

# CREATING A BULLET CHART

BY  
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## LAB: CREATING A BULLET CHART.

You have been tasked to create a chart that allows you to understand your current performance in context.

## MODULE REQUIREMENTS

- ▶ Create a bullet chart.

## HINTS

## STEP-BY-STEP INSTRUCTIONS

## Click Steps

1. Open Module 14 – Bullet Charts.
2. Without any data selected, go to Insert > 2-D Column > Stacked Column chart.

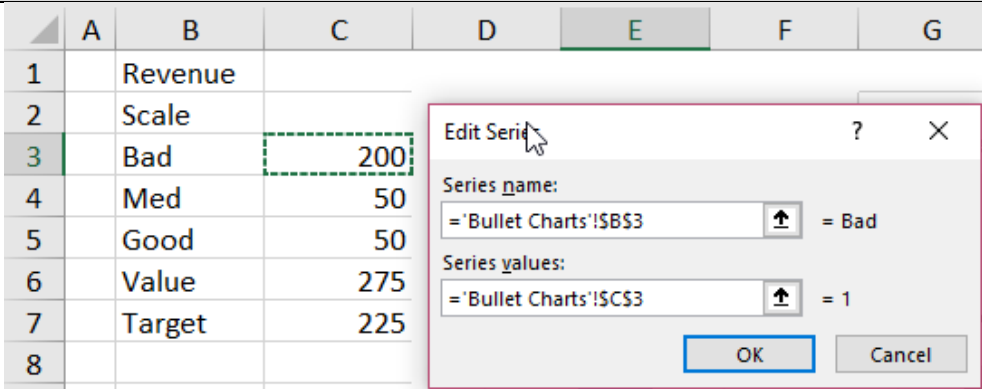
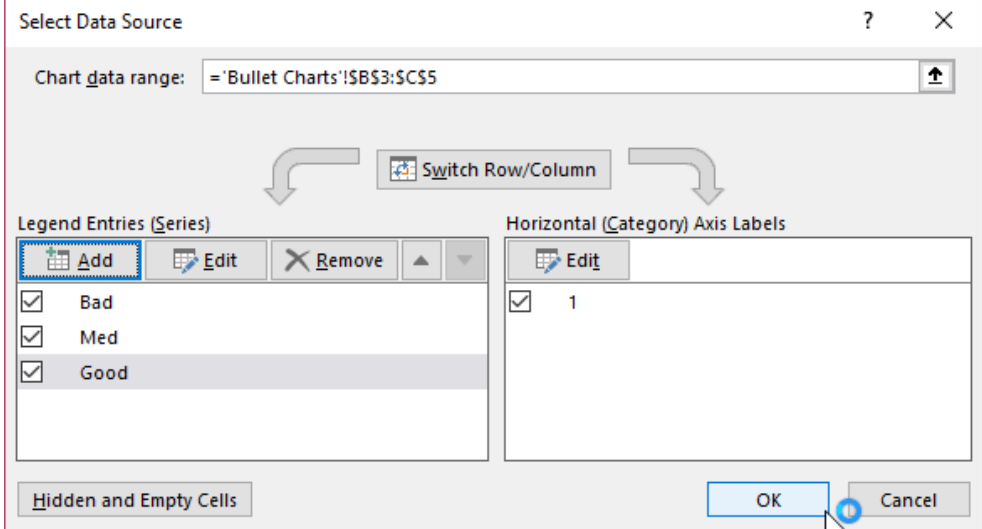
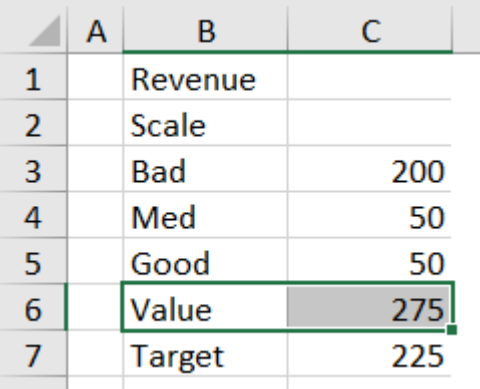
## Screen Shots

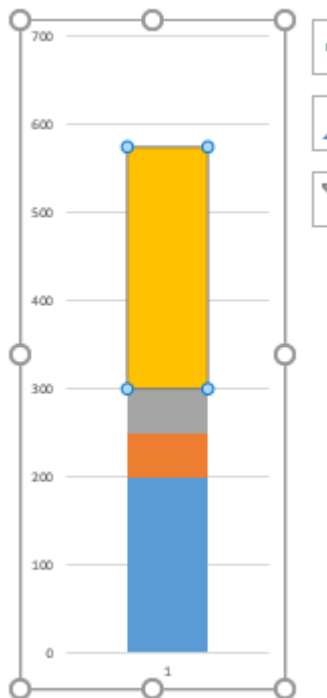
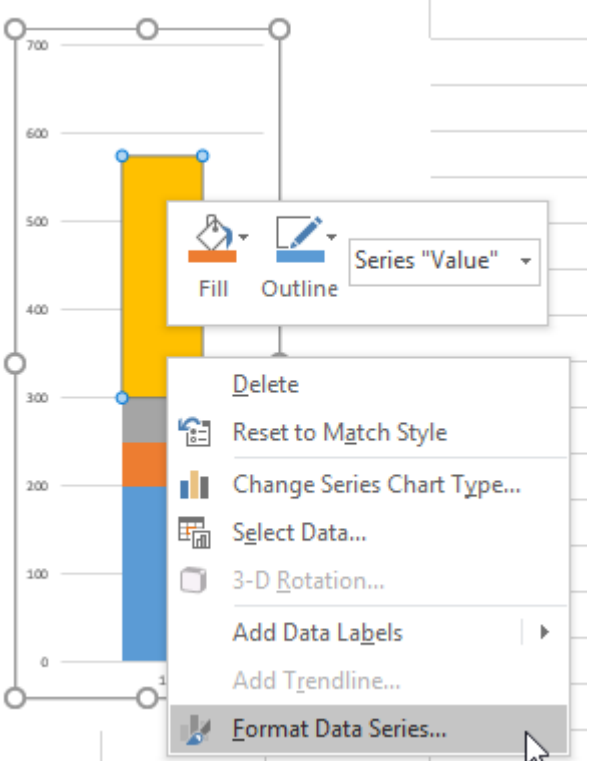
The screenshot displays the Microsoft Excel interface. The 'Insert' tab is active, and the 'Columns' group is expanded, showing the '2-D Column' > 'Stacked Column' chart type selected. In the background, a worksheet is visible with the following data:

	A	B	C	D	E	F	G	H	I
1		Revenue							
2		Scale							
3		Bad	200						
4		Med	50						
5		Good	50						
6		Value	275						
7		Target	225						
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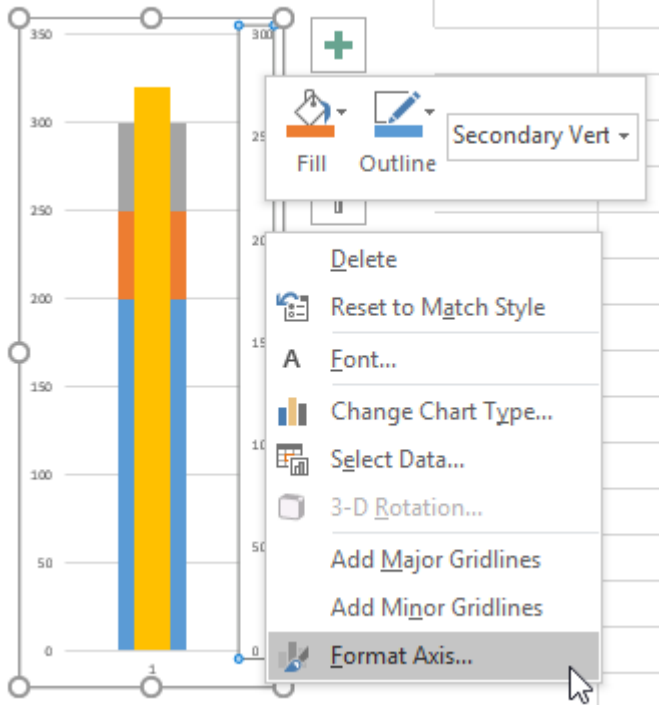
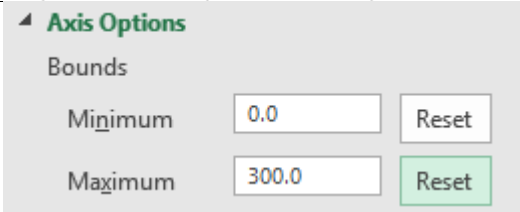
A bar chart titled 'Revenue' is visible, showing a single bar with a value of 275. The chart has a vertical axis labeled 'Revenue' with a scale from 0 to 300. A horizontal line at 225 represents the target. A legend indicates 'Revenue' with a value of 50.

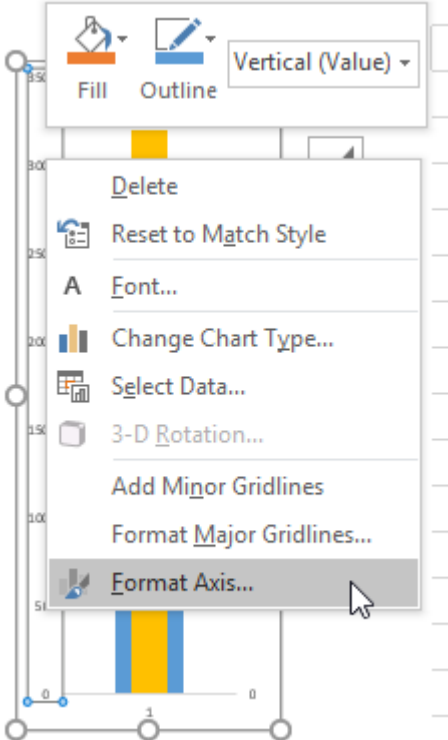
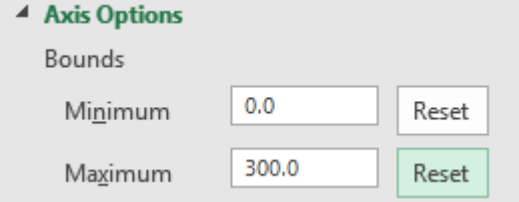
Click Steps	Screen Shots																																																																																																																														
<div>3. Place the newly inserted chart over to the working area next to the data. Resize as necessary.</div>	<div><table><tr><th></th><th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>F</th></tr><tr><td>1</td><td></td><td>Revenue</td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td>Scale</td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td>Bad</td><td>200</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td>Med</td><td>50</td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td>Good</td><td>50</td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td>Value</td><td>275</td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td>Target</td><td>225</td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>12</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>13</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>14</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>15</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>16</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>17</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></div>		A	B	C	D	E	F	1		Revenue					2		Scale					3		Bad	200				4		Med	50				5		Good	50				6		Value	275				7		Target	225				8							9							10							11							12							13							14							15							16							17						
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<div>4. Right-Click onto the chart and click Select Data. 5. Click the Add button to add a new series.</div>	<div></div>																																																																																																																														

Click Steps	Screen Shots
6. Add the "Bad" series. Select cell B3 for the Series name. Select cell C3 for the Series values. Press OK.	
7. Do the same for Med and Good. Click OK when finished.	
8. Highlight cell B6:C9. Press Ctrl+C to copy.	

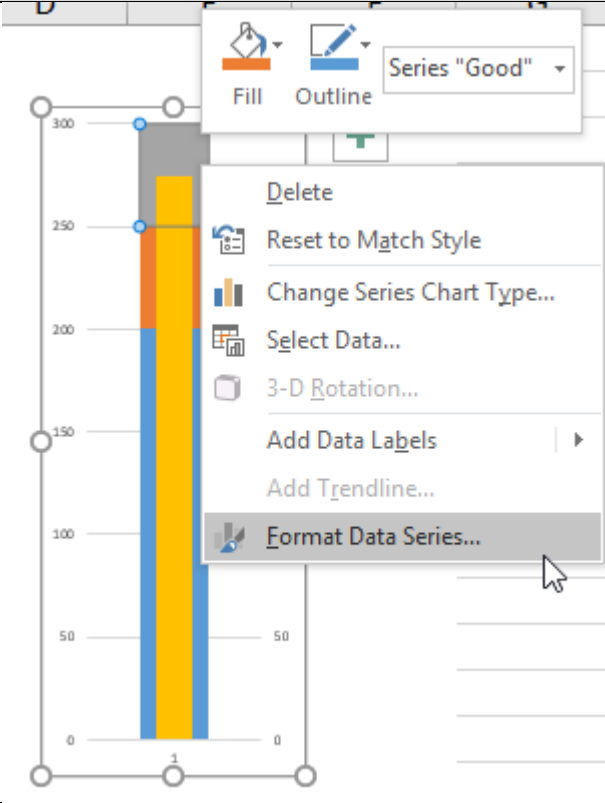
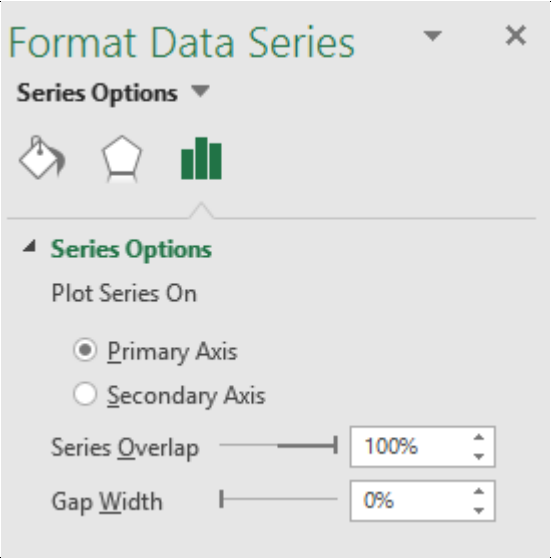
Click Steps	Screen Shots
<p>9. Select the chart. Press Ctrl+V to paste.</p>	
<p>10. Right + Click onto the newly pasted-in series and select Format Data Series...</p>	

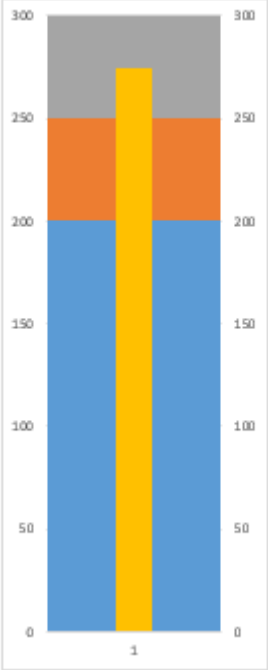
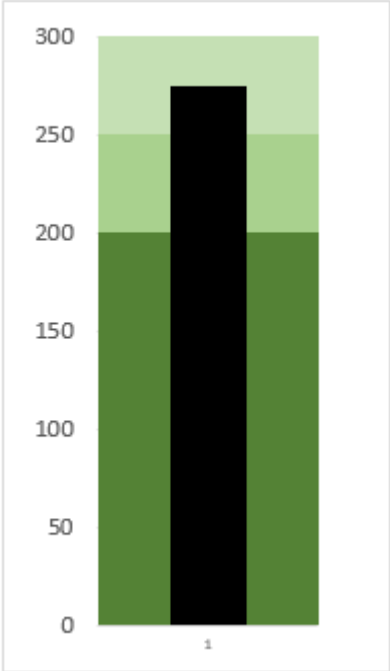
Click Steps	Screen Shots
<p>11. In the Format Data Series options, select Secondary Axis under Plot Series On.</p> <p>12. Under the Gap Width, set it to a percentage such that the data behind the secondary axis are visible (see lower image)</p>	<div data-bbox="789 363 1338 926"><div>Format Data Series</div><div>Series Options</div><div><div></div><div></div><div></div></div><div>Series Options</div><div>Plot Series On</div><div><div><input type="radio"/> Primary Axis</div><div><input checked="" type="radio"/> Secondary Axis</div></div><div>Series Overlap<div>100%</div></div><div>Gap Width<div>370%</div></div></div>

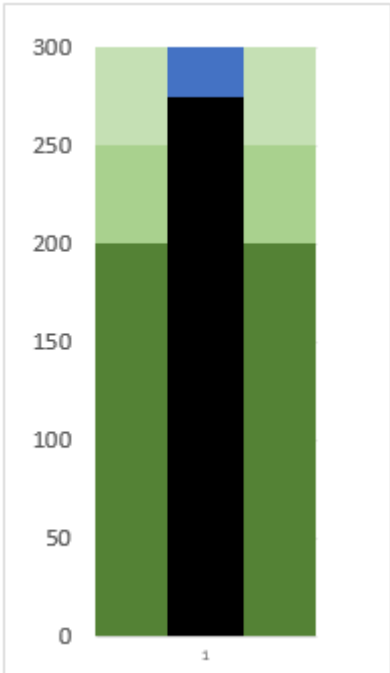
Click Steps	Screen Shots
<p>13. Notice there are now two y-axes. Right-click on the one on the right and go to Format Axis.</p>	
<p>14. Under Axis options, make the minimum 0 and the maximum 300. Note, even if these values are already in there by default, the axis has not been told to stay "fixed." You must retype these values yourself.</p>	

Click Steps	Screen Shots
<p>15. Now, right-click on the primary y-axis on the left of the chart.</p>	
<p>16. Do the same thing again: set the minimum and maximum bounds to 0 and 300. Again, you must type these in by hand even if they are already displaying the correct information. If you skip this step, your chart will attempt to show data on two different scales</p>	



Click Steps	Screen Shots
<p>17. Right-click onto any of the data points on the primary axis. Select Format Data Series....</p>	
<p>18. Under series options set the Gap Width to 0%.</p>	

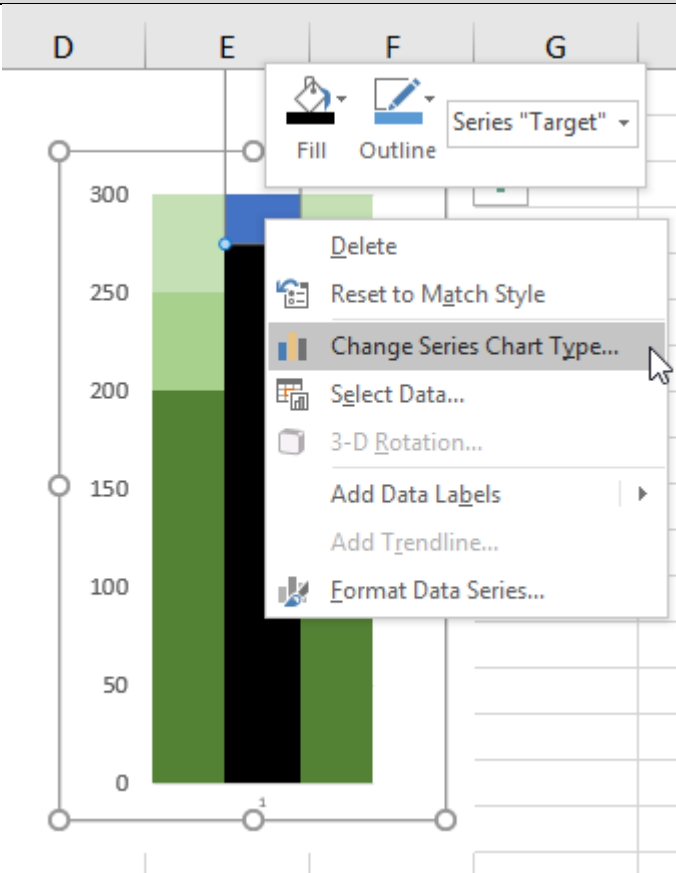
Click Steps	Screen Shots
<p>19. Ensure your chart now looks similar to the one presented in the image.</p>	 <p>A grouped bar chart with three bars. The left y-axis ranges from 0 to 300 in increments of 50. The right y-axis also ranges from 0 to 300 in increments of 50. The first bar (blue) reaches 200 on the left axis. The second bar (yellow) reaches 275 on the right axis. The third bar (blue) reaches 200 on the left axis. The chart is labeled '1' at the bottom.</p>
<p>20. Format as necessary. I removed the secondary y-axis by selecting it and pressing delete. I also selected each series to adjust its color. Finally, I adjusted the Gap Width of the secondary series to make it a little wider.</p>	 <p>A grouped bar chart with three bars. The y-axis ranges from 0 to 300 in increments of 50. The first bar (dark green) reaches 200. The second bar (black) reaches 275. The third bar (dark green) reaches 200. The chart is labeled '1' at the bottom.</p>

Click Steps	Screen Shots																																							
21. Now we have to add the target value. Start by B7:C7. Press CTRL+C to copy.	<table><tr><th></th><th>A</th><th>B</th><th>C</th></tr><tr><td>1</td><td></td><td>Revenue</td><td></td></tr><tr><td>2</td><td></td><td>Scale</td><td></td></tr><tr><td>3</td><td></td><td>Bad</td><td>200</td></tr><tr><td>4</td><td></td><td>Med</td><td>50</td></tr><tr><td>5</td><td></td><td>Good</td><td>50</td></tr><tr><td>6</td><td></td><td>Value</td><td>275</td></tr><tr><td>7</td><td></td><td>Target</td><td>225</td></tr><tr><td>8</td><td></td><td></td><td></td></tr></table>					A	B	C	1		Revenue		2		Scale		3		Bad	200	4		Med	50	5		Good	50	6		Value	275	7		Target	225	8			
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22. Select the chart. Press CTRL+V to paste.																																								

Click Steps

23. Right-click onto the newly placed series. Select Change Series Chart Type...

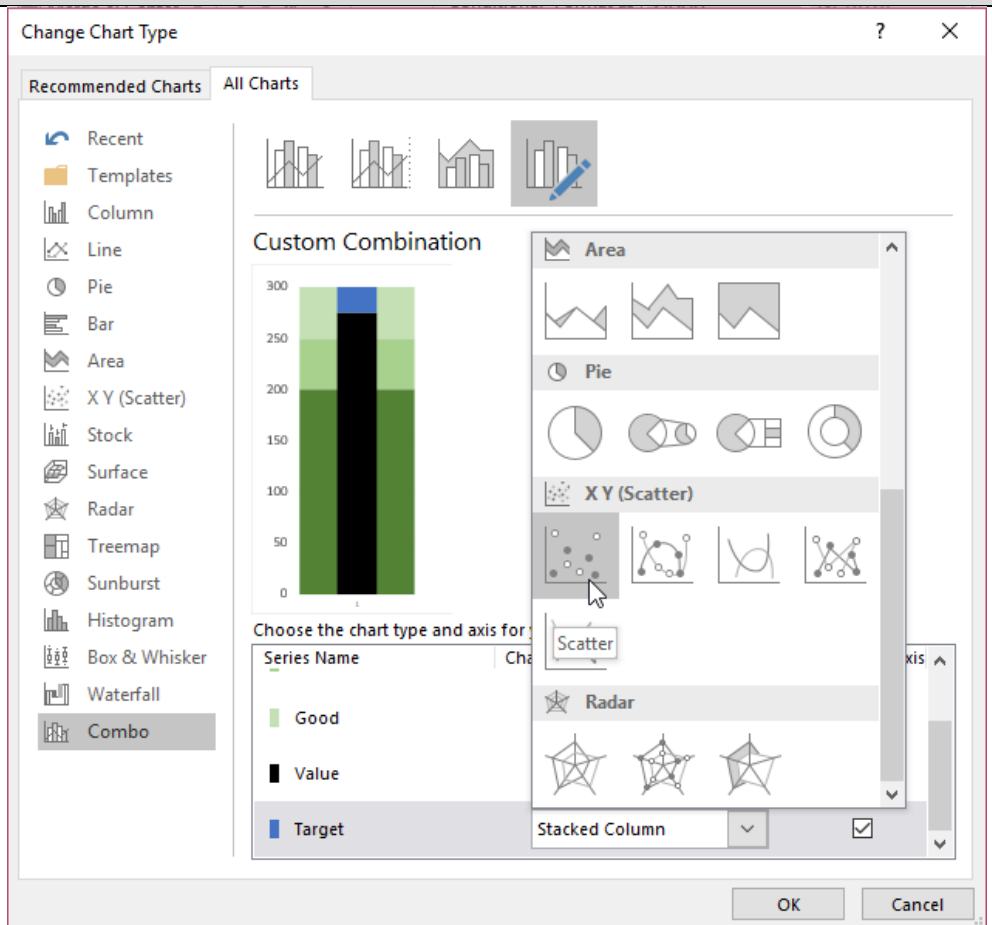
Screen Shots

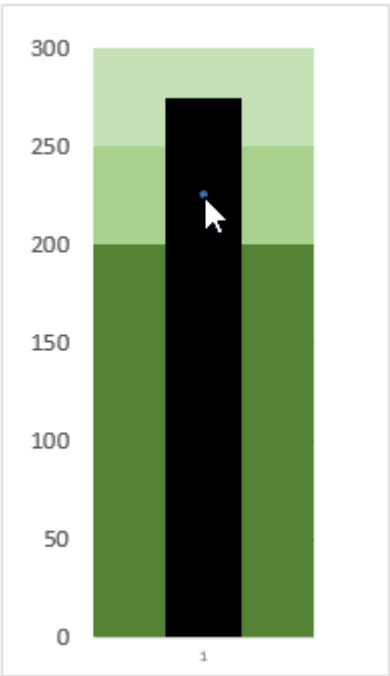
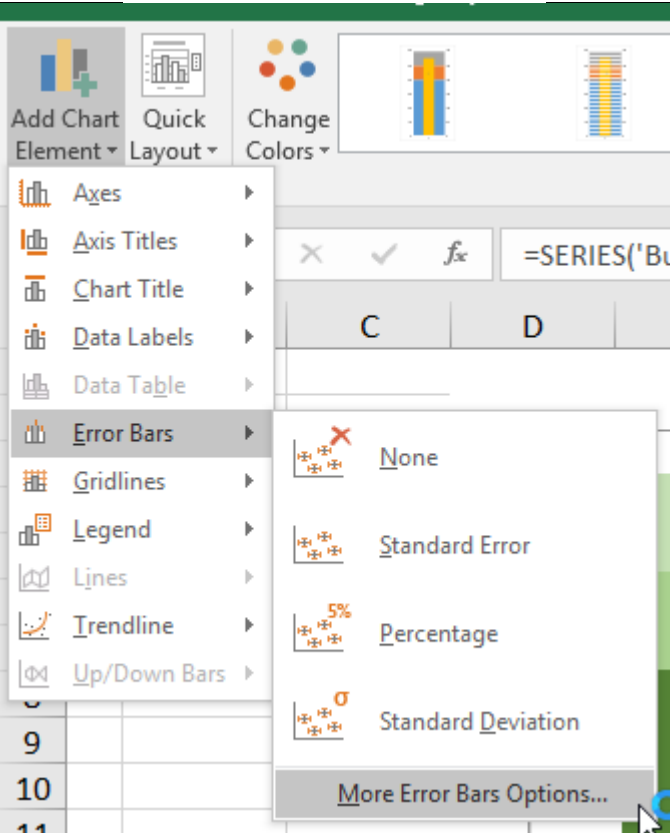


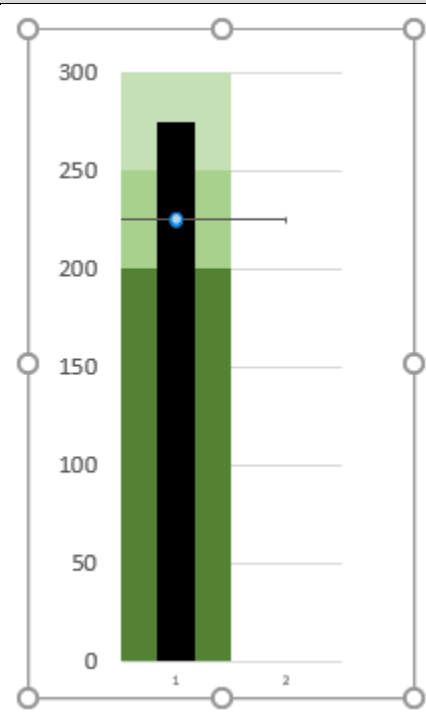
## Click Steps

24. In Excel 2013+, scroll down in the embedded list until you see the Target series. In the Chart Type associated dropdown, select XY (Scatter). In 2010 and previous, select XY (Scatter) from the list. Press OK.

## Screen Shots



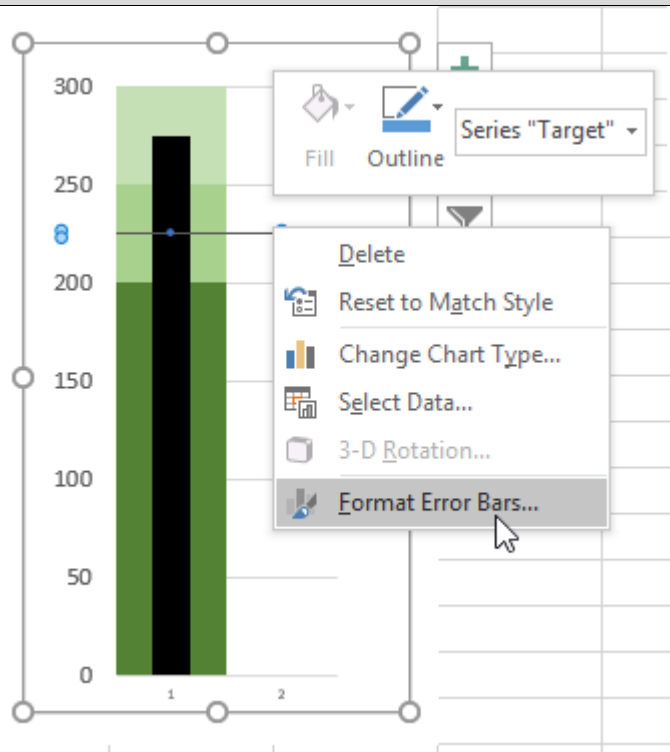
Click Steps	Screen Shots
<p>25. A tiny dot on the chart will appear. Click on the dot to select it.</p>	
<p>26. With the dot selected, in Excel 2013+, go to the Design Tab, Add Chart Element &gt; Error Bars &gt; More Error Bars Options. In 2010, go to the Layout tab. Select Error Bars from the list of items to insert.</p>	

Click Steps	Screen Shots									
27. You chart should now look something like the image shown. When you added error bars, Excel added error bars both horizontally and vertically. The vertical ones are hard to see because they are black and appear on a series that is also black.	 <p>The screenshot shows a bar chart with two bars. The first bar is black and has a horizontal error bar extending to the right. The second bar is green and has a horizontal error bar extending to the right. The y-axis ranges from 0 to 300. The x-axis has labels 1 and 2.</p> <table><tr><th>Series</th><th>Value</th><th>Error Bar (Horizontal)</th></tr><tr><td>1</td><td>275</td><td>225</td></tr><tr><td>2</td><td>200</td><td>225</td></tr></table>	Series	Value	Error Bar (Horizontal)	1	275	225	2	200	225
Series	Value	Error Bar (Horizontal)								
1	275	225								
2	200	225								

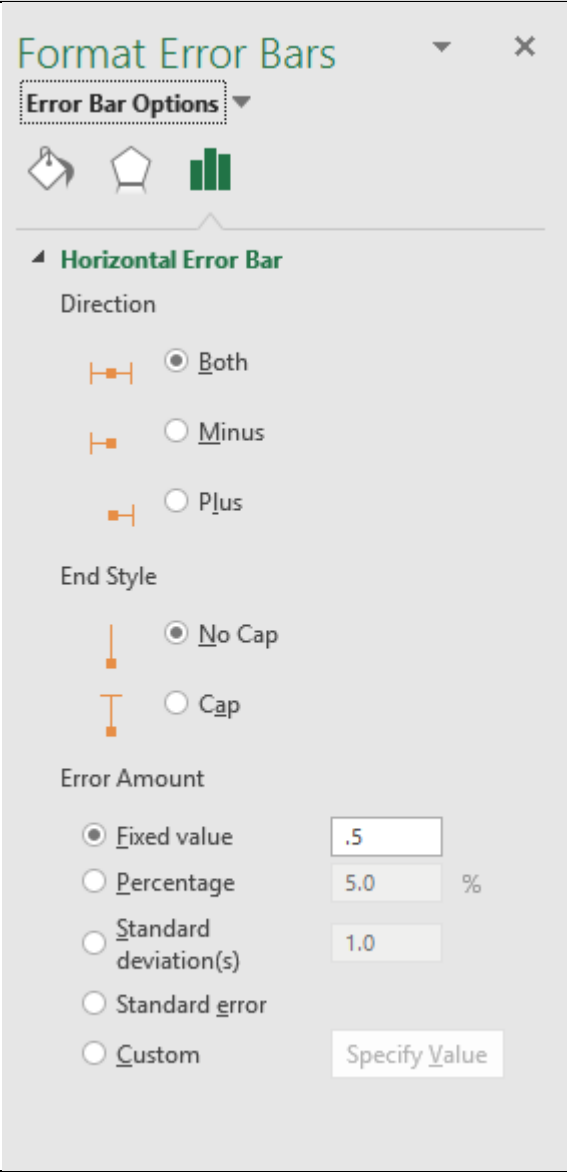
### Click Steps

28. Lets edit the horizontal error bars first.

### Screen Shots





Click Steps	Screen Shots
<p>29. Start by right-clicking the horizontal bars. Go to Format Error Bars...</p> <p>30. Under the options, select "No Cap" for the End Style. Under fixed values, use. 5.</p>	 <p>The screenshot shows the 'Format Error Bars' task pane in Microsoft Excel. The 'Error Bar Options' tab is selected. The 'Horizontal Error Bar' section is expanded. Under 'Direction', the 'Both' radio button is selected. Under 'End Style', the 'No Cap' radio button is selected. Under 'Error Amount', the 'Fixed value' radio button is selected, and the value '.5' is entered in the adjacent text box. Other options like 'Percentage', 'Standard deviation(s)', 'Standard error', and 'Custom' are also visible but not selected.</p>

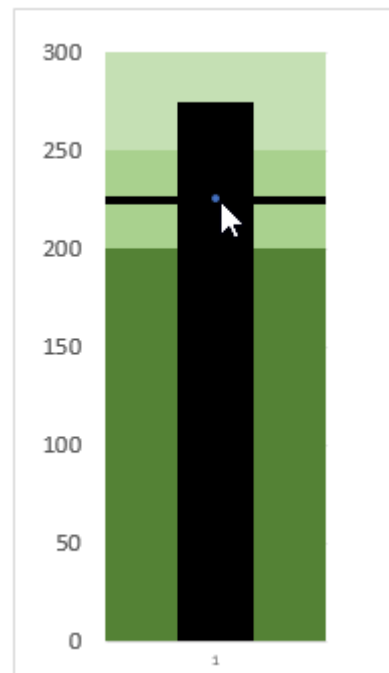
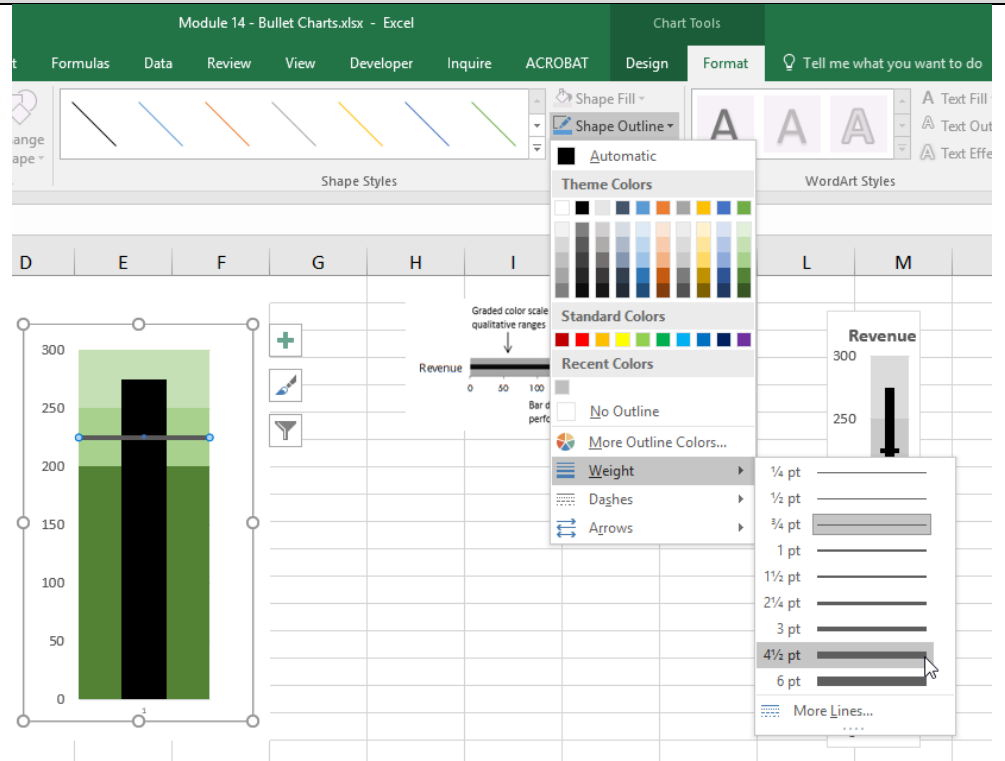
## Click Steps

31. With the horizontal error-bar still selected, go to the Format tab > Shape Outline > Weight > and set the line to be thicker.

32. In addition, use Format Tab > Shape Outline to set the target line to be black (or to whatever color you've chosen for the Current series on your secondary axis).

33. Once again, click on the little blue dot.

## Screen Shots



## Click Steps

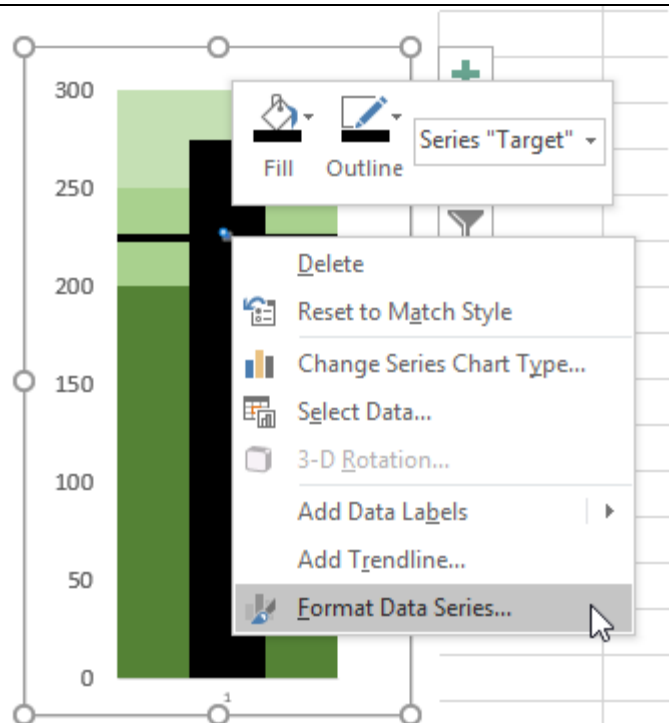
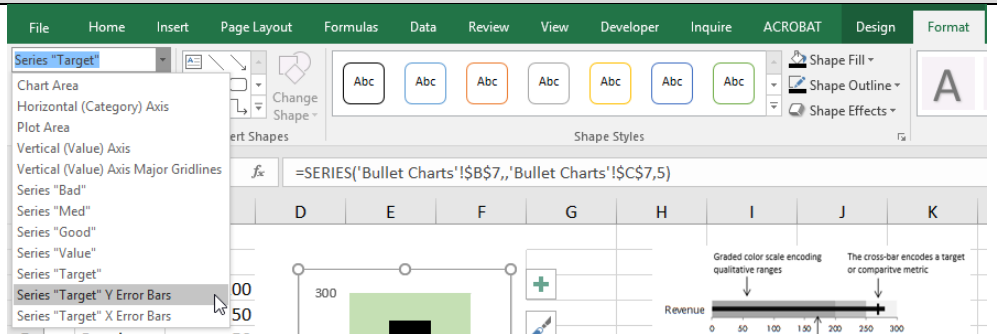
34. Go to the Format tab in Excel 2013+ and the Layout tab in Excel 10 and earlier. Over on the left-hand side there is a dropdown that will allow you to select any chart element of interest.

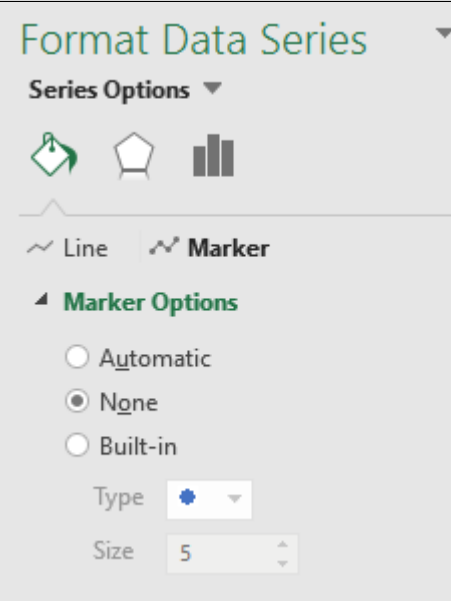
35. Select Series "Target Y" Error Bars.

36. Press Delete to delete them (you may not see any change to the chart).

37. Right-click the dot once more and select Format Data Series...

## Screen Shots



Click Steps	Screen Shots
<p>38. In excel 2013, click the paint bucket. In 2010, go to Marker Options. Under the Marker Options sub-heading, select None.</p>	
<p>39. Enjoy!</p>	