

# Free Excel 2016 Tutorial at GCFLearnFree

[gcflearnfree.org/excel2016/charts/1/](http://gcflearnfree.org/excel2016/charts/1/)

## Introduction

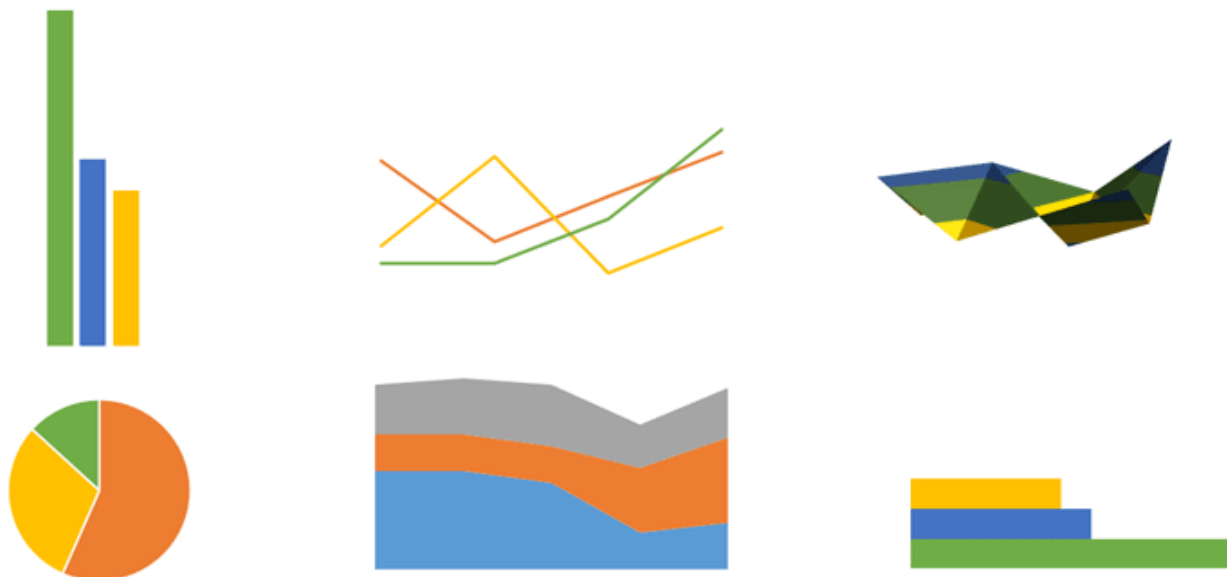
It can be difficult to interpret Excel workbooks that contain a lot of data. **Charts** allow you to illustrate your workbook data **graphically**, which makes it easy to visualize **comparisons** and **trends**.

## Understanding charts

Excel has several different **types of charts**, allowing you to choose the one that best fits your data. In order to use charts effectively, you'll need to understand how different charts are used.

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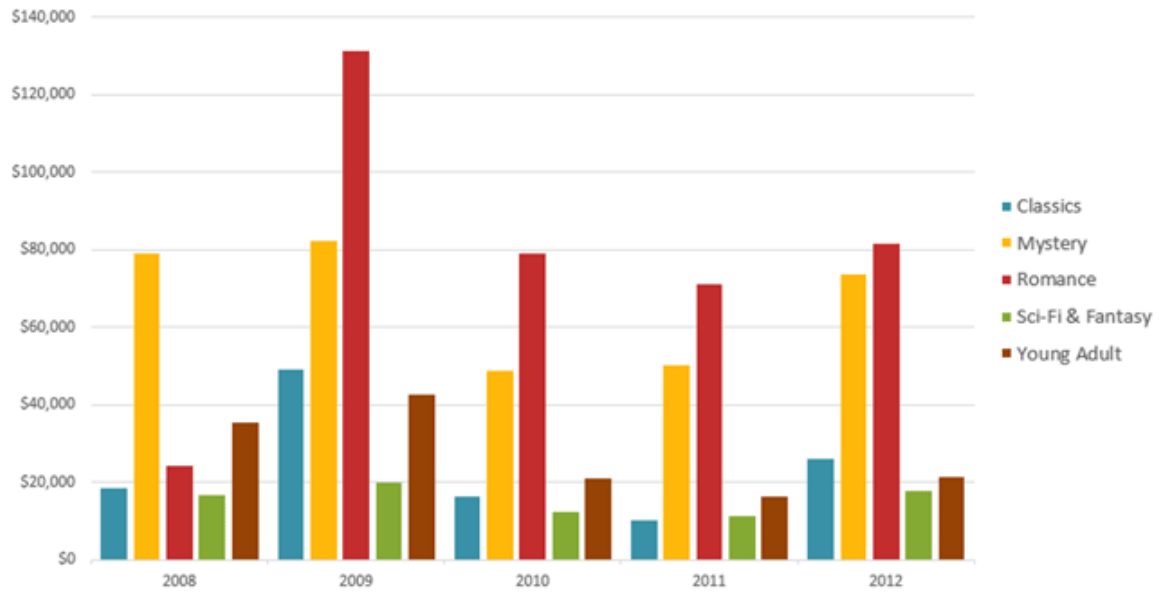
## Types of Charts



Excel has a variety of chart types, each with its own advantages. Click the arrows to see some of the different types of charts available in Excel.

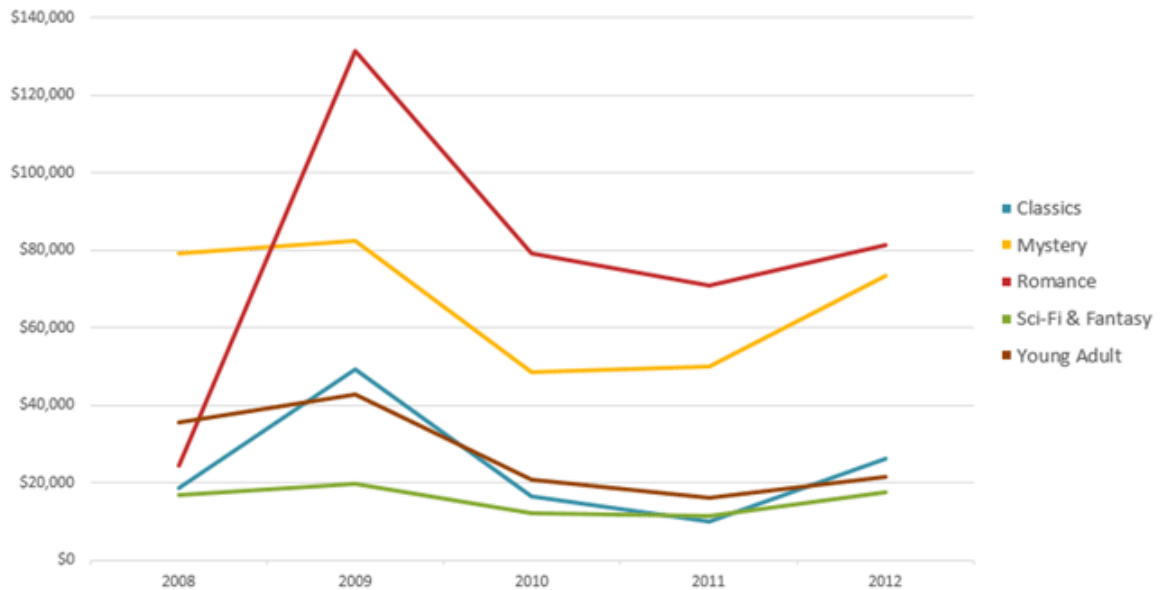
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# Column



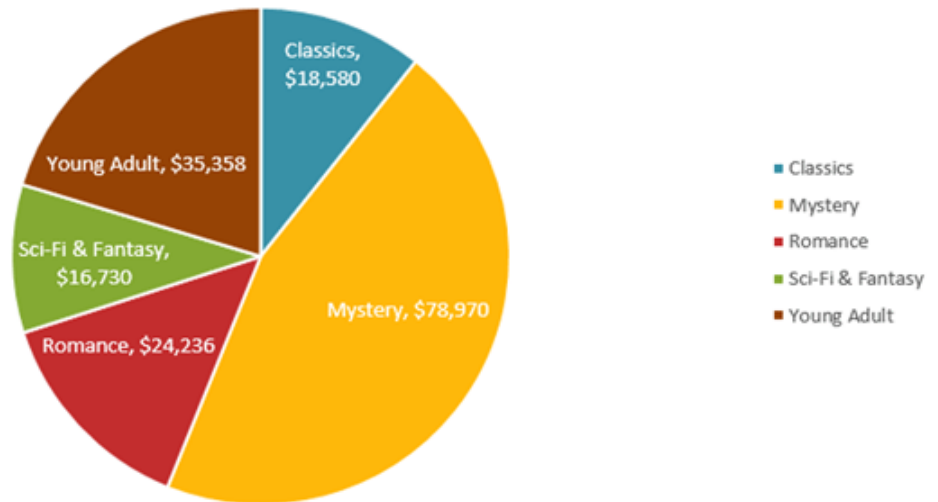
Column charts use vertical bars to represent data. They can work with many different types of data, but they're most frequently used for comparing information.

# Line



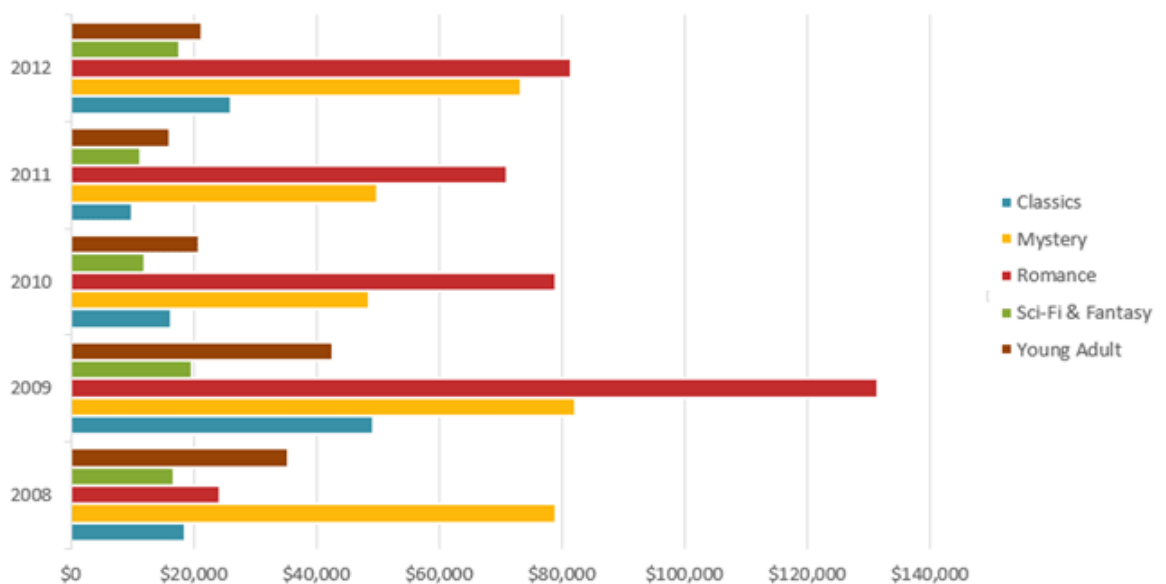
Line charts are ideal for showing trends. The data points are connected with lines, making it easy to see whether values are increasing or decreasing over time.

# Pie



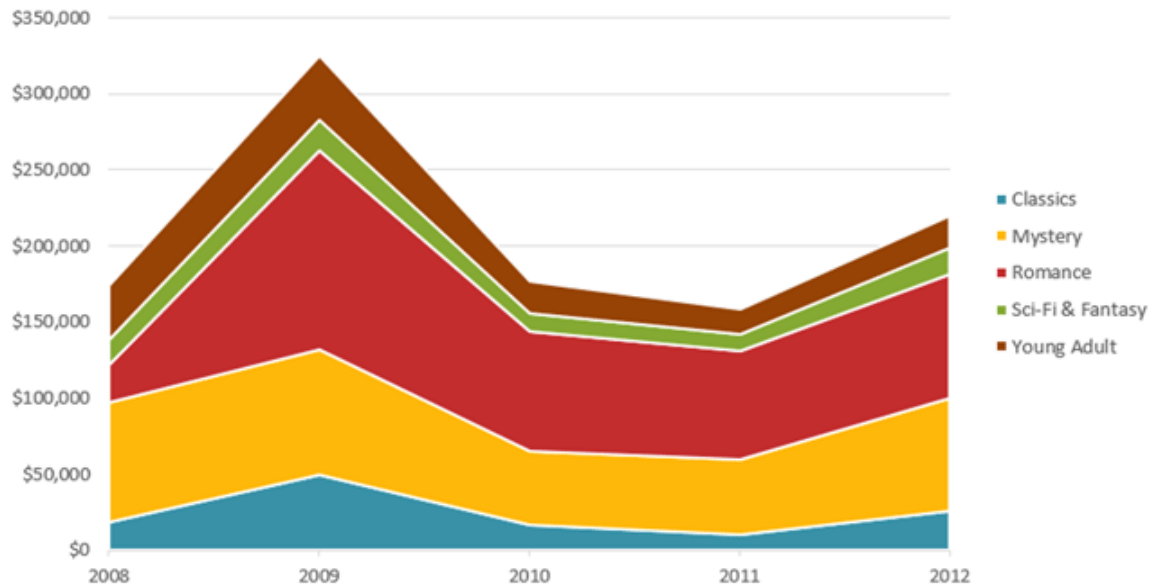
Pie charts make it easy to compare proportions. Each value is shown as a slice of the pie, so it's easy to see which values make up the percentage of a whole.

# Bar



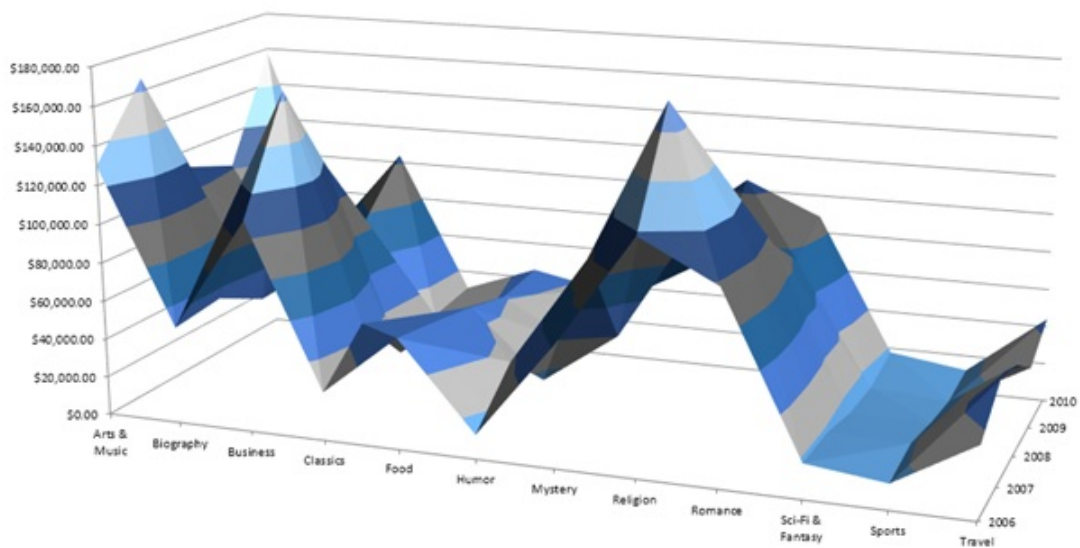
Bar charts work just like column charts, but they use horizontal rather than vertical bars.

# Area



Area charts are similar to line charts, except the areas under the lines are filled in.

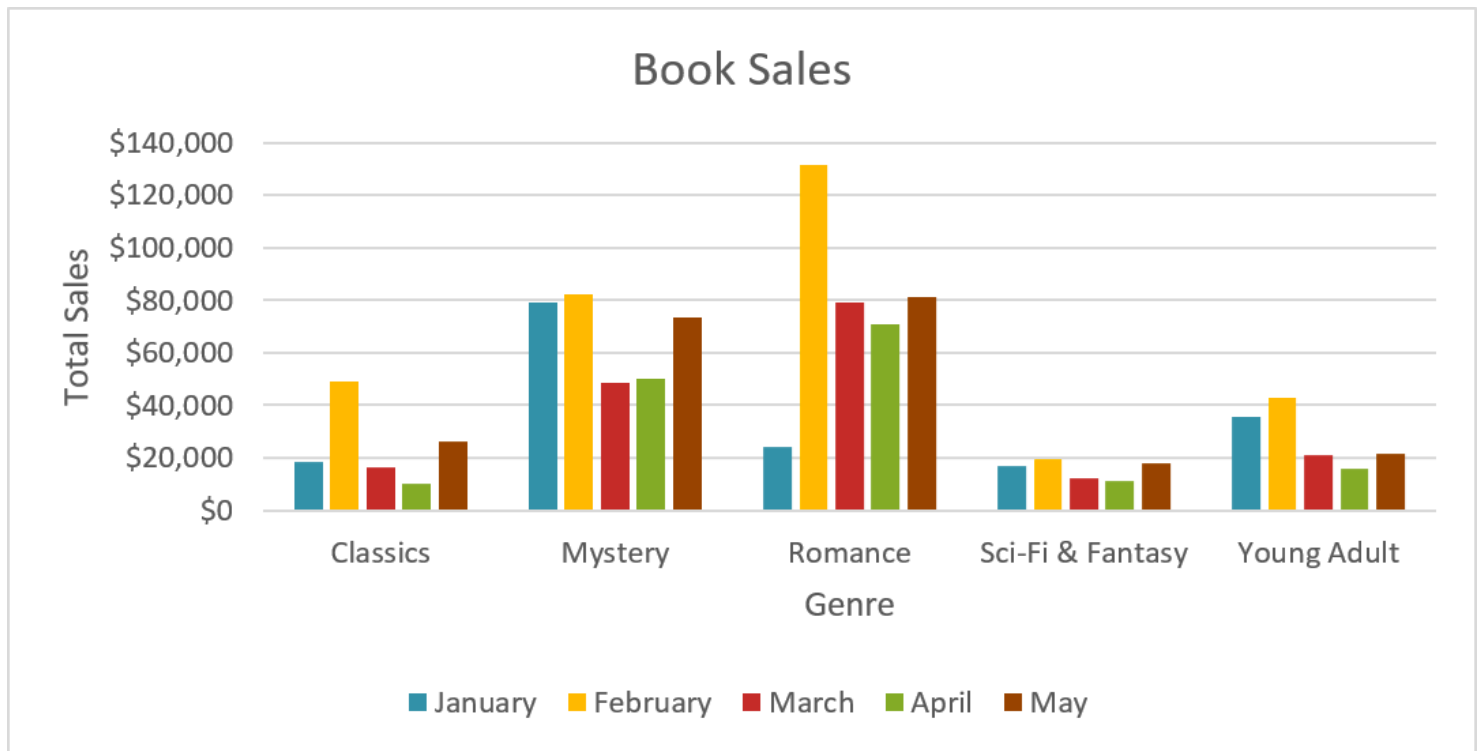
# Surface



Surface charts allow you to display data across a 3D landscape. They work best with large data sets, allowing you to see a variety of information at the same time.

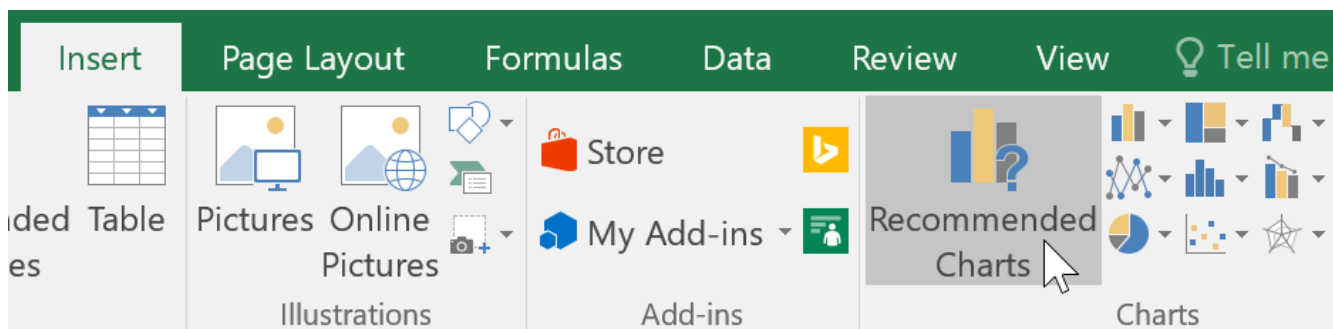
In addition to chart types, you'll need to understand how to **read a chart**. Charts contain several different elements, or parts, that can help you interpret the data.

Click the buttons in the interactive below to learn about the different parts of a chart.



## To insert a chart:

If you're not sure which type of chart to use, the **Recommended Charts** command will suggest several different charts based on the source data.

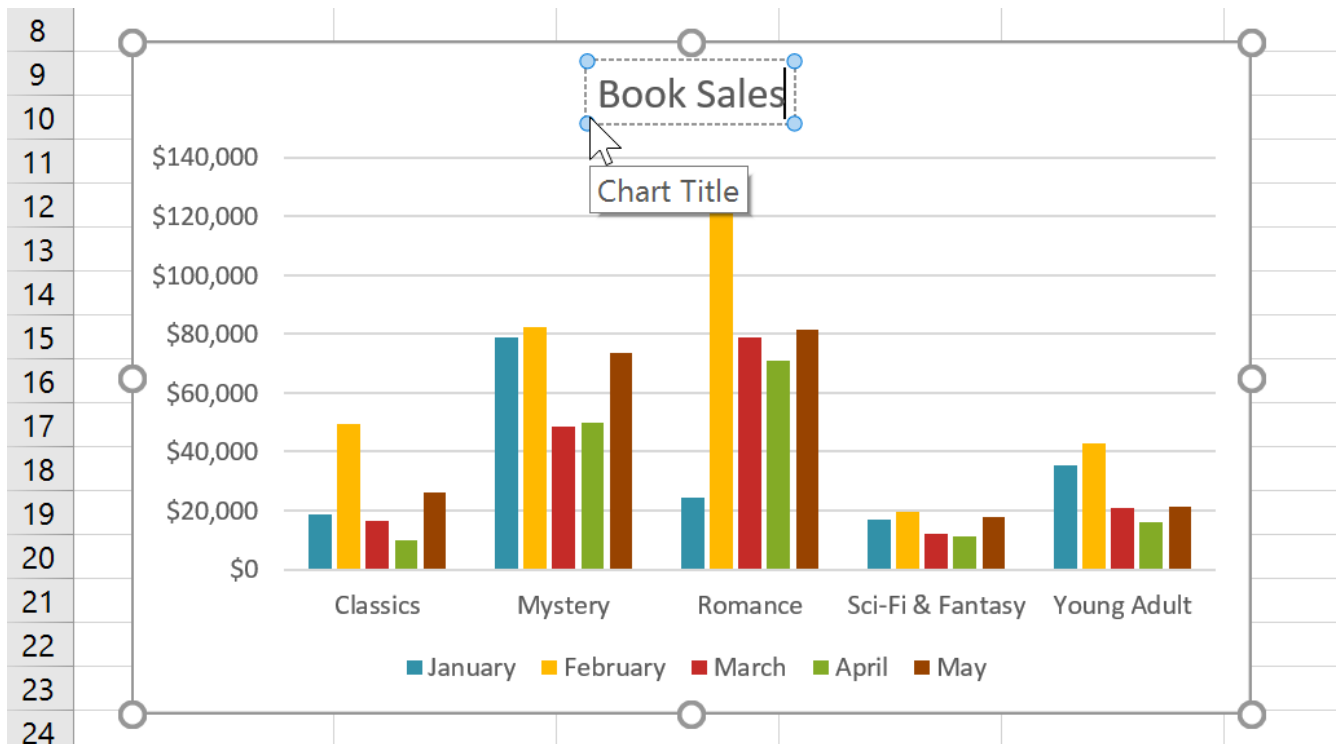
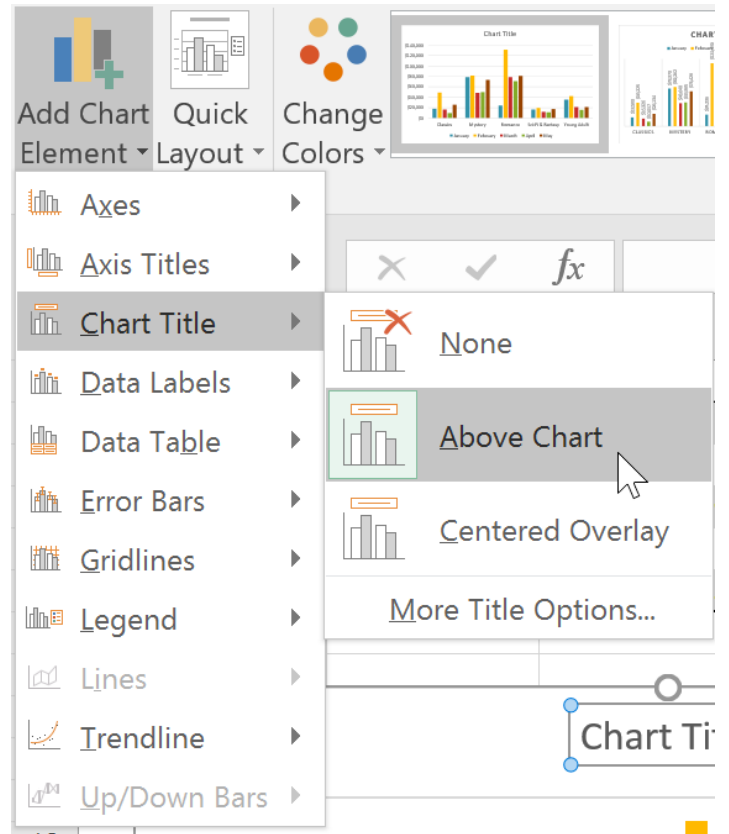


## Chart and layout style

After inserting a chart, there are several things you may want to change about the way your data is displayed. It's easy to edit a chart's **layout** and **style** from the **Design** tab.

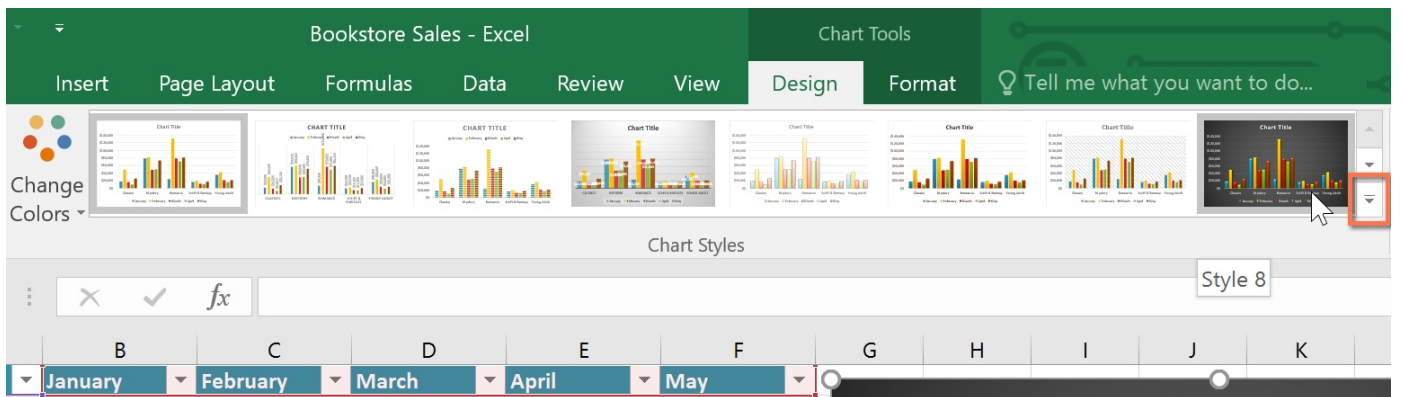
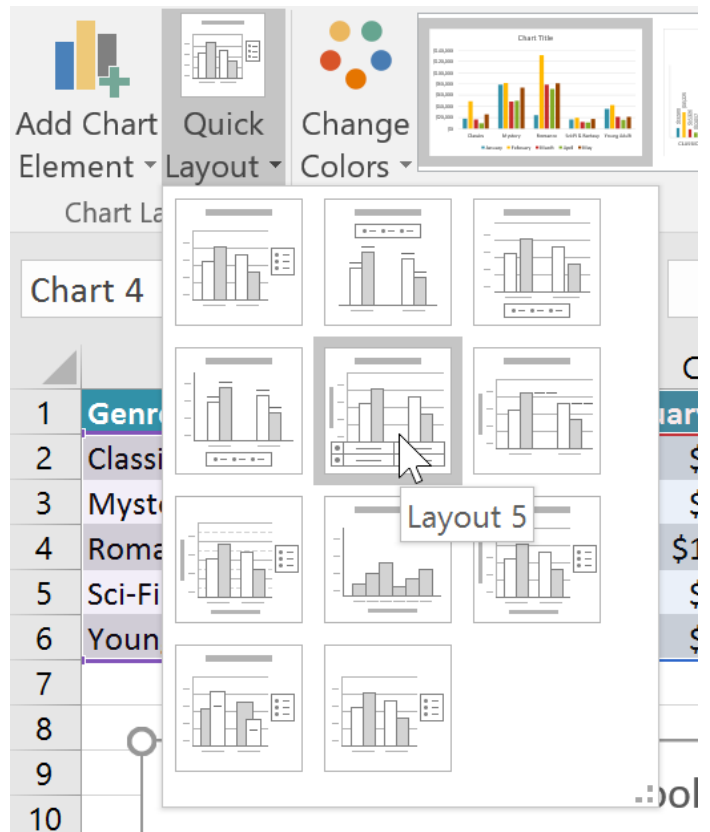
- Excel allows you to add **chart elements**—such as **chart titles**, **legends**, and **data labels**—to make your chart easier to read. To add a chart element, click the **Add Chart Element** command on the **Design** tab, then choose the **desired element** from the drop-down menu.

- To **edit** a chart element, like a **chart title**, simply double-click the **placeholder** and begin typing.

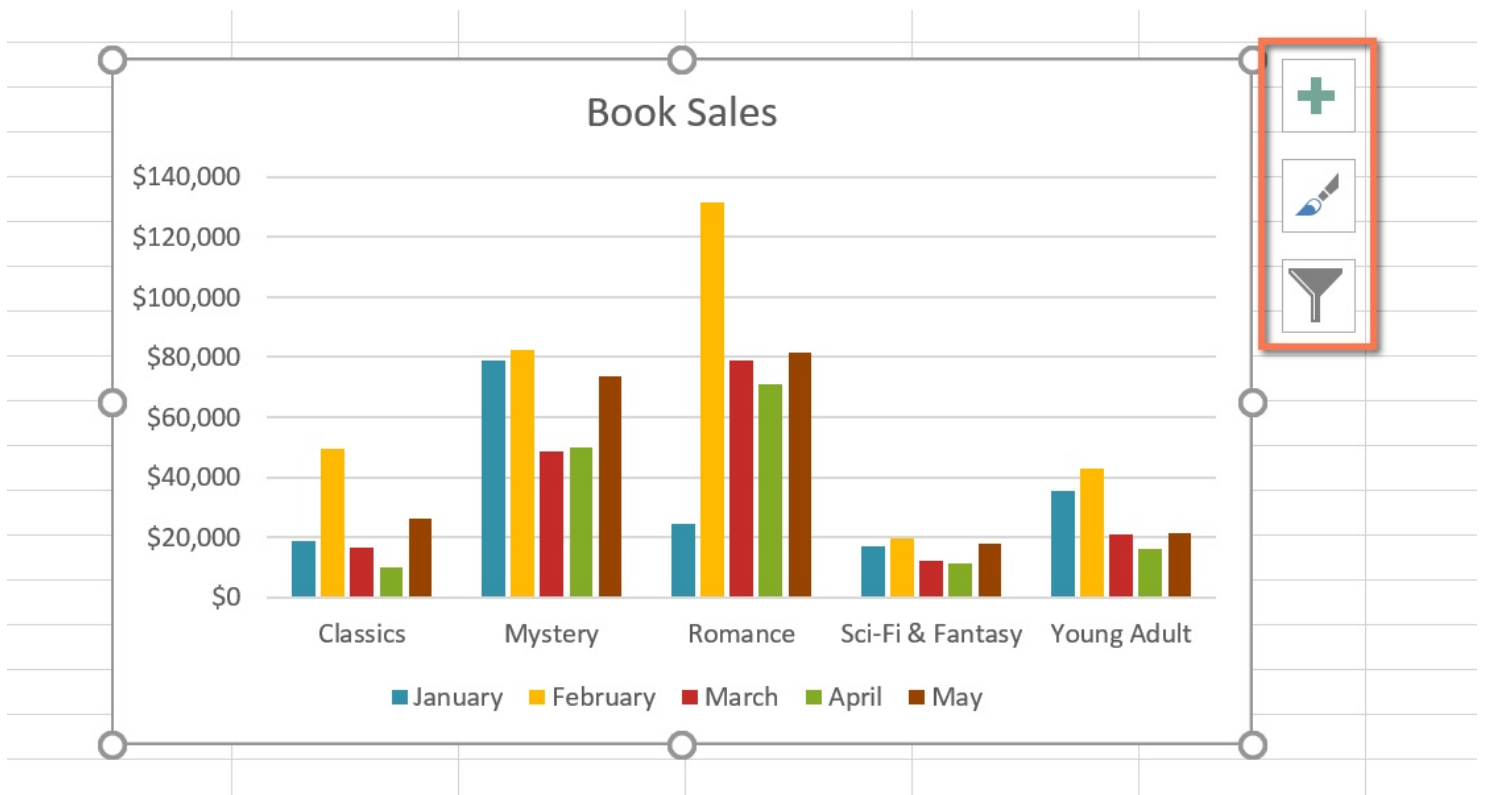


- If you don't want to add chart elements individually, you can use one of Excel's predefined layouts. Simply click the **Quick Layout** command, then choose the **desired layout** from the drop-down menu.

- Excel also includes several **chart styles**, which allow you to quickly modify the look and feel of your chart. To change the chart style, select the **desired style** from the **Chart styles** group. You can also click the drop-down arrow on the right to see more styles.



You can also use the chart formatting shortcut buttons to quickly **add chart elements**, change the **chart style**, and **filter** the chart data.



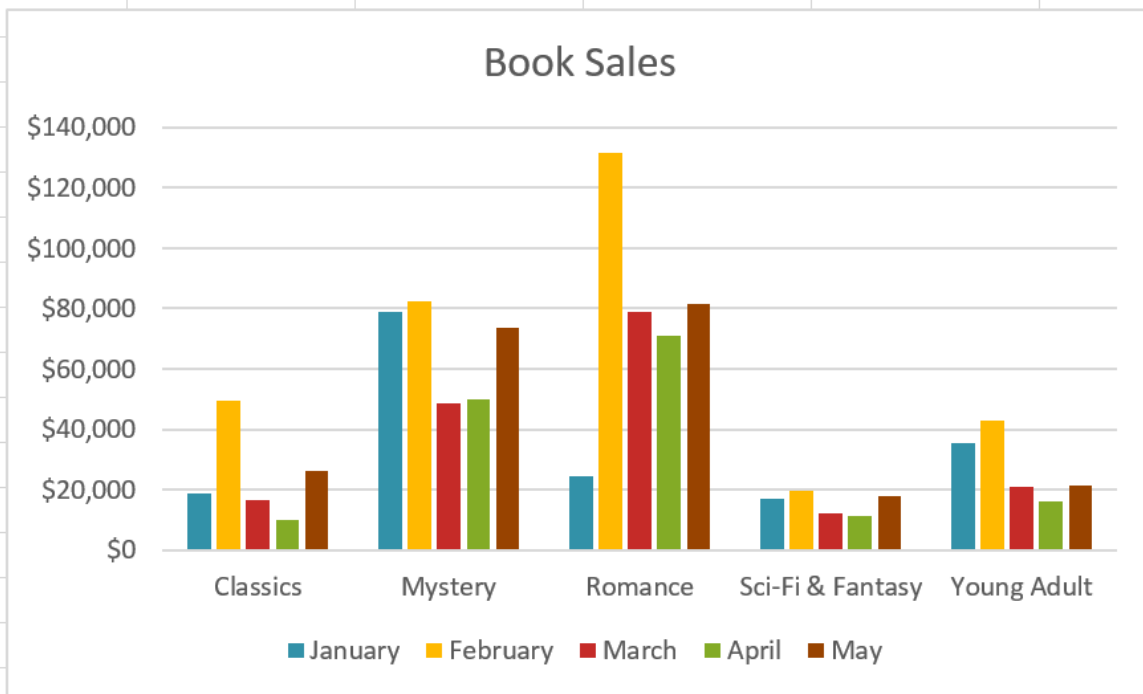
### Other chart options

There are many other ways to customize and organize your charts. For example, Excel allows you to **rearrange** a chart's data, change the **chart type**, and even **move** the chart to a different location in a workbook.

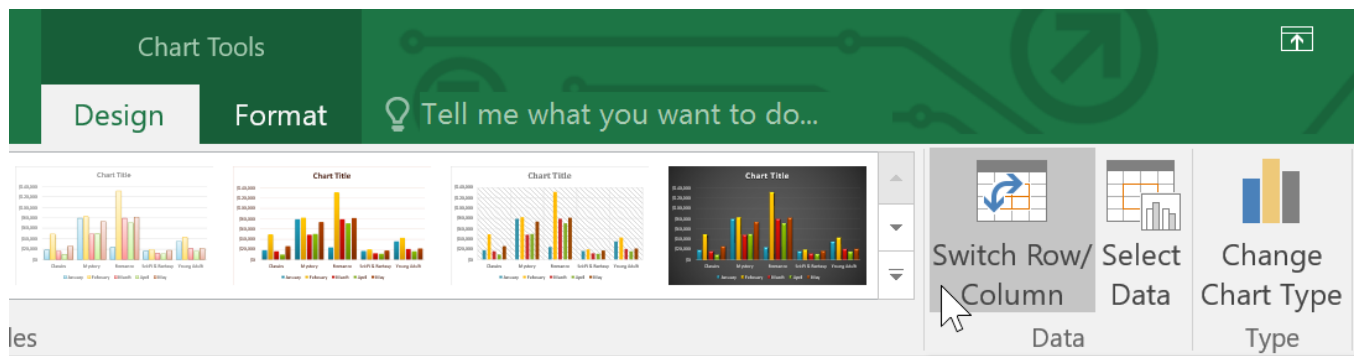
### To switch row and column data:

Sometimes you may want to change the way charts **group** your data. For example, in the chart below Book Sales data is grouped **by genre**, with columns for **each month**. However, we could switch the rows and columns so the chart will group the data **by month**, with columns for **each genre**. In both cases, the chart contains the same data—it's just organized differently.

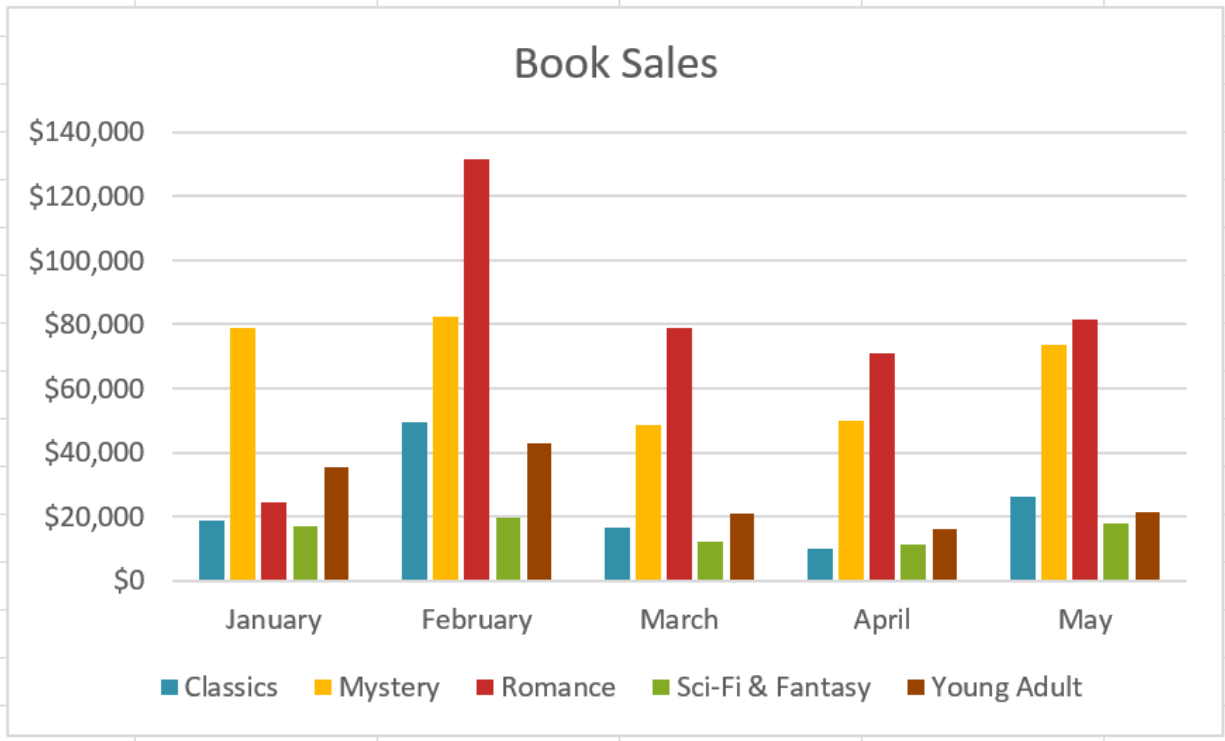




1. Select the **chart** you want to modify.
2. From the **Design** tab, select the **Switch Row/Column** command.



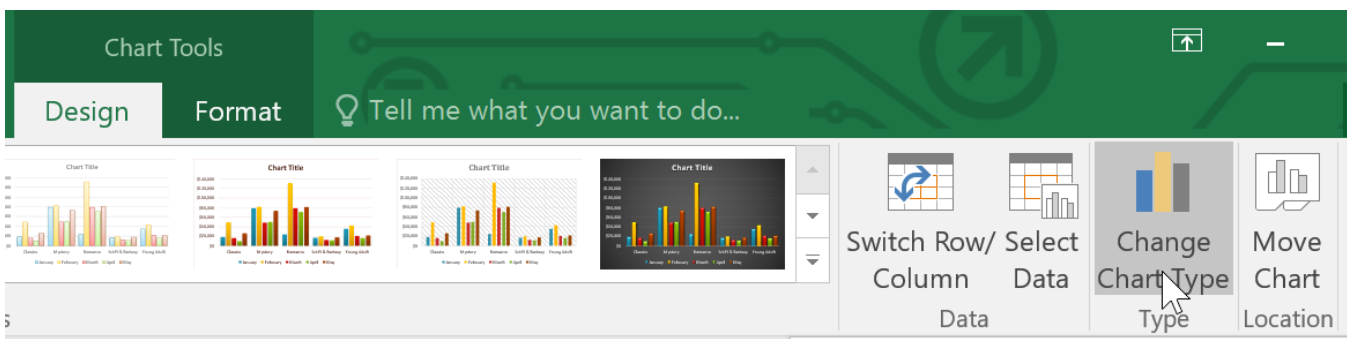
3. The rows and columns will be **switched**. In our example, the data is now grouped by month, with columns for each genre.



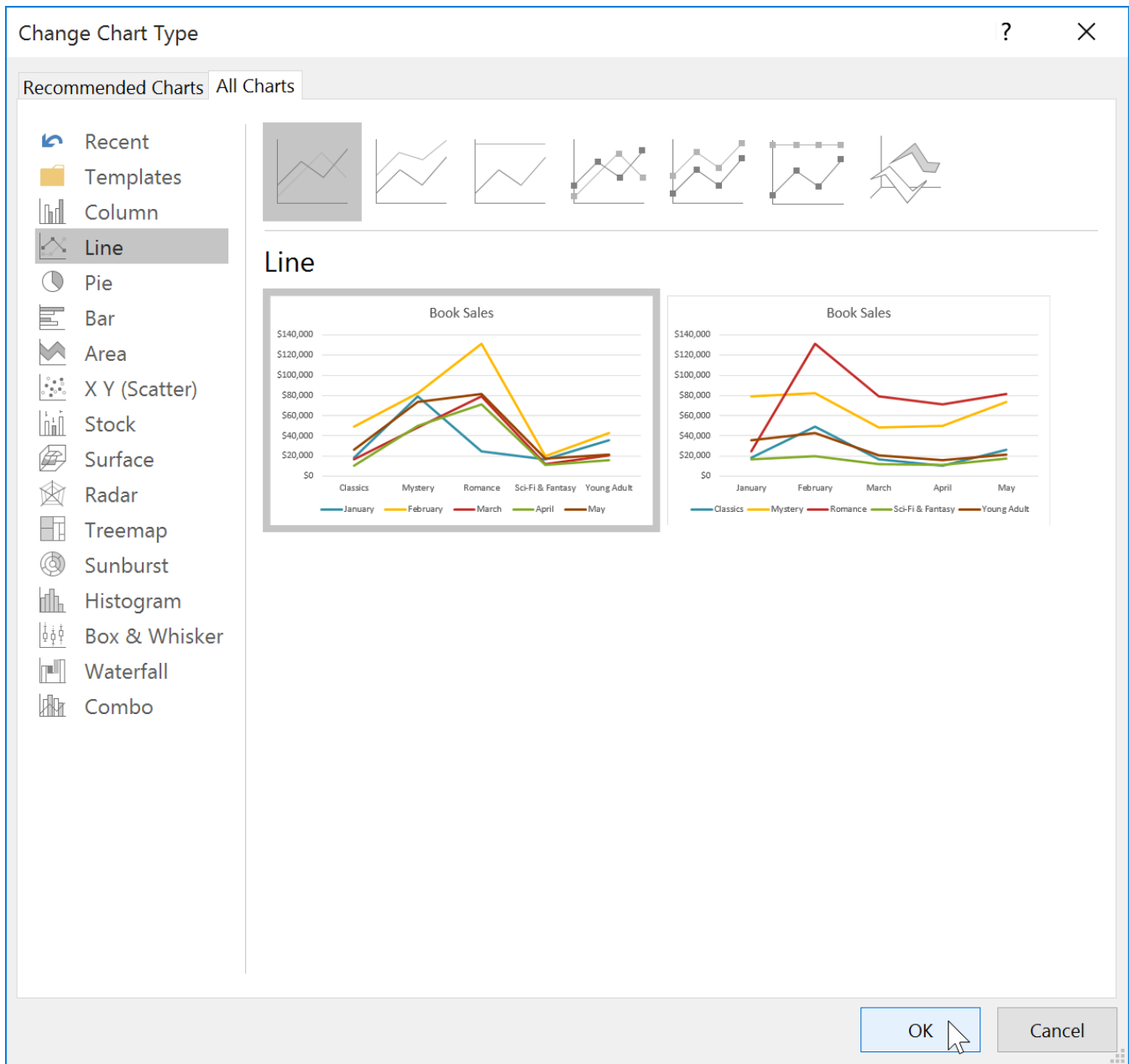
**To change the chart type:**

If you find that your data isn't well suited to a certain chart, it's easy to switch to a new chart type. In our example, we'll change our chart from a column chart to a line chart.

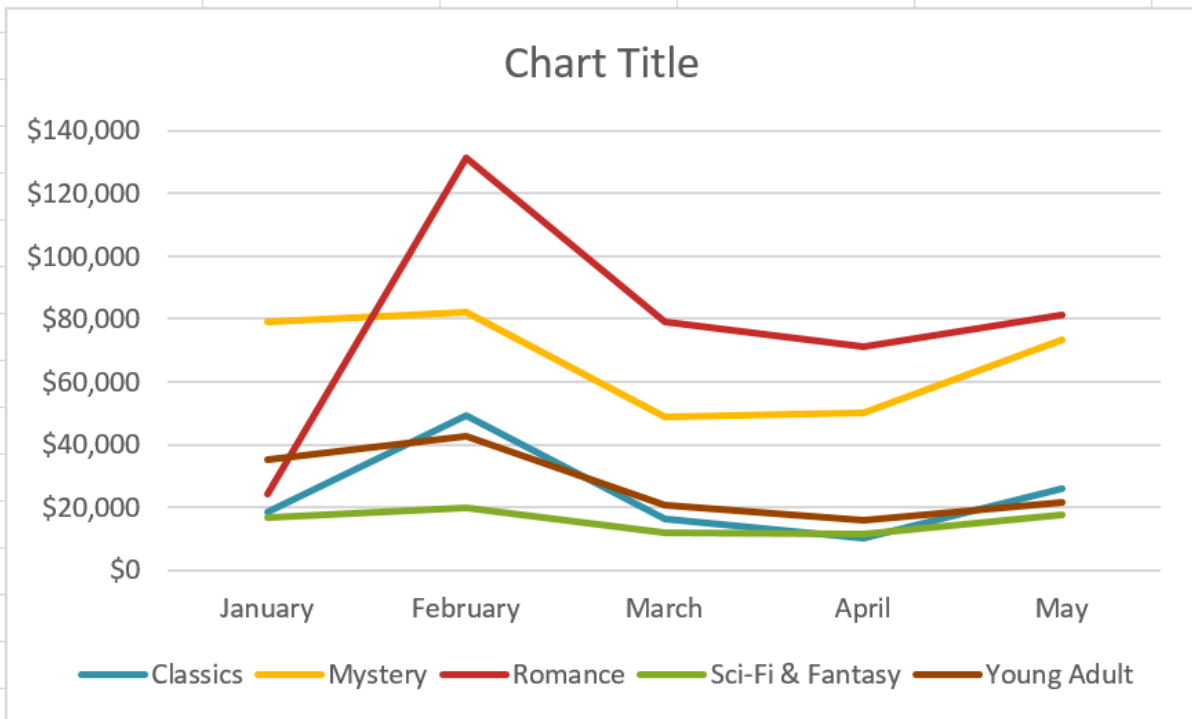
1. From the **Design** tab, click the **Change Chart Type** command.



2. The **Change Chart Type** dialog box will appear. Select a new chart **type** and **layout**, then click **OK**. In our example, we'll choose a **Line** chart.



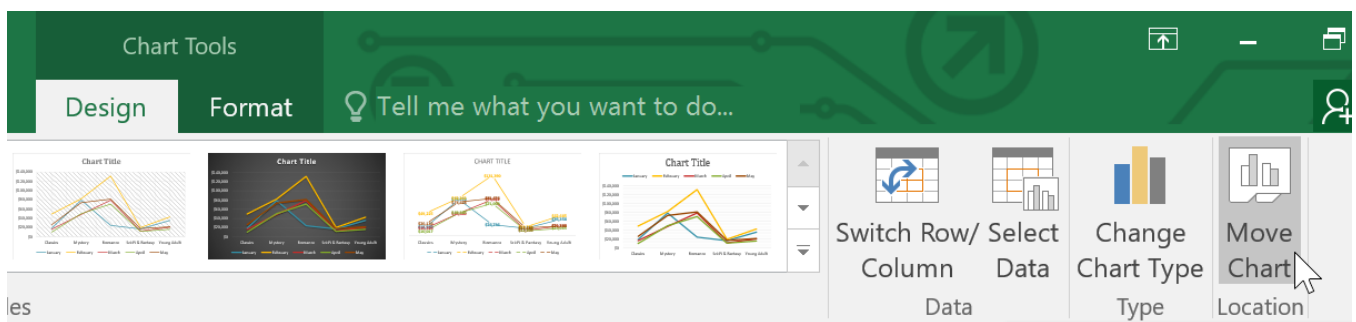
3. The selected chart type will appear. In our example, the line chart makes it easier to see trends in sales data over time.



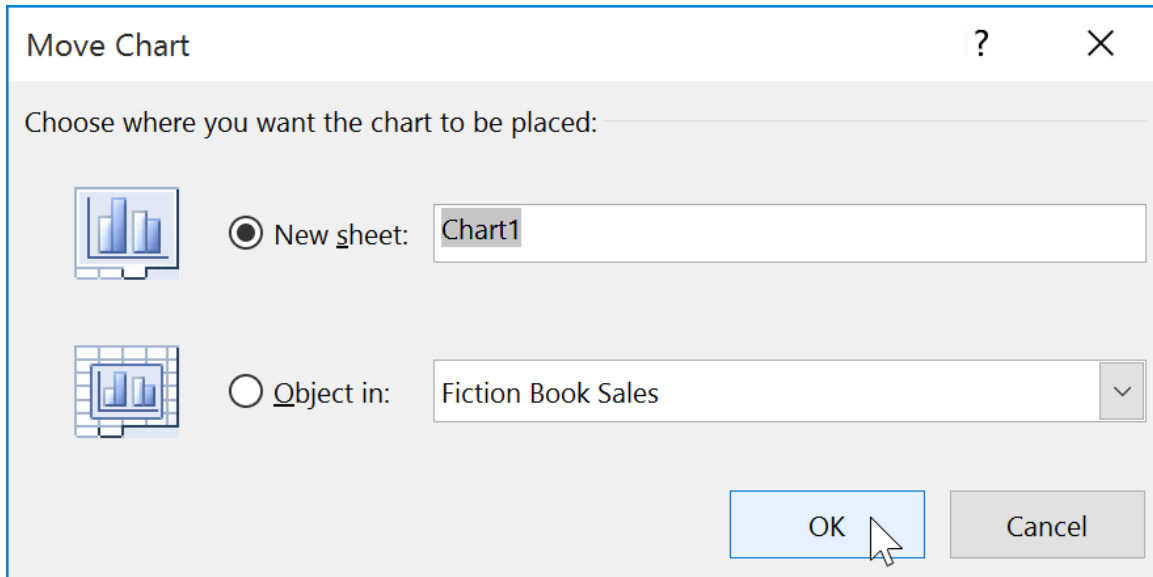
### To move a chart:

Whenever you insert a new chart, it will appear as an object on the same worksheet that contains its source data. Alternatively, you can **move** the chart to a **new worksheet** to help keep your data organized.

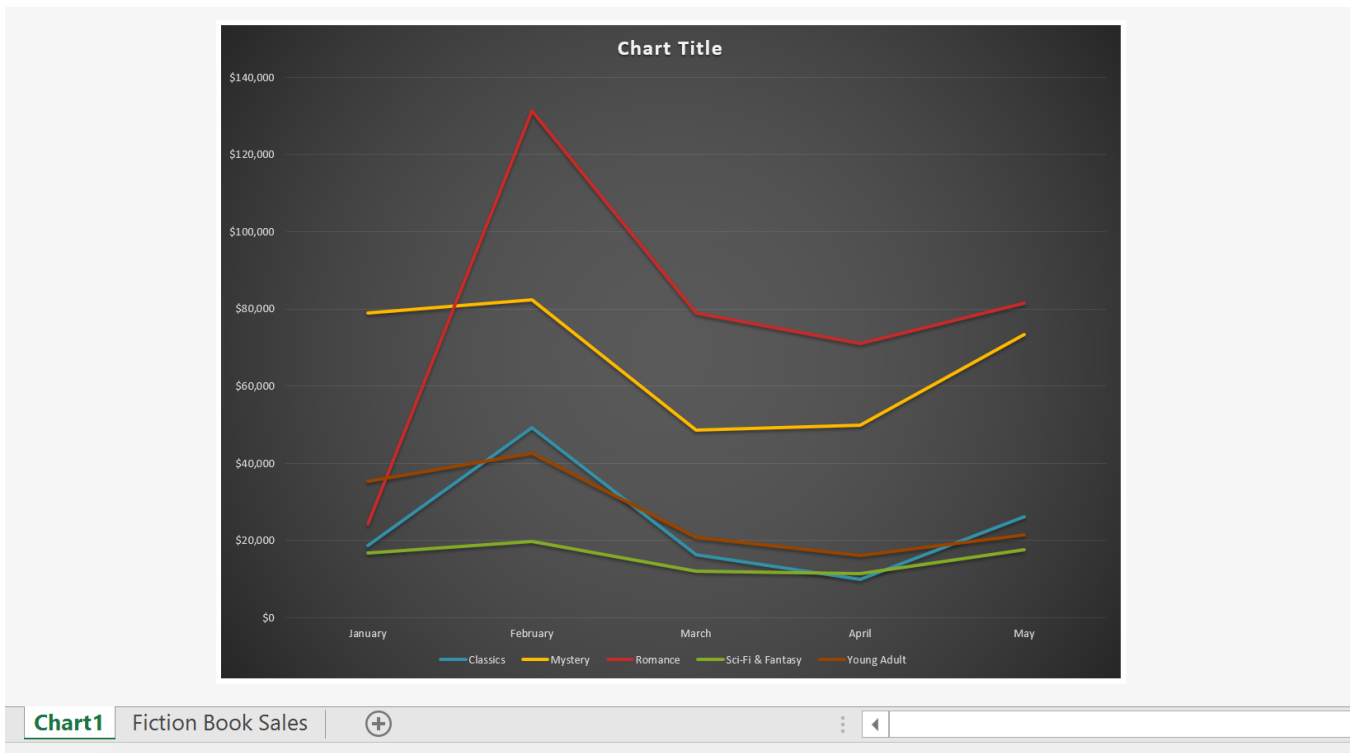
1. Select the **chart** you want to move.
2. Click the **Design** tab, then select the **Move Chart** command.



3. The **Move Chart** dialog box will appear. Select the **desired location** for the chart. In our example, we'll choose to move it to a **New sheet**, which will create a new worksheet.
4. Click **OK**.



5. The chart will appear in the selected location. In our example, the chart now appears on a new worksheet.



## Challenge!

1. Open our [practice workbook](#).
2. Click the **Challenge** tab in the bottom-left of the workbook.
3. Select cells **A1:E6** and insert a **2D Clustered Column** chart.
4. Change the **chart title** to **September to December Sales**.
5. Use the **Switch Row/Column** command. The columns should now be grouped by month, with a different color for each salesperson.
6. **Move** the chart to a **new sheet**.

7. Change the **chart type** to **line with markers**.
8. Use the **Quick Layout** command to change the layout of the chart.
9. When you're finished, your workbook should look something like this:

