Study Unit

Integrating Word with Access and Excel

Reviewed By

Brandon Nolta

About the Reviewer

Brandon Nolta has more than a decade of experience in information technology, system administration, software testing, technical documentation, and freelance writing. He has worked for several companies in various technical capacities, including Hewlett-Packard and Micron Computers. His freelance experience includes working as an Internet researcher for the Sci-Fi Channel (now SyFy).

Mr. Nolta has a bachelor's degree in mathematics from the University of Idaho and a master's degree in English from Boise State University. He holds several technology-related certifications, including A+, Network+, and Microsoft Certified System Administrator (MCSA).

Preview

The Microsoft Office suite delivers a broad range of tools that can help you achieve great results with less work. On its own, each program in the suite provides powerful, yet easy-to-use features that vastly simplify the process of creating great-looking documents for home or business. The possibilities become even more exciting when you integrate different Office applications to create a single file.

The seamless integration of the various programs within Office allows you to share tools and data to create a wide variety of documents. In this study unit, you'll explore the possibilities of combining the capabilities of Word and Excel, and Word and Access.

Office makes it easier than ever to communicate your ideas effectively, and produce polished results in less time. Microsoft Office provides you with the tools you need to succeed in today's competitive marketplace.

When you complete this study unit, you'll be able to

- Embed an Excel worksheet into a Word document
- Embed an Excel chart or graph into a Word document
- Explain the difference between object linking and embedding
- Describe the procedure for linking an object to a Word document
- Use Microsoft Access to create a data source
- Develop a form letter with form fields
- Merge a database with a form letter

ONLINE RESOURCES

Remember to check your student portal regularly. Your instructor may post additional resources that you can access to enhance your learning experience.

Contents

THE MICROSOFT OFFICE SUITE

A *software suite* is a group of software programs sold together in one package. Microsoft Office is one such suite. The programs in Office are designed to work independently and in conjunction with the other programs in the suite. With a suite like Microsoft Office, you can create documents and projects using the tools best suited to your individual tasks.

Sometimes, however, you may need the capabilities of more than just one software tool for a project. With Microsoft Office, you can create an *integrated file*—that is, a file that includes information or elements created by two or more software tools.

In this study unit, you'll explore many software functions as you create projects that really make the most of your Office suite. You'll combine the power of Word and Excel to create an invoice with an embedded worksheet that automatically calculates the total amount due. You'll also study the procedure for embedding an Excel chart in a Word document. Finally, you'll combine Word and Access to create a database address list with a form letter to produce a personalized mailing.

As you'll soon see, not only do integrated functions give you access to the power of two or more programs at once, but they also allow you to share information among several files. Once you understand the basic ways in which the different Office applications interact, you'll probably be able to come up with dozens of practical applications to streamline your own work.

OBJECT LINKING AND EMBEDDING

Object linking and embedding (OLE) is a special feature of the Windows environment that's supported by all Office applications. OLE allows you to add information from one type of file to another *(embedding),* or you can share data within two or more files *(linking).* (You'll learn more about the differences between linking and embedding as you proceed through this study unit.) Data that's integrated in either of these ways is called an *object*. The typical Office user works with a variety of different types of objects, such as

- Clip art and fancy lettering
- Spreadsheets and charts
- Datasheets and reports
- Formatted text from word processing documents

OLE has a wide range of practical applications within the Office environment. For example, you can embed an Excel worksheet into a Word document. Then you can use Excel's calculation features in the word processing environment. Or, you can illustrate a letter with a graphic from the ClipArt Gallery and touch up your artwork without leaving Word. In this study unit, you'll be concentrating on linking and embedding between Office software tools, but OLE also works with many other Windows programs, allowing you to integrate your documents in a wide variety of ways.

The original file linked or embedded in a document is known as the *source file*. The file into which the object is embedded or to which the object is linked is known as the *destination file*. Linked objects and embedded objects differ mainly in terms of where the data included in the object is stored and how the object is updated after being placed in the destination file.

When you embed an object in a file, you first create a file in one application and then insert (embed) an object from another application into the first file. For example, you can create a Word file and embed a spreadsheet in the Word file. Embedded objects become part of the destination file and, once inserted, are no longer part of the source file. You can edit an embedded object only by opening the destination file and double-clicking the embedded object to make it active.

Creating an embedded object is a matter of following a few simple steps:

1. Open a Word document.
2. On the **Insert** tab, click **Table** and select **Excel Spreadsheet** (Figure 1).

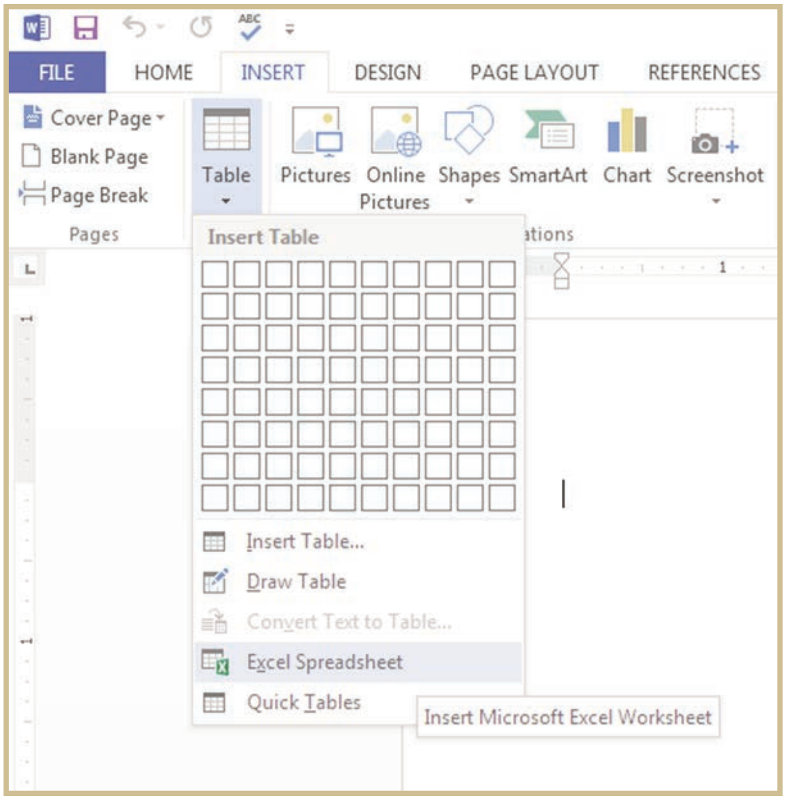


FIGURE 1—Embedding an Excel Worksheet

3. Click **Excel Spreadsheet.** The object will appear as a source file, surrounded by a border showing that the object is active and can be edited or modified (Figure 2).

FIGURE 2—The embedded object appears.

If you modify the source file from within its source application—for example, updating a linked spreadsheet by opening the workbook in Excel—the changes will appear in the linked object in the destination document. To modify the source file from within the destination document, double-click the object to open it within the source application.

In summary, an embedded object doesn't exist as a separate file outside the host document. A linked object exists in the application in which it was created and in the application to which it's linked.

For your first project, you'll create a common integrated file relationship—an Excel worksheet embedded in a Word document. This particular integration allows you to access the powerful calculating ability of Excel while you're using Word to create a memo, letter, invoice, or report.

WORD PROCESSING WITH AN EMBEDDED WORKSHEET

In the sections that follow, you'll create a standard invoice using Word. Once you get to the numerical portion of the invoice, you'll embed a blank Excel worksheet in the file. Then, while you're in the word processing window, you'll actually use Excel to calculate the total amount due.

Creating an Invoice Heading

In this section, you'll begin to create a Word document for a standard business invoice. Just follow these steps:

1. Open **Microsoft Word** and create a new blank document (Figure 3).
2. Click the **Center** button in the Home tab.
3. Click the **Bold** button.
4. Click the **Font** arrow. A drop-down menu of available fonts appears.
5. Click **Times New Roman.**
6. Click the **Font Size** arrow. A drop-down menu of font sizes appears.

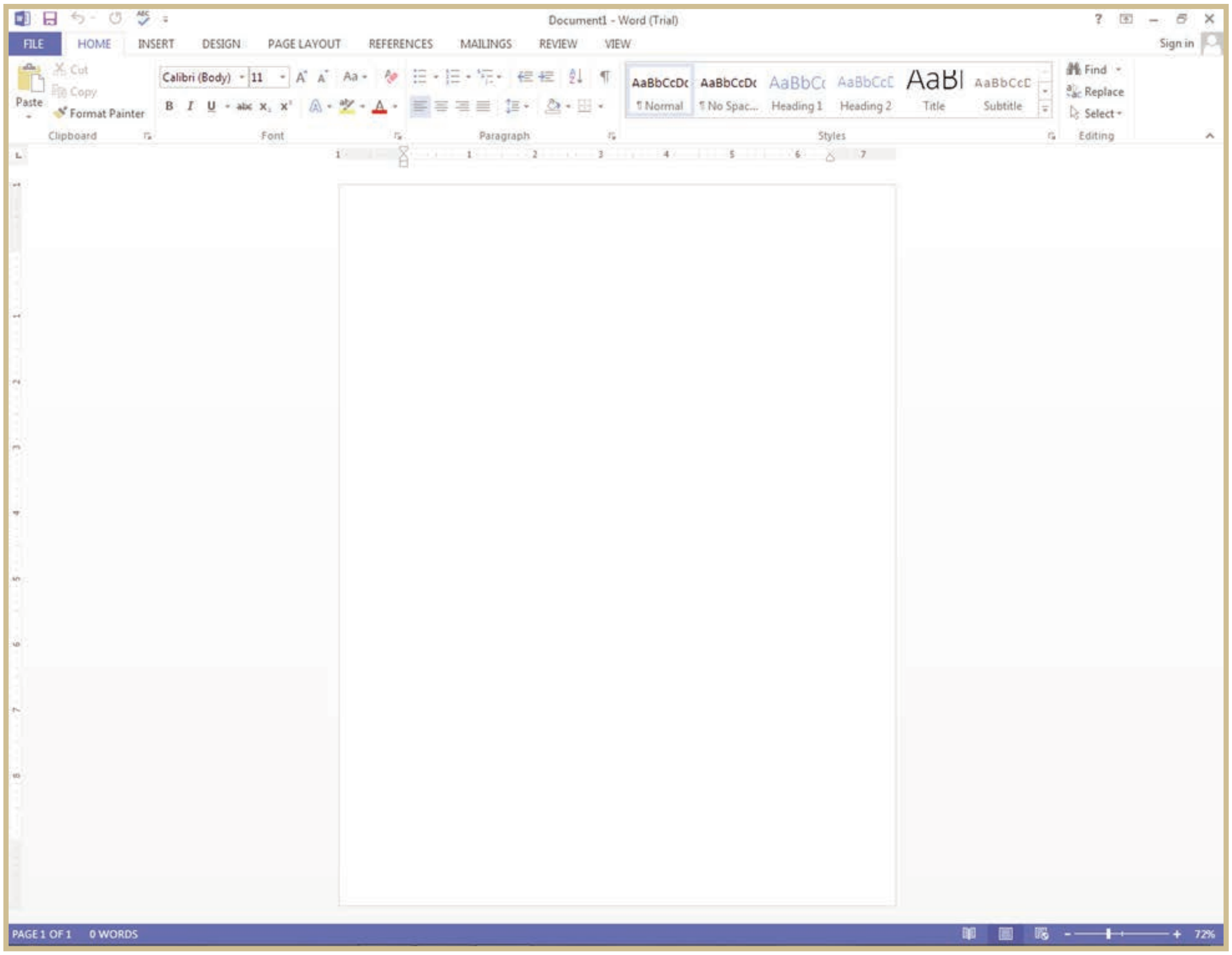


FIGURE 3—The opening Word screen is a blank document.

7. Click **12** to select a new size font.
8. Press the **Caps Lock** key.
9. Type the word **INVOICE.**
10. Press the **Caps Lock** key to turn off that feature.
11. Click the **Bold** button to turn off that attribute.
12. Press the **Enter** key twice.
13. Click the **Left Align** button.

Now move directly to the next section to create an automatic date.

Inserting an Automatic Date

Your computer has a battery-operated clock that keeps track of the date and time—even when the computer is off. Follow the steps below to insert the current date at the top of your invoice, and set the clock to update automatically each time you print the document in the future.

1. Click the **Insert** tab.
2. Click **Date & Time.** The **Date and Time** dialog box appears (Figure 4).

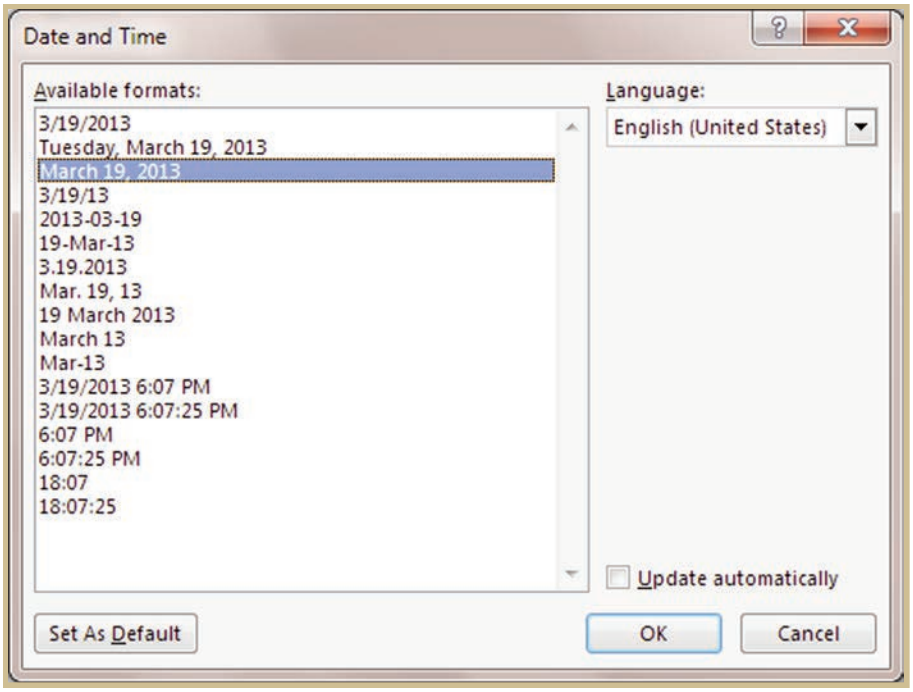


FIGURE 4—Use the Date and Time dialog box to automatically insert the date.

3. Click the third option in this list—the standard long date that typically appears in business correspondence. Your dialog box should display the current date.
4. Click **Update automatically** to select this option.
5. Click **OK.** The current date appears in the document.
6. Press the **Enter** key twice.

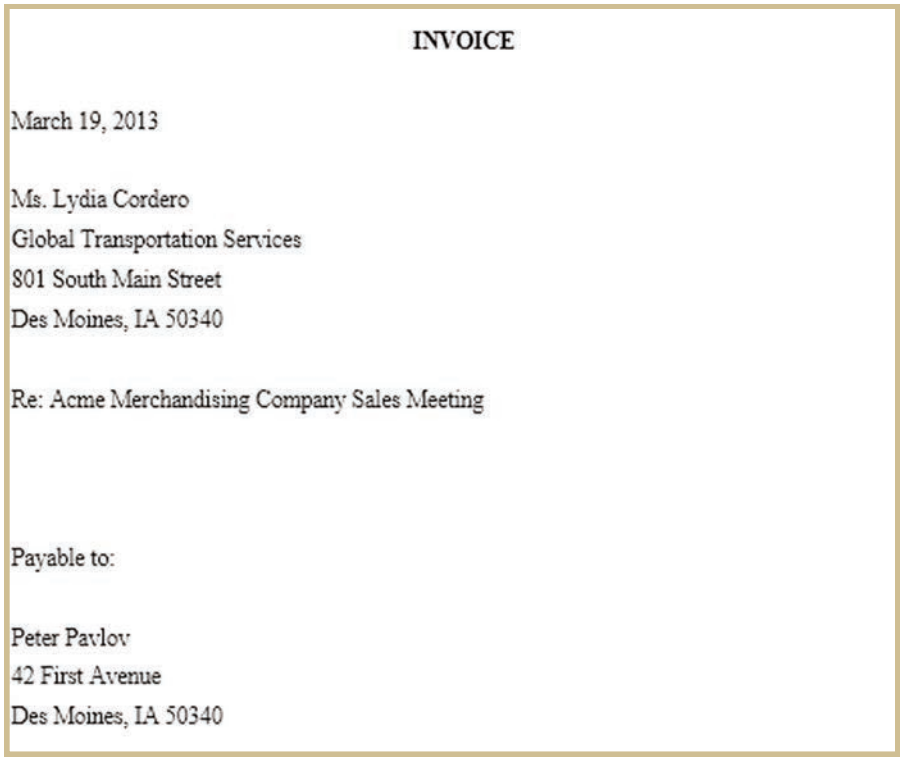
Adding Text

In this section, you'll input most of the body text of your invoice. Follow the steps below to enter the text of the invoice beneath the date.

1. From the Home tab, click on the **Line Spacing** icon in the Paragraph palette and click **1.5** (Figure 5).
2. Type the name **Ms. Lydia Cordero.**
3. Press the **Enter** key.
4. Type the company name: **Global Transportation Services.**
5. Press the **Enter** key.
6. Type the street address: **801 South Main Street.**
7. Press the **Enter** key.
8. Type the city, state, and zip code: **Des Moines, IA 50340.**
9. Press the **Enter** key twice.
10. Type the abbreviation **Re:.** This standard business abbreviation means *regarding* or *in reference to*. It's typically used at the beginning of a letter, memo, invoice, or legal document to indicate the primary subject matter. Press the **Spacebar**.
11. Type the subject: **Acme Merchandising Company Sales Meeting.**
12. Press the **Enter** key four times.
13. Type **Payable to:.**
14. Press the **Enter** key twice.
15. Type **Peter Pavlov.**
16. Press the **Enter** key.
17. Type **42 First Avenue.**
18. Press the **Enter** key.
19. Type **Des Moines, IA 50340.**
20. Press the **Enter** key.

FIGURE 5—Line Spacing Icon

When you're finished typing the text, compare your screen with Figure 6. Afterwards, proceed to the next section to name and save your invoice in the Documents folder of your hard disk. (You'll be saving all of your projects in this folder during the course of this study unit.)



INVOICE

March 19, 2013

Ms. Lydia Cordero
Global Transportation Services
801 South Main Street
Des Moines, IA 50340

Re: Acme Merchandising Company Sales Meeting

Payable to:

Peter Pavlov
42 First Avenue
Des Moines, IA 50340

FIGURE 6—The Word screen shows the body text of the invoice you're creating.

Naming and Saving a Document

Complete the steps that follow to name and save your document in the Documents folder.

1. Click the diskette icon in the upper-left corner.
2. Click **Save As** (Figure 7). The **Save As** dialog box appears. This dialog box appears because the document hasn't been saved before.
3. If the **Documents** folder isn't already displayed in the **Folders** box, follow this procedure:
    - Click **Browse.**
    - Double-click to select the **Documents** folder from your hard-disk directory.
4. Note on your screen that Word has suggested the name *INVOICE* in the **File Name** box.

To modify the document name, follow the procedure beginning on page 9.

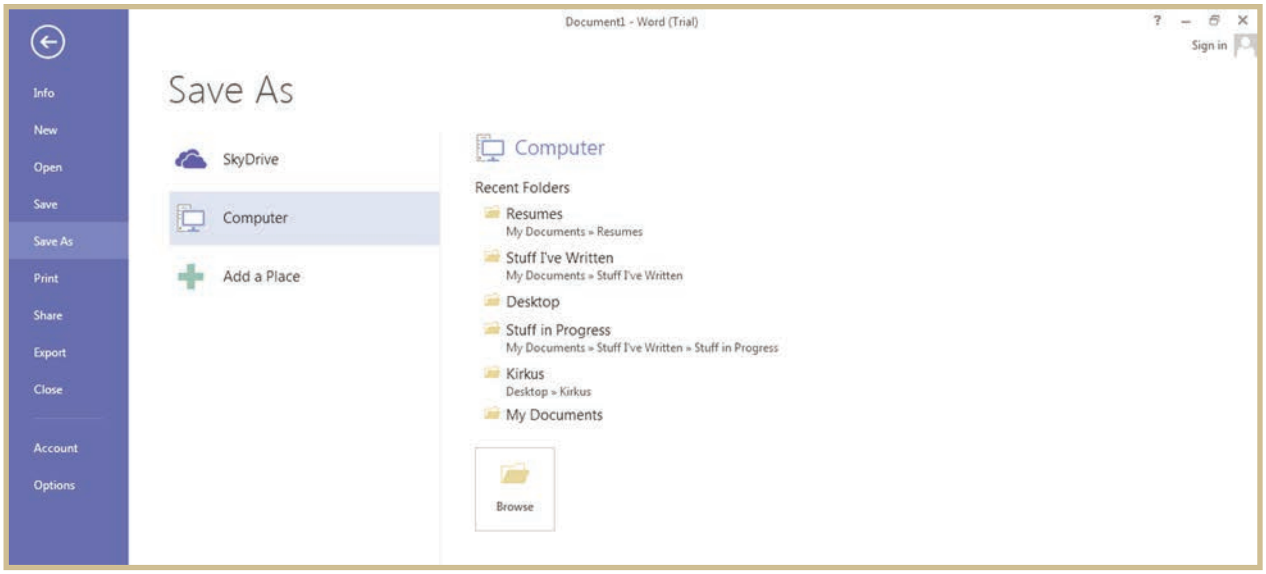


***FIGURE 7—To save your document, click* Save As.**

- Click to the right of the word *INVOICE* in the **File name** box.
- Press the **Spacebar.**
- Type **Acme** (Figure 8).
- Click **Save.**

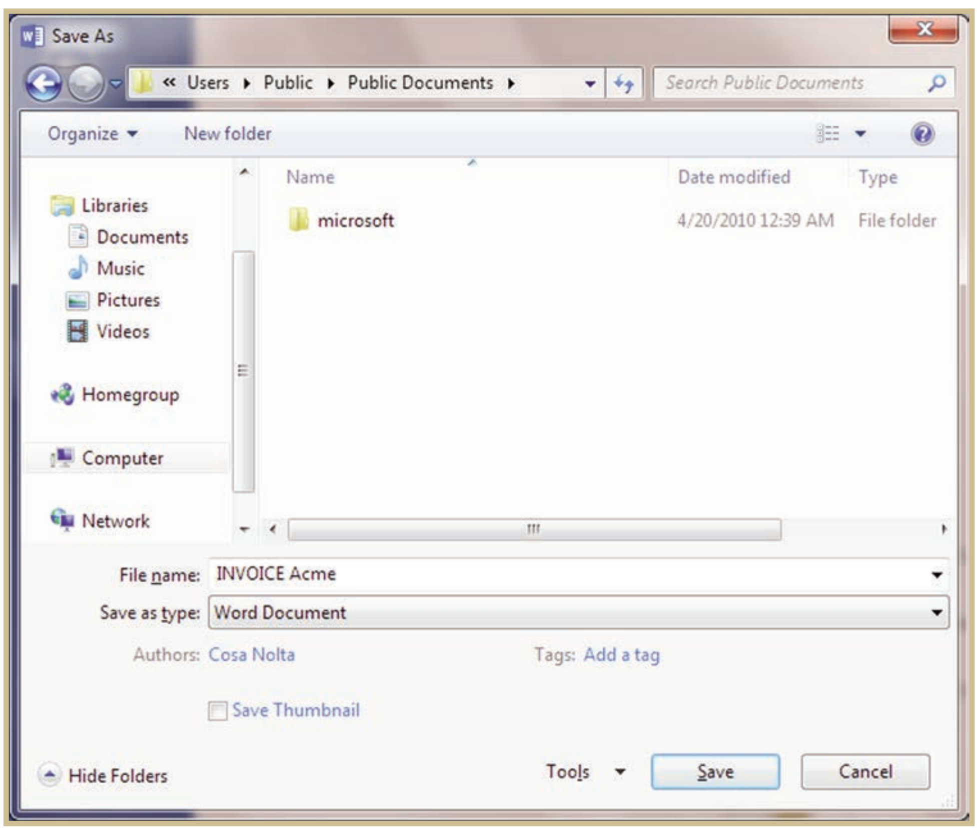


FIGURE 8—Type in the* File name *box to change Word's automatic file name suggestion.

This procedure saves the file on your computer's hard disk as *INVOICE Acme*. This name now appears in the title bar of the document window (Figure 9).

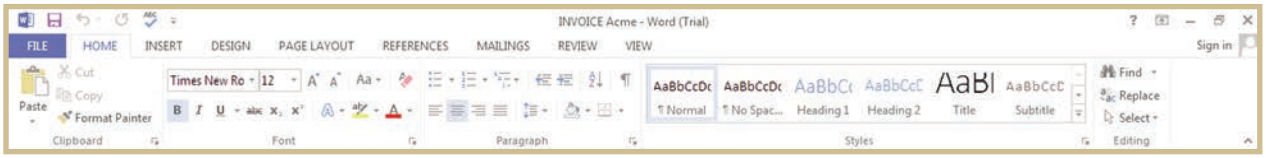


FIGURE 9—The name of the document now appears in the title bar.

5. To exit Word, click that program's **Close** button—the square button marked with an "X" in the upper-right corner of your screen. You can then quit Windows to end your work session or move directly to the next section to reopen your invoice and add a worksheet.

Embedding a Blank Worksheet

Now that you've completed the basic text portion of the invoice using Microsoft Word, you're ready to calculate your invoice total using an embedded worksheet from Excel. Instead of picking up a pocket calculator or a pencil and paper to do the math, you can call on Excel to handle the calculation. Follow these steps to reopen the Word file *INVOICE Acme* and embed a blank worksheet in this document.

1. Open **Microsoft Word.**
2. In the left panel, click **INVOICE Acme** to open the document.
3. If you don't see INVOICE Acme in the left panel, click **Open Other Documents** at the bottom of the left panel. The Open dialog box appears, and you can choose from that window or browse the computer.
4. Double-click the filename **INVOICE Acme.** The document window displays your invoice.
5. Click immediately to the left of the abbreviation *Re:*. The insertion point appears immediately to the left of the abbreviation.

6. Press the **Down Arrow** key twice. The insertion point moves to the blank space halfway between the *Re:* line and the *Payable to:* line.
7. On the Insert tab, click **Table** and select **Excel Spreadsheet** (Figure 10).

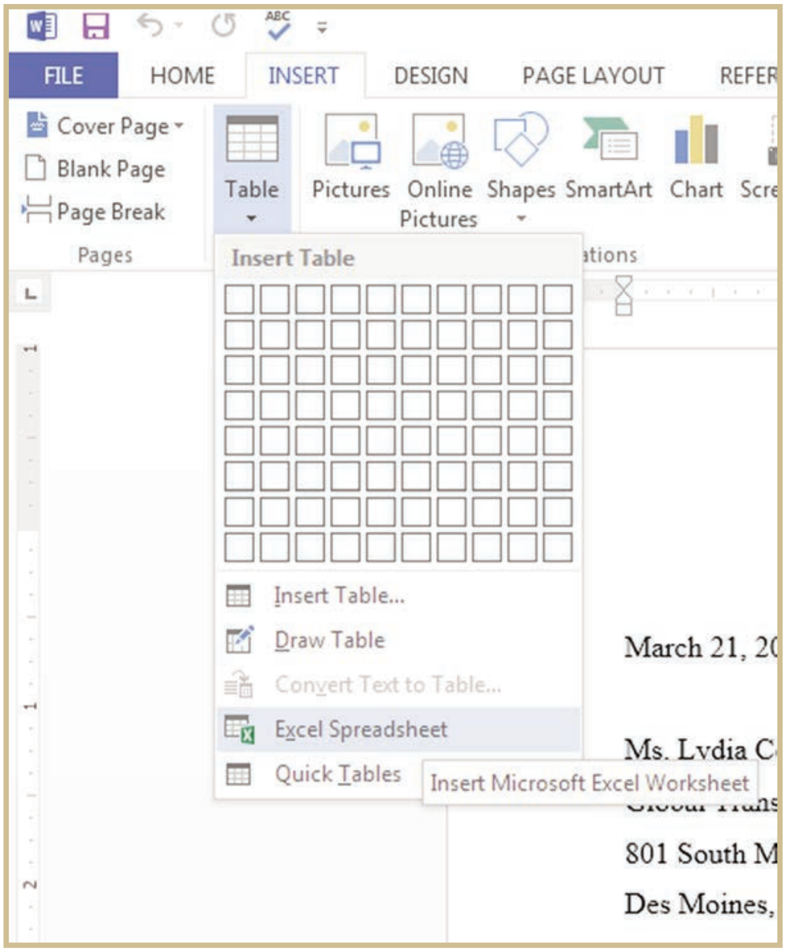


FIGURE 10—Select* Microsoft Office Excel Worksheet *in the Object dialog box.

8. Click **OK** to embed a new blank worksheet in the document window (Figure 11).

If necessary, you can use the down scroll arrow in the lower right-hand corner of the document window to bring the whole worksheet into view. The new worksheet automatically displays 7 columns (A–G) and 10 rows (1–10). Since the worksheet is now active, the toolbar options display Excel functions. Now move directly to the next section to reduce the size of this worksheet.

Resizing an Embedded Worksheet

It's easy to change the number of columns and rows displayed in a worksheet by *resizing* it with your mouse. Follow these steps to remove two columns from your worksheet.

1. Position the mouse pointer on the small black resizing handle at the center of the worksheet's right side, which you can see on your screen and in Figure 11. When you point directly at the handle, the mouse pointer changes to a double-arrow pointer.

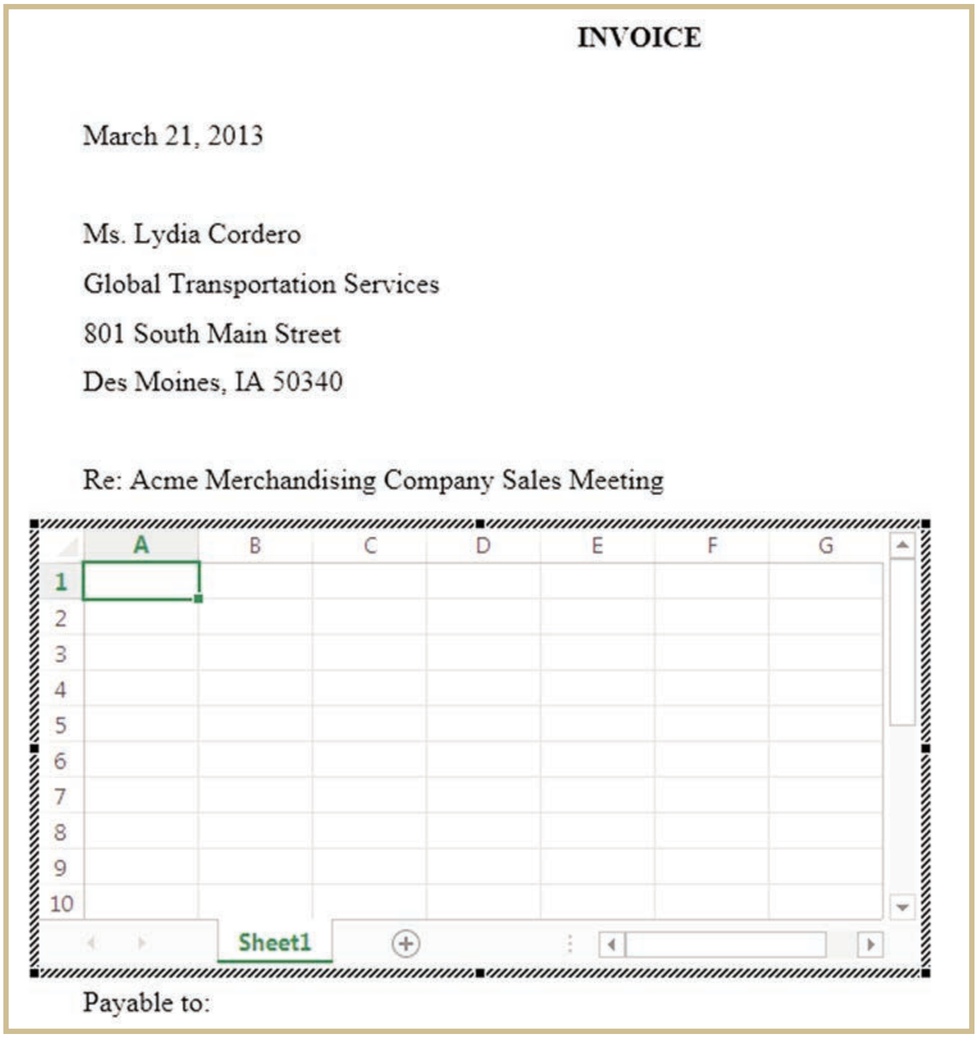


FIGURE 11—A blank worksheet is embedded in the document.

2. Click and hold the **left mouse button.**
3. Drag the pointer to the left until the gray, dragged line comes as close as possible to the right-hand side of column E (Figure 12). Note that the dragged line may not precisely meet the line that marks the right edge of column E.

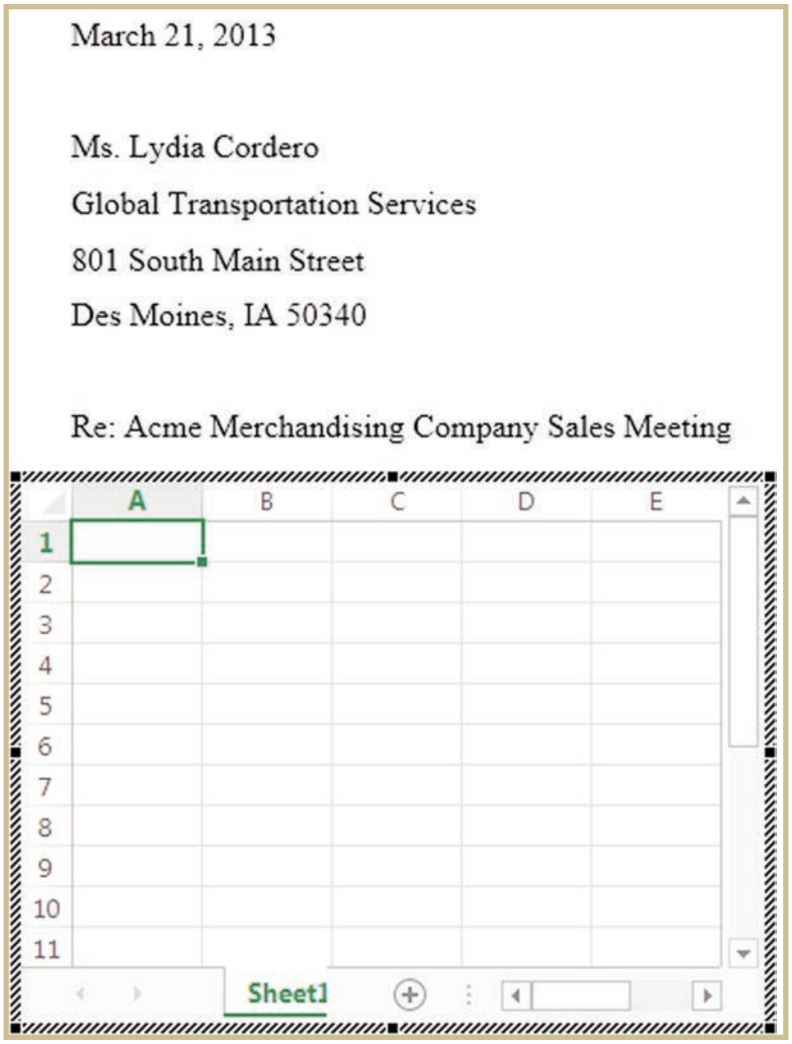


FIGURE 12—Drag the border to the right of column E.

4. Release the mouse button. Your worksheet has been resized so that only columns A–E appear.

Now follow these steps to reduce the number of rows in your worksheet.

1. Position the mouse pointer on the small black resizing handle at the center of the worksheet's bottom side. When you point directly at the handle, the mouse pointer changes to a double-arrow pointer.

2. Click and drag upward until the dragged line is level with the bottom line of row 5. Note that the horizontal scrollbar of the resized worksheet will mask row 5, so there's no need to drag the line until it's level with the bottom of row 4.

3. Release the mouse button. Your worksheet has been resized so that only rows 1–4 appear. Compare your screen with Figure 13.

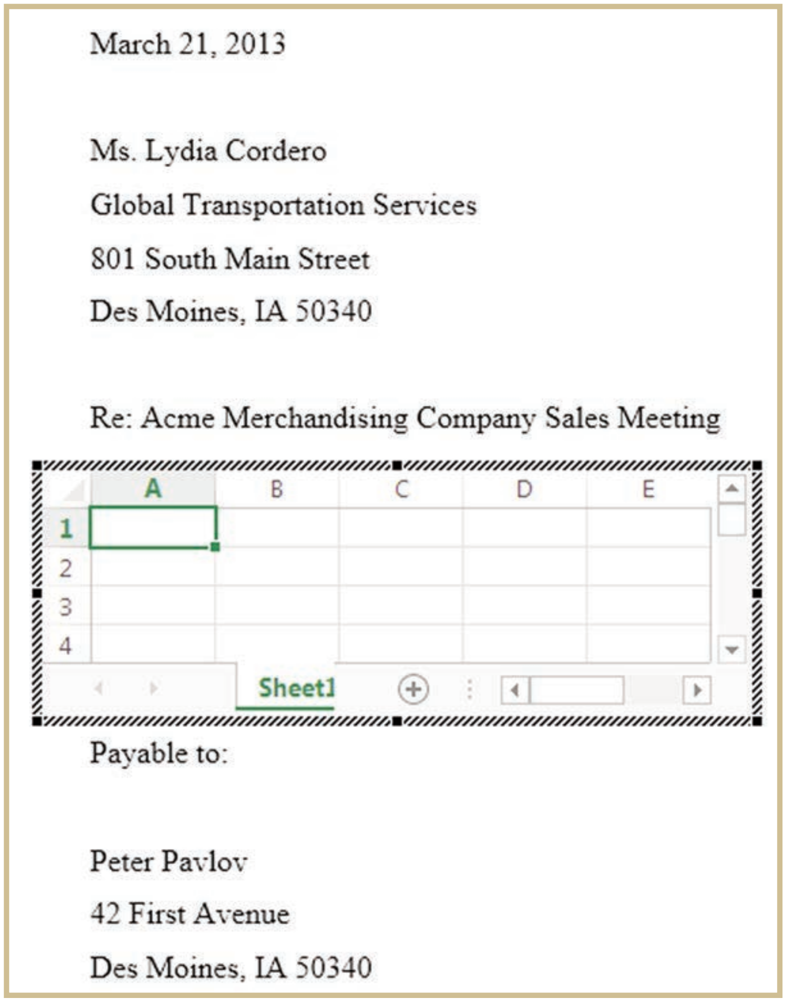


FIGURE 13—Dragging the right border has resized the worksheet.

The resizing handles can also be used to enlarge the worksheet. If you accidentally remove too many rows or columns, simply click and drag to make the worksheet larger.

Completing the Worksheet

Now get ready to make data entries to the embedded worksheet. Follow these steps to complete your worksheet now.

1. Click in cell **A1.**
2. Type the number **45** in this cell.

3. Click in cell **B1**—or press either the **Tab** key or **Right Arrow** key—to select this new cell.
4. In cell B1, type the phrase **double-spaced pages at the rate of.**
5. Press the **Tab** key to advance to cell C1.

Compare your screen with Figure 14. Don't worry that the entry in cell B1 runs into the adjacent cells; you'll adjust all column widths later.

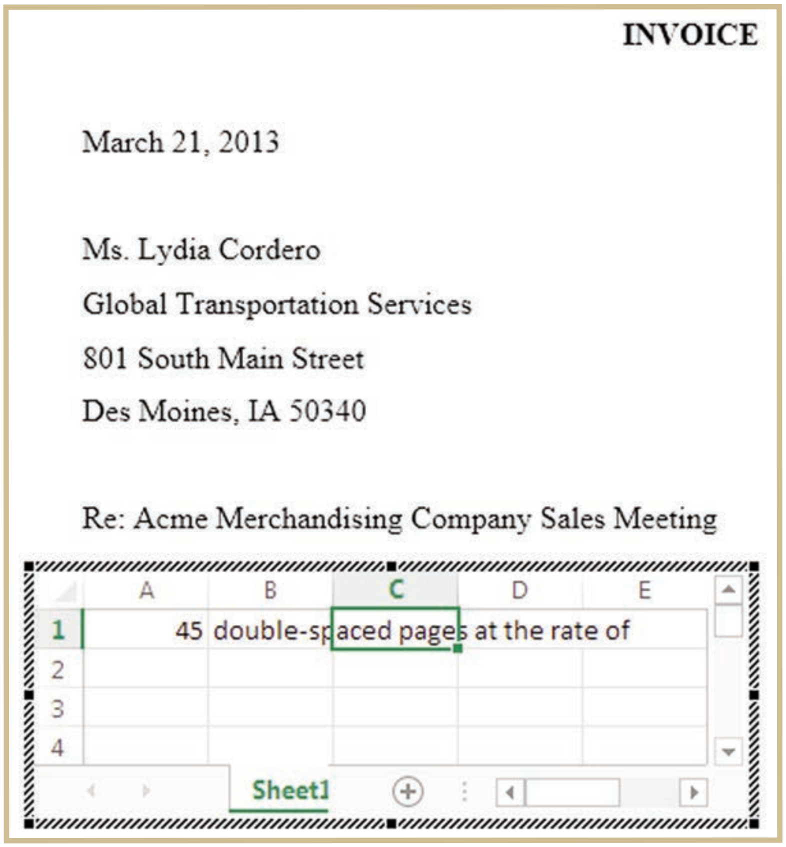


FIGURE 14—The text in cell B1 only appears to run into the adjacent cells.

Before you enter data in cells C1 and E1, you should format these cells so the values in them are displayed as currency.

1. Make sure you still have cell C1 selected.
2. On the Home tab, click the **Accounting Number Format** button (the one marked with a dollar sign) in the Number group.
3. Type the value **3** in cell C1.

4. Press the **Tab** key. Compare your screen with Figure 15. The value in cell C1 should appear as $3.00—with a dollar sign, decimal point, and two zeros automatically displayed. Note that the value in cell C1 will obscure the text spilling over from cell B1.

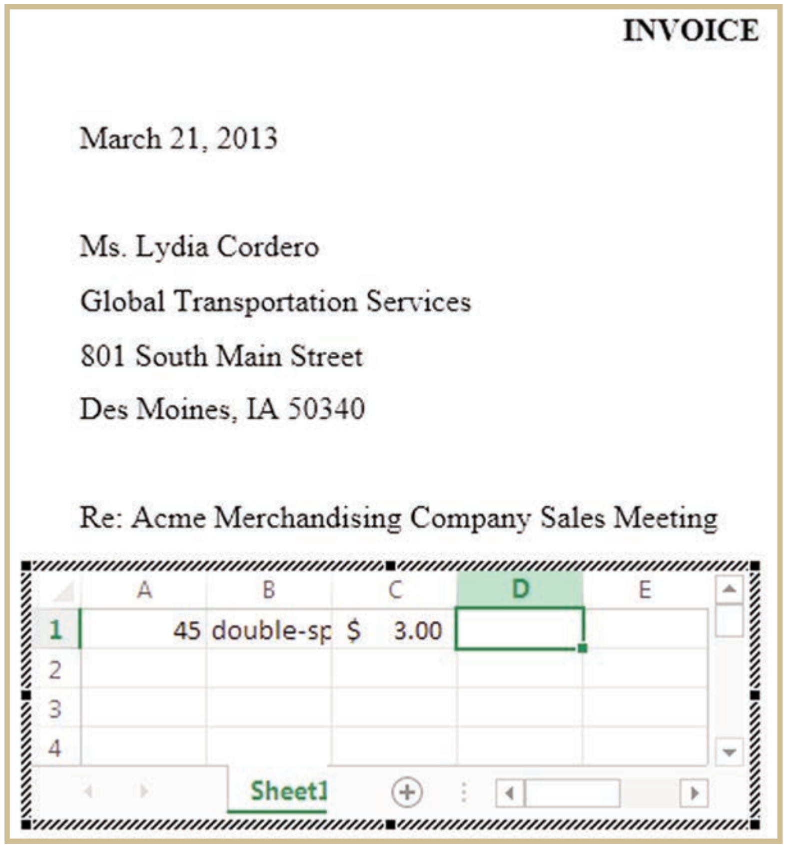


FIGURE 15—The value you entered in cell C1 is automatically formatted for currency.

5. In cell D1, type the phrase **per page.**
6. Press the **Tab** key.
7. With cell E1 selected, click the **Accounting Number Format** button.
8. In cell E1, type the formula **=A1*C1.** This formula multiplies the number of pages in cell A1 by the per-page rate in cell C1; that is, 45 times $3.00.
9. Press the **Enter** key.

The result appears as $135.00 with a dollar sign, decimal point, and two zeros automatically displayed. Compare your screen with Figure 16.

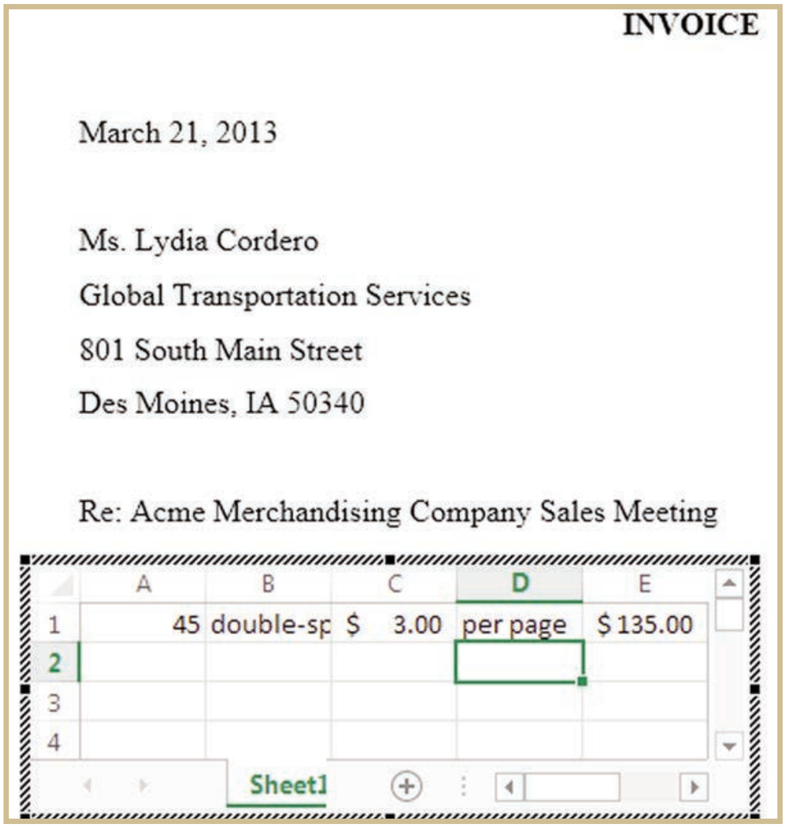


FIGURE 16—The total appears as the result of the formula you entered in cell E1.

Now you'll proceed to create an invoice total in cell E3. Even though there's only one item on this invoice, it's good practice to include a separate total in case you want to add another item later or make a copy of this file to create a longer invoice.

Follow these steps to calculate the total amount due for the invoice.

1. Click in cell **E3.**
2. In the Editing group, click the **AutoSum** button (the one marked **Σ**—the Greek letter sigma). The AutoSum feature automatically selects cells E1 and E2.
3. Press the **Enter** key. The total $135.00 appears in cell E3.

4. Click in cell **D3.**

5. Type the phrase **Total Due:.**

6. Press the **Enter** key.

You've now entered all the data in your worksheet. Compare your screen with Figure 17. Then move directly to the next section to resize the width of your columns so that your worksheet fully displays all the data.

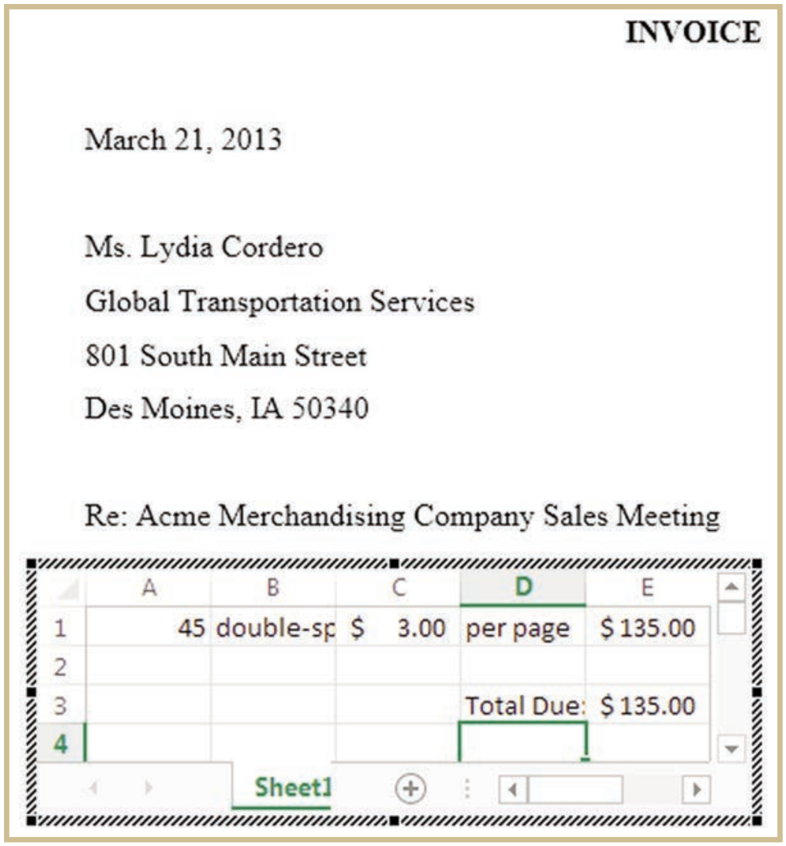


FIGURE 17—This is what your screen should look like after you've entered all the data for the worksheet.

Adjusting Column Widths

Follow these steps to select the entire worksheet and adjust all the column widths.

1. Click in cell **A1.**

2. Press and hold the **Shift** key as you click in cell **E4.** This selects the entire worksheet.

3. Click **Format** in the Cells group.

4. Click **AutoFit Column Width.**

The columns resize to display all the data, as shown in Figure 18. As a finishing touch, proceed to the next section to remove the worksheet gridlines.

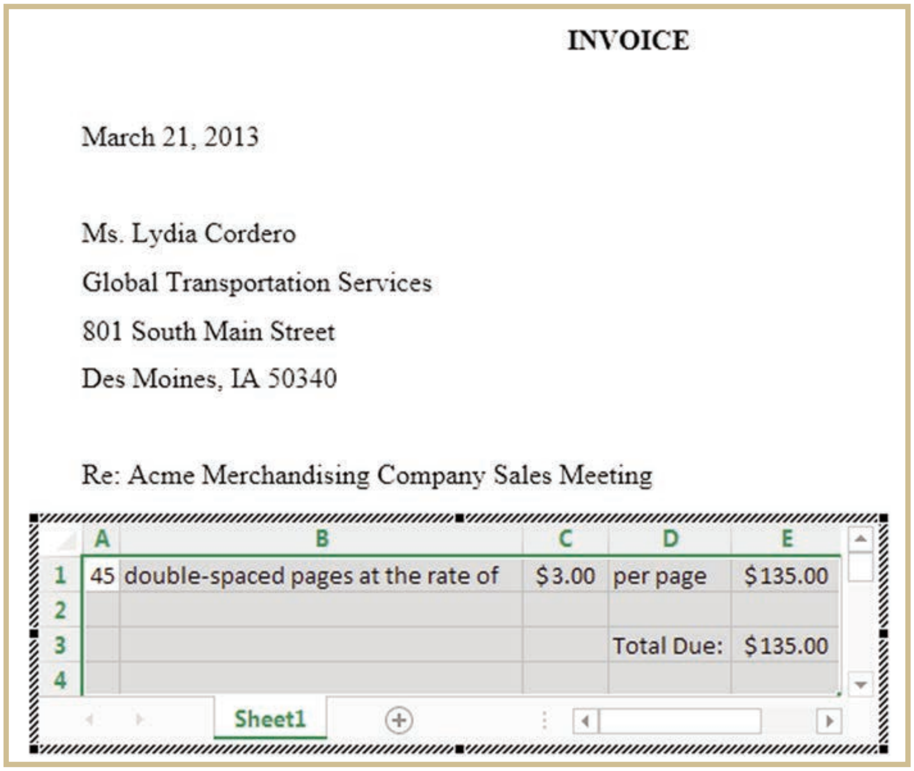


FIGURE 18—Once you resize the column widths, you can see all the data you've input.

Removing Worksheet Gridlines

1. Make sure the entire worksheet is still selected.
2. Click the **View** tab.
3. Click the check box next to **Gridlines** to deselect this option (Figure 19).

Your formatted worksheet is ready to be integrated into the invoice document.

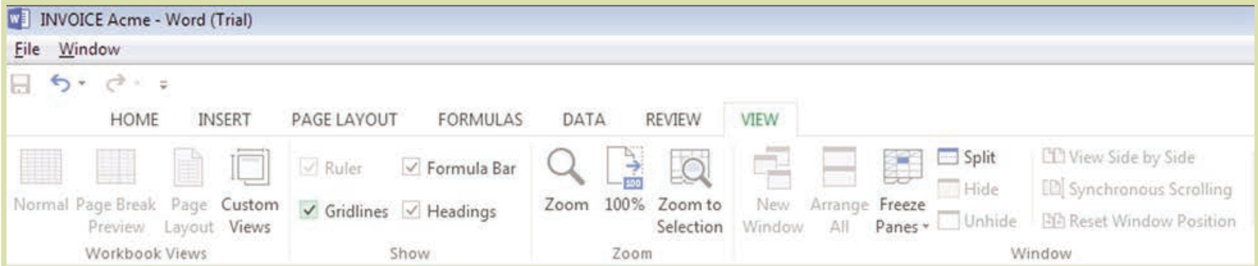
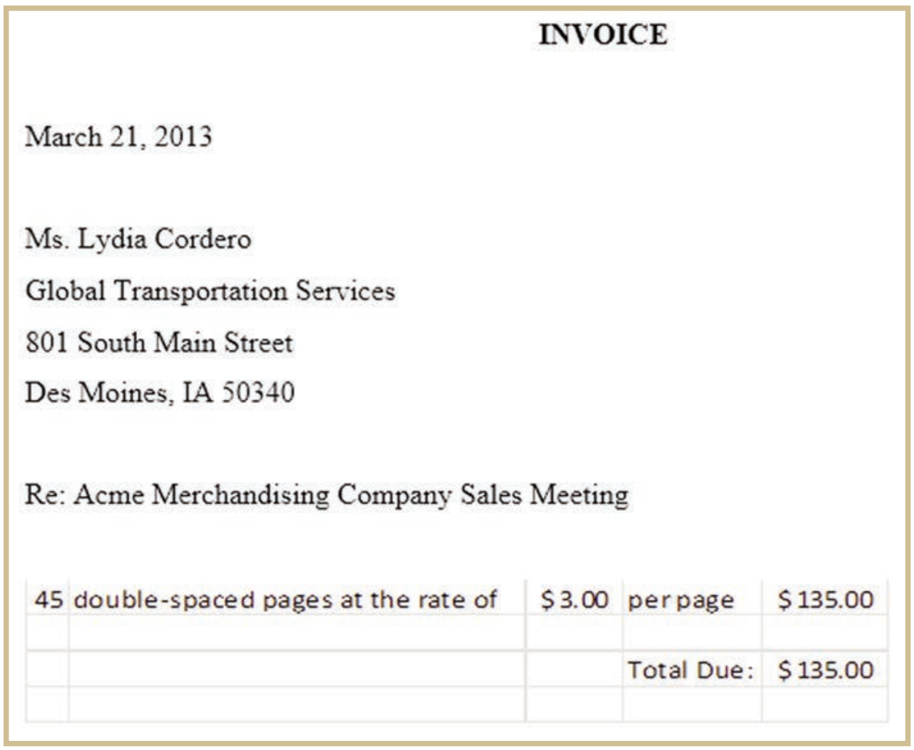


FIGURE 19—The Gridlines option is selected by default, so you must deselect it.

Closing the Worksheet Window

To close the worksheet window, click once in the document window (outside the worksheet area). The Word tabs return, and the worksheet data is embedded into the invoice text (Figure 20).



INVOICE

March 21, 2013

Ms. Lydia Cordero

Global Transportation Services

801 South Main Street

Des Moines, IA 50340

Re: Acme Merchandising Company Sales Meeting

45	double-spaced pages at the rate of	$ 3.00	per page	$ 135.00
			Total Due:	$ 135.00

FIGURE 20—The worksheet data is now embedded into the invoice document.

If you wish to select the worksheet again, just double-click anywhere in the worksheet area.

Now move directly to the next section to view your completed document (and embedded worksheet).

Using Print Preview

Let's take a look at your completed invoice using the Print Preview command.

Click the **File** tab and then **Print.** The Print Preview window appears on the right side of the window (Figure 21).

Once you've reviewed your work, you can cancel Print Preview mode by clicking **Print** to print the document or **Close** to return to Normal view. You may be prompted to save changes after clicking **Close.**

INVOICE

March 21, 2013

Ms. Lydia Cordero
Global Transportation Services
801 South Main Street
Des Moines, IA 50340

Re: Acme Merchandising Company Sales Meeting

45	double-spaced pages at the rate of	$ 3.00	per page	$ 135.00
			Total Due:	$ 135.00

Payable to:

Peter Pavlov
42 First Avenue
Des Moines, IA 50340

FIGURE 21—Print Preview allows you to view your document as it will appear when printed.

Saving an Integrated Document

When you save your Word document, you also save your embedded Excel worksheet file. Follow these steps to save your document and close Word.

1. Click the **Save** button in the upper-left corner. That button is marked with a floppy disk. Since you've already saved your Word document (along with the embedded worksheet) on your computer's hard disk as INVOICE Acme, clicking on **Save** simply updates the saved file with the changes you've made since you last saved it.
2. Click the Word window's **Close** button to exit this application now.

Congratulations, you've created a truly professional business invoice using two Office applications—Word and Excel. You used Word to format and lay out the basic text of the invoice and Excel to handle the math—all in a single integrated document. You can quit Windows now to end your work session or move directly to the next section, which explains how to copy your document and modify that copy in creating a different invoice.

Modifying an Integrated Document

You truly reveal the beauty of an integrated document when you create a new version of the file or modify the existing version. In this section, you'll copy and revise the invoice you created in the last section (INVOICE Acme). Because you took the time to embed a self-calculating worksheet when you set up the original integrated file, modifying the file for a different customer will save you many steps. To complete this part of your studies, you'll first need to open the original invoice and make a copy of it. Open Word and then follow the steps listed here.

1. From the Word main window, select **File** and click **Open.**
2. The Open dialog box appears with the Recent Documents list displayed (Figure 22).
3. Double-click the filename **INVOICE Acme.** The document window containing your invoice appears.
4. Click **File** and then **Save As.** The **Save As** screen appears with different options available. Click the **Documents** folder you're using, or click **Browse** to find it.

5. Click to the right of the name *INVOICE Acme* in the **File Name** box.

6. Press the **Backspace** key to remove the word *Acme*.

7. Type the word **Snacktime** (Figure 23).

8. Click **Save.**

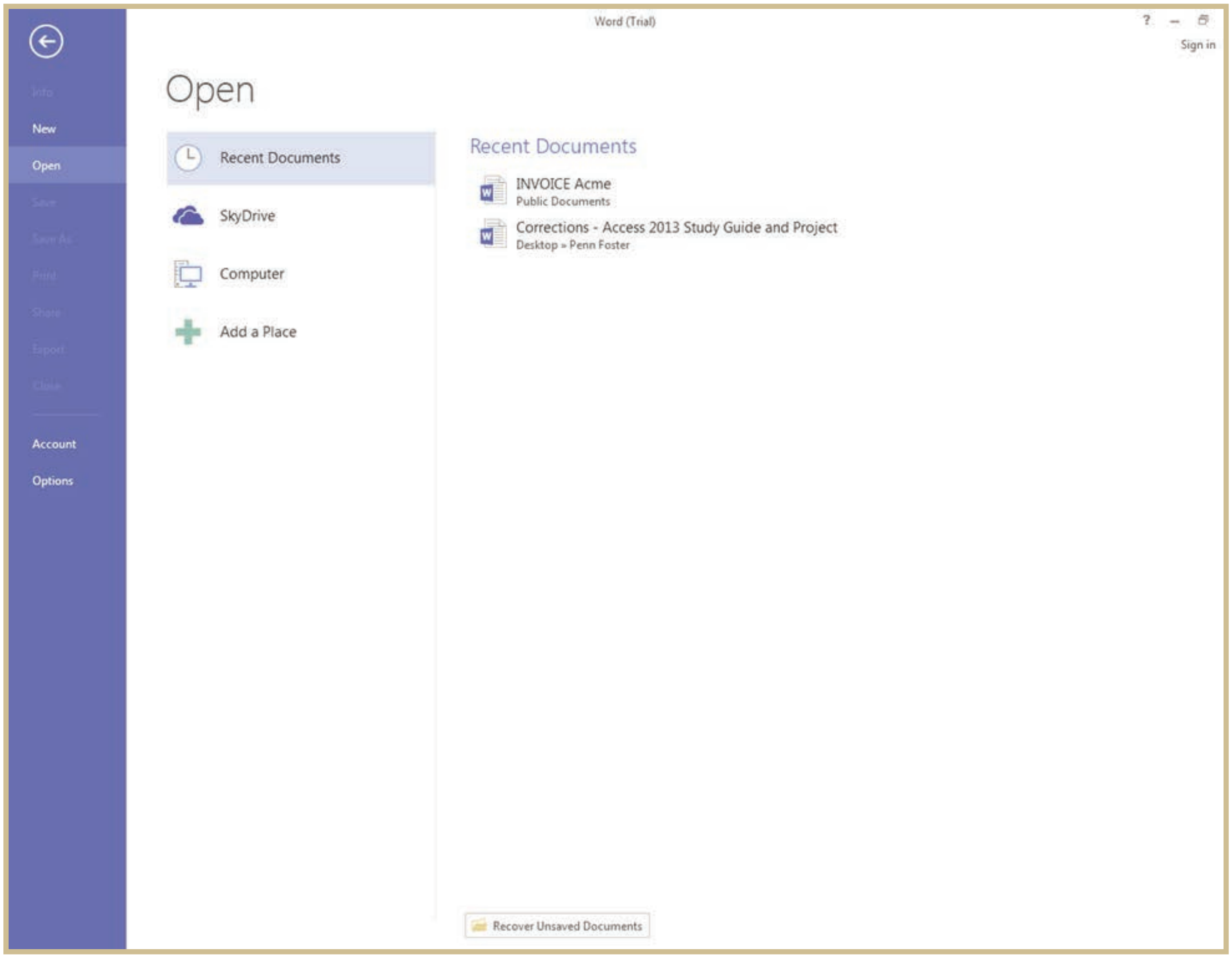
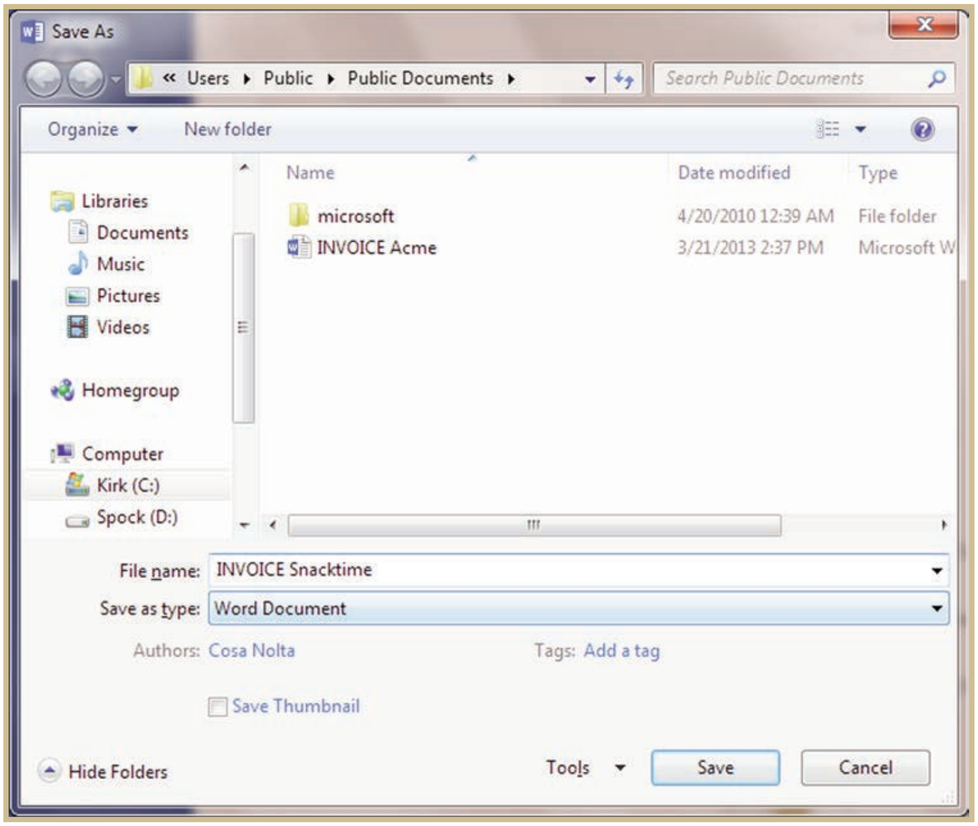


FIGURE 22—Click File and then Open. Look for the document named "INVOICE Acme."

FIGURE 23—You can save a copy of a file by typing a new name in the File name box.



Note that when you use the Save As command in this way, Office automatically creates the new copy of the document. The window title bar should now read *INVOICE Snacktime*.

Now that you've made a copy of the original file and saved it under a new name, you're ready to modify the invoice. The next set of steps will guide you through modifying both text in the Word document and the data in the Excel worksheet.

The date you inserted when you created the original invoice will automatically update when you print (or use the Print Preview feature). Therefore, the only change you need to make to the rest of your new invoice is the subject in the reference line. Replace this text now.

1. Position your mouse pointer right before the word *Acme* (just after the space).

2. Click once to create an insertion point.

3. Press the **Shift+End** key combination to select to the end of this line.

4. Type the replacement text: **Snacktime Foods Customer Focus Group.**

The document on your screen should match the document in Figure 24. Once they match, you're ready to modify the worksheet area of the invoice.

INVOICE

March 21, 2013

Ms. Lydia Cordero

Global Transportation Services

801 South Main Street

Des Moines, IA 50340

Re: Snacktime Foods Customer Focus Group

45	double-spaced pages at the rate of	$ 3.00	per page	$ 135.00
			Total Due:	$ 135.00

Payable to:

Peter Pavlov

42 First Avenue

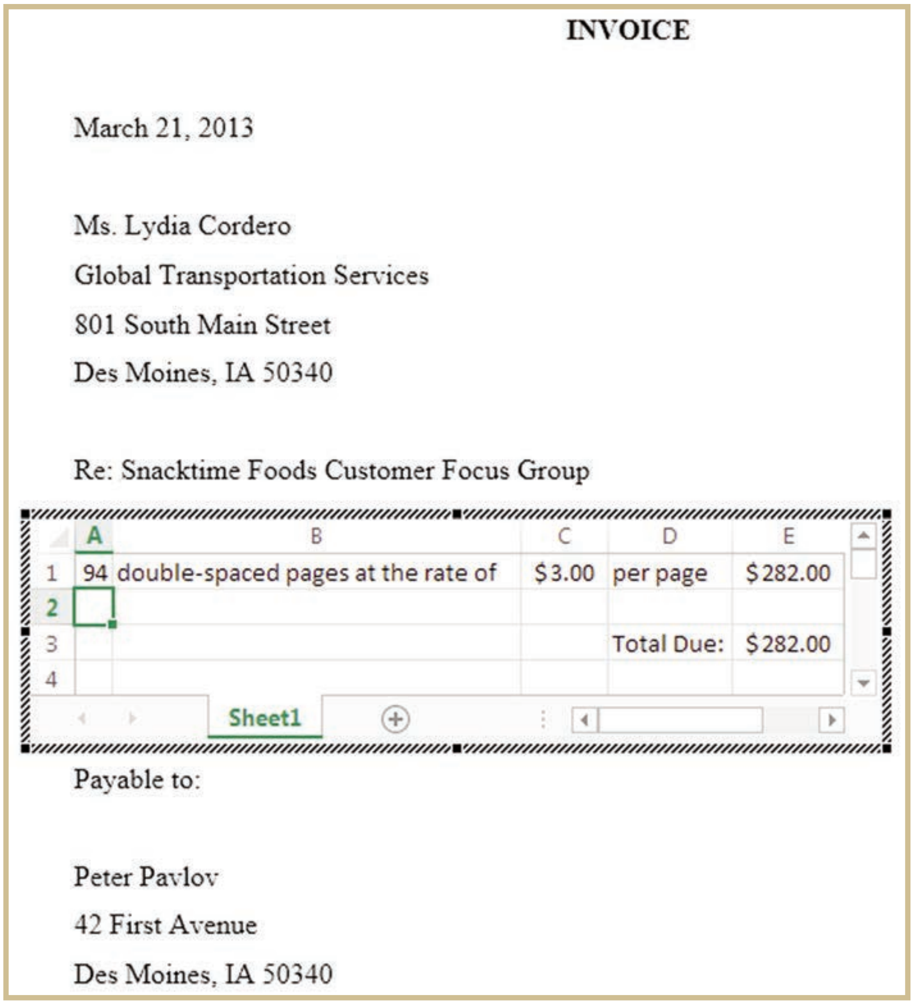
Des Moines, IA 50340

FIGURE 24—The text of the invoice has been modified.

Note that before you can make changes to the embedded worksheet, you'll need to activate Excel.

1. To launch the Excel program, simply double-click anywhere within the embedded worksheet. A miniature worksheet window appears within the Word document window, and the Excel options appear.
2. Click cell **A1.** The number 45 appears in the formula bar.
3. Type the number **94.**

4. Press the **Enter** key. Note that changing the number of pages in cell A1 automatically changes the total in cells E1 and E3 to $282.00 (Figure 25). That's because you entered a formula in both cells to calculate the invoice total.



INVOICE

March 21, 2013

Ms. Lydia Cordero

Global Transportation Services

801 South Main Street

Des Moines, IA 50340

Re: Snacktime Foods Customer Focus Group

	A	B	C	D	E
1	94	double-spaced pages at the rate of	$3.00	per page	$282.00
2					
3				Total Due:	$282.00
4					

Sheet1

Payable to:

Peter Pavlov

42 First Avenue

Des Moines, IA 50340

FIGURE 25—Changing the value in cell A1 automatically changes the total in cells E1 and E3.

5. Click anywhere outside the miniature worksheet.

6. To save your changes, click the **Save** button.

7. Click the Word window's **Close** button to exit this application now.

You can see how easy it is to create a new version of an integrated document, particularly when you've made the effort to build in timesaving devices, such as dates and worksheet formulas, which automatically update your work.

In the next section, you'll be trying your hand at embedding a chart in a Word document. Before going on to that section, please take a few moments to review what you've just studied by completing *Self-Check 1.*

Self-Check 1

At the end of each section of *Integrating Word with Access and Excel,* you'll be asked to check your understanding of what you've just read by completing a set of "Self-Check" questions. Writing your answers to these questions will help you review what you've studied so far. Please complete *Self-Check 1* now.

1. When you insert a new, blank worksheet into a Word document, it's
   a. automatically embedded in the document file.
   b. automatically linked to the document file.
   c. not possible to edit the worksheet at a later time.
   d. not visible until the document is printed.
2. An automatic date displays the current date when you
   a. click the **Save** button.
   b. recalculate an embedded worksheet.
   c. use the **Print** or **Print Preview** command.
   d. open the document.
3. The abbreviation *Re:* in a business document stands for
   a. *return receipt requested.*
   b. *regarding* or *in reference to.*
   c. *registered.*
   d. *reply required.*
4. Before you can edit a worksheet that's embedded in a Word document, you must
   a. close all other files.
   b. finalize the text in the Word document.
   c. select the worksheet and then click **All Characters**.
   d. double-click the embedded worksheet to activate Excel.
5. The main difference between an embedded object and a linked object is that a linked object
   a. exists as a separate file.
   b. must be manually updated in the destination document.
   c. can be connected to only one other file.
   d. is usually created in a word processing application.

Check your answers with those on page 65.

WORD PROCESSING WITH AN EMBEDDED CHART

You've already learned how to embed a worksheet into a Word document. Now, you're going to study the process for embedding an Excel graph or chart within a Word document. The procedures are very similar, but we'll take you step by step through the process to be sure you understand how it's done.

First, you'll create a short report in Word, and then you'll use Excel to create a bar graph to insert into the report. When you insert a graph or chart into a word processor document, it's automatically embedded into the file.

Creating the First Document

Follow these steps to create a new Word file.

1. Open Microsoft Word and create a new blank document.
2. Click the **Center Align** button.
3. Click the **Italic** button.
4. Click the **Font size** list arrow.
5. Click **14** to select this new size.
6. Press the **Caps Lock** key.
7. Type the phrase **FINANCIAL REPORT.**
8. Press the **Caps Lock** key to turn this feature off.
9. Click the **Italic** button to turn off that attribute.
10. Press the **Enter** key twice.
11. Click the **Left Align** button.
12. Click the **Font size** list arrow and choose **12.**

13. Type the following paragraph: **The following data summarizes the income earned by Maferty Plumbing Company during the fiscal year January to December. The revenue and expenses for each month are shown in the following table. A bar graph has been included to indicate the increasing income experienced by the business throughout the calendar year. This increase in income was associated with improved advertising and marketing efforts by the company.**

    When you're finished, compare your screen to Figure 26.

14. Save your report as **FINANCIAL REPORT** in the **Documents** folder of your hard disk.

FINANCIAL REPORT

The following data summarizes the income earned by Maferty Plumbing Company during the fiscal year January to December. The revenue and expenses for each month are shown in the following table. A bar graph has been included to indicate the increasing income experienced by the business throughout the calendar year. This increase in income was associated with improved advertising and marketing efforts by the company.

FIGURE 26—The text of the Financial Report introduces the table and graph you'll embed in the report.

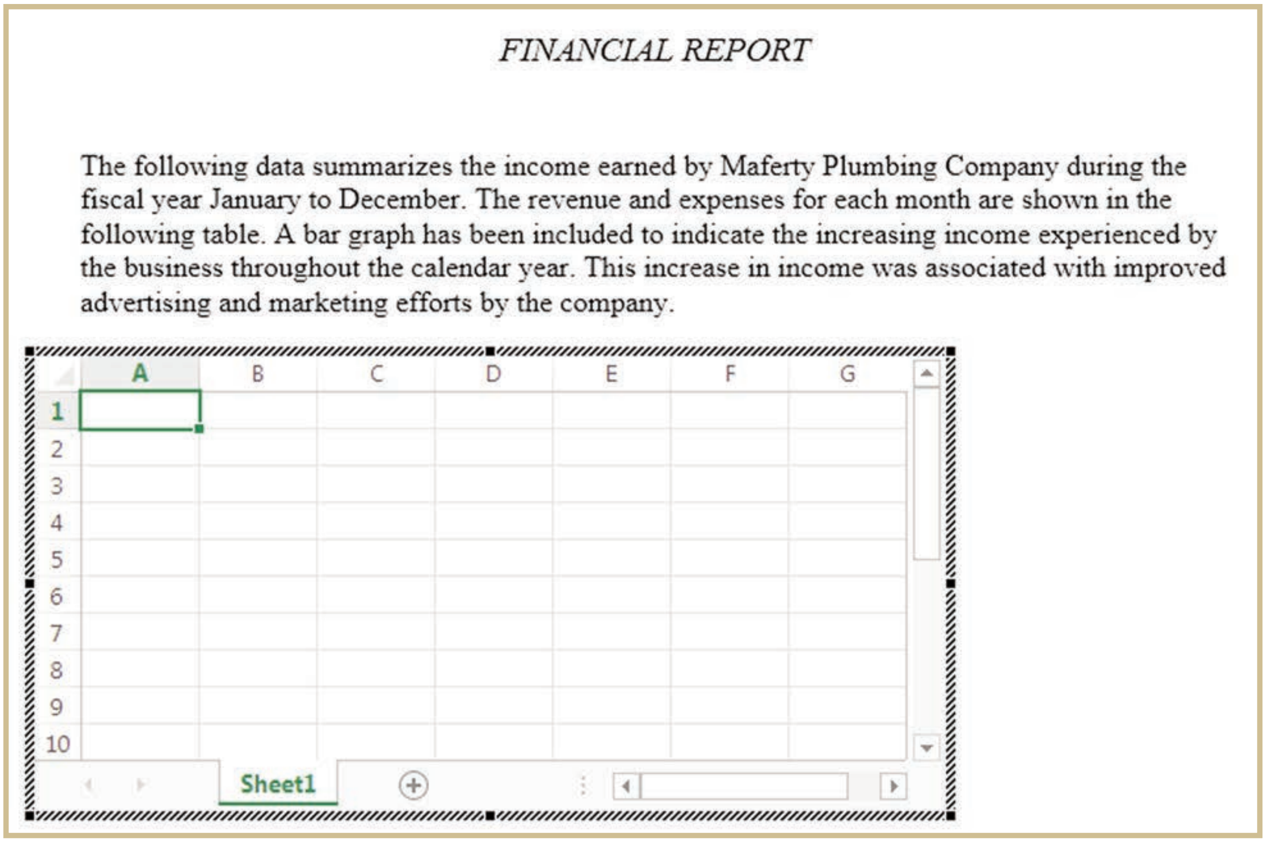
Creating an Excel Worksheet and Chart

Now let's add an Excel worksheet to this document.

1. With your cursor still at the end of the paragraph you typed, press **Enter** twice.
2. On the Insert tab, click **Table** and select **Excel Spreadsheet** (Figure 27).

Now, follow the steps listed here to lay out and enter data into your worksheet.

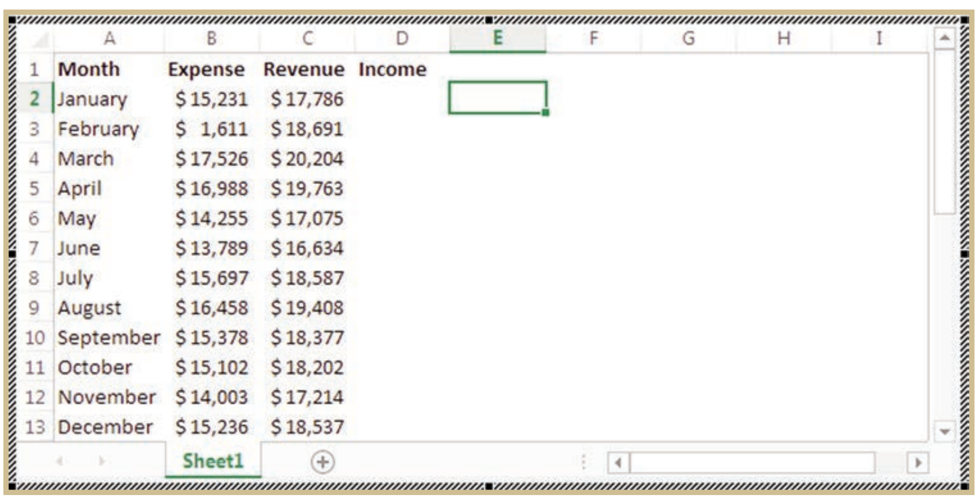
1. Select cells **A1** to **D1.**
2. Click the **Bold** button.
3. Using Figure 28 as a guide, input the column headings in cells A1, B1, C1, and D1.



FINANCIAL REPORT

The following data summarizes the income earned by Maferty Plumbing Company during the fiscal year January to December. The revenue and expenses for each month are shown in the following table. A bar graph has been included to indicate the increasing income experienced by the business throughout the calendar year. This increase in income was associated with improved advertising and marketing efforts by the company.

FIGURE 27—A blank Excel worksheet has been embedded in the Financial Report document.



Month	Expense	Revenue	Income
January	$ 15,231	$ 17,786	
February	$ 1,611	$ 18,691	
March	$ 17,526	$ 20,204	
April	$ 16,988	$ 19,763	
May	$ 14,255	$ 17,075	
June	$ 13,789	$ 16,634	
July	$ 15,697	$ 18,587	
August	$ 16,458	$ 19,408	
September	$ 15,378	$ 18,377	
October	$ 15,102	$ 18,202	
November	$ 14,003	$ 17,214	
December	$ 15,236	$ 18,537	

FIGURE 28—Use this worksheet as a guide to enter data into your embedded worksheet.

4. Using Figure 28 as a guide, input the names of the months in column A.
5. To select cells B2 through C13, click cell **B2,** hold the **Shift** key down, and then click cell **C13.**
6. With these cells selected, click the **Accounting Number Format** button.
7. With the cells still selected, click the **Decrease Decimal** button twice. This will add a dollar sign to the values you enter in columns B and C and delete the decimal and two zeros.
8. Using Figure 28 as a guide, input the values in columns B and C.
9. Click the line between columns A and B to AutoFit the contents of Column A.

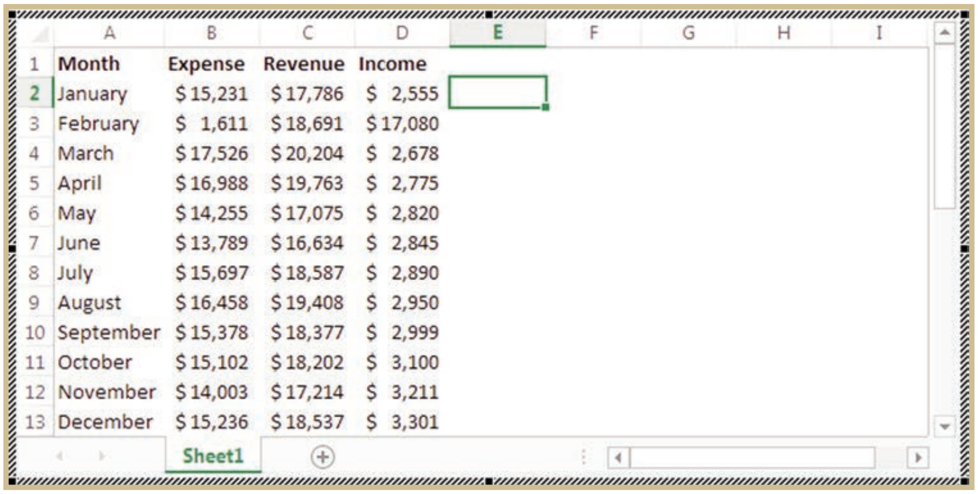
When you've entered all the data, proof your worksheet entries against the ones in Figure 28.

The figures in the Income column (column D) should equal the figures in column C (revenue) minus the figures in column B (expenses). Therefore, you should be able to use formulas to calculate the Income column.

Use the following steps to calculate the figures for column D.

1. Click in cell **D2.**
2. Type in the formula **=C2-B2.** This tells the program to subtract the value in cell B2 from the value in cell C2 and place the result in cell D2.
3. Press **Enter.** The figure in cell D2 should be $2,555.
4. Click in cell **D2** again.
5. Aim your mouse pointer at the lower-right corner of this cell until it changes to a plus sign (+).
6. Press and hold the **left mouse button** while you drag down to cell D13.
7. Release the **left mouse button,** and the formula from cell D2 will be automatically copied into cells D3 through D13. The calculations should populate the cells in column D.

Compare your worksheet with the one in Figure 29.



	A	B	C	D
1	Month	Expense	Revenue	Income
2	January	$ 15,231	$ 17,786	$ 2,555
3	February	$ 1,611	$ 18,691	$ 17,080
4	March	$ 17,526	$ 20,204	$ 2,678
5	April	$ 16,988	$ 19,763	$ 2,775
6	May	$ 14,255	$ 17,075	$ 2,820
7	June	$ 13,789	$ 16,634	$ 2,845
8	July	$ 15,697	$ 18,587	$ 2,890
9	August	$ 16,458	$ 19,408	$ 2,950
10	September	$ 15,378	$ 18,377	$ 2,999
11	October	$ 15,102	$ 18,202	$ 3,100
12	November	$ 14,003	$ 17,214	$ 3,211
13	December	$ 15,236	$ 18,537	$ 3,301

FIGURE 29—Once you copy the formulas to all the cells in column D, Excel performs the calculations for you.

You should now be ready to create a chart that's based on the data you've input. First, however, you need to enlarge the worksheet area. To do so, simply follow these steps:

1. Aim the mouse pointer at the lower-right resizing handle of the worksheet until the pointer changes to a double-arrow pointer.
2. Drag the corner to the right as far as it will go and down until the worksheet shows 30 rows. Your worksheet window now has 9 columns (A–I) and 30 rows.

Now follow these steps to insert a chart below the worksheet.

1. Select cells **A1** through **D13.**
2. Click the **Insert** tab.
3. Click **Insert Column Chart** in the **Charts** group (Figure 30).
4. Click the first option in the Chart Types.

Note: When working on your worksheet, if it seems to disappear from your screen, double-click the worksheet and use the scroll bars to scroll up to the top. It may take a few attempts.

You'll have to reposition and resize the chart following these steps.

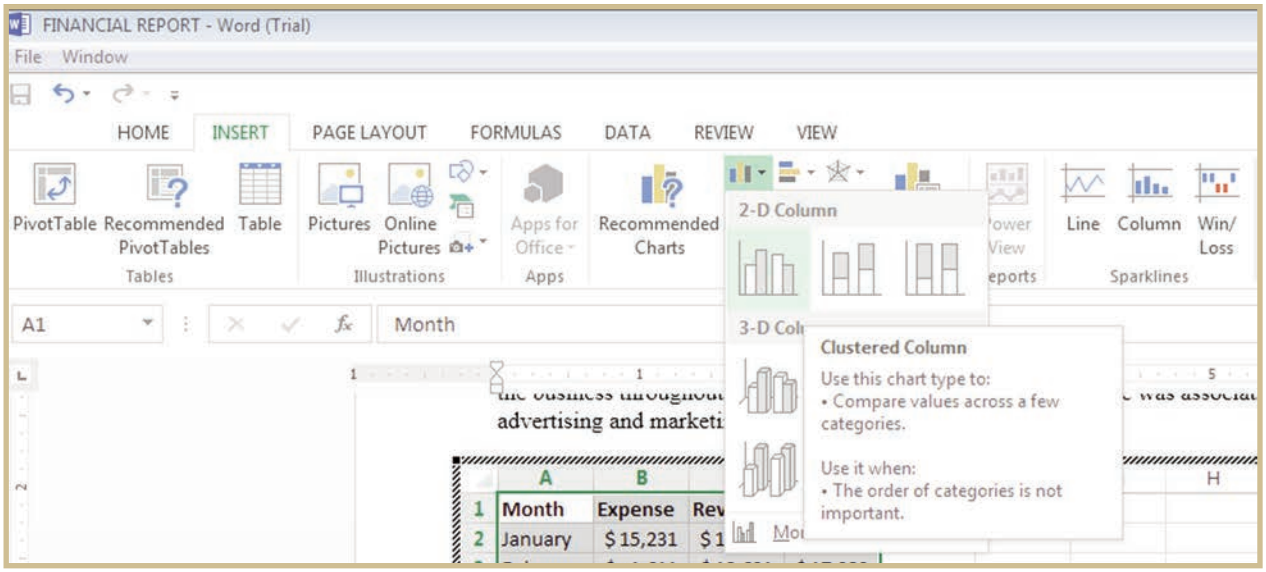


FIGURE 30—Inserting a Column Chart

1. Make sure the chart is selected. (Double-click the work-sheet first if you're not in Excel mode.)
2. Click anywhere inside the chart area and hold the **left mouse button** down as you drag the chart underneath the table in the worksheet, leaving one empty row between the table and the chart.
3. Aim the mouse pointer at the resizing handle in the middle of the right side of the chart and drag the side over until the chart extends across columns A–H.

Next, you need to eliminate the gridlines from the embedded worksheet.

1. Make sure the worksheet is selected.
2. Click the **View** tab.

Note: When you insert a chart into your worksheet, you can make changes to it using the Chart tools.

3. Click the check box next to **Gridlines** to deselect this option.

Finally, you can view the worksheet integrated into your financial report (Figure 31) and exit the program.

FINANCIAL REPORT

The following data summarizes the income earned by Maferty Plumbing during the fiscal year January to December. The revenue and expense for each month are shown in the following table. A bar graph has been included to indicate the increasing income experienced by the business throughout the calendar year. This increase in income was associated with improved advertising and marketing efforts by the company.

September	$ 15,378	$ 18,377	$ 2,999
October	$ 15,102	$ 18,202	$ 3,100
November	$ 14,003	$ 17,214	$ 3,211
December	$ 15,236	$ 18,537	$ 3,301

FIGURE 31—Your Financial Report with Chart

1. Close the worksheet window by clicking once in the document window (anywhere outside the worksheet area). The Word toolbars return, and the worksheet data is embedded into the financial report text. To select the worksheet again, just double-click anywhere in the worksheet area.
2. Save your project and exit Microsoft Word.

A Look at Object Linking

You've already completed two projects that involved embedding an Excel worksheet into a Word document. You also learned how to modify a document that contains an embedded object. As you may remember, you had to open the Word document to modify the embedded worksheet. You couldn't edit the worksheet as a separate file because it's part of the Word file in which it's embedded.

Now you're going to study how to link an object to a Word document. As you read this material, you'll discover how similar the procedures for linking and embedding are. (Since these procedures are so similar, we won't go through the linking process in as much detail.)

Here are the basic steps for creating an integrated document involving a link:

1. Open Excel to create a source worksheet.
2. Turn back to Figure 29 and use that illustration as a model for entering data into the new worksheet.
3. When you've finished entering the data, save the workbook as **New Summary** in the **Documents** folder on your hard disk. Note that the worksheet will appear in your folder with an *.xlsx* extension.
4. Close Excel.
5. Open Word to create a destination document. Save this file as "NEW REPORT."
6. Type the same title and introductory paragraph you entered earlier when you created the document named *FINANCIAL SUMMARY.docx*.
7. When you've finished entering the text, press **Enter** twice.
8. Click the **Insert** tab.
9. Click the **down arrow** next to **Object.**
10. Click **Object.** The Object window will open (Figure 32).

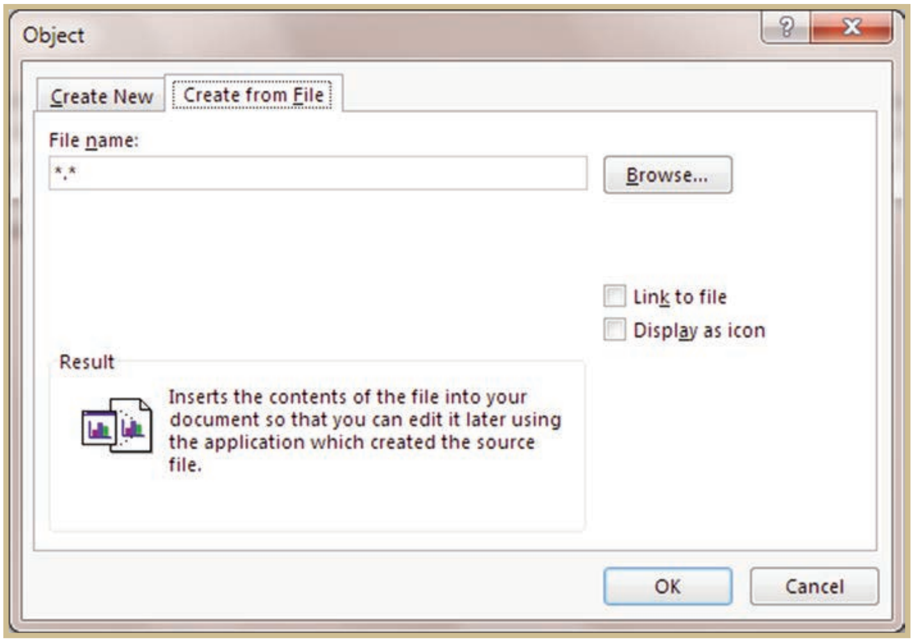


FIGURE 32—To insert an existing file into a document, click the* Create from File *tab.

11. Click the **Browse** button to the right of the **File name:** field and find your **New Summary** file.
12. Select your **New Summary** file and click **Insert.**
13. Click **OK.** The worksheet file is now displayed in your Word document (Figure 33).

If you double-click on the linked worksheet, Excel will automatically open to allow you to edit the worksheet. Any changes you make will automatically appear in the Word document after you close Excel. Similarly, if you open the worksheet in Excel and make changes to the cell entries, the changes will automatically appear in the Word document. In this way, all related documents are accurate and contain the same information.

You can test the process yourself.

1. Open the file **New Summary.xlsx** in Excel.
2. Click in cell **B2.**
3. Type the value **14000.**
4. Press **Enter**. Note that changing the value in cell B2 will change the result of the formula in cell D2 to $3,786.

FINANCIAL REPORT

The following data summarizes the income earned by Maferty Plumbing during the fiscal year January to December. The revenue and expense for each month are shown in the following table. A bar graph has been included to indicate the increasing income experienced by the business throughout the calendar year. This increase in income was associated with improved advertising and marketing efforts by the company.

Month	Expense	Revenue	Income
January	$ 15,231	$ 17,786	$ 2,555
February	$ 16,110	$ 18,691	$ 2,581
March	$ 17,526	$ 20,204	$ 2,678
April	$ 16,988	$ 19,763	$ 2,775
May	$ 14,255	$ 17,075	$ 2,820
June	$ 13,789	$ 16,634	$ 2,845
July	$ 15,697	$ 18,587	$ 2,890
August	$ 16,458	$ 19,408	$ 2,950
September	$ 15,378	$ 18,377	$ 2,999
October	$ 15,102	$ 18,202	$ 3,100
November	$ 14,003	$ 17,214	$ 3,211
December	$ 15,236	$ 18,537	$ 3,301

FIGURE 33—The linked worksheet appears in the Word document.

5. Save your file and close Excel.
6. Open the file **NEW REPORT.docx** in Word. A dialog box asks whether you want to update links. Click **Yes.** If you examine the linked worksheet, you'll see that the January expense and income values have been updated.

You can see how easy it is to make changes once you establish a link between two files. This feature seems even more magical when the Excel document is linked to more than one Word document. When you update the Excel file, all the linked documents will be updated automatically.

Although linking takes time to set up, it pays off when you need to update information quickly and easily. Take the time to explore linking and embedding to determine how you can use these powerful functions in your own projects.

In the next section of this study unit, you're going to explore the procedure for creating a mail merge—a tool used in businesses of all types and sizes. Before you go on, however, please complete *Self-Check 2.*

Self-Check 2

1. *True or False?* Before you embed an object in a Word document, you must create the object in another software application.

2. If you want to embed an object in a Word document, what button should you select from the menu bar?

   ____

3. What button on the Excel toolbar should you use to add a dollar sign and two decimal places to a number in a cell?

   ____

4. If you type **=C2+D2** in a cell, what will be displayed in that cell?

   ____

5. How can you change the size of an embedded Excel worksheet?

   ____

Check your answers with those on page 65.

MERGING A DATABASE WITH A FORM LETTER

Many times businesses want to send the same message to a number of people or other businesses. At such times, these businesses use a *form letter.* Each letter contains the same message, but it also contains blanks (fields) for information that varies from letter to letter, such as the receiver's name, address, account balance, phone number, or any other items.

The form letter is the most commonly used integrated Office file. You can use this type of integrated document to contact just a few people, or you can use it to create hundreds of letters for a mass mailing. The most efficient way to personalize a form letter is to merge information from an address database with a standard form letter.

Simply put, here's the process for creating a form letter:

1. Create a *database* that contains the personalized information to be inserted into each form letter.
2. Create the form letter, or *main document*, in Word. (The main document for a mail merge can be a new or existing document, a catalog, a form letter, a membership directory, a parts list—just about anything. The main document contains the text and graphics, if used, that stay the same for each version of the merged document.)
3. Insert *placeholders* into the main document. A placeholder is an instruction directing the computer software application to the desired data.
4. Merge the database with the main document.

Before you actually begin your form letter, get ready to create a short database of three names and addresses to use in this integrated project.

Data sources are used extensively in the mail merge process. You can create a new data source either in Word or in some other application like Excel or Access, or you can use an existing data source. Word can use several different types of files as data sources, including files from Microsoft Access or Excel. Before you create a new data source for a mail merge, you must first determine which Office program is best suited for your task. The choice between applications depends greatly on the size of the list and whether or not the list will be modified and maintained over time. For a longer list that you expect to change, use Microsoft Excel or Microsoft Access; for brief lists, use Word.

For the mail merge project in this study unit, you'll use Microsoft Access to create the database. We also include basic instructions for creating a database directly in Word.

Creating a Mail Merge Database in Access

Starting the Database

1. Open **Microsoft Access.** The startup dialog box appears in the Access window.
2. Click **Blank desktop database** as shown in Figure 34. The **Blank Database** dialog box appears in a new window.
3. Type **Mailing.accdb** in the **File name** box (Figure 35).
4. Click the **Create** button to create a new table. The Mailing: Database window appears (Figure 36).

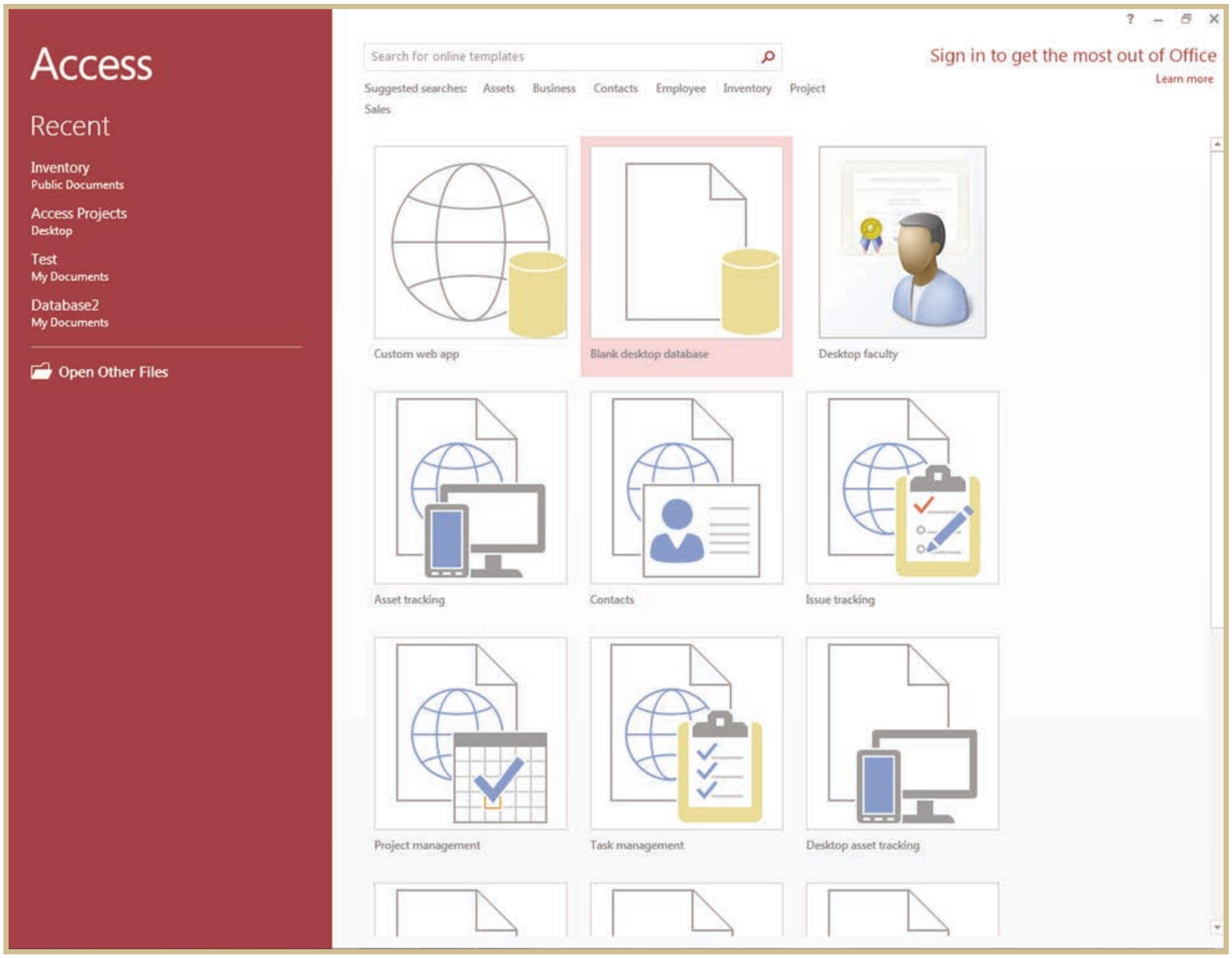


***FIGURE 34—To begin creating your database, choose* Blank database.**

At the top of your screen, you'll see tabs and buttons to work on your database. The left pane contains your table, and the right pane displays the selected table.

When creating a new database, your first task is to design the table to identify specific types of data within your database. Each single piece of data to be placed in your main document—such as a name, address, phone number, account balance, and so on—is referred to as a *field.* Follow these steps to design the table for your database.

1. Double-click the area **Click to Add.**

2. Type **Title** and press **Enter.** The Click to Add field will appear to the right so that you can continue to add headings for the data you want to include (Figure 37).

3. Type **First Name,** and press the **Enter** key. Select **Short text.**

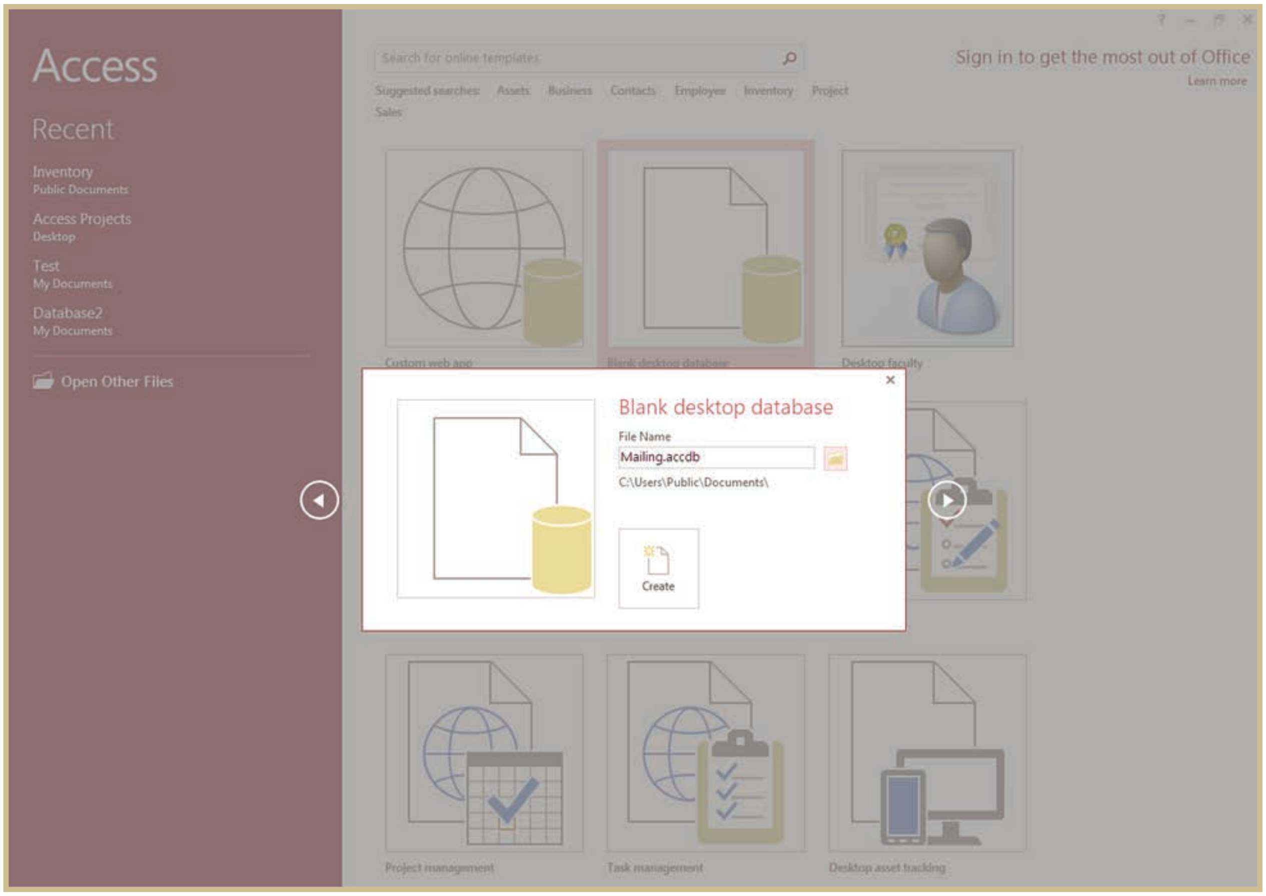


FIGURE 35—Type the name of your database in the* File name *box.

FIGURE 36—The Database window displays design objects and design options.

4. Type **Last Name,** and press the **Enter** key.
5. Type **Job Title,** and press the **Enter** key.
6. Type **Department,** and press the **Enter** key.
7. Type **Company,** and press the **Enter** key.
8. Type **Address,** and press the **Enter** key.
9. Type **City,** and press the **Enter** key.

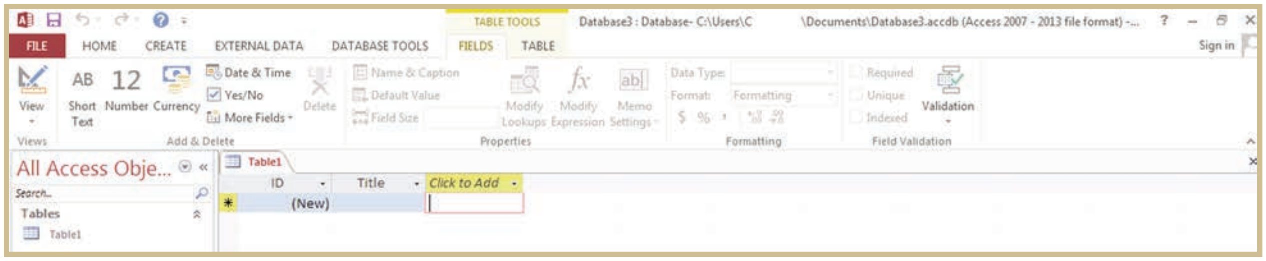


FIGURE 37—Adding New Table Fields

10. Type **State**, and press the **Enter** key.
11. Type **ZIP Code,** and press the **Enter** key.

When you've finished entering the field names, compare your screen with Figure 38.

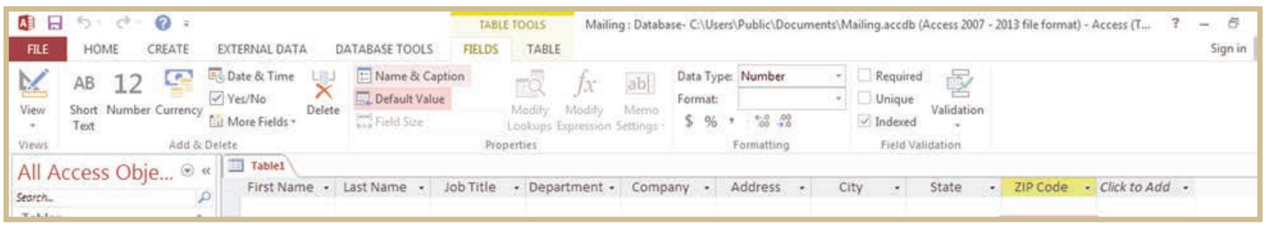


FIGURE 38—Your table should look something like this after you've entered all the field names.

Naming and Saving a Database

1. Click the **Save Diskette** icon and then **Save Database As.**
2. When prompted, click **Yes** to close all open objects (Figure 39).

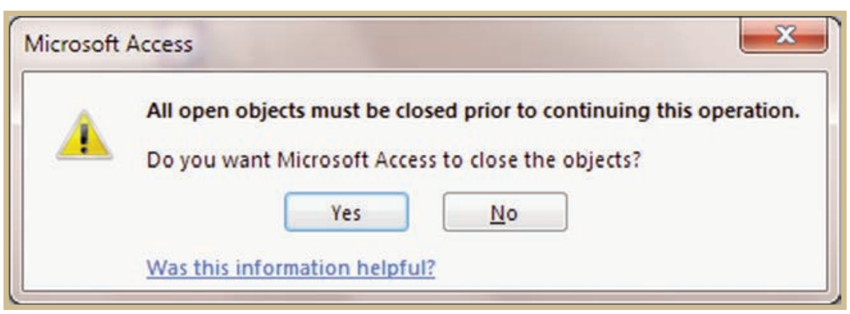


FIGURE 39—You'll be prompted to close all open objects before saving your work.

3. Type the filename **Mailing** in the **File Name** box.
4. Click **OK.**

Now move directly to the next section to create a handy data entry form using a template. Although the form you'll create isn't strictly necessary for data entry, it provides a clear display of individual records, which helps prevent data entry errors.

Creating a Database Form

1. Click the **Create** tab in the Ribbon and then click **Form** (Figure 40).

2. A new form appears with fields from your table (Figure 41).

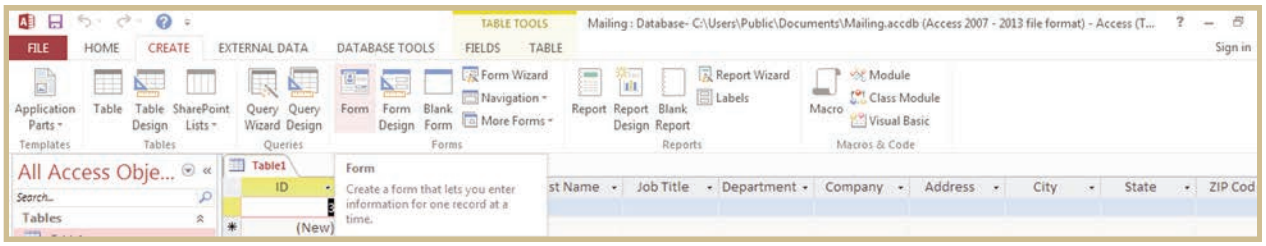


FIGURE 40—The **Form** *Button*

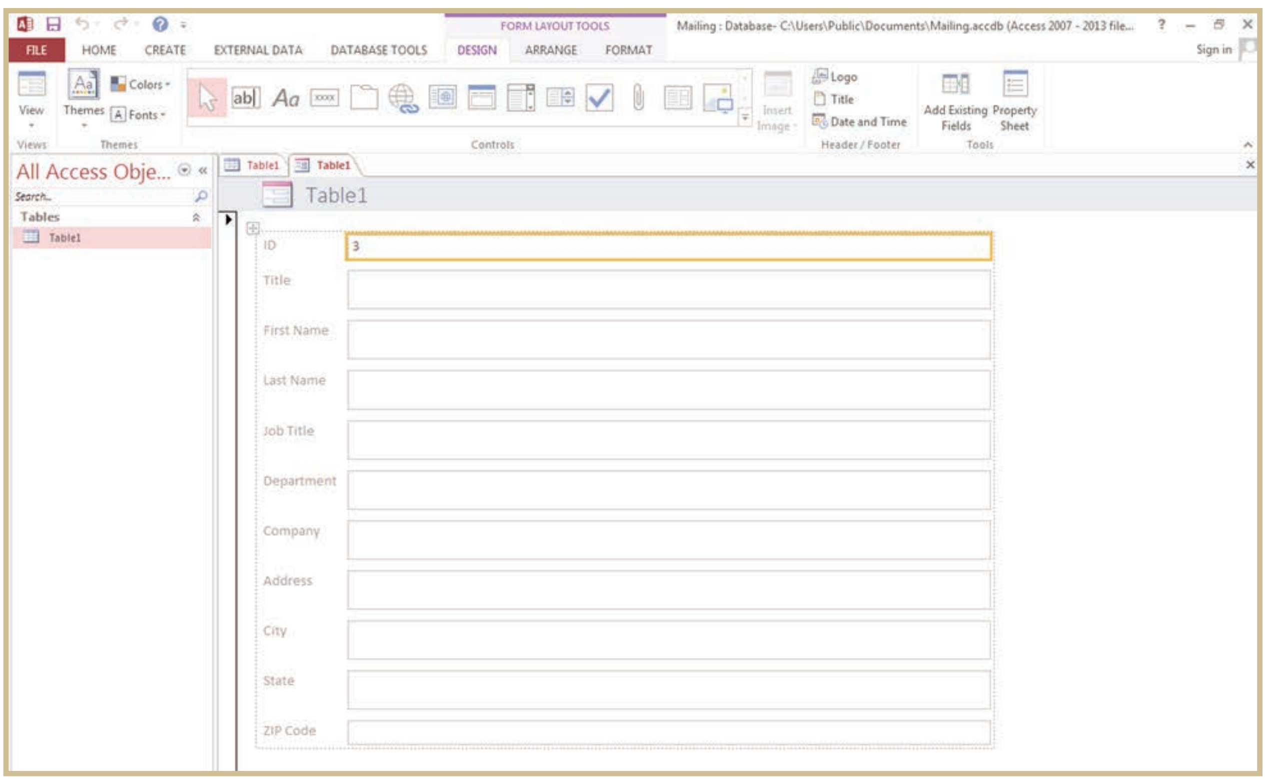


FIGURE 41—The new form is based on the table.

Entering Data into a Form

From the Home tab, click the **View** button and then **Form View** so you can enter data into your form. Fill out the first mailing record in your database as shown in Figure 42. As you type in the mailing information, you can advance from field to field without leaving the keyboard by pressing the **Tab** or **Enter key.** Use your mouse or press **Shift+Tab** to move backward through the fields if you need to correct any typing errors. Since a record number will automatically appear in the ID field, you can bypass this field and begin typing in the Title field.

Note that if you press the **Enter** key while your cursor is in the last field of the record, you'll automatically advance to the form for the next record. You would then be able to enter information for other records; however, we're going to have you complete your record entries in a different view to give you practice with different features of Access.

When you've finished entering data into each field for the first record, compare your screen with Figure 42.

To save your work, follow these steps.

1. Click the **Save** button. The **Save As** dialog box appears.
2. Leave the default name Mailing and click **OK.** Doing so saves your mailing list on your computer's hard disk.

You can now quit the application to end your work session, or you can move directly to the next section to enter the two remaining records.

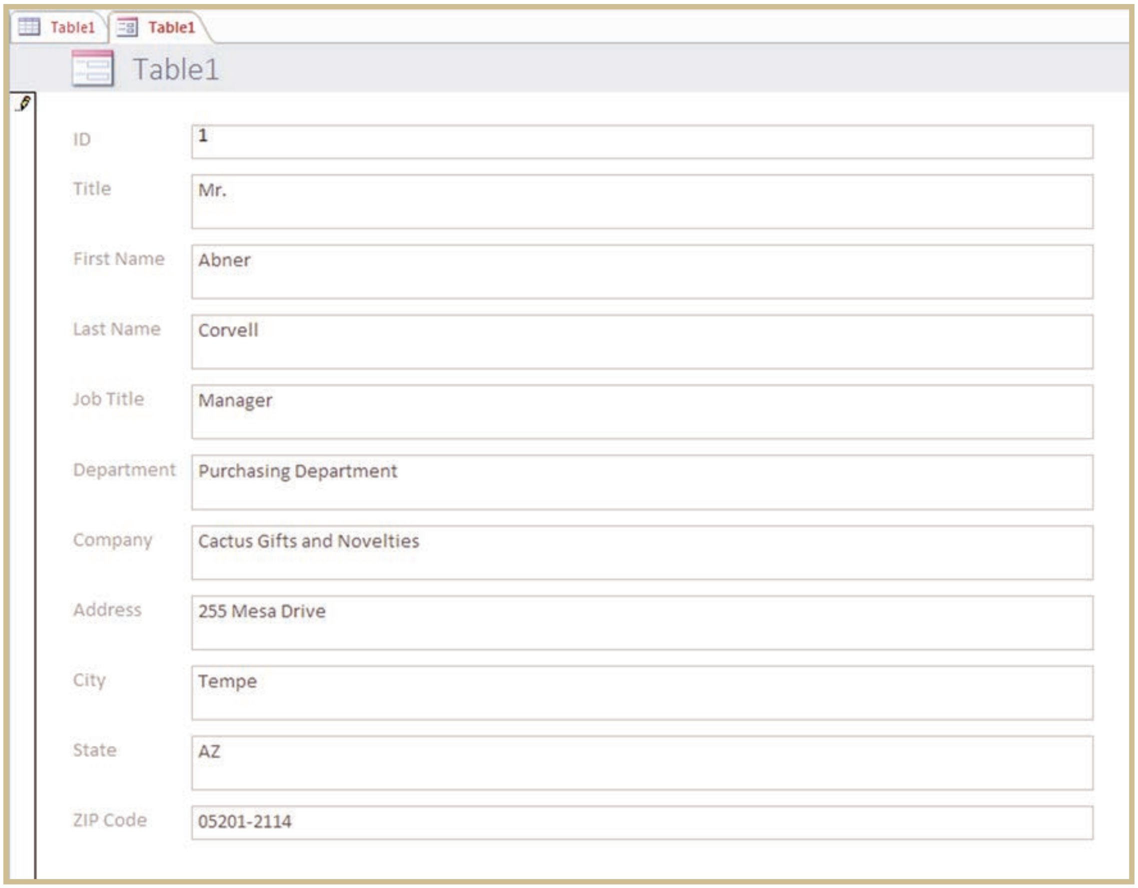


FIGURE 42—This is what your database form will look like after you've entered the data for the first record.

Entering Records

In this section, you'll add the second and third records to your mailing list. If this is a new work session, start Access as before. The startup dialog box appears in the Access window.

Follow these steps to open your database and enter the data for your second record.

1. Click **Mailing** from the Recent file pane on the left.
2. Double-click the **Mailing** icon listed under Table in the left pane to open it.
3. The mailing list appears. At this point, your list contains only one record for Abner Corvell. You'll now add information to create two more records. Note that as you enter data, some of the information you enter into various fields will appear to be cut off. However, once you finish entering data, you'll adjust the column width for each field to display all the information.

4. Click in the blank cell in the second row of the Title column, and type **Mr.** as the title.
5. Press the **Enter** key to advance to the First Name field, and type **Manuel.**
6. Press the **Enter** key to advance to the Last Name field, and type **Nieves.**
7. Press the **Enter** key to advance to the Job Title field, and type the job title: **Owner.**
8. Press the **Enter** key twice to bypass the Department field and advance to the Company field. Type the company name: **The Treasure Trove.**
9. Press the **Enter** key to advance to the Address field, and type the address: **111 East Kent Street.**
10. Press the **Enter** key to advance to the City field, and type **Jersey City.**
11. Press the **Enter** key to advance to the State field, and type the state abbreviation: **NJ.**
12. Press the **Enter** key to advance to the ZIP code field, and type the zip code: **07307-5554.**
13. Press the **Enter** key to complete this record.

Now, follow these steps to enter the data for the third record in your database file.

1. Press the **Enter** key to advance to the Title column of the next record in your database. Note how the table automatically enters the ID number for you.
2. Type **Mr.** as the title.
3. Press the **Enter** key to advance to the First Name field, and type **Darnell.**
4. Press the **Enter** key to advance to the Last Name field, and type **Winston.**
5. Press the **Enter** key to advance to the Job Title field, and type the job title: **Assistant Director.**
6. Press the **Enter** key to advance to the Department field, and type **Product Evaluation.**

7. Press the **Enter** key to advance to the Company field, and type the company name: **Faraway Gifts.**
8. Press the **Enter** key to advance to the Address field, and type the address: **2 Cypress Avenue.**
9. Press the **Enter** key to advance to the City field, and type the name of the city: **Monrovia.**
10. Press the **Enter** key to advance to the State field, and type the state abbreviation: **CA.**
11. Press the **Enter** key to advance to the ZIP code field, and type the ZIP code: **91016-1324.**
12. Press the **Enter** key to complete this record.

Now that you've entered Mr. Darnell Winston's information into your Mailing database, click the **Save** button on the toolbar to save your three records in your database file.

You can now proceed to the next section to adjust all column widths using the Best Fit option.

Adjusting Column Widths

1. To select all columns in your table, click the mouse pointer in the *ID* column heading. The entire column will appear highlighted.
2. Press the **Shift** key and click the final column heading, *Zip Code*. All rows and columns will appear highlighted.
3. Right-click your mouse, and then click **Field Width.** The **Column Width** dialog box appears.
4. Click the **Best Fit** button. Each column adjusts to the width of its longest entry.
5. Press the **Ctrl+Home** key combination to return to the beginning of the table.
6. Compare your screen with Figure 43.
7. To save your changes, click the **Save** button.
8. Click the Access window's **Close** box to exit the application.

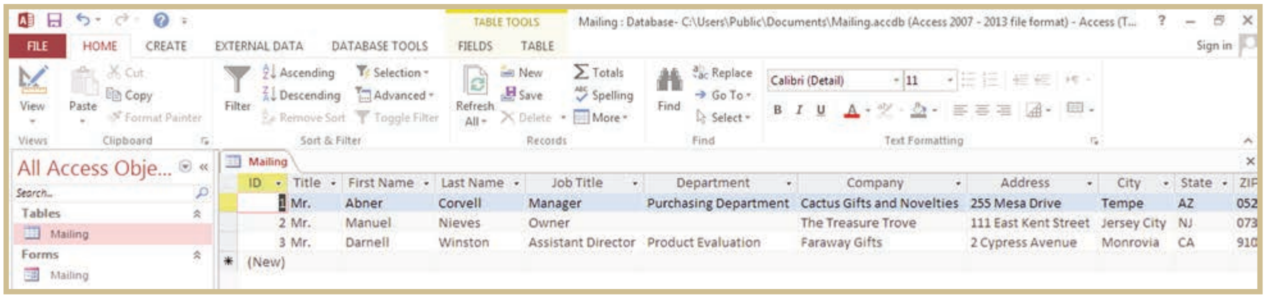


FIGURE 43—These are the three records included in your database file.

You've now completed the database file that you'll use to create a professional personalized mailing. At this point, you can quit Windows to end your work session. Before you begin to create your form letter, study the following section on how to create a data source in Microsoft Word. The procedure outlined in this section represents a general overview of the process, rather than a listing of discrete tasks.

Creating a Mail Merge Database in Word

As we've already mentioned, you can create a mail merge database in different software applications. You've just completed a database using Microsoft Access. You'll soon be using that database for a mail merge.

When using the mail merge function, you can also create your database directly in Word. The following steps outline the procedure for using Word.

1. Open **Microsoft Word** and open a new blank document.
2. Click the **Mailings** tab, click **Start Mail Merge**, and then click **Step-By-Step Mail Merge Wizard.** The **Mail Merge Helper** pane appears on the right side of the window.
3. Select the Directory radio button and then click **Next: Starting Document** at the bottom of the pane (Figure 44).

This series of selections tells the program that the open Word window is where you're going to type your letter. However, if you choose, you can also type the letter before you create the database.

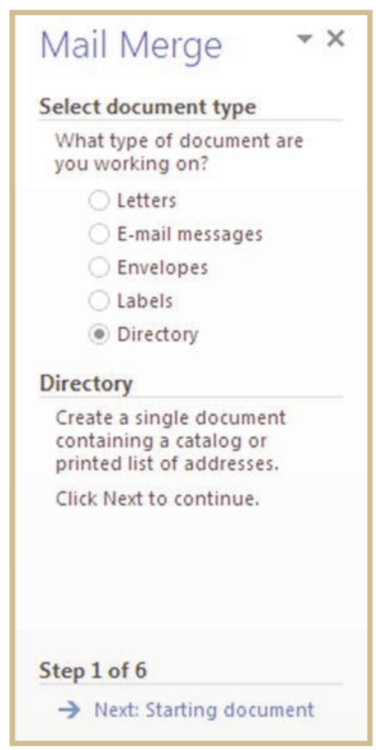
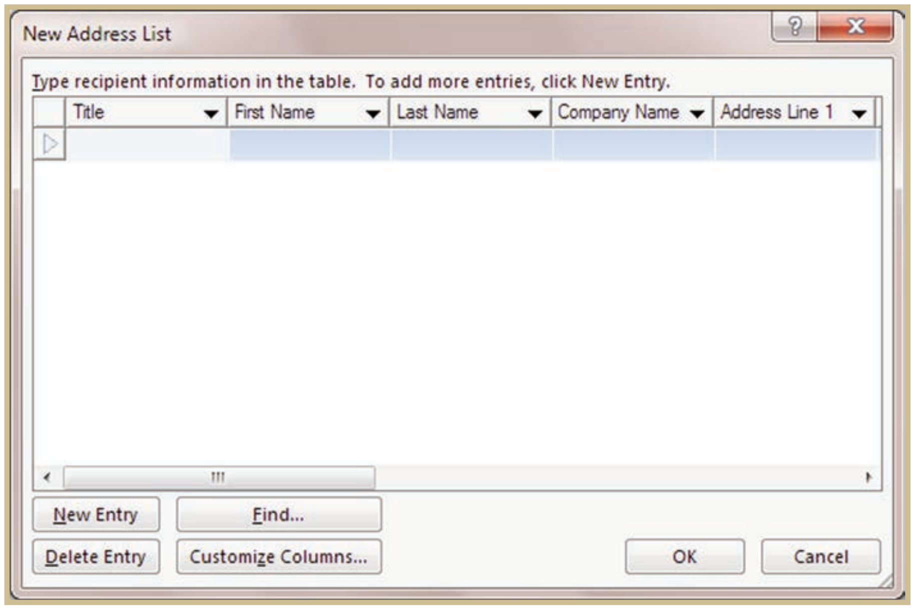


FIGURE 44—The Mail Merge panel guides you through the merge process.

Under Select Starting Document, select the **Use the Current Document** radio button. Then click **Next: Select Recipients** at the bottom of the Mail Merge pane.

4. Under Select Recipients, click the **Type a New List** radio button.
5. Under Type a New List, click **Create**. The New Address List dialog box opens (Figure 45).

FIGURE 45—The* Create Data Source *dialog box allows you to add, delete, and move fields.



6. Scroll through the fields in the New Address List dialog box. Since you would like to add a field called "Job Title," click **Customize Columns.**
7. Click **Add** in the Customize Address List dialog box.
8. Type **Job Title** and then click **OK.**
9. With "Job Title" selected, click **Move Down** to move this new field below Last Name, so your fields appear as in Figure 46.
10. Click **OK.**
11. Click **OK** again.
12. In the Save Address List dialog box, save the file as "address list" to your Documents folder. Click **Save.**
13. Click **OK.**
14. Since you'll be using your Access database and not this address list in your Mail Merge, close the Mail Merge pane.

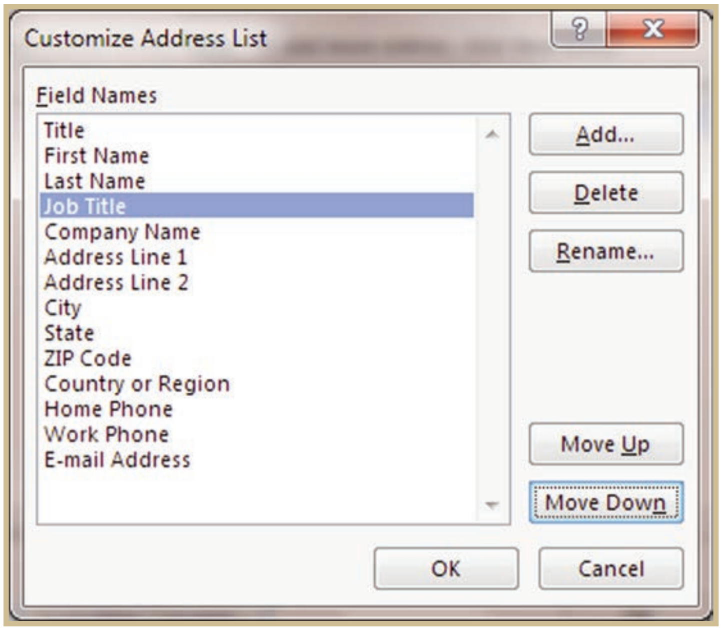


FIGURE 46—Word provides a data form for you to enter information into each field.

Creating a Form Letter

Now that your Access database is complete and you learned how to create an address list in Word, you need to create a *main document* to merge with this database. For this document, you can use an already existing file, or you can create a brand new document. You can create your own letterhead and format the letter or document yourself, or you can use any one of the templates provided with Word. (To access these templates, select the **Office** button and **New.** From the **New Document** dialog box, you have a choice of many templates.)

In this section, you'll begin a new Word document and create the text portion of a form letter. Follow these steps to start your mail merge.

Setting Up Your Mail Merge

1. Open a blank **Microsoft Word** document.
2. Under Mailings, point to **Start Mail Merge**, and then click **Step-By-Step Mail Merge Wizard.**
3. Select the Letters radio button and then click **Next: Starting Document** at the bottom of the pane. (If it reads **Step 3 of 6** at the bottom of the Mail Merge pane, click the **Previous** button twice to return to Step 1.)

4. Under Select Starting Document, leave **Use the Current Document** radio button selected, and then click **Next: Select Recipients** at the bottom of the pane.
5. Under Select Recipients, select the **Use an Existing List** radio button since you're going to use your Access list.
6. Click **Select Browse** under Use an Existing List.
7. Locate your Mailing Access file and then click **Open.**
8. In the Mail Merge Recipients dialog box, make sure all recipients are selected (boxes checked) and then click **OK.**
9. Click **Next: Write Your Letter** in the Mail Merge panel. Next, you'll type your letterhead in the Word document.

Creating a Letterhead

1. Click the **Center Align** button on the **Home** tab.
2. To format the letterhead in bold text, click the **Bold** button.
3. Type the company name: **Natural Crystals and Fossils.**
4. Change the line spacing to **1.0.**
5. Press the **Enter** key, and type the address: **1411 Sunset Trail.**
6. Type **Pryor, OK 74361.**
7. Press the **Enter** key.
8. Click the **Left Align** button to cancel centering.
9. Click the **Bold** button to return to normal style.
10. Change the line spacing to **1.5.**

Adding Body Text

1. To change to a standard typewriter font, click the **Font** list arrow. A list of available fonts appears. This list of fonts is arranged in alphabetical order.
2. Click **Courier New**. The name of the new font is displayed in the **Font** box.
3. Press the **Enter** key three times.

4. Click the **Insert** tab, then click **Date & Time.** The **Date and Time** dialog box appears.
5. Click the third option in this list—the standard long date that typically appears in business correspondence. Your dialog box should display the current date.
6. Click **Update automatically** to select this option.
7. Click **OK.** The current date appears in the document.
8. Press the **Enter** key three times.
9. Type the text shown here.

I am writing to introduce you to Natural Crystals and Fossils—a truly unique profit-boosting opportunity for your company.¶

¶

If you currently feature crystals, fossils, or semiprecious gemstones in your store, then I don't need to tell you about the great profits these items will generate. You've already seen how customers of all ages seem magnetically drawn to a crystal or polished gemstone. Once they become attracted to a particular item, they often make an impulse purchase after just a few minutes. Because of their intrinsic beauty and value, fossils and minerals are popular as gift items, souvenirs, and collectibles.¶

¶

Natural Crystals and Fossils offers a dazzling variety of crystals, fossils, and minerals in a wide range of prices. After you see our quality offerings and modest pricing, I know you'll want to place an order. Or, contact me at (988) 555-1243 to learn more about how Natural Crystals and Fossils can help you increase profits.¶

¶

Sincerely,¶

¶

¶

¶

Jerry Villard¶

President¶

Saving Your Letter

The basic text portion of your form letter is now complete. Compare your screen to Figure 47.

Natural Crystals and Fossils
1411 Sunset Trail
Pryor, OK 74361

March 21, 2013

I am writing to introduce you to Natural Crystals and Fossils—a truly unique profit-boosting opportunity for your company.

If you currently feature crystals, fossils, or semiprecious gemstones in your store, then I don't need to tell you about the great profits these items will generate. You've already seen how customers of all ages seem magnetically drawn to a crystal or polished gemstone. Once they become attracted to a particular item, they often make an impulse purchase after just a few minutes. Because of their intrinsic beauty and value, fossils and minerals are popular as gift items, souvenirs, and collectibles.

Natural Crystals and Fossils offers a dazzling variety of crystals, fossils, and minerals in a wide range of prices. After you see our quality offerings and modest pricing, I know you'll want to place an order. Or, contact me at (988) 555-1243 to learn more about how Natural Crystals and Fossils can help you increase profits.

Sincerely,

Jerry Villard
President

FIGURE 47—Type the text portion of your form letter.

After you've checked your text, take a moment to name and save your letter.

1. Click **Save.** The **Save As** screen appears with the **Documents** folder listed among the destinations. Select the **Documents** folder.
2. Type the filename **Mailing Letter** in the **File Name** box.
3. Click on **Save.** This saves your form letter on your computer's hard disk.

Now move directly to the next section to add addresses from your database.

Inserting Merge Fields

In your main document, you must insert *merge fields* to instruct Word where to put information from your data source. Once you've inserted these fields, Word will create your form letters for you.

Follow these steps to insert merge fields into your main document.

1. Click to move your insertion point immediately to the left of the date.
2. Press the **Down Arrow** key twice to move the insertion point down two lines.
3. Click **Address Block** in the Mail Merge panel (Figure 48).
4. Make sure your **Insert Address Block** selections appear as in Figure 49 and then click **OK.**
5. Press the **Enter** key twice.

Now follow these steps to create a personalized greeting.

1. Click **Greeting Line** in the Mail Merge pane.
2. Leave the default selection and then click **OK.**
3. To save your work, click the **Save** button.

Your form letter should now look much like the one in Figure 50.

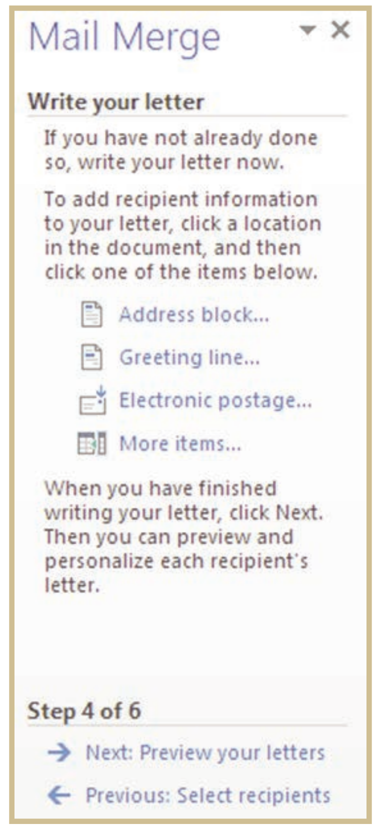


FIGURE 48—You insert Merge fields from the Mail Merge pane.

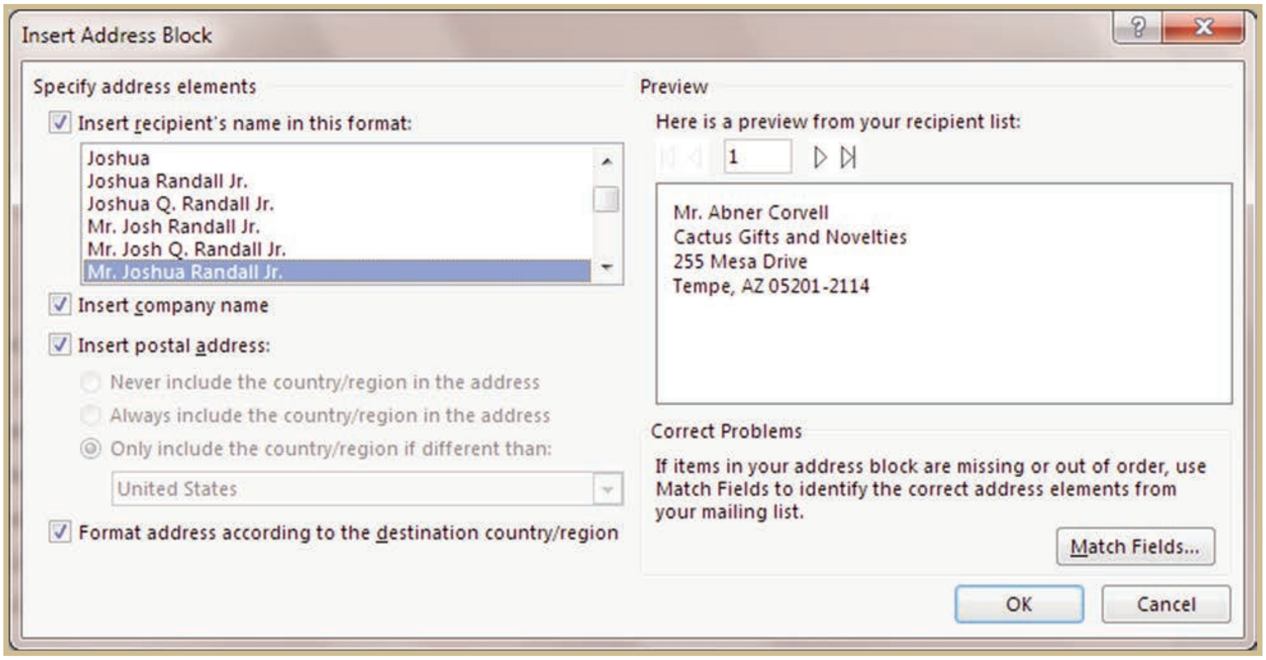


FIGURE 49—Use the selections here for your Address Merge field.

Previewing Your Letters

Now you're going to preview your letter merged with your mailing list.

1. Click **Next: Preview Your Letters** in the Mail Merge pane. Word merges the letter with the database records to create a new three-page document.
2. Click the double-arrow in the Mail Merge pane to preview your letters.
3. Click **Next: Complete The Merge.** You've now completed the Mail Merge. You can print or edit individual letters if you would like.
4. Close the Mail Merge pane.
5. Save your file.
6. Click the Word window's **Close** button to exit the application.
7. If a dialog box appears asking whether you want to save changes to Mailing Letter, click the **Yes** button.

Natural Crystals and Fossils
1411 Sunset Trail
Pryor, OK 74361

March 21, 2013

<<AddressBlock>>

<<GreetingLine>>

I am writing to introduce you to Natural Crystals and Fossils—a truly unique profit-boosting opportunity for your company.

If you currently feature crystals, fossils, or semiprecious gemstones in your store, then I don’t need to tell you about the great profits these items will generate. You’ve already seen how customers of all ages seem magnetically drawn to a crystal or polished gemstone. Once they become attracted to a particular item, they often make an impulse purchase after just a few minutes. Because of their intrinsic beauty and value, fossils and minerals are popular as gift items, souvenirs, and collectibles.

Natural Crystals and Fossils offers a dazzling variety of crystals, fossils, and minerals in a wide range of prices. After you see our quality offerings and modest pricing, I know you’ll want to place an order. Or, contact me at (988) 555-1243 to learn more about how Natural Crystals and Fossils can help you increase profits.

Sincerely,

Jerry Villard
President

FIGURE 50—This is what your form letter should look like after you’ve inserted the merge fields.

Your integrated form letter is now complete (Figure 51). You now know how to produce a personalized mailing that's effective and professional looking. You can quit Windows now to end your work session or move directly to the next section to add new information to your mail merge database.

Updating a Mailing List

Most databases are long-term projects that grow and change on a regular basis. A mailing list is a classic example of this type of ongoing project. Addresses, job titles, phone numbers, and fax numbers can change rather quickly. You should make a note of these changes as soon as you become aware of them. Once you've accumulated even a few corrections for your address list, update the file at that time. A mailing list is only as good as the data it contains. It can be frustrating to waste postage (and lose time) because the postal service has to return or forward letters incorrectly addressed.

Let's assume that just before you print your letters, you happen to see a news blurb announcing that Faraway Gifts has relocated to an expanded office space. The blurb also reports that Darnell Winston has been promoted to Director of the Product Evaluation department. Follow these steps to open your database so you can update its information.

1. Open **Microsoft Access.**
2. Under Recent, click **Mailing.** (If it's not visible, click **Open Other Files,** and locate the file in your Documents folder.) The Mailing window appears.
3. Double-click **Mailing** under **Tables.** The Mailing database appears in Form View.

Finding a Record

In a large database, you should really use the Find command to conveniently and quickly locate records you wish to update or delete. Although your database is relatively small, use **Find** to locate Darnell Winston's record by searching in the Last Name field.

1. To move to the top of the file, press the **Ctrl+Home** key combination.

Natural Crystals and Fossils
1411 Sunset Trail
Pryor, OK 74361

March 21, 2013

Mr. Abner Corvell
Cactus Gifts and Novelties
255 Mesa Drive
Tempe, AZ 05201-2114

Dear Mr. Corvell,

I am writing to introduce you to Natural Crystals and Fossils—a truly unique profit-boosting opportunity for your company.

If you currently feature crystals, fossils, or semiprecious gemstones in your store, then I don't need to tell you about the great profits these items will generate. You've already seen how customers of all ages seem magnetically drawn to a crystal or polished gemstone. Once they become attracted to a particular item, they often make an impulse purchase after just a few minutes. Because of their intrinsic beauty and value, fossils and minerals are popular as gift items, souvenirs, and collectibles.

Natural Crystals and Fossils offers a dazzling variety of crystals, fossils, and minerals in a wide range of prices. After you see our quality offerings and modest pricing, I know you'll want to place an order. Or, contact me at (988) 555-1243 to learn more about how Natural Crystals and Fossils can help you increase profits.

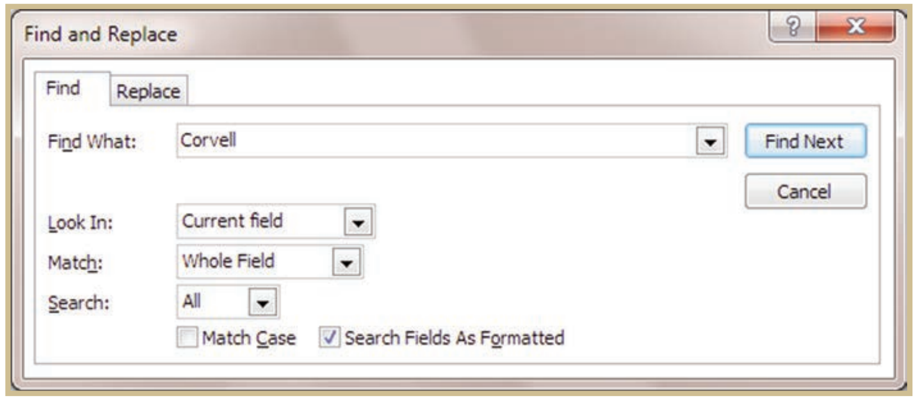
Sincerely,

Jerry Villard
President

FIGURE 51—Here's your first letter with fields merged from your address list.

2. Click in the **Last Name** field (which now displays the name Corvell).
3. Click **Edit** in the menu bar.
4. Click **Find** in the **Home** tab. A dialog box appears in which you can specify the field in which to search and the text you want to find (Figure 52).

FIGURE 52—Use the Find dialog box to locate a specific record.



5. Type the name **Winston** in the **Find What** box.
6. Click on the **Find Next** button. With the Last Name field selected, doing so displays Darnell Winston's record. Note that the label *Record 3 of 3* is displayed in the lower left-hand corner of the database window.
7. Click **Cancel** to exit the Find dialog box.

Correcting Field Entries

1. Press the **Tab** key. The cursor advances to the Job Title field.
2. Type the new job title: **Director.**
3. Press the **Tab** key three times to advance to the Address field.
4. Type the new street address: **200 Wingate Avenue.**
5. Press the **Enter** key.
6. Click the **Save** button.

You can see that Access makes it easy to quickly locate and correct any record in the database.

Using OfficeLinks

Now follow these steps to merge your mailing letter with the updated database and thus create a new document.

1. Close Mailing to exit the database form.
2. Double-click **Mailing** under **Tables** to open the database.
3. From the External Data tab, click **Word Merge.**
5. The Microsoft Word Mail Merge Wizard dialog box appears, asking whether you want to link the database to an existing document or create a new document (Figure 53).

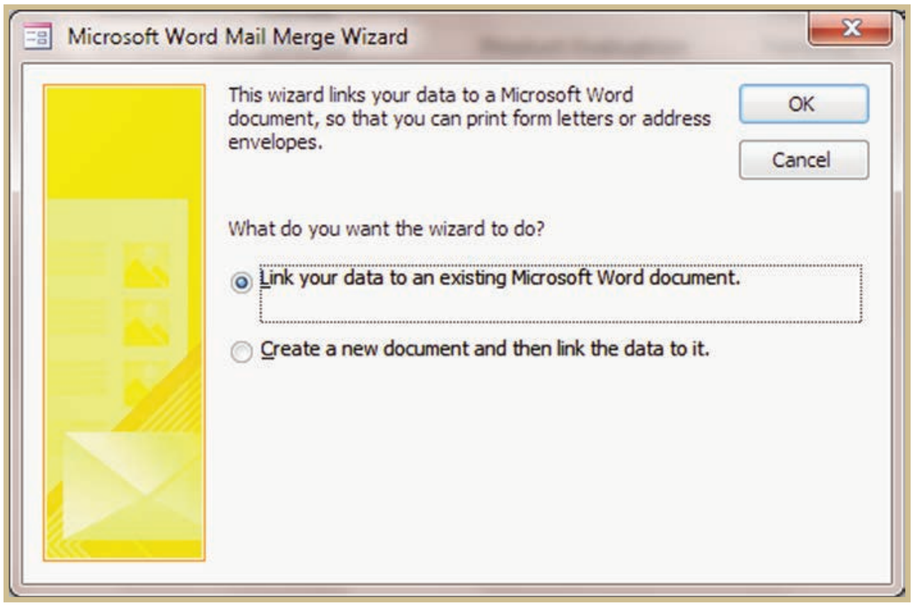


FIGURE 53—The Microsoft Word Mail Merge Wizard displays merge options.

6. Click **Link your data to an existing Word document.**
7. Click **OK.** The **Select Microsoft Word Document** dialog box appears.
8. Click **Mailing Letter** to select this document.
9. Click **Open.** Microsoft Word opens and displays your form letter.
10. Follow the steps in the Mail Merge pane to create the new mailing list:
    - Keep **Mailing** as your existing list
    - Click **Next: Write your letter.**

- Click **Next: Preview your letters.**
- Preview your letters to make sure your changes appear as you would like. Click the right arrow button twice in the Mail Merge pane and make sure Darnell Winston's information has been updated as in Figure 54.
- Click **Next: Complete The Merge.**

11. Click **Save** to save your changes.
12. Click the Word window's **Close** button to exit the application. An information dialog box appears.
13. Click **Yes** to save Mailing Letter.
14. If the Access window appears, click the Access window's **Close** button to exit that application.

You've worked hard to create a terrific mailing and should now feel rather comfortable merging a database with a letter and updating your work as needed. The ability to create multiple personalized letters (and other merge documents) is an important asset to any business, school, club, or community group.

Take the time to think of ways that this type of integrated file might help you to meet some of your own personal goals. Some families keep in touch by sending a regular "newsletter" to relatives and friends. Community organizations often send mailings as part of an outreach program or fund-raising campaign, or they may use form letters to update their members about current activities. Form letters are also a great way to obtain information from companies who provide products or services that interest you. Creating a mailing is a convenient way to focus on an important goal and get your message across.

You've covered a lot of ground in this study unit. You've learned the difference between *embedding* and *linking*, and you've studied the procedures for performing these functions. You've also completed a sample project involving one of the most popular integrated applications today—Mail Merge.

It's time to review the final section by completing *Self-Check 3.* When you've finished that self-check, review the entire study unit in preparation for the examination.

Natural Crystals and Fossils
1411 Sunset Trail
Pryor, OK 74361

March 21, 2013

Mr. Darnell Winston
Faraway Gifts
200 Wingate Avenue
Monrovia, CA 91016-1324

Dear Mr. Winston,

I am writing to introduce you to Natural Crystals and Fossils—a truly unique profit-boosting opportunity for your company.

If you currently feature crystals, fossils, or semiprecious gemstones in your store, then I don't need to tell you about the great profits these items will generate. You've already seen how customers of all ages seem magnetically drawn to a crystal or polished gemstone. Once they become attracted to a particular item, they often make an impulse purchase after just a few minutes. Because of their intrinsic beauty and value, fossils and minerals are popular as gift items, souvenirs, and collectibles.

Natural Crystals and Fossils offers a dazzling variety of crystals, fossils, and minerals in a wide range of prices. After you see our quality offerings and modest pricing, I know you'll want to place an order. Or, contact me at (988) 555-1243 to learn more about how Natural Crystals and Fossils can help you increase profits.

Sincerely,

Jerry Villard
President

FIGURE 54—The form letter to Darnell Winston reflects the changes you made in the database.

Self-Check 3

1. Before you can begin to enter records into a new database, you must

   a. open Excel.
   b. create a worksheet.
   c. create a table.
   d. create a form.

2. What would the field placeholder for a database field named Company look like after you inserted it into a Word document?

   a. Company:
   b. **Company**
   c. <<Company>>
   d. Field:Company

3. In what application(s) can you create a database for a mail merge?

Check your answers with those on page 65.

Answers

Self-Check 1

1. a
2. c
3. b
4. d
5. a

Self-Check 2

1. False
2. Insert button
3. Currency style button
4. The sum of the amounts in cells C2 and D2
5. Aim the mouse pointer at one of the worksheet's resizing handles, and then click-and-drag the worksheet to the desired size.

Self-Check 3

1. c
2. c
3. Your text mentions Word, Excel, and Access, which can be used to create databases for mail merges.