TIME INTELLIGENCE FUNCTIONS
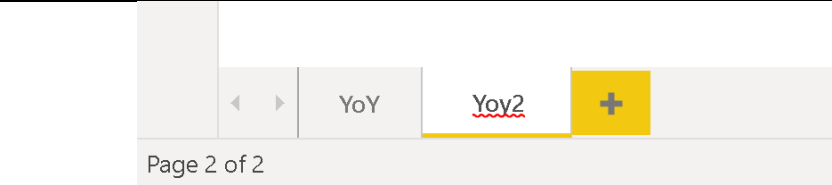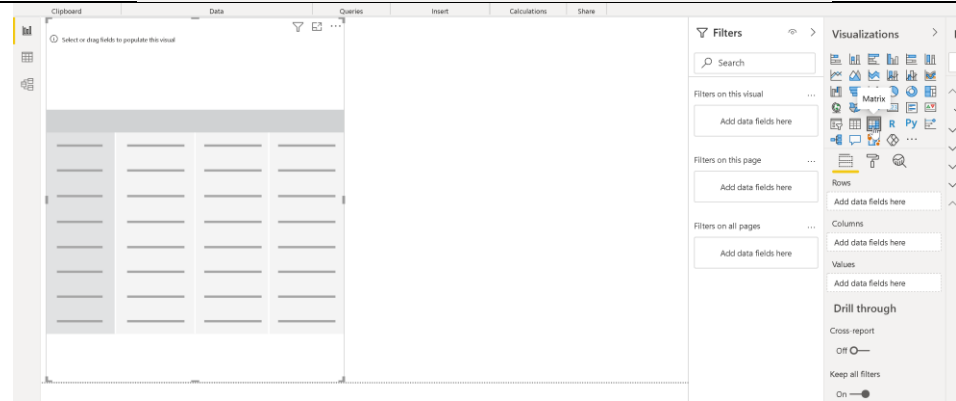
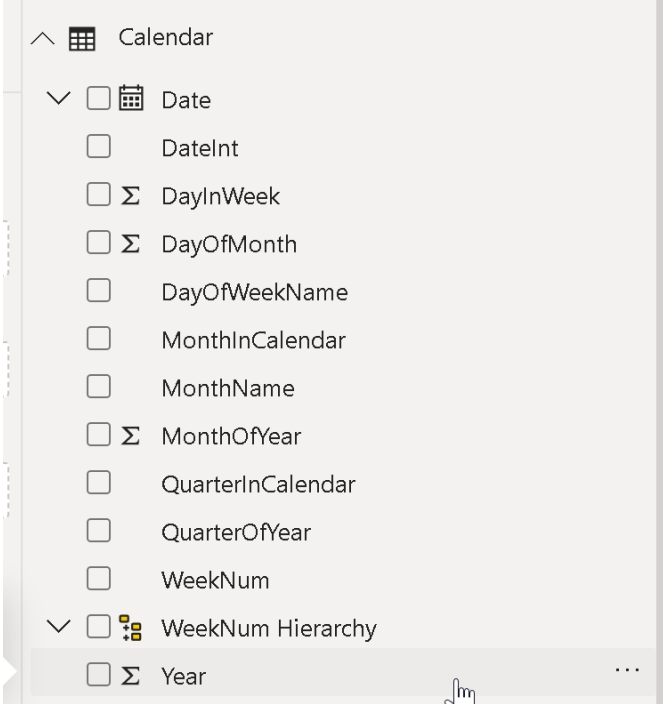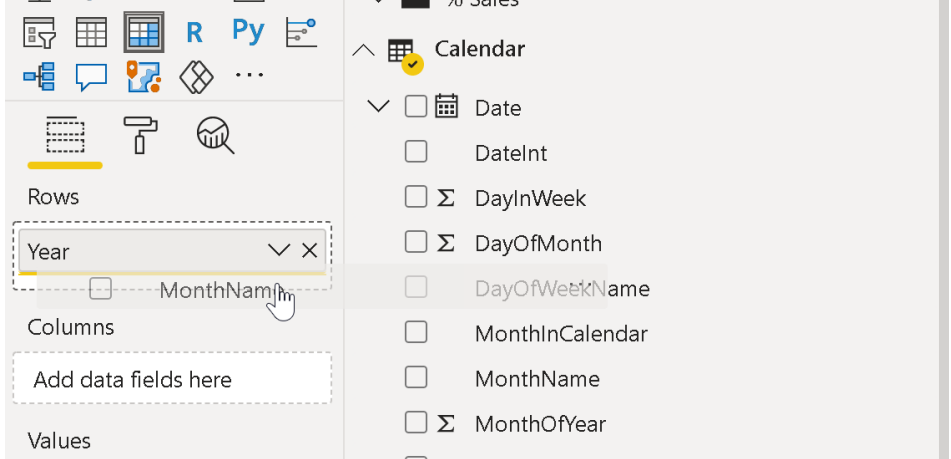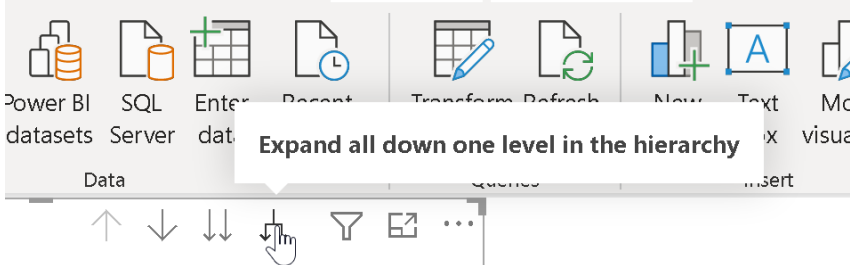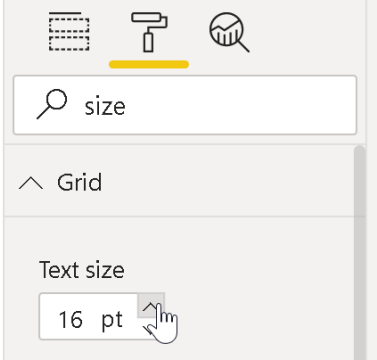## BY

JORDAN GOLDMEIER

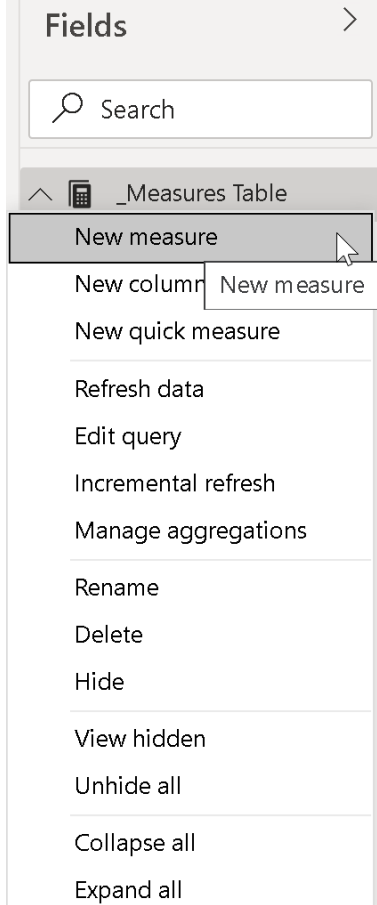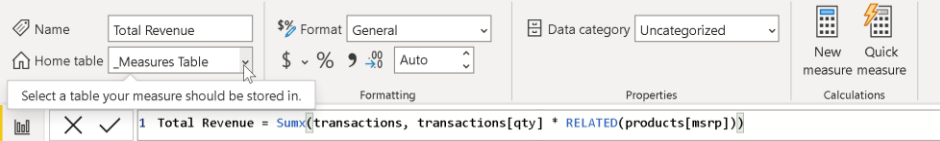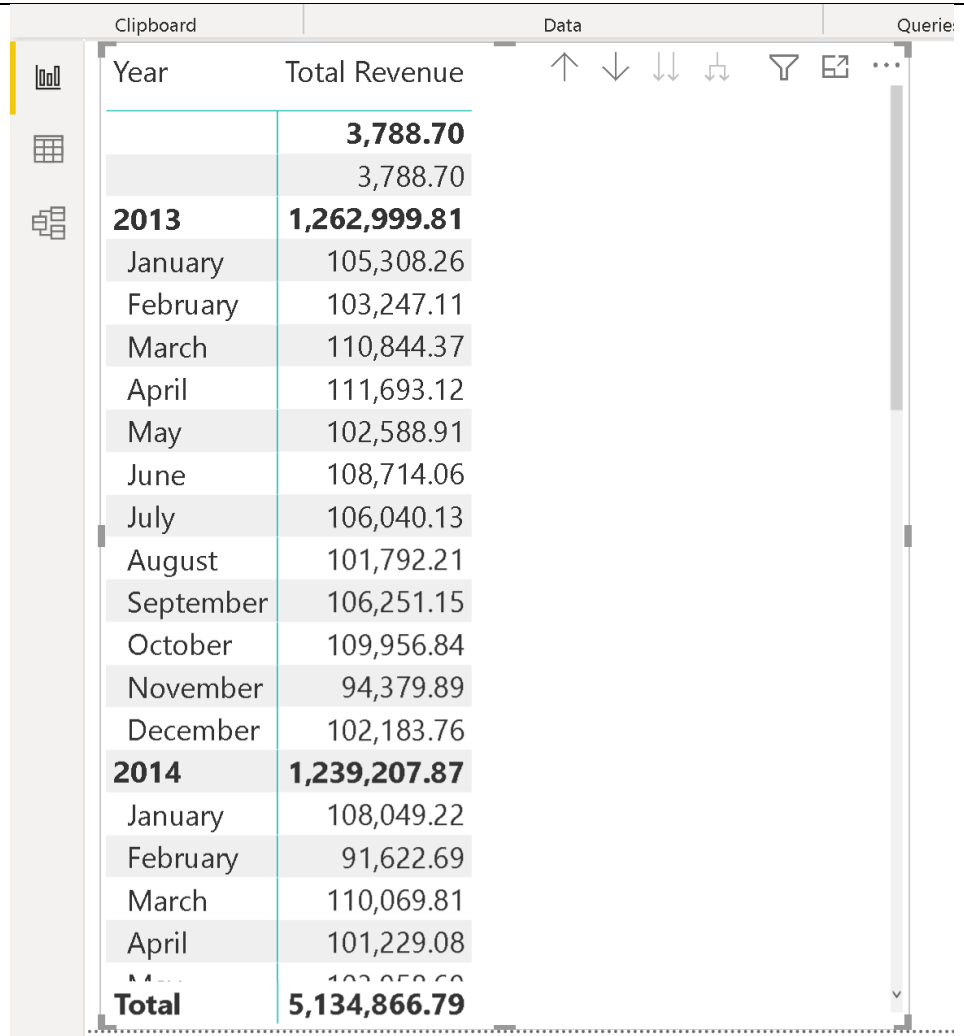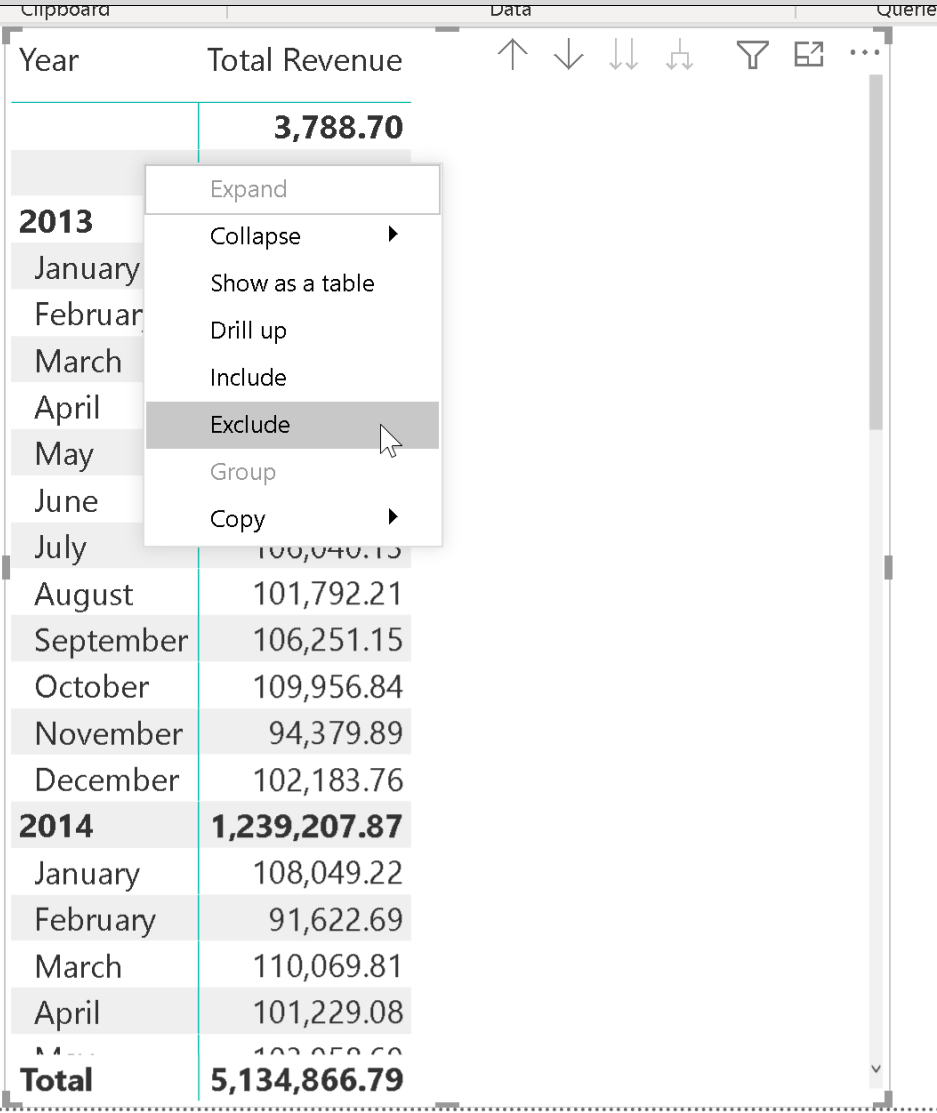## MODULE REQUIREMENTS

▶ Create multiple measures

▶ Apply conditional formatting

▶ Layout a dashboard

STEP-BY-STEP INSTRUCTIONS
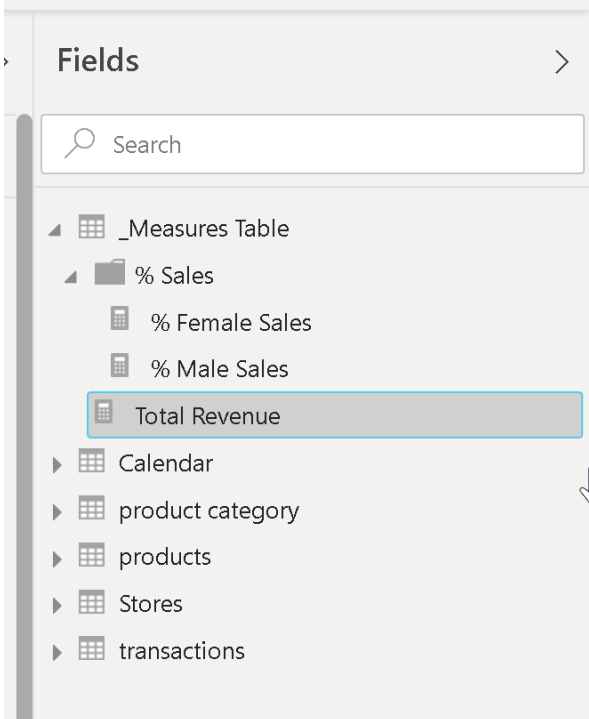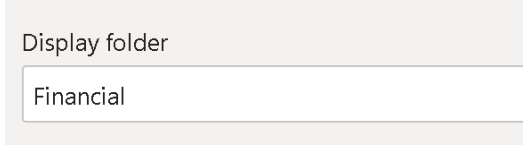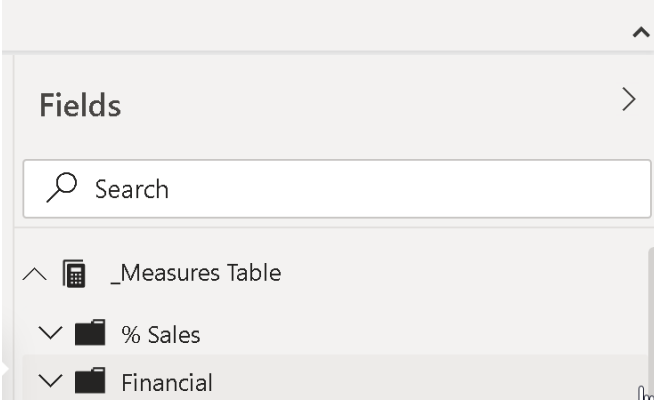
Click Steps	Screen Shots
1. Open Lab 3 Time and Intelligence Functions. 2. Once opened, in Report view, create a new tab. 3. Name the tab YoY 2.	
4. Next insert a matrix visual. Size it to about half the width of the canvas.	

Click Steps	Screen Shots
5. Drop the Year from the calendar table into the new matrix. Note, in the picture to the right, we are using the Year field, which is its own column and NOT under the Date hierarchy.	
6. Next move the MonthName over and place it under Year.	
7. At the top of the matrix visual, click the Expand all hierarchies button.	

Click Steps	Screen Shots
8. If the font size is too small, and it probably is, make sure the matrix is selected and select the format paintbrush. 9. Type size into the search bar. 10. In the Grid > Text size set it to a larger font. I've set it to 16.	
11. Right click on the _Measures Table. Select New Measure.	
12. Create a new measure called Total Revenue = Sumx(transactions, transactions[qty] * RELATED(products[msrp]))	

Click Steps	Screen Shots
13. Make sure it's created in the _Measures Table.	
14. Drop the new measure into the matrix.	

Year	Total Revenue
	3,788.70
	3,788.70
2013	1,262,999.81
January	105,308.26
February	103,247.11
March	110,844.37
April	111,693.12
May	102,588.91
June	108,714.06
July	106,040.13
August	101,792.21
September	106,251.15
October	109,956.84
November	94,379.89
December	102,183.76
2014	1,239,207.87
January	108,049.22
February	91,622.69
March	110,069.81
April	101,229.08
Total	5,134,866.79

Click Steps	Screen Shots
15. Right+click into the blacnk area above 2013. 16. Select Exclude.	
17. Click on the Model tab	

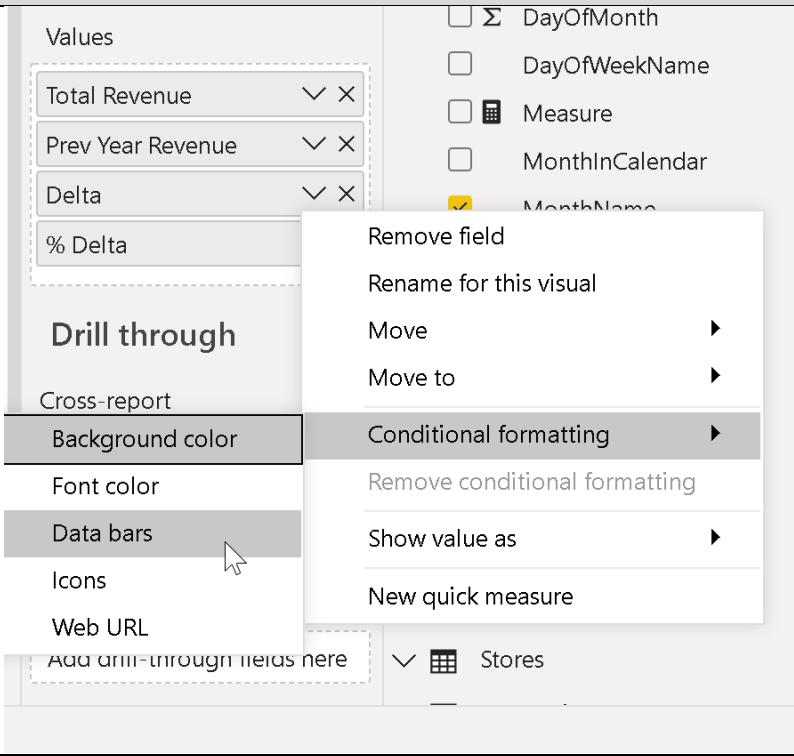| Click Steps	Screen Shots

18. Select _Measures Table > Total Revenue	**Fields**
	
	 Search
	
	 ▲ ⊞ _Measures Table
	    ▲ ▮ % Sales
	      ▦ % Female Sales
	      ▦ % Male Sales
	      ▦ Total Revenue
	 ▶ ⊞ Calendar
	 ▶ ⊞ product category
	 ▶ ⊞ products
	 ▶ ⊞ Stores
	 ▶ ⊞ transactions

19. Name the Display Folder Financial	Display folder Financial
20. Click back into the Report View. Select the new Folder you've created.	**Fields** Search ⌃ ▦ _Measures Table ⌄ ▮ % Sales ⌄ ▮ Financial

Click Steps	Screen Shots
21. Create a New Measure in the _Measures Table: `Prev Year Revenue = CALCULATE([Total Revenue], SAMEPERIODLASTYEAR('Calendar'[Date]))` 22. Add the new measures to the table.	<table><tr><td>Year</td><td>Total Revenue</td><td>Prev Year Revenue</td></tr><tr><td>**2013**</td><td>**1,262,999.81**</td><td></td></tr><tr><td>January</td><td>105,308.26</td><td></td></tr><tr><td>February</td><td>103,247.11</td><td></td></tr><tr><td>March</td><td>110,844.37</td><td></td></tr><tr><td>April</td><td>111,693.12</td><td></td></tr><tr><td>May</td><td>102,588.91</td><td></td></tr><tr><td>June</td><td>108,714.06</td><td></td></tr><tr><td>July</td><td>106,040.13</td><td></td></tr><tr><td>August</td><td>101,792.21</td><td></td></tr><tr><td>September</td><td>106,251.15</td><td></td></tr><tr><td>October</td><td>109,956.84</td><td></td></tr><tr><td>November</td><td>94,379.89</td><td></td></tr><tr><td>December</td><td>102,183.76</td><td></td></tr><tr><td>**2014**</td><td>**1,239,207.87**</td><td>**1,262,999.81**</td></tr><tr><td>January</td><td>108,049.22</td><td>105,308.26</td></tr><tr><td>February</td><td>91,622.69</td><td>103,247.11</td></tr><tr><td>March</td><td>110,069.81</td><td>110,844.37</td></tr><tr><td>April</td><td>101,229.08</td><td>111,693.12</td></tr><tr><td>May</td><td>103,958.69</td><td>102,588.91</td></tr><tr><td>June</td><td>95,716.42</td><td>108,714.06</td></tr><tr><td>**Total**</td><td>**5,131,078.09**</td><td>**3,881,858.73**</td></tr></table>
23. Next create another new measure: `% Delta = DIVIDE([Total Revenue], [Prev Year Revenue])` 24. Select the percentage sign to make it a percentage type.	File Home Insert Modeling View Help **Format** D Name: % Delta Format: Percentage Data Home table: _Measures Table $ % , .00 →0 2 Structure Formatting `1 % Delta = DIVIDE([Total Revenue], [Prev Year Revenue])`
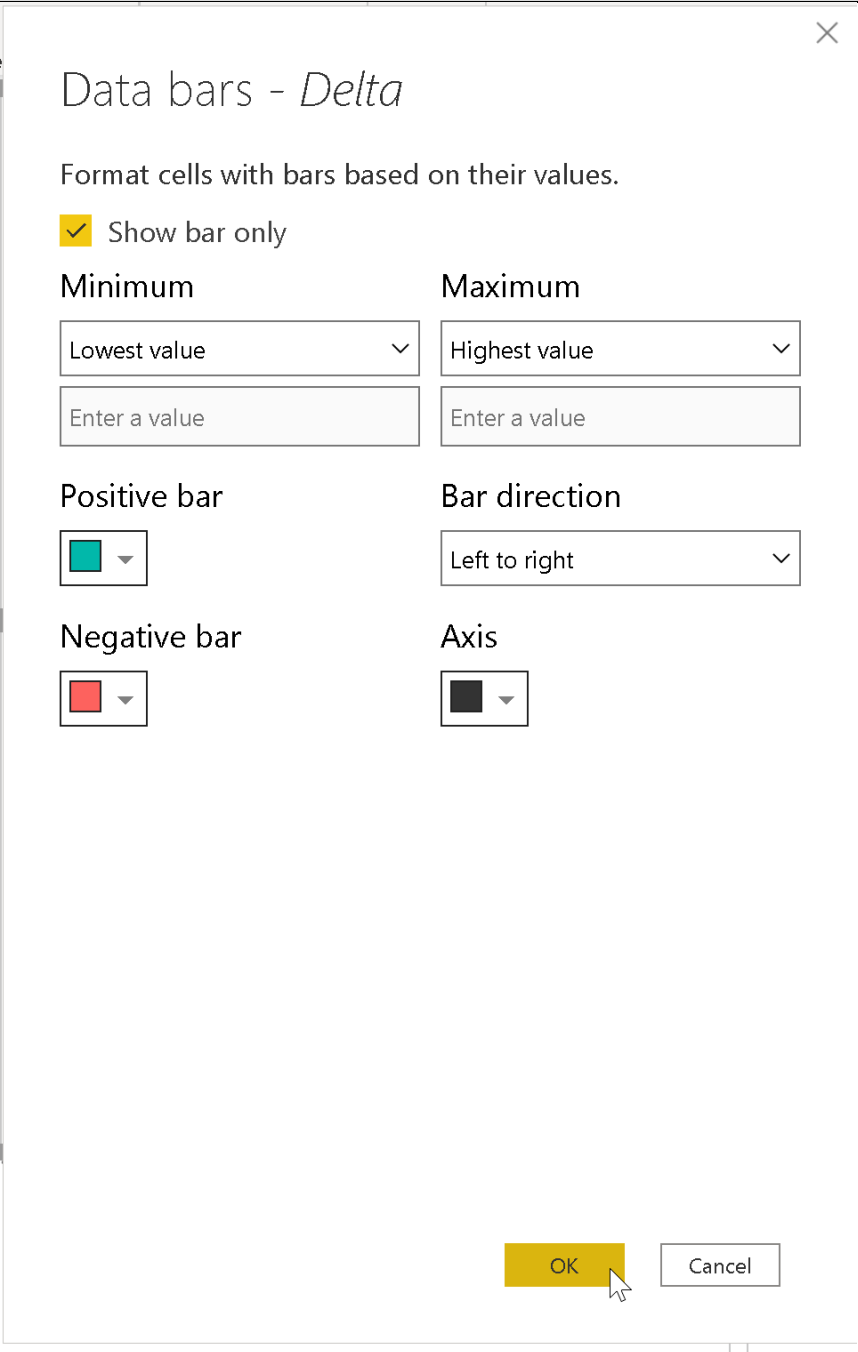
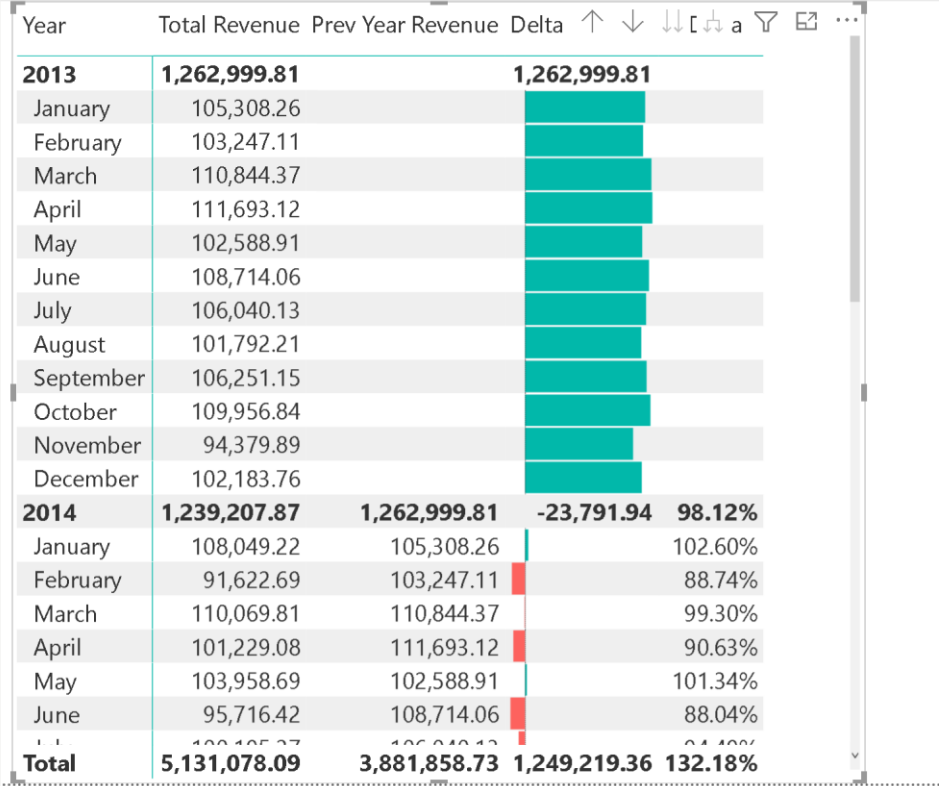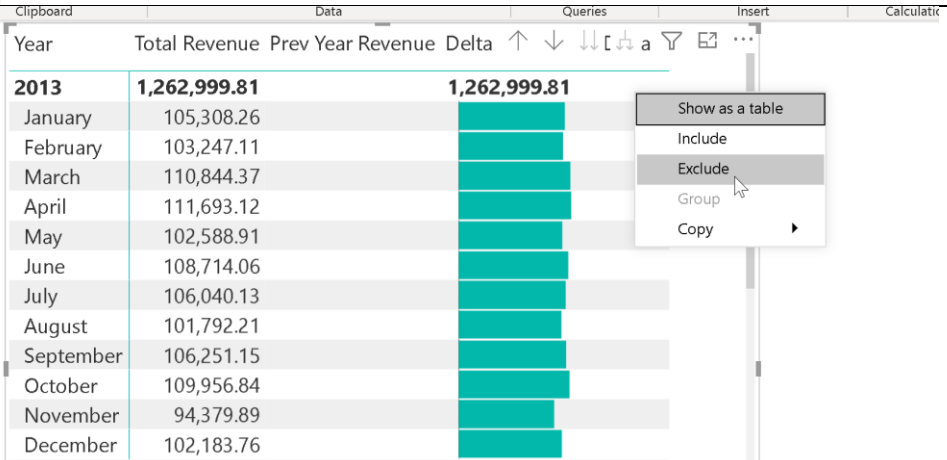| Click Steps	Screen Shots
25. Drop the % Delta into the table. IT should look like the screen shot.	

	Clipboard		Data		Queries		Insert
Year	Total Revenue	Prev Year Revenue	Delta				
2013	**1,262,999.81**		**1,262,999.81**				
January	105,308.26		105,308.26				
February	103,247.11		103,247.11				
March	110,844.37		110,844.37				
April	111,693.12		111,693.12				
May	102,588.91		102,588.91				
June	108,714.06		108,714.06				
July	106,040.13		106,040.13				
August	101,792.21		101,792.21				
September	106,251.15		106,251.15				
October	109,956.84		109,956.84				
November	94,379.89		94,379.89				
December	102,183.76		102,183.76				
2014	**1,239,207.87**	**1,262,999.81**	**-23,791.94**	**98.12%**			
January	108,049.22	105,308.26	2,740.96	102.60%			
February	91,622.69	103,247.11	-11,624.42	88.74%			
March	110,069.81	110,844.37	-774.56	99.30%			
April	101,229.08	111,693.12	-10,464.04	90.63%			
May	103,958.69	102,588.91	1,369.78	101.34%			
June	95,716.42	108,714.06	-12,997.64	88.04%			
Total	**5,131,078.09**	**3,881,858.73**	**1,249,219.36**	**132.18%**			

Click Steps	Screen Shots
26. With the matrix selected, click the down arrow next to Delta. 27. Select Conditional formatting > Data bars.	

Click Steps	Screen Shots
28. Select Show bar only and press OK.	Data bars - *Delta*

Format cells with bars based on their values.

☑ Show bar only

Minimum
Lowest value

Maximum
Highest value

Enter a value

Enter a value

Positive bar

Bar direction
Left to right

Negative bar

Axis

OK   Cancel

Click Steps	Screen Shots
29. Your screen should look like the screen shot.	
30. Right click the top row and select exclude.	

Click Steps	Screen Shots
31. Your screen should look like the screen shot.	

Year	Total Revenue	Prev Year Revenue	Delta	% Delta
2014	**1,239,207.87**	**1,262,999.81**	**-23,791.94**	**98.12%**
January	108,049.22	105,308.26		102.60%
February	91,622.69	103,247.11		88.74%
March	110,069.81	110,844.37		99.30%
April	101,229.08	111,693.12		90.63%
May	103,958.69	102,588.91		101.34%
June	95,716.42	108,714.06		88.04%
July	100,195.27	106,040.13		94.49%
August	101,985.68	101,792.21		100.19%
September	102,842.66	106,251.15		96.79%
October	107,611.51	109,956.84		97.87%
November	109,826.90	94,379.89		116.37%
December	106,099.94	102,183.76		103.83%
2015	**1,268,107.02**	**1,239,207.87**	**28,899.15**	**102.33%**
January	96,622.73	108,049.22		89.42%
February	103,124.39	91,622.69		112.55%
March	103,053.52	110,069.81		93.63%
April	111,461.88	101,229.08		110.11%
May	106,613.83	103,958.69		102.55%
June	102,682.43	95,716.42		107.28%
Total	**3,868,078.28**	**3,881,858.73**	**-13,780.45**	**99.65%**