

**EXCEL 2013**

# Charting Worksheet Data



## LESSON OUTLINE

**Creating Charts in Excel****Moving and Sizing Embedded Charts****Exploring Other Chart Types****Modifying Existing Charts****Applying Layouts and Styles to Charts****Creating Trendlines****Creating Sparklines in Cells****Previewing and Printing Charts****Concepts Review****Reinforce Your Skills****Apply Your Skills****Extend Your Skills****Transfer Your Skills**

**C**harting is an important skill to have when using worksheets because comparisons, trends, and other relationships are often conveyed more effectively with charts than by displaying only data. In this lesson, you will use Excel to create column charts, line charts, and pie charts. You will edit and format legends, data labels, and other chart objects. You will also add trendlines and sparklines to worksheets.

## LEARNING OBJECTIVES

After studying this lesson, you will be able to:

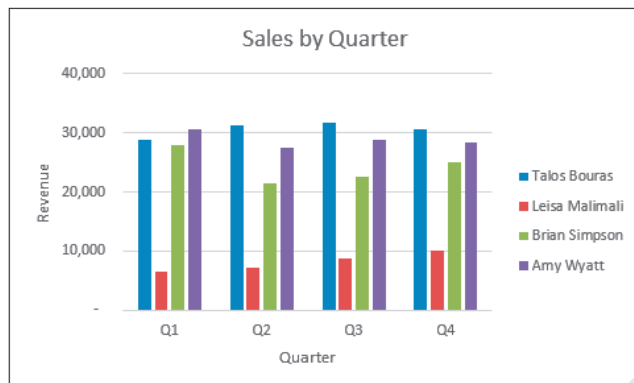
- Create different types of charts
- Move and size embedded charts
- Modify and format chart elements
- Create trendlines and sparklines
- Preview and print worksheets



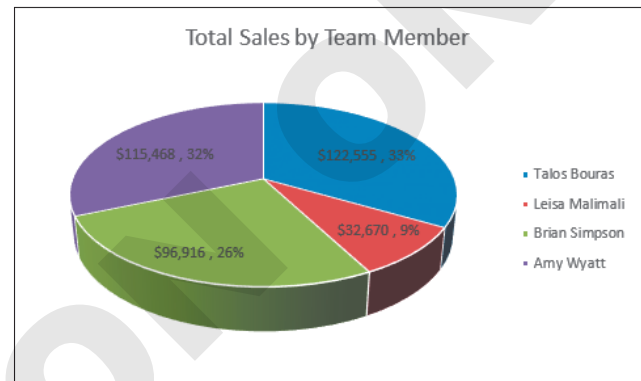
## CASE STUDY

# Charting Sales Performance

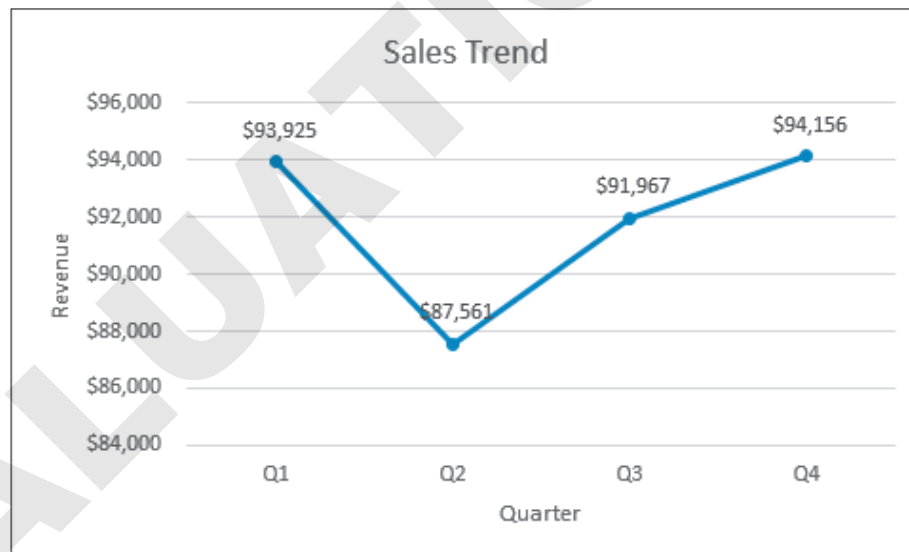
You have been asked to prepare several charts for Green Clean, which sells janitorial products and contracts for cleaning services. You will prepare charts that compare sales in the various quarters, display the growth trend throughout the year, and illustrate the contributions of each sales team member to the company sales as a whole. You will use Excel's charting features to produce accurate and easy-to-understand visuals that meet Green Clean's high standards.



A column chart



A pie chart



A line chart



# Creating Charts in Excel

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0601

Many people are “visual learners” and find that numerical data is easier to interpret when presented in a chart. Charts are **linked** to the data from which they are created, thus charts are automatically updated when worksheet data changes. You can apply options and enhancements to each chart element, such as the title, legend, plot area, value axis, category axis, and data series.

## Chart Placement

You have the option of either embedding a new chart into the worksheet where the data resides or placing it on a separate sheet. This can be done when the chart is first created, or at any time thereafter.

**Embedded** charts can be created by choosing the chart type from the Insert tab. To avoid covering the worksheet data, you can move and resize an embedded chart.

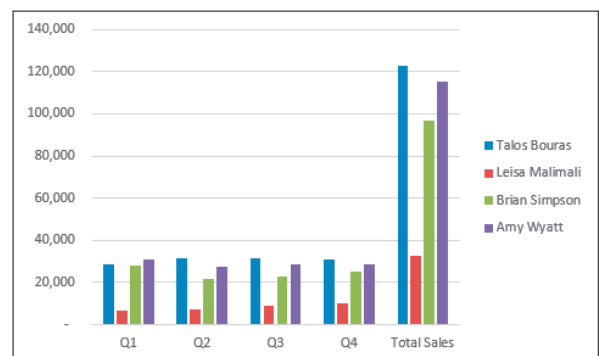
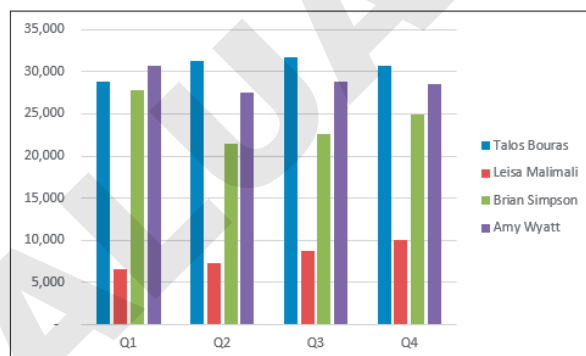
### FROM THE KEYBOARD

**[F11]** to create a chart on its own sheet

You can use the **[F11]** key to place a full-size chart on its own sheet. When you do, the chart on the new sheet will be based on the default chart type. You can easily change the type after creating the chart with the Change Chart Type option.

## Choosing the Proper Data Source

It is important to select both the appropriate data, and the proper row and column headings for your column and bar charts to make sure the data are accurate. Usually, you will not include both individual category data and totals because the individual data would appear distorted.



The column chart that excludes the Total Sales data does a better job of displaying the differences between each data series.



## Chart Types

Excel provides 10 major chart types, as well as several subtypes for each. Each chart type represents data in a different manner, and you can also create a customized chart (which can be used as a template) to meet your exact needs.

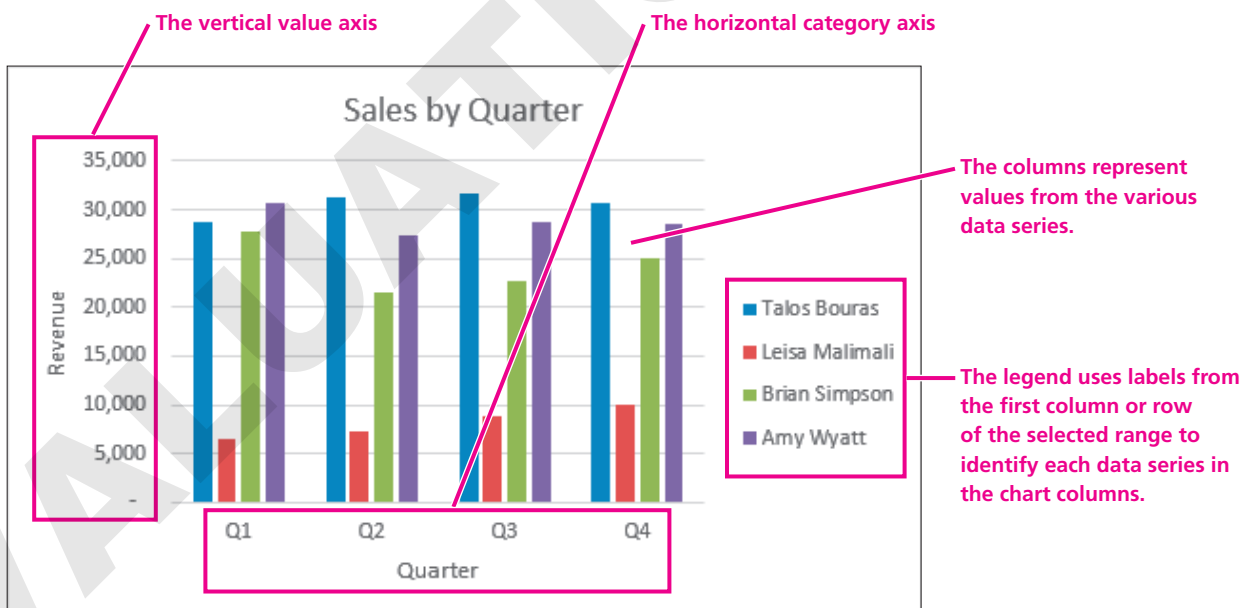
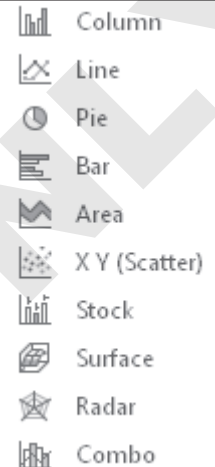
### FROM THE RIBBON

Insert→Charts→  
Recommended Charts

## Chart and Axis Titles

Excel allows you to create titles for your charts as well as for the value and category axes. If you choose a range of information that includes what appears to Excel to be a title, Excel will include it in the new chart.

	A	B	C	D	E	F
2	Quarterly and Total Sales - Fiscal Year					
3						
4		Q1	Q2	Q3	Q4	Total Sales
5	Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670
7	Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916
8	Amy Wyatt	30,725	27,444	28,802	28,497	\$ 115,468
9						
10	Quarter Total	\$ 93,925	\$ 87,561	\$ 91,967	\$ 94,156	\$ 367,609

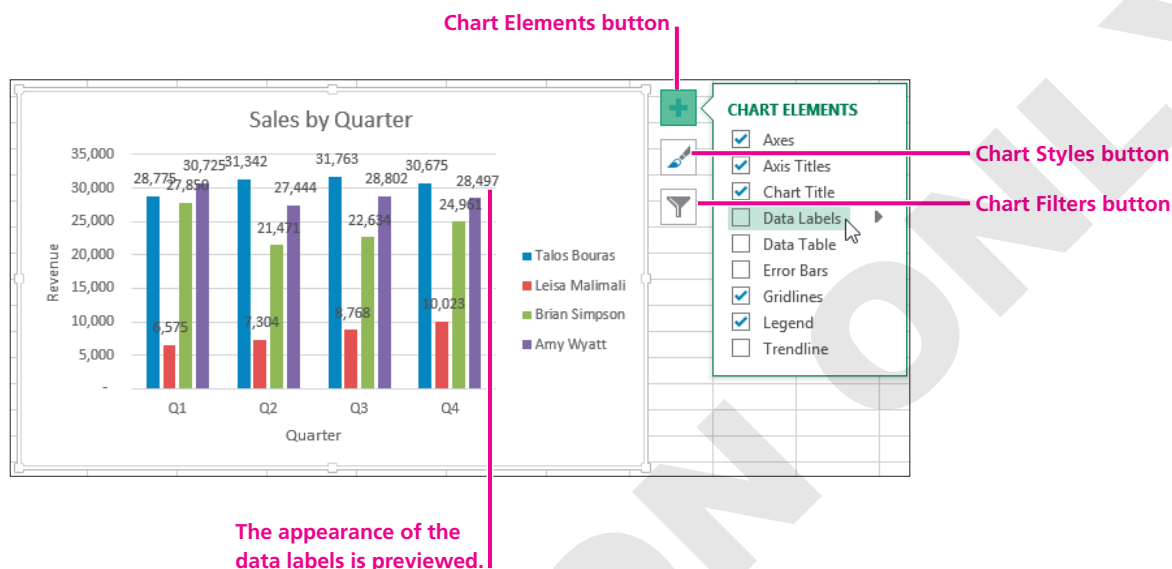


This column chart compares values using vertical bars. It was created using the highlighted worksheet data.



## Chart Formatting Control

To quickly preview and select different chart elements, styles, and filters, you can use the chart formatting buttons that appear when a chart is selected. When you scroll over an option within any of the three buttons, its appearance will be previewed within your chart.



### QUICK REFERENCE

### CREATING AND PLACING A CHART

#### Task

#### Procedure

Create a chart

- Select the desired data range and choose the chart type from Insert→Charts.


Move an existing chart to its own sheet

- Right-click a blank area of the chart and choose Move Chart.
- Choose New Sheet, rename the sheet, and click OK.


Move a chart from its own sheet to another sheet as an embedded object

- Right-click a blank area of the chart and choose Move Chart.
- Choose Object In, select the desired worksheet, and click OK.


Add a title to a chart

- Select the desired chart.
- Choose Chart Tools→Design→Chart Layouts→Add Chart Element →Chart Title and select a chart title option.
- Select the default title "Chart Title" and type in your title.

Add axis titles to a chart

- Select the desired chart.
- Choose Chart Tools→Design→Chart Layouts→Add Chart Element →Axis Titles and select an axis title option.
- Select the default title "Axis Title" and type your title.

Add a legend to a chart

- Select the desired chart.
- Choose Chart Tools→Design→Chart Layouts→Add Chart Element →Legend and select a legend option.



## DEVELOP YOUR SKILLS EX06-D01

### Create a Chart

In this exercise, you will create an embedded clustered bar chart.

1. Open **EX06-D01-SalesCharts** from the **EX2013 Lesson 06** folder and save it as **EX06-D01-SalesCharts-[FirstInitialLastName]**.  
Replace the bracketed text with your first initial and last name. For example, if your name is Bethany Smith, your filename would look like this: *EX06-D01-SalesChart-BSmith*.
2. Select the **range A4:E8** in the **Sales by Quarter** worksheet.
3. Tap the **[F11]** key.  
Tapping **[F11]** creates a new sheet before the **Sales by Quarter** sheet in the workbook tab order.
4. Double-click the new chart tab, type **Sales by Rep**, and tap **[Enter]**.



### Create a Clustered Bar Chart

5. Display the **Sales by Quarter** worksheet and make certain the **range A4:E8** is still selected.
6. Follow these steps to create a clustered bar chart:

**A** Click the **Insert** tab.

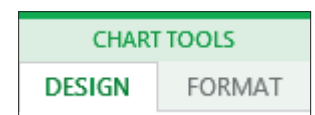
Sales Department						
Quarterly and Total Sales - Fiscal Year						
	Q1	Q2	Q3	Q4	Total Sales	
Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555	
Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670	
Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916	
Amy Wyatt	30,725	27,444	28,802	28,497	\$ 115,468	
Quarter Total	\$ 93,925	\$ 87,561	\$ 91,967	\$ 94,156	\$ 367,609	

**B** Click the **Bar** button.

**C** Choose the first chart type listed under **2-D Bar** (Clustered Bar).

The chart will appear embedded in the **Sales by Quarter** worksheet with the default properties for the clustered bar chart type displayed.

7. Look at the Ribbon to see that the **Chart Tools** are now displayed and the **Design** tab is active.  
The additional Ribbon tabs under **Chart Tools**, which appear when a chart is selected, are referred to as **contextual tabs**.





## Edit the Chart and Axis Titles

8. Follow these steps to title the chart:



A Highlight the default title.

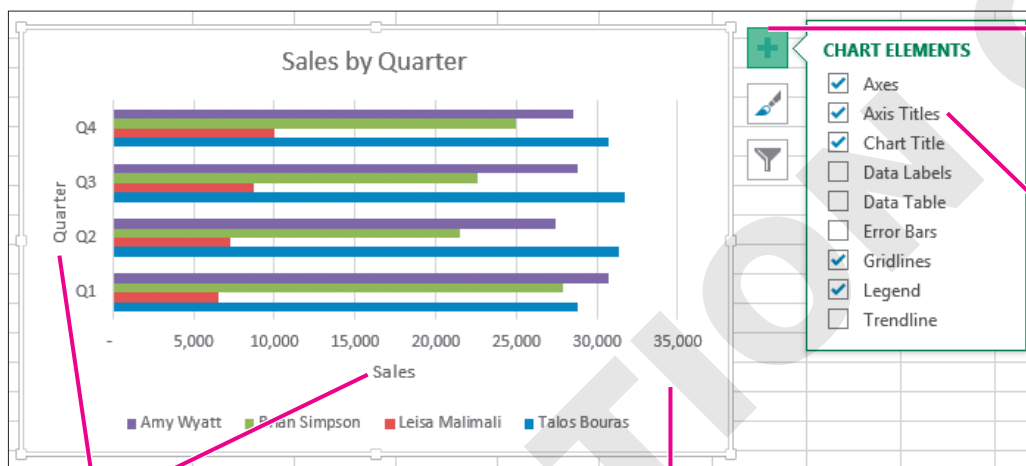


B Type the new title shown here.

C Click in a blank area of the chart to accept the new title.

*Instead of highlighting the title, you could have clicked the default title. However, the new title would have only displayed on the formula bar as you typed.*

9. Remaining within the chart, follow these steps to add a vertical axis title:



A Click the **Chart Elements** button.

B Choose **Axis Titles**.

C Click and type **Quarter** for the vertical axis, then click and type **Sales** for the horizontal axis.

D Click in any blank area of the chart to accept each new title.

10. Save the file and leave it open; you will modify it throughout this lesson.



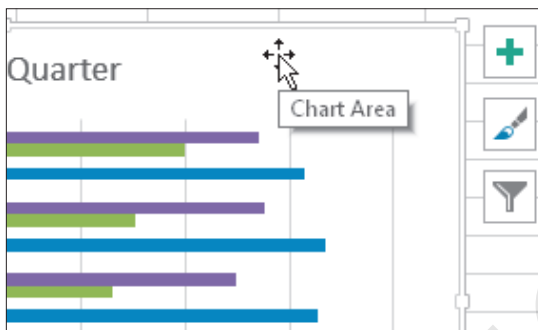
# Moving and Sizing Embedded Charts

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0602

When a chart is selected, it is surrounded by a light border with sizing handles displayed. A selected chart can be both moved and resized.

## Moving Embedded Charts

Charts that are embedded in a worksheet can easily be moved to a new location. A chart can be moved by a simple drag, but you need to ensure that you click the chart area and not a separate element.



A four-pointed arrow (along with the "Chart Area" ScreenTip) indicates that you can drag to move this selected chart.

## Sizing Embedded Charts

To size a chart, it must first be selected. You can drag a sizing handle when the double-arrow mouse pointer is displayed. To change a chart size proportionately, hold **[Shift]** while dragging a corner handle. If you wanted to only change the height or width of a chart you would not hold **[Shift]**.



A double arrow appears when you point at a chart's sizing handle.



As you drag to size a chart element, a black line displays the new size.



## Deleting Charts

Deleting an embedded chart is simple—just select the chart area and tap **Delete**. You can delete a chart that is on its own tab by deleting the worksheet.

### DEVELOP YOUR SKILLS EX06-D02

## Size and Move an Embedded Chart

In this exercise, you will move and resize your chart. You will also copy a sheet containing an embedded chart and then delete the chart.

1. Save your file as **EX06-D02-SalesCharts- [FirstInitialLastName]**.
2. Click once on the chart area of the embedded chart in the **Sales by Quarter** sheet to select the chart.  
*Sizing handles appear around the border of the chart.*
3. Follow these steps to resize the chart to be smaller:



**A** Place the mouse pointer here until you see the **double-pointed arrow** (not a four-pointed arrow).

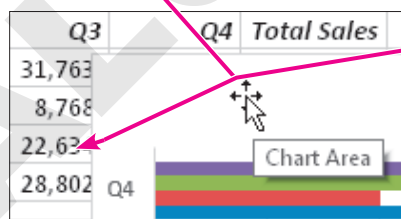
**B** Press and hold **Shift** while you drag the sizing handle down and to the left.

**C** Release the mouse button to decrease the size a little, then release **Shift**.

Excel resized the width and height proportionately because you held down the **Shift** key as you resized the chart.

4. Follow these steps to move the chart and center it below the worksheet data:

**A** Place the mouse pointer over a blank area of the chart so that a **four-pointed arrow** appears.



**B** Drag the chart down and to the left until it is just below **row 11** and centered within **columns A–F**.

**C** Release the mouse button.



5. Hold down **Ctrl**, drag the **Sales by Quarter** sheet tab to the right, and then release the mouse and **Ctrl**.



The downward-pointing arrow that indicates the location of the new sheet may not appear if the chart is positioned over it. The duplicate sheet is named **Sales by Quarter (2)**.

6. Rename the **Sales by Quarter (2)** sheet to **Team Totals**.

### Delete an Embedded Chart

7. Click once to select the chart in the **Team Totals** sheet and tap **Delete**.  
*Excel deletes the chart.*
8. Use **Ctrl** + **Z** to undo the Delete command.  
*The chart reappears. You can restore an embedded chart right after it is deleted.*
9. Use **Ctrl** + **Y** to redo the Delete command.  
*The chart is once again deleted.*
10. Save the file and leave it open.

## Exploring Other Chart Types

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0603

Here you will explore line and pie charts and how they can make your data work for you. Pie charts are suitable when you are examining data that represent portions of a whole (just as pieces of an apple pie, when combined, represent the whole pie).

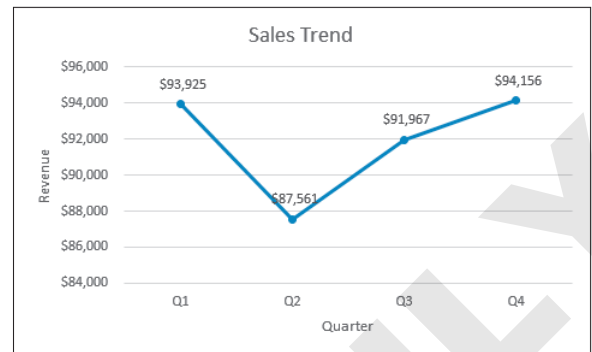
### Line Charts

Line charts are most useful for comparing trends over a period of time. Like column charts, line charts have category and value axes. Line charts also use the same or similar objects as column charts.



	A	B	C	D	E	F
1	<b>Sales Department</b>					
2	<i>Quarterly and Total Sales - Fiscal Year</i>					
3						
4		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total Sales</b>
5	Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670
7	Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916
8	Amy Wyatt	30,725	27,444	28,802	28,497	\$ 115,468
10	<b>Quarter Total</b>	<b>\$ 93,925</b>	<b>\$ 87,561</b>	<b>\$ 91,967</b>	<b>\$ 94,156</b>	<b>\$ 367,609</b>

The chart was created using the selected data.

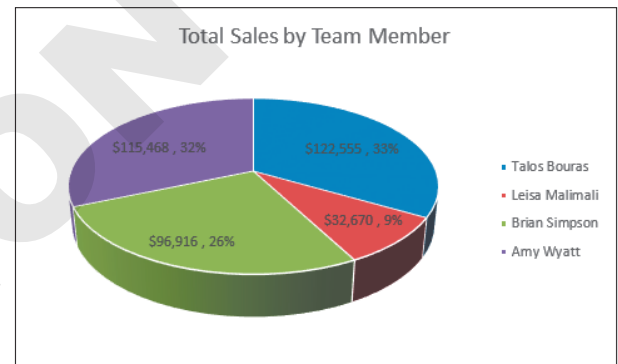


Data labels show the precise value of the various data points.

## Pie Charts

You typically select only two sets of data when creating pie charts: the values to be represented by the pie slices and the labels to identify the slices.

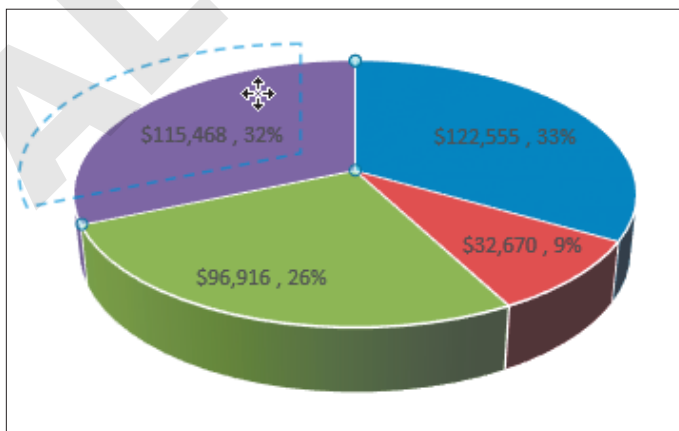
	A	B	C	D	E	F
4		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total Sales</b>
5	Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670
7	Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916
8	Amy Wyatt	30,725	27,444	28,802	28,497	\$ 115,468
10	<b>Quarter Total</b>	<b>\$ 93,925</b>	<b>\$ 87,561</b>	<b>\$ 91,967</b>	<b>\$ 94,156</b>	<b>\$ 367,609</b>



This pie chart is based on the selected data.

## Exploding Pie Slices

There will be times when you want to draw attention to a particular slice of a pie chart. You can make one slice explode from the chart simply by dragging it away from the other slices.



As you drag a slice out to give it an exploded effect, Excel will show with a dashed line where it will land.



## Rotating and Elevating Pie Charts

You can change the rotation and perspective (also known as elevation) of pie charts to display data in a different position or change the angle at which it is viewed.

### FROM THE RIBBON

Format→Shape  
Styles→Shape  
Effects→3-D  
Rotation→3-D Rotation  
Options



You can rotate other types of 3-D charts as well, but 2-D charts cannot be rotated.

## DEVELOP YOUR SKILLS EX06-D03

### Create a Line Chart

In this exercise, you will use the same data to create a line chart and a pie chart.

1. Save your file as **EX06-D03-SalesCharts-[FirstInitialLastName]**.
2. Select the **Sales by Quarter** worksheet.
3. Follow these steps to select the data for the line chart:

**A** Select the **range A4:E4**.

**B** Press and hold **Ctrl** while selecting the **range A10:E10**.

**C** Choose **Insert→Charts→Insert Line Chart ▼→Line with Markers**.

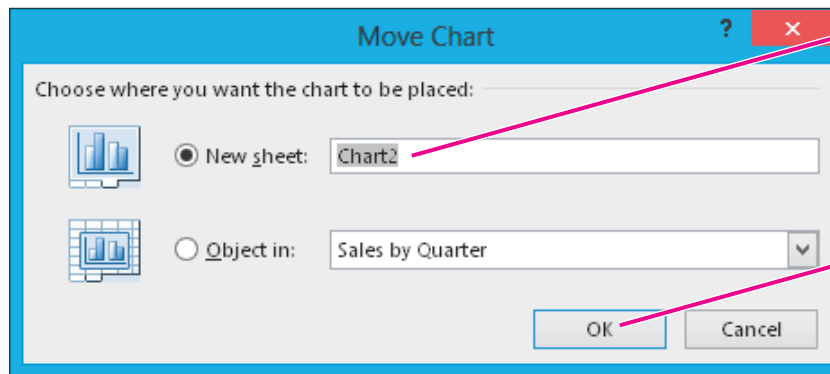
	A	B	C	D	E	F
1	<b>Sales Department</b>					
2	Quarterly and Total Sales - Fiscal Year					
3						
4		Q1	Q2	Q3	Q4	Total Sales
5	Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670
7	Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916
8	Amy Wyatt	38,725	27,444	28,802	28,497	\$ 115,468
9						
10	Quarter Total	\$ 93,925	\$ 87,561	\$ 91,967	\$ 94,156	\$ 367,609

Excel creates an embedded line chart in the current worksheet.

4. With the chart selected, choose **Chart Tools→Design→Location→Move Chart** .



5. Follow these steps to move the chart to its own sheet:



**A** Highlight **Chart2** and type **Sales Trend**.

**B** Click **OK**.

The chart now appears on its own worksheet.

### Edit the Chart

6. Click the **Title** text box, type **Sales Trend**, and tap **[Enter]**.
7. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element** →**Axis Titles**→**Primary Horizontal**.  
A text box appears below the horizontal axis with the default name Axis Title.
8. Type **Quarter** and tap **[Enter]** to replace the default horizontal axis title.
9. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element** →**Axis Titles**→**Primary Vertical**, type **Revenue**, and tap **[Enter]**.
10. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element** →**Data Labels**→**Above**.

Excel displays the values above the data points on the chart.

### Insert a Pie Chart

11. Select the **Team Totals** worksheet.
12. Follow these steps to select the range for the pie chart:


FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW						
PivotTable Recommended PivotTables Tables						
Illustrations Apps for Office Apps						
Recommended Charts Charts						
F4 : X Y fx Total Sales						
	A	B	C	D	E	F
4		Q1	Q2	Q3	Q4	Total Sales
5	Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670
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10	Quarter Total	\$ 93,925	\$ 87,561	\$ 91,967	\$ 94,156	\$ 367,609

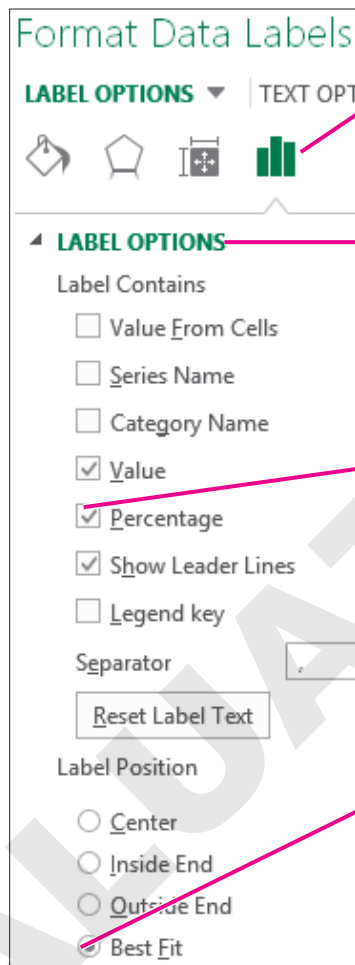
**A** Drag to select the range **A4:A8**.

**B** While holding **[Ctrl]**, drag to select the range **F4:F8**.

**C** Choose **Insert**→**Charts**→**Insert Pie or Doughnut Chart** ▼→**3-D Pie**.



13. Place the mouse pointer over the chart area so that the **four-pointed arrow** appears, and then drag down and left until it is below **row 11** and centered between **columns A–F**.  
*Notice that the cell F4 entry, Total Sales, is used as the chart title.*
14. Edit the chart title to read **Total Sales by Team Member**. Click outside of the Title box to accept the new title.
15. Choose **Chart Tools→Design→Chart Layouts→Add Chart Element**  **Data Labels→More Data Label Options**.  
*The Format Data Labels task pane appears.*
16. Follow these steps to format the data labels:



**A** Select **Label Options**.

**B** Click the **Label Options** category title to expand the list of options, if necessary.

**C** Place a checkmark next to **Percentage**.

**D** Choose **Best Fit** here, if necessary.

**E** Click **Close**.

*Excel displays both the value and the percentage in each pie slice wherever they “best fit.”*



## Explode a Pie Slice

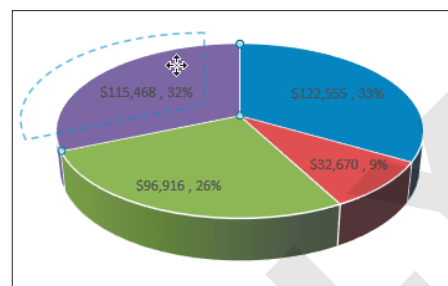
17. Click the slice representing **Amy Wyatt's sales**, and then pause and click it again.

*The first click will select all slices, and the second click will select just the slice for Amy Wyatt.*

18. Place the mouse pointer over the **Amy Wyatt** slice until you see a move pointer, and then drag away from the pie chart slightly and release.

*Notice that as you drag the pie slice away from the main chart, a dashed line appears where the slice will land if you release the mouse button.*

19. Save the file and leave it open.



## Modifying Existing Charts

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0604

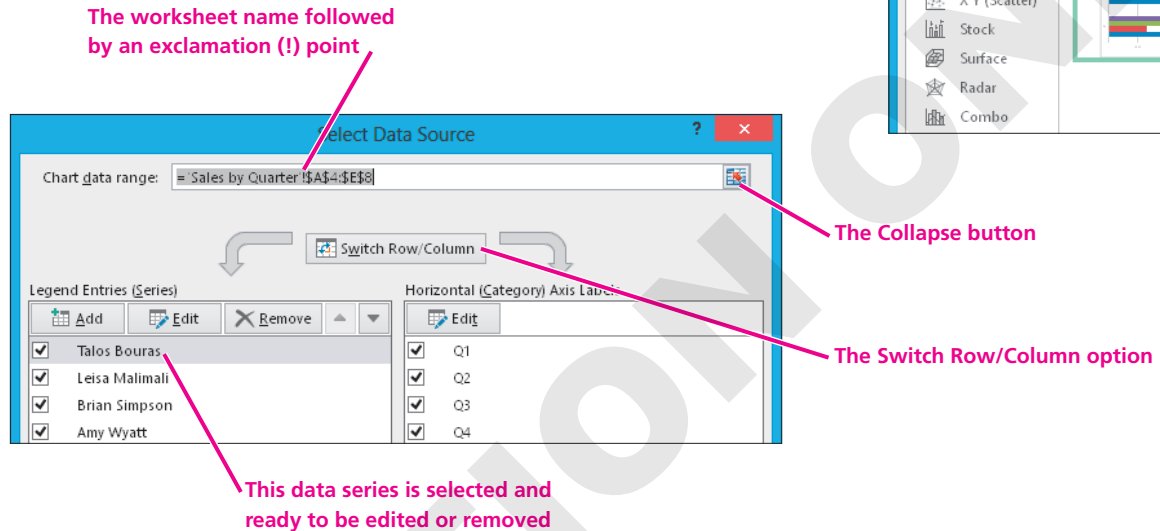
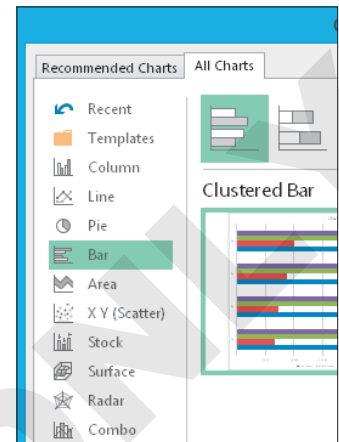
You can modify any chart object after the chart has been created. The following table describes the various Chart Tools available to modify your charts.

CHART TOOLS ON THE RIBBON	
Contextual Tab	Command Groups on the Tab
Design	<ul style="list-style-type: none"> <li>■ <b>Chart Layouts:</b> Change the overall layout of the chart and add chart elements.</li> <li>■ <b>Chart Styles:</b> Choose a preset style for your chart.</li> <li>■ <b>Data:</b> Switch the data displayed on rows and columns, and reselect the data for the chart.</li> <li>■ <b>Type:</b> Change the type of chart, set the default chart type, and save a chart as a template.</li> <li>■ <b>Location:</b> Switch a chart from being embedded to being placed on its own sheet and vice versa.</li> </ul>
Format	<ul style="list-style-type: none"> <li>■ <b>Current Selection:</b> Select a specific chart element, apply formatting, and reset formatting.</li> <li>■ <b>Insert Shapes:</b> Insert and change shapes.</li> <li>■ <b>Shape Styles:</b> Visually make changes to the selected chart element.</li> <li>■ <b>WordArt Styles:</b> Apply WordArt to text labels in your chart.</li> <li>■ <b>Arrange:</b> Change how your chart is arranged in relation to other objects in your worksheet.</li> <li>■ <b>Size:</b> Change the size of your chart.</li> </ul>



## Changing the Chart Type and Source Data

It's easy to change an existing chart to a different type using the Change Chart Type dialog box. You can also change the source data from within the Select Data Source dialog box. You may find it easier to edit the existing data range by using the collapse button. Aside from editing the data range, you can also alter individual data series, add additional data series, and alter the horizontal axis. Note that the Switch Row/Column option swaps the data in the vertical and horizontal axes.



Using the arrow keys to edit a data range in a text box will result in unwanted characters. For best results, reselect a data range by dragging in the worksheet.

## Modifying and Formatting Chart Elements



The legend, titles, and columns are chart elements. Once selected, you can delete, move, size, and format different elements. You can move a selected element by dragging it with the mouse when you see the move pointer, or change its size by dragging a sizing handle.

You can modify any chart element after the chart has been created by double-clicking the chart element to display a Format task pane with many options for that element. For example, options in the Format Chart Title dialog box allow you to adjust the vertical alignment, adjust the text direction, and apply a fill, border, or other visual effects.

### Previewing Formatting Before Applying

The Chart Formatting buttons allow you to preview a variety of formatting changes. If you place the mouse pointer over an option accessed through these buttons, a preview displays how the change will look in your chart.



QUICK REFERENCE	MODIFYING EXISTING CHARTS
Task	Procedure
Change the chart type	<ul style="list-style-type: none"> <li>Select the chart, choose Chart Tools→Design→Type→Change Chart Type, and double-click the desired type.</li> </ul>
Select a new data range for an entire chart	<ul style="list-style-type: none"> <li>Select the chart and choose Chart Tools→Design→Data→Select Data.</li> <li>Click the Collapse  button and select the new data range.</li> <li>Click the Expand  button and click OK.</li> </ul>
Select a new range for a data series	<ul style="list-style-type: none"> <li>Select the chart and choose Chart Tools→Design→Data→Select Data.</li> <li>Select the desired item under the Legend Entries (Series) and click Edit.</li> <li>Highlight the Series Values entry, select the new range, and click OK twice.</li> </ul>
Add additional data series	<ul style="list-style-type: none"> <li>Select the chart and choose Chart Tools→Design→Data→Select Data.</li> <li>Click Add under Legend Entries, enter the desired cell(s) for Series Name and Series Values, and click OK twice.</li> </ul>
Delete a chart element	<ul style="list-style-type: none"> <li>Select the desired chart element and tap <b>Delete</b>.</li> </ul>
Format an element on an existing chart	<ul style="list-style-type: none"> <li>Select the chart element and choose the desired formatting command.</li> </ul>

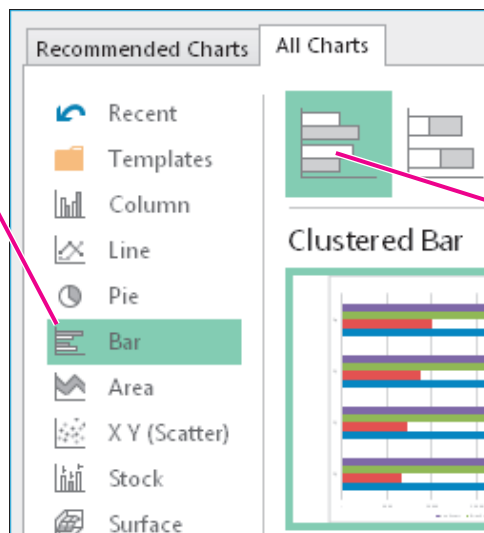
## DEVELOP YOUR SKILLS EX06-D04

### Modify a Chart

In this exercise, you will change a chart type and then apply various formatting features to the new chart.

- Save the file as **EX06-D04-SalesCharts-[FirstInitialLastName]**.
- Select the **Sales by Rep** worksheet, click anywhere within the column chart, and choose **Chart Tools→Design→Type→Change Chart Type**.  
The *Change Chart Type* dialog box appears.
- Follow these steps to change the chart type:

**A** Display the **Bar** category.



**B** Choose **Clustered Bar**.

**C** Click **OK**.



4. Choose **Chart Tools**→**Design**→**Data**→**Select Data** .

You will now exclude the sales performance of Talos Bouras from the data range.

5. Follow these steps to reselect the chart data range:

**A** Click the **Collapse** button to view the worksheet data.

	A	B	C	D	E	F	G	H
4			Q1	Q2	Q3	Q4	Total Sales	
5	Talos Bouras	28,775	21,342	31,763	30,675	\$ 122,555		
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670		
7	Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916		
8	Amy Wyatt	30,725	27,444	28,802	28,497	\$ 115,468		
10	Quarter Total	\$ 93,925	\$ 87,561	\$ 91,967	\$ 94,156	\$ 367,609		

**B** Select the range **A4:E4**.

**C** Hold down **Ctrl** and select the range **A6:E8**.

**D** Click the **Expand**  button and click **OK**.

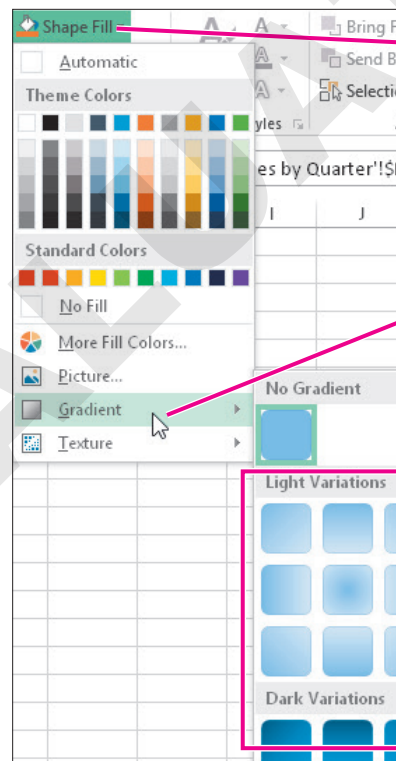
The Legend Entries (Series) now list Amy Wyatt, Brian Simpson, and Leisa Malimali.

6. Select one of the column bars for **Leisa Malimali** and tap **Delete**.

Now two data series display in the chart.

### Format a Chart Using the Ribbon

7. Click anywhere within the top bar in the chart.
8. Follow these steps to apply formatting to the Amy Wyatt data series:





**A** Choose **Chart Tools**→**Format**→**Shape Styles**→**Shape Fill**.

**B** Place the mouse pointer over **Gradient**.

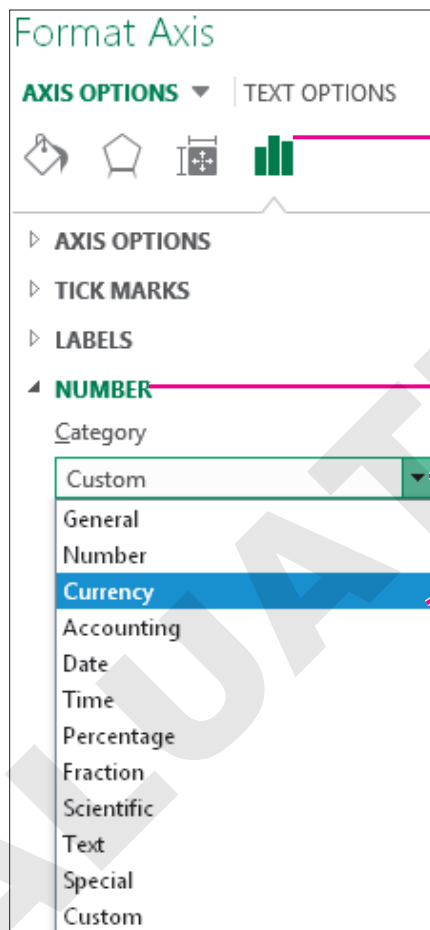
**C** Choose any gradient from the menu.



9. Click anywhere within the chart area to select it.  
*Remember that any formatting you choose will apply only to the chart element selected.*
10. Choose **Chart Tools**→**Format**→**Shape Styles**→**Shape Outline** →**Weight** and select **3 pt**.
11. Choose **Chart Tools**→**Format**→**Shape Styles**→**Shape Outline**  and apply any color; then, click away from the chart to review your formatting changes.

### Format Axis Numbers

12. Double-click any of the values in the **horizontal axis**.  
*Be certain that the Format Axis task pane displays.*
13. Follow these steps to format the axis numbers as Currency:



**A** If necessary, select **Axis Options**.

**B** Choose **Number**.

**C** Click the drop-down arrow and select **Currency**.

**D** Click **Close**.

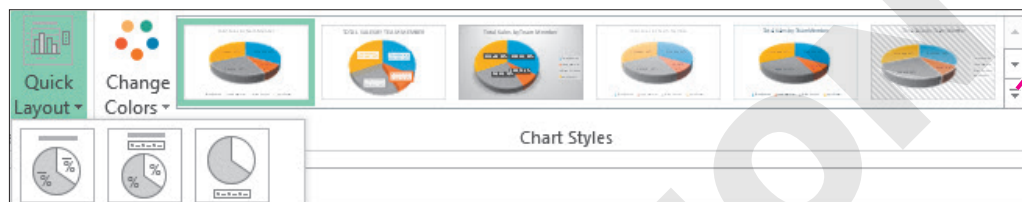
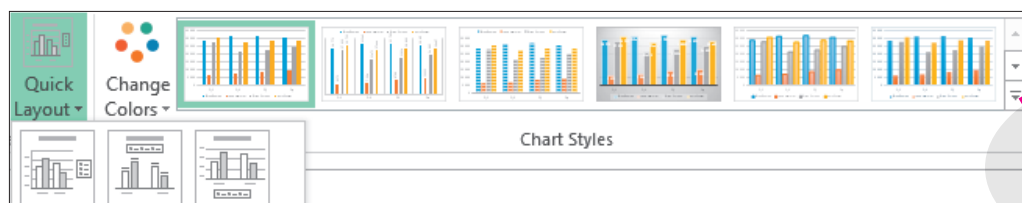
14. Change the default chart title to **Sales by Rep**.
15. Save the file and leave it open.



# Applying Layouts and Styles to Charts

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0605

Chart layouts, also known as quick layouts, are designs that contain various preset chart elements. Choosing a chart layout saves time versus adding and formatting chart elements one at a time. Chart styles are based on the theme applied to your workbook. You can apply many preset styles to each chart type.



The available chart layouts and styles change based on the type of chart selected.

## Formatting Attributes Controlled by the Selected Style

When you choose a style for your chart, the colors and effects (such as fill effects) change to match the style selected. Data in worksheet cells are not affected by any styles you apply to charts. Excel does not allow you to create your own styles, but you can save the formatting from a selected chart as a template to use as the basis for future charts.


### QUICK REFERENCE

### APPLYING A LAYOUT AND STYLE TO A CHART

#### Task

Apply a layout or style to a chart


#### Procedure

- Select the chart and click the Design tab.
- Click Quick Layouts in the Chart Layouts group, or the More  button in the Chart Styles group, to display the available choices and make your selection.




**DEVELOP YOUR SKILLS EX06-D05****Apply a Layout and a Style to a Chart**


*In this exercise, you will apply a quick layout and Chart Style to your bar chart.*

1. Save your file as **EX06-D05-SalesCharts- [FirstInitialLastName]**.
2. Select the **Sales by Rep** sheet and choose **Page Layout**→**Themes**→**Themes** →**Organic**.  
*A uniform color scheme, font set, and graphic effect are applied to the chart. If the worksheet contained additional data, it would have taken the new styles as well.*

**Change the Chart Layout**

3. Click in the chart area of the **Sales by Rep** chart to select the chart, if necessary.
4. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Quick Layout** .  
*Excel displays all of the chart layout choices for this type of chart.*
5. Choose **Layout 2** in the list.  
*A ScreenTip displays the layout name as you point at each layout. When selecting a chart layout, you may need to reenter any title that is not within the data range specified for the chart.*

**Change the Chart Style**

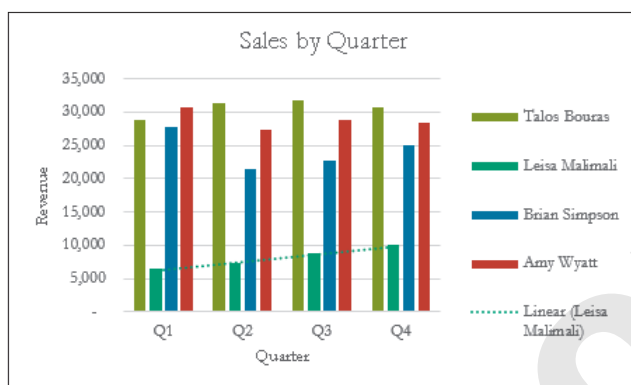
6. Choose **Chart Tools**→**Design**→**Chart Styles**→ **More** .
7. Choose **Style 4** in the list.
8. Save the file and leave it open.



# Creating Trendlines

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0606

**Trendlines** are used on charts for data analysis and prediction. A trendline displays the trend (increasing or decreasing) of one data series in a chart. There are several types of trendlines available, each suited to the display of particular data types. For example, a linear trendline works well with data that follow a fairly straight path. A moving average trendline will smooth out fluctuations in data by averaging two or more adjacent data points for each trendline data point.



This linear trendline depicts the upward trend for Leisa Malimali's sales.



You cannot add a trendline to stacked, 3-D, or pie charts.

## QUICK REFERENCE

## CREATING TRENDLINES



### Task

Add a trendline to a chart

Change the trendline type

Format the trendline

### Procedure

- Display the chart and choose Chart Tools→Design→Chart Layouts→Add Chart Element →Trendline.
- Choose a trendline type and select a data series to base it on (if necessary).
- Select the trendline.
- Choose Chart Tools→Design→Chart Layouts→Add Chart Element →Trendline and select a trendline type.
- Double-click the trendline and choose the desired option.

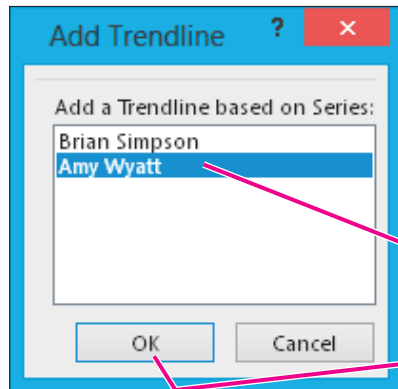


## DEVELOP YOUR SKILLS EX06-D06

## Add a Trendline

In this exercise, you will add a trendline to an existing chart.

1. Save your file as **EX06-D06-SalesCharts- [FirstInitialLastName]**.
2. Follow these steps to add a trendline to the Amy Wyatt data series:



- A Select the **Sales by Rep** sheet.
- B Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element**→**Trendline**→**Linear**.
- C Choose **Amy Wyatt**.
- D Click **OK**.

The trendline that appears shows the trend for Amy Wyatt only.

3. Position the tip of the pointer arrow against the trendline and click to select the trendline.

Handles will display at the endpoints of the trendline.

4. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element**→**Trendline**→**Linear Forecast**.

The trendline lengthens to forecast sales in the next two quarters.

5. If necessary, double-click the trendline to open the **Format Trendline** task pane.

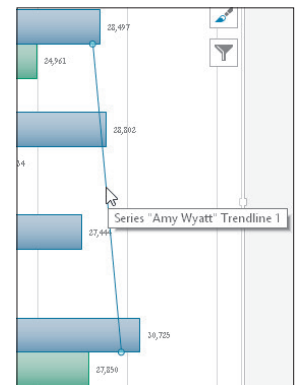
6. In the **Forecast** area of Trendline Options, change **Forward** from 2.0 periods to **1**; tap **Enter**.

The trendline now forecasts only one quarter in the future.

7. With the trendline still selected, select **Moving Average** in the Format Trendline task pane; click **Close**.

The trendline shortens to begin at the second quarter, omits the previously displayed forecast, and now displays an angle.

8. Save the file and leave it open.





# Creating Sparklines in Cells

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0607

**Sparklines** appear as miniature charts in worksheet cells. They allow you to show data graphically without creating a larger chart. You may select a cell range and create sparklines for every row or column at once. Changes to data are reflected immediately in sparklines adjacent to the data. Each sparkline charts the data in one row or column.

	A	B	C	D	E	F	G
4		Q1	Q2	Q3	Q4	Total Sales	
5	Talos Bouras	28,775	31,342	31,763	30,675	\$ 122,555	
6	Leisa Malimali	6,575	7,304	8,768	10,023	\$ 32,670	
7	Brian Simpson	27,850	21,471	22,634	24,961	\$ 96,916	
8	Amy Wyatt	30,725	27,444	28,802	28,497	\$ 115,468	

Sparklines show trends in data within a single cell.

## Formatting Sparklines

You may format a sparkline as a line, column, or win-loss. The win-loss format shows whether figures are positive or negative. You may format sparklines with different styles and choose to display data points in various ways. Note that the same formatting must be applied to sparklines that were created all at once.

QUICK REFERENCE	CREATING SPARKLINES
<b>Task</b>	<b>Procedure</b>
Create a sparkline	<ul style="list-style-type: none"> <li>Select the cell or cell range that will display the sparkline.</li> <li>Choose Insert→Sparklines and select the desired sparkline.</li> <li>Select the data range containing the source values and click OK.</li> </ul>
Format a sparkline	<ul style="list-style-type: none"> <li>Select the cell or range of cells containing the sparkline(s) and choose the desired option.</li> </ul>

## DEVELOP YOUR SKILLS EX06-D07

### Create Sparklines

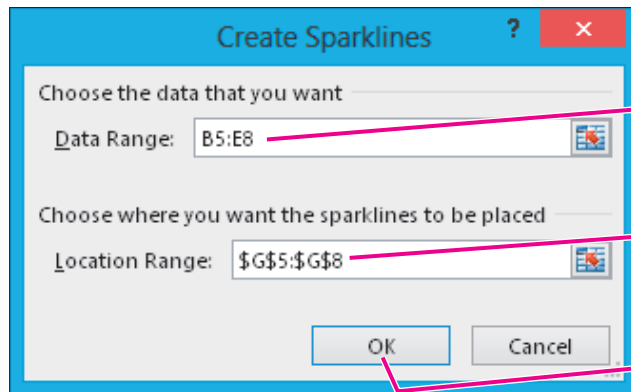
In this exercise, you will create sparklines to show upward and downward trends in data.

1. Save your file as **EX06-D07-SalesCharts-[FirstInitialLastName]**.
2. Display the **Team Totals** sheet and select the range **G5:G8**.  
*These cells will contain the sparklines.*
3. Choose **Insert→Sparklines→Line**



4. Follow these steps to create the sparkline:

A Move the dialog box, if necessary, to view **column B** in the worksheet.



B Select the **range B5:E8** as the data range.

C Ensure that the Location Range is **\$G\$5:\$G\$8**.

D Click **OK**.

5. Choose **Sparkline Tools**→**Design**→**Show**→**Markers** to place a checkmark next to **Markers**.

*The sparklines display a dot marker for each quarter, thus making the upward and downward trends easier to understand.*

6. Select **cell G10** and then choose **Insert**→**Sparklines**→**Column** .

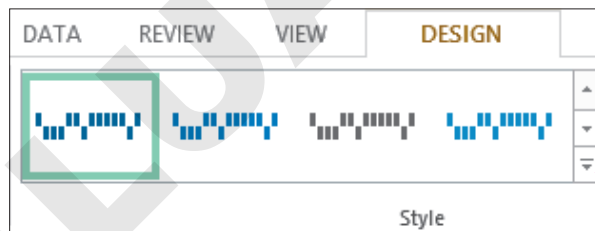
7. In the **Create Sparklines** dialog box, set the Data Range to **B10:E10**, verify that the Location Range is **\$G\$10**, and click **OK**.

*This time you created a single sparkline.*

### Format Sparklines

8. If necessary, select **cell G10**.

9. follow these steps to change the sparkline style:



A Choose **Sparkline Tools**→**Design**→**Style**→**More**.

B Choose a different color style from the **Styles** list.

10. Select **cell G5**.

*The range G5:G8 is surrounded by an outline to indicate that the four sparklines are selected. You previously created these sparklines all at once.*

11. Choose **Sparkline Tools**→**Design**→**Style**→**More**  button and choose a different style.

12. Save the file and leave it open.



# Previewing and Printing Charts

**Video Library** <http://labyrinthlab.com/videos> Video Number: EX13-V0608

The print area within the File tab of Backstage view shows chart previews. Keep in mind that if an embedded chart is active when you choose to print, only the chart itself will print. You must deselect an embedded chart to print its entire worksheet.



Color fills and borders may not provide good contrast in charts printed on grayscale printers. Consider using shades of gray or black-and-white pattern fills.

QUICK REFERENCE	PRINTING CHARTS
Task	Procedure
Preview a chart	<ul style="list-style-type: none"> <li>Select the embedded chart or display the chart sheet.</li> <li>Choose File→Print to see the preview in Backstage view.</li> </ul>
Print a chart	<ul style="list-style-type: none"> <li>Select the embedded chart or display the chart sheet.</li> <li>Choose File→Print, select printing options, and click print.</li> </ul>

## DEVELOP YOUR SKILLS EX06-D08

### Preview and Print a Chart

*In this exercise, you will preview the pie chart and print the line chart.*

1. Save the file as **EX06-D08-SalesCharts-[FirstInitialLastName]**.
2. Select the **Team Totals** worksheet; then click once to select the pie chart.
3. Choose **File→Print**.

*The pie chart appears in the preview of the Print tab in Backstage view.*

4. Tap **[Esc]** to exit Backstage view without printing.
5. Click in a cell away from the pie chart to deselect the chart.
6. Choose **File→Print**.  
*Notice that when the chart is not selected, Excel will print the worksheet along with the embedded chart.*
7. Tap **[Esc]** to exit Backstage view without printing.
8. Display the **Sales Trend** worksheet and, if desired, choose **File→Print** to print the worksheet.
9. Save then close the file. Exit **Excel**.



## Concepts Review

To check your knowledge of the key concepts introduced in this lesson, complete the Concepts Review quiz by choosing the appropriate access option below.

If you are...	Then access the quiz by...
Using the Labyrinth Video Library	Going to <a href="http://labyrinthelab.com/videos">http://labyrinthelab.com/videos</a>
Using eLab	Logging in, choosing Content, and navigating to the Concepts Review quiz for this lesson
Not using the Labyrinth Video Library or eLab	Going to the student resource center for this book



# Reinforce Your Skills



## REINFORCE YOUR SKILLS EX06-R01

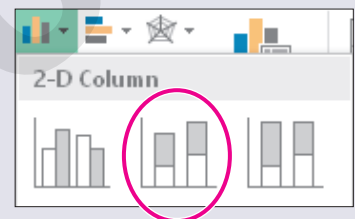
### Create and Modify a Column Chart

In this exercise, you will create, move, and modify a column chart that compares total new customers by time period.

#### Create Charts in Excel

1. Start **Excel**. Open **EX06-R01-Comparison** from the **EX2013 Lesson 06** folder and save it as **EX06-R01-Comparison- [FirstInitialLastName]**.
2. Select the range **A3:E7**.
3. Choose **Insert**→**Charts**→**Column**→**2-D Column**→**Stacked Column**.

The chart shows a column for each quarter with the four customer source categories stacked in each.




#### Move and Size Embedded Charts

4. Point at the chart area, and then drag the chart down and left until the upper-left corner is at **cell A11**.
5. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Quick Layout**→**Layout 3**.

ScreenTips help you locate Layout 3 in the list. The legend is moved below the horizontal axis and a title text box is added above the chart.

9	Average
10	
11	
12	
13	250

#### Explore Other Chart Types

6. Choose **Chart Tools**→**Design**→**Type**→**Change Chart Type**→**Line**→**Stacked Line**.  
After reviewing the stacked line chart, you decide that you prefer the stacked column chart.
7. Click **Undo** .

#### Modify Existing Charts

8. Select the chart title text box, type **=**, select **cell A3**, and tap **Enter**.

As you type the formula, **=Contracts!\$A\$3** appears within the Formula Bar.

9. Choose **Chart Tools**→**Design**→**Data**→**Switch Row/Column**.

The data reverse so the horizontal category axis displays the customer source categories. Each column represents the total new customers in a customer source category.

✓	<i>f<sub>x</sub></i>	=Contracts!\$A\$3		
	C	D	E	
Customer Source				

10. Save and then close the file. Exit **Excel**.
11. Submit your final file based on the guidelines provided by your instructor.

To view examples of how your file or files should look at the end of this exercise, go to the student resource center.



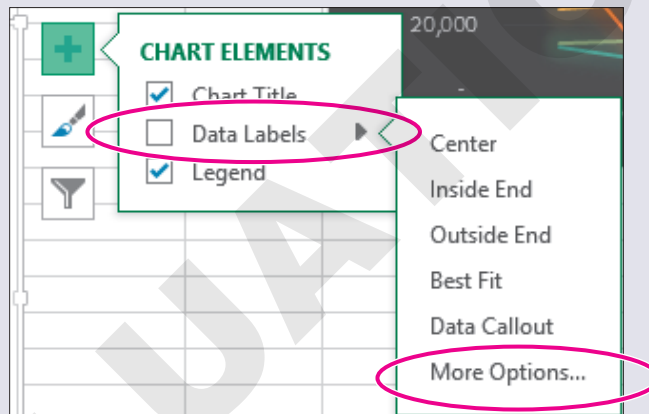
## REINFORCE YOUR SKILLS EX06-R02

### Finalize and Preview a Chart

In this exercise, you will add a trendline to an existing chart and add sparklines to existing data. You will also apply a chart layout and preview a chart's appearance prior to printing.

#### Apply Layouts and Styles to Charts

1. Start **Excel**. Open **EX06-R02-PayrollExpenses** from the **EX2013 Lesson 06** folder and save it as **EX06-R02-PayrollExpenses - [FirstInitialLastName]**.
2. Select the chart then choose **Chart Tools**→**Design**→**Chart Styles**→**Style #9**.
3. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Quick Layout**→**Layout #1**.
4. Change the default chart title text to **Payroll Expenses Chart** and click elsewhere on the worksheet to confirm the new title.
5. Using the **[Ctrl]** key, select the **range B3:E3** and the **range B9:E9**.
6. Choose **Insert**→**Charts**→**Insert Pie or Doughnut Chart**→**2-D Pie**→**Pie**.
7. Move the chart to **row 11** below the worksheet data.
8. Click the **Chart Elements** button for the pie chart and hold your mouse pointer over **Data Labels**. Click the arrow that appears and choose **More Options**.



9. Under **Label Options**, place a checkmark next to **Category Name** and **Percentage**, remove the checkmark from **Value**, and click **Close**.  
*If you had removed the checkmark from Value first, you would have immediately removed all data labels, which would have made the Label Options menu disappear.*
10. Click the **Chart Elements** button for the pie chart, hold your mouse pointer over **Data Labels**, click the arrow, and choose **Inside End**.
11. Click in the legend for the pie chart and tap **[Delete]**.  
*The legend is unnecessary because the department names are displayed in the data labels.*
12. Change the default chart title text for the pie chart to read **Payroll Expenses by Department**. Click elsewhere on the worksheet to confirm the new title.




## Create Trendlines

13. Select the **Payroll Expenses Chart** and choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element**→**Trendline**→**More Trendline Options**.
14. Choose to apply the trendline to the **Wages** data series and then close the Format Trendline task pane.

*Notice how the trendline has smoothed out the fluctuations in the Wages data series.*

## Create Sparklines in Cells

15. Select the **range G4:G8**.
16. Choose **Insert**→**Sparklines**→**Line** , select the **range B4:E8**, and click **OK**.  
*The Sparkline Tools Design tab appears when the sparklines are inserted.*
17. Choose **Sparkline Tools**→**Design**→**Show** and click to place checkmarks beside **Markers** and **Low Point**.  
*The markers indicate each department.*
18. Choose **Sparkline Tools**→**Design**→**Style**→**Marker Color**→**Low Point** and choose a different theme color.

## Preview and Print Charts

19. With the pie chart selected, choose **File**→**Print**.  
*Only the chart is previewed in Backstage view because the pie chart is selected.*
20. Tap **[Esc]** to exit Backstage view without printing.
21. Save and then close the file. Exit **Excel**.
22. Submit your final file based on the guidelines provided by your instructor.  
*To view examples of how your file or files should look at the end of this exercise, go to the student resource center.*

## REINFORCE YOUR SKILLS EX06-R03

## Create and Finalize a Chart

*In this exercise, you will create, move, and modify a bar chart. You will also add trendlines and sparklines, and preview the worksheet.*

### Create Charts in Excel

1. Start **Excel**. Open **EX06-R03-Donations** from the **EX2013 Lesson 06** folder and save it as **EX06-R03-Donations- [FirstInitialLastName]**.
2. Select the **range A3:E7**.
3. Choose **Insert**→**Charts**→**Insert Bar Chart**→**2-D Bar**→**Clustered Bar**.  
*The chart shows a cluster of four bars for each quarter. The bars represent the source of each donation.*

### Move and Size Embedded Charts

4. Point at the chart area and drag the chart down and to the left until the upper-left corner is at **cell A10**.



5. Hold **Shift**, point at the bottom-right corner of the chart, and drag to reduce the chart size so it does not extend beyond **column F**.

*Holding the **Shift** key ensures that the chart will resize proportionally.*

## Explore Other Chart Types

6. Choose **Chart Tools**→**Design**→**Type**→**Change Chart Type**→**Line**→**Line with Markers**; click **OK**.

*After reviewing the line chart, you decide that you prefer the clustered bar chart.*

7. Click **Undo** .

## Modify Existing Charts

8. Click in the chart title text box and type **Donation Source**. Click elsewhere in the worksheet to confirm the new title.
9. With the chart selected, choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element**→**Legend**→**Top**.
10. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element**→**Gridlines**→**Primary Minor Vertical**.

*Gridlines make it easier to determine the precise value of each bar within the chart.*

## Apply Layouts and Styles to Charts

11. Choose **Chart Tools**→**Design**→**Chart Styles**→**Style 2**.
12. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Quick Layout** and review the available layouts.

*If you had not already modified various chart elements, you could choose a layout here to alter multiple aspects at once.*

## Create Trendlines

13. Choose **Chart Tools**→**Design**→**Chart Layouts**→**Add Chart Element**→**Trendline**→**Linear**.
14. Choose to apply the trendline to the **Web Orders** data series and click **OK**.

## Create Sparklines in Cells

15. Select the **range G4:G7**.
16. Choose **Insert**→**Sparklines**→**Column** , select the **range B4:E7** as the data range, and click **OK**.

*The Sparkline Tools Design tab becomes accessible when the sparklines are inserted.*

17. On the Design tab, change the style to **Sparkline Style Colorful #4**.

## Preview and Print Charts

18. Choose **File**→**Print** to preview the worksheet.
19. Tap **Esc** to exit Backstage view without printing.
20. Save and then close the file. Exit **Excel**.
21. Submit your final file based on the guidelines provided by your instructor.



# Apply Your Skills

## APPLY YOUR SKILLS EX06-A01

### Create a Line Chart

*In this exercise, you will create a line chart on a separate sheet, rename the sheet tabs, and modify a chart.*

#### Create Charts and Move and Size Embedded Charts in Excel

1. Start **Excel**. Start a new workbook and save it as **EX06-A01-WebOrders-[FirstInitialLastName]** in the **EX2013 Lesson 06** folder.
2. Create this worksheet using the following parameters:
  - Use **AutoFill** to expand the date series.
  - Resize the column widths as necessary.
3. Format the dates so they are displayed as Mar-14 (without the day).
4. Use the worksheet data to create the chart shown:
  - Set up the axis labels and title as shown.
  - Do not include a legend.

	A	B
1	Universal Corporate Events	
2	Web Orders	
3		
4	Date	Web Orders
5	3/15/2014	92
6	4/15/2014	146
7	5/15/2014	122
8	6/15/2014	154
9	7/15/2014	128
10	8/15/2014	140
11	9/15/2014	231
12	10/15/2014	245
13	11/15/2014	258
14	12/15/2014	244
15	1/15/2015	231
16	2/15/2015	176
17	Total	2,167



5. Place the chart on a separate sheet named **Web Orders Trend**.  
*The dates will not appear slanted after the chart is moved.*
6. Rename the **Sheet1** tab **Supporting Data**.



## Explore Other Chart Types and Modify Existing Charts

7. Change chart type to a **3-D pie** chart.  
*Since the data in this worksheet is not conveyed well in a pie chart, it's a good idea to change it once more.*
8. Change chart type to a **3-D line** chart.
9. Remove the chart title and the **Depth (Series)** axis, which is displayed at the bottom-right of the chart.
10. Add a **legend** at the bottom of the chart.  
*You can see that the legend lists only one data series, and therefore is not useful.*
11. Click **Undo** to remove the legend.
12. Save and then close the file. Exit **Excel**.
13. Submit your final file based on the guidelines provided by your instructor.  
*To view examples of how your file or files should look at the end of this exercise, go to the student resource center.*

### APPLY YOUR SKILLS EX06-A02

## Present Data Using Multiple Methods

*In this exercise, you will add sparklines, trendlines, and a column chart to a worksheet. You will also preview and print the worksheet.*

### Create Trendlines and Sparklines

1. Start **Excel**. Open **EX06-A02-ProjRev** from the **EX2013 Lesson 06** folder and save it as **EX06-A02-ProjRev-[FirstInitialLastName]**.
2. Use the data in the range **A6:F9** to create a **clustered column chart**.
3. Add a **linear trendline** to the **Revenue** data series.
4. Change the trendline to a **linear forecast trendline**.
5. Create **line sparklines** in **column G** to present the projected yearly changes in revenue, gross profit, and net profit.
6. Format the sparklines with **markers**.

### Apply Layouts and Styles to Charts and Preview and Print Charts

7. Change the style of the chart to **Style 8**.
8. Change the layout of the chart to **Layout 10**.  
*The layout change has deleted the trendline. Since you want to display the trendline, you need to undo the applied layout.*
9. Click **Undo**.
10. Include the chart title **Financial Projections** and position the chart appropriately below the worksheet data.



11. Preview the worksheet and make any needed adjustments to the chart location.
12. Print the worksheet.
13. Save and then close the file. Exit **Excel**.

14. Submit your final file based on the guidelines provided by your instructor.

*To view examples of how your file or files should look at the end of this exercise, go to the student resource center.*

## APPLY YOUR SKILLS EX06-A03

### Create a Column Chart and Edit Worksheets

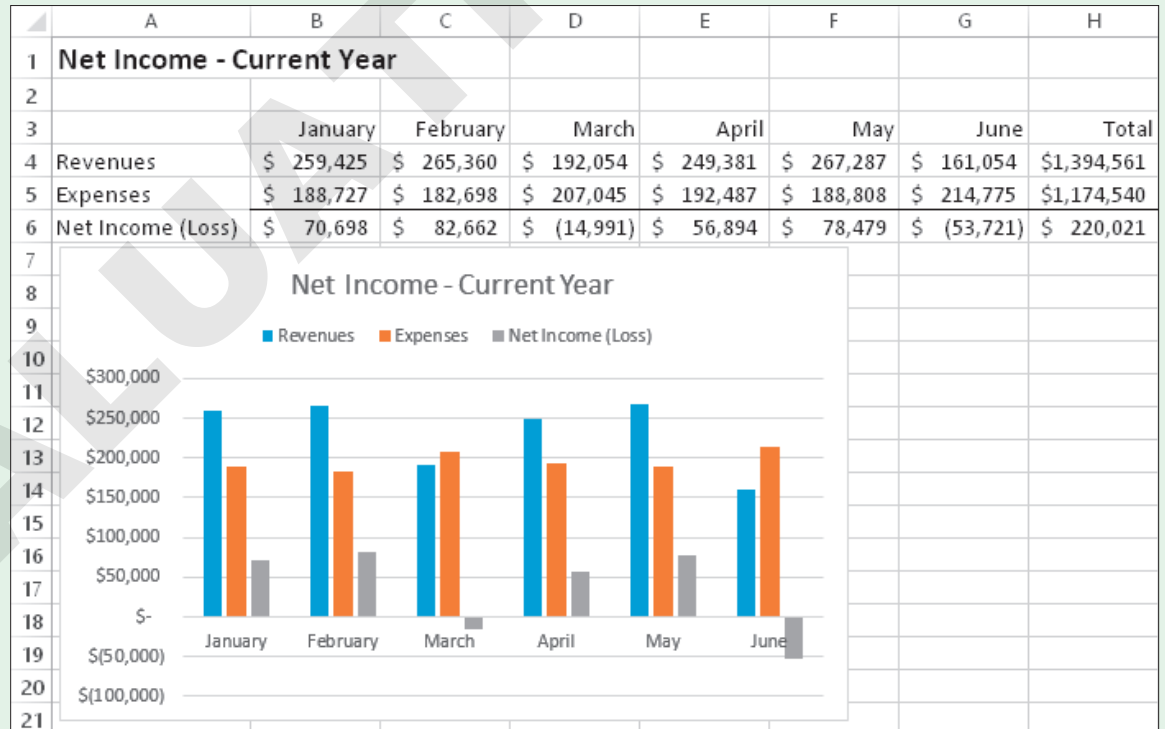
*In this exercise, you will create a column chart embedded in a worksheet. You will also move and print the chart and add sparklines to the worksheet.*

#### Create Charts and Move and Size Embedded Charts in Excel

1. Start **Excel**. Start a new workbook and save it as **EX06-A03-NetIncome-[FirstInitialLastName]** in the **EX2013 Lesson 06** folder.
2. Create the worksheet and embedded column chart shown. Choose an appropriate chart layout so the negative numbers dip below the category axis in the chart.



The differences in row 6 are the revenues minus the expenses.



3. Move the chart to a separate sheet, and rename the sheet tab **Net Income Chart**.



4. Rename the worksheet tab **Net Income Analysis**.
5. Add the color of your choice to the **Net Income Analysis** tab.

### Explore Other Chart Types and Modify Existing Charts

6. Create a **pie chart** on a separate sheet, showing revenues for the first six months of the year. Name the sheet **Revenue Chart**.
7. Explode the largest pie slice.
8. Change the chart colors of both charts to shades of gray, suitable for printing on a grayscale printer.
9. Italicize the chart titles of both charts.

### Create Trendlines and Sparklines

10. Include a **linear trendline** within the column chart for **Net Income (Loss)**.  
*Notice that the negative Net Income figures in March and June “drag” the trendline lower than it would be otherwise.*
11. Within the Net Income Analysis tab, include **column sparklines** in column I for revenue, expenses, and net income.
12. Modify each sparkline to highlight the highest data point.

### Apply Layouts and Styles to Charts and Preview and Print Charts

13. For the column chart, apply **Chart Style 5**.
14. For the pie chart, apply **Layout 6**.
15. Preview all three sheets within the workbook.
16. Print all three sheets in one step.
17. Save and close the file. Exit **Excel**.
18. Submit your final file based on the guidelines provided by your instructor.



# Extend Your Skills



*In the course of working through the Extend Your Skills exercises, you will think critically as you use the skills taught in the lesson to complete the assigned projects. To evaluate your mastery and completion of the exercises, your instructor may use a rubric, with which more points are allotted according to performance characteristics. (The more you do, the more you earn!) Ask your instructor how your work will be evaluated.*

## EX06-E01 That's the Way I See It

In this exercise, you will create a pie chart showing the box office receipts for the top five grossing movies from this past weekend. You can use the Internet to search for these figures, which should be readily available.

Create a new file named **EX06-E01-MovieGrosses - [FirstInitialLastName]** in the **EX2013 Lesson 06** folder.

Enter the box office data within your worksheet, making certain to include appropriate headers throughout. Create a pie chart based on the data and format the chart using the skills learned in this lesson. Explode the slice that represents your favorite movie of the weekend, apply an appropriate chart style, and move the chart to its own worksheet.

You will be evaluated based on the inclusion of all elements specified, your ability to follow directions, your ability to apply newly learned skills to a real-world situation, your creativity, and the relevance of your topic and/or data choice(s). Submit your final files based on the guidelines provided by your instructor.

## EX06-E02 Be Your Own Boss

In this exercise, you will create and format sparklines for the equipment repair costs of your company, Blue Jean Landscaping.

Open **EX06-E02-RepairCost** from the **EX2013 Lesson 06** folder and save it as **EX06-E02-RepairCost - [FirstInitialLastName]**.

Use sparklines to show the cost trend for repairs on each of the three pieces of equipment. Apply a style and appropriate formatting to the sparklines. Then, type a paragraph (minimum of five sentences) in the row below your data to:

- Describe the purpose of the sparklines.
- Explain how sparklines can be used to evaluate your business's data.
- Detail what you have learned about Blue Jean Landscaping's equipment repair costs as a result of the sparklines.

Once you have completed the paragraph, print the data, including the sparklines and the paragraph, as a PDF, saving it as **EX06-E02-Sparklines - [FirstInitialLastName]**.

You will be evaluated based on the inclusion of all elements specified, your ability to follow directions, your ability to apply newly learned skills to a real-world situation, your creativity, and your demonstration of an entrepreneurial spirit. Submit your final files based on the guidelines provided by your instructor.



# Transfer Your Skills



*In the course of working through the Transfer Your Skills exercises, you will use critical-thinking and creativity skills to complete the assigned projects using skills taught in the lesson. To evaluate your mastery and completion of the exercises, your instructor may use a rubric, with which more points are allotted according to performance characteristics. (The more you do, the more you earn!) Ask your instructor how your work will be evaluated.*

## EX06-T01 Use the Web as a Learning Tool

Throughout this book, you will be provided with an opportunity to use the Internet as a learning tool by completing WebQuests. According to the original creators of WebQuests, as described on their website (WebQuest.org), a WebQuest is “an inquiry-oriented activity in which most or all of the information used by learners is drawn from the web.” To complete the WebQuest projects in this book, navigate to the student resource center and choose the WebQuest for the lesson on which you are currently working. The subject of each WebQuest will be relevant to the material found in the lesson.

**WebQuest Subject:** Creating an appropriate chart based on worksheet data

Submit your final file(s) based on the guidelines provided by your instructor.

## EX06-T02 Demonstrate Proficiency

Stormy BBQ’s sales results are in! Your job is to chart the sales data so your manager can discuss the performance of each location in an upcoming team meeting.

Open **EX06-T02-SalesResults** from the **EX2013 Lesson 06** folder and save it as **EX06-T02-SalesResults- [FirstInitialLastName]**. Calculate the totals within the worksheet and consider the significant trends in sales performance. Create an embedded line chart with appropriate labeling for one of these trends. Show other worksheet results in a column chart on a separate sheet. Include a trendline within your column chart. Keep in mind the data relationships that each chart type can best display. When you have completed the charts, choose one of them and write a paragraph (minimum of 5 sentences) that summarizes the results for the team meeting. The summary should include how you plan to use the data to inform future decisions for the company and should be included on a separate worksheet.

Submit your final file based on the guidelines provided by your instructor.



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