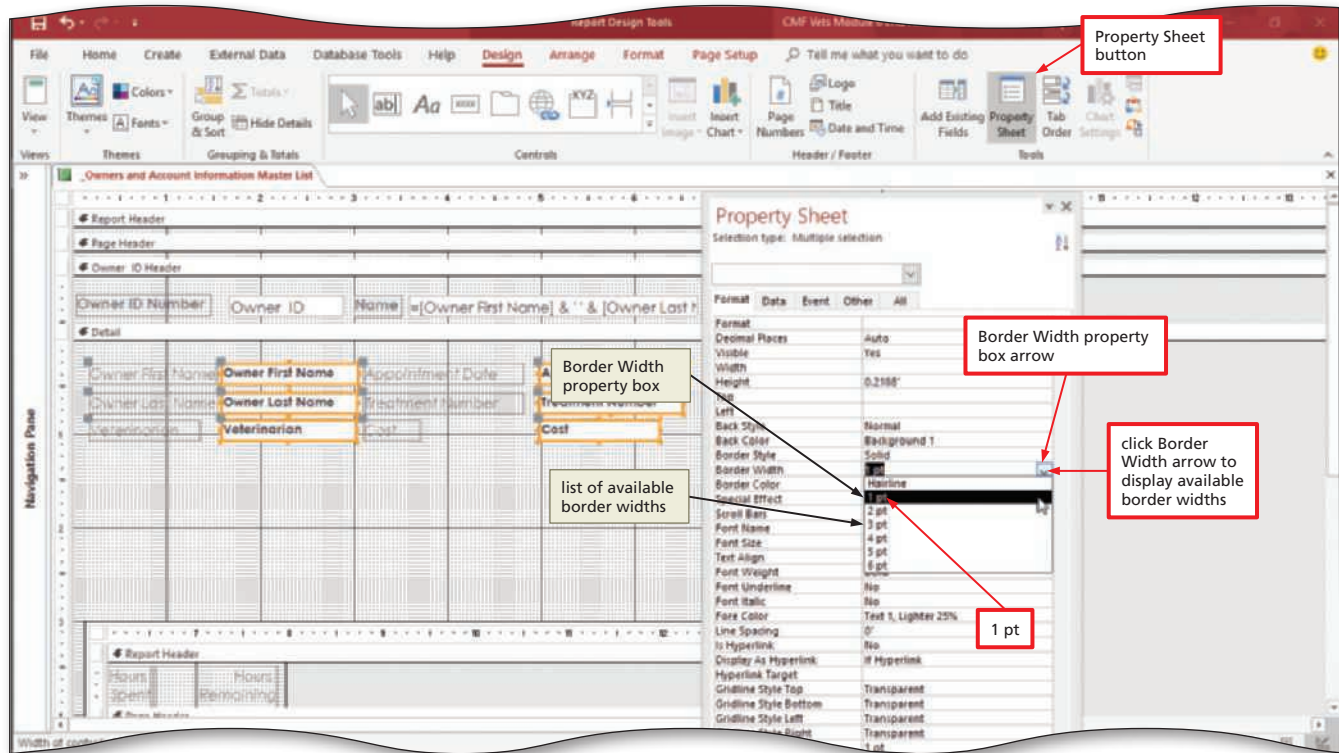


Figure 6–31

3

- Click 1 pt to select the border width.

Experiment

- Try the other border styles and widths to see their effects. In each case, view the report and then return to Design view. When finished, once again select Solid as the border style and 1 pt as the border width.
- Click the Font Size property box to display an arrow and then click the arrow to display the list of available font sizes.
- Click 10 or type 10 to change the font size to 10.
- Close the property sheet.
- Save the changes.

To Modify Multiple Controls That Are Not Grouped

To modify multiple controls that are not grouped together, you must simultaneously select all the controls you want to modify. To do so, click one of the controls and then hold the **SHIFT** key down while selecting the others. The following steps italicize all the labels in the Detail section and then bold all the controls and labels in the Owner ID Header section. Finally, the steps increase the size of the Name control. *Why? With the current size, some names are not displayed completely.*

1

- Click the label for the Owner First Name control to select it.
- While holding the SHIFT key down, click the labels for all the other controls in the Detail section to select them.
- Release the SHIFT key.
- Display the Report Design Tools Format tab.
- Click the Italic button (Report Design Tools Format tab | Font group) to italicize the labels (Figure 6–32).

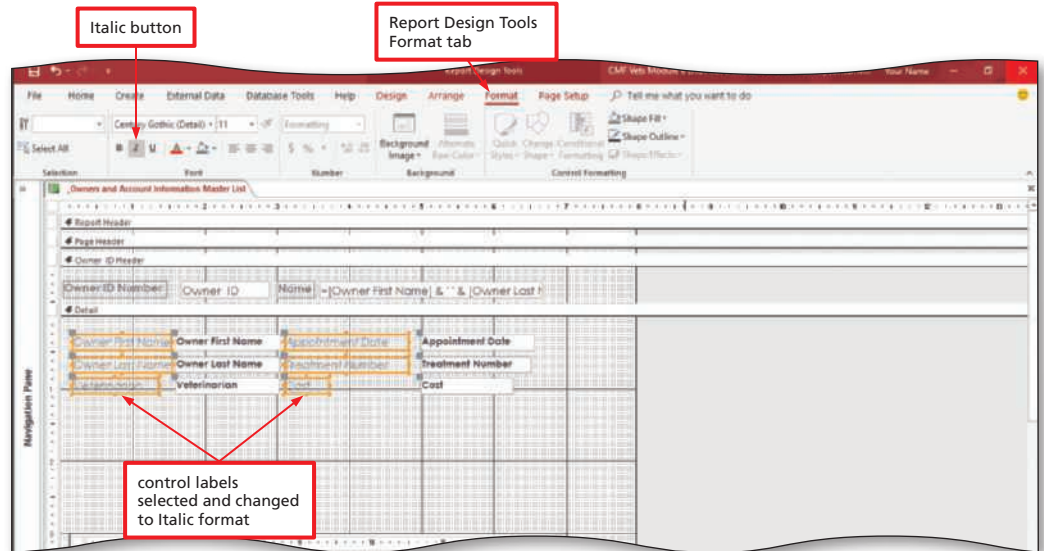


Figure 6–32

2

- Click in the vertical ruler to the left of the Owner ID control to select all the controls in the section.

Q&A What exactly is selected when I click in the vertical ruler?

If you picture a horizontal line through the point you clicked, any control that intersects that horizontal line would be selected.

- Use the buttons on the Report Design Tools Arrange tab to align the controls on the top, if necessary.
- Display the Report Design Tools Format tab, if necessary, and then click the Bold button (Report Design Tools Format tab | Font group) to bold all the selected controls (Figure 6–33).

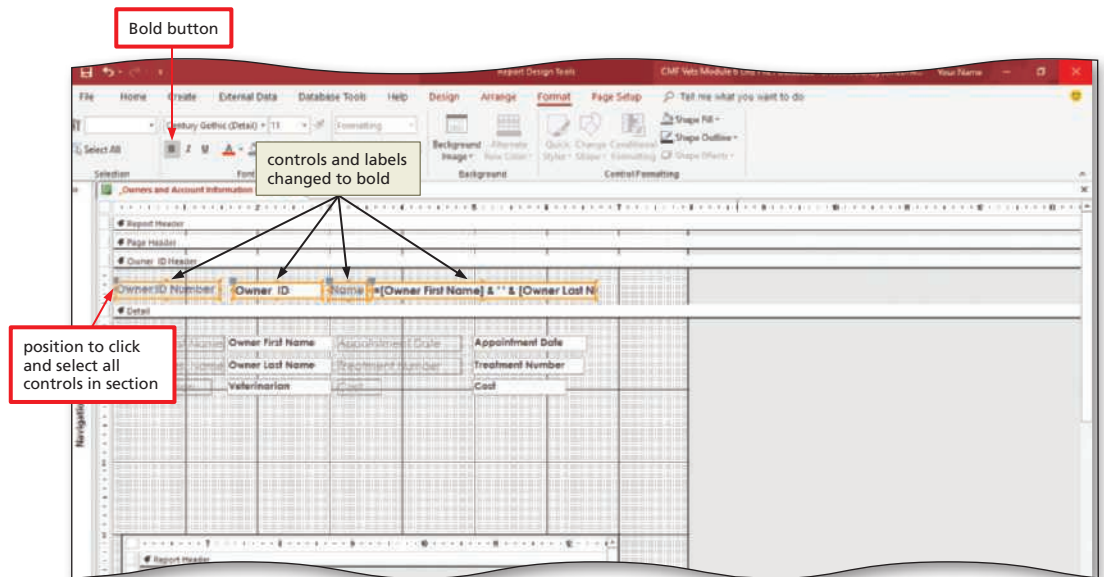


Figure 6–33

3

- Click outside the selected controls to deselect them. Click the control containing the expression for the owner's name to select it.

Q&A Why do I have to deselect the controls and then select one of them a second time?

If you do not do so, any action you take would apply to all the selected controls rather than just the one you want.

- Drag the right sizing handle of the selected control to the approximate position shown in Figure 6–34.
- View the report in Print Preview and then make any necessary adjustments.
- Save the report.

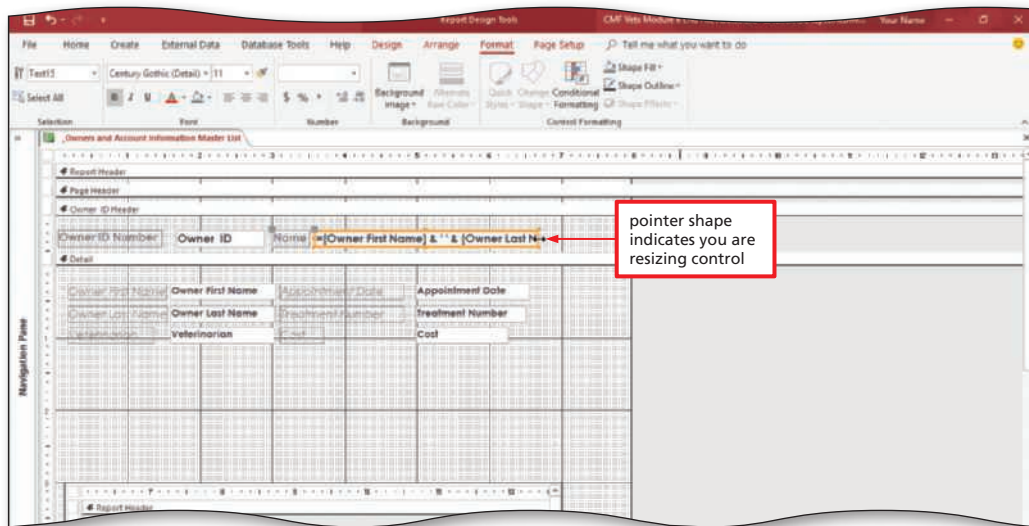


Figure 6–34

Undoing and Saving

Remember that if you make a mistake, you can often correct it by clicking the Undo button on the Quick Access Toolbar. Clicking the Undo button will reverse your most recent change. You can also click the Undo button more than once to reverse multiple changes.

You should save your work frequently. That way, if you have problems that the Undo button will not fix, you can close the report without saving it and open it again. The report will be in exactly the state it was in the last time you saved it.

To Add a Subreport

To add a subreport to a report, you use the Subform/Subreport tool on the Design tab. The following steps add a subreport to display the workshop data, after first ensuring the ‘Use Control Wizards’ button is selected. *Why? Provided the ‘Use Control Wizards’ button is selected, a wizard will guide you through the process of adding the subreport.*

- 1
 - Switch to Design view and then display the Report Design Tools Design tab.
 - Click the More button, which is shown in Figure 6–35a (Report Design Tools Design tab | Controls group), to display a gallery of available tools (Figure 6–35b).

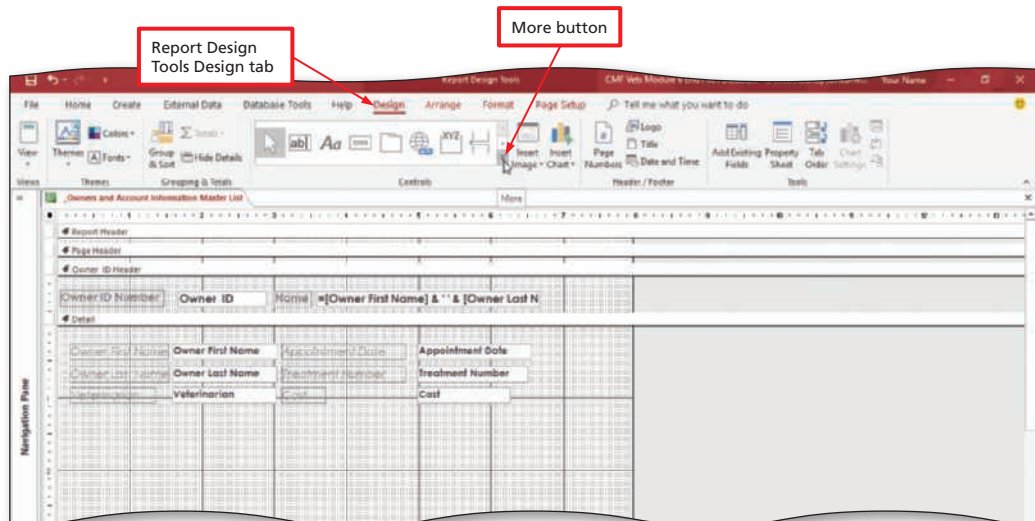


Figure 6–35a More Button

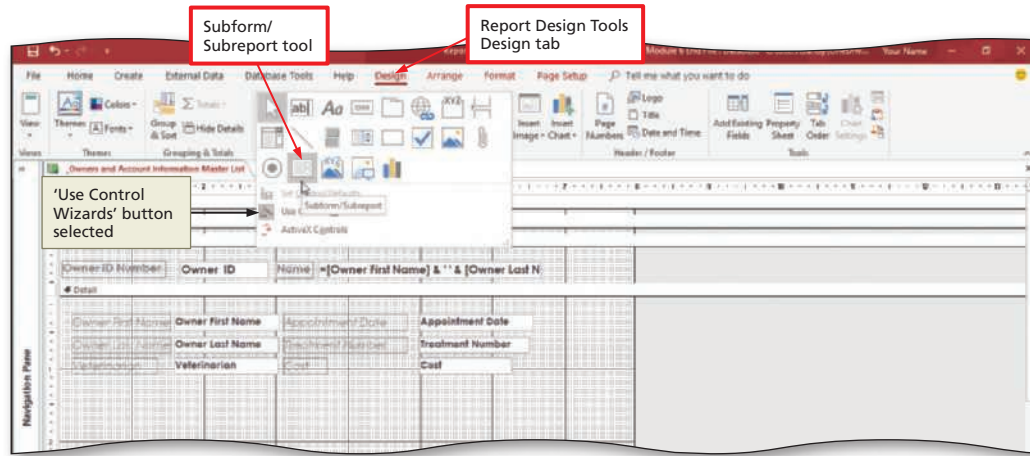


Figure 6-35b Design Tools Gallery

2

- Be sure the 'Use Control Wizards' button is selected, click the Subform/Subreport tool, and then move the pointer, which has changed to a plus sign with a subreport, to the approximate position shown in Figure 6-36.

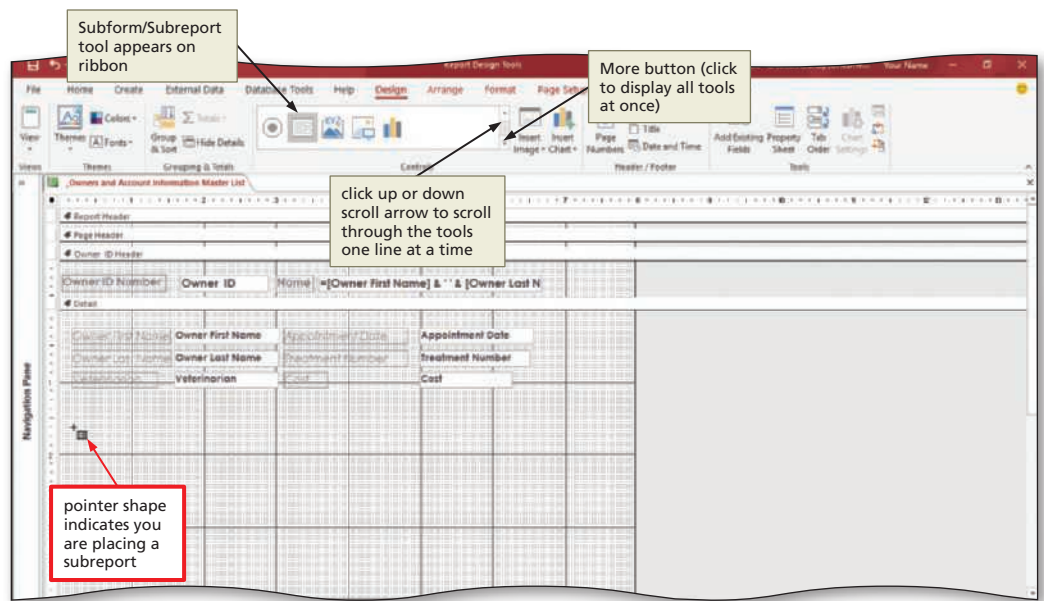


Figure 6-36

3

- Click the position shown in Figure 6-36 to place the subreport and display the SubReport Wizard dialog box. Be sure the 'Use existing Tables and Queries' option button is selected (Figure 6-37).

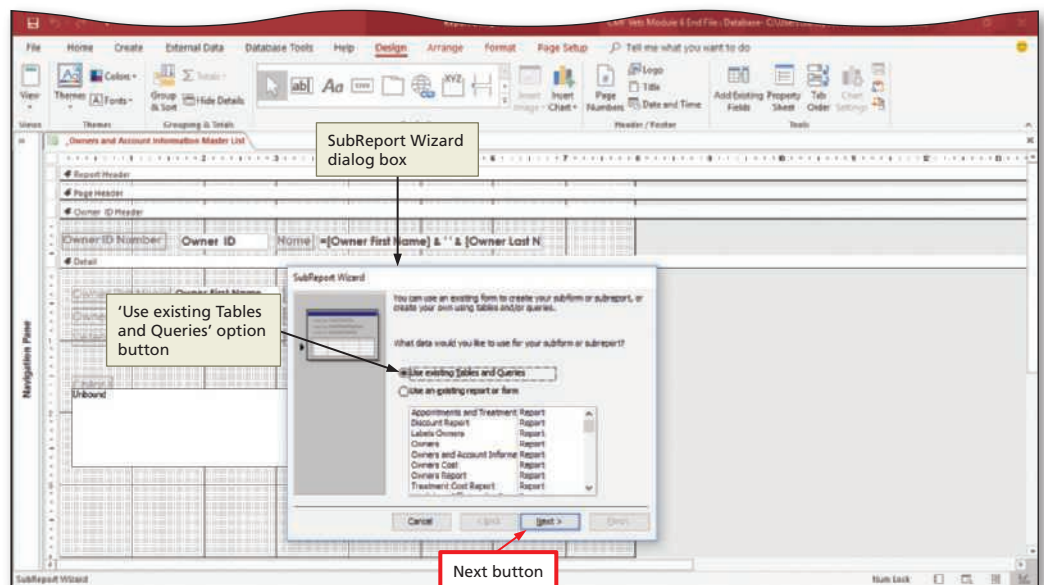


Figure 6-37

4

- Click the Next button.
- Click the Tables/Queries box arrow to display a list of the available tables and queries.
- Scroll down until Query: Workshop Offerings and Workshops is visible, click Query: Workshop Offerings and Workshops to specify it as the data source, and then click the 'Add All Fields' button to select all the fields in the query and add them to the subreport (Figure 6–38).

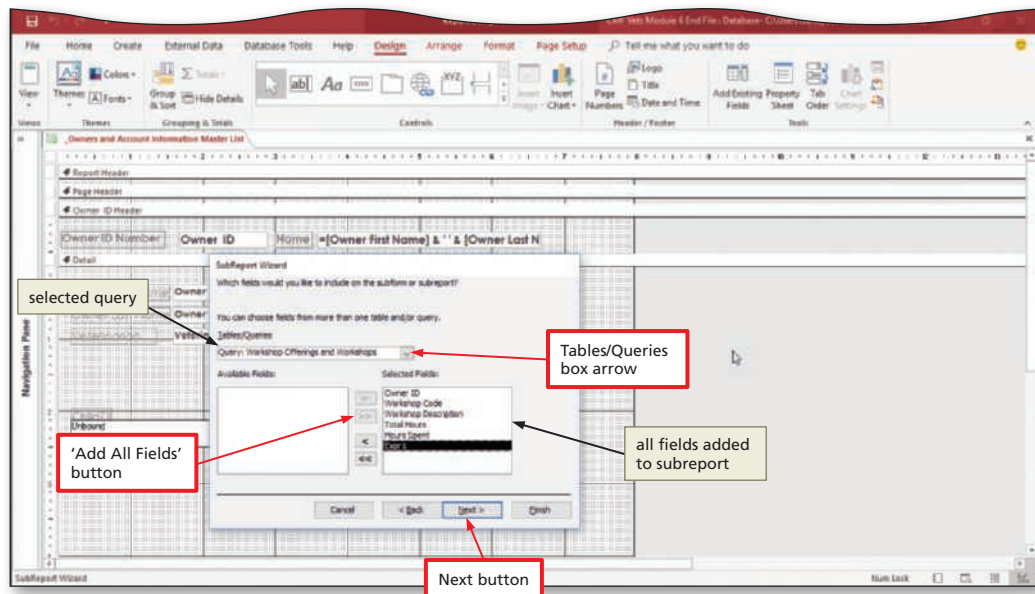


Figure 6–38

5

- Click the Next button and then ensure the 'Choose from a list.' option button is selected (Figure 6–39).

Q&A What is the purpose of this dialog box? You use this dialog box to indicate the fields that link the main report (referred to as a “form”) to the subreport (referred to as a “subform”). If the fields have the same name, as they often will, you can simply select ‘Choose from a list’ and then accept the selection Access already has made.

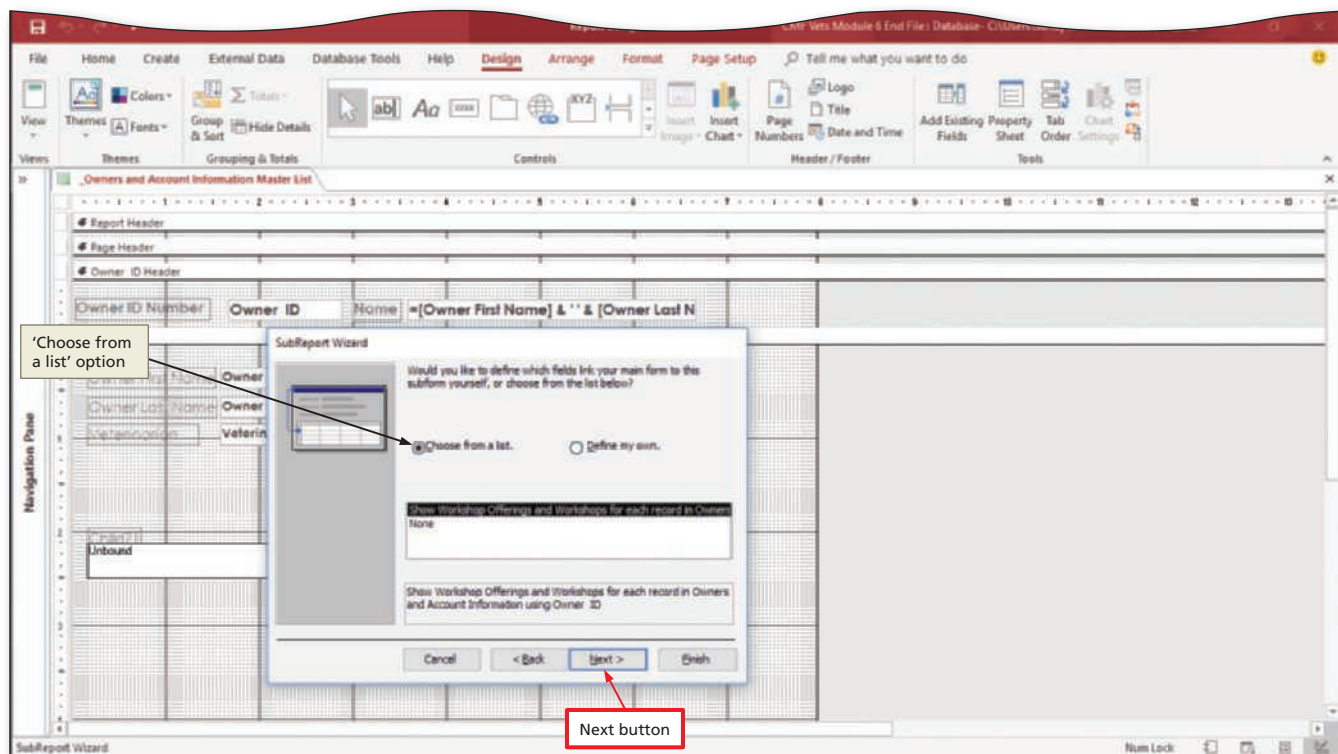


Figure 6–39

6

- Click the Next button, change the subreport name to **Workshop Offerings by Owner ID**, and then click the Finish button to add the subreport to the Owner and Account Information Master List report (Figure 6-40).

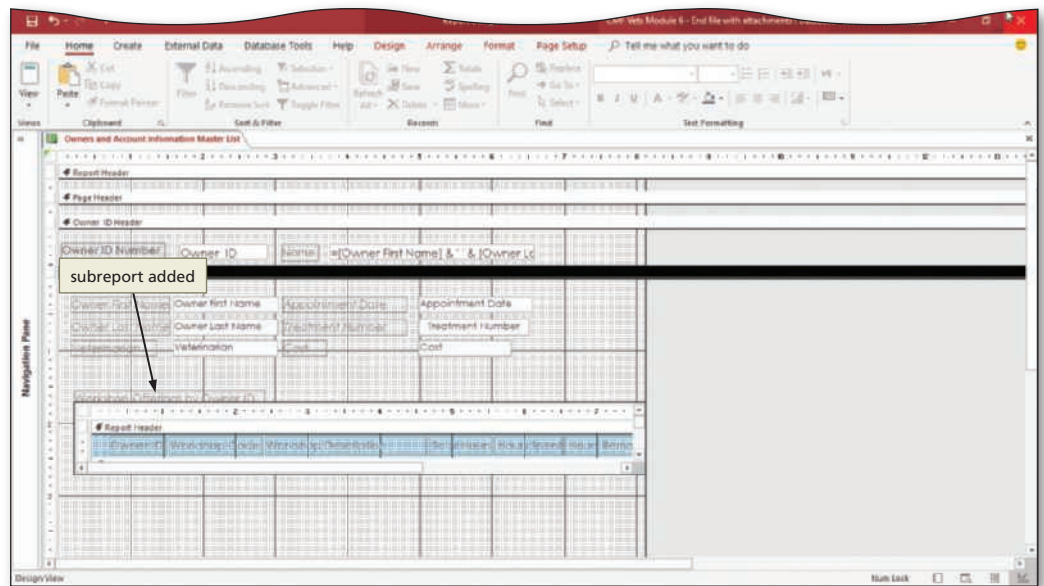


Figure 6-40

7

- Click outside the subreport to deselect the subreport.
- Save your changes.
- Close the report.

Break Point: If you wish to stop working through the module at this point, you can resume the project at a later time by starting Access, opening the database called CMF Vets, and continuing to follow the steps from this location forward.

To Open the Subreport in Design View

The following step opens the subreport in Design view so it can be modified. *Why? The subreport appears as a separate report in the Navigation Pane. You can modify it just as you modify any other report.*

1

- Open the Navigation Pane, scroll down so that the Workshop Offerings by Owner ID report appears, and then right-click the Workshop Offerings by Owner ID report to produce a shortcut menu.
- Click Design View on the shortcut menu to open the subreport in Design view (Figure 6-41). If necessary, increase the size of the subreport by selecting it and dragging the border edges to the side.

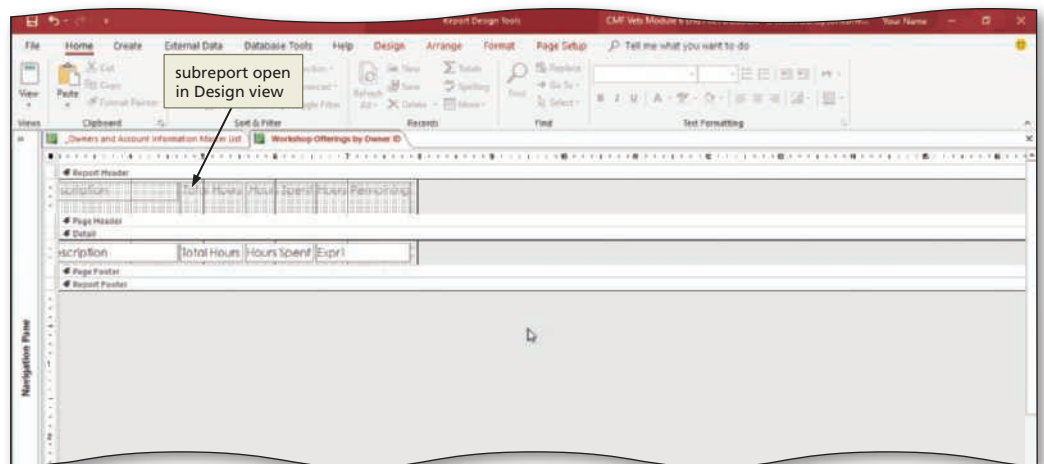


Figure 6-41

Print Layout Issues

If there is a problem with your report, for example, a report that is too wide for the printed page, the report will display a green triangular symbol in the upper-left corner. The green triangle is called an **error indicator**. Clicking it displays an 'Error Checking Options' button. Clicking the 'Error Checking Options' button produces the 'Error Checking Options menu,' as shown in Figure 6–42.

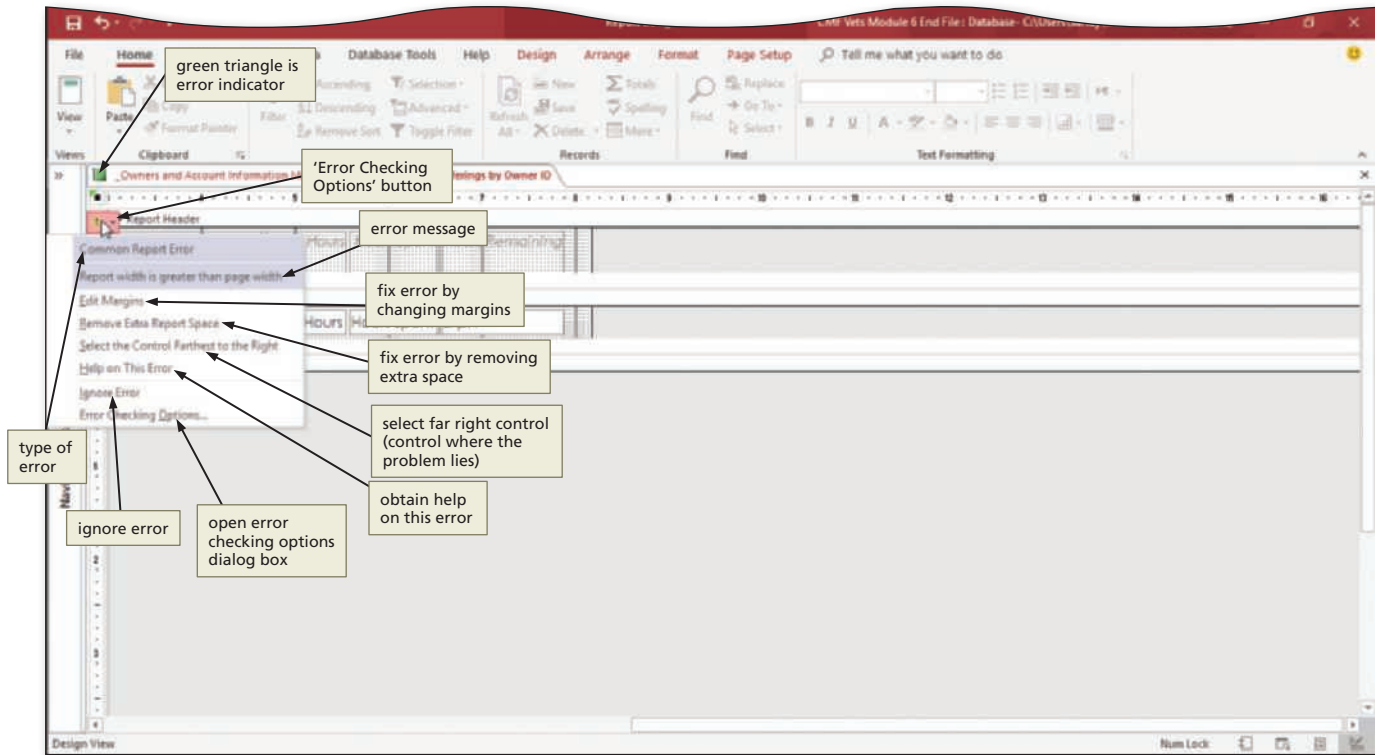


Figure 6–42

BTW

Subreports

Subreports provide more control in presenting data effectively than multiple levels of grouping can. Because grouping places headers in columns, it often can be difficult to determine the relationship between the group header and the detail. Also, you might want to present subreports side by side. You cannot do that with grouping.

The first line in the menu is simply a statement of the type of error that occurred. The second is a description of the specific error, in this case, the fact that the report width is greater than the page width. This situation could lead to data not appearing where you expect it to, as well as the printing of some blank pages.

The next three lines provide potential solutions to the error. You could change the margins to allow more space for the report. You could remove some extra space. You could select the control farthest to the right and move it. The fourth line gives more detailed help on the error. The Ignore Error command instructs Access to not consider this situation an error. Selecting Ignore Error would cause the error indicator to disappear without making any changes. The final line displays the Error Checking Options dialog box, where you can make other changes.

Later in this module, you will fix the problem by changing the width of the report, so you do not need to take any action at this time.

To Modify the Controls in the Subreport

The following step modifies the subreport by deleting the Owner ID control and revising the appearance of the column headings. *Why? Because the Owner ID appears in the main report, it does not need to be duplicated in the subreport.*

- Hide the Navigation Pane.
- Click the Owner ID control in the Detail section to select the control. Hold the SHIFT key down and click the Owner ID control in the Report Header section to select both controls.
- With both controls selected, press DELETE to delete the controls.
- Adjust the placement of the labels in the Report Header section to match those shown in Figure 6-43. The last three field headings are longer than the other headings; therefore, you might want to place the heading on two lines instead of just one line.
- Break the heading for the Total Hours column over two lines by clicking in front of the word, Hours, to produce an insertion point and then pressing SHIFT+ENTER to move the second word to a second line.

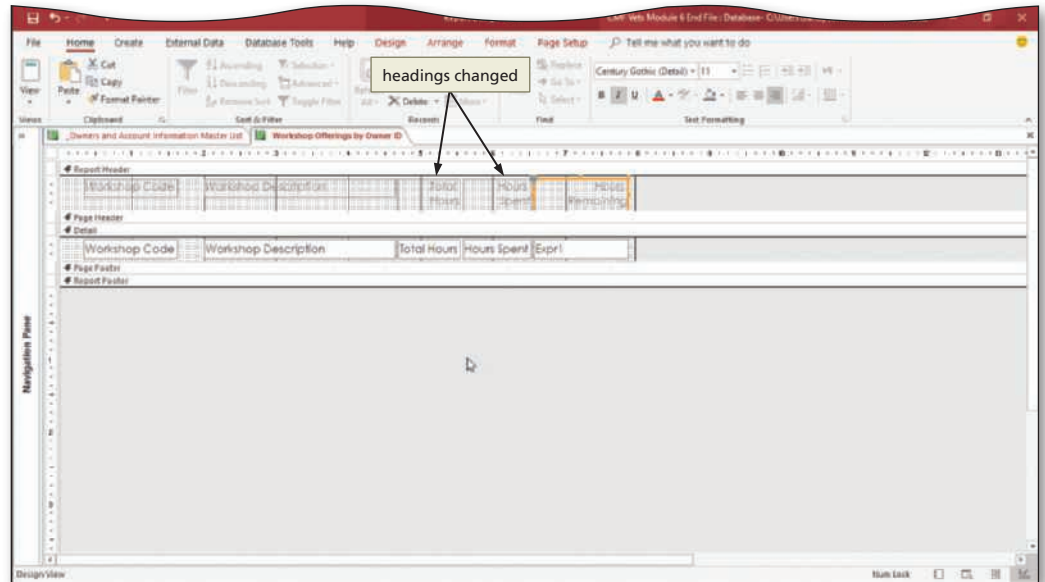


Figure 6-43

- Break the headings for the Hours Spent and Hours Remaining columns over two lines using the same technique.
- Change the sizes and positions of the controls to match those in the figure by selecting the controls and dragging the sizing handles.

Q&A Why does Expr1 appear in the Detail section under the Hours Remaining label?
Expr1 indicates that Hours Remaining is a calculated control.

How can you adjust fields where some of the entries are too long to fit in the available space?

This problem can be addressed in several ways.

1. Move the controls to allow more space between controls. Then, drag the appropriate handles on the controls that need to be expanded to enlarge them.
2. Use the Font Size property to select a smaller font size. This will allow more data to fit in the same space.
3. Use the Can Grow property. By changing the value of this property from No to Yes, the data can be spread over two lines, thus allowing all the data to print. Access will split data at natural break points, such as commas, spaces, and hyphens.



CONSIDER THIS

To Change the Can Grow Property

The third approach to handling entries that are too long is the easiest to use and also produces a very readable report. The following steps change the Can Grow property for the Workshop Description field. *Why? Changing the Can Grow property allows Access to optimize the size of fields in reports.*

1

- Click the View button arrow and then click Print Preview to preview the report (Figure 6-44). If an error message appears, indicating the report is too wide, click OK.

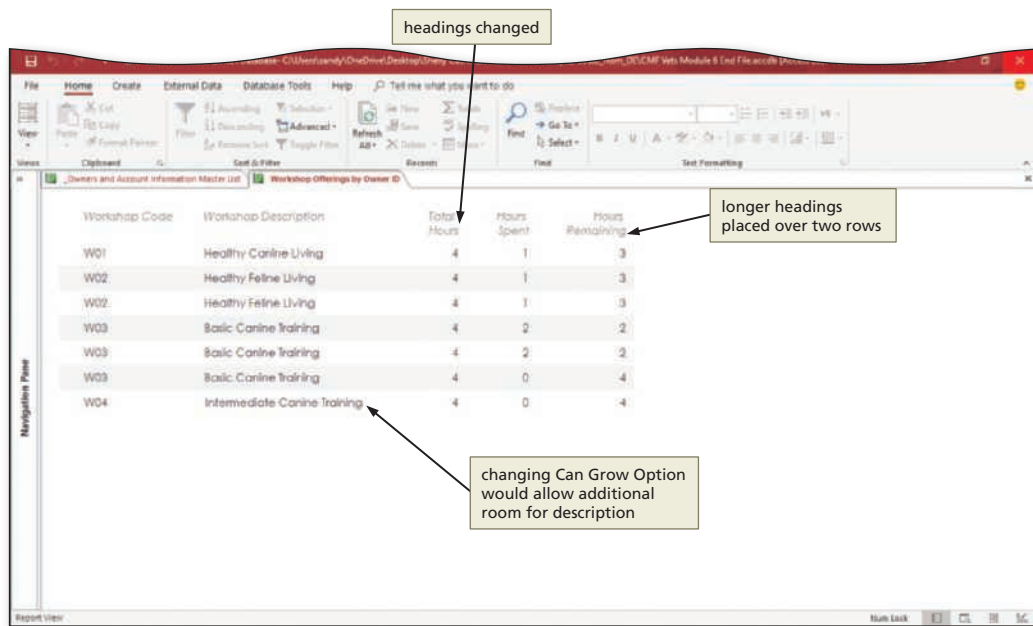


Figure 6-44

2

- Click the 'Close Print Preview' button (Print Preview tab | Close Preview group) to return to Design view.
- If necessary, click outside all of the selected controls to deselect the controls.
- Click the Workshop Description control in the Detail section to select it.
- Click the Property Sheet button (Report Design Tools Design tab | Tools group) to display the property sheet.

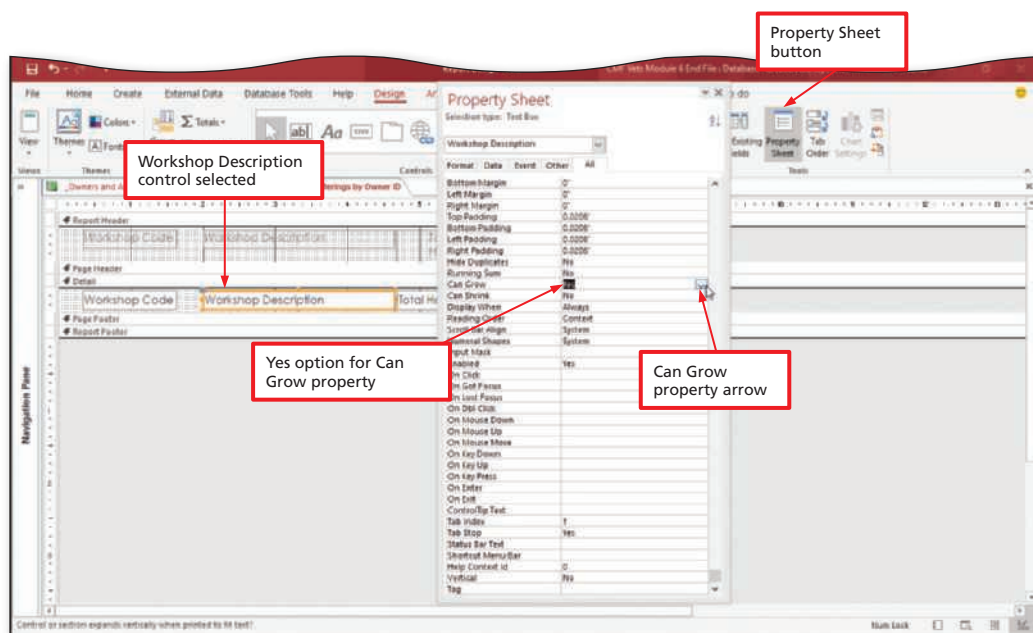


Figure 6-45

- With the All tab selected, scroll down until the Can Grow property appears, and then click the Can Grow property box arrow to display the list of possible values for the Can Grow property (Figure 6-45).

Q&A What is the effect of the Can Shrink property?
 If the value of the Can Shrink property is set to Yes, Access will remove blank lines that occur when the field is empty.

3

- Click Yes in the list to allow the Workshop Description control to grow as needed.
- Close the property sheet.

To Change the Appearance of the Controls in the Subreport

Why? CMF Vets managers prefer certain formatting for the subreport controls. The following steps change the controls in the Detail section to bold. They also change the background color in the Report Header section to white.

1

- Drag the right boundary of the subreport to the approximate position shown in Figure 6–46.

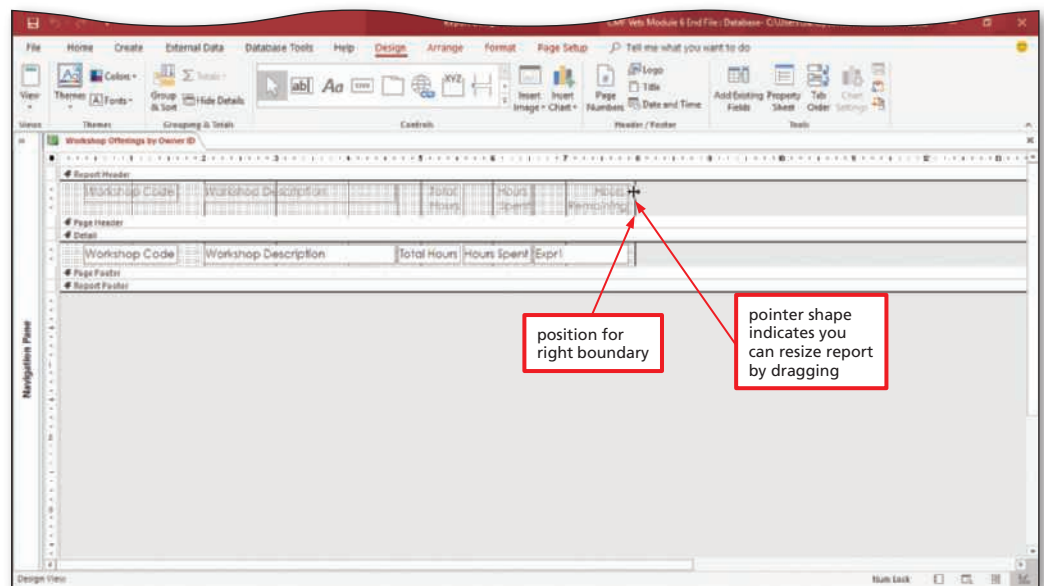


Figure 6–46

2

- Display the Report Design Tools Format tab.
- Click the ruler to the left of the controls in the Detail section to select the controls, and then click the Bold button (Report Design Tools Format tab | Font group) to bold the controls.
- Click the title bar for the Report Header to select the header without selecting any of the controls in the header.
- Click the Background Color button arrow (Report Design Tools Format tab | Font group) to display a color palette (Figure 6–47).

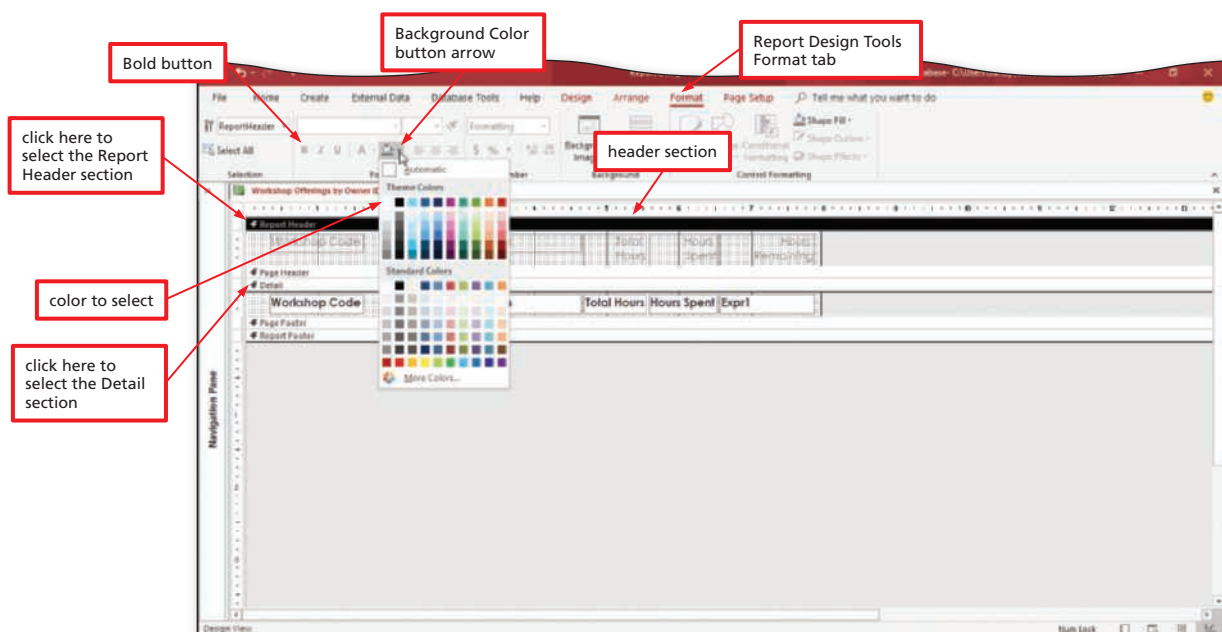


Figure 6–47

3

- Click White, Background 1 in the first row, first column of the Standard Colors to change the background color to white (Figure 6–48).

Q&A

What is the difference between clicking a color in the Theme colors and clicking a color in the Standard Colors? The theme colors are specific to the currently selected theme. The first column, for example, represents “background 1,” one of the selected background colors in the theme. The various entries in the column represent different intensities of the color at the top of the column. The colors would be different if a different theme were selected. If you select one of the theme colors and a different theme is selected in the future, the color you selected would change to the color in the same location. On the other hand, if you select a standard color, a change of theme would have no effect on the color.

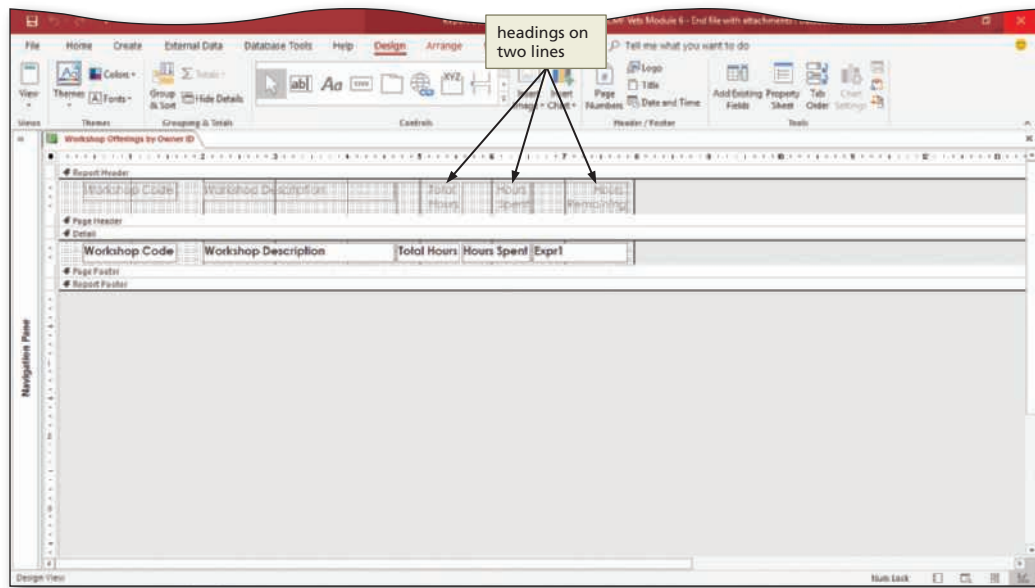


Figure 6–48

- Save the changes, and then close the subreport.

To Resize the Subreport and the Report in Design View

The following steps resize the subreport control in the main report. They then reduce the height of the detail section. *Why? Any additional white space at the bottom of the detail section appears as extra space at the end of each detail line in the final report.* Finally, the steps reduce the width of the main report.

1

- Open the Navigation Pane.
- Open the Owners and Account Information Master List in Design view.
- Close the Navigation Pane.
- Click the subreport and drag the right sizing handle to change the size to the approximate size shown in Figure 6–49, and then drag the subreport to the approximate position shown in the figure.

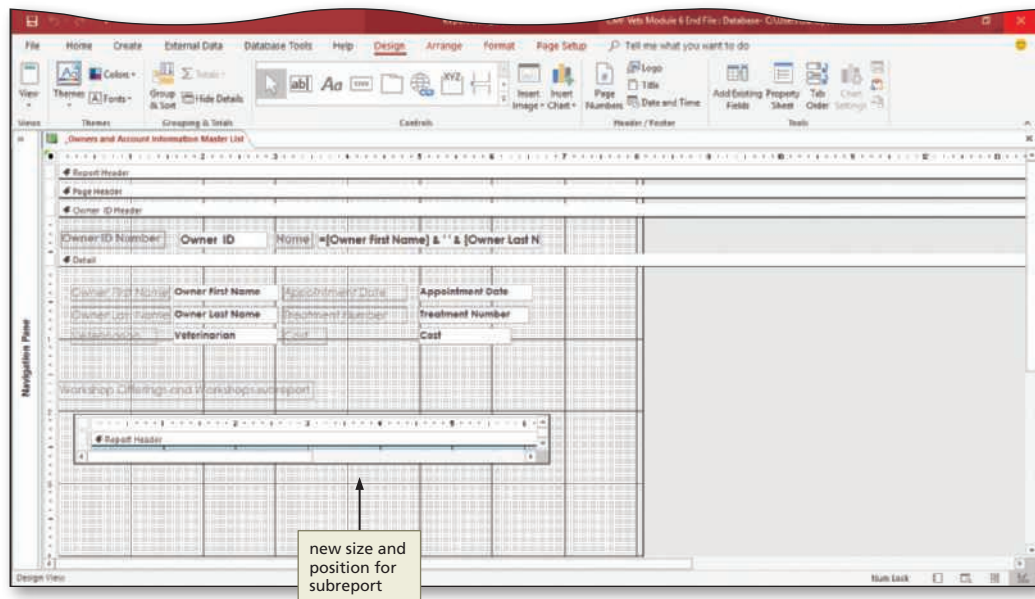


Figure 6–49

2

- Scroll down in the main report so that the lower boundary of the Detail section appears, and then drag the lower boundary of the detail section down.
- Switch to Report view; your report should resemble Figure 6-50. If necessary, return to Design view and adjust the boundaries.

Q&A

I scrolled down to see the lower boundary of the Detail section, and the controls are no longer on the screen. What is the easiest way to drag the boundary when the position to which I want to drag it is not visible?

You do not need to see the location to drag to it. As you get close to the top of the visible portion of the screen, Access will automatically scroll. You might find it easier, however, to drag the boundary near the top of the visible portion of the report, use the scroll bar to scroll up, and then drag some more. You might have to scroll more than once.

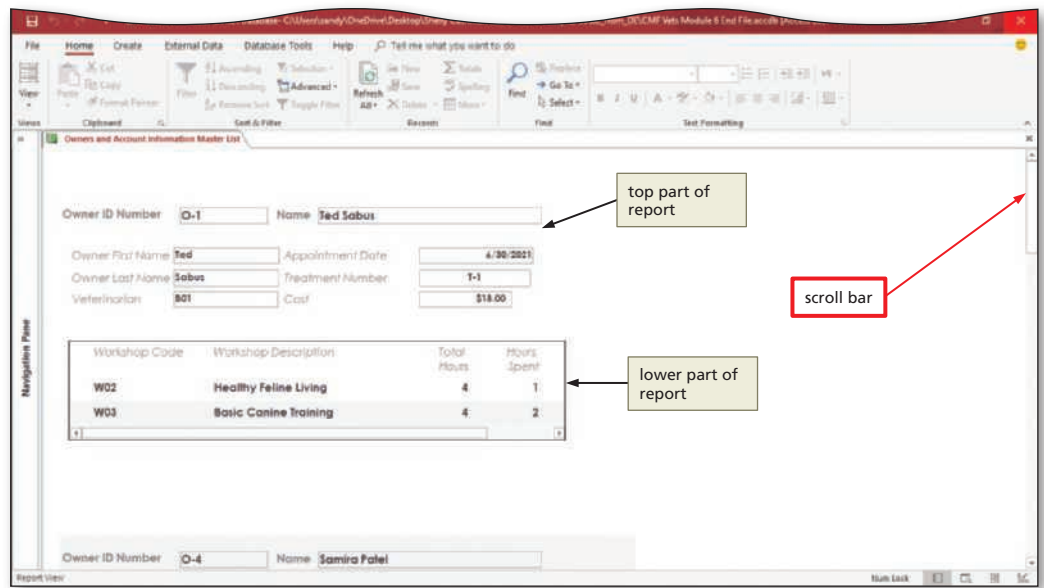


Figure 6-50

3

- If necessary, scroll back up to the top of the report, click the label for the subreport (the label that reads Workshop Offerings by Owner ID), and then press DELETE to delete the label.
- Resize the report by dragging its right border to the location shown in Figure 6-51.

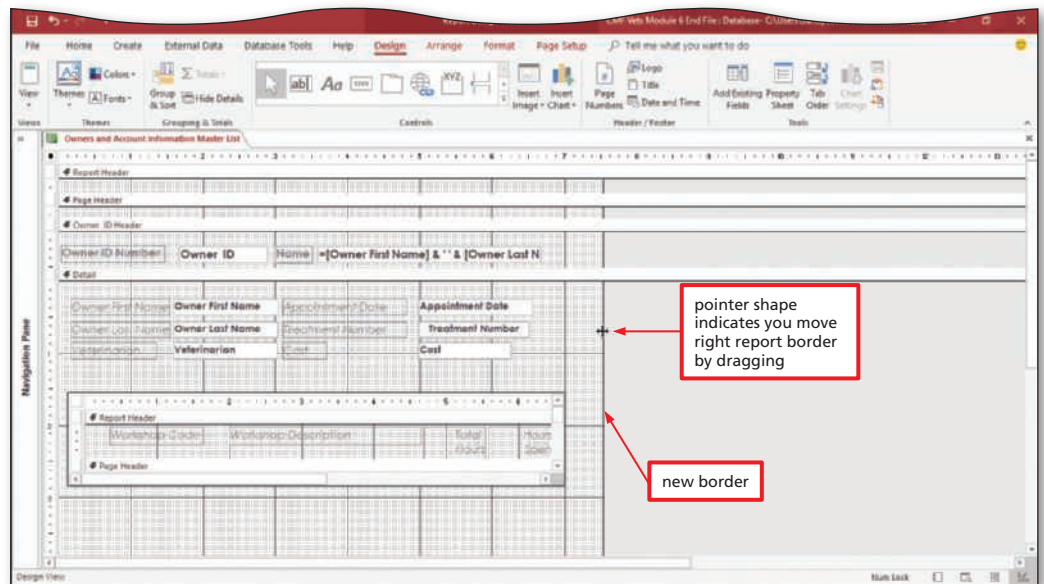


Figure 6-51

BTW

Viewing Report Modifications

As you work through this module, switch between Design view and either Report view or Print Preview frequently to view your changes. An easy way to switch back and forth is to use the different view buttons on the status bar.

To Change the Can Grow Property

The following steps change the Can Grow property for the Workshop Description control so that names that are too long to fit in the available space will extend to additional lines.

- 1 Double-click the Workshop Description control.
- 2 If necessary, display the property sheet and scroll down until the Can Grow property appears.
- 3 Click the Can Grow property box and then click the Can Grow property box arrow to display the menu of available values for the Can Grow property.
- 4 Click Yes to change the value for the Can Grow property.
- 5 Close the property sheet.

To Modify Section Properties

The following steps make two modifications to the Owner ID Header section. The first modification, which causes the contents of the Group Header section to appear at the top of each page, changes the Repeat Section property to Yes. *Why? Without this change, the Owner ID and name would only appear at the beginning of the group of accounts of that owner ID. If the list of accounts occupies more than one page, it would not be apparent on subsequent pages which owner ID is associated with those accounts.* The second modification changes the Force New Page property to Before Section, causing each section to begin at the top of a page.

- 1
 - Click the Owner ID Header bar to select the header, and then click the Property Sheet button (Report Design Tools Design tab | Tools group) to display the property sheet.
 - With the All tab selected, click the Repeat Section property box, click the arrow that appears, and then click Yes to cause the contents of the group header to appear at the top of each page of the report.
 - Click the Force New Page property box, and then click the arrow that appears to display the menu of possible values (Figure 6–52).

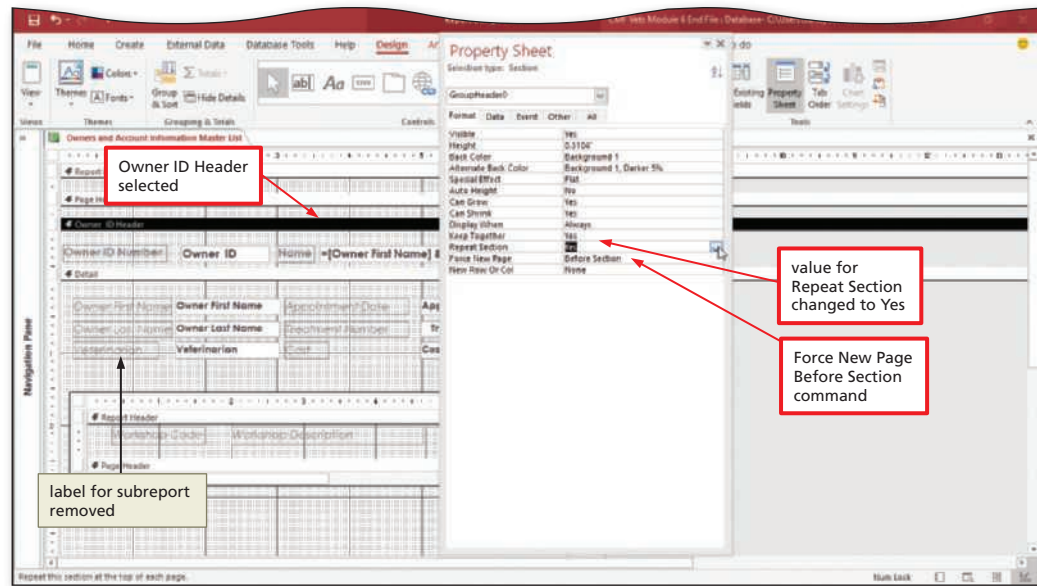


Figure 6–52

- 2
 - Click Before Section to cause a new group to begin at the top of the next page.
 - Close the property sheet.

To Add a Title, Page Number, and Date

You can add a title, page number, and date to a report using tools on the Design tab. The following steps add a title, page number, and date to the Owners and Account Information Master List report. The steps move the date to the page header by first cutting the date from its original position and then pasting it into the page header. *Why? The date is automatically added to the report header, which means it only would appear once at the beginning of the report. If it is in the page header, the date will appear at the top of each page.*

1

- Display the Report Design Tools Design tab, if necessary, and then click the Title button (Report Design Tools Design tab | Header/Footer group) to add a title.

Q&A The title is the same as the name of the report object. Can I change the report title without changing the name of the report object in the database?

Yes. The report title is a label, and you can change it using any of the techniques that you used for changing column headings and other labels.

- Click the Page Numbers button (Report Design Tools Design tab | Header/Footer group) to display the Page Numbers dialog box.
- Be sure the Page N and 'Top of Page [Header]' option buttons are selected.
- If necessary, click the Alignment arrow and select Left (Page Numbers dialog box) (Figure 6-53).

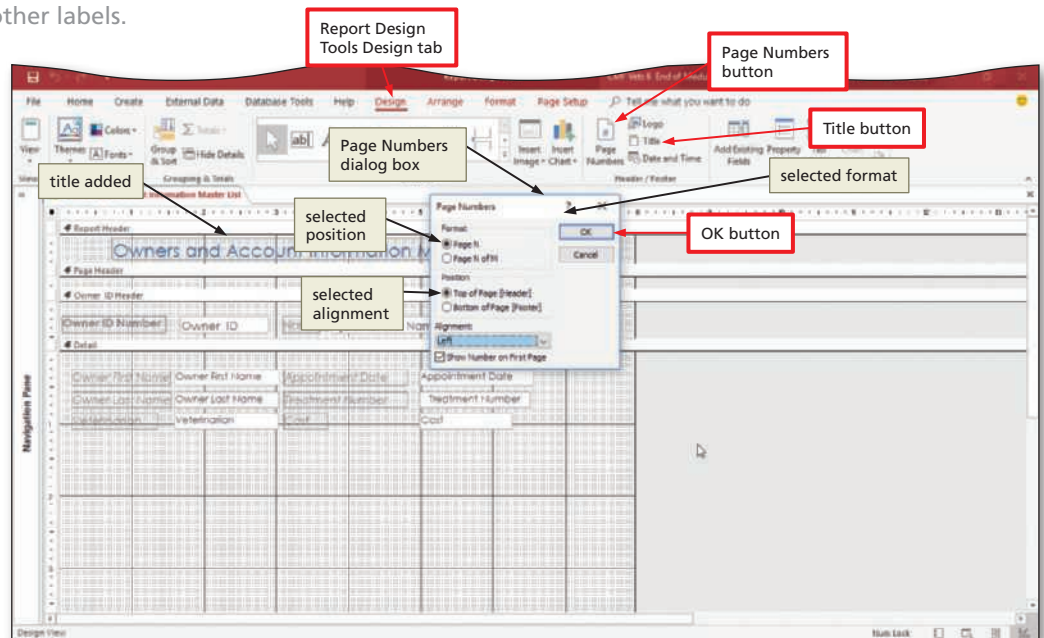


Figure 6-53

2

- Click OK (Page Numbers dialog box) to add the page number to the Report Header section.

- Click the 'Date and Time' button (Report Design Tools Design tab | Header/Footer group) to display the Date and Time dialog box.
- Click the option button for the third date format and click the Include Time check box to remove the check mark (Figure 6-54).

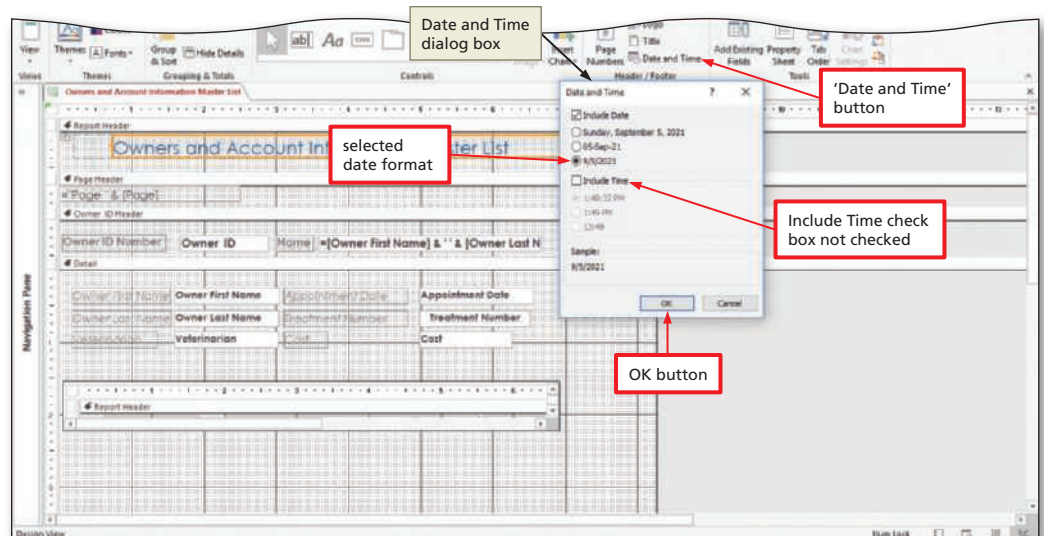


Figure 6-54

3

- Click the OK button (Date and Time dialog box) to add the date to the Report Header.
- Display the Home tab.
- If the Date control is no longer selected, click the Date control to select it (Figure 6-55).

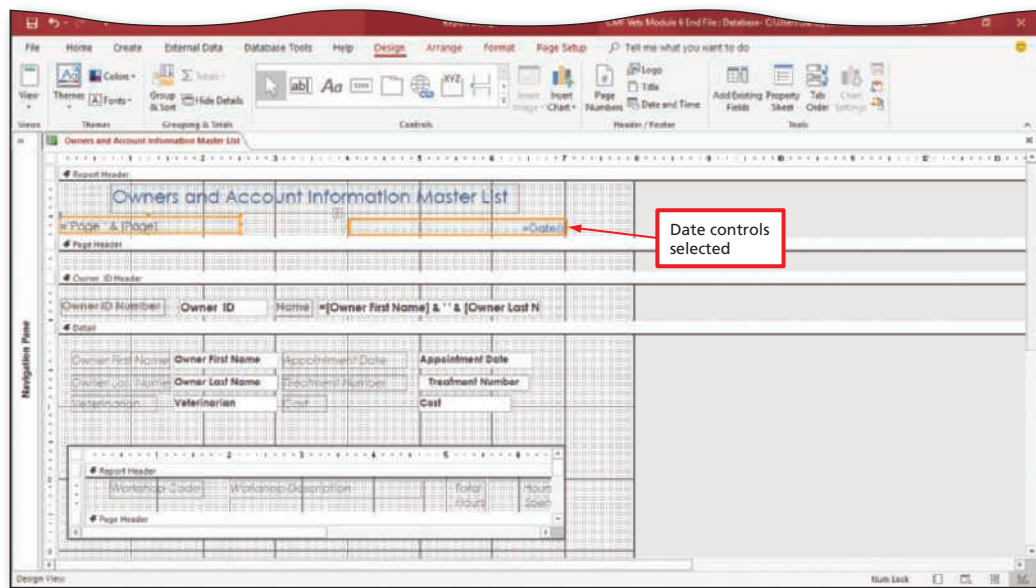


Figure 6-55

4

- With the control containing the date selected, click the Cut button (Home tab | Clipboard group) to cut the date, click the title bar for the Page Header to select the page header, and then click the Paste button (Home tab | Clipboard group) to paste the Date control at the beginning of the page header.
- Drag the Date control, which is currently sitting on top of the Page Number control, to the position shown in Figure 6-56.

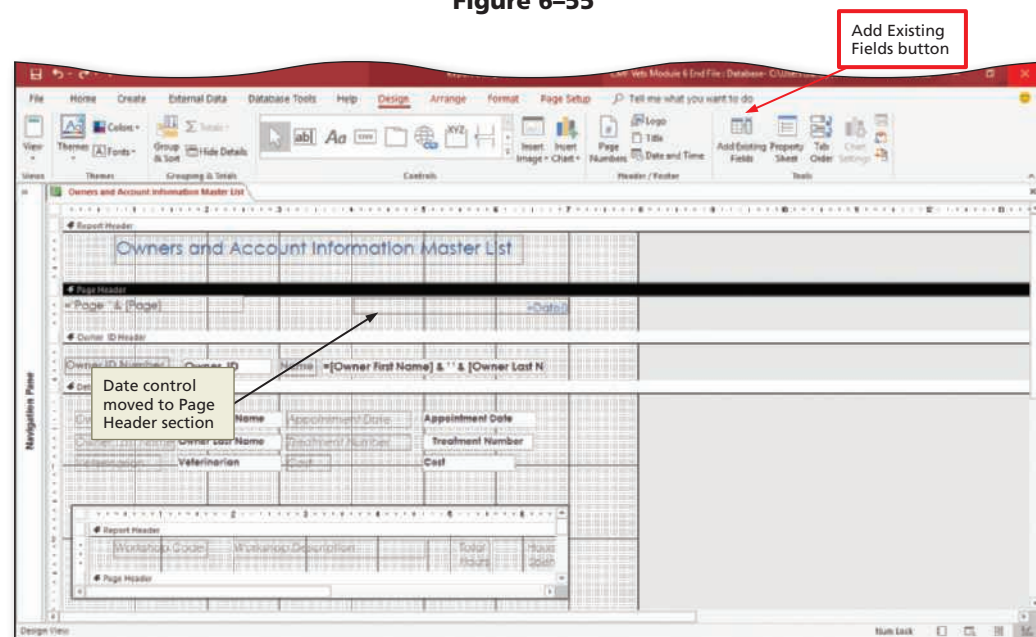


Figure 6-56

To Remove the Header Background Color and the Alternate Color

The report header currently has a blue background, which is not what CMF Vets wants. In addition, the report has alternate colors, as you saw in Figure 6-44. An **alternate color** is a color different from the main color that appears on every other line in a datasheet or report. Using alternate colors can sometimes make a datasheet or report more readable, but is not always desirable.

The following steps first remove the color from the report header. They then remove the alternate colors from the various sections in the report, starting with the Detail section. *Why? Access automatically assigns alternate colors within the report. In reports with multiple sections, the alternate colors can be confusing. If you do not want these alternate colors, you must remove them.*

1

- Right-click the title bar for the Report Header to select the header without selecting any of the controls in the header and produce a menu.
- Point to the 'Fill/Back Color' arrow to display a color palette (Figure 6-57).

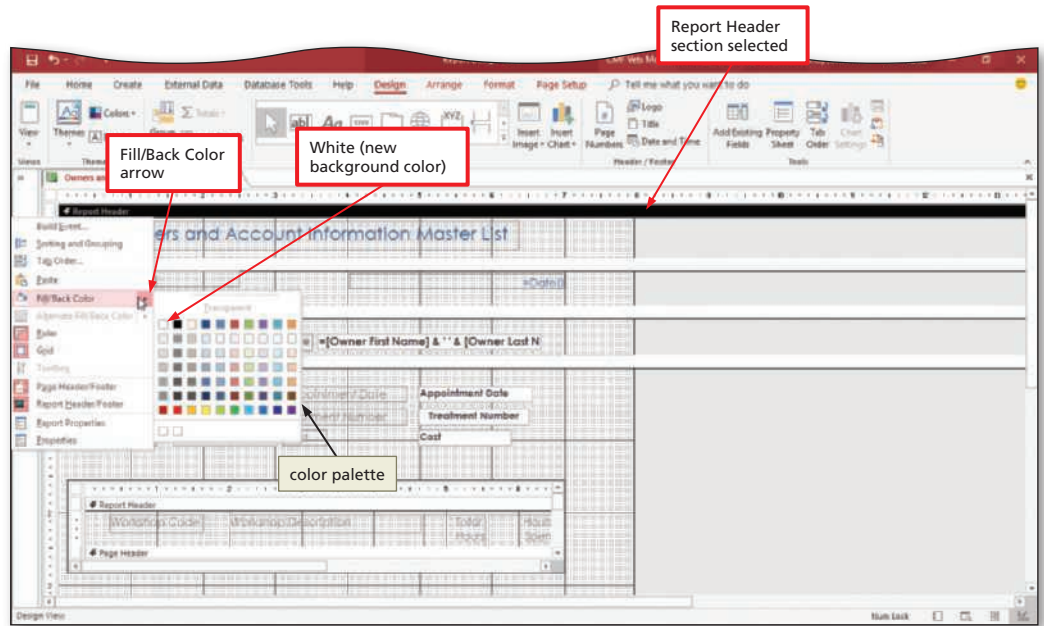


Figure 6-57

2

- Click White, Background 1 in the first row, first column of the color palette to change the background color for the header.
- Right-click a blank area of the Detail section to select the details section and produce a menu.
- Point to the 'Alternate Fill/Back Color' arrow to display a color palette (Figure 6-58).

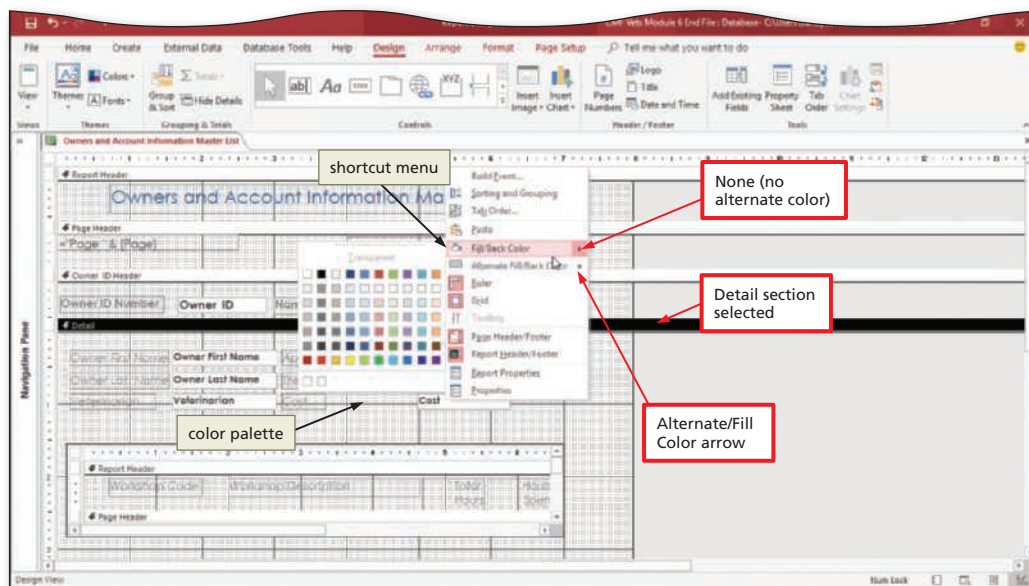


Figure 6-58

3

- Click None on the color palette to remove the alternate color for the Detail section.
- Open the subreport in Design view.
- Remove the header background color and the alternate color from the subreport, just as you removed them from the main report.

- Save and then close the report (Figure 6–59).

Q&A How can I be sure I removed all the background colors? Open the report in Print Preview to check that all color has been removed from the report.

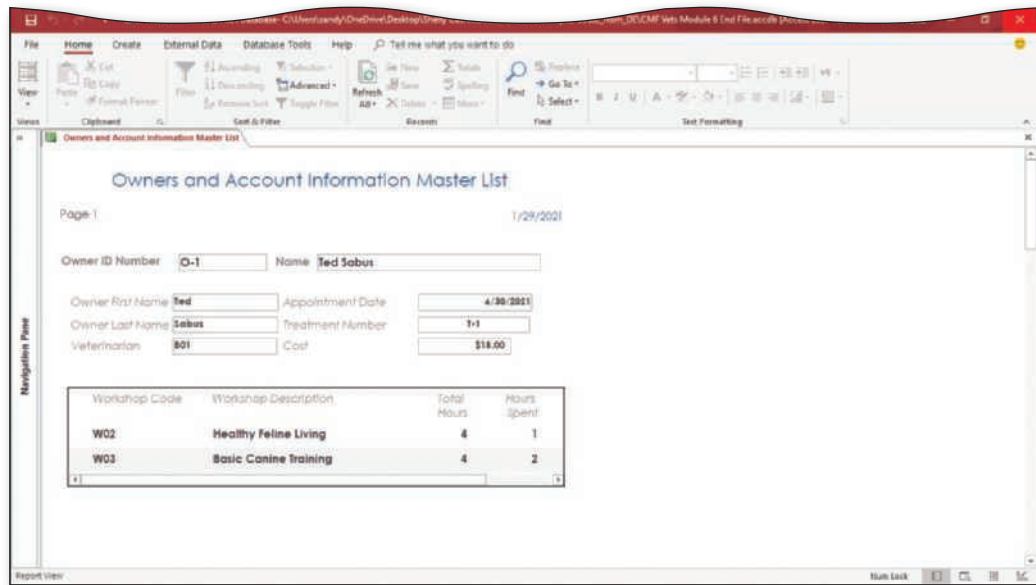


Figure 6–59

Headers and Footers

Access gives you some options for including or omitting headers and footers in your reports. They go together, so if you have a report header, you will also have a report footer. If you do not want one of the sections to appear, you can shrink its size so there is no room for any content, or you can remove the header or footer from your report altogether. If you later decide you want to include them, you once again can add them. You have similar options with page headers and page footers.

BTW

Report Title Placement

You also can place a report title in a page header. One advantage of doing so is that the title will then print on each page of the report.

TO REMOVE A REPORT HEADER AND FOOTER

To remove a report header and footer, you would use the following steps.

1. With the report open in Design view, right-click any open area of the report to produce a shortcut menu.
2. Click the ‘Report Header/Footer’ command on the shortcut menu to remove the report header and footer.
3. If the Microsoft Access dialog box appears, asking if it is acceptable to delete any controls in the section, click Yes.

BTW

Page Breaks

You can force a page break to occur at a particular position in a report by adding a page break to the report. To do so, click the Insert Page Break tool, move the pointer to the desired position, and click the position to place the page break.

TO REMOVE A PAGE HEADER AND FOOTER

To remove a page header and footer, you would use the following steps.

1. With the report open in Design view, right-click any open area of the report to produce a shortcut menu.
2. Click the ‘Page Header/Footer’ command on the shortcut menu to remove the page header and footer.
3. If the Microsoft Access dialog box appears, asking if it is acceptable to delete any controls in the section, click Yes.

TO INSERT A REPORT HEADER AND FOOTER

To insert a report header and footer, you would use the following steps.

1. With the report open in Design view, right-click any open area of the report to produce a shortcut menu.
2. Click the 'Report Header/Footer' command on the shortcut menu to insert a report header and footer.

TO INSERT A PAGE HEADER AND FOOTER

To insert a page header and footer, you would use the following steps.

1. With the report open in Design view, right-click any open area of the report to produce a shortcut menu.
2. Click the 'Page Header/Footer' command on the shortcut menu to insert a page header and footer.

TO INCLUDE AN IMAGE IN A REPORT

You can include a picture (image) in a report. You can also use a picture (image) as the background on a report. To include an image in a report, you would use the following steps.

1. Open the report in Design view or Layout view.
2. Click the Insert Image button (Report Design Tools Design tab | Controls group), and then click the Browse command.
3. Select the desired image.
4. Click the desired location to add the image to the report.

TO USE AN IMAGE AS BACKGROUND FOR A REPORT

To include an image as a background for a report, you would use the following steps.

1. Open the report in Design view or Layout view.
2. Click anywhere in the report, click the Background Image button (Report Design Tools Format tab | Background group), and then click the Browse command.
3. Select the desired image for the background.

TO PUBLISH A REPORT

You can make a report available as an external document by publishing the report as either a PDF or XPS file. If you wanted to do so, you would use the following steps.

1. Select the report to be published in the Navigation Pane.
2. Display the External Data tab.
3. Click the PDF or XPS button (External Data tab | Export group) to display the Publish as PDF or XPS dialog box.
4. Select the appropriate Save as type (either PDF or XPS).
5. Select either 'Standard (publishing online and printing)' or 'Minimum size (publishing online).'
6. If you want to publish only a range of pages, click the Options button and select the desired range.

BTW

White Space

In page layout and report design, white space is the space on a printed page that is left unmarked. This includes margins, spacing between records, and space around graphics. Not enough white space can make a report look cluttered and can be difficult to read. Too much white space wastes paper. Thoughtful use of white space can make a report more visually appealing.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on a social networking site, blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Access.

7. Click the Publish button to publish the report in the desired format.
8. If you want to save the export steps, click the 'Save export steps' check box, then click the Save Export button. If not, click the Close button.

Break Point: If you wish to stop working through the module at this point, you can resume the project at a later time by starting Access, opening the database called CMF Vets, and continuing to follow the steps from this location forward.

Creating a Second Report

CMF Vets managers would also like a report that groups accounts by Owner ID and Treatment Costs. The report should include subtotals and a discount amount based on the cost of the treatments. Finally, it should show the cost of the treatment less the discount. The discount amount is based on the treatment cost. Accounts that have treatment costs more than \$20 will receive a 20 percent discount, and accounts that have treatment costs \$20 or less will not receive a discount.

BTW

Graphs

You can add graphs (charts) to a report using the Chart tool. To add a graph (chart) to a report, click the Chart tool, move the pointer to the desired location, and click the position to place the graph. Follow the directions in the Chart Wizard dialog box to specify the data source for the chart, the values for the chart, and the chart type.

To Create a Second Report

The following steps create the Discount Report, select the record source, and specify grouping and sorting options.

- 1 If necessary, close the Navigation Pane.
- 2 Display the Create tab and then click the Report Design button (Create tab | Reports group) to create a report in Design view.
- 3 Ensure the selector for the entire report, which is the box in the upper-left corner of the report, contains a small black square indicating it is selected, and then click the Property Sheet button (Report Design Tools Design tab | Tools group) to display a property sheet.
- 4 With the All tab selected, click the Record Source property box arrow, and then click the Owners and Account Information query to select the query as the record source for the report.
- 5 Close the property sheet.
- 6 Click the Group & Sort button (Report Design Tools Design tab | Grouping & Totals group) to display the 'Group, Sort, and Total' pane.
- 7 Click the 'Add a group' button to display the list of available fields for grouping, and then click the Owner ID field to group by Owner ID. When you add a group, a header will appear above each Owner ID.
- 8 Click the 'Add a sort' button to display the list of available fields for sorting, and then click the Appointment Date field to sort by appointment date.
- 9 Remove the 'Group, Sort, and Total' pane by clicking the Group & Sort button (Report Design Tools Design tab | Grouping & Totals group).
- 10 Click the Save button on the Quick Access Toolbar, type **Discount Report** as the report name, and click OK to save the report.

Q&A Why save it at this point?

You do not have to save it at this point. It is a good idea to save it often, however. Doing so will give you a convenient point from which to restart if you have problems. If you have problems, you could close the report without saving it. When you reopen the report, it will be in the state it was in when you last saved it.

To Add and Move Fields in a Report

As with the previous reports, you can add a field to the report by dragging the field from the field list. After adding a field to a report, you can adjust the placement of the field's label, separating it from the control to which it is attached by dragging the move handle in its upper-left corner. This technique does not work, however, if you want to drag the attached label to a section different from the control's section. If you want the label to be in a different section, you must select the label, cut the label, select the section to which you want to move the label, and then paste the label. You then can move the label to the desired location.

The following steps add the Owner ID field to the Owner ID Header section and then moves the label to the Page Header section. *Why? The label should appear at the top of each page, rather than in the group header.*

1

- Click the 'Add Existing Fields' button (Report Design Tools Design tab | Tools group) to display a field list. (Figure 6–60).

Q&A My field list displays 'Show only fields in the current record source,' not 'Show all tables,' as in the figure. What should I do? Click the 'Show only fields in the current record source' link at the top of the field list to display only those fields in the Owners and Account Information query.

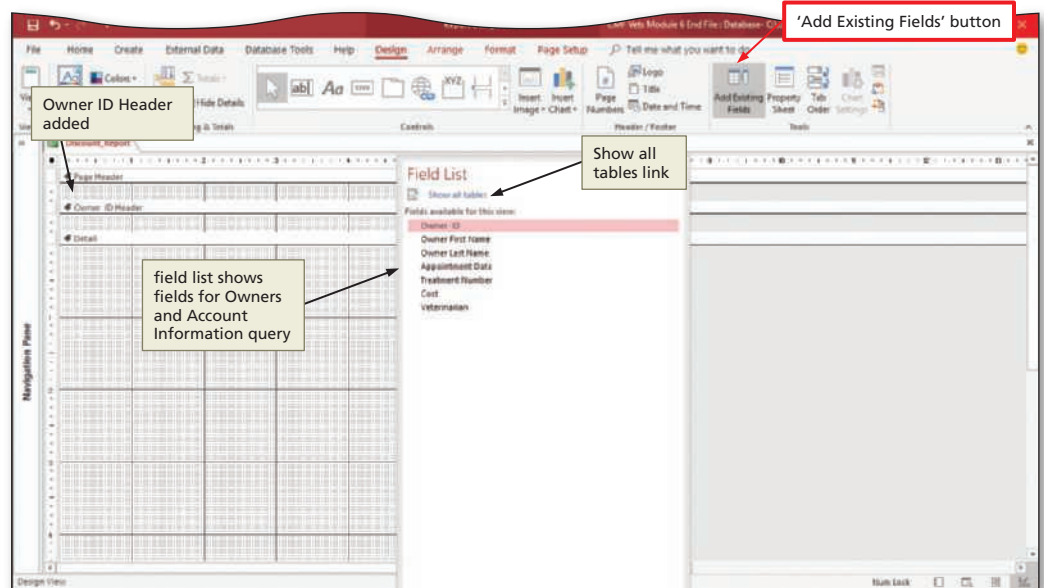


Figure 6–60

2

- Drag the Owner ID field to the approximate position shown in Figure 6–61.

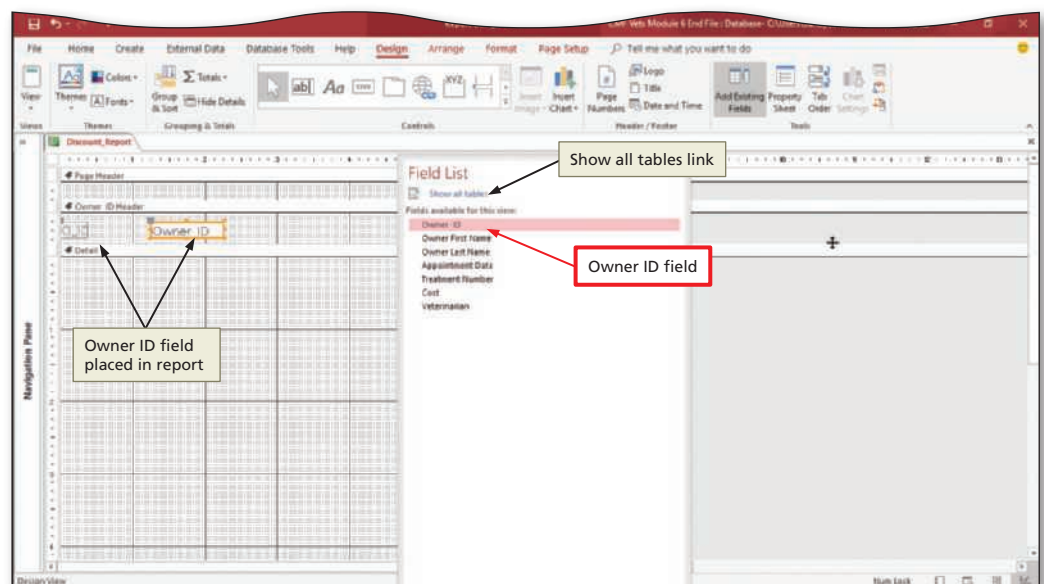


Figure 6–61

3

- Click the label for the Owner ID control to select it (Figure 6-62).

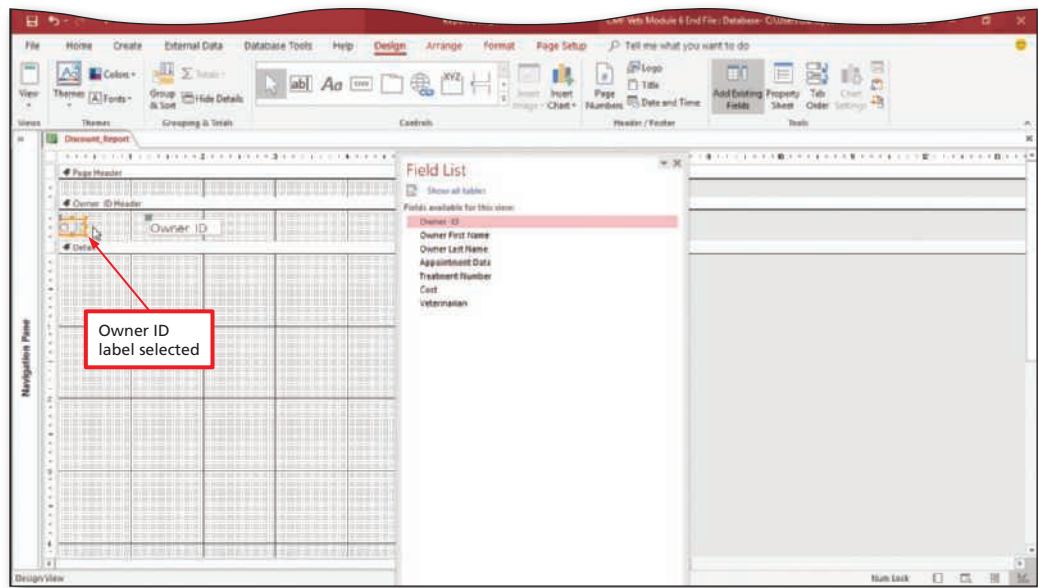


Figure 6-62

4

- Display the Home tab.
- Click the Cut button (Home tab | Clipboard group) to cut the label.
- Click the Page Header bar to select the page header (Figure 6-63).

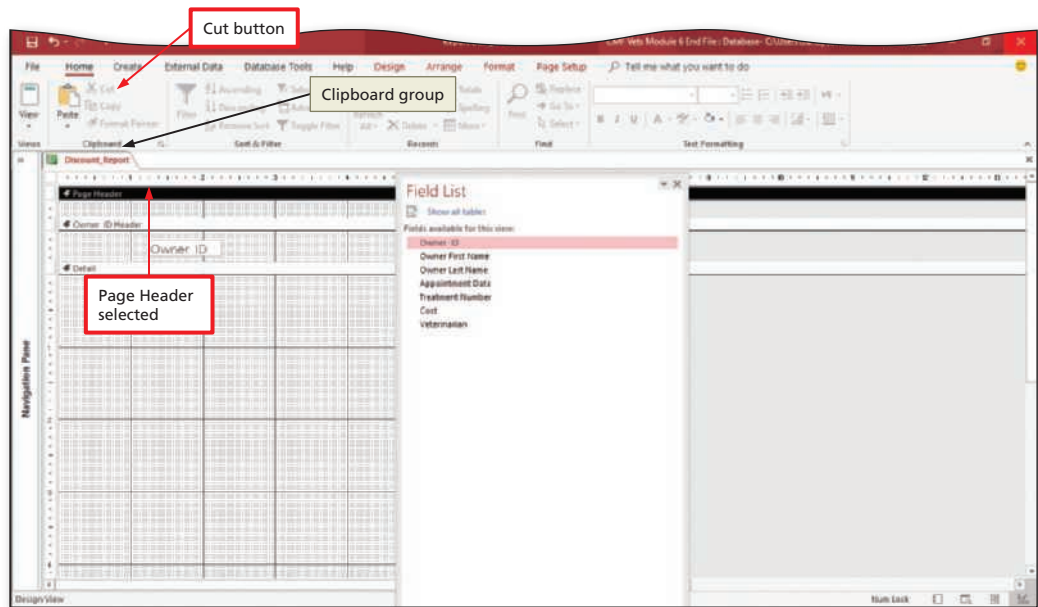


Figure 6-63

Q&A Do I have to click the bar, or could I click somewhere else within the section? You could also click within the section. Clicking the bar is usually safer, however. If you click in a section intending to select the section, but click within one of the controls in the section, you will select the control rather than the section. Clicking the bar always selects the section.

5

- Click the Paste button (Home tab | Clipboard group) to paste the label in the Page Header section (Figure 6–64).

Q&A

When would I want to click the Paste button arrow rather than just the button?

Clicking the arrow displays the Paste button menu, which includes the Paste command and two additional commands. Paste Special allows you to paste data into different formats. Paste Append, which is available if you have cut or copied a record, allows you to paste the record to a table with a similar structure. If you want the simple Paste command, you can just click the button.

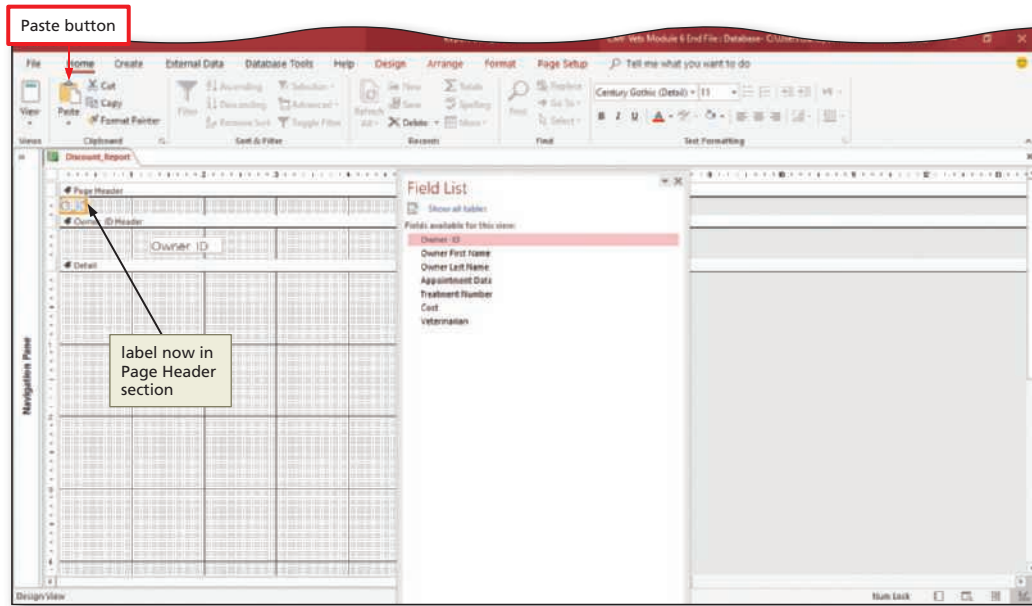


Figure 6–64

6

- Click in the label to produce an insertion point, use BACKSPACE or DELETE to erase the current entry in the label, and then type **Owner ID Number** as the new entry.
- Click in the label in front of the word, Number, to produce an insertion point.
- Press SHIFT+ENTER to move the word, Number, to a second line (Figure 6–65).

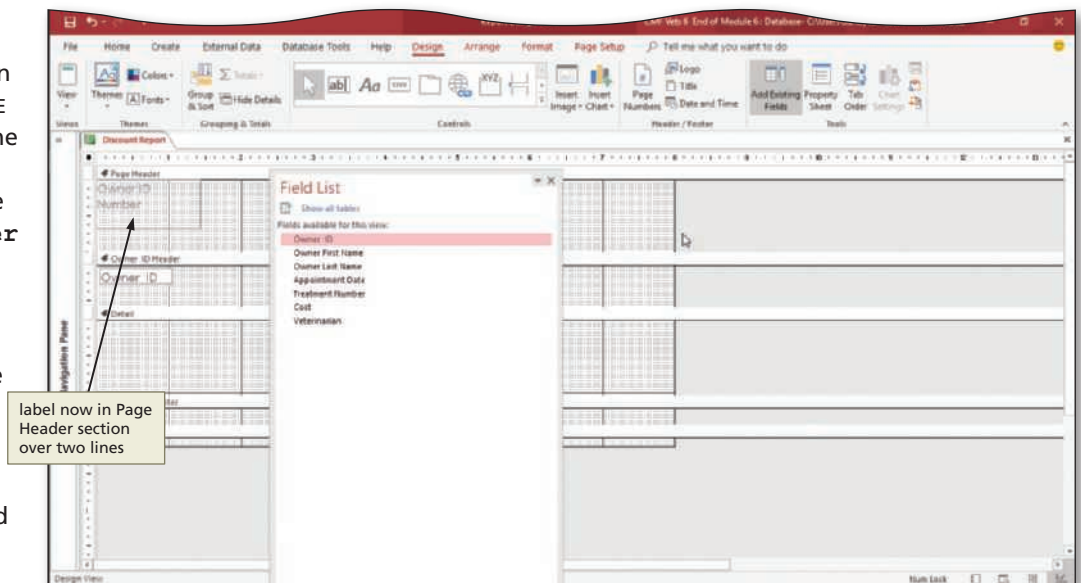


Figure 6–65

To Add the Remaining Fields

After first resizing the Owner ID control and label, the following steps add all the remaining fields for the report by dragging them into the Detail section. *Why? Dragging them moves them onto the report, where you can now relocate the controls and labels individually to the desired locations.* The next steps move the labels into the Page Header section, and move the controls containing the fields to the appropriate locations.

1

- Select the Owner First Name, Owner Last Name, Appointment Date, Treatment Number, and Cost fields as shown in Figure 6–66.

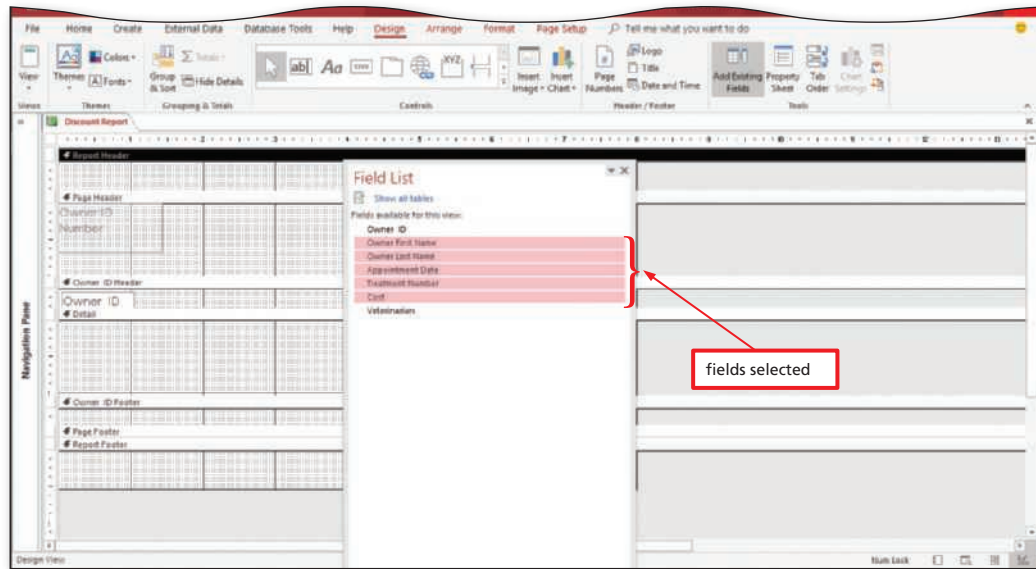


Figure 6–66

- Drag the Owner First Name, Owner Last Name, Appointment Date, Treatment Number, and Cost fields into the Detail section and close the field list as shown in Figure 6–67.

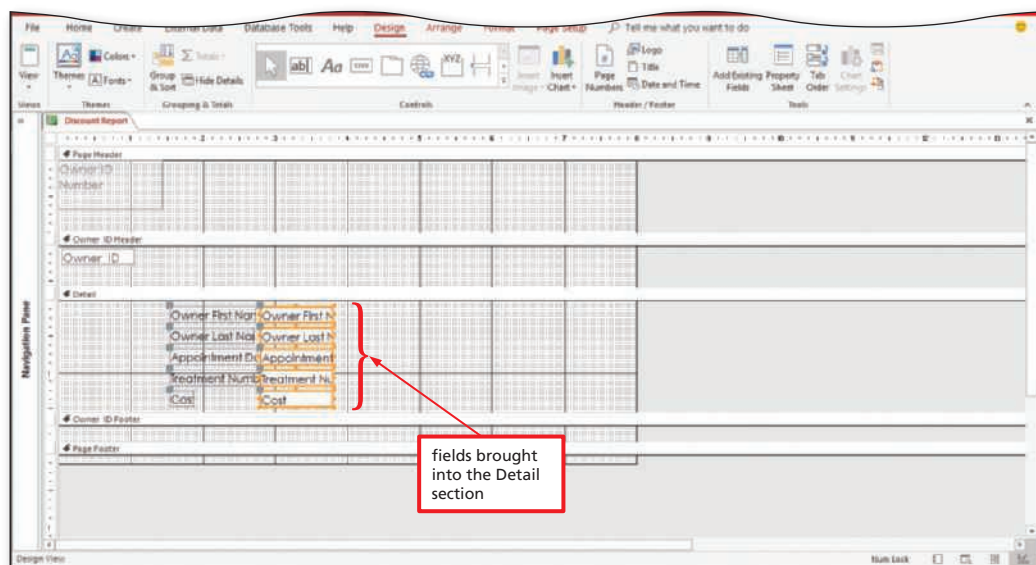


Figure 6–67

Q&A Could I drag them all at once?

Yes. You can select multiple fields by selecting the first field, holding down the SHIFT key, and then selecting other adjacent fields. To select fields that are not adjacent to each other, hold down the CTRL key and select the additional fields. Once you have selected multiple fields, you can drag them all at once. How you choose to select fields and drag them onto the report is a matter of personal preference.

Q&A When I paste the label, it is always placed at the left edge, superimposing the Owner ID control. Can I change where Access places it?
 Unfortunately, when you paste to a different section, Access places the control at the left edge. You will need to drag each control to its proper location after pasting it into the Page Header section.

- 2 One at a time, move and resize the Owner First Name and Owner Last Name Appointment Date, Treatment Number, and Cost control headers to the Page Header section as shown in Figure 6–68.

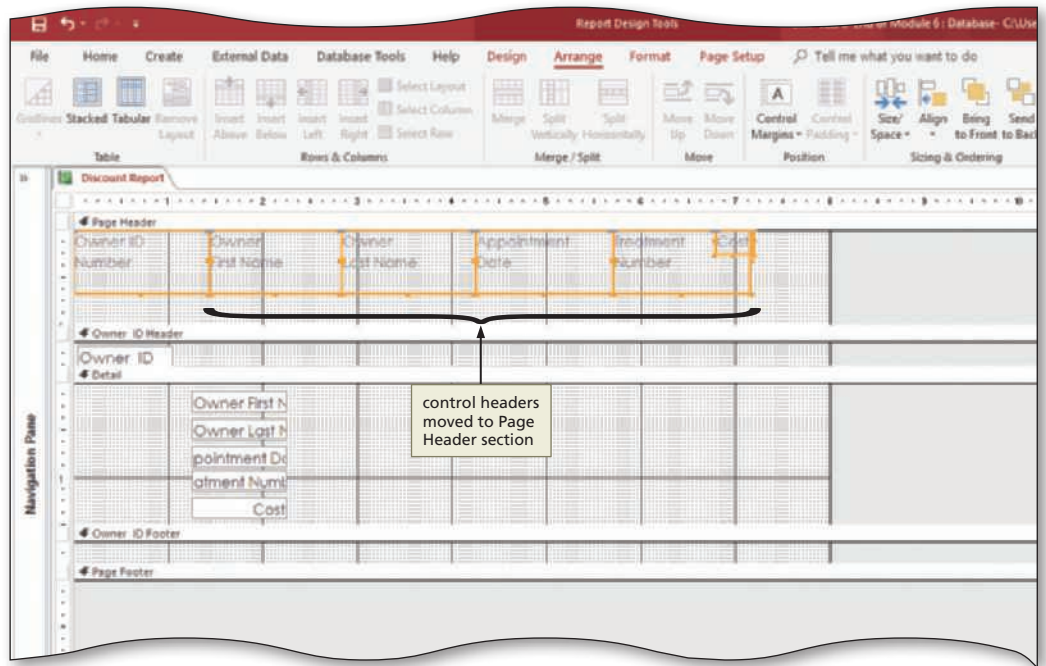


Figure 6–68

- 3 One at a time, move and resize the Owner First Name and Owner Last Name controls to the approximate positions in the Owner ID Header section.
- 4 Arrange the remaining controls in the Detail section as shown in Figure 6–69.

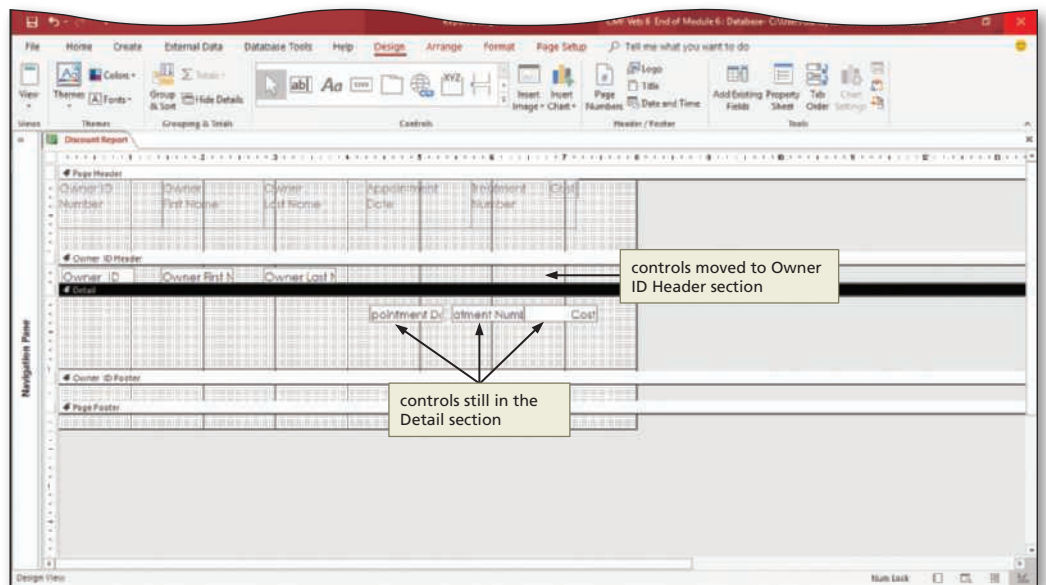


Figure 6–69



How will you incorporate calculations in the report?

Determine details concerning any calculations required for the report.

Determine whether to include calculations in the group and report footers. The group footers or report footers might require calculated data such as subtotals or totals. Determine whether the report needs other statistics that must be calculated (for example, average).

Determine whether any additional calculations are required. If so, determine the fields that are involved and how they are to be combined. Determine whether any of the calculations depend on a true or false statement for a criterion, in which case the calculations are conditional.

BTW

Arguments

An argument is a piece of data on which a function operates. For example, in the expression =SUM ([Cost]), Cost is the argument because the SUM function will calculate the total of Cost.

Totals and Subtotals

To add totals or other statistics to a footer, add a text box control. You can use any of the aggregate functions in a text box: COUNT, SUM, AVG (average), MAX (largest value), MIN (smallest value), STDEV (standard deviation), VAR (variance), FIRST, and LAST. To use a function, type an equal (=) sign, followed by the function name. You then include a set of parentheses containing the item for which you want to perform the calculation. If the item name contains spaces, such as Annual Total, you must enclose it in square brackets. For example, to calculate the sum of values of a field named Annual Total, the expression would be =SUM([Annual Total]).

Access will perform the calculation for the appropriate collection of records. If you enter the SUM expression in the Owner ID Footer section, Access will only calculate the subtotal for accounts with the given owner ID; that is, it will calculate the appropriate subtotal. If you enter the SUM expression in the Report Footer section, Access will calculate the total for all accounts.

1

- Use the Group and Sort pane to add an Owner ID footer.
- Click the Text Box tool (Report Design Tools Design tab | Controls group), and then point to the position shown in Figure 6–70.

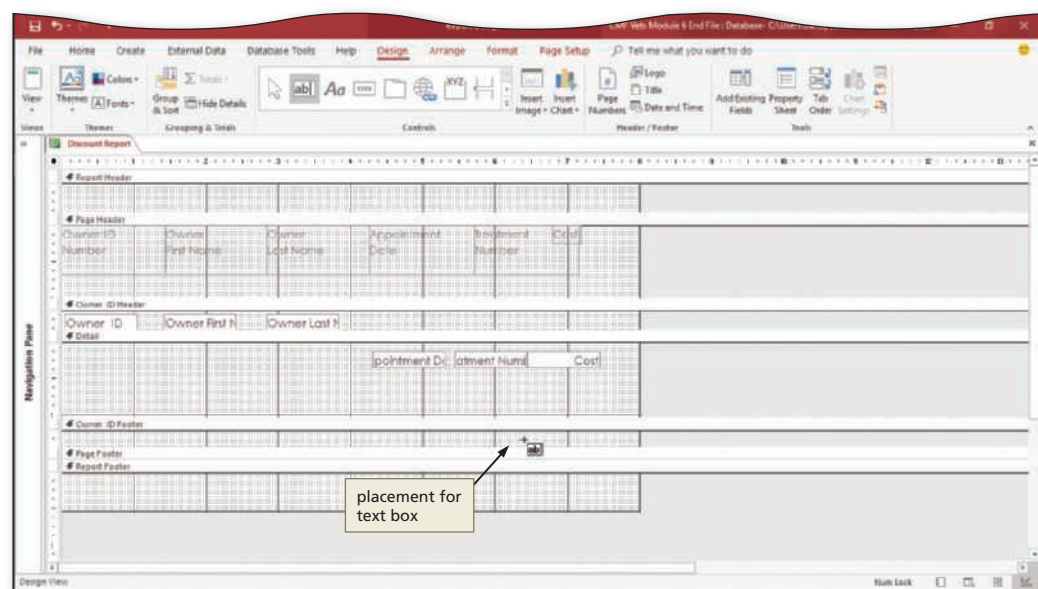


Figure 6–70

2

- Click the position shown in Figure 6–70 to place a text box (Figure 6–71).

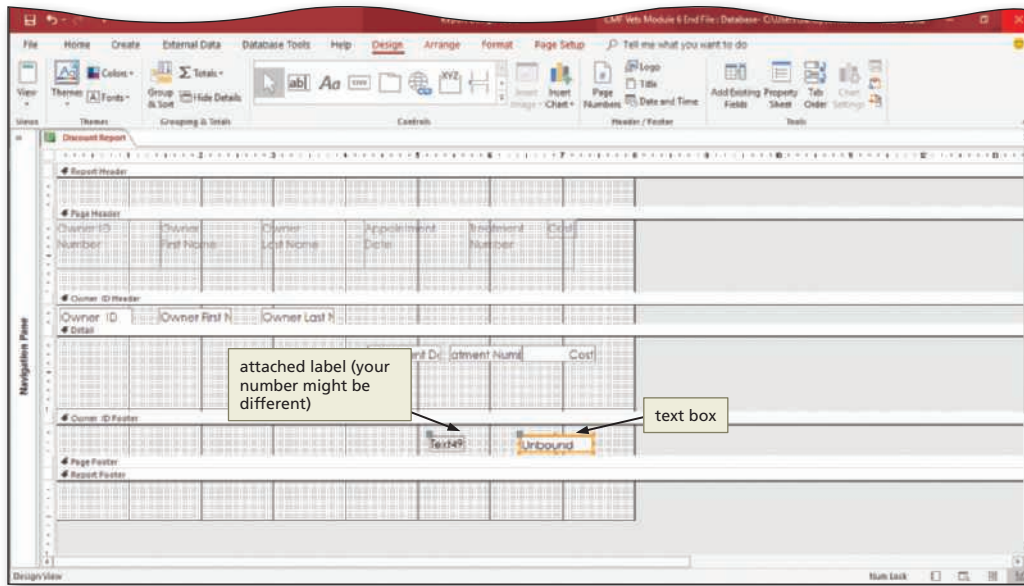


Figure 6–71

3

- Click the text box to produce an insertion point.
- Type `=Sum ([Cost])` in the control to enter the expression calculation, and then press ENTER.
- Format the calculation to currency by clicking the Report Design Tools Format tab and clicking the 'Apply Currency Format' button.
- Click the text box label to select it.
- Click the label a second time to produce an insertion point.
- Use the DELETE or BACKSPACE key to delete the Text12 label (your number might be different).
- Type `Subtotal` as the label. Click outside the label to deselect it and then drag the label to the position shown in Figure 6–72.

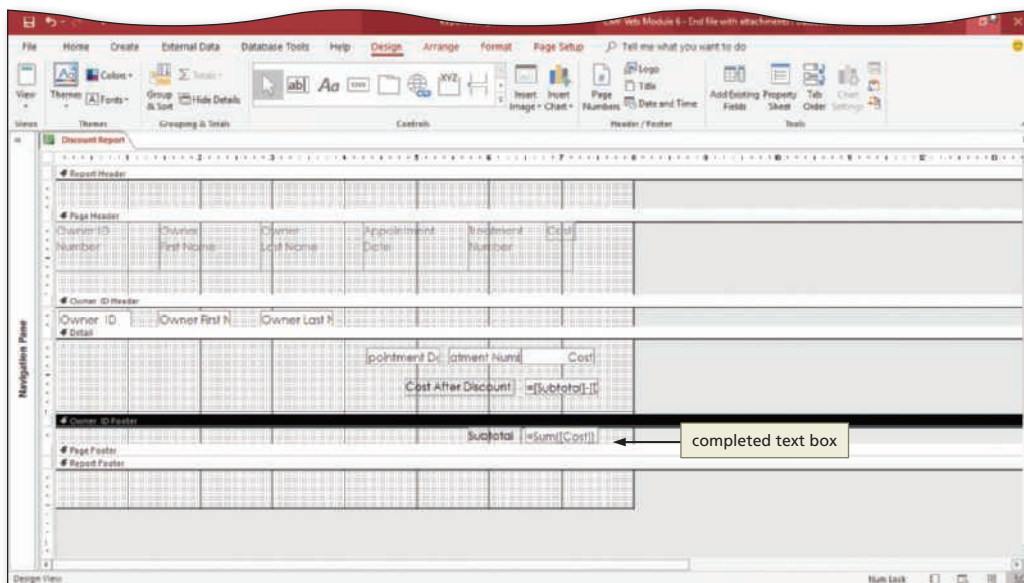


Figure 6–72

To Add Subtotals and Other Calculations

The following step creates a subtotal. The second calculation is a discount for treatment costs over \$20. This discount is applied using the Iif (Immediate If) calculation. When using the Iif calculation, it first finds what you are looking for, which in this case are treatment costs over \$20. Then, if a treatment cost is found to be over \$20, you want to apply a 20 percent or (.20) discount to the treatment cost. But, if the treatment cost is \$20 or less, then no discount is given. The Iif calculation for this example, would be entered manually in a control as follows: `=Iif ([cost] >20, [cost] *0.2, 0)`. Notice that the cost field needs to be in square brackets. Also, note that there are commas after each part of the calculation. The results of the subtotal and the Iif calculations will both be displayed in the Owner ID Footer section with the control labels Subtotal and Discount.

The steps change the format of the new controls to currency *Why? The requirements at CMF Vets managers indicate that the Discount Report should contain subtotals for the appointment costs and a discount for customers who are paying more than \$20 for one of their treatment costs.*

1

- Click the Text Box tool (Report Design Tools Design tab | Controls group), and then click the position in the Owner ID Footer section, as shown in Figure 6–73.
- Click the text box to produce an insertion point.
- Type `=Iif ([cost] >20, [cost] *0.2, 0)` in the control to enter the expression calculation as shown in Figure 6–73, and then press ENTER.
- Click the text box label to select it.
- Click the label a second time to produce an insertion point.
- Use DELETE or BACKSPACE to delete the Text18 label (your number might be different).
- Type `Discount` as the label.

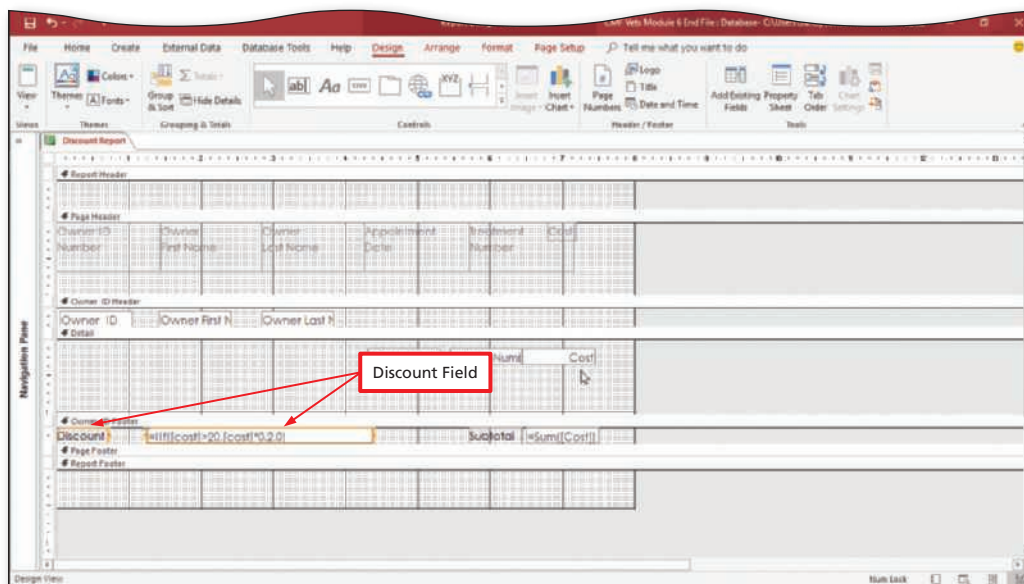


Figure 6–73

- Format the calculation to currency by clicking the Report Design Tools Format tab and clicking the 'Apply Currency Format' button.
- Switch between Design view and Layout view to review the results by clicking the (Report Design Tools) Design tab and selecting the View arrow.

To Add a Header and Footer to the Discount Report

Report titles are typically placed in a Report Header. You can also place in the footer section calculation fields that total controls for the entire report. *Why?* *CMF Vets* wants to include a total on the report. The following steps add a Report Header and Footer and place controls in them.

1

- Right-click any open area of the report to display a shortcut menu (Figure 6–74).

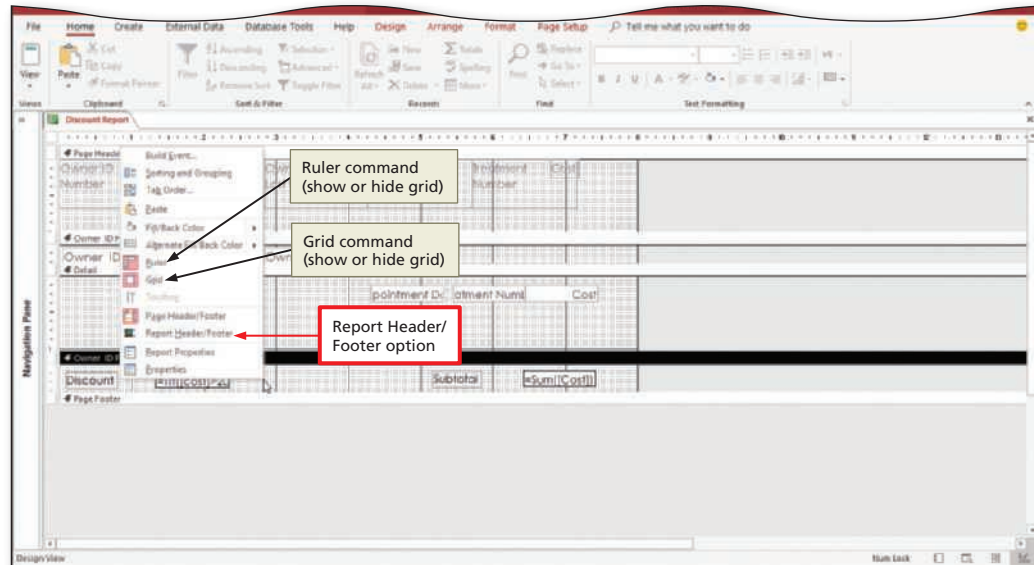


Figure 6–74

- Click 'Report Header/Footer' to display the Report Header and Footer sections.
- Click the Subtotal control in the Owner ID Footer section to select the control.
- Display the Home tab.
- Click the Copy button (Home tab | Clipboard group) to copy the selected controls to the Clipboard.
- Click the Report Footer bar to select the footer, and then click the Paste button (Home tab | Clipboard group) to paste a copy of the control into the report footer (Figure 6–75).

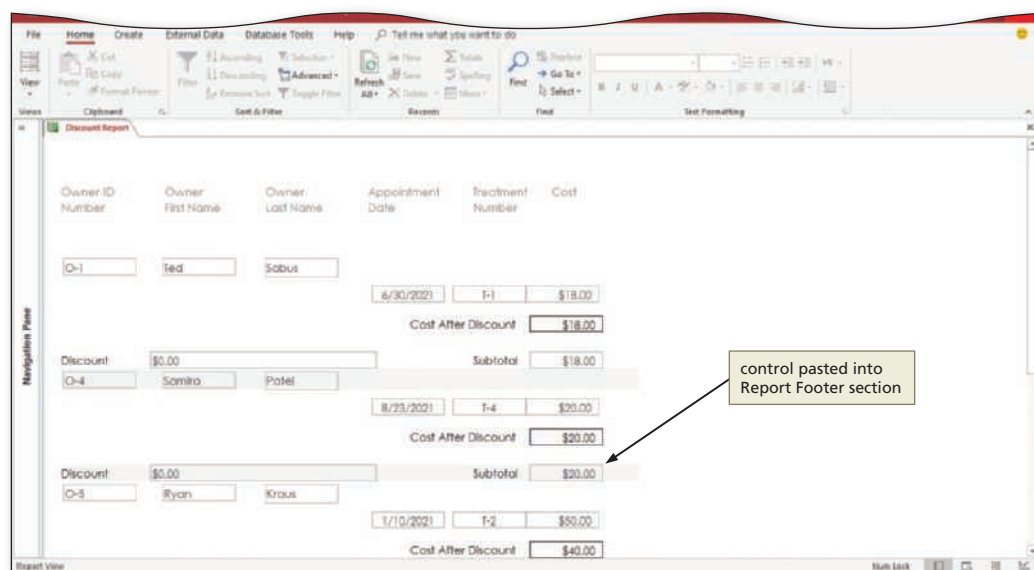


Figure 6–75

- 2
 - Click the label in the Report Footer section to select the label, and then click a second time to produce an insertion point.
 - Use the BACKSPACE or DELETE key to erase the current contents, type **Total** to change the label, and then move the label to the position shown in Figure 6–76.

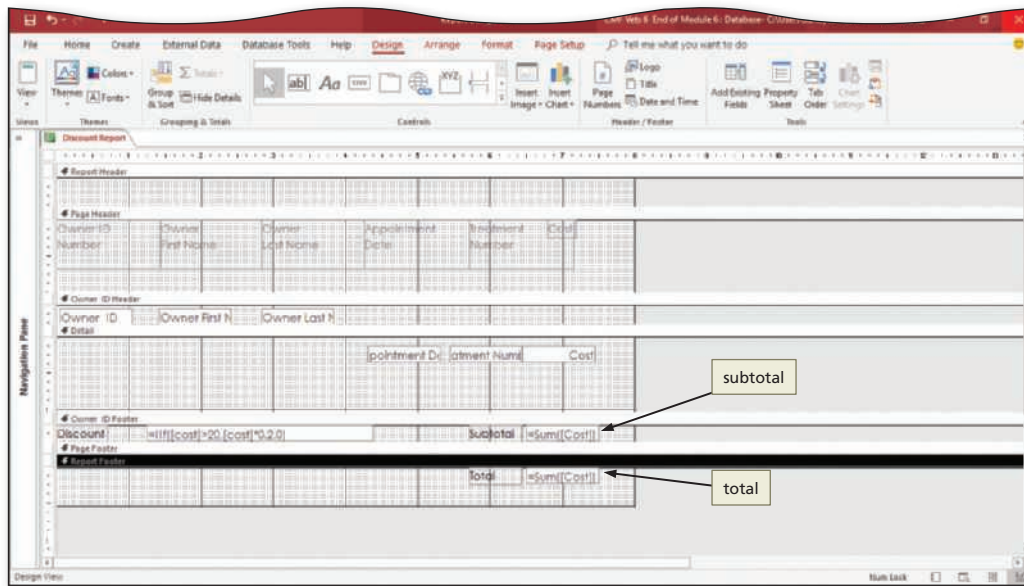


Figure 6–76

- Save your changes.

To Change the Can Grow Property

The following steps change the Can Grow property for the Owner Last Name control so that names that are too long to fit in the available space will extend to additional lines.

- 1 Select the Owner Last Name control.
- 2 Display the property sheet and scroll down until the Can Grow property appears.
- 3 Click the Can Grow property box and then click the Can Grow property box arrow to display the menu of available values for the Can Grow property.
- 4 Click Yes to change the value for the Can Grow property.
- 5 Close the property sheet.

To View the Report

The following steps view the report in Report view, which is sometimes more convenient when you want to view the lower portion of the report.

- 1 Click the View button arrow on the Home tab to display the View button menu.
- 2 Click Report View on the View button menu to view the report in Report view.
- 3 Scroll down to the bottom of the report so that the total appears on the screen (Figure 6–77a top of report and Figure 6–77b bottom of report).

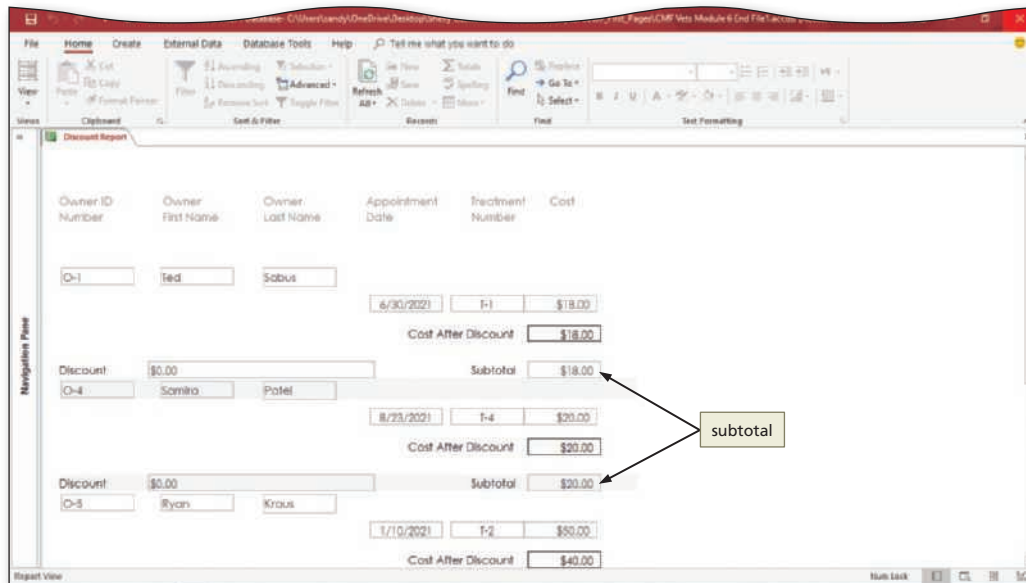


Figure 6-77a Top of Report

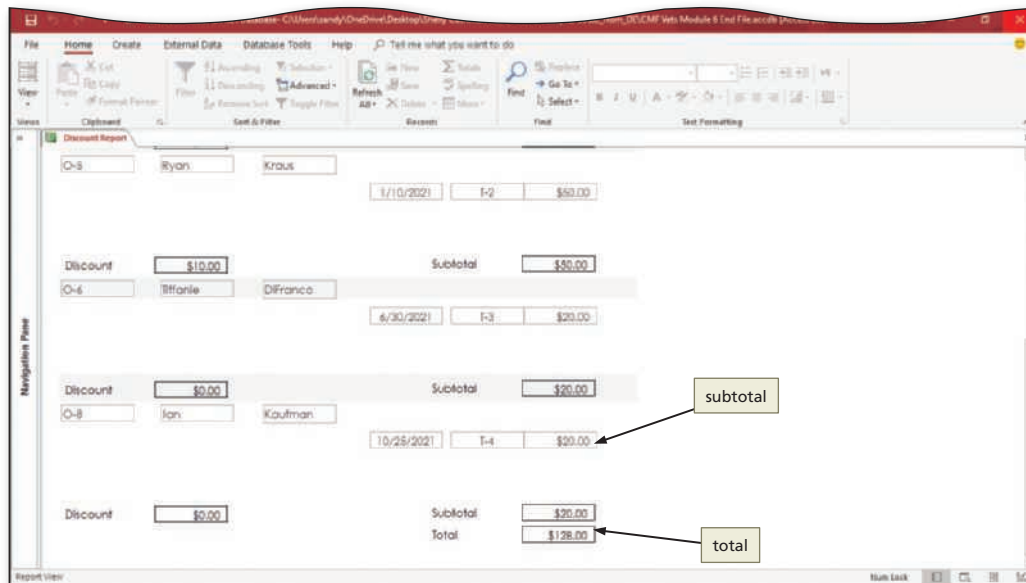


Figure 6-77b Bottom of Report

Other Ways

1. Click the Report View button on the status bar

To Remove the Color from the Report Header

The following steps remove the color from the Report Header section by changing the background color for the header to white.

- 1 Click the View button arrow and then click Design View to return to Design view.
- 2 Right-click the report header to produce a menu.
- 3 Point to the 'Fill/Back Color' arrow on the shortcut menu to display a color palette.
- 4 Click White, Background 1 in the first row, first column to change the background color to white.

To Use Expression Builder to Add a Calculation

The CMF Vets requirements for this report also involved showing the Cost subtotal less the Discount amount. Before entering the calculation into a control, you decide to change the Control name Text13 to Subtotal in the property sheet. By changing the control names to something meaningful, you will not need to remember their control name, such as Text13. These steps use Expression Builder change both expression name Text13 and Subtotal properties. *Why? Expression Builder is a convenient way to include a calculation.*

1

- With the Discount Report in Design view, click the Subtotal control in the Owner ID Footer to select it.
- Click the Property Sheet button (Report Design Tools Design tab | Tools group), and then click the Other tab.
- Click in the Name box, delete any existing text, if necessary, and then type **Subtotal** for the Name (Figure 6–78).

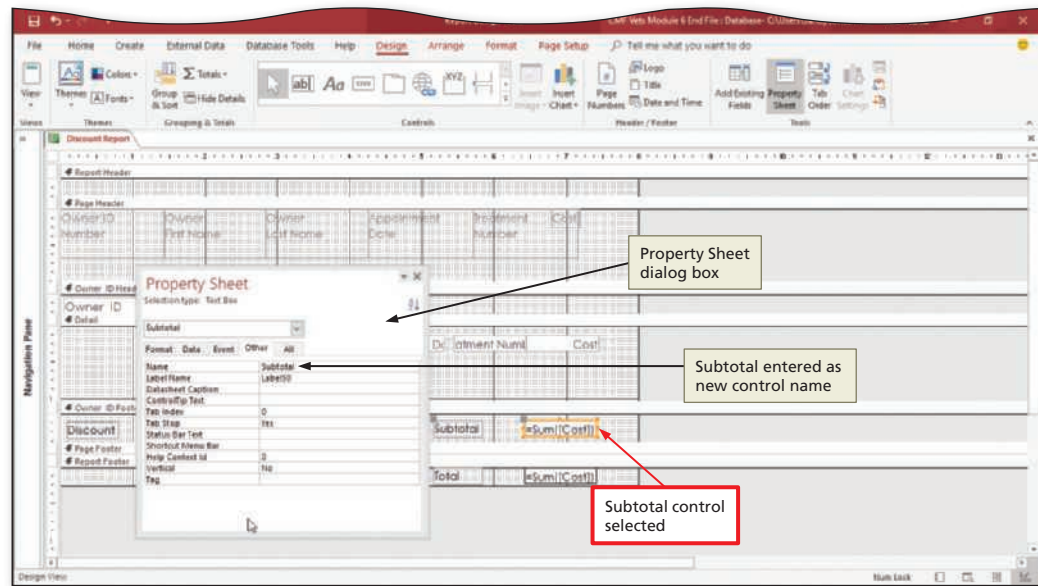


Figure 6–78

2

- If necessary, drag the property sheet to the right, and then click the If calculation control to select it.
- Click in the Name box in the Property Sheet Other tab and delete any existing text, if necessary.
- Type **Discount** for the Name (Figure 6–79) and then close the Property Sheet dialog box.

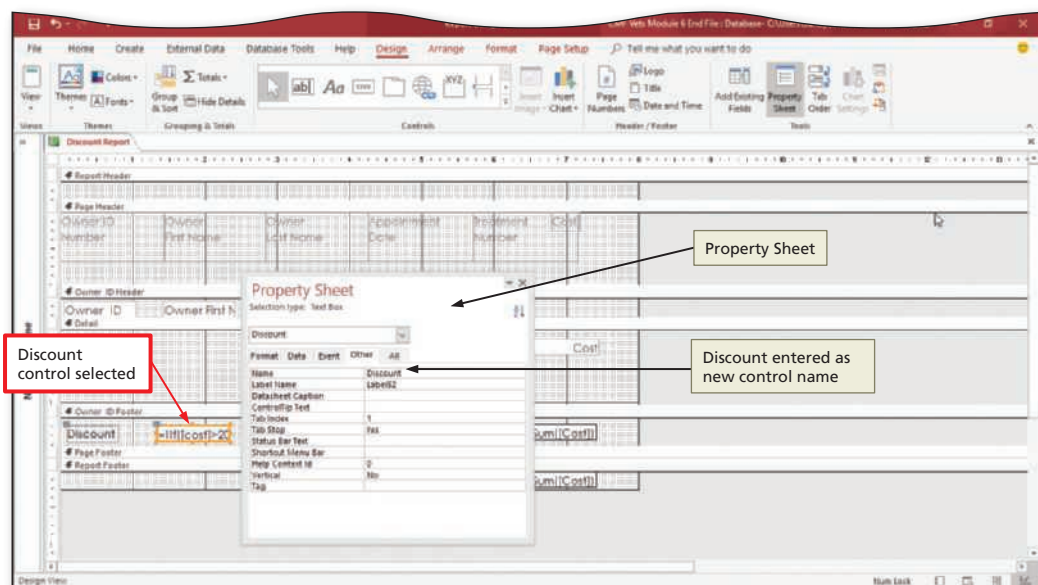


Figure 6–79

- Click the Text Box tool (Report Design Tools Design tab | Controls group), and then click in the approximate position in the Detail section to place the control for the calculation (Figure 6–80).

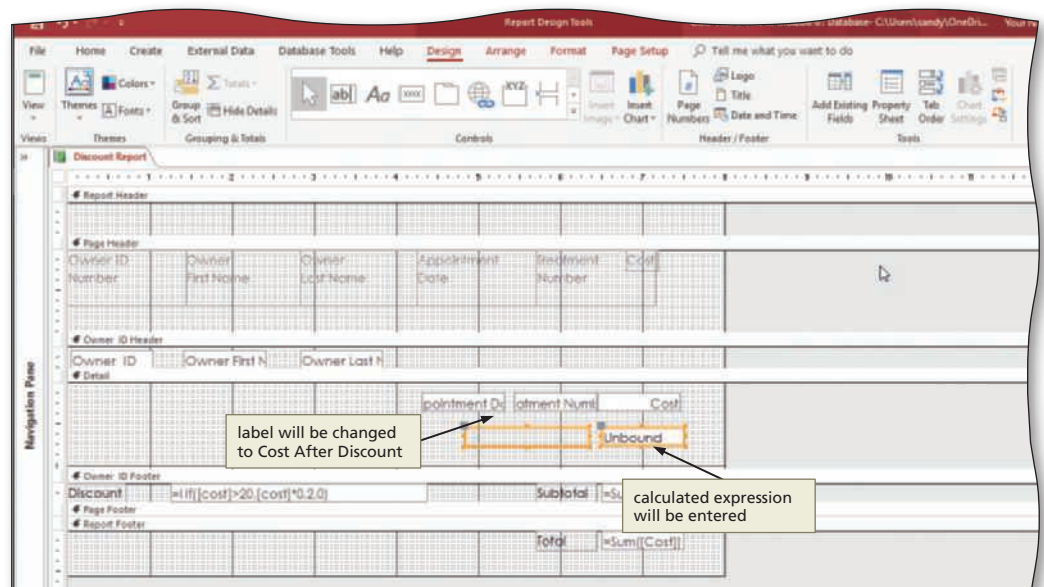


Figure 6–80

3

- Click the text box control and then click the Property Sheet button.
- Click the All tab, click the Control Source property, and then click the Build button to display the Expression Builder dialog box.
- Click Discount Report in the Expression Elements category in the first column.
- Type an equal sign (=) in the Expression Builder box.
- Scroll down in the second column so that Subtotal appears, and then double-click the Subtotal control in the second column.
- Type a minus sign (–), scroll down in the second column so that Discount appears, and then double-click the Discount control to add it to the expression (Figure 6–81).
- Click OK to close the Expression Builder dialog box and then close the Property Sheet dialog box.
- Click the label for the expression field and then click the label for the expression field a second time to produce an insertion point.
- Use BACKSPACE or DELETE to erase the current entry in the label, and then type **Cost After Discount** as the new entry.

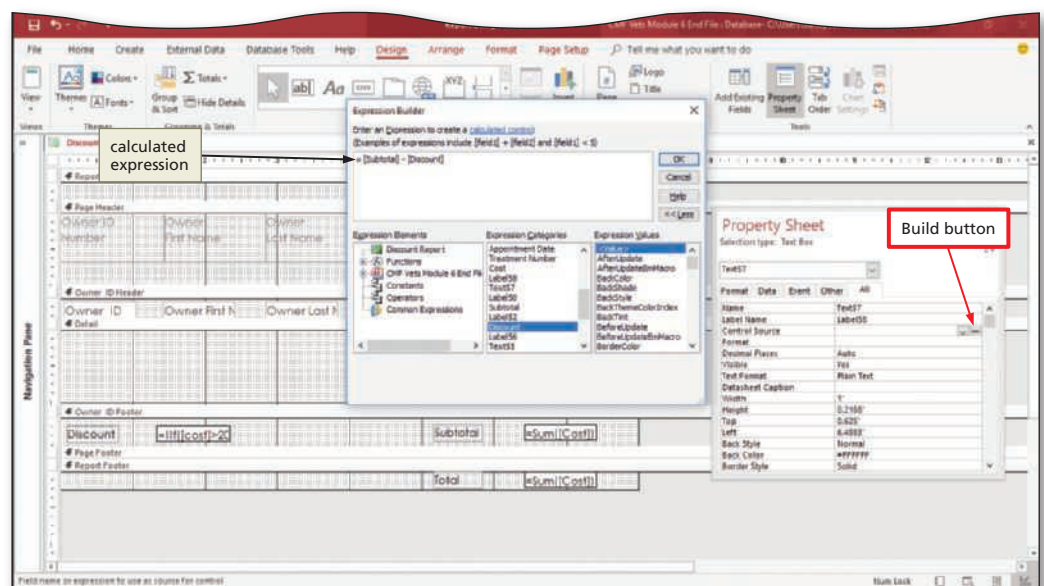


Figure 6–81

4

- Click the Expression Calculation control, click the Format tab, and then click the 'Apply Currency Format' button to apply the currency format to the calculated expression.
- Click the Report View button to view the report (Figure 6–82).

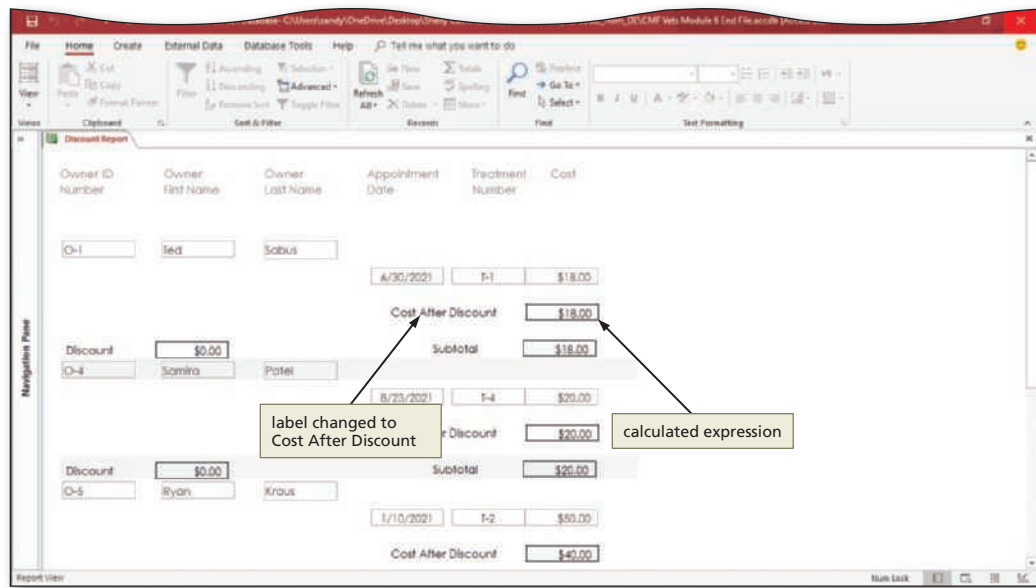


Figure 6–82

5

- Save your changes.

Q&A

Are there other ways I could enter the expression?

Yes. You could just type the whole expression. On the other hand, you could select the function just as in these steps, and, when entering each argument, you could select the fields from the list of fields and click the desired operators.

How can I place the control accurately when there are no gridlines?

When you click the position for the control, Access will automatically expand the grid. You can then adjust the control using the grid.

Can I automatically cause controls to be aligned to the grid?

Yes. Click the Size/Space button (Report Design Tools Arrange tab | Sizing & Ordering group) and then click Snap to Grid on the Size/Space menu. From that point on, any controls you add will be automatically aligned to the grid.

Why did I choose Control Source instead of Record Source?

You use Record Source to select the source of the records in a report, usually a table or a query. You use the Control Source property to specify the source of data for the control. This allows you to bind an expression or field to a control.

The report size was correct before. Why would I need to resize it?

When you move a control and a portion of the control extends into the area to the right of the right boundary of the report, the report will be resized. The new larger size will remain even if you move the control back to the left. Thus, it is possible that your report has a larger size than it did before. If this is the case, you need to drag the right boundary to resize the report.

To Add a Title

You can add a title to the second report using buttons on the Design tab, as you previously learned. Adding a title clearly identifies this report for management and users when they open and use the report. Management suggested this report have the title Discount Report for Treatment Costs.

- 1 Display the Report Design Tools Design tab, if necessary, and then click the Title button (Report Design Tools Design tab | Header/Footer group) to add a title.
- 2 Type **Discount Report for Treatment Costs** as the title.
- 3 Click outside the title to deselect the title.

- 4 Click the title again and then click the (Report Design Tools) Format tab.
- 5 Click the Bold button to format the title.
- 6 View the report in Print Preview (Figure 6–83).
- 7 Close Print Preview.

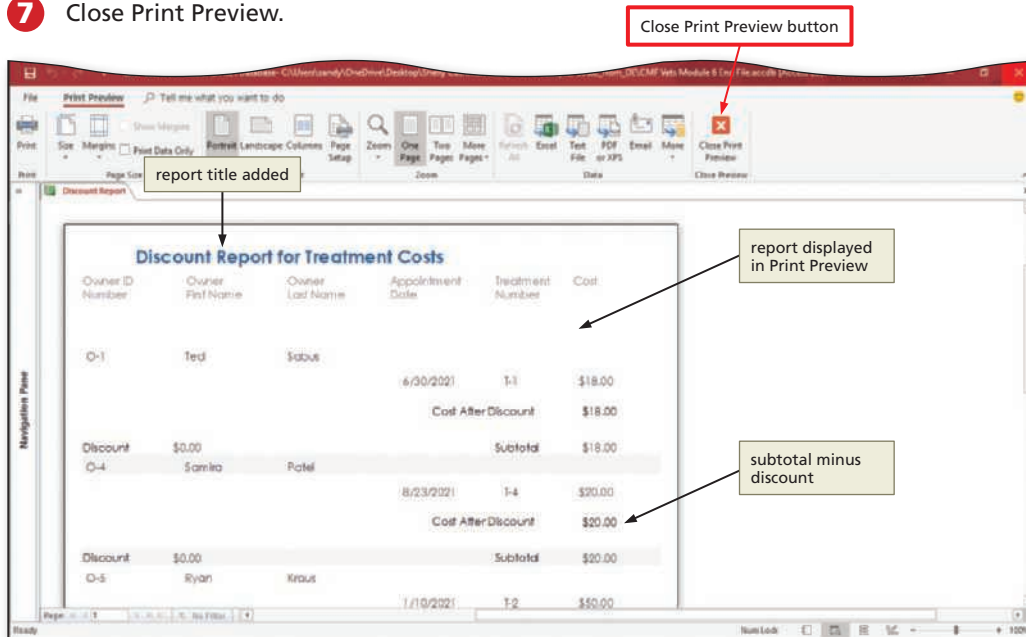


Figure 6–83

To Change the Border Style

If you print or preview the report, you will notice that all the controls have boxes around them. The box is the border, which you can select and modify if desired. You would use the following steps to remove the boxes around the controls by changing the border style to transparent.

- 1 Select all controls in the report. You can click the first one, and then hold SHIFT while clicking all the others. Alternatively, you can click in the ruler to the left of the Report Header section and then hold SHIFT while clicking to the left of all the other sections.
- 2 Display the Report Design Tools Design tab.
- 3 Click the Property Sheet button (Report Design Tools Design tab | Tools group) to display the property sheet.
- 4 Click the Border Style property box and then click the Border Style property box arrow to display the menu of available border styles.
- 5 Click Transparent to change the border style. Close the property sheet.

To Remove the Alternate Color

Just as with the Owner ID Master List, the Discount Report also has alternate colors that need to be removed. You would use the following steps to remove the alternate colors from the various sections in the report, starting with the Detail section.

- 1 Right-click the Detail section to produce a shortcut menu.
- 2 Point to the Alternate Fill/Back Color arrow to produce a color palette.

- 3 Click None on the color palette to specify that there is to be no alternate color for the selected section.
- 4 Using the same techniques, remove the alternate color from all other sections. (For some sections, the command may be dimmed.)

BTW

Hyperlink Controls

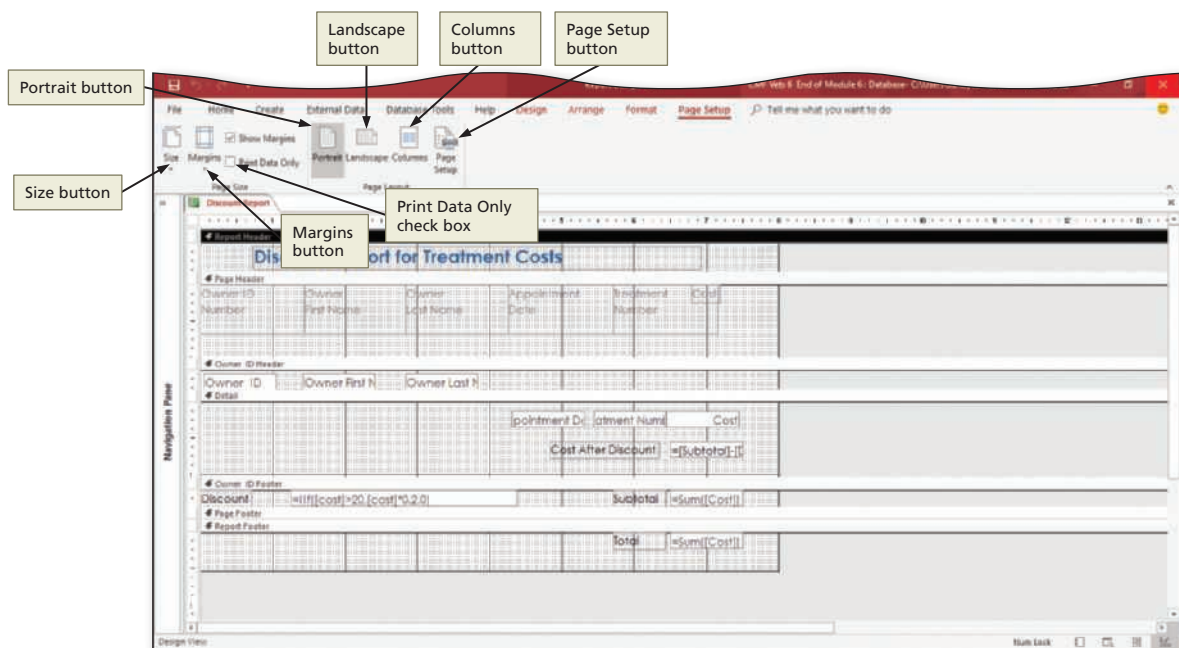
You can add a hyperlink to tables, forms, and reports. A hyperlink provides single-click access to an existing file, webpage, database object, or email address. To add a hyperlink, click the Hyperlink tool, enter the hyperlink in the Address text box (Insert Hyperlink dialog box), and click the OK button. If necessary, move the hyperlink control to the desired location on the report.

Obtaining Help on Functions

There are many functions included in Access that are available for a variety of purposes. To see the list of functions, display the Expression Builder. (See Figure 6-78 for one way to display the Expression Builder.) Double-click Functions in the first column and then click Built-In Functions. You can then scroll through the entire list of functions in the third column. Alternatively, you can click a function category in the second column, in which case the third column will only contain the functions in that category. To obtain detailed help on a function, highlight the function in the third column and click the Help button. The Help presented will show the syntax of the function, that is, the specific rule for how you must type the function and any arguments. It will give you general comments on the function as well as examples illustrating the use of the function.

Report Design Tools Page Setup Tab

You can use the buttons on the Report Design Tools Page Setup tab to change margins, orientation, and other page setup characteristics of the report (Figure 6-84a). If you click the Margins button, you can choose from among some predefined margins or set your own custom margins (Figure 6-84b). If you click the Columns button, you will see the Page Setup dialog box with the Columns tab selected (Figure 6-84c). You can use this tab to specify multiple columns in a report as well as the column spacing. You can specify orientation by clicking the Page button (Figure 6-84d). You can also select paper size, paper source, and printer using this tab. If you click the Page Setup button, you will see the Page Setup dialog box with the Print Options tab selected (Figure 6-84e). You can use this tab to specify custom margins.

**Figure 6-84a Page Setup Tab**

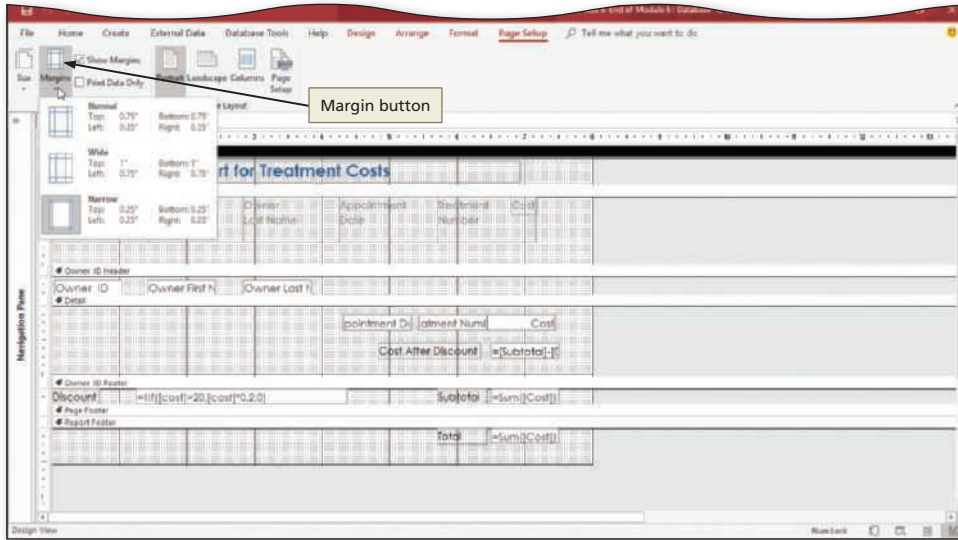


Figure 6-84b Margin Gallery

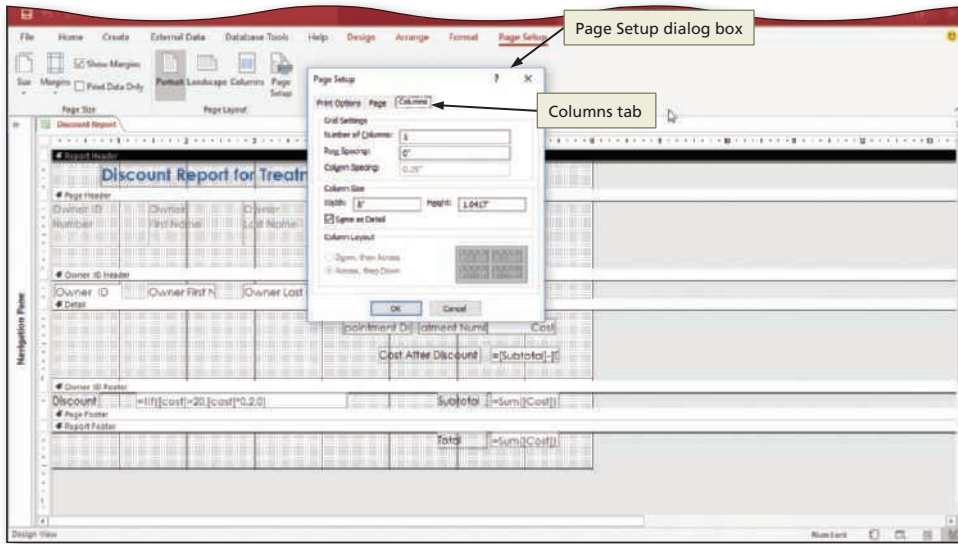


Figure 6-84c Page Setup Dialog Box Columns Tab

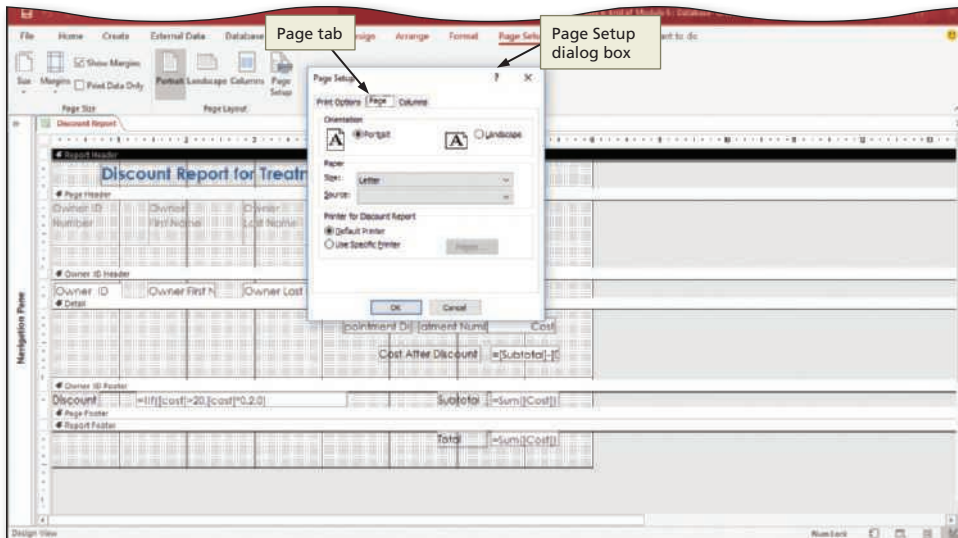


Figure 6-84d Page Setup Dialog Box Page Tab

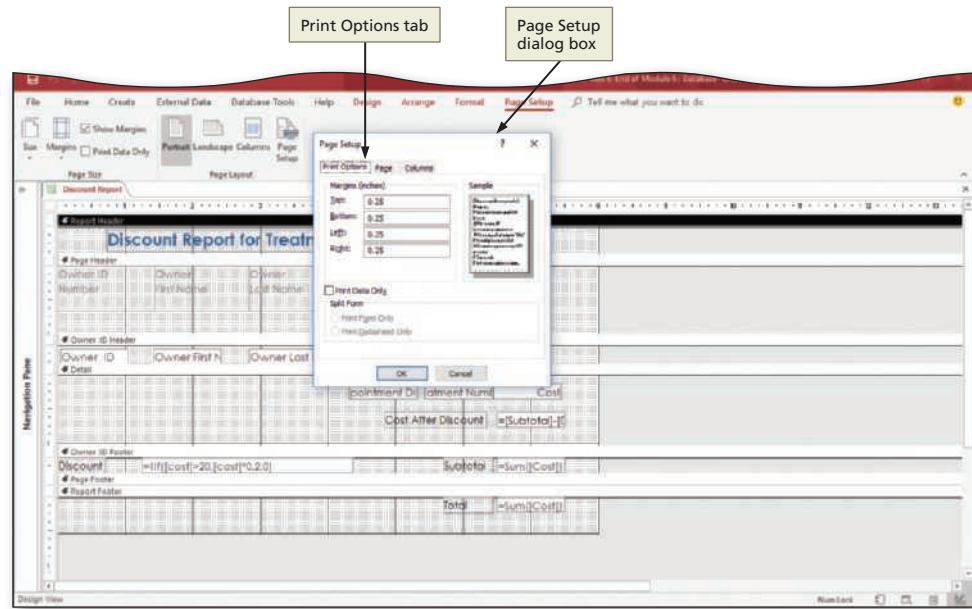


Figure 6–84e Page Setup Dialog Box Print Options Tab

To Change the Report Margins

BTW

Drop Down Controls

Drop down boxes can be combo boxes or list boxes. To add a combo box to a report, click the Combo Box tool, move the pointer to the desired location, and click the position to place the combo box. Follow the directions in the Combo Box Wizard dialog box to specify the options and values for the combo box. To add a list box to a report, click the List Box tool and follow the steps listed above for a combo box.

If you look at the horizontal ruler in Figure 6–84, you will notice that the report width is slightly over 7 inches. Because the report will probably print on standard 8½" × 11" paper, a 7-inch report with 1-inch margins on the left and right, which would result in a 9-inch width, will not fit. To allow the report to fit on the page, you could change the orientation from Portrait to Landscape or you could reduce the margins. There are two ways to change the margins. You can click the Margins button on the Report Design Tools Page Setup tab and then select from some predefined options. If you want more control, you can click the Page Setup button to display the Page Setup dialog box. You can then specify your own margins, change the orientation, and also specify multiple columns if you want a multicolumn report.

The following steps use the Margins button to select Narrow margins.

- 1 Display the Report Design Tools Page Setup tab.
- 2 Click the Margins button (Report Design Tools Page Setup tab | Page Size group).
- 3 If necessary, click Narrow to specify the Narrow margin option.

Fine-Tuning a Report

When you have finished a report, you should review several of its pages in Print Preview to make sure the layout is precisely what you want. You may find that you need to increase the size of a control, which you can do by selecting the control and dragging the appropriate sizing handle. You may decide to add a control, which you could do by using the appropriate tool in the Controls group or by dragging a field from the field list.

In both cases, if the control is located between other controls, you have a potential problem. You may not have enough space between the other controls to increase the size or to add an additional control. If the control is part of a control layout that you had when you modified earlier reports in Layout view, you can resize controls or add new fields, and the remaining fields automatically adjust for the change. In Design view with individual controls, you must make any necessary adjustments manually.


To Make Room For Resizing or Adding Controls

To make room for resizing a control or for adding controls, you would use the following steps.

1. Select all controls to the right of the control you want to resize, or to the right of the position where you want to add another control.
2. Drag any of the selected controls to the right to make room for the change.

To SAVE AND CLOSE A REPORT

Now that you have completed your work on your report, you should save the report and close it. The following steps first save your work on the report and then close the report.

1. If instructed to do so by your instructor, change the title of the Discount Report to LastName Report where LastName is your last name.
2. Click the Save button on the Quick Access Toolbar to save your work.
3. Close the Discount Report.
4. Preview and then print the report.
5. If desired, sign out of your Microsoft account.
6.  Exit Access.

Summary

In this module you have learned to create and relate additional tables; create queries for a report; create reports in Design view; add fields and text boxes to a report; format controls; group and ungroup controls; modify multiple controls; add and modify a subreport; modify section properties; add a title, page number, and date; add subtotals; use a function in a text box; and publish a report.

What decisions will you need to make when creating your own reports?

Use these guidelines as you complete the assignments in this module and create your own reports outside of this class.

1. Determine the intended audience and purpose of the report.
 - a. Identify the user or users of the report and determine how they will use it.
 - b. Specify the necessary data and level of detail to include in the report.
2. Determine the source of data for the report.
 - a. Determine whether all the data is in a single table or whether it comes from multiple related tables.
3. Determine whether the data is stored in a query.
 - a. You might need to create multiple versions of a report for a query where the criterion for a field changes, in which case, you would use a parameter query and enter the criterion when you run the report.
 - b. If the data comes from multiple related tables, you might want to create a query and use the query as a source of data.
4. Determine the fields that belong on the report.
 - a. Identify the data items that are needed by the user of the report.
5. Determine the organization of the report.
 - a. The report might be enhanced by displaying the fields in a particular order and arranged in a certain way.
 - b. Should the records in the report be grouped in some way?
 - c. Should the report contain any subreports?



CONSIDER THIS

6. Determine any calculations required for the report.
 - a. Should the report contain totals or subtotals?
 - b. Are there any special calculations?
 - c. Are there any calculations that involve criteria?
 7. Determine the format and style of the report.
 - a. What information should be in the report heading?
 - b. Do you want a title and date?
 - c. Do you want special background colors or alternate colors?
 - d. Should the report contain an image?
 - e. What should be in the body of the report?
-

How should you submit solutions to questions in the assignments identified with a symbol?

Every assignment in this book contains one or more questions identified with a symbol. These questions require you to think beyond the assigned database. Present your solutions to the questions in the format required by your instructor. Possible formats may include one or more of these options: write the answer; create a document that contains the answer; present your answer to the class; discuss your answer in a group; record the answer as audio or video using a webcam, smartphone, or portable media player; or post answers on a blog, wiki, or website.



CONSIDER THIS

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Adding a Table and Creating a Report with a Subreport

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Access and then open the Support_AC_Financial Services database that you modified previously. (If you did not complete the exercise, see your instructor for a copy of the modified database.)

Perform the following tasks:

1. Create a table in which to store data about financial services performed for clients. Use Services as the name of the table. The Services table has the structure shown in Table 6–4.

Field Name	Data Type	Field Size	Description
Client Number	Short Text	4	Part of Primary Key
Service Date	Date/Time (Change Format property to Short Date)		Part of Primary Key
Hours Worked	Number (Change Format property to Fixed and Decimal Places to 2)	Single	

2. Import the Services.csv file into the Services table. The file is delimited by commas and the first row contains the field names. Do not save the import steps.
3. Create a one-to-many relationship (enforce referential integrity) between the Client table and the Services table. Save the relationship and close the Relationships window.
4. Create a query that joins the Advisor and Client tables. Include the Advisor Number, First Name, and Last Name fields from the Advisor table. Include all fields except the Client Type and Advisor Number fields from the Client table. Save the query as Advisors and Clients.
5. Create the report shown in Figure 6–85. The report uses the Advisors and Clients query as the basis for the main report and the Services table as the basis for the subreport. Use the name Advisors and Clients Master List for the report. The report title has a Text Align property value of Center.

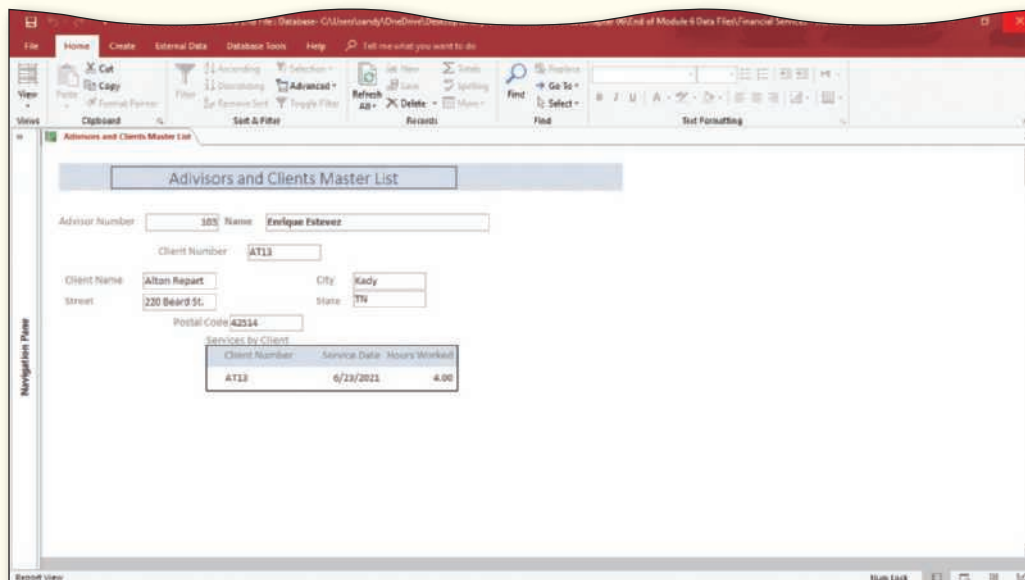



Figure 6–85

Continued >

Expand Your World *continued*

The Border Width property for the detail controls is 1 pt and the subreport name is Services by Client. The report is similar in style to the Owners and Account Information Master List shown in Figure 6–1a.

6. If requested to do so by your instructor, change the title for the report to First Name Last Name Master List where First Name and Last Name are your first and last names.
7. Submit the revised database in the format specified by your instructor.
8.  How would you change the font weight of the report title to bold?

Extend Your Knowledge


Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Modifying Reports

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Healthy Pets is a veterinarian practice that is being closed due to retirements. CMF is considering buying this practice to expand their client basis. Start Access and then open the Support_AC_Healthy Pets database.

Perform the following tasks:

1. Open the Client Amount Due Summary Report in Design view. Insert a date field and a page number field in the report header.
2. Format the date and page number so that they are aligned with the right edge of the report.
3. Change the report title to Revised Client Summary Report. Change the report header background to white. Change the font of the title text to Bookman Old Style with a font weight of semi-bold. Make sure the entire title is visible and the title is centered across the report.
4. Add a label to the report footer section. The label should contain text to indicate the end of the report, for example, End of Report or similar text.
5. Remove any extra white space in the Detail section of the report.
6. Use conditional formatting to format the total amount value in a green background for all records where the value is equal to or greater than \$200.00.
7. If requested to do so by your instructor, open the Technician table and add your name to the table.
8. Submit the revised database in the format specified by your instructor.
9.  Do you think the borders surrounding the controls enhance or detract from the appearance of the Client Amount Due report? Explain your position.

Expand Your World

Create a solution, which uses cloud and web technologies, by learning and investigating on your own from general guidance.


Problem: Support_AC_Physical Therapy is a database containing therapists and clients (patients). To have access to additional research concerning their patient's physical challenges requiring therapy and procedures the therapists can use for treatments, you want to add hyperlinks in the Clients table to websites such as WebMD, Health and Wellness Prevention, Health and Wellness, and Falls and Fall Prevention; these hyperlinks should link to content and articles related to health issues.

Research how to add a hyperlink in an Access table. The therapists want specific websites for specific patients; this information is shown in Table 6–5. After placing these hyperlinks in the Support_AC_Physical Therapy Customer table, add the hyperlink to the Client Therapist Report.

Perform the following tasks:

1. Start Access and open the Support_AC_Physical Therapy database from the Data Files.
2. Search the web to find how to add a hyperlink in an Access table and also in a report that was created previously.
3. Create a new field in the Client table and add the websites shown in Table 6–5 in the new field for the client indicated.

Client Number	Hyperlink
AB10	https://www.webmd.com/fitness-exercise/video/office-exercises-in-5-minutes
GM52	https://www.betterhealth.vic.gov.au/health/videos/exercise-and-stretching-in-the-office
TR35	https://www.youtube.com/watch?v=vAsNz_BRgv8

4. Open the Client Therapist Report in Design view and delete any alternate background color in the report.
5. Add the hyperlink field to the Client Therapist Report.
6. Review the report in Report view and verify the accuracy of the website hyperlinks.
7. Save your changes.
8. Submit the revised database in the format specified by your instructor.
9.  What steps did you select to create a hyperlink? What website did you use? Justify your selection.

In the Labs

Design, create, modify, and/or use a database following the guidelines, concepts, and skills presented in this module

Lab: Adding a Table and Creating Reports for the Lancaster College Database

Problem: From time to time, equipment needs to be updated or replaced. Team managers, coaches, and administrators want to keep track of the changes as part of the database.

Instructions: Perform the following tasks:

Part 1: The sports department of Lancaster College would like to create a table that tracks orders of new sports equipment.

1. Start Access and open the Lancaster College database you used previously. If you did not use this database, see your instructor about accessing the required files.
2. Create a table in which to store the item order information using the structure shown in Table 6–6. Use Orders as the name of the table.

Continued >

In the Labs *continued*

Table 6–6 Structure of Orders Table			
Field Name	Data Type	Field Size	Description
Equipment ID	Short Text	30	Part of Primary Key
Date Ordered	Date/Time (Use Short Date format)		Part of Primary Key
Number Ordered	Number	Integer	
Coach ID	Short Text	10	

3. Import the data from the Orders.xlsx workbook to the Orders table.
4. Add the Orders table to the Relationships window and establish a one-to-many relationship between the Coach table and the Orders table. Save the relationship.
5. Create a query that joins the Coach table and the Orders table. Include the Equipment ID and Date Ordered from the Orders table. Include Coach ID, First Name, Last Name, Office, and Sport Name from the Coach table. Save the query as Coaches and Orders.
6. Create the report shown in Figure 6–86. The report uses the Coaches and Orders query as the basis for the main report and the Sport table as the basis for the subreport. Use the name Coaches and Orders Master List as the name for the report and the name Sports as the name for the subreport. Change the Text Align property for the title to Center.

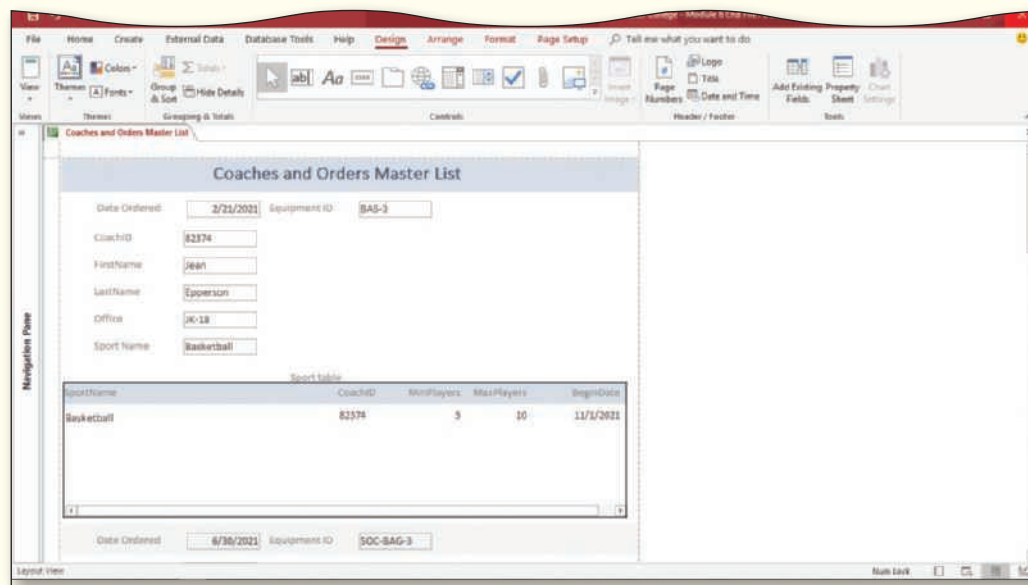


Figure 6–86

7. The page number and current date appear in the report footer section. Change the Can Grow property for the Last Name field to Yes.
8. If instructed to do so by your instructor, add a label to the report footer with your first and last name.

9. Submit the revised database in the format specified by your instructor.
10. 🌟 Adding a subreport can provide quick reference to other database information. What are your thoughts about using the Sport table for the subreport? Do you think it is helpful or would you use another table in the subreport?

Submit your assignment in the format specified by instructor.

Part 2: You made several decisions, such as adding new relationships, creating and modifying a report, and adding a subreport control. What was the rationale behind your decisions? Would you add any additional fields to this table?

7 Advanced Form Techniques

Objectives

You will have mastered the material in this module when you can:

- Add combo boxes that include selection lists
- Add a calculated field
- Add combo boxes for searching
- Use tab controls to create a multipage form
- Format and resize controls
- Add and modify a subform
- Apply formatting characteristics with the Format Painter
- Insert charts
- Add command buttons
- Modify a chart type
- Modify buttons and combo boxes
- Format a chart

Introduction

In other modules, you created basic forms using the Form Wizard, and you created more complex forms using Design view. In this module, you will create two new forms that feature more advanced form elements. The first form contains two combo boxes, one for selecting data from a related table and one for finding a record on the form. It also contains command buttons to accomplish various tasks.

The second form you will create is a **multipage form**, a form that contains more than one page of information. The form contains a tab control that allows you to access two different pages. Clicking the first tab displays a page containing a subform. Clicking the second tab displays a page containing two charts.

Project — Advanced Form Techniques

CMF Vets wants two additional forms to use with its Veterinarians and Appointments tables. The first form, Appointment View and Update Form (Figure 7–1a), contains the fields in the Appointments table. The form has five command buttons: Next Record, Previous Record, Add Record, Delete Record, and Close Form. Clicking any of these buttons causes the action indicated on the button to occur.

The form also contains a combo box for the Veterinarian, Owner, and Patient fields, which assists users in viewing who is involved in the appointment (Figure 7–1b).

To assist users in finding an account when they know the appointment number, the form also includes a combo box they can use for this purpose (Figure 7–1c). After displaying the list of appointments by clicking the arrow, the user can simply select the

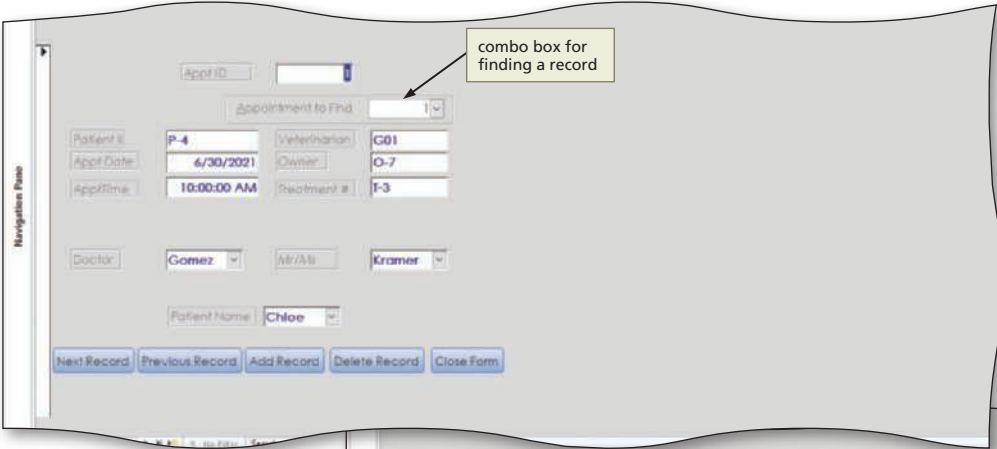


Figure 7-1a
Appointment View and Update Form

Figure 7-1b
Appointment Combo Box

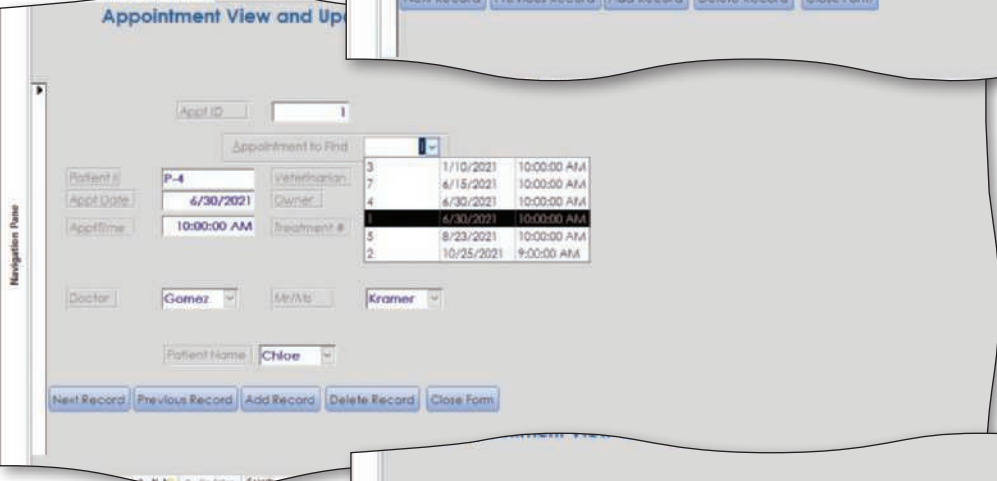
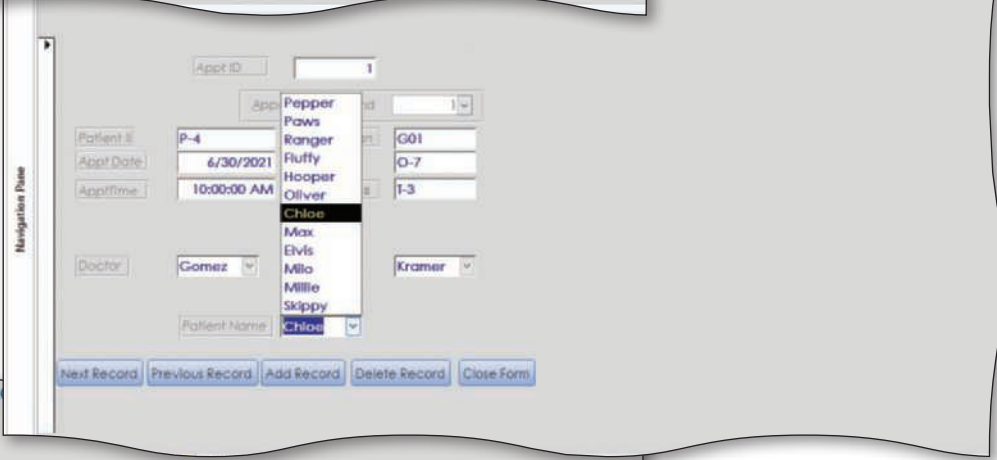


Figure 7-1c
Account Combo Box

Figure 7-1d
Appointment Data



appointment they want to find; Access will then locate the account and display that appointment's data in the form (Figure 7-1d).

For the second new form, CMF Vets needs a multipage form that lists the emergency hours and on call hours of each veterinarian. Each of the two pages that make up the form is displayed in its own tab page. Selecting the first tab, the one labeled Datasheet, displays a subform listing information about the on call and emergency hours for each veterinarian (Figure 7-2a).

Selecting the other tab, the one labeled Charts, displays two charts that illustrate the on call and emergency hours spent by each veterinarian (Figure 7-2b). In both charts, the slices of the pie represent the various hours. They are color-coded, and the legend at the bottom indicates the meaning of the various colors. The size of the pie slice gives a visual representation of the portion of the hours spent on call or in emergencies for a specific veterinarian. The chart also includes specific percentages. If you look at the purple slice in the Emergency Hours by Vet chart, for example, you see that the color represents March for Dr. William Black. It signifies 33 percent of the total. Thus, out of the 6 months, Dr. Black has spent 33 percent of his emergency hours during the month of March.

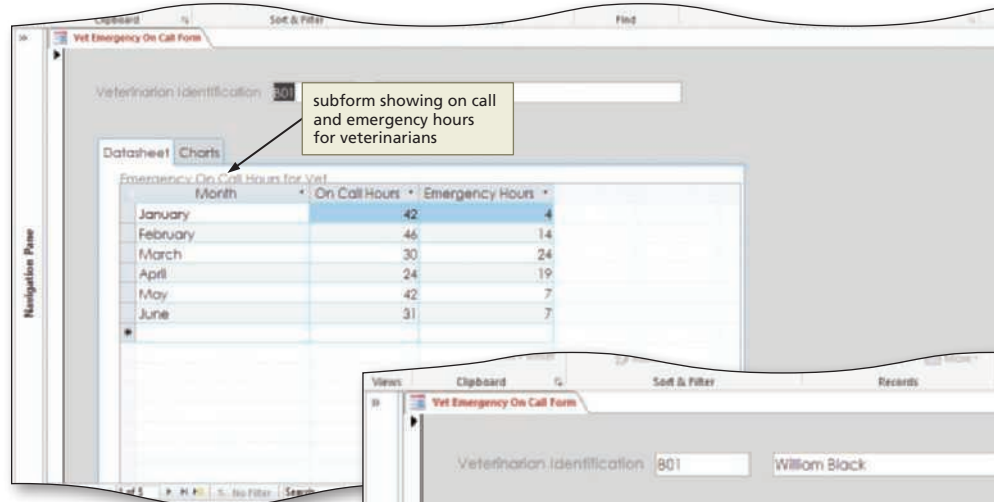


Figure 7-2a Datasheet

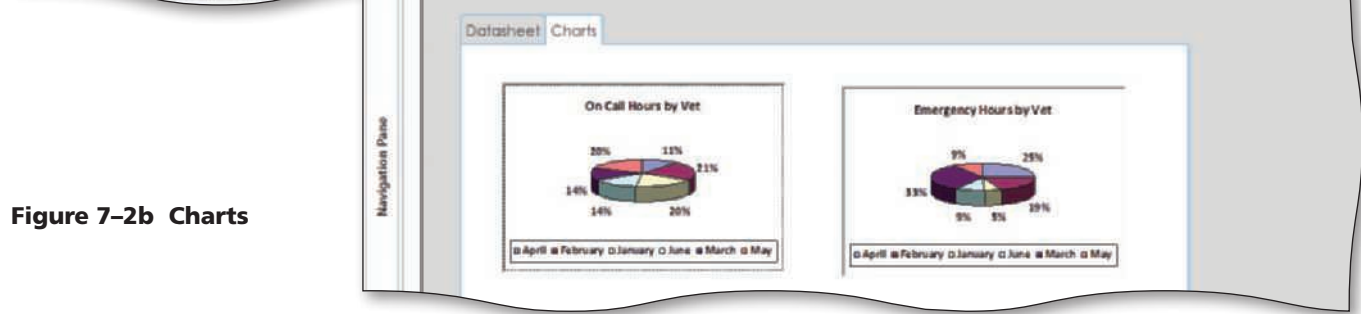


Figure 7-2b Charts

Creating a Form with Combo Boxes and Command Buttons

After planning a form, you might decide that including features such as combo boxes and command buttons will make the form easier to use. You can include such items while modifying the form in Design view.

BTW
Enabling the Content
 For each of the databases you use in this module, you will need to enable the content.

To Create a Form in Design View

As you have previously learned, Access provides several different ways to create a form, including tools such as the Form Wizard and the Form button. The following steps create a form in Design view. *Why? Creating a form in Design view gives you the most flexibility in laying out the form. You will be presented with a blank design on which to place objects.*

- Start Access and open the database named CMF Vets from your hard disk, OneDrive, or other storage location.
 - Display the Create tab.
 - Click the Form Design button (Create tab | Forms group) to create a new form in Design view.
 - If necessary, close the Navigation Pane.
 - Ensure the form selector for the entire form, the box in the upper-left corner of the form, is selected.
 - If necessary, click the Property Sheet button (Form Design Tools Design tab | Tools group) to display a property sheet.
 - With the All tab selected, click the Record Source arrow, and then click the Appointments table to select the Appointments table as the record source.
 - Click Save on the Quick Access Toolbar, then type **Appointments Master Form** as the form name (Figure 7-3).

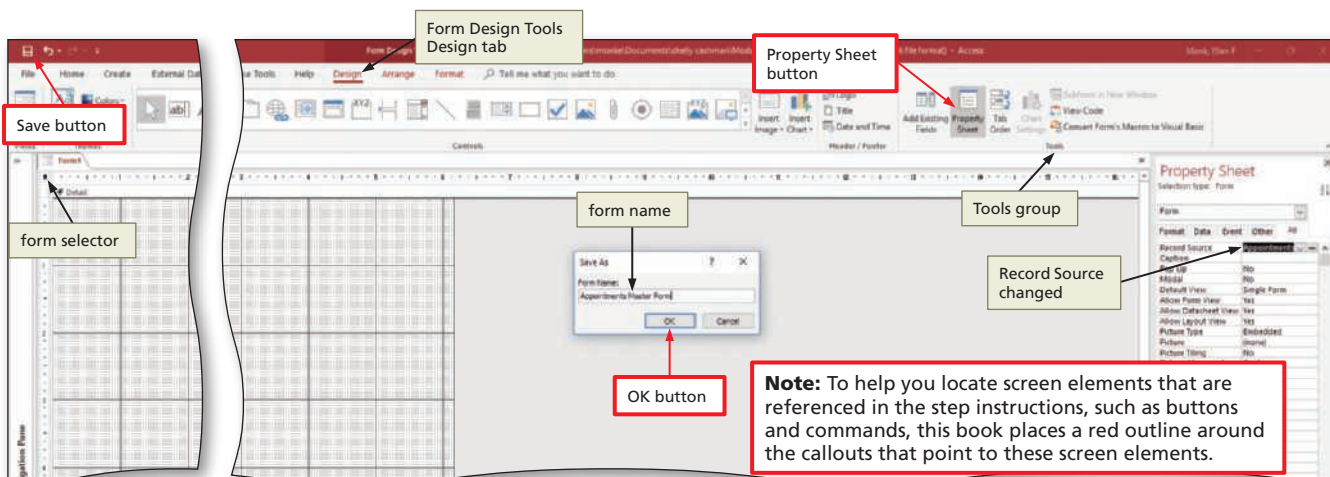


Figure 7-3

- Click OK (Save As dialog box) to save the form.
 - Click the Caption property in the property sheet, and then type **Appointment View and Update Form** as the new caption.
 - Close the property sheet by clicking the Property Sheet button on the Form Design Tools Design tab.
 - Click the 'Add Existing Fields' button (Form Design Tools Design tab | Tools group) to display the field list (Figure 7-4).

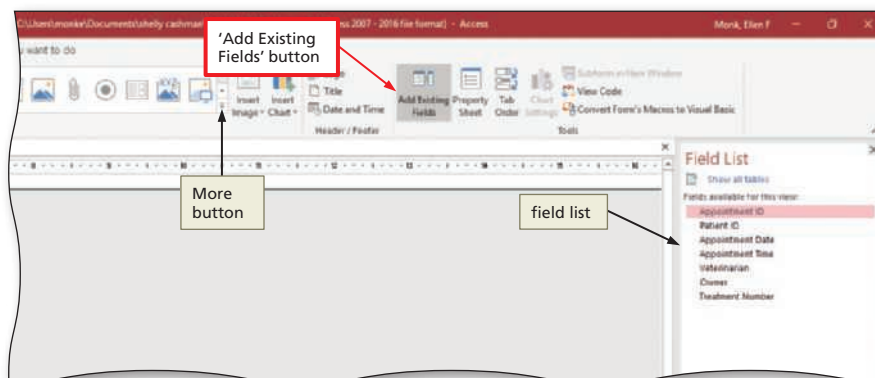


Figure 7-4

Q&A Why does the name on the tab not change to the new caption, Appointment View and Update Form? The name on the tab will change to the new caption in Form view. In Design view, you still see the name of the form object.

To Add Fields to the Form Design

After deciding which fields to add to the Appointment View and Update Form, you can place them on the form by dragging the fields from the field list to the desired position. The following steps first display only the fields in the Appointments table in the field list, and then place the appropriate fields on the form.

- 1 If necessary, click the 'Show only fields in the current record source' link at the top of the field list to change the link to 'Show all tables' and display only the fields in the Appointments table.
- 2 Drag the Appointment ID field from the field list to the top-center area of the form.
- 3 Click the label once to select it and then click it a second time to produce an insertion point, use BACKSPACE or DELETE as necessary to erase the current entry (Appointment ID), and then type **Appt ID** as the new label.
- 4 Click outside the label to deselect it, click the label to select it a second time, and then drag the sizing handle on the right side to make the label narrower and, if necessary, move the label to the approximate position shown Figure 7-5.

Q&A Why am I changing the label for Appointment ID?
In these forms, you can be creative in the layout and labeling of fields. You might make the name or label for a long field shorter or a short field longer, depending on the design.

- 5 Click the Patient ID field in the field list.
- 6 While holding the SHIFT key down, click the Appointment Date field and the Appointment Time field in the field list to select multiple fields, drag the selected fields to the approximate position shown in Figure 7-5, and then release the mouse button.
- 7 Select the Veterinarian through Treatment Number fields and then drag the selected fields to the approximate position shown in the figure.

Q&A I added a field twice by mistake. Can I delete the control?
Yes, select the control and press the DELETE key.

- 8 Change the labels for Appointment Date and Appointment Time fields to **Appt Date** and **Appt Time**, respectively. Change the label for Treatment Number to **Treatment #**. Adjust the sizing, placement, and alignment of the controls to approximately match those in the figure. If controls for any of the fields are not aligned properly, align them by dragging them to the desired location or by using the alignment buttons on the Form Design Tools Arrange tab.
- 9 Close the field list.

BTW

The Ribbon and Screen Resolution

Access may change how the groups and buttons within the groups appear on the ribbon, depending on the computer's screen resolution. Thus, your ribbon may look different from the ones in this book if you are using a screen resolution other than 1366 x 768.

BTW

Touch Screen Differences

The Office and Windows interfaces may vary if you are using a touch screen. For this reason, you might notice that the function or appearance of your touch screen differs slightly from this module's presentation.

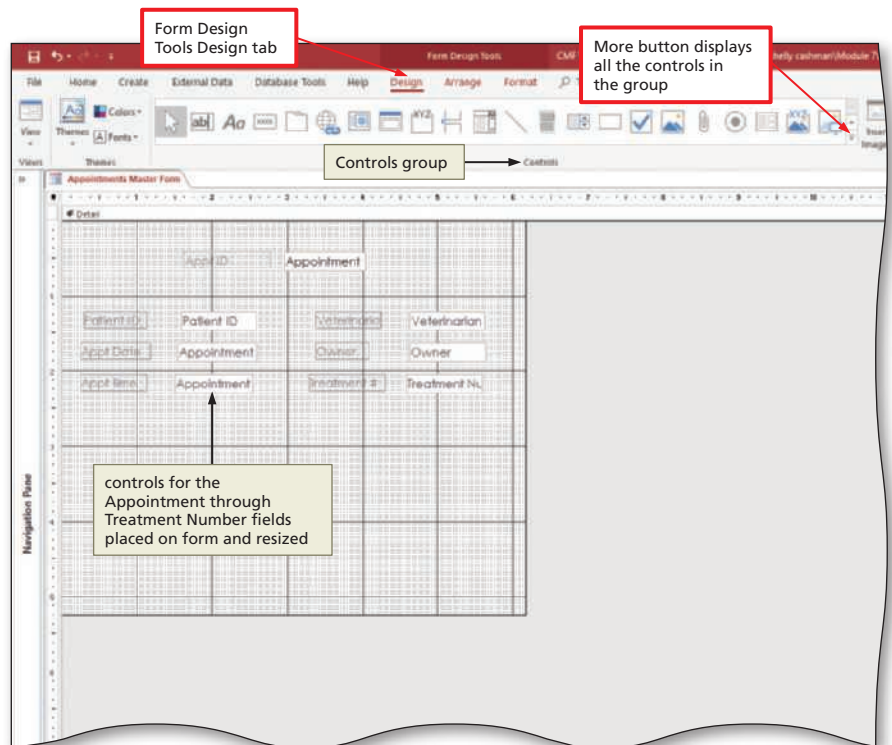


Figure 7-5



CONSIDER THIS

How do you decide on the contents of a form?

To design and create forms, follow these general guidelines:

Determine the fields that belong on the form. If you determine that data should be presented as a form, you then need to determine what tables and fields contain the data for the form.

Examine the requirements for the form in general to determine the tables. Do the requirements only relate to data in a single table, or does the data come from multiple tables? How are the tables related?

Examine the specific requirements for the form to determine the fields necessary. Look for all the data items that are specified for the form. Each item should correspond to a field in a table or be able to be computed from a field in a table. This information gives you the list of fields.

Determine whether there are any special calculations required, such as adding the values in two fields or combining the contents of two text fields. If special calculations are needed, what are they? What fields are involved and how are they to be combined?

Combo Boxes

When entering data for a Veterinarian, the value must match the number of a veterinarian ID currently in the Veterinarians table. To assist users in entering this data, the form will contain a combo box. A **combo box** combines the properties of a **text box**, which is a box into which you can type an entry, and a **list box**, which is a box you can use to display a list from which to select a value. With a combo box, the user can either type the data or click the combo box arrow to display a list of possible values and then select an item from the list.

BTW

Combo Boxes

You also can create combo boxes for reports.

To Add a Combo Box That Selects Values

If you have determined that a combo box displaying values from a related table would be useful on your form, you can add the combo box to a form using the Combo Box tool in the Controls group on the Form Design Tools Design tab. *Why?* A combo box that allows the user to select a value from a list is a convenient way to enter data. Before adding the combo box, you should make sure the 'Use Control Wizards' button is selected. The following steps place on the form a combo box that displays values from a related table for the Veterinarian field.

1

- Click the Form Design Tools Design tab and then click the More button (Form Design Tools Design tab | Controls group) (see Figure 7-4) to display all the available tools in the Controls group (Figure 7-6).

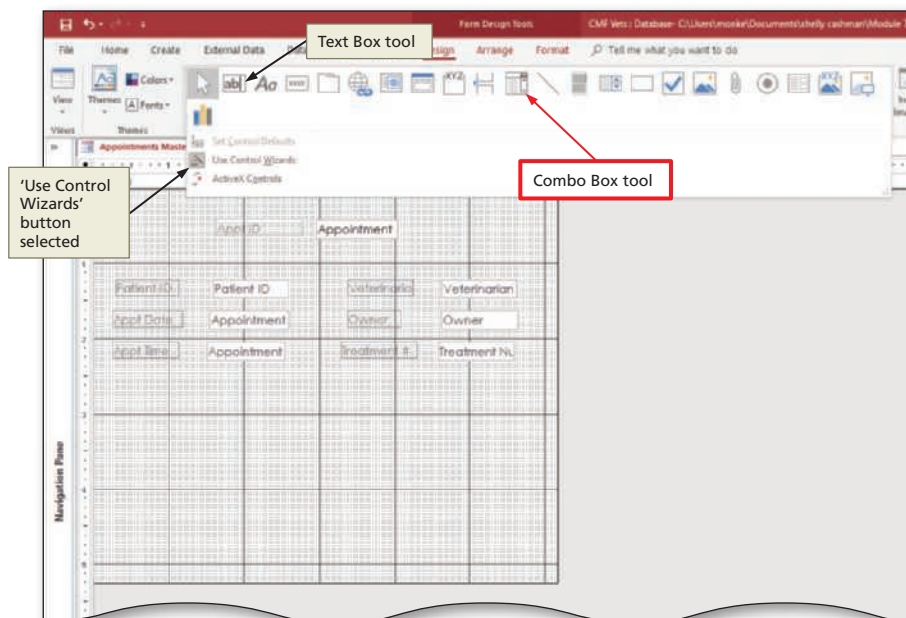


Figure 7-6

2

- With the 'Use Control Wizards' button in the Controls group on the Form Design Tools Design tab selected, click the Combo Box tool (Form Design Tools Design tab | Controls group), and then move the pointer, whose shape has changed to a small plus symbol accompanied by a combo box, to the position shown in Figure 7-7.

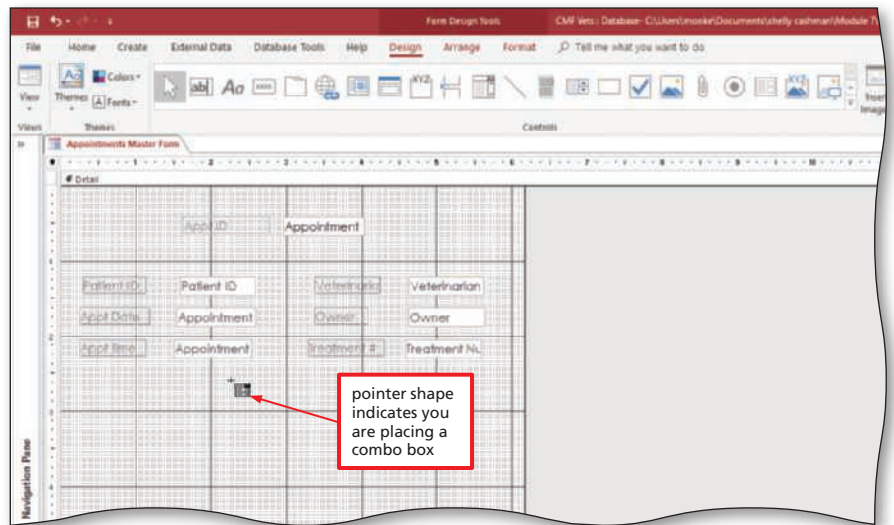


Figure 7-7

3

- Click the position shown in Figure 7-7 to place a combo box and display the Combo Box Wizard dialog box.
- If necessary, in the Combo Box Wizard dialog box, click the 'I want the combo box to get the values from another table or query.' option button (Figure 7-8).

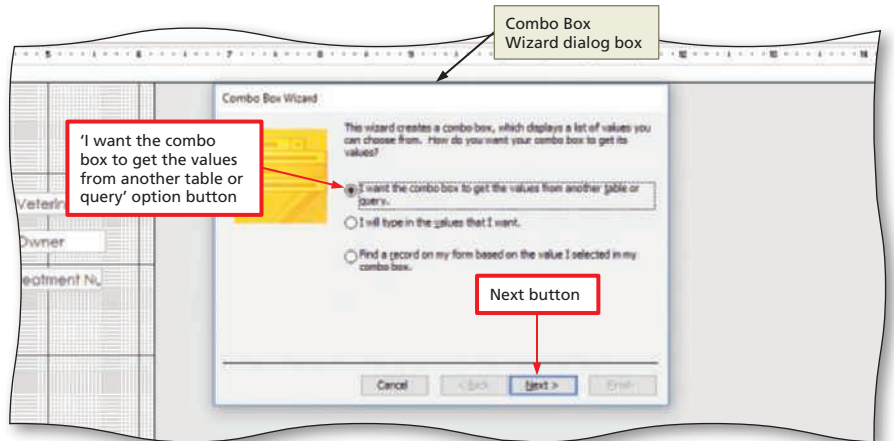


Figure 7-8

Q&A

Why did I receive a security warning when I placed a combo box in the form?

Depending on your security settings, you may receive a warning when creating a combo box. Choosing the Open button will allow the Combo Box Wizard to initiate.

What is the purpose of the other options?

Use the second option if you want to type a list from which the user will choose. Use the third option if you want to use the combo box to search for a record.

4

- Click Next, and then, with the Tables option button selected in the View area, click Table: Veterinarians (Figure 7-9) in the list of tables to specify that the combo box values will come from the Veterinarians table.



Figure 7-9

5

- Click Next to display the next Combo Box Wizard screen.
- Click the Add Field button to add the Veterinarian ID as a field in the combo box.
- Click the Last Name field, and then click the Add Field button (Figure 7–10).

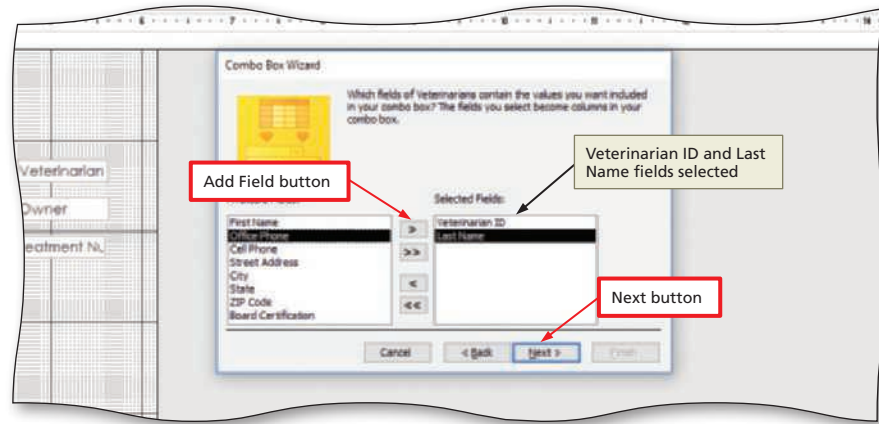


Figure 7–10

6

- Click Next to display the next Combo Box Wizard screen.
- Click the arrow in the first text box, and then select the Veterinarian ID field to sort the data by Veterinarian ID (Figure 7–11).

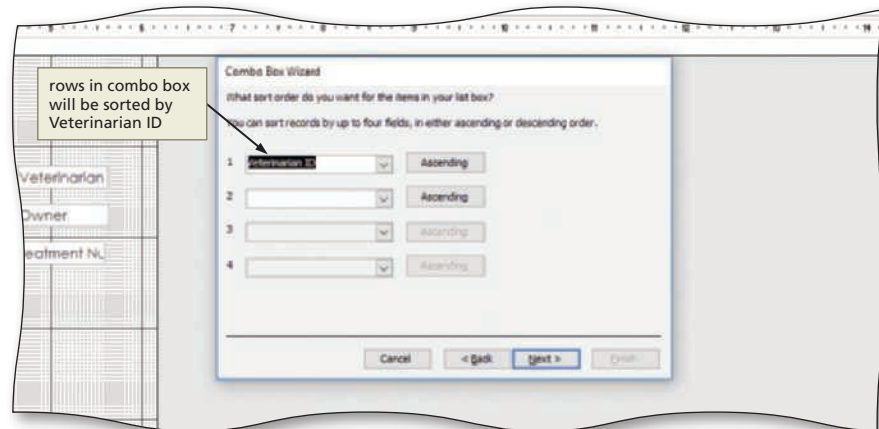


Figure 7–11

7

- Click Next to display the next Combo Box Wizard screen (Figure 7–12).

Q&A

What is the key column? Do I want to hide it?
 The key column would be the Veterinarian ID, which is the column that identifies a last name. Because the purpose of this combo box is to display the veterinarian's name, you want the Veterinarian IDs to be hidden.

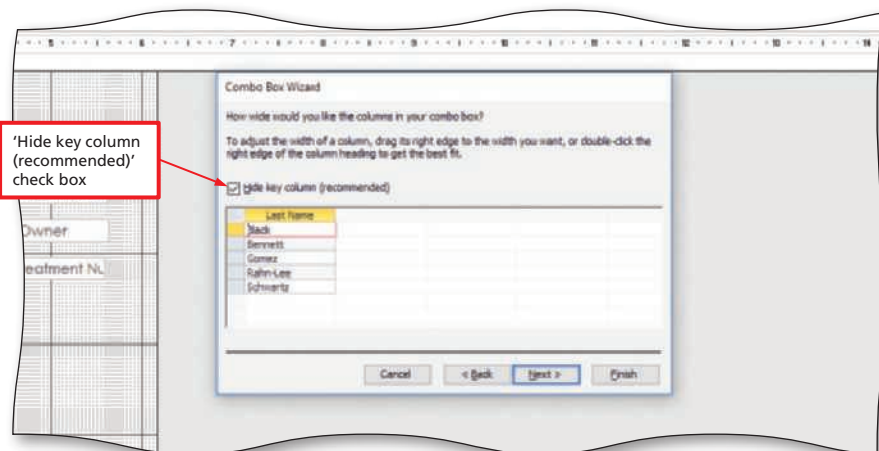


Figure 7–12

8

- Click Next to display the next Combo Box Wizard screen.
- Click the 'Store that value in this field:' button.
- Because you want the value that the user selects to be stored in the Veterinarian field in the Appointments table, click the 'Store that value in this field:' box arrow, and then click Veterinarian (Figure 7-13).

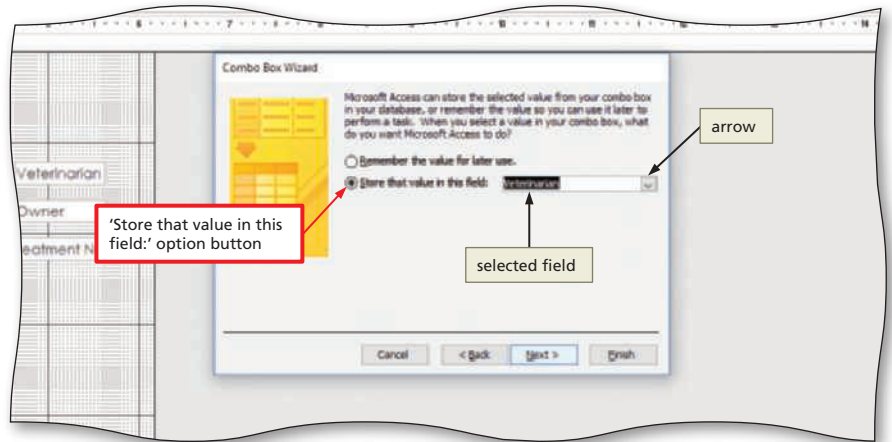


Figure 7-13

9

- Click Next to display the next Combo Box Wizard screen.
- Type **Doctor** as the label for the combo box, and then click the Finish button to place the combo box.

Q&A Could I change the label to something else?
 Yes. If you prefer a different label, you could change it.

- Move the Doctor label by dragging its Move handle to the position shown in Figure 7-14. Resize the label, if necessary, to match the figure.

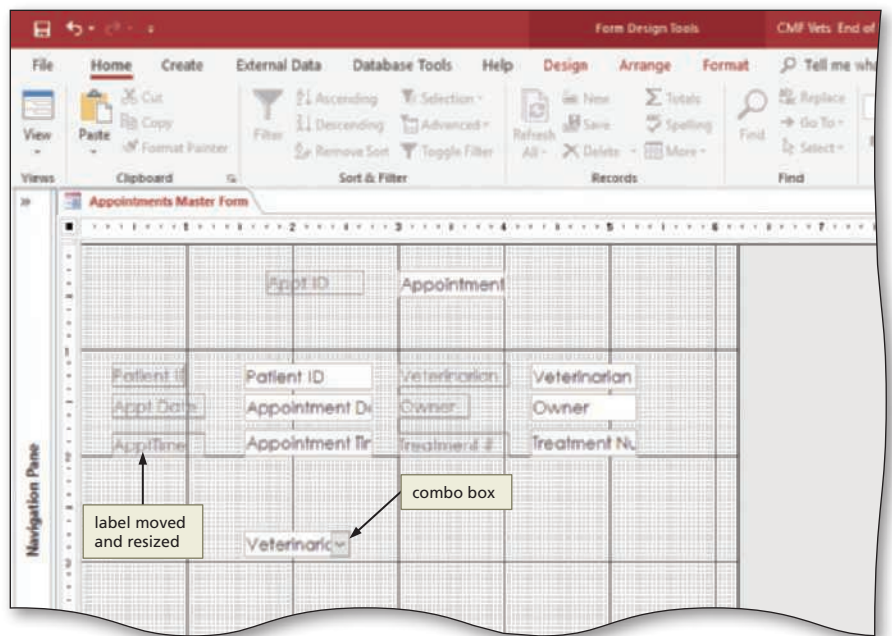


Figure 7-14

10

- Repeat steps 1-9 for Owner Last Name from the Owners table and the Patient Name from the Patients table. Type **Mr/Ms** as the label for the Owner Last Name combo box and **Patient Name** as the label for the Patient Name combo box.
- Move the combo boxes and labels by dragging their move handles to the positions shown in Figure 7-15. Resize the labels, if necessary, to match the figure.
- Save your changes to the form.

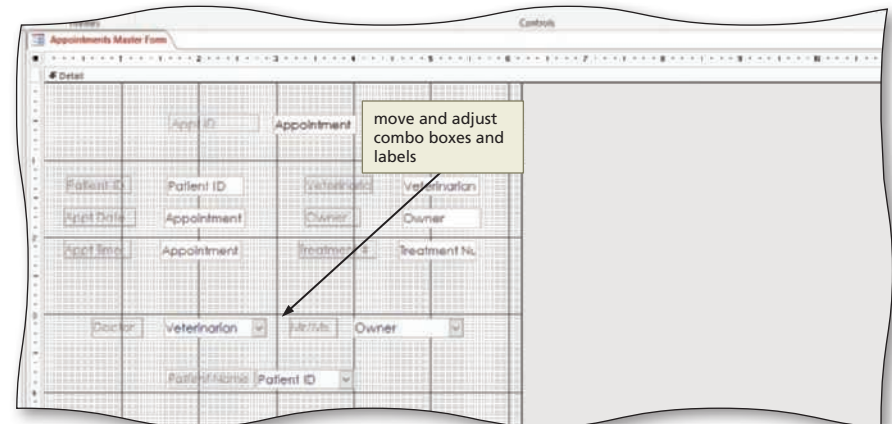


Figure 7-15

To Use the Background Color Button

As you learned in another module, you can use the Background Color button on the Form Design Tools Format tab to change the background color of a form. The following steps change the background color of the form to a light gray.

BTW

Touch and Pointers

Remember that if you are using your finger on a touch screen, you will not see the pointer.

- 1 Click anywhere in the Detail section but outside all the controls to select the section.
- 2 Display the Form Design Tools Format tab, click the Background Color button arrow (Form Design Tools Format tab | Font group) to display a color palette, and then click the Light Gray 2 color, the first color in the third row under Standard Colors, to change the background color.

To Format a Control

You can use buttons on the Form Design Tools Design tab to format a control in a variety of ways. The following steps use the property sheet, however, to make a variety of changes to the format of the Appointment ID control. *Why? Using the property sheet gives you more choices over the types of changes you can make to the form controls than you have with simply using the buttons.*

- 1
 - Display the Form Design Tools Design tab.
 - Click the Appointment ID control (the white space, not the label) to select it.
 - Click the Property Sheet button (Form Design Tools Design tab | Tools group) to display the property sheet.
 - Change the value of the Font Weight property to Semi-bold.
 - Change the value of the Special Effect property to Sunken.
 - Click the Fore Color property box to select it, and then click the Build button (the three dots) to display a color palette (Figure 7–16).

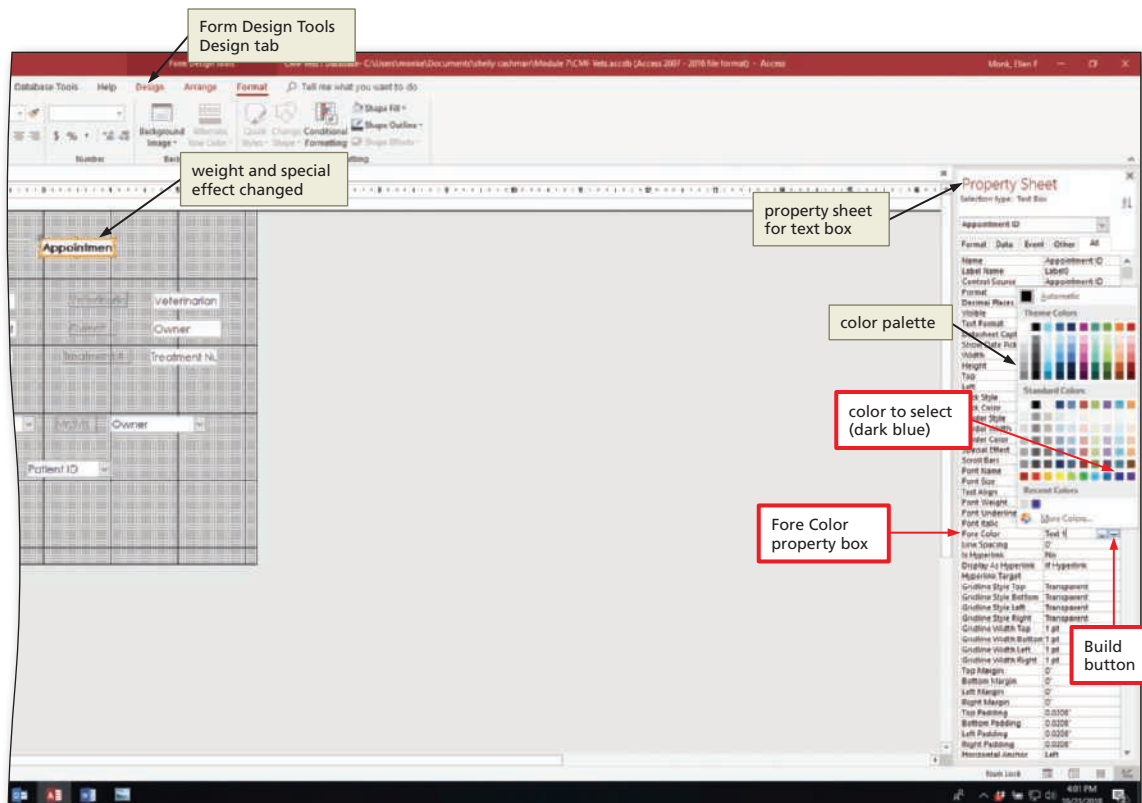


Figure 7–16

- 2
 - Click the Dark Blue color (the second color from the right in the bottom row under Standard Colors) to select it as the fore color, which is the font color.
 - Click the label for the Appt ID field to select it.
 - Change the value of the Font Italic property to Yes.
 - Change the Special Effect property to Etched (Figure 7-17).

- 3
 - Close the property sheet.

Q&A Should I not have closed the property sheet before selecting a different control?
 You could have, but it is not necessary. The property sheet displayed on the screen always applies to the currently selected control or group of controls.

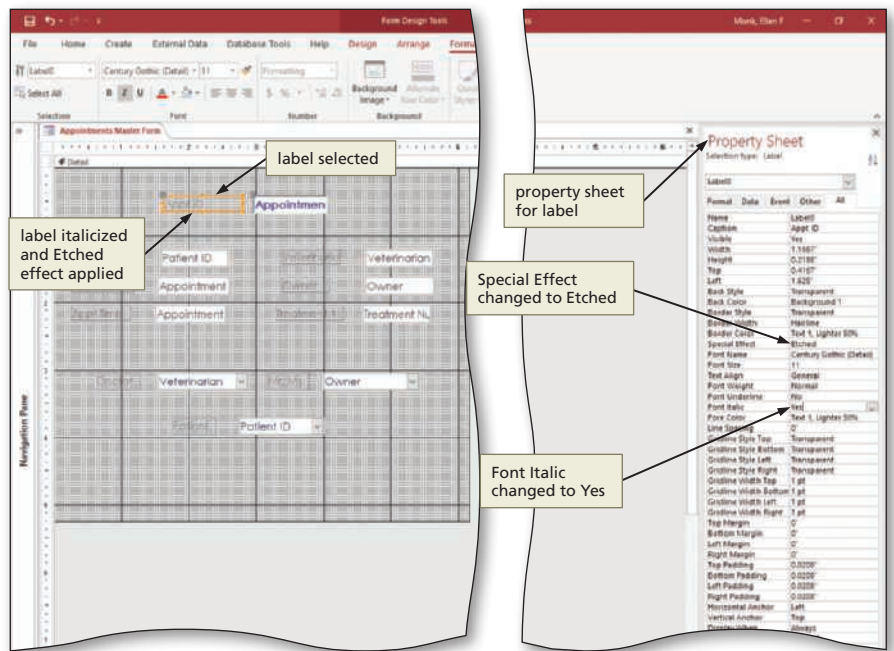


Figure 7-17

To Use the Format Painter

Once you have formatted a control and its label the way you want, you can format other controls in exactly the same way by using the Format Painter. *Why?* If you click the control whose format you want to copy, click the Format Painter button on the Format tab, and then click another control, Access will automatically apply the characteristics of the first control to the second one. If you want to copy the format to more than one other control, double-click the Format Painter button instead of simply clicking the button, and then click each of the controls that you want to change. The following steps copy the formatting of the Appointment ID control and label to the other controls.

- 1
 - Display the Form Design Tools Format tab.
 - Click the Appointment ID control to select it, and then double-click the Format Painter button (Form Design Tools Format tab | Font group) to select the Format Painter.
 - Point to the Patient ID control (Figure 7-18).

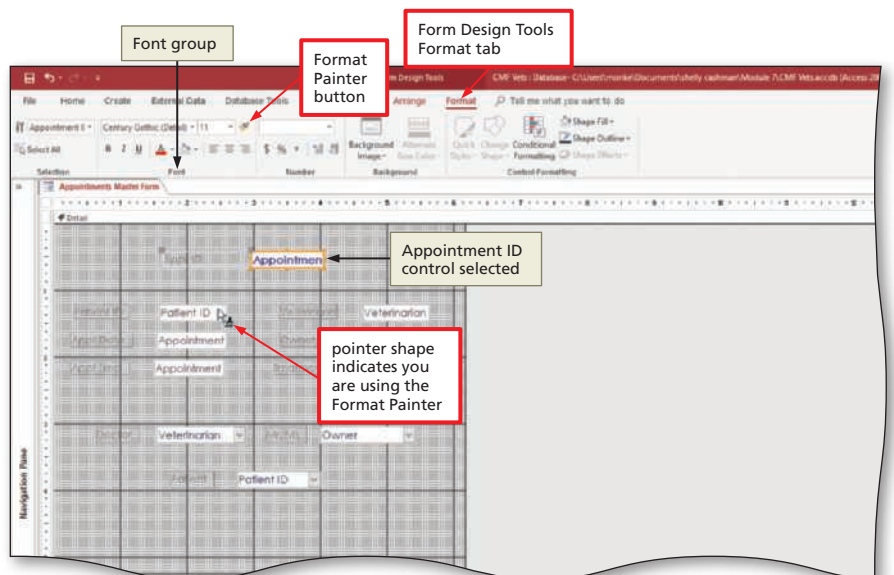


Figure 7-18

2

- Click the Patient ID control to assign to it the same formatting as the Appointment ID control.
- Click all the other controls on the form to assign the same formatting to them.
- Click the Format Painter button (Form Design Tools Format tab | Font group) to deselect the Format Painter (Figure 7–19).

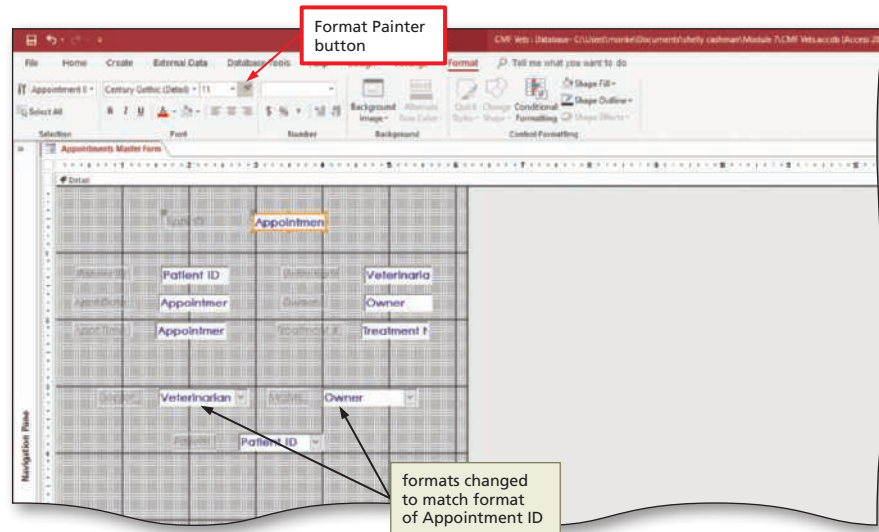


Figure 7–19

Q&A

Do I always have to click the Format Painter button when I have finished copying the formatting?

If you double-clicked the Format Painter button to enable you to copy the formatting to multiple controls, you need to click the Format Painter button again to turn off the copying. If you single-clicked the Format Painter button to enable you to copy the formatting to a single control, you do not need to click the button again. As soon as you copy the formatting to the single control, the copying will be turned off.

Does the order in which I click the other controls matter?

No. The only thing that is important is that you ultimately click all the controls whose formatting you want to change.

3

- Save your changes to the form.

To View the Form

The following steps view the form in Form view and then return to Design view. *Why?* As you are working on the design of a form, it is a good idea to periodically view the form in Form view to see the effects of your changes.

1

- Display the Form Design Tools Design tab.
- Click the View button (Form Design Tools Design tab | Views group) to view the form in Form view (Figure 7–20). If necessary, adjust the controls in Design view to display the entire field.

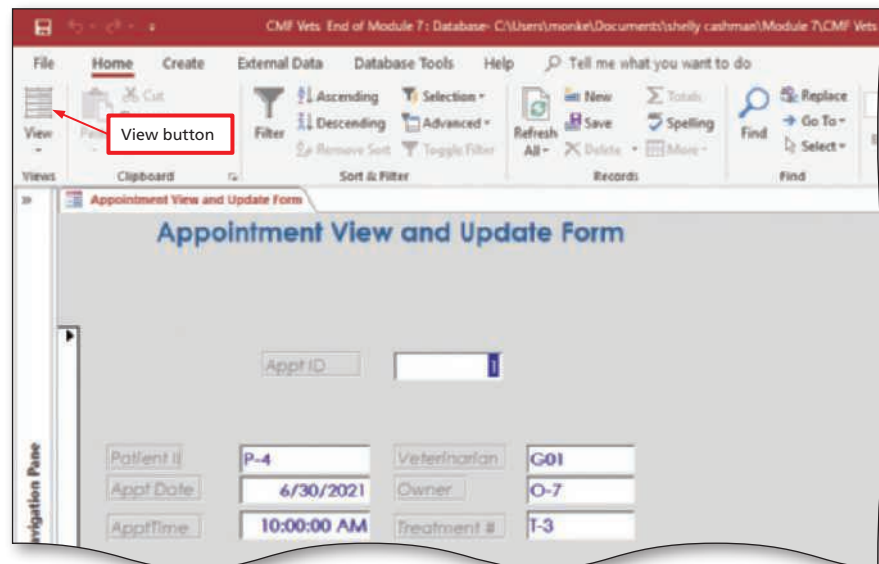


Figure 7–20

Q&A

Why did I have to change from the Format tab to the Design tab? The Format tab does not have a View button.

2

- Click the View button arrow (Home tab | Views group) to produce the View button menu.
- Click Design View on the View menu to return to Design view.

Q&A

Could I simply click the View button?

No. The icon on the View button is the one for Layout view. Clicking the button would show you the form in Layout view, but you are working on the form in Design view.

Other Ways

1. Click Form View button on status bar

2. Click Design View button on status bar

To Add a Title and Expand the Form Header Section

The following steps insert the Form Header and Form Footer sections, and then add a title to the Form Header section. They also expand the Form Header section.

- 1 Click the Title button (Form Design Tools Design tab | Header/Footer group) to add a Form Header section and to add a control for the title to the Form Header section.
- 2 Drag the lower boundary of the Form Header section down to the approximate position shown in Figure 7–21.
- 3 Select the title control, display the Form Design Tools Format tab, and then click the Bold button (Form Design Tools Format tab | Font group) to make the title bold.
- 4 Drag the right sizing handle to the approximate position shown in the figure to resize the control to the appropriate size for the title.

BTW

Font versus Foreground Color

The font color also is called the foreground color. When you change the font color using the ribbon, you click the Font Color button. If you use the property sheet to change the color, you click the Fore Color property, click the Build button, and then click the desired color.

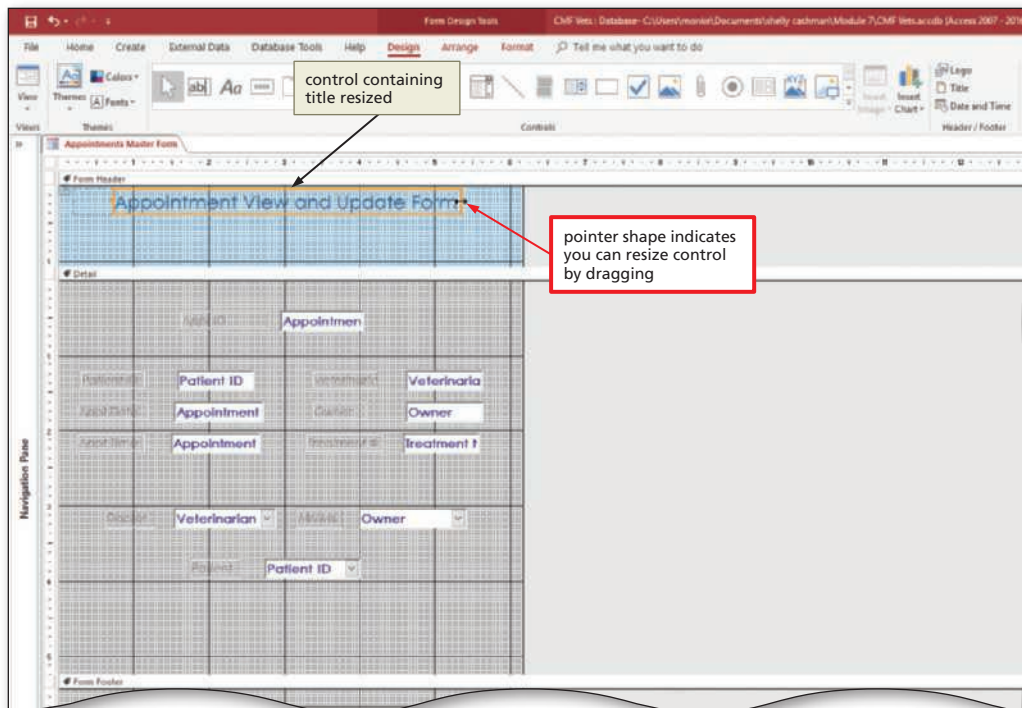


Figure 7-21

To Change the Background Color of the Form Header

BTW

Drop-Down Boxes

Combo boxes also are called drop-down boxes because a list drops down when you click the combo box arrow.

The background color of the form header in the form in Figure 7–1 is the same as the rest of the form. The following steps change the background color of the form header appropriately.

- 1 Click anywhere in the Form Header section but outside the control to select the section.
- 2 If necessary, display the Form Design Tools Format tab.
- 3 Click the Background Color button arrow (Form Design Tools Format tab | Font group) to display a color palette.
- 4 Click the Light Gray 2 color, the first color in the third row under Standard Colors, to change the background color.
- 5 Save your changes to the form.

Headers and Footers

Just like with reports, you have control over whether your forms contain a form header and footer. They go together, so if you have a form header, you will also have a form footer. If you do not want the header and footer sections to appear, you can shrink the size so there is no room for any content. You can also remove the sections from your form altogether. If you later decide you want to include them, you can once again add them. You have similar options with page headers and page footers, although typically page headers and page footers are only used with reports. If you had a very long form that spanned several pages on the screen, you might choose to use page headers and footers, but it is not common to do so.

TO REMOVE A FORM HEADER AND FOOTER

To remove a form header and footer, you would use the following steps.

1. With the form open in Design view, right-click any open area of the form to produce a shortcut menu.
2. Click the Form Header/Footer command on the shortcut menu to remove the form header and footer.
3. If the Microsoft Access dialog box appears, asking if it is acceptable to delete any controls in the section, click Yes.

BTW

Hyperlink Controls

You can add a hyperlink to forms. To add a hyperlink, click the Hyperlink tool, enter the hyperlink in the Address text box (Insert Hyperlink dialog box) and click OK. If necessary, move the hyperlink control to the desired location on the form.

TO REMOVE A PAGE HEADER AND FOOTER

To remove a page header and footer, you would use the following steps.

1. With the form open in Design view, right-click any open area of the form to produce a shortcut menu.
2. Click the Page Header/Footer command on the shortcut menu to remove the page header and footer.
3. If the Microsoft Access dialog box appears, asking if it is acceptable to delete any controls in the section, click Yes.

TO INSERT A FORM HEADER AND FOOTER

To insert a form header and footer, you would use the following steps.

1. With the form open in Design view, right-click any open area of the form to produce a shortcut menu.
2. Click the Form Header/Footer command on the shortcut menu to insert a form header and footer.

TO INSERT A PAGE HEADER AND FOOTER

To insert a page header and footer, you would use the following steps.

1. With the form open in Design view, right-click any open area of the form to produce a shortcut menu.
2. Click the Page Header/Footer command on the shortcut menu to insert a page header and footer.

Images

You can include a picture (image) in a form. You can also use a picture (image) as the background for a form.

TO INCLUDE AN IMAGE IN A FORM

To include an image in a form, you would use the following steps.

1. Open the form in Design view or Layout view.
2. Click the Insert Image button (Form Design Tools Design tab | Controls group) and then click the Browse command.
3. Select the desired image.
4. Click the desired location to add the image to the form.

TO USE AN IMAGE AS BACKGROUND FOR A FORM

To include an image as background for a form, you would use the following steps.

1. Open the form in Design view or Layout view.
2. Click anywhere in the form, click the Background Image button (Form Design Tools Format tab | Background group), and then click the Browse command.
3. Select the desired image for the background.

Break Point: If you wish to stop working through the module at this point, you can quit Access now. You can resume the project later by starting Access, opening the database called CMF Vets, opening the Appointments Master Form in Design view, and continuing to follow the steps from this location forward.

Command Buttons

Command buttons are buttons placed on a form that users can click to carry out specific actions. To add command buttons, you use the Button tool in the Controls group on the Form Design Tools Design tab. When using the series of Command Button Wizard dialog boxes, you indicate the action that should be taken when the command button is clicked, for example, go to the next record. Within the Command Button Wizard, Access includes several categories of commonly used actions.

BTW

Record Order

When you use the Next Record button to move through the records, recall that the records are in order by Appointment ID, which is the primary key, and not alphabetical order.



CONSIDER THIS

When would you include command buttons in your form?

You can make certain actions more convenient for users by including command buttons. Buttons can carry out record navigation actions (for example, go to the next record), record operation actions (for example, add a record), form operation actions (for example, close a form), report operation actions (for example, print a report), application actions (for example, quit application), and some miscellaneous actions (for example, run a macro).

To Add Command Buttons to a Form

You might find that you can improve the functionality of your form by adding command buttons. *Why?* *Command buttons enable users to accomplish tasks with a single click.* Before adding the buttons, you should make sure the 'Use Control Wizards' button is selected.

In the Record Navigation action category, you will select the Go To Next Record action for one of the command buttons. From the same category, you will select the Go To Previous Record action for another. Other buttons will use the Add New Record and the Delete Record actions from the Record Operations category. The Close Form button will use the Close Form action from the Form Operations category.

The following steps add command buttons to move to the next record, move to the previous record, add a record, delete a record, and close the form.

1

- Display the Form Design Tools Design tab, click the More button in the control gallery, and then ensure the 'Use Control Wizards' button is selected.
- Click the Button tool (Form Design Tools Design tab | Controls group) and then move the pointer to the approximate position shown in Figure 7–22.

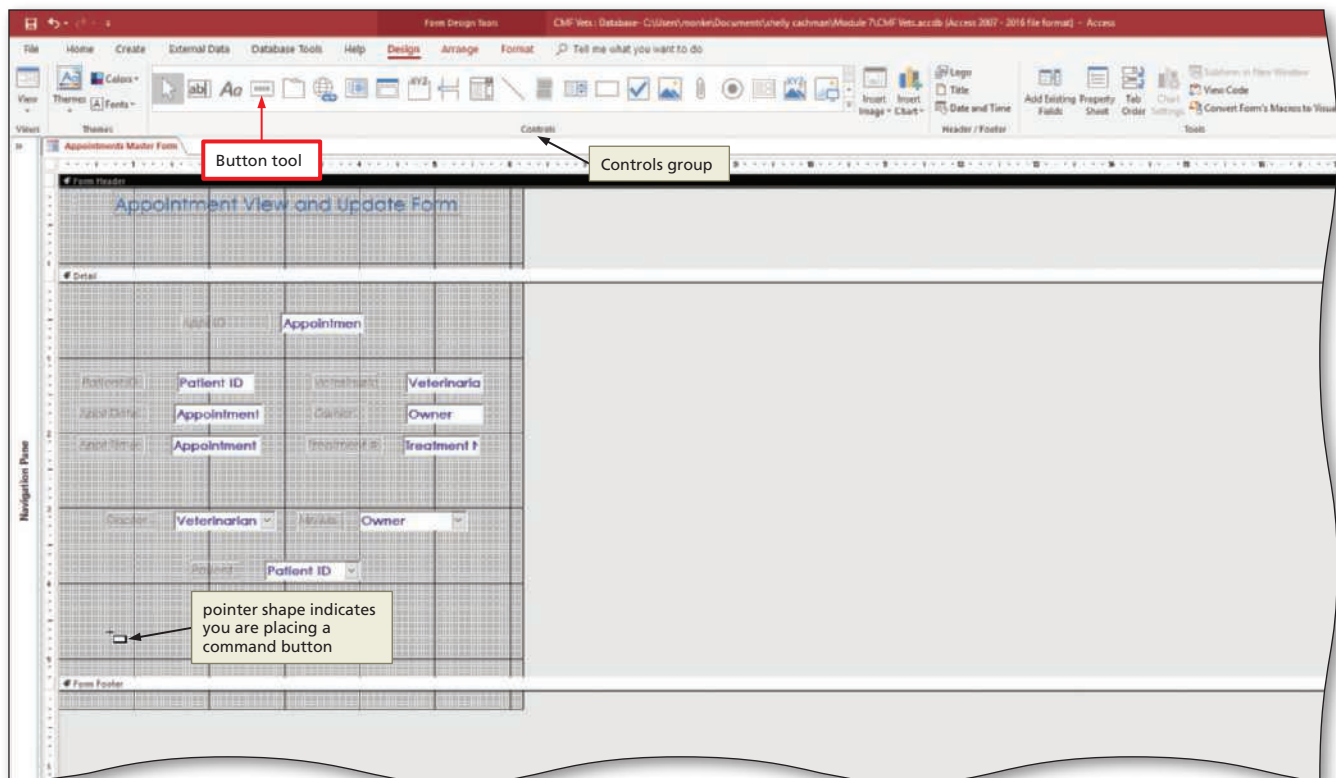


Figure 7–22

- 2
 - Click the position shown in Figure 7-22 to display the Command Button Wizard dialog box.
 - With Record Navigation selected in the Categories box, click Go To Next Record in the Actions box (Figure 7-23).

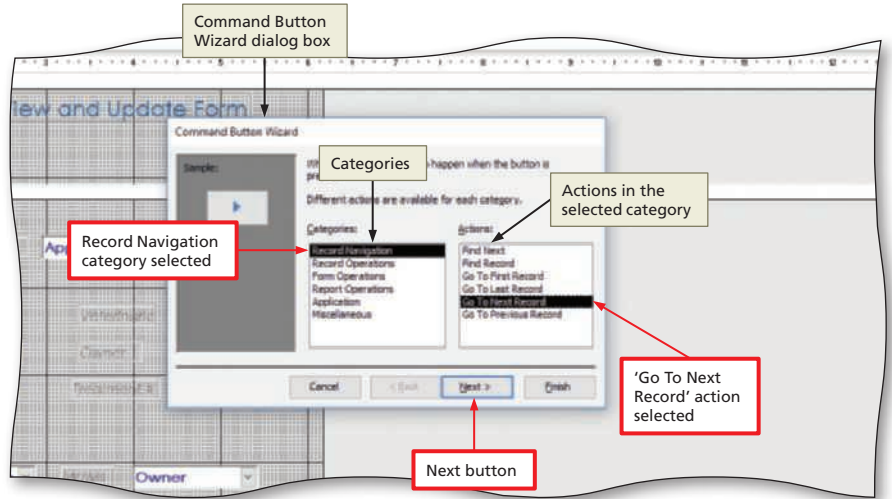


Figure 7-23

- 3
 - Click Next to display the next Command Button Wizard screen.
 - Click the Text option button (Figure 7-24).

Q&A What is the purpose of these option buttons?
 Choose the first option button to place text on the button. You then can specify the text to be included or accept the default choice. Choose the second option button to place a picture on the button. You can then select a picture.

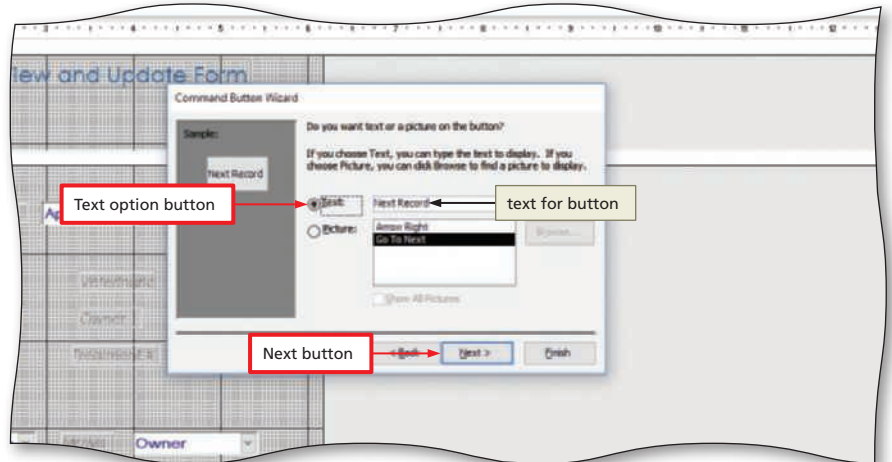


Figure 7-24

- 4
 - Because Next Record is the desired text and does not need to be changed, click Next.
 - Type **Next Record** as the name of the button (Figure 7-25).

Q&A Does the name of the button have to be the same as the text that appears on the face of the button?
 No. The text is what will appear on the screen. You use the name when you need to refer to the specific button. They can be different, but this can lead to confusion. Thus, many people will typically make them the same.

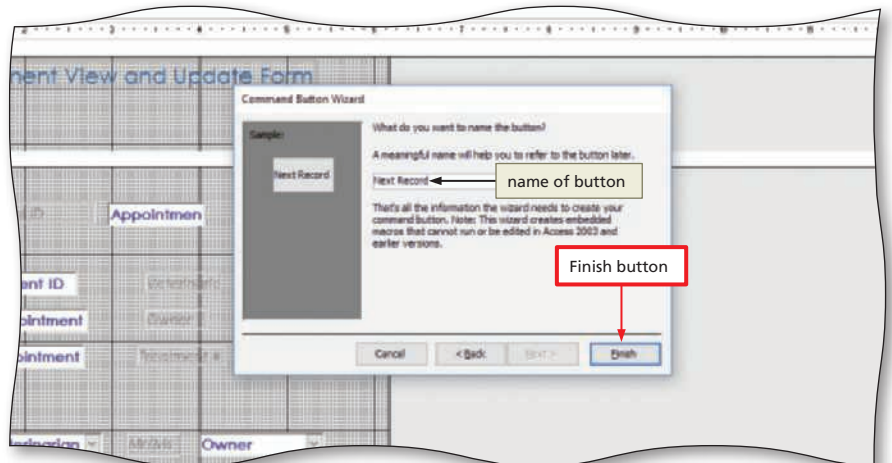


Figure 7-25

- 5
- Click Finish to finish specifying the button.
 - Use the techniques in Steps 1 through 5 to place the Previous Record button directly to the right of the Next Record button. The action is Go To Previous Record in the Record Navigation category. Choose the Text option button and Previous Record on the button, and then type **Previous Record** as the name of the button.
 - Use the techniques in Steps 1 through 5 to place a button directly to the right of the Previous Record button. The action is Add New Record in the Record Operations category. Choose the Text option button and Add Record on the button, and then type **Add Record** as the name of the button.
 - Use the techniques in Steps 1 through 5 to place the Delete Record and Close Form buttons in the positions shown in Figure 7–26. For the Delete Record button, the category is Record Operations and the action is Delete Record. For the Close Form button, the category is Form Operations and the action is Close Form.

Q&A My buttons are not aligned like yours are. What should I do? If your buttons are not aligned properly, you can drag them to the correct positions. You can also use the buttons in the Sizing & Ordering group on the Form Design Tools Arrange tab.

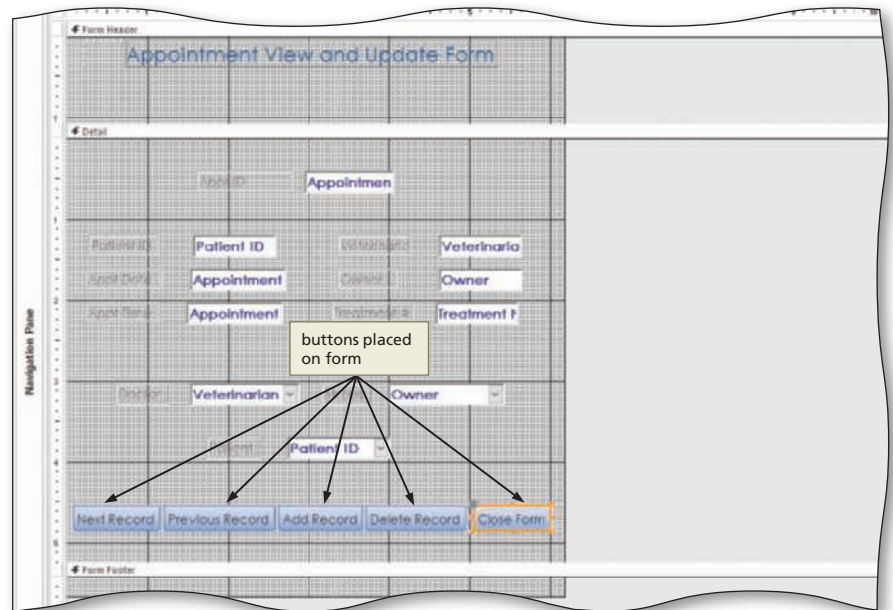


Figure 7–26

- Save the changes to the form.

To Add a Combo Box for Finding a Record

Although you can use the Find button (Home tab | Find group) to locate records on a form or a report, it is often more convenient to use a combo box. *Why?* You can click the combo box arrow to display a list and then select the desired entry from the list.

To create a combo box, use the Combo Box tool in the Controls group on the Design tab. Before the Combo Box will find the records, Microsoft Access requires the form to be bound to an existing table or query. In this case, you will bind the form to a saved query. Once that is accomplished, the Combo Box Wizard will guide you through the steps of adding the combo box. The following steps create the query and then place a combo box for names on the form.

- 1
- Switch to Design view, if necessary.
 - Select the Property Sheet Data tab and confirm that the selection type is form.
 - Click the build button (the three dots) to open the Appointments Master Form: Query Builder.

Q&A A warning dialog box opened. What should I do? If you see a warning stating You Invoked the Query Builder on a Table, do you want to create a query based on the table? click Yes.

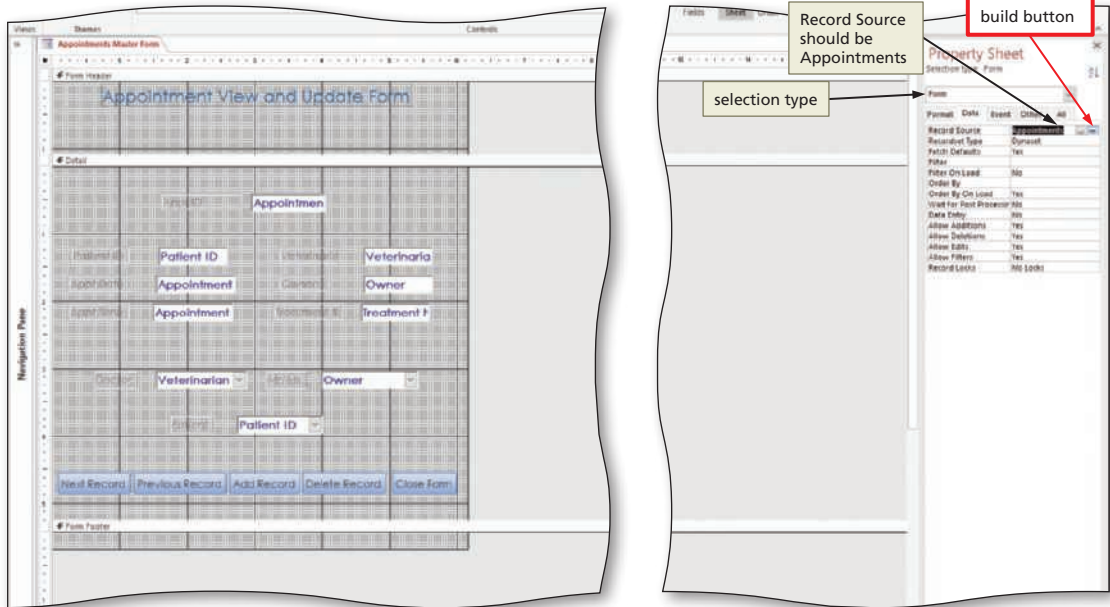


Figure 7-27

2

- Create the query as shown in Figure 7-28. Recall that to add tables to the query, you must click the Show Table button (Design tab | Query Setup group).
- Use the Save As button (Query Tools Design tab | Close Group) to save the query, as shown in Figure 7-28.

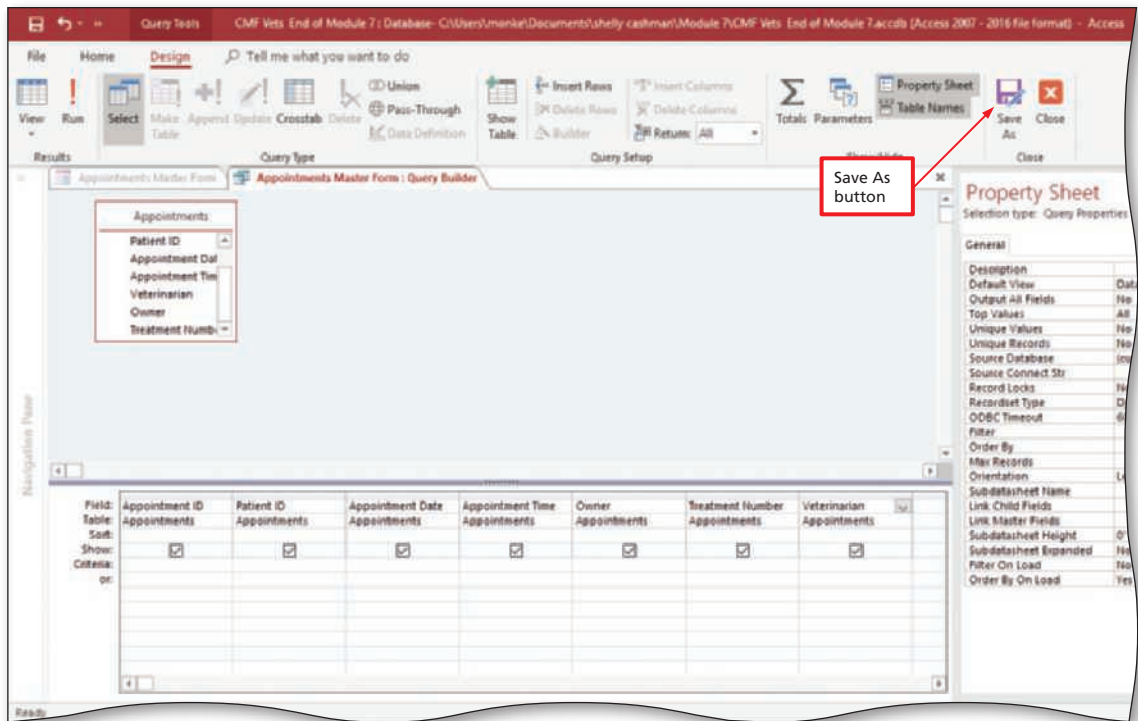


Figure 7-28

- 3
 - Save Query1 as Queryform and click OK as shown in Figure 7-29.
 - Close the query builder and save any changes.

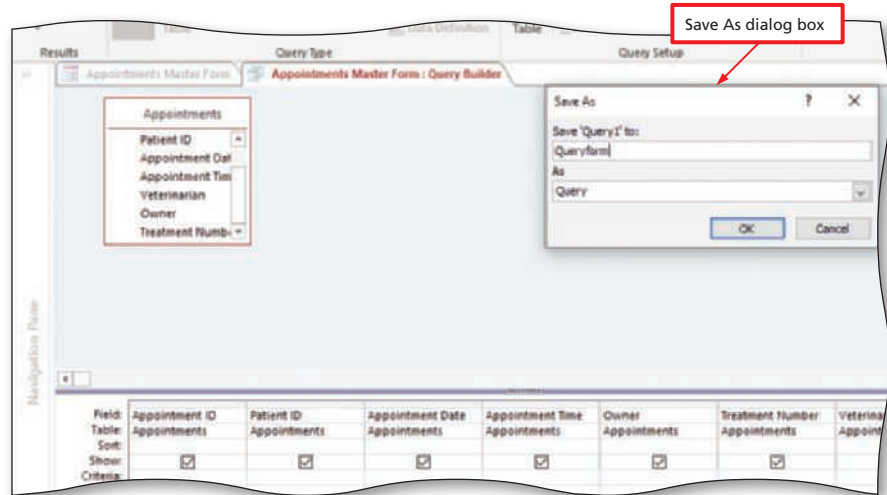


Figure 7-29

- 4
 - Click the More button (Form Design Tools Design tab | Controls group) to display all the controls.
 - With the 'Use Control Wizards' button selected, click the Combo Box tool (Form Design Tools Design tab | Controls group) and then move the pointer, whose shape has changed to a small plus sign with a combo box, to the position shown in Figure 7-30.

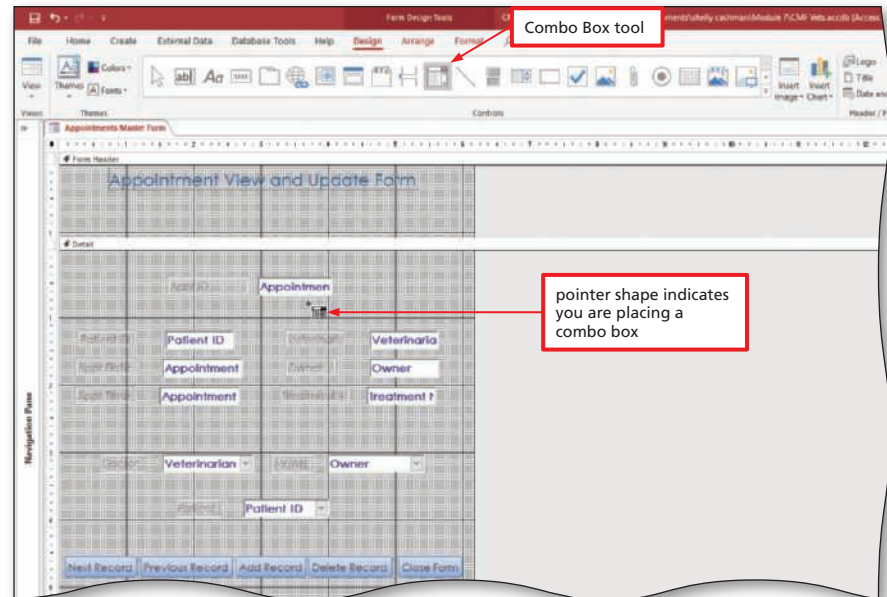


Figure 7-30

- 5
 - Click the position shown in Figure 7-30 to display the Combo Box Wizard.
 - Click the 'Find a record on my form based on the value I selected in my combo box.' option button to specify that the user will select from a list of values.
 - Click Next, click the Appointment ID field, and then click the Add Field button to select the Appointment ID for the combo box (Figure 7-31). Repeat these steps for the Appointment Date field and the Appointment Time field.

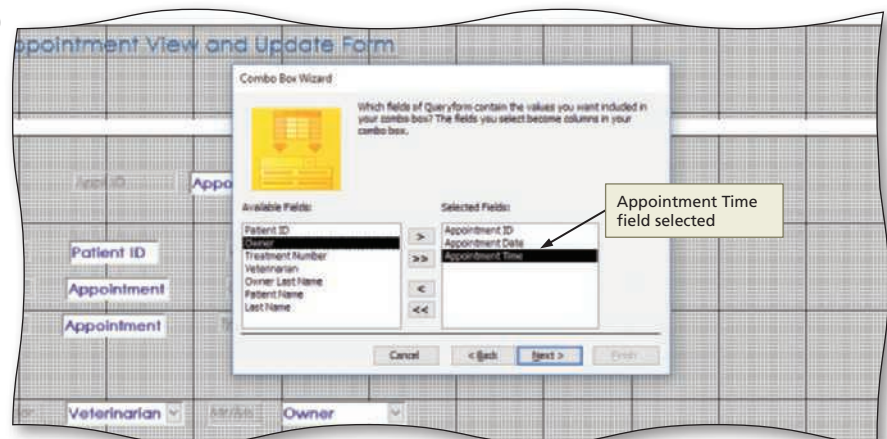


Figure 7-31

6

- Click Next.
- If necessary, adjust any column width shown in Figure 7–32.

Q&A Can I also resize the column to best fit the data by double-clicking the right boundary of the column heading?
Yes.

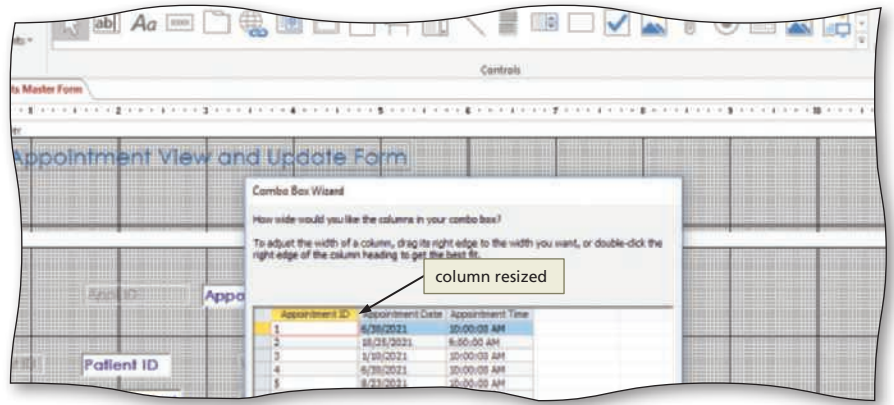


Figure 7–32

7

- Click Next and then type **&Appointment to Find** as the label for the combo box.

Q&A What is the purpose of the ampersand in front of the letter, A? The ampersand (&) in front of the letter, A, indicates that users can select the combo box by pressing ALT+A

- Click Finish, and, if necessary, position and resize as necessary the control and label in the approximate position so that your screen resembles Figure 7–33.

Q&A Why is the letter, A, underlined? The underlined letter, A, in the word, Appointment, indicates that you can press ALT+A to select the combo box. It is underlined because you preceded the letter, A, with the ampersand.

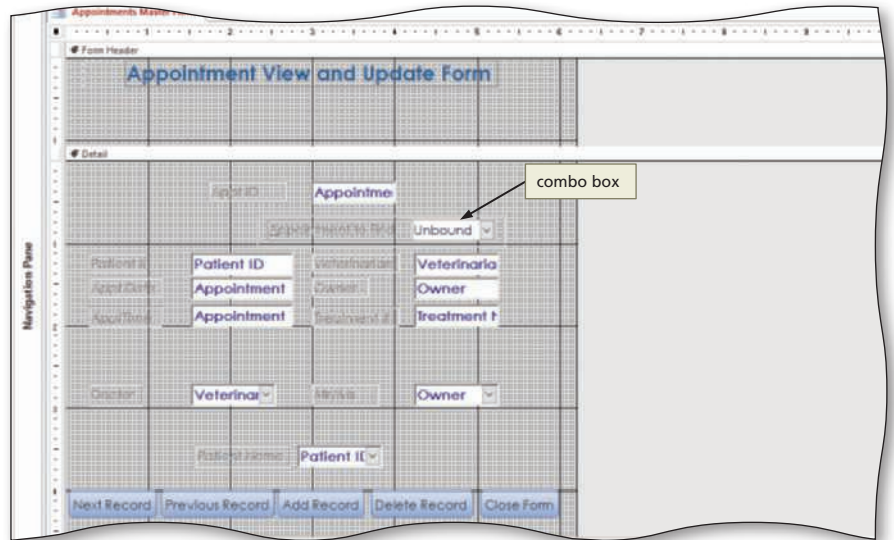


Figure 7–33

When would you include a combo box in your form?

A combo box is a combination of a text box, where users can type data, and a list box, where users can click an arrow to display a list. Would a combo box improve the functionality of the form? Is there a place where it would be convenient for users to enter data by selecting the data from a list, either a list of predefined items or a list of values from a related table? If users need to search for records, including a combo box can assist in the process.

CONSIDER THIS

To Place a Rectangle

The following steps use the Rectangle tool to place a rectangle around the combo box. *Why? To emphasize an area of a form, you can place a rectangle around it as a visual cue.*

1

- Click the More button (Form Design Tools Design tab | Controls group) to display all the controls (Figure 7–34).

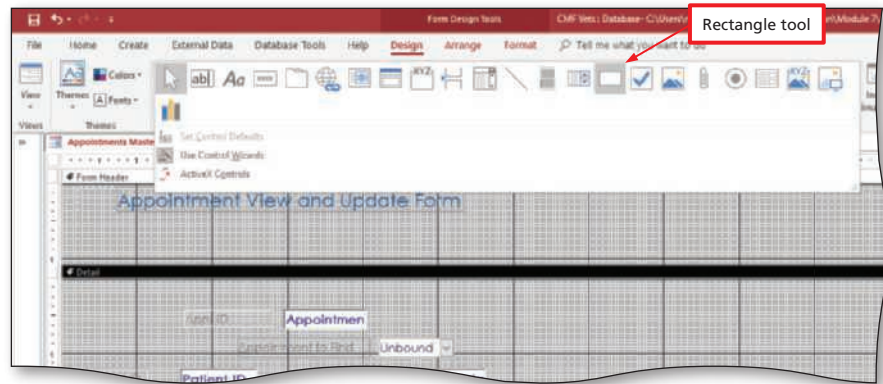


Figure 7–34

2

- Click the Rectangle tool, which is the tool between the list box and the check box, point to the position for the upper-left corner of the rectangle shown in Figure 7–35, and drag to the lower-right corner of the rectangle to place the rectangle.

3

- Click the Property Sheet button (Form Design Tools Design tab | Tools group) to display the property sheet for the rectangle.
- If necessary, change the value of the Special Effect property to Etched.
- Make sure the value of the Back Style property is Transparent, so the combo box will appear within the rectangle.
- Adjust any widths to make all labels visible.

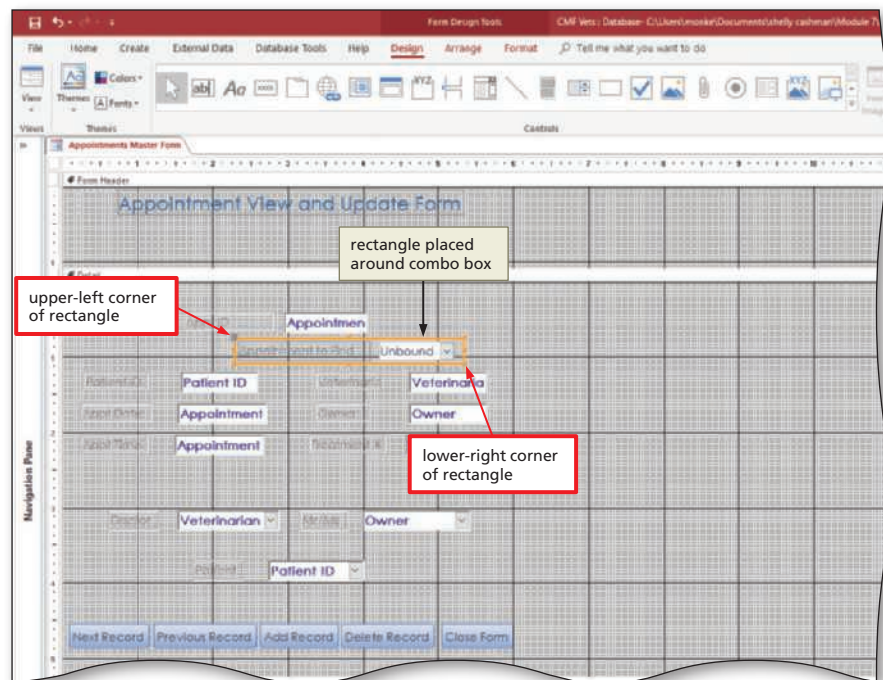


Figure 7–35

Q&A What if the value is not Transparent?

If the value is not Transparent, the rectangle will cover the combo box completely and the combo box will not be visible.

- Close the property sheet.
- Save and then close the form.

To Open the Appointment View and Update Form

Once you have created the form, you can use it at any time by opening it. The following steps open the Appointment View and Update Form.

- 1 Open the Navigation Pane, and then right-click the Appointment Master Form to display the shortcut menu.
- 2 Click Open on the shortcut menu to open the form.
- 3 Close the Navigation Pane (Figure 7–36).

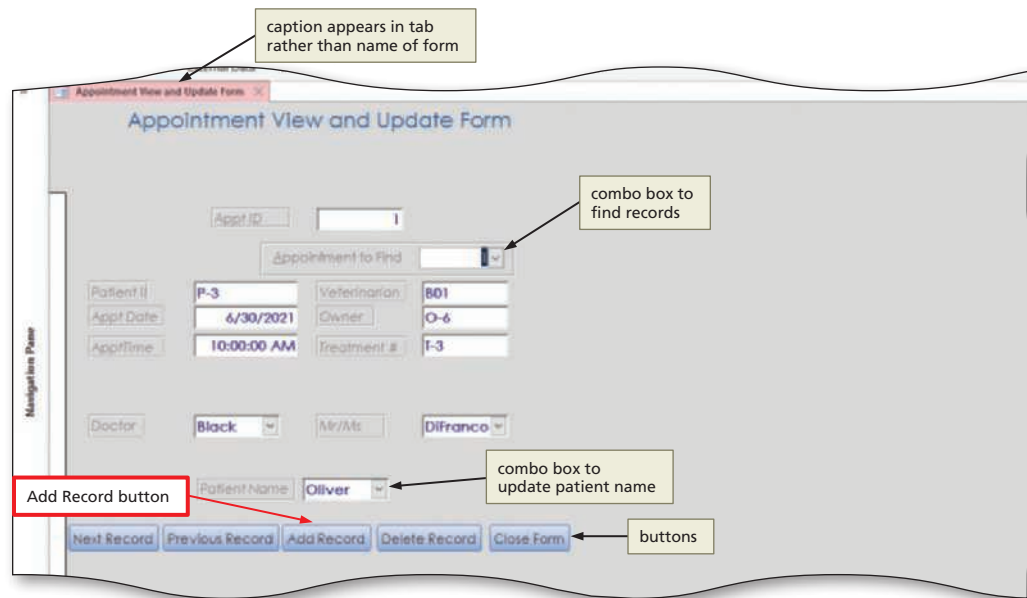


Figure 7–36

BTW

VBA

Visual Basic for Applications (VBA) is a programming language that can be used with Access. As with other programming languages, programs in VBA consist of code; that is, a collection of statements, also called commands, which are instructions that will cause actions to take place when the program executes. VBA is included with all Microsoft Office apps.

Using the Buttons

To move from record to record on the form, you can use the buttons to perform the actions you specify. To move forward to the next record, click the Next Record button. Click the Previous Record button to move back to the previous record. Clicking the Delete Record button will delete the record currently on the screen. Access will display a message requesting that you verify the deletion before the record is actually deleted. Clicking the Close Form button will remove the form from the screen.

BTW

Converting Macros to VBA Code

You can convert macros that are attached to forms to VBA (Visual Basic for Applications) code. To do so, open the form in Design view and click the 'Convert Form's Macros to Visual Basic' button. You also can convert macros that are attached to reports.

To Test the Add Record Button

The following step uses the Add Record button. *Why?* Clicking the Add Record button will clear the contents of the form so you can add a new record.

- 1 Click the Add Record button (Figure 7–37).

Q&A There is no insertion point in the Patient ID field. How would I begin entering a new record?
To begin entering a record, you would have to click the Patient ID field before you can start typing.

Why does new appear in the Appointment ID field?

The value new refers to the autonumber type field, which will automatically assign a new Appointment ID as you begin to fill in the form.

Experiment

- Try each of the other buttons to see their effects. Do not delete any records. After clicking the Close Form button, open the form once again and close the Navigation Pane.

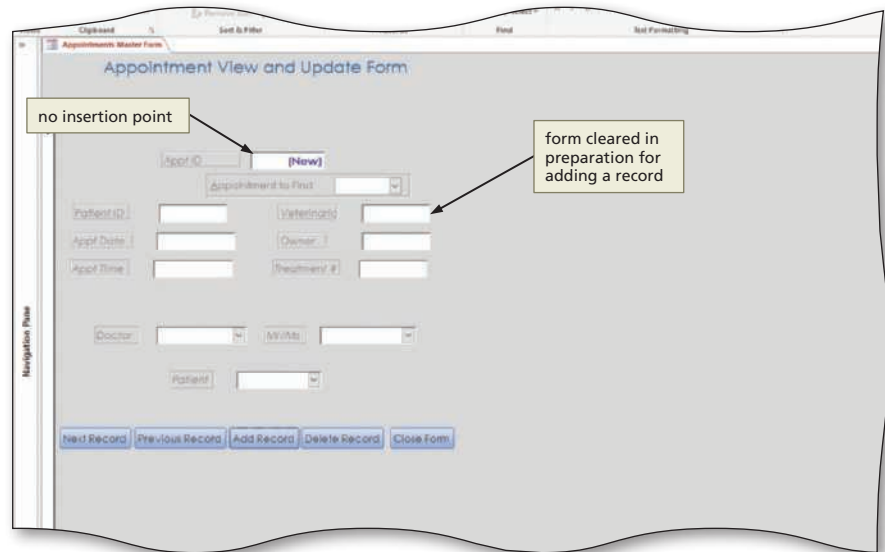


Figure 7-37

To Use the Combo Box

Using the combo box, you can search for an appointment in two ways. First, you can click the combo box arrow to display a list of appointment dates and times, and then select the correct date and time from the list by clicking it. It is also easy to search by typing the number of the month. *Why? As you type, Access will automatically display the number of the month that begins with the number you have typed.* Once the date and time is displayed, you can select the date and time by pressing **TAB**. Regardless of the method you use, the data for the selected appointment on that date and time appears on the form once the selection is made.

The following steps first locate the appointment whose month is 8 and then use the Next Record button to move to the next appointment.

1

- Click the 'Appointment to Find' arrow to display a list of appointment dates and times (Figure 7-38).

Q&A Does the list always appear in numerical order? Can I make it in chronological order (by date)? No, not always. You will change the combo box later so that the records will always be in chronological order.

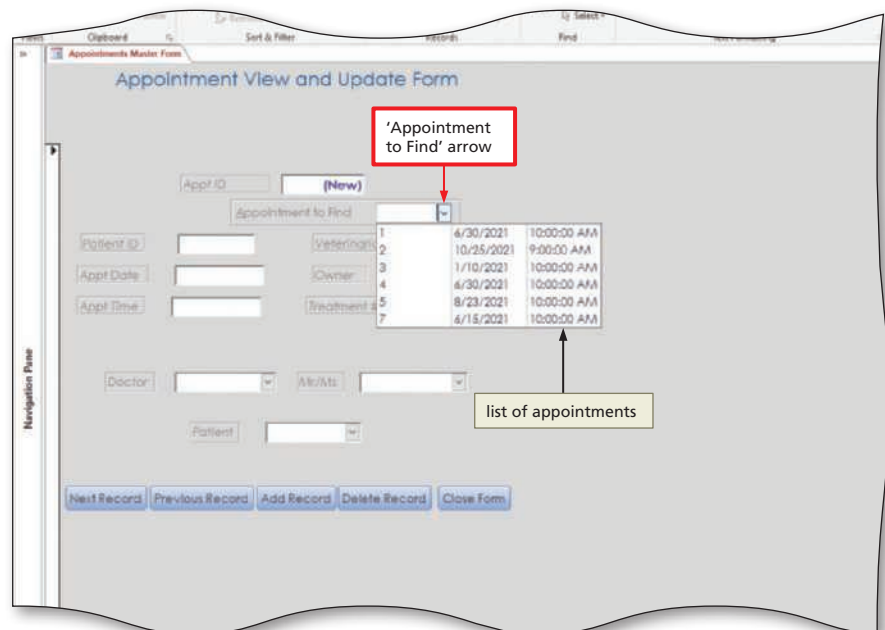


Figure 7-38

2

- Click 3 to display the data for 1/10/2021 in the form (Figure 7–39).

The screenshot shows the 'Appointment View and Update Form' with the following data displayed:

Appr ID	3	Appointment to Find	3
Patient ID	P-2	Veterinarian	B01
Appr Date	1/10/2021	Owner	O-5
Appr Time	10:00:00 AM	Treatment #	T-2
Doctor	Block	Mr/Ms	Kraus
Patient	Hooper		

A callout box points to the 'Appointment to Find' dropdown menu with the text: 'P-2 located and displayed in form'.

Figure 7–39

3

- Click the Next Record button to display the next record to display the next record (Figure 7–40).

Q&A Why does the combo box still contain Appointment 3, rather than the correct Appointment? This is a problem with the combo box. You will address this issue later.



Experiment

- Select the entry in the combo box, delete and enter the number, 5, to find the appointment on 8/23/2021.

The screenshot shows the 'Appointment View and Update Form' with the following data displayed:

Appr ID	4	Appointment to Find	3
Patient ID	P-4	Veterinarian	B01
Appr Date	6/30/2021	Owner	O-1
Appr Time	10:00:00 AM	Treatment #	T-1
Doctor	Block	Mr/Ms	Sabus
Patient	Chloe		

A red box highlights the 'Next Record' button with the text: 'Next Record button'.

Figure 7–40

Issues with the Add Record Button

Although clicking the Add Record button does erase the contents of the form in preparation for adding a new record, there is a problem with it. After clicking the Add Record button, there should be an insertion point in the control for the first field you need to type into — the Patient ID field — but there is not. To display an insertion point automatically when you click the Add Record button, you need to change the focus. A control is said to have the **focus** when it becomes active; that is, when it becomes able to receive user input through mouse, touch, or keyboard actions. At any point in time, only one item on the form has the focus. In addition to adding a new record, clicking the Add Record button needs to update the focus to the Patient ID field.

BTW

Focus

Sometimes it is difficult to determine which object on the screen has the focus. If a field has the focus, an insertion point appears in the field. If a button has the focus, a small rectangle appears inside the button.

Issues with the Combo Box

The combo box has the following issues. First, if you examine the list of dates and times in Figure 7–38, you will see that they are not in chronological order. Second, when you move to a record without using the combo box, such as when navigating using the buttons, the name in the combo box does not change to reflect the name of the appointment currently on the screen. Third, you should not be able to use **TAB** to change the focus to the combo box, because that does not represent a field to be updated.

BTW

Events

Events are actions that have happened or are happening at the present time. An event can result from a user action. For example, one of the events associated with a button on a form is clicking the button. The corresponding event property is On Click. If you associate VBA code or a macro with the On Click event property, the code or macro will execute any time you click the button. Using properties associated with events, you can instruct Access to run a macro, call a Visual Basic function, or run an event procedure in response to an event.

Macros

To correct the problem with the Add Record button not displaying an insertion point, you will update a **macro**, which is a series of actions that Access performs when a particular event occurs, in this case when the Add Record button is clicked. Access has already created the macro; you just need to add a single action to it.

Specifically, you need to add an action to the macro that will move the focus to the control for the Patient ID field. The appropriate action is **GoToControl**. Like many actions, the **GoToControl** action requires additional information, called arguments. The argument for the **GoToControl** action is the name of the control, in this case, the Patient ID control.

To Modify the Macro for the Add Record Button

The following steps first change the name of the control to remove spaces (a requirement in VBA, which you will use later) and then modify the macro that is associated with the Add Record button. *Why? Modifying the macro lets you add an action that changes the focus to the Patient ID field.* You can use different methods of changing control names so that they do not contain spaces. One approach is to simply remove the space. This approach would change Patient ID to PatientID, for example. The approach you will use is to insert an underscore (**_**) in place of the space. For example, you will change Patient ID to Patient_ID.

After changing the name of the control, you will complete an action that changes the focus to the control for the Patient ID field.

1

- Click the View button arrow and then click Design View to return to Design view.
- Click the control for the Patient ID field (the white space, not the label), and then click the Property Sheet button (Form Design Tools Design tab | Tools group) to display the property sheet.
- If necessary, click the All tab. Ensure the Name property is selected, click immediately following the word, Patient, and press **DELETE** to delete the space, and then type an underscore (**_**) to change the name to Patient_ID (Figure 7–41).
- Click the control for Appointment ID field and on the property sheet repeat the previous steps and rename the field Appointment_id.

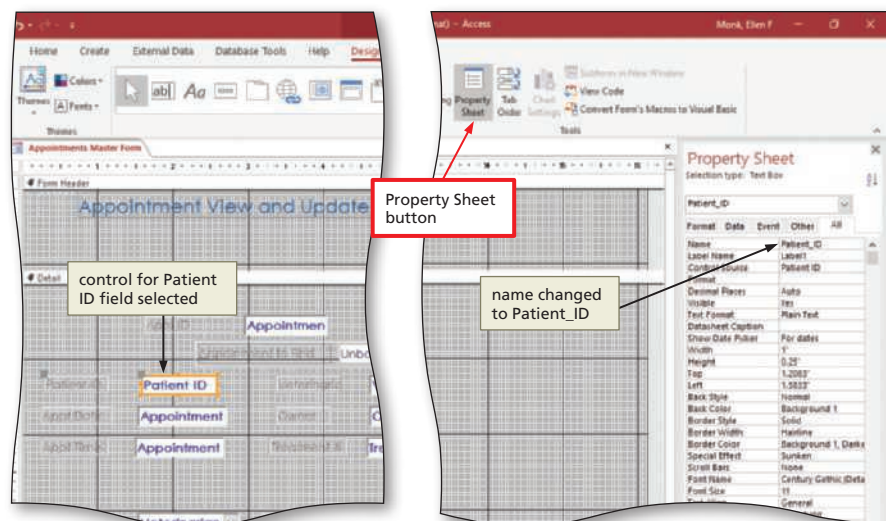


Figure 7–41

Q&A Could I just erase the old name and type Patient ID?
Yes. Use whichever method you find most convenient.

- Close the property sheet, and then right-click the Add Record button to display a shortcut menu (Figure 7-42).

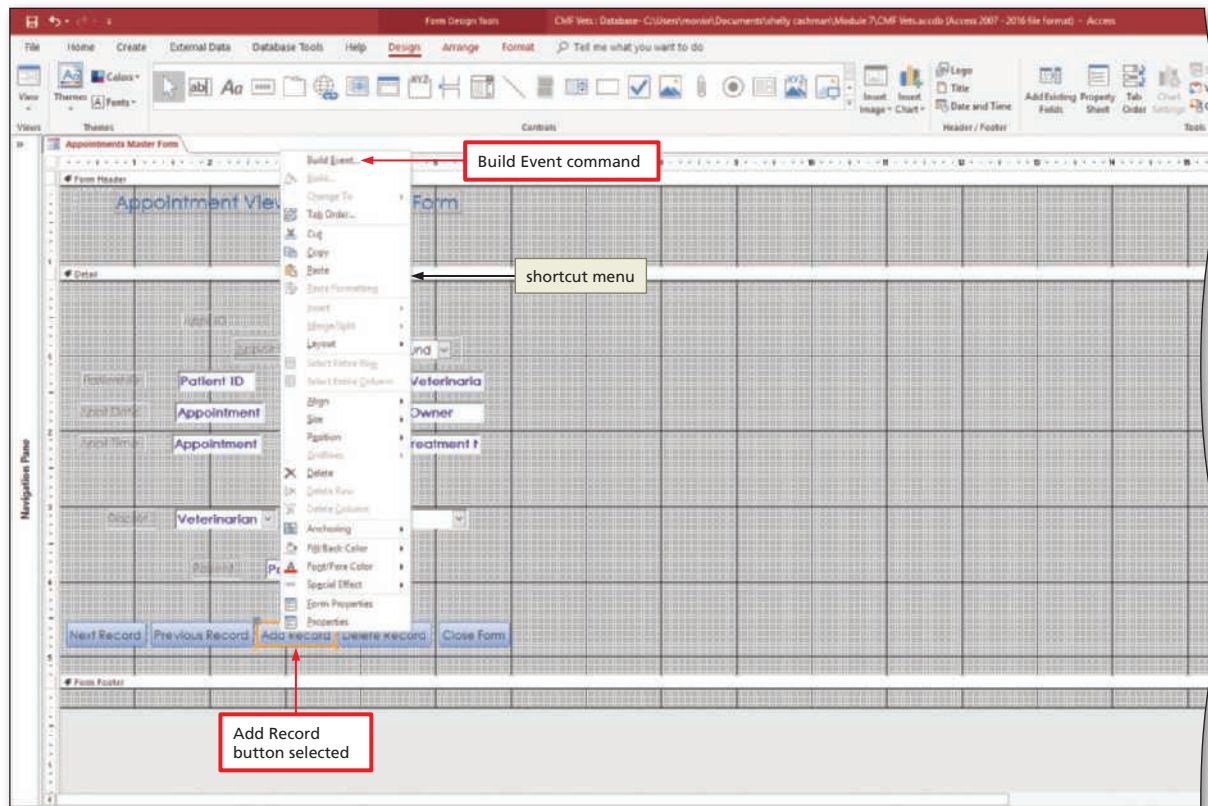


Figure 7-42

2

- Click Build Event on the shortcut menu to display the macro associated with the On Click event that Access created automatically.
- If the Action Catalog, the catalog that lists all of the available actions, does not appear, click the Action Catalog button (Macro Tools Design tab | Show/Hide group) to display the Action Catalog.
- In the Action Catalog, if the expand indicator is an open triangle in front of Actions, click the triangle to display all actions.
- If the expand indicator in front of Database Objects is an open triangle, click the expand indicator to display all actions associated with Database Objects (Figure 7-43).

Q&A How can I recognize actions? How can I recognize the arguments of the actions?
The actions are in bold. The arguments for the action follow the action and are not bold. The value for an argument appears to the right of the argument. The value for the 'Go to' argument of the OnError action is Next, for example.

What is the purpose of the actions currently in the macro?

The first action indicates that, if there is an error, Access should proceed to the next action in the macro rather than immediately stopping the macro. The second action causes Access to go to the record indicated by the values in the arguments. The value, New, indicates that Access should go to a new record. Because the final action has a condition, the action will be executed only if the condition is true, that is, the error code contains a value other than 0. In that case, the MsgBox action will display a description of the error.

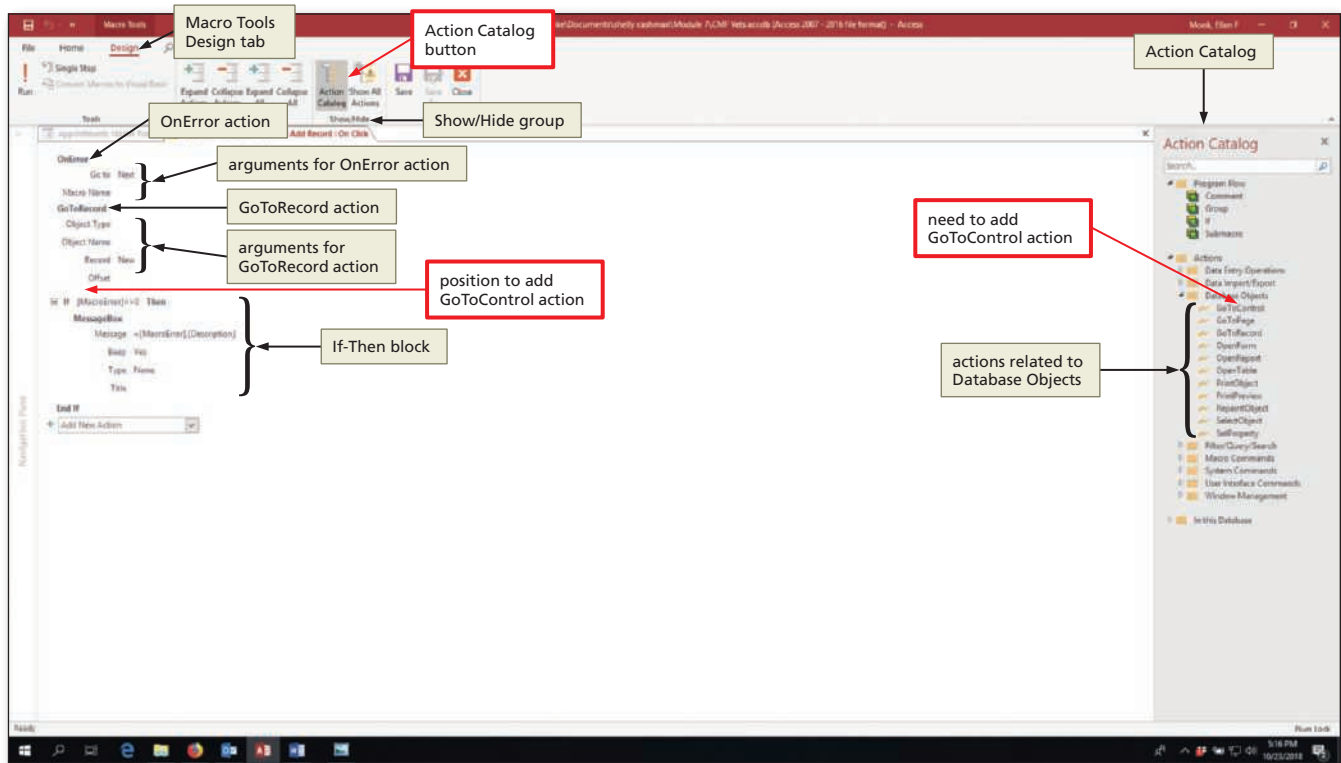


Figure 7-43

- 3
 - Drag the GoToControl action from the Action Catalog to the position shown in Figure 7-44.
 - Type `Patient_ID` as the Control Name argument (Figure 7-44).

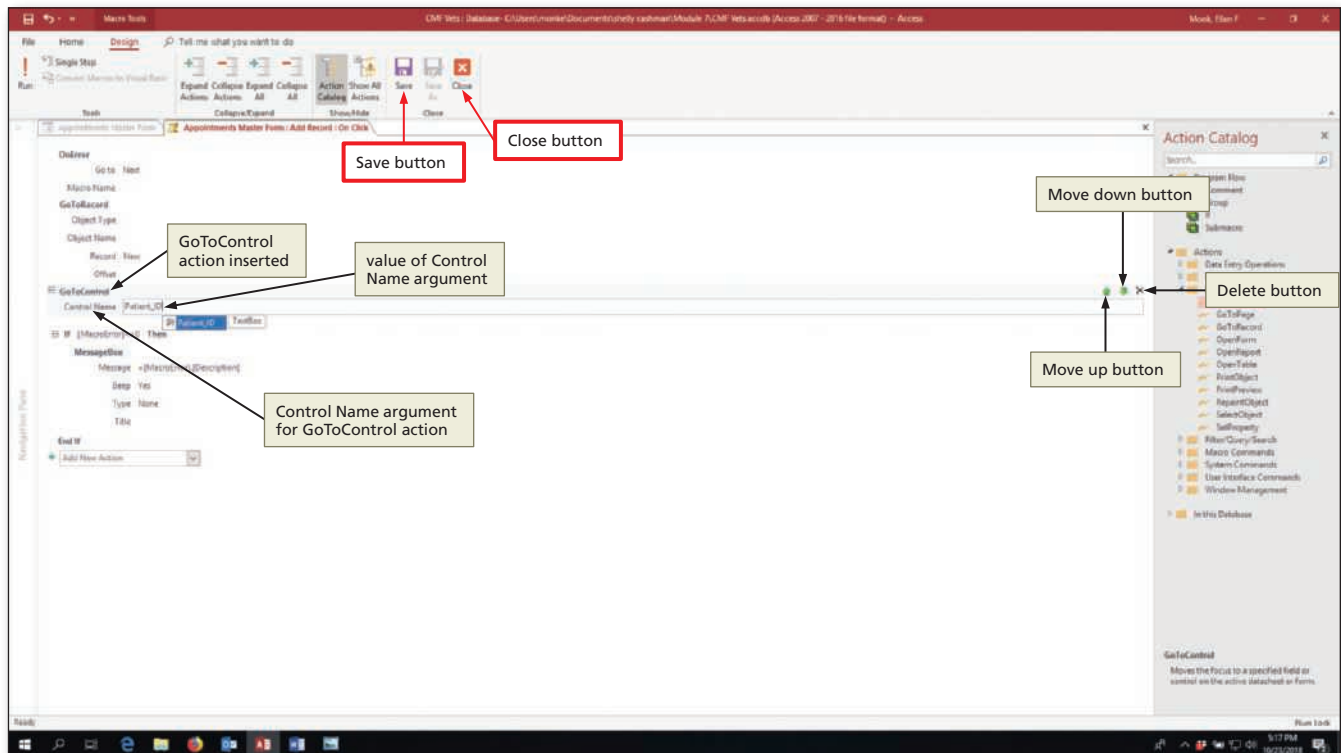


Figure 7-44

Q&A What is the effect of the GoToControl action?
When Access executes this action, the focus will move to the control indicated in the Control Name argument, in this case, the Patient_ID control.

I added the GoToControl action to the wrong place in the macro. How do I move it?
To move it up in the list, click the Move up button. To move it down, click the Move down button.

I added the wrong action. What should I do?
Click the Delete button to delete the action you added, and then add the GoToControl action. If you decide you would rather start over instead, click Close (Macro Tools Design tab | Close group) and then click the No button when asked if you want to save your changes. You can then begin again from Step 2.

4

- Click Save (Macro Tools Design tab | Close group) to save your changes.
- Click Close (Macro Tools Design tab | Close group) to close the macro and return to the form design.

To Modify the Combo Box

The combo box might not display dates in chronological order. To ensure the data is always sorted in the correct order, you need to modify the query that Access has created for the combo box so the data is sorted by Appointment Date. The following steps modify the query.

1

- Click the Appointment to Find combo box (the white space, not the label), display the Form Design Tools Design tab, and then click the Property Sheet button (Form Design Tools Design tab | Tools group).
- Scroll down in the property sheet so that the Row Source property appears, click the Row Source property, and then click the Build button (the three dots) to display the Query Builder.
- Click the Sort row in the Appointment Date field, click the arrow that appears, and then click Ascending to change the order to ensure the Appointment Dates are always in chronological order in the combo box (Figure 7-45).

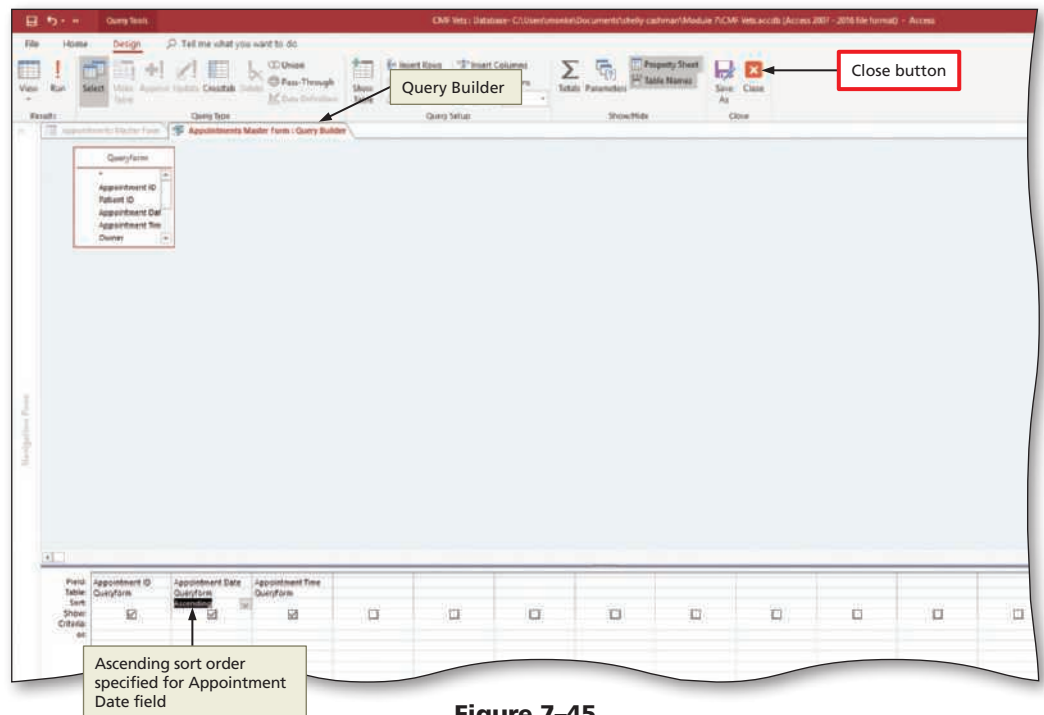


Figure 7-45

2

- Click Save on the Quick Access Toolbar to save your changes.
- Close the Query Builder window by clicking Close (Query Tools Design tab | Close group).

To Correct Issues with the Combo Box

The form does not update the Appointment Date and Time in the combo box to reflect the appointment currently on the screen unless the Appointment to Find is chosen. The following steps modify the query and then the code associated with the On Current event property appropriately. *Why? Modifying the VBA code lets you update the form actions appropriately.* The final step changes the Tab Stop property for the combo box from Yes to No.

1

- Click the form selector (the box in the upper-left corner of the form) to select the form.
- If necessary, Click the Property Sheet button (Form Design Tools Design tab | Tools group), scroll down until the On Current property appears, and then click the On Current property.
- Click the Build button (the three dots) to display the Choose Builder dialog box (Figure 7-46).

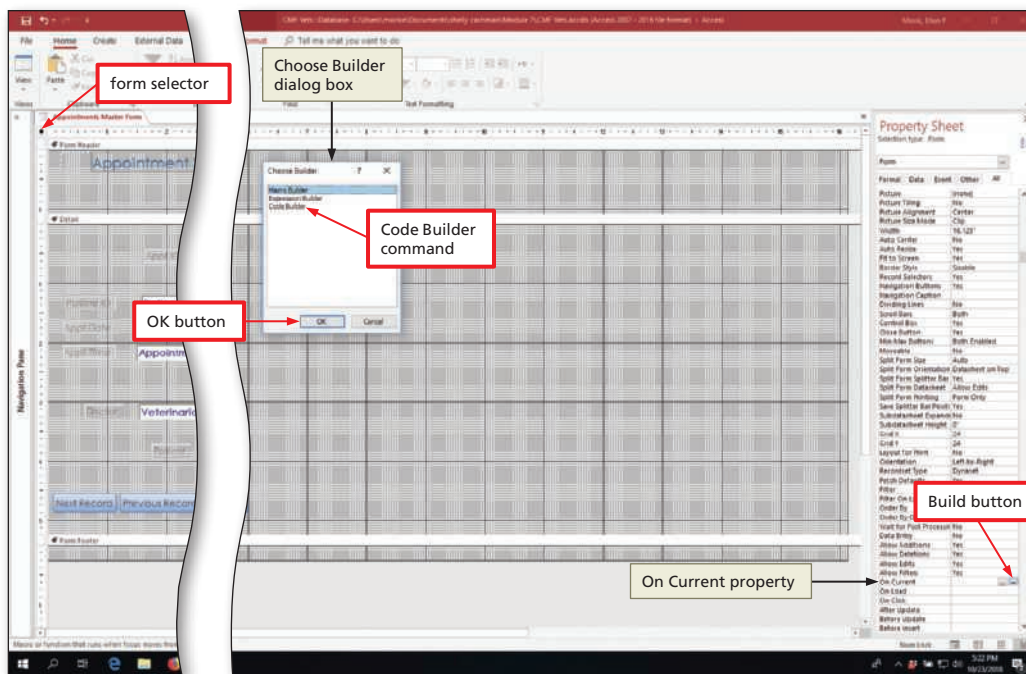


Figure 7-46

2

- Click Code Builder (Choose Builder dialog box), and then click the OK button to display the VBA code generated for the form's On Current event property (Figure 7-47).

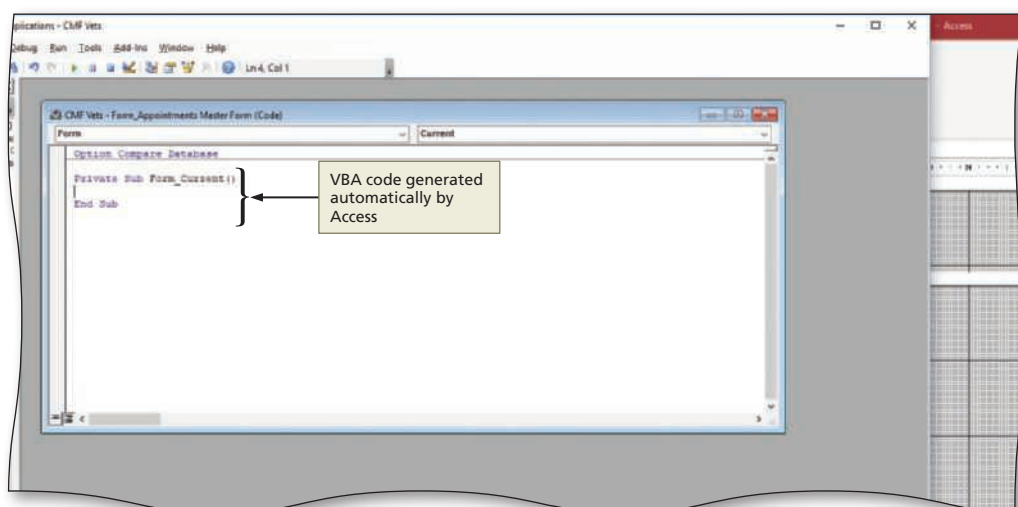


Figure 7-47

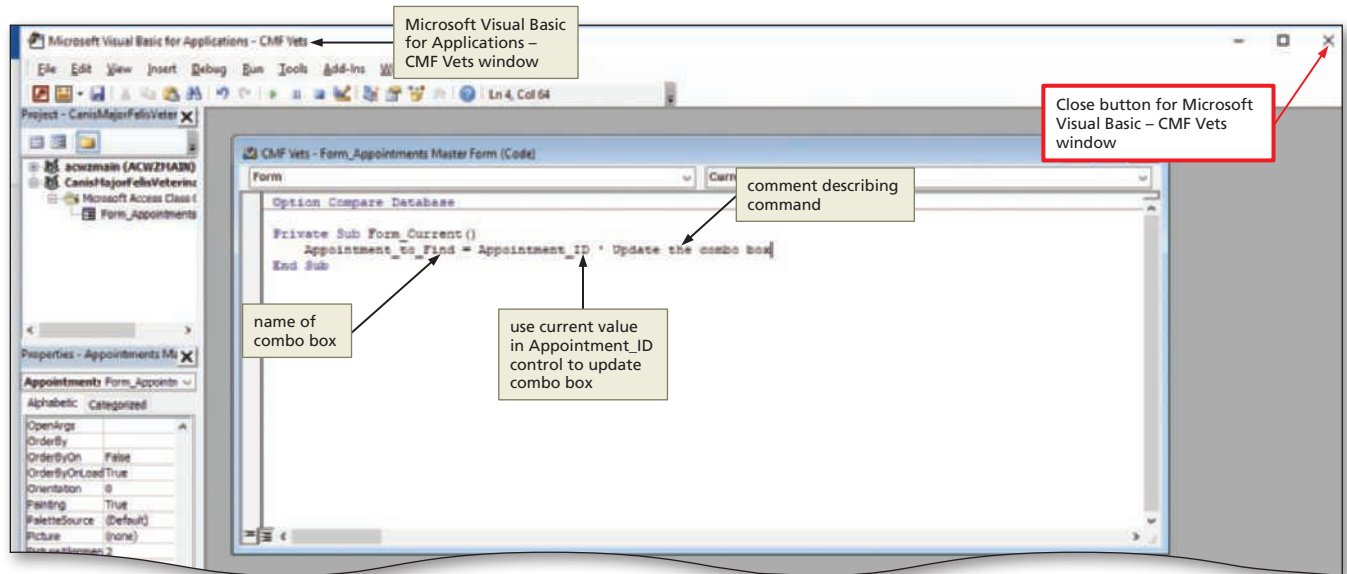
3

- Press TAB and then type `Appointment_to_Find = Appointment_ID ` Update the combo box` as shown in Figure 7–48, to create the command and a comment that describes the effect of the command.

Q&A

How would I construct a command like this in my own form?

Begin with the name you assigned to the combo box, followed by an equal sign, and then the name of the control containing the primary key of the table. The portion of the statement following the single quotation mark is a comment describing the purpose of the command. You could simply type the same thing that you see in this command.

**Figure 7–48****4**

- Click Close for the Microsoft Visual Basic for Applications - CMF Vets window.
- Click the Appointment to Find combo box.
- In the property sheet, scroll down until the Tab Stop property appears, click the Tab Stop property, and then click the Tab Stop property box arrow.
- Click No to change the value of the Tab Stop property, which skips over the combo box in the tab sequence, and then close the property sheet.
- Save your changes and then close the form.

Using the Modified Form

The problems with the Add Record button and the combo box are now corrected. When you click the Add Record button, an insertion point appears in the Patient ID field (Figure 7–49a). When you click the Appointment to Find box arrow, the list of dates are in chronological order (Figure 7–49b). After using the Appointment to Find box to find an appointment (Figure 7–49c) and clicking the Next Record button, the Appointment to Find box is updated with the correct date and time (Figure 7–49d).

BTW

Comments in Macros

You can use the Comment action in the Action Catalog to place comments in macros.

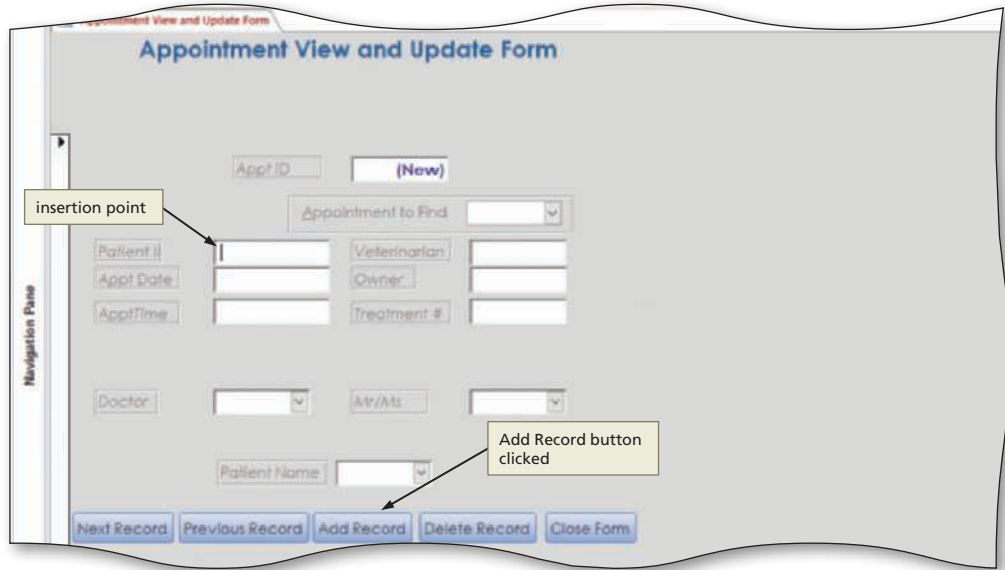


Figure 7-49a

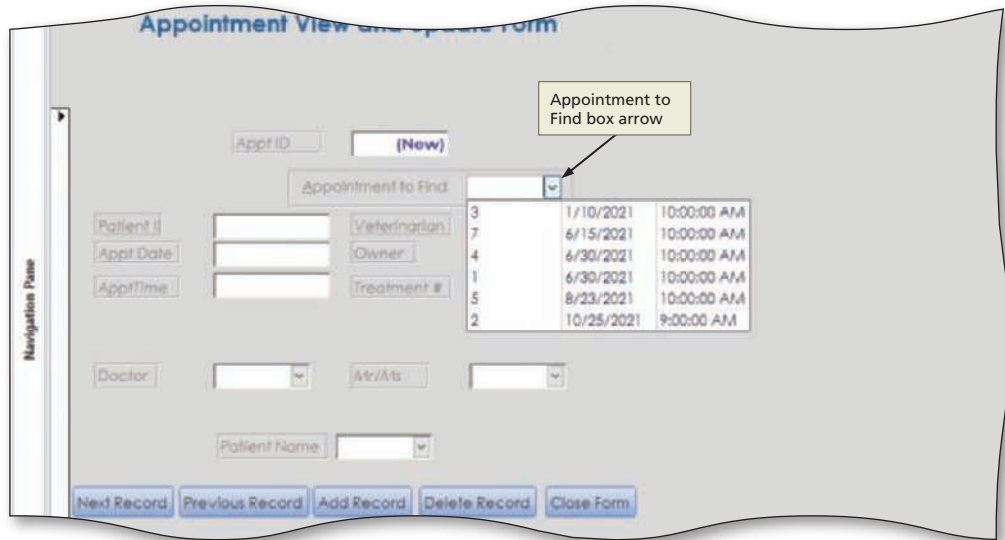


Figure 7-49b

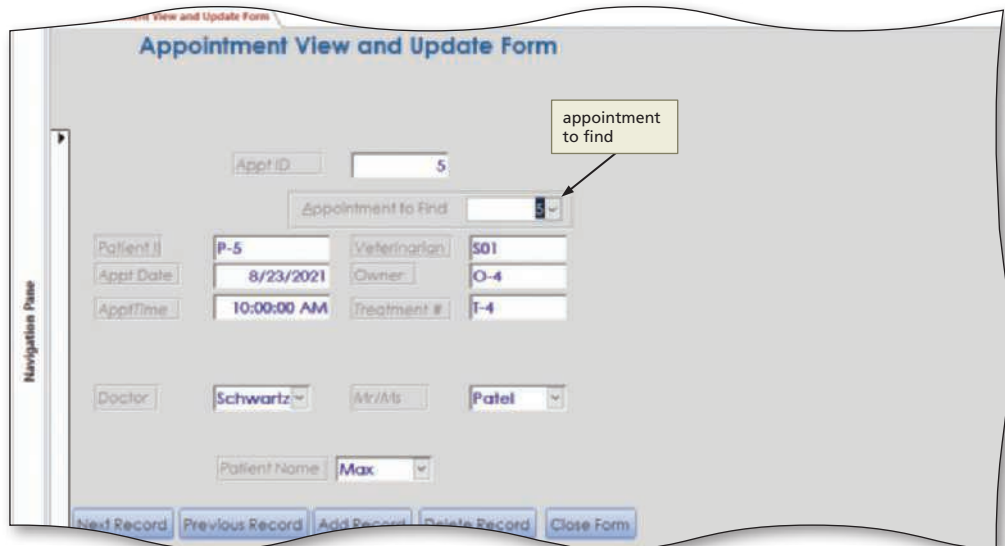


Figure 7-49c

Figure 7-49d

Break Point: If you wish to stop working through the module at this point, you can quit Access now. You can resume the project later by starting Access, opening the database called CMF Vets, and continuing to follow the steps from this location forward.

Creating a Multipage Form

If you have determined that you have more data than will fit conveniently on one screen, you can create a **multipage form**, a form that includes more than a single page. There are two ways to create a multipage form. One way is to insert a page break at the desired location or locations. An alternative approach, which produces a nice-looking and easy-to-use multipage form, is to insert a tab control. The multiple pages, called tabbed pages, are all contained within the tab control. To move from one page in the tab control to another, a user simply clicks the desired tab. The tab control shown in Figure 7-2, for example, has a tab labeled Datasheet that contains a datasheet showing the relevant data. It has a second tab, labeled Charts, that displays the relevant data in two charts.

To Import a Table

The management at CMF Vets would like to track the emergency hours and the on call hours of their veterinarians. This information is stored in a table named Emergency On Call Hours. You will need to import the table to create the form.

- 1** Click the New Data Source arrow (External Data tab | Import & Link group) to display the options for importing data.
- 2** Point to From Database, and then click Access to display the Get External Data – Access Database dialog box.
- 3** Navigate to the location containing your data files (if you do not have the required files, see your instructor), select the Emergency On Call Extra Table, and then select the only table available, Emergency on Call Hours.

To Create a Form in Design View

Why? The form will contain the tab control including two tabs: one that displays a datasheet and another that displays two charts. The following step begins the process by creating a form for the Veterinarians table in Design view.

1

- Close the Navigation Pane.
- Display the Create tab.
- Click the Form Design button (Create tab | Forms group) to create a new form in Design view.
- Ensure the selector for the entire form — the box in the upper-left corner of the form — is selected.
- If necessary, click the Property Sheet button (Form Design Tools Design tab | Tools group) to display a property sheet.
- With the All tab selected, click the Record Source property, if necessary, to display an arrow, click the arrow that appears, and then click Veterinarians to select the Veterinarians table as the record source for the new form.
- Close the property sheet.
- Click the 'Add Existing Fields' button (Form Design Tools Design tab | Tools group) to display a field list and then drag the Veterinarian ID field to the approximate position shown in Figure 7-50.
- Change the label for the Veterinarian ID field from Veterinarian ID to Veterinarian Identification. Resize and move the label to the position shown in the figure.

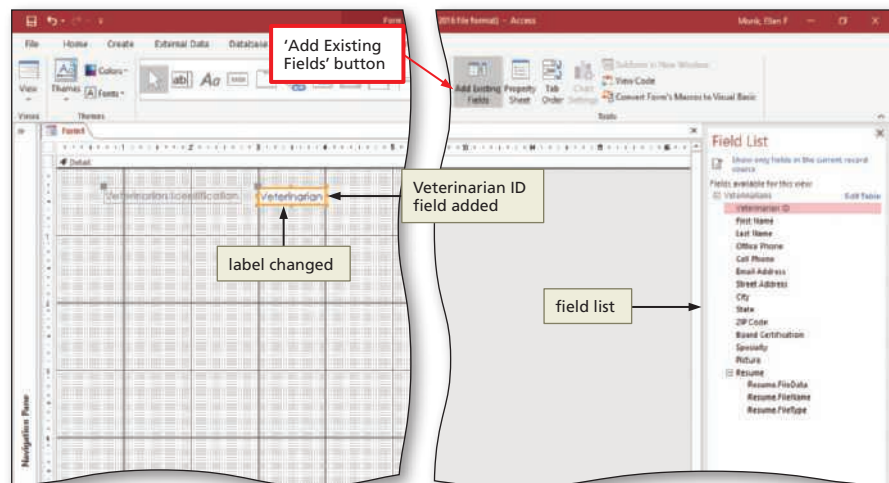


Figure 7-50

To Use the Text Box Tool with Concatenation

Why? If you have determined that **concatenation**, which simply means combining objects in a series, is appropriate for a form, you can create a concatenated field by using the Text Box tool in the Controls group on the Design tab and then indicating the concatenation that is to be performed. The following steps add a concatenated field, involving two text fields, First Name and Last Name. Specifically, you will concatenate the first name, a single space, and the last name.

1

- Click the Text Box tool (Form Design Tools Design tab | Controls group) and then move the pointer, whose shape has changed to a small plus symbol accompanied by a text box, to the position shown in Figure 7-51.

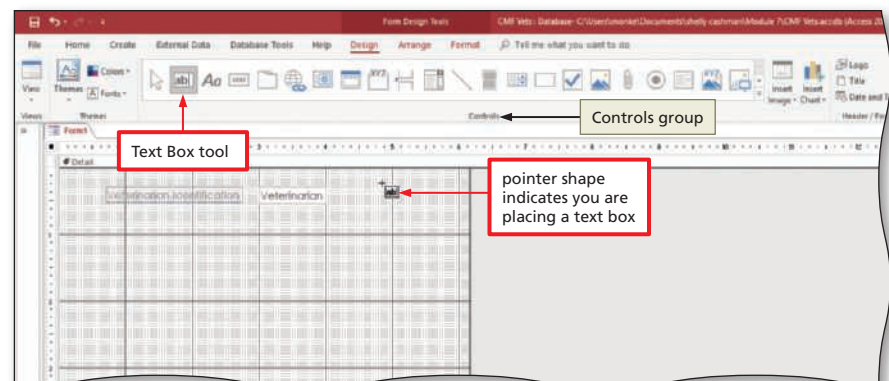
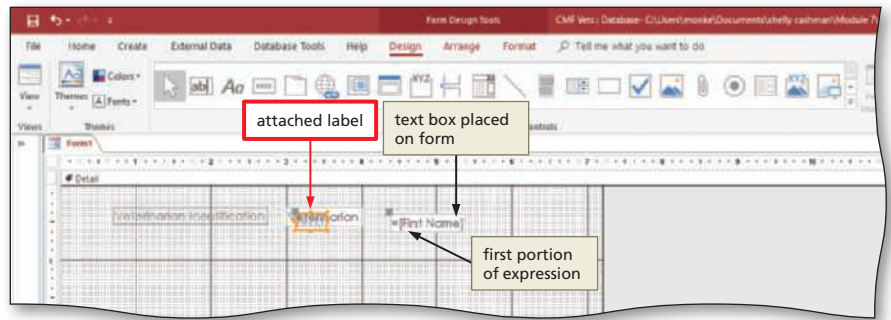


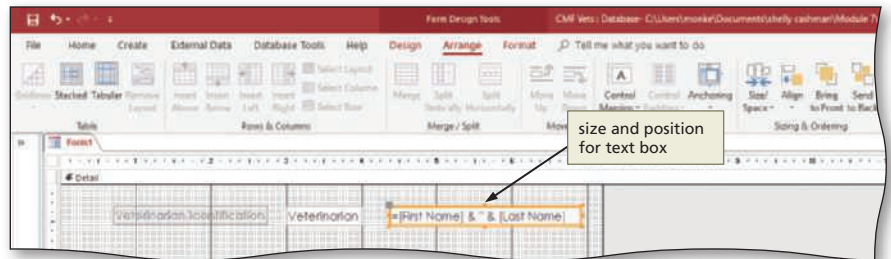
Figure 7-51

2

- Click the position shown in Figure 7-51 to place a text box on the report.
- Click in the text box to produce an insertion point.
- Type `= [First Name] & ' ' & [Last Name]` as the entry in the text box.
- Click the attached label to select it (Figure 7-52).

**Figure 7-52****3**

- Press DELETE to delete the attached label.
- Resize the Veterinarian ID control to the approximate size shown in Figure 7-53.
- Click the text box to select it, drag it to the position shown in Figure 7-53, and then drag the right sizing handle to the approximate position shown in the figure.

**Figure 7-53****4**

- Close the field list by clicking the 'Add Existing Fields' button (Form Design Tools Design tab | Tools group).
- Save the form using the name, Vet Emergency On Call Form.

BTW

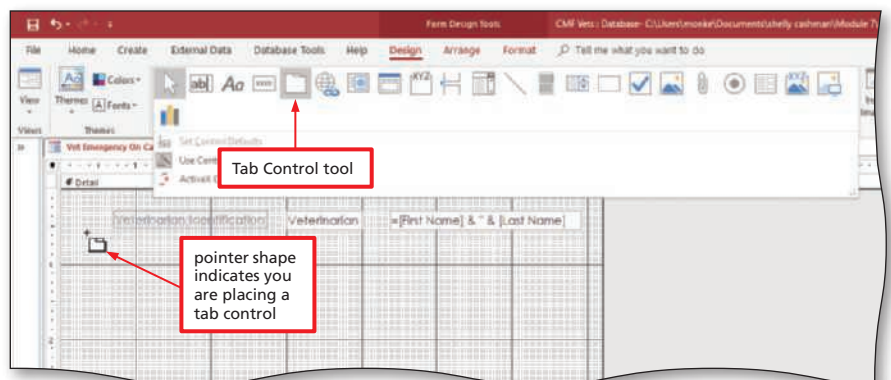
Concatenation is often used in computing to combine or merge two things. For example, if you have two separate fields such as first name and last name, you can concatenate them to show a full name.

To Use Tab Controls to Create a Multipage Form

Why? To use tabs on a form, you need to insert a tab control. The following steps insert a tab control with two tabs: Datasheet and Charts. Users will be able to click the Datasheet tab in the completed form to view On Call and Emergency Hours in Datasheet view. Clicking the Charts tab will display two charts representing the same hour data as in the Datasheet tab.

1

- Click the Tab Control tool (Form Design Tools Design Tab | Controls group) and move the pointer to the approximate location shown in Figure 7-54.

**Figure 7-54**

2

- Click the position shown in Figure 7–54 to place a tab control on the form.
- Click the far left tab and then click the Property Sheet button (Form Design Tools Design tab | Tools group) to display a property sheet.
- Change the value for the Caption property to **Datasheet** (Figure 7–55).

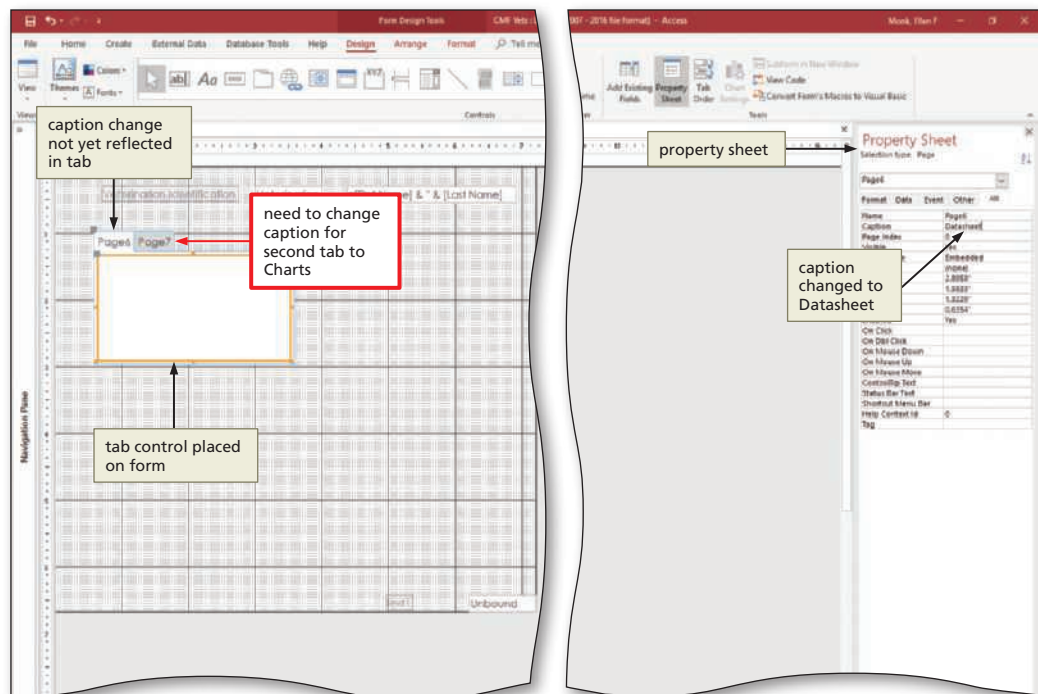


Figure 7–55

Q&A My property sheet looks different. What should I do? Be sure you clicked the far left tab before displaying the property sheet. The highlight should be within the border of the tab, as shown in the figure.

3

- Click the second tab without closing the property sheet.
- Change the value for the Caption property to **Charts**.
- Close the property sheet.



CONSIDER THIS

When would you include a tab control in your form?

If the form contains more information than will conveniently fit on the screen at a time, consider adding a tab control. With a tab control, you can organize the information within a collection of tabbed pages. To access any of the tabbed pages, users need only click the corresponding tab.

To Add a Subform

To add a subform to a form, you use the Subform/Subreport tool in the Controls group on the Form Design Tools Design tab. *Why?* The subform enables you to show data for emergency and on call hours for a given veterinarian at the same time. Before doing so, you should make sure the 'Use Control Wizards' button is selected. The following steps place a subform on the Datasheet tab.

1

- Click the Datasheet tab.
- Resize the tab control to the approximate size shown in Figure 7–56 by dragging the appropriate sizing handles.

Q&A Why do I need to resize the tab control? Because there needs to be enough room in the form to display all the datasheet columns and the two charts, you will need to make the tab control larger.

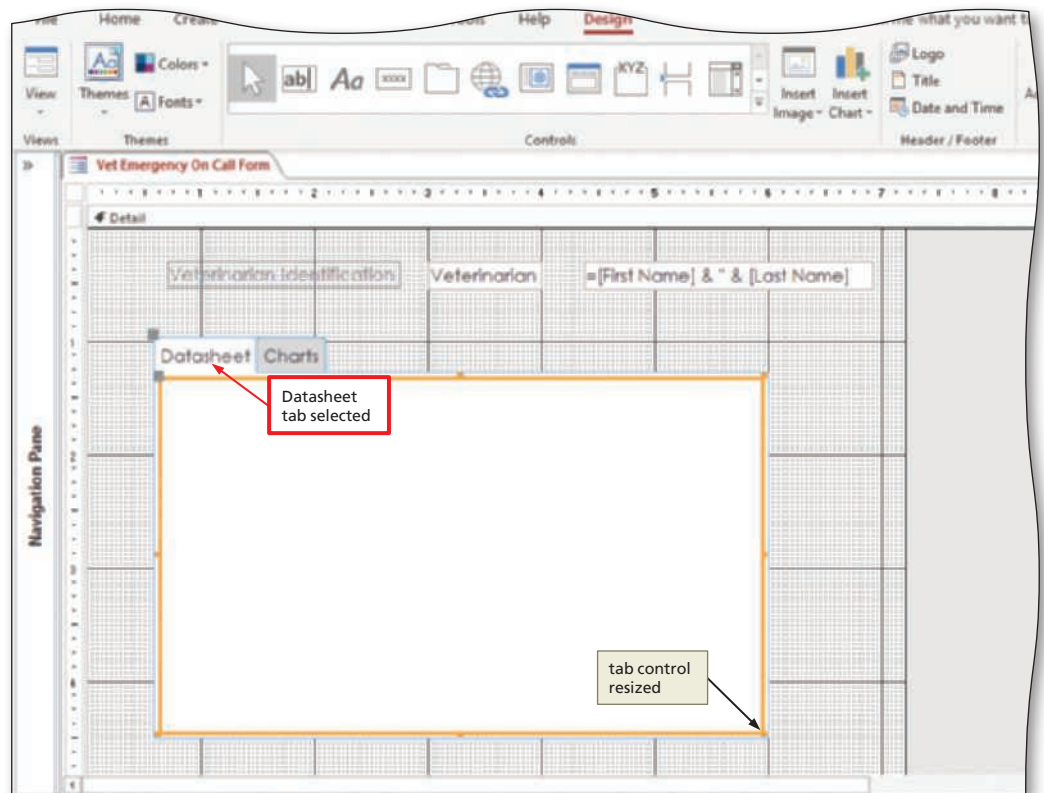


Figure 7–56

2

- Click the More button (Form Design Tools Design tab | Controls group).
- With the 'Use Control Wizards' button selected, click the Subform/Subreport tool (Form Design Tools Design tab | Controls group) and then move the pointer to the approximate position shown in Figure 7–57.

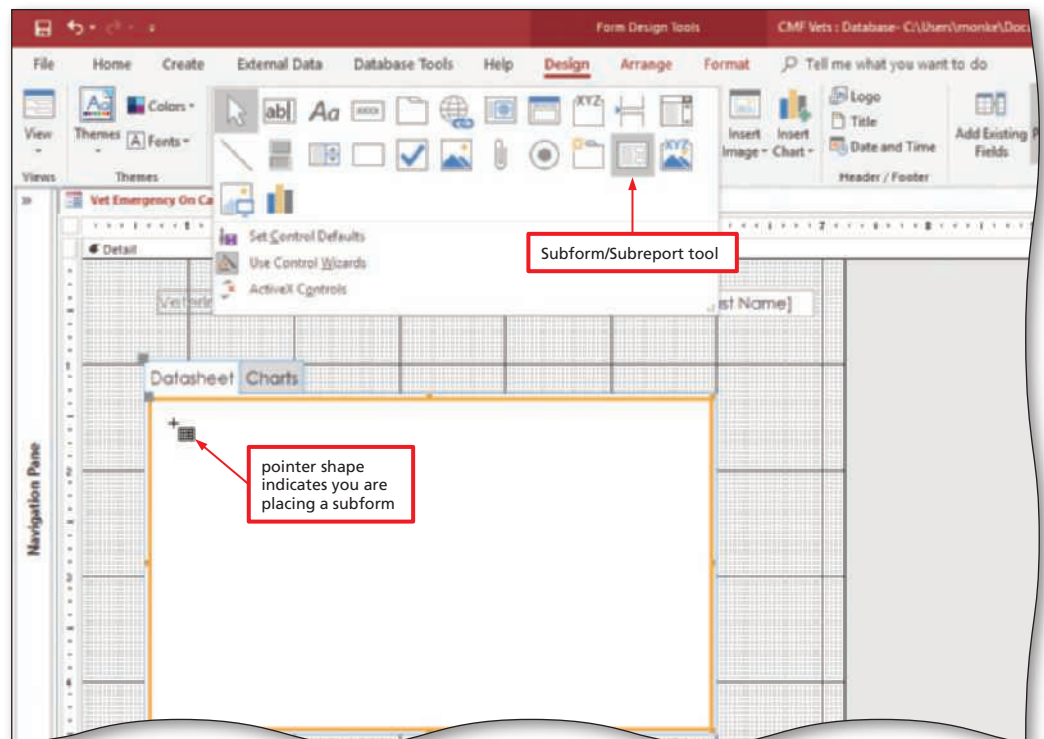


Figure 7–57

3

- Click the position shown in Figure 7-57 to open the SubForm Wizard.
- Be sure the 'Use existing Tables and Queries' option button is selected.
- If necessary, click Open to close the security warning.
- Click Next to display the next SubForm Wizard screen.
- Click the Tables/Queries arrow, and then click the Emergency On Call Hours table to indicate that the fields for the subform will be selected from the Emergency On Call Hours table.
- Click the 'Add All Fields' button (Figure 7-58).

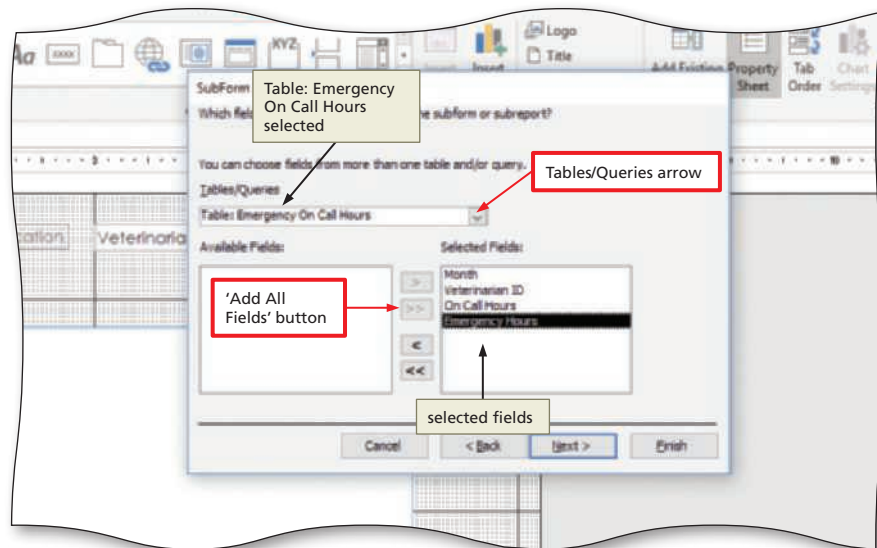


Figure 7-58

4

- Click Next.
- Be sure the 'Choose from a list' option button is selected.
- Click Next.
- Change the name of the subform to **Emergency On Call Hours for Vet**, and then click Finish to complete the creation of the subform (Figure 7-59).

5

- Save and then close the Vet Emergency On Call form.

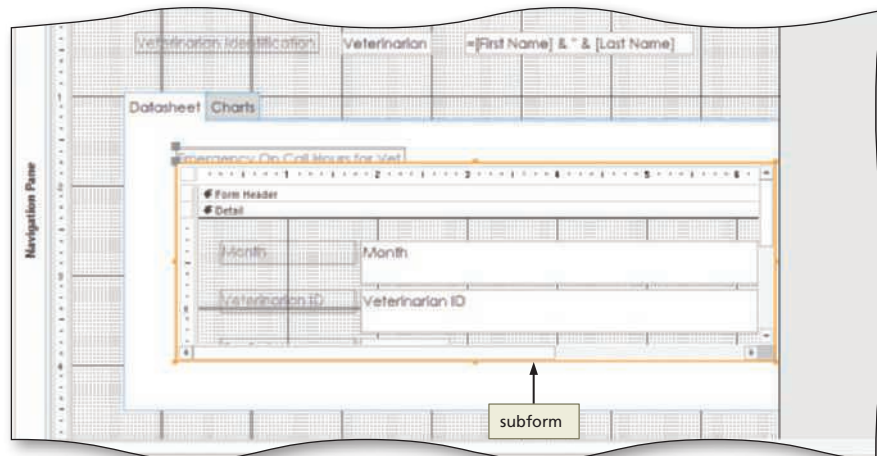


Figure 7-59

To Modify a Subform

The next task is to modify the subform. The first step is to remove the Veterinarian ID field from the subform. *Why? The Veterinarian ID field needed to be included initially in the subform because it is the field that is used to link the data in the subform to the data in the main form. It is not supposed to appear in the form, however.* In addition, the remaining columns need to be resized to appropriate sizes. The following step first removes the Veterinarian ID field. You then switch to Datasheet view to resize the remaining columns.

1

- Open the Navigation Pane, right-click the Emergency On Call Hours for Vet form, and then click Design View on the shortcut menu.
- Click the Veterinarian ID control, and then press DELETE to delete the control.

- Save the subform and close it.
- Right-click the Emergency On Call Hours for Vet subform in the Navigation Pane and click Open on the shortcut menu.
- Resize each column to best fit the data by double-clicking the right boundary of the column's field selector (Figure 7-60).

2

- Save the subform and then close it.

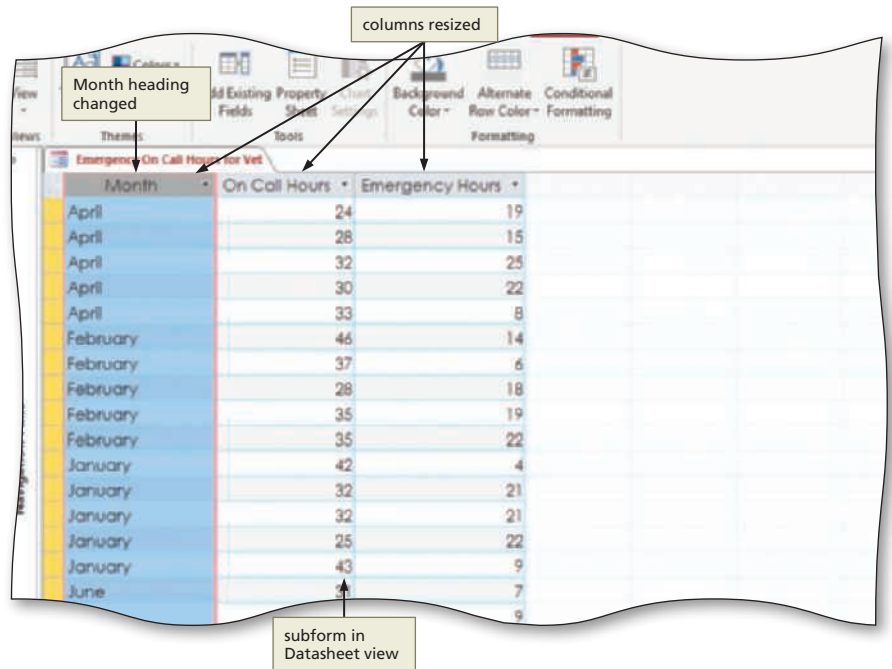


Figure 7-60

To Resize the Subform

The following step resizes the subform. *Why?* The size should enable the user to clearly view all the data.

1

- If necessary, open the Navigation Pane, right-click the Vet Emergency On Call form and then click Design View on the shortcut menu.
- Close the Navigation Pane.
- Resize the subform to the size shown in Figure 7-61 by dragging the right sizing handle.

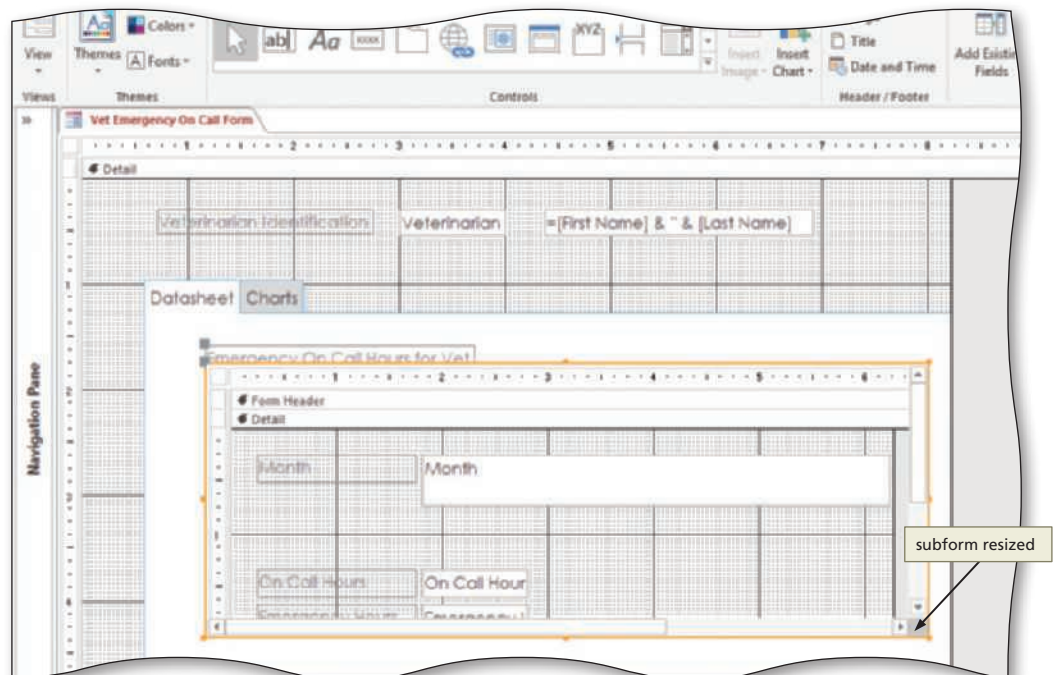


Figure 7-61

To Change the Background Color

BTW

Tab Control Order

You can change the order of tab controls. To do so, right-click any tab control and click Page Order on the shortcut menu. Use the Move Up and Move Down buttons to change to the desired order.

The following steps change the background color of the form to a light gray.

- 1 Click anywhere in the Detail section in the main form but outside all the controls to select the section.
- 2 Display the Form Design Tools Format tab.
- 3 Click the Background Color button arrow (Form Design Tools Format tab | Font group) to display a color palette (Figure 7–62).
- 4 Click the Light Gray 2 color, the first color in the third row under Standard Colors, to change the background color.

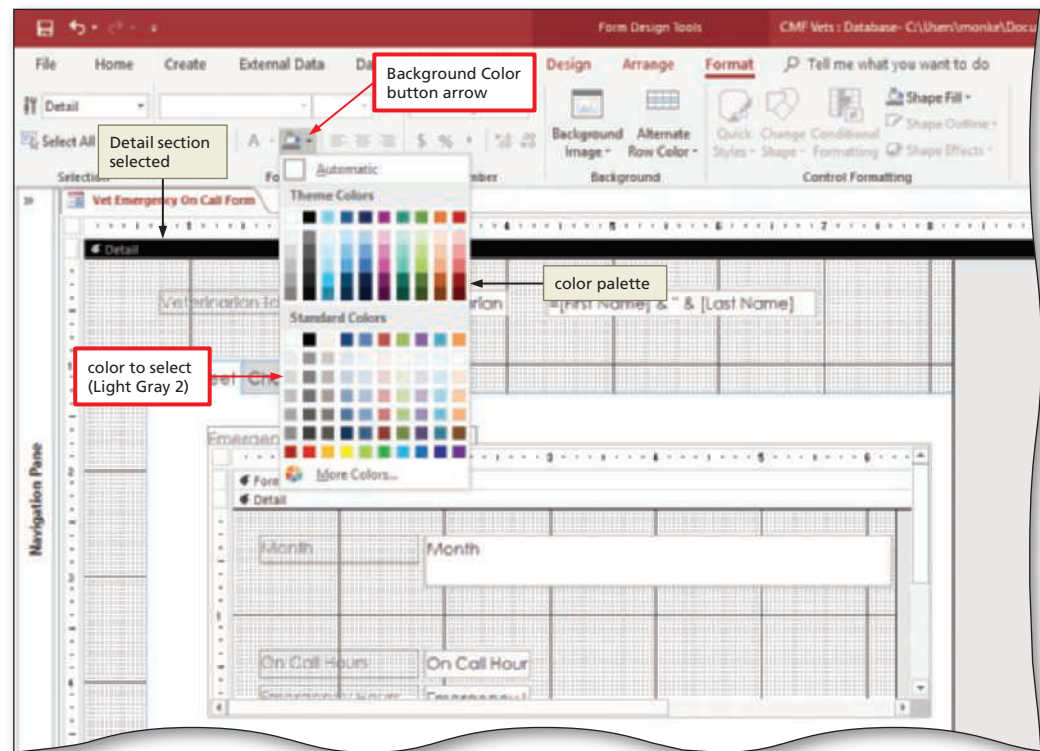


Figure 7–62



CONSIDER THIS

When would you include a subform in your form?

If the fields for the form come from exactly two tables, a one-to-many relationship exists between the two tables, and the form is based on the “one” table, you will often place the data for the “many” table in a subform. If there are more than two tables involved, you may be able to create a query on which you can base the subform.

To Insert Charts

Why? To visually represent data in a table or query, you can create a chart. To insert a chart, use the Chart tool on the Form Design Tools Design tab. The Chart Wizard will then ask you to indicate the fields to be included on the chart and the type of chart you want to insert. The following steps insert a chart that visually represents the amount of time spend in on call and emergency hours.

1

- Display the Form Design Tools Design tab.
- Click the Charts tab on the tab control to switch to that tab.
- Click the More button (Form Design Tools Design tab | Controls group) to display the design tools.
- Click the Chart tool, and then move the pointer to the approximate position shown in Figure 7-63.

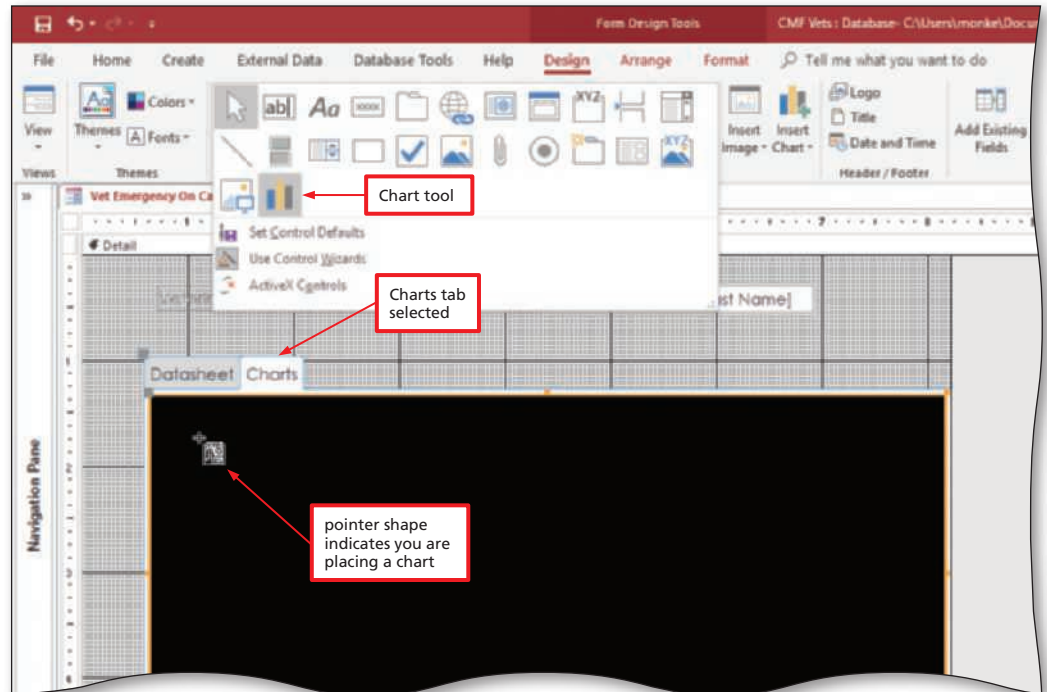


Figure 7-63

2

- Click the position shown in Figure 7-63 to display the Chart Wizard dialog box.
- The Chart Wizard dialog box indicates that the data will come from a table, scroll down so that the Emergency On Call Hours table appears, and then click the Emergency On Call Hours table to indicate the specific table containing the desired fields.
- Click Next.
- Select the Month and On Call Hours fields by clicking them and then clicking the Add Field button (Figure 7-64).

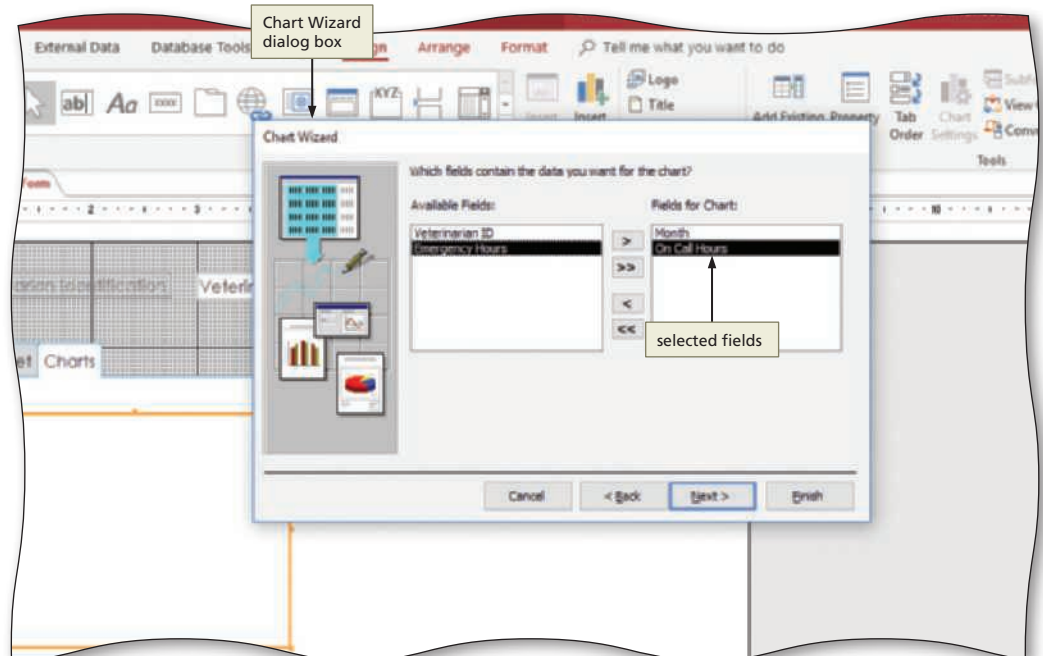


Figure 7-64

3

- Click Next.
- Click the Pie Chart, the chart in the lower-left corner (Figure 7-65).

Experiment

- Click the other chart types and read the descriptions of chart types in the lower-right corner of the Chart Wizard dialog box. When finished, click the Pie Chart in the lower-left corner.

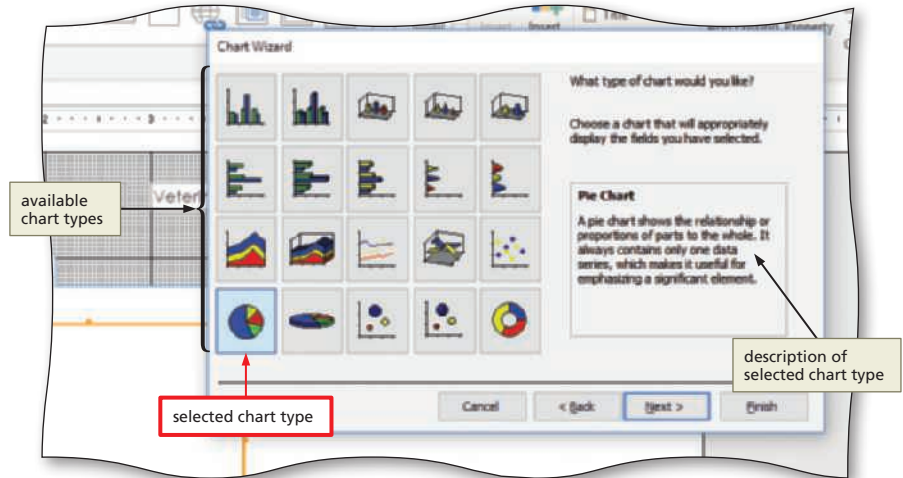


Figure 7-65

4

- Click Next to create the chart (Figure 7-66). Your screen might take several seconds to refresh.

Q&A What do these positions represent? Can I change them?

The field under the chart represents the data that will be summarized by slices of the pie. The other field is used to indicate the series. In this example, the field for the series is the workshop code, and the sizes of the slices of the pie will represent the sum of the number of hours spent. You can change these by dragging the fields to the desired locations.

These positions make sense for a pie chart. What if I selected a different chart type?

The items on this screen will be relevant to the particular chart type you select. Just as with the pie chart, the correct fields will often be selected automatically. If not, you can drag the fields to the correct locations.

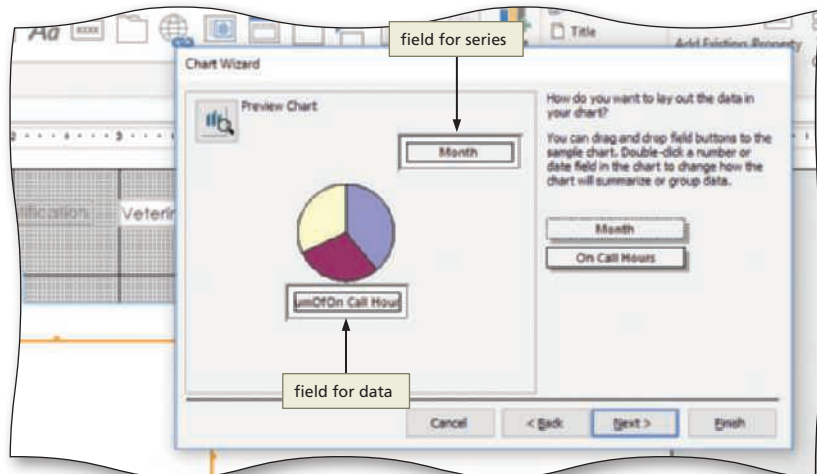


Figure 7-66

5

- Click Next to select the layout Access has proposed (Figure 7-67).

Q&A The Veterinarian ID field does not appear in my chart. Can I still use it to link the form and the chart?

Yes. Even though the Veterinarian ID does not appear, it is still included in the query on which the chart is based. In fact, it is essential that it is included so that you can link the document (that is, the form) and the chart. Linking the document and the chart ensures that the chart will accurately reflect the data for the correct veterinarian, that is, the veterinarian who currently appears in the form.

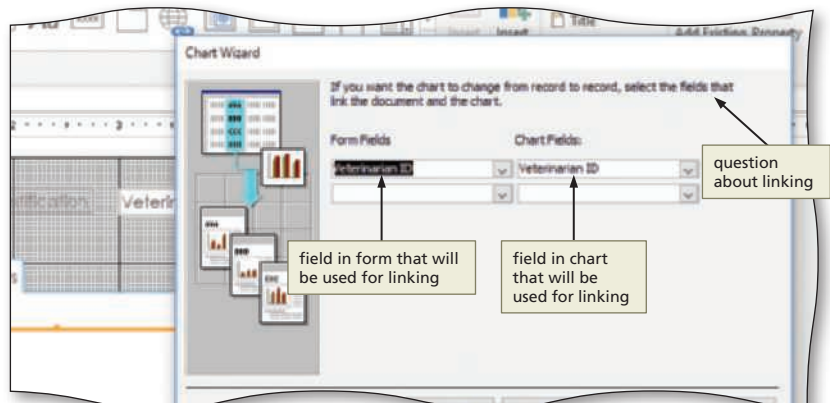


Figure 7-67

6

- Click Next, type **On Call Hours by Vet** as the title, and then click the Finish button (Figure 7–68).

Q&A

The data does not look right. What is wrong and what do I need to do to fix it?

The data in your chart might be fictitious, as in Figure 7–68. In that case, the data simply represents the general way the chart will look. When you view the actual form, the data represented in the chart should be correct.

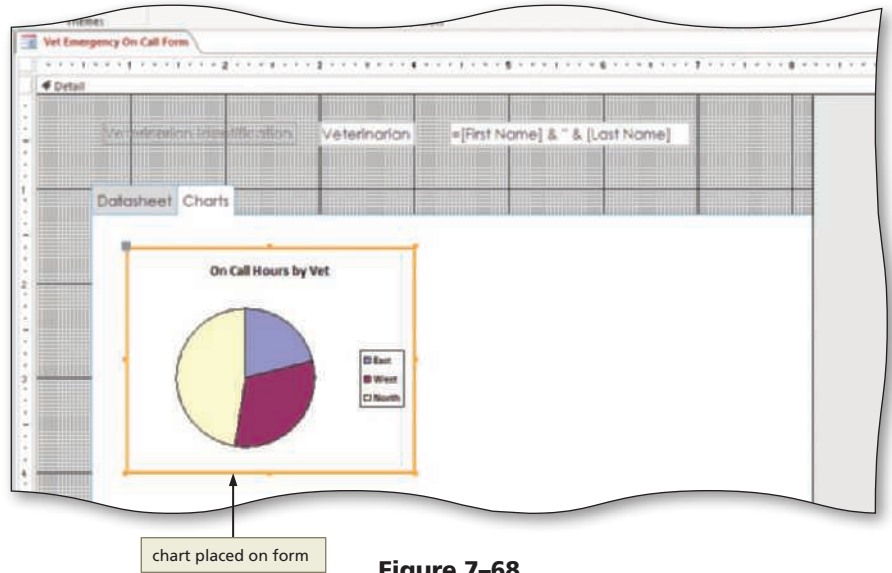


Figure 7–68

7

- Use the techniques shown in Steps 1 through 6 to add a second chart at the position shown in Figure 7–69. In this chart, which is also based on the Emergency On Call Hours table, select Emergency Hours instead of On Call Hours and type **Emergency Hours by Vet** as the title of the chart instead of On Call Hours by Vet.
- Resize the two charts to the size shown in the figure, if necessary, by clicking the chart and then dragging an appropriate sizing handle.
- If requested to do so by your instructor, add a title with your first and last name to the form.
- Save your changes and close the form.

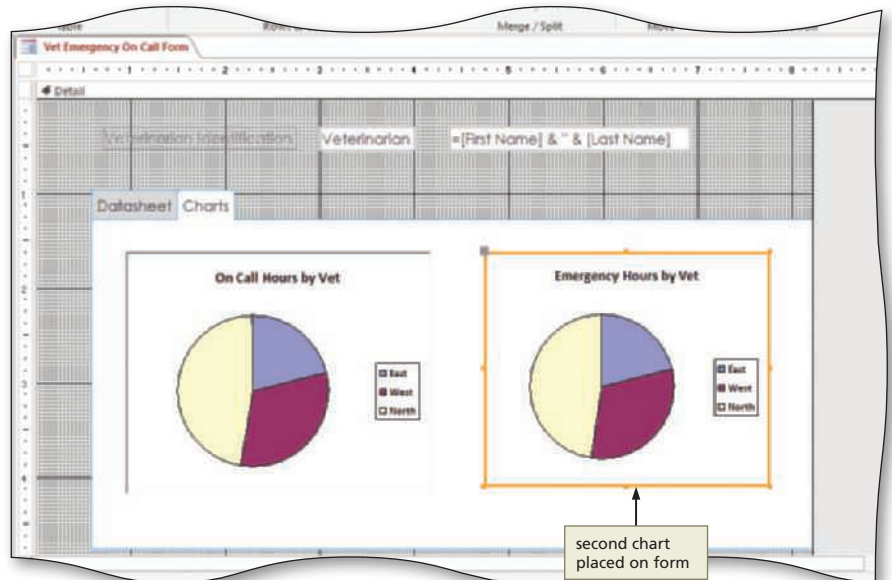


Figure 7–69

To Use the Form

You use this form just like the other forms you have created and used. When using the form, it is easy to move from one tabbed page to another. *Why?* All you have to do is to click the tab for the desired tabbed page. The following step uses the form to view the on call and emergency data.

1

- Open the Navigation Pane, open the Vet Emergency On Call form in Form view, and close the Navigation Pane (Figure 7–70). Ensure that all headings are visible and adjust any column widths.

Q&A What is the purpose of the navigation buttons in the subform?

These navigation buttons allow you to move within the records in the subform, that is, within the emergency and on call hours for the veterinarian whose number and name appear at the top of the form.

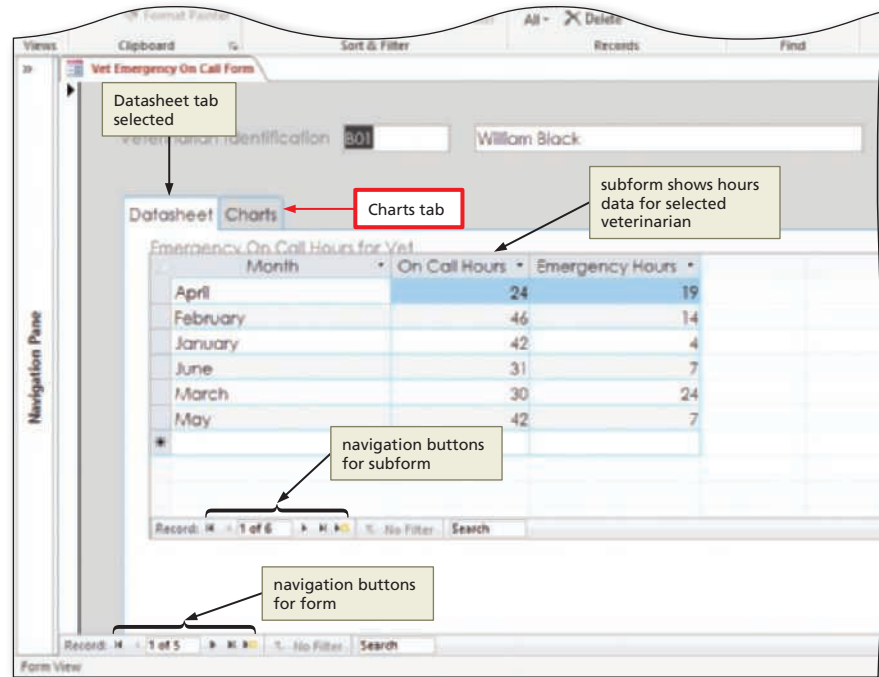


Figure 7–70

To Modify a Chart Type

When you first create a chart, you specify the chart type. You sometimes will later want to change the type. *Why? You might find that a different chart type is a better way to represent data. In addition, you have more options when you later change the chart type than when you first created the chart.* You change the type by editing the chart and selecting the Chart Type command. The following steps change the chart type by selecting a different style of pie chart.

1

- Click the Charts tab to display the charts.
- Return to Design view.
- Click the Charts tab, if necessary, to display the charts in Design view (Figure 7–71).

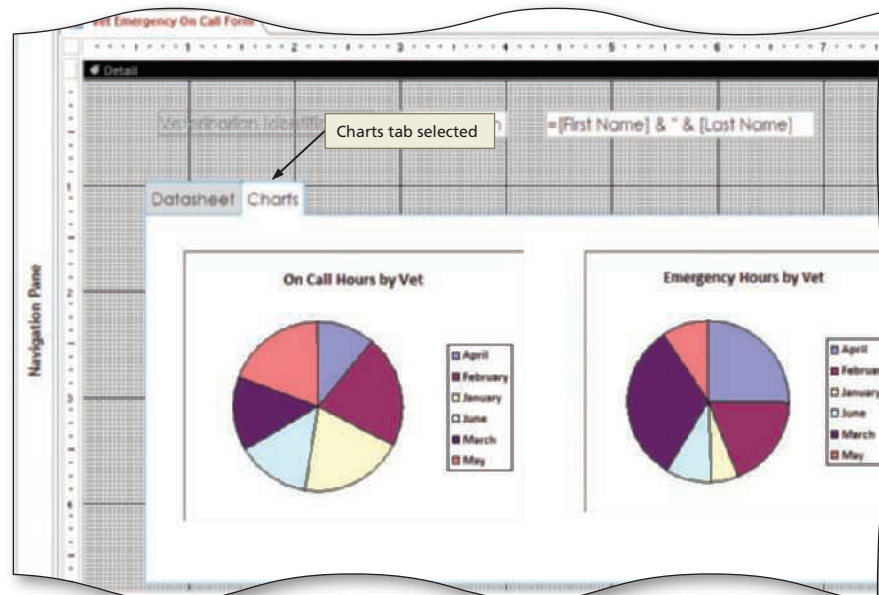


Figure 7–71

2

- Click the On Call Hours by Vet chart to select it, and then right-click the chart to display a shortcut menu (Figure 7-72).

Q&A Does it matter where I right-click? You should right-click within the rectangle but outside any of the items within the rectangle, in other words, in the white space.

My shortcut menu is very different. What should I do? Click the View button arrow, then click Design View to ensure that you are viewing the form in Design view, and then try again.

- Point to Chart Object on the shortcut menu to display the Chart Object submenu (Figure 7-72).

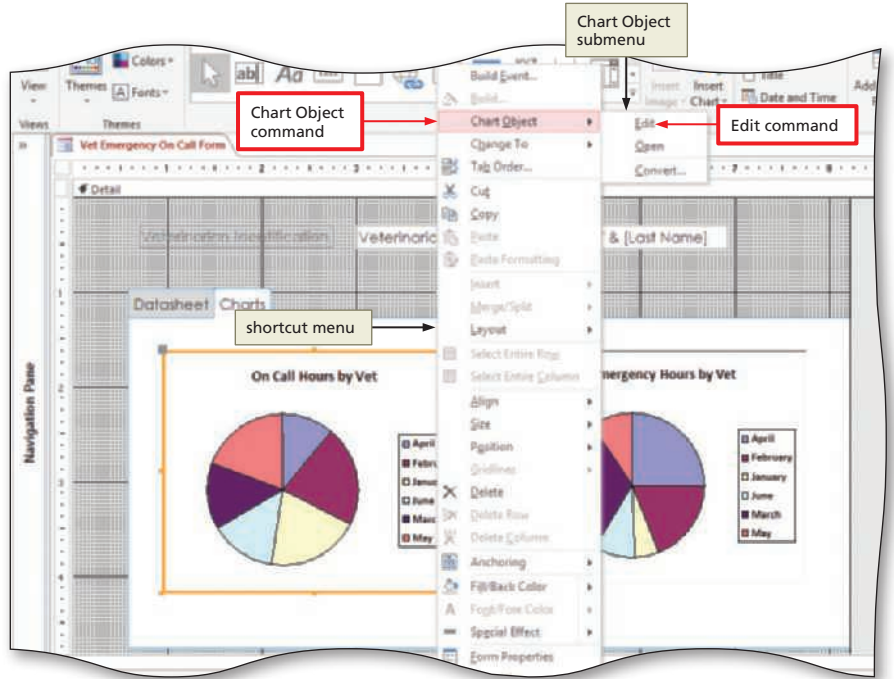


Figure 7-72

3

- Click Edit on the Chart Object submenu to edit the chart. Access will automatically display the underlying chart data in Datasheet view (Figure 7-73).

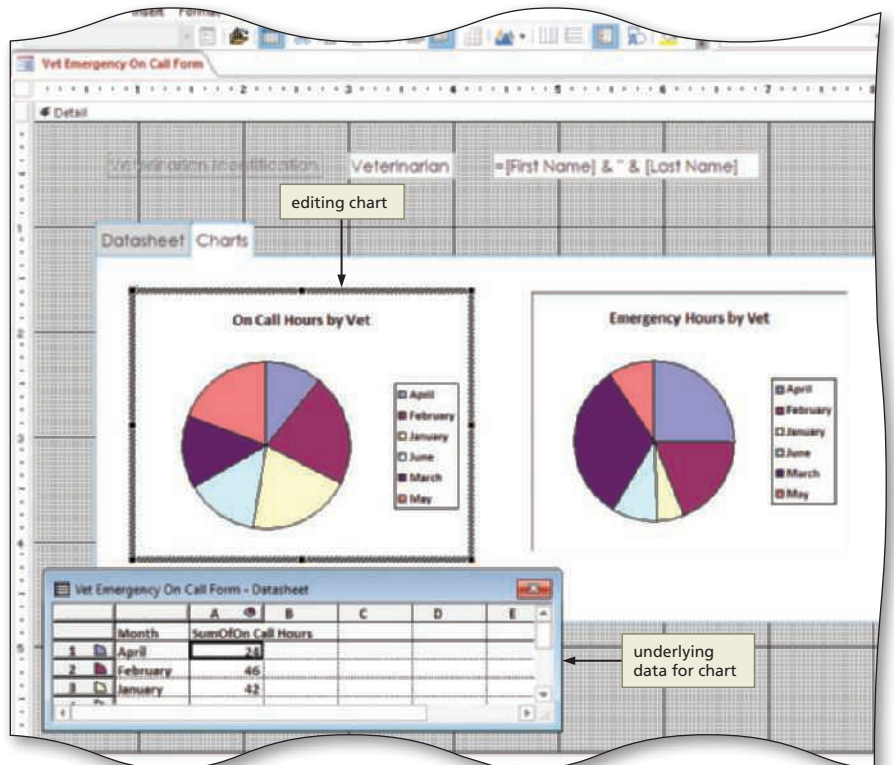


Figure 7-73

- 4**
- Right-click the chart to display the shortcut menu for editing the chart (Figure 7-74).

Q&A Does it matter where I right-click? You should right-click within the rectangle but outside any of the items within the rectangle, in other words, in the white space.

What types of changes can I make if I select Format Chart Area? You can change things such as border style, color, fill effects, and fonts.

How do I make other changes? By clicking Chart Options on the shortcut menu, you can change titles, legends, and labels. For 3-D charts, by clicking 3-D View on the shortcut menu, you can change the elevation and rotation of the chart. You can also format specific items on the chart, as you will see in the next section.

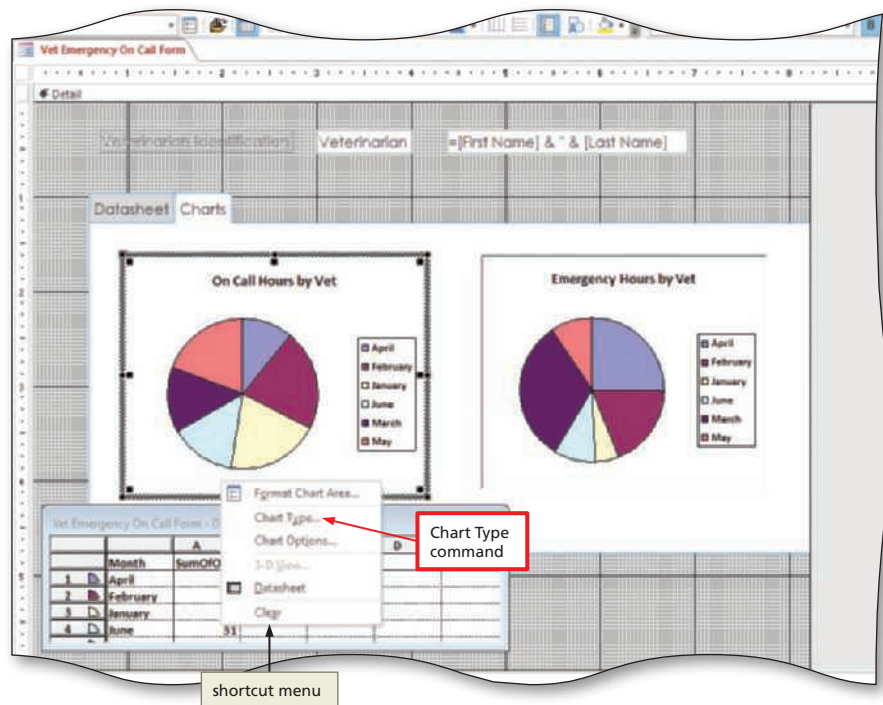


Figure 7-74

- 5**
- Click the Chart Type command on the shortcut menu to display the Chart Type dialog box (Figure 7-75).

Q&A What is the relationship between the Chart type and the Chart sub-type?

You can think of Chart types as categories of charts. There are column charts, bar charts, line charts, and so on. Once you have selected a category, the chart sub-types are those charts in that category. If you have selected the Pie chart category, for example, the charts within the category are the ones shown in the list of chart sub-types in Figure 7-75.

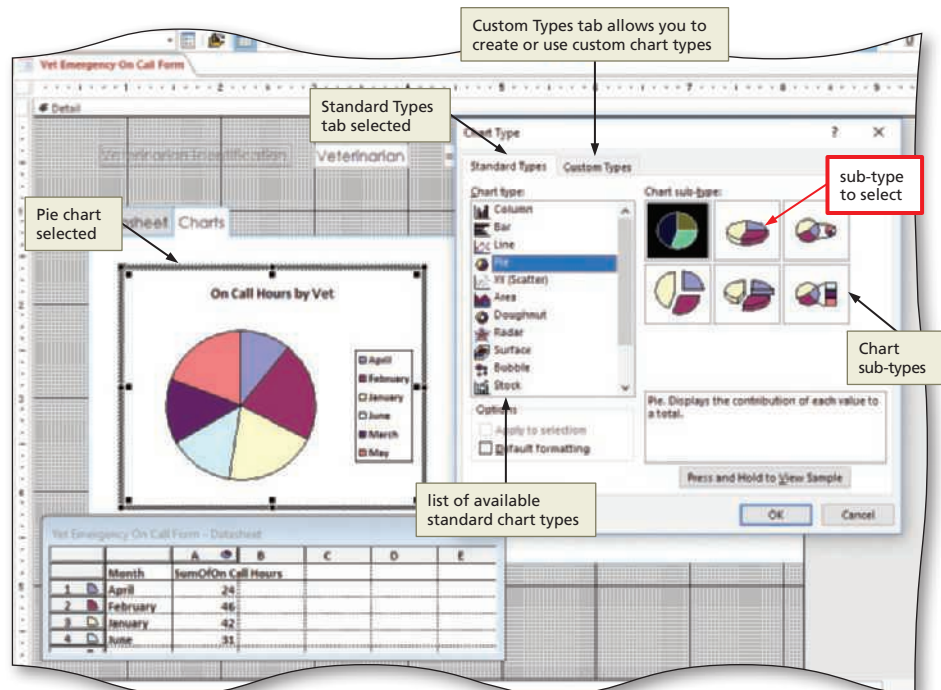


Figure 7-75

- 6 Click the chart sub-type in the middle of the first row of chart sub-types to select it as the chart sub-type.

Experiment

- Click each of the chart types and examine the chart sub-types associated with that chart type. When finished, select Pie as the chart type and the sub-type in the middle of the first row as the chart sub-type.
- Click the OK button to change the chart sub-type.
- Click outside the chart and the datasheet to deselect the chart.
- Make the same change to the other chart (Figure 7-76).

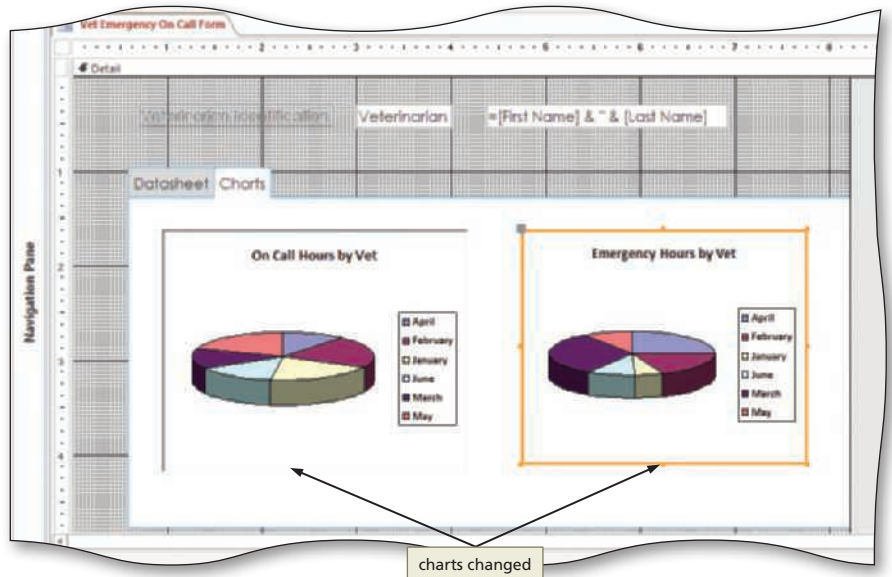


Figure 7-76

To Format a Chart

After right-clicking a chart, pointing to Chart Object, and then clicking Edit, you have many formatting options available. You can change the border style, color, fill effects, and fonts by using the Format Chart Area command. You can change titles, legends, and labels by using the Chart Options command. You can also format specific portions of a chart by right-clicking the portion you want to format and then clicking the appropriate command on the shortcut menu. The following steps use this technique to move the legend so that it is at the bottom of the chart. They also include percentages in the chart. *Why? Percentages provide valuable information in a pie chart.*

- 1
- Right-click the On Call Hours by Vet chart to display a shortcut menu, point to Chart Object on the shortcut menu to display the Chart Object submenu, and then click Edit on the Chart Object submenu.
 - Right-click the legend to display a shortcut menu, and then click Format Legend on the shortcut menu to display the Format Legend dialog box.
 - Click the Placement tab (Figure 7-77).

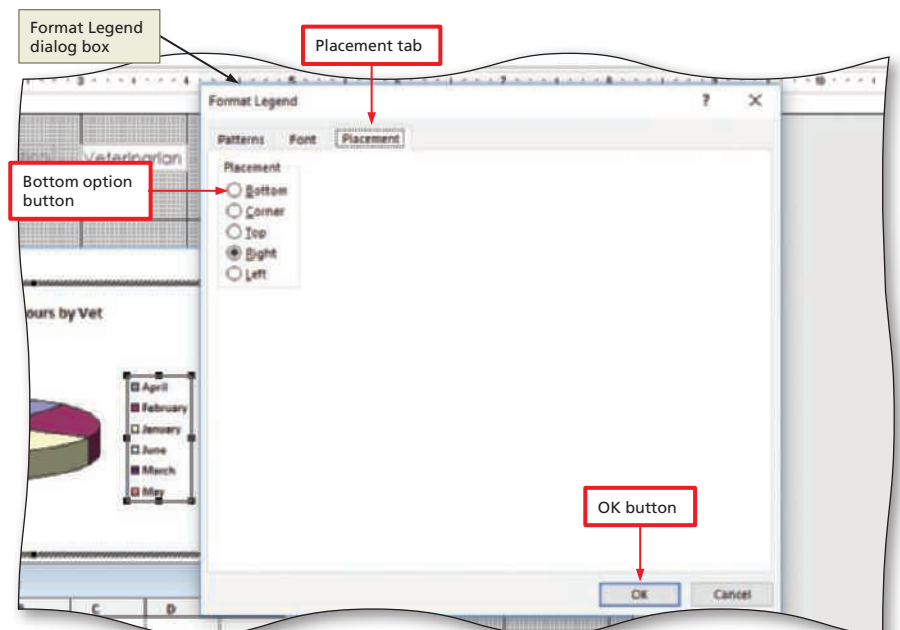


Figure 7-77

- 2**
- Click the Bottom option button to specify that the legend should appear at the bottom of the chart.

Q&A What other types of changes can I make in this dialog box?

Click the Patterns tab to change such things as border style, color, and fill effects. Click the Font tab to change the font and/or font characteristics.

- Click OK to place the legend at the location you selected.
- Right-click the pie chart to display a shortcut menu, and then click Format Data Series on the shortcut menu to display the Format Data Series dialog box.
- Click the Data Labels tab.
- Click the Percentage check box to specify that percentages are to be included (Figure 7-78).

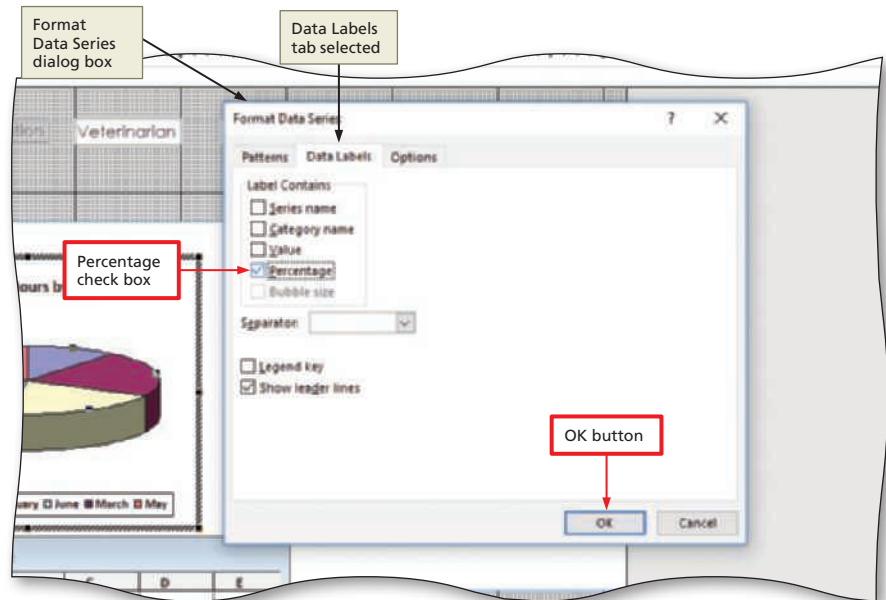


Figure 7-78

Q&A I see a Patterns tab just as with the legend, but how would I use the Options tab? Also, does the fact that these are check boxes rather than option buttons mean that I can select more than one? Use the Options tab to indicate whether the color is to vary by slice and to specify the angle of the first slice in the pie. Because these are check boxes, you can select as many as you want. Selecting too many can clutter the chart, however. These options make sense for a pie chart, but what about other chart types? The options that you see will vary from one chart type to another. They will be relevant for the selected chart type.

- 3**
- Click OK to include percentages on the chart.
 - Click outside the chart and the datasheet to deselect the chart.
 - Move the legend and add the percentages, to the other chart.
 - View the form in Form view to see the effect of your changes.
 - Save and then close the form.
 - If desired, sign out of your Microsoft account.
 - sami** Exit Access.

BTW

Distributing a Document

Instead of printing and distributing a hard copy of a document, you can distribute the document electronically. Options include sending the document via email; posting it on cloud storage (such as OneDrive) and sharing the file with others; posting it on a social networking site, blog, or other website; and sharing a link associated with an online location of the document. You also can create and share a PDF or XPS image of the document, so that users can view the file in Acrobat Reader or XPS Viewer instead of in Access.



CONSIDER THIS

What type of decisions should you make when considering whether to use a chart?

Do you want to represent data in a visual manner? If so, you can include a chart. If you decide to use a chart, you must determine which type of chart would best represent the data. If you want to represent total amounts, for example, a bar chart may be appropriate. If instead you want to represent portions of the whole, a pie chart may be better.

Summary

In this module you have learned how to create a form in Design view, add a combo box that displays information from a related table as well as a combo box that is used to find records on a form, format controls and use the Format Painter, add command buttons to a form, modify a button and a combo box, add a calculated field to a form, use a tab control to create a multipage form, add and modify a subform, insert charts, change chart types, and format charts.

What decisions will you need to make when creating your own forms?

Use these guidelines as you complete the assignments in this module and create your own forms outside of this class.

1. Determine the intended audience and the purpose of the form.
 - a. Who will use the form?
 - b. How will they use it?
 - c. What data do they need?
 - d. What level of detail do they need?
2. Determine the source of data for the form.
 - a. Determine whether data comes from a single table or from multiple related tables.
 - b. Which table or tables contain the data?
3. Determine the fields that belong on the form.
 - a. What data items are needed by the user of the form?
4. Determine any calculations required for the form.
 - a. Decide whether the form should contain any special calculations, such as adding two fields.
 - b. Determine whether the form should contain any calculations involving text fields, such as concatenating (combining) the fields.
5. Determine the organization of the form.
 - a. In what order should the fields appear?
 - b. How should they be arranged?
 - c. Does the form need multiple pages?
6. Determine any additional controls that should be on the form.
 - a. Should the form contain a subform?
 - b. Should the form contain a chart?
 - c. Should the form contain command buttons to assist the user in performing various functions?
 - d. Should the form contain a combo box to assist the user in searching for a record?
7. Determine the format and style of the form.
 - a. What should be in the form heading?
 - b. Do you want a title?
 - c. Do you want an image?
 - d. What should be in the body of the form?
 - e. What visual characteristics, such as background color and special effects, should the various portions of the form have?

How should you submit solutions to questions in the assignments identified with a symbol?

Every assignment in this book contains one or more questions identified with a symbol. These questions require you to think beyond the assigned database. Present your solutions to the questions in the format required by your instructor. Possible formats may include one or more of these options: write the answer; create a document that contains the answer; present your answer to the class; discuss your answer in a group; record the answer as audio or video using a webcam, smartphone, or portable media player; or post answers on a blog, wiki, or website.



CONSIDER THIS



CONSIDER THIS

Apply Your Knowledge

Reinforce the skills and apply the concepts you learned in this module.

Creating a Multipage Form for the Financial Services Database

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about using the Data Files.

Instructions: Start Access. Open the Support_AC_Financial Services database. (If you do not have this database, see your instructor for a copy of the modified database.)

Perform the following tasks:

1. Create the Amount Paid and Current Due form shown in Figure 7-79. Concatenate the first and last name of the advisor and change the background color to Light Gray 1 (the first color in row 2 of the Standard Colors.) The Datasheet tab displays a subform listing information about payments from clients of the advisor (Figure 7-79a). Data for the subform is based on the Accounting table. Data for the Chart tab is also based on the Accounting table and displays the amount paid by each client for the specified advisor, in this case, Number 110, Rachel Hillsdale (Figure 7-79b).
2. If requested to do so by your instructor, rename the Amount Paid and Current Due form as LastName Services Data where LastName is your last name.
3. Submit the revised database in the format specified by your instructor.
4. 🌟 How can you add a title to the Amount Paid and Current Due form?

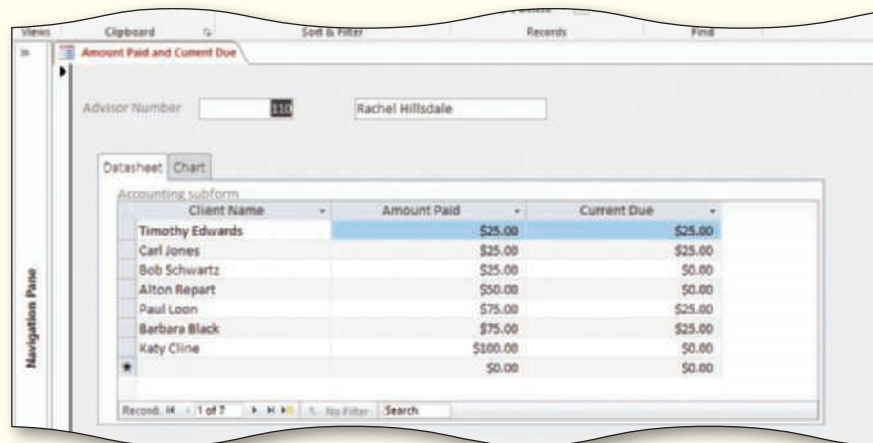


Figure 7-79a

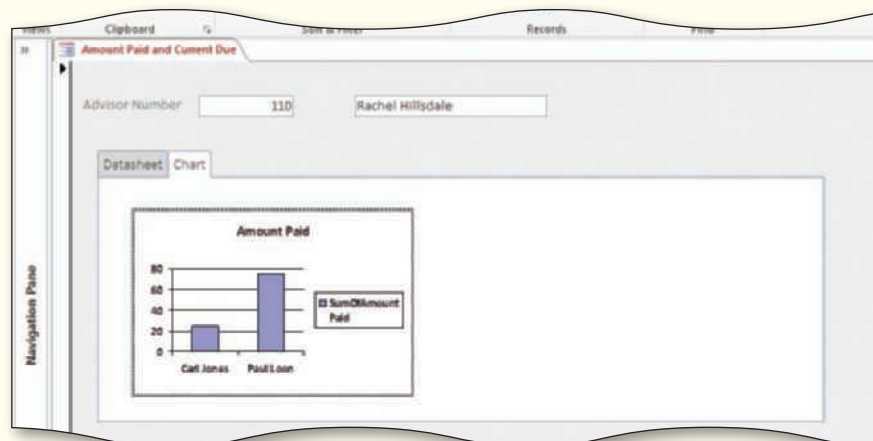


Figure 7-79b

Extend Your Knowledge

Extend the skills you learned in this module and experiment with new skills. You may need to use Help to complete the assignment.

Modifying Forms

Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files.

Instructions: Start Access and then open the Support_AC_Healthy Pets database. (If you do not have the database, see your instructor for a copy of the modified database.)

Perform the following tasks:

1. Open the Technician form in Design view. Insert the current date in the form header. Bold the label for Technician Form.
2. Change the font color of the title to Dark Red (Standard colors).
3. Add a tab control to the form. Name the first tab Clients.
4. Add a subform to the Clients tab control. The Client table is the basis of the subform. Display the Client Name, Amount Paid and Balance Due fields in a datasheet on the subform. Accept the default name for the subform and delete the label that appears above the datasheet. Resize the datasheet so that all columns appear in the control.
5. Delete the other tab.
6. Add a command button to close the form and use the picture option to place a picture on the button.
7. Save the changes to the form.
8. If requested to do so by your instructor, open the Technician table in Datasheet view and change the first and last name of technician 22 to your first and last name.
9. Submit the revised database in the format specified by your instructor.
10. 🌟 What chart would be appropriate to add to this form?

Expand Your World

Create a solution, which uses web technologies, by learning and investigating on your own from general guidance.

Problem: The Physical Therapy clinic needs a form to help them organize their therapists and clients. You will create a Master Form to include a hyperlink. You will also include a combo box to find a field and link that to the records displayed in the table by editing the VBA code.


Note: To complete this assignment, you will be required to use the Data Files. Please contact your instructor for information about accessing the Data Files. Start Access, and then open the Support_AC_Physical Therapy database. (If you do not have the database, see your instructor for a copy of the modified database.)

Perform the following tasks:

1. Create a form design and save it as Master Form.
2. At the top of the form, add the Therapist Number.
3. Add any other fields you think are necessary from the Clients table.
4. Add Client to Find combo box. Adjust the On Current VBA code so that the client changes to match the record when the records are advanced.

Continued >

Expand Your World *continued*

5. Access any website containing royalty-free images and search for an image suitable to use as a background image to the form.
6. Add a hyperlink for a local physical therapy clinic website to the top of the form.
7. Access any website containing royalty-free images and search for an image suitable to use on a Close Form command button; for example, a Stop sign or a door. Save the image to a storage location of your choice.
8. Add a Close Form command button to the form using the image you downloaded.
9. Save your changes to the Master Form.
10. Submit the revised database in the format specified by your instructor.
11.  What image did you choose as the background for your form? What image did you choose for the command button? Why did you make those choices?

In the Labs

Design, create, modify, and/or use a database following the guidelines, concepts, and skills presented in this module

Lab: Applying Advanced Form Techniques to the Lancaster College Database

Part 1: The administrators at Lancaster College need a form to use to find and contact students. They also need a form to track seminar attendance by the coaches. Open the Support_AC_Lancaster College database from the Data Files. (If you do not have the database, see your instructor for a copy of the modified database.) Then, use the concepts and techniques presented in this module to perform each of the following tasks:

- a. Modify the Coach Sport Master Form so that it is similar in style and appearance to the form shown in Figure 7–1a. The form should include a combo box to search for coaches by last name with first name included in the list. Include command buttons to go to the next record, go to the previous record, add records, delete records, and close the form. The user should not be able to tab to the combo box. When the Add Record button is clicked, the focus should be the First Name.
- b. Import a table called Coach Training Hours.
- c. Create a query that joins the Coach and Coach Training Hours tables. Include the Coach Id field from the Coach table, and the Seminar Code and Hours Spent fields from the Coach Training Hours table. Add a calculated field for Hours Remaining (Total Hours – Hours Spent). Save the query.
- d. Create a form for the Coach table that is similar to the form shown in Figure 7–2a. The form should have two tabs, a Datasheet tab and a Charts tab. The Datasheet tab displays a subform listing information about seminars for coaches. Data for the subform is based on the query you created in Step b. The Charts tab includes two charts that represent the hours spent and hours remaining for coach seminars. Data for the Charts tab is also based on the query created in Step b.

Submit your assignment in the format specified by your instructor.

Part 2: You made several decisions while creating these two forms. What was the rationale behind your decisions? What chart style did you choose for the two charts? Why? What other chart styles could you use to represent the data?

Note: **Boldfaced** page numbers indicate key terms

A

- absolute cell references, EX 6-16
- absolute path, **EX 5-49**
- Accept Change tab, PPT 5-8
- Access data
 - formatting, EX 7-24
- Access files, EX 7-20
- Access functions, help on, AC 6-62
- accessibility issues
 - checking, PPT 6-2
- Access table
 - importing data from, EX 7-20–7-22
- action button, **PPT 7-60**
 - changing fill color, PPT 7-62–7-63
 - inserting, PPT 7-60–7-61
 - setting, editing, PPT 7-63–7-64
 - sizing, PPT 7-61–7-62
 - using, PPT 7-64
- actions
 - adding wrong, AC 7-29
 - arguments of, AC 7-27
 - effect of the GoToControl, AC 7-29
 - purpose of, in macro, AC 7-27
 - recognizing, AC 7-27
- adding
 - calculation using Expression Builder in second reports, AC 6-58–6-60
 - ALT text, EX 7-62–7-63
 - axis to chart, PPT 6-47–6-49
 - borders to amortization schedule, EX 4-32
 - borders to Varying Interest Rate Schedule, EX 4-31–4-32
 - border to chart elements, PPT 6-51–6-52
 - bullet to SmartArt shape, PPT 7-40
 - calculated fields to the table, EX 6-17–6-19
 - chart border, EX 5-42–5-43
 - combo box for finding a record, AC 7-18–7-21
 - combo box that selects values, AC 7-6–7-9
 - Command buttons to a form, AC 7-16–7-18
 - conditional formatting rule with an icon set, EX 6-20–6-22
 - control for a field to the form, AC 5-18–5-19
 - controls for additional fields, AC 5-19
 - controls for the remaining fields, AC 5-22–5-23
 - controls in reports, AC 6-65
 - custom borders to a range, EX 4-29–4-31
 - data labels to chart, PPT 6-49
 - field in Design view, AC 6-18–6-19
 - field, second reports, AC 6-47–6-50
 - fields in Datasheet view, AC 5-7–5-8
 - fields to form design, AC 7-5
 - fields with new data types to table, AC 5-3–5-4
 - footer, EX 5-45–5-46
 - gridlines, PPT 6-49
 - gridlines to chart, PPT 6-49
 - header, EX 5-44–5-45
 - header and footer to discount reports, second reports, AC 6-65–6-66
 - hyperlinks, PPT 7-51–7-59
 - hyperlinks action setting to picture, PPT 7-55–7-56
 - hyperlinks action setting to shape, PPT 7-56–7-57
 - image to table cells, PPT 6-26–6-27
 - legend, PPT 6-49
 - link to text, PPT 6-54–6-55
 - new columns to table, EX 6-12
 - new slide layout, PPT 4-30
 - picture border, EX 7-69–7-71
 - picture to SmartArt graphic, EX 7-54–7-56
 - picture to SmartArt shape, WD 7-47
 - placeholder, PPT 4-14–4-36
 - placeholder text, PPT 4-15–4-19
 - pointer to data table using conditional formatting, EX 4-34–4-35
 - remaining fields, second reports, AC 6-50–6-52
 - row(s) to table, WD 4-37–4-38
 - ScreenTip to hyperlinks, PPT 7-53–7-54
 - shape style and shape effect, EX 7-72–7-74
 - shape to SmartArt, PPT 7-30
 - shape to SmartArt graphic, EX 7-51, WD 7-45–7-46
 - slide transition, PPT 4-47
 - special fields, AC 5-2–5-8
 - style to SmartArt graphic, EX 7-52–7-53
 - subform, AC 7-36–7-38
 - subreport, AC 6-30–6-33
 - subtotals and other calculations, second reports, AC 6-54–6-55
 - subtotals, in reports, AC 4-9–4-11
 - table border, PPT 6-21, WD 4-53–4-55
 - text boxes, Controls group, AC 6-21–6-24
 - text to SmartArt graphic, EX 7-51–7-52
 - title, AC 5-24–5-25
 - title and expanding Form Header section, AC 7-13
 - title at specified position in chart, PPT 6-50
 - title in second reports, AC 6-60–6-61
 - title, page number, date in reports, AC 6-41–6-42
 - totals, in reports, AC 4-9–4-11
 - transition between slides, PPT 6-58
 - video poster frame, PPT 7-22–7-24
 - worksheet to workbook, EX 5-24
 - wrong action to macro, AC 7-29
- Add Record button
 - issues with, AC 7-25
 - modifying macro for, AC 7-26–7-29
 - testing, AC 7-23–7-24
- AddressBlock merge field, **WD 6-22**
 - editing, WD 6-24
 - inserting, WD 6-23–6-24
- addresses
 - positioning on an envelope, WD 6-47
 - validating, WD 6-20
- addressing
 - envelopes, WD 6-41–6-48
 - mailing labels, WD 6-41–6-48
 - mailing labels using an existing data source, WD 6-42–6-48
- adjusting
 - column widths, EX 4-5
 - row heights, EX 4-5
- Adobe Reader, **WD 5-34**
 - viewing PDF file in, WD 5-34–5-36
- Advanced Filter dialog box, EX 6-38–6-39
- advanced form techniques, AC 7-1–7-3
 - creating form with combo boxes and command buttons, AC 7-3–7-33
 - creating multipage form, AC 7-33–7-48
- aligning
 - of buttons, AC 7-18
 - chart, PPT 6-41–6-42
 - controls on the left, AC 5-19–5-20
 - controls on top and adjust vertical spacing, AC 5-21–5-22
 - data in table cells, PPT 6-30–6-31
 - Excel worksheet, PPT 6-36
 - shapes, EX 7-75
 - table, PPT 6-32
 - videos, PPT 7-22
- alternate color, **AC 6-42**, AC 6-42–6-44
 - removing, AC 6-42–6-44
 - removing in second reports, AC 6-61–6-62
- alternative text, **EX 7-62**, EX 7-62–7-63. *See also* ALT tag; ALT text
- ALT tag, **EX 7-62**
- ALT text, **EX 7-62**
 - typing, PPT 5-29
- amortization schedule
 - adding borders to, EX 4-32
 - changing column widths and enter titles, EX 4-21–4-22
 - copying formulas to fill amortization schedule, EX 4-26–4-27
 - creating, EX 4-20–4-36
 - creating series of integers using fill handle, EX 4-22–4-23
 - defined, **EX 4-1**
 - entering formulas in amortization schedule, EX 4-24–4-25
 - entering total formulas in amortization schedule, EX 4-27–4-28
 - formatting the numbers in amortization schedule, EX 4-28–4-29
 - formatting the worksheet, EX 4-29–4-33
 - formulas in amortization schedule, EX 4-23–4-24
 - highlighting cells in data table using conditional formatting, EX 4-33–4-36
 - mortgage payment calculator with, EX 4-2–4-6
- ampersand (&) operator, **AC 6-21**
 - purpose of, AC 7-21
- AND function, **EX 6-47**
- AND queries, EX 6-39
- animation(s)
 - adding delay, PPT 5-44
 - adding sound from a file, PPT 5-42
 - emphasis effect, PPT 5-43
 - presentation, PPT 5-2
 - removing, PPT 5-47, PPT 5-53
 - reordering, on slide, PPT 5-46–5-47
 - and slide content, PPT 5-42–5-56
 - and text, PPT 5-44–5-46
 - trigger, PPT 5-53–5-54
 - turning off, PPT 5-44
 - using entrance effect, PPT 5-42–5-43
- Animation Painter
 - defined, **PPT 5-47**
 - using, PPT 5-47–5-48
- annuity, **EX 4-23**
- antivirus program, EX 7-54
- applying
 - bevel effects to table cells, PPT 6-23–6-24
 - 3-D effects to SmartArt, PPT 7-31–7-32
 - new style, EX 5-22–5-23
 - picture effects, EX 7-56–7-58
 - reflection effects to table cells, PPT 6-25
 - shading to table cells, PPT 6-22–6-23
 - shadow effects to table cells, PPT 6-24
 - style, WD 5-29
 - style to chart, PPT 6-46
 - theme, EX 5-4
 - theme to worksheet, EX 4-4
- Appointment View, AC 7-4
 - name on tab not changing to, AC 7-4
 - opening, and updating form, AC 7-23
- argument(s), AC 6-52
 - of actions, AC 7-27

IND 2 Index

Arrange All button, WD 7-34
Arrange tab, AC 4-19-4-20, AC 4-47
arranging, multiple workbooks,
EX 5-52-5-53
art page border, WD 7-52-7-53
ascending order, EX 6-25
attached label, AC 4-38
Attachment fields
adding captions to, AC 5-3
entering data in, AC 5-14-5-16
entering images in, AC 5-12-5-13
using Manage Attachments command on,
AC 5-12
audio clip(s)
changing picture and inserting, PPT 7-2-7-4
changing volume of, PPT 7-11-7-12
compressing, PPT 7-21-7-22
grouping, PPT 7-12
hiding object during slide show, PPT 7-11
inserting from file, PPT 7-8-7-10
looping, PPT 7-10-7-11
playing across slides, PPT 7-12
presentation with, PPT 7-2-7-4
rewinding after playing, PPT 7-12
start option, changing, PPT 7-10
trimming, PPT 7-12-7-13
audio clip playing across, PPT 7-12
AutoComplete feature
using, WD 5-19-5-20
AutoCorrect
building blocks *vs.*, WD 5-21
auto fill series, EX 5-6
AutoFilter
entering custom criteria using, EX 6-34-6-35
important points regarding, EX 6-36
querying table using, EX 6-30-6-36
searching table using, EX 6-33-6-34
sorting table using, EX 6-30-6-31
turning off, EX 6-36
AutoFit, WD 4-50
AutoFit button, WD 4-31
AutoFit Contents, WD 4-31
automatic hyphenation, WD 7-27
automatic subtotals
removing, EX 6-50
AutoNumber field, as primary key, AC 6-4
Auto Order button, AC 5-37
Auto Outline command, EX 6-50
AutoRecover, WD 5-46
AutoSave, WD 5-46
AVERAGE function, EX 7-33
AVERAGEIF function, EX 6-47
axis options
formatting, EX 7-44-7-45
Azure (Microsoft cloud service), EX 7-13

B

background color
changing, AC 7-40
changing, of form header, AC 7-14
Background Color button, using, AC 7-10
background formula checking
enabling, EX 4-47-4-48
more about, EX 4-48
Background Graphics
hiding, PPT 4-26
unhiding, PPT 4-26
banded row, EX 6-8
banner, WD 7-2
bar chart(s), PPT 6-43
adding data labels, EX 7-45-7-46
displaying data table, EX 7-46
formatting, EX 7-41-7-44
formatting axis options, EX 7-44-7-45
formatting the chart title, EX 7-46-7-47
inserting, EX 7-39-7-47
inserting chart using the Quick Analysis gallery,
EX 7-40-7-41
binding, AC 6-21
Blank Layout
inserting placeholder into, PPT 4-14-4-15
blank report creation, and Layout view,
AC 4-30-4-31
body copy
formatting, WD 7-19
organizing, WD 7-19
writing, WD 7-19
border(s)
adding, WD 7-42, WD 7-52-7-53
adding to amortization schedule, EX 4-32
adding to Varying Interest Rate Schedule,
EX 4-31-4-32
column, EX 4-21
formatted, WD 7-42
border color of pictures, PPT 5-27-5-28
Borders gallery, WD 7-14
bound controls, AC 4-9, AC 6-21
browser
testing webpage in, WD 5-53-5-54
building block elements (Quick Parts)
editing properties of, WD 5-34
inserting, WD 5-32-5-34
building blocks
vs. AutoCorrect, WD 5-21
creating, WD 5-17-5-18
defined, WD 5-17
inserting, WD 5-20-5-21
modifying, WD 5-18-5-19
Building Blocks Organizer, WD 5-32
bullet(s)
button, PPT 5-30
changing size, PPT 5-32
changing to symbol, PPT 5-33-5-34
color, PPT 5-35
modifying, PPT 5-30-5-42
size, PPT 5-32
bullet character, WD 4-20
changing, to number, PPT 5-36
changing, to picture, PPT 5-30-5-32
changing, to picture bullets,
WD 4-26-4-28
changing, to predefined bullet character,
WD 4-28
defined, PPT 5-30
bulleted list, WD 4-19-4-23
changing bullet color, WD 4-20-4-21
changing paragraph indent, WD 4-22-4-23
inserting page break, WD 4-23
selecting predefined character for, WD 4-20
bullets, WD 4-28
removing from paragraph, WD 5-23
button(s). *See also* specific buttons
Add Field, AC 7-8
Add Record, AC 7-23-7-25, AC 7-26,
AC 7-31
Background Image, AC 7-15
command, AC 7-15-7-23
creating form with, AC 7-3-7-33
Find, AC 7-18
Format Painter, AC 7-11-7-12
Insert Image, AC 7-15
Navigation, in subform, AC 7-44
option, AC 7-7, AC 7-9, AC 7-17
testing Add Record, AC 7-23-7-24
'Use Control Wizards,' AC 7-16, AC 7-20,
AC 7-36

using, AC 7-23-7-25
using Background Color, AC 7-10
View, AC 7-12-7-13

C

calculated controls, AC 4-9, AC 6-21
calculated fields. *See also* computational field
adding to table, EX 6-17-6-19
creating, EX 6-17-6-19
defined, EX 6-17
Can Grow property
changing, AC 6-35-6-36, AC 6-40, AC 6-56
category axis, PPT 6-43
cell(s)
aligning data in, WD 4-34-4-35
entering text in, WD 4-45
formatting, before entering values, EX 4-6
highlighting in data table using conditional
formatting, EX 4-33-4-36
merging, WD 4-51-4-52
protected, EX 4-42
selecting range of, EX 5-16
shade, WD 6-8-6-9
spacing, WD 4-40
splitting, in table, WD 4-43-4-44
unprotected, EX 4-42
cell boundary, WD 4-44-4-45
cell name(s)
creating, EX 4-6-4-14
creating names based on row titles, EX 4-8-4-9
defined, EX 4-6
determining total interest and total cost, EX 4-13
entering loan amount formula using names,
EX 4-9-4-10
entering loan data, EX 4-7
entering new loan data, EX 4-13-4-14
entering original loan data, EX 4-14
entering PMT function, EX 4-11-4-12
formatting cells before entering values, EX 4-6
other financial functions, EX 4-12
cell protection
defined, EX 4-2
cell reference, PPT 6-36
in formulas, EX 4-6
cell style
applying new style, EX 5-22-5-23
creating, EX 5-19-5-23
creating new cell style, EX 5-20-5-22
tips to remember when creating new style,
EX 5-19
using spelling checker, EX 5-23
Center button, WD 4-36
changing
appearance of controls in subreport, AC 6-37-6-38
background color, AC 7-40
background color of form header, AC 7-14
border style, AC 6-61
bullet to predefined symbol, WD 5-27
Can Grow property, AC 6-35-6-36, AC 6-40,
AC 6-56
colors, PPT 6-46-6-47
column widths and enter titles, EX 4-21-4-22
layout, PPT 6-45
margins and center the printout horizontally,
EX 5-43-5-44
margin settings, WD 6-9-6-10
page orientation, WD 6-49
picture and formatting it, WD 6-7-6-8
report margins, AC 6-64
sheet tab name, EX 4-6
tab control order, AC 7-40
theme colors, WD 5-6, WD 6-7

- theme effects, WD 5-13
- theme fonts, WD 5-8-5-9
- types, PPT 6-43-6-45
- character(s)
 - formatting, WD 4-7-4-9
 - modifying spacing, WD 4-7-4-9
- chart(s)
 - adding axis to, PPT 6-47-6-49
 - adding border to chart elements, PPT 6-51-6-52
 - adding data labels to, PPT 6-49
 - adding title at specified position in, PPT 6-50
 - aligning, PPT 6-41-6-42
 - applying style to, PPT 6-46
 - changing chart type pie to exploding pie chart slice, PPT 6-44
 - data in, AC 7-43
 - decisions to use, AC 7-48
 - fields under, AC 7-42
 - formatting, AC 7-47-7-48, EX 7-41-7-44
 - inserting, AC 7-40-7-43
 - moving on the same worksheet, EX 5-36-5-37
 - pie, EX 5-35-5-48
 - positioning, PPT 6-54
 - resizing, EX 5-37
 - resizing proportionally, PPT 6-40-6-41
 - selecting data, PPT 6-54
 - switching rows and columns, PPT 6-43
 - treemap, EX 6-51-6-55
 - using, PPT 6-1
 - Veterinarian ID field in, AC 7-42
- chart border
 - adding, EX 5-42-5-43
- Chart Elements button, EX 5-56
- chart sub-type
 - chart type and, relationship between, AC 7-46
- chart text outline, EX 7-47
- chart title
 - formatting, EX 7-46-7-47
- Chart Tools Design tab, EX 7-41
- chart type
 - and chart sub-type, relationship between, AC 7-46
 - modifying, AC 7-44-7-47
- check boxes, PPT 5-9
- checking
 - for errors, WD 6-34
 - formula, EX 4-46-EX 4-48
- chronological resume, WD 5-6
- circular references, EX 5-49
- Clipboard pane, WD 7-50
- closing
 - main document files, WD 6-41
 - reports, AC 6-65
- CMF Vets
 - forms, AC 4-1-4-4
 - reports, AC 4-1-4-4
- collaboration
 - defined, **PPT 5-2**
 - presentation (PowerPoint), PPT 5-2-5-20
 - tips for successful, PPT 5-2
- color(s)
 - changing label effects and, AC 5-31-5-34
 - changing, table border, PPT 6-22
 - changing theme, WD 6-7
 - removing alternate, AC 6-42-6-44, AC 6-61-6-62
 - removing, from report header, AC 6-47
 - using shortcut menu to change fill/back, AC 5-23-5-24
- color scale formats, EX 6-20
- color, SmartArt graphic, EX 7-50
- column(s), WD 4-46, WD 7-21
 - adding to table, EX 6-12
 - adjusting width, WD 7-25-7-26
 - balancing, WD 7-43
 - boundary, WD 4-31
 - changing formatting of, WD 7-39-7-40
 - changing size of, AC 5-10-5-11
 - changing width, WD 4-30-4-32, WD 4-51
 - converting text to, EX 7-30-7-31
 - deleting, WD 4-46
 - deleting, using Power Query, EX 7-22-7-23
 - of different widths, WD 7-23
 - distributing, WD 4-41-4-42
 - drawing table, PPT 6-15-6-16
 - formatting, EX 7-5-7-6
 - formatting text in, PPT 5-23, WD 7-22-7-23
 - inserting, WD 4-46
 - organizing body copy in, WD 7-21
 - placing vertical lines between, WD 7-25-7-26
 - resizing table, PPT 6-29-6-30
 - resizing table to approximate value, PPT 6-29
 - sorting table by multiple, WD 6-54-6-55
 - spacing, changing, PPT 5-22-5-23
 - summing, EX 5-16
 - switching chart, PPT 6-43
 - table, resizing using AutoFit, WD 4-50
 - transposing, EX 7-28-7-29
 - undoing changes to width of, AC 5-11-5-16
 - width, EX 5-5
- column borders, EX 4-21
- column break
 - defined, **WD 7-30**
 - inserting, WD 7-30-7-31
 - removing, WD 7-31
- column titles
 - entering, EX 4-16, EX 5-6
 - entering in the template, EX 7-7
 - formatting, EX 5-15
- column widths
 - adjusting, EX 4-5
 - changing, EX 4-21-4-22
- combo box, **AC 7-6**
 - adding for finding record, AC 7-18-7-21
 - adding, that selects values, AC 7-6-7-9
 - correcting issues with, AC 7-30-7-31
 - including in form, AC 7-21
 - issues with, AC 7-26
 - modifying, AC 7-29
 - placing a rectangle around, AC 7-22
 - security warning when creating, AC 7-7
 - using, AC 7-24-7-25
- comma-delimited text file, **EX 7-14**
- Command buttons
 - adding to form, AC 7-16-7-18
 - alignment of, AC 7-18
 - defined, **AC 7-15**
 - including in form, AC 7-16
 - purpose of, AC 7-17
- comma style
 - formatting with, EX 5-19
- comment(s)
 - defined, **PPT 5-1**
 - deleting, PPT 5-15-5-16
 - editing, PPT 5-15
 - hiding, PPT 5-18-5-19
 - inserting, PPT 5-14
 - in macros, AC 7-31
 - presentation, PPT 5-2
 - printing, PPT 5-6
 - removing, PPT 5-16
 - replying, PPT 5-13
 - reviewing, PPT 5-11-5-12
- Comments pane, PPT 5-6
- reviewing comments, PPT 5-11-5-12
- comparison operator, WD 6-29
- composing, main document for form letters, WD 6-20-6-33
- compressing
 - audio clips, PPT 7-21-7-22
 - picture, PPT 7-48-7-49
 - video file, PPT 7-21-7-22
- Compress Pictures command, EX 7-57
- computational field. *See also* calculated fields
 - defined, **EX 6-17**
- concatenate, **AC 6-21**
- concatenation, **AC 6-21**
 - using Text Box tool with, AC 7-34-7-35
- CONCAT function, **EX 7-17**
- condition, **WD 6-29**
 - expression in, WD 6-29
- conditional formatting, EX 6-19-6-22
 - adding conditional formatting rule with an icon set, EX 6-20-6-22
 - adding pointer to data table using, EX 4-34-4-35
 - data bars, EX 6-22
 - defined, **AC 4-12**
 - finding duplicates with, EX 6-22
 - highlighting cells in data table using, EX 4-33-4-36
 - in report controls, AC 4-12-4-16
- Conditional Formatting Rules Manager dialog box, EX 6-19
- connector
 - defined, **PPT 5-54**
 - inserting, PPT 5-54-5-55
- conserving ink and toner, PPT 6-58, PPT 7-66
- consolidated expenses worksheet, EX 5-2-5-3
- consolidated worksheet
 - applying theme, EX 5-4
 - creating, EX 5-4-5-6
 - entering column titles, EX 5-6
 - entering the title, subtitle, and row titles, EX 5-5
 - formatting the worksheet, EX 5-5
 - inserting the 3-D pie chart on, EX 5-36
 - modifying, EX 5-32-5-35
- consolidating
 - data by linking separate workbooks, EX 5-49-5-57
 - data by linking workbooks, EX 5-54-5-57
- consolidation, **EX 5-1**, EX 5-49
- constructing
 - command in my own form, AC 7-31
- content controls, WD 6-6
 - and cover page, WD 4-6-4-7
 - defined, **WD 4-6**
 - deleting, WD 6-22
 - entering date from, WD 6-21-6-22
 - entering text in, WD 4-6-4-7, WD 5-9-5-10, WD 5-14, WD 5-21-5-26
 - entering text in more, WD 5-10
 - removing, WD 4-15-4-16
- content, enabling, AC 6-4
- content placeholder, PPT 4-14
 - aligning, PPT 5-55-5-56
 - copying, PPT 4-22
 - deleting, PPT 4-12-4-13
 - inserting online picture without using, PPT 7-6
 - inserting SmartArt using, PPT 7-24-7-26
- contents of form, AC 7-6
- continuous section break, WD 7-21-7-22
- control(s), AC 6-18
 - bound, AC 4-9, **AC 6-21**
 - calculated, AC 4-9, AC 6-21
 - changing the appearance in subreport, AC 6-37-6-38
 - default names for, AC 6-18
 - defined, **AC 4-8**

IND 4 Index

- control(s), (*continued*)
 - drop down, AC 6-64
 - formatting, AC 6-25–6-26, AC 7-10–7-11
 - group, AC 6-26–6-27
 - hyperlink, AC 6-62
 - modifying in the subreport, AC 6-35
 - moving, AC 4-42
 - report, AC 4-8–4-19
 - unbound, AC 4-9
 - ungroup, AC 6-27
 - control field, **EX 6-47**
 - control layout, **AC 4-38**
 - changing format, AC 4-41–4-42
 - moving controls in, AC 4-43–4-44
 - placing controls in, AC 4-38–4-39
 - Controls group
 - adding text boxes, AC 6-21–6-24
 - formatting control, AC 6-25–6-26
 - group controls, AC 6-26–6-27
 - modifying grouped controls, AC 6-27–6-28
 - modifying multiple controls that are not grouped together, AC 6-28–6-30
 - tools in, AC 6-21
 - using other tools in, AC 6-20–6-30
 - viewing the report in Print Preview, AC 6-24–6-25
 - control source, **AC 6-21**
 - converting
 - documents for use in PowerPoint, PPT 6-5-6-7
 - macros to VBA code, AC 7-23
 - main document files, WD 6-52
 - picture to SmartArt, PPT 7-26
 - text to table, WD 6-52–6-53
 - converting macros to, AC 7-23
 - ‘Convert to Shapes’ button, EX 7-53
 - copying, EX 5-10
 - Excel chart, PPT 6-38–6-40
 - linked Excel chart, PPT 6-38–6-58
 - from one worksheet to another, EX 5-24–5-25
 - SmartArt graphic, WD 7-47–7-52
 - SmartArt graphic using Office Clipboard, WD 7-48
 - table row, WD 5-16-5-17
 - worksheet using ctrl-drag, EX 5-26
 - worksheet using shortcut menu, EX 5-25–5-26
 - copying formulas to fill amortization schedule, EX 4-26–4-27
 - correcting merge field errors in merged documents, WD 6-36
 - COUNT function, EX 7-33
 - COUNTIF function, EX 6-41, EX 6-44–6-46
 - using, EX 6-45
 - cover page, WD 4-6
 - defined, **WD 4-4**
 - deleting, WD 4-6
 - designing effective, WD 4-5
 - entering text in content controls, WD 4-6–4-7
 - formatting characters, WD 4-7–4-9
 - inserting, WD 4-5–4-6
 - modifying character spacing, WD 4-7–4-9
 - sales proposal, WD 4-4–4-9
 - creating
 - additional query for the report using Expression Builder, AC 6-10–6-14
 - amortization schedule, EX 4-20–4-36
 - another new sheet, EX 7-66
 - area for lookup and return arrays, EX 6-15–6-16
 - building block, WD 5-17-5-18
 - calculated fields, EX 6-17–6-19
 - cell names, EX 4-6–4-14
 - cell style, EX 5-19–5-23
 - consolidated worksheet, EX 5-4-5-6
 - criteria range, EX 6-37
 - custom format code, EX 5-17–5-18
 - customized formats, EX 5-8
 - custom theme colors, WD 5-12-5-13
 - custom theme fonts, WD 5-11-5-12
 - data source, WD 6-12–6-20
 - detailed reports, AC 6-1–6-3
 - envelopes and mailing labels for single recipient, WD 6-48
 - equations with touchscreen, PPT 7-51
 - extract range, EX 6-39–6-40
 - folder while saving, WD 6-11–6-12
 - form in Design view, AC 7-4, AC 7-34
 - formulas with defined names, EX 4-41
 - form with combo boxes and command buttons, AC 7-3–7-33
 - growth series, EX 5-9
 - initial report in Design view, AC 6-14–6-15
 - labels, AC 4-48–4-51
 - linear series, EX 5-6–5-8
 - multipage form, AC 7-33–7-48
 - multiple-table reports, AC 4-21–4-26
 - names based on row titles, EX 4-8–4-9
 - new cell style, EX 5-20–5-22
 - new document from an online template, WD 5-3-5-6
 - new object, EX 7-65
 - new sheet, EX 7-48
 - new tables, AC 6-4–6-6
 - paragraph style, WD 5-28
 - percentage series using the fill handle, EX 4-16–4-17
 - presentation from Microsoft Word outline, PPT 6-5–6-7
 - query for the report, AC 6-9–6-10
 - reports, AC 4-4–4-20
 - reports in Design view, AC 6-9–6-46
 - second report, AC 6-46–6-65
 - sections, PPT 5-56–5-65
 - separate files from worksheets, EX 5-48–5-49
 - series of integers using the fill handle, EX 4-22–4-23
 - shape and copy it, EX 7-71–7-72
 - SmartArt graphics, PPT 7-24–7-40
 - table guidelines, EX 6-7–6-14
 - templates, EX 7-5–7-12
 - treemap chart, EX 6-51–6-52
 - Creative Commons, **EX 7-54**
 - creativity, decibels for, PPT 7-1
 - criteria, **EX 6-30**
 - criteria range
 - comparison criteria in, EX 6-41
 - creating, EX 6-37
 - defined, **EX 6-37**
 - query using, EX 6-38–6-39
 - using, EX 6-37–6-41
 - criticism, accepting and evaluating, PPT 5-7
 - cropping
 - graphic, WD 7-16
 - pictures, PPT 4-24–4-26
 - CSV data
 - formatting, EX 7-16–7-17
 - custom borders
 - adding to range, EX 4-29–4-31
 - custom format
 - meaning of, EX 5-18
 - custom format codes, EX 5-1
 - creating, EX 5-17–5-18
 - reusing, EX 5-18
 - customized formats
 - creating, EX 5-8
 - customized slides
 - presentation with, PPT 4-2–4-6
 - customizing
 - how Word opens email attachments, WD 5-46
 - individual worksheets, EX 5-28
 - table formatting, PPT 6-22
 - theme colors, PPT 4-9–4-10
 - theme fonts, PPT 4-11–4-12
 - custom margins
 - setting, WD 5-7
 - custom path, **PPT 5-42**
 - animate an object using, PPT 5-49–5-53
 - defined, **PPT 5-49**
 - custom sort table, EX 6-27–6-29
 - custom tab stops, WD 7-12
 - setting, using Tabs dialog box, WD 7-41
 - custom theme colors, creating, WD 5-12-5-13
 - custom theme fonts, creating, WD 5-11-5-12
 - cutting
 - data, EX 7-29–7-30
- ## D
- dashed vertical line, AC 4-28
 - data
 - Access, EX 7-24
 - adding labels to chart, PPT 6-49
 - aligning, in cells, WD 4-34–4-35
 - aligning in table cells, PPT 6-30–6-31
 - in chart, AC 7-43
 - consolidating, by linking separate workbooks, EX 5-49–5-57
 - cutting, EX 7-29–7-30
 - deleting, EX 7-29–7-30
 - entering in Attachment fields, AC 5-14–5-16
 - entering, in Long Text fields, AC 5-10
 - entering, in Yes/No fields, AC 5-10
 - entering, using an input mask, AC 5-8–5-9
 - excluding, in chart, PPT 6-45
 - finding, EX 7-35–7-37
 - formatting CSV, EX 7-16–7-17
 - formatting table, PPT 6-31–6-32
 - importing, EX 5-32, EX 7-12–7-32
 - importing from an Access table, EX 7-20–7-22
 - importing from text file, EX 7-14–7-16
 - importing in tables, AC 6-6
 - keeping in order, EX 6-41
 - non-table, EX 6-25
 - pasting, EX 7-29–7-30
 - selecting chart, PPT 6-54
 - sorting, EX 6-48
 - summarizing, EX 6-47–6-50
 - total, EX 7-34–7-35
 - web, EX 7-24–7-27
 - Word, EX 7-27–7-32
 - data bars, EX 6-22
 - database. *See also* table(s)
 - defined, **EX 6-1**
 - database functions
 - creating an output area, EX 6-42
 - using, EX 6-41–6-44
 - using the DAVERAGE and DCOUNT database functions, EX 6-43–6-44
 - data field, **WD 6-13**
 - data file
 - formatting, EX 5-39–5-42
 - opening and saving it to new location, EX 5-50
 - data, importing
 - Access files, EX 7-20
 - converting text to columns, EX 7-30–7-31

- copying from Word and pasting to Excel, EX 7-28
 - deleting column using Power Query, EX 7-22-7-23
 - format the CSV data, EX 7-16-7-17
 - formatting the Access data, EX 7-24
 - importing data from Access table, EX 7-20-7-22
 - importing data from text file, EX 7-14-7-16
 - importing data from webpage, EX 7-24-7-27
 - paste values only, EX 7-19-7-20
 - replicating formulas, EX 7-31-7-32
 - transposing columns and rows, EX 7-28-7-29
 - using the TRIM function, EX 7-18-7-19
 - using Word data, EX 7-27-7-32
 - web data, EX 7-24-7-27
 - data labels, **EX 5-39**, EX 7-45-7-46, **PPT 6-49**
 - adding, EX 7-45-7-46
 - data records, **WD 6-13**
 - merging to directory, WD 6-48-6-55
 - data series
 - more about, EX 6-55
 - removing in treemap charts, EX 6-52
 - datasheet(s)
 - creating simple form with, AC 5-43-5-44
 - in forms, AC 5-43-5-46
 - placing fields on, AC 5-45
 - Datasheet view
 - adding fields in, AC 5-7-5-8
 - renaming fields in, AC 5-8
 - viewing documents and attachments in, AC 5-16
 - data sources
 - addressing mailing labels using existing, WD 6-42-6-48
 - creating, WD 6-12-6-20
 - defined, **WD 6-12**
 - editing data records (recipients) in, WD 6-20
 - entering more recipients, WD 6-18
 - guidelines to follow when creating, WD 6-13
 - printing mailing labels using an existing, WD 6-42-6-48
 - saving, WD 6-18
 - saving when prompted by Word, WD 6-18-6-19
 - type new recipient list for, WD 6-13-6-17
 - using an existing, WD 6-20
 - data table(s)
 - adding pointer to, using conditional formatting, EX 4-34-4-35
 - defined, **EX 4-1**, **EX 7-46**
 - defining range as, EX 4-19-4-20
 - displaying, EX 7-46
 - entering formulas in, EX 4-18
 - expanding, EX 4-15
 - highlighting cells using conditional formatting, EX 4-33-4-36
 - more about, EX 4-20
 - mortgage payment calculator with, EX 4-2-4-6
 - one-input, EX 4-15
 - one-variable, EX 4-15
 - using to analyze worksheet data, EX 4-15-4-20
 - data table title
 - entering, EX 4-16
 - date
 - adding in report, AC 6-41-6-42
 - changing format of, EX 5-11
 - formats, AC 5-43
 - and forms, AC 4-40-4-41
 - functions, EX 5-8-5-16
 - series, **EX 5-6**
 - sorting, EX 6-25
 - Date/Time fields in queries, AC 5-41-5-43
 - DAVERAGE function, **EX 6-41**, EX 6-43-6-44
 - DCOUNT function, **EX 6-41**, EX 6-43-6-44
 - decibels for creativity, PPT 7-1
 - decreasing indent of paragraph, WD 5-26-5-27
 - default names for controls, AC 6-18
 - default number of worksheets, EX 5-23
 - default save location, setting, WD 5-49
 - defining, range as data table, EX 4-19-4-20
 - Delay box, PPT 5-44
 - delete button, PPT 5-16
 - deleting
 - blank paragraph, WD 4-42
 - column(s), WD 4-46
 - column using Power Query, EX 7-22-7-23
 - comment(s), PPT 5-15-5-16
 - content placeholder, PPT 4-12-4-13
 - cover page, WD 4-6
 - data, EX 7-29-7-30
 - footer(s), WD 4-17
 - header(s), WD 4-15
 - page break, WD 4-12
 - paragraph, WD 5-17
 - placeholders, PPT 6-8
 - row, WD 5-17, WD 5-22
 - slide layout, PPT 4-27-4-30
 - table cells, WD 4-46
 - worksheets, EX 5-28
 - deleting, cutting, and pasting data, EX 7-29-7-30
 - delimited file, **EX 7-14**
 - delimiter, **EX 7-14**
 - demoting, shape, **EX 7-51**
 - dependent workbook, EX 5-49
 - descending order, **EX 6-25**
 - deselecting sheet combinations, EX 5-28
 - designing
 - cover page, WD 4-5
 - nameplate, WD 7-6
 - Design view, AC 7-13
 - adding fields to the report in, AC 6-18-6-20
 - creating an initial report in, AC 6-14-6-15
 - creating form in, AC 5-17-5-18, AC 7-4, AC 7-34
 - creating new tables, AC 6-4-6-6
 - creating reports in, AC 6-9-6-46
 - group and sort, AC 6-15-6-17
 - opening subreport in, AC 6-33
 - resizing subreport and report in, AC 6-38-6-39
 - desktop publishing terminology, WD 7-2
 - destination, **WD 7-34**
 - destination document, **EX 7-63**, **PPT 6-7**, **WD 7-48**
 - DGET function, EX 6-41
 - dimming text, **PPT 5-45**
 - directory, WD 6-1-6-4
 - defined, **WD 6-49**
 - merging all data records to, WD 6-48-6-55
 - merging data records (recipients) to, WD 6-50-6-51
 - displaying
 - gridlines, PPT 6-45
 - next step in Mail Merge wizard, WD 6-21
 - subtotals, EX 6-48-6-49
 - distributing
 - document, AC 6-45, AC 7-48, EX 7-6, WD 6-55
 - slides, PPT 4-55
 - table rows, PPT 6-27-6-28
 - workbook, EX 4-48, **EX 5-48**, EX 6-24
 - document(s). *See also* Word
 - changing style set, WD 5-50-5-51
 - checking document compatibility, WD 5-38-5-39
 - converting for use in PowerPoint, PPT 6-5-6-7
 - correcting merge field errors in merged, WD 6-36
 - creating from an online template, WD 5-3-5-6
 - creating webpage from, WD 5-46-5-54
 - destination, EX 7-63, WD 7-48
 - determining whether Attachment data type is appropriate for, AC 5-8
 - distributing, AC 5-47, AC 7-48, EX 7-6, WD 4-57, WD 5-37, WD 6-55, WD 7-54
 - distribution, AC 6-45
 - exporting to XPS document, WD 5-37-5-38
 - exporting Word document to PDF file and view PDF file in Adobe Reader, WD 5-34-5-36
 - extra page in, WD 4-41
 - file types, WD 5-40-5-41
 - getting sharing link, WD 5-43-5-44
 - highlighting text, WD 5-51-5-52
 - inserting building block elements (Quick Part), WD 5-32-5-34
 - merging form letters using Mail Merge wizard, WD 6-34-6-35
 - opening PDF file from Word to edit it, WD 5-36-5-38
 - printing, PPT 6-58
 - printing properties of, WD 6-56
 - printing specific pages in, WD 4-9-4-11
 - removing watermark, WD 5-44-5-45
 - saving as webpage, WD 5-47-5-49
 - saving Word 2019 document in an earlier Word format, WD 5-39-5-40
 - sending, using email, WD 5-45-5-46
 - sharing on OneDrive, WD 5-42-5-43
 - sharing with others, WD 5-31-5-46
 - source, EX 7-63
 - testing webpage in browser, WD 5-53-5-54
 - viewing attachments in Datasheet view, AC 5-16
 - viewing attachments of, AC 5-16 and wordwrap, 4-11, WD 4-10
 - document compatibility
 - checking, WD 5-38-5-39
 - Document Inspector, **PPT 4-47**, PPT 4-48
 - document properties
 - editing, PPT 4-48
 - printing, PPT 4-49, PPT 5-65
 - downloading, pictures, **EX 7-54**
 - draft file
 - sales proposal, WD 4-2-4-4
 - saving with new file name, WD 4-2
 - drawing
 - table columns, PPT 6-15-6-16
 - table rows, PPT 6-13-6-15
 - tables, PPT 6-12-6-13
 - drilling, an entry technique, **EX 5-27**, EX 5-31
 - drop cap
 - defined, **WD 7-27**
 - formatting, WD 7-28
 - formatting character as, WD 7-27-7-28
 - outline around, WD 7-28
 - drop-down boxes, AC 7-14
 - drop down controls, AC 6-64
 - duplicates
 - finding, with conditional formatting, EX 6-22
 - removing, EX 6-10-6-11
- ## E
- editing
 - action button settings, PPT 7-63-7-64
 - AddressBlock merge field, WD 6-24
 - comment(s), PPT 5-15
 - data records (recipients) in data source, WD 6-20
 - embedded file, PPT 6-10-6-11
 - file, EX 7-65
 - GreetingLine merge field, WD 6-26

IND 6 Index

- editing (*continued*)
 - hyperlink, WD 5-50
 - hyperlinks, PPT 7-52–7-53
 - lists, WD 4-19–4-29
 - source file of linked chart, PPT 6-52–6-54
 - tables, WD 4-30–4-55
 - treemap settings, EX 6-53–6-54
 - editing wrap points
 - described, WD 7-50
 - in object, WD 7-50–7-52
 - email
 - sending document using, WD 5-45–5-46
 - E-mail Messages command, WD 6-4
 - embedded objects, EX 7-64, **EX 7-64**, **PPT 6-7**
 - embedding, PPT 6-7
 - an object from another app, EX 7-64
 - editing embedded file, PPT 6-10–6-11
 - fonts, PPT 6-49
 - object from another app, PPT 6-9–6-10
 - object linking and, EX 7-63–7-66
 - emphasis effect animations, PPT 5-43
 - enabling content, AC 6-4, AC 7-3
 - entering, EX 4-14
 - column titles, EX 5-6
 - column titles in the template, EX 7-7
 - custom criteria using AutoFilter, EX 6-34–6-35
 - data in Long Text fields, AC 5-10
 - data in Yes/No fields, AC 5-10
 - data table title and column titles, EX 4-16
 - data using an input mask, AC 5-8–5-9
 - date from content control, WD 6-21–6-22
 - 3-D reference, EX 5-32–5-34
 - formulas and functions in the template, EX 7-8–7-9
 - formulas in amortization schedule, EX 4-24–4-25
 - formulas in data table, EX 4-18
 - formulas using the ROUND function, EX 5-11–5-14
 - interest rates, EX 4-7
 - line break, WD 5-25
 - loan amount formula using names, EX 4-9–4-10
 - loan data, EX 4-7
 - more text and merge fields in the main document, WD 6-28
 - new loan data, EX 4-13–4-14, EX 4-36
 - new rows and records into table, EX 6-11–6-12
 - original loan data, EX 4-14, EX 4-36
 - percentages, EX 4-7
 - PMT function, EX 4-11–4-12
 - remaining text in the main document, WD 6-30–6-31
 - row titles, EX 5-5
 - sample data in the template, EX 7-7–7-8
 - section and row titles and system date, EX 4-4–4-5
 - sender information, WD 6-7
 - subtitle, EX 5-5
 - text in content controls, WD 5-9–5-10, WD 5-14, WD 5-21–5-26
 - title, EX 5-5
 - titles in the template, EX 7-6
 - total formulas in amortization schedule, EX 4-27–4-28
 - enter titles
 - changing, EX 4-21–4-22
 - entrance effect, PPT 5-42–5-43
 - envelopes
 - addresses positioning on, WD 6-47
 - addressing, WD 6-41–6-48, WD 6-48
 - printing, WD 6-48
 - equation
 - creating with touchscreen, PPT 7-51
 - inserting, PPT 7-51
 - erasing, table border, PPT 6-17–6-18
 - error checking rules, EX 4-47
 - error indicator, **AC 6-34**
 - errors, checking for, WD 6-34
 - events, AC 7-26
 - Excel
 - chart, copying, PPT 6-38–6-40
 - copying from Word and pasting to, EX 7-28
 - outline feature of, EX 6-49–6-50
 - PMT function, EX 4-10–4-12
 - reporting an error, EX 5-14
 - table guidelines, EX 6-7
 - working with tables in, EX 6-22–6-25
 - Excel Template file type, EX 7-10
 - Excel worksheet
 - aligning, PPT 6-36
 - inserting linked, PPT 6-33–6-38
 - linking, PPT 6-33–6-35
 - excluding data, PPT 6-45
 - exit PowerPoint, PPT 6-58
 - expanding
 - Form Header section, AC 7-13
 - exploding slice, EX 5-38
 - exporting
 - Word document to PDF file and view PDF file in Adobe Reader, WD 5-34–5-36
 - Word document to XPS document, WD 5-37–5-38
 - Expression Builder
 - creating additional query for report using, AC 6-10–6-14
 - using to add a calculation, AC 6-58–6-60
 - expression, in condition, WD 6-29
 - external reference indicator, **EX 5-49**
 - extract range
 - creating, EX 6-39–6-40
 - defined, **EX 6-37**
 - using, EX 6-37–6-41
 - extract records, EX 6-40–6-41
- ## F
- Facebook, EX 7-13
 - false text, **WD 6-29**
 - feedback
 - presentation (PowerPoint), PPT 5-7
 - field(s)
 - adding and moving, second reports, AC 6-47–6-50
 - adding controls for additional, AC 5-19
 - adding controls for remaining, AC 5-22–5-23
 - adding in Datasheet view, AC 5-7–5-8
 - adding in Design view, AC 6-18–6-19
 - adding special, AC 5-2–5-8
 - adding, to form design, AC 7-5
 - adding with new data types to table, AC 5-3–5-4
 - defined, EX 6-1
 - entering data in Hyperlink, AC 5-16
 - entering data in long text, AC 5-10
 - entering data in Yes/No, AC 5-10
 - entering images in Attachment, AC 5-12–5-13
 - entering more data in Attachment, AC 5-14–5-16
 - locking, WD 6-32
 - updating new, AC 5-8–5-16
 - field codes, **WD 6-31**, WD 6-31–6-32
 - field name, **WD 6-13**
 - field selector, **AC 5-10**
 - file(s)
 - Access, EX 7-20
 - comma-delimited text, EX 7-14
 - delimited, EX 7-14
 - editing, EX 7-65
 - fixed-width, EX 7-14
 - inserting audio clip from, PPT 7-8–7-10
 - inserting hyperlink to, PPT 7-57–7-59
 - linking to, EX 7-65
 - opening, EX 6-6
 - read-only, EX 7-10
 - saving, EX 6-6
 - types, WD 5-40–5-41
 - file name
 - extensions, PPT 4-30
 - file sizes, PPT 6-33
 - fill, **PPT 4-39**. *See also* specific types
 - fill color
 - changing, action button, PPT 7-62–7-63
 - Fill gallery, EX 5-7
 - directional commands used in, EX 5-7
 - fill handle
 - creating percentage series using, EX 4-16–4-17
 - creating series of integers using, EX 4-22–4-23
 - fill series, EX 5-6–5-8
 - creating linear series, EX 5-6–5-8
 - filter
 - records, in reports, AC 4-17–4-18
 - report, clearing, AC 4-18–4-19
 - using forms, AC 4-45–4-47
 - filtered web page format, WD 5-47
 - filters
 - removing, EX 6-32–6-33
 - financial tools
 - using borders and fill color to visually define and group, EX 4-33
 - Find and Replace commands
 - Find and Replace dialog box, EX 7-37–7-39
 - finding data, EX 7-35–7-37
 - using, EX 7-35–7-39
 - Find and Replace dialog box, EX 7-37–7-39
 - find and replace, EX 7-37–7-38
 - format styles and borders, EX 7-38–7-39
 - finding mail merge recipients, WD 6-40–6-41
 - fine-tuning, reports, AC 6-64
 - fixed-width file, **EX 7-14**
 - flipping picture, PPT 7-45–7-46
 - floating dollar sign
 - formatting with, EX 5-15–5-16
 - floating graphic, WD 7-17
 - focus, **AC 7-25**
 - folder
 - creating, while saving, WD 6-11–6-12
 - font(s)
 - changing, WD 7-6
 - changing, of WordArt, WD 7-7
 - embedding, PPT 6-49
 - font set, **WD 5-8**
 - vs.* foreground color, AC 7-13
 - Font dialog box, WD 4-19
 - Font sheet
 - subscript on, EX 5-21
 - superscript on, EX 5-21
 - font size
 - changing, of WordArt, WD 7-7
 - footer(s), AC 7-14–7-15, WD 4-9
 - adding, EX 5-45–5-46
 - code, EX 5-43
 - deleting, WD 4-17
 - inserting form, AC 7-15
 - inserting formatted, WD 4-16–4-18
 - inserting page, AC 6-45, AC 7-15
 - inserting report, AC 6-45
 - page, AC 6-44, AC 6-45
 - removing form, AC 7-14
 - removing page, AC 6-44, AC 7-14
 - removing report, AC 6-44
 - report, AC 6-44, AC 6-45
 - section of group, AC 4-8

- foreground color
 - font vs., AC 7-13
 - form(s)
 - adding control for a field to, AC 5-18–5-19
 - changing background color of, AC 7-40
 - constructing command in my own, AC 7-31
 - contents of, AC 7-6
 - creating in Design view, AC 7-4, AC 7-34
 - creating with a datasheet in Layout view, AC 5-44–5-46
 - datasheets in, AC 5-43–5-46
 - determining fields on, AC 7-6
 - including combo box in a, AC 7-21
 - including image as background for, AC 7-15
 - including image in a, AC 7-15
 - including tab control in, AC 7-36
 - navigation in, AC 5-39
 - opening Appointment View and updating, AC 7-23
 - placing subform on, AC 5-25–5-28
 - requirements for, to determine tables, AC 7-6
 - using, AC 5-37–5-39, AC 7-43–7-44
 - using modified, AC 7-31–7-33
 - viewing, AC 7-12–7-13
 - Format Cells dialog box, EX 5-15
 - Format Chart Area, AC 7-46
 - format codes, **EX 5-16**, EX 5-16–5-19
 - creating custom, EX 5-17–5-18
 - format symbols in, EX 5-17
 - formatting with the comma style, EX 5-19
 - Format Data Series pane, EX 6-53
 - Format Painter
 - defined, **PPT 5-40**
 - using with objects, EX 7-74, PPT 5-41–5-42
 - using with text, PPT 5-40–5-41
 - Format Painter button, using, AC 7-11–7-12
 - format symbols, in format codes, EX 5-17
 - Format tab, AC 7-12
 - formatting, WD 4-18–4-19
 - Access data, EX 7-24
 - axis options, EX 7-44–7-45
 - body copy, WD 7-19
 - cells before entering values, EX 4-6
 - changing columns, WD 7-39–7-40
 - character(s), WD 4-7–4-9
 - character as drop cap, WD 7-27–7-28
 - chart, EX 7-41–7-44
 - chart title, EX 7-46–7-47
 - clearing, WD 7-20
 - column titles and total row, EX 5-15
 - with the comma style, EX 5-19
 - conditional, EX 6-19–6-22
 - control, AC 6-25–6-26, AC 7-10–7-11
 - CSV data, EX 7-16–7-17
 - customizing table, PPT 6-22
 - data labels, EX 5-39–5-42
 - drop cap, WD 7-28
 - first page of the body of newsletter, WD 7-19–7-31
 - with floating dollar sign, EX 5-15–5-16
 - global, EX 4-4
 - lists, WD 4-19–4-29
 - marks, WD 7-52
 - modifying page, WD 4-9–4-19
 - numbers in amortization schedule, EX 4-28–4-29
 - page numbers, WD 4-18–4-19
 - paragraphs, WD 7-13
 - picture placeholder, PPT 4-21–4-22
 - pictures, PPT 5-25–5-29, PPT 7-41–7-51
 - pie charts, EX 5-35–5-48
 - placeholder, PPT 4-14–4-36
 - placeholder text, PPT 4-15–4-19
 - range as table, EX 6-8–6-9
 - revealing, WD 5-29
 - rows and columns, EX 7-5–7-6
 - second page of newsletter, WD 7-38–7-52
 - sender information, WD 6-7
 - shape text, PPT 5-38
 - slide backgrounds, PPT 4-39–4-47
 - slide master background, PPT 4-23–4-24
 - SmartArt graphic, WD 7-43–7-47
 - SmartArt graphic text, WD 7-47
 - subheads, WD 7-20
 - table, EX 6-7
 - table data, PPT 6-31–6-32
 - tables, WD 4-30–4-55, WD 6-54
 - text, EX 7-17–7-18, PPT 5-20–5-25, WD 7-20–7-21
 - text as hyperlink, WD 5-49–5-50
 - text in columns, WD 7-22–7-23
 - text pane characters of, PPT 7-27–7-28
 - text, using Font dialog box, WD 4-19
 - text using WordArt styles, EX 7-60–7-61
 - title and subtitle, EX 5-14–5-15
 - undoing, EX 4-29
 - using cut and paste to move table rows and paragraphs with source, WD 5-14–5-16
 - using the Quick Analysis gallery, EX 7-33–7-34
 - when to, EX 4-6
 - worksheet, EX 5-5
 - formatting worksheet
 - adding borders to amortization schedule, EX 4-32
 - adding borders to Varying Interest Rate Schedule, EX 4-31–4-32
 - adding custom borders to a range, EX 4-29–4-31
 - EX 4-29–4-33
 - using borders and fill color to visually define and group the financial tools, EX 4-33
 - form controls, AC 4-38
 - form creation, AC 4-35–4-47
 - form controls, AC 4-38
 - form sections, AC 4-38
 - using Form Wizard, AC 4-36–4-37
 - views available in forms, AC 4-38–4-47
 - form design
 - adding fields to, AC 7-5
 - form filter, clearing, AC 4-47
 - form footer
 - inserting, AC 7-15
 - removing, AC 7-14
 - form header
 - changing background color of, AC 7-14
 - inserting, AC 7-15
 - removing, AC 7-14
 - Form Header section, AC 4-38
 - adding title and expanding, AC 7-13
 - form letters, WD 6-1–6-4
 - beginning typing the body of, WD 6-26–6-27
 - composing main document for, WD 6-20–6-33
 - guidelines to follow when composing main document for, WD 6-21
 - identifying main document for, WD 6-4–6-12
 - merging recipient list in data source with main document to generate, WD 6-33–6-41
 - merging to new document using Mail Merge wizard, WD 6-34–6-35
 - merging to new document using the ribbon, WD 6-37–6-38
 - forms
 - adding fields in, AC 4-44–4-45
 - CMF Vets, AC 4-1–4-4
 - enhancing, by adding date, AC 4-40–4-41
 - filtering and sorting using, AC 4-45–4-47
 - introduction, AC 4-1
 - project, AC 4-1–4-4
 - views available in, AC 4-38–4-47
 - form sections, AC 4-38
 - form title, modifying appearance of, AC 5-35–5-36
 - formula(s)
 - in amortization schedule, EX 4-23–4-24
 - cell references in, EX 4-6
 - copying to fill amortization schedule, EX 4-26–4-27
 - creating, with defined names, EX 4-41
 - drilling cell references in, EX 5-54
 - entering, in amortization schedule, EX 4-24–4-25
 - entering, in data table, EX 4-18
 - entering in the template, EX 7-8–7-9
 - entering, using the ROUND function, EX 5-11–5-14
 - hiding, EX 4-44
 - inserting, in table, WD 4-38–4-39
 - making mistake while editing, EX 5-55
 - replicating, EX 7-31–7-32
 - Formula box, WD 4-38
 - formula checker, **EX 4-2**
 - formula checking, EX 4-46–4-48
 - enabling background, EX 4-47–4-48
 - Form view, AC 7-4
 - Form Wizard, AC 4-36–4-37
 - frame, **WD 7-28**
 - functional resume, WD 5-6
 - functions
 - entering in the template, EX 7-8–7-9
 - obtaining Help on, AC 6-62
 - and ranges, EX 6-41
 - related to date and time, EX 5-9
 - rounding, EX 5-10
 - two sets of parentheses in, EX 5-13
 - FV function, **EX 4-12**
- ## G
- global formatting, EX 4-4
 - glow effect, and WordArt, WD 7-11
 - glow shape effect, PPT 5-39–5-40
 - glow text effect, PPT 5-39
 - GoToControl action
 - adding to wrong place in macro, AC 7-29
 - effect of, AC 7-29
 - gradient
 - defined, **WD 7-8**
 - stop, WD 7-9, WD 7-10
 - gradient fill
 - changing slide backgrounds to, PPT 4-40–4-41
 - defined, **PPT 4-39**
 - grand total, in reports, AC 4-9
 - graph(s), AC 6-46
 - graphic(s). *See also* SmartArt graphic color, in nameplate, WD 7-15
 - cropping, in nameplate, WD 7-16
 - floating, WD 7-17
 - formatting, as floating, WD 7-50
 - inserting from file, PPT 6-7–6-11
 - moving, WD 7-17
 - rotating, WD 7-18–7-19
 - space around, WD 7-52
 - specifying position of, WD 6-10–6-11
 - GreetingLine merge field, **WD 6-25**
 - editing, WD 6-26
 - inserting, WD 6-25–6-26
 - gridlines, **PPT 6-49**, WD 4-42–4-43
 - adding, PPT 6-49
 - adding to chart, PPT 6-49
 - defined, **WD 4-42**
 - hiding, WD 4-53
 - viewing, WD 5-8

IND 8 Index

group controls, AC 6-26-6-27
 modifying, AC 6-27-6-28
Group Footer section, **AC 6-18**
Group Header section, **AC 6-18**
grouping
 audio clips, PPT 7-12
 options, AC 4-8
 report, AC 6-15-6-17
 in reports, AC 4-5-4-7
Group, Sort, and Total pane, removing,
 AC 4-11-4-12
growth series, EX 5-6
 creating, **EX 5-9**

H

handout master, **PPT 4-6**
symbol, WD 4-39
header(s), AC 6-44-6-46, AC 7-14-7-15, WD 4-9
 adding, EX 5-44-5-45
 code, EX 5-43
 deleting, WD 4-15
 inserting form, AC 7-15
 inserting formatted, WD 4-14-4-15
 inserting page, AC 6-45, AC 7-15
 inserting report, AC 6-45
 page, AC 6-44, AC 6-45
 removing color from the report, AC 6-47
 removing form, AC 7-14
 removing page, AC 6-44, AC 7-14
 removing report, AC 6-44
 report, AC 6-44, AC 6-45
header background color
 removing, AC 6-42-6-44
header record, **WD 6-13**
header rows, repeating, WD 6-54
header section of group, AC 4-8
heading style, WD 4-12-4-13
 formatting text as, WD 7-20-7-21
 modifying, WD 7-20-7-21
Headlines theme, WD 7-5
Help
 obtaining on functions, AC 6-62
Hide Slide, **PPT 4-45**
hiding
 formulas, EX 4-44
 markups, PPT 5-18-5-19
 slides, PPT 4-45-4-47
 workbooks, EX 4-41-4-46, EX 5-53
 worksheets, EX 4-44
highlighting
 cells in data table using conditional formatting,
 EX 4-33-4-36
 defined, **WD 5-51**
 text, PPT 4-50-4-51, WD 5-51-5-52
HLOOKUP function, **EX 6-14**
horizontal axis, **PPT 6-43**
horizontal rule, **WD 7-2**
HTML (Hypertext Markup Language), **EX 7-24**,
 WD 5-46
hyperlink(s), PPT 6-54
 adding, PPT 7-51-7-59
 adding action setting to picture,
 PPT 7-55-7-56
 adding action setting to shape, PPT 7-56-7-57
 adding ScreenTip to, PPT 7-53-7-54
 controls, AC 6-62, AC 7-14
 editing, PPT 7-52-7-53, WD 5-50
 entering data in, AC 5-16
 formatting text as, WD 5-49-5-50
 inserting, WD 5-50
 inserting to file, PPT 7-57-7-59

 inserting, to place in current presentation,
 PPT 7-51-7-52
 presentation with, PPT 7-2-7-4
 removing, PPT 7-59
hyphenation, WD 7-26-7-27, WD 7-36
 automatic, WD 7-27
 manual, WD 7-27

I

icon(s)
 adding to SmartArt graphics, EX 7-53-7-61
 defined, **EX 7-53**
 inserting, EX 7-58-7-59
identifying, main document for form letters,
 WD 6-4-6-12
IF fields, **WD 6-28**, WD 6-28-6-29, WD 6-29
 inserting in main document, WD 6-29-6-30
IF function, EX 6-19
If...Then...Else field, **WD 6-28**
If...Then: field, **WD 6-28**
image(s)
 adding to table cells, PPT 6-26-6-27
 as background in reports, AC 6-45
 entering in Attachment field, AC 5-12-5-13
 including in form, AC 7-15
 including in reports, AC 6-45
 individual, EX 7-61
 using, as background for form, AC 7-15
 watermark, EX 7-60
Import Data dialog box, EX 7-15
importing
 data, EX 5-32, EX 7-12-7-32
 data from an Access table, EX 7-20-7-22
 data from text file, EX 7-14-7-16
 data in tables, AC 6-6
 defined, **EX 7-1**
 linking vs., AC 6-6-6-7
 table, AC 7-33
 text files, PPT 6-7
INDEX function, **EX 6-44**, EX 6-44-6-46
 using, EX 6-46
individual image, EX 7-61
individual worksheets
 customizing, EX 5-28
ink and toner
 conserving, PPT 5-6
input mask, AC 5-3
 characters, AC 5-7
 entering data using an, AC 5-8-5-9
 on new records, AC 5-9
Input Mask Wizard, using, AC 5-4-5-6
inserting
 action button, PPT 7-60-7-61
 AddressBlock merge field, WD 6-23-6-24
 audio clips from file, PPT 7-8-7-10
 bar chart, EX 7-39-7-47
 building block, WD 5-20-5-21
 building block elements (Quick Part),
 WD 5-32-5-34
 chart, AC 7-40-7-43
 chart using the Quick Analysis gallery,
 EX 7-40-7-41
 column(s), WD 4-46
 column break, WD 7-30-7-31
 comment(s), PPT 5-14
 connector, PPT 5-54-5-55
 cover page, WD 4-5-4-6
 documents, WD 7-31
 equation, PPT 7-51
 formatted footer(s), WD 4-16-4-18
 formatted header(s), WD 4-14-4-15
 form header and footer, AC 7-15

 graphics or other objects from file,
 PPT 6-7-6-11
 GreetingLine merge field, WD 6-25-6-26
 hyperlinks, WD 5-50
 hyperlinks to file, PPT 7-57-7-59
 hyperlinks to place in current presentation,
 PPT 7-51-7-52
 icons, EX 7-58-7-59
 IF field in the main document,
 WD 6-29-6-30
 individual image into workbook, EX 7-61
 linked Excel worksheet, PPT 6-33-6-38
 merge field in the main document,
 WD 6-27-6-28
 next page section break, WD 7-29
 online picture without using content
 placeholder, PPT 7-6
 online video, PPT 7-15
 page break in bulleted list, WD 4-23
 page header and footer, AC 6-45, AC 7-15
 picture into SmartArt shape, PPT 7-29
 report header and footer, AC 6-45
 row(s), WD 4-51-4-52
 section zoom links, PPT 5-61-5-63
 screen clipping, PPT 7-49-7-51
 screenshot on worksheet, EX 7-67-7-68
 slide zoom links, PPT 5-61-5-63
 slides from outline, PPT 6-5-6-7
 SmartArt graphic, EX 7-49
 SmartArt using content place holder,
 PPT 7-24-7-26
 text from file in document, WD 7-24-7-25
 text from file into document, WD 7-31
 3-D pie chart on consolidated worksheet,
 EX 5-36
 total row, EX 6-22-6-24
insertion
 box, PPT 5-9
Insert Merge Field button, WD 6-27,
 WD 6-45
integration, **EX 7-63**
interest rates
 entering, EX 4-7
invalid relationships, AC 6-9
issue information line, **WD 7-2**

J

jump-from line, **WD 7-19**
jump-to line, **WD 7-19**, WD 7-30

K

key column, AC 7-8

L

label(s)
 attached, AC 4-38
 changing, AC 5-30-5-31, AC 6-20
 changing effects and colors, AC 5-31-5-34
 creating, AC 4-48-4-51
 mailing, AC 4-48-4-51
 printing, AC 4-48-4-51
landscape orientation, **WD 6-49**
layout
 control, AC 4-38
 stacked, AC 4-38
 tabular, AC 4-38

- Layout view, AC 7-13
 - and blank report creation, AC 4-30-4-31
 - and multiple-table reports, AC 4-29-4-31
 - leader characters, WD 7-41
 - leader line, **EX 5-39**
 - LEFT function, EX 7-17
 - left paragraph indent, WD 4-13-4-14
 - legend, **PPT 6-49**
 - adding to chart, PPT 6-49
 - Legend check box, EX 5-40
 - linear series, **EX 5-6**
 - creating, EX 5-6-5-8
 - line break
 - characters, WD 5-25
 - defined, **WD 5-25**
 - entering, WD 5-25
 - line spacing
 - changing, PPT 5-20-5-21
 - defined, **PPT 5-20**
 - line style
 - changing, table border, PPT 6-22
 - link, **PPT 6-54, EX 5-49**
 - adding to text, PPT 6-54-6-55
 - breaking external, EX 7-65
 - Excel worksheet, PPT 6-33-6-35
 - Link check box, **PPT 6-33**
 - linked cell references, EX 5-55
 - linked chart
 - editing source file of, PPT 6-52-6-54
 - linked Excel
 - chart copying, PPT 6-38-6-58
 - modifying, PPT 6-38-6-58
 - linked Excel worksheet
 - inserting, PPT 6-33-6-38
 - updating, PPT 6-36-6-38
 - linked objects, **EX 7-64, EX 7-64-7-66, PPT 6-7**
 - linked workbooks
 - moving, EX 5-49-, EX 5-50
 - updating data in, EX 5-50
 - linking, AC 6-7, EX 5-49
 - to a file, EX 7-65
 - vs. importing, AC 6-6-6-7
 - object from another app, EX 7-64-7-65
 - list(s)
 - editing, WD 4-19-4-29
 - formatting, WD 4-19-4-29
 - in numerical order, AC 7-24
 - list box, **AC 7-6**
 - list numbering style, PPT 5-36-5-37
 - live preview, PPT 4-45
 - live preview for themes, AC 4-34-4-35
 - defined, **AC 4-34**
 - and summary report, AC 4-35
 - loan amount formula
 - entering, using names, EX 4-9-4-10
 - loan data `
 - entering, EX 4-7
 - Lock Drawing Mode, **PPT 5-54**
 - logical functions, **EX 6-14**
 - examples of, EX 6-47
 - Long Text fields, AC 5-3
 - entering data in, AC 5-10, AC 5-11
 - in queries, AC 5-41-5-43
 - lookup table, **EX 6-14**
 - creating table array area, EX 6-15-6-16
 - using, EX 6-14-6-17
 - using the VLOOKUP function, EX 6-16-6-17
 - lookup value, **EX 6-15**
 - looping audio clip, PPT 7-10-7-11
- M**
- macro(s)
 - adding wrong action to, AC 7-29
 - comments in, AC 7-31
 - defined, **AC 7-26**
 - modifying for Add Record button, AC 7-26-7-29
 - purpose of actions in, AC 7-27
 - recognizing actions, AC 7-27
 - mailing labels, WD 6-1-6-4
 - addressing, WD 6-41-6-48
 - mail merge
 - addressing mailing labels and envelopes, WD 6-41-6-48
 - changing margin settings, WD 6-9-6-10
 - changing picture and formatting it, WD 6-7-6-8
 - changing theme colors, WD 6-7
 - composing main document for form letters, WD 6-20-6-33
 - creating data source, WD 6-12-6-20
 - creating folder while saving, WD 6-11-6-12
 - displaying recipients in main document, WD 6-41
 - entering and formatting the sender information, WD 6-7
 - finding recipients, WD 6-40-6-41
 - identifying main document for form letters, WD 6-4-6-12
 - merging all data records to directory, WD 6-48-6-55
 - merging recipient list in data source with main document to generate form letters, WD 6-33-6-41
 - previewing using Mail Merge wizard, WD 6-33-6-34
 - removing merge condition, WD 6-39
 - selecting recipients, WD 6-36-6-37
 - shade cells and shape, WD 6-8-6-9
 - sorting recipient list, WD 6-39-6-40
 - specifying position of graphic, WD 6-10-6-11
 - starting Mail Merge wizard, WD 6-4-6-7
 - starting Word and specify settings, WD 6-2-6-4
 - Mail Merge pane, WD 6-6
 - Mail Merge Recipients dialog box, WD 6-20, WD 6-39
 - mail merge recipients, selecting, WD 6-36-6-37
 - Mail Merge wizard, WD 6-2
 - displaying the next step in, WD 6-21
 - merging form letters to new document using, WD 6-34-6-35
 - previewing mail merge using, WD 6-33-6-34
 - starting, WD 6-4-6-7
 - main document, **WD 6-21**
 - beginning typing the body of form letter, WD 6-26-6-27
 - composing for form letters, WD 6-20-6-33
 - displaying next step in Mail Merge wizard, WD 6-21
 - entering more text and merge fields in, WD 6-28
 - entering remaining text in, WD 6-30-6-31
 - entering the date from content control, WD 6-21-6-22
 - identifying for form letters, WD 6-4-6-12
 - IF fields, WD 6-28-6-29
 - inserting AddressBlock merge field, WD 6-23-6-24
 - inserting GreetingLine merge field, WD 6-25-6-26
 - inserting IF field in, WD 6-29-6-30
 - inserting merge field in, WD 6-27-6-28
 - merging recipient list in data source to generate form letters, WD 6-33-6-41
 - opening, WD 6-33
 - previewing results in, WD 6-24-6-25
 - printing field codes in, WD 6-32
 - toggle field codes, WD 6-31-6-32
 - viewing merge fields in, WD 6-26
- main form, **AC 5-17**
 - creating multiple-table form based on, AC 5-46-5-47
- manual hyphenation, WD 7-27
- many-to-many relationships, AC 6-6
- margins
 - adjusting, WD 7-4-7-5
 - changing, EX 5-43-5-44
 - changing, for text in a shape, PPT 5-37-5-38
 - defined, **PPT 5-20**
 - settings, changing, WD 6-9-6-10
- Mark as Final command, **PPT 4-49**
- markups, hiding, PPT 5-18-5-19
- Master Comparison Layout, PPT 4-2, PPT 4-4
- Masters for universal style, PPT 4-2
- Master Title and Content Layout, PPT 4-2, PPT 4-5
- Master view, PPT 4-30
- MATCH function, EX 6-44, EX 6-44-6-46
 - using, EX 6-46
- merge, **WD 6-2**
 - presentation (PowerPoint), PPT 5-5-5-6
- merge fields, WD 6-22, **WD 6-22**
 - AddressBlock, WD 6-23-6-24
 - characters, **WD 6-22**
 - correcting errors in merged documents, WD 6-36
 - entering in the main document, WD 6-28
 - GreetingLine, WD 6-25-6-26
 - highlighting, WD 6-31
 - inserting in main document, WD 6-27-6-28
 - viewing in main document, WD 6-26
- Merge Formatting button, WD 7-35
- merging
 - all data records to directory, WD 6-48-6-55
 - cell(s), WD 4-51-4-52
 - data records (recipients) to directory, WD 6-50-6-51
 - data source and directory main document to new document, WD 6-52
 - defined, **WD 6-33**
 - form letters to new document using ribbon, WD 6-37-6-38
 - form letters to new document using the Mail Merge wizard, WD 6-34-6-35
 - form letters to printer, WD 6-36
 - recipient list data source with main document to generate form letters, WD 6-33-6-41
 - table cells, PPT 6-18, WD 4-47-4-48
- Microsoft Excel dialog box, EX 7-38
- modified form, using, AC 7-31-7-33
- modifying
 - appearance of form title, AC 5-35-5-36
 - building block, WD 5-18-5-19
 - bullets, PPT 5-30-5-42
 - character(s) spacing, WD 4-7-4-9
 - chart type, AC 7-44-7-47
 - combo box, AC 7-29
 - controls in subreport, AC 6-35
 - group controls, AC 6-27-6-28
 - heading style, WD 7-20-7-21
 - Henry Haddock worksheet, EX 5-29-5-30
 - Lady Lobster worksheet, EX 5-28-5-29
 - linked Excel chart, PPT 6-38-6-58
 - linked tables, AC 6-7
 - macro for Add Record button, AC 7-26-7-29
 - multiple controls, AC 6-28-6-30
 - multiple-table reports, AC 4-26-4-29
 - page formatting, WD 4-9-4-19

modifying (*continued*)
 section properties, AC 6-40
 Sharon Shrimp worksheet, EX 5-30–5-31
 SmartArt graphic, WD 7-43–7-47
 style using Styles Dialog Box, WD 5-30
 subform, AC 7-38–7-39
 table, WD 6-54
 modifying the consolidated worksheet
 entering 3-D reference, EX 5-32–5-34
 using Paste gallery, EX 5-34–5-35
 Mortgage Payment Calculator
 adjusting column widths and row heights, EX 4-5
 applying theme to worksheet, EX 4-4
 changing sheet tab name, EX 4-6
 with data table and amortization schedule,
 EX 4-2–4-6
 entering section and row titles and system date,
 EX 4-4–4-5
 motion path, **PPT 5-42**
 animate an object using custom, PPT 5-49–5-53
 animate an object using preset, PPT 5-48–5-49
 Move Chart button, EX 5-37
 moving
 chart on same worksheet, EX 5-36–5-37
 fields, second reports, AC 6-47–6-50
 objects, EX 7-69
 property sheet, AC 6-14
 moving linked workbooks, EX 5-49–5-57
 arranging multiple workbooks, EX 5-52–5-53
 closing all workbooks at one time, EX 5-57
 consolidating data by linking workbooks,
 EX 5-54–5-57
 hiding workbooks, EX 5-53
 opening data file and saving it to new location,
 EX 5-50
 searching for and opening workbooks,
 EX 5-50–5-51
 switching to a different open workbook,
 EX 5-51–5-52
 multilevel list, WD 4-19, WD 4-23–4-29
 changing bullet character to picture bullets,
 WD 4-26–4-28
 defined, **WD 4-23**
 sorting paragraphs, WD 4-29
 multipage form, **AC 7-1**
 adding subform, AC 7-36–7-38
 changing background color, AC 7-40
 creating, AC 7-33–7-48
 creating form in Design view, AC 7-34
 formatting chart, AC 7-47–7-48
 importing table, AC 7-33
 inserting chart, AC 7-40–7-43
 multiple controls, modifying, AC 6-28–6-30
 resizing subform, AC 7-39
 using tab control to create, AC 7-35–7-36
 using Text Box tool with concatenation,
 AC 7-34–7-35
 using the form, AC 7-43–7-44
 multiple columns
 sorting table by, WD 6-54–6-55
 Multiple Pages button, WD 4-55
 multiple-table forms, AC 5-1–5-2
 adding special fields, AC 5-2–5-8
 creating, based on many table, AC 5-46–5-47
 datasheets in forms, AC 5-43–5-46
 Date/Time fields in queries, AC 5-41–5-43
 Long Text fields in queries, AC 5-41–5-43
 object dependencies, AC 5-40
 techniques, AC 5-16–5-39
 updating new fields, AC 5-8–5-16
 Yes/No fields in queries, AC 5-41–5-43
 multiple-table form techniques, AC 5-16–5-39
 multiple-table reports. *See also* report(s)
 creating, AC 4-21–4-26
 and Layout view, AC 4-29–4-31

modifying, AC 4-26–4-29
 using themes in, AC 4-32–4-34
 multiple workbooks
 arranging, EX 5-52–5-53
 multiple worksheets
 adding worksheet to workbook, EX 5-24
 copy and paste from one worksheet to another,
 EX 5-24–5-25
 copying worksheet using ctrl, EX 5-26
 copying worksheet using shortcut menu,
 EX 5-25–5-26
 creating, EX 5-20–5-22
 customizing the individual worksheets, EX 5-28
 deselecting, EX 5-28
 drill an entry through worksheets,
 EX 5-27–5-28
 modifying the Henry Haddock worksheet,
 EX 5-29–5-30
 modifying the Lady Lobster worksheet,
 EX 5-28–5-29
 modifying the Sharon Shrimp worksheet,
 EX 5-30–5-31
 printing, EX 5-43–5-48
 referencing cells across, EX 5-31–5-35
 selecting, EX 5-28
 working with, EX 5-23–5-31
 MySQL, EX 7-13

N

nameplate, **WD 7-2**
 bordering one edge of paragraph, WD 7-13–7-14
 changing font and font size of WordArt,
 WD 7-7
 changing graphic color, WD 7-15
 changing object's text wrapping, WD 7-7–7-8
 changing object's text wrapping and size,
 WD 7-17
 changing the Text Fill color of WordArt,
 WD 7-8–7-10
 changing WordArt shape using Transform
 effect, WD 7-11
 converting text to WordArt, WD 7-6
 creating newsletter, WD 7-5–7-19
 cropping graphic, WD 7-16
 designing, WD 7-6
 entering text, WD 7-13
 for inner pages, WD 7-39
 inserting picture, WD 7-14–7-15
 moving graphic, WD 7-17
 resizing WordArt, WD 7-7
 rotating graphic, WD 7-18–7-19
 setting custom tab stops using Tabs dialog box,
 WD 7-12–7-13
 using Selection pane, WD 7-18
 names
 cell, creating, EX 4-6–EX 4-14
 creating, based on row titles, EX 4-8–4-9
 creating formulas with defined, EX 4-41
 entering loan amount formula using,
 EX 4-9–4-10
 naming, table, EX 6-10
 navigating
 defined, **PPT4-49**
 in form, AC 5-39
 between slides in Outline view, PPT 6-57
 between slides in Reading view, PPT 6-56
 to a slide using the control bar, PPT 4-49–4-52
 tables, PPT 6-18
 navigation buttons
 purpose of, in subform, AC 7-44
 Navigator dialog box, EX 7-22
 New Address List dialog box, WD 6-18

new document
 merging data source to, WD 6-52
 merging directory main document to, WD 6-52
 new fields, updating, AC 5-8–5-16
 new loan data
 entering, EX 4-13–4-14
 newsletter
 creating nameplate of, WD 7-5–7-19
 creating pull-quote, WD 7-32–7-38
 defined, WD 7-2
 and desktop publishing terminology,
 WD 7-2–7-3
 finishing, WD 7-52–7-54
 formatting second page of, WD 7-38–7-52
 formatting the first page of the body of,
 WD 7-19–7-31
 guidelines for creating, WD 7-19–7-20
 introduction, WD 7-1
 printing, WD 7-54
 project, WD 7-2–7-5
 saving, WD 7-54
 New Web Query dialog box, EX 7-24
 next page section break, WD 7-29
 non-table data, EX 6-25
 Normal style, EX 5-19, **EX 5-20**
 Normal view, PPT 6-55
 notes masters, **PPT 4-6**
 NOT function, **EX 6-47**
 NOW function, EX 5-10
 numbered list, WD 5-27
 numbers
 changing bullet character, PPT 5-36
 formatting in amortization schedule,
 EX 4-28–4-29
 numerical order, list in, AC 7-24

O

object(s), **EX 7-63**
 animating, using custom motion path,
 PPT 5-49–5-53
 changing text wrapping of, WD 7-7–7-8,
 WD 7-17
 creating new, EX 7-65
 editing wrap points in, WD 7-50–7-52
 embedded, EX 7-64
 linked, EX 7-64–7-66
 linking and embedding, EX 7-63–7-66
 moving, EX 7-69
 pasted, EX 7-64
 size, changing, WD 7-17
 using the Format Painter with, EX 7-74
 using, Format Painter, PPT 5-41–5-42
 object dependencies, AC 5-40
 viewing, AC 5-40
 object linking and embedding (OLE),
 EX 7-63–7-66, **PPT 6-8**
 Office Clipboard, **PPT 4-22**
 copying SmartArt graphic using, WD 7-48
 icon, WD 7-50
 pasting SmartArt graphic using, WD 7-49
 offset, **PPT 4-39**
 OLE (object linking and embedding), **PPT 6-8**
 Object fields, AC 5-3
 OneDrive
 sharing document on, WD 5-42–5-43
 one-input data table, **EX 4-15**.
See also one-variable data table
 one-variable data table, **EX 4-15**.
See also one-input data table
 Online Pictures dialog box, WD 6-8
 online video
 inserting, PPT 7-15
 play options for, PPT 7-18

- opening
 - Appointment View and updating form, AC 7-23
 - blank workbook and formatting rows and columns, EX 7-5-7-6
 - file, EX 6-6
 - main document, WD 6-33
 - PDF file from Word to edit it, WD 5-36-5-38
 - presentation, PPT 7-5
 - subreport in Design view, AC 6-33
 - template-based file and saving it as a workbook, EX 7-11-7-12
 - Options tab, using, AC 7-48
 - Oracle, EX 7-13
 - OR function, **EX 6-47**
 - OR queries, **EX 6-39**
 - outline
 - levels, defining, PPT 6-5
 - insert slides from, PPT 6-5-6-7
 - symbols, EX 6-48, EX 6-49-EX 6-50
 - Outline view, **PPT 6-56**
 - entering text in, PPT 6-58
 - moving slide in, PPT 6-57
 - navigating between slides in, PPT 6-57
 - switching to, PPT 6-57
- P**
- page breaks, AC 6-44, WD 4-12
 - in bulleted list, WD 4-23
 - page contents
 - centering vertically, WD 5-31
 - page footer
 - inserting, AC 7-15
 - removing, AC 7-14
 - page formatting
 - applying heading styles, WD 4-12-4-13
 - deleting page break, WD 4-12
 - and Font dialog box, WD 4-19
 - format page numbers, WD 4-18-4-19
 - inserting formatted footer, WD 4-16-4-18
 - inserting formatted header, WD 4-14-4-15
 - left paragraph indent, WD 4-13-4-14
 - modifying, WD 4-9-4-19
 - printing specific pages, WD 4-9-4-11
 - removing content controls, WD 4-15-4-16
 - page header
 - inserting, AC 7-15
 - removing, AC 7-14
 - page numbers, WD 4-10
 - adding in report, AC 6-41-6-42
 - formatting, WD 4-18-4-19
 - page orientation, changing, WD 6-49
 - Page Setup tab, AC 4-19-4-20
 - pane
 - Comments, PPT 5-6
 - Revisions, PPT 5-6
 - paragraph(s)
 - adjusting space, WD 7-20-7-21
 - changing spacing of, WD 7-4-7-5
 - decreasing indent of, WD 5-26-5-27
 - deleting, WD 5-17
 - deleting blank, WD 4-42
 - formatting, WD 7-13
 - justifying, WD 7-23-7-24
 - removing bullets from, WD 5-23
 - sorting, WD 4-29
 - paragraph indent, WD 4-13-4-14
 - changing, in bulleted list, WD 4-22-4-23
 - paragraph spacing
 - changing, PPT 5-21-5-22
 - defined, **PPT 5-20**
 - Paste All button, WD 7-49
 - pasted object, EX 7-64
 - Paste gallery
 - using, EX 5-34-5-35
 - Paste Option, WD 7-35
 - pasting
 - data, EX 7-29-7-30
 - from one worksheet to another, EX 5-24-5-25
 - SmartArt graphic, WD 7-47-7-52
 - SmartArt graphic from Office Clipboard, WD 7-49
 - table row, WD 5-16-5-17
 - pattern fill
 - changing slide backgrounds to, PPT 4-43
 - defined, **PPT 4-39**
 - Patterns tab, AC 7-48
 - PDF (Portable Document Format) file, **WD 5-34**
 - exporting Word document to, WD 5-34-5-36
 - opening from Word to edit, WD 5-36-5-38
 - option settings, PPT 7-65
 - viewing in Adobe Reader, WD 5-34-5-36
 - Pen and laser pointer tools, PPT 4-50-4-52
 - percentages
 - entering, EX 4-7
 - Perspective value, EX 5-35
 - picture(s), EX 7-53-7-61. *See also* graphic(s)
 - adding Alt Text, PPT 5-29
 - adding artistic effect, PPT 5-25-5-26
 - adding border to, EX 7-69-7-71, PPT 5-27
 - adding hyperlink action setting to a, PPT 7-55-7-56
 - adding to SmartArt, PPT 7-28-7-29
 - adding to SmartArt graphics, EX 7-53-7-61
 - adding to SmartArt shape, WD 7-47
 - animating, using entrance effect, PPT 5-42-5-43
 - applying effects, EX 7-56-7-58
 - border, PPT 5-27
 - changing, PPT 7-5-7-6, WD 6-7-6-8
 - changing border color, PPT 5-27-5-28
 - changing brightness and contrast of, PPT 7-46
 - changing bullet character, PPT 5-30-5-32
 - changing color saturation of, PPT 7-46-7-48
 - compressing, PPT 5-42, PPT 7-48-7-49
 - converting, to SmartArt, PPT 7-26
 - determining whether Attachment data type is appropriate for, AC 5-8
 - downloading, EX 7-54
 - effects, PPT 5-28-5-29
 - flipping, PPT 7-45-7-46
 - formatting, PPT 5-25-5-29, PPT 7-41-7-51, WD 6-7-6-8
 - inserting in nameplate, WD 7-14-7-15
 - inserting into SmartArt shape, PPT 7-29
 - inserting remaining, AC 5-14
 - moving, AC 5-28-5-30
 - OLE Object data type appropriate for, AC 5-8
 - recoloring, PPT 5-26
 - refining background removal, PPT 7-42-7-45
 - removing background, PPT 7-41-7-42
 - resetting, PPT 7-48
 - resizing, PPT 7-7-7-8
 - resizing on Slide 4, PPT 1-41
 - picture border
 - adding, EX 7-69-7-71
 - picture bullets, WD 4-26-4-28
 - picture fill, PPT
 - changing slide backgrounds to, PPT 4-41-4-42
 - defined, **PPT 4-39**
 - picture placeholder, PPT 4-20-4-21
 - sizing and formatting, PPT 4-21-4-22
 - Picture Tools Format tab, PPT 5-28
 - pie charts, AC 7-42, PPT 6-44
 - adding chart border, EX 5-42-5-43
 - exploding slice, EX 5-38
 - formatting, EX 5-35-5-48
 - formatting data labels, EX 5-39-5-42
 - inserting 3-D pie chart on consolidated worksheet, EX 5-36
 - Legend check box affecting, EX 5-40
 - moving chart on the same worksheet, EX 5-36-5-37
 - positions in, AC 7-42
 - resizing a chart, EX 5-37
 - rotating the 3-D pie chart, EX 5-39
 - pixels, PPT 5-2
 - placeholders
 - adding, PPT 4-14-4-36
 - aligning content, PPT 5-55-5-56
 - cutting and pasting into slide master, PPT 4-19-4-20
 - deleting, PPT 6-8
 - deleting content, PPT 4-12-4-13
 - formatting, PPT 4-14-4-36
 - inserting into Blank Layout, PPT 4-14-4-15
 - picture, PPT 4-20-4-22
 - placeholder text, **WD 5-9**
 - adding, PPT 4-15-4-19
 - formatting, PPT 4-15-4-19
 - placing, rectangle around combo box, AC 7-22
 - planning proposal, **WD 4-1**
 - PMT function, EX 4-1, EX 4-10-4-12
 - defined, **EX 4-10**
 - entering, EX 4-11-4-12
 - pointers, AC 6-3
 - portrait orientation, **WD 6-49**
 - positioning
 - chart or other slide object, PPT 6-54
 - SmartArt graphic, WD 7-50
 - text box, WD 7-37-7-38
 - positions in pie chart, AC 7-42
 - poster frame, PPT 7-22
 - adding video, PPT 7-22-7-24
 - PowerPoint
 - changing views, PPT 6-55-6-58
 - converting documents for use in, PPT 6-5-6-7
 - inserting objects into presentation, PPT 6-7-6-8
 - running, printing, saving, and exit in, PPT 6-58
 - run, save and exit, PPT 7-66
 - Power Query, **EX 7-20**
 - deleting column using, EX 7-22-7-23
 - preformatted text box, WD 7-32-7-33
 - Prepare Template file, PPT 4-31
 - presentation (PowerPoint)
 - accepting changes, PPT 5-8-5-10
 - adding sections, PPT 5-57
 - adding text to, PPT 4-33-4-35
 - animation(s), PPT 5-2
 - with audio and video clips, PPT 7-2-7-4
 - collaborating, PPT 5-2-5-20
 - comment(s), PPT 5-2
 - and constructive criticism, PPT 5-18
 - creating from Microsoft Word outline, PPT 6-5-6-7
 - with customized slides, PPT 4-2-4-6
 - with embedded and linked files, PPT 6-2-6-4
 - with formatted table and chart, PPT 6-2-6-4
 - with hyperlinks, PPT 7-2-7-4
 - inserting hyperlinks to place in current, PPT 7-51-7-52
 - inserting objects into PowerPoint, PPT 6-7-6-8
 - inserting slides in, PPT 4-33-4-35
 - inspecting, PPT 4-48-4-49
 - merging, PPT 5-5-5-6
 - opening and saving, PPT 7-5
 - previewing changes, PPT 5-6-5-7
 - printing, PPT 4-55
 - protecting, PPT 4-47-4-49
 - rejecting changes, PPT 5-8-5-10
 - reviewing changes, PPT 5-8-5-10

- presentation (PowerPoint) (*continued*)
 - running revised, in Reading view, PPT 5-17-5-18
 - saving, PPT 4-6
 - saving as PDF, PPT 7-65-7-66
 - saving as template, PPT 4-30-4-31
 - and section zoom links, PPT 5-65
 - securing, PPT 4-47-4-49
 - slide elements, PPT 4-37-4-39
 - slide master backgrounds and fonts, PPT 4-6-4-13
 - slide show, PPT 4-49-4-52
 - and slide zoom links, PPT 5-65
 - with SmartArt, PPT 7-2-7-4
 - and templates, PPT 4-1-4-2
 - using thesaurus, PPT 4-35-4-36
- Presenter view, PPT 4-49
- using, PPT 4-50
- Preview area buttons, WD 7-14
- previewing
 - mail merge using the Mail Merge wizard, WD 6-33-6-34
 - results in the main document, WD 6-24-6-25
- previewing, all worksheets in workbook, EX 5-46-5-48
- printer
 - merging form letters to, WD 6-36
- printing
 - all worksheets in workbook, EX 5-46-5-48
 - document properties, PPT 6-58, WD 6-56, PPT 7-66
 - field codes in main document, WD 6-32
 - mailing labels using an existing data source, WD 6-42-6-48
 - multiple worksheets, EX 5-43-5-48
 - nonadjacent sheets in workbook, EX 5-48
 - PowerPoint, PPT 6-58
 - sections of worksheet, EX 4-37-4-41
 - specific pages in, WD 4-9-4-11
 - the table, EX 6-24-6-25
- printing multiple worksheets
 - adding footer, EX 5-45-5-46
 - adding header, EX 5-44-5-45
 - changing margins and center the printout horizontally, EX 5-43-5-44
 - previewing and printing all worksheets in workbook, EX 5-46-5-48
- Print Layout issues, AC 6-34
- Print Preview
 - viewing the report in, AC 6-24-6-25
- print scaling, WD 4-11
- promoting, shape, EX 7-51
- PROPER function, EX 7-17
- properties, saving, AC 5-16
- proposal
 - planning, WD 4-1
 - research, WD 4-1
 - sale (*see* sales proposal)
- protected cells, EX 4-42
- protected worksheets
 - using, EX 4-44
- publishing
 - defined, WD 5-54
 - reports, AC 6-45-6-46
 - webpage, WD 5-54
- pull-quote, WD 7-2
 - applying shape to text box, WD 7-37
 - copy and paste using split Word window, WD 7-34-7-35
 - creating, WD 7-32-7-38
 - editing and formatting text, WD 7-36
 - guidelines when using, WD 7-32
 - inserting reformatted text box, WD 7-32-7-33
 - positioning text box, WD 7-37-7-38
 - removing split Word window, WD 7-36
 - resizing text box, WD 7-36-7-37
 - splitting Word window, WD 7-33-7-34
 - PV function, EX 4-23-4-24
- Q**
 - queries, EX 6-30
 - Date/Time fields in, AC 5-41-5-43
 - Long Text fields in, AC 5-41-5-43
 - in reports, Design view, AC 6-9-6-10
 - using criteria range, EX 6-38-6-39
 - Yes/No fields in, AC 5-41-5-43
 - querying, table using AutoFilter, EX 6-30-6-36
 - Quick Analysis gallery
 - formatting using, EX 7-33-7-34
 - inserting chart using, EX 7-40-7-41
 - total data, EX 7-34-7-35
 - using, EX 7-33-7-35
 - Quick Style, PPT 4-23-4-24
 - quotation marks, EX 6-44
- R**
 - range(s)
 - adding custom borders to, EX 4-29-4-31
 - converting table to, EX 6-48
 - criteria, EX 6-37-6-41
 - defining, as data table, EX 4-19-4-20
 - extract, EX 6-37-6-41
 - formatting as a table, EX 6-8-6-9
 - functions and, EX 6-41
 - Range Finder, EX 4-13
 - range of cells, EX 5-16
 - rating, bank account managers, EX 6-2-6-7
 - Reading view, PPT 6-55
 - navigating between slides in, PPT 6-56
 - running revised presentation, PPT 5-17-5-18
 - read-only file, EX 7-10
 - recipient list, sorting, WD 6-39-6-40
 - recognizing actions, AC 7-27
 - recoloring pictures, PPT 5-26
 - record(s)
 - adding combo box for finding a, AC 7-18-7-21
 - data, WD 6-13
 - defined, EX 6-1, WD 6-13
 - entering new, EX 6-11-6-12
 - extracting, EX 6-40-6-41
 - header, WD 6-13
 - Record Order, AC 7-15
 - record source, AC 6-14
 - recovering unsaved changes, EX 5-57
 - referencing, cells across worksheets, EX 5-31-5-35
 - refining
 - background removal, PPT 7-42-7-45
 - rehearsal feature, PPT 4-52
 - Rehearsal toolbar, PPT 4-52
 - buttons, PPT 4-53
 - Reject Change tab, PPT 5-8
 - relationship(s)
 - invalid, AC 6-9
 - many-to-many, AC 6-6
 - new tables, AC 6-7-6-9
 - Remove Background, PPT 7-41
 - removing
 - alternate color, second reports, AC 6-42-6-43, AC 6-61-6-62
 - automatic subtotals, EX 6-50
 - background picture, PPT 7-41-7-42
 - bullets from paragraph, WD 5-23
 - color from the report header, AC 6-47
 - duplicates, EX 6-10-6-11
 - filters, EX 6-32-EX 6-33
 - form header and footer, AC 7-14
 - header background color, reports, AC 6-42-6-44
 - hyperlinks, PPT 7-59
 - merge condition, WD 6-39
 - page header and footer, AC 7-14
 - page header and footer, reports, AC 6-44
 - report header and footer, AC 6-44
 - SmartArt shape, PPT 7-40
 - reordering sections, PPT 5-60-5-61
 - replicating, formulas, EX 7-31-7-32
 - replication, EX 7-31
 - report(s)
 - adding controls, AC 6-65
 - adding title, page number, date, AC 6-41-6-42
 - adding totals and subtotals, AC 4-9-4-11
 - changing margins, AC 6-64
 - closing, AC 6-65
 - CMF Vets, AC 4-1-4-4
 - creating detailed reports, AC 6-1-6-3
 - creation, AC 4-4-4-20
 - design considerations, AC 4-9
 - filter, clearing, AC 4-18-4-19
 - filtering records in, AC 4-17-4-18
 - fine-tuning, AC 6-64
 - header background color, removing, AC 6-42-6-44
 - including image, AC 6-45
 - inserting page header and footer, AC 6-45
 - inserting report header and footer, AC 6-45
 - introduction, AC 4-1
 - mailing labels, AC 4-48-4-51
 - making room for resizing, AC 6-65
 - margins, changing, AC 6-64
 - project, AC 4-1-4-4
 - publishing, AC 6-45-6-46
 - removing header and footer, AC 6-44
 - removing page header and footer, AC 6-44
 - saving, AC 6-65
 - summary, AC 4-35
 - title placement, AC 6-44
 - undoing and saving, AC 6-30
 - using image as background, AC 6-45
 - viewing in Print Preview, AC 6-24-6-25
 - viewing, modifications, AC 6-40
 - report controls, AC 4-8-4-19
 - adding totals and subtotals, AC 4-9-4-11
 - conditional formatting, AC 4-12-4-16
 - removing Group, Sort, and Total pane, AC 4-11-4-12
 - report creation, AC 4-4-4-20
 - arrange and page setup tabs, AC 4-19-4-20
 - grouping and sorting options, AC 4-8
 - report controls, AC 4-8-4-19
 - report sections, AC 4-4-4-7
 - Report Design Tools Page Setup tab, AC 6-62-6-64
 - report(s), Design view
 - adding fields, AC 6-18-6-19
 - changing labels, AC 6-20
 - creating additional query, expression builder, AC 6-10-6-14
 - creating initial reports, AC 6-14-6-15
 - creating query, AC 6-9-6-10
 - grouping and sorting, AC 6-15-6-17
 - resizing, AC 6-38-6-39
 - report sections, AC 4-4-4-7
 - grouping in reports, AC 4-5-4-7
 - sorting in reports, AC 4-5-4-7
 - research proposal, WD 4-1
 - resetting picture, PPT 7-48

- resizing
 - chart, EX 5-37
 - chart proportionally, PPT 6-40–6-41
 - column, AC 7-21
 - making room in reports, AC 6-65
 - picture, PPT 7-7–7-8
 - reports in Design view, AC 6-38–6-39
 - slide(s), PPT 5-19–5-20
 - SmartArt graphic, EX 7-50, WD 7-50
 - SmartArt, to exact dimensions, PPT 7-34–7-36
 - subform, AC 7-39
 - subreport, AC 6-38–6-39
 - tab control, AC 7-37
 - table column and row, PPT 6-29–6-30
 - table columns, WD 5-24
 - table proportionally, PPT 6-30
 - table row/column to approximate value, PPT 6-29
 - video file, PPT 7-19–7-20
 - WordArt, WD 7-7
- resume, WD 5-1–5-3
 - applying style, WD 5-29
 - building blocks *vs.* AutoCorrect, WD 5-21
 - center page contents vertically, WD 5-31
 - changing bullet to predefined symbol, WD 5-27
 - changing theme colors, WD 5-6
 - changing theme fonts, WD 5-8–5-9
 - chronological, WD 5-6
 - copying and pasting table row, WD 5-16–5-17
 - creating building block, WD 5-17–5-18
 - creating custom theme colors, WD 5-12–5-13
 - creating custom theme fonts, WD 5-11–5-12
 - creating new document from an online template, WD 5-3–5-6
 - creating paragraph style, WD 5-28
 - decreasing indent of paragraph, WD 5-26–5-27
 - defined, **WD 5-1**
 - deleting row and paragraph, WD 5-17, WD 5-22
 - entering line break, WD 5-25
 - entering text in content controls, WD 5-9–5-10, WD 5-14, WD 5-21–5-26
 - entering text in more content controls, WD 5-10
 - functional, WD 5-6
 - inserting building block, WD 5-20–5-21
 - modifying building block, WD 5-18–5-19
 - modifying style using Styles Dialog Box, WD 5-30
 - removing bullets from paragraph, WD 5-23
 - resizing table columns, WD 5-24
 - resume template, WD 5-6
 - revealing formatting, WD 5-29
 - setting custom margins, WD 5-7
 - start Word and specify settings, WD 5-3
 - template, WD 5-6
 - using AutoComplete feature, WD 5-19–5-20
 - using cut and paste to move table rows and paragraphs with source formatting, WD 5-14–5-16
 - using template to create, WD 5-3–5-31
 - viewing gridlines, WD 5-8
- Resume Assistant, WD 5-6
- Retrospect header design, WD 4-14
- return arrays, EX 6-15–6-16
- return value, **EX 6-15**
- revealing formatting, WD 5-29
- Review and Hide markup, ending, PPT 5-18–5-19
- review cycle, **PPT 5-1**
- reviewers' technology limitations, PPT 5-2
- reviewing presentation changes, PPT 5-8–5-14
- Revisions pane, PPT 5-6, PPT 5-12
- rewinding
 - audio clip after playing, PPT 7-12
 - video file after playing, PPT 7-19
- ribbon, AC 5-2, AC 7-5, EX 4-4, EX 5-4, EX 6-7, EX 7-5
 - merging the form letters to a new document using, WD 6-37–6-38
 - and screen resolution, AC 6-3, PPT 4-6, PPT 6-5, PPT 7-5
- RIGHT function, EX 7-17
- rotating, 3-D pie chart, EX 5-39
- ROUND function
 - defined, **EX 5-11**
 - entering formulas using, EX 5-8–5-16
 - general form of, EX 5-11
 - using, EX 5-10
- rounding functions, EX 5-10
- round-off errors, EX 4-29
- row(s)
 - adding, to table, WD 4-37–4-38
 - banded, EX 6-8
 - banding, EX 6-11
 - boundary, WD 4-31
 - changing height of, WD 4-53
 - changing size of, AC 5-10–5-11
 - deleting, WD 5-17, WD 5-22
 - distributing table, PPT 6-27–6-28
 - distribution, WD 4-45
 - drawing table, PPT 6-13–6-15
 - entering new, EX 6-11–6-12
 - formatting, EX 7-5–7-6
 - height, EX 5-5
 - height, changing, WD 4-32–4-33
 - including total in table, PPT 6-25
 - inserting, WD 4-51–4-52
 - inserting total, EX 6-22–6-24
 - resizing table, PPT 6-29–6-30
 - resizing table to approximate value, PPT 6-29
 - selecting, WD 4-32, WD 5-14
 - summing, EX 5-16
 - switching chart, PPT 6-43
 - transposing, EX 7-28–7-29
 - undoing changes to height of, AC 5-11–5-16
- row heights
 - adjusting, EX 4-5
- row titles
 - creating names based on, EX 4-8–4-9
 - entering, EX 4-4–4-5, EX 5-5
- ruling line, **WD 7-2**
- running
 - PowerPoint, PPT 6-58
- S**
- Salesforce, EX 7-13
- sales proposal
 - body of, WD 4-11
 - cover page, creating, WD 4-4–4-9
 - defined, **WD 4-1**
 - editing and formatting lists, WD 4-19–4-29
 - editing and formatting tables, WD 4-30–4-55
 - modifying page formatting, WD 4-9–4-19
 - overview, WD 4-1–4-2
- sample data, EX 5-17
- saving
 - creating folder while, WD 6-11–6-12
 - customized themes, WD 5-13
 - data sources, WD 6-18
 - data source when prompted by Word, WD 6-18–6-19
 - file, EX 6-6
 - PowerPoint, PPT 6-58
 - presentation, PPT 7-5
 - presentation as PDF, PPT 7-65–7-66
 - properties, AC 5-16
 - reports, AC 6-65
- templates, EX 7-9–7-10
- Word 365 document as different file type, WD 5-41
- Word document as webpage, WD 5-47–5-49
- Word 365 document in an earlier Word format, WD 5-39–5-40
- screen clipping, **EX 7-66, PPT 7-49**
 - inserting, PPT 7-49–7-51
- screen resolution, AC 5-2, AC 7-5, EX 4-4, EX 5-4, EX 6-7, EX 7-5, PPT 4-6
- ribbon and, AC 6-3, PPT 1-3, PPT 2-13, PPT 7-5
- screenshot(s), **PPT 7-49**
 - creating another new sheet, EX 7-66
 - inserting, PPT 7-51
 - inserting on worksheet, EX 7-67–7-68
 - using on worksheet, EX 7-66–7-70
- scrolling, tables, EX 6-30
- searching, table using AutoFilter, EX 6-33–6-34
- search string, **EX 6-33, EX 7-35**
- second report(s)
 - adding calculation using Expression Builder, AC 6-58–6-60
 - adding fields, AC 6-47–6-50
 - adding header and footer to discount reports, AC 6-65–6-66
 - adding remaining fields, AC 6-50–6-52
 - adding subtotals and other calculations, AC 6-54–6-55
 - adding title, AC 6-60–6-61
 - changing border style, AC 6-61
 - changing Can Grow property, AC 6-56
 - creating, AC 6-46
 - moving fields, AC 6-47–6-50
 - removing alternate color, AC 6-61–6-62
 - removing color from Report Header, AC 6-47
 - viewing Report view, AC 6-57
- section numbers, WD 7-21
- section properties
 - modifying, AC 6-40
- sections, AC 6-18, **WD 7-21**, WD 7-41
 - adding to presentation, PPT 5-57
 - collapsing, PPT 5-59–5-60
 - creating, PPT 5-56–5-65
 - defined, **PPT 5-56**
 - managing, PPT 5-56–5-65
 - renaming, PPT 5-57–5-59
 - reordering, PPT 5-60–5-61
 - zoom, **PPT 5-61**
- section titles
 - entering, EX 4-4–4-5
- section zoom links, PPT 5-61–5-63
 - and presentation, PPT 5-65
- security warning, AC 7-7
- selecting
 - mail merge recipients, WD 6-36–6-37
 - multiple worksheets, EX 5-28
 - range of cells, EX 5-16
- Selection pane, WD 7-18
- sender information
 - entering, WD 6-7
 - formatting, WD 6-7
- serial number, **EX 5-9**
- series
 - creating linear, EX 5-6–5-8
- shading
 - cells and shape, WD 6-8–6-9
 - table cells, WD 4-52–4-53
- Shading arrow, WD 4-52
- shadow effect, and WordArt, WD 7-11
- shape(s), EX 7-71–7-75
 - adding picture SmartArt, WD 7-47
 - adding shape style and shape effect, EX 7-72–7-74

- shape(s), *(continued)*
 - adding to SmartArt graphic, EX 7-51, WD 7-45-7-46
 - aligning, EX 7-75
 - changing SmartArt, WD 7-47
 - creating and copying it, EX 7-71-7-72
 - defined, **EX 7-71**
 - deleting, WD 7-45
 - demoting, EX 7-51
 - promoting, EX 7-51
 - shading, WD 6-8-6-9
 - using the Format Painter with objects, EX 7-74
- shape text, PPT 5-38
- Sharepoint, EX 7-13
- sharing
 - document with others, WD 5-31-5-46
 - link, WD 5-43-5-44
- sharpening, **EX 7-56**
- sheets
 - deselecting, EX 5-28
 - selecting, EX 5-28
- sheet tab name
 - changing, EX 4-6
- single file web page format, WD 5-47
- size, changing object's, WD 7-17
- size mode, **AC 5-31**
 - changing, AC 5-31
 - property, **AC 5-31**
- sizing
 - action button, PPT 7-61-7-62
- slice(s)
 - exploding pie chart, EX 5-38
 - offsetting pie chart, EX 5-38
- slide(s)
 - adding transition between, PPT 6-58
 - distributing, PPT 4-55, PPT 5-65
 - moving in Outline view, PPT 6-57
 - navigating between, Outline view, PPT 6-57
 - navigating between, Reading view, PPT 6-56
 - reorder animations, PPT 5-46-5-57
 - resizing, PPT 5-19-5-20
 - transition, PPT 4-47
 - zoom, **PPT 5-61**
- slide backgrounds
 - changing to gradient fill, PPT 4-40-4-41
 - changing to pattern, PPT 4-43
 - changing to picture fill, PPT 4-41-4-42
 - changing to texture fill, PPT 4-44-4-45
 - formatting, PPT 4-39-4-47
 - hiding slides, PPT 4-45-4-47
- slide changes
 - accepting, PPT 5-10-5-11, PPT 5-16-5-17
 - rejecting, PPT 5-10-5-11
 - reviewing, PPT 5-10-5-11, PPT 5-16-5-17
- slide content
 - and animation, PPT 5-42-5-56
- slide elements, PPT 4-37-4-39
 - changing theme of single slide, PPT 4-37-4-38
 - changing theme variant, PPT 4-38-4-39
- slide layout, PPT 4-7
 - adding new, PPT 4-30
 - deleting, PPT 4-27-4-30
 - renaming, PPT 4-26-4-27
- slide library
 - using, PPT 5-40
- slide master, **PPT 4-2**
 - applying theme to, PPT 4-8
 - backgrounds and fonts, PPT 4-6-4-13
 - changing theme colors and, PPT 4-8
 - cutting and pasting placeholder into, PPT 4-19-4-20
 - formatting background of, PPT 4-23-4-24
 - multiple, PPT 4-6
 - planning, PPT 4-6
 - renaming, PPT 4-26-4-27
- Slide Master view, PPT 4-6-4-7
 - themes colors, customizing, PPT 4-9-4-10
- slide objects, positioning, PPT 6-54
- slide show, PPT 4-49-4-52. *See also* presentation (PowerPoint)
 - control bar buttons, PPT 4-50
 - navigating slide during, PPT 4-49-4-52
 - set up, PPT 4-50-4-52
 - shortcuts, PPT 4-49-4-50
 - slide timings, PPT 4-52-4-55
 - with timings, PPT 4-55
 - using pen and pointer options during, PPT 4-51-4-52
- slide timings, PPT 4-52-4-55
 - rehearsing, PPT 4-52-4-55
 - turn off, PPT 4-52
- slide zoom links, PPT 5-61-5-63
 - and presentation, PPT 5-65
- small caps
 - defined, **WD 4-7**
 - formatting characters in, WD 4-7-4-9
- SmartArt
 - adding picture to, PPT 7-28-7-29
 - adding shape to, PPT 7-30
 - applying 3-D effects to, PPT 7-31-7-32
 - changing color of, PPT 7-32-7-33
 - changing layout, PPT 7-40
 - converting picture to, PPT 7-26
 - entering text, PPT 7-27-7-28
 - increasing size of, PPT 7-34
 - inserting picture into, PPT 7-29
 - inserting, using content place holder, PPT 7-24-7-26
 - presentation with, PPT 7-2-7-4
 - resizing, to exact dimensions, PPT 7-34-7-36
 - text pane, showing or hiding, PPT 7-26
- SmartArt graphic. *See also* graphic(s)
 - adding pictures, EX 7-53-7-61
 - adding shape to, EX 7-51, WD 7-45-7-46
 - adding style to, EX 7-52-7-53
 - adding text to, EX 7-51-7-52
 - alternative text, EX 7-62-7-63
 - changing layout of, WD 7-45
 - color and resize, EX 7-50
 - copying, WD 7-47-7-52
 - creating new sheet, EX 7-48
 - decrease size of, WD 7-45
 - defined, **EX 7-47**
 - formatting, WD 7-43-7-47, WD 7-50
 - inserting, EX 7-49
 - modifying, WD 7-43-7-47
 - object linking and embedding, EX 7-63-7-66
 - pasting, WD 7-47-7-52
 - positioning, WD 7-50
 - resizing, WD 7-50
 - text formatting, WD 7-47
 - using Text Pane to add text to, WD 7-46
 - working with, EX 7-47-7-53
- SmartArt shape
 - adding bullet to, PPT 7-40
 - adding picture, WD 7-47
 - changing, WD 7-47
 - demoting, PPT 7-38-7-39
 - moving down, PPT 7-37-7-38
 - moving up, PPT 7-36-7-37
 - promoting, PPT 7-38-7-39
 - removing, PPT 7-40
- Snap command, EX 7-75
- solid fill, **PPT 4-39**
- Sort dialog box, WD 4-36-4-37
- sorting, **WD 4-29**
 - data, EX 6-48
 - dates, EX 6-25
 - defined, **EX 6-25**
 - error, EX 6-29
 - non-table data, EX 6-25
 - options, AC 4-8
 - paragraphs, WD 4-29
 - recipient list, WD 6-39-6-40
 - report, AC 6-15-6-17
 - in reports, AC 4-5-4-7
 - table, EX 6-25-6-29
 - table by multiple columns, WD 6-54-6-55
 - table using AutoFilter, EX 6-30-6-31
 - using forms, AC 4-45-4-47
- sort keys, **EX 6-25**
- source(s), **WD 7-34**
- source document, **EX 7-63, PPT 6-7, WD 7-47**
- source file, **PPT 6-7**
- source workbooks, **EX 5-49**
- spacing
 - cell(s), WD 4-40
 - column, PPT 5-22-5-23
 - line, PPT 5-20-5-21
 - paragraph, PPT 5-21-5-22
- spacing between words, WD 7-24
- special fields, adding, AC 5-2-5-8
- specifying, position of graphic, WD 6-10-6-11
- spelling checker
 - using, EX 5-23
- Spelling & Grammar button, WD 4-57
- splitting, table cells, PPT 6-19-6-21
- split Word window
 - copy and paste using, WD 7-34-7-35
 - removing, WD 7-36
- stacked layout, **AC 4-38**
- structured reference, EX 6-17
- structured reference formula, EX 6-19
- style
 - adding to SmartArt graphic, EX 7-52-7-53
 - applying, WD 5-29
- styles dialog box
 - modifying style using, WD 5-30
- style set, changing, WD 5-50-5-51
- subform(s), **AC 5-17**
 - adding, AC 7-36-7-38
 - including, AC 7-40
 - modifying, AC 5-28-5-30, AC 7-38-7-39
 - placing on form, AC 5-25-5-28
 - purpose of navigation buttons in, AC 7-44
 - resizing, AC 7-39
- subheads, **WD 7-2**
 - formatting, WD 7-20
 - selecting, WD 7-20
- subreport(s), AC 6-34
 - adding, AC 6-30-6-33
 - changing appearance of controls, AC 6-37-6-38
 - changing Can Grow property, AC 6-35-6-36, AC 6-40
 - modifying controls, AC 6-35
 - opening in Design view, AC 6-33
 - resizing, AC 6-38-6-39
- subscript, EX 5-21
- subtitle
 - entering, EX 5-5
 - formatting, EX 5-14-5-15
- subtotal group, AC 4-2
- subtotals, AC 6-52-6-54
 - adding, and other calculations, AC 6-54-6-55
 - adding header and footer to the discount report, AC 6-55-6-56
 - adding in reports, AC 4-9-4-11
 - defined, **AC 4-9**
 - displaying, EX 6-48-6-49
 - removing automatic, EX 6-50
- SUM function, EX 5-14, EX 7-33
- SUMIF function, EX 6-41, EX 6-44-6-46
 - using, EX 6-44-6-45
- summarizing, data, EX 6-47-6-50
- Summary Options button, AC 4-29

summary report, **AC 4-35**
summary zoom, **PPT 5-61**
superscript, **EX 5-21**
switching
 chart rows and columns, **PPT 6-43**
 to Outline view, **PPT 6-57**
Sybase, **EX 7-13**
symbol(s)
 changing bullet, **PPT 5-33-5-34**
 changing bullet to predefined, **WD 5-27**
 outline, **EX 6-48**
 selecting, **PPT 5-33**
Symbol dialog box, **PPT 5-34**
system date
 entering, **EX 4-4-4-5**

T

tab control
 changing, **AC 7-40**
 including in form, **AC 7-36**
 resizing, **AC 7-37**
 using to create multipage form, **AC 7-35-7-36**

table(s). *See also* database
 adding calculated fields to, **EX 6-17-6-19**
 adding new columns to, **EX 6-12**
 adding rows, **WD 4-37-4-38**
 additional, **AC 6-3-6-9**
 aligning, **PPT 6-32**
 border, adding, **WD 4-53-4-55**
 center across selection, **EX 6-13-6-14**
 centering, **WD 4-35-4-36**
 columns, resizing using AutoFit, **WD 4-50**
 converting text to, **WD 6-52-6-53**
 converting to range, **EX 6-48**
 copying structure of, **AC 6-4**
 creating, **EX 6-7-6-14**
 creating new, **AC 6-4-6-6**
 custom sort a table, **EX 6-27-6-29**
 database adding fields with new data types to,
 AC 5-3-5-4
 defined, **EX 6-1**
 distributing table rows, **PPT 6-27-6-28**
 drawing, **PPT 6-12-6-13**
 drawing columns, **PPT 6-15-6-16**
 drawing rows, **PPT 6-13-6-15**
 editing, **WD 4-30-4-55**
 entering additional text in, **PPT 6-21-6-22**
 entering new rows and records into,
 EX 6-11-6-12
 entering text in, **PPT 6-18-6-19**
 erasing border, **PPT 6-17-6-18**
 format, **EX 6-7**
 formatting, **PPT 6-11-6-32, WD 4-30-4-55,**
 WD 6-54
 formatting data, **PPT 6-31-6-32**
 formatting range as, **EX 6-8-6-9**
 headings, **WD 4-37**
 importing, **AC 7-33**
 importing data, **AC 6-6**
 including total row in, **PPT 6-25**
 inserting formula in, **WD 4-38-4-39**
 inserting total row, **EX 6-22-6-24**
 lookup, **EX 6-14-6-17**
 merging cells, **PPT 6-18**
 modifying, **WD 6-54**
 modifying linked, **AC 6-7**
 moving, **WD 4-30**
 naming, **EX 6-10**
 navigating, **PPT 6-18**
 printing the table, **EX 6-24-6-25**
 querying, using AutoFilter, **EX 6-30-6-36**
 relating, **AC 6-7-6-9**
 removing duplicates, **EX 6-10-6-11**

removing filters, **EX 6-32-6-33**
resizing column, **PPT 6-29-6-30, WD 5-24**
resizing, row/column to approximate value,
 PPT 6-29
scrolling, **EX 6-30**
searching using AutoFilter, **EX 6-33-6-34**
sort ascending, **EX 6-26-6-27**
sort descending, **EX 6-27**
sorting, **EX 6-25-6-29, WD 4-36-4-37**
 sorting by multiple columns, **WD 6-54-6-55**
style, applying, **WD 4-33-4-34**
using, **PPT 6-1**
working with, in Excel, **EX 6-22-6-25**
wrapping text, **EX 6-9**

table border
 adding, **PPT 6-21**
 changing color of, **PPT 6-22**
 changing line style of, **PPT 6-22**
 changing weight of, **PPT 6-22**

table cells
 adding image to, **PPT 6-26-6-27**
 aligning data in, **PPT 6-30-6-31**
 applying bevel effects to, **PPT 6-23-6-24**
 applying reflection effects to, **PPT 6-25**
 applying shadow effects to, **PPT 6-24**
 changing direction of text, **PPT 6-19,**
 WD 4-48-4-49
 changing margins in, **WD 4-41**
 deleting, **WD 4-46**
 merging, **PPT 6-18, WD 4-47-4-48**
 selecting table and applying shading to,
 PPT 6-22-6-23
 shading, **WD 4-52-4-53**
 splitting, **PPT 6-19-6-21, WD 4-43-4-44**

table, guidelines for creating, **EX 6-7**

table header, **EX 6-8**

table move handle, **WD 4-31, WD 4-35**

table resize handle, **WD 4-31**

table row
 copying and pasting, **WD 5-16-5-17**
 Table Tools Design tab, **WD 4-33**

tab order, changing, **AC 5-37-5-39**

Tabs dialog box, **WD 7-12, WD 7-41**

tab stop, changing, **AC 5-36-5-37**

tabular layout, **AC 4-38**

template(s)
 changing default location of, **EX 7-10**
 creating, **EX 7-5-7-12**
 creating new document from online,
 WD 5-3-5-6
 defined, **WD 5-1**
 entering column titles in, **EX 7-7**
 entering formulas and functions in, **EX 7-8-7-9**
 entering sample data in, **EX 7-7-7-8**
 entering titles in, **EX 7-6**
 factors to keep in mind when building, **EX 7-5**
 opening blank workbook and formatting rows
 and columns, **EX 7-5-7-6**
 opening template-based file and saving it as
 workbook, **EX 7-11-7-12**
 resume, **WD 5-6**
 saving the template, **EX 7-9-7-10**
 setting the read-only attribute, **EX 7-10**
 using to create resume, **WD 5-3-5-31**

template-based file
 opening and saving it as workbook,
 EX 7-11-7-12

templates, **PPT 4-1**
 Custom Office Templates folder, **PPT 4-31**
 opening, **PPT 4-31-4-32**
 and presentations, **PPT 4-1-4-2**
 saving presentation as, **PPT 4-30-4-31**
 testing, worksheet, **EX 4-13**

text
 adding, **PPT 4-32**

adding link to, **PPT 6-54-6-55**
adding, to presentation (PowerPoint),
 PPT 4-33-4-35
adding to SmartArt graphic, **EX 7-51-7-52**
and animations, **PPT 5-44-5-46**
change direction in table cell, **PPT 6-19**
changing margins, **PPT 5-37-5-38**
changing the direction in table cells,
 WD 4-48-4-49
in columns, formatting, **WD 7-22-7-23**
converting to columns, **EX 7-30-7-31**
converting to table, **WD 6-52-6-53**
converting to WordArt, **WD 7-6**
dimming text, **PPT 5-45**
entering, **WD 7-42**
entering additional text in tables,
 PPT 6-21-6-22
entering, in cell, **WD 4-45**
entering, in content controls, **WD 4-6-4-7,**
 WD 5-9-5-10, WD 5-14, WD 5-21-5-26
entering, in more content controls, **WD 5-10**
entering in tables, **PPT 6-18-6-19**
entering in the main document, **WD 6-28**
entering remaining in the main document,
 WD 6-30-6-31
false, **WD 6-29**
finding, **PPT 5-23-5-24**
finding and replacing, **PPT 5-24-5-25**
formatting, **PPT 5-20-5-25, WD 7-20-7-21,**
 WD 7-42
formatting, as hyperlink, **WD 5-49-5-50**
formatting, using Font dialog box, **WD 4-19**
highlighting, **PPT 4-50-4-51, WD 5-51-5-52**
inserting, from file in document,
 WD 7-24-7-25
managing, **PPT 5-20-5-25**
red underline and, **EX 7-63**
true, **WD 6-29**
using, Format Painter, **PPT 5-40-5-41**
wrapping, **EX 6-9**

text box, **AC 7-6, EX 7-61-7-62, WD 7-32**
 adding, **AC 6-21-6-24**
 applying shape to, **WD 7-37**
 Controls group, **AC 6-21-6-24**
 drawing, **EX 7-61-7-62**
 editing and formatting text in, **WD 7-36**
 inserting preformatted, **WD 7-32-7-33**
 moving, **WD 7-38**
 positioning, **WD 7-37-7-38**
 resizing, **WD 7-36-7-37**
 styles, **WD 7-37**
 text rotation, **WD 7-36**

Text Box tool
 using with concatenation, **AC 7-34-7-35**

text files, **EX 7-14, EX 7-14**
 comma-delimited, **EX 7-14**
 importing, **PPT 6-7**
 importing data from, **EX 7-14-7-16**

Text Fill color
 changing, **WD 7-8-7-10**

Text Fill gallery, **WD 7-8**

text formatting, **EX 7-17-7-18**

text functions, **EX 7-17-7-18**

Text Import Wizard, **EX 7-15**

Text Pane
 demoting, **WD 7-47**
 formatting characters of, **PPT 7-27-7-28**
 using, to add text to SmartArt graphic,
 WD 7-46

texture fill
 changing slide backgrounds to,
 PPT 4-44-4-45
 defined, **PPT 4-39**

text wrapping
 changing object's, **WD 7-7-7-8, WD 7-17**

theme(s), PPT 4-9, PPT 4-12
 applying, EX 5-4, PPT 4-6
 applying, to slide master, PPT 4-8
 applying to the worksheet, EX 4-4
 assigning, AC 4-34
 changing, of single slide, PPT 4-37-4-38
 colors and slide master, PPT 4-8
 colors, customizing, PPT 4-9-4-10
 defined, **AC 4-32**
 effects, PPT 4-13
 fonts, changing, PPT 4-11
 fonts, customizing, PPT 4-11-4-12
 live preview for, AC 4-34-4-35
 using, in multiple-table reports, AC 4-32-4-34

theme colors
 changing, WD 5-6, WD 7-5
 Headlines theme, WD 7-5

theme effects, changing, WD 5-13

theme fonts, changing, WD 5-8-5-9

3-D effects
 applying to SmartArt, PPT 7-31-7-32

3-D pie chart
 inserting on consolidated worksheet, EX 5-36
 rotating, EX 5-39

3-D range, **EX 5-32**

3-D reference, **EX 5-32**
 entering, EX 5-32-5-34
 typing, EX 5-33

thumbnails, PPT 4-7

tiling option, **PPT 4-39**

time functions, EX 5-8-5-16

Timeless letter template, WD 6-5

title(s)
 adding, AC 5-24-5-25
 adding in report, AC 6-41-6-42
 entering, EX 5-5
 entering in the template, EX 7-6
 formatting, EX 5-14-5-15
 of group, AC 4-8

Title Slide layout, PPT 4-2, PPT 4-3
 adding text, PPT 4-32
 changing, PPT 4-32
 and picture placeholder, PPT 4-20-4-21

TODAY function, EX 5-22
 defined, **EX 5-10**
 updating, EX 5-10
 using, EX 5-10-5-11

total cost
 determining, EX 4-13

total data, EX 7-34-7-35

total interest
 determining, EX 4-13

total row
 formatting, EX 5-15
 inserting, EX 6-22-6-24

totals, AC 6-52-6-54
 adding header and footer to the discount report,
 AC 6-55-6-56
 adding in reports, AC 4-9-4-11
 grand, AC 4-9

touch mode differences, EX 4-4, EX 5-6, EX 6-7,
 EX 7-6, WD 6-4

touch screen, WD 7-19
 centering a table using, WD 4-35-4-36
 changing column width using, WD 4-31,
 WD 4-51
 creating equations with, PPT 7-51
 differences, AC 6-3, PPT 4-13, PPT 5-4,
 PPT 6-7, PPT 7-5
 moving cell boundary using, WD 4-45
 pointers and, AC 6-3
 rotating graphics using, WD 7-19
 selecting table rows using, WD 5-14

touch screen differences, AC 7-5

transparency
 changing, of slide background, PPT 4-42-4-43
 defined, **PPT 4-39**

Transparency slider, PPT 4-42

TRANSPOSE function, **EX 6-47**

transposing
 columns, EX 7-28-7-29
 rows, EX 7-28-7-29

treemap charts, **EX 6-51**, EX 6-51-6-55
 creating, EX 6-51-6-52
 data presented in, EX 6-52
 editing treemap settings, EX 6-53-6-54
 large labels in, EX 6-55
 moving chart and edit fonts, EX 6-52-6-53
 removing data series in, EX 6-52

trigger
 animation effect, PPT 5-53-5-54
 defined, **PPT 5-53**

TRIM function, using, EX 7-18-7-19

trimming
 audio clip, PPT 7-12-7-13
 video file, PPT 7-15-7-17

true text, **WD 6-29**

two-input, EX 4-20

two-input data table, **EX 4-20**

U

unbound controls, **AC 4-9**

undoing formats, EX 4-29

ungroup controls, AC 6-27

unprotected cells, **EX 4-42**

updating, linked object from another app,
 EX 7-65-7-66

updating, TODAY function, EX 5-10

using
 Background Color button, AC 7-10
 combo box, AC 7-24-7-25
 form, AC 7-43-7-44
 Format Painter, AC 7-11-7-12
 modified form, AC 7-31-7-33
 Options tab, AC 7-48
 tab control to create multipage form,
 AC 7-35-7-36
 Text Box tool with concatenation,
 AC 7-34-7-35

V

value axis, **PPT 6-43**

value, of group, AC 4-8

variants
 changing theme, PPT 4-38-4-39
 defined, **PPT 4-37**

Varying Interest Rate Schedule
 adding borders to, EX 4-31-4-32

vertical axis, **PPT 6-43**

vertical rule, **WD 7-2**

vertical spacing, AC 5-21-5-22

video file
 aligning, PPT 7-22
 applying video style, PPT 7-20-7-21
 changing volume, PPT 7-18-7-19
 compressing, PPT 7-21-7-22
 inserting, without using content placeholder,
 PPT 7-13-7-15
 playing full screen, PPT 7-18
 presentation with, PPT 7-2-7-4
 resizing, PPT 7-19-7-20
 rewinding, after playing, PPT 7-19
 start option, changing, PPT 7-17-7-18
 trimming, PPT 7-15-7-17

video poster frame, adding, PPT 7-22-7-24

View button, AC 7-13

View Gridlines button, WD 4-43

viewing
 form, AC 7-12-7-13
 merge fields in main document, WD 6-26
 report modifications, AC 6-40
 reports in Print Preview, AC 6-24-6-25
 second reports in Report view, AC 6-57
 virus (computer program), **EX 7-54**

Visual Basic for Applications (VBA), AC 7-23

VLOOKUP function, **EX 6-14**

W

warning dialog box, AC 7-18

watermark
 creating, WD 4-55-4-57
 defined, **WD 4-55**
 removing, WD 5-44-5-45

web data, EX 7-24-7-27

webpage
 creating from document, WD 5-46-5-54
 format, WD 5-47
 importing data from, EX 7-24-7-27
 publishing, WD 5-54
 saving Word document as, WD 5-47-5-49
 testing in browser, WD 5-53-5-54

web query, **EX 7-24**

WEEKDAY function, **EX 5-8**

white space, AC 6-45, WD 7-19

wildcard characters, **EX 6-33**

Word. *See also* document(s)
 adjusting margins, WD 7-4-7-5
 bordering one edge of paragraph,
 WD 7-13-7-14
 changing spacing, WD 7-4-7-5
 changing theme colors, WD 7-5
 checking spelling in, WD 4-57
 columns, WD 7-21
 copying from, and pasting to Excel,
 EX 7-28
 creating presentation from outline,
 PPT 6-5-6-7
 creating webpage from, WD 5-46-5-54
 data using, EX 7-27-7-32
 exiting, WD 4-57
 exporting to PDF file, WD 5-34-5-36
 exporting to XPS document, WD 5-37-5-38
 filtered web page format, WD 5-47
 opening PDF file from, to edit it,
 WD 5-36-5-38
 printing the document, WD 4-57
 saving as webpage, WD 5-47-5-49
 saving data source when prompted by,
 WD 6-18-6-19
 saving the document, WD 4-57
 sections, WD 7-21
 single file web page format, WD 5-47
 starting, and specifying settings, WD 6-2-6-4,
 WD 7-4
 web page format, WD 5-4

WordArt, **WD 7-6**. *See also* graphic(s)
 applying glow effect to, WD 7-11
 applying shadow effect to, WD 7-11
 changing font and font size of, WD 7-7
 changing shape, using Transform effect,
 WD 7-11
 customizing, WD 7-6
 defined, **EX 7-60**
 deleting, WD 7-7
 resizing, WD 7-7
 styles, formatting text using, EX 7-60-7-61

Word 365 document
 saving as a different file type, **WD 5-41**
 saving in an earlier Word format,
WD 5-39-5-40

Word window
 copy and paste using split, **WD 7-34-7-35**
 removing split, **WD 7-36**
 splitting, **WD 7-33-7-34**

wordwrap, **WD 4-10-4-11**

workbook(s)
 adding worksheet to, **EX 5-24**
 arranging in Excel window, **EX 5-52**
 arranging multiple, **EX 5-52-5-53**
 closing all at one time, **EX 5-57**
 consolidating data by linking, **EX 5-54-5-57**
 consolidating data by linking separate,
EX 5-49-5-57
 dependent, **EX 5-49**
 distributing, **EX 4-48, EX 5-48, EX 6-24**
 hiding, **EX 5-53**
 hiding and unhiding, **EX 4-45-4-46**
 inserting individual image into, **EX 7-61**
 opening a blank, **EX 7-5-7-6**
 opening a template-based file and saving it as,
EX 7-11-7-12
 opening in new windows, **EX 5-28**
 previewing and printing all worksheets in,
EX 5-46-5-48
 printing nonadjacent sheets in, **EX 5-48**
 protecting and hiding, **EX 4-41-4-46**
 searching for and opening, **EX 5-50-5-51**
 source, **EX 5-49**
 switching to a different open, **EX 5-50-5-52**

WORKDAY function, **EX 5-8**

worksheet(s)
 adding to workbook, **EX 5-24**

applying theme to, **EX 4-4**
 benefit of drilling data through, **EX 5-27**
 consolidated expenses, **EX 5-2-5-3**
 copying, using ctrl, **EX 5-26**
 copying, using shortcut menu, **EX 5-25-5-26**
 creating formulas with defined names, **EX 4-41**
 creating separate files from, **EX 5-48-5-49**
 customizing individual, **EX 5-28**
 default number of, **EX 5-23**
 deleting, **EX 5-28**
 design, **EX 4-3**
 drilling an entry through, **EX 5-27-5-28**
 formatting, **EX 4-29-4-33, EX 5-5**
 hiding and unhiding, **EX 4-44-4-45**
 inserting screenshot on, **EX 7-67-7-68**
 locating picture to use in, **EX 7-54**
 moving chart on the same, **EX 5-36-5-37**
 name and print sections of, **EX 4-38-4-41**
 printing sections of, **EX 4-37-4-41**
 protecting and hiding, **EX 4-41-4-46**
 referencing cells across, **EX 5-31-5-35**
 setting the print area, **EX 4-38**
 setting up to print, **EX 4-37**
 testing, **EX 4-13**
 using screenshots on, **EX 7-66-7-70**

worksheet data
 using data table to analyze,
EX 4-15-4-20

worksheet reference, **EX 5-32**

wrapping, text, **EX 6-9**

X

x-axis, **PPT 6-43**
XLOOKUP functions, **EX 6-14**

using, **EX 6-16-6-17**

XML (Extensible Markup Language),
EX 7-12-7-13

XOR function, **EX 6-47**

XPS (XML Paper Specification) document
 defined, **WD 5-37**
 exporting Word document to,
WD 5-37-5-38

XPS Viewer, **WD 5-37-5-38**

X-Rotation, changing a chart's,
EX 5-39

Y

y-axis, **PPT 6-43**

Yes/No fields
 entering data in, **AC 5-10**
 in queries, **AC 5-41-5-43**

Y-Rotation and perspective, **EX 5-35**

Z

zoom, **PPT 5-61**
 changing icon image, **PPT 5-63-5-64**
 links, **PPT 5-61-5-65**
 section, **PPT 5-61**
 slide, **PPT 5-61**
 summary, **PPT 5-61**
 zoom multiple pages, **WD 7-52**

