



University Information  
Technology Services

# Microsoft Office Excel 2016 for Mac

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## Introduction to Charts

University Information Technology Services

Learning Technologies, Training & Audiovisual Outreach

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# University Information Technology Services

## Excel 2016 for Mac Introduction to Charts

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# Introduction

Workbooks that contain a large amount of data can sometimes be hard to analyze. Charts make it easier to understand your data. This booklet explains how to use the most commonly used charts in Excel. You will learn the parts of a chart and how to add chart elements, such as chart titles, legends, and data labels, to make your chart easier to read.

## Learning Objectives

After reading this booklet, you will be able to:

- Become familiar with the most commonly used types of charts
- Become familiar with the parts of a chart
- Insert charts
- Edit charts
- Format charts
- Switch row and column data
- Move charts
- Save a chart template

**Note:** This document frequently refers to right-click. If your set-up does not include a mouse with two buttons, Mac users can configure their single-button mouse to do a right-click by accessing the *System Preferences > Mouse* settings and setting the right-button to **Secondary Button**. Right-click can also be enabled by holding **Control** + click (See Figure 1).

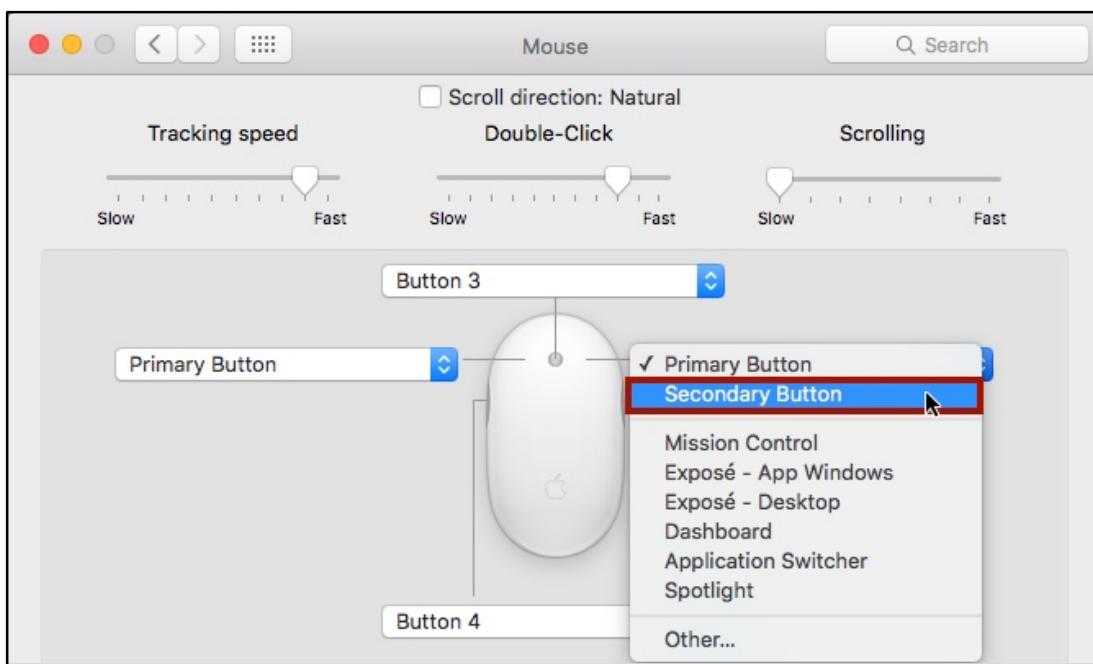


Figure 1 - Setup Right-Click on a Mac

## Using Recommended Charts

The *Recommended Charts* button is a helpful tool that takes the guess work out of selecting a chart. It displays a list of charts best suited to represent your data. The following describes how to create a chart using the Recommended Charts feature:

1. In the *Ribbon*, click the **Insert** tab (See Figure 2).
2. Click **Recommended Charts** (See Figure 2).

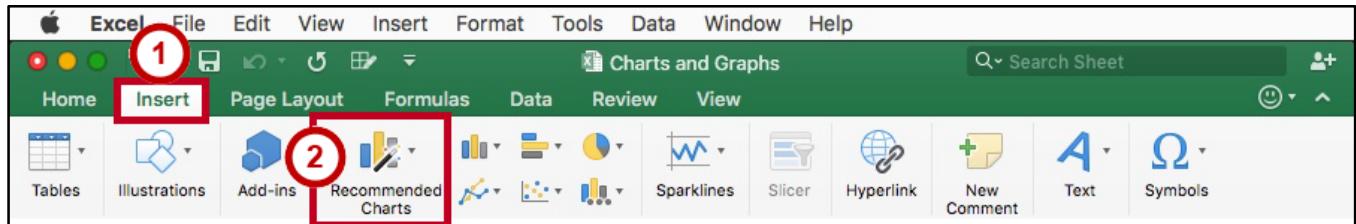


Figure 2 - Recommended Charts

3. The *Recommended Charts* window will appear. The charts that *Excel* determines best represents your data will be listed in the window.

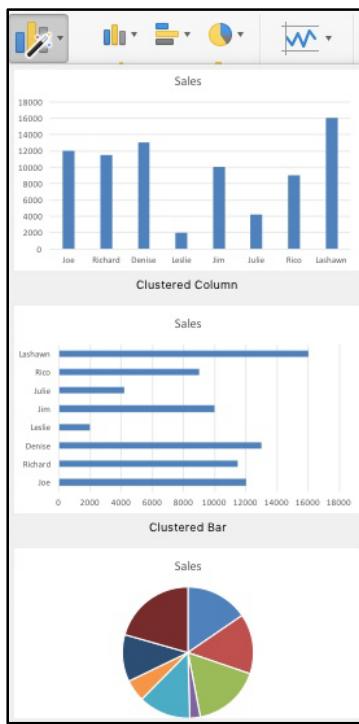


Figure 3 - Recommended Charts

4. Click the **chart** of your choice.
5. The chart will appear on the active worksheet.

**Note:** If you do not want to use a recommended chart from the *Recommended Charts* window, follow the instructions for *Inserting a Chart*.

## Inserting a Chart

The following instructions explain how to insert a chart into your worksheet:

1. Select the range of cells that you want to use in your chart, including **column titles** and **row labels**.

	A	B	C	D	E	F	G
1							
2		<b>Quarter Flower Sales</b>					
3		Month	Daisies	Geraniums	Petunias	Roses	
4		January	120	210	240	220	
5		February	110	120	130	110	
6		March	120	130	150	140	
7		April	200	150	120	100	
8							

Figure 4 - Select Cells

2. On the *Insert* tab, go to the **Charts** group.

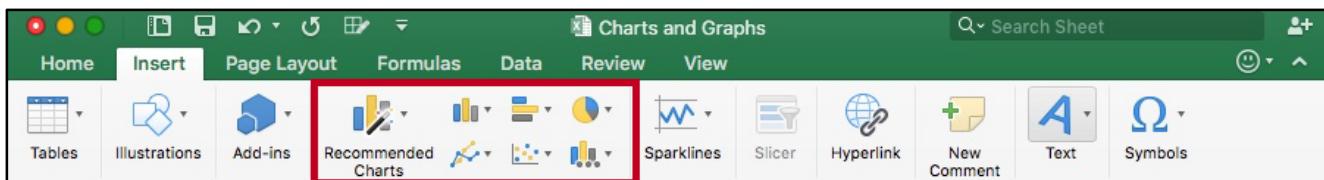


Figure 5 - Charts Group

3. Click the **drop-down arrow** next to the type of chart that you want to use.

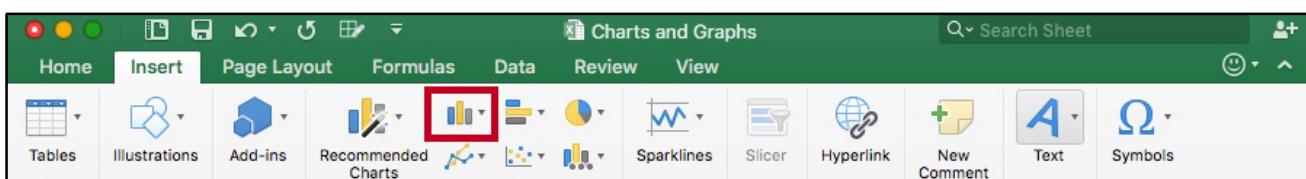
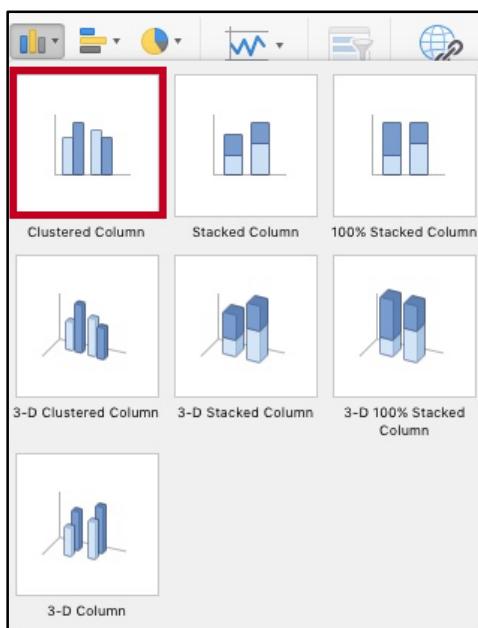


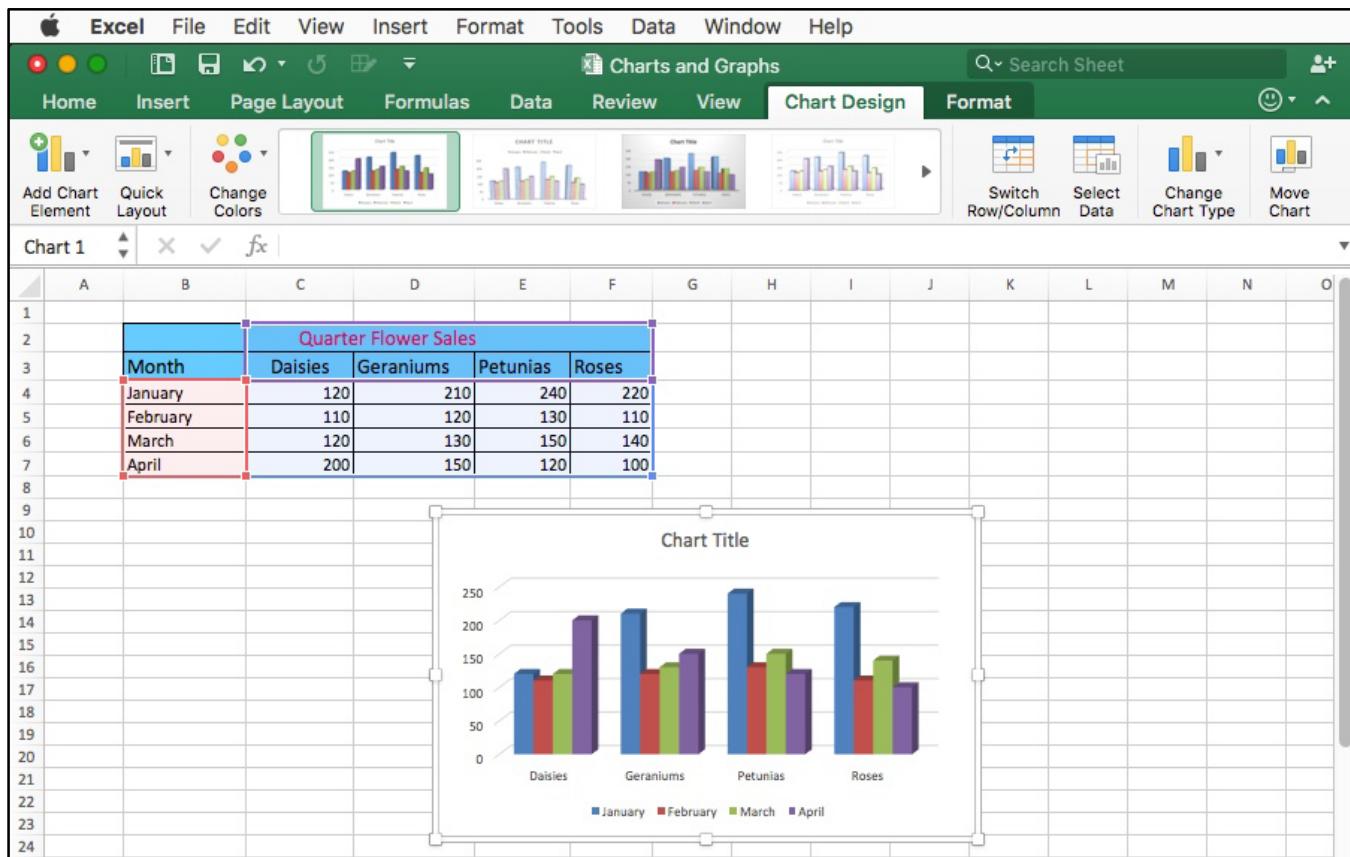
Figure 6 - Select Chart

4. When the menu appears, click the specific **chart style** you want to use.



**Figure 7 - Click the Chart**

5. The new chart will appear on your worksheet.



**Figure 8 - New Chart**

You can also insert a chart using the following steps:

1. Click **Insert** in the *Menu bar* (See Figure 9).
2. Click **Chart** (See Figure 9).
3. Select the **chart type** you want to use from the drop-down list (See Figure 9).

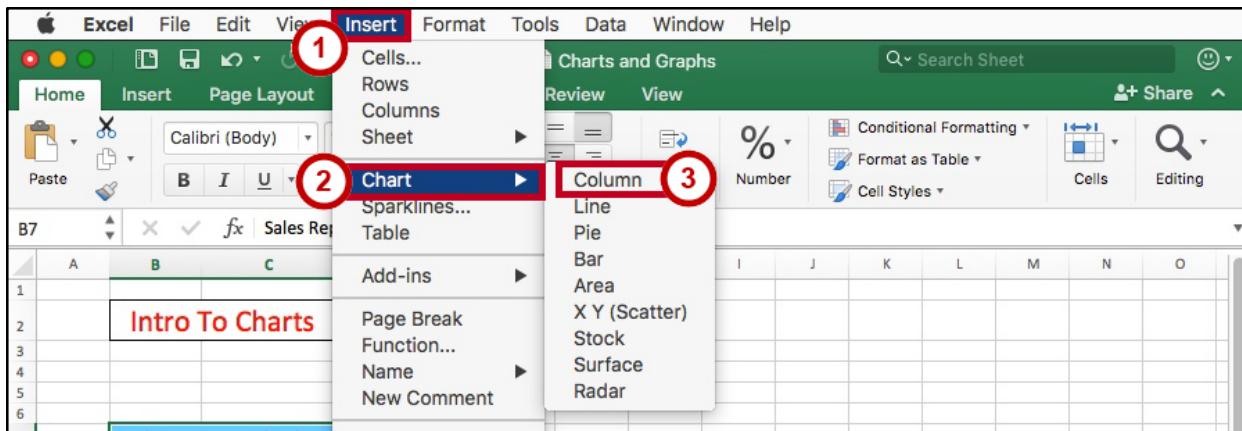


Figure 9 - Insert Chart

## Most Commonly Used Charts

Excel has several different charts for you to choose from. You can choose the chart that best represents your data, making it easier to understand. Below are some of the most commonly used Excel charts.

### Column Chart

*Column Charts* use vertical bars to represent data. They can be used for many different types of data, but are mostly used to compare information.

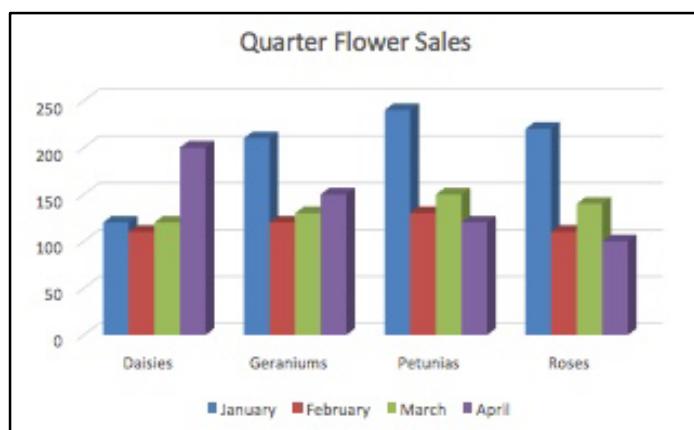


Figure 10 - Column Chart

## Bar Chart

*Bar Charts* are similar to column charts, but use horizontal bars instead of vertical bars to represent the data.

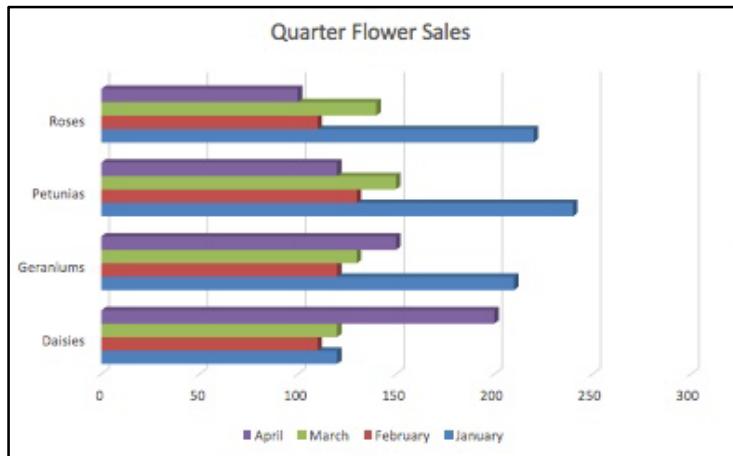


Figure 11 - Bar Chart

## Line Chart

*Line Charts* are best used to show trends. Each data point is connected with lines, which makes it easier to see whether values are increasing or decreasing over time.

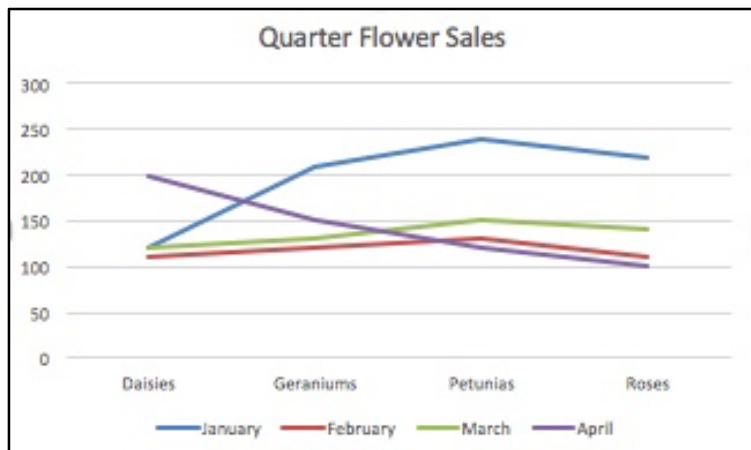


Figure 12 - Line Chart

## Pie Chart

*Pie Charts* are used to compare proportions. Use it to show numbers that relate to a larger sum and always equal 100%.

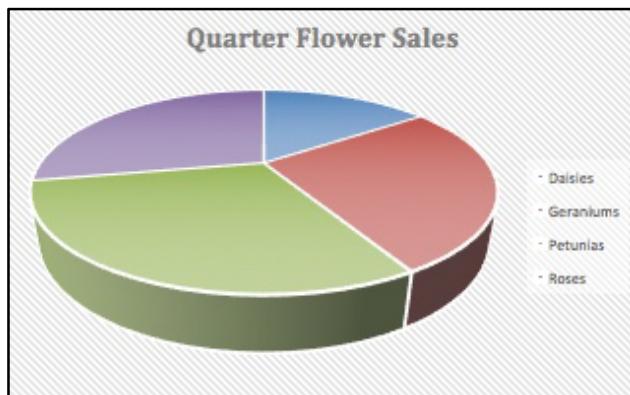


Figure 13 - Pie Chart

## Chart Elements

In order to take full advantage of the intended use of charts, it is important that you understand the different parts of a chart. These elements (and more) can be added/removed from your chart. The following explains the different parts of a column chart:

1. **Chart Title** - The chart title should describe what your chart is illustrating (see Figure 14).
2. **Data Series** - A row or column of numbers in *Excel* that are plotted in a chart (see Figure 14).
3. **Vertical Axis Title** - Also known as the y-axis, the vertical axis is the vertical part of the chart that normally shows the values of the columns (see Figure 14).
4. **Horizontal Axis Title** - also known as the x-axis. The horizontal axis is the horizontal part of the chart that normally shows the categories (see Figure 14).
5. **Legend** - The legend shows the color that each data series represent on the chart (see Figure 14).

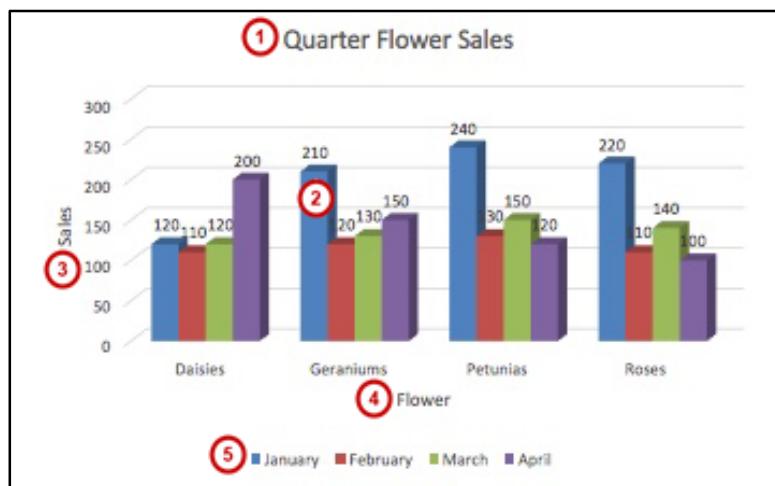


Figure 14 – Chart Elements

## Adding Chart Elements

Adding various elements to your chart provides further descriptive detail. Each element contains various display options, however, the process to add them to your chart is virtually the same. The following instructions explain how to add a title to your chart:

1. Select the **chart** in your workbook.
2. Click the **Chart Design** contextual tab.

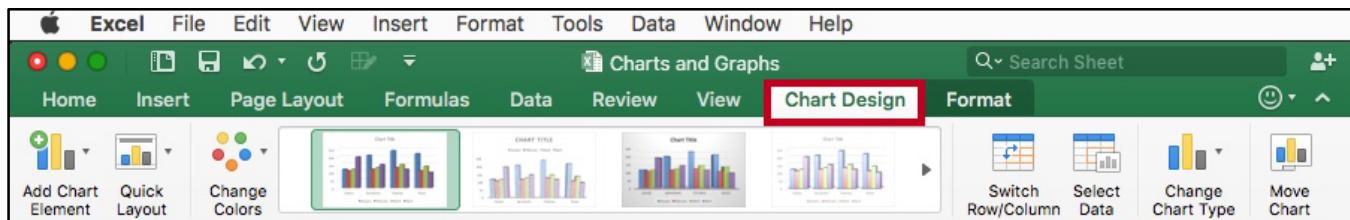


Figure 15 - Design Tab

3. Click **Add Chart Element**.

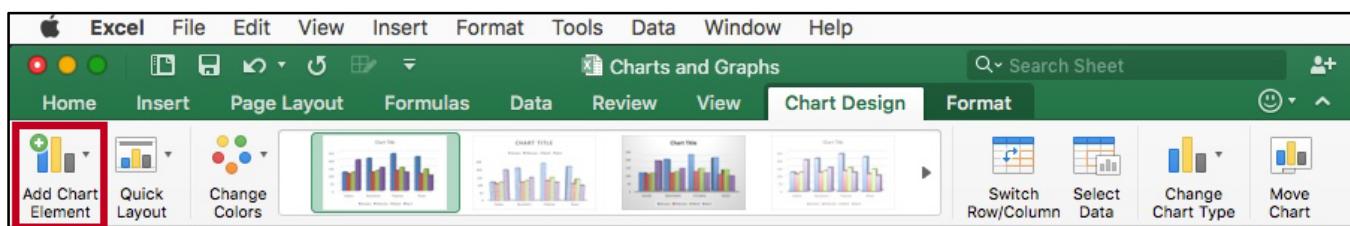


Figure 16 - Add Chart Element

4. Click **Chart Title**.

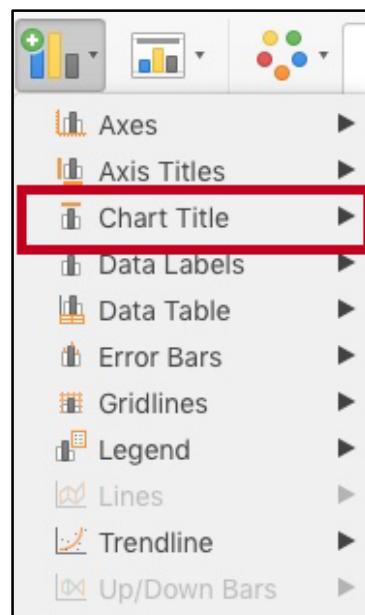


Figure 17 - Chart Title Element

5. From the resulting drop-down menu, select the **location** for the title.

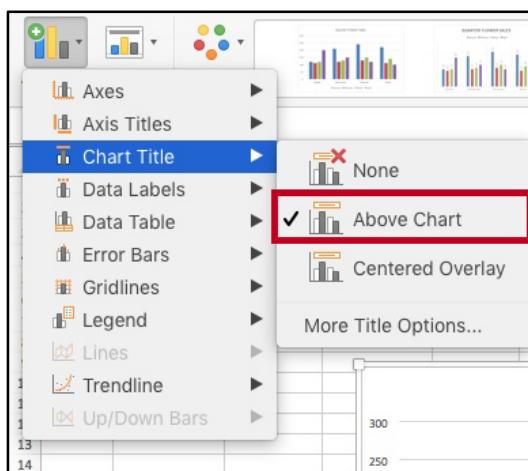


Figure 18 - Chart Element Location

6. The *Chart Title* placeholder will be placed in the location that you selected. To edit the title, simply highlight the **text field** to type over the text.

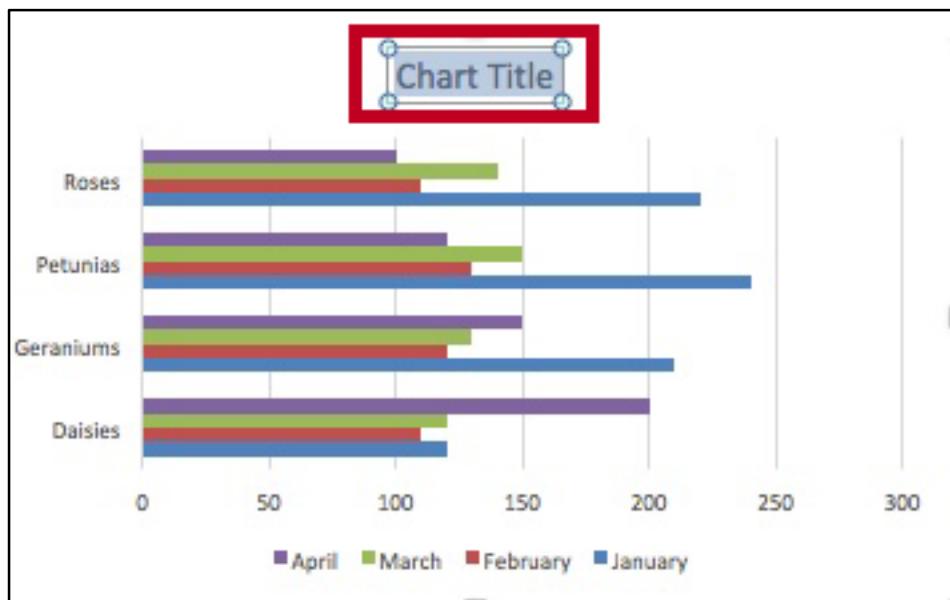


Figure 19 - Chart Title

## Additional Chart Elements and Modifying the Display

Each chart type has selected elements added to the chart by default. The following explains how to insert additional elements to your chart and modify the display of those elements:

1. Select the **chart** in your workbook.
2. Click the **Chart Design** contextual tab.



Figure 20 - Design Tab

3. Click **Add Chart Element**.

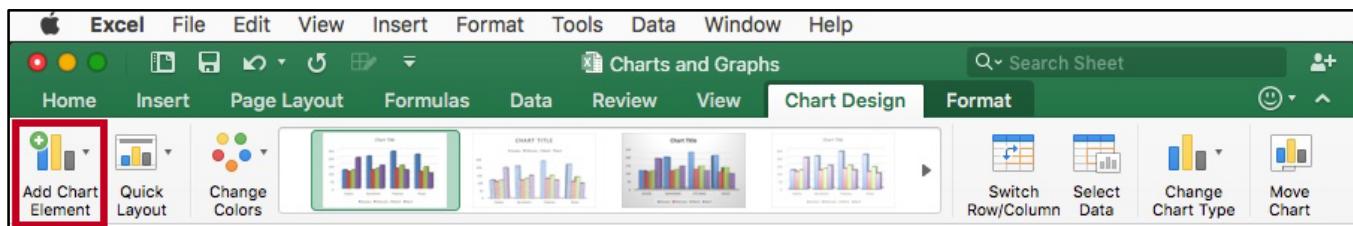


Figure 21 - Add Chart Element

4. When the drop-down menu appears, select the **element** that you want to add. In this example, **Axis Titles** has been selected. The arrow to the right indicates that there is another drill-down to select the type and/or position of the axis title.



Figure 22 - Select Element to Add

- Click the **drop-down arrow** to view a list of available options (See Figure 23).
- Click the title **type/position** or **More Axis Title Options...** to view a list of other options (See Figure 23).

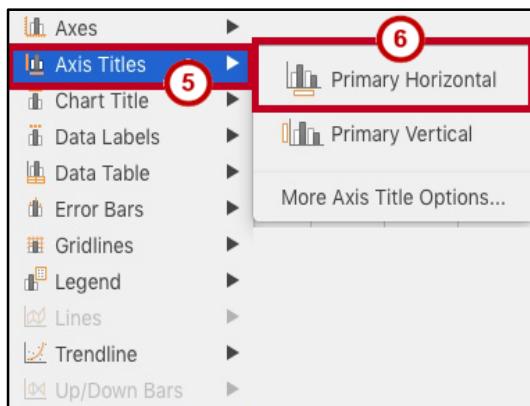


Figure 23 - Title Type/Position

- The **Axis Title** is added to your chart for editing and formatting.

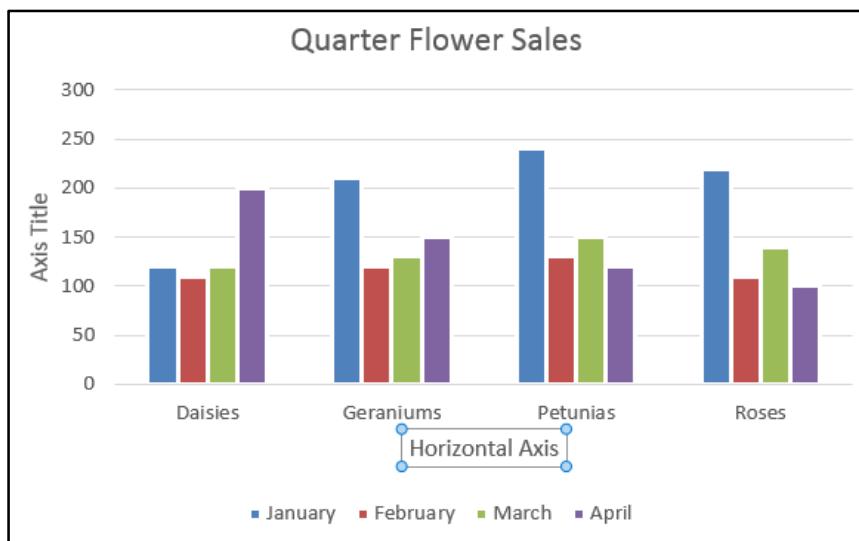


Figure 24 - Horizontal Axis Title

- To format the element, click the **Format** contextual tab (See Figure 25).
- Click the **Format Pane** button (See Figure 25).

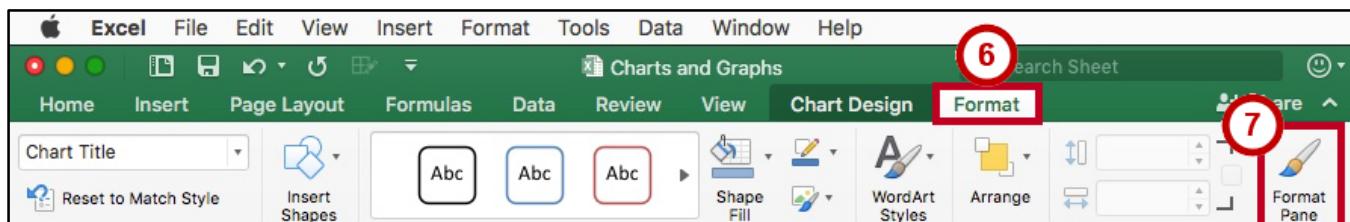


Figure 25 - Format Pane

10. The *Format Axis Title* window will open to provide options to modify the display of your title and text.

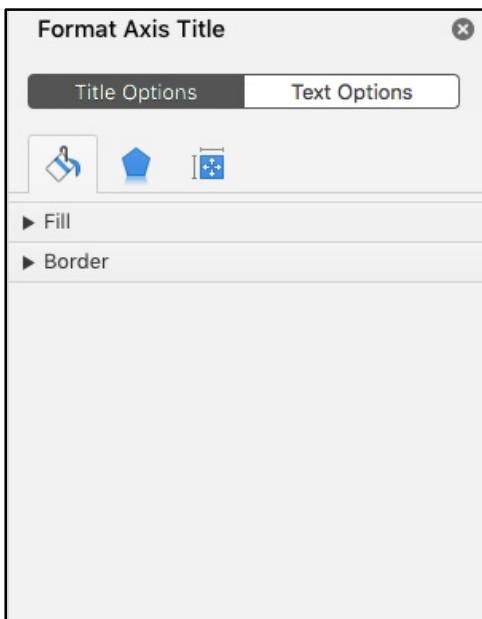
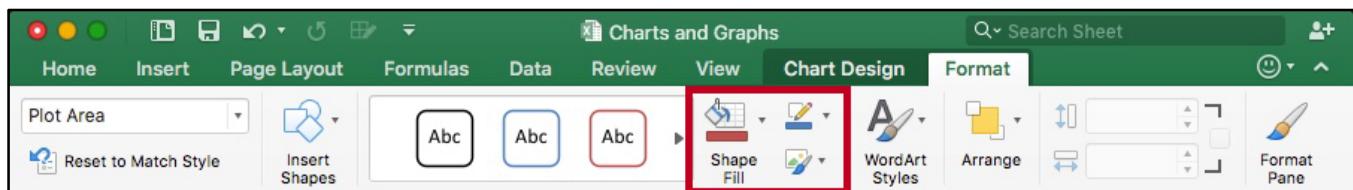


Figure 26 - Format Axis Title Window

**Note:** The options displayed in the *Format Pane* are based on the specific chart element selection. Additional options may be available depending on the selection.

11. Use the *Shape Fill*, *Shape Outline*, and *Shape Effects* buttons to make changes to the text box.



## Applying a Pre-Defined Chart Layout

Excel has some pre-defined chart layouts that are available if you do not want to add chart elements individually.

1. Select the **chart** in your workbook.
2. Click the **Chart Design** contextual tab.

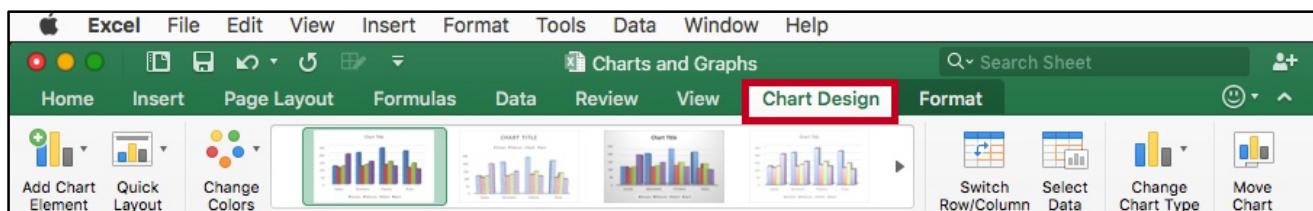


Figure 27 - Design Tab

3. On the *Chart Design* tab, click the **Quick Layout** button.

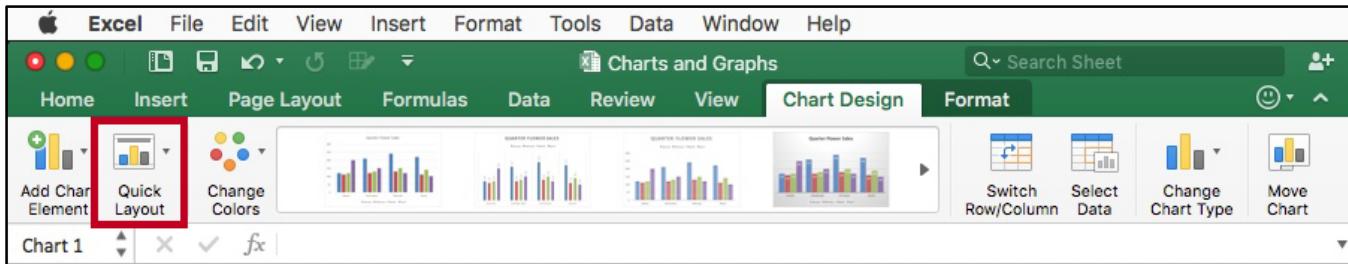


Figure 28 - Quick Layout Button

4. From the drop-down menu that appears, select the **layout** of your choice.



Figure 29 - Layout Options

5. The selected layout will be applied to your chart.

## Chart Styles

Excel has several chart styles that allow you to change the formatting of your chart. The following explains how to change the style of your chart:

1. Select the **chart** in your workbook.
2. Click the **Chart Design** contextual tab.

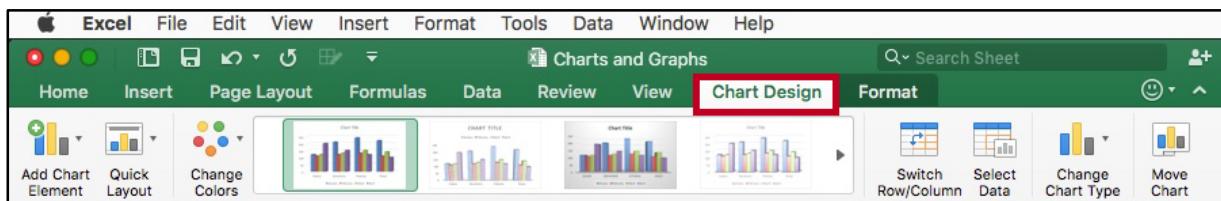


Figure 30 - Design Tab

3. In the *Chart Styles* group, select the **style** of your choice.



Figure 31 - Chart Styles

4. Click the **arrows** to scroll left and right or to open a drop-down list to view more styles, then select the desired **style** to apply.

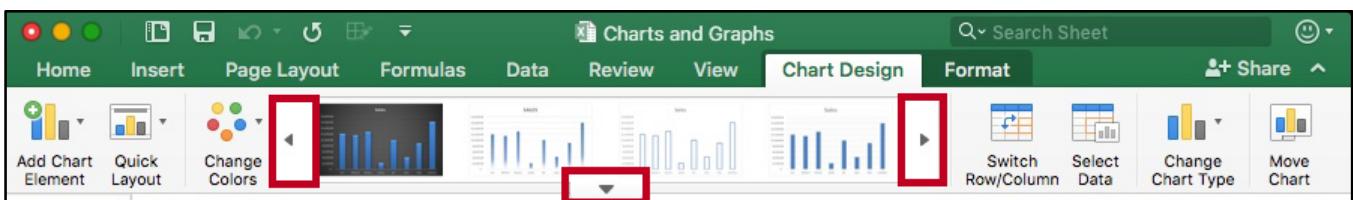


Figure 32 – More Chart Styles

5. The style selected will be applied to your chart.

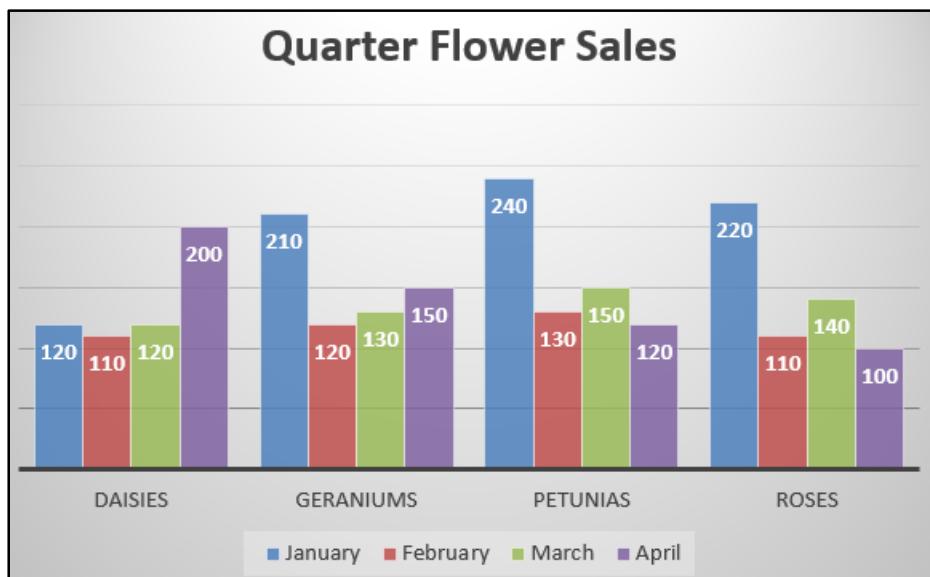


Figure 33 - New Chart Style

## Chart Formatting Using the Format Tab

The **Format** contextual tab contains a useful drop-down box to allow you to easily select elements of the chart that you want to modify. The following explains how to use the drop-down box to select the element and use the tools on the *Ribbon* to customize your chart:

1. Select your **Chart**.
2. Click the **Format** contextual tab.
3. Click the **drop-down arrow** to view a menu of element options available to format.

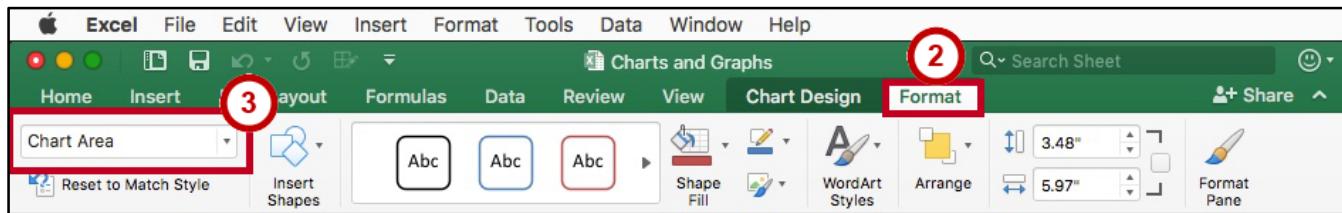


Figure 34 - Chart Elements Selection

4. Click the **element** you would like to format. In this example, *Horizontal Axis* has been selected.



Figure 35 - Element Options

5. The *Format Axis* window opens, providing options to change the axis parameters, tick marks and text options.

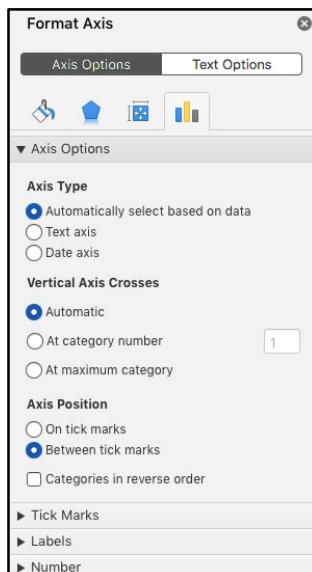


Figure 36 - Format Axis Window

## Switching Row and Column Data

You may feel the need to change the way your chart has grouped your data. For example, in the figure below, the flower sales are grouped by month. However, you can switch the rows and columns so that the chart will group data by the type of flower. In either case, the chart will have the same data.

1. Select the chart that you want to modify.

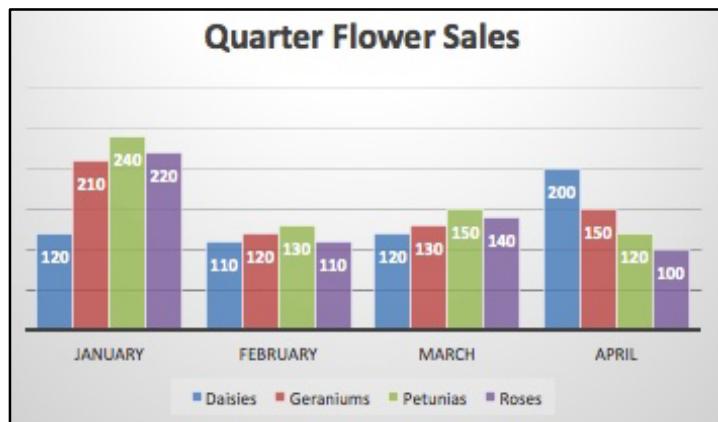


Figure 37 - Select Chart

2. From the *Chart Design* tab, select **Switch Row/Column**.

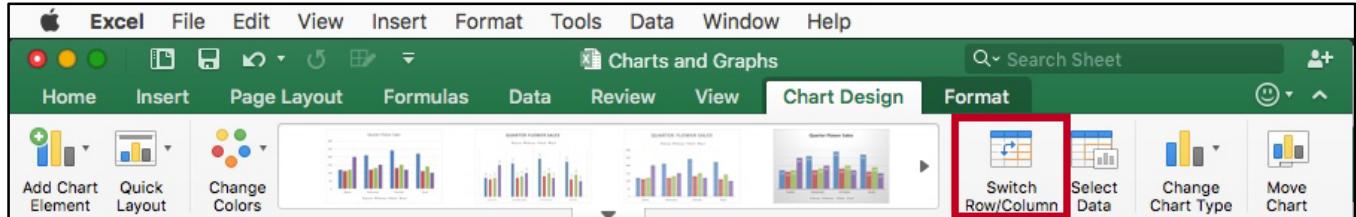


Figure 38 - Switch Row/Column

3. The rows and columns will switch locations. The data is now grouped by the type of flower, with columns for each month.

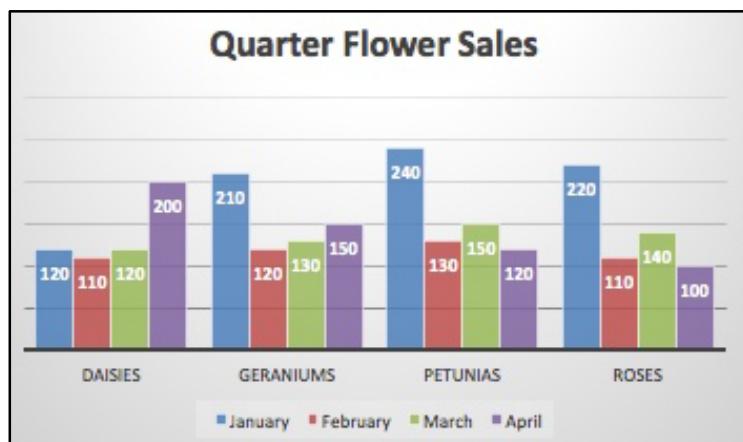


Figure 39 - Column/Row Location Switch

## Changing the Chart Type

If you do not think that your data is represented well on your chart, you can easily change the chart type. The following explains how to change the chart type:

1. From the *Chart Design* tab, click **Change Chart Type**.



Figure 40 - Change Chart Type

2. Select the new desired **chart type** from the drop-down box. In the example, a *Bar* chart has been selected.

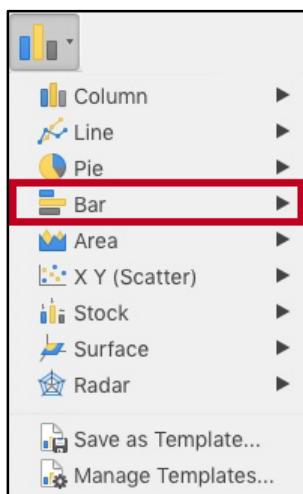


Figure 41 - Select New Chart Type

3. From the resulting drop-down menu, click the **desired style** for your chart.

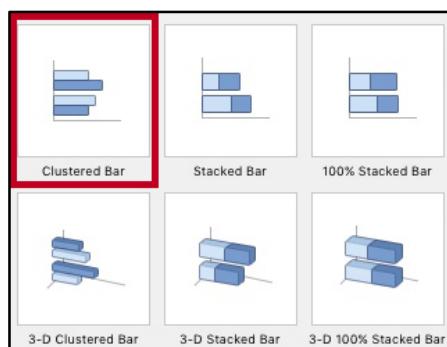


Figure 42 - Change Chart Type

- Your chart will change to the chart types you selected.

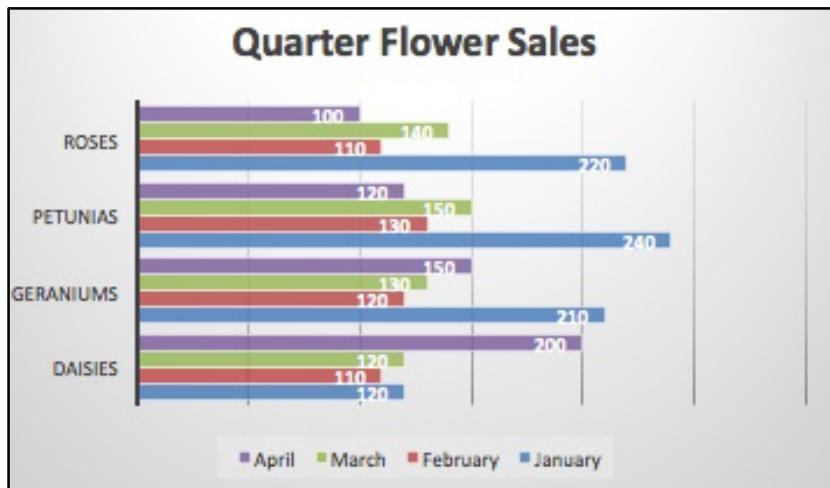


Figure 43 - Updated Chart Type

## Moving a Chart

Whenever you insert a chart, it appears on the same worksheet as the selected data. Follow the steps below if you would like for your chart to appear on a separate worksheet.

- Select the **chart** you would like to move.
- From the *Design* tab, select **Move Chart**.



Figure 44 - Move Chart

- The *Move Chart* window will appear. Choose the **desired location** for the chart, enter a name, then click **OK**. In the example below, the chart will be moved to a new workbook in your worksheet.

**Note:** If selecting *New sheet*, this will create a new workbook in your worksheet titled *Chart1*. You may rename it before you save.

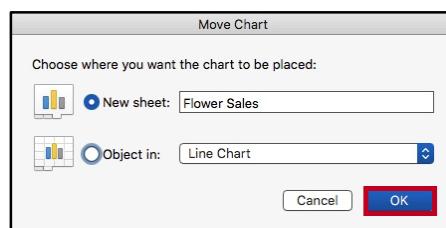


Figure 45 - Move Chart

4. The chart will appear in the location you selected.

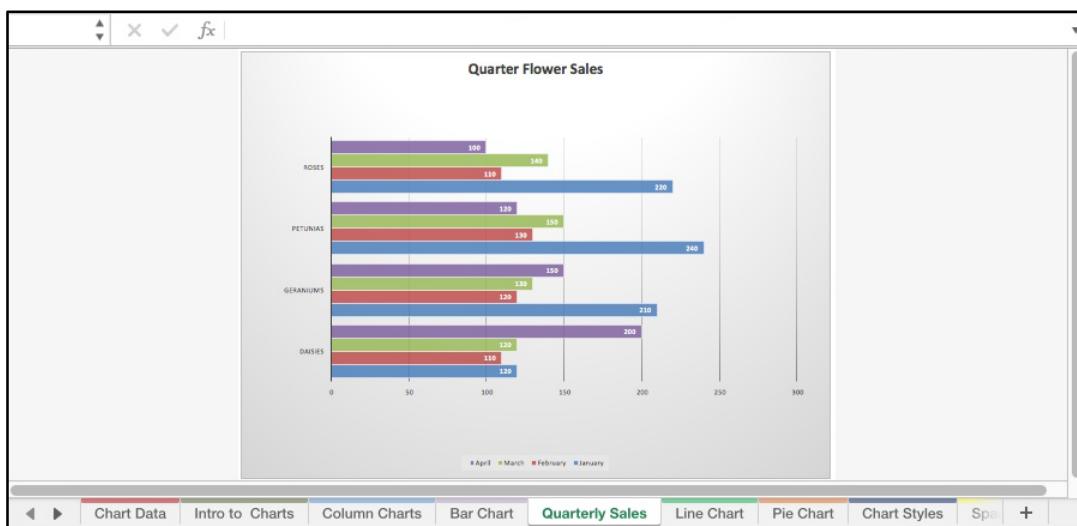


Figure 46 - New Chart Location

## Saving a Chart as a Template

If you have added chart elements and styles to your chart that you would like to use when creating charts in the future, you can save the chart as a template.

1. Select the **chart** that you would like to save as a template.
2. Right-click the **chart**.
3. A *context sensitive menu* will appear. Select **Save as Template**.

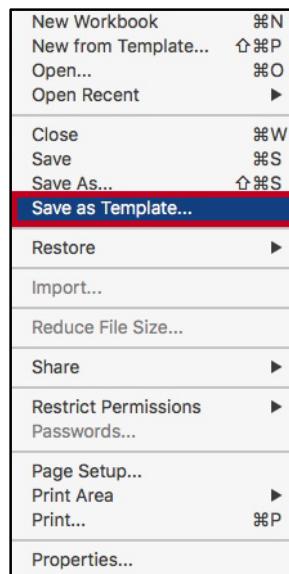


Figure 47 - Save as Template

4. The *Save Chart Template* window will appear. In the *Save As* field, type a **name** for the chart template (See Figure 48).
5. Click **Save** (See Figure 48).

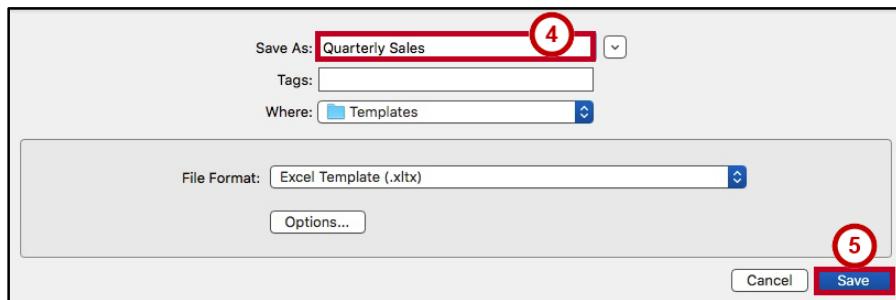


Figure 48 - Save Chart Template Window

6. The chart template appears when **New** is selected on the backstage view.

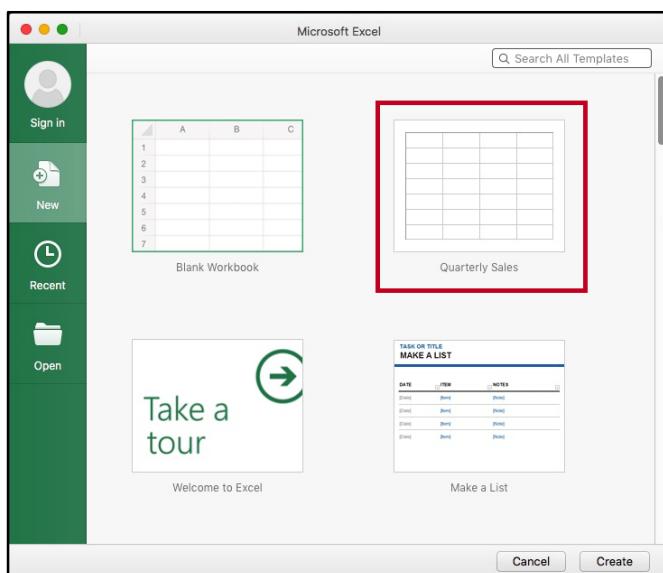


Figure 49 - Chart Templates

## Additional Help

For additional support, please contact the KSU Service Desk:

### KSU Service Desk for Faculty & Staff

- Phone: 470-578-6999
- Email: [service@kennesaw.edu](mailto:service@kennesaw.edu)
- Website: <http://uits.kennesaw.edu>

### KSU Student Helpdesk

- Phone: 470-578-3555
- Email: [studenthelpdesk@kennesaw.edu](mailto:studenthelpdesk@kennesaw.edu)
- Website: <http://uits.kennesaw.edu>