

(ex•ploring)^{SERIES}

1. Investigating in a systematic way; examining
2. Searching into or ranging over for the purpose of discovery



Microsoft® Excel® 2016

COMPREHENSIVE



Series Editor **Mary Anne Poatsy**

Mulbery | Davidson

Series Created by Dr. Robert T. Grauer

(ex·ploring)^{SERIES}

1. Investigating in a systematic way: examining. 2. Searching into or ranging over for the purpose of discovery.

Microsoft®

Excel 2016

Comprehensive

Series Editor **Mary Anne Poatsy**

Mulbery | Davidson

Series Created by Dr. Robert T. Grauer

PEARSON

Boston Columbus Indianapolis New York San Francisco Hoboken
Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montréal Toronto
Delhi Mexico City São Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

Vice President of Career Skills: Andrew Gilfillan
Senior Editor: Samantha Lewis
Team Lead, Project Management: Laura Burgess
Project Manager: Laura Karahalas
Program Manager: Emily Biberger
Development Editor: Barbara Stover
Editorial Assistant: Michael Campbell
Director of Product Marketing: Maggie Waples
Director of Field Marketing: Leigh Ann Sims
Product Marketing Manager: Kaylee Carlson
Field Marketing Managers: Molly Schmidt & Joanna Sabella
Marketing Coordinator: Susan Osterlitz
Senior Operations Specialist: Diane Peirano
Senior Art Director: Diane Ernsberger
Interior and Cover Design: Diane Ernsberger
Cover Photo: Courtesy of Shutterstock® Images
Associate Director of Design: Blair Brown
Senior Product Strategy Manager: Eric Hakanson
Product Manager, MyITLab: Zachary Alexander
Media Producer, MyITLab: Jaimie Noy
Digital Project Manager, MyITLab: Becca Lowe
Media Project Manager, Production: John Cassar
Full-Service Project Management: Jenna Vittorioso, Lumina Datamatics, Inc.
Composition: Lumina Datamatics, Inc.
Efficacy Curriculum Manager: Jessica Sieminski

Credits and acknowledgments borrowed from other sources and reproduced, with permission, in this textbook appear on the appropriate page within text.

Microsoft and/or its respective suppliers make no representations about the suitability of the information contained in the documents and related graphics published as part of the services for any purpose. All such documents and related graphics are provided “as is” without warranty of any kind. Microsoft and/or its respective suppliers hereby disclaim all warranties and conditions with regard to this information, including all warranties and conditions of merchantability, whether express, implied or statutory, fitness for a particular purpose, title and non-infringement. In no event shall Microsoft and/or its respective suppliers be liable for any special, indirect or consequential damages or any damages whatsoever resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of information available from the services.

The documents and related graphics contained herein could include technical inaccuracies or typographical errors. Changes are periodically added to the information herein. Microsoft and/or its respective suppliers may make improvements and/or changes in the product(s) and/or the program(s) described herein at any time. Partial screen shots may be viewed in full within the software version specified.

Microsoft® and Windows® are registered trademarks of the Microsoft Corporation in the U.S.A. and other countries. This book is not sponsored or endorsed by or affiliated with the Microsoft Corporation.

Copyright © 2017 by Pearson Education, Inc. All rights reserved. Manufactured in the United States of America. This publication is protected by copyright and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. For information regarding permissions, request forms and the appropriate contacts within the Pearson Education Global Rights & Permissions department, please visit www.pearsoned.com/permissions/.

Many of the designations by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and the publisher was aware of a trademark claim, the designations have been printed in initial caps or all caps.

Library of Congress Control Number: 2015956945

10 9 8 7 6 5 4 3 2 1



ISBN 10: 0-13-447944-0
ISBN 13: 978-0-13-447944-6

Dedications

For my husband, Ted, who unselfishly continues to take on more than his share to support me throughout the process; and for my children, Laura, Carolyn, and Teddy, whose encouragement and love have been inspiring.

Mary Anne Poatsy

I dedicate this book to three people who had a significant impact on my career. Penny Sumpter, my high school business teacher, taught me about professionalism and paying attention to details; she inspired me to become a business educator. Dr. Amanda Copeland, the department chair while I completed my bachelor's degree, was an excellent mentor and visionary. Barbra Hoge, my first department chair at Utah Valley State College, was a strong leader and advocate for her faculty; her leadership serves as a role model for me in my capacity as department chair today.

Keith Mulbery

I dedicate this book in loving memory of my grandfather Laurence L. Leggett. A passionate lifelong educator, gifted musician, and incredible role model. I will never forget our time together. I strive every day to make you proud.

Jason Davidson

To my husband Dan, whose encouragement, patience, and love helped make this endeavor possible. Thank you for taking on the many additional tasks at home so that I could focus on writing.

Amy Rutledge

About the Authors

Mary Anne Poatsy, Series Editor, Windows 10 Author

Mary Anne is a senior faculty member at Montgomery County Community College, teaching various computer application and concepts courses in face-to-face and online environments. She holds a B.A. in Psychology and Education from Mount Holyoke College and an M.B.A. in Finance from Northwestern University's Kellogg Graduate School of Management.

Mary Anne has more than 12 years of educational experience. She is currently adjunct faculty at Gwynedd-Mercy College and Montgomery County Community College. She has also taught at Bucks County Community College and Muhlenberg College, as well as conducted personal training. Before teaching, she was Vice President at Shearson Lehman in the Municipal Bond Investment Banking Department.

Dr. Keith Mulbery, Excel Author

Dr. Keith Mulbery is the Department Chair and a Professor in the Information Systems and Technology Department at Utah Valley University (UVU), where he currently teaches systems analysis and design, and global and ethical issues in information systems and technology. He has also taught computer applications, C# programming, and management information systems. Keith served as Interim Associate Dean, School of Computing, in the College of Technology and Computing at UVU.

Keith received the Utah Valley State College Board of Trustees Award of Excellence in 2001, School of Technology and Computing Scholar Award in 2007, and School of Technology and Computing Teaching Award in 2008. He has authored more than 17 textbooks, served as Series Editor for the Exploring Office 2007 series, and served as developmental editor on two textbooks for the Essentials Office 2000 series. He is frequently asked to give presentations and workshops on Microsoft Office Excel at various education conferences.

Keith received his B.S. and M.Ed. in Business Education from Southwestern Oklahoma State University and earned his Ph.D. in Education with an emphasis in Business Information Systems at Utah State University. His dissertation topic was computer-assisted instruction using Prentice Hall's Train and Assess IT program (the predecessor to MyITLab) to supplement traditional instruction in basic computer proficiency courses.

Jason Davidson, Excel Author

Jason Davidson is a faculty member in the College of Business at Butler University, where he teaches Advanced Web Design, Data Networks, Data Analysis and Business Modeling, and introductory information systems courses. He is the co-author of Exploring Microsoft Excel 2013 Comprehensive, Exploring Microsoft Office 2013 Volume 2, Exploring Microsoft Office 2013 Plus, and Exploring VBA for Microsoft Office 2013.

With a background in media development, prior to joining the faculty at Butler, he worked in the technical publishing industry. Along with teaching, he currently serves as an IT consultant for regional businesses in the Indianapolis area. He holds a B.A. in Telecommunication Arts from Butler University and an M.B.A. from Morehead State University. He lives in Indianapolis, Indiana, and in his free time enjoys road biking, photography, and spending time with his family.

Amy Rutledge, Common Features Author

Amy Rutledge is a Special Instructor of Management Information Systems at Oakland University in Rochester, Michigan. She coordinates academic programs in Microsoft Office applications and introductory management information systems courses for the School of Business Administration. Before joining Oakland University as an instructor, Amy spent several years working for a music distribution company and automotive manufacturer in various corporate roles including IT project

management. She holds a B.S. in Business Administration specializing in Management Information Systems, and a B.A. in French Modern Language and Literature. She holds an M.B.A from Oakland University. She resides in Michigan with her husband Dan and daughters Emma and Jane.

Dr. Robert T. Grauer, Creator of the Exploring Series

Bob Grauer is an Associate Professor in the Department of Computer Information Systems at the University of Miami, where he is a multiple winner of the Outstanding Teaching Award in the School of Business, most recently in 2009. He has written numerous COBOL texts and is the vision behind the Exploring Office series, with more than three million books in print. His work has been translated into three foreign languages and is used in all aspects of higher education at both national and international levels. Bob Grauer has consulted for several major corporations including IBM and American Express. He received his Ph.D. in Operations Research in 1972 from the Polytechnic Institute of Brooklyn.

Brief Contents

Office	Office 2016 Common Features	2
Excel	CHAPTER 1 Introduction to Excel	68
	CHAPTER 2 Formulas and Functions	152
	CHAPTER 3 Charts	198
	CHAPTER 4 Datasets and Tables	262
	CHAPTER 5 Subtotals, PivotTables, and PivotCharts	328
	CHAPTER 6 What-If Analysis	396
	CHAPTER 7 Specialized Functions	454
	CHAPTER 8 Statistical Functions	510
	CHAPTER 9 Multiple-Sheet Workbook Management	558
	CHAPTER 10 Imports, XML, and Power Add-Ins	616
	CHAPTER 11 Collaboration and Workbook Distribution	670
	CHAPTER 12 Templates, Styles, and Macros	736
Application Capstone Exercises	Excel Introductory Capstone Exercise (Chs. 1–4)	792
	Excel Comprehensive Capstone Exercise (Chs. 5–12)	795
	MICROSOFT OFFICE 2016 SPECIALIST EXCEL	799
	GLOSSARY	807
	INDEX	817

Contents

Microsoft Office 2016

CHAPTER ONE Office 2016 Common Features: Taking the First Step	2		
CASE STUDY SPOTTED BEGONIA ART GALLERY	2	MODIFY DOCUMENT LAYOUT AND PROPERTIES	42
GETTING STARTED WITH OFFICE APPLICATIONS	4	Using Backstage View	42
Starting an Office Application	4	Changing the Document View	44
Working with Files	5	Changing the Page Layout	45
Using Common Interface Components	8	Inserting a Header and Footer	48
Getting Help	15	Previewing and Printing a File	49
Installing Add-ins	17		
HANDS-ON EXERCISES 1		HANDS-ON EXERCISES 3	
Getting Started with Office Applications	19	Modify Document Layout and Properties	51
FORMAT DOCUMENT CONTENT	24	CHAPTER OBJECTIVES REVIEW	56
Using Templates and Applying Themes	24	KEY TERMS MATCHING	58
Modifying Text	26	MULTIPLE CHOICE	59
Relocating Text	30	PRACTICE EXERCISES	60
Checking Spelling and Grammar	32	MID-LEVEL EXERCISES	64
Working with Pictures and Graphics	34	BEYOND THE CLASSROOM	66
		CAPSTONE EXERCISE	67
HANDS-ON EXERCISES 2			
Format Document Content	37		

Microsoft Office Excel 2016

CHAPTER ONE Introduction to Excel: Creating and Formatting a Worksheet			68
CASE STUDY OK OFFICE SYSTEMS	68	WORKSHEET FORMATTING	110
INTRODUCTION TO SPREADSHEETS	70	Applying Cell Styles, Alignment, and Font Options	110
Exploring the Excel Window	70	Applying Number Formats	113
Entering and Editing Cell Data	73		
HANDS-ON EXERCISES 1		HANDS-ON EXERCISES 4	
Introduction to Spreadsheets	79	Worksheet Formatting	116
MATHEMATICAL OPERATIONS AND FORMULAS	83	WORKSHEETS, PAGE SETUP, AND PRINTING	121
Creating Formulas	83	Managing Worksheets	121
Displaying Cell Formulas	86	Selecting Page Setup Options	123
		Previewing and Printing a Worksheet	129
HANDS-ON EXERCISES 2		HANDS-ON EXERCISES 5	
Mathematical Operations and Formulas	88	Worksheets, Page Setup, and Printing	131
WORKSHEET STRUCTURE AND CLIPBOARD TASKS	93	CHAPTER OBJECTIVES REVIEW	135
Managing Columns and Rows	93	KEY TERMS MATCHING	137
Selecting, Moving, Copying, and Pasting Data	98	MULTIPLE CHOICE	138
		PRACTICE EXERCISES	139
HANDS-ON EXERCISES 3		MID-LEVEL EXERCISES	145
Worksheet Structure and Clipboard Tasks	104	BEYOND THE CLASSROOM	148
		CAPSTONE EXERCISE	149

■ CHAPTER TWO Formulas and Functions: Performing Quantitative Analysis 152

CASE STUDY TOWNSEND MORTGAGE COMPANY	152	LOGICAL, LOOKUP, AND FINANCIAL FUNCTIONS	174
FORMULA BASICS	154	Determining Results with the IF Function	174
Using Relative, Absolute, and Mixed Cell		Using Lookup Functions	177
References in Formulas	154	Calculating Payments with the PMT Function	180
HANDS-ON EXERCISES 1		HANDS-ON EXERCISES 3	
Formula Basics	158	Logical, Lookup, and Financial Functions	182
FUNCTION BASICS	161	CHAPTER OBJECTIVES REVIEW	187
Inserting a Function	161	KEY TERMS MATCHING	188
Inserting Basic Math and Statistics Functions	163	MULTIPLE CHOICE	189
Using Date Functions	167	PRACTICE EXERCISES	190
HANDS-ON EXERCISES 2		MID-LEVEL EXERCISES	193
Function Basics	169	BEYOND THE CLASSROOM	196
		CAPSTONE EXERCISE	197

■ CHAPTER THREE Charts: Depicting Data Visually 198

CASE STUDY COMPUTER JOB OUTLOOK	198	Modifying the Data Source	241
CHART BASICS	200	Creating and Customizing Sparklines	243
Selecting the Data Source	200	HANDS-ON EXERCISES 3	
Choosing a Chart Type	202	Chart Design and Sparklines	246
Moving, Sizing, and Printing a Chart	214	CHAPTER OBJECTIVES REVIEW	249
HANDS-ON EXERCISES 1		KEY TERMS MATCHING	251
Chart Basics	218	MULTIPLE CHOICE	252
CHART ELEMENTS	224	PRACTICE EXERCISES	253
Adding, Editing, and Formatting Chart Elements	225	MID-LEVEL EXERCISES	257
HANDS-ON EXERCISES 2		BEYOND THE CLASSROOM	260
Chart Elements	235	CAPSTONE EXERCISE	261
CHART DESIGN AND SPARKLINES	240		
Applying a Chart Style and Colors	240		

■ CHAPTER FOUR Datasets and Tables: Managing Large Volumes of Data 262

CASE STUDY REID FURNITURE STORE	262	HANDS-ON EXERCISES 3	
LARGE DATASETS	264	Table Manipulation	295
Freezing Rows and Columns	265	TABLE AGGREGATION AND CONDITIONAL FORMATTING	302
Printing Large Datasets	266	Adding a Total Row	302
HANDS-ON EXERCISES 1		Applying Conditional Formatting	304
Large Datasets	270	Creating a New Rule	309
EXCEL TABLES	275	HANDS-ON EXERCISES 4	
Understanding the Benefits of Data Tables	275	Table Aggregation and Conditional Formatting	312
Designing and Creating Tables	275	CHAPTER OBJECTIVES REVIEW	317
Applying a Table Style	280	KEY TERMS MATCHING	318
HANDS-ON EXERCISES 2		MULTIPLE CHOICE	319
Excel Tables	282	PRACTICE EXERCISES	320
TABLE MANIPULATION	287	MID-LEVEL EXERCISES	324
Creating Structured References in Formulas	287	BEYOND THE CLASSROOM	326
Sorting Data	288	CAPSTONE EXERCISE	327
Filtering Data	290		

■ CHAPTER FIVE **Subtotals, PivotTables, and PivotCharts: Summarizing and Analyzing Data** 328

CASE STUDY IVORY HALLS PUBLISHING COMPANY	328	HANDS-ON EXERCISES 3	
SUBTOTALS AND OUTLINES	330	PivotTable Options	364
Subtotaling Data	330	DATA MODELING AND PIVOTCHARTS	369
Grouping and Ungrouping Data	333	Creating a Data Model	369
HANDS-ON EXERCISES 1		Creating a PivotChart	372
Subtotals and Outlines	335	HANDS-ON EXERCISES 4	
PIVOTTABLE BASICS	339	Data Modeling and PivotCharts	374
Creating a PivotTable	339	CHAPTER OBJECTIVES REVIEW	379
Modifying a PivotTable	343	KEY TERMS MATCHING	381
HANDS-ON EXERCISES 2		MULTIPLE CHOICE	382
PivotTable Basics	350	PRACTICE EXERCISES	384
PIVOTTABLE OPTIONS	355	MID-LEVEL EXERCISES	389
Filtering and Slicing a PivotTable	355	BEYOND THE CLASSROOM	392
Creating a Calculated Field	359	CAPSTONE EXERCISE	393
Changing the PivotTable Design	362		

■ CHAPTER SIX **What-If Analysis: Using Decision-Making Tools** 396

CASE STUDY PERSONAL FINANCE: BUYING YOUR FIRST HOME	396	HANDS-ON EXERCISES 3	
RANGE NAMES	398	Goal Seek and Scenario Manager	424
Creating and Maintaining Range Names	398	SOLVER	428
HANDS-ON EXERCISES 1		Loading the Solver Add-In	428
Range Names	402	Optimizing Results with Solver	429
ONE- AND TWO-VARIABLE DATA TABLES	406	HANDS-ON EXERCISES 4	
Creating a One-Variable Data Table	406	Solver	435
Creating a Two-Variable Data Table	410	CHAPTER OBJECTIVES REVIEW	440
HANDS-ON EXERCISES 2		KEY TERMS MATCHING	441
One- and Two-Variable Data Tables	413	MULTIPLE CHOICE	442
GOAL SEEK AND SCENARIO MANAGER	418	PRACTICE EXERCISES	443
Determining Optimal Input Values Using Goal Seek	418	MID-LEVEL EXERCISES	447
Using Scenario Manager	419	BEYOND THE CLASSROOM	450
		CAPSTONE EXERCISE	451

■ CHAPTER SEVEN **Specialized Functions: Using Date, Logical, Lookup, Database, and Financial Functions** 454

CASE STUDY TRANSPAYNE FILTRATION	454	FINANCIAL FUNCTIONS	482
DATE, LOGICAL, AND LOOKUP FUNCTIONS	456	Using Financial Functions	482
Using Date Functions	456	Creating a Loan Amortization Table	484
Creating a Nested Logical Function	457	HANDS-ON EXERCISES 3	
Using Advanced Lookup Functions	462	Financial Functions	488
HANDS-ON EXERCISES 1		CHAPTER OBJECTIVES REVIEW	493
Date, Logical, and Lookup Functions	466	KEY TERMS MATCHING	494
DATABASE FILTERING AND FUNCTIONS	471	MULTIPLE CHOICE	495
Applying Advanced Filtering	471	PRACTICE EXERCISES	496
Manipulating Data with Database Functions	475	MID-LEVEL EXERCISES	502
HANDS-ON EXERCISES 2		BEYOND THE CLASSROOM	506
Database Filtering and Functions	478	CAPSTONE EXERCISE	507

■ CHAPTER EIGHT **Statistical Functions: Analyzing Statistics** 510

CASE STUDY EDUCATION EVALUATION	510	INFERENTIAL STATISTICS	534
MATH AND STATISTICAL FUNCTIONS	512	Loading the Analysis ToolPak	534
Using Conditional Math and Statistical Functions	512	Performing Analysis Using the Analysis ToolPak	535
Calculating Relative Standing with Statistical Functions	516	Creating a Forecast Sheet	538
HANDS-ON EXERCISES 1		HANDS-ON EXERCISES 3	
Math and Statistical Functions	520	Inferential Statistics	540
DESCRIPTIVE STATISTICAL FUNCTIONS	525	CHAPTER OBJECTIVES REVIEW	545
Measuring Central Tendency	525	KEY TERMS MATCHING	546
HANDS-ON EXERCISES 2		MULTIPLE CHOICE	547
Descriptive Statistical Functions	531	PRACTICE EXERCISES	548
		MID-LEVEL EXERCISES	552
		BEYOND THE CLASSROOM	555
		CAPSTONE EXERCISE	556

■ CHAPTER NINE **Multiple-Sheet Workbook Management: Ensuring Quality Control** 558

CASE STUDY CIRCLE CITY SPORTING GOODS	558	FORMULA AUDITS AND DATA VALIDATION	585
MULTIPLE WORKSHEETS	560	Auditing Formulas	586
Working with Grouped Worksheets	560	Setting Up a Watch Window	589
Inserting Hyperlinks	563	Validating Data	590
Managing Windows	565	HANDS-ON EXERCISES 3	
HANDS-ON EXERCISES 1		Formula Audits and Data Validation	594
Multiple Worksheets	569	CHAPTER OBJECTIVES REVIEW	600
3-D FORMULAS AND LINKED WORKBOOKS	574	KEY TERMS MATCHING	602
Inserting Formulas and Functions with 3-D References	574	MULTIPLE CHOICE	603
Linking Workbooks	577	PRACTICE EXERCISES	604
HANDS-ON EXERCISES 2		MID-LEVEL EXERCISES	609
3-D Formulas and Linked Workbooks	581	BEYOND THE CLASSROOM	612
		CAPSTONE EXERCISE	613

■ CHAPTER TEN **Imports, XML, and Power Add-Ins: Managing Data** 616

CASE STUDY STOCK ANALYSIS	616	HANDS-ON EXERCISES 3	
EXTERNAL DATA	618	XML	642
Importing Data from External Sources	618	POWER ADD-INS	644
Managing Connections	624	Using Power Pivot Functionality	644
HANDS-ON EXERCISES 1		Importing Data with Power Query	646
External Data	627	Visualizing Data with Power View	648
TEXT MANIPULATION	630	HANDS-ON EXERCISES 4	
Converting Text to Columns	630	Power Add-Ins	650
Manipulating Text with Functions	631	CHAPTER OBJECTIVES REVIEW	656
Using Flash Fill	633	KEY TERMS MATCHING	657
HANDS-ON EXERCISES 2		MULTIPLE CHOICE	658
Text Manipulation	634	PRACTICE EXERCISES	659
XML	638	MID-LEVEL EXERCISES	664
Understanding XML Syntax	638	BEYOND THE CLASSROOM	666
Importing XML Data into Excel	640	CAPSTONE EXERCISE	667

■ CHAPTER ELEVEN	Collaboration and Workbook Distribution: Sharing Data with Others	670
CASE STUDY MARCHING BAND SENIOR DINNER	670	HANDS-ON EXERCISES 3
WORKBOOK CUSTOMIZATION	672	Workbook Information
Customizing Excel Options	672	WORKBOOK DISTRIBUTION
Changing Properties	677	Saving a Workbook in Different Formats
HANDS-ON EXERCISES 1		Sending a Workbook to Others
Workbook Customization	680	HANDS-ON EXERCISES 4
COLLABORATION	683	Workbook Distribution
Inserting Comments	683	CHAPTER OBJECTIVES REVIEW
Sharing and Merging Workbooks	686	KEY TERMS MATCHING
Tracking Changes	690	MULTIPLE CHOICE
HANDS-ON EXERCISES 2		PRACTICE EXERCISES
Collaboration	694	MID-LEVEL EXERCISES
WORKBOOK INFORMATION	701	BEYOND THE CLASSROOM
Checking for Issues	701	CAPSTONE EXERCISE
Protecting a Workbook	705	

■ CHAPTER TWELVE	Templates, Styles, and Macros: Standardizing Workbooks	736
CASE STUDY STAFF ACCOUNTING SERVICES	736	HANDS-ON EXERCISES 3
TEMPLATES, THEMES, AND STYLES	738	Macros
Selecting a Template	738	VISUAL BASIC FOR APPLICATIONS
Applying Themes and Backgrounds	739	Creating a Sub Procedure
Applying Cell Styles	741	Creating a Custom Function
HANDS-ON EXERCISES 1		HANDS-ON EXERCISES 4
Templates, Themes, and Styles	745	Visual Basic for Applications
CUSTOM TEMPLATES AND WORKBOOK PROTECTION	749	CHAPTER OBJECTIVES REVIEW
Creating and Using a Template	749	KEY TERMS MATCHING
Protecting a Cell, a Worksheet, and a Workbook	750	MULTIPLE CHOICE
HANDS-ON EXERCISES 2		PRACTICE EXERCISES
Custom Templates and Workbook Protection	755	MID-LEVEL EXERCISES
MACROS	761	BEYOND THE CLASSROOM
Creating a Macro	761	CAPSTONE EXERCISE
Creating Macro Buttons	764	
Setting Macro Security	766	

Application Capstone Exercises

Excel Introductory Capstone Exercise (Chs. 1–4)	792
Excel Comprehensive Capstone Exercise (Chs. 5–12)	795
MICROSOFT OFFICE 2016 SPECIALIST EXCEL	799
GLOSSARY	807
INDEX	817

Acknowledgments

The Exploring team would like to acknowledge and thank all the reviewers who helped us throughout the years by providing us with their invaluable comments, suggestions, and constructive criticism.

Adriana Lumpkin
Midland College

Alan S. Abrahams
Virginia Tech

Alexandre C. Probst
Colorado Christian University

Ali Berrached
University of Houston–Downtown

Allen Alexander
Delaware Technical & Community College

Andrea Marchese
Maritime College, State University of
New York

Andrew Blitz
Broward College; Edison State College

Angel Norman
University of Tennessee, Knoxville

Angela Clark
University of South Alabama

Ann Rovetto
Horry-Georgetown Technical College

Astrid Todd
Guilford Technical Community College

Audrey Gillant
Maritime College, State University of
New York

Barbara Stover
Marion Technical College

Barbara Tollinger
Sinclair Community College

Ben Brahim Taha
Auburn University

Beverly Amer
Northern Arizona University

Beverly Fite
Amarillo College

Biswadip Ghosh
Metropolitan State University of Denver

Bonita Volker
Tidewater Community College

Bonnie Homan
San Francisco State University

Brad West
Sinclair Community College

Brian Powell
West Virginia University

Carol Buser
Owens Community College

Carol Roberts
University of Maine

Carolyn Barren
Macomb Community College

Carolyn Borne
Louisiana State University

Cathy Poyner
Truman State University

Charles Hodgson
Delgado Community College

Chen Zhang
Bryant University

Cheri Higgins
Illinois State University

Cheryl Brown
Delgado Community College

Cheryl Hinds
Norfolk State University

Cheryl Sypniewski
Macomb Community College

Chris Robinson
Northwest State Community College

Cindy Herbert
Metropolitan Community College–Longview

Craig J. Peterson
American InterContinental University

Dana Hooper
University of Alabama

Dana Johnson
North Dakota State University

Daniela Marghitu
Auburn University

David Noel
University of Central Oklahoma

David Pulis
Maritime College, State University of
New York

David Thornton
Jacksonville State University

Dawn Medlin
Appalachian State University

Debby Keen
University of Kentucky

Debra Chapman
University of South Alabama

Debra Hoffman
Southeast Missouri State
University

Derrick Huang
Florida Atlantic University

Diana Baran
Henry Ford Community College

Diane Cassidy
The University of North Carolina at
Charlotte

Diane L. Smith
Henry Ford Community College

Dick Hewer
Ferris State College

Don Danner
San Francisco State University

Don Hoggan
Solano College

Don Riggs
SUNY Schenectady County Community
College

Doncho Petkov
Eastern Connecticut State University

Donna Ehrhart
State University of New York at
Brockport

Elaine Crable
Xavier University

Elizabeth Duett
Delgado Community College

Erhan Uskup
Houston Community College–Northwest

Eric Martin
University of Tennessee

Erika Nadas
Wilbur Wright College

Floyd Winters
Manatee Community College

Frank Lucente Westmoreland County Community College	Jill Young Southeast Missouri State University	Linda Johnsonius Murray State University
G. Jan Wilms Union University	Jim Chaffee The University of Iowa Tippie College of Business	Linda Lau Longwood University
Gail Cope Sinclair Community College	Joanne Lazirko University of Wisconsin–Milwaukee	Linda Theus Jackson State Community College
Gary DeLorenzo California University of Pennsylvania	Jodi Milliner Kansas State University	Linda Williams Marion Technical College
Gary Garrison Belmont University	John Hollenbeck Blue Ridge Community College	Lisa Miller University of Central Oklahoma
Gary McFall Purdue University	John Seydel Arkansas State University	Lister Horn Pensacola Junior College
George Cassidy Sussex County Community College	Judith A. Scheeren Westmoreland County Community College	Lixin Tao Pace University
Gerald Braun Xavier University	Judith Brown The University of Memphis	Loraine Miller Cayuga Community College
Gerald Burgess Western New Mexico University	Juliana Cypert Tarrant County College	Lori Kiely Central Florida Community College
Gladys Swindler Fort Hays State University	Kamaljeet Sanghera George Mason University	Lorna Wells Salt Lake Community College
Hector Frausto California State University Los Angeles	Karen Priestly Northern Virginia Community College	Lorraine Sauchin Duquesne University
Heith Hennel Valencia Community College	Karen Ravan Spartanburg Community College	Lucy Parakhovnik California State University, Northridge
Henry Rudzinski Central Connecticut State University	Karen Tracey Central Connecticut State University	Lynn Keane University of South Carolina
Irene Joos La Roche College	Kathleen Brenan Ashland University	Lynn Mancini Delaware Technical Community College
Iwona Rusin Baker College; Davenport University	Ken Busbee Houston Community College	Mackinzee Escamilla South Plains College
J. Roberto Guzman San Diego Mesa College	Kent Foster Winthrop University	Marcia Welch Highline Community College
Jacqueline D. Lawson Henry Ford Community College	Kevin Anderson Solano Community College	Margaret McManus Northwest Florida State College
Jakie Brown Jr. Stevenson University	Kim Wright The University of Alabama	Margaret Warrick Allan Hancock College
James Brown Central Washington University	Kristen Hockman University of Missouri–Columbia	Marilyn Hibbert Salt Lake Community College
James Powers University of Southern Indiana	Kristi Smith Allegany College of Maryland	Mark Choman Luzerne County Community College
Jane Stam Onondaga Community College	Laura Marcoulides Fullerton College	Maryann Clark University of New Hampshire
Janet Bringham Utah State University	Laura McManamon University of Dayton	Mary Beth Tarver Northwestern State University
Jean Welsh Lansing Community College	Laurence Boxer Niagara University	Mary Duncan University of Missouri–St. Louis
Jeanette Dix Ivy Tech Community College	Leanne Chun Leeward Community College	Melissa Nemeth Indiana University–Purdue University Indianapolis
Jennifer Day Sinclair Community College	Lee McClain Western Washington University	Melody Alexander Ball State University
Jill Canine Ivy Tech Community College	Linda D. Collins Mesa Community College	Michael Douglas University of Arkansas at Little Rock

Michael Dunklebarger Alamance Community College	Richard Cacace Pensacola Junior College	Sue A. McCrory Missouri State University
Michael G. Skaff College of the Sequoias	Richard Hewer Ferris State University	Sumathy Chandrashekar Salisbury University
Michele Budnovitch Pennsylvania College of Technology	Richard Sellers Hill College	Susan Fuschetto Cerritos College
Mike Jochen East Stroudsburg University	Rob Murray Ivy Tech Community College	Susan Medlin UNC Charlotte
Mike Michaelson Palomar College	Robert Banta Macomb Community College	Susan N. Dozier Tidewater Community College
Mike Scroggins Missouri State University	Robert Dušek Northern Virginia Community College	Suzan Spitzberg Oakton Community College
Mimi Spain Southern Maine Community College	Robert G. Phipps Jr. West Virginia University	Suzanne M. Jeska County College of Morris
Muhammed Badamas Morgan State University	Robert Sindt Johnson County Community College	Sven Aelterman Troy University
NaLisa Brown University of the Ozarks	Robert Warren Delgado Community College	Sy Hirsch Sacred Heart University
Nancy Grant Community College of Allegheny County– South Campus	Rocky Belcher Sinclair Community College	Sylvia Brown Midland College
Nanette Lareau University of Arkansas Community College–Morilton	Roger Pick University of Missouri at Kansas City	Tanya Patrick Clackamas Community College
Nikia Robinson Indian River State University	Ronnie Creel Troy University	Terri Holly Indian River State College
Pam Brune Chattanooga State Community College	Rosalie Westerberg Clover Park Technical College	Terry Ray Rigsby Hill College
Pam Uhlenkamp Iowa Central Community College	Ruth Neal Navarro College	Thomas Rienzo Western Michigan University
Patrick Smith Marshall Community and Technical College	Sandra Thomas Troy University	Tina Johnson Midwestern State University
Paul Addison Ivy Tech Community College	Sheila Gionfriddo Luzerne County Community College	Tommy Lu Delaware Technical Community College
Paula Ruby Arkansas State University	Sherrie Geitgey Northwest State Community College	Troy S. Cash Northwest Arkansas Community College
Peggy Burrus Red Rocks Community College	Sherry Lenhart Terra Community College	Vicki Robertson Southwest Tennessee Community
Peter Ross SUNY Albany	Sophia Wilberscheid Indian River State College	Vickie Pickett Midland College
Philip H. Nielson Salt Lake Community College	Sophie Lee California State University, Long Beach	Weifeng Chen California University of Pennsylvania
Philip Valvalides Guilford Technical Community College	Stacy Johnson Iowa Central Community College	Wes Anthony Houston Community College
Ralph Hooper University of Alabama	Stephanie Kramer Northwest State Community College	William Ayen University of Colorado at Colorado Springs
Ranette Halverson Midwestern State University	Stephen Z. Jourdan Auburn University at Montgomery	Wilma Andrews Virginia Commonwealth University
Richard Blamer John Carroll University	Steven Schwarz Raritan Valley Community College	Yvonne Galusha University of Iowa

Special thanks to our content development and technical team:

Barbara Stover

Janet Pickard

Lori Damanti

Steven Rubin

Elizabeth Lockley

Lhe Smith

Joyce Nielsen

Mara Zebest

The Exploring Series and You

Exploring is Pearson's Office Application series that requires students like you to think "beyond the point and click." In this edition, we have worked to restructure the Exploring experience around the way you, today's modern student, actually use your resources.

The goal of Exploring is, as it has always been, to go farther than teaching just the steps to accomplish a task—the series provides the theoretical foundation for you to understand when and why to apply a skill. As a result, you achieve a deeper understanding of each application and can apply this critical thinking beyond Office and the classroom.

The How & Why of This Revision

Outcomes matter. Whether it's getting a good grade in this course, learning how to use Excel so students can be successful in other courses, or learning a specific skill that will make learners successful in a future job, everyone has an outcome in mind. And outcomes matter. That is why we revised our chapter opener to focus on the outcomes students will achieve by working through each Exploring chapter. These are coupled with objectives and skills, providing a map students can follow to get everything they need from each chapter.

Critical Thinking and Collaboration are essential 21st century skills. Students want and need to be successful in their future careers—so we used motivating case studies to show relevance of these skills to future careers and incorporated Soft Skills, Collaboration, and Analysis Cases with Critical Thinking steps in this edition to set students up for success in the future.

Students today read, prepare, and study differently than students used to. Students use textbooks like a tool—they want to easily identify what they need to know and learn it efficiently. We have added key features such as Tasks Lists (in purple), Step Icons, Hands-On Exercise Videos, and tracked everything via page numbers that allow efficient navigation, creating a map students can easily follow.

Students are exposed to technology. The new edition of Exploring moves beyond the basics of the software at a faster pace, without sacrificing coverage of the fundamental skills that students need to know.

Students are diverse. Students can be any age, any gender, any race, with any level of ability or learning style. With this in mind, we broadened our definition of "student resources" to include physical Student Reference cards, Hands-On Exercise videos to provide a secondary lecture-like option of review; and MyITLab, the most powerful and most ADA-compliant online homework and assessment tool around with a direct 1:1 content match with the Exploring Series. Exploring will be accessible to all students, regardless of learning style.

Providing You with a Map to Success to Move Beyond the Point and Click

All of these changes and additions will provide students an easy and efficient path to follow to be successful in this course, regardless of where they start at the beginning of this course. Our goal is to keep students engaged in both the hands-on and conceptual sides, helping achieve a higher level of understanding that will guarantee success in this course and in a future career.

In addition to the vision and experience of the series creator, Robert T. Grauer, we have assembled a tremendously talented team of Office Applications authors who have devoted themselves to teaching the ins and outs of Microsoft Word, Excel, Access, and PowerPoint. Led in this edition by series editor Mary Anne Poatsy, the whole team is dedicated to the Exploring mission of moving students **beyond the point and click.**

Key Features

The **How/Why Approach** helps students move beyond the point and click to a true understanding of how to apply Microsoft Office skills.

- **White Pages/Yellow Pages** clearly distinguish the theory (white pages) from the skills covered in the Hands-On Exercises (yellow pages) so students always know what they are supposed to be doing and why.
- **Case Study** presents a scenario for the chapter, creating a story that ties the Hands-On Exercises together.
- **Hands-On Exercise Videos** are tied to each Hands-On Exercise and walk students through the steps of the exercise while weaving in conceptual information related to the Case Study and the objectives as a whole.

The **Outcomes focus** allows students and instructors to know the higher-level learning goals and how those are achieved through discreet objectives and skills.

- **Outcomes** presented at the beginning of each chapter identify the learning goals for students and instructors.
- **Enhanced Objective Mapping** enables students to follow a directed path through each chapter, from the objectives list at the chapter opener through the exercises at the end of the chapter.
 - **Objectives List:** This provides a simple list of key objectives covered in the chapter. This includes page numbers so students can skip between objectives where they feel they need the most help.
 - **Step Icons:** These icons appear in the white pages and reference the step numbers in the Hands-On Exercises, providing a correlation between the two so students can easily find conceptual help when they are working hands-on and need a refresher.
 - **Quick Concepts Check:** A series of questions that appear briefly at the end of each white page section. These questions cover the most essential concepts in the white pages required for students to be successful in working the Hands-On Exercises. Page numbers are included for easy reference to help students locate the answers.
 - **Chapter Objectives Review:** Appears toward the end of the chapter and reviews all important concepts throughout the chapter. Newly designed in an easy-to-read bulleted format.
- **MOS Certification Guide** for instructors and students to direct anyone interested in prepping for the MOS exam to the specific locations to find all content required for the test.



End-of-Chapter Exercises offer instructors several options for assessment. Each chapter has approximately 11–12 exercises ranging from multiple choice questions to open-ended projects.



- **Multiple Choice, Key Terms Matching, Practice Exercises, Mid-Level Exercises, Beyond the Classroom Exercises, and Capstone Exercises** appear at the end of all chapters.
 - **Enhanced Mid-Level Exercises** include a **Creative Case** (for PowerPoint and Word), which allows students some flexibility and creativity, not being bound by a definitive solution, and an **Analysis Case** (for Excel and Access), which requires students to interpret the data they are using to answer an analytic question, as well as **Discover Steps**, which encourage students to use Help or to problem-solve to accomplish a task.
- **Application Capstone** exercises are included in the book to allow instructors to test students on the entire contents of a single application.



Instructor Resources

The Instructor's Resource Center, available at www.pearsonhighered.com, includes the following:

- **Instructor Manual** provides one-stop-shop for instructors, including an overview of all available resources, teaching tips, as well as student data and solution files for every exercise.
- **Solution Files with Scorecards** assist with grading the Hands-On Exercises and end-of-chapter exercises.
- **Prepared Exams** allow instructors to assess all skills covered in a chapter with a single project.
- **Rubrics** for Mid-Level Creative Cases and Beyond the Classroom Cases in Microsoft Word format enable instructors to customize the assignments for their classes.
- **PowerPoint Presentations** with notes for each chapter are included for out-of-class study or review.
- **Multiple Choice, Key Term Matching, and Quick Concepts Check Answer Keys**
- **Test Bank** provides objective-based questions for every chapter.
- **Scripted Lectures** offer an in-class lecture guide for instructors to mirror the Hands-On Exercises.
- **Syllabus Templates**
 - Outcomes, Objectives, and Skills List
 - Assignment Sheet
 - File Guide

Student Resources

Student Data Files

Access your student data files needed to complete the exercises in this textbook at www.pearsonhighered.com/exploring.

Available in MyITLab

- **Hands-On Exercise Videos** allow students to review and study the concepts taught in the Hands-On Exercises.
- **Audio PowerPoints** provide a lecture review of the chapter content, and include narration.
- **Multiple Choice quizzes** enable you to test concepts you have learned by answering auto-graded questions.
- **Book-specific 1:1 Simulations** allow students to practice in the simulated Microsoft Office 2016 environment using hi-fidelity, HTML5 simulations that directly match the content in the Hands-On Exercises.
- **eText** available in some MyITLab courses and includes links to videos, student data files, and other learning aids.
- **Book-specific 1:1 Grader Projects** allow students to complete end-of-chapter Capstone Exercises live in Microsoft Office 2016 and receive immediate feedback on their performance through various reports.

(ex·ploring)^{SERIES}

1. Investigating in a systematic way: examining. 2. Searching into or ranging over for the purpose of discovery.

Microsoft[®]

Excel 2016

COMPREHENSIVE

Office 2016 Common Features

LEARNING OUTCOME

You will apply skills common across the Microsoft Office suite to create and format documents and edit content in Office 2016 applications.

OBJECTIVES & SKILLS: After you read this chapter, you will be able to:

Getting Started with Office Applications			
OBJECTIVE 1: START AN OFFICE APPLICATION	4	OBJECTIVE 8: RELOCATE TEXT	30
Open a Microsoft Office Application, Change Your Microsoft Account		Cut, Copy, and Paste Text; Use the Office Clipboard	
OBJECTIVE 2: WORK WITH FILES	5	OBJECTIVE 9: CHECK SPELLING AND GRAMMAR	32
Create a New File, Open a File, Save a File		Check Spelling and Grammar	
OBJECTIVE 3: USE COMMON INTERFACE COMPONENTS	8	OBJECTIVE 10: WORK WITH PICTURES AND GRAPHICS	34
Use the Ribbon, Use a Shortcut Menu, Use Keyboard Shortcuts, Customize the Ribbon, Use the Quick Access Toolbar, Customize the Quick Access Toolbar		Insert Pictures and Graphics, Resize and Format Pictures and Graphics	
OBJECTIVE 4: GET HELP	15	HANDS-ON EXERCISE 2:	
Use the <i>Tell me what you want to do</i> Box, Use Enhanced ScreenTips		Format Document Content	37
OBJECTIVE 5: INSTALL ADD-INS	17	Modify Document Layout and Properties	
Use an Add-in from the Store		OBJECTIVE 11: USE BACKSTAGE VIEW	42
HANDS-ON EXERCISE 1:		Customize Application Options, Enter Document Properties	
Getting Started With Office Applications	19	OBJECTIVE 12: CHANGE THE DOCUMENT VIEW	44
		Change the Document View	
Format Document Content		OBJECTIVE 13: CHANGE THE PAGE LAYOUT	45
OBJECTIVE 6: USE TEMPLATES AND APPLY THEMES	24	Change Margins, Change Page Orientation, Use the Page Setup Dialog Box	
Open a Template, Apply a Theme		OBJECTIVE 14: INSERT A HEADER AND FOOTER	48
OBJECTIVE 7: MODIFY TEXT	26	Insert a Footer, Insert a Header	
Select Text, Edit Text, Use the Mini Toolbar, Use Format Painter		OBJECTIVE 15: PREVIEW AND PRINT A FILE	49
		Preview a File, Print a File	
		HANDS-ON EXERCISE 3:	
		Modify Document Layout and Properties	51

CASE STUDY | Spotted Begonia Art Gallery

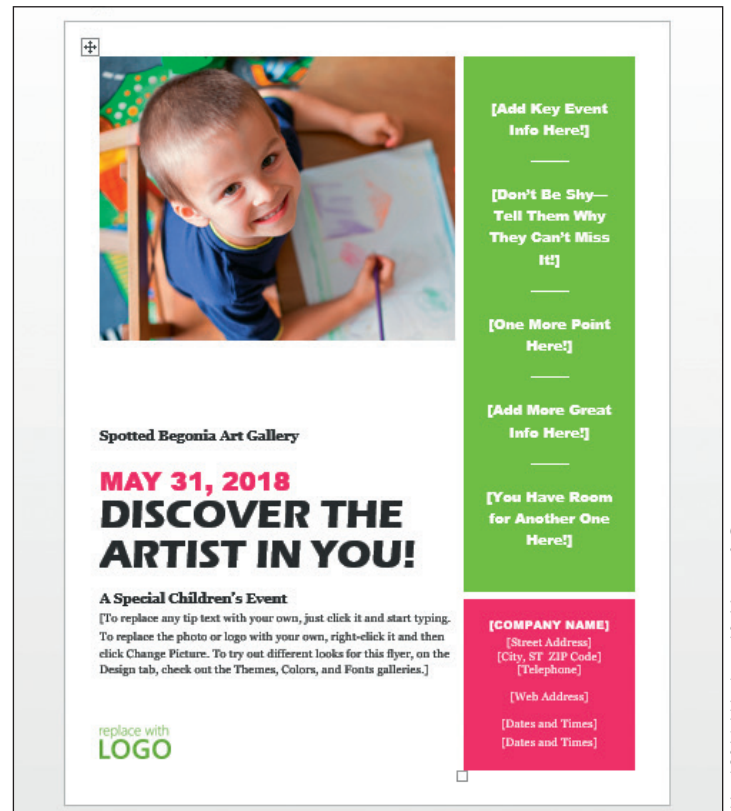
You are an administrative assistant for Spotted Begonia, a local art gallery. The gallery does a lot of community outreach and tries to help local artists develop a network of clients and supporters. Local schools are invited to bring students to the gallery for enrichment programs.

As the administrative assistant for Spotted Begonia, you are responsible for overseeing the production of documents, spreadsheets, newspaper articles, and presentations that will be used to increase public awareness of the gallery. Other clerical assistants who are familiar with Microsoft Office will prepare the promotional materials, and you will proofread, make necessary corrections, adjust page layouts, save and print documents, and identify appropriate templates to simplify tasks. Your experience with Microsoft Office 2016 is limited, but you know that certain fundamental tasks that are common to Word, Excel, and PowerPoint will help you accomplish your oversight task. You are excited to get started with your work!

Taking the First Step



CHAPTER 1



Word 2016, Windows 10, Microsoft Corporation

FIGURE 1.1 Spotted Begonia Art Gallery Memo and Flyer

CASE STUDY | Spotted Begonia Art Gallery

Starting Files	Files to be Submitted
f01h1Letter f01h2Flyer Blank document	f01h2Flyer_LastFirst f01h3Letter_LastFirst

Getting Started with Office Applications

Organizations around the world rely heavily on Microsoft Office software to produce documents, spreadsheets, presentations, and databases. **Microsoft Office** is a productivity software suite including a set of software applications, each one specializing in a particular type of output. You can use **Word** to produce all sorts of documents, including memos, newsletters, forms, tables, and brochures. **Excel** makes it easy to organize records, financial transactions, and business information in the form of worksheets. With **PowerPoint**, you can create dynamic presentations to inform and persuade audiences. **Access** is a relational database software application that enables you to record and link data, query databases, and create forms and reports.

You will sometimes find that you need to use two or more Office applications to produce your intended output. You might, for example, find that an annual report document you are preparing in Word for an art gallery should also include a chart of recent sales stored in Excel. You can use Excel to prepare the summary and then incorporate the worksheet in the Word document. Similarly, you can integrate Word tables and Excel charts into a PowerPoint presentation. The choice of which software applications to use really depends on what type of output you are producing. Table 1.1 describes the major tasks of the four primary applications in Microsoft Office.

TABLE 1.1 Microsoft Office Software

Office 2016 Product	Application Characteristics
Word	Word processing software used with text to create, edit, and format documents such as letters, memos, reports, brochures, resumes, and flyers.
Excel	Spreadsheet software used to store quantitative data and to perform accurate and rapid calculations with results ranging from simple budgets to financial and statistical analyses.
PowerPoint	Presentation graphics software used to create slide shows for presentation by a speaker, to be published as part of a website, or to run as a stand-alone application on a computer kiosk.
Access	Relational database software used to store data and convert it into information. Database software is used primarily for decision making by businesses that compile data from multiple records stored in tables to produce informative reports.

Pearson Education, Inc.

As you become familiar with Microsoft Office, you will find that although each software application produces a specific type of output, all applications share common features. Such commonality gives a similar feel to each software application so that learning and working with Office software products is easy.

In this section, you will learn how to open an application, log in with your Microsoft account, and open and save a file. You will also learn to identify features common to Office software applications, including interface components such as the Ribbon, Backstage view, and the Quick Access Toolbar. You will experience Live Preview. You will learn how to get help with an application. You will also learn how to search for and install Office add-ins.

Starting an Office Application

STEP 1

Microsoft Office applications are launched from the Start menu. Click the Start button, and then click the app tile for the application in which you want to work. If the application tile is not on the Start menu, you can open the program from All apps, or alternatively, you can click in the search box on the task bar, type the name of the program, and press Enter. The program will open automatically.

Change Your Microsoft Account

Although you can log in to Windows as a local network user, you can also log in using a Microsoft account. When you have a Microsoft account, you can sign in to any Windows computer and you will be able to access the saved settings associated with your Microsoft account. That means the computer will have the same familiar look that you are used to seeing on other computers and devices. Your Microsoft account will automatically sign in to all of the apps and services that use a Microsoft account as the authentication. You can also save your sign-in credentials for other websites that you frequently visit. If you share your computer with another user, each user can have access to his own Microsoft account; you can easily switch between accounts so you can access your own files.

To switch between accounts in an application such as Word, complete the following steps:

1. Click the profile name at the top-right of the application.
2. Select Switch account. Select an account from the list, if the account has already been added to the computer, or add a new account.

Logging in with your Microsoft account also provides additional benefits such as being connected to all of Microsoft's resources on the Internet. These resources include a free Outlook email account and access to OneDrive cloud storage. **Cloud storage** is a technology used to store files and to work with programs that are stored in a central location on the Internet. **OneDrive** is an app used to store, access, and share files and folders. It is accessible using an installed desktop app or as cloud storage using a Web address. For Office applications, OneDrive is the default location for saving files. Documents saved in OneDrive are accessible from any computer that has an Internet connection. As long as the document has been saved in OneDrive, the most recent version of the document will be accessible when you log in from any computer connected to the Internet. Moreover, files and folders stored on the computer's hard drive or saved on a portable storage device can be synced with those on the OneDrive account.

OneDrive enables you to collaborate with others. You can easily share your documents with others or edit a document on which you are collaborating. You can even work with others simultaneously on the same document.

Working with Files

When working with an Office application, you can begin by opening an existing file that has already been saved to a storage medium, or you can begin work on a new file. When you open an application within Office, you can select a template to use as you begin working on a new file.

Create a New File

After opening an Office application, such as Word, Excel, or PowerPoint, you will be presented with template choices. Click Blank document (workbook, presentation, etc.) to start a new blank file. Perhaps you are already working with a document in an Office application but want to create a new file.

To create a new Office file, complete the following steps:

1. Click the File tab and click New.
2. Click Blank.

Open a File

STEP 2

» You will often work with a file, save it, and then continue the project at a later time. To open an existing file, you can click a location such as This PC or OneDrive and navigate to the folder or drive where your document is stored. Once you make your way to the file to be opened, double-click the file name to open the file (see Figure 1.2).

To open a file, complete the following steps:

1. Open the application.
2. Click Open Other Documents (Workbooks, etc.).
3. Click the location for your file (such as This PC or OneDrive).
4. Navigate to the folder or drive and double-click the file to open it.

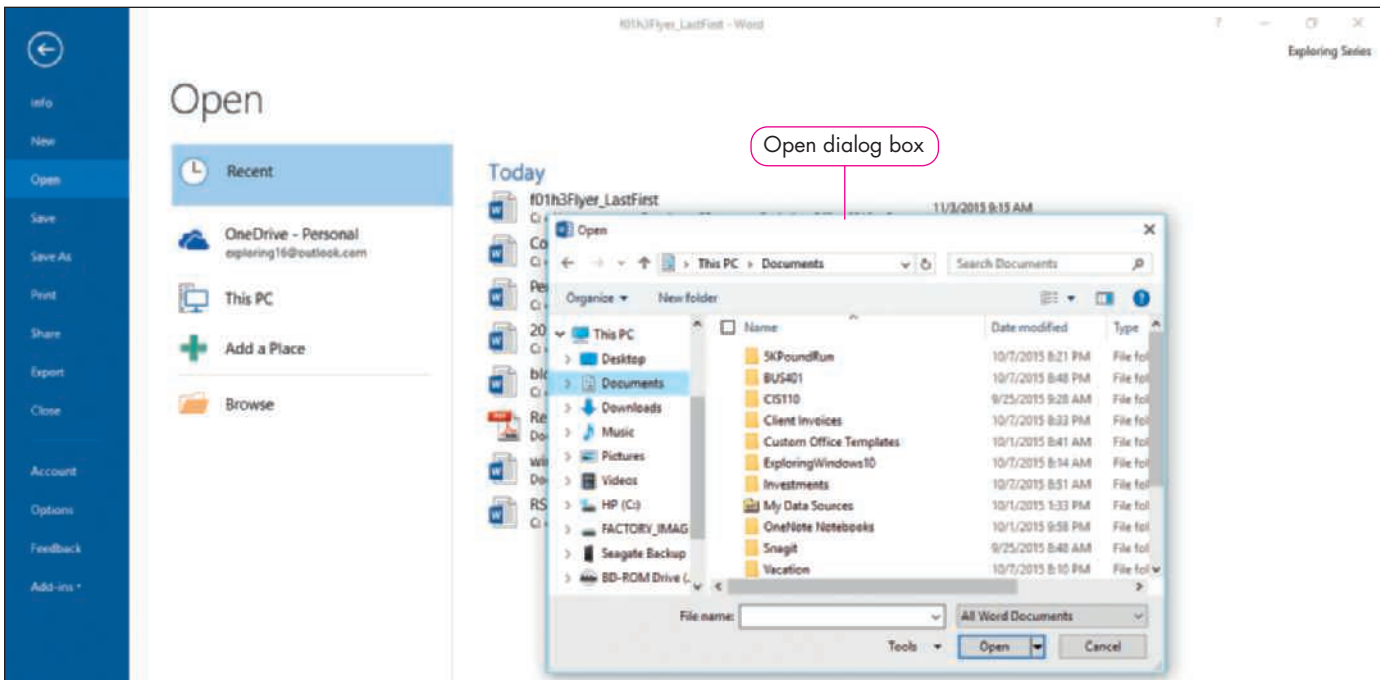


FIGURE 1.2 The Open Dialog Box


Office simplifies the task of reopening the file by providing a Recent documents list with links to your most recently opened files. Previously saved files, such as the data files for this book, are available in the Recent documents list, shown in Figure 1.3. If you just opened the application, the recent list displays at the left. If you do not see your file listed, you can click the link to Open Other Documents (or Workbooks, Presentations, etc.)

To access the Recent documents list, complete the following steps:

1. Open the application.
2. Click any file listed in the Recent documents list to open that document.

The list constantly changes to reflect only the most recently opened files, so if it has been quite some time since you worked with a particular file, you might have to browse for your file instead of using the Recent documents list to open the file.

TIP: KEEPING FILES ON THE RECENT DOCUMENTS LIST

The Recent documents list displays a limited list of only the most recently opened files. You might, however, want to keep a particular file in the list regardless of how recently it was opened. In Figure 1.3, note that the *Pin this item to the list* icon  displays to the right of each file. Click the icon to pin the file to the list. At that point, you will always have access to the file by clicking the File tab and selecting the file from the Recent documents list. The pushpin of the “permanent” file will change direction so that it appears to be inserted, indicating that it is a pinned item. If later you want to remove the file from the list, click the inserted pushpin, changing its direction and allowing the file to be bumped off the list when other, more recently opened, files take its place.

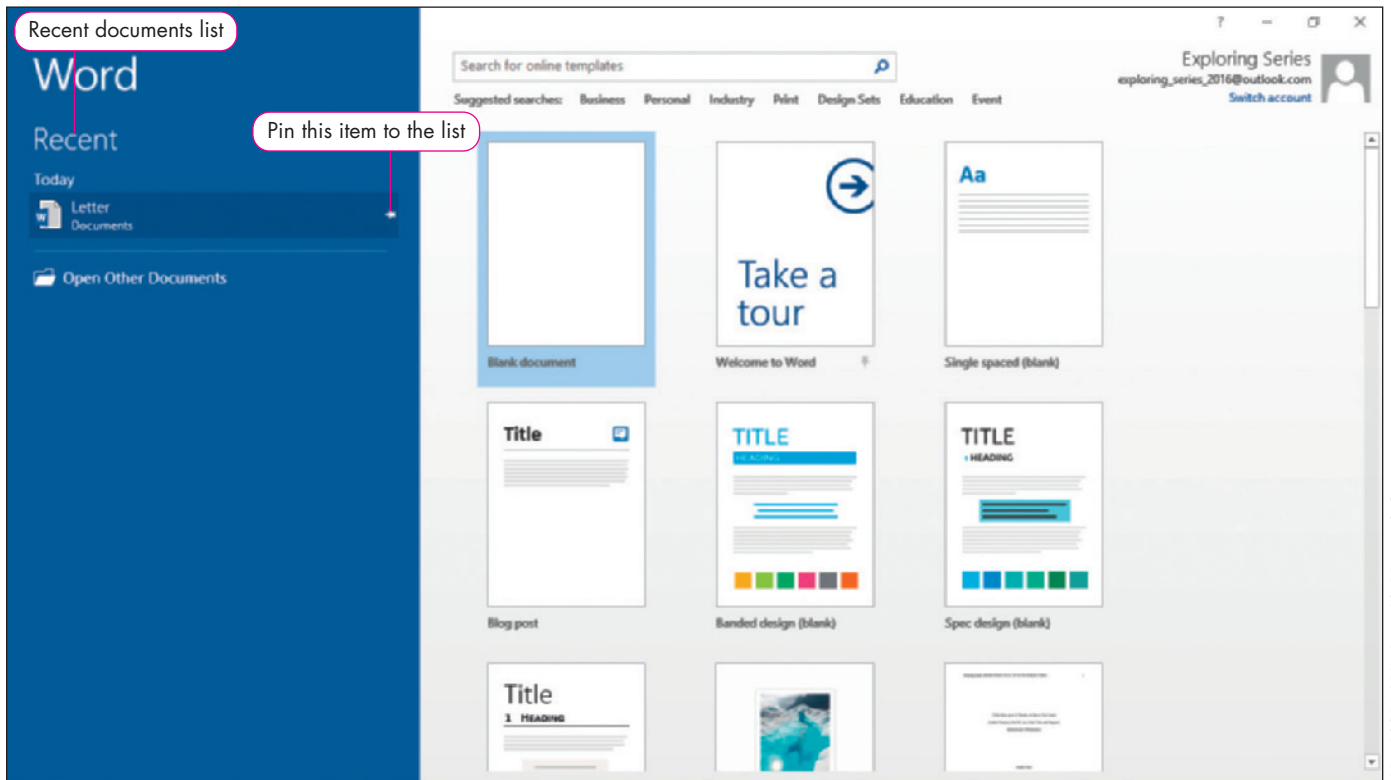


FIGURE 1.3 Recent Documents List

Save a File

STEP 3

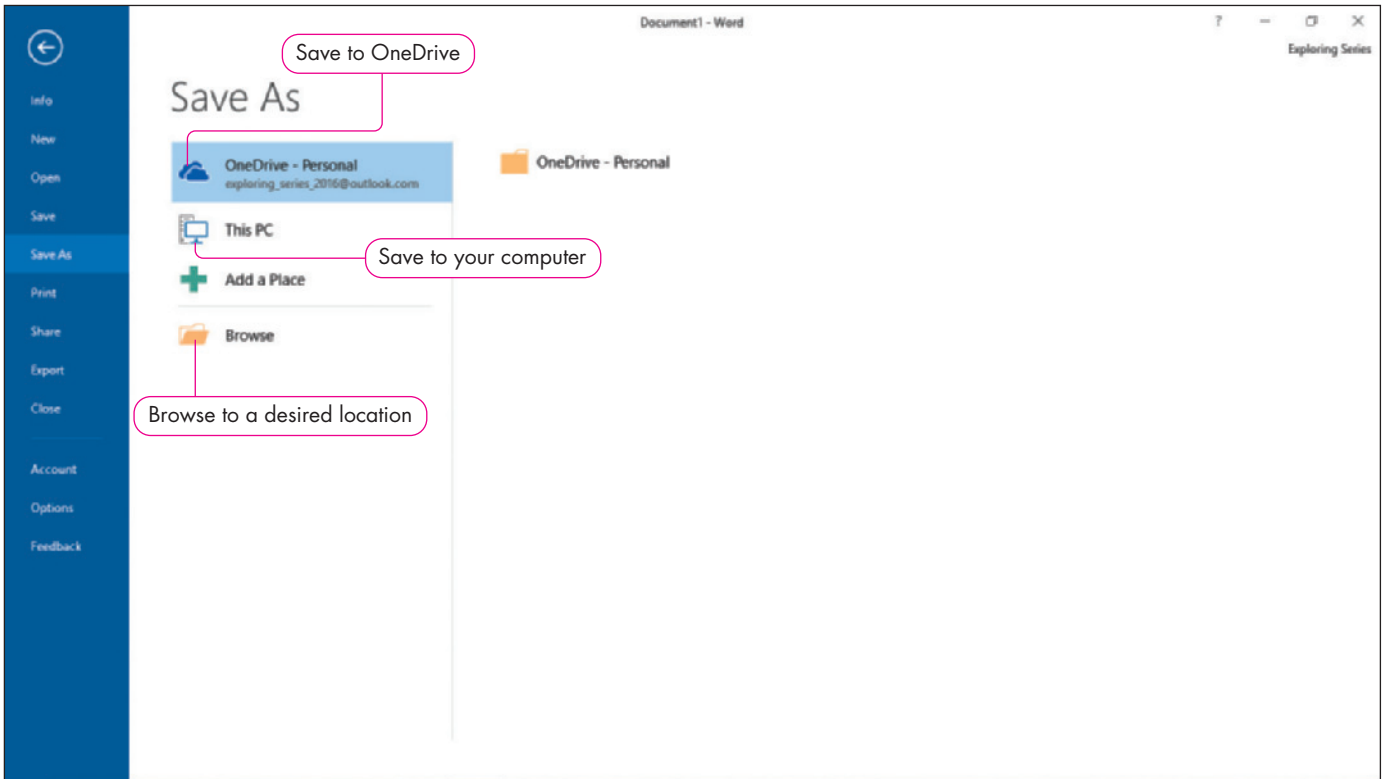
» Saving a file enables you to later open it for additional updates or reference. Files are saved to a storage medium such as a hard drive, CD, flash drive, or to the cloud on OneDrive.

The first time that you save a file, you should indicate where the file will be saved and assign a file name. Of course, you will want to save the file in an appropriately named folder so that you can find it easily later. Thereafter, you can quickly save the file with the same settings, or you can change one or more of those settings, perhaps saving the file to a different storage device as a backup copy. Figure 1.4 shows a typical Save As pane for Office that enables you to select a location before saving the file.

It is easy to save a previously saved file with its current name and file location; click the Save icon on Quick Access Toolbar. There are instances where you may want to rename the file or save it to a different location. For example, you might reuse an event flyer for another event and simply update some of the details for the new event.

To save a file with a different name and/or file location, complete the following steps:

1. Click the File tab.
2. Click Save As.
3. Select a location or click Browse to navigate to the desired file storage location.
4. Type the file name.
5. Click Save.



Word 2016, Windows 10, Microsoft Corporation

FIGURE 1.4 Save As in Backstage View

As previously mentioned, signing in to your Microsoft account enables you to save files to OneDrive and access them from virtually anywhere. To save a file to your OneDrive account follow the same steps as saving a file to your hard drive but select OneDrive and then the desired storage location on your OneDrive. You must be connected to the Internet in order to complete this action.

Using Common Interface Components

When you open any Office application you will first notice the title bar and Ribbon. The **title bar** identifies the current file name and the application in which you are working. It also includes Ribbon display options and control buttons that enable you to minimize, restore down, or close the application window (see Figure 1.5). The Quick Access Toolbar, on the left side of the title bar, enables you to save the file, and undo or redo editing. Located just below the title bar is the Ribbon. The **Ribbon** is the command center of Office applications. It is the long bar located just beneath the title bar, containing tabs, groups, and commands.

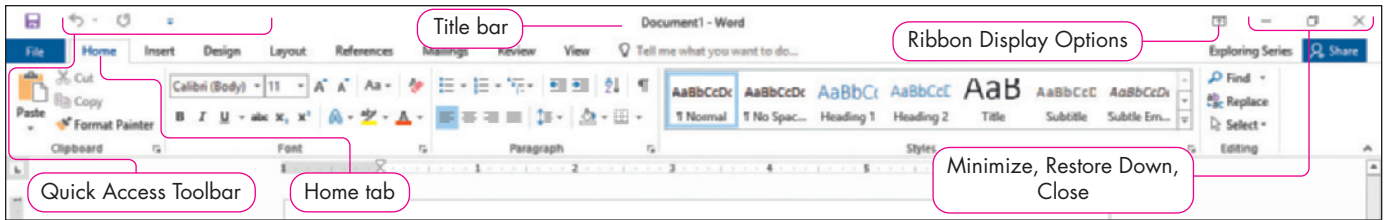


FIGURE 1.5 The Title Bar and Quick Access Toolbar

Word 2016, Windows 10, Microsoft Corporation

Use the Ribbon

The Ribbon is composed of tabs. Each **tab** is designed to appear much like a tab on a file folder, with the active tab highlighted. The File tab is located at the far left of the Ribbon. The File tab provides access to Backstage view which contains Save and Print, as well as additional functions. Other tabs on the Ribbon enable you to modify a file. The active tab in Figure 1.6 is the Home tab.

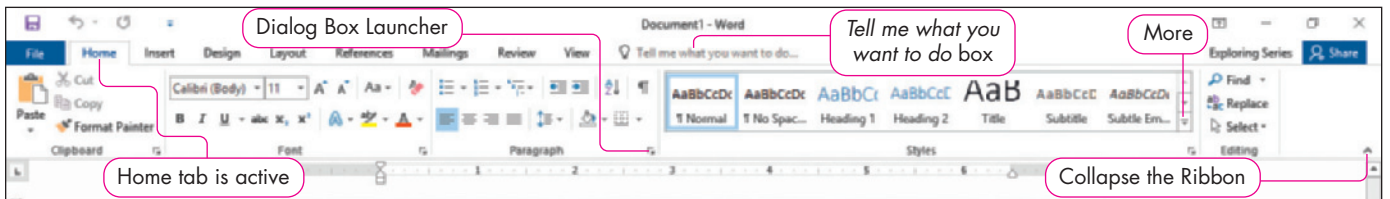


FIGURE 1.6 The Ribbon

Word 2016, Windows 10, Microsoft Corporation

Office applications enable you to work with objects such as images, shapes, charts, and tables. When you include such objects in a project, they are considered separate components that you can manage independently. To work with an object, you must select it. When you select an object, the Ribbon is modified to include one or more **contextual tabs** that contain groups of commands related to the selected object. Figure 1.7 shows a contextual tab related to a selected picture in a Word document. When you click away from the selected object, the contextual tab disappears.

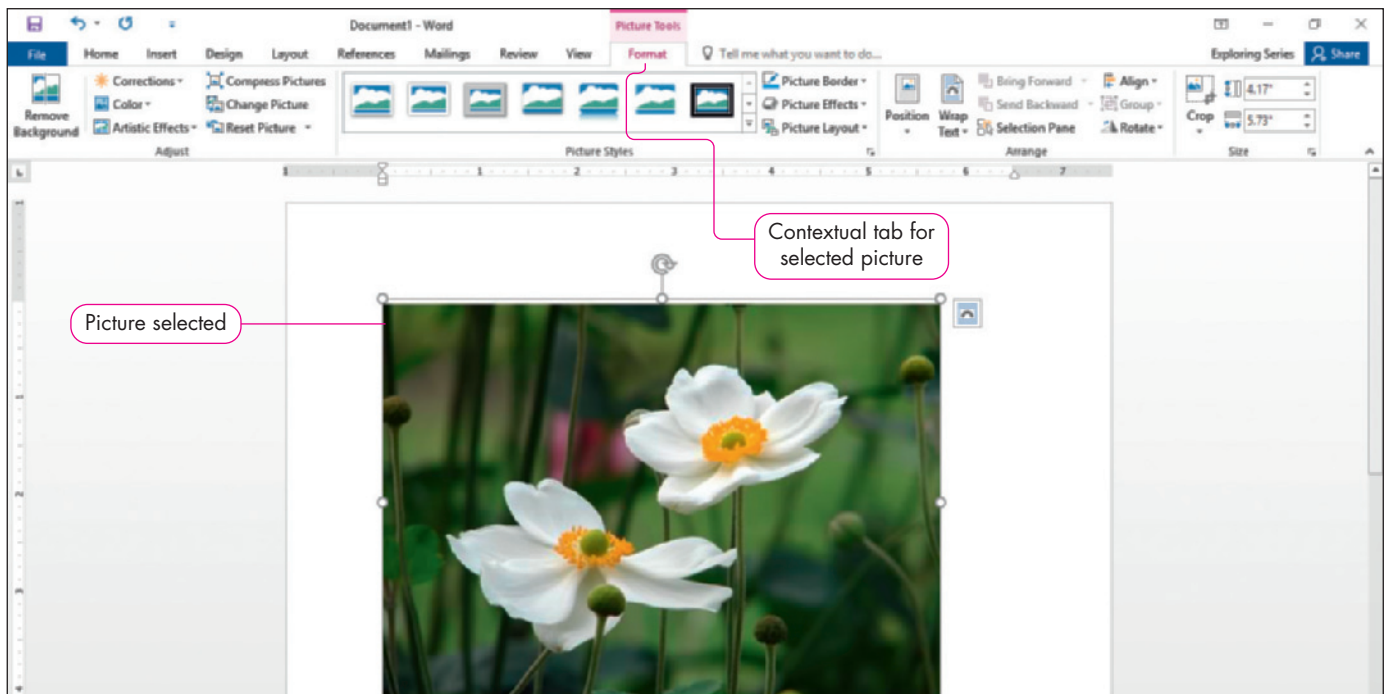


FIGURE 1.7 A Contextual Tab

Word 2016, Windows 10, Microsoft Corporation