EXCEL

1 Tracking Customer Data

In this chapter, you will use Excel to enter detailed information about customers into a worksheet. You will learn about fundamental Excel features as you create and modify a simple worksheet. By the end of the chapter, you will have a solid grasp of the basic tools used to create worksheets in Excel.

LEARNING OBJECTIVES

- Enter data into a worksheet
- Navigate a workbook
- Format a worksheet
- Apply number and date formats
- Enter a series of related data
- Print a worksheet
- Adjust the view with Zoom tools

Project: Tracking Customer Invoices

Airspace Travel is a company that provides luxurious travel packages to tropical destinations. It is a small, family-run business, and the owners want your help tracking their customer accounts using Excel.

You will use Excel to enter information about each customer who books a trip. Some of the important information to include for each customer is the airline, destination, number of guests, and cost per person.

Introducing Excel

Microsoft Excel is a very popular tool used by millions of people every day. Why do people like it? Partly because it makes work easier! Excel is a worksheet program that allows you to work with numbers and data much more quickly and efficiently than with the pen-and-paper method.

Excel can perform instant calculations and process, analyze, and store large amounts of data. It can perform a variety of tasks such as:

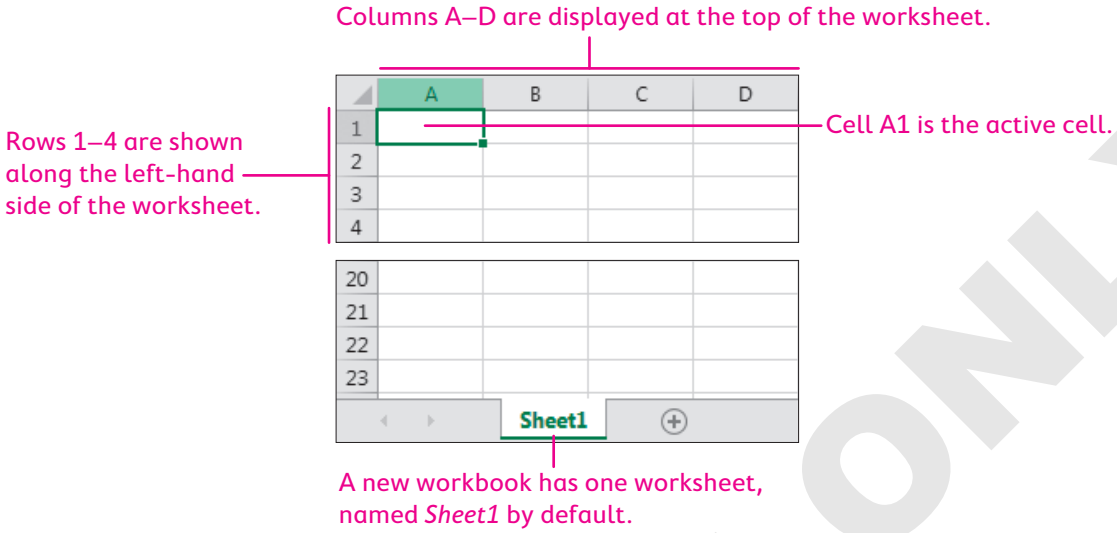
- Creating payment schedules and budgets
- Creating sales reports and performing sales analysis
- Tracking invoices and controlling inventory
- Creating databases or analyzing data imported from a database

The more you learn about and become skilled at using Excel, the more ways you will discover to make work fast and easy.

What Is a Worksheet?

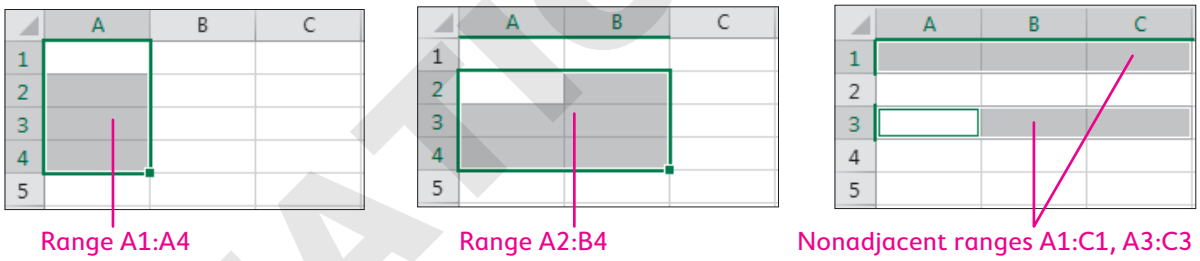
An Excel file is called a workbook, and it contains one or more worksheets (also called spreadsheets) that can be used for small tasks or to create large databases of information. Each worksheet is made up of rows and columns of individual cells, into which you can add data. When you open a new blank workbook, the selected cell is A1. The cell is referred to as A1 because this is where column A meets row 1.

The selected cell, also known as the active cell, is indicated by the thick box around it. The active cell is where you can type data or insert objects into your worksheet.



Cell Ranges

For many tasks, you will want to select a group of cells instead of a single cell. A group of cells is referred to as a range. A range is identified by the first and last cell, separated by a colon. The cells in a range are adjacent (side by side), but you can also choose to select two or more nonadjacent ranges.



Cell Selection and the Mouse Pointer

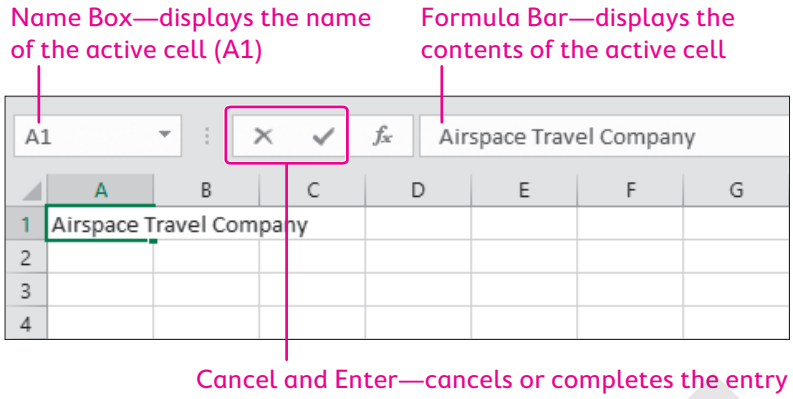
One of the challenges for new Excel users is getting used to the different mouse functions. The shape of the mouse pointer changes as you point to different parts of the Excel window, so pay close attention to the shape of the pointer to ensure you're performing the intended action.

MOUSE POINTER SHAPES

Pointer Shape	Task
	Click to select a cell; drag to select a range of cells
	Drag to move the selected cell contents to another location
	Enter or edit cell contents in the cell or in the Formula Bar
	Drag the fill handle to fill adjacent cells with a series of numbers, dates, or formulas
	Select an entire column (Column A) or row (Row 1)

Entering and Editing Data

Data is easily entered into Excel by selecting a cell and typing. If a cell already contains data, you can double-click the cell to edit it; or, to replace the existing data, just start typing (no need to delete it first!). Text is used for headings or descriptive data, and numbers can either be typed into a cell or calculated with a formula.



Completing Cell Entries

After typing or editing data in a cell, you need to complete the entry before you can continue. The method you use to complete the entry will determine which cell becomes active next.

Excel is in Ready mode when a cell is selected and Enter mode when data is being inserted. The difference between Enter and Ready modes is that many Excel features are unavailable while you are entering data.

Tapping Enter, Tab, or any of the arrow keys (→, ←, ↑, ↓) will complete the entry as shown in the table below. Another option is to use the Enter ✓ button on the Formula Bar, which will keep the current cell active.

COMPLETING A CELL ENTRY

Completion Method	New Active Cell Location
Enter	Moves one cell down
Tab	Moves one cell to the right
→, ←, ↑, ↓	Moves to the next cell in the direction of the arrow key
✗	Cancels the entry (or modification) and keeps the current cell active
✓	Completes the entry without moving

DEVELOP YOUR SKILLS: E1-D1

In this exercise, you will enter the data for your worksheet title and headings.

1. Start Excel.
2. Click the **Blank Workbook** template on the Excel start screen.
3. Save your workbook in your **Excel Chapter 1** folder as: **E1-D1-Invoices**

4. Type **`Airspace Travel Company`** in **cell A1** and tap Enter to complete the entry.

   Notice that cell A2 is now the active cell.

5. Type **`Monthly Customer Invoices`** in **cell A2** and tap Enter to complete the entry.

   So far you've used the Enter key to move down column A while entering the data. Now you'll use the Tab key to move across row 3 as you enter more data.

6. Type **`First Name`** in **cell A3** and tap Tab to complete the entry, which also moves the active cell one cell to the right.

7. Type **`Last Name`** in **cell B3** and tap Tab.

   The First Name *text in cell A3 is no longer fully visible because it's wider than column A. Long entries are cut off like this when the cell to their right contains data. You will fix this in a later exercise.*

8. Type **`Provider`** in **cell C3** and tap Tab.

9. Type **`Destination`** in **cell D3** and tap Tab.

10. Type **`# of Guests`** in **cell E3**, but this time click **Enter** ✓ on the Formula Bar to complete the entry.

    Cell E3 remains the active cell. Use Enter on the Formula Bar to complete entries when you want the current cell to remain active. Your worksheet should now look like this:

	A	B	C	D	E	F
1	Airspace Travel Company					
2	Monthly Customer Invoices					
3	First Nam	Last Name	Provider	Destinatio	# of Guests	

11. Save the workbook.

Note! *Always leave the file open at the end of an exercise unless instructed to close it.*

Navigating Around a Worksheet

Navigating around your worksheet quickly is an important skill to master. The following table lists some useful keystrokes for changing the active cell. You can also click with the mouse to select the desired cell or type a cell name into the Name Box to quickly jump to it. A worksheet has up to 1,048,576 rows and up to 16,384 columns, so for large amounts of data, you definitely want a quicker way to get around than simply scrolling!

NAVIGATION METHODS

Keystroke(s)	How the Active Cell Changes
→, ←, ↑, ↓	Moves one cell right, left, up, or down
Home	Moves to the beginning (column A) of current row
Ctrl + Home	Moves to the home cell, usually cell A1
Ctrl + End	Moves to the last cell in active part of worksheet
Page Down	Moves down one visible screen
Page Up	Moves up one visible screen
Alt + Page Down	Moves one visible screen to the right
Alt + Page Up	Moves one visible screen to the left
Ctrl + G	Displays the Go To dialog box

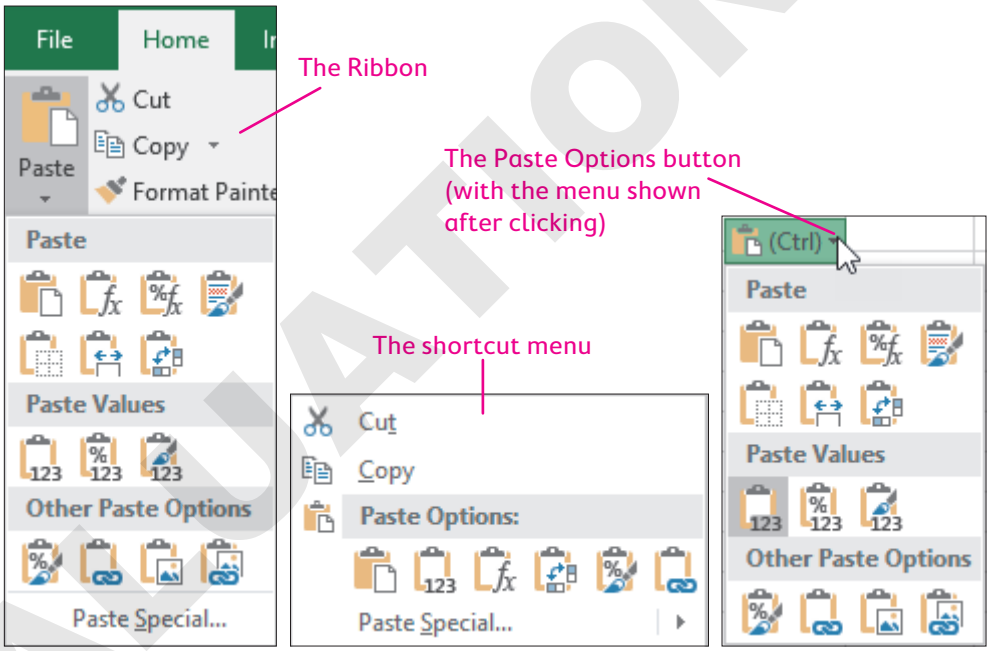
Using AutoComplete to Enter Data

When inputting data, consistency is extremely important. If you are entering employee records in a large database, you want to ensure that information such as department names and position titles is entered accurately; for example, you wouldn't want some employees to be listed in the *Financial* department and others to be listed in the *Finance* department because that would create problems when looking up, sorting, and filtering your data.

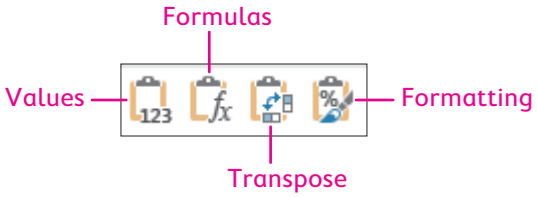
Excel has a feature that helps with this problem and also saves you time when repeatedly entering the same text. AutoComplete suggests text for you as you type, using data from the same column. For example, if you type *Accounting* for a department name in one cell, and then farther down in the same column you type the letter *A*, AutoComplete will suggest *Accounting*. You can either accept the suggestion the way you normally complete a cell entry or ignore it and keep typing.

Rearranging Data in Excel

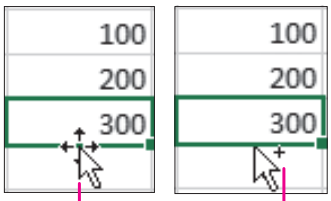
To move or copy content in Excel, you can use the tools in the Clipboard group of the Home tab on the Ribbon, similarly to how you would in other Microsoft Office apps. However, Excel has many unique options for pasting data that aren't available in the other Office apps. The Paste Options are accessible from the Ribbon, the shortcut menu when you right-click a cell after copying, or the Paste Options button that appears after you have pasted something into a worksheet.



Some of the important paste options unique to Excel that are frequently used include pasting values, pasting formulas, transposing data, or pasting only the formatting from the copied cell or range.



To quickly move data, you can also point to the border of the selected cell (or range), and when the mouse pointer changes to a four-headed arrow, you can then drag the cell's contents to the desired location. To copy instead of move data, hold down Ctrl while dragging. These two methods are best used when the original location and new location are relatively close and both are visible on the same screen.



You can move cell contents by pointing to the active cell border so the four-headed arrow appears.

If you hold Ctrl while pointing to the active cell border, you can copy rather than move the cell contents.

DEVELOP YOUR SKILLS: E1-D2

In this exercise, you will enter the customer data below each of the column headings.

1. Save your workbook as: **`E1-D2-Invoices`**
2. Press Home followed by ↓ to move the active cell to **cell A4**.
3. Enter this data for Eric Snow in **row 4** and press Tab to complete the entry in each cell:

3	First Nam	Last Name	Provider	Destinatic	# of Guest
4	Eric	Snow	Sunwind	Jamaica	

4. Type **2** in **cell E4** and tap Enter to complete the entry.

   The active cell moves to A5, the beginning of a new row. Excel presumes you are finished entering data in the row and wish to start a new row. This is one of Excel's built-in data entry features that make it faster to enter data into a worksheet or database. As long as you enter data using the Tab key continuously from left to right, the Enter key will bring you back to the first column of data to begin the next row. If the active cell does not move from E4 to A5, it is likely because you used the mouse to select a cell rather than Tab.

5. Type **`Alison`** in **cell A5**, **`Lobosco`** in **cell B5**, and only the letter **`S`** in **cell C5**.

   In cell C5, Excel's AutoComplete feature prompts you with the name Sunwind.

3	First Nam	Last Name	Provider	Destinatic	# of Guests
4	Eric	Snow	Sunwind	Jamaica	2
5	Alison	Lobosco	Sunwind		

6. Tap Tab to accept the suggestion, then continue entering the rest of the customer information as shown below, starting from **cell D5**.

   As you type the data, use Tab *to accept the AutoComplete suggestions for the Provider and Destination columns when possible; the goal is to enter the data quickly and efficiently. Tap* Enter *at the end of each row to finish one customer's information and begin entering it for the next. Be aware that long entries won't fully display until the column is widened.*

	A	B	C	D	E
3	First Name	Last Name	Provider	Destination	# of Guests
4	Eric	Snow	Sunwind	Jamaica	2
5	Alison	Lobosco	Sunwind	Mexico	2
6	Lacy	Henrich	TrueBlue	Dominican Republic	4
7	Will	Johns	Eastjet	Cuba	3
8	Nicki	Hollinger	Sunwind	Mexico	1
9	Lennard	Williams	TrueBlue	Brazil	6
10	Kerri	Knechtel	TrueBlue	Columbia	4
11	Karynn	Alida	Sunwind	Bahamas	2
12	David	Monton	Eastjet	Dominican Republic	2
13	Amanda	Campbell	Sunwind	Jamaica	7

7. Save the workbook.

Adjusting Column Width and Row Height

To create enough space to properly see your text, you may need to adjust the column width and row height. A key step is to select the desired row(s) or column(s) before adjusting the size. Column width and row height can be set precisely using Ribbon commands or adjusted manually by dragging with the mouse. Even better, AutoFit can adjust the size to accommodate the largest entry in the column or row.

In a new workbook, column width is 8.43 and row height is 15.00; however, you might notice that cells are wider than they are tall. This is because column width is measured in characters and row height is measured in points, similar to font size. One character is bigger than one point.

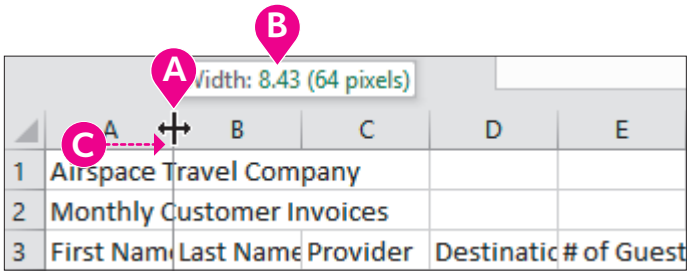
Home→Cells→Format→Column Width *or* Row Height | Right-click column/row heading→Column Width *or* Row Height

Home→Cells→Format→AutoFit | Double-click column/row heading borders

DEVELOP YOUR SKILLS: E1-D3

In this exercise, you will adjust the column widths using various methods to properly display the text in the cells.

1. Save your workbook as: **`E1-D3-Invoices`**
2. Follow these steps to manually adjust the width of **column A**:



   A. Move the mouse pointer over the line between the column A and B headings to display the adjust pointer.

   B. Press and hold the left mouse button, and notice the ScreenTip displays the current width of column A (the default width is 8.43).

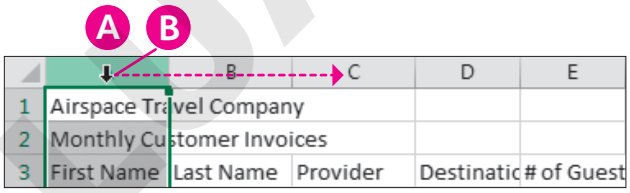
   C. Continue holding the left mouse button and drag right slightly, then release the mouse button. The text *First Name* should now be fully visible in cell A3; if not, keep trying until you get it.

   As you drag, the column width is displayed as it changes. You can set column width to an exact amount this way, but it's difficult to be precise. You'll set precise widths later in this exercise.

3. Widen **column B** until *Last Name* is visible in **cell B3** or try to set the width to 10.00.
4. Widen **column C** slightly or try to set the width to 10.00.

   Now you will use the Ribbon to ensure that columns A, B, and C are all set to exactly 10.00.

5. Follow these steps to select **columns A–C**:



   A. Position the mouse pointer on the **column A** heading and then press and hold the left mouse button.

   B. Drag right until **columns A–C** are selected and then release the mouse button.

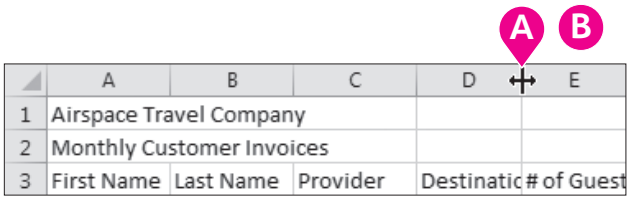
6. Choose **Home→Cells→Format→Column Width** to display the Column Width dialog box.

Tip!

You will only see a number in the box if all three columns have the same width; otherwise, the box will be blank.

7. Type **`10`** in the box and click **OK**, which will set the widths of **columns A–C** to 10.

8. Follow these steps to use AutoFit to adjust the width of **column D**:



A. Point between the column D and E headings to display the adjust pointer.

B. Double-click to AutoFit **column D** to accommodate the widest entry.

Column D is now wide enough so the text Dominican Republic *is fully visible in cells D6 and D12.*

9. Save the workbook.

Formatting Cells

You may notice that unformatted data does not look very pleasing. The columns are too narrow, and the black-and-white color is plain and boring. Formatting is important not simply to make worksheets more appealing, but also to make it easier to read and interpret the data they contain. A textbook would be very hard to read if all the text were the same font, size, and color on a white page. Likewise, it is much easier to understand a worksheet if it is properly formatted.

Borders and Fill

Adding some color to your worksheet can accentuate the column headings and helps the data stand out. In addition to changing the font, style, and color of the text, you can use Fill Color to add color or shading inside a cell and use Borders to add lines around the cells. The drop-down menu buttons (▾) give you more choices for lines and colors.

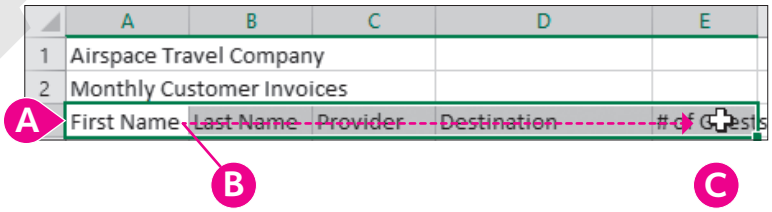
☰ Home→Font→Borders | Right-click→Format Cells→Borders

☰ Home→Font→Fill Color | Right-click→Format Cells→Fill

DEVELOP YOUR SKILLS: E1-D4

In this exercise, you will add color to your worksheet using fill colors, borders, and font colors.

1. Save your workbook as: **`E1-D4-Invoices`**
2. Follow these steps to select the column headings in the **range A3:E3**:

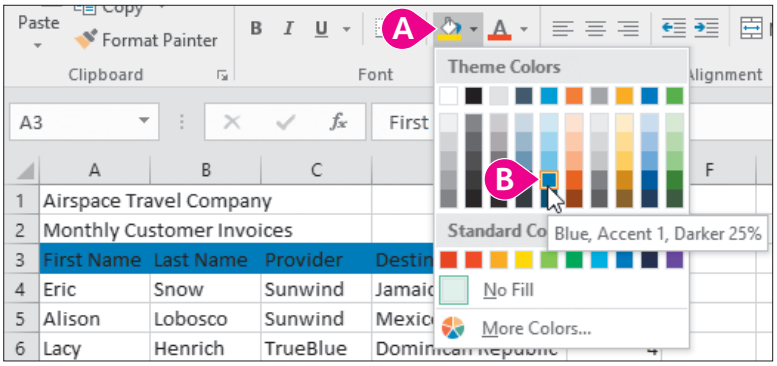


A. Point to the middle of **cell A3** and then press and hold the left mouse button.

B. Continue to hold the left mouse button as you drag right, along row 3, until the **range A3:E3** is selected.

C. Release the mouse button to complete the selection.

3. Follow these steps to explore the Fill Color palette and apply a color:



A Click the **Fill Color menu** button ▾ to display the palette and slowly move the mouse pointer around the various colors, pausing on a few.

When the mouse stops moving, a ScreenTip indicates the name of the color you are pointing at. The top row under Theme Colors gives you ten color options, with different shades for each in the column below.

B Choose **Blue, Accent 1, Darker 25%** (fifth column, fifth row).

4. With the range A3:E3 still selected, choose **Home→Font→Border** ▦ **menu button** ▾.
5. Choose **Thick Outside Borders** to apply a thick border around the selected range.
6. For the same range choose **Home→Font→Font Color** A **menu button** ▾ and choose **White, Background 1** (first column, first row).
7. Use the keyboard shortcut Ctrl+B to apply bold formatting.

Now that you have modified the headings, it's time to work on the titles.

8. Select **cell A1** and choose **Home→Font→Font Size menu button** ▾ and choose **18**.
9. Now select **cell A2** and choose **Home→Font→Increase Font Size** A^ two times to increase the font size to **14**.
10. Select the **range A1:A2** and then apply the **Blue, Accent 1, Darker 50%** (fifth column, sixth row) font color and **Bold** B formatting.
11. Select the **range A4:B13** and apply **Bold** B.
12. Click anywhere outside your data to deselect it.

	A	B	C	D	E
1	**Airspace Travel Company**				
2	**Monthly Customer Invoices**				
3	**First Name**	**Last Name**	**Provider**	**Destination**	**# of Guest**
4	Eric	Snow	Sunwind	Jamaica	2
5	Alison	Lobosco	Sunwind	Mexico	2

13. Save the workbook.

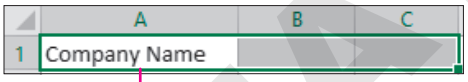
Cell Alignment

Excel's alignment tools let you adjust the arrangement of entries within cells. The default alignment for text data is left-aligned inside the cell, and the default for numerical data is right-aligned, as you can see in column E of your working file. The Alignment group on the Home tab provides you with the following options:

ALIGNMENT BUTTONS

Button	What It Does
	Aligns entries vertically at the top, middle, or bottom of cells
	Aligns entries horizontally at the left, center, or right of cells
	Decreases or increases the indent
	Wrap Text; splits long text entries into multiple lines
	Merge & Center; combines cells and centers content
	Adjusts the angle or rotation of your text

Merge & Center is a one-step method for simultaneously merging multiple cells into one cell and centering the content. This is often used for worksheet titles at the top of your sheet. You can also add an indent to the contents of a cell, which increases the distance of the text from the cell border. This adds more space, making it easier to read the data.



Before merging, with three cells selected

After Merge & Center is applied, one cell spans the three columns.

Home→Alignment | Right-click→Format Cells→Alignment

Clear Formatting and Clear All

You may want to keep the text in a cell or range but clear all formatting. This is easy to do with the Clear Formatting feature. You can also remove text and formatting at the same time with Clear All.

Home→Editing→Clear 

DEVELOP YOUR SKILLS: E1-D5

In this exercise, you will adjust the alignment for your headings and data, and use Merge & Center for your titles.

1. Save your workbook as: **`E1-D5-Invoices`**
2. Select the **range A3:E3** and choose **Home→Alignment→Wrap Text**.

   Wrap Text takes a long entry and splits it into multiple lines, increasing row height at the same time.
3. With the range A3:E3 still selected, choose **Home→Alignment→Middle Align**.
4. With the headings still selected, choose **Home→Alignment→Center**.
5. Select the **range E4:E13** (the number of guests data) and apply **Center** alignment.
6. Select the **range A1:E1**.
7. Choose **Home→Alignment→Merge & Center** (do not click the menu button ▾) to center the company name over the data below.
8. **Merge & Center** the **range A2:E2** to center the Monthly Customer Invoices subtitle.
9. Select the **range A4:A13** and choose **Home→Alignment→Increase Indent**.
10. Save the workbook.

Working with Numbers and Dates

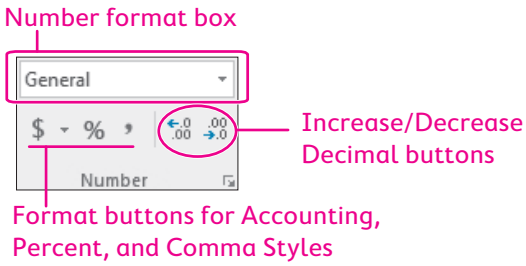
Because Excel is often used to perform calculations, it's important to know how to enter numerical data properly. A number entered into Excel can be formatted in many ways—with a dollar sign, percent symbol, decimals, or no decimals—but the numerical entry in the cell does not change. Typically, to enter a numerical value into a cell, you simply type in the digits and adjust formatting after.

The default number format is General, which has no specific format. When a number format is applied to a cell, it remains with the cell even if the contents are changed or deleted. Here are some basic number format examples:

Number	Format	Result
2317.25	General	2317.25
2317.25	Comma Style	2,317.25
2317.25	Currency	$2,317.25
2317.25	Accounting	$ 2,317.25
0.25	Percent	25%

Tip! *The differences between Currency and Accounting are the position of the $ sign and the indent from the right side of the cell.*

The number format for the current cell is visible in the Number Format box on the Ribbon.



Be aware that the numerical entry in the cell does not change when you increase or decrease the decimal (or when you change the number format). Doing so changes only the *appearance* of that number. Numbers with decimals can still have the decimals removed (decreased), but the number would then appear rounded up or rounded down from the actual entry, as shown in the following example. If the cell is used in a formula, the formula will use the actual numerical entry in the cell, *not the rounded number displayed on the screen*.

Number	Decimal Places	Result	
23.64	3	23.640	(extra zero)
23.64	2	23.64	(no change)
23.64	1	23.6	(rounded down)
23.64	0	24	(rounded up)

Home→Number | Right-click→Format Cells→Number

Negative Numbers

Working with negative numbers is no different from working with other numbers, except that there are more options for displaying the negative values. Negative numbers have the currency, comma, and decimal options, but they can also be represented by a – (minus) symbol, red digits, parentheses, or both red digits and parentheses.

-12	12	(12)	(12)

Formatting examples for negative twelve

Date Entries

Date formatting is another kind of number formatting. After a cell has a date entered into it, you can change the display without changing the actual cell entry. Excel can also use dates to perform calculations in a formula.

A date can be entered many ways, though the best way is to enter it in the format MM/DD for the current year or MM/DD/YY for any other year. For example, 10/15 would be entered for October 15 of the current year, and 10/15/18 would be entered for October 15, 2018.

DEVELOP YOUR SKILLS: E1-D6

In this exercise, you will enter two new columns of information using currency and date formatting.

1. Save your workbook as: **`E1-D6-Invoices`**
2. In **cell F3**, enter the heading **`Price Per Person`** and tap Tab.

   Notice the font, fill, and wrap text formatting are copied from the previous headings, but the border style is not.
3. Enter the heading **`Invoice Date`** in **cell G3**.
4. Select the **range F3:G3** and apply **Thick Outside Borders**.
5. In **cell F4**, type the digits **`899`** and tap Tab.
6. In **cell G4**, type **`9/8`** and then click **Enter** on the Formula Bar.

   The digits 9/8 are automatically converted to display 8-Sep. *In the Home→Number→Number Format box you can see the number format for cell G4 has changed to a Custom format.*
7. Continue entering data in **columns F** and **G** as shown, starting in **cell F5**.

   The number format of the Invoice Date column is adjusted for you as you enter the data, as it was in cell G4. You will adjust the number format for the Price Per Person column after you have entered all the data.

	F	G
5	770	9/7
6	1200	9/1
7	950	9/9
8	875	9/8
9	800	9/8
10	560	9/5
11	870	9/8
12	650	9/6
13	900	9/9

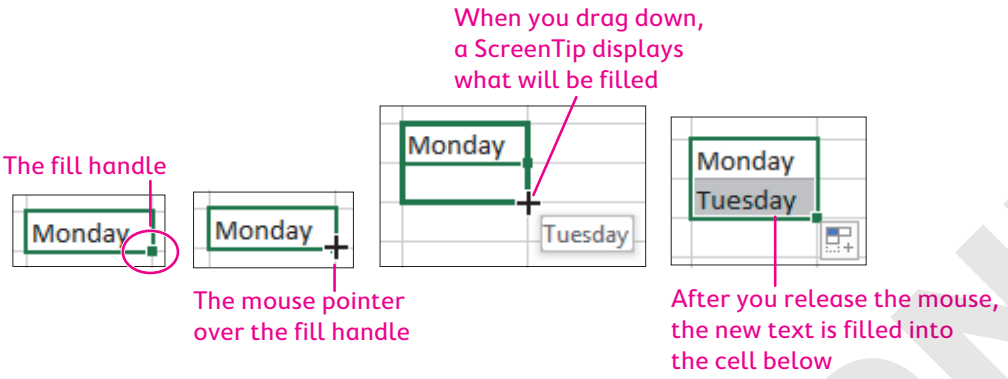
8. Select the **range F4:F13** (the cells with the prices you just entered).
9. Choose **Home→Number→Accounting** $ (not the menu button ▾) to apply the Accounting format to the selection.

   The prices now have a dollar sign, comma separator, and two decimal places. All the prices are even dollar amounts, so you can now eliminate the unnecessary decimals.
10. With the range F4:F13 still selected, choose **Home→Number→Decrease Decimal** twice.
11. Save the workbook.

Entering a Series Using AutoFill

When entering data into a worksheet, it is common to enter a series of data, which is a sequence of text, numbers, or dates. For example, you can enter a series of weekdays from Monday to Friday, a series of months from January to December, a series of numbers from 1 to 100, or a series of dates for the next two weeks.

Rather than type each item line by line, you only need to enter the first cell and then use AutoFill to quickly enter an entire column or row of data. To use AutoFill, you can drag the fill handle or double-click it (if there's adjacent data).



Depending on the type of information in the selected cell(s), the fill handle performs different actions, such as copying, creating a series, or filling in a list. These figures show examples of series created with the AutoFill tool, which you can also try to create on your own in a blank Excel workbook.

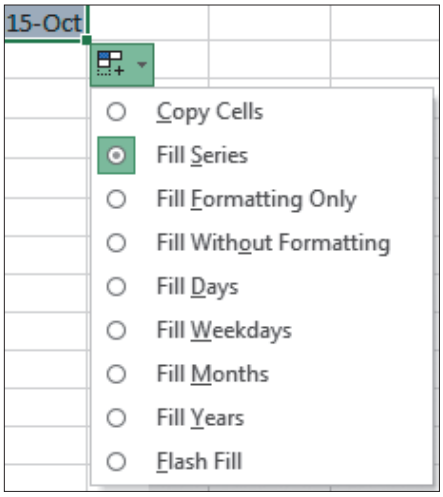
Starting cell	Monday	Wed	March	Jan	Invoice 200	1st Day	10-Oct
AutoFill Results	Tuesday	Thu	April	Feb	Invoice 201	2nd Day	11-Oct
	Wednesday	Fri	May	Mar	Invoice 202	3rd Day	12-Oct
	Thursday	Sat	June	Apr	Invoice 203	4th Day	13-Oct
	Friday	Sun	July	May	Invoice 204	5th Day	14-Oct
	Saturday	Mon	August	Jun	Invoice 205	6th Day	15-Oct

When more than one cell is selected, the AutoFill tool will copy the pattern Excel finds in the selected data.

Starting cells	Monday	Jan	1	100	01-Jun
	Wednesday	Apr	2	120	01-Jul
AutoFill Results	Friday	Jul	3	140	01-Aug
	Sunday	Oct	4	160	01-Sep
	Tuesday	Jan	5	180	01-Oct
	Thursday	Apr	6	200	01-Nov
	Saturday	Jul	7	220	01-Dec

After you use AutoFill, the AutoFill Options button appears below the filled cells. The AutoFill Options button allows you to modify the way the data was filled, and the options change depending

on the type of data that was filled. For example, after filling in a series of dates, the option allows you to choose either days, weekdays, months, or years.



View the video "Using AutoFill to Fill a Series."

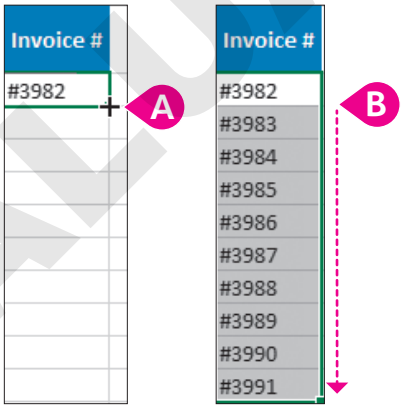
View the video "Using AutoFill Options."

DEVELOP YOUR SKILLS: E1-D7

In this exercise, you will enter invoice numbers for each customer using AutoFill.

1. Save your workbook as: **`E1-D7-Invoices`**
2. Type the column heading **`Invoice #`** in **cell H3** and tap Enter.
3. In **cell H4**, type **`#3982`** and then click **Enter** on the Formula Bar so cell H4 remains active.

   The invoice number for Eric's trip is #3982. Invoice numbers will continue in sequence counting up by one, so the next invoice will be #3983 and so on.
4. Follow these steps to use AutoFill to enter the rest of the invoice numbers:



   A In the active cell, place the mouse over the fill handle so the mouse pointer changes to the black cross.

   B Drag down to **cell H13** to fill in the rest of the series.

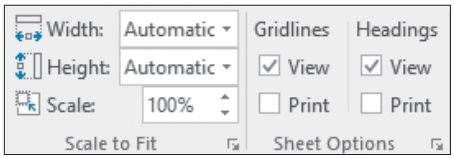
   The invoice numbers have now been entered for all customers, ending with #3991 in cell H13.
5. Save the workbook.

Printing Worksheets

Now that you've entered all the required information into the worksheet, you may want to print your data. Although printing is becoming less common in the digital age, there will certainly be times when you need a paper copy.

Printing a worksheet is simple, although sometimes adjustments need to be made so the cells, columns, and rows fit nicely on the page. To adjust the way your worksheet prints, you can use the Scale to Fit feature. This automatically resizes your content to print the desired number of pages.

Excel will not normally print the gridlines around the cells or the row and column headings, though you can change this setting in the Sheet Options group on the Page Layout tab of the Ribbon.



Because your workbook can contain multiple worksheets, there are three options for printing. In Backstage View you can choose from Print Active Sheets, which is the default option, Print Entire Workbook, which prints all worksheets in the workbook, or Print Selection, which will print only the currently selected cell(s).

- File→Print→Settings
- Page Layout→Scale to Fit
- Page Layout→Sheet Options

DEVELOP YOUR SKILLS: E1-D8

In this exercise, you will put the finishing touches on your worksheet. Then you will access the print preview and prepare your worksheet for printing.

1. Save your workbook as: **`E1-D8-Invoices`**
2. Select the **range A3:H3** and choose **Home→Font→Border menu button →No Border**.
   This removes all borders from the column headings so you can apply a border around all headings.
3. With the range A3:H3 still selected, choose **Home→Font→Border menu button → Thick Outside Borders**.
   Now you need to center the titles over the data, including the newly added columns.
4. In **row 1** select the **range A1:H1** and choose **Home→Alignment→Merge & Center** twice.
   The first click of Merge & Center removes the merge formatting from the first five columns; the second click applies the merge formatting across all eight columns.
5. Select the **range A2:H2** and, again, choose **Home→Alignment→Merge & Center** twice.
   Both titles should now be centered over your data.

Change Print Options

6. Choose **File→Print** to access the print preview.

   Notice the document will print on one page, with the Invoice # column appearing at the right side of the page. If more columns of data were added they would print on a separate page. Also notice that the gridlines, which are the lines around the individual cells on the worksheet, do not print, nor do the row or column headings (A, B, C, 1, 2, 3, etc.).

7. Click **Back** to return to your worksheet.

   You will now see a dashed line between column H and column I, which indicates the print area for your worksheet. Next you will select an area of the sheet to print.

8. Select the **range A1:H8** (the titles, headings, and data for the first five customers) and then choose **File→Print** to access print preview again.

9. In the Settings section, choose **Print Active Sheets→Print Selection**.

   The print preview changes to show that the print area will include only the first five customers now.

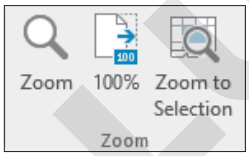
10. In the Settings section, choose **Portrait Orientation→Landscape Orientation**.

    The printout will be much easier to read now, with the page turned to Landscape. Do not print at this time.

11. Save the workbook.

Zoom Tools

You may want to adjust the view to focus on one area of your worksheet, or you may want to get a broad view of the entire worksheet. The Zoom tools allow you to increase or decrease the magnification of your worksheet so you can see more or less of the worksheet at one time. Changing the view does not change how the worksheet will print. You can select a range of cells and click Zoom to Selection to focus on just that area of the worksheet, or you can jump back to 100% view to see your work in "real" size.



The Zoom tools on the Ribbon allow you to customize magnification settings.

The Zoom slider on the status bar allows you to make quick adjustments by clicking + or –.

View→Zoom

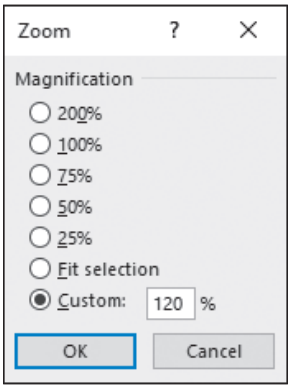
DEVELOP YOUR SKILLS: E1-D9

In this exercise, you will use the Zoom tools to focus on different areas of the worksheet.

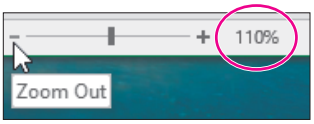
1. Save your workbook as: **`E1-D9-Invoices`**
2. Select the customer invoice data in the **range A3:H13**.
3. Choose **View→Zoom→Zoom to Selection**.

   Your screen view will magnify so the range fills the entire screen; the exact zoom level will depend on your screen size.
4. Choose **View→Zoom→100%**.

   This returns the worksheet to its actual size.
5. Choose **View→Zoom→Zoom**.
6. In the Zoom dialog box, choose **Custom**, type **`120`** in the % box, and click **OK**.



   Another option for quickly adjusting Zoom level is to use the Zoom slider on the status bar on the bottom-right side of the Excel window.
7. On the Zoom slider, click **Zoom Out** to reduce the magnification to 110%.



   When you save a file, it also saves the zoom settings so it will display the same the next time the file is opened.
8. Save the workbook.

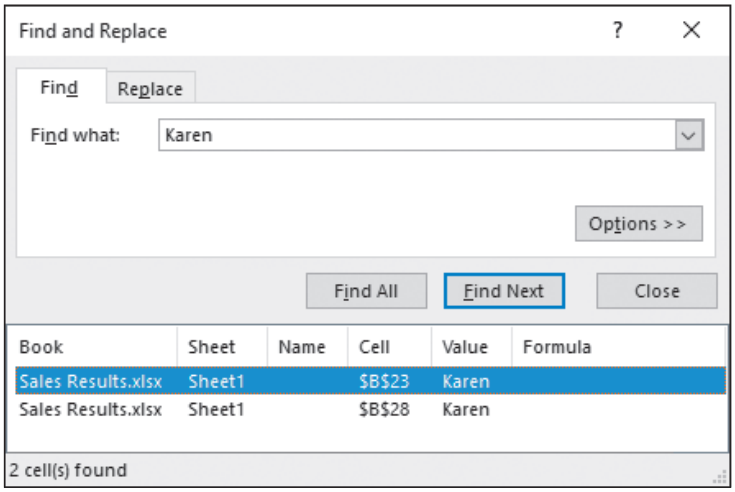
Other Navigation Methods

Navigating a worksheet is simple using the mouse, scroll bar, and keyboard keys. However, as your workbook becomes larger and more complex, you may want other, faster methods of finding information.

Find

If you are looking for specific text or values, you can use the Find feature. Find searches within the worksheet to find the text or number provided, and the results show the exact cell location where the item is found. The results also show the entire cell value where the search string was found and can

be used to navigate to that cell. Other options include searching for formatting; searching the entire workbook; and searching formulas, values, or comments.



In this example, to find Karen's sales, searching for *Karen* shows two results in the Sales Results workbook on Sheet 1, in cells B23 and B28.

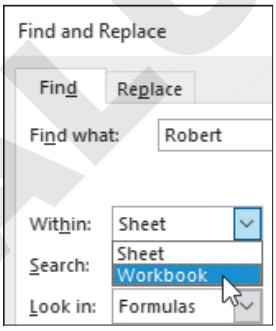
Home→Editing→Find & Select

DEVELOP YOUR SKILLS: E1-D10

In this exercise, you will use Find to search through the workbook.

1. Save your workbook as: **`E1-D10-Invoices`**
2. Choose **Home→Editing→Find & Select →Find**.
3. Type **`David`** in the Find What box and then click **Find All**.

   The result shows one cell found and the active cell jumps to cell A12, which contains David.
4. Click **Options >>** in the Find and Replace dialog box.
5. Beside the word *Within*, click **Sheet** to expand the options and select **Workbook**.

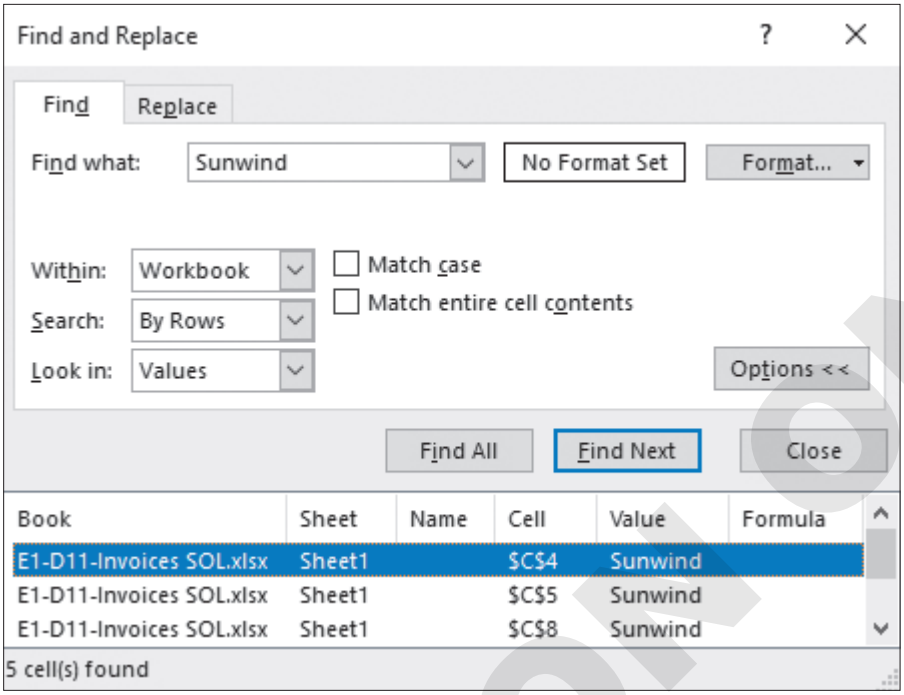


6. Click **Find All**.

   The result still shows just one cell found with David's name, since there are no other sheets in the workbook.

7. To start a new search, type **`Sunwind`** in the Find What box and click **Find All**.

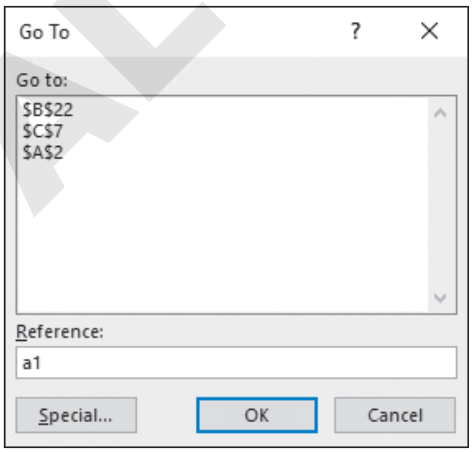
   The results now show all cells that contain Sunwind *to help you find the customers who are using that provider. For this search, five applicable cells are found.*



8. Scroll to the bottom of the results and click the last one; this takes you to **cell C13**, beside *Amanda Campbell*.
9. Close the Find and Replace dialog box.
10. Save the file.

Go To or the Name Box

The Go To command can be useful if you know the cell location you want to move to. Rather than scrolling, you can jump directly to that cell. The Go To dialog box will also show as many as four recently used cell locations should you need to go back to that spot again. If the workbook contains cells with defined names, you will see them listed in the Go To dialog box, which you can use to jump to that cell.



Here you can enter your desired cell location into the Reference box. Keep in mind cell references are not case-sensitive, so you can use either upper- or lowercase letters.

The Name box can also be used like the Go To command. Simply type the cell you want to jump to in the Name box and tap Enter to move to that cell.

DEVELOP YOUR SKILLS: E1-D11

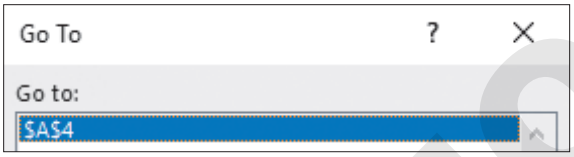
In this exercise, you will use Go To to navigate the workbook.

1. Save your workbook as: **`E1-D11-Invoices`**
2. Choose **Home→Editing→Find & Select→Go To**.
3. In the Go To dialog box, type **`a4`** in the Reference box and click **OK**.

   The selected cell is now cell A4, where the customer data begins below the headings.
4. Choose **Home→Editing→Find & Select→Go To** again.
5. This time, below Reference type **`as700`** and then click **OK** or tap Enter.

   Now you have the cell selected in column AS, row 700! As you can see, you can jump to any cell in the entire workbook, even cells that contain no data.
6. Choose **Home→Editing→Find & Select→Go To** once more.

   You will see a list including some of the recent cell locations you have searched for.



7. Click the cell reference **A4** in the **Go To** list and then click **OK**.
8. Save your work and close Excel.

Self-Assessment

Check your knowledge of this chapter's key concepts and skills using the Self-Assessment in your ebook or online (eLab course or Student Resource Center).

Reinforce Your Skills

REINFORCE YOUR SKILLS: E1-R1

Enter Data and Format a Worksheet

Kids for Change is a nonprofit organization that helps minors participate in and organize community service, fundraisers, and social events. In this exercise, you will create a worksheet that will allow Kids for Change to list the items required for purchase for an upcoming charity event.

1. Start Excel, open a new Blank Workbook, and save it in your **Excel Chapter 1** folder as: **`E1-R1-Purchases`**
2. In **cell A1**, type **`Kids for Change`** and tap Enter.
3. In **cell A2**, type **`Items for Purchase`** and tap Enter.
4. Enter these headings across the **range A3:D3**:

3	Item Name	Order By	Quantity	Price

5. In **rows 4–8**, enter these items for purchase:

4	T-shirts	5/12/2020	200	12.99
5	Buttons	5/20/2020	100	6.50
6	Hamburgers	5/30/2020	45	9.29
7	Buns	5/30/2020	45	2.19
8	Water	5/30/2020	12	1.99

Remember, number formatting affects the appearance of some numbers; for example, 6.50 will display as 6.5 with the General number formatting applied to the cell (that is, until the number formatting is changed in a later step).

Format the Worksheet

6. Select **column A**, choose **Home→Cells→Format→Column Width**, and set the width to: **`12`**
7. Select the **range A1:A2** and then choose **Home→Font→Font Color menu button → Standard Purple**.
8. With the titles still selected, choose **Home→Font→Increase Font Size** two times so it is set to 14 points and then press Ctrl+B to apply bold formatting.
9. Select the **range A3:D3** and then choose **Home→Font→Fill Color menu button → Blue, Accent 5, Lighter 60%** (ninth column, third row).
10. With the same range selected, apply the Standard Purple font color and bold formatting.
11. With the headings still selected, choose **Home→Alignment→Center** to center the headings.
12. Select the **range B4:B8** and choose **Home→Number→Number Format→Long Date**.

    The day of the week is important, so now you can see the day displayed in the cells.
13. Select the **range D4:D8** and apply the Accounting number format.
14. Save the workbook.

REINFORCE YOUR SKILLS: E1-R2

Fill a Series of Purchase Numbers

In this exercise, you will fill in purchase order numbers using a series and adjust print settings.

1. Save your workbook as: **`E1-R2-Purchases`**
2. In **cell E3**, enter the heading **`Purchase #`** and tap Enter.
3. In **cell E4**, type **`#335`** and click **Enter** ✓.
4. Use the **fill handle** in **cell E4** to fill the series of purchase numbers down the column.
5. Use AutoFit to adjust the width of **column E** so the column heading is fully visible.
6. Select the **range E4:E8** and change the cell alignment to Align Right.
7. Go to the print preview and, under Settings, adjust the page orientation to Landscape, but do not print at this time.
8. Save and close the workbook.

REINFORCE YOUR SKILLS: E1-R3

Create and Format a Worksheet

In this exercise, you will help Kids for Change track the funds raised during one of its charity events.

1. Open a new Blank Workbook and save it in your **Excel Chapter 1** folder as: **`E1-R3-Pledges`**
2. Beginning in **cell A1**, enter this data:

	A	B	C	D
1	Kids for Change			
2	Summer Charity Race			
3	Participant	Sign-up Date	Pledges	Miles Run
4	Shelly Mundt	4/23	5	25
5	Pauline Alvarado	4/25	12	15
6	Chris Driedger	4/2	14	10
7	Korey Rhynold	3/29	19	15
8	Kimberly Ayres	4/17	23	5
9	Glenn Edwards	4/3	17	25
10	Inga Maier	4/12	12	10

3. Use AutoFit to resize **columns A–B**.
4. In **cell E3**, enter the heading **`Bib #`** and tap Enter.
5. In **cell E4**, type **`KCSCR410`** and then use **AutoFill** to complete the series of bib numbers.
6. In **cell F3**, enter the heading: **`Total Raised`**

   Each participant gathers pledges from donors, so you will enter the total raised by each participant in column F.

7. Starting in **cell F4**, enter this data in the **range F4:F10**:

	F
4	125
5	180
6	140
7	285
8	115
9	425
10	120

8. Select the total raised figures in the **range F4:F10** and apply the Currency number format.
9. Resize **column F** to make it wide enough to fit the column heading.
10. Select the **range B4:B10** and apply the Short Date format.
11. Select the **range C4:D10** (the data for Pledges and Miles Run) and center-align the data.
12. Select the **range A1:F1** and apply Merge & Center.
13. Merge and center the **range A2:F2**.
14. Select the **range A1:F3** (titles and headings) and apply the **Standard Dark Blue** fill color.
15. With the same range selected, apply the **White, Background 1** font color.
16. Save the workbook and close Excel.

Apply Your Skills

APPLY YOUR SKILLS: E1-A1

Enter Data and Format a Worksheet

You work for Universal Corporate Events, a meeting and event planning service that hosts and organizes company meetings, retreats, and parties. The company is expanding! In this exercise, you will prepare a spreadsheet to compare available office space for a second office.

1. Start Excel, open a new Blank Workbook, and save it in your **Excel Chapter 1** folder as: **`E1-A1-Listings`**
2. Beginning in **cell A1**, enter this data:

	A	B	C	D	E
1	Universal Corporate Events				
2	Potential Office Space				
3	Address	Building Class	List Date	Square Ft	Monthly Rent
4	3100 Sycamore Lane	A	7/21	1200	2500
5	1812 Broadway	A	3/17	1050	2250
6	21 King Street	B	5/22	1450	1875
7	6801 Delamere Way	C	7/16	1700	2150
8	48 Franklin Blvd.	B	5/30	920	1500

3. Select the **range A3:E3** and apply Wrap Text format.
4. With the headings still selected, apply Middle Align and Center.
5. Adjust the column width for **column A** to exactly **18.00**.
6. Select the **range B4:B8** and apply Center alignment.
7. Select the **range E4:E8** and apply the Accounting number format; then remove both decimal places.
8. Select **cell A1** and increase the font size to **18**.
9. Select **cell A2** and increase the font size to **14**.
10. Select the **range A3:E3** and increase the font size to **12**.
11. With the headings still selected, apply the **Gold, Accent 4** fill color.
12. Select the **range A1:E3** and apply bold formatting.
13. Save the workbook.

APPLY YOUR SKILLS: E1-A2

Create a Schedule Using AutoFill

In this exercise, you will enter more data and create a schedule of days for Universal Corporate Events to view the new office space.

1. Save your workbook as: **`E1-A2-Listings`**
2. In **cell F3**, enter the heading: **`Maint. Fees`**

3. Starting in **cell F4**, enter this data for the maintenance fees:

	F
4	100
5	90
6	75
7	86
8	60

4. In **cell G3**, enter **`View On:`** as the heading.

   Each day next week you will view a different property, so you will enter the day of the week for each viewing in column G.

5. In **cell G4**, enter **`Monday`** and then use the fill handle to fill in the days of the week from Tuesday to Friday in the **range G5:G8**.
6. Select the **range F4:F8** and apply the Accounting number format; then remove both decimal places.
7. Adjust the column width for **column G** to AutoFit the contents.
8. Select the **range A3:G3** and apply a Top and Bottom border.
9. Save and close the workbook.

APPLY YOUR SKILLS: E1-A3

Create a Financial Report

In this exercise, you will enter data for clients who have booked events with Universal Corporate Events and then format the information appropriately.

1. Open a new Blank Workbook and save it in your **Excel Chapter 1** folder as: **`E1-A3-Income`**
2. Beginning in **cell A1**, enter this data:

	A	B	C	D
1	Universal Corporate Events			
2	June Income Forecast			
3	Client	Event	Event Date	Fee
4	Green Clean	Staff Party	6/13	480
5	Kids for Change	Training	6/18	325
6	Blue Jean Landscaping	Training	6/14	550
7	Stormy BBQ	Team Building	6/23	750
8	Winchester Web Design	Staff Party	6/17	300
9	iJams	Training	6/21	450

Format the Worksheet

3. Use AutoFit to adjust all four **columns A–D**.
4. Select the **range A3:D3** and apply Center alignment; then apply the Fill Color **Gold, Accent 4**.

5. Increase the font size of **cell A1** to **18** and the font size of **cell A2** to **14**.
6. Select the **range A1:D3** and apply Bold format.
7. Select the **range D4:D9** and apply Accounting number format.
8. Select the **range A3:D3** and apply a Top and Bottom Border.
9. Change the page layout orientation to Landscape.
10. Save the workbook and close Excel.

Project Grader

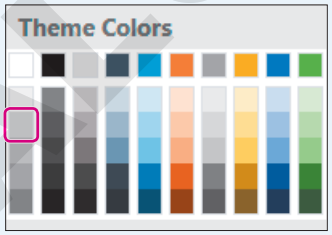
If your class is using eLab (labyrinthelab.com), you may upload your completed Project Grader assignments for automatic grading. You may complete these projects even if your class doesn't use eLab, though you will not be able to upload your work.

PROJECT GRADER: E1-P1

Creating an Inventory Tracking Spreadsheet

Taylor Games creates replacement parts for many different games as well as various types of dice. In this exercise, you will prepare a spreadsheet to manage inventory for various items.

1. Download and open your Project Grader starting file.
   - *Using eLab:* Download **E1_P1_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
   - *Not using eLab:* Open **E1_P1_Start** from your **Excel Chapter 1** folder.
2. Use AutoFit to adjust the width of **column A** so that all text is visible within the column.
3. In **cell A1**, enter the text: **`Inventory`**
4. Apply 14 pt and Bold text formatting to **cell A1**.
5. Enter today's date in **cell A2** using the MM/DD/YY format.
6. Clear formatting from the **range A5:C5**.
7. Use Autofill to create a sequential list of SKUs in column B starting with **cells B5** and **B6** and continuing down to **cell B19**.
8. Apply the Accounting number format to the **range D5:D19**.
9. Apply Align Left cell alignment to **cells A2** and **A4**.
10. Apply Align Right cell alignment to the **range B4:D4**.
11. Apply Bold text formatting to **cell A2** and to the **range A4:D4**.
12. Apply a thick bottom border to the **range A4:D4**.
13. Apply the Fill Color **White, Background 1, Darker 15%** to the **range A4:D4**.



14. Set the widths of **columns B**, **C**, and **D** to: **`10`**
15. Save your workbook.
    - *Using eLab:* Save it to your **Excel Chapter 1** folder as **`E1_P1_eSubmission`** and attach the file to your eLab assignment for grading.
    - *Not using eLab:* Save it to your **Excel Chapter 1** folder as: **`E1_P1_Submission`**

PROJECT GRADER: E1-P2

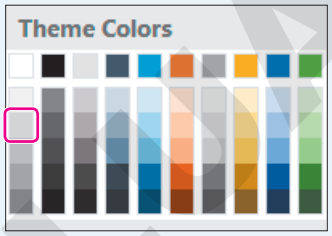
Classic Cars Club New Members List

In this exercise, you will update and format a spreadsheet with recently added New Members.

1. Download and open your Project Grader starting file.
   - *Using eLab:* Download **E1_P2_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
   - *Not using eLab:* Open **E1_P2_Start** from your **Excel Chapter 1** folder.
2. In **cell A1**, change the word *Car* to: **`Cars`**
3. In **cell A2**, insert the text: **`New Members`**
4. Apply these text formats:

Location	Format
Cell A1	Font Size 14, Bold
Cell A2	Font Size 12, Bold
Range A4 I4	Bold

5. Apply Short Date number formatting to the **range H5:H34**.
6. Apply the Accounting number format to the **range I5:I34**, and then decrease the decimals until no decimals are displayed.
7. Set the widths of **columns A**, **H**, and **I** to: **`16`**
8. Apply Align Right cell alignment to **cells F4** and **I4**.
9. Apply the following formats to the **range A4:I4**:
   - Thick bottom border
   - Fill Color: White, **Background 1, Darker 15%**



10. Save your workbook.
    - *Using eLab:* Save it to your **Excel Chapter 1** folder as **`E1_P2_eSubmission`** and attach the file to your eLab assignment for grading.
    - *Not using eLab:* Save it to your **Excel Chapter 1** folder as: **`E1_P2_Submission`**

Extend Your Skills

These exercises challenge you to think critically and apply your new skills in a real-world setting. You will be evaluated on your ability to follow directions, completeness, creativity, and the use of proper grammar and mechanics. Save files to your chapter folder. Submit assignments as directed.

E1-E1 That's the Way I See It

You would like to take control of your personal finances, and with your newly learned Excel skills you are going to make yourself a monthly budget. Start a new workbook and save it as: **E1-E1-Budget**

Create a title with your name at the top of your worksheet. Below the title, insert **Monthly Budget** and then next to that cell enter the total amount of money you have to spend each month for items like food, rent, and entertainment. Leave one blank row, then in row 4 create three column headings: **Expense**, **Budget Amount**, and **Actual Amount**. Leave two blank cells in row 5 below Expense and Budget Amount. Below Actual Amount, enter the months of the year across 12 columns so you can track expenses for the whole year. In the next row, begin entering labels for your expenses and how much you might spend on that item. Leave the Actual Amount columns blank; you can enter that at the end of each month to compare to your budget amount. Include at least five expenses, such as rent, groceries, and transportation. Adjust the column widths as necessary and apply appropriate formatting of your choice.

E1-E2 Be Your Own Boss

As the owner of Blue Jean Landscaping, a landscaping business that saves its customers money by having them help with the physical labor, you need to create an inventory list of equipment you own for your insurance company. Your insurance company has asked that specific information be included, specifically the item name, value, and number of each item.

Create a new blank workbook named **E1-E2-Equipment** and set up your worksheet with the company name and the title *Equipment Inventory*, followed by the column headings. Fill in the list with eight to ten items that are standard equipment for a landscape company, such as rakes, wheelbarrows, and shovels (do an online search if necessary). List their approximate value and how many you own. Format the value with dollar signs and apply other formatting as you see fit. Make the worksheet look professional, as you will be submitting this to the insurance company, and your Excel worksheet will represent your company.

E1-E3 Demonstrate Proficiency

Stormy BBQ is a restaurant known for its high-quality, locally grown and sourced ingredients. The owner of the company wants you to create an Excel spreadsheet that can be used to track customer information.

Start a new workbook named **E1-E3-Customers** that uses the company name as the title at the top of your worksheet and the subtitle **Customer Database** below the title. Create column headings such as First Name, Last Name, Email, and Phone Number. Be sure to also include columns to record the dates of the first and last order for each customer so customer loyalty can be tracked. Make formatting changes as you see fit.