



New Accounting Titles Prepare Students for Success

Coming May 2017!

PREVIEW PACKAGE

Download and review the materials to see what's coming.

QuickBooks Online

Make your move to the cloud a smooth one.

Intuit® is moving QuickBooks to the cloud! Are you ready for this new opportunity? With this new solution, both you and your students will be able to transition with ease.



Q Take a Closer Look!

[Overview](#)

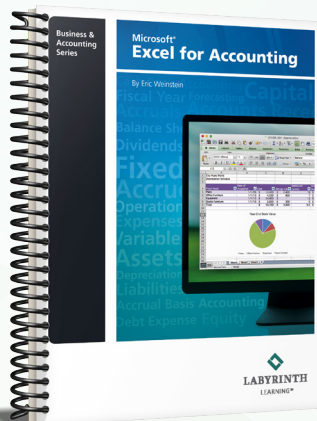
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[Sample Chapter](#)

Excel for Accounting

It's anything but cookie cutter.

We've crafted the ideal blend of accounting principles and Microsoft® Excel instruction that offers the easiest, most effective way to teach students how to solve accounting problems using Excel.



Q Take a Closer Look!

[Overview](#)

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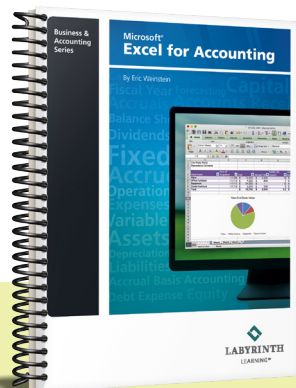
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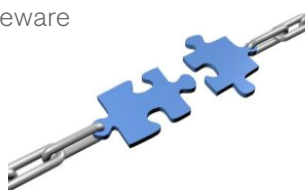
Microsoft® Excel for Accounting

YOUR IDEAL RESOURCE FOR CREATING EXCEL-SAVVY ACCOUNTING STUDENTS

Learn more and receive a personal demo of this new textbook at www.lablearning.com/EFA

Connect Excel to Accounting Tasks

Accountants rely on Excel weekly, if not daily, to illustrate and summarize financial statements and solve problems. This courseware is specifically designed to give accounting students the foundation needed to use Excel in their chosen profession. Key Excel concepts and features are uniquely connected to the common accounting activities that require their use.



Prepare Learners for the Real World

The ability to apply what is learned in coursework to real-world situations is critical to student success.

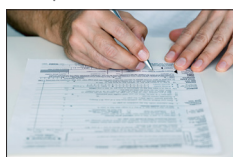
	A	B	C	D
1	Date	Income	Expenses	Profit
2	2005-12-17	235 €	128 €	107 €
3	2005-12-18	311 €	124 €	187 €
4	2005-12-19	457 €	486 €	-29 €
5	2005-12-20	232 €	132 €	100 €
6	2005-12-21	122 €	134 €	-12 €
7	2005-12-22	120 €	223 €	-95 €
8	2005-12-23	432 €	218 €	214 €
9	2005-12-24	256 €	121 €	135 €
10		2,173 €	1,546 €	627 €
11				
12	Avg. Profit	=AVERAGE(D2:D9)		

The text follows a fictional company to demonstrate how concepts and exercises correlate to practical circumstances. Examples and exercises mimic situations that

accountants encounter in real work environments. Each chapter ends with *Real-World Accounting Application* — further reinforcing how to apply each chapter's concepts to actual situations.

Reinforce Fundamental Accounting Knowledge

Even when prerequisite coursework has been completed, students benefit from a review of key



topics. Quick *Accounting Refreshers* help bring all students to a basic understanding of the fundamental accounting

principles behind the tasks. Each chapter starts with an overview of relevant accounting concepts and underlying principles, giving every student the opportunity to refresh knowledge before applying Excel functionality.

Save Time with a Complete Set of Resources

The text, eLab and an extensive set of resources combine for a completely ready-to-go solution. Prebuilt quizzes, chapter tests and a final exam can be used as is or customized as desired. Course preparation documents, lecture notes, PowerPoint slides and other resources significantly reduce preparation time.



Rely on Our Proven Instructional Design

Give your students the benefit of proven results. Excel for Accounting utilizes the same step-by-step approach that has been successfully used by thousands of colleges and adult education programs for more than 20 years. We start with plenty of detailed instruction and progressively work students toward independence, allowing students of all capabilities to reach mastery.



Reduce time-consuming tasks with auto-grading of tests and quizzes

Every purchase includes an eLab license key. All tests and quizzes can be completed online and provide instant feedback and learning resources. Prebuilt quizzes, chapter tests and a final exam are included. Manage grades within eLab or integrate with your LMS to manage grades from your standard gradebook.





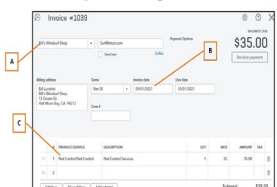
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Learn more and receive a personal demo of eLab Quick Grader—automated grading of exercises!
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Simplify teaching and learning

Labyrinth solutions offer a profoundly different learning experience. Our unique approach is driven by guiding principles based on years of refinement of an instructional design that engages students and makes learning easy and effective. Instructor resources reduce prep time and simplify instruction. And our commitment to value makes our solutions affordable for all types of students.

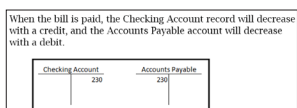
Prepare your students for the real world



Students master concepts and skills by working through a progression of exercises. Project scenarios replicate real world situations—giving your students the experience they need to be successful in today's workplace

Make the connection between QuickBooks and accounting principles

Understanding accounting principles helps students grasp why QuickBooks behaves the way it does.



Our Behind the Scenes feature explains and visually demonstrates the underlying accounting principle related to the QuickBooks action—in terms a non-accountant can understand.

Teach and learn with up-to-date content

The ebook—included with every purchase—enables you to keep as current as possible with Intuit's monthly updates to QuickBooks Online. No more waiting for a reprint edition! The ebook also replaces long text paragraphs with embedded videos that increase student understanding.

Automate grading with eLab Quick Grader



Let eLab save you time! Our Quick Grader technology provides instant feedback to students. That's 39 reports per student that you won't have to grade! Prebuilt quizzes, chapter tests and a final exam are included. Manage grades within eLab or integrate with your LMS to manage grades from your standard gradebook.

Use of QuickBooks Online trial software

Students use the QuickBooks Online Test Drive to develop their skills and then build a company in the end-of-chapter exercises using the 12-month QuickBooks Online trial software license available free of charge from the Intuit Education Program.

Rely on Proven Instructional Design

Give your students the benefit of proven results. QuickBooks Online utilizes the same step-by-step approach that has been successfully used by thousands of colleges and adult education programs for more than 20 years. We start with plenty of detailed instruction and progressively work students toward independence, allowing students of all capabilities to reach mastery.



Give your students an edge

Certification gives students a competitive advantage in the search for employment. Students can take their exams with the confidence that they have mastered material that has been approved for the QuickBooks Certified User Program.



What Is eLab Quick Grader?

eLab Quick Grader is your online, automated grading platform for all QuickBooks reports generated in Apply Your Skills exercises.

How Does eLab Quick Grader Work?

- 1 Complete the exercise in QuickBooks and generate reports as instructed
- 2 Export the QuickBooks report to Excel
- 3 Upload exported report to eLab
- 4 eLab Quick Grader grades the student work and provides immediate feedback

Students receive a summary of results with detailed feedback.

Student Name:		Bill Smith	
Assignment Title:		AYS Chapter 4-2	
Total Points:		120 out of 170	
Total	Points Earned	Result	
10	0	✗	The check for Animal Lovers should
10	10	✓	The BEU Security bill payment sho
10	10	✓	The payment amount of the Bothel
10	10	✓	The payment amount of the Eastsi
10	10	✓	The payment amount of the Kellern
10	0	✗	Check number 1418 to Laura's Caf
10	0	✗	The bill entered for Northshore Wa

Result	Task Instruction
✗	The check for Animal Lovers should be dated 07/22/2016 and in the amount of 135.00. Make sure the date and amount have been entered as indicated.

The student's Excel report is updated with feedback on any errors—right where they were made.

	Type	Date	Num	Memo	Account	Clr	Split	Debit	Credit
Animal Lovers	Check	07/21/2016		The check for Animal Lovers should be dated 07/22/2016 and in the amount of 135.00. Make sure the date and amount have been entered as indicated.					
BEU Security	Bill Pmt - Check	07/21/2016	1420	B3310-204	Checking	Accounts Payable			135.00
Bothell Pet Supply Co.	Bill Pmt - Check	07/21/2016	1421	SC2015	Checking	Accounts Payable			49.99
Eastside Waste Management	Bill Pmt - Check	07/21/2016	1422	32094-119	Checking	Accounts Payable			1,605.00
Kellegan Insurance	Bill Pmt - Check	07/21/2016	1423		Checking	Accounts Payable			241.36
Laura's Cafe	Check	07/21/2016	1						84.35

Date	Num	Memo	Account	Clr	Split
07/21/2016		The check for Animal Lovers should be dated 07/22/2016 and in the amount of 135.00. Make sure the date and amount have been entered as indicated.			



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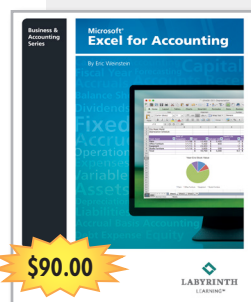
Business & Accounting Solutions

Our Latest Solutions



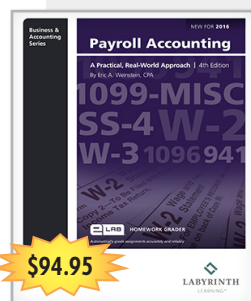
QuickBooks Online

Comprehensive and Level 1 editions available. Includes accounting cycle coverage, critical thinking exercises, and new case studies for real-world accounting experiences. Price includes eLab license. Comprehensive: \$90.00 net, \$117.00 online. Level 1: \$45.00 net, \$59.00 online.



Microsoft® Excel for Accounting

The ideal blend of accounting principle coverage and detailed, step-by-step instruction on using Microsoft Excel. Students are taught how to apply their newly acquired Excel skills when solving real-world accounting problems. \$90.00 net, \$117.00 online.



Payroll Accounting, 4th Edition

The most effective courseware for teaching and learning payroll accounting. Updated with 2016 IRS forms and tax rates. Coverage of theory and laws is balanced with practical, step-by-step instructions to complete payroll tasks. \$94.95 net, \$123.50 online.

All textbooks include an extensive set of instructor support resources and online student resources.

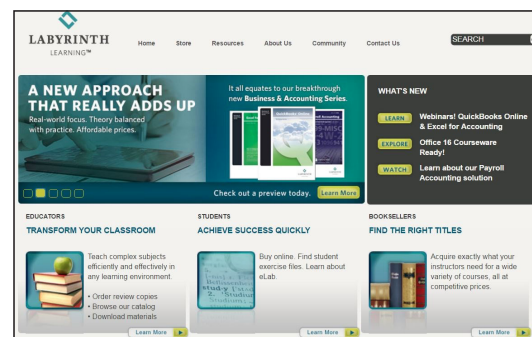
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Visit www.lablearning.com/business-accounting

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Chapter 1:

Getting Started with QuickBooks Online

LEARNING OBJECTIVES

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- Access the test drive data file
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- Define and use features in the top-right navigation tools
- Discuss some accounting basics

PROJECT: Craig's Design & Landscaping Service

Introducing QuickBooks Online

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Updates and the Ever-Evolving User Interface

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Security

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- Enter opening balances

PROJECT: Puppy Luv Pampered Pooch

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Editing the Default Chart of Accounts

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BEST PRACTICES

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BEST PRACTICES

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BEST PRACTICES

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Reinforce Your Skills

Apply Your Skills *(with Quick Grader!)*

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- Edit sales settings and preferences
- Create sales receipts and invoices
- Receive payments from customers
- Record bank deposits
- Create sales reports

PROJECT: Craig's Design and Landscaping Service

The Customers Center

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Apply Your Skills *(with Quick Grader!)*

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PROJECT: Craig's Design and Landscaping Service

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Apply Your Skills *(with Quick Grader!)*

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- Match and add transactions
- Reconcile bank and credit card accounts
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- Create financial statement reports

PROJECT: Craig's Design and Landscaping Service

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VIDEO: Banking Center Tour

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Apply Your Skills *(with Quick Grader!)*

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- Match or add transactions
- Set up bank rules
- Reconcile bank and credit card accounts
- Create financial statement reports

PROJECT: Puppy Luv Pampered Pooch

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Prepare Your Deliverables

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Prepare Your Deliverables

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Prepare Your Deliverables

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- Set up and receive products
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- Apply vendor credits
- Set up sales tax
- Invoice for sale of a product
- Create a credit memo for returns
- Perform inventory adjustments
- Create product-related reports

PROJECT: Craig's Design and Landscaping Service

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BEHIND THE SCENES

Enabling Tracking

Entering Inventory

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Cost of Goods Sold Account

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Tackle the Tasks

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Reinforce Your Skills

Apply Your Skills *(with Quick Grader!)*

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- Prepare journal entries
- Create recurring entries
- Set up fixed-asset purchases
- Set up long-term liabilities
- Transfer funds between accounts
- Set up and manage petty cash
- Write off uncollectable receivables (bad debt)
- Set up budgets and view budget reports

PROJECT: Craig's Design and Landscaping Service

Recording Other Current Assets

BEHIND THE SCENES

Journal Entries and Recurring Transactions

Fixed Assets and Long-Term Liabilities

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- Access QuickBooks Labs

PROJECT: Craig's Design and Landscaping Service

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Self-Assessment

Reinforce Your Skills

Apply Your Skills *(with Quick Grader!)*

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Staying on Track: The Accounting Cycle, Classes, and Locations

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- Identify steps of the accounting cycle
- Enable class and location tracking
- Record transactions using class and location tracking
- Prepare delayed charges and credits

PROJECT: Craig's Design and Landscaping Service

Generally Accepted Accounting Principles and the

Accounting Cycle

GAAP

Accounting Cycle Steps

Class Tracking

Location Tracking

Delayed Charges and Credits

Tackle the Tasks

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Reinforce Your Skills

Apply Your Skills *(with Quick Grader!)*

Chapter 11:

Completing the Accounting Cycle, Closing Books, and Auditing Changes

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- Complete the accounting cycle
- Create a trial balance report
- Create adjusting journal entries
- Adjust inventory quantities
- Create financial statements and management reports
- Close the books in QuickBooks Online
- Review the audit log and audit history

PROJECT: Craig's Design and Landscaping Service

Completing the Accounting Cycle

Creating the Trial Balance Report and Making Adjustments

Adjusting Journal Entries

Comparing Inventory Quantities and Making Adjustments

Adjusted Trial Balance Report

Creating Financial Statements

Assembling Management Reports

Closing the Books

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Audit Log

Audit History

Self-Assessment

Reinforce Your Skills

Apply Your Skills *(with Quick Grader!)*

BEST PRACTICES: Expanded Browser Functionality

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- Set up new employees
- Pay employees
- File payroll tax forms
- Create employee and payroll reports

PROJECT: Craig's Design and Landscaping Service

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Payroll Setup

The Employee Center

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Payroll Taxes

Payroll Tax Forms

Payroll Reports

Tackle the Tasks

Self-Assessment

Reinforce Your Skills

Apply Your Skills *(with Quick Grader!)*

Chapter 13:

Bringing It All Together!

LEARNING OBJECTIVES

- Create a new company data file
- Add and edit list information
- Record business transactions
- Import bank feed transactions
- Set up bank rules
- Reconcile bank and credit card accounts
- Create adjusting entries
- Create financial statement reports

PROJECT: Raincross Auto Detailing Case Study

New Company Set Up

Create Daily Transactions

Week 1

Week 2

Week 3

Week 4

Glossary

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4

Working with Vendors



Vendors are the people and businesses you buy products and services from. In this chapter, you will build a vendor list. You will prepare vendor-related purchase and expense transactions, such as creating an Accounts Payable bill and recording a credit card and debit card purchase. You will also create vendor Accounts Payable and purchase-related management reports to assist with purchase history and unpaid bills.

LEARNING OBJECTIVES

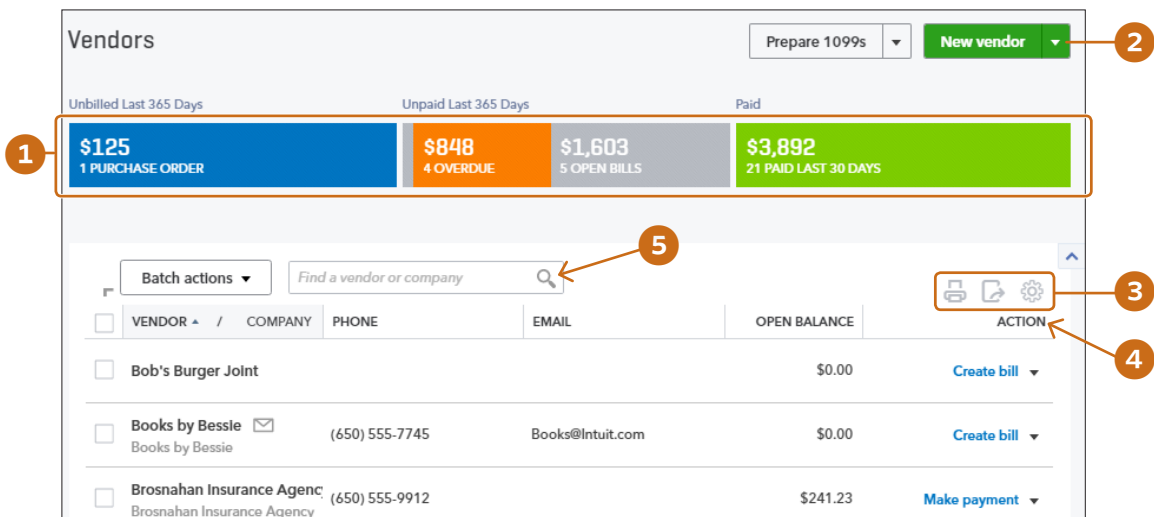
- ▶ Set up vendors
- ▶ Edit settings and preferences
- ▶ Create expense transactions
- ▶ Make payments to vendors
- ▶ Create vendor reports

Project: Craig's Design and Landscaping Services

Craig Carlson purchases supplies from a number of businesses. He would like to set up all these businesses as vendors in QuickBooks Online. Craig pays for his purchases in several different ways. He has an account with some of his vendors, so that he can make purchases and then receive a bill to be paid later. Craig also uses his credit and debit cards for many purchases.

The Vendors Center

The Vendors center is located on the Navigation bar. It provides information about your vendors and your transactions with them in a single place. It allows you to perform vendor-related tasks such as searching for vendors, adding vendors, importing vendor lists, editing and merging vendor information, and making vendors inactive. The Vendors center also includes tools that allow you to quickly perform tasks such as printing and exporting vendor lists, and adjusting list settings.



The screenshot shows the 'Vendors' page in QuickBooks Online. At the top, there's a 'Vendors' header with a 'Prepare 1099s' dropdown and a 'New vendor' button (callout 2). Below this is a summary bar (callout 1) with four colored boxes: a blue box for '\$125 1 PURCHASE ORDER' (Unbilled Last 365 Days), an orange box for '\$848 4 OVERDUE' (Unpaid Last 365 Days), a grey box for '\$1,603 5 OPEN BILLS', and a green box for '\$3,892 21 PAID LAST 30 DAYS' (Paid). The main table lists vendors with columns for 'VENDOR / COMPANY', 'PHONE', 'EMAIL', 'OPEN BALANCE', and 'ACTION'. The table includes vendors like 'Bob's Burger Joint', 'Books by Bessie', and 'Brosnahan Insurance Agency'. The 'ACTION' column contains links like 'Create bill' and 'Make payment'. Above the table is a search bar (callout 5) and a 'Batch actions' dropdown. To the right of the table are icons for print, export, and settings (callout 3), and a dropdown menu for individual vendor actions (callout 4).

VENDOR / COMPANY	PHONE	EMAIL	OPEN BALANCE	ACTION
Bob's Burger Joint			\$0.00	Create bill
Books by Bessie Books by Bessie	(650) 555-7745	Books@Intuit.com	\$0.00	Create bill
Brosnahan Insurance Agency Brosnahan Insurance Agency	(650) 555-9912		\$241.23	Make payment

- 1 Money bar
- 2 New Vendor icon
- 3 Print, Export, and Settings icons
- 4 Individual vendor actions menu
- 5 Vendor search field

The Money Bar

The Vendors center's multi-colored money bar gives you a quick snapshot of Accounts Payable, including open, past-due, and paid bills. You can click money bar sections to access more detailed information about these bills.

The Vendor List

The Vendor list displays vendor names, contact information, and open balances at a glance, as well as detailed transaction information when you select a specific name. The Action menu lets you quickly create transactions for the selected vendor.

You can add vendors individually or you can import them from an Excel or CSV worksheet.

Adding Vendors

QuickBooks Online does not allow you to add two vendors with the exact name. You must include a middle initial or other distinguishing identifier in the Display Name As field to make the names different.

TIP! Using the Vendors center is not the only way to add vendors. You can also add new vendors from within a purchase/expense form by typing the vendor name and adding details as directed.

✓ Best Practice

As you create new vendors, enter as much information as possible so you can fully utilize the power of QuickBooks Online data when creating management reports. For example, be sure to include address and contact information in the Vendor list.

DEVELOP YOUR SKILLS 4-1

In this exercise, you will add a new vendor in Craig's Design and Landscaping Services.

Before You Begin: Access the QuickBooks Online test drive at <https://qbo.intuit.com/redir/testdrive> and leave the test drive open for the entire chapter.

NOTE! Remember, the QuickBooks Online user interface is updated frequently. Some of the names and features in course exercises may be different from what you see on your interface.

1. Click **Vendors** on the Navigation bar.
2. Click the **New Vendor** button at the top-right corner of the browser window.
3. Type **Morning Supplies** as the company name and then tap **Tab**.
4. The display name should fill automatically; if not, type **Morning Supplies** here and then tap **Tab** twice.
5. For the address, type **1458 Magnolia** and tap **Tab**, type **Bayshore** and tap **Tab**, type **CA** and tap **Tab**, and then type **94305** and tap **Tab** four times.
6. Type **650-555-8814** in the Phone field.

7. Choose **Net 10** in the Terms field.

Vendor Information					
Title	First name	Middle name	Last name	Suffix	Email
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="Separate multiple emails with commas"/>
Company			Phone	Mobile	Fax
<input type="text" value="Morning Supplies"/>			<input type="text" value="(650) 555-8814"/>	<input type="text"/>	<input type="text"/>
*Display name as			Other	Website	
<input type="text" value="Morning Supplies"/>			<input type="text"/>	<input type="text"/>	
Print on check as <input checked="" type="checkbox"/> Use display name			Billing rate (/hr)	Terms	
<input type="text" value="Morning Supplies"/>			<input type="text"/>	<input type="text" value="Net 10"/>	
Address map			Opening balance	as of	
<input type="text" value="1458 Magnolia"/>			<input type="text"/>	<input type="text" value=""/>	
<input type="text" value="Bayshore"/>		<input type="text" value="CA"/>	Account no.		
<input type="text" value="94305"/>		<input type="text" value="Country"/>	<input type="text" value="Appears in the memo of all payments"/>		
			Tax ID		

8. Click **Save**.

The Display Name As field is the only required field to set up a new vendor. By completing more fields, you will be able to create more vendor management reports.

Importing Vendor Data from an Excel or CSV File

QuickBooks Online allows you to import vendor lists from an Excel or comma-separated values (CSV) worksheet. One way you can import vendor lists is by accessing the Import Data tool from the Gear menu.

The Import Data tool allows you to import information not only about vendors, but also customers, Charts of Accounts, and products and services. The tool includes forms and prompts to help you upload and map your lists to QuickBooks Online format. This feature is a great time saver for existing businesses that have large lists.

QuickBooks Online often provides multiple ways to do something, depending on where you are working within the application. Besides using the Import Data tool, you can also import data from within the Vendors center.

New vendor ▼

Import vendors

Tools

Import Data

Export Data

Reconcile

Budgeting

Audit Log

Order Checks

⚙️ Gear ⚙️ → Tools → Import Data

⚙️ Vendors Center → New Vendor menu ▼ → Import Vendors

Editing, Merging, and Making Vendors Inactive

Your Vendor list is customizable. After you add a vendor, you can go back and edit the record. You can also merge two lists if you find that the same vendor is listed twice. Doing so will combine all the vendor's transactions into a single record. Finally, to keep your Vendor list current and less cluttered, you can inactivate vendor records that you are no longer dealing with. As with customers, you can inactivate vendors but never truly delete them.

DEVELOP YOUR SKILLS 4-2

In this exercise, you will edit vendor data, merge two vendor records, and make one vendor inactive. Books by Bessie notified you that they had moved. You will start by editing the address.

1. Choose **Books by Bessie** from the Vendors list.
2. Click the **Edit** button and then type the new address as shown:

The screenshot shows a form for editing a vendor's address. At the top, there is a dropdown menu labeled '*Display name as' with 'Books by Bessie' selected. Below it, a checkbox labeled 'Print on check as' is checked, and the text 'Use display name' is next to it. Underneath, there is a text field containing 'Books by Bessie'. The 'Address' section is highlighted with a red box. It contains a text field with '9871 Broadway', a dropdown menu for the city with 'Palo Alto' selected, a dropdown menu for the state with 'CA' selected, a text field for the zip code with '94303', and a dropdown menu for the country with 'Country' selected.

3. Click **Save**.
4. Return to the **Vendors** list.

Merge Two Vendors

You have discovered that Lee Advertising is actually owned by Tony Rondonuwu. You will now merge these two records.

5. Choose **Tony Rondonuwu** from the Vendors list.
6. Click the **Edit** button and then change the display name to: **Lee Advertising**

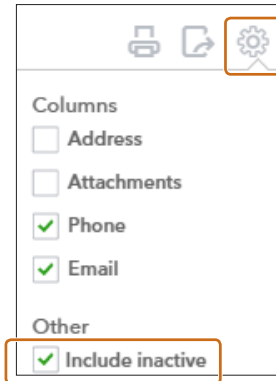
The screenshot shows a form for editing a vendor's information. At the top, there is a section titled 'Vendor Information'. Below it, there are five text fields for 'Title', 'First name', 'Middle name', 'Last name', and 'Suffix'. The 'Title' field contains 'Mr.', 'First name' contains 'Tony', 'Middle name' contains 'L', 'Last name' contains 'Rondonuwu', and 'Suffix' contains 'Jr.'. Below these fields is a text field for 'Company' which is empty. The '*Display name as' dropdown menu is highlighted with a red box and contains 'Lee Advertising'. Below it, a checkbox labeled 'Print on check as' is checked, and the text 'Use display name' is next to it. At the bottom, there is a text field containing 'Lee Advertising'.

7. Click **Save** and confirm the change, and then return to the **Vendors** list.

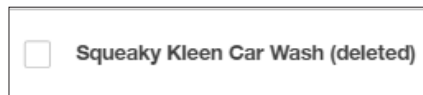
Make a Vendor Inactive

Craig reviewed the Vendor list and wants to remove old or inactive vendors. Squeaky Kleen Car Wash closed last month, so you will make this vendor inactive.

8. Select **Squeaky Kleen Car Wash** from the Vendors list.
9. Click the **Edit** button and then click **Make Inactive** at the bottom of the window; confirm the change when prompted.
10. Return to the **Vendors** list.
11. To see a complete list of vendors, including inactive vendors, click the **Settings** icon above the Action menu and then click in the checkbox for **Include Inactive**.



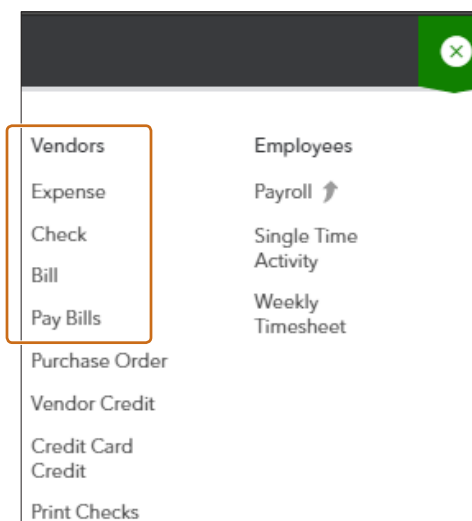
The inactive vendor is now included in the list, but it has been deleted.



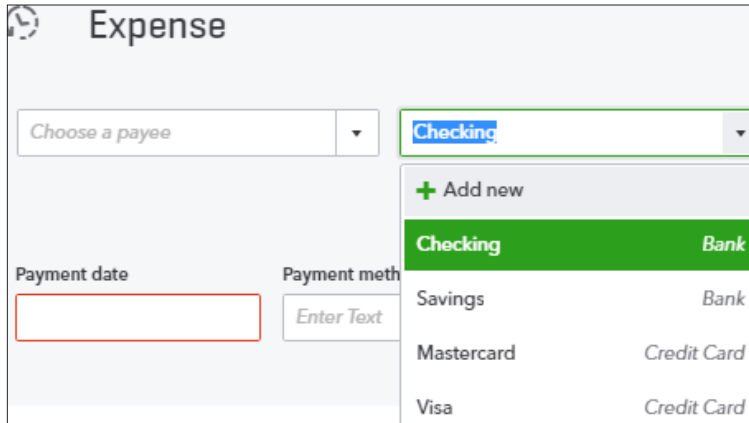
Creating Vendor Transactions: Purchases and Expenses

Vendor transactions in QuickBooks Online are recorded either as an expense when you pay at the time of purchase, or as a bill if you make a purchase and pay later. Expense forms are used for all payments made with a debit card, credit card, automatic withdrawal, or wire transfer. If you have an account with your vendors, you will enter the bill on the date you made the purchase and pay the bill at a later time.

Remember that all QuickBooks Online forms are intuitive. An expense form will always credit the bank or credit card account chosen. A check form

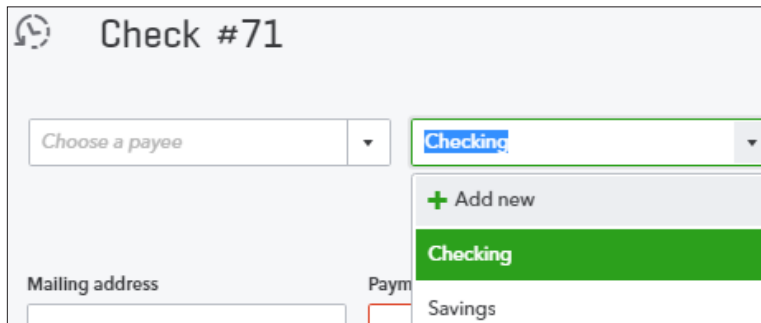


will always credit the bank account chosen. A bill form will always credit Accounts Payable; this default setting cannot be changed.



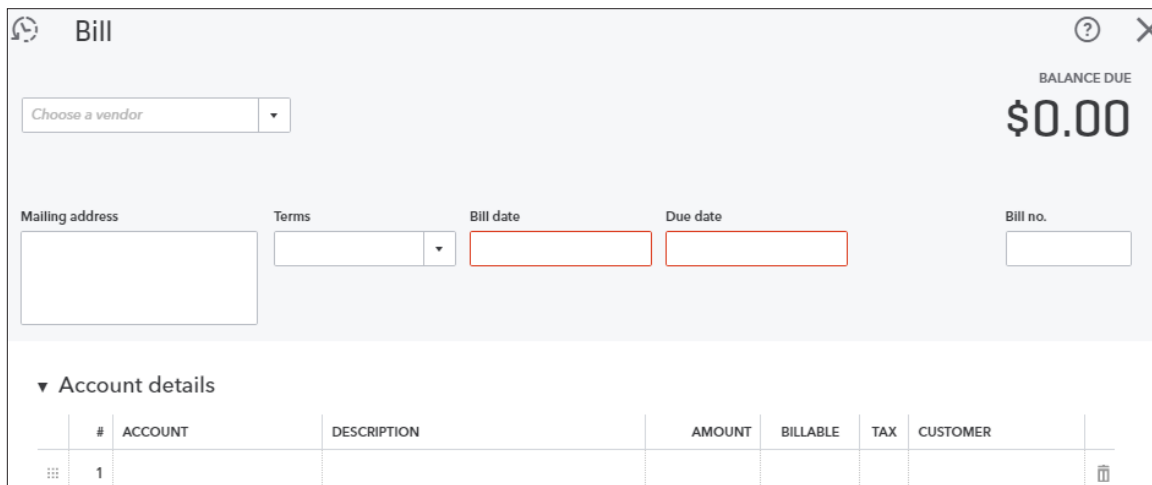
The Expense form features a header with a clock icon and the title "Expense". Below the header, there is a dropdown menu labeled "Choose a payee" and a dropdown menu labeled "Checking" with a green border. To the right of the "Checking" dropdown is a "+ Add new" button. Below the dropdowns, there is a "Payment date" field with a red border and a "Payment method" field with a "Enter Text" button. A list of payment methods is displayed on the right, including "Checking" (Bank), "Savings" (Bank), "Mastercard" (Credit Card), and "Visa" (Credit Card). The "Checking" option is highlighted in green.

Expense form



The Check form features a header with a clock icon and the title "Check #71". Below the header, there is a dropdown menu labeled "Choose a payee" and a dropdown menu labeled "Checking" with a green border. To the right of the "Checking" dropdown is a "+ Add new" button. Below the dropdowns, there is a "Mailing address" field and a "Payment" field with a red border. A list of payment methods is displayed on the right, including "Checking" (Bank) and "Savings" (Bank). The "Checking" option is highlighted in green.

Check form



The Bill form features a header with a clock icon and the title "Bill". Below the header, there is a dropdown menu labeled "Choose a vendor". To the right of the dropdown menu is a "BALANCE DUE" label and a large "\$0.00" display. Below the dropdown menu, there is a "Mailing address" field, a "Terms" dropdown menu, a "Bill date" field with a red border, a "Due date" field with a red border, and a "Bill no." field. Below these fields, there is a "▼ Account details" section. A table is displayed below the section, with columns for "#", "ACCOUNT", "DESCRIPTION", "AMOUNT", "BILLABLE", "TAX", and "CUSTOMER". The table contains one row with the value "1" in the "#" column. A trash icon is located at the bottom right of the table.

#	ACCOUNT	DESCRIPTION	AMOUNT	BILLABLE	TAX	CUSTOMER
1						

Bill form

BEHIND THE SCENES

In accrual basis accounting, you record the expense when you have the obligation to pay. Remember, QuickBooks Online is a double-entry accounting system, meaning every time one account is affected, there is an equal and opposite effect on a corresponding account. QuickBooks Online handles all the accounting for you. Here is an example of what's happening behind the scenes.

When entering a bill for General Supplies for \$230, the Supplies Expense record increases with a debit and the Accounts Payable (liability) record increases with a credit.

Supplies Expense		Accounts Payable	
230			230

When the bill is paid, the Checking Account record will decrease with a credit, and the Accounts Payable account will decrease with a debit.


Checking Account		Accounts Payable	
	230	230	









Customizing Expense Form Settings



Before you begin recording expense transactions, decide what information should appear on expense forms and then check that form settings are appropriate for your business. Although you can customize the content of expense forms, using the Edit icon in the Expenses folder, you cannot customize their appearance (as you can with customer forms such as invoices and sales receipts).

In the following figure, all of the defaults are On for Craig's Design and Landscaping.

Account and Settings			
Company	Bills and expenses	Show items table on expense and purchase forms	On
Sales		Track expenses and items by customer	On
Expenses		Make expenses and items billable	On
		Default bill payment terms	
Advanced	Purchase orders	Use purchase orders	On

When you click the Edit  icon in the Bills and Expenses section, you can change the terms, markup, sales tax, and more.

Company	Bills and expenses	<input checked="" type="checkbox"/> Show Items table on expense and purchase forms  On <input checked="" type="checkbox"/> Track expenses and items by customer  On <input checked="" type="checkbox"/> Make expenses and items billable  On <input type="checkbox"/> Markup with a default rate of <input type="text" value="0.00"/> %  <input checked="" type="checkbox"/> Track billable expenses and items as income  <input checked="" type="radio"/> In a single account <input type="radio"/> In multiple accounts  <input type="checkbox"/> Charge sales tax  Default bill payment terms <input type="text"/>  Cancel <input type="button" value="Save"/>
---------	--------------------	--

 Gear  Account and Settings → Expenses

Creating Check, Expense, and Bill Records

QuickBooks Online forms are designed to work dynamically with one another. If you link your Chart of Accounts and your Products and Services lists correctly as you prepare your expense or purchase forms, the appropriate accounting transactions will be created when you make a transaction.


If you write a check at the time of a purchase, you will use a check form to record your transaction. If you use a credit card or debit card to pay for items at the time of purchase, you will use an expense form. If you purchase goods and services and pay for them later, then you will enter the transaction in a bill form and pay the bill at a later date.

WARNING! It's not a good practice to record expenses on a journal entry or directly on a bank withdrawal form. The profit and loss report would be correct, but the purchases/expenses would not appear on vendor reports.

DEVELOP YOUR SKILLS 4-3

In this exercise, you will record a check, a credit card purchase and a debit card purchase for purchases made on September 1, 2021. You will start by recording a purchase made by check at Morning Supplies.

Craig stopped by Morning Supplies to purchase some materials he needed. It was a small purchase, so he used a check that he happened to have in his wallet.

1. Choose **Create**  → **Vendors** → **Check**.
2. Choose **Morning Supplies** as the payee field and tap **Tab**.
3. Choose **Checking** as the account type, if necessary, and tap **Tab**.
4. Type **09/01/2021** for the payment date and tap **Tab**.
5. If necessary, enter **71** as the check number (it will likely autofill for you).
6. Choose **Landscaping Services: Job Materials** in the Account field and tap **Tab**.

7. Type **Misc. Parts and Plant Feed** in the Description field and tap **Tab**.
8. Type **42.75** in the Amount field.

Check #71 AMOUNT

Morning Supplies Checking Balance \$1,158.25

\$42.75

Mailing address: Morning Supplies, 1458 Magnolia, Bayshore, CA 94305

Payment date: 09/01/2021

Check no.: 71 ☐ Print later

▼ Account details

#	ACCOUNT	DESCRIPTION	AMOUNT	BILLABLE	TAX	CUSTOMER
1	Landscaping Services:Job Materials	Misc. Parts and Plant Feed	42.75			

9. Choose to **Save and Close** the check form.

Create an Expense Form

Craig met Bill for a quick lunch at Bob's Burger Joint on 09/01/2021. Craig paid with his debit card. You will now use an expense form to record the transaction.

TIP! When entering an expense transaction, it's important to indicate from which account it was paid.

1. Choose **Create** → **Vendors** → **Expense**.
2. Choose **Bob's Burger Joint** as the payee field and tap **Tab**.
3. Choose **Checking** as the account type, if necessary, and tap **Tab**.
4. Type **09/01/2021** for the payment date and tap **Tab** twice.
5. Type **Debit** in the Ref. No. field and tap **Tab**.
6. Choose **Meals and Entertainment** in the Account field and tap **Tab**.
7. Type **Lunch with Bill** in the Description field and tap **Tab**.
8. Type **24.97** in the Amount field.

Expense #Debit AMOUNT

Bob's Burger Joint Checking Balance \$1,158.25

\$24.97

Payment date: 09/01/2021

Payment method: Enter Text

Ref no.: Debit

▼ Account details

#	ACCOUNT	DESCRIPTION	AMOUNT	BILLABLE	TAX	CUSTOMER
1	Meals and Entertainment	Lunch with Bill	24.97			

9. Choose **Save**.

Now you will view the accounting behind the scenes for this transaction.


10. In the bottom tray, click the **More** button and then choose **Transaction Journal**.

Craig's Design and Landscaping Services							
JOURNAL							
All Dates							
DATE	TRANSACTION TYPE	NUM	NAME	MEMO/DESCRIPTION	ACCOUNT	DEBIT	CREDIT
09/01/2021	Expense	Debit	Bob's Burger Joint		Checking		\$24.97
				Lunch with Bill	Meals and Entertainment	\$24.97	\$24.97
TOTAL						\$24.97	\$24.97

In this example, Meals and Entertainment is the debit, and Checking is the credit.

Record a Credit Card Purchase

In this transaction, you will enter a credit card purchase for coffee mugs with a logo from Mahoney Mugs.

11. Choose **Create**  **Vendors** **Expense**.
12. Complete the Expense form as noted, tapping **Tab** to navigate the fields:
- Payee: **Mahoney Mugs**
 - Account: **Mastercard**
 - Payment Date: **09/01/2021**
 - Ref No.: **MC**
 - Account: **Office Expenses**
 - Description: **Mugs with Logo**
 - Amount: **36.50**

Expense #MC

Mahoney Mugs

Mastercard

Balance \$157.72

AMOUNT

\$36.50

Payment date

09/01/2021

Payment method

Enter Text

Ref no.

MC

▼ Account details

#	ACCOUNT	DESCRIPTION	AMOUNT	BILLABLE	TAX	CUSTOMER
1	Office Expenses	Mugs with Logo	36.50			


13. Choose **Save and Close**.

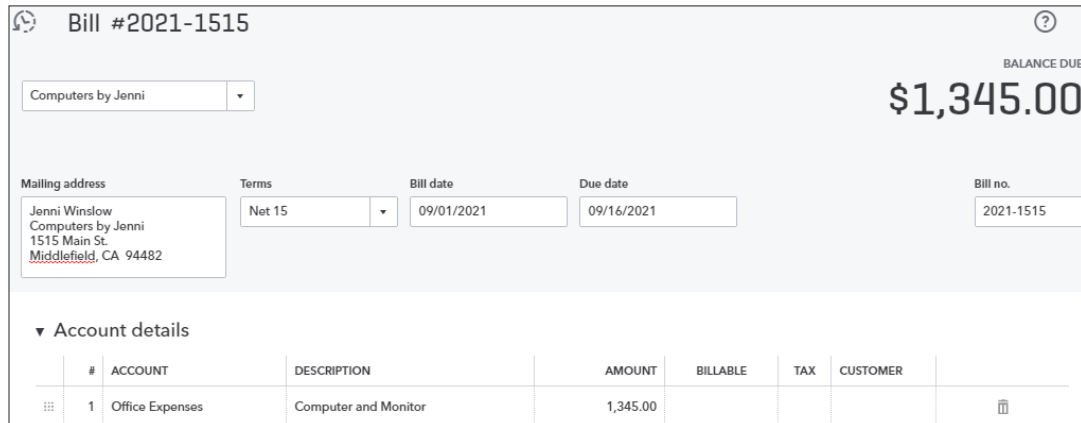
Managing Accounts Payable

You can use QuickBooks Online to manage your Accounts Payable—that is, purchases that will be paid later, or on account. When vendors send you bills and you enter these bills in QuickBooks Online, you can keep track of the amount you owe for purchases in any given period. As you set up each vendor, you can specify the terms for that vendor. You can also enter the terms directly on the bill form.

DEVELOP YOUR SKILLS 4-4

Craig has ordered new computers and monitors for his office from Computers by Jenni. They will be delivered today, 9/1/2021, and the terms are net-15 days. In this exercise, you will enter a bill for purchases made today and payable in fifteen days.

1. Choose Create  → Vendors → Bill.
2. Complete the Bill form as follows, using **Tab** to navigate the fields:
 - Vendor: Computers by Jenni
 - Terms: Net 15
 - Bill Date: 09/01/2021
 - Bill No.: 2021-1515
 - Account: Office Expenses
 - Description: Computer and Monitor
 - Amount: 1345.00



The screenshot shows the 'Bill #2021-1515' form in QuickBooks Online. At the top right, the 'BALANCE DUE' is \$1,345.00. The vendor is 'Computers by Jenni'. The mailing address is 'Jenni Winslow, Computers by Jenni, 1515 Main St., Middlefield, CA 94482'. The terms are 'Net 15', the bill date is '09/01/2021', and the due date is '09/16/2021'. The bill number is '2021-1515'. Below the form fields, there is a table for 'Account details'.

	#	ACCOUNT	DESCRIPTION	AMOUNT	BILLABLE	TAX	CUSTOMER
1	1	Office Expenses	Computer and Monitor	1,345.00			

3. Choose **Save**.
4. In the bottom tray, choose **More** → **Transaction Journal**.

Accounts Payable is the credit, which increases liabilities on the balance sheet. Office Supplies is the debit, which increases expenses on the profit and loss statement.

Accounts Payable Reports

The Reports center on the Navigation bar contains a number of vendor-related reports to help you manage your Accounts Payable. For example, the Manage Accounts Payable report in the All Reports folder lets you track what you owe and when payments are due so that you can manage your cash flow. The A/P Aging Summary report in the Recommended folder shows your unpaid bills and how long you have owed on them.

Recommended	Frequently Run	My Custom Reports	Management Reports	All Reports
All Reports				
Business Overview		Review Sales		
These reports show different perspectives of how your business is doing.		These reports group and total sales in different ways to help analyze your sales to see how you're doing and where you make your money.		
Manage Accounts Receivable		Review Expenses and Purchases		
These reports let you see who owes you money and how much they owe you so you can get paid.		These reports total your expenses and purchases and group them in different ways to help you understand what you spend.		
Manage Accounts Payable		Manage Sales Tax		
These reports show what you owe and when payments are due so you can take advantage of the time you have to pay bills but still make payments on time.		These reports help you manage the sales taxes you collect and then pay the tax agencies.		

DEVELOP YOUR SKILLS 4-5

In this exercise, you will create reports to assist you in managing the Accounts Payable for Craig's Design and Landscaping Services.

1. Click **Reports** in the Navigation bar.
2. In the Recommended Reports section, click **A/P Aging Summary**.
3. Type **09/30/2021** in the As Of field.
4. Click **Run Report**.

This report summarizes the vendors and the amounts due.

Craig's Design and Landscaping Services						
A/P AGING SUMMARY						
As of September 30, 2021						
	CURRENT	1 - 30	31 - 60	61 - 90	91 AND OVER	TOTAL
Brosnahan Insurance Agency					241.23	\$241.23
Computers by Jenni		1,345.00				\$1,345.00
Diego's Road Warrior Bodyshop					755.00	\$755.00
Norton Lumber and Building Mate...					205.00	\$205.00
PG&E					86.44	\$86.44
Robertson & Associates					315.00	\$315.00
TOTAL	\$0.00	\$1,345.00	\$0.00	\$0.00	\$1,602.67	\$2,947.67

5. To see details about various totals, click any amount.
6. Review details as you like and then return to the **Reports** center.
7. Click the **All Reports** tab, choose **Manage Accounts Payable**, and then choose **Vendor Balance Summary**.
8. Ensure that **All Dates** appears in the Transaction Date field and then click **Run Report**.

This report gives you similar information as the A/P Aging Summary, but in a different format.

Craig's Design and Landscaping Services	
VENDOR BALANCE SUMMARY	
All Dates	
	TOTAL
Brosnahan Insurance Agency	241.23
Computers by Jenni	1,345.00
Diego's Road Warrior Bodyshop	755.00
Norton Lumber and Building Materials	205.00
PG&E	86.44
Robertson & Associates	315.00
TOTAL	\$2,947.67

Craig would like to know whether any bills are overdue. The A/P Aging Detail Report will provide this information.

9. Return to the **Reports** center.
10. Choose **A/P Aging Detail** and notice the report lists each bill, the number of days it is past due, and the amount.

Craig's Design and Landscaping Services							
A/P AGING DETAIL							
As of November 11, 2016							
DATE	TRANSACTION TYPE	NUM	VENDOR	DUE DATE	PAST DUE	AMOUNT	OPEN BALANCE
~ 31 - 60 days past due							
09/01/2016	Bill		PG&E	10/01/2016	41	86.44	86.44
Total for 31 - 60 days past due						\$86.44	\$86.44
~ 1 - 30 days past due							
10/16/2016	Bill		Robertson & Associates	10/16/2016	26	315.00	315.00
10/16/2016	Bill		Norton Lumber and Building Ma...	10/16/2016	26	205.00	205.00
10/09/2016	Bill		Brosnahan Insurance Agency	10/19/2016	23	241.23	241.23
Total for 1 - 30 days past due						\$761.23	\$761.23
~ Current							
10/14/2016	Bill		Diego's Road Warrior Bodyshop	11/13/2016	-2	755.00	755.00
Total for Current						\$755.00	\$755.00
TOTAL						\$1,602.67	\$1,602.67

TIP! You can access similar information on the Vendors center money bar. Click the red Overdue section to display only overdue bills.

Vendors
[Clear Filter / View All](#)

Prepare 1099s

New vendor

Unbilled Last 365 Days

Unpaid Last 365 Days

Paid

\$125
1 PURCHASE ORDER

\$848
4 OVERDUE

\$2,948
6 OPEN BILLS

\$3,832
18 PAID LAST 30 DAYS

Batch actions

Find a vendor or company

<input type="checkbox"/>	VENDOR / COMPANY	PHONE	EMAIL	PENDING BILLS
<input type="checkbox"/>	PG&E	(888) 555-9465	utilities@noemail.com	1 Overdue bill
<input type="checkbox"/>	Norton Lumber and Building Materials	(650) 363-6578	Materials@intuit.com	1 Overdue bill
<input type="checkbox"/>	Brosnahan Insurance Agency	(650) 555-9912		1 Overdue bill
<input type="checkbox"/>	Robertson & Associates	(650) 557-1111		1 Overdue bill

Other Vendor Reports

The All Reports folder includes a category called Review Expenses and Purchases. These reports provide summaries and/or detailed information about purchases by vendor, as well as purchases by Product/Service.

Recommended
Frequently Run
My Custom Reports
Management Reports
All Reports

All Reports

Business Overview

These reports show different perspectives of how your business is doing.

Manage Accounts Receivable

These reports let you see who owes you money and how much they owe you so you can get paid.

Review Sales

These reports group and total sales in different ways to help analyze your sales to see how you're doing and where you make your money.

Review Expenses and Purchases

These reports total your expenses and purchases and group them in different ways to help you understand what you spend.

Reports center→All Reports→Review Expenses and Purchases

DEVELOP YOUR SKILLS 4-6

In this exercise, you will prepare a vendor report to show Craig the transactions for each vendor last month.

1. Open the **Reports** center and choose **All Reports**→**Review Expenses and Purchases**→**Transaction List by Vendor**.
2. Choose **Last Month** in the Transaction Date field and click **Run Report**.

A partial list of the report appears here. Your dates will vary.

The screenshot shows the QuickBooks Online interface for the 'Transaction List by Vendor' report. The 'Report period' is set to 'Last Month' (highlighted with an orange box), with dates from 10/01/2016 to 10/31/2016. The 'Rows/columns' section shows 'Group by' set to 'Vendor'. A 'Run report' button is visible. The report title is 'Craig's Design and Landscaping Services' and 'TRANSACTION LIST BY VENDOR' for 'October 2016'. The table below shows transactions for three vendors: Bob's Burger Joint, Books by Bessie, and Brosnahan Insurance Agency.


DATE	TRANSACTION TYPE	NUM	POSTING	MEMO/DESCRIPTION	ACCOUNT	AMOUNT
▼ Bob's Burger Joint						
10/07/2016	Cash Expense		Yes		Checking	-5.66
10/12/2016	Cash Expense		Yes		Checking	-3.86
10/21/2016	Credit Card Expense		Yes	Bought lunch for crew 102	Mastercard	18.97
▼ Books by Bessie						
10/02/2016	Bill		Yes		Accounts Payable (A/P)	75.00
10/14/2016	Bill Payment (Check)	3	Yes		Checking	-75.00
▼ Brosnahan Insurance Agency						
10/09/2016	Bill		Yes	Opening Balance	Accounts Payable (A/P)	2,000.00

Paying Bills

When you pay bills in QuickBooks Online, you choose the account to make the payment from. When you pay with a check, the Accounts Payable (liability) decreases **and** the checking account balance (asset) decreases. You can also pay bills with a credit card.

DEVELOP YOUR SKILLS 4-7

In this exercise, you will pay all the bills that are past due and print checks.

1. Choose **Create** →**Vendors**→**Pay Bills**.
2. Choose **Checking** as the payment account and tap **Tab**.
3. Type **09/01/2021** as the payment date field and tap **Tab**.
4. The Starting Check No. field should fill in with check number 72; if not, update it accordingly.

- Click the checkboxes to the left of the first four vendors (payees).

Filter ▼	Last 365 Days		
<input type="checkbox"/>	PAYEE	REF NO.	DUE DATE ▲
<input checked="" type="checkbox"/>	PG&E		11/11/2016
<input checked="" type="checkbox"/>	Norton Lumber and ...		11/26/2016
<input checked="" type="checkbox"/>	Robertson & Associa...		11/26/2016
<input checked="" type="checkbox"/>	Brosnahan Insuranc...		11/29/2016
<input type="checkbox"/>	Diego's Road Warri...		12/24/2016
<input type="checkbox"/>	Computers by Jenni	2021-1515	09/16/2021

Print Checks

- Click **Save and Print**.
- Choose **Voucher** as the check type.
- Click the **Yes, I'm finished with Setup** button at the bottom-right corner of the browser window.
- At the top of the Print Checks window, verify that **Checking** is selected as the account type.
- Enter **72** in the Starting Check No. field and then click **Preview and Print**.

Print Checks

Checking ▼

Balance \$285.61 4 checks selected \$847.67

Add check

Remove from list

Sort by Date / Order created ▼

Show all checks ▼

Starting check no. 72

<input type="checkbox"/>	DATE	TYPE	PAYEE	AMOUNT
<input checked="" type="checkbox"/>	09/01/2021	Bill Payment (Check)	PG&E	\$86.44
<input checked="" type="checkbox"/>	09/01/2021	Bill Payment (Check)	Norton Lumber and Building Mater...	\$205.00
<input checked="" type="checkbox"/>	09/01/2021	Bill Payment (Check)	Robertson & Associates	\$315.00
<input checked="" type="checkbox"/>	09/01/2021	Bill Payment (Check)	Brosnahan Insurance Agency	\$241.23

Cancel

Print setup

Order checks

Preview and print

If this were a real work situation, you would now load your checks into your printer. For this example, you will print on plain paper or to a PDF file.

- On the Print Preview screen, click **Print** and choose to print on blank paper or to a PDF file. (If printing to PDF, choose an appropriate name for the file.)
- Close the Print Preview screen.
- Click **Done** in the next window and then Close the Print Check window.
- Return to the **Vendors** center.
No bills are overdue now.

Tackle the Tasks

This is your opportunity to apply some of the skills learned in this chapter to accomplish additional tasks for Craig's Design and Landscaping Services. To refresh your memory, refer to the concepts and Develop Your Skills exercises as needed.

Before You Begin: Close the current test drive file and then open a new test drive file.

Task	Use This Information
Set up new vendors	<ul style="list-style-type: none"> Christina Gomez, 456 College Ave., Bayshore, CA 94301 Gloria's Garden, 8585 Main Drive, Bayshore, CA 94302 KGS Tax and Accounting, PO Box 145, Bayshore, CA 94302
Create an expense	Paid Gloria's Garden for purchase of Custom Garden Art; Job Expenses: Job Materials account; paid \$255 with check number 76 on 9/01/2021
Create a bill	Billed \$100 by Books by Bessie for accounting services (Legal & Professional Fees account); bill number 2021-902; dated 9/2/2021; due in 15 days
Create a bill	Dated 9/2/2021 from Cal Telephone for purchase of a new speaker gadget for conference room; bill number 15188 for \$89.23; Office Expenses account; due in 15 days
Create an expense	Paid Squeaky Kleen Car Wash \$19.99 with MasterCard on 9/3/2021; Automobile
Pay all the bills	For Books by Bessie and Cal Telephone on 9/17/2021 from the checking account; start with check number 77
Create a Transaction List by Vendor report and export it to Excel (XLSX)	September 1 through September 30, 2021

Your report should look like this.

Craig's Design and Landscaping Services						
TRANSACTION LIST BY VENDOR						
September 2021						
DATE	TRANSACTION TYPE	NUM	POSTING	MEMO/DESCRIPTION	ACCOUNT	AMOUNT
▼ Books by Bessie						
09/02/2021	Bill	2021-902	Yes		Accounts Payable (A/P)	100.00
09/17/2021	Bill Payment (Check)	77	Yes	1345	Checking	-100.00
▼ Cal Telephone						
09/02/2021	Bill	15188	Yes		Accounts Payable (A/P)	89.23
09/17/2021	Bill Payment (Check)	78	Yes		Checking	-89.23
▼ Gloria's Garden						
09/01/2021	Expense	76	Yes		Checking	-255.00
▼ Squeaky Kleen Car Wash						
09/03/2021	Expense	MC	Yes		Mastercard	19.99

Self-Assessment

Check your knowledge of this chapter's key concepts and skills using the Self-Assessment quiz [here](#) or in your eLab course.

1. You can delete a vendor in QuickBooks Online.
2. You can have two vendors with the same name.
3. A vendor is a person or business you sell services or products to.
4. You can set up a new vendor only from the Vendors center.
5. You can record purchases with a credit card in QuickBooks Online.
6. The Accounts Payable Aging report displays the number of days a bill is past due.
7. You can customize the appearance of a bill form in QuickBooks Online.
8. You can import vendor information into QuickBooks Online.
9. A Vendor Balance Summary report is useful for knowing the total amount purchased from each vendor.
10. Hector is a supplier who sells you products. Which list should you add him to?
 - a. Contacts
 - b. Customer
 - c. Vendor
 - d. Chart of Accounts
11. To enter a transaction for a service paid for using a debit card, you would:
 - a. choose Create→Vendors→Debit Card
 - b. choose Create→Vendors→Payment
 - c. choose Create→Vendors→Expense
 - d. choose Create→Vendors→Bill
12. How can you track Accounts Payable in QuickBooks Online?
 - a. Record an expense and then pay it.
 - b. Enter a bill and then pay it.
 - c. Write a check for the expense.
 - d. You cannot track Accounts Payable in QuickBooks Online.
13. To take a quick look at all past-due bills, you should:
 - a. create a Vendor Transaction report.
 - b. click the red Past Due section on the money bar in the Vendors center.
 - c. create a Chart of Accounts and check the balance in Accounts Payable.
 - d. choose Create→Vendors→Pay Bills.

Reinforce Your Skills

For these exercises, you will work with Puppy Luv Pampered Pooch, the company account created in your trial subscription to QuickBooks Online.

Sadie has given you some bills that have been paid with a check, debit, or credit card. She also has a few bills that need to be scheduled for payment later. Recording these expenses for Puppy Luv Pampered Pooch is an opportunity to reinforce some of the skills learned about vendors and expenses.

REINFORCE YOUR SKILLS 4-1

Add and Edit Vendors

In this exercise, you will add new vendors to the Puppy Luv Pampered Pooch company file.

Before You Begin: Access your trial subscription to QuickBooks Online. Read any alerts or reminders that appear and close any unnecessary windows.

1. Open the **Vendors** center.
2. Click the **New Vendor** button and set up the following new vendors:
 - Sundown District Water, PO Box 1455P, Los Angeles, CA 90051
 - Silva's Catering, 123 East Southside, Los Angeles, CA 90022; 310-555-1414
 - Steve Nguyen, 78441 Normandie Court, Los Angeles, CA 90005; 310-555-8138
3. Edit the Ace Groomer and Supply Company vendor with this new information:
 - 1475 West Main St.
 - Bullhead City, AZ 86426
 - 800-555-7491
 - Hector@Ace.email.net

REINFORCE YOUR SKILLS 4-2

Review and Set Default Expense Settings

In this exercise, you will review and set the Expense form defaults for Puppy Luv Pampered Pooch.

1. Choose **Gear**→**Your Company**→**Account and Settings**.
2. Click **Expenses** in the Navigation bar.
3. Edit the default bill payment terms to **Net 15**.
4. Ensure that the option to use purchase orders is turned **Off**.

REINFORCE YOUR SKILLS 4-3

Create Purchase and Expense Forms

The Grand Opening party for Puppy Luv Pampered Pooch was a great success. Sadie has given you all the receipts for the party expenses, plus a few bills that need to be scheduled for payment. In this exercise, you will create the purchase/expense transactions for Puppy Luv Pampered Pooch. You will need to add a vendor.

1. Choose **Create→Vendors→Check** and record the following: Check #10006 for \$200 to Silvia's Catering for all food and beverages for the Grand Opening; Meals and Entertainment account; dated 08/01/2021.
2. Choose **Create→Vendors→Expense** and record the following: \$125 paid by debit card to Steve Nguyen for Window Display; Marketing account; paid on 07/28/2021.
3. Choose **Create→Vendors→Bill** and record the following: Bill #2021-115 dated 7/28/2021 for \$55.50; from Bonni's Dog Biskits, 144 Beach Road, Ventura, CA 93003; for some treats for the pooches; Pooch Supplies account; due in 15 days.

REINFORCE YOUR SKILLS 4-4

Create a Vendor Report

Sadie would like a report to show all of the vendor transactions to date. In this exercise, you will create some vendor- and expense-related reports for Sadie.

1. Open the **Reports** center.
2. Click the **All Reports** tab, choose **Review Expenses and Purchases**, and then choose **Transaction List by Vendor**.
3. Choose **All Dates** as the report period and then click **Run Report**.

Your report should look like this.

Puppy Luv Pampered Pooch - Your Name							
TRANSACTION LIST BY VENDOR							
All Dates							
▼	DATE	▼ TRANSACTION TYPE	NUM	▼ POSTING	▼ MEMO/DESCRIPTION	ACCOUNT	▼ AMOUNT ▼
Ace Groomer and Supply Company							
	07/05/2021	Check	10001	Yes		Los Angeles City Bank	-16,000.00
Bonni's Dog Biskits							
	07/28/2021	Bill	2021-115	Yes		Accounts Payable	55.50
Capital Properties							
	07/30/2021	Check	10005	Yes	6 Months PP Rent	Los Angeles City Bank	-3,300.00
City of Los Angeles Clerk							
	07/10/2021	Check	10002	Yes	Business License	Los Angeles City Bank	-450.00
Doggies Plus							
	07/15/2021	Check	10003	Yes		Los Angeles City Bank	-2,500.00
George's Pet Media							
	07/17/2021	Check	10004	Yes		Los Angeles City Bank	-800.00
Silva's Catering							
	08/01/2021	Check	10006	Yes		Los Angeles City Bank	-200.00
Steve Nguyen							
	07/28/2021	Expense	DEBIT	Yes		Los Angeles City Bank	-125.00

Apply Your Skills

Now it's time to use your new skills to prepare all the Puppy Luv Pampered Pooch purchase and expense transactions for the first few weeks of August. The first step in the accounting cycle is to analyze the transaction, determine what accounts will be affected, and then choose the appropriate action—in the right sequence and on the right form. The second step is to record the transaction.

In these exercises, you will perform these steps of the accounting cycle. To simulate a real-world accounting environment, some of the information to be entered is presented in a random fashion—imagine a pile of bills, receipts, and notes that you have to sort through and analyze. Take your time and think carefully about your choices.

APPLY YOUR SKILLS 4-1

Add and Edit Vendors

Sadie has been busy looking for new suppliers and networking with local dog breeder associations, shelters, and Chambers of Commerce. She has found a couple new vendors and received additional information from an existing vendor. In this exercise, you will add and edit vendors.

1. Add these vendors:
 - Sundown District Gas and Electric, PO Box 259RT, Los Angeles, CA 90051
 - District Party Décor, 1411 E Magnolia, Los Angeles, CA 90052
2. Edit the George's Pet Media vendor with this new information:
 - 310-555-7711
 - GPM@email.net

APPLY YOUR SKILLS 4-2

Create Purchase and Expense Transactions

Sadie has left you some receipts for payment made and a few bills to enter. She has written notes so you know which account to record the transaction in. In this exercise, you will create the transactions for these receipts and bills. (Hint: You may need to add vendors and accounts.)

1. Review the list and then create the necessary transactions:
 - Debit card transaction for decorations for the Grand Opening; 7/30/2021 at District Party Décor; \$37.88; Office Supplies
 - Debit card transaction for raffle tickets, tissue paper, and ribbons; \$25.66 at Office Plus; 7/28/2021; Office Supplies
 - Credit card purchase; 7/25/2021; Sundown District Chamber of Commerce lunch meeting; \$45; Meals and Entertainment
 - Credit card purchase; 7/28/2021 for \$389.10 from District Party Décor for rental of tables and chairs, balloons, and music for the Grand Opening party; Equipment Rental Expense
 - Credit card purchase; 7/27/2021 to US Post Office for 100 stamps; \$47.00; Postage
 - Bill dated 7/30/2021 from Sundown District Water for \$16.84; for service from 7/20/2021 to 7/28/2021; due in 15 days; Utilities

- Bill dated 7/30/2021 from PetEdge, PO Box 100, Beverly, MA 01915; for pooch nail clip-pers; bill number 89774; \$48.96; due in 15 days; Pooch Supplies
- Bill dated 7/28/2021 from Designs for You, 1004 Makers Road, Los Angeles, CA 90022; bill number 21-8944; due in 15 days; for 1000 business cards; \$108; Marketing
- Bill dated 8/05/2021 from Sundown District Chamber of Commerce for one-year mem-bership; \$250.00; bill number PLPP 2021; due in 15 days; Dues and Subscriptions

APPLY YOUR SKILLS 4-3

Prepare Report and Pay Bills

Sadie has asked you to provide a list of all unpaid bills. She will advise you about which bills to pay and any additional reports she would like to review. In this exercise, you will prepare a report of unpaid bills for Sadie.

1. Prepare an **A/P Aging Summary** report as of August 15, 2021.
2. Export the report to Excel, saving it in your **Chapter 04** folder as: **CH04 AP Aging 8.15.21**
3. Pay all the bills due by 8/12/2021 on **8/10/2021**. The beginning check number is **10007**.
4. Print the checks to a PDF file and then save checks **10007–10008**.
5. Print a **Vendor Balance Summary** report for all dates.

The balance should be \$315.80.

6. Export the report to Excel, saving it in your **Chapter 04** folder as: **CH04 Vendor Balance Summary**

Puppy Luv Pampered Pooch	
VENDOR BALANCE SUMMARY	
All Dates	
	TOTAL
PetEdge	48.96
Sundown District Chamber of Commerce	250.00
Sundown District Water	16.84
TOTAL	\$315.80

7. Prepare a **Transaction List by Vendor** report for all dates; export it to Excel, saving it in your **Chapter 04** folder as: **CH04 Transaction List By Vendor**



CHECK FIGURE Your figures should match those shown here.

Account	Balance
Los Angeles City Bank	\$51,920.96
Accounts Payable	\$315.80
City Credit Union	\$481.10

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8 Bond Amortization



Financial functions are among Excel's more complex elements. However, it's worth taking the time to master their use, as these functions can save substantial time. Commonly used financial functions are present value (PV), future value (FV), and payment (PMT). Because of the complexity of these functions, you may find it necessary to protect some or all of a worksheet that includes them. You may also find that automating processes involving these functions with macros allows for a greater efficiency. In this chapter, you will use financial functions while creating a bond amortization schedule. You will begin by calculating different features of a bond using PV, FV, and PMT functions. You will create a bond amortization schedule for this bond and protect various worksheet elements. Lastly, you will create a macro to automate the completion of a bond amortization table.

LEARNING OBJECTIVES

- Create a bond amortization schedule
- Use the PV, FV and PMT functions
- Protect worksheet elements
- Automate processes with macros

PROJECT

City Music World

City Music World is a retail store that sells musical equipment and offers lessons for beginning and experienced musicians. The company is considering issuing bonds to fund a potential expansion of its operations. Before doing so, the company wants to review the necessary payment schedule and purchase price of bonds with different characteristics. You are creating a bond amortization schedule that can be updated for different bonds. You will protect key worksheet elements and automate as much of the schedule completion as possible.

In this chapter, you will create a bond amortization schedule using PV, FV, and PMT functions. You will also work apply different levels of worksheet protection for different users. Lastly, you will create macros to automate populating the bond amortization schedule once key bond data has been entered.

	A	B	C	D	E	F	G
2		Bond Details			Populate Schedule		
3		Date	1/1/2012				
4		Face Value	\$ 100,000.00				
5		Contract Rate	10%				
6		Effective Rate	12%				
7		Life (years)	5				
8		Payments per Yea	2				
9							
10		Bond Calculations					
11		Present Value	\$ 92,639.91				
12		Future Value	\$ 100,000.00				
13		Payment	\$ 5,000.00				
14							
15		Date	Interest Payment	Interest Expense	Amortization of Bond Discount	Bond Discount Balance	Carrying Value
16		1/1/2012				\$ 7,360.09	\$ 92,639.91
17		6/30/2012	\$ 5,000.00	\$ 5,558.39	\$ 558.39	\$ 6,801.69	\$ 93,198.31
18		12/31/2012	\$ 5,000.00	\$ 5,591.90	\$ 591.90	\$ 6,209.79	\$ 93,790.21
19		6/30/2013	\$ 5,000.00	\$ 5,627.41	\$ 627.41	\$ 5,582.38	\$ 94,417.62
20		12/31/2013	\$ 5,000.00	\$ 5,665.06	\$ 665.06	\$ 4,917.32	\$ 95,082.68
21		6/30/2014	\$ 5,000.00	\$ 5,704.96	\$ 704.96	\$ 4,212.36	\$ 95,787.64
22		12/31/2014	\$ 5,000.00	\$ 5,747.26	\$ 747.26	\$ 3,465.11	\$ 96,534.89
23		6/30/2015	\$ 5,000.00	\$ 5,792.09	\$ 792.09	\$ 2,673.01	\$ 97,326.99
24		12/31/2015	\$ 5,000.00	\$ 5,839.62	\$ 839.62	\$ 1,833.39	\$ 98,166.61
25		6/30/2016	\$ 5,000.00	\$ 5,890.00	\$ 890.00	\$ 943.40	\$ 99,056.60
26		12/31/2016	\$ 5,000.00	\$ 5,943.40	\$ 943.40	\$ (0.00)	\$ 100,000.00
27		Totals	\$ 50,000.00	\$ 57,360.09	\$ 7,360.09		

This bond amortization schedule has been fully populated through the use of a macro that automates the creation of all formulas.

Bond Amortization Schedule

When a business seeks to raise cash to fund a large expenditure, such as for the building of a new facility or the development of a new product, it will typically raise capital by issuing additional shares of stock (**equity financing**) or borrowing money (**debt financing**). One financial instrument that can be used when pursuing debt financing is a bond.



When a business issues a bond, it receives a lump payment from the bondholder to be used by the business to pursue its intended expenditure. In exchange, the bondholder receives periodic payments over the life of the bond (interest payments) and a lump sum payment equal to the **face value** of the bond at the end of the bond's life (principal payment). To determine figures such as the initial selling price of the bond and interest payments, you must understand the various bond characteristics. When using the most commonly applied effective interest method, these include the face value, life of the bond, **contract interest rate**, and **effective interest rate**.

NOTE! The effective interest method is the amortization method examined here, as it requires the completion of a bond amortization schedule. The alternative, though far less widespread, is to use straight-line amortization.

Face Value

The face value of a bond is the amount paid to the bondholder on the **maturity date** (the end of the bond's life). If the **issue price** of the bond equals the face value, then the bond is being sold at its par value. However, oftentimes bonds are sold at more than their face value (sold at a premium) or less than their face value (sold at a discount).

Life of the Bond

The life of the bond represents the period of time over which the bond will be outstanding before it matures. A bond is often held by a single bondholder over the course of its life, but it's also common for bonds to be sold from one bondholder to another. Periodic interest payments are made to the current bondholder throughout the life of the bond, and the face value of the bond is paid to the bondholder upon bond maturity. Note that the bond will indicate the frequency with which interest payments are made (annually, semiannually, etc.) and this schedule is followed throughout the life of the bond.

Contract Interest Rate Vs. Effective Interest Rate

The contract interest rate is attached to the bond and used to calculate interest payments periodically made to the bondholder. Conversely, the effective interest rate (also called the market interest rate) factors in the impact of compounding on the

(continues)

interest payments. When completing a bond amortization table, the contract interest rate is used to calculate actual interest payments, while the effective interest rate is used to calculate the present value of the bond.

These interest rates can be used to quickly identify whether a bond will be sold at a discount, face value, or a premium. When the contract interest rate and effective interest rate are the same, the bond sells at face value. If the contract rate is below the effective rate, then the bond can be considered less desirable than a similar bond that could be purchased elsewhere. This bond will sell at a discount from the face value. Conversely, if the contract rate is above the effective rate, then the bond is considered more attractive than a similar bond that could be purchased elsewhere and will sell at a premium above face value.

Amortizing Bond Discount or Premium

When a bond is issued at a discount or premium, the impact of these within the financial records of the bond issuer is spread over the life of the bond. This **bond amortization** either increases the interest expense recorded when each bond payment is made (in the case of a discount) or reduces the interest expense (in the case of a premium). The total interest expense for each period is calculated as the interest payment plus amortized discount *or* minus amortized premium.

Carrying Value

The **carrying value** of a bond can be calculated as face value minus unamortized discount (or plus the unamortized premium). When the bond is issued, the unamortized discount or premium equals the total discount or premium for the bond. As these are amortized, the unamortized portion of the discount or premium is gradually reduced (leading to a gradual increase in the carrying value when there is a discount or a gradual decrease when there is a premium). The result is that once the bond matures, the discount or premium will have been amortized to \$0 and the bond's carrying value will equal its face value.

Working with Financial Functions

Excel includes a variety of financial functions that can simplify the creation of accounting-related worksheets. For example, there are basic financial functions for determining monthly payments on loans, total interest paid on loans, and the future value of investments. When examining the characteristics of a specific bond or other financial instrument, the PMT, PV, and FV functions are useful.

PMT Function


For the PMT function to calculate the required payment for a bond, you must specify the bond interest rate, number of payments to be made, present value, and future value of the payment at maturity.

The interest rate and number of payments must be carefully considered. The effective interest rate (not the contract interest rate) is the first argument. It's typically expressed in annual terms, so if a bond requires an alternative payment schedule (such as semiannual instead of annual payments), the interest rate entered in the formula must be adjusted. For example, if the effective interest rate is 14% and a bond requires semiannual interest payments, then there are two interest payments every year. You divide 14% by 2 payments per year to arrive at an interest rate of 7%, which is what is entered as the first argument in the function.

The number of payments will often differ from the number of years in the life of the bond. If a bond with semiannual interest payments has a 5-year life, then it will have a total of 10 payments (5 years * 2 payments per year).

One additional element to review is how the PMT function expresses periodic payments. By default, the result of the PMT function is displayed as a negative number. When writing the formula it is common to place a negative sign before the function. This reverses the result from a negative to a positive figure. Similar consideration is given to the individual arguments of the PMT function. Because the FV argument represents a lump payment at the end of the bond's life, it should also be expressed as a negative number when writing the formula.

```
=-PMT(C6/C8, C7*C8, C11, -C4)
```

 Formulas→Function Library→Insert Function→Financial→PMT Function


PV Function and FV Function


The PV function calculates the present value of a bond when you specify the bond interest rate, number of payments, interest payment amount, and future value of the payment at maturity. The FV function calculates the future value of a bond when you specify the bond interest rate, number of payments, interest payment amount, and present value.

```
=PV(C6/C8, C7*C8, -C4*C5/C8, -C4)
=FV(C6/C8, C7*C8, -C4*C5/C8, C11)
```

The PV and FV functions typically require negative symbols in their formulas.

The same considerations must be made for these functions as are made for the PMT function. Both the effective interest rate argument and the number of payments argument are entered per the earlier discussion. Additionally, the interest payment amount and future value of the payment at maturity must be expressed in negative terms. For the FV function, then, a negative sign is added before the *FV* at the beginning of the formula. The present value is considered to be a positive amount in Excel (since it does not represent a payment), so a negative sign is not needed before the *PV* at the beginning of that formula.

 Formulas→Function Library→Insert Function→Financial→PV Function

 Formulas→Function Library→Insert Function→Financial→FV Function

Financial Function Syntax

You create financial functions using actual values or cell references. Remember that using cell reference offers more flexibility and is preferable.

PMT, PV, and FV Function Syntax

Function	Syntax
PMT (Payment)	PMT (rate, periods, present value, [future value], [type])
PV (Present Value)	PV (rate, periods, payment, [future value], [type])
FV (Future Value)	FV (rate, periods, payment, [present value], [type])

These financial functions can be used when the payment amount remains constant, such as with most bonds, car loans, and fixed-rate mortgages.

The **rate** argument is the interest rate for each period of the bond or loan. Although these are quoted as annual rates, payments usually are made more frequently. For monthly payments, as an example, you divide the interest rate by 12. You can enter the result or the calculation details (such as 7%/12) in the formula.

The **periods** argument is the number of payments for the bond or loan, or the number of deposits for an investment.

The **payment** argument for a bond or loan is the required periodic interest payment. For an investment, it's the amount invested in each period. In either case, the payment is always the same for each period.

The **future value** argument is optional. It is the balance that will be owed at the bond maturity date or the amount desired at the end of an investment. This must be entered when determining the present value of or payments for a bond but is not required if the balance of an investment will be zero.

The **present value** argument is the value, in today's dollars, of a bond or loan. It must be entered when determining the future value of a bond. Or, it can be the starting balance of an investment (not required if the starting balance is zero). This argument is optional for the PMT function.

The **type** argument indicates when payments are due. You are not required to enter the default argument 0 (zero) if payments are made at the end of the period. Enter 1 if payments are due at the beginning of the period. This is an optional argument.

Develop Your Skills EA8-D1

In this exercise, you will use financial functions to calculate the present value, future value, and payments associated with a bond. You will then create a bond amortization.

Base your spreadsheet on a bond with a \$100,000 face value, a 5-year life, semiannual interest payments, a coupon interest rate of 10%, and an effective interest rate of 12%. The bond is issued on 1/1/2012.

1. Open a **Blank Workbook** and save the file in your **Chapter 08** folder as **EA8-D1-Bond- [YourName]**.

You will begin by preparing the worksheet for the data to be entered.

2. Set the width of **column A** to **0.75** and the height of **row 1** to **7.2**.

This creates nice spacing that improves worksheet readability.

3. Merge and center the **range B 2:C2**, add bold formatting, and enter **Bond Details**.
4. Type these headers in the **range B3:B8**, in order: **Date**, **Face Value**, **Contract Rate**, **Effective Rate**, **Life (years)**, and **Payments per Year**.
5. Enter **1/1/12** in **cell C3**.
6. Enter **100000** in **cell C4** and apply the **Accounting** number format.
7. Enter **.1** in **cell C5** and **.12** in **cell C6**, and then select the **range C5:C6** and choose **Home→Number→Percent Style**.
8. Select **cell C7** and type **5**, tap **[Enter]**, type **2**, and tap **[Enter]**.
9. Center-align the contents of the **range C3:C8**.
10. Highlight the **range B2:C8** and choose **Home→Font→Borders menu →Outside Borders**; also apply an outside border around **cell B2**.
11. Autofit **column B** and set the width of **column C** to **12**.
12. Merge and center the **range B10:C10**, add outside borders and bold formatting, and enter **Bond Calculations**.
13. Type these headers in the **range B11:B13**, in order: **Present Value**, **Future Value**, and **Payment**.

Enter Financial Functions

14. In **cell C11**, type **=PV(C6/C8,** but do not complete the entry.
The effective interest rate is used for the first argument. It is divided by two because as the effective rate is expressed in annual terms, but the bond pays interest semiannually.
15. Enter the next part of the formula: **C7*C8,**
The second argument (number of interest payments) is calculated by multiplying the total number of years of the bond's life by the payments per year.
16. Enter the next part of the formula: **-C4*C5/C8,**
In the third argument, the contract rate of interest is multiplied by the face value of the bond to determine the periodic interest payments. Just as the effective interest rate was divided by the number of payments per year, the contract interest rate is divided by the number of payments to arrive at a prorated contract interest rate for each payment period. A negative sign is placed in front of C4 because the interest payments represent cash outflows.
17. To complete the formula, type **-C4)** and tap **[Enter]**.
The fourth argument represents the face value of the bond at maturity. As this is an outflow of cash, a negative sign is placed in front of C4.
18. In **cell C12**, type **=-FV(C6/C8, C7*C8, -C4*C5/C8, C11)** and tap **[Enter]**.
The arguments in the FV function are similar to those in the PV function. Note the negative sign at the beginning of the formula.
19. With **cell C13** selected, choose **Formulas→Function Library→Insert Function**, select the **Financial** category and the **PMT** function, and click **OK**.

20. Complete the Function Arguments box as shown and then click **OK**:

PMT			
Rate	C6/C8	=	0.06
Nper	C7*C8	=	10
Pv	C11	=	92639.91295
Fv	-C4	=	-100000
Type		=	number

21. With **cell C13** still active, click between the equals sign and *PMT* in the Formula Bar, type a minus sign, and tap **Enter**.
- Just as the interest payments were preceded by a negative sign in the PV and FV functions because they represent cash outflows, the PMT function includes a negative sign here as well.*
22. Apply the **Accounting** number format to the **range C11:C13** and add an outside border to the **range B10:C13**.
23. Select the headers for **columns D–G** and use the right-click method to set the width to **15**.

Complete the Amortization Schedule

24. Starting with **cell B15**, highlight the **range B15:G15**, apply an outside border, add bold formatting, and set the Wrap Text option and Center alignment.
25. In **cell B15**, type **Date** and tap **Tab**; continue typing **Interest Payment**, **Interest Expense**, **Amortization of Bond Discount**, **Bond Discount Balance**, and **Carrying Value**, in the remaining highlighted cells, tapping **Tab** between each entry.
- Cells E15 and F15 indicate that a bond discount is being amortized. This can be verified by noting that the present value of the bond is less than its future value. If the present value had been greater than the future value, the cells would show a bond premium being amortized.*
26. Enter **1/1/2012** in **cell B16**, **6/30/2012** in **cell B17**, and **12/31/2012** in **cell B18**.
27. Highlight the **range B17:B18** and then drag the fill handle at the bottom-right corner of the range through **cell B26**.
- The bond depreciation schedule begins with the date on which the bond is issued and includes one row for every date on which an interest payment is made.*
28. In **cell B27**, enter **Totals** and right-align the text.
29. Type **=C12-C11** in **cell F16**, tap **Tab**, type **=C11**, and tap **Enter**.
- These figures, which are based on the financial figures previously calculated, create the foundation for the remainder of the bond amortization schedule.*
30. In **cell C17**, type **=C13**, tap **F4**, and tap **Tab**.
- The interest payment was previously calculated and is based on the contract interest rate. It remains constant for every period, so you are using absolute formatting.*
31. Enter **=G16*\$C\$6/\$C\$8** in **cell D17**.
- The total interest expense for each period is calculated by multiplying the current carrying value of the bond (which, as seen in cell G16, equals face value minus current balance within the bond discount) by the effective interest rate. As we have seen, the interest rate is divided by the number of payments per year.*

32. Enter **=D17-C17** in cell **E17**.

The difference between the interest payment and the interest expense, as calculated here, represents the amortization of the discount for the current period.

33. Enter **=F16-E17** in cell **F17**.

The bond discount balance is reduced by the amortization amount each period. The bond discount is gradually reduced until it reaches zero at the end of the life of the bond.

34. Enter **=G16+E17** in cell **G17**.

Just as the bond discount balance decreases by the bond amortization amount each period, the carrying value of the bond (when it is issued at a discount) increases each period by the bond amortization amount.

35. Highlight the **range C17:G17** and use the fill handle to copy the formulas through **row 26**.

36. Highlight the **range C27:E27**, choose **Home**→**Editing**→**AutoSum**, and then choose **Home**→**Font**→**Borders** menu ▼→**Top and Double Bottom Border**.

37. Apply the **Accounting** number format to the **range C16:G27**.

38. Save your file.

Unless otherwise directed, always keep your file open at the end of each exercise.

Protecting Workbooks and Worksheets

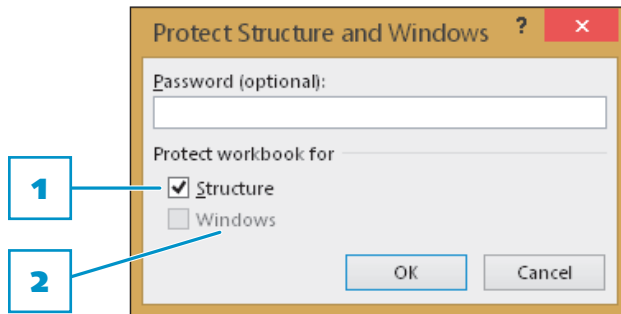
You protect a file to prevent accidental or intentional modification. Excel offers three levels of protection.

- **Workbook-level protection** protects the structure of the entire workbook, preventing changes to the way worksheets are displayed.
- **Worksheet-level protection** restricts changes to certain objects on worksheets.
- **Cell-level protection** limits access to certain cells on worksheets.


Protecting the Workbook Structure

Protecting a workbook prevents structural changes from being made. For example, you cannot delete, rename, copy, or move worksheets while the structure is protected.

The Protect Workbook command displays the Protect Structure and Windows dialog box. Using an optional password allows you to control who can switch this protection on and off.

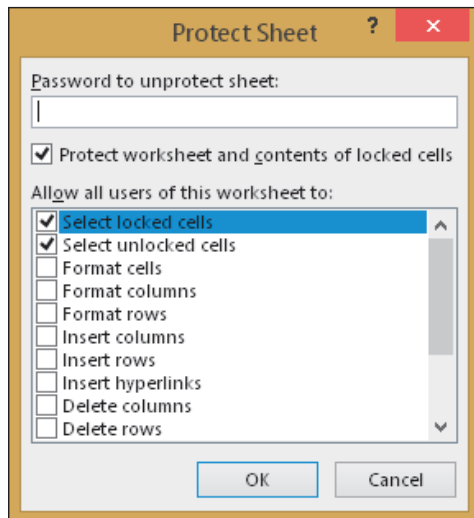


1. The Structure option protects worksheets from being reordered, copied, or deleted.
2. The Windows option is disabled in Excel 2013 and 2016 and, therefore, cannot be used.

 Review→Changes→Protect Workbook

Protecting the Worksheet Elements

You can turn on protection for individual worksheets in a workbook. The Protect Sheet command even allows you to restrict activity to specific actions, such as selecting cells, formatting rows and columns, and inserting/deleting rows and columns.



Turning Protection On and Off

Although it might appear that you would turn worksheet protection on/off using the Protect Worksheet and Contents of Locked Cells checkbox, that is not the case. That option always should have a checkmark. Clicking OK actually turns on worksheet protection.

Allowing User Changes

By default, two user options are selected in the Protect Sheet dialog box, giving users permission only to click on cells. If you remove those checkmarks, users can scroll through the worksheet but cannot select any cells. You can specify that users are allowed to change certain other items in a protected worksheet.

In a bond depreciation schedule, the user should only need to change a few input cells (including those for effective interest rate, face value, and bond life). Once entered, these figures should allow for the automatic completion of the body of the schedule. As such, it's common for users to be given access to only those cells that require initial inputs.

Password Protection

For the highest level of protection, add a password. Users must enter the password to unprotect the worksheet and make further changes. For worksheets that are accessible by many employees but only used by a select few, including a password can help ensure that data is not improperly accessed.

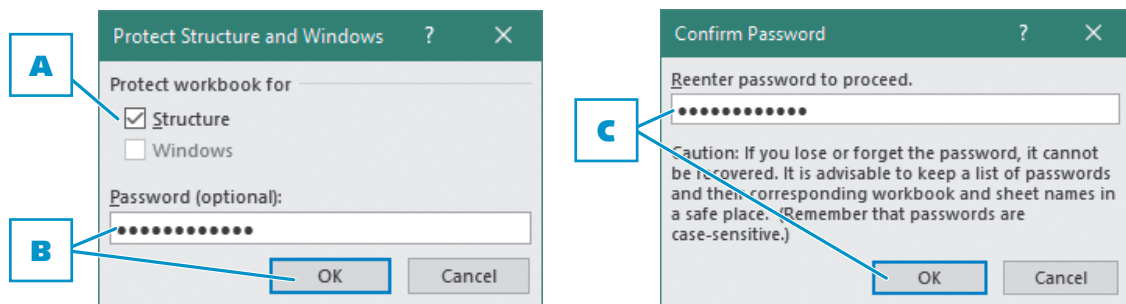
WARNING! Keep track of your passwords! Workbook-protection passwords cannot be retrieved. If you forget your password, you must re-create the workbook.

➔ Review→Changes→Protect Sheet or Home→Cells→Format→Protect Sheet

Develop Your Skills EA8-D2

In this exercise, you will protect your bond amortization schedule so that users can only alter certain elements.

1. Save your file as **EA8-D2-Bond- [YourName]**.
2. Choose **Review→Changes→Protect Workbook**.
3. Follow these steps to protect the workbook:



- A. If necessary, click to place a checkmark in the **Structure** checkbox.
 - B. Type **Amortization** as the password and click **OK**.
 - C. In the **Confirm Password** dialog box, retype **Amortization** and click **OK**.
4. Double-click the **Sheet1** tab.

An error message appears because protecting the workbook structure prevents the renaming of sheet tabs.

5. Click **OK**; then choose **Review**→**Changes**→**Protect Workbook**, type the password **Amortization**, and click **OK**.

The workbook is no longer protected.

6. Choose **Home**→**Cells**→**Format**→**Protect Sheet** and confirm that the boxes for these items are checked (if not, click to add checkmarks):

- **Protect Worksheet and Contents of Locked Cells**
- **Select Locked Cells**
- **Select Unlocked Cells**

7. Click the checkbox for **Format Cells**, type **Bond** as the password, and click **OK**.

8. Confirm the password when prompted.

9. Right-click the **column D** header.

As a result of the protection you applied, some options in the pop-up menu are grayed out, or disabled.

10. Select **cell C17** and then click the **Insert** tab on the Ribbon.

Notice that the majority of options on the Insert tab are also disabled.

11. Highlight the **range B27:E27** and choose **Home**→**Font**→**Bold**.

You can apply the bold formatting even though the workbook protection is active because you allowed this in step 7.

12. Choose **Review**→**Changes**→**Unprotect Sheet**, enter the password **Bond**, and click **OK**.

13. Save your file.

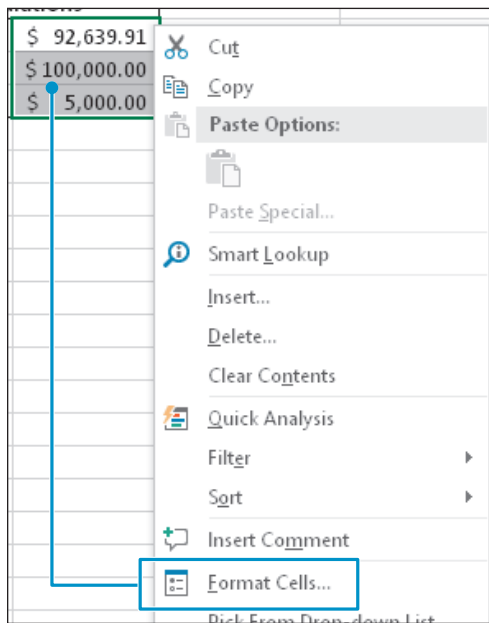
Protecting Individual Cells

You can protect the contents and formatting of certain cells. You can also hide formulas so they don't display in the Formula Bar or when the Show Formulas command is used. All worksheet cells are locked by default until you unlock them. Why, then, have you been able to edit all locked cells? The cells' locked/unlocked condition has no effect until worksheet protection is turned on.

NOTE! Remember that worksheet protection can be turned on through the Home or Review tab.

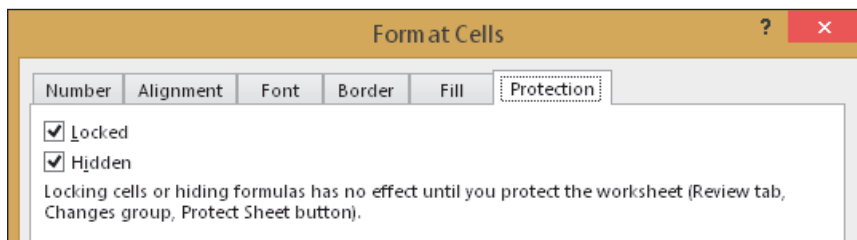
The Protection Tab of the Format Cells Dialog Box

You can open the Format Cells dialog box via the menu that appears when you right-click a highlighted area of a worksheet.



The Protection tab in the Format Cells dialog box allows you to change options for selected cells. There are two cell protection options you can set.

- **Locked:** Check or uncheck this option to lock/unlock the currently selected cells.
- **Hidden:** This option affects only the display of formulas. It does not hide labels, values, or formula results.



Unlocking Cells in a Protected Worksheet

When the Locked option is unchecked, selected cells are unlocked. Unlocked cells can be edited even though the overall worksheet is protected. This way, you can protect formulas and labels while still allowing data entry in other areas. The unlocked portion of the worksheet is referred to as the *changes area*. You must unlock the cells before protecting the worksheet.

TIP! For rapid data entry into unlocked cells, tap **[Tab]** after entering data in each. When you reach the end of a row in the changes area and tap **[Tab]**, the insertion point wraps to the next row.

➔ Home→Cells→Format→Lock Cell

To Lock or Not to Lock

If your worksheet contains only a few cell ranges that users are allowed to change, unlock those cells. The rest of the worksheet will remain locked when you turn on worksheet protection. If most of the worksheet needs to be accessible for updating, you may want to use the Select All option and unlock all cells and then lock just the cells you want to protect.

TIP! Use the **Ctrl** key to select multiple cell ranges and then select **Unlock**, **Lock**, or **Hidden** to apply the option to multiple ranges at once.

Develop Your Skills EA8-D3

In this exercise, you will unlock cells that require modification to complete the bond amortization schedule. You will then protect the worksheet so only the unlocked cells can be modified.

1. Save your file as **EA8-D3-Bond- [YourName]**.
2. Highlight the **ranges C3:C8 and B16:G27**, and choose **Home→Cells→Format→Lock Cell**.
As these cells were locked by default, they are now unlocked.
3. Highlight the **range C11:C13**, right-click, and choose **Format Cells**.
The Format Cells dialog box opens.
4. Switch to the **Protection** tab, check the box for **Hidden**, and click **OK**.
5. Choose **Review→Changes→Protect Sheet**, enter **Interest** as the password, and click **OK**; confirm the password in the next dialog box.
6. Select **cell C12**.
Notice that the Formula Bar is empty. This cell is in the range for which the Hidden option was selected.
7. Type any letter in **cell E2**.
You did not unlock this particular cell prior to protecting the worksheet, so a warning message displays to indicate that you cannot type in this cell.
8. Click **OK** to close the warning message.
9. Use the right-click method to change the name of the **Sheet1** tab to **Bond Schedule**.
The worksheet is protected but the workbook remains unprotected; therefore, the workbook structure, including the worksheet tab names, can be modified.
10. Save your file.

Using Macros

A macro is a recorded set of mouse and keyboard actions that can be played back at any time. Macros are useful for automating routine tasks, especially lengthy tasks. Be aware that macros can contain viruses, so be cautious about opening workbooks containing macros you receive from others.

Security Levels

You change macro security in the Trust Center section of Excel Options. The setting there is in effect for all workbooks opened on your computer. The setting is not embedded in any workbooks that you save and share with others.

You can choose among four levels of security that control whether macros in an opened workbook are available or disabled.

- **Disable All Macros without Notification:** Only macros in workbooks that you place in a trusted location of the Trust Center will run. All other digitally signed and unsigned macros are disabled.
- **Disable All Macros with Notification:** This is the default option. It displays a message allowing you to enable macros in the specified workbook if you wish or use the workbook without enabling macros.
- **Disable All Macros Except Digitally Signed Macros:** This option automatically disables unsigned macros and enables macros from publishers previously added as a trusted publisher in the Trust Center.
- **Enable All Macros:** You are not protected from potentially unsafe macros. This option is not recommended for general use.

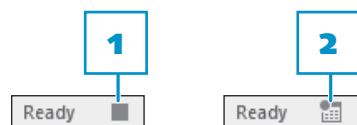
If you have antivirus software installed, the file will be scanned for viruses before it is opened regardless of the security level set.

NOTE! Your network system administrator may set macro security and prevent users from changing it.

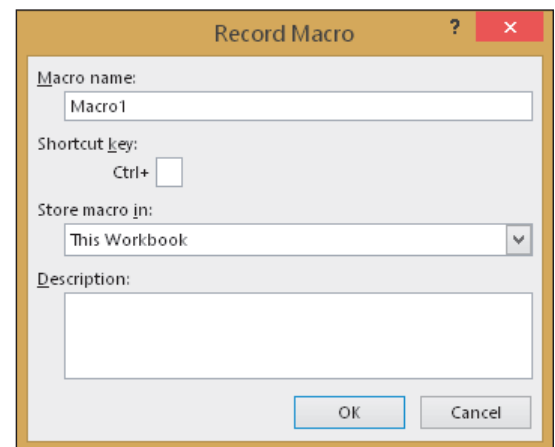
➔ File→Options→Trust Center→Trust Center Settings→Macro Settings

Recording Macros

Excel's macro recording feature is similar to a video camera. You turn it on, record your actions, and then stop the recorder. You can play back the recorded keystrokes and mouse actions as many times as you want.



1. When a macro is recording, the Stop Recording button appears on the status bar.
2. After a first macro has been recorded, you can click this icon on the status bar to record subsequent macros.



➔ View→Macros→View Macros menu ▼→Record Macro

Naming a Macro

You can add custom names for your macros or use Excel's default names (Macro1, Macro2, etc.). Macro names cannot contain spaces but can include capital letters and underscores.

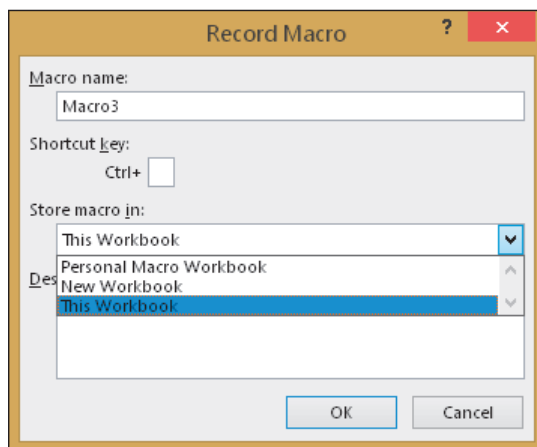
Recording Macro Steps

Most actions—including mouse actions, choosing Ribbon commands, selecting options in dialog boxes, using arrow keys to navigate, and typing text—are recorded in a macro. Any mistakes and corrections you make during recording also are saved. If the final result is correct, you can include the mistakes and their corrections in the macro; otherwise, just rerecord the macro using the proper actions.

TIP! Practice the procedure you wish to automate before recording the macro to reduce the risk of making mistakes during the recording process.

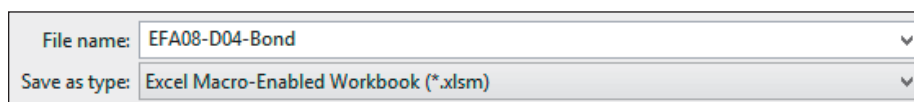
Storing Macros

Macros are available only in the workbook in which you create them unless you assign them to the Personal Macro Workbook, which is a hidden file used to make macros available to all open workbooks. Some macros are useful only in a particular workbook. For these macros, choose the This Workbook storage option. Other macros can benefit multiple workbooks, and these are the ones to assign to the Personal Macro Workbook.



Saving a Workbook Containing Macros

If you attempt to save a workbook containing macros using the normal Excel Workbook file format, Excel displays the message, “The following features cannot be saved in macro-free workbooks: VB Project.” Clicking No in the message box displays the Save As dialog box, where you should choose the Excel Macro-Enabled Workbook file format. The file is saved with the extension .xlsm to indicate that it contains a macro.



Running Macros

You can run a macro from the Macro dialog box, but they're much more accessible if you assign them to shortcut keys, custom buttons or graphics on a worksheet, or buttons on the Quick Access toolbar.

 View→Macros→View Macros | **[Alt]+[F8]**

Develop Your Skills EA8-D4

In this exercise, you will record a macro that will complete the bond amortization schedule. You will then run the macro.

1. Save your file as **EA8-D4-Bond- [YourName]**.
2. Choose **File→Options→Trust Center→Trust Center Settings→Macro Settings**, ensure that **Disable All Macros with Notification** is selected, and click **OK** twice.
3. Highlight the **range C16:G27**, and tap **[Delete]**.

You will now re-create the bond amortization schedule while recording a macro, which can be saved and used later when completing subsequent schedules.

4. Choose **View→Macros→Macros menu ▼→Record Macro** to open the Record Macro dialog box.
5. Enter **Amortization _ Schedule** as the macro name and click **OK**.
6. Select **cell F16**, type **=C12-C11** and tap **[Tab]** and then type **=C11** and tap **[Enter]**.
7. Select **cell C17**, type **=C\$C\$13** and tap **[Tab]**, type **=G16*C\$C\$6/C\$C\$8** and tap **[Tab]**, type **=D17-C17** and tap **[Tab]**, type **=F16-E17** and tap **[Tab]**, and type **=G16+E17** and tap **[Enter]**.
8. Highlight the **range C17:G17** and drag the fill handle through **row 26**.
9. In **cell C27**, enter **=SUM(C17:C26)**.
10. Copy **cell C27** and paste in the **range D27:E27**.
11. Choose **View→Macros→Macros menu ▼→Stop Recording**.
12. Delete the contents of the **range C16:G27**.

You will now run the macro to ensure that it was properly recorded. In doing so, you will repopulate the bond amortization schedule.

13. Choose **View→Macros→Macros** and click **Run**.
The bond amortization schedule is once again fully complete.
14. Choose **Review→Changes→Unprotect Sheet**, type **Interest**, and tap **[Enter]**.
You have temporarily unprotected the sheet so you can insert a text box.
15. Choose **Insert→Illustrations→Shapes** and click **Text Box** in the **Basic Shapes** section.
16. Click near the top-left corner of **cell E2** and drag to the bottom right of **cell E5** to create a text box over the **range E2:E5**.
17. Type **Populate Schedule** and format the text with bold and a 16-point font size.

18. Right-click the text box, choose **Assign Macro**, click the **Amortization_Schedule** macro from the list, and click **OK**.
19. Choose **Review**→**Changes**→**Protect Sheet**, enter **Schedule** as the password, and click **OK**; confirm the password when prompted.
20. Delete the contents of the **range C16:G27**.

You will now run the macro from the object that you have entered within the spreadsheet.

21. Click the text box to initiate the macro.

The bond amortization schedule is once again complete.

22. Save a copy of your file as a **Macro-Enabled Workbook** then close it.

Hint: Choose File→Save As and choose Macro-Enabled Workbook from the Save as Type box.

REAL-WORLD Accounting

What Is the Benefit of Using Excel to Create a Bond Amortization Schedule?

There are a few characteristics of a bond amortization schedule that make it ideal for completion in Excel. You have seen how financial functions can streamline bond-related calculations. More importantly, because the body of the schedule requires identical formulas in multiple rows, using macros is ideal. As a result, only a small number of items must be entered (effective interest rate, number of periods, etc.) before the automated portion can be completed, allowing for the use of protection throughout the majority of the worksheet.

As macros can be assigned to worksheet objects, Excel provides a simple forum for the automatic completion of a bond amortization schedule. This allows novice users to benefit from the full power of Excel without extensive knowledge of the program. Once the macro has been created, any user can easily employ it. This level of accessibility for all users is rare within accounting-related programs.

The use of workbook and/or worksheet protection also ensures that novice users do not accidentally introduce errors in a worksheet. Again, Excel is unique in its extensive ability to limit user access solely to the few elements that require modification. The result of using both macros and workbook/worksheet protection is that a relatively complex schedule, such as that for bond amortization, can be efficiently completed by users with relatively little experience in the program.



Self-Assessment

Check your knowledge of this chapter's key concepts and skills using the Self-Assessment here or in your eLab course.

True/False Questions

1. The PMT, PV, and FV functions are displayed in the Financial section of the Insert Function dialog box. True False
2. In the PMT, PV, and FV functions, interest rates are always expressed in annual terms. True False
3. The number 1 represents the default entry for the "type" argument in PMT, PV, and FV functions. True False
4. Cell references CANNOT be used with PV and FV functions. True False
5. In Excel 2016, the Windows protection option has been disabled. True False
6. The Protect Sheet command can be accessed on the Review and Home tabs. True False
7. When protecting a worksheet, you must create a password. True False
8. The **Tab** key can be used to move through unlocked cells in a worksheet. True False
9. All worksheet cells are unlocked by default. True False
10. Macro names CANNOT include spaces. True False

Multiple Choice Questions

11. Interest rates, including the effective interest rate and contract interest rate, are typically expressed in _____ terms.
 - a. weekly
 - b. monthly
 - c. semiannual
 - d. annual
12. For a bond, which formula argument represents a payment and requires the inclusion of a negative sign before to the argument to reverse its sign within financial formulas?
 - a. Rate
 - b. Future Value
 - c. Present Value
 - d. Periods
13. What is the optional argument for PMT, PV, and FV functions?
 - a. Rate
 - b. Periods
 - c. Payment
 - d. Type

(continues)

- 14.** What is the first argument in the PV present value function?
 - a. Type
 - b. Periods
 - c. Rate
 - d. Payment
- 15.** Which of these IS NOT an available level of protection in Excel?
 - a. Excel-level protection
 - b. Workbook-level protection
 - c. Worksheet-level protection
 - d. Cell-level protection
- 16.** When the Hidden option on the Protection tab of the Format Cells dialog box is checked, what IS NOT displayed in the worksheet?
 - a. Formulas
 - b. Labels
 - c. Values
 - d. Formula Results
- 17.** Which of these IS NOT an option in the Protect Sheet dialog box?
 - a. Select unlocked cells
 - b. Format rows
 - c. Select locked sheets
 - d. Insert hyperlinks
- 18.** On what tab is the Record Macro option found?
 - a. Insert
 - b. Formulas
 - c. Data
 - d. View
- 19.** Which of these IS NOT an available level of security in Excel?
 - a. Disable all macros
 - b. Disable all macros except digitally signed macros
 - c. Disable all macros with notification
 - d. Disable all macros without notification
- 20.** Which of these CANNOT be used to run a macro?
 - a. Shortcut keys
 - b. Custom buttons
 - c. Quick Access toolbar
 - d. Page Layout tab

Reinforce Your Skills

EA8-R1 Create a Bond Amortization Schedule for Electronics Warehouse

In this exercise, you will complete a bond amortization schedule for Electronics Warehouse. You will calculate the bond characteristics and generate a schedule with key components. You will also protect worksheet elements and create a macro.

The bond is issued on 1/1/11, has a \$200,000 face value, a 12-year life, semiannual interest payments, a contract interest rate of 8%, and an effective interest rate of 7%.

1. Open a **Blank Workbook** and save the file in your **Chapter 08** folder as **EA8-R1-Bond- [YourName]**.
2. Prepare the worksheet as indicated:
 - Set the width of **column A** to **0.75** and the height of **row 1** to **7.2**.
 - Merge and center the **range B2:C2**, add bold formatting, and enter **Bond Details**.
 - In order, enter these headers in the **range B3:B8**: **Date**, **Face Value**, **Contract Rate**, **Effective Rate**, **Life (years)**, **Payments per Year**.
 - Apply center alignment to the **range C3:C8**.

Now you are ready to begin populating the worksheet with the bond data.

3. Enter this data and apply any indicated formatting:

In this cell:	Type this:	And add this formatting:
Cell C3	1/1/11	
Cell C4	200000	Accounting number format
Cell C5	.08	Percent Style
Cell C6	.07	Percent Style
Cell C7	12	
Cell C8	2	

4. Highlight the **range B2:C8** and choose **Home**→**Font**→**Borders** menu ▼→**Outside Borders**; apply an outside border around **cell B2**.
5. Autofit **column B** then highlight the **range C3:G3** and set the column width to **15**.
6. Merge and center the **range B10:C10**, add bold formatting and outside borders, and enter **Bond Calculations**.
7. Enter this data:

Cell B11	Present Value
Cell C11	=PV(C6/C8, C7*C8, -C4*C5/C8, -C4)
Cell B12	Future Value
Cell C12	=-FV(C6/C8, C7*C8, -C4*C5/C8, C11)
Cell B13	Payment

8. In **cell C13**, choose **Formulas**→**Function Library**→**Insert Function**, select the **Financial** category and the **PMT** function, and click **OK**.
9. Fill in the Function Arguments box as indicated, clicking **OK** when finished:
 - Rate box: **C6/C8**
 - Nper box: **C7*C8**
 - Pv box: **C11**
 - Fv box: **-C4**
10. With **cell C13** still active, click in the Formula Bar between the equals sign and *PMT* and type a minus sign.
11. Apply the **Accounting** number format to the **range C11:C13** and add an outside border around the **range B10:C13**.

Complete the Amortization Schedule

12. In the **range B15:G15**, set text wrapping and center alignment, apply an outside border, and add bold formatting.
13. In order, enter these headers in the **range B15:G15**: **Date**, **Interest Payment**, **Interest Expense**, **Amortization of Bond Premium**, **Bond Premium Balance**, **Carrying Value**.
14. Type **1/1/2011** in **cell B16**, **6/30/2011** in **cell B17**, and **12/31/2011** in **cell B18**.
15. Highlight the **range B17:B18** and then drag the fill handle through **cell B40**.
16. In **cell B41**, type **Totals** and right-align the text.
17. Enter this data:

Cell F16	=C11-C12
Cell G16	=C11
Cell C17	=\$C\$13
Cell D17	=G16*\$C\$6/\$C\$8
Cell E17	=C17-D17
Cell F17	=F16-E17
Cell G17	=G16-E17

18. Copy the **range C17:G17** and paste to the **range C18:G40**.
19. Highlight the **range C41:E41** and choose **Home**→**Editing**→**AutoSum**, and then choose **Home**→**Font**→**Borders** menu ▼→**Top and Double Bottom Border**.
20. Apply the **Accounting** number format to the **range C16:G41**.

Protect a Workbook and a Worksheet

21. Choose **Review**→**Changes**→**Protect Workbook** and, if necessary, add a checkmark in the **Structure** checkbox.
22. Enter **Protected** as the password and click **OK**; confirm the password when prompted.
23. Choose **Review**→**Changes**→**Protect Workbook**, enter the password, and click **OK**.

24. Choose **Home**→**Cells**→**Format**→**Protect Sheet** and, as necessary, add checkmarks next to the boxes for these options and click **OK** when finished:
 - **Protect Worksheet and Contents of Locked Cells**
 - **Select Locked Cells**
 - **Select Unlocked Cells**
 - **Format Columns**
25. Use a Ribbon command to set the width of **cell C17** to **12**.
26. Choose **Review**→**Changes**→**Unprotect Sheet**.

Protect Individual Cells

27. Highlight the **ranges C3:C8** and **B16:G41**, and choose **Home**→**Cells**→**Format**→**Lock Cell**.
28. Highlight the **range C11:C13**, right-click, and choose **Format Cells**.
29. Switch to the **Protection** tab, check the box for **Hidden**, and click **OK**.
30. Choose **Review**→**Changes**→**Protect Sheet** and add the password **Worksheet**, confirming the password when prompted.
31. In **cell G7**, type **k** then click **OK** in the dialog box.
32. Rename the **Sheet1** tab to **Bond Schedule**.

Record and Run a Macro

33. Choose **File**→**Options**→**Trust Center**→**Trust Center Settings**→**Macro Settings**, ensure that **Disable All Macros with Notification** is selected, and click **OK** twice.
34. Delete the contents of the **range C16:G41**.
35. Choose **View**→**Macros**→**Macros menu ▼**→**Record Macro**, enter **Amortization _ Schedule** as the macro name, and click **OK**.
36. Complete these actions in order for the new macro:
 - Select **cell F16**, type **=C11-C12**, tap **[Tab]**, type **=C11**, and tap **[Enter]**.
 - Select **cell C17**, type **=C\$13**, tap **[Tab]**, type **=G16*C\$6/C\$8**, tap **[Tab]**, type **=D17-C17**, tap **[Tab]**, type **=F16-E17**, tap **[Tab]**, type **=G16+E17**, and tap **[Enter]**.
 - Highlight the **range C17:G17** and drag the fill handle through **row 40**.
 - Enter **=SUM(C17:C28)** in **cell C41**.
 - Copy **cell C41** to the **range D41:E41**.
37. Click the **Stop Recording** button in the status bar.
38. Delete the contents of the **range C16:G41** then choose **View**→**Macros**→**Macros** and click **Run**.
39. Choose **Review**→**Changes**→**Unprotect Sheet**, enter the password **Worksheet**, and tap **[Enter]**.
40. Choose **Insert**→**Illustrations**→**Shapes**, click the **Text Box** shape, and draw a text box over the **range E2:E5**.
41. Type **Populate Schedule** in the text box, add italic formatting format, and set the font size to **16**.

42. Right-click the text box, choose **Assign Macro**, click **Amortization_Schedule** in the list, and click **OK**.
43. Choose **Review**→**Changes**→**Protect Sheet** and enter **Finalized** as the password, confirming when prompted.
44. Delete the contents of the **range C16:G41** and then click the text box to run the macro.
45. Save your file as a **Macro-Enabled Workbook** and then close it.

EA8-R2 Create a Bond Amortization Schedule for Software Developers Co.

In this exercise, you will complete a bond amortization schedule for Software Developers Co. You will calculate the bond characteristics and generate a schedule with key components. You will also protect worksheet elements and create a macro.

The bond is issued on 1/1/13, has a \$180,000 face value, a 4-year life, quarterly interest payments, a contract interest rate of 9%, and an effective interest rate of 10%.

1. Open a **Blank Workbook** and save the file in your **Chapter 08** folder as **EA8-R2-Bond- [YourName]**.
2. Prepare the worksheet as indicated:
 - Set the width of **column A** to **0.75** and the height of **row 1** to **7.2**.
 - Merge and center the **range B2:C2**, add bold formatting, and enter **Bond Details**.
 - In order, enter these headers in the **range B3:B8**: **Date**, **Face Value**, **Contract Rate**, **Effective Rate**, **Life (years)**, **Payments per Year**.
 - Apply center alignment to the **range C3:C8**.

Now you are ready to begin populating the worksheet with the bond data.

3. Enter this data and apply any indicated formatting:

In this cell:	Type this:	And add this formatting:
Cell C3	1/1/13	
Cell C4	180000	Accounting number format
Cell C5	.09	Percent Style
Cell C6	.1	Percent Style
Cell C7	4	
Cell C8	4	

4. Highlight the **range B2:C8** and choose **Home**→**Font**→**Borders** menu ▼→**Outside Borders**; apply an outside border around **cell B2**.
5. Highlight the **range B3:G3** and use the Ribbon to change the column width to **15**.
6. Merge and center the **range B10:C10**, add bold formatting and outside borders, and enter **Bond Calculations**.

7. Enter this data:

Cell B11	Present Value
Cell C11	=PV(C6/C8, C7*C8, -C4*C5/C8, -C4)
Cell B12	Future Value
Cell C12	=FV(C6/C8, C7*C8, -C4*C5/C8, C11)
Cell B13	Payment

8. In **cell C13**, choose **Formulas**→**Function Library**→**Insert Function**, select the **Financial** category and the **PMT** function, and click **OK**.
9. Fill in the Function Arguments box as indicated, clicking **OK** when finished:
- Rate box: **C6/C8**
 - Nper box: **C7*C8**
 - Pv box: **C11**
 - Fv box: **-C4**
10. With **cell C13** still active, click in the Formula Bar between the minus sign and *PMT* and type a minus sign.
11. Apply the **Accounting** number format to the **range C11:C13** and add outside borders to the **range B10:C13**.

Complete the Amortization Schedule

12. In the **range B15:G15**, set text wrapping and center alignment, apply an outside border, and add bold formatting.
13. In order, enter these headers in the range **B15:G15**: **Date**, **Interest Payment**, **Interest Expense**, **Amortization of Bond Discount**, **Bond Discount Balance**, **Carrying Value**.
14. Type **1/1/2013** in **cell B16**, **3/31/2013** in **cell B17**, **6/30/2013** in **cell B18**, **9/30/2013** in **cell B19**, and **12/31/2013** in **cell B20**.
15. Highlight the **range B17:B20** and then drag the fill handle through **cell B32**.
16. In **cell B33**, type **Totals** and right-align the text.
17. Enter this data:

Cell F16	=C12-C11
Cell G16	=C11
Cell C17	=\$C\$13
Cell D17	=G16*\$C\$6/\$C\$8
Cell E17	=D17-C17
Cell F17	=F16-E17
Cell G17	=G16+E17

18. Copy the **range C17:G17** and paste to the **range C18:G32**.
19. Highlight the **range C33:E33** and choose **Home**→**Editing**→**AutoSum**, and choose **Home**→**Font**→**Borders menu ▼**→**Top and Double Bottom Border**.
20. Apply the **Accounting** number format to the **range C16:G33**.

Protect a Workbook and a Worksheet

21. Choose **Review**→**Changes**→**Protect Workbook** and, if necessary, add a checkmark in the **Structure** checkbox; click **OK**.
22. Turn off protection by choosing **Review**→**Changes**→**Protect Workbook**.
23. Choose **Home**→**Cells**→**Format**→**Protect Sheet** and, as necessary, add checkmarks in the boxes next to these options:
 - **Protect Worksheet and Contents of Locked Cells**
 - **Select Locked Cells**
 - **Select Unlocked Cells**
 - **Format Columns**
24. Enter **Accounting** as the password and click **OK**; confirm the password when prompted.
25. Use the right-click method to change the width of **column C** to **12**; autofit **column B**.
26. Choose **Review**→**Changes**→**Unprotect Sheet**, enter the password, and click **OK**.

Protect Individual Cells

27. Highlight the **ranges C3:C8** and **B16:G33**, and choose **Home**→**Cells**→**Format**→**Lock Cell**.
28. Highlight the **range C11:C13**, right-click, and choose **Format Cells**.
29. Switch to the **Protection** tab, check the box for **Hidden**, and click **OK**.
30. Choose **Review**→**Changes**→**Protect Sheet** and add the password **Excel**, confirming when prompted.
31. In **cell G7**, type **w** then click **OK** in the dialog box.
32. Rename the **Sheet1** tab to **Bond Schedule**.

Record and Run a Macro

33. Choose **File**→**Options**→**Trust Center**→**Trust Center Settings**→**Macro Settings**, ensure that **Disable All Macros with Notification** is selected, and click **OK** twice.
34. Delete the contents of the **range C16:G33**.
35. Choose **View**→**Macros**→**Macros menu ▼**→**Record Macro**, enter **Amortization _ Schedule** as the macro name, and click **OK**.
36. Complete these actions in order for the macro:
 - Select **cell F16**, type **=C12-C11**, tap **[Tab]**, type **=C11**, and tap **[Enter]**.
 - Select **cell C17**, type **=C\$6/\$C\$8**, tap **[Tab]**, type **=G16*\$C\$6/\$C\$8**, tap **[Tab]**, type **=D17-C17**, tap **[Tab]**, type **=F16-E17**, tap **[Tab]**, type **=G16+E17**, and tap **[Enter]**.
 - Highlight the **range C17:G17** and drag the fill handle through **row 32**.
 - Enter **=SUM(C17:C32)** in **cell C33**.
 - Copy **cell C33** to the **range D33:E33**.
37. Click the **Stop Recording** button in the status bar.
38. Delete the contents of the **range C16:G33** and then choose **View**→**Macros**→**Macros** and click **Run**.

39. Choose **Review**→**Changes**→**Unprotect Sheet**, enter the password **Excel**, and tap **Enter**.
 40. Choose **Insert**→**Illustrations**→**Shapes**, click the **Text Box** shape, and draw a text box over the range **E2:E5**.
 41. Type **Populate Schedule** in the text box, add bold formatting, and set the font size to **16**.
 42. Right-click the text box, choose **Assign Macro**, click **Amortization_Schedule** in the list, and click **OK**.
 43. Choose **Review**→**Changes**→**Protect Sheet** and enter **Macro** as the password, confirming when prompted.
 44. Delete the contents of the range **C16:G33** and then click the text box to run the macro.
 45. Save your file as a **Macro-Enabled Workbook** and then close it.
-

Apply Your Skills

EA8-A1 Create a Bond Amortization Schedule for Kim's Kitchen

In this exercise, you will complete a bond amortization schedule for Kim's Kitchen. You will calculate the bond characteristics and generate a schedule with key components. You will also protect worksheet elements and create a macro.

The bond is issued on 1/1/10, has a \$120,000 face value, a 7-year life, semiannual interest payments, a contract interest rate of 12%, and an effective interest rate of 10%.

1. Open a **Blank Workbook** and save the file in your **Chapter 08** folder as **EA8-A1-Bond- [YourName]**.
2. Change the width of **column A** to **0.75** and the height of **row 1** to **7.2**.
3. Merge and center the **range B2:C2** and type **Bond Details** in the merged cell.
4. In the **range B3:B8**, enter the descriptions **Date**, **Face Value**, **Contract Rate**, **Effective Rate**, **Life (years)**, and **Payments per Year**.
5. Enter the bond details in the **range C3:C8**; center these entries.
6. Apply borders to the appropriate locations in the **range B2:C8**.
7. Adjust the column width of **columns B–G** to **15**.
8. Merge and center the **range B10:C10** and type **Bond Calculations** in the merged cell.
9. In the **range B11:B13**, enter the descriptions **Present Value**, **Future Value**, and **Payment**.
10. In the **range C11:C13**, enter appropriate formulas that solely contain cell references and apply the **Accounting** number format.
11. Apply borders to the appropriate locations in the **range B10:C13**.

Complete the Amortization Schedule

12. In the **range B15:G15**, set text wrapping and center alignment, apply an outside border, and add bold formatting.
13. In the **range B15:G15**, enter the column descriptions for the bond amortization schedule.
14. In the **range B16:B18**, enter dates for the bond issuance and the first two interest payments.
15. Apply additional dates as appropriate in **column B**.
16. Type appropriate formulas in the necessary cells in **rows 16–17** of the bond amortization schedule.
17. Copy the formulas in **row 17** to the remaining rows in the bond amortization schedule.
18. In **column B** below the final populated row of the bond amortization schedule, enter **Totals** and right-align the text.
19. Use **AutoSum** in the Totals row to calculate the appropriate columns and apply the **Accounting** number format.
20. Add appropriate borders to the entire bond amortization schedule.

Protect a Workbook and a Worksheet

21. Use the **Protect Workbook** command and apply a password.
22. Turn off workbook protection.
23. Use the **Protect Worksheet** command, ensure that all cells can be selected and all columns can be formatted while worksheet protection is on; apply a password.
24. Set the width of **column C** to **12** and autofit the width of **column B**.
25. Turn off worksheet protection.

Protect Individual Cells

26. Toggle off the **Lock Cell** command for all cells in the Bond Details and bond amortization schedule sections.
27. Hide the formulas in the Bond Calculations section.
28. Use the **Protect Worksheet** command, ensure that all cells can be selected while worksheet protection is on; apply a password.
29. Rename the worksheet to **Bond Schedule**.

Record and Run a Macro

30. Ensure that **Disable All Macros with Notification** is the active macro setting.
 31. Delete all data in the bond amortization schedule except the dates and headers.
 32. Record a macro that populates the bond amortization schedule, applying an appropriate name for the macro.
 33. Delete all data in the bond amortization schedule except the dates and headers then run your macro.
 34. Unprotect the worksheet.
 35. Insert a text box from which to run the macro in an appropriate location and add an appropriate name in bold; assign your macro to the text box.
 36. Use the **Protect Worksheet** command, ensure that all cells can be selected while worksheet protection is on; apply a password.
 37. Delete all data in the bond amortization schedule except the dates and headers then use the text box to run your macro.
 38. Save your file as a **Macro-Enabled Workbook** then close it.
-

EA8-A2 Create a Bond Amortization Schedule for Cubby Manufacturing

In this exercise, you will complete a bond amortization schedule for Cubby Manufacturing. You will calculate the bond characteristics and generate a schedule with key components. You will also protect worksheet elements and create a macro.

The bond is issued on 1/1/12, has a \$60,000 face value, a 5-year life, quarterly interest payments, a contract interest rate of 12%, and an effective interest rate of 14%.

1. Open a **Blank Workbook** and save the file in your **Chapter 08** folder as **EA8-A2-Bond- [YourName]**.
2. Change the width of **column A** to **0.75**, and the height of **row 1** to **7.2**.
3. Merge and center the **range B2:C2** and type **Bond Details** in the merged cell.
4. In the **range B3:B8**, enter the descriptions **Date**, **Face Value**, **Contract Rate**, **Effective Rate**, **Life (years)**, and **Payments per Year**.
5. Enter the bond details in the **range C3:C8**; center these entries.
6. Apply border to the appropriate locations in the **range B2:C8**.
7. Adjust the column width of **columns B–G** to **15**.
8. Merge and center the **range B10:C10** and type **Bond Calculations** in the merged cell.
9. In the **range B11:B13**, enter the descriptions **Present Value**, **Future Value**, and **Payment**.
10. In the **range C11:C13**, enter appropriate formulas that solely contain cell references and apply the **Accounting** number format.
11. Apply borders to the appropriate locations in the **range B10:C13**.

Complete the Amortization Schedule

12. In the **range B15:G15**, set text wrapping and center alignment, apply an outside border, and add bold formatting.
13. In the **range B15:G15**, enter the column descriptions for the bond amortization schedule.
14. In the **range B16:B18**, enter dates for the bond issuance and the first two interest payment dates.
15. Apply additional dates as appropriate in **column B**.
16. Type appropriate formulas in the necessary cells in **row 16–17** of the bond amortization schedule.
17. Copy the formulas in **row 17** to the remaining rows in the bond amortization schedule.
18. In **column B** below the final populated row of the bond amortization schedule, enter **Totals** and right-align the text.
19. Use **AutoSum** in the Totals row to calculate the appropriate columns and apply the **Accounting** number format.
20. Add appropriate borders to the entire bond amortization schedule.

Protect a Workbook and a Worksheet

21. Use the **Protect Workbook** command and apply a password.
22. Turn off workbook protection.
23. Use the **Protect Worksheet** command, ensure that all cells can be selected and all columns can be formatted while worksheet protection is on; apply a password.
24. Set the width of **column C** to **12** and autofit the width of **column B**.
25. Turn off worksheet protection.

Protect Individual Cells

26. Toggle off the **Lock Cell** command for all cells within the Bond Details and bond amortization schedule sections.
27. Hide the formulas in the Bond Calculations section.
28. Use the **Protect Worksheet** command, ensure that all cells can be selected while worksheet protection is on; apply a password.
29. Rename the worksheet to **Bond Schedule**.

Record and Run a Macro

30. Ensure that **Disable All Macros with Notification** is the active macro setting.
 31. Delete all data in the bond amortization schedule except the dates and headers.
 32. Record a macro that populates the bond amortization schedule, applying an appropriate name for the macro.
 33. Delete all data in the bond amortization schedule except the dates and headers then run your macro.
 34. Unprotect the worksheet.
 35. Insert a text box from which to run the macro in an appropriate location and add an appropriate name in italic; assign your macro to the text box.
 36. Use the **Protect Worksheet** command, ensure that all cells can be selected while worksheet protection is on; and apply a password.
 37. Delete all data in the bond amortization schedule except the dates and headers then run your macro.
 38. Save your file as a **Macro-Enabled Workbook** then close it.
-

Extend Your Skills

EA8-E1 Complete a Bond Amortization Schedule for Townline Construction

In this exercise, you will complete a bond amortization schedule for Townline Construction. You will calculate the bond characteristics and generate a schedule with key components. You will protect worksheet elements and create a macro.

Start a new file. Reduce the width of column A to 0.75 and the height of row 1 to 7.20. Enter the bond details in the range B2:C8. Include a centered header and appropriate titles. Enter the details for a bond with a \$260,000 face value, a 4-year life, semiannual interest payments, a contract interest rate of 10%, and an effective interest rate of 11%. The bond is issued on 1/1/13. (Hint: Values must be entered here so they can be used in subsequent formulas.)

Enter bond calculations for the present and future values and the payments in the range B10:C13. The future value and payment calculations will generate results that match figures given above; you complete these calculations to check your work. Create a bond amortization schedule beginning in cell B15. Use headers that are consistent with those used in this chapter. Calculate totals for the appropriate columns.

Protect the workbook structure and apply a password. Modify cell protection for all cells containing formulas in column G such that formulas are hidden. Then protect the worksheet by only allowing users to select locked and unlocked cells, and insert hyperlinks; apply a password.

Record a macro that generates every formula in the worksheet after the bond details (in the range B2:C8) and dates have been entered. Run the macro to ensure it operates properly. Insert a text box in an appropriate location, add an appropriate name in the text box, and assign the macro to this text box. Save your file as a Macro-Enabled Workbook.

EA8-E2 Complete a Bond Amortization Schedule for Stationary Specialists

In this exercise, you will complete a bond amortization schedule for Stationary Specialists. You will calculate the bond characteristics and generate a schedule with key components. You will protect worksheet elements and create a macro.

Start a new file. Reduce the width of column A to 0.75 and the height of row 1 to 7.20. Enter the bond details in the range B2:C8. Include a centered header and appropriate titles. Enter the details for a bond with a \$140,000 face value, a 6-year life, quarterly interest payments, a contract interest rate of 8%, and an effective interest rate of 7%. The bond is issued on 1/1/11. (Hint: Values must be entered here so they can be used in subsequent formulas.)

Enter bond calculations for the present and future values and the payments in the range B10:C13. The future value and payment calculations will generate results that match figures given above; you complete these calculations to check your work. Create a bond amortization schedule beginning

in cell B15. Use headers that are consistent with those used in this chapter. Calculate totals for the appropriate columns.

Protect the workbook such that worksheets cannot be reordered, copied, or deleted. Modify cell protection for all cells containing formulas in column G such that the formulas are hidden. Protect the worksheet by only allowing users to format cells, columns, and rows; apply a password.

Record a macro that generates every formula in the worksheet after the bond details (in the range B2:C8) and dates have been entered. Run the macro to ensure it operates properly. Insert a text box in an appropriate location, add an appropriate name in the text box, and assign the macro to this text box. Save your file as a Macro-Enabled Workbook.

EA8-E3 Complete a Bond Amortization Schedule for Dan's Refinishing

In this exercise, you will complete a bond amortization schedule for Dan's Refinishing. You will calculate the bond characteristics and generate a schedule with key components. You will protect worksheet elements and create a macro.

Start a new file. Reduce the width of column A to 0.75 and the height of row 1 to 7.20. Enter the bond details in the range B2:C8. Include a centered header and appropriate titles. Enter the details for a bond with a \$200,000 face value, a 8-year life, semiannual interest payments, a contract interest rate of 7%, and an effective interest rate of 9%. The bond is issued on 1/1/09. (Hint: Values must be entered here so they can be used in subsequent formulas.)

Enter bond calculations for the present and future values and the payments in the range B10:C13. The future value and payment calculations will generate results that confirm figures given above; you complete these calculations to check your work. Create a bond amortization schedule beginning in cell B15. Use headers that are consistent with those used in this chapter. Calculate totals only for the appropriate columns.

Protect the workbook such that the worksheets cannot be copied, reordered, or deleted. Apply a password when protecting the workbook. Modify cell protection for all cells containing formulas in columns F–G such that the formulas are hidden. Then protect the worksheet by only allowing users to sort data.

Record a macro that generates every formula in the worksheet after the bond details (in the range B2:C8) and dates have been entered. Run the macro to ensure it operates properly. Insert a text box in an appropriate location, add an appropriate name in the text box, and assign the macro to this text box. Save your file as a Macro-Enabled Workbook.

Critical Thinking

EA8-C1 Discuss Worksheet Protection

Protection can be used at multiple levels to protect workbooks, worksheets, and individual cells. In the case of the bond amortization schedule, this protection ensures that users only adjust certain cells and cannot inadvertently alter elements that should remain static. However, a bond amortization schedule is not the only worksheet for which protection is appropriate. Depending on factors such as the frequency with which a worksheet is disseminated and the number of users with access to the file, various levels of protection can be beneficial for many of the accounting-related spreadsheets.

Write a paragraph of at least five sentences to identify four types of accounting worksheets (other than the bond amortization schedule) within which some level of protection would be appropriate. Write a second paragraph of at least eight sentences to discuss why that protection is appropriate and what level of protection you would implement for each.

EA8-C2 Discuss Macros and Worksheet Automation

Efficiency is a key goal when completing any Excel worksheet. As the size and scope of the schedule grows, taking an efficient approach to populating it becomes increasingly vital. In the case of the bond amortization schedule, you have seen how macros can be used to complete the entire body of the schedule. Macros can similarly be used in other accounting-related spreadsheets that contain repetitious and/or predictable elements.

Consider how macros can be used to increase efficiency. Write a paragraph of at least four sentences in which you identify three accounting-related spreadsheets (other than the bond amortization schedule) that can benefit from the use of macros. Write a second paragraph of at least five sentences to discuss how macros can be used in each worksheet to improve the manner in which they are populated.