Excel 2016

Charts

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**.

Optional: Download our **practice workbook**.

Watch the video below to learn more about charts.

*Video removed from printing pages

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.

Click the arrows in the slideshow below to learn more about the types of charts in Excel.

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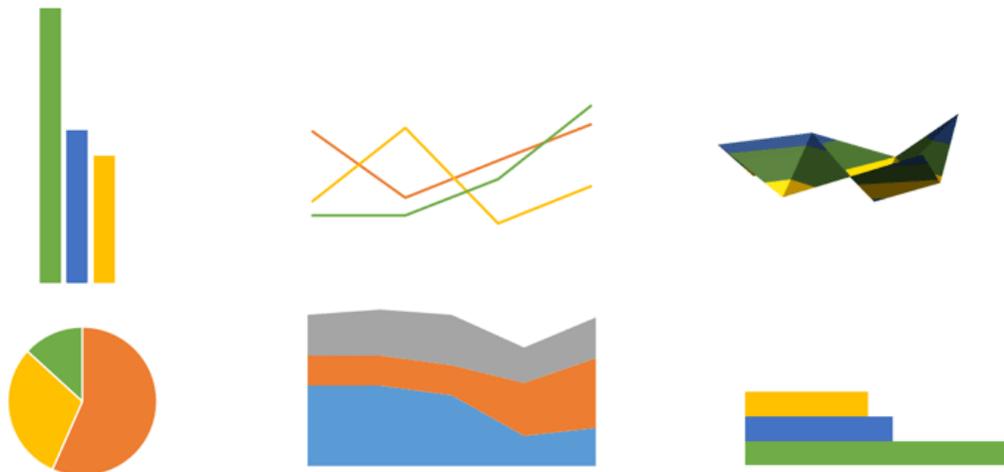
Excel has a variety of chart types, each with its own advantages. Click the arrows to see some of the different types of charts available in Excel.

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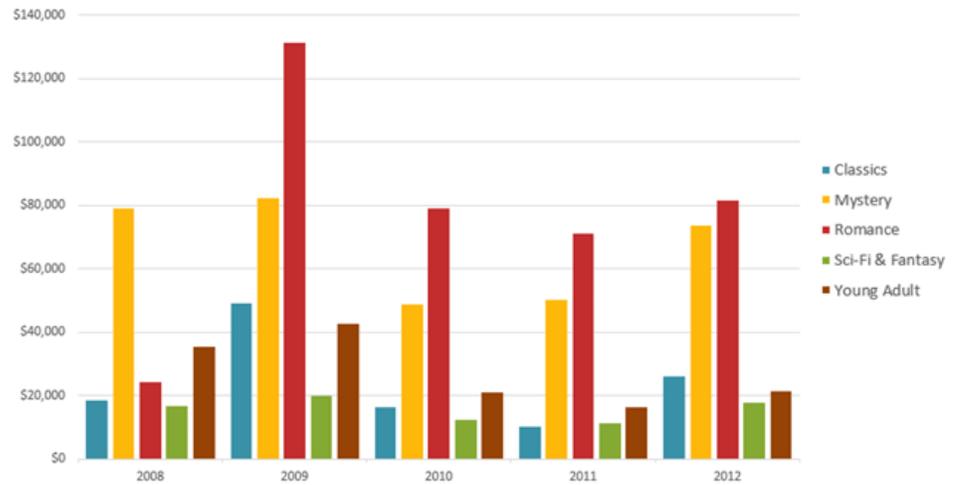
Column charts use vertical bars to represent data. They can work with many different types of data, but they're most frequently used for comparing information.

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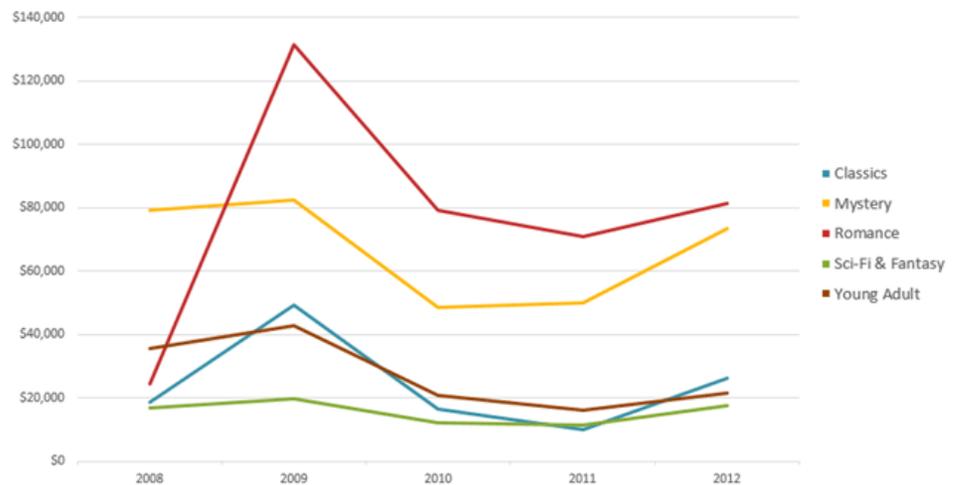
Line charts are ideal for showing trends. The data points are connected with lines, making it easy to see whether values are increasing or decreasing over time.

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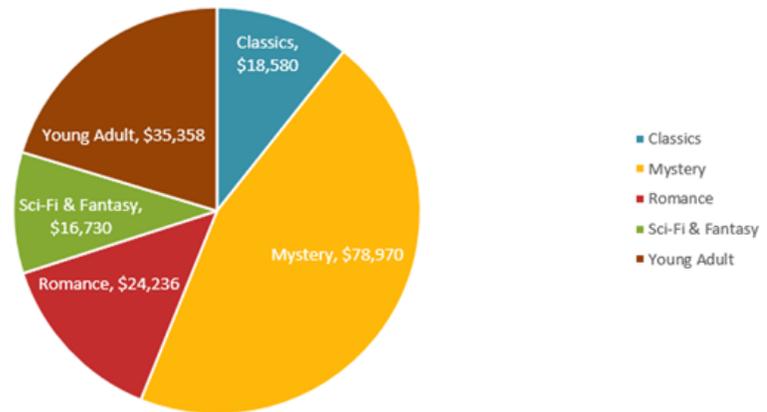
Pie charts make it easy to compare proportions. Each value is shown as a slice of the pie, so it's easy to see which values make up the percentage of a whole.

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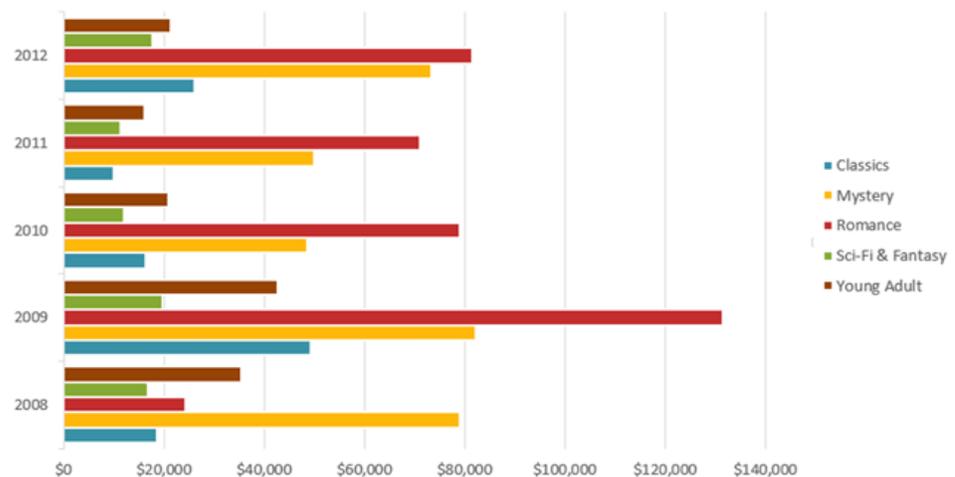
Bar charts work just like column charts, but they use horizontal rather than vertical bars.

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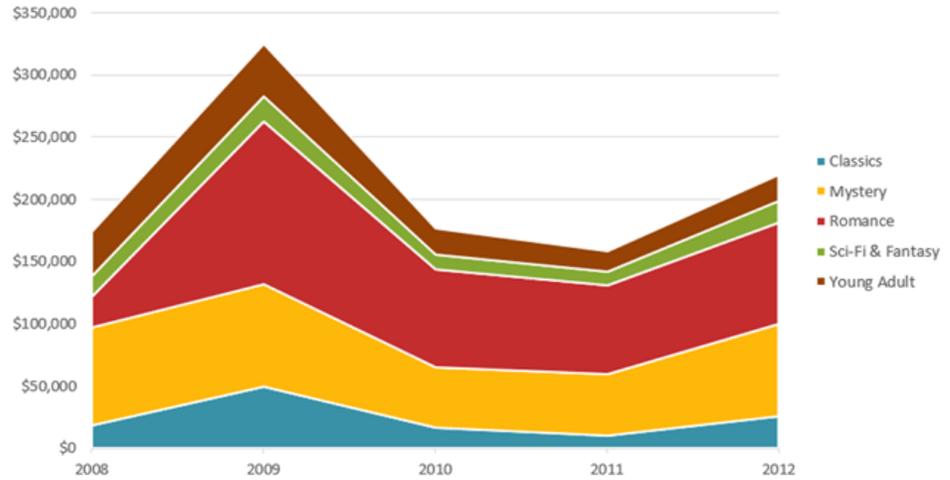
Area charts are similar to line charts, except the areas under the lines are filled in.

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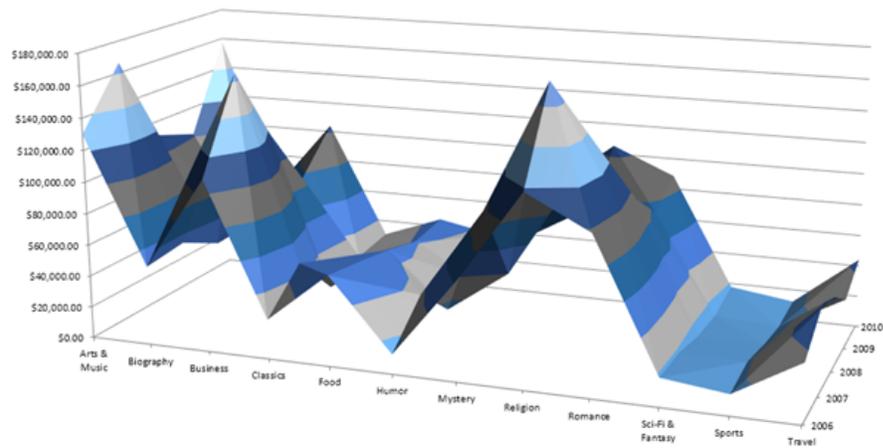
Surface charts allow you to display data across a 3D landscape. They work best with large data sets, allowing you to see a variety of information at the same time.

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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.
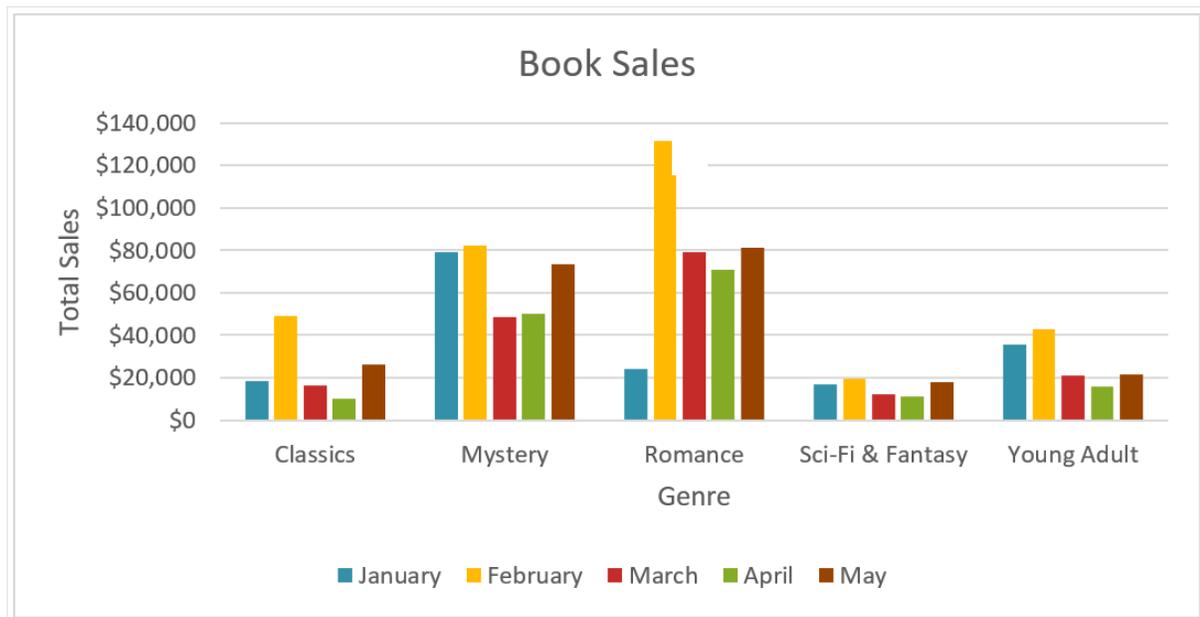

To insert a chart:

1   Select the **cells** you want to chart, including the **column titles** and **row labels**. These cells will be the source data for the chart. In our example, we'll select cells

A1:F6.

	A	B	C	D	E	F	G
1	Genre	January	February	March	April	May	
2	Classics	$18,580	$49,225	$16,326	$10,017	$26,134	
3	Mystery	$78,970	$82,262	$48,640	$49,985	$73,428	
4	Romance	$24,236	$131,390	$79,022	$71,009	$81,474	
5	Sci-Fi & Fantasy	$16,730	$19,730	$12,109	$11,355	$17,686	
6	Young Adult	$35,358	$42,685	$20,893	$16,065	$21,388	
7							
8							

2 From the **Insert** tab, click the desired **Chart** command. In our example, we'll select **Column**.
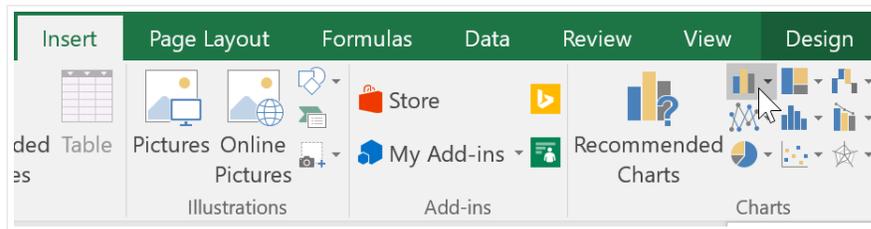
3 Choose the desired **chart type** from the drop-down menu.
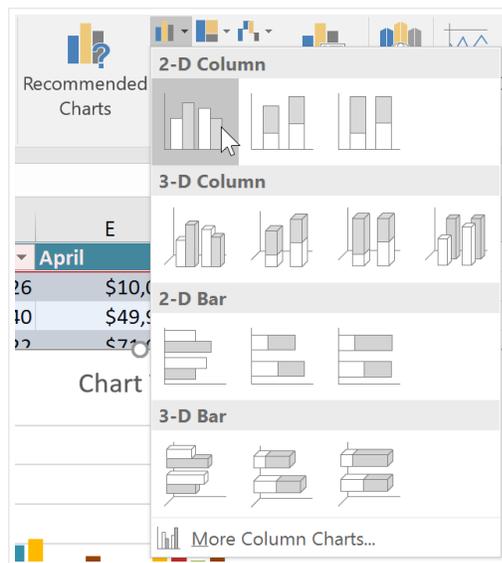
4 The Selected chart will be inserted into the worksheet.
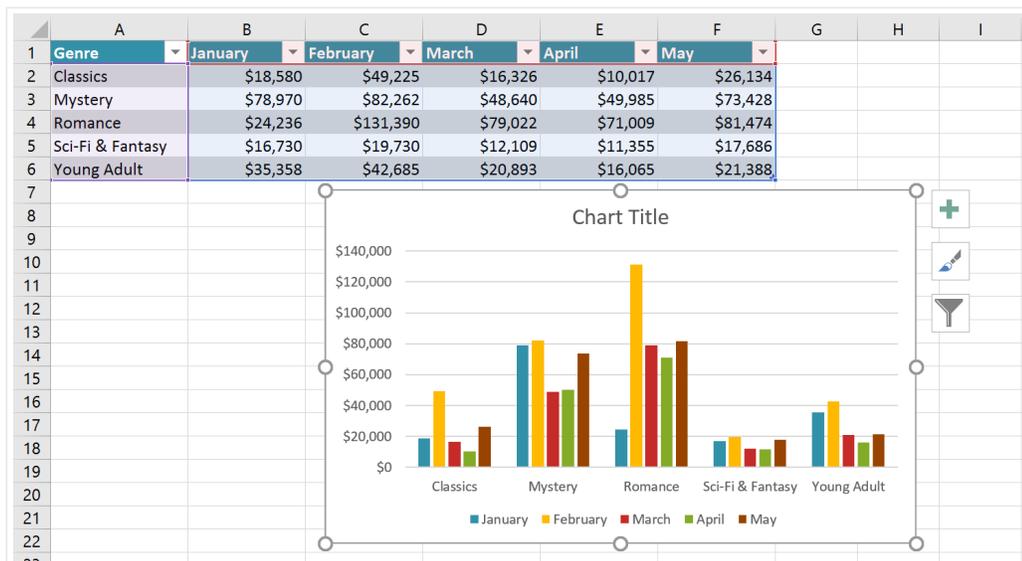
If you're not sure which type of chart to use, the **Recommended Charts** command will suggest several different charts based on the source data.
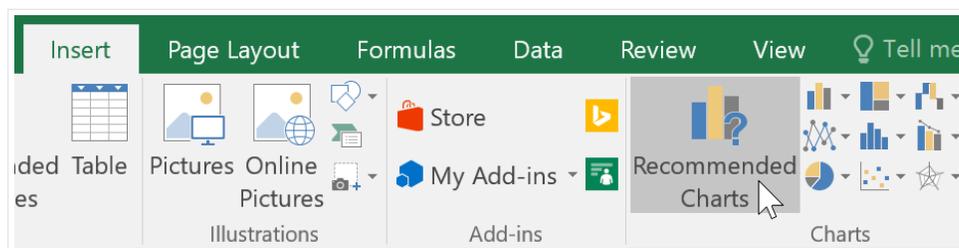

Chart and layout style

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.
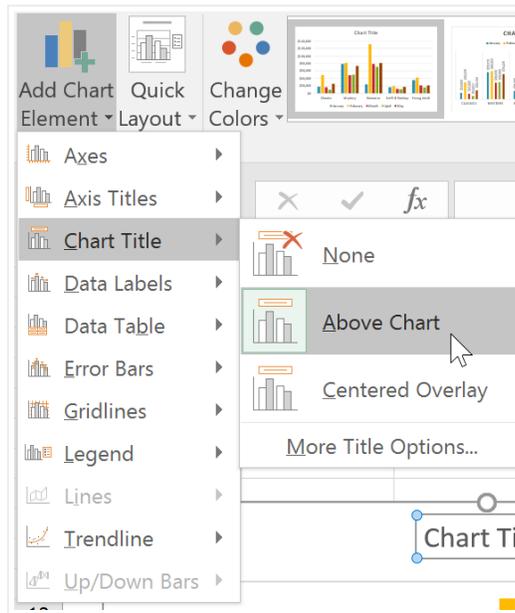
- To **edit** a chart element, like a **chart title**, simply double-click the **placeholder** and begin typing.
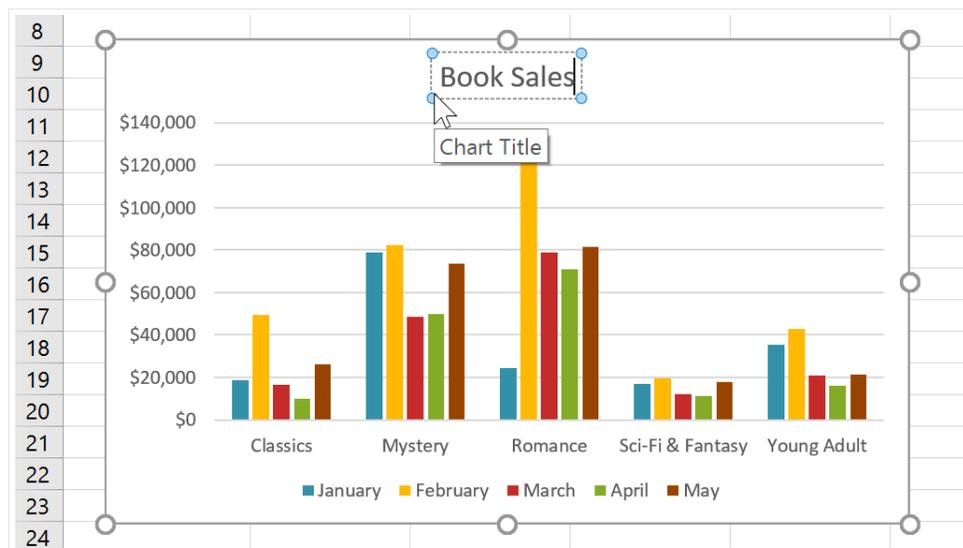
- If you don't want to add chart elements individually, you can use one of Excel's predefined layouts. Simply click the **Quick Layout** command, then choose the **desired layout** from the drop-down menu.
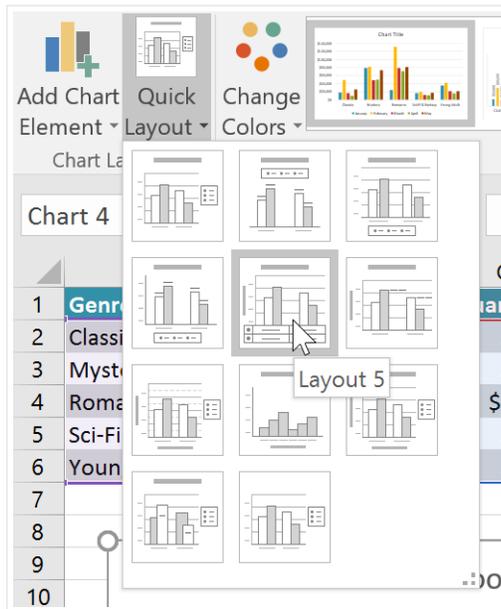
- Excel also includes several **chart styles**, which allow you to quickly modify the look and feel of your chart. To change the chart style, select the **desired style** from the **Chart styles** group. You can also click the drop-down arrow on the right to see more styles.
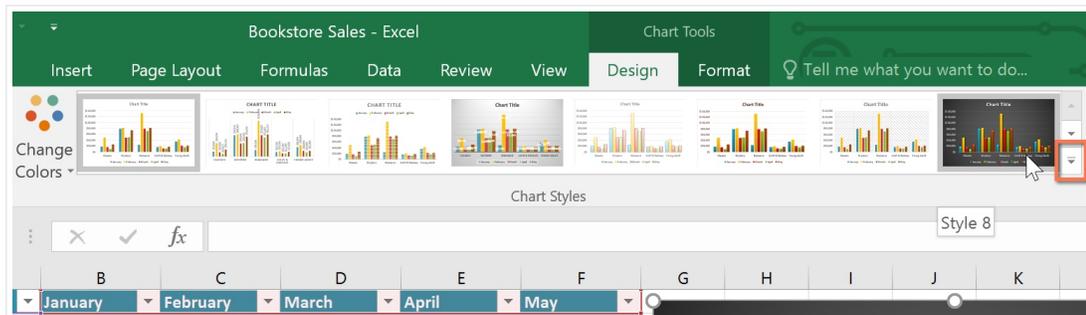
You can also use the chart formatting shortcut buttons to quickly **add chart elements**, change the **chart style**, and **filter** the chart data.
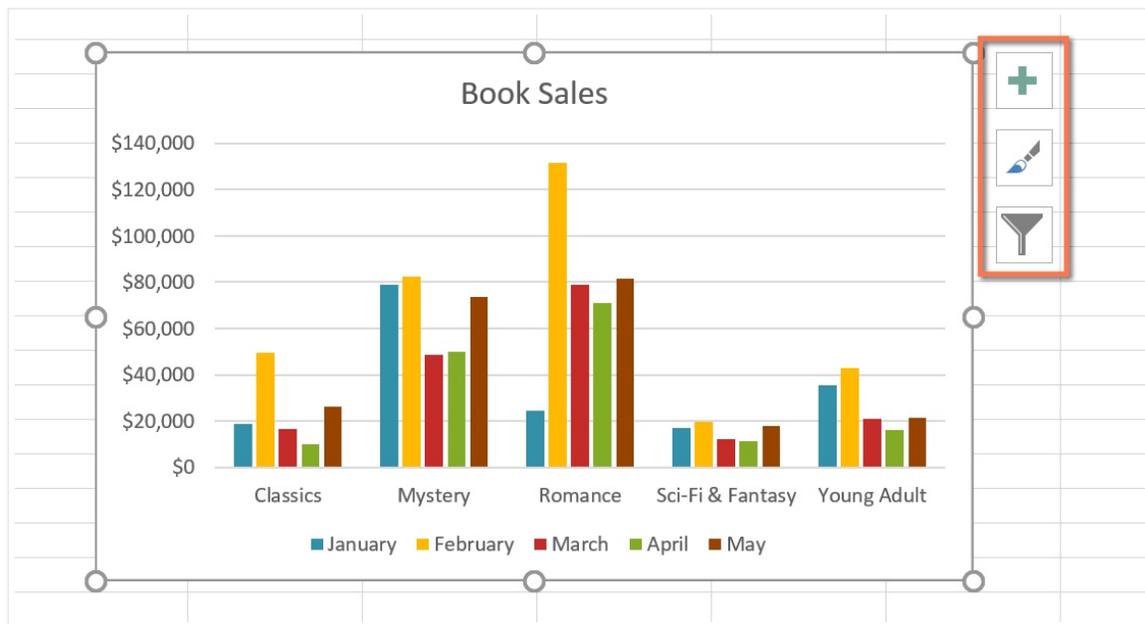
Other chart options

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.
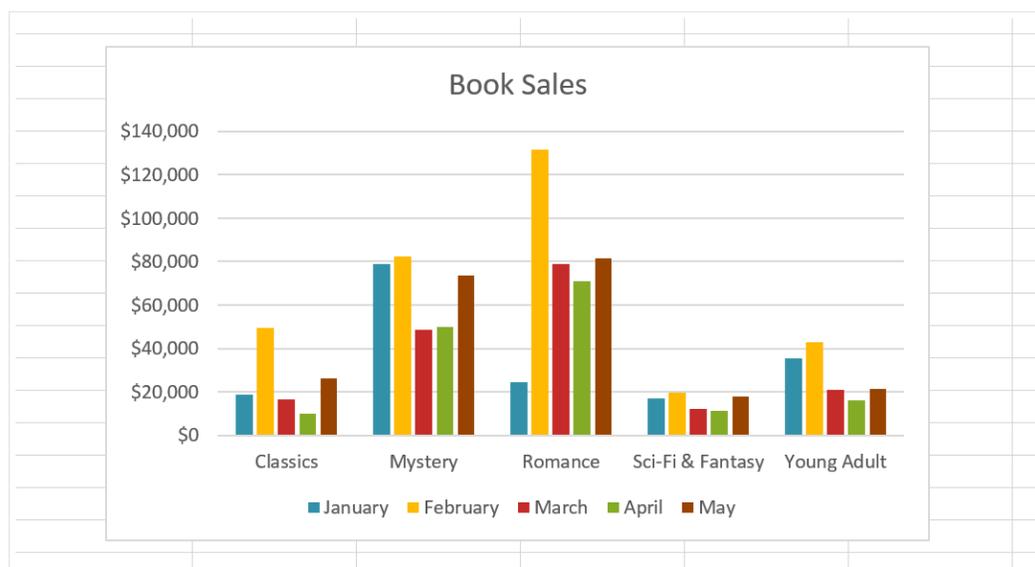

Select the **chart** you want to modify.

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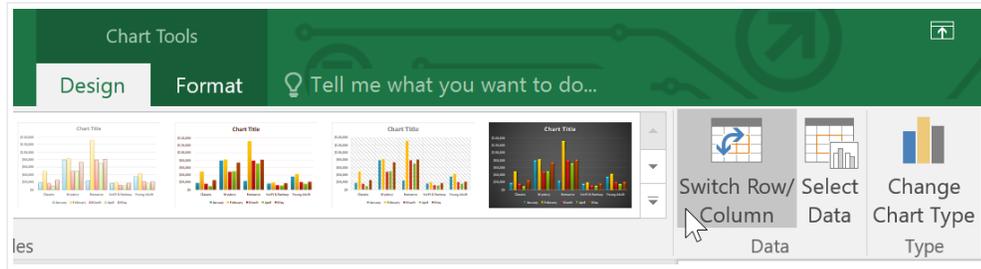

3 The rows and columns will be **switched**. In our example, the data is now grouped by month, with columns for each genre.
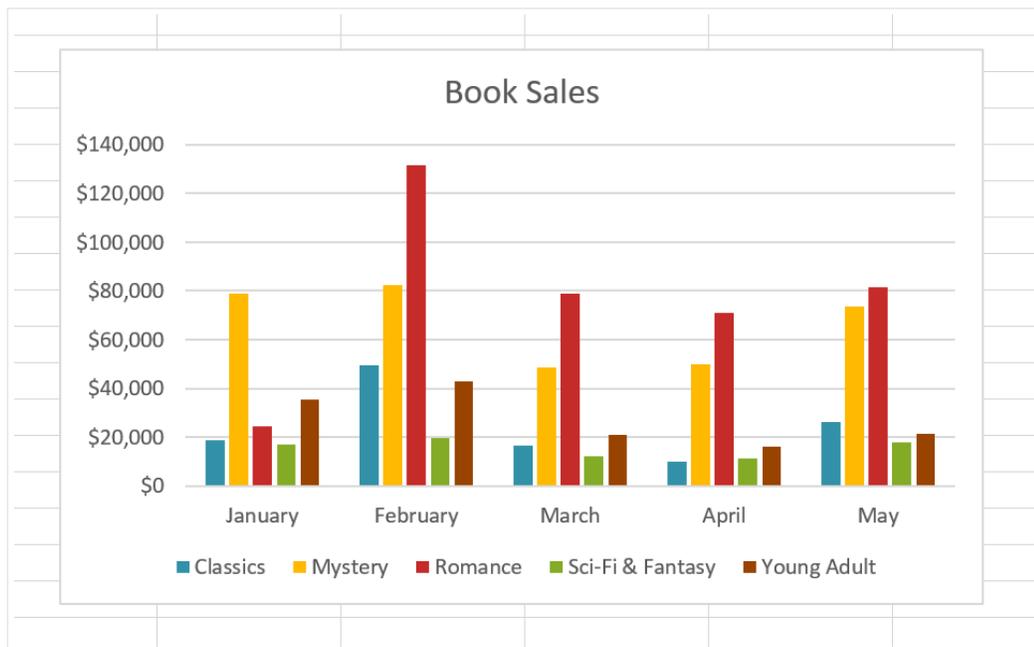

To change the chart type:

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.
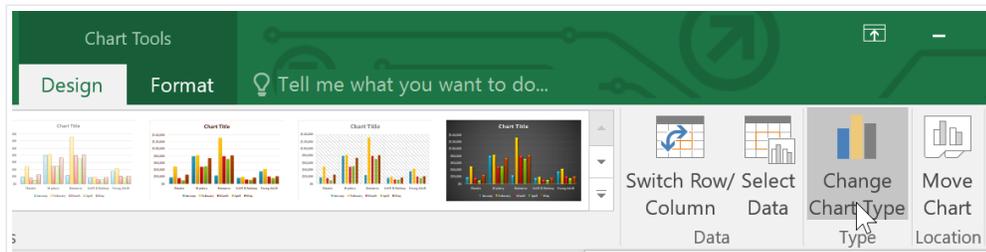
2 The **Change Chart Type** dialog box will appear. Select a new chart **type** and **layout**, then click **OK**. In our example, we'll choose a **Line** chart.
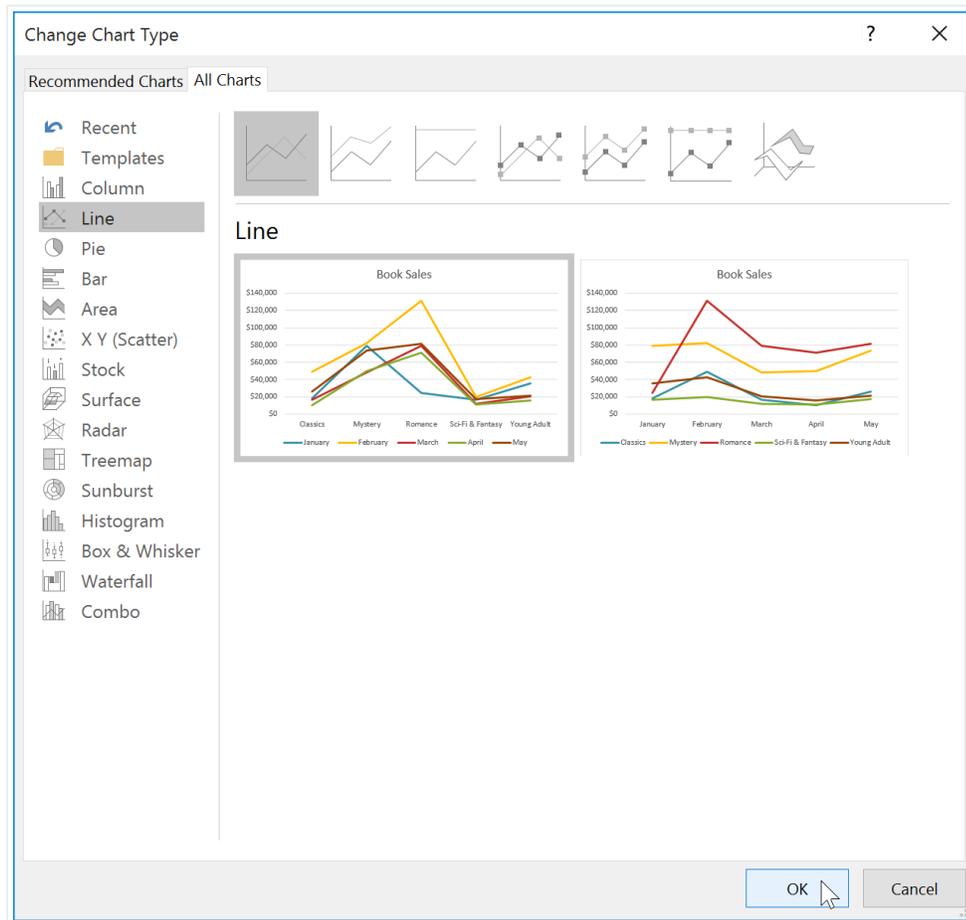
3   The selected chart type will appear. In our example, the line chart makes it easier
   to see trends in sales data over time.
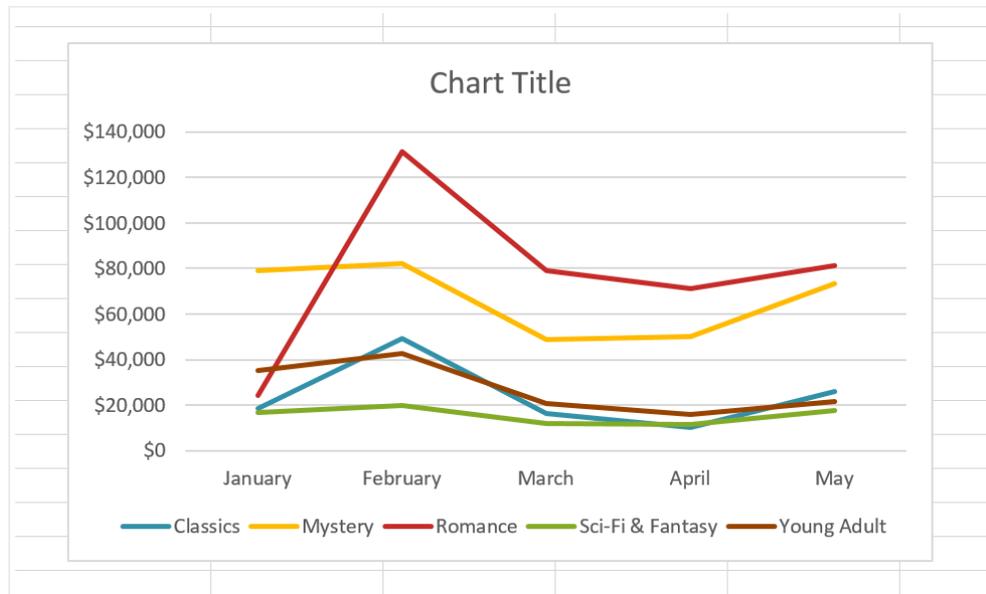
To move a chart:

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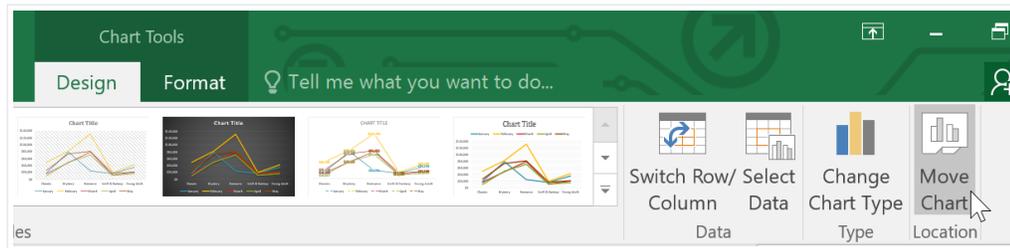
3   The **Move Chart** dialog box will appear. Select the **desired location** for the chart. In our example, we'll choose to move it to a **New sheet**, which will create a new worksheet.

4   Click **OK**.
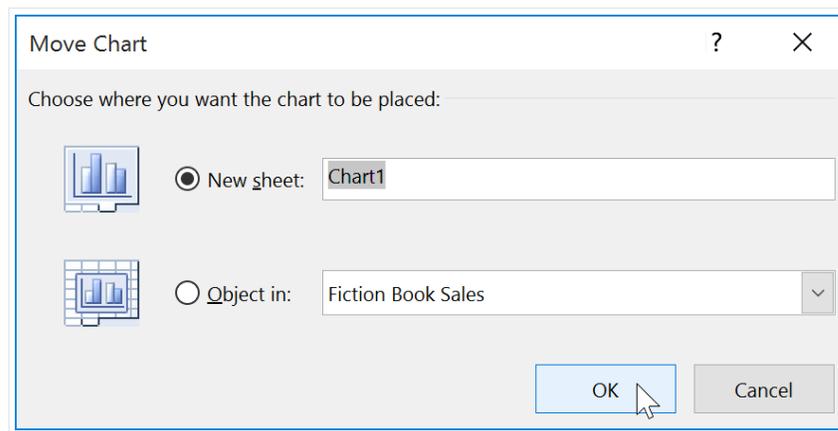
5   The chart will appear in the selected location. In our example, the chart now appears on a new worksheet.
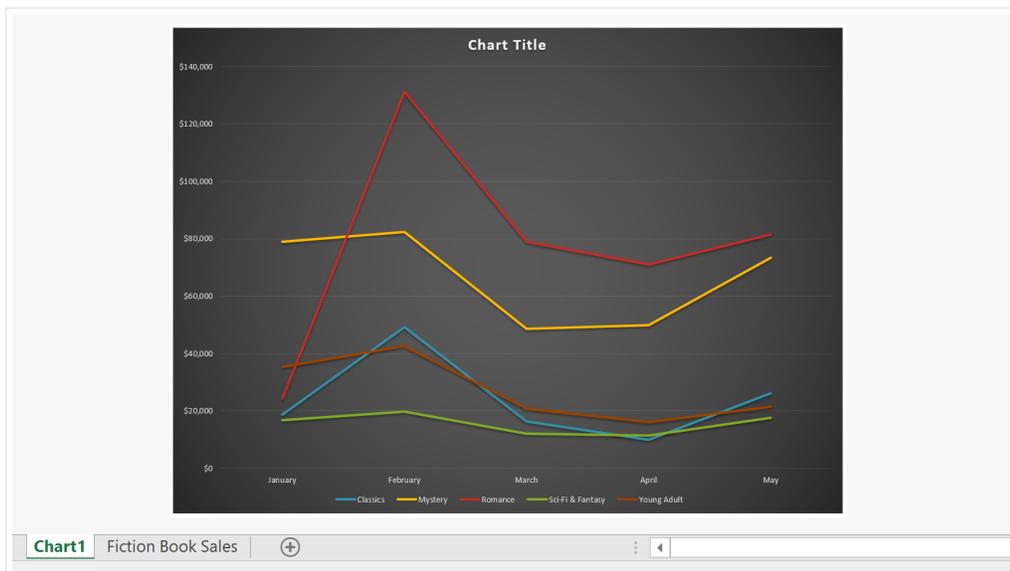
Keeping charts up to date

By default, when you add more data to your spreadsheet, the chart may not include the new data. To fix this, you can adjust the **data range**. Simply click the chart, and it will highlight the data range in your spreadsheet. You can then click and drag the **handle** in the lower-right corner to change the data range.

	B	C	D	E	F
	January	February	March	April	May
	$18,580	$49,225	$16,326	$10,017	$26,134
	$78,970	$82,262	$48,640	$49,985	$73,428
	$24,236	$131,390	$79,022	$71,009	$81,474
	$16,730	$19,730	$12,109	$11,355	$17,686
	$35,358	$42,685	$20,893	$16,065	$21,388

If you frequently add more data to your spreadsheet, it may become tedious to update the data range. Luckily, there is an easier way. Simply format your source data as a **table**, then create a **chart based on that table**. When you add more data below the table, it will automatically be included in both the table and the chart, keeping everything consistent and up to date.

Watch the video below to learn how to use tables to keep charts up to date.

*Video removed from printing pages

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: