



sage

FREE
E-BOOK

6 MICROSOFT® EXCEL® TIPS AND TRICKS

Charts

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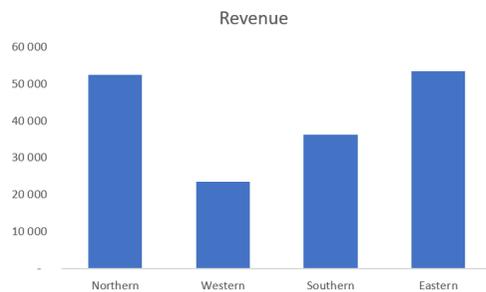
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01 HOW TO STOP YOUR CHARTS FROM DISAPPEARING

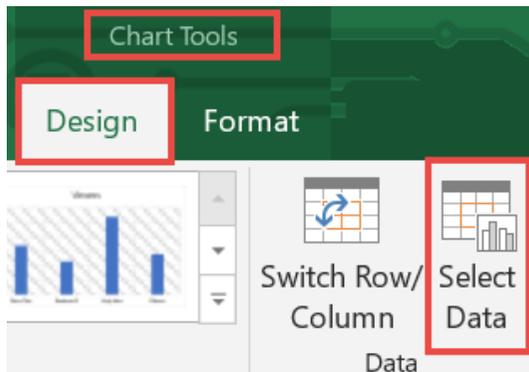
Have you ever experienced your Excel charts disappearing when you hide the columns showing the data? By default, Microsoft Excel shows only visible data in a chart. In this tip, we will show you how to easily overcome this problem.

1. First, let's create a simple chart with your data to demonstrate.

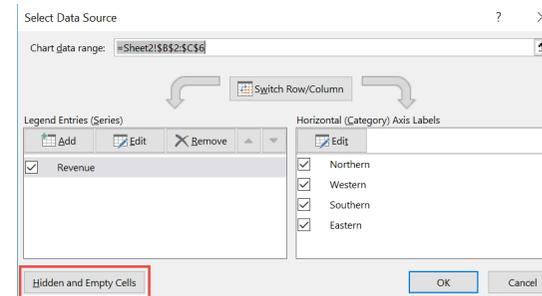
Branch	Revenue
Northern	52 352
Western	23 522
Southern	36 245
Eastern	53 423



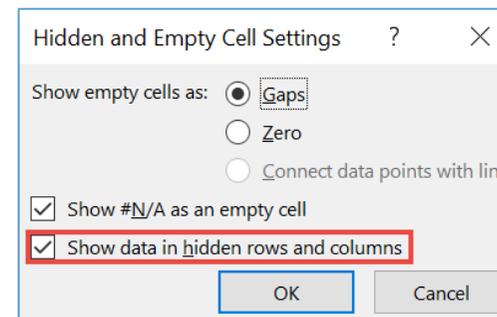
2. If you had to hide columns A and B, your chart will disappear. To prevent this from happening, click anywhere on the chart and from the ribbon, select **Chart Tools > Design > Select Data**



3. In the "Select Data Source" dialogue box, select "Hidden and Empty Cells" in the bottom left hand corner.



4. In the "Hidden and Empty Cell Settings" dialog box, check the box "Show data in hidden rows and columns".



5. Select "OK" twice.

Now, go ahead and hide your data. Your chart should still display with the hidden data!

02 HOW TO AUTOMATICALLY HIGHLIGHT SPECIFIC DATA USING A BAR CHART

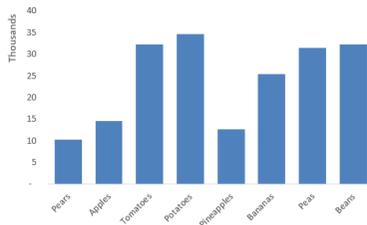
This Microsoft Excel tip will come in handy when you want to create a chart that will populate your data and highlight only specific parts of that data.

[Download the workbook](#) to practise this exercise.

In the example below, we will look at a grocery store. The chart displays the revenue generated from the produce department.

Produce Sales

Produce	Category	Revenue
Pears	Fruit	10 245
Apples	Fruit	14 523
Tomatoes	Fruit	32 154
Potatoes	Vegetables	34 512
Pineapples	Fruit	12 568
Bananas	Fruit	25 412
Peas	Vegetables	31 425
Beans	Vegetables	32 145



If, for example, you wanted to see how Pears compare to Bananas, you could easily highlight these data points by following the below steps:

1. Add additional columns for "Relevant", "Non-Relevant" and "Criteria".
2. Enter the criteria to be met under the "Criteria" columns, e.g. Bananas and Pears.
3. The "Relevant" column uses an IF(COUNTIF formula to determine if the item meets the criteria and if so, will return the value.

4. The "Non-Relevant" column will return a value if the criteria was not met for the "Relevant" column.

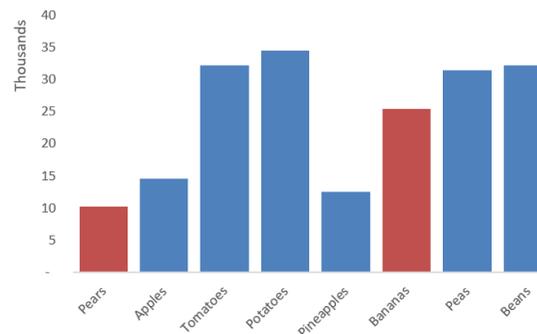
=IF(COUNTIF(\$G\$10:\$G\$11,A10)=1,C10,"")

=IF(F10="",D10,"")

Produce Sales

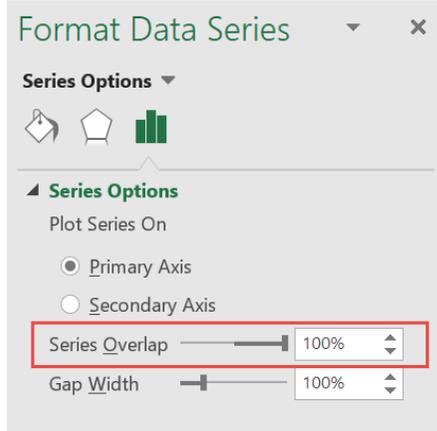
Produce	Category	Revenue	Non-Relevant	Relevant	Criteria
Pears	Fruit	10 245		10 245	Bananas
Apples	Fruit	14 523	14 523		Pears
Tomatoes	Fruit	32 154	32 154		
Potatoes	Vegetables	34 512	34 512		
Pineapples	Fruit	12 568	12 568		
Bananas	Fruit	25 412		25 412	
Peas	Vegetables	31 425	31 425		
Beans	Vegetables	32 145	32 145		

5. Create a chart using the "Relevant" and "Non-Relevant" columns. The columns are displayed in different colours.

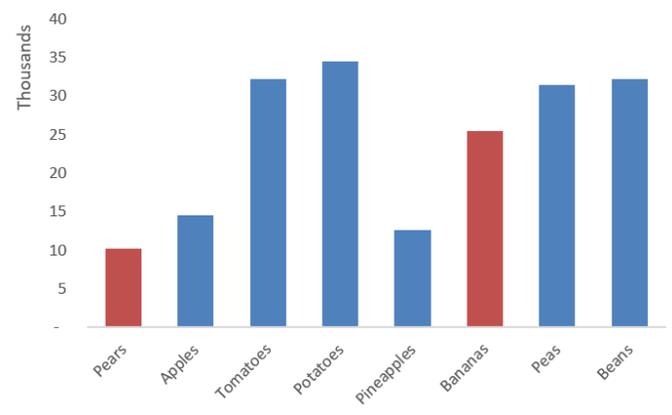


6. For the chart to display correctly, right click on a data bar and select Format Data Series.

7. From the Format Data Series dialogue box, set the Series Overlap to 100%. As each produce type has two columns being used in the chart, one with a value and one equal to 0, by overlapping the bars we avoid having an "empty bar" being displayed.



By changing your criteria, the chart is automatically refreshed, and the relevant bars are highlighted.



03 HOW TO CREATE A STEP CHART

A step chart shows changes that occur over irregular intervals. For example, it can show stock movement changes, interest rates, etc. A step chart is the perfect alternative to a line chart as it displays the trend as well as the time taken between changes.

The difference between a Step Chart and Line Chart: A line chart connects data points and the focus in such charts is the trend and not the exact time of change. On the other hand, a step chart shows the **exact time of change** in the data as well as the trend. With a step chart, you can easily identify the exact time where there was no change or compare the extent of change at each instance. In this tip, we will show you how to establish the trend of a stock item.

Note: Download the [sample workbook](#) to practice this exercise.

Steps to create the Step Chart:

Date	Stock Movement
15/01/2018	1 754
12/02/2018	1 739
07/04/2018	1 853
23/05/2018	1 520
12/06/2018	1 257
25/06/2018	1 523
18/07/2018	1 085
10/08/2018	1 727
03/09/2018	1 955
28/09/2018	1 026
15/10/2018	1 792
13/11/2018	1 523
25/11/2018	1 495
03/12/2018	1 765

1. The data needs to be reconstructed and set up as follows:

- Copy and paste the headings into new cells.

Date	Stock Movement	→	Date	Stock Movement
15/01/2018	1 754			
12/02/2018	1 739			
07/04/2018	1 853			
23/05/2018	1 520			
12/06/2018	1 257			
25/06/2018	1 523			
18/07/2018	1 085			
10/08/2018	1 727			

- From your dataset, copy the dates starting from the second date and paste in the blank "Date" column.

Date	Stock Movement		Date	Stock Movement
15/01/2018	1 754		12/02/2018	
12/02/2018	1 739		07/04/2018	
07/04/2018	1 853		23/05/2018	
23/05/2018	1 520		12/06/2018	
12/06/2018	1 257		25/06/2018	
25/06/2018	1 523		18/07/2018	
18/07/2018	1 085		10/08/2018	
10/08/2018	1 727		03/09/2018	
03/09/2018	1 955		28/09/2018	
28/09/2018	1 026		15/10/2018	
15/10/2018	1 792		13/11/2018	
13/11/2018	1 523		25/11/2018	
25/11/2018	1 495		03/12/2018	
03/12/2018	1 765			

From your dataset, copy your sales values starting at the first value to the second last value, then paste this in the blank "Stock Movement" column.

Date	Stock Movement	Date	Stock Movement
15/01/2018	1 754	12/02/2018	1 754
12/02/2018	1 739	07/04/2018	1 739
07/04/2018	1 853	23/05/2018	1 853
23/05/2018	1 520	12/06/2018	1 520
12/06/2018	1 257	25/06/2018	1 257
25/06/2018	1 523	18/07/2018	1 523
18/07/2018	1 085	10/08/2018	1 085
10/08/2018	1 727	03/09/2018	1 727
03/09/2018	1 955	28/09/2018	1 955
28/09/2018	1 026	15/10/2018	1 026
15/10/2018	1 792	13/11/2018	1 792
13/11/2018	1 523	25/11/2018	1 523
25/11/2018	1 495	03/12/2018	1 495
03/12/2018	1 765		

2. Using this new dataset, select **Insert > Charts > Line Chart**. Your Step Chart has been created and is ready for any formatting required.



Step Chart



Line Chart

Copy your original data table and paste it directly underneath the data you have just copied over into your new columns.

Date	Stock Movement	Date	Stock Movement
15/01/2018	1 754	12/02/2018	1 754
12/02/2018	1 739	07/04/2018	1 739
07/04/2018	1 853	23/05/2018	1 853
23/05/2018	1 520	12/06/2018	1 520
12/06/2018	1 257	25/06/2018	1 257
25/06/2018	1 523	18/07/2018	1 523
18/07/2018	1 085	10/08/2018	1 085
10/08/2018	1 727	03/09/2018	1 727
03/09/2018	1 955	28/09/2018	1 955
28/09/2018	1 026	15/10/2018	1 026
15/10/2018	1 792	13/11/2018	1 792
13/11/2018	1 523	25/11/2018	1 523
25/11/2018	1 495	03/12/2018	1 495
03/12/2018	1 765	15/01/2018	1 754
		12/02/2018	1 739
		07/04/2018	1 853
		23/05/2018	1 520
		12/06/2018	1 257
		25/06/2018	1 523
		18/07/2018	1 085
		10/08/2018	1 727
		03/09/2018	1 955
		28/09/2018	1 026
		15/10/2018	1 792
		13/11/2018	1 523
		25/11/2018	1 495
		03/12/2018	1 765

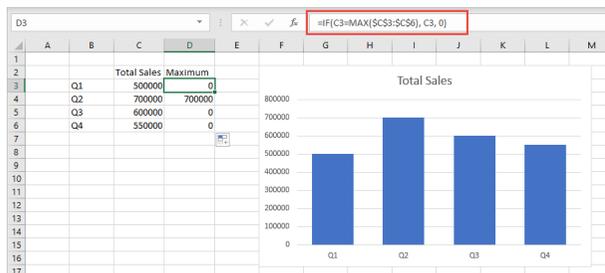
04 HOW TO FORMAT A CHART TO DYNAMICALLY SHOW ITS MAXIMUM VALUE

Data visualisation is fast becoming the norm for effective business intelligence. Having visuals that tell the right story at a glance go a long way in achieving this. Microsoft Excel provides you with a multitude of ways to enhance the visuals that you create. In this tip, you'll learn how to format a basic bar chart to dynamically highlight the maximum value in the series.

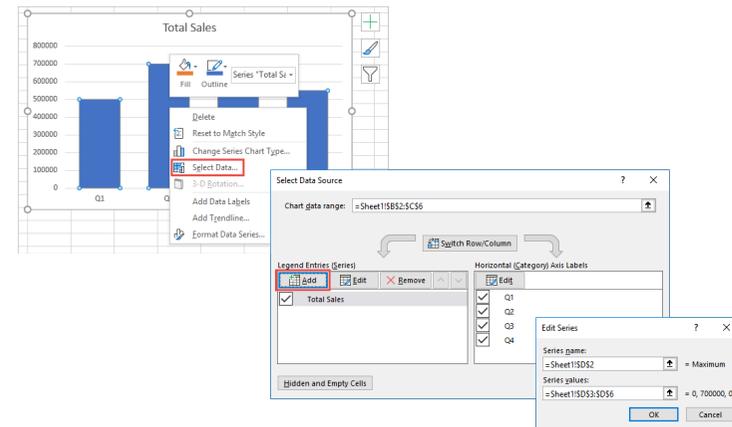
1. Here's a data series showing total sales values for each quarter in the financial year. A basic bar chart has been created to display this and each bar in the chart has been widened for greater emphasis. You can achieve this by decreasing the bar gap width under the Format Data Series options. To get to these options, right click on a bar and select Format Data Series.



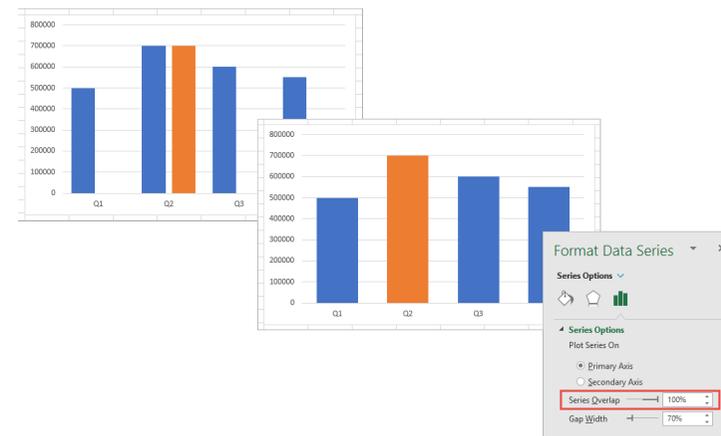
2. To determine the maximum value, another series is added to the chart which is defined in the column to the right of the total sales. This column uses an IF and MAX function to return either the total sales value if it is the maximum or else zero. Use the formula displayed below.



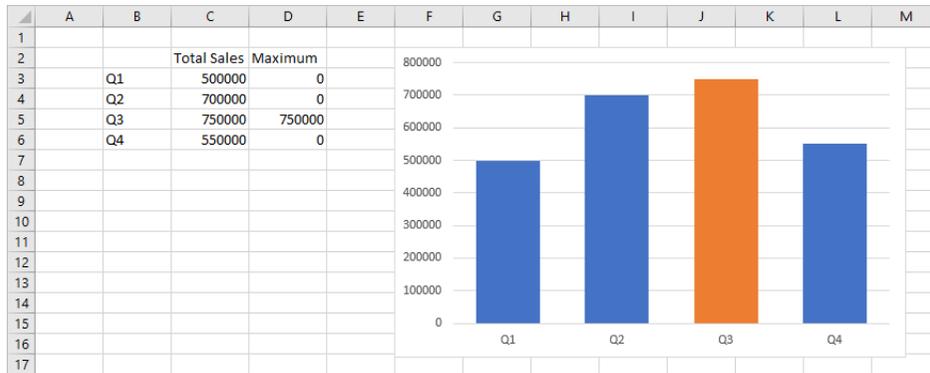
3. The new series is now added to the chart. You can do this by right clicking on the chart and choosing Select Data > Select Add from the Select Data Source dialogue, and then pick the right cells for your series name and series values.



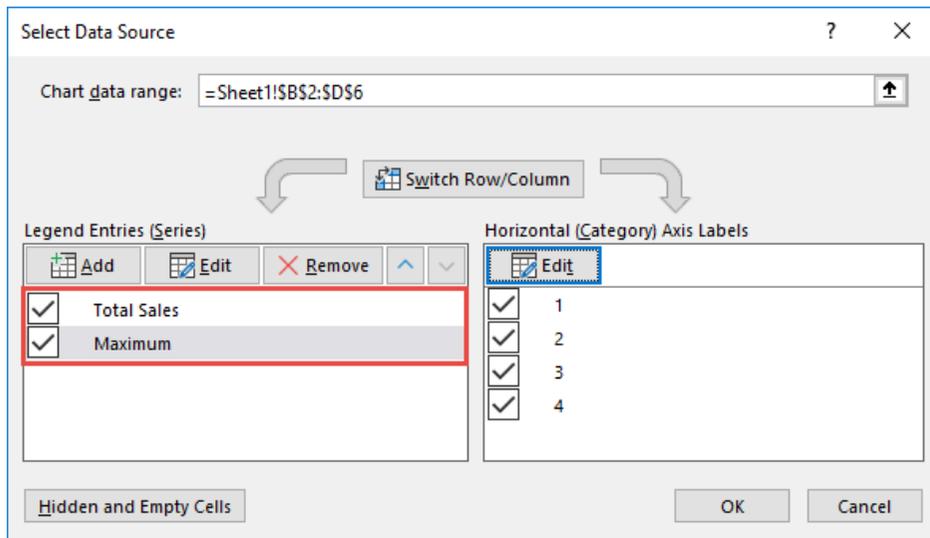
4. The new series is now placed to the right of the existing series. To get it to appear in place of the existing series you need to overlap it. You can do this by setting the Series Overlap amount in the chart properties to 100%.



Take note that as your series values change, the chart updates accordingly.



If the highlight isn't displaying, go back to the Select Data Source dialogue and make sure that your highlight series is positioned after your main values series.



Excel provides a multitude of ways for you to enhance your visuals. By exploring the possibilities, you're able to display your information in the most effective way for your needs.



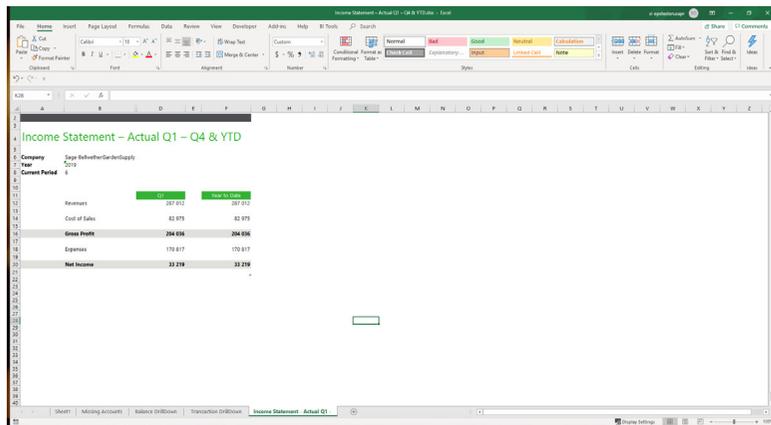
05 HOW TO CREATE A SIMPLE FINANCIAL DASHBOARD

When viewing numerical data in Excel, you may at some point want to represent this data visually. This gives you the ability to easily analyze large amounts of data. Charts and graphs also make your report look more professional and can even help when creating dashboards. In this Excel tip, we will show you how to create a simple financial dashboard.

We are going to work with data from a simple income statement. We will create two charts: a **waterfall chart** and **clustered column chart** to show the comparison between the different sections of an income statement (revenue, cost of sales, expenses, gross profit and net income).

Note: This data can come from anywhere; your Sage solution or from a different Accounting program or even from a simple Excel spreadsheet.

Here we have an income statement showing the revenue, cost of sales, expenses, gross profit and net income for the first quarter, as well as the year to date.

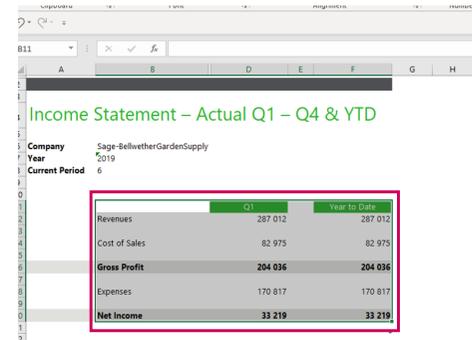


	Q1	Year to Date
Revenues	287 012	287 012
Cost of Sales	82 975	82 975
Gross Profit	204 036	204 036
Expenses	170 817	170 817
Net Income	33 219	33 219

Let insert two charts to give this report a more visual display that is easier to analyze.

First, you need to select the data you want the charts to represent.

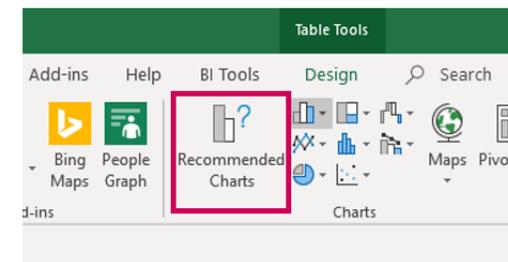
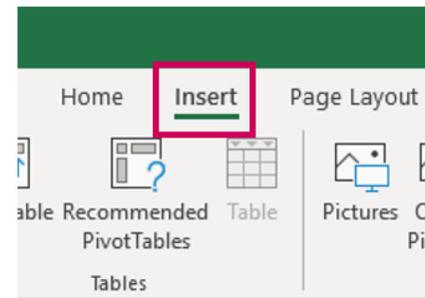
- Make sure the column headings are also highlighted
- Excel will detect data in the selected cells and find a pattern



	Q1	Year to Date
Revenues	287 012	287 012
Cost of Sales	82 975	82 975
Gross Profit	204 036	204 036
Expenses	170 817	170 817
Net Income	33 219	33 219

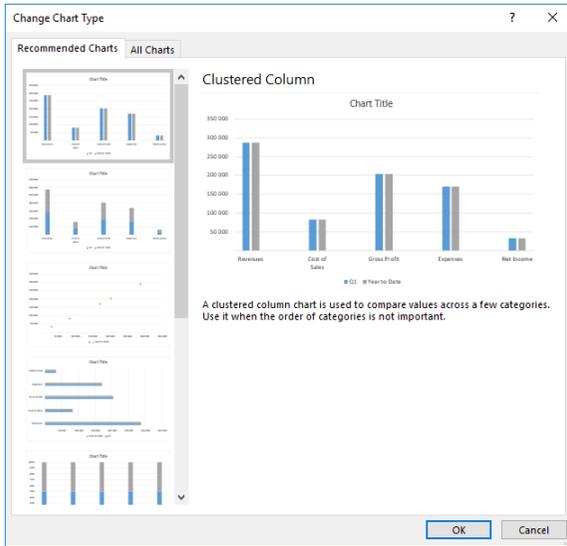
Once you have selected your data, do the following:

- From the main menu in Excel, choose **Insert**. Go to the **Charts** section. You should see the chart options. Click on **Recommended Charts**.



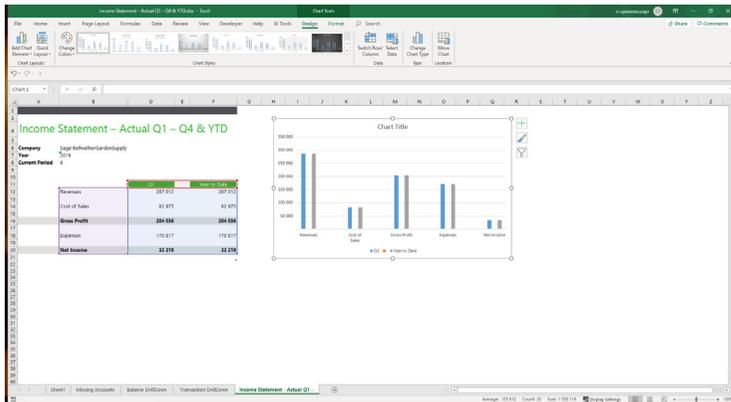
A window appears showing the available chart types:

- Choose the first option to insert a **clustered column**. Clustered column charts are used to compare values across categories (like between the different sections of an income statement).

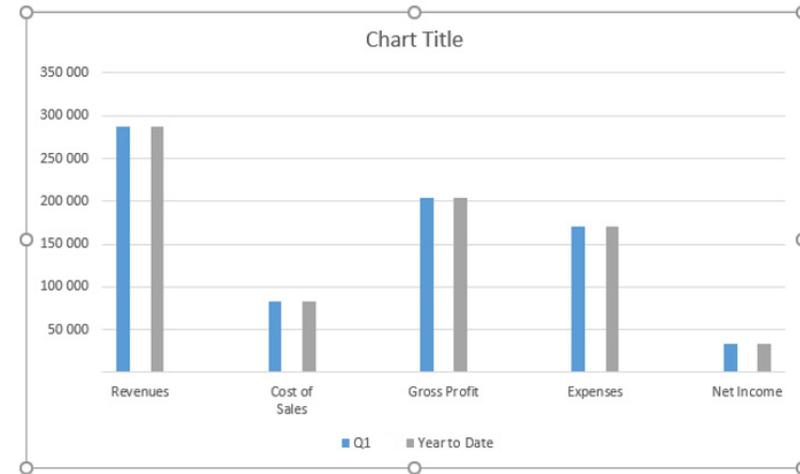


Click **OK**. A chart is now inserted in your spreadsheet.

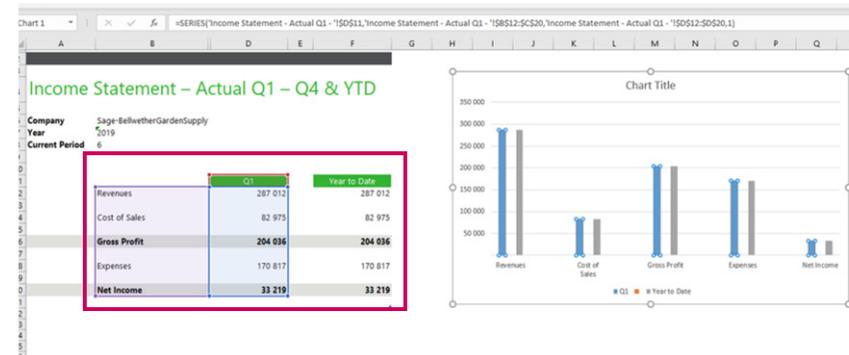
- Click on the chart. Notice how the data used in the chart is automatically selected and color coded in the income statement. This shows where the chart is pulling its data from.



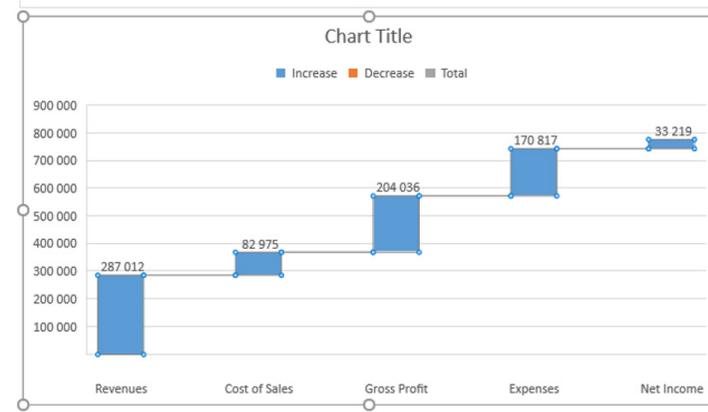
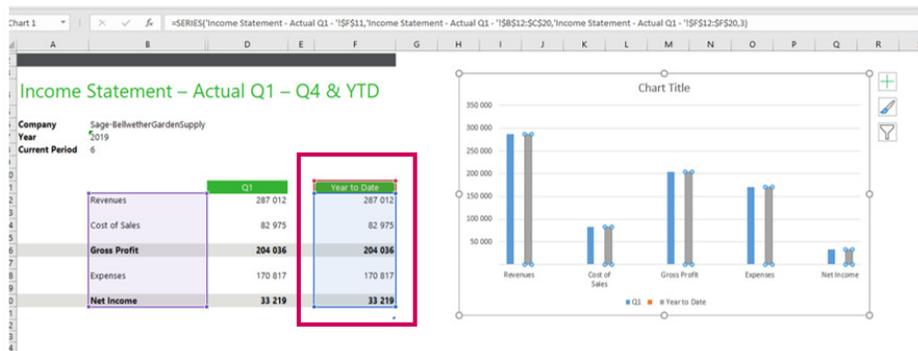
The chart has a legend showing the different areas of data represented. The blue columns represent data for quarter 1 while the grey represents the Year to Date values.



- Click on any of the blue columns. Notice the data selected in the income statement shifts to just the Q1 column and the corresponding income statement categories (Year to Date is no longer part of the selection).

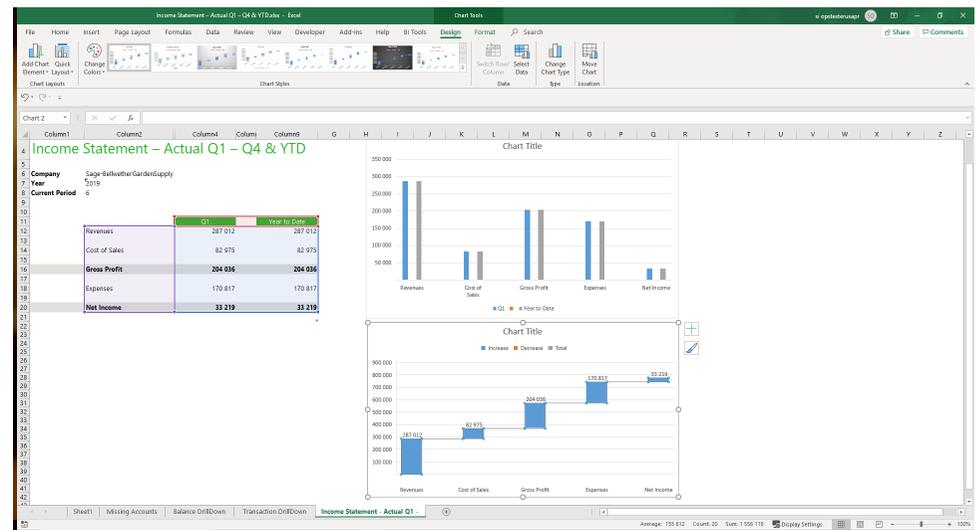


Now click on any of the grey columns. The year to date column of the income statement is now selected (Q1 is no longer part of the selection).



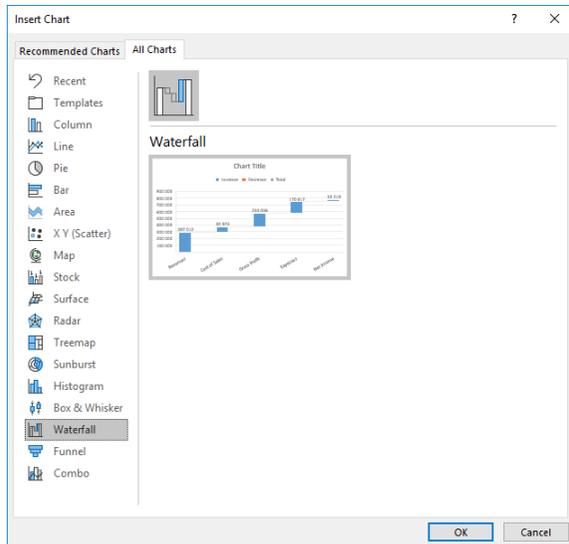
The result should look like the following image:

Now, let's insert a waterfall chart using the same method. These chart types show running totals for each category. They also show increases and decreases (negatives and positives) where available.



You have now created a simple financial dashboard showing the income statement for Q1 and year to date, with two dynamic charts to assist you when analyzing your financial data.

We also have some parameters (year and period) and if those parameters were to change, the charts will automatically adjust to reflect these changes. No need to recreate the charts!



06 HOW TO HIGHLIGHT DATA POINTS IN AN EXCEL CHART USING FORM CONTROLS

It's not always easy to trace which data point relates to which series in a chart, especially when it comes to a line chart. To overcome this problem, we can dynamically highlight an individual data point. Let's get started.

[Download the workbook](#) to practice.

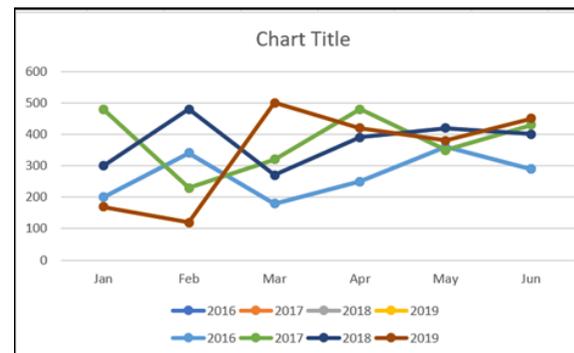
- Copy the data and paste it in a different area in your workbook. In our example, we are copying the range **Sheet1!A1:G5** to **Sheet 2!A1:G5**

	A	B	C	D	E	F	G
1		Jan	Feb	Mar	Apr	May	Jun
2	2016	200	340	180	250	360	290
3	2017	480	230	320	480	350	430
4	2018	300	480	270	390	420	400
5	2019	170	120	500	420	380	450
6							
7							

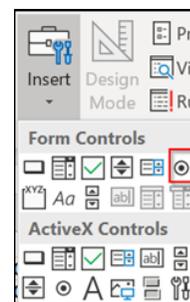
- Select the data on **Sheet1** and insert a Line Chart With Markers



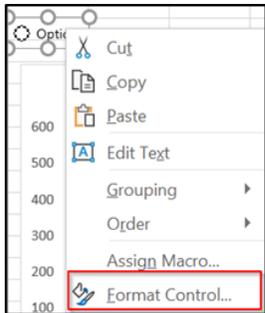
- Copy the data pasted on **Sheet 2** and paste it directly on top of the chart. Excel inserts another data series directly over the existing one.



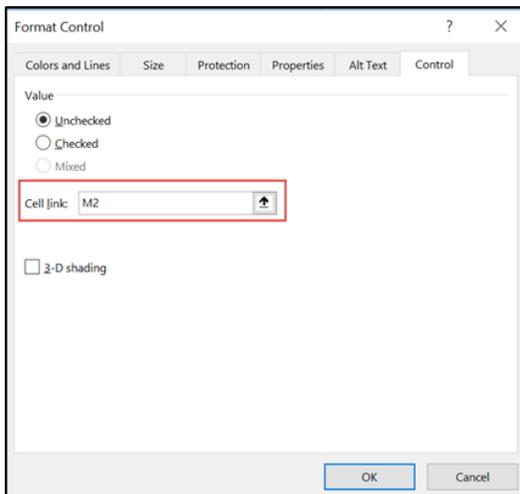
- Select the **Developer Tab > Insert >** and select the **Option Button (Form Control)**. Click anywhere in the worksheet to insert the button.



- Right click on the button and select **Format Control**.

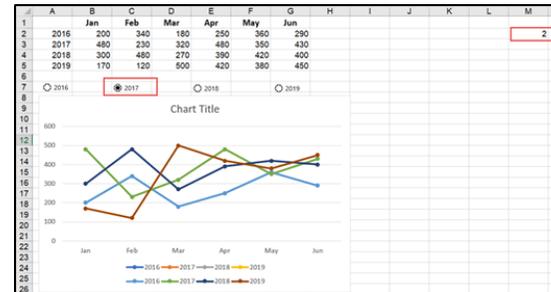


- In the Cell Link box enter the cell you want to connect to this button. In our example I have entered **M2**. Select **OK**.



- Repeat the above process until you have the desired number of buttons and link them all to the same cell. In our example we will need 4 buttons for each year. Edit the button label to the correct annotation.

- Ensure the buttons are working correctly by selecting each one and checking that the value in M2 changes with each selection.



- Enter a **1** in **N2**, **2** in **N3**, etc until you have the desired number of entries.

M	N	O
	1	
2	2	
	3	
	4	

- In cell O2 enter the formula =**\$M\$2=N2** and drag the fill handle down to the last cell

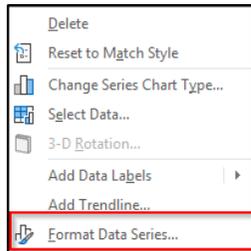
M	N	O
	1	FALSE
2	2	TRUE
	3	FALSE
	4	FALSE

- On **Sheet 2**, enter the following formula in cell B2 =**IF(Sheet1!\$O2=TRUE,Sheet1!B2,NA())**

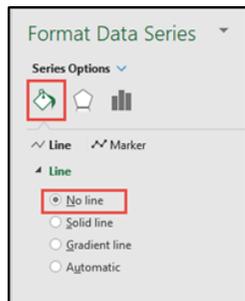
- Drag the fill handle down to cell **B5** and then again across all the columns to **column G**.

	A	B	C	D	E	F	G
1		Jan	Feb	Mar	Apr	May	Jun
2	2016	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3	2017	480	230	320	480	350	430
4	2018	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5	2019	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
6							

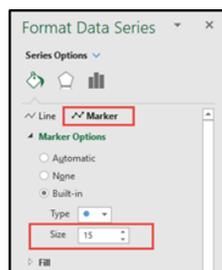
- Click the **2016 button** and right click on the relevant data series in the chart. Click **Format data series**.



- Make the following changes to the line and marker:
- Fill : No line

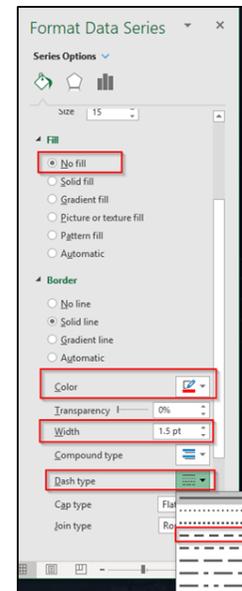


- Marker : Size 15

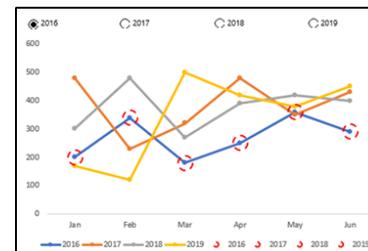


- Fill : No Fill**
- Border : Colour = Red**
- Border : Width = 1.5pt**

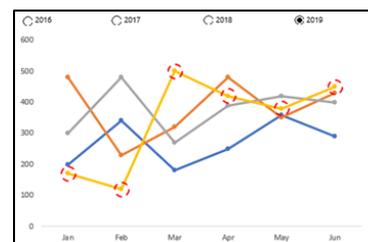
- Dash Type : Dash



- Repeat the above process on the remaining data series.
- Edit the chart elements by clicking them and either deleting them or editing them e.g. chart title, gridlines etc.

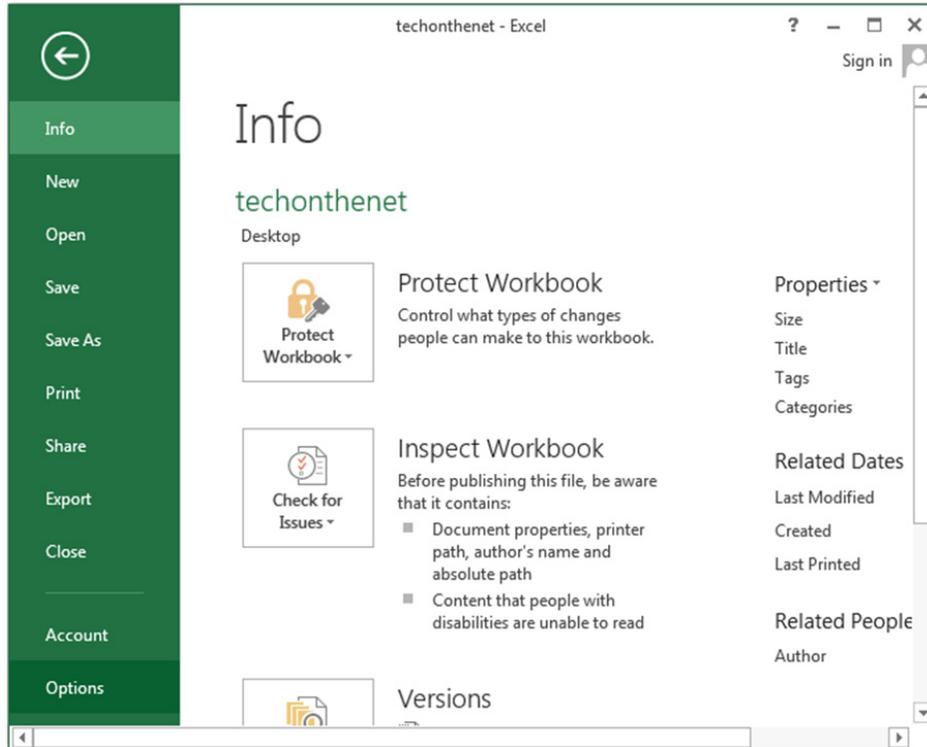


- As the years are represented by the Option buttons, the legend can be deleted.

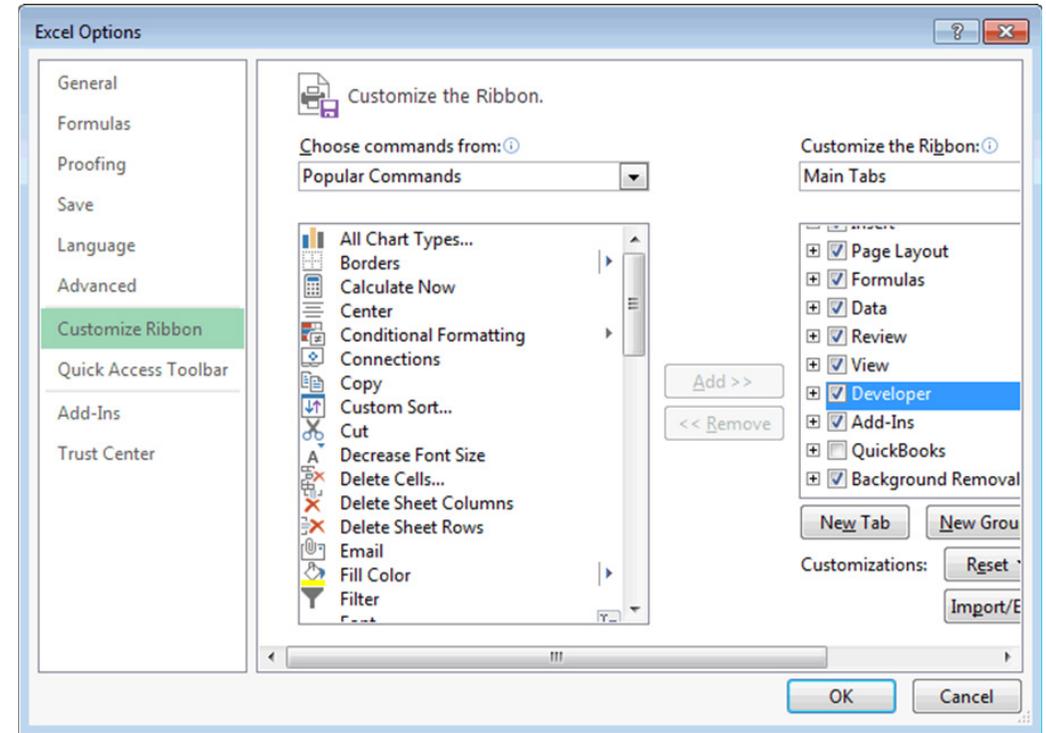


Note: if you do not see the Developer Tab, follow the steps below:

To display the DEVELOPER tab, click on the File menu and then select **Options** from the drop-down menu.



When the Excel Options window appears, click on the **Customize Ribbon** option on the left. Click on the **Developer** checkbox under the list of Main Tabs on the right. Then click on the **OK** button.



Now you should see the **DEVELOPER** tab in the toolbar at the top of the screen.

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