CALIFORNIA STATE UNIVERSITY, LOS ANGELES
INFORMATION TECHNOLOGY SERVICES

Microsoft Excel 2013
Part 1: Introduction to Excel

Summer 2014, Version 1.0

Table of Contents

Introduction

Microsoft Excel 2013 is a spreadsheet program that is used to manage, analyze, and present data. It includes many powerful tools that can be used to organize and manipulate large amounts of data, perform complex calculations, create professional-looking charts, enhance the appearance of worksheets, and more. This handout provides an overview of the Excel 2013 user interface and covers how to perform basic tasks such as starting and exiting the program; creating, saving, opening, and closing workbooks; selecting cells; entering and editing data; formatting text and numbers; positioning cell contents; applying cell styles; and getting help.

Starting Excel

You can start Excel 2013 from the Start menu (in Windows 7) or by double-clicking an existing Excel file. When you start the program without opening a specific file, the *Start* screen appears, prompting you to open an existing workbook or create a new workbook.

To start Excel 2013 from the Start menu:
1. Click the **Start** button, click **All Programs**, click **Microsoft Office 2013**, and then click **Excel 2013**. The **Start** screen appears (see Figure 1).
2. In the right pane, click **Blank workbook**. A new, blank workbook opens in the program window.
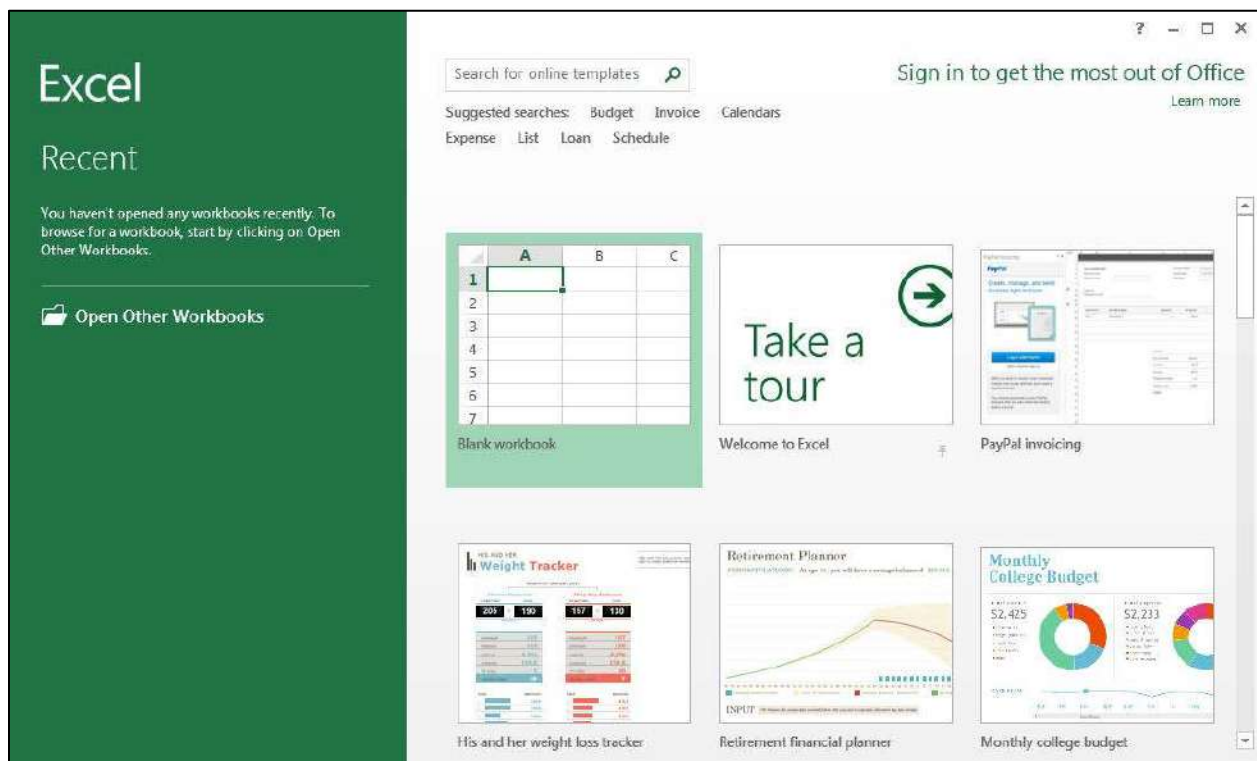

Figure 1 – Excel 2013 Start Screen

Overview of the User Interface

All the Microsoft Office 2013 programs share a common user interface so you can apply basic techniques that you learn in one program to other programs. The Excel 2013 program window is easy to navigate and simple to use (see Figure 2 and Table 1).
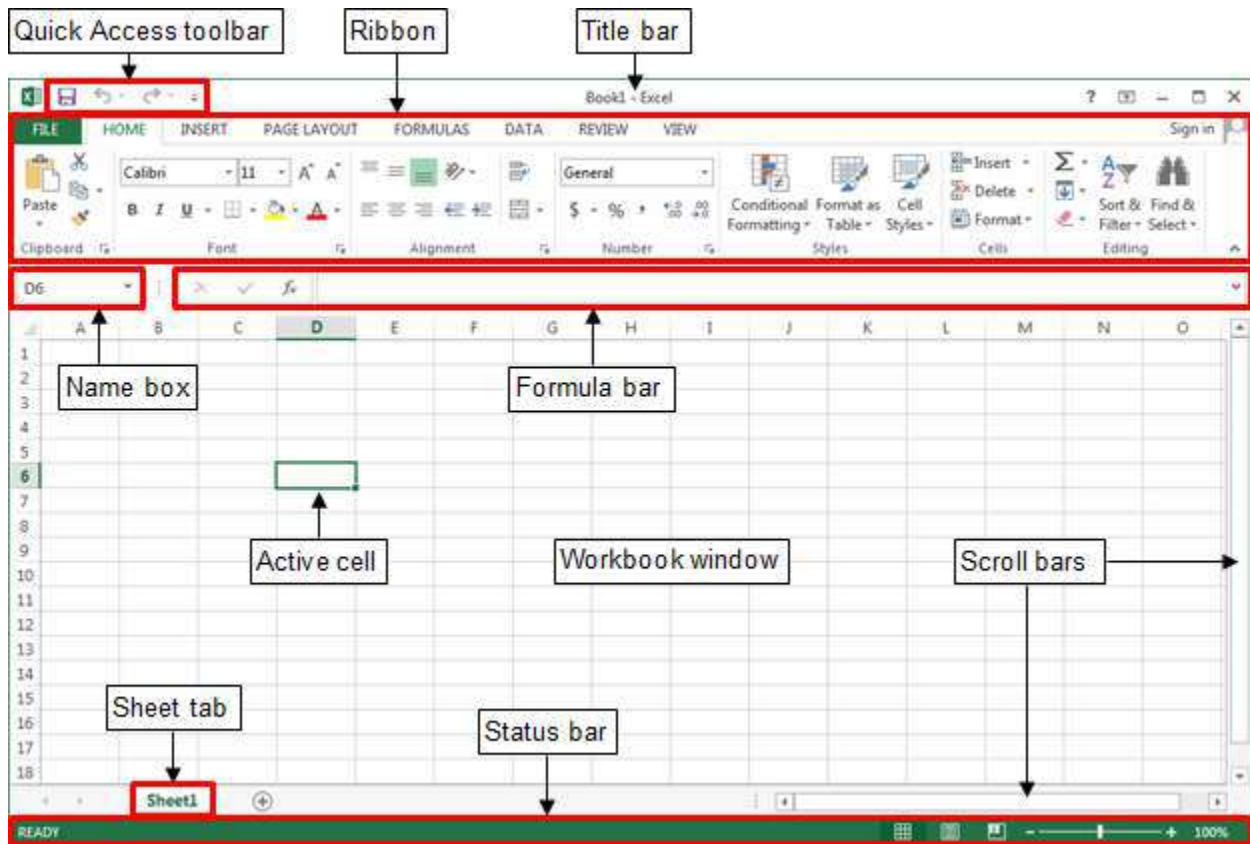
Figure 2 – Excel 2013 Program Window

Table 1 – Excel 2013 Program Window Elements

Name	Description
Title bar	Appears at the top of the program window and displays the name of the workbook and the program. The buttons on the right side of the Title bar are used to get help; change the display of the Ribbon; and minimize, restore, maximize, and close the program window.
Quick Access toolbar	Appears on the left side of the Title bar and contains frequently used commands that are independent of the tab displayed on the Ribbon.
Ribbon	Extends across the top of the program window, directly below the Title bar, and consists of a set of tabs, each of which contains groups of related commands.
Formula bar	Appears below the Ribbon and displays the data or formula stored in the active cell. It can also be used to enter or edit cell contents.
Name box	Appears on the left side of the Formula bar and displays the active cell address or the name of the selected cell, range, or object.
Workbook window	Appears below the Formula bar and displays a portion of the active worksheet.
Sheet tab	Each worksheet has a tab that appears below the workbook window and displays the name of the worksheet.
Scroll bars	Appear along the right side and bottom of the workbook window and enable you to scroll through the worksheet.
Status bar	Appears at the bottom of the program window and displays the status of Excel (such as *Ready*). The tools on the right side of the Status bar can be used to display the worksheet in a variety of views and to change the zoom level.

Ribbon

The *Ribbon* is designed to help you quickly find the commands that you need to complete a task. It consists of a set of task-specific tabs (see Figure 3 and Table 2). The standard tabs are visible at all times. Other tabs, known as *contextual tabs*, appear only when you create or select certain types of objects (such as images or charts). These tabs are indicated by colored headers and contain commands that are specific to working with the selected object. Clicking a tab displays a set of related commands that are organized into logical groups. Commands generally take the form of buttons and lists; some appear in galleries. Pointing to an option in most lists or galleries displays a live preview of that effect on the selected text or object. You can apply the previewed formatting by clicking the selected option, or you can cancel previewing without making any changes by pressing the *Esc* key. Some commands include an integrated or separate arrow. Clicking the arrow displays a menu of options available for the command. If a command on the Ribbon appears dimmed, it is unavailable. Pointing to a command on the Ribbon displays its name, description, and keyboard shortcut (if it has one) in a ScreenTip.

A *dialog box launcher* ⬜ appears in the lower-right corner of most groups on the Ribbon (see Figure 3). Clicking it opens a related dialog box or task pane that offers additional options or more precise control than the commands available on the Ribbon.

You can collapse the Ribbon by clicking the *Collapse the Ribbon* button ⬜ on the right side of the Ribbon (see Figure 3) or by double-clicking the current tab. When the Ribbon is collapsed, only the tab names are visible. You can expand the Ribbon by double-clicking any tab.
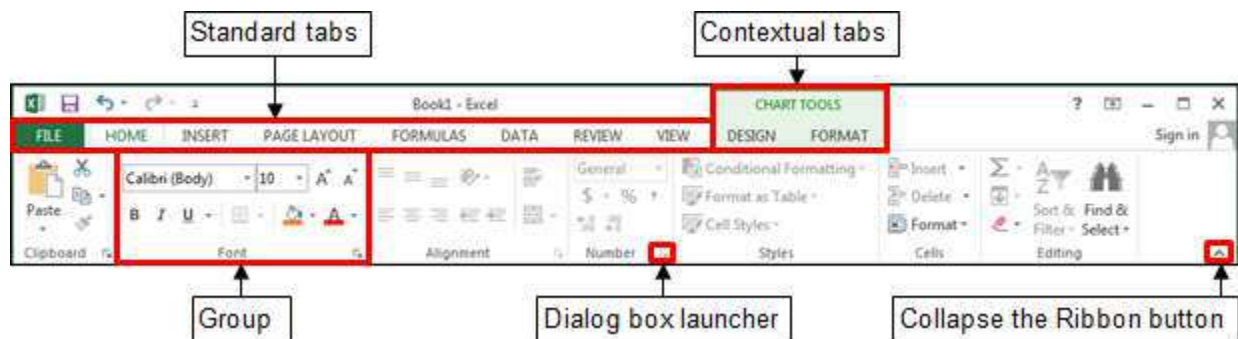

Figure 3 – Ribbon

Table 2 – Ribbon Tabs

Name	Description
File	Displays the Backstage view which contains commands related to managing files and customizing the program.
Home	Contains the most frequently used commands. The Home tab is active by default.
Insert	Contains commands related to all the items that you can insert into a worksheet.
Page Layout	Contains commands that affect the overall appearance and layout of a worksheet.
Formulas	Contains commands used to insert formulas, define names, and audit formulas.
Data	Contains commands used to manage data and import or connect to external data.
Review	Contains commands used to check spelling, track changes, add comments, and protect worksheets.
View	Contains commands related to changing the view and other aspects of the display.

Quick Access Toolbar

The *Quick Access* toolbar provides one-click access to commonly used commands and options. By default, it is located on the left side of the Title bar and displays the Save, Undo, and Redo buttons (see Figure 4). You can change the location of the Quick Access toolbar as well as customize it to include commands that you use frequently.

Figure 4 – Quick Access Toolbar

To add a command to the Quick Access toolbar:
1. On the **Ribbon**, right-click the command that you want to add, and then click **Add to Quick Access Toolbar** on the shortcut menu.

To remove a command from the Quick Access toolbar:
1. On the **Quick Access** toolbar, right-click the command that you want to remove, and then click **Remove from Quick Access Toolbar** on the shortcut menu.

NOTE: Clicking the arrow on the right side of the **Quick Access** toolbar displays a menu which includes additional commands and options that can be used to customize the toolbar. A check mark next to an item indicates that the item is selected (see Figure 5).
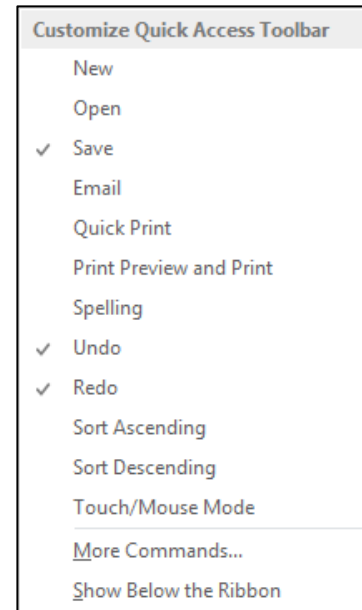

Figure 5 – Customize Quick Access Toolbar Menu

Mini Toolbar

The *Mini* toolbar provides quick access to frequently used commands and appears whenever you right-click a cell or an object (see Figure 6).

Figure 6 – Mini Toolbar

Shortcut Menus

Excel 2013 includes many shortcut menus that appear when you right-click an item. Shortcut menus are context-sensitive, meaning they list commands that pertain only to the item that you right-clicked (see Figure 7).
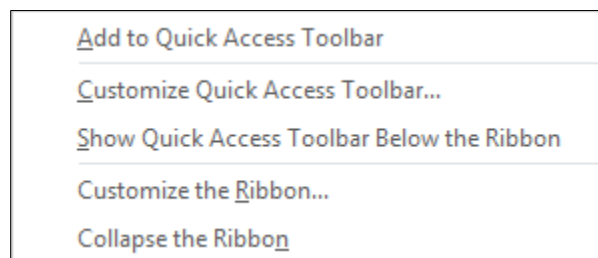

Figure 7 – Ribbon Shortcut Menu

Backstage View

The *File* tab (the first tab on the Ribbon) is used to display the *Backstage* view which contains all the commands related to managing files and customizing the program. It provides an easy way to create, open, save, print, share, export, and close files; view and update file properties; set permissions; set program options; and more. Commands available in the Backstage view are organized into pages which you can display by clicking the page tabs in the left pane.

To display the Backstage view:
1. Click the **File** tab on the **Ribbon** (see Figure 8).
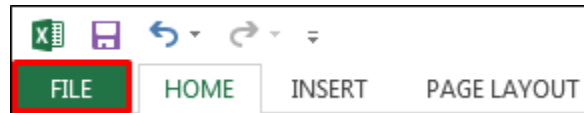
Figure 8 – File Tab

To exit the Backstage view:
1. Click the **Back** button in the upper-left corner of the **Backstage** view (see Figure 9). Or, press the **Esc** key.
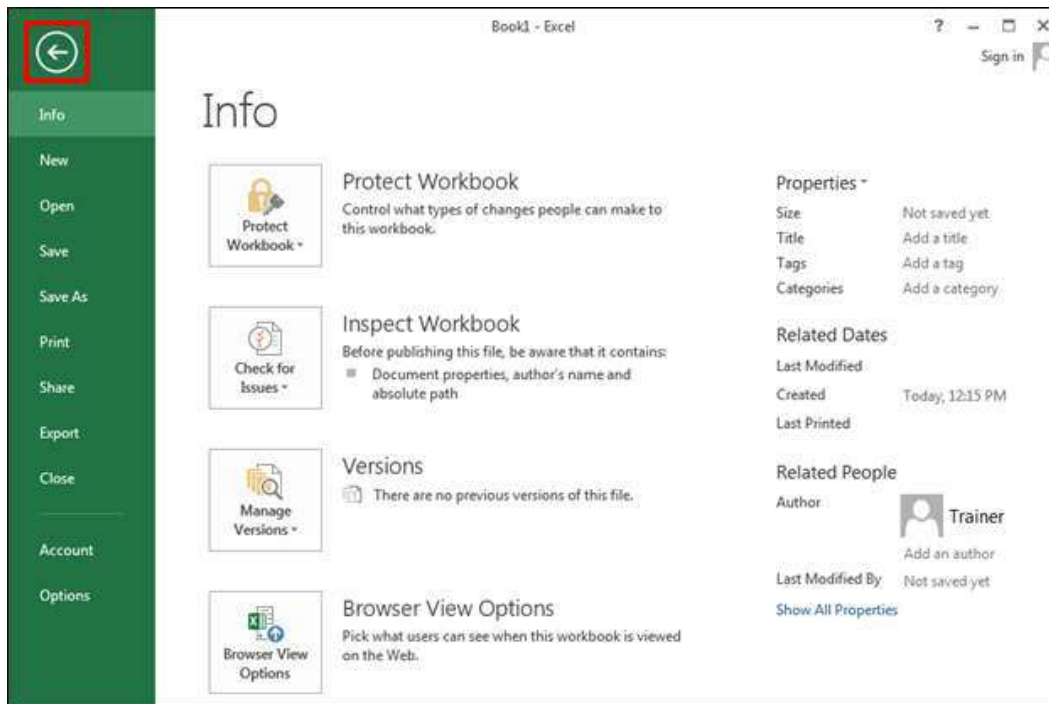

Figure 9 – Info Page of the Backstage View

Formula Bar

The *Formula* bar displays the contents of the active cell and can be used to enter or edit cell contents. The Formula bar contains three buttons (see Figure 10). The Insert Function button is always available, but the other two buttons are active only while you are entering or editing data in a cell. Clicking the *Cancel* button cancels the changes you make in the cell, which is the same as pressing the *Esc* key. Clicking the *Enter* button completes the changes you make in the cell, which is the same as pressing the *Enter* key. Clicking the *Insert Function* button opens a dialog box that helps you construct formulas.
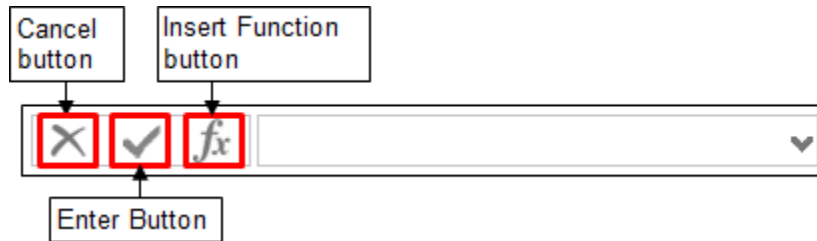
Figure 10 – Formula Bar

Overview of Workbooks

An Excel file is called a *workbook*. Each new workbook contains one blank *worksheet* (see Figure 11). You can add additional worksheets or delete existing worksheets as needed. By default, a new workbook is named *Book1* and the worksheet it contains is named *Sheet1*. Each worksheet consists of 1,048,576 rows (numbered 1 through 1,048,576) and 16,384 columns (labeled A through XFD). The box formed by the intersection of a row and a column is called a *cell*. Cells are used to store data. Each cell is identified by its address which consists of its column letter and row number (e.g., cell A1 is the cell in the first column and first row). A group of cells is called a *range*. A range is identified by the addresses of the cells in the upper-left and lower-right corners of the selected block of cells, separated by a colon (e.g., A1:C10). Only one cell can be active at a time. The *active cell* has a green border around it and its address appears in the Name box on the left side of the Formula bar. The row and column headers of the active cell appear in a different color to make it easier to identify. A worksheet also has an invisible *draw layer* which holds charts, images, and diagrams.
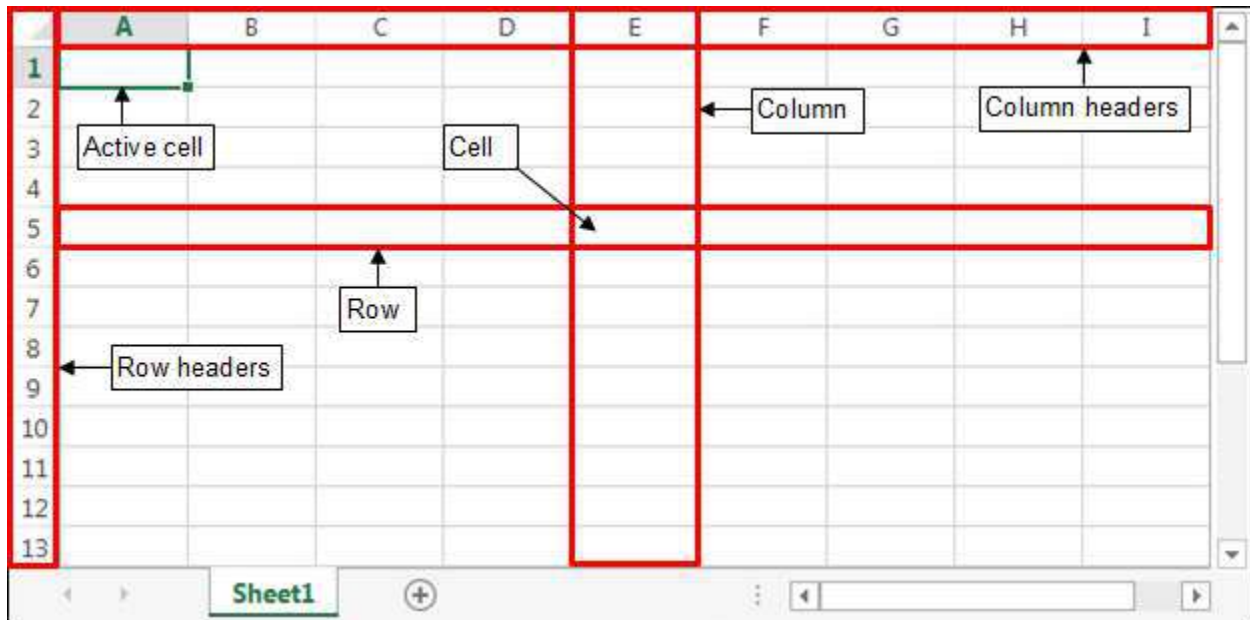

Figure 11 – Worksheet

Creating Workbooks

When you start Excel 2013 and click *Blank workbook* on the *Start* screen, a new workbook opens in the program window, ready for you to enter your data. You can also create a new workbook while Excel 2013 is running. Each new workbook displays a default name (such as *Book1*, *Book2*, and so on) on the Title bar until you save it with a more meaningful name.

To create a new workbook:
1. Click the **File** tab, and then click **New**. The **New** page of the **Backstage** view opens, displaying thumbnails of the available templates (see Figure 12).
2. In the right pane, click **Blank workbook**. A new, blank workbook opens in a new window.

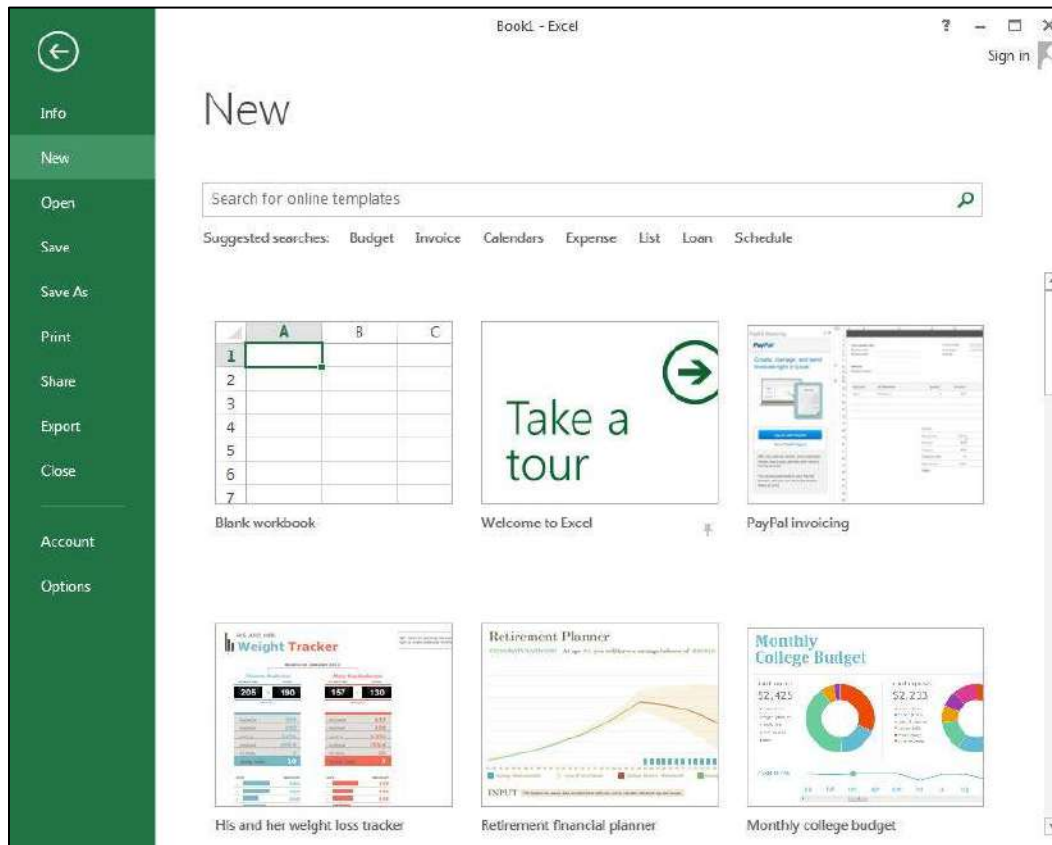NOTE: You can also create a new workbook by pressing **Ctrl+N**.

Figure 12 – New Page of the Backstage View

Saving Workbooks

After creating a workbook, you can save it on your computer. Use the *Save As* command when you save a workbook for the first time or if you want to save a copy of a workbook in a different location, with a different file name, or in a different file format. Use the *Save* command to save changes to an existing workbook.

NOTE: Excel 2013's file format is called *Excel Workbook* and is the same as Excel 2007 and 2010. This format has the *.xlsx* file extension and is not backward compatible with Excel versions prior to 2007. You can use Excel 2013 to save a workbook in the *Excel 97-2003 Workbook* format with the *.xls* file extension to make it compatible with earlier versions of Excel, but you will not have access to all of Excel 2013's features.

To save a workbook for the first time:
1. Click the **File** tab, and then click **Save As**. The **Save As** page of the **Backstage** view opens (see Figure 13).
2. Click **Computer** in the center pane, and then click the **Browse** button or a recent folder in the right pane.
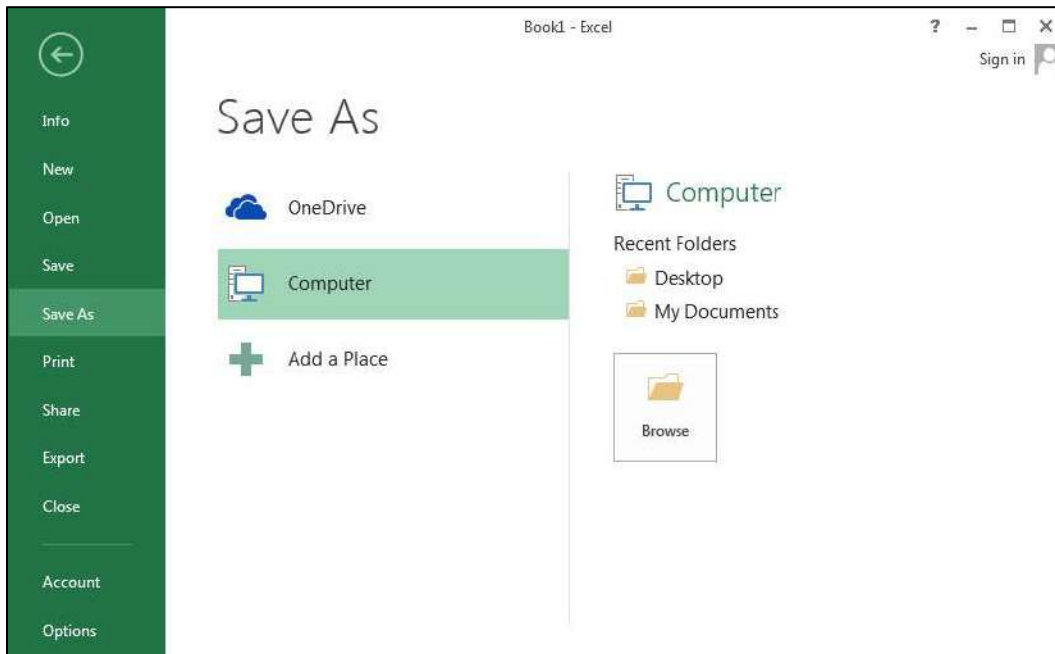
Figure 13 – Save As Page of the Backstage View

3. In the **Save As** dialog box, select a location to save the file, type a name in the **File name** box, and then click the **Save** button (see Figure 14).

   NOTE: By default, Excel 2013 workbooks are saved in the **Excel Workbook** format. To save a document in a different format, click the **Save as type** arrow and select the desired file format from the list.
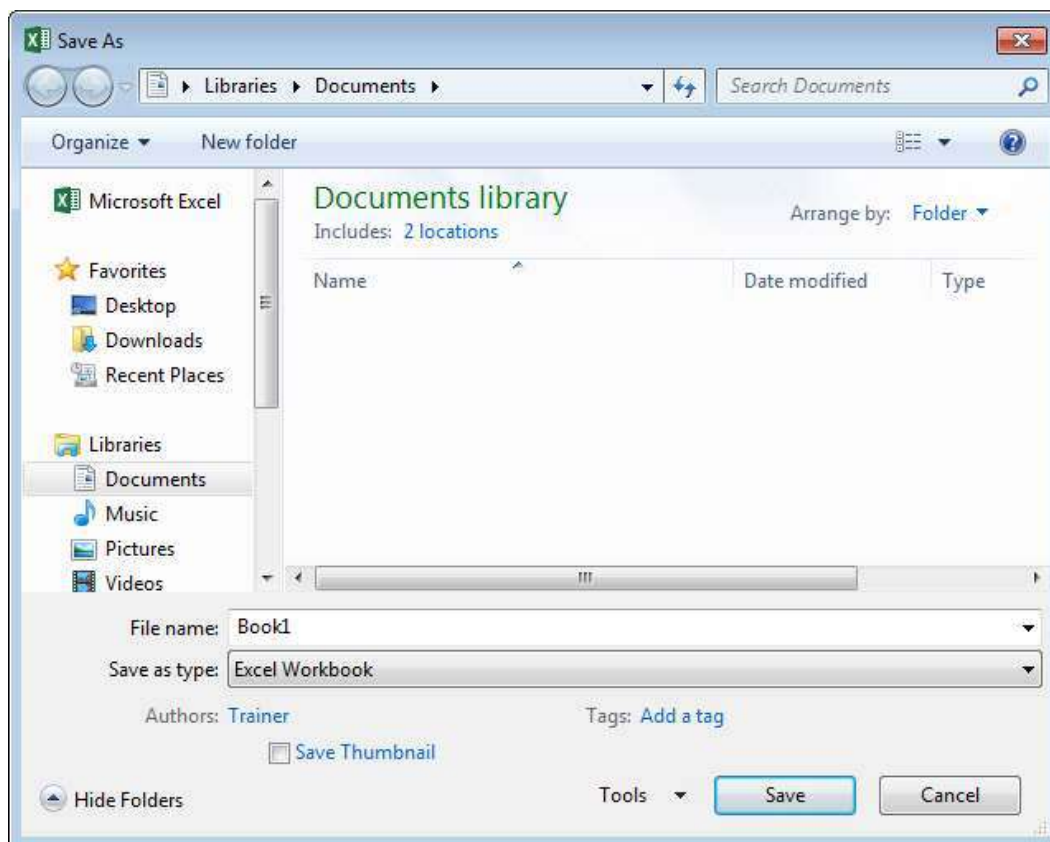

Figure 14 – Save As Dialog Box

To save changes to a workbook:
1. Do one of the following:
   - Click the **File** tab, and then click **Save**.
   - On the **Quick Access** toolbar, click the **Save** button ⊟.
   - Press **Ctrl+S**.

Closing Workbooks

When you finish working on a workbook, you can close it, but keep the program window open to work on more workbooks. If the workbook contains any unsaved changes, you will be prompted to save the changes before closing it.

To close a workbook without exiting Excel:
1. Click the **File** tab, and then click **Close**. Or, press **Ctrl+W**.

Opening Workbooks

You can locate and open an existing workbook from the Start screen when Excel 2013 starts or from the Open page of the Backstage view. The Start screen and the Open page also display a list of recently used workbooks which you can quickly open by clicking them. Each workbook opens in its own window, making it easier to work on two workbooks at once.

To open a workbook:
1. Click the **File** tab, and then click **Open**. Or, press **Ctrl+O**. The **Open** page of the **Backstage** view opens, displaying a list of recently used workbooks in the right pane.
2. If the workbook you want is in the **Recent Workbooks** list, click its name to open it. Otherwise, proceed to step 3.
3. Click **Computer** in the center pane, and then click the **Browse** button or a recent folder in the right pane (see Figure 15).
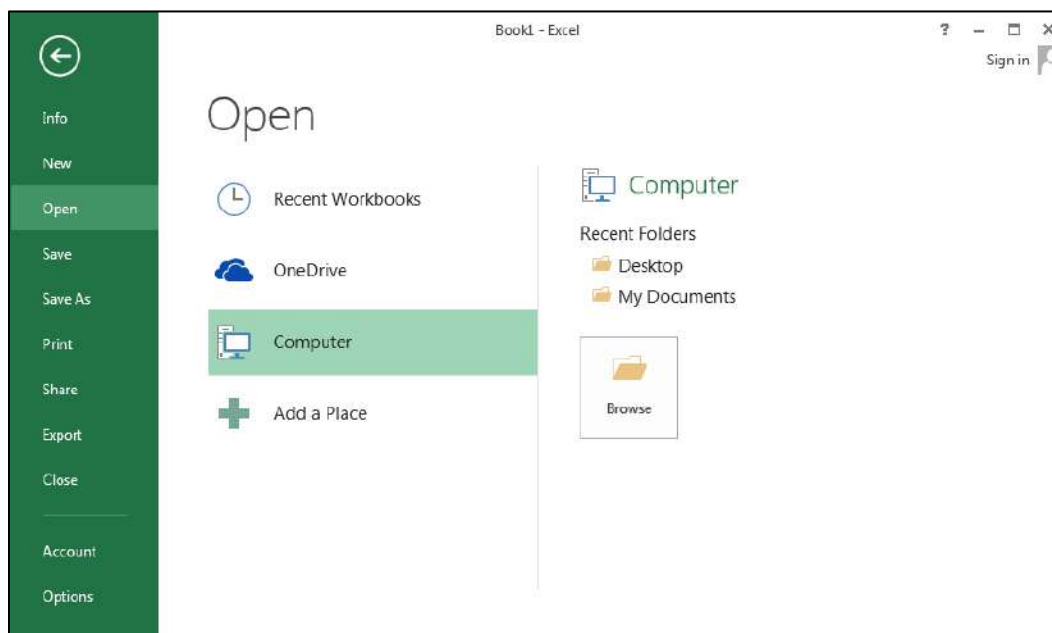

Figure 15 – Open Page of the Backstage View

4. In the **Open** dialog box, locate and select the file that you want to open, and then click the **Open** button (see Figure 16).
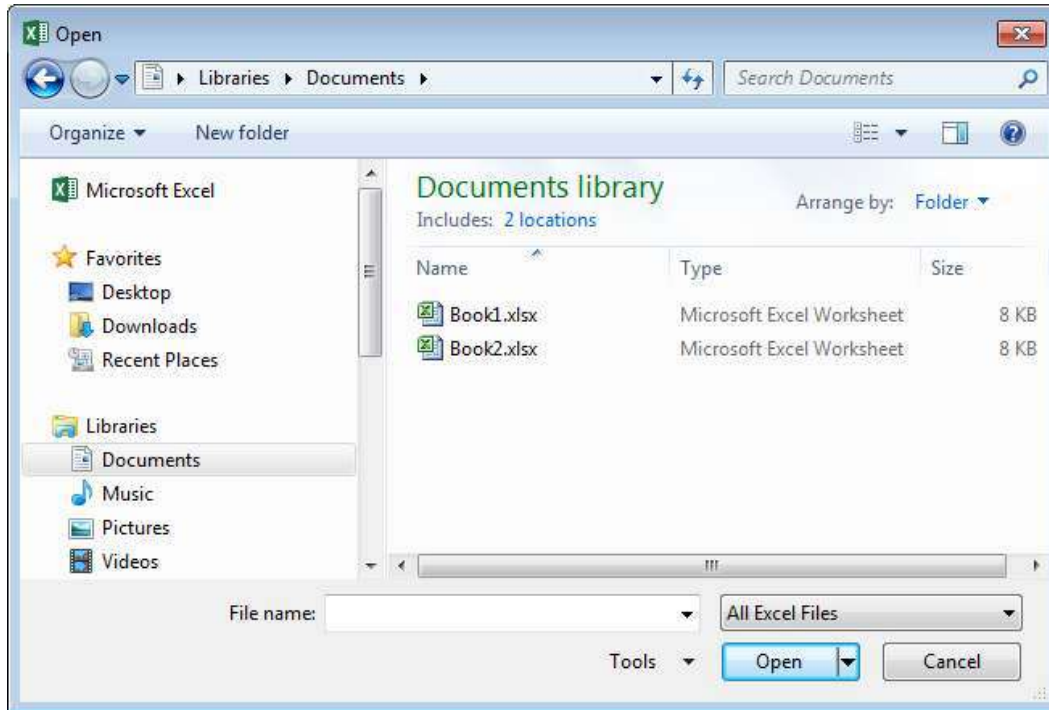

Figure 16 – Open Dialog Box

NOTE: When you open a workbook created with earlier versions of Excel in Excel 2013, the workbook opens in compatibility mode (indicated on the Title bar) with some of the new features of Excel 2013 disabled. You can easily convert the workbook to the Excel 2013 file format by clicking the *Convert* button on the *Info* page of the *Backstage* view (see Figure 17).
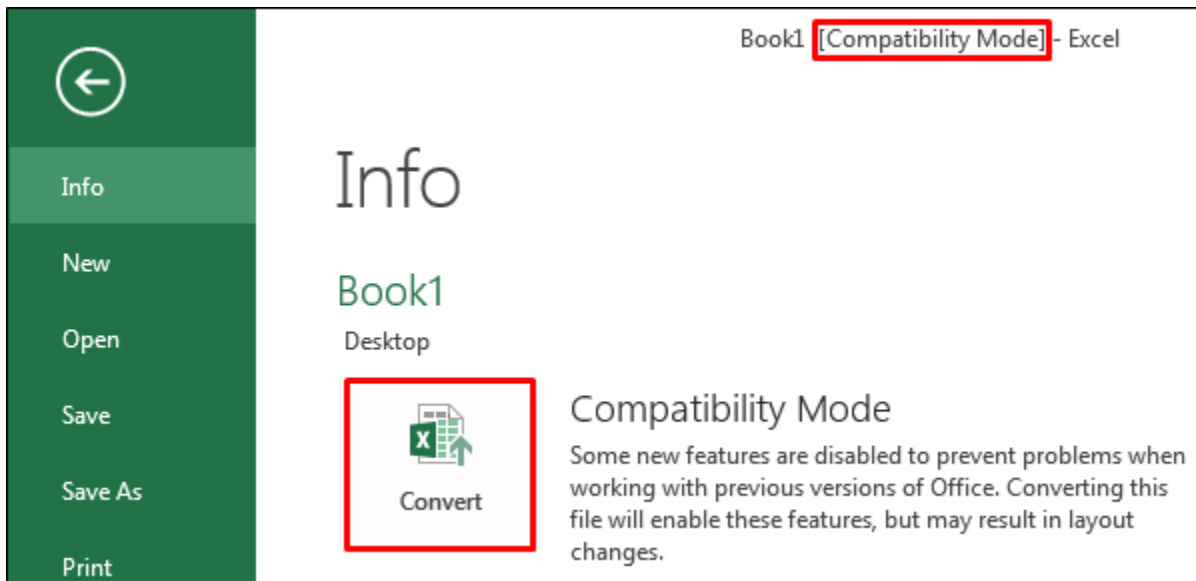
Figure 17 – Convert Button on the Info Page of the Backstage View

Moving Around and Making Selections

This section covers how to perform basic tasks such as moving around worksheets and selecting cells, rows, and columns.

Moving Around Worksheets

There are various ways to navigate through a worksheet. Using the mouse and the scroll bars, you can scroll through the worksheet in any direction. Using the navigational keys on the keyboard, you can move from cell to cell, move up or down one page at a time, or move to the first or last used cell in the worksheet (see Table 3). You can also navigate to a specific cell in the worksheet by entering its address in the Name box.

NOTE: Scrolling with the mouse does not change the location of the active cell. To change the active cell, you must click a new cell after scrolling.

Table 3 – Navigation Keyboard Shortcuts

Key	Action
Down arrow or Enter	Moves the active cell one cell down.
Up arrow or Shift+Enter	Moves the active cell one cell up.
Right arrow or Tab	Moves the active cell one cell to the right.
Left arrow or Shift+Tab	Moves the active cell one cell to the left.
Page Down	Moves the active cell down one page.
Page Up	Moves the active cell up one page.
Alt+Page Down	Moves the active cell right one page.
Alt+Page Up	Moves the active cell left one page.
Ctrl+Home	Moves the active cell to cell A1.
Ctrl+End	Moves the active cell to the last used cell in the worksheet.

Selecting Cells, Rows, and Columns

In order to work with a cell, you must first select it. When you want to work with more than one cell at a time, you can quickly select ranges, rows, columns, or the entire worksheet.

To select a single cell:
1. Click the desired cell (see Figure 18).
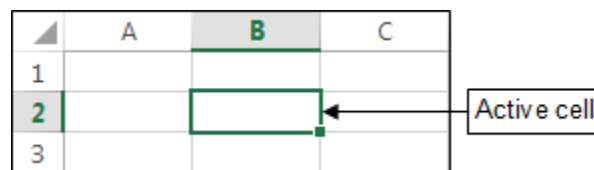
Figure 18 – Active Cell

To select a range of cells:
1. Click the first cell that you want to include in the range, hold down the **Shift** key, and then click the last cell in the range (see Figure 19). Or, drag from the first cell in the range to the last cell.

   NOTE: When a range is selected, every cell in the range is highlighted, except for the active cell. You can deselect a range by pressing any arrow key or by clicking any cell in the worksheet.

To select nonadjacent cells or ranges:
1. Select the first cell or range, hold down the **Ctrl** key, and then select the other cells or ranges (see Figure 20).
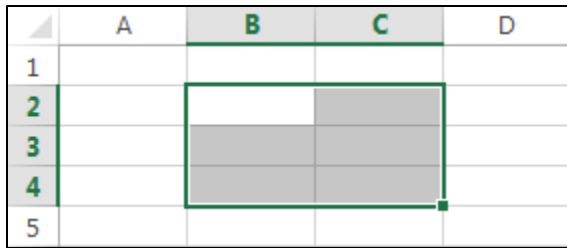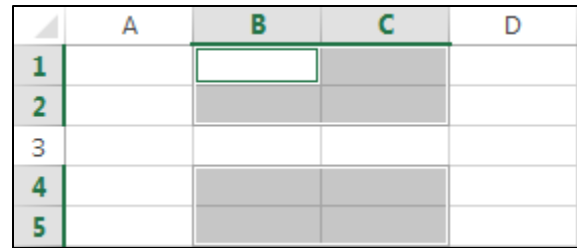
Figure 19 – Selected Range

Figure 20 – Selected Nonadjacent Ranges

To select a single row or column:

1. Click the header of the row or column that you want to select (see Figure 21 and Figure 22).

   NOTE: When a row or column is selected, every cell in the row or column is highlighted, except for the active cell. You can deselect a row or column by pressing any arrow key or by clicking any cell in the worksheet.
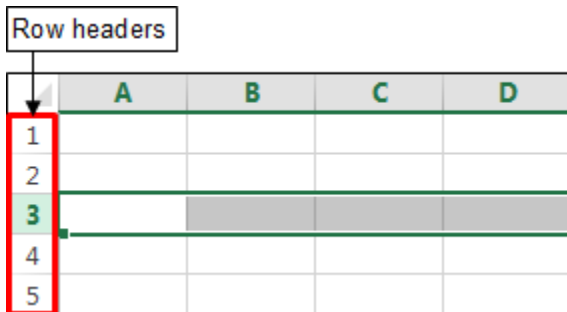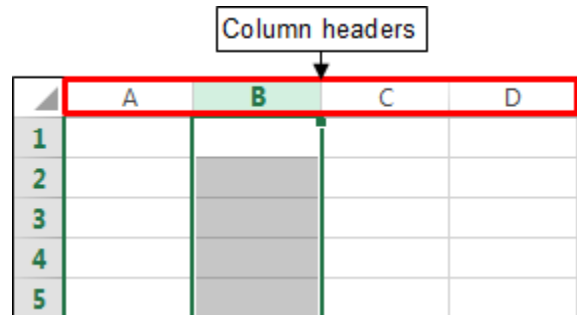

Figure 21 – Selected Row

Figure 22 – Selected Column

To select multiple adjacent rows or columns:

1. Click the header of the first row or column that you want to select, hold down the **Shift** key, and then click the header of the last row or column. Or, drag across the headers of the rows or columns that you want to select.

To select multiple nonadjacent rows or columns:

1. Hold down the **Ctrl** key, and then click the headers of the rows or columns that you want to select.

To select all cells in a worksheet:

1. Click the **Select All** button in the upper-left corner of the worksheet (see Figure 23). Or, press **Ctrl+A**.
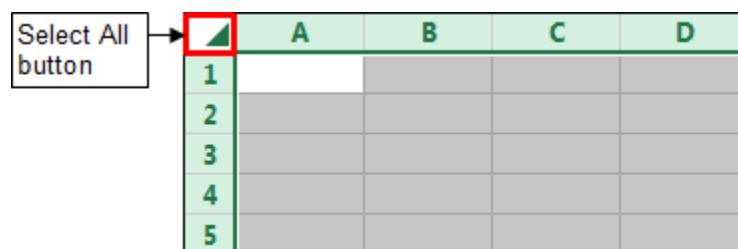
Figure 23 – Select All Button

Editing Worksheets

After creating a workbook, you can start adding data to a worksheet. If you need to make changes, you can easily edit the data to correct errors, update information, or remove information you no longer need.

Entering Data

You can add data by entering it directly in a cell or by using the Formula bar. A cell can contain a maximum of 32,767 characters and can hold any of three basic types of data: text, numbers, or formulas.

NOTE: If you make a mistake while entering data, simply press the **Backspace** key to delete all or a portion of your entry and enter the correct data.

Entering Text

You can enter text in a worksheet to serve as labels for values, headings for columns, or instructions about the worksheet. Text is defined as any combination of letters and numbers. Text automatically aligns to the left in a cell. If you enter text that is longer than its column's current width, the excess characters appear in the next cell to the right, as long as that cell is empty (see Figure 24). If the adjacent cell is not empty, the long text entry appears truncated (see Figure 25). The characters are not actually deleted and will appear if the width of the column is adjusted to accommodate the long text entry.
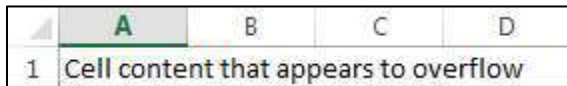
Figure 24 – Overflowing Text Entry
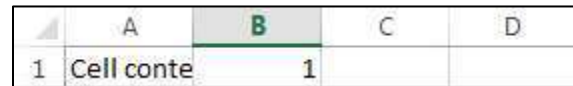
Figure 25 – Truncated Text Entry

To enter text:
1. Select the cell in which you want to enter text.
2. Type the desired text, and then press the **Enter** key.

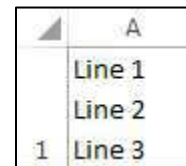   NOTE: To enter a line break in a cell, press **Alt+Enter** (see Figure 26).

Figure 26 – Cell with Line Breaks

Entering Numbers

Numeric entries contain only numbers and are automatically aligned to the right in a cell. Numbers can exist as independent values, or they can be used in formulas to calculate other values. You can enter whole numbers (such as 5 or 1,000), decimals (such as 0.25 or 5.15), negative numbers (such as -10 or -5.5), percentages (such as 20% or 1.5%), and currency values (such as $0.25 or $20.99).

NOTE: A number that does not fit within a column is displayed as a series of pound signs (#####). To accommodate the number, increase the column width.

To enter a number:
1. Select the cell in which you want to enter the number.
2. Type the desired number, and then press the **Enter** key.

Entering Dates and Times
Excel treats dates and times as special types of numeric values.

To enter a date:
1. Select the cell in which you want to enter the date.
2. Type the month, day, and year, with each number separated by a forward slash (/) or a hyphen (-), and then press the **Enter** key.

To enter a time:
1. Select the cell in which you want to enter the time.
2. Type the hour, a colon (:), and the minutes, press the **Spacebar**, type **a** for A.M. or **p** for P.M., and then press the **Enter** key.

Editing Data
If a cell contains a long entry and you only want to change a few characters, it is faster to edit the data than to retype the entire entry. You can edit the contents of a cell directly in the cell or by using the Formula bar.

To edit data:
1. Double-click the cell that contains the data you want to edit. The cursor (a blinking vertical line) appears in the cell in the location that you double-clicked.
2. To insert characters, click where you want to make changes, and then type the new characters.

   NOTE: You can also move the cursor by pressing the **Home**, **End**, or arrow keys.

3. To delete characters, click where you want to make changes, and then press the **Backspace** or **Delete** key.

   NOTE: Pressing the **Backspace** key deletes the character to the left of the cursor; pressing the **Delete** key deletes the character to the right of the cursor.

4. When you are finished, press the **Enter** key.

   NOTE: If you are editing data and decide not to keep your edits, press the **Esc** key to return the cell to its previous state.

Replacing Data
You can replace the entire contents of a cell with new data. Any formatting applied to the cell remains in place and is applied to the new data.

To replace data:
1. Select the cell that contains the data you want to replace.
2. Type the new data, and then press the **Enter** key.

Deleting Data
You can delete the entire contents of a cell if the data is no longer needed. Deleting data does not remove any formatting applied to the cell.

To delete data:
1. Select the cell that contains the data you want to delete, and then press the **Delete** key.

Moving and Copying Cells

When editing a worksheet, you may want to duplicate a cell in another location or remove (cut) a cell from its original location and place it in a new location. A copied cell can be pasted multiple times; a cut cell can be pasted only once.

NOTE: Cut or copied data is stored on the **Clipboard**, a temporary storage area. You can access it by clicking the dialog box launcher in the **Clipboard** group on the **Home** tab of the **Ribbon** (see Figure 27).

To move or copy a cell:
1. Select the cell that you want to move or copy.
2. On the **Home** tab, in the **Clipboard** group, do one of the following:

    - To move the cell, click the **Cut** button . Or, press **Ctrl+X**.

    - To copy the cell, click the **Copy** button . Or, press **Ctrl+C**.
3. Select the cell where you want to paste the cut or copied cell.

4. On the **Home** tab, in the **Clipboard** group, click the **Paste** button . Or, press **Ctrl+V**.

    NOTE: When you cut or copy cells, a *marquee* (scrolling dotted line) appears around the cells. You can remove the marquee by pressing the **Esc** key (see Figure 28).
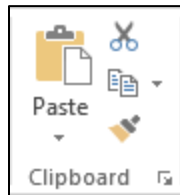
Figure 27 – Clipboard Group on the Home Tab
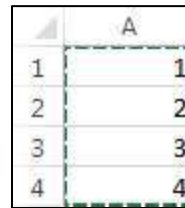
Figure 28 – Cells with Marquee

Using Paste Special

The *Paste Special* command is a very useful editing feature. It allows you to control which aspect of the copied cell to paste into the target cell. For example, you can choose to paste only the copied cell's formula, only the result of the formula, only the cell's formatting, etc. You must copy to use the Paste Special command; when you cut, the Paste Special command is not available.

To use the Paste Special command:
1. Select the cell that contains the value, formula, or formatting you want to copy.

2. On the **Home** tab, in the **Clipboard** group, click the **Copy** button .
3. Select the cell where you want to paste the value, formula, or formatting.
4. On the **Home** tab, in the **Clipboard** group, click the **Paste** arrow and select the desired option from the menu (see Figure 29).

    NOTE: Pointing to a command on the **Paste** menu displays its name in a ScreenTip. You can access more options by clicking **Paste Special** at the bottom of the menu.
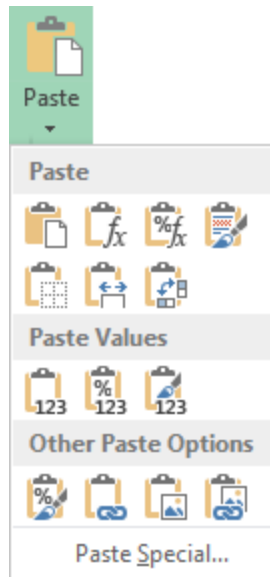
Figure 29 – Paste Menu

Clearing Cells

You can clear a cell to remove its contents, formats, or comments. When clearing a cell, you must specify whether to remove one, two, or all three of these elements from the cell.

To clear a cell:

1. Select the cell that you want to clear.
2. On the **Home** tab, in the **Editing** group, click the **Clear** button and select the desired option from the menu (see Figure 30).
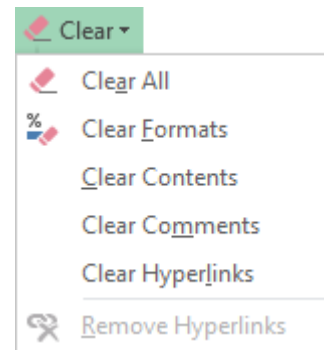

Figure 30 – Clear Menu

Undoing and Redoing Changes

Whenever you make a mistake, you can easily reverse it with the *Undo* command. After you have undone one or more actions, the *Redo* command becomes available and allows you to restore the undone actions.

To undo an action:

1. On the **Quick Access** toolbar, click the **Undo** button . Or, press **Ctrl+Z**.

To redo an action:

1. On the **Quick Access** toolbar, click the **Redo** button . Or, press **Ctrl+Y**.

Formatting Worksheets

Excel 2013 includes a number of features that can be used to easily format a worksheet. Formatting enhances the appearance of a worksheet and makes it look professional.

Formatting Cells and Cell Contents

You can format cells and cell contents by changing the font, font size, font style, and font color, as well as adding cell borders and changing the background color of cells. Since formatting is attached to the cell and not to the entry, you can format a cell before or after you enter the data. The *Font* group on the *Home* tab of the *Ribbon* contains the most commonly used formatting commands (see Figure 31). You can also format cells using the *Format Cells* dialog box which can be opened by clicking the dialog box launcher ▣ in the *Font* group.

Figure 31 – Font Group on the Home Tab

Changing the Font and Font Size

A font defines the overall appearance or style of text lettering. Font size controls the height of the font. The default font in new Excel 2013 workbooks is Calibri; the default font size is 11 points.

To change the font:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Font** group, click the **Font** arrow and select the desired font from the list (see Figure 32).

To change the font size:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Font** group, click the **Font Size** arrow and select the desired font size from the list (see Figure 33). If a font size you want is not listed in the **Font Size** list, click in the **Font Size** box, type the desired number, and then press the **Enter** key.

   NOTE: You can also change the font size by clicking the **Increase Font Size** button [A˄] or **Decrease Font Size** button [A˅] in the **Font** group on the **Home** tab of the **Ribbon**.
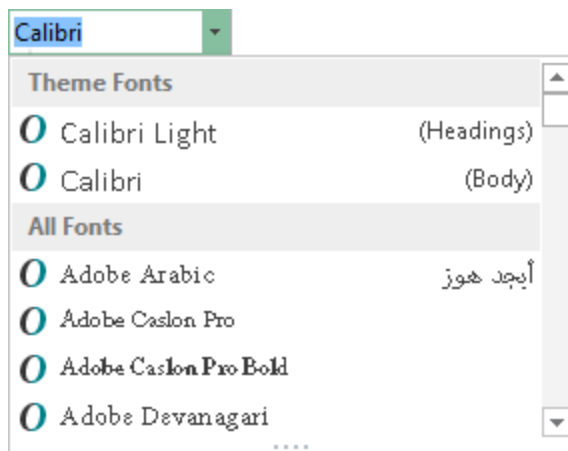
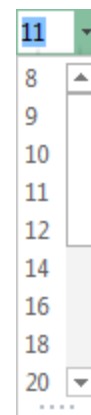**Figure 32 – Font List**

Figure 33 – Font Size List

Changing the Font Color and Fill Color

You can change the font color of cell contents or the background color of cells to emphasize important data or add visual impact to a worksheet.

To change the font color:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Font** group, click the **Font Color** button to apply the most recently used color, or click the **Font Color** arrow and select a different color from the color palette (see Figure 34).

To change the fill color:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Font** group, click the **Fill Color** button to apply the most recently used color, or click the **Fill Color** arrow and select a different color from the color palette (see Figure 35).

    NOTE: You can remove the fill color from a selected cell by clicking the **Fill Color** arrow, and then clicking **No Fill** on the palette.

Figure 34 – Font Color Palette

Figure 35 – Fill Color Palette

Applying Font Styles

You can apply one or more font styles to emphasize important data in a worksheet. Font styles are attributes such as bold, italic, and underline. Bolding makes the characters darker. Italicizing slants the characters to the right. Underlining adds a line below the cell contents, not the cell itself.

To bold or italicize data:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Font** group, click the **Bold** button [B] or **Italic** button [I].

To underline data:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Font** group, do one of the following (see Figure 36):
    - To apply a single underline, click the **Underline** button.
    - To apply a double underline, click the **Underline** arrow, and then click **Double Underline** on the menu.
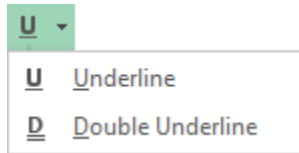
Figure 36 – Underline Menu

NOTE: The **Bold**, **Italic**, and **Underline** buttons are toggles. If you select a cell to which one of these formats has been applied, and then click the corresponding button, that format is removed.

Adding Cell Borders

You can add borders to any or all sides of a single cell or range. Excel 2013 includes several predefined border styles that you can use.

To add cell borders:

1. Select the cell to which you want to add borders.
2. On the **Home** tab, in the **Font** group, click the **Borders** button to apply the most recently used border, or click the **Borders** arrow and select a different border from the menu (see Figure 37).

    NOTE: You can remove all borders from a selected cell by clicking the **Borders** arrow, and then clicking **No Border** on the menu.
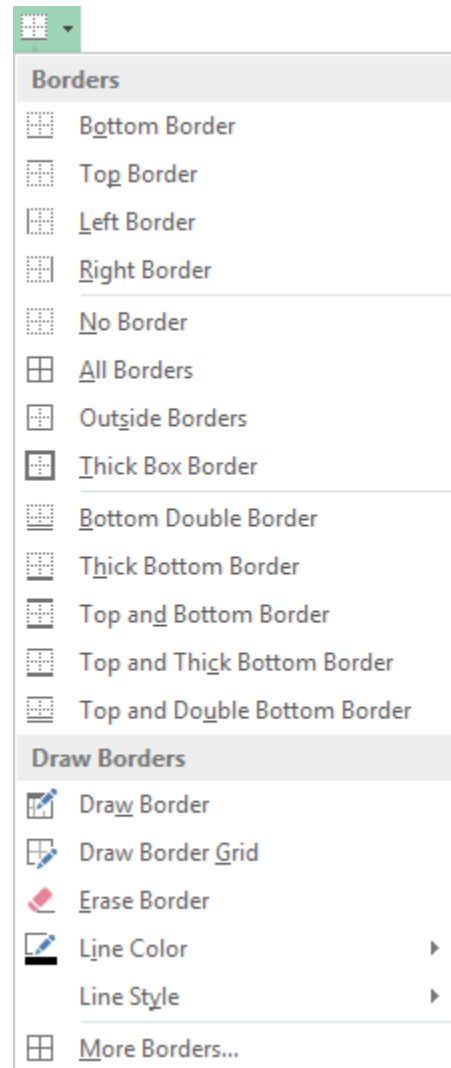
Figure 37 – Borders Menu

Formatting Numbers

You can apply number formats to cells containing numbers to better reflect the type of data they represent. For example, you can display a numeric value as a percentage, currency, date or time, etc. The *Number* group on the *Home* tab of the *Ribbon* contains the most commonly used commands for formatting numbers (see Figure 38). You can also format numbers using the *Number* tab of the *Format Cells* dialog box which can be opened by clicking the dialog box launcher in the *Number* group.

NOTE: Formatting does not change the actual value stored in a cell. The actual value is used in calculations and is displayed in the Formula bar when the cell is selected.
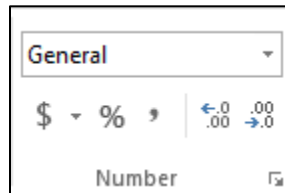


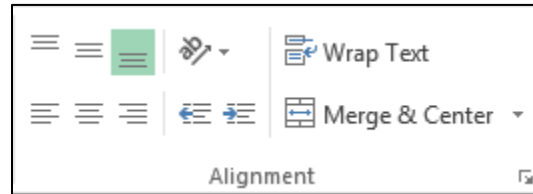**Figure 38 – Number Group on the Home Tab**

To format numbers:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Number** group, do one of the following (see Figure 38):
   - Click the **Accounting Number Format** button $ to display the number with a dollar sign, comma separators, and two decimal places.

      NOTE: You can select a different currency symbol by clicking the **Accounting Number Format** arrow and selecting the desired symbol from the menu.

   - Click the **Percent Style** button % to convert the number to a percentage and display it with a percent sign and no decimal places.

   - Click the **Comma Style** button , to display the number with comma separators and two decimal places.

      NOTE: You can access additional number formats by clicking the **Number Format** arrow and selecting the desired option from the menu (see Figure 39).
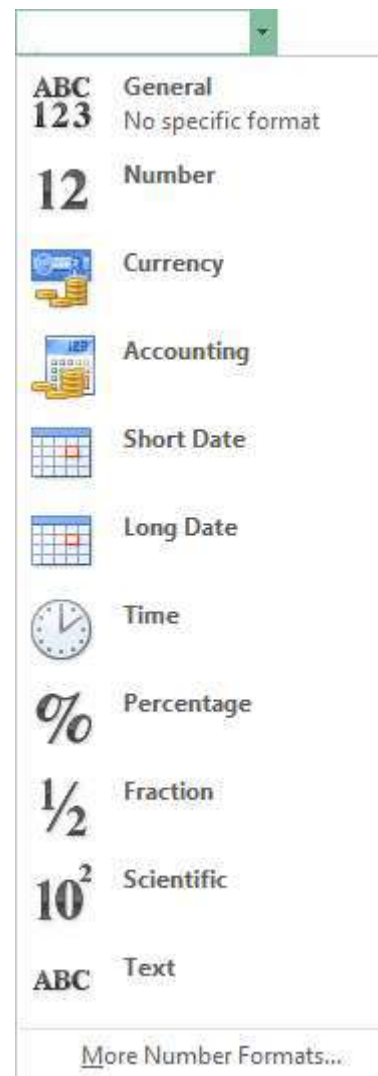
Figure 39 – Number Format Menu

To change the number of decimal places:
1. Select the cell that you want to format.
2. On the **Home** tab, in the **Number** group, do one of the following (see Figure 38):

   - Click the **Increase Decimal** button to increase the number of decimal places.

   - Click the **Decrease Decimal** button to decrease the number of decimal places.

Positioning Cell Contents

You can change the alignment, indentation, and orientation of cell contents, wrap the contents within a cell, and merge cells. The *Alignment* group on the *Home* tab of the *Ribbon* contains the most commonly used commands for positioning cell contents (see Figure 40). You can also position cell contents using the *Alignment* tab of the *Format Cells* dialog box which can be opened by clicking the dialog box launcher ⊡ in the *Alignment* group.

Figure 40 – Alignment Group on the Home Tab

Aligning Data

By default, Excel 2013 aligns numbers to the right and text to the left, and all cells use bottom alignment. The *Alignment* group on the *Home* tab of the *Ribbon* includes six alignment buttons that can be used to change the horizontal and vertical alignment of cell contents.

- The **Align Left** button ▤ aligns the cell contents with the left edge of the cell.
- The **Center** button ▤ centers the cell contents horizontally within the cell.
- The **Align Right** button ▤ aligns the cell contents with the right edge of the cell.
- The **Top Align** button ▤ aligns the cell contents with the top edge of the cell.
- The **Middle Align** button ▤ centers the cell contents vertically within the cell.
- The **Bottom Align** button ▤ aligns the cell contents with the bottom edge of the cell.

To align data:
1. Select the cell that contains the data you want to align.
2. On the **Home** tab, in the **Alignment** group, click the desired alignment button.

Indenting Data

Indenting moves data away from the edge of the cell. This is often used to indicate a level of less importance (such as a subtopic) (see Figure 41).

Figure 41 – Indented Data

To indent data:
1. Select the cell that contains the data you want to indent.

2. On the **Home** tab, in the **Alignment** group, click the **Increase Indent** button. Each click increments the amount of indentation by one character.

   NOTE: You can decrease the indentation of data by clicking the **Decrease Indent** button in the **Alignment** group on the **Home** tab of the **Ribbon**.

Rotating Data
You can rotate data clockwise, counterclockwise, or vertically within a cell. This is often used to label narrow columns or to add visual impact to a worksheet.

To rotate data:
1. Select the cell that contains the data you want to rotate.
2. On the **Home** tab, in the **Alignment** group, click the **Orientation** button and select the desired option from the menu (see Figure 42). The row height automatically adjusts to fit the rotated data (see Figure 43).
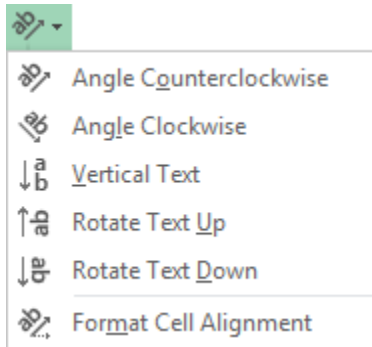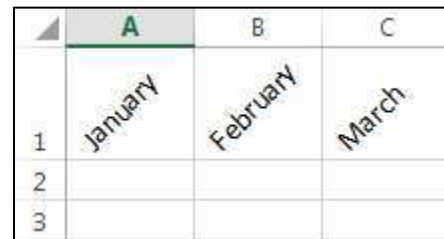

Figure 42 – Orientation Menu

Figure 43 – Rotated Data

   NOTE: You can restore the data to its default orientation by clicking the **Orientation** button and selecting the currently selected orientation.

Wrapping Data
Wrapping displays data on multiple lines within a cell. The number of wrapped lines depends on the width of the column and the length of the data.

To wrap data:
1. Select the cell that contains the data you want to wrap.

2. On the **Home** tab, in the **Alignment** group, click the **Wrap Text** button. The row height automatically adjusts to fit the wrapped data (see Figure 44).

   NOTE: You can restore the data to its original format by clicking the **Wrap Text** button again.

Figure 44 – Wrapped Data

Merging Cells

Merging combines two or more adjacent cells into one larger cell. This is a great way to create labels that span several columns.

NOTE: If the cells you intend to merge have data in more than one cell, only the data in the upper-left cell remains after you merge the cells.

To merge cells:
1. Select the cells that you want to merge.
2. On the **Home** tab, in the **Alignment** group, click the **Merge & Center** button to merge the selected cells into one cell and center the data, or click the **Merge & Center** arrow and select one of the following options (see Figure 45):
   - **Merge Across:** Merges each row of the selected cells into a larger cell.
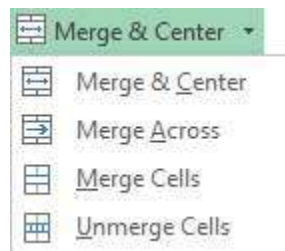   - **Merge Cells:** Merges the selected cells into one cell.

Figure 45 – Merge & Center Menu

NOTE: You can split a merged cell by clicking the **Merge & Center** arrow, and then clicking **Unmerge Cells** on the menu.

Copying Cell Formatting

You can copy the formatting of a specific cell and apply it to other cells in the worksheet. This can save you time and effort when multiple formats have been applied to a cell and you want to format additional cells with all the same formats.

To copy cell formatting:
1. Select the cell that has the formatting you want to copy.
2. On the **Home** tab, in the **Clipboard** group, click the **Format Painter** button ![icon]. The mouse pointer changes to a plus sign with a paintbrush ![icon].
3. Select the cell to which you want to apply the copied formatting.

   NOTE: If you want to apply the copied formatting to more than area, double-click the **Format Painter** button instead of single-clicking it. This keeps the **Format Painter** active until you press the **Esc** key.

Applying Cell Styles

A *cell style* is a set of formatting characteristics (such as font, font size, font color, cell borders, and fill color) that you can use to quickly format the cells in a worksheet. In addition to saving you time, cell styles can help you keep formatting consistent throughout a worksheet. Excel 2013 includes several predefined styles that can be used to format headings, numbers, notes, etc.

To apply a cell style:
1. Select the cell to which you want to apply a style.
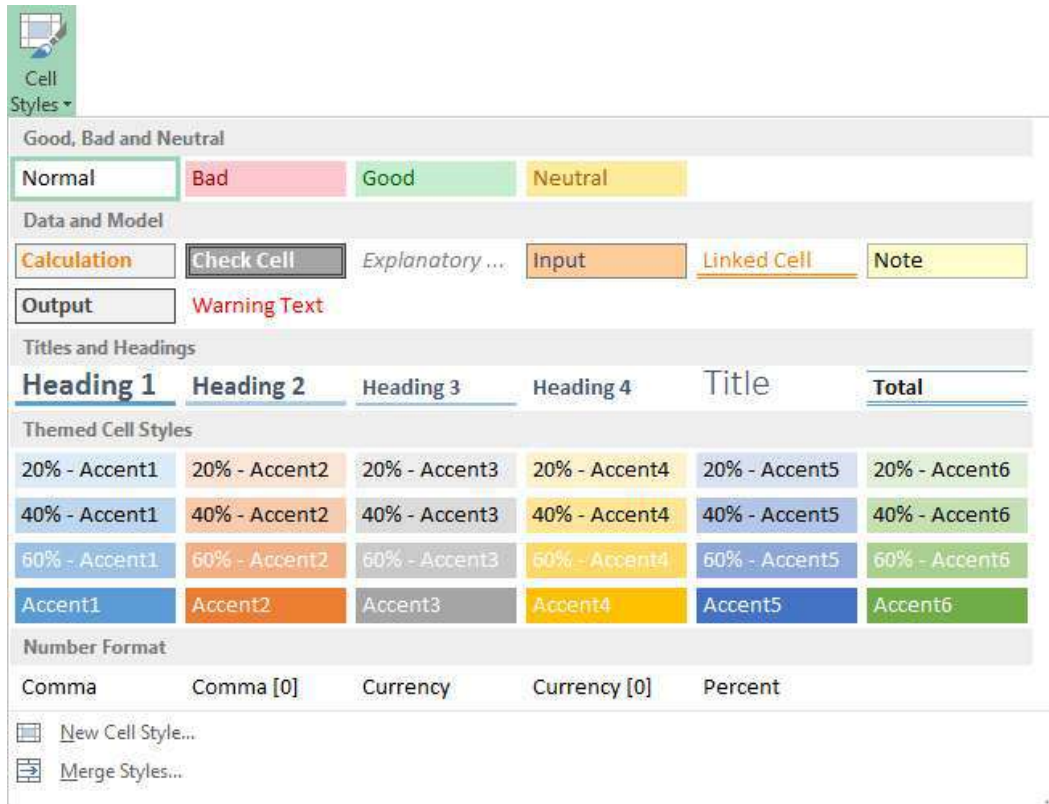2. On the **Home** tab, in the **Styles** group, click the **Cell Styles** button and select the desired style from the gallery (see Figure 46).

Figure 46 – Cell Styles Gallery

Getting Help

You can use the Excel Help system to get assistance on any topic or task. While some information is installed with Excel 2013 on your computer, most of the information resides online and is more up-to-date. You need an Internet connection to access resources from Office.com.

To get help:

1. Click the **Microsoft Excel Help** button [?] on the right side of the **Title** bar. The **Excel Help** window opens, displaying general help topics (see Figure 47).

   NOTE: Clicking the **Help** button [?] in the upper-right corner of a dialog box displays topics related to that dialog box in the **Excel Help** window.

2. Click any link to display the corresponding information.

3. To navigate between help topics, click the **Back** button [←], **Forward** button [→], or

   Home button [⌂] on the toolbar.

4. To print a help topic, click the **Print** button [🖶] on the toolbar.
5. To search for a specific topic, type one or more keywords in the **Search** box, and then press the **Enter** key to display the search results.

6. To switch between online and offline help, click the **Change Help Collection** arrow [▾] next to **Excel Help** at the top of the window, and then click **Excel Help from Office.com** or **Excel Help from your computer** on the menu.

7. To close the **Excel Help** window, click the **Close** button [✕] in the upper-right corner of the window.
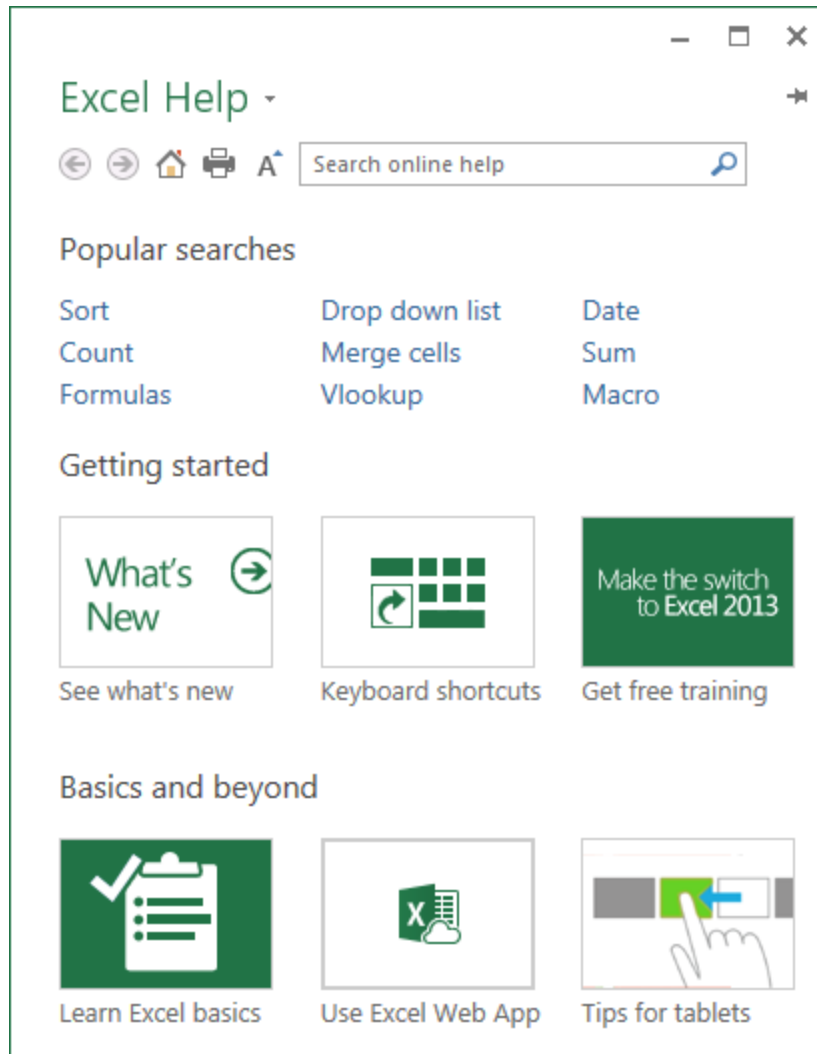

Figure 47 – Excel Help Window

Exiting Excel

When you finish using Excel 2013, you should exit the program to free up system resources.

To exit Excel 2013:

1. Click the **Close** button [✕] in the upper-right corner of the program window.