DR. ALVIN'S PUBLICATIONS

LEARNING TABLEAU PART I FAST TRACK

BY DR. ALVIN ANG

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I. FAST TRACK HANDS ON EXAMPLE

Data source taken from https://www.alvinang.sg/s/Sample-Superstore-USA.xls

A. DOWNLOADING AND INSTALLING TABLEAU PUBLIC

1. Go https://public.tableau.com/

2. Sign up, download and install.

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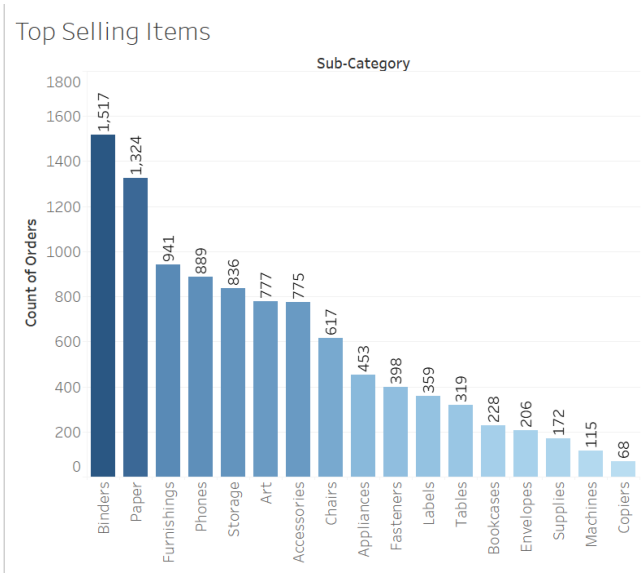
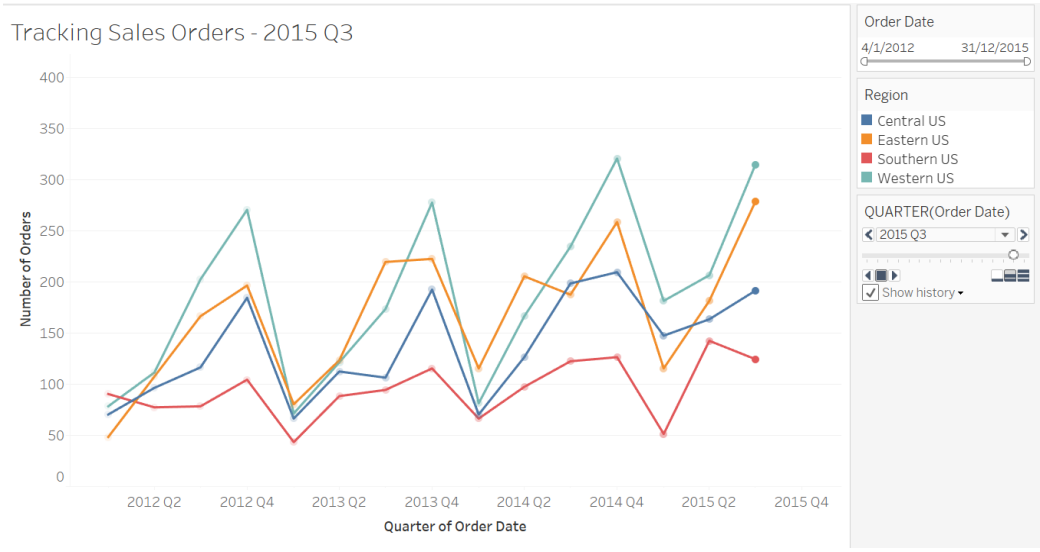
B. STORYTELLING FLOW

1. Step 1: Creating Plots

   a. Drawing a Bar Chart



   b. Drawing a Line Chart



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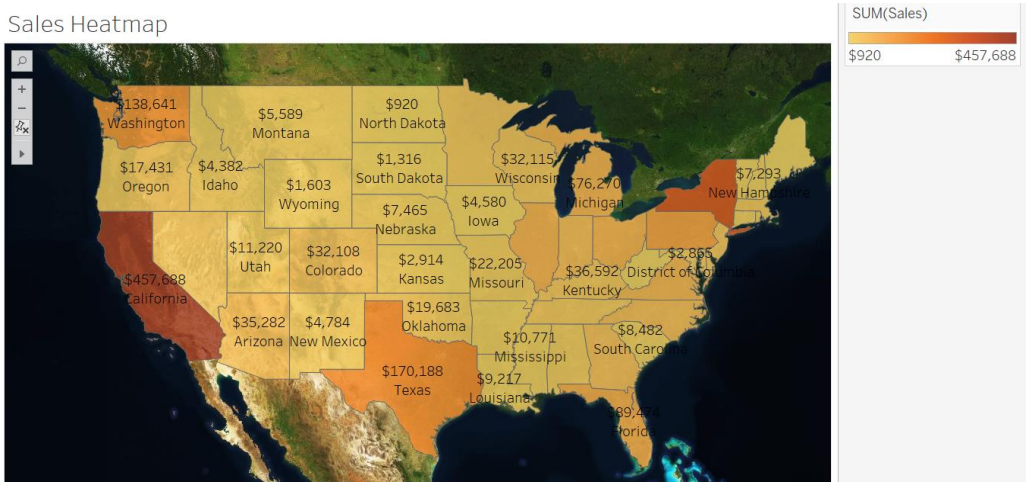
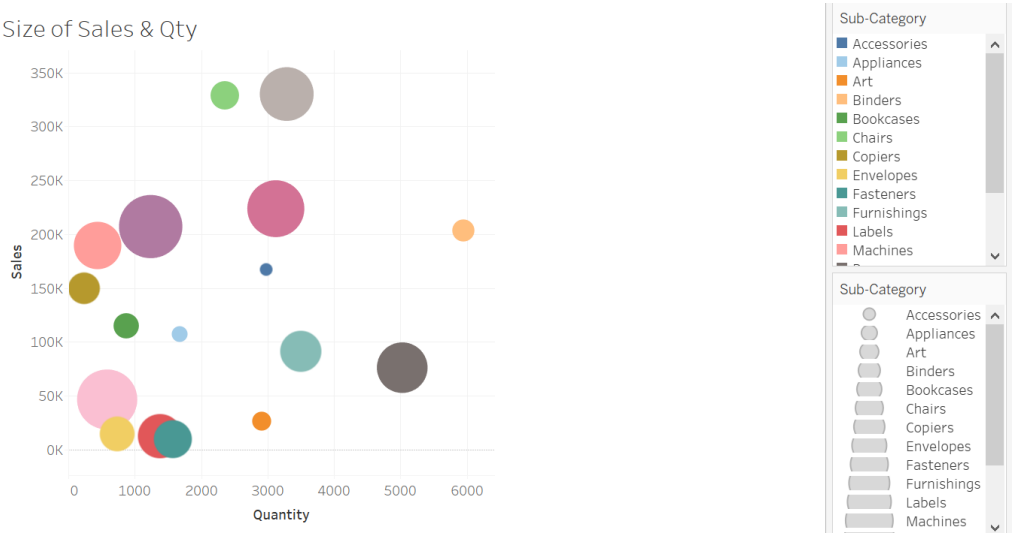
c. Drawing a Heat Map



d. Drawing a Scatter Plot



2. Step 2: Creating a Dashboard out of your Plots

    a. Combining your Plots into Dashboards

3. Step 3: Creating a Storyline out of your Dashboards

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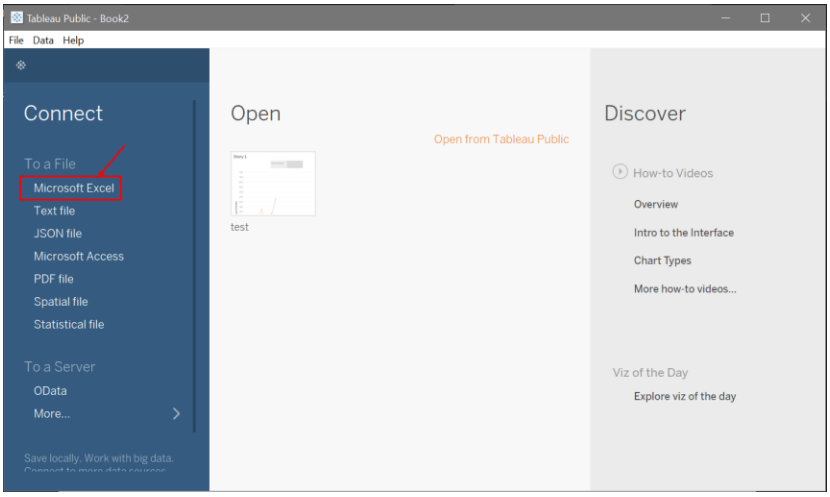
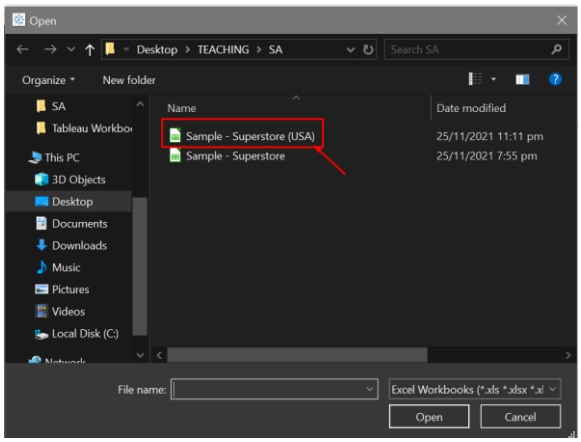
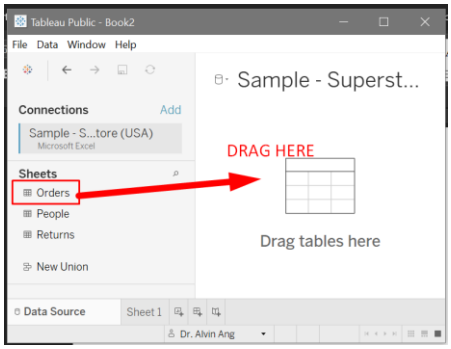
C. CHARTING

1. PLUGGING IN YOUR DATA SOURCE







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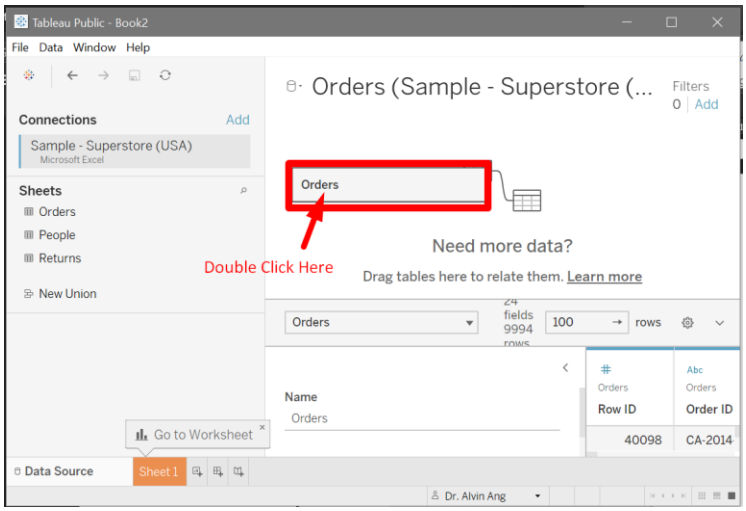

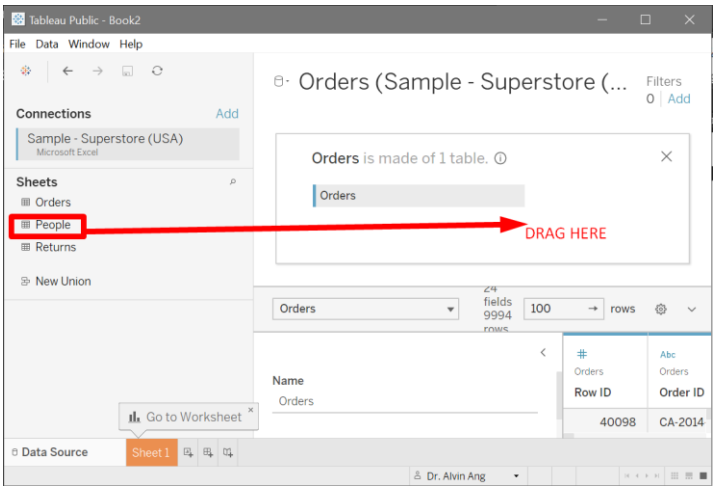

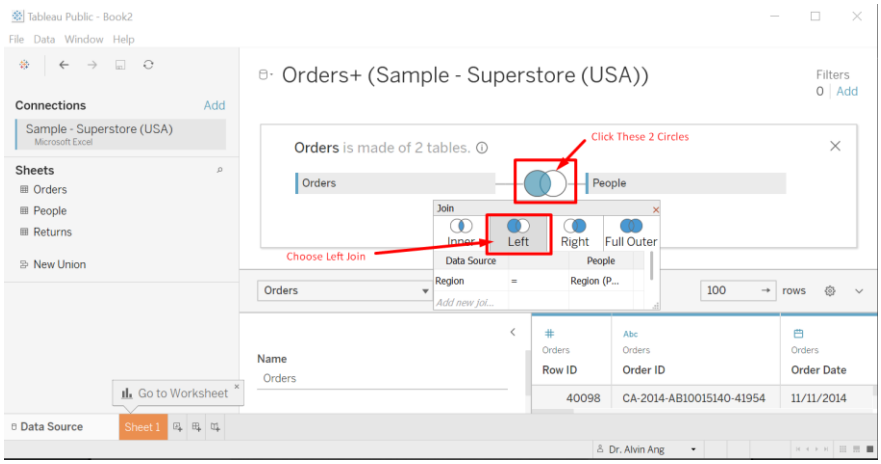

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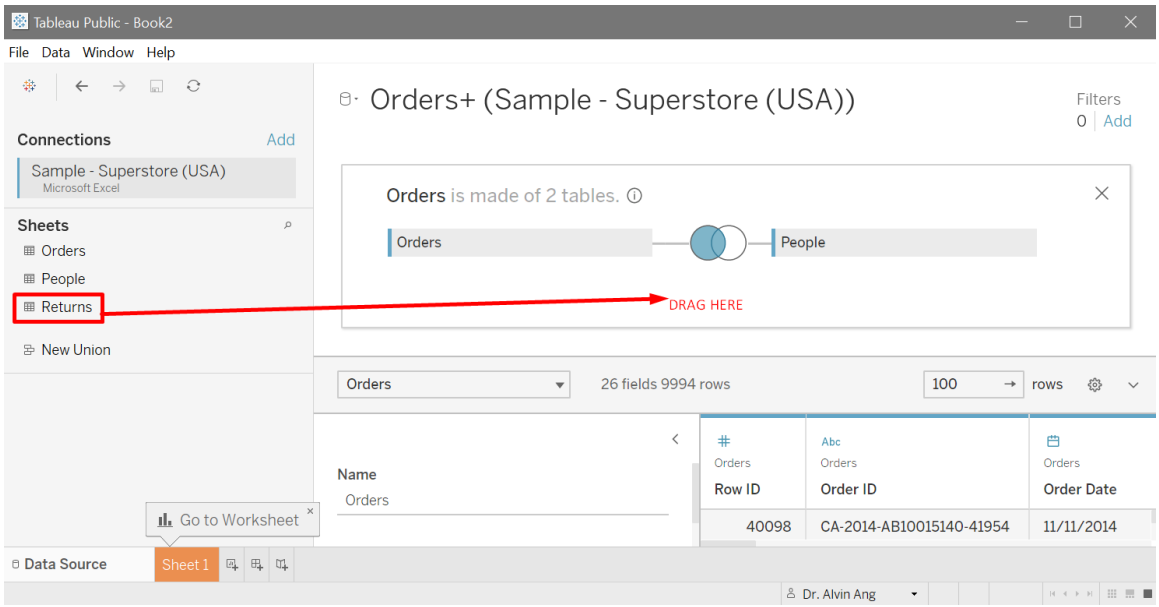
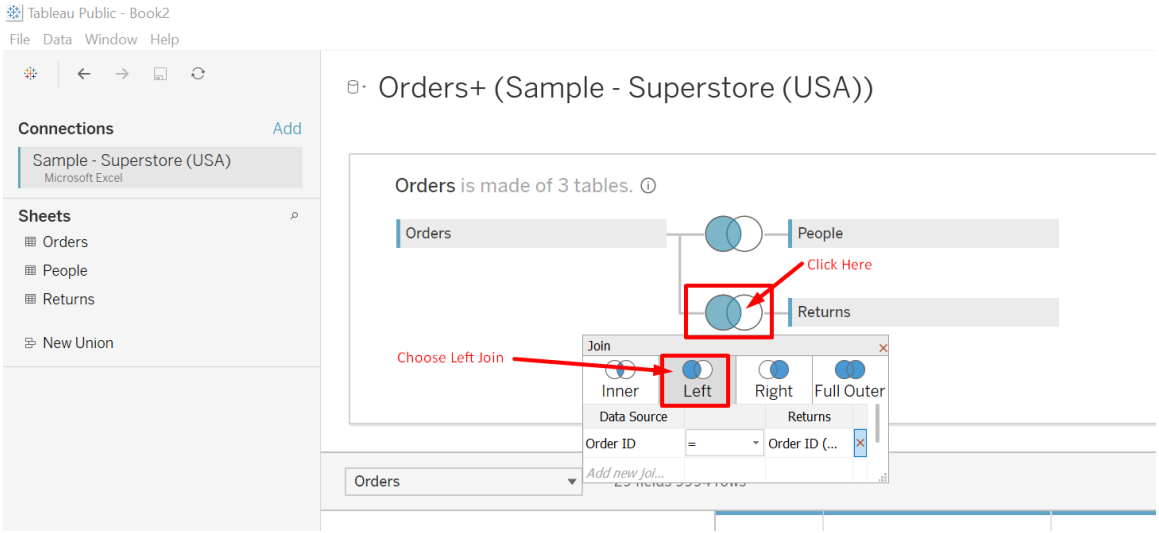
- Reason for choosing Left Join – because we want to include all the columns of 'Orders' sheet And their columns shared with 'People'.





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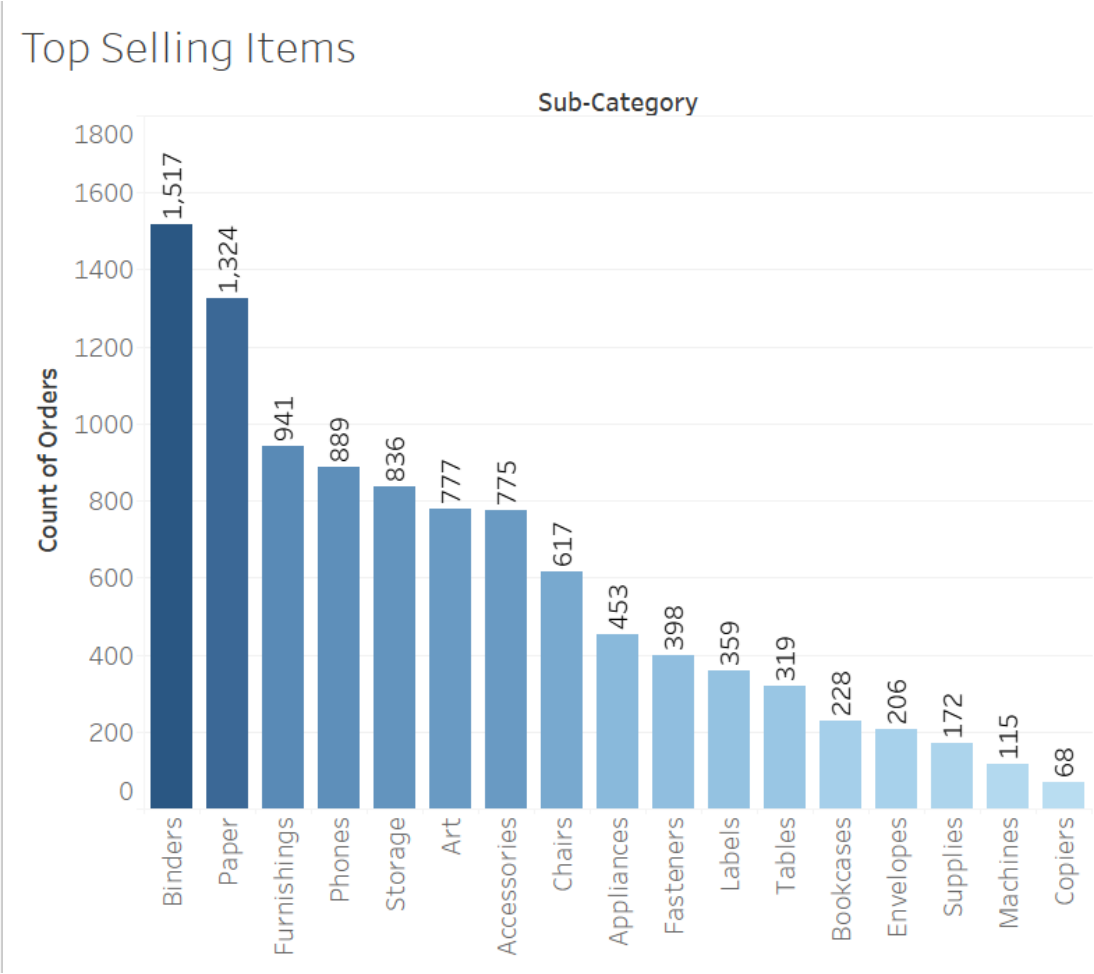
2. DRAWING A BAR CHART



- At the end of this section, we will try to obtain the Bar Chart above.

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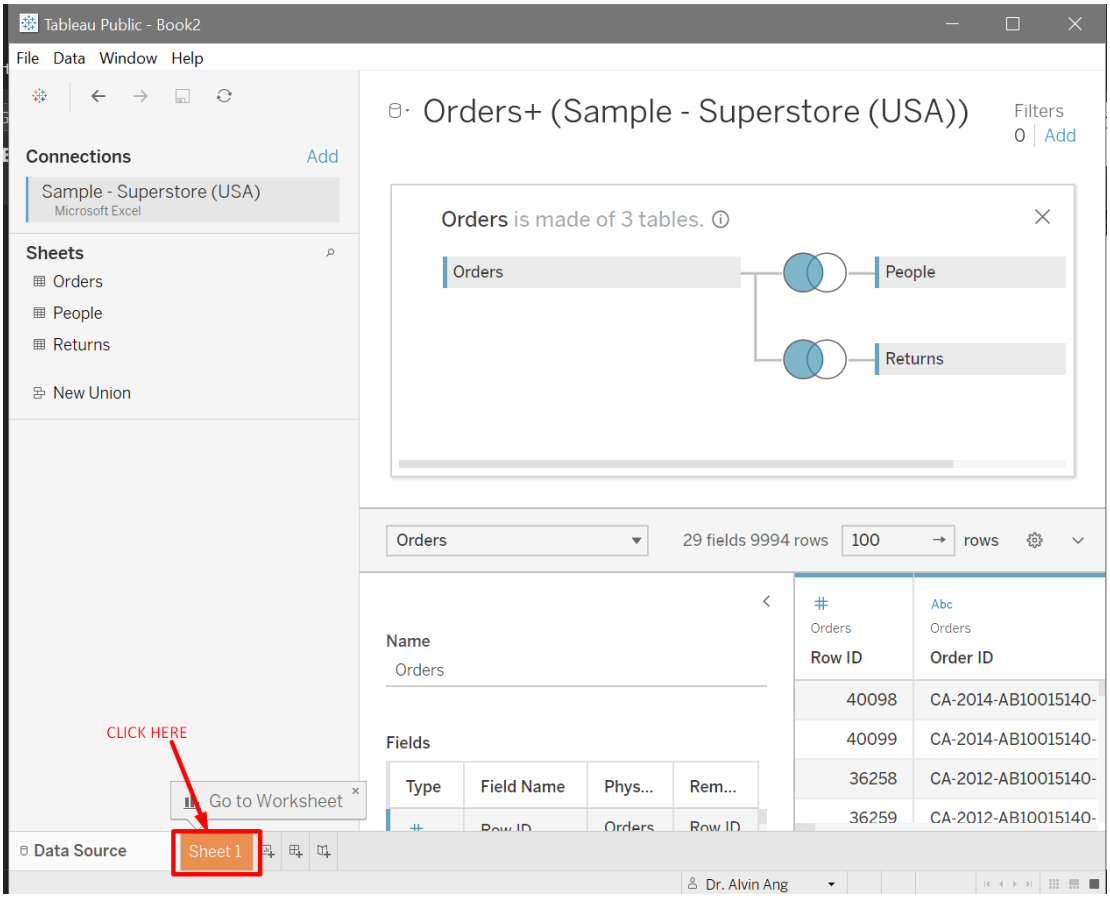
- After successfully connecting to your data source, you may proceed to Worksheets Tab.



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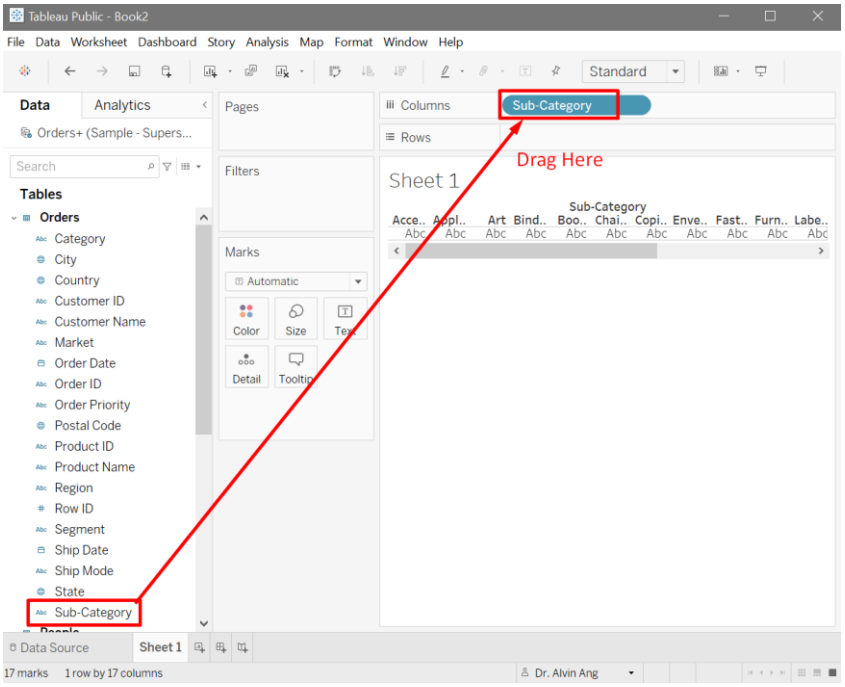

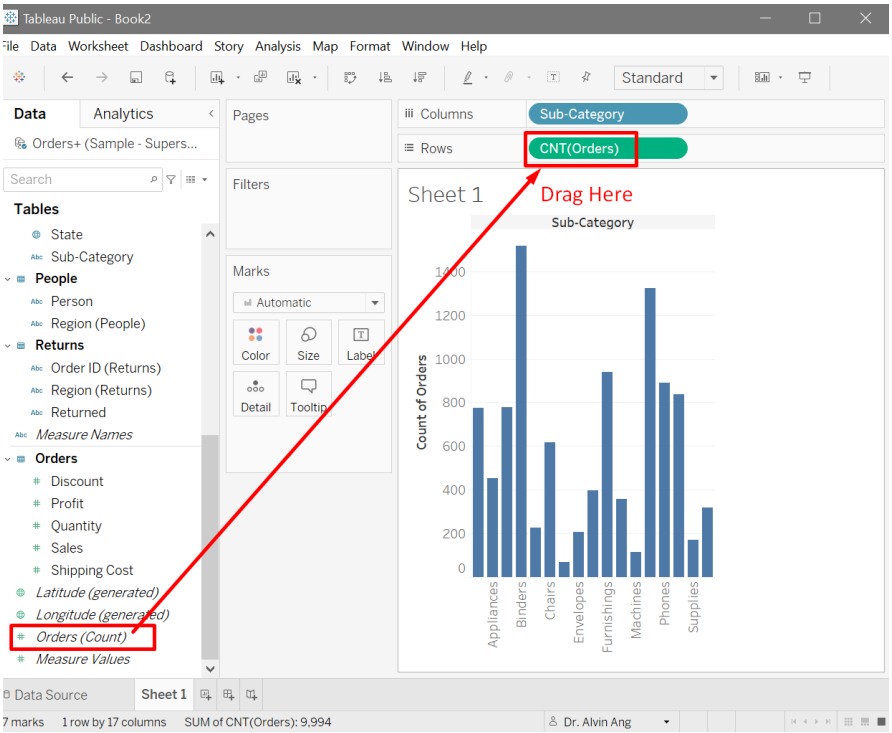

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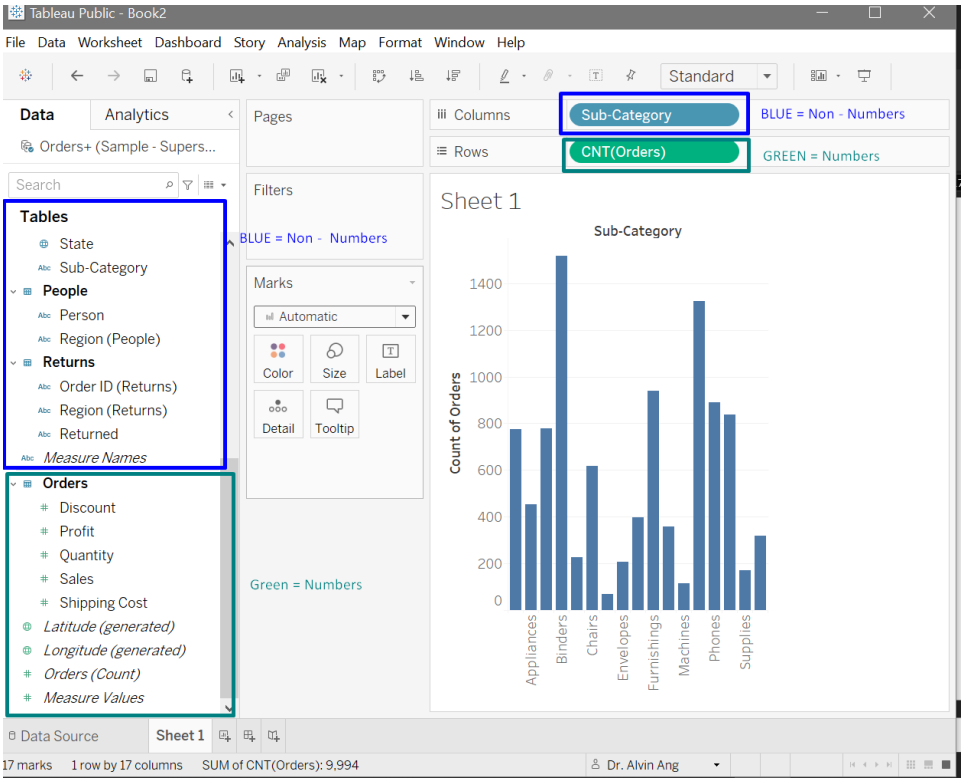

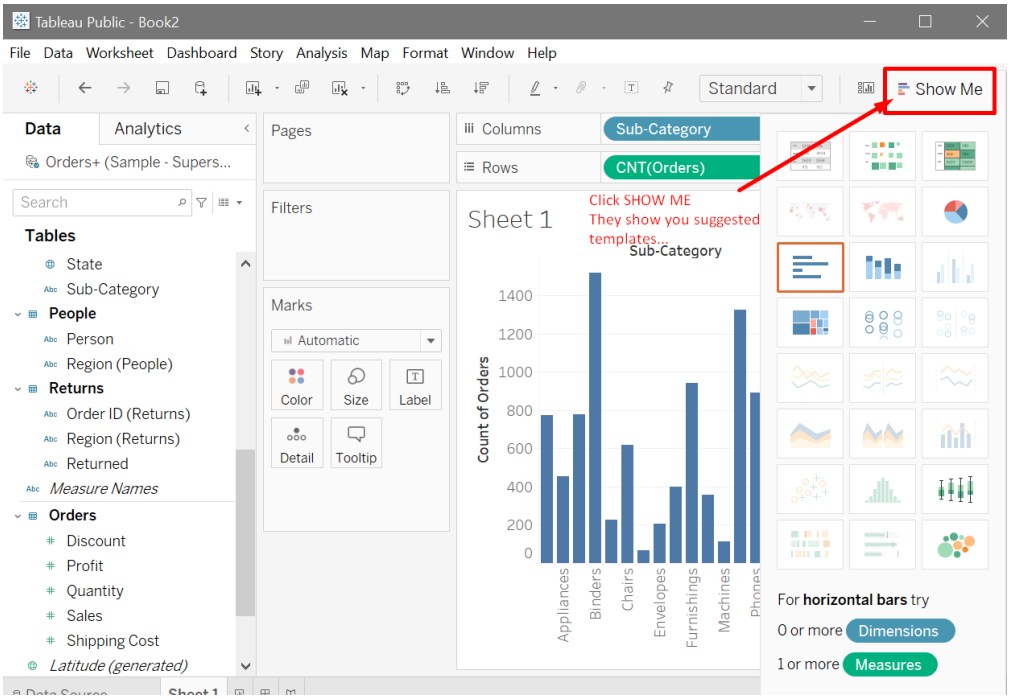

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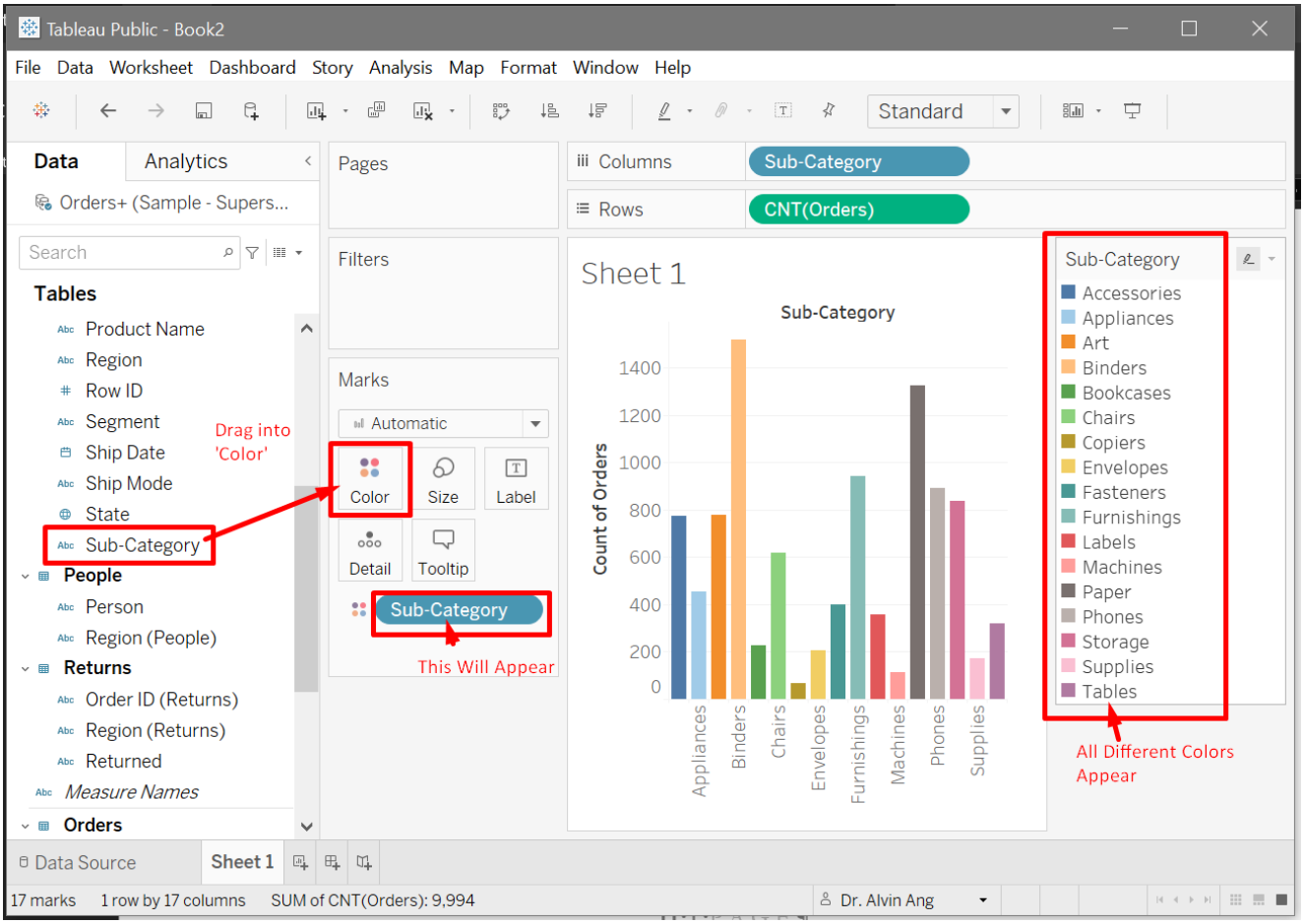

- But picture above is too colourful… normally, we only use colours if we have 3 to 4 categories, but not so many….

- So let's delete it away….

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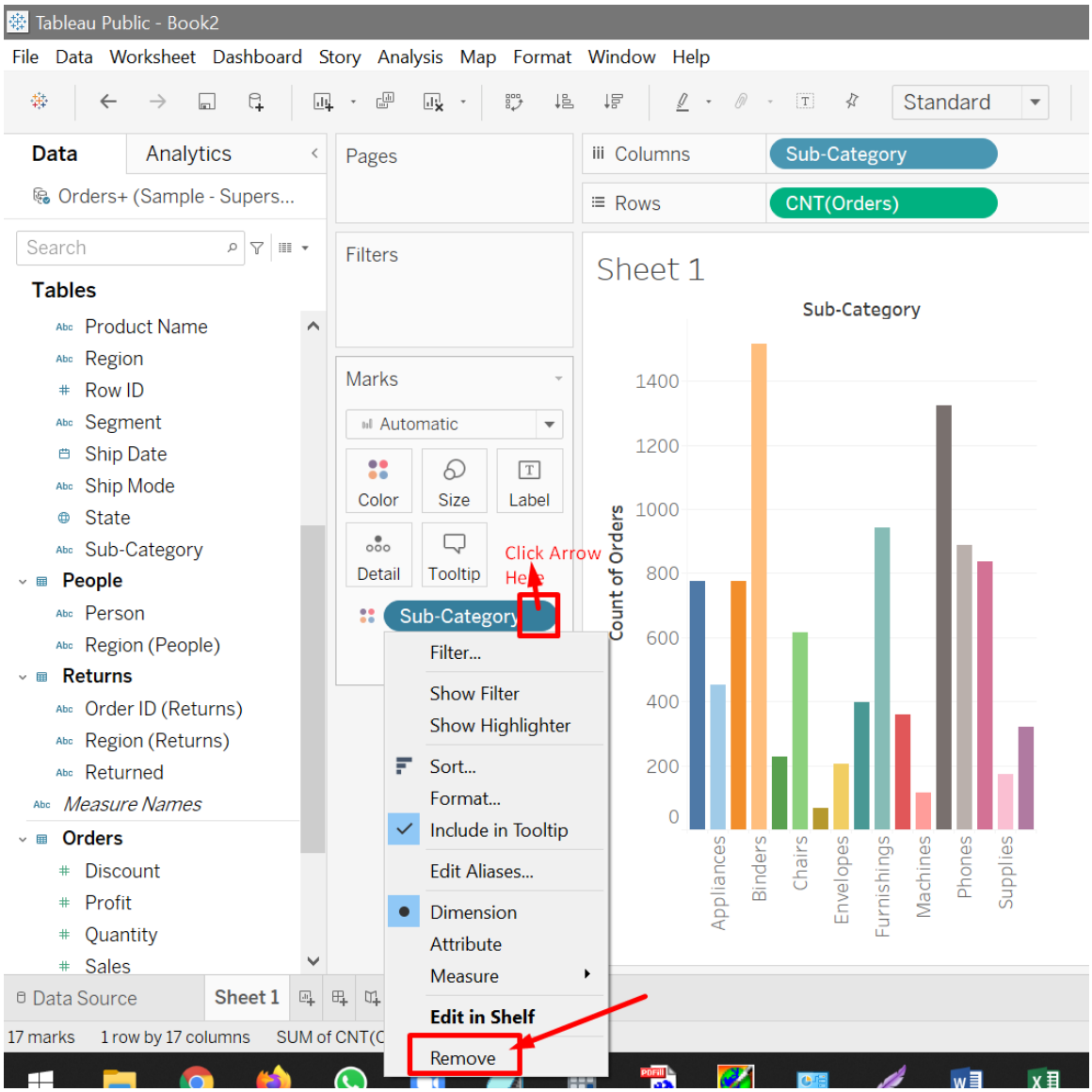

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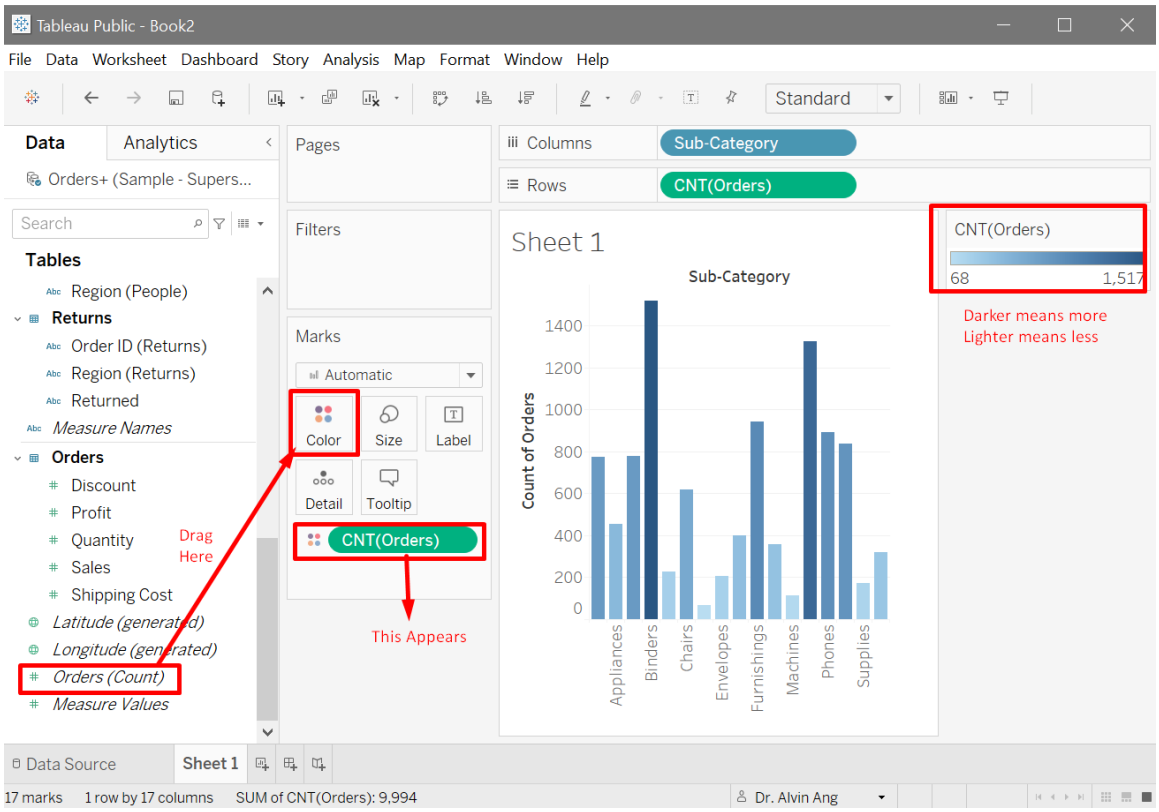

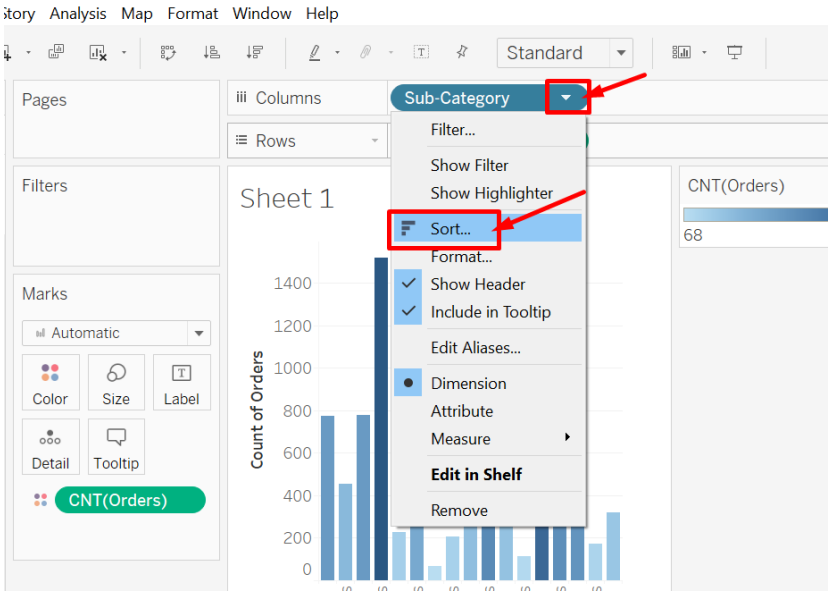

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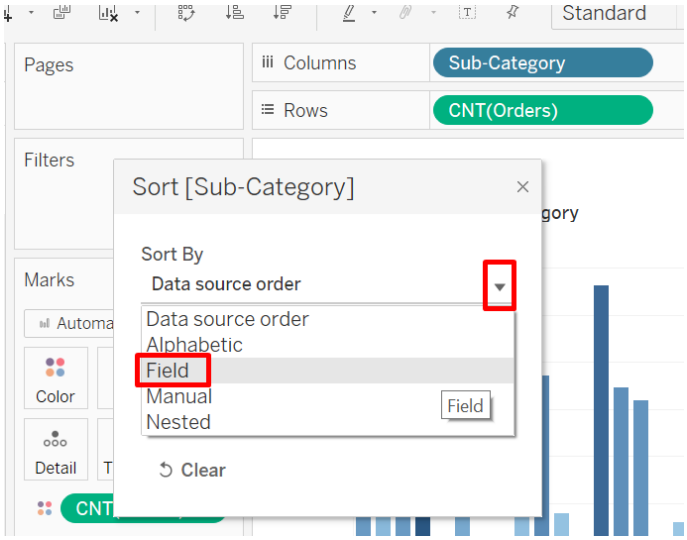

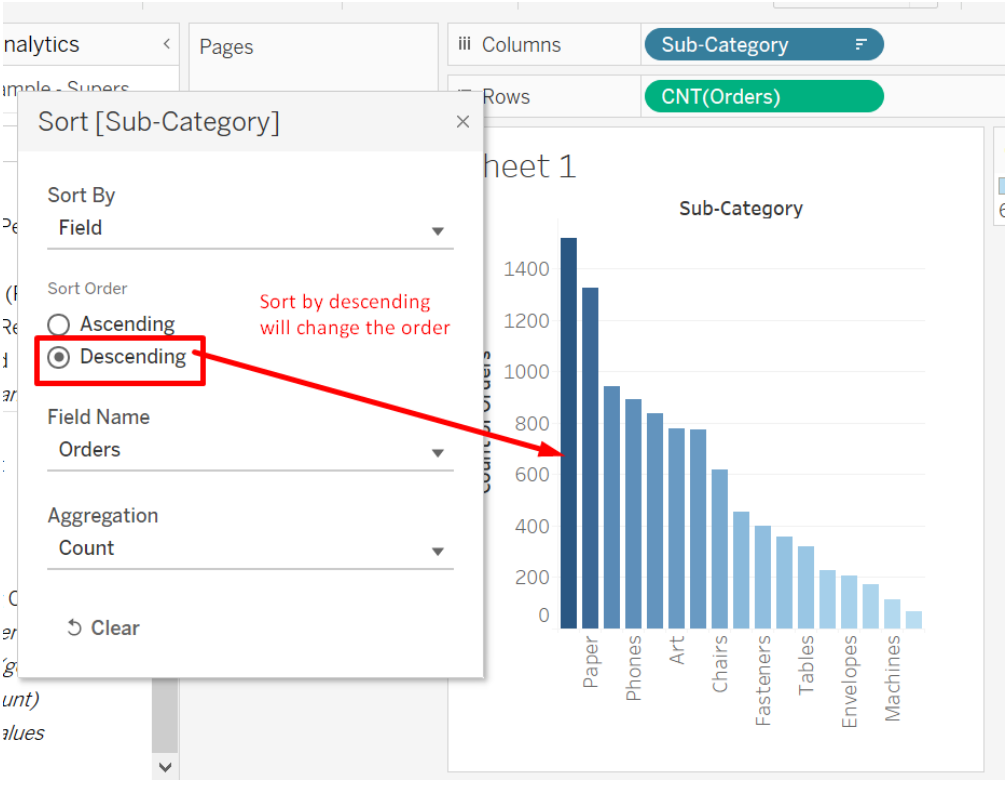

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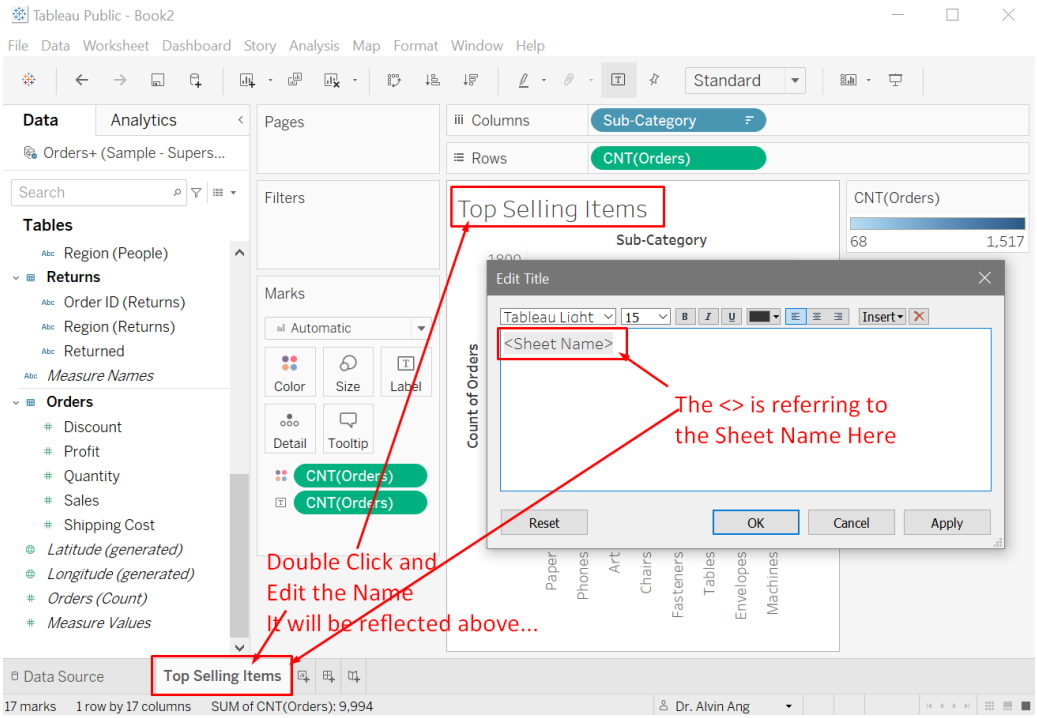
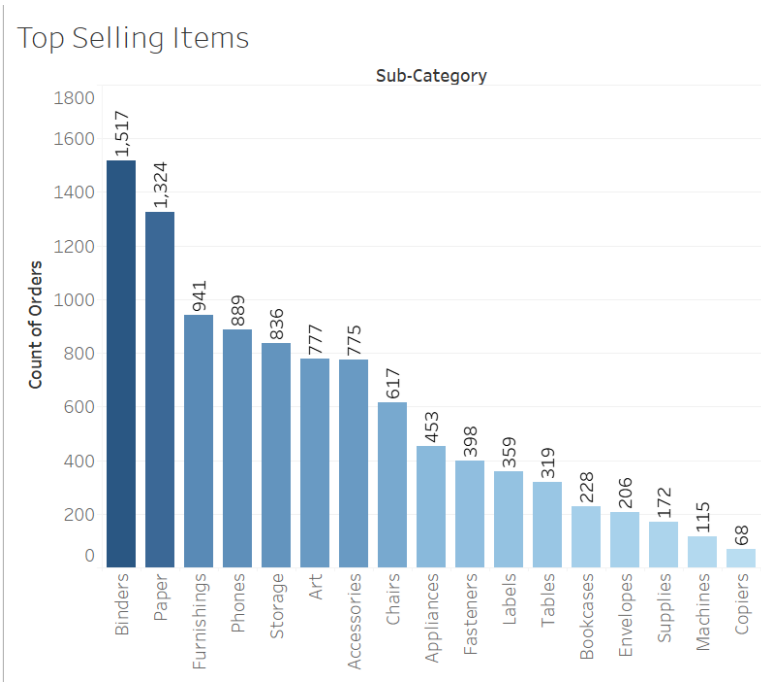


Finally…..your Bar Chart is here…



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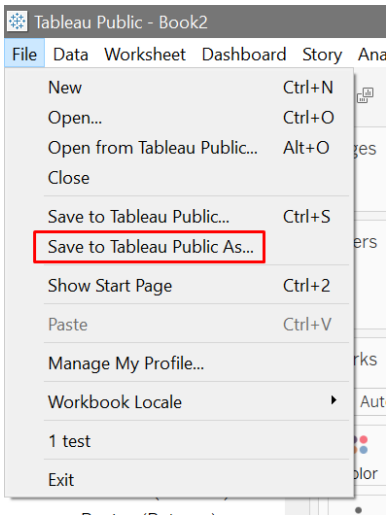
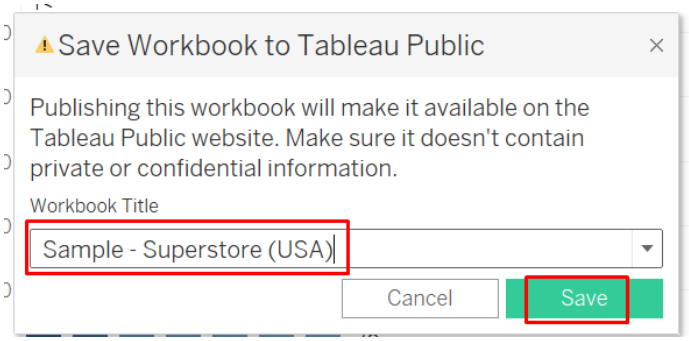
3. SAVING YOUR WORK

- If you don't save your work, everything will be gone.
- Tableau Public doesn't have auto save function.
- You cannot save into your laptop – you can only save into the cloud.
- That's why its called Tableau Public… because everything you do is shared onto the cloud publicly!
- Thus, be careful of what data you plot!
- It's meant only for Public Data!





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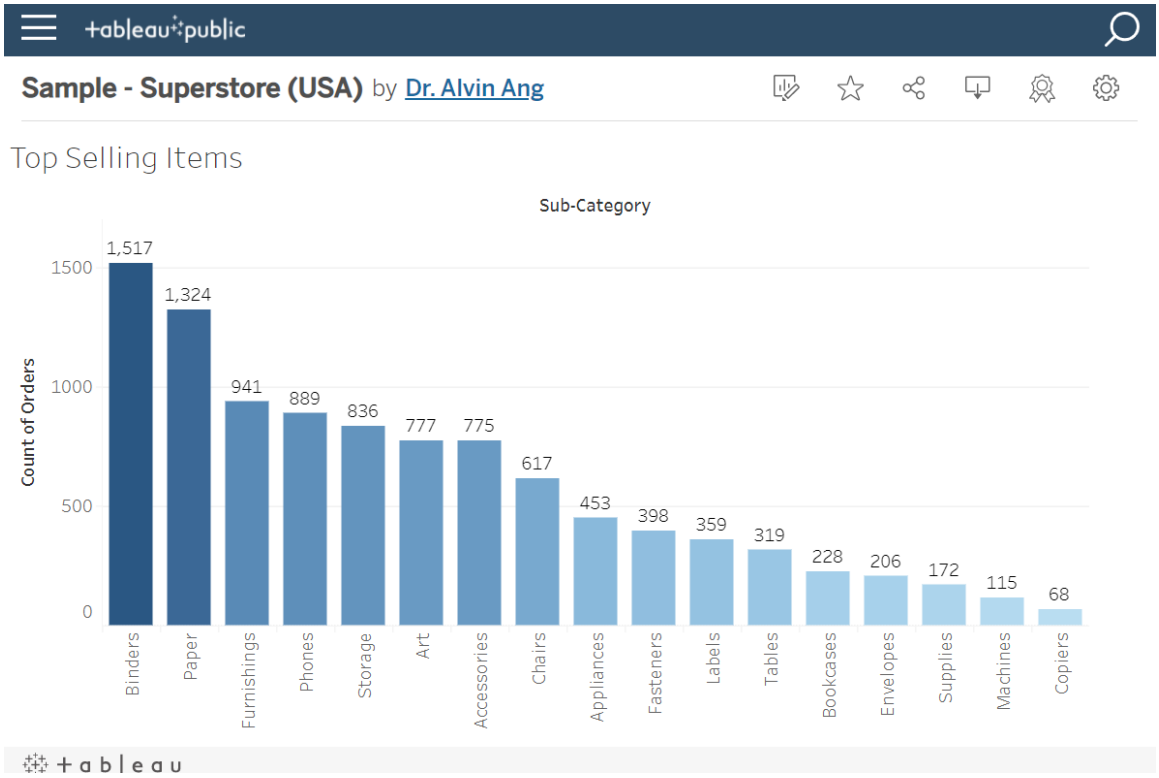

- A hyperlink will be generated and automatically pop up in your browser.

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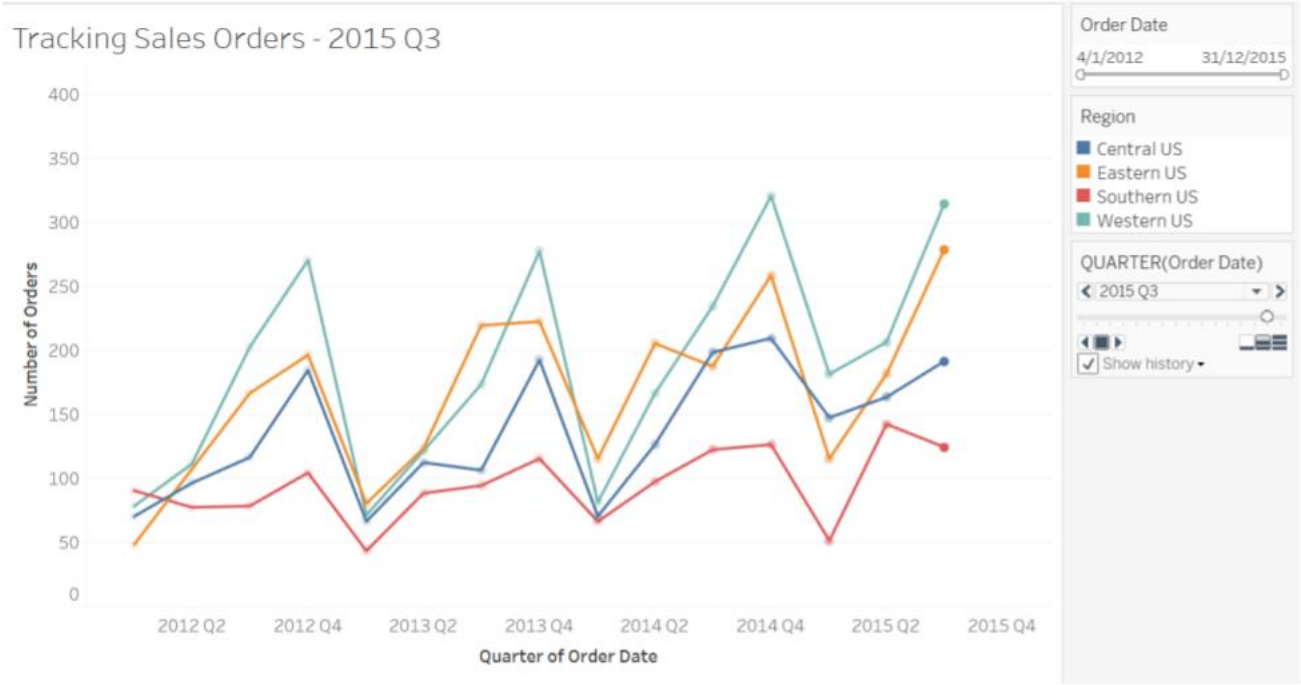
4. DRAWING A LINE CHART

We shall obtain the line chart (with animation) below at the end of this section.



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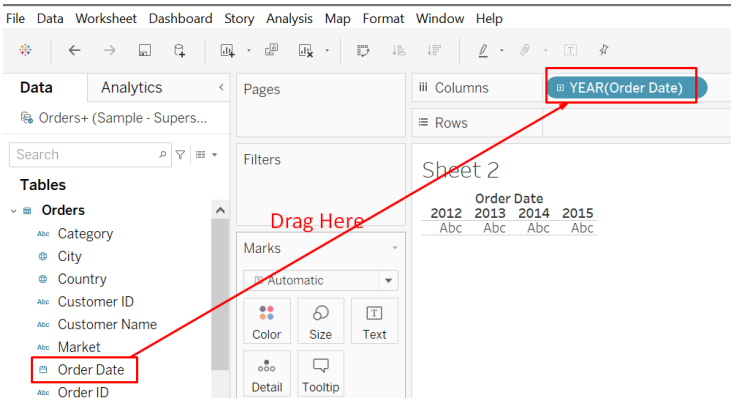

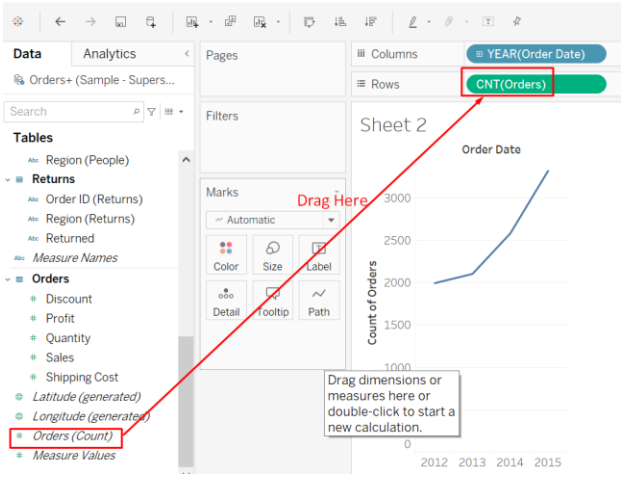

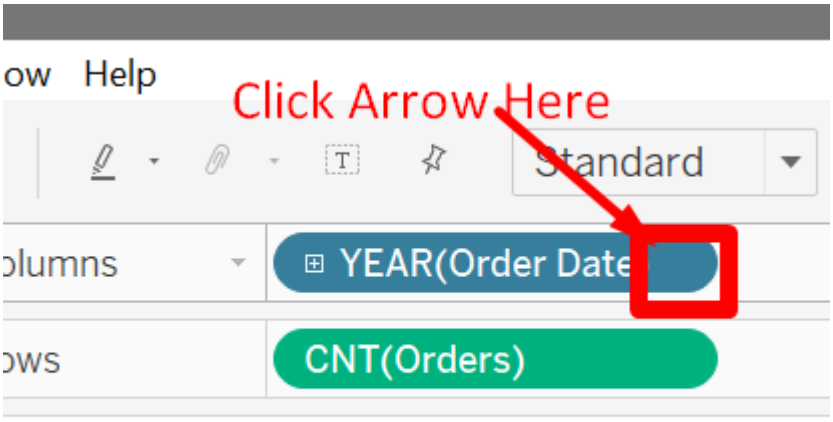

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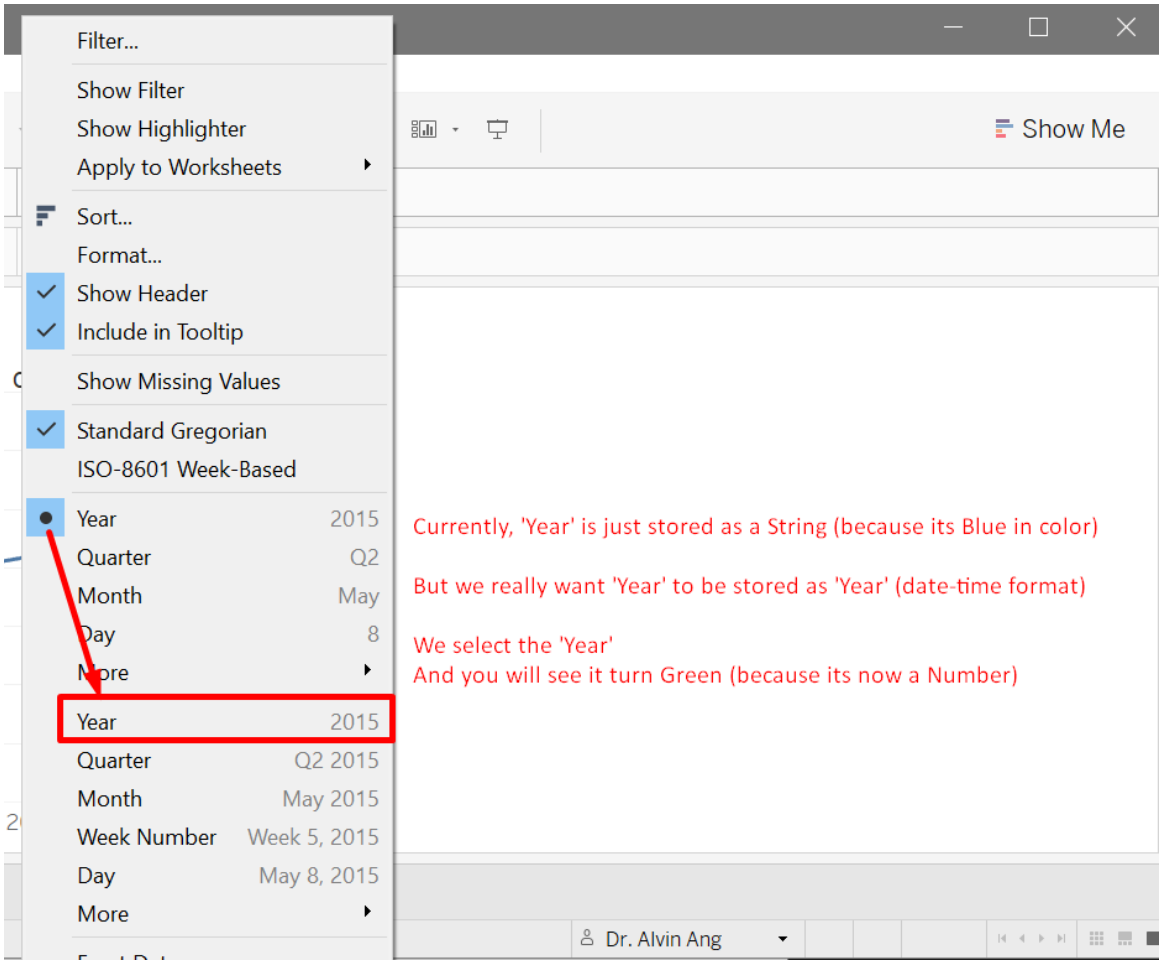

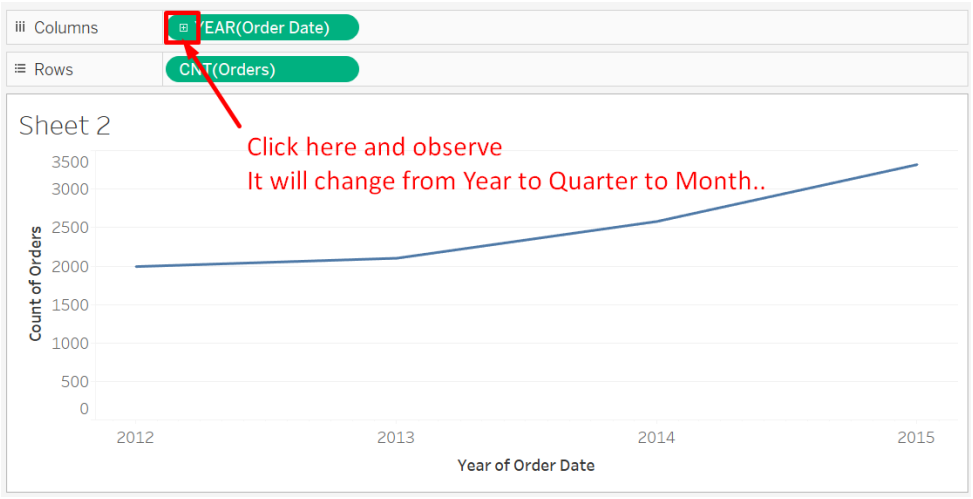

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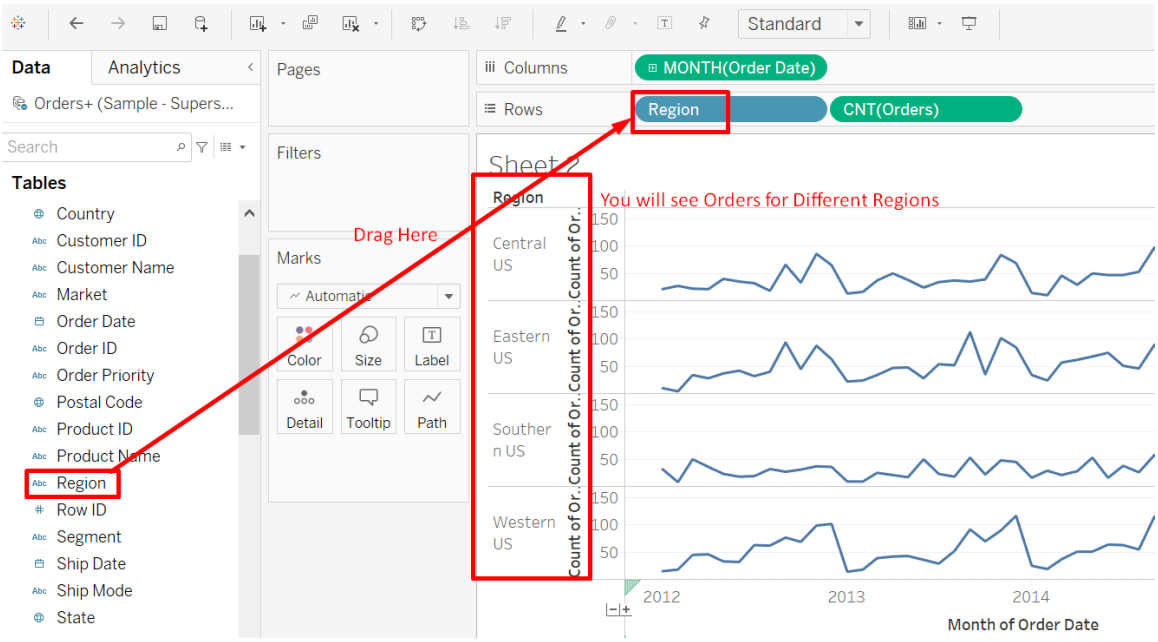

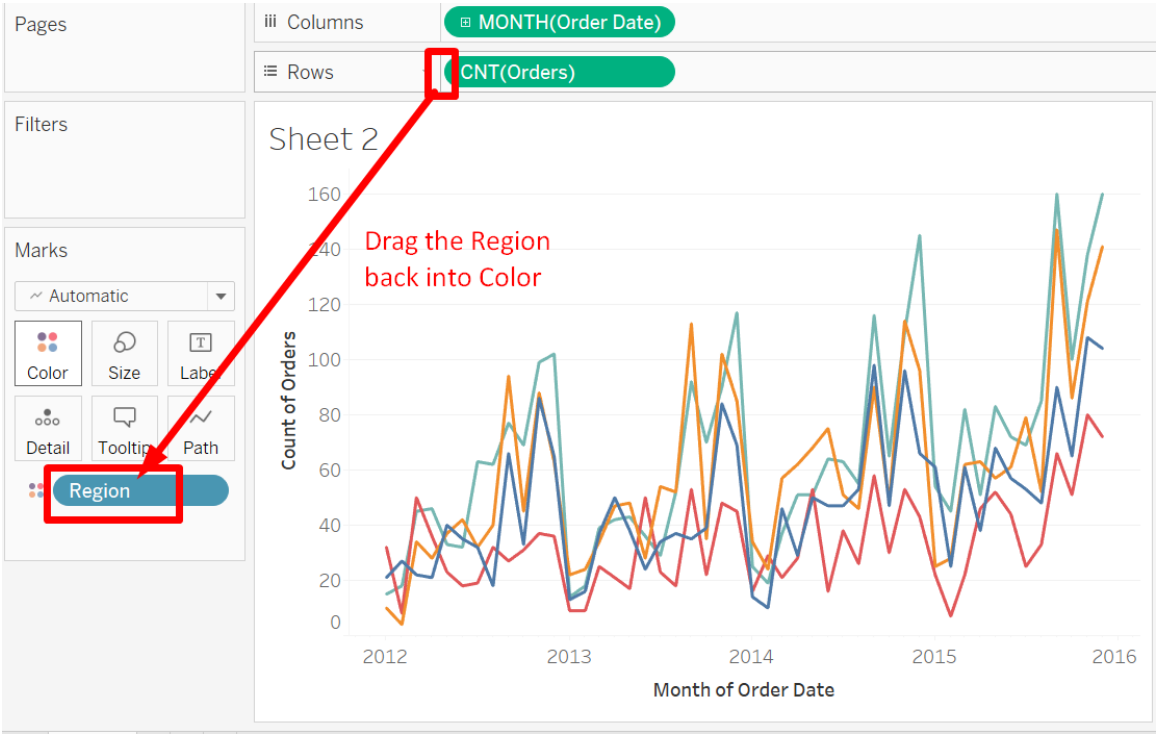

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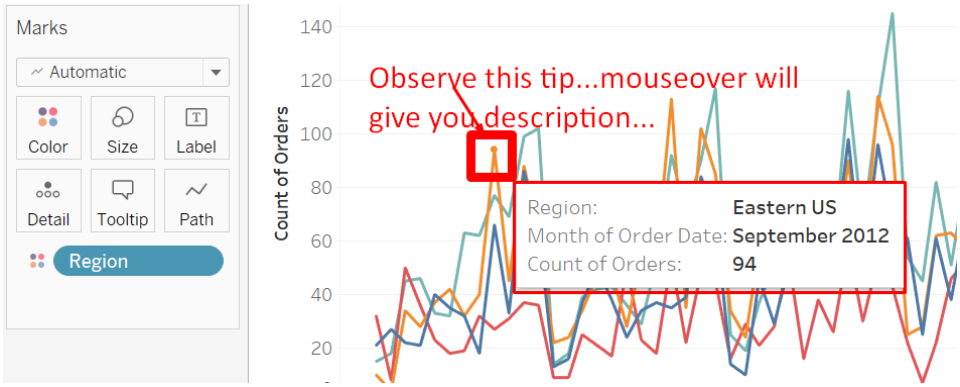

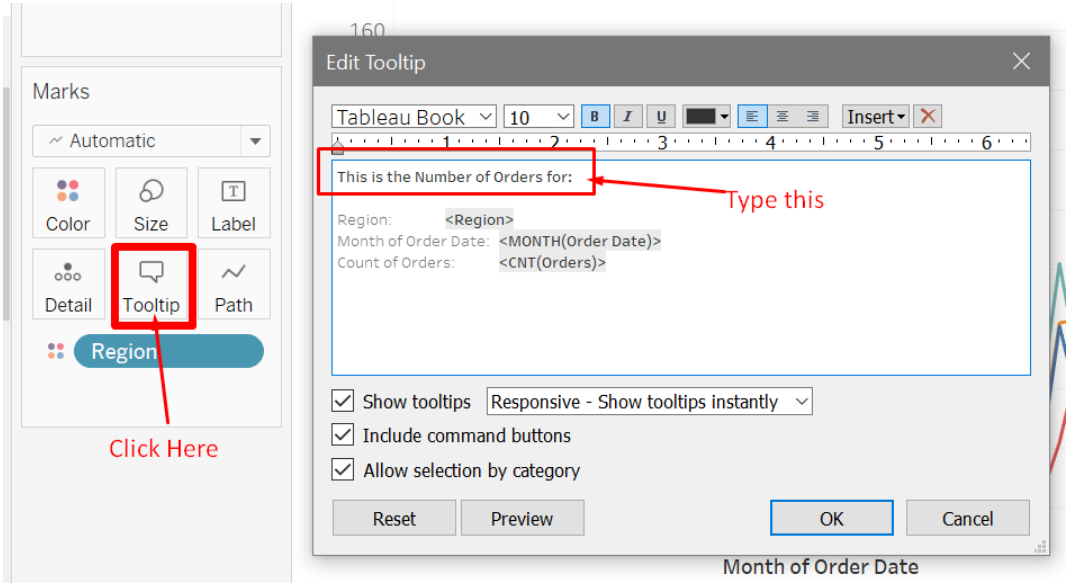

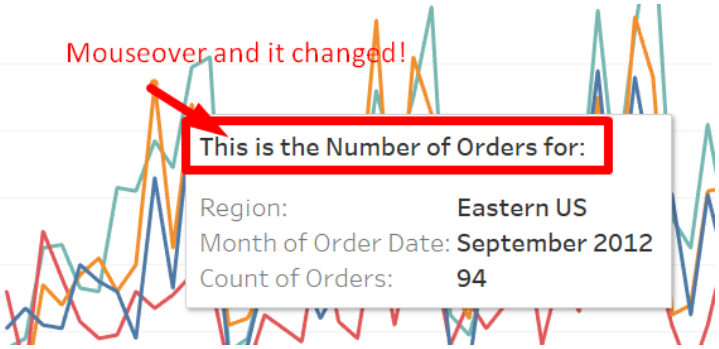

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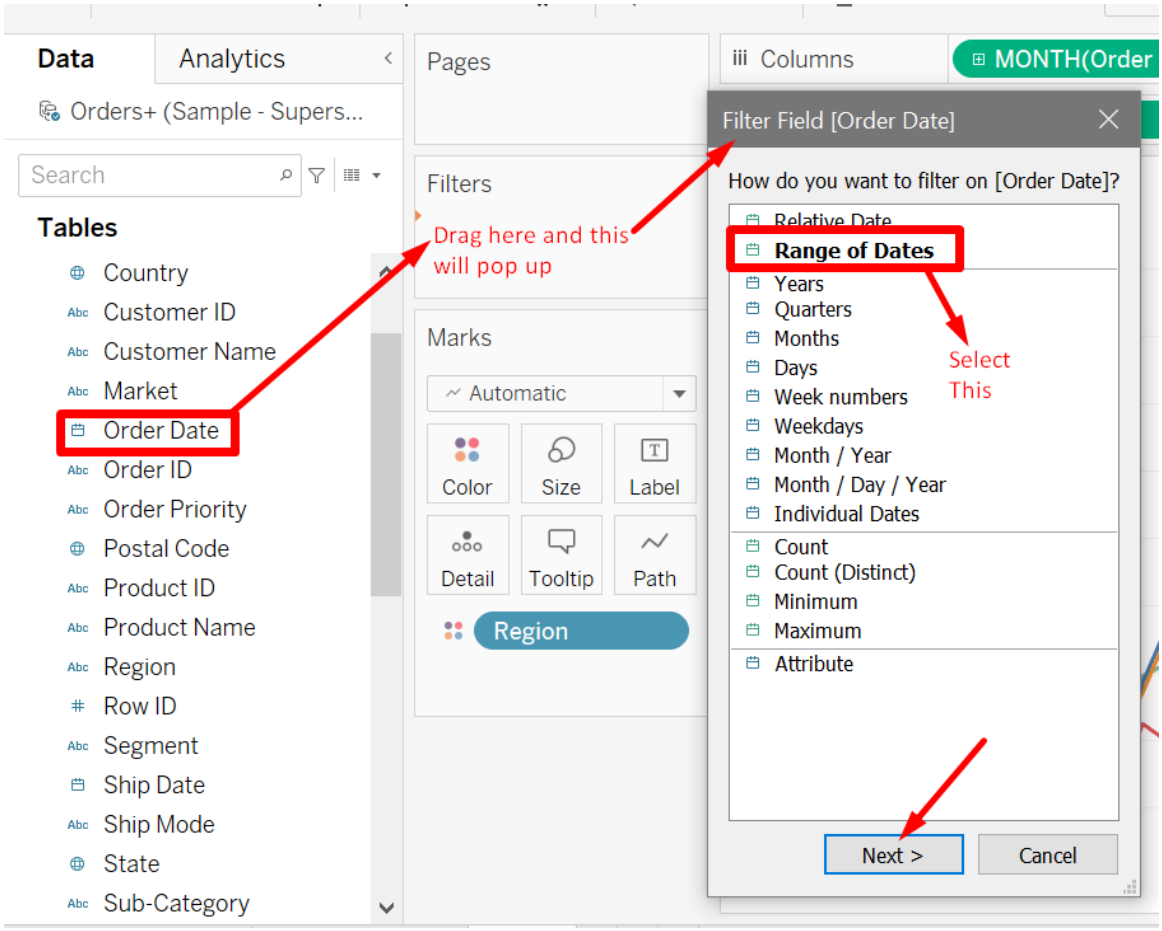
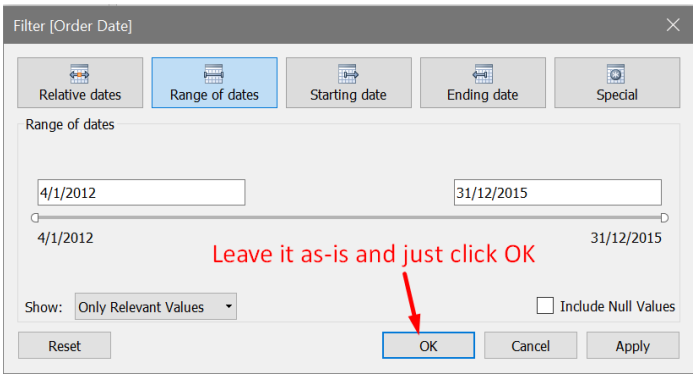
a) Animating the Line Chart





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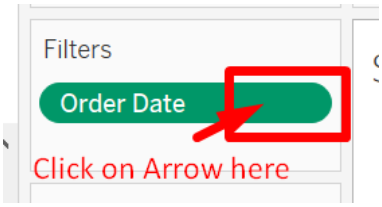

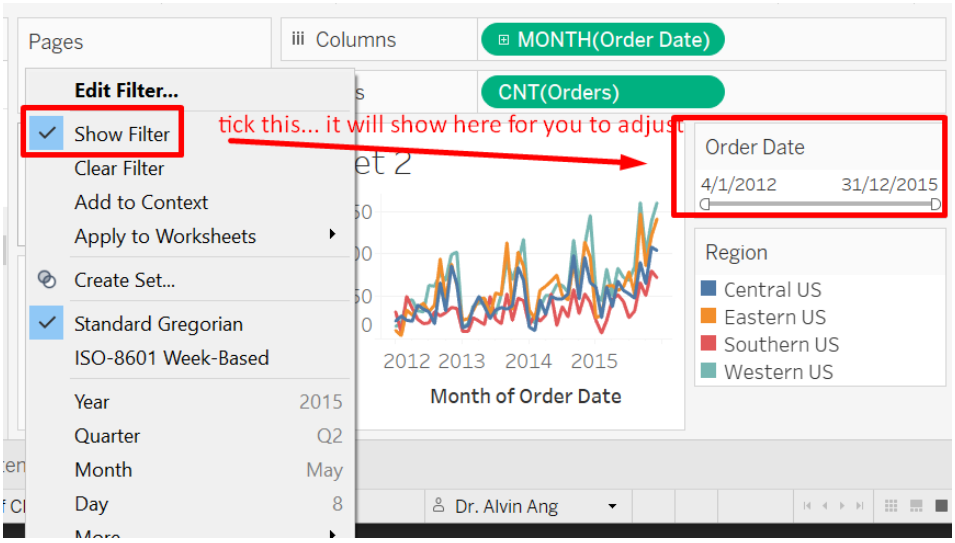

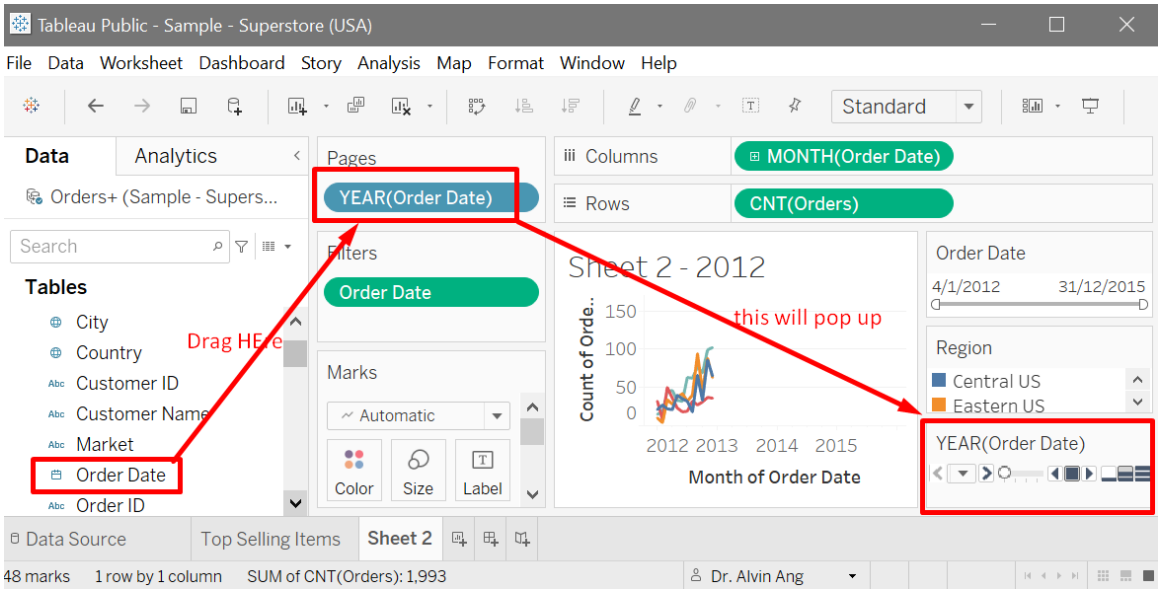

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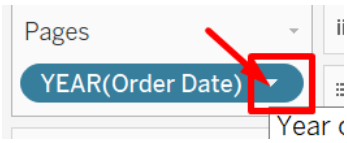

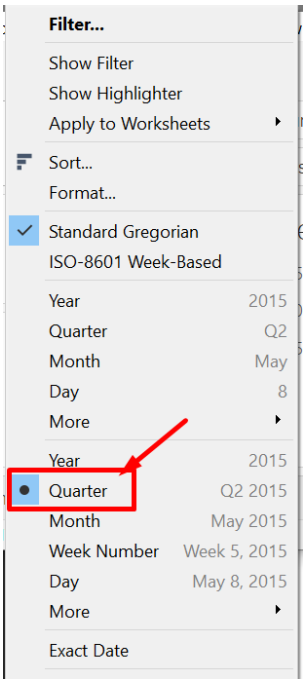

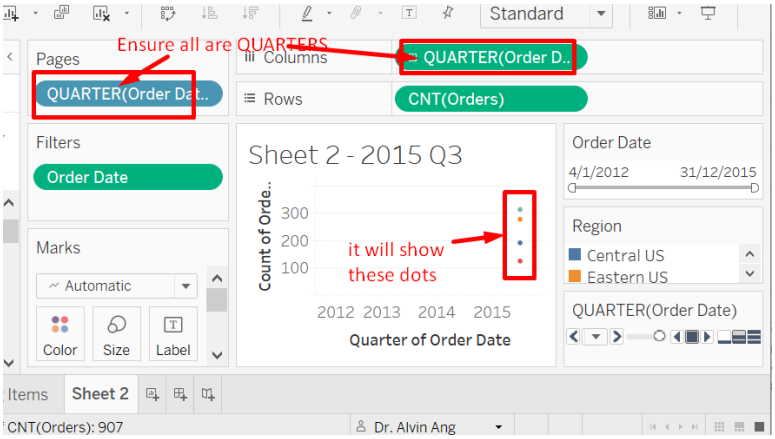

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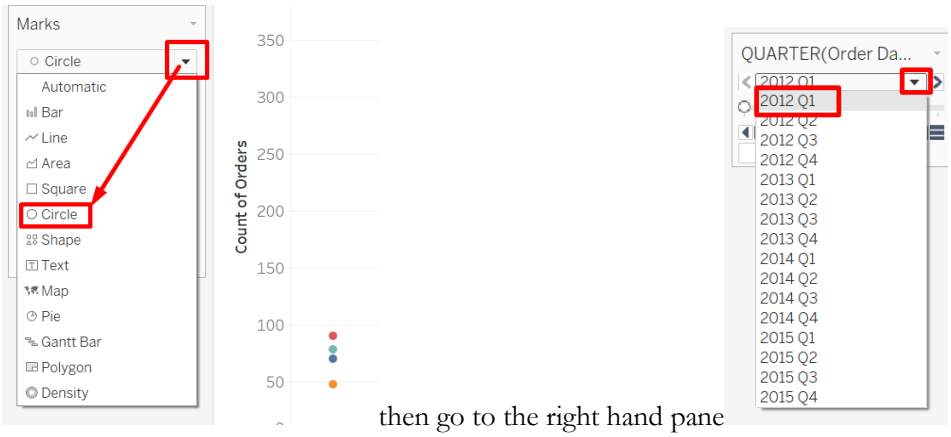
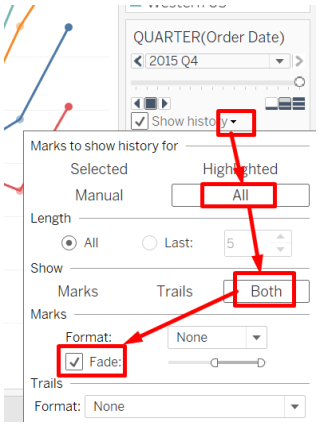
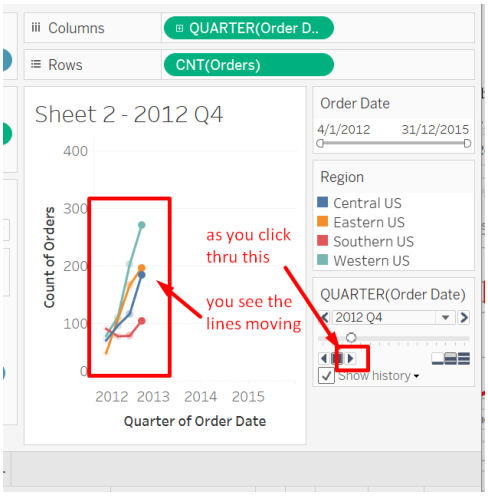


then go to the right hand pane





Animation is Complete!!!

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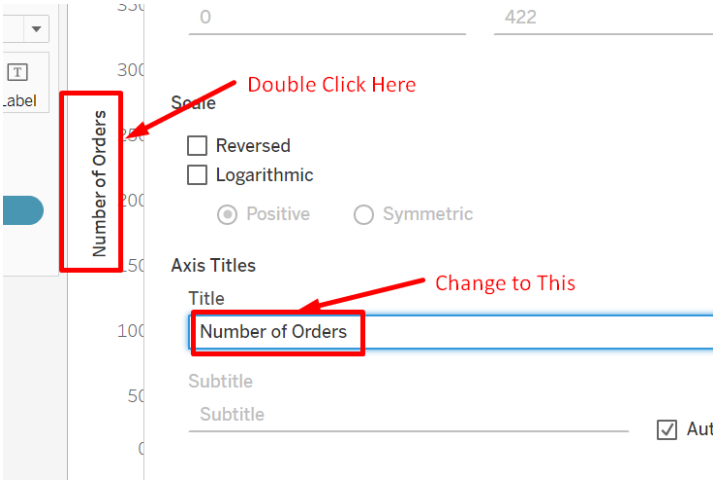

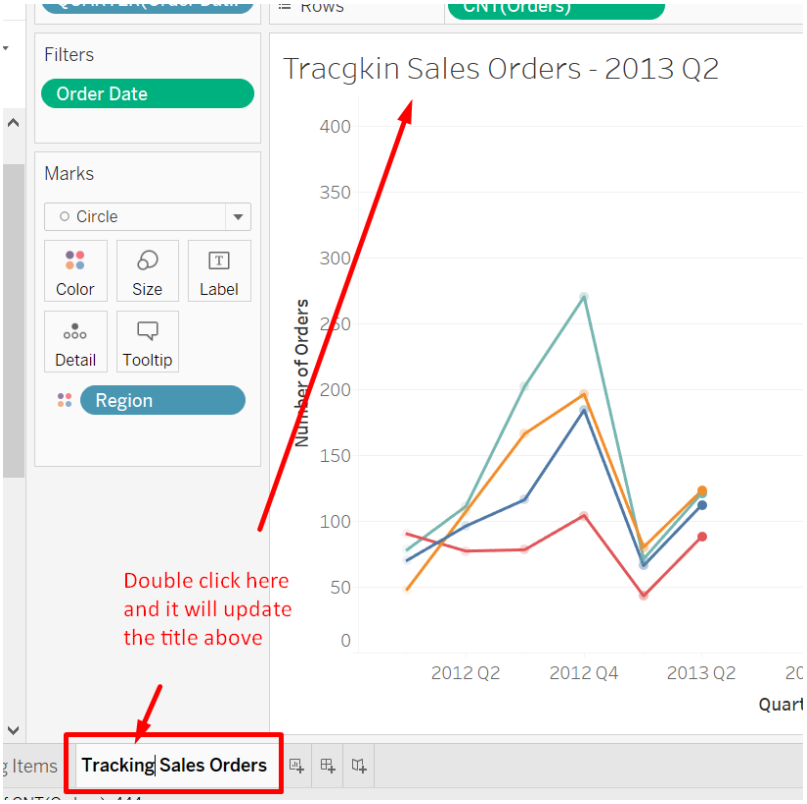

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5. DRAWING A HEAT MAP

We shall obtain the heat map below at the end of this section.

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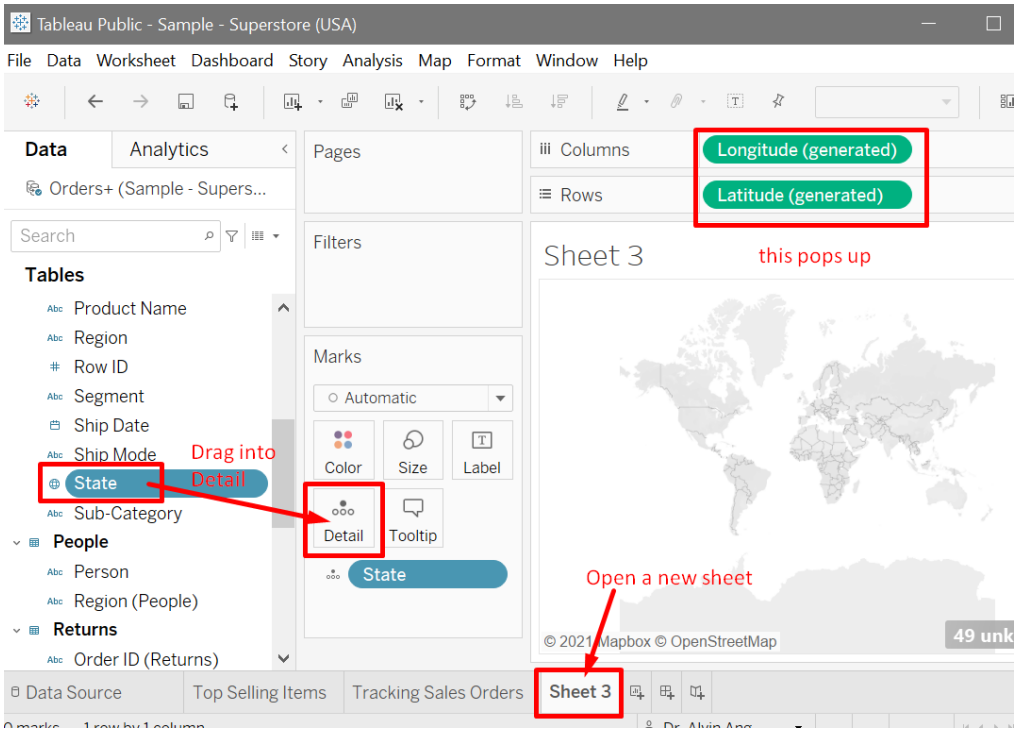

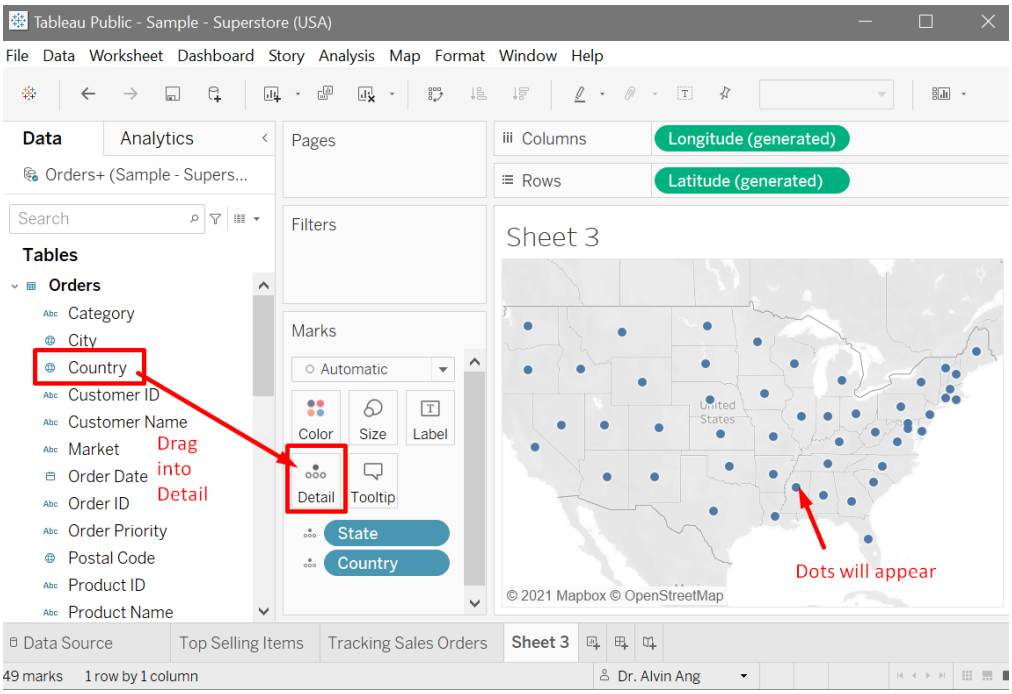

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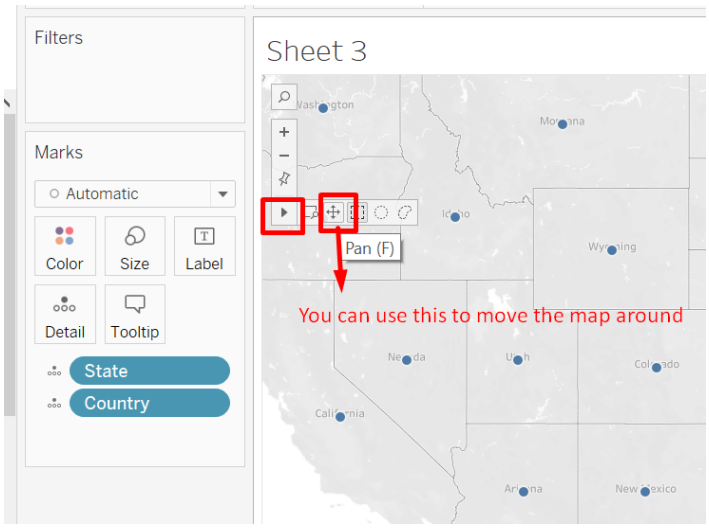
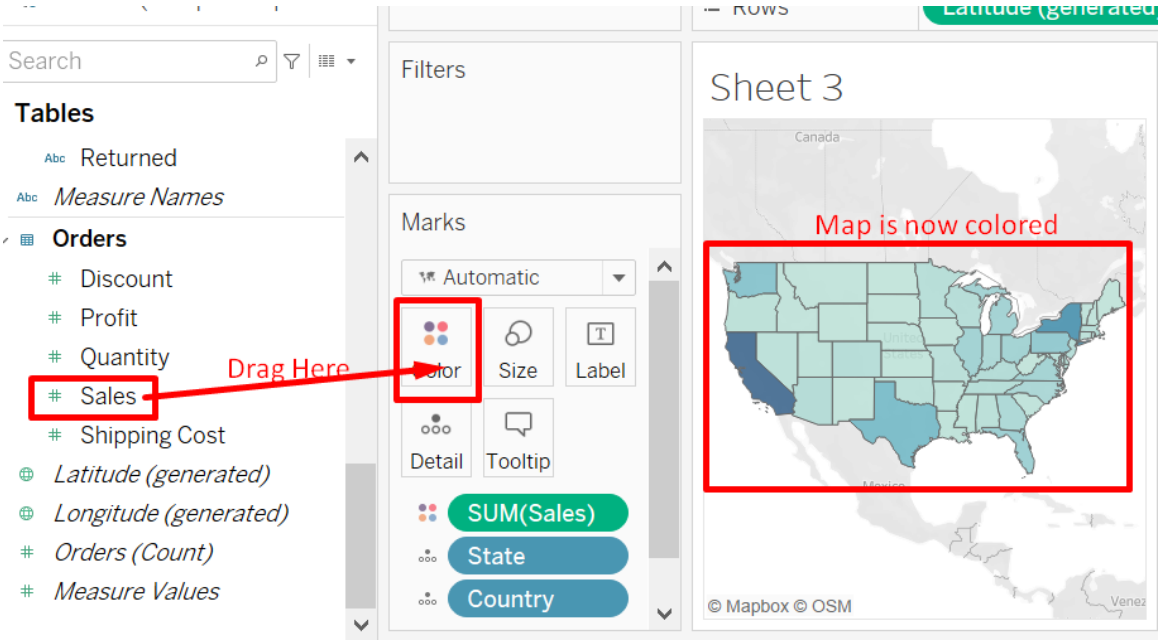


- Tableau wasn't built for smaller countries like Singapore.
- Tableau contains Lat Long for big countries like USA, but Singapore uses Postal Code.
- You will need to provide your own Lat Long in Tableau.



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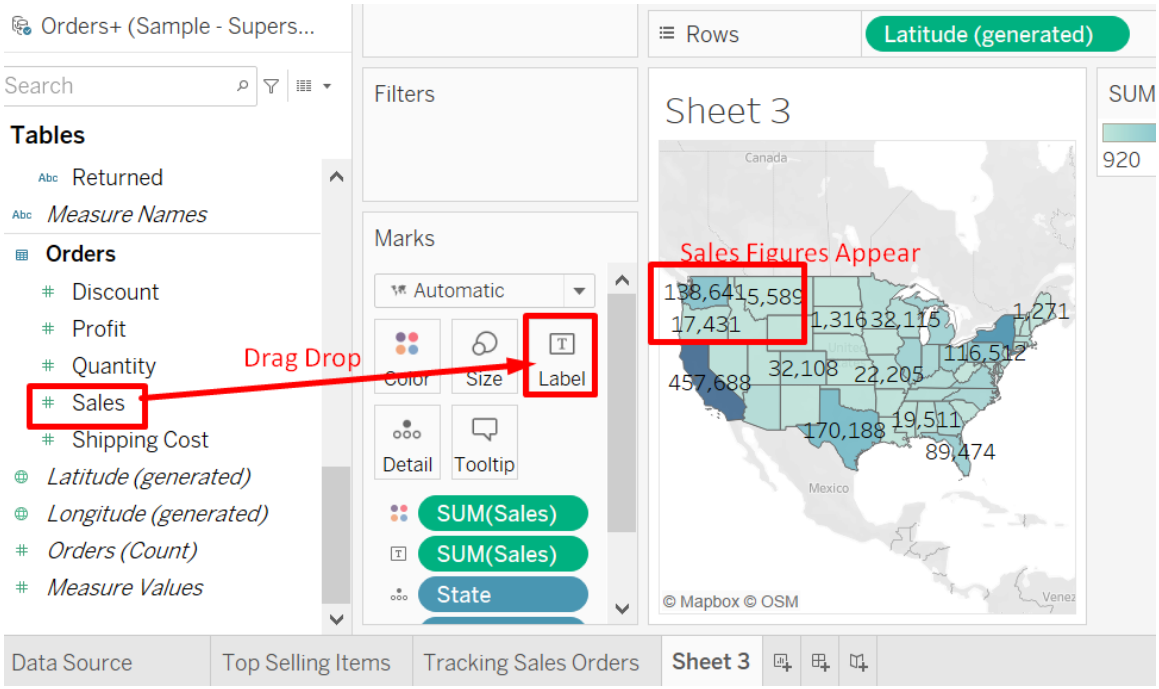

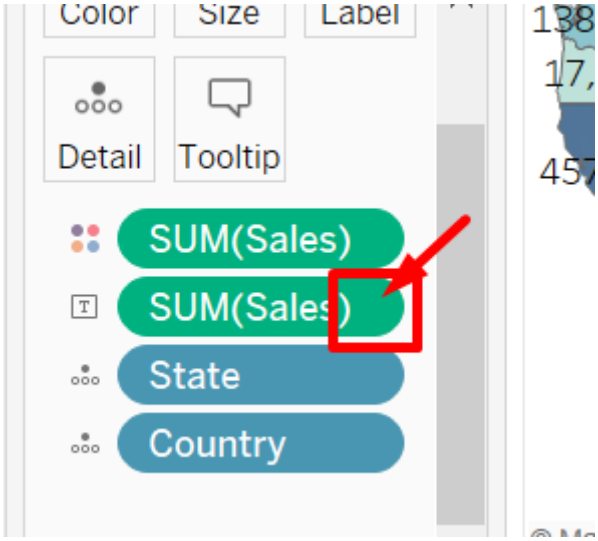

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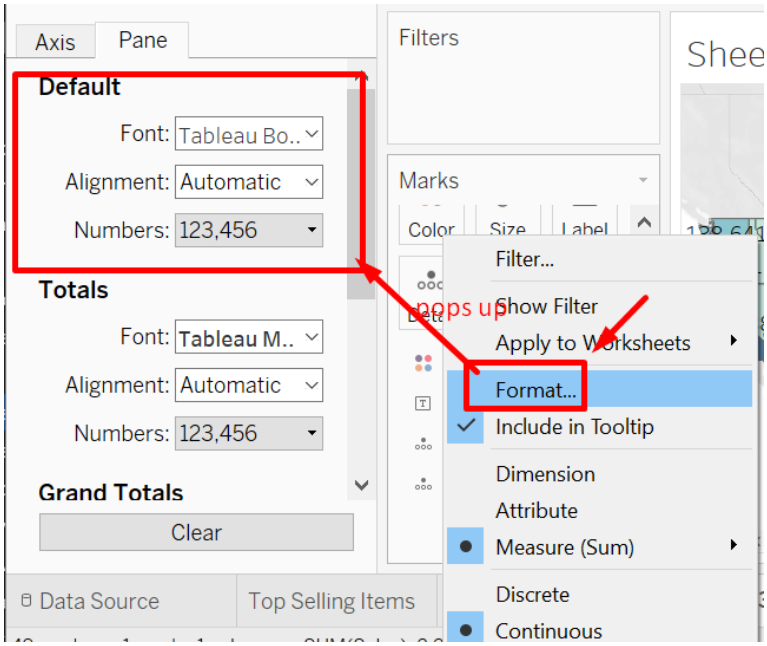

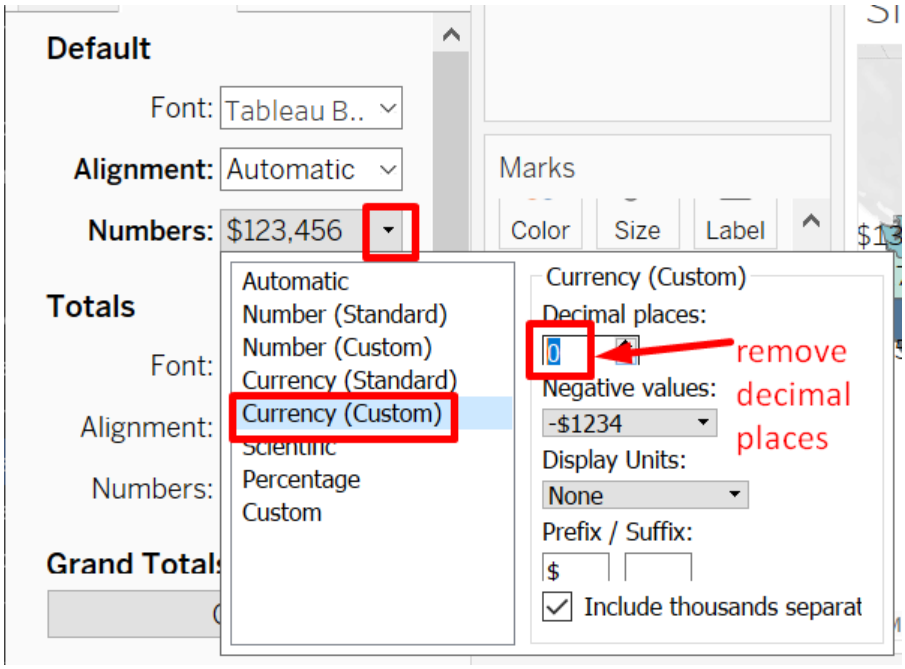

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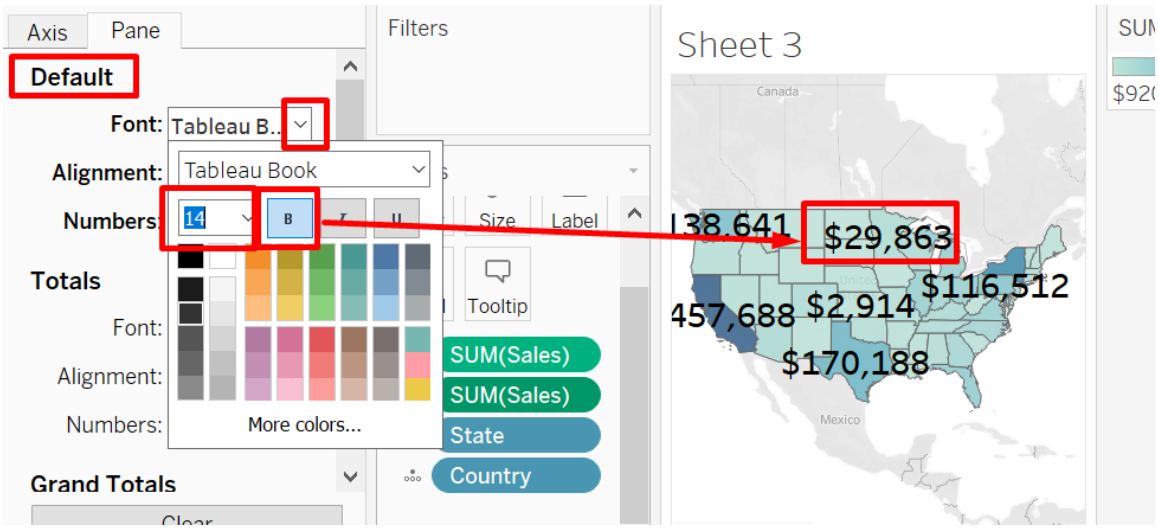

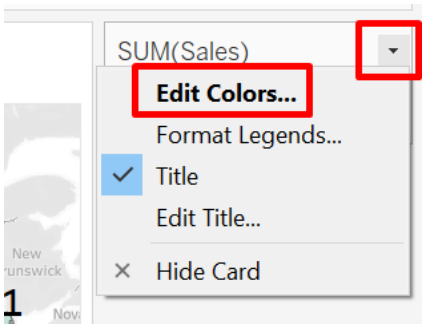

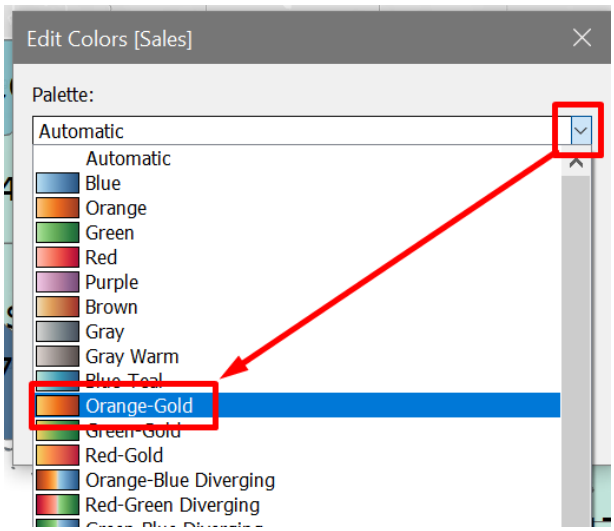

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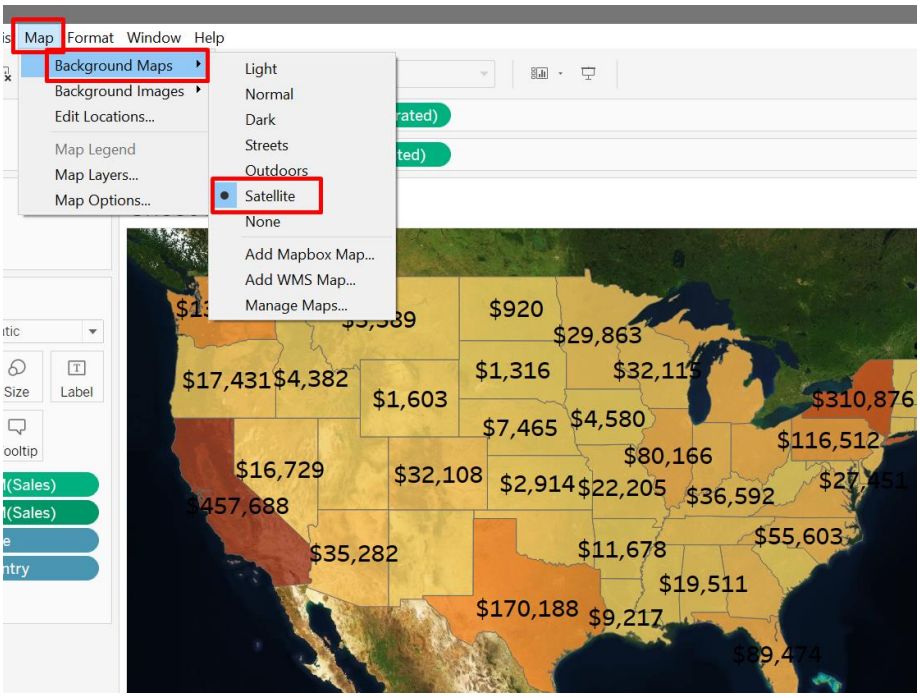

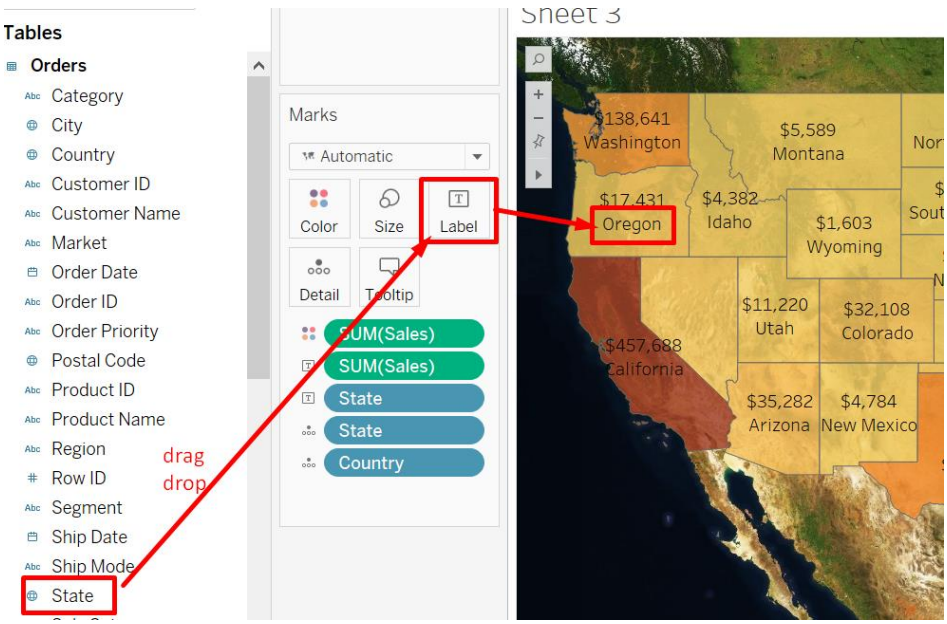

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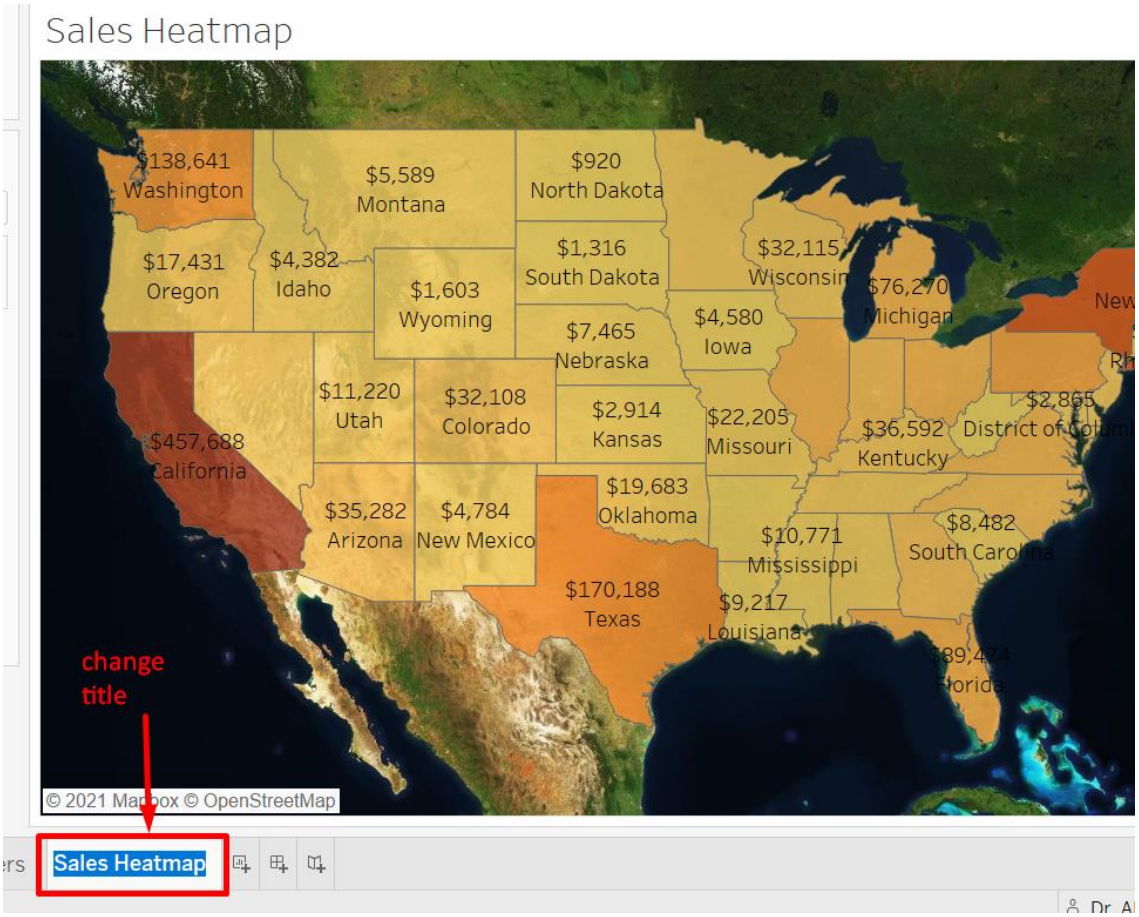

Sales Heatmap is done!!!

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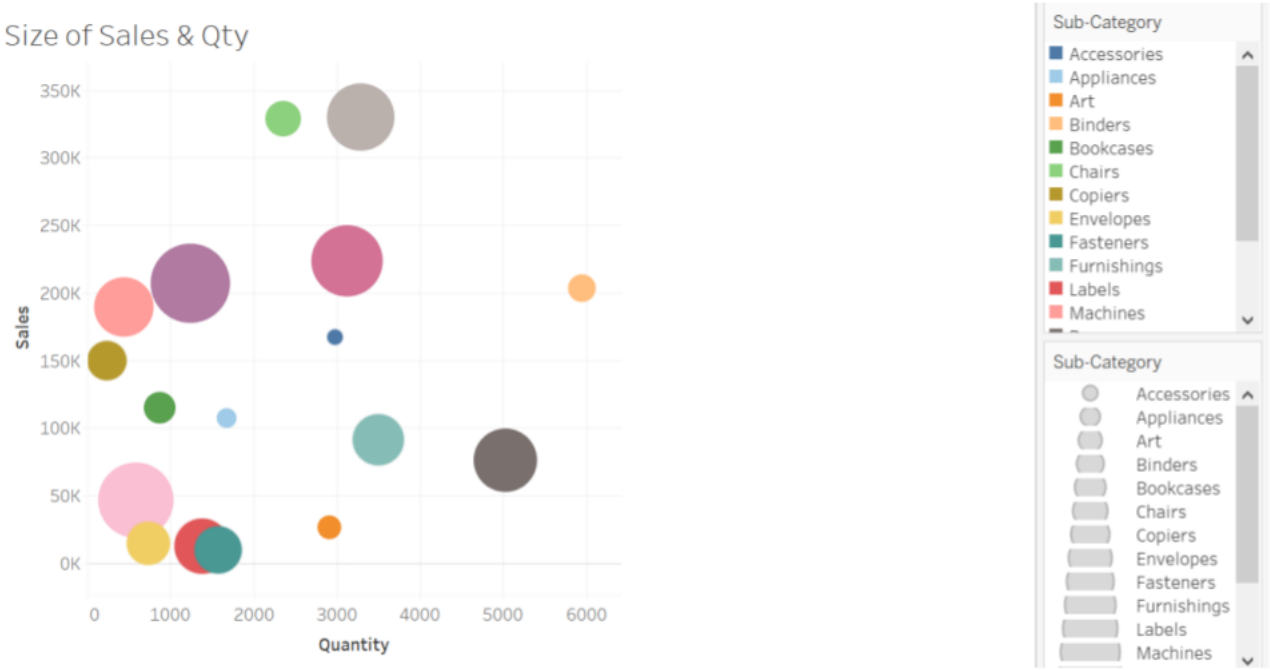
6. DRAWING A SCATTER PLOT

We shall obtain the scatter plot below at the end of this section.



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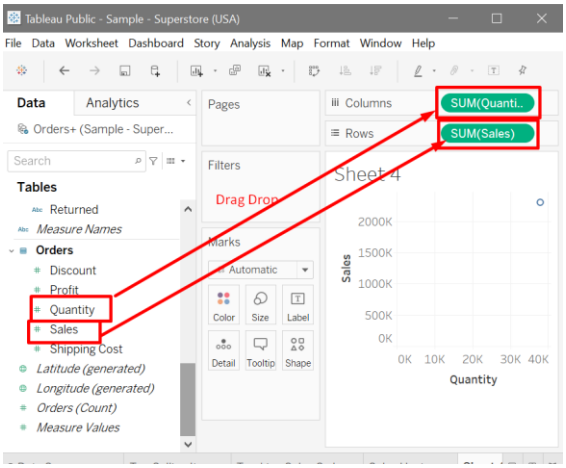

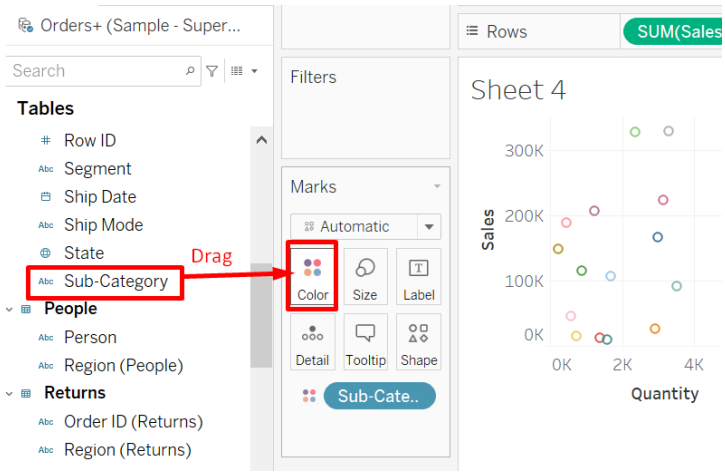

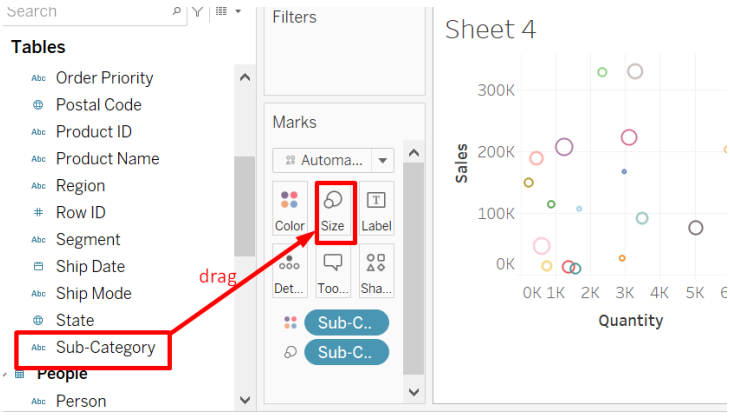

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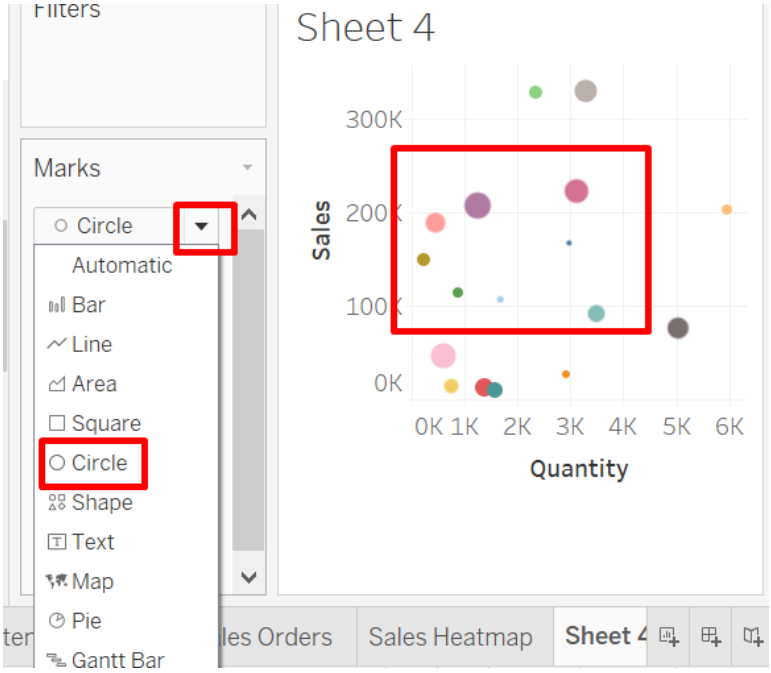

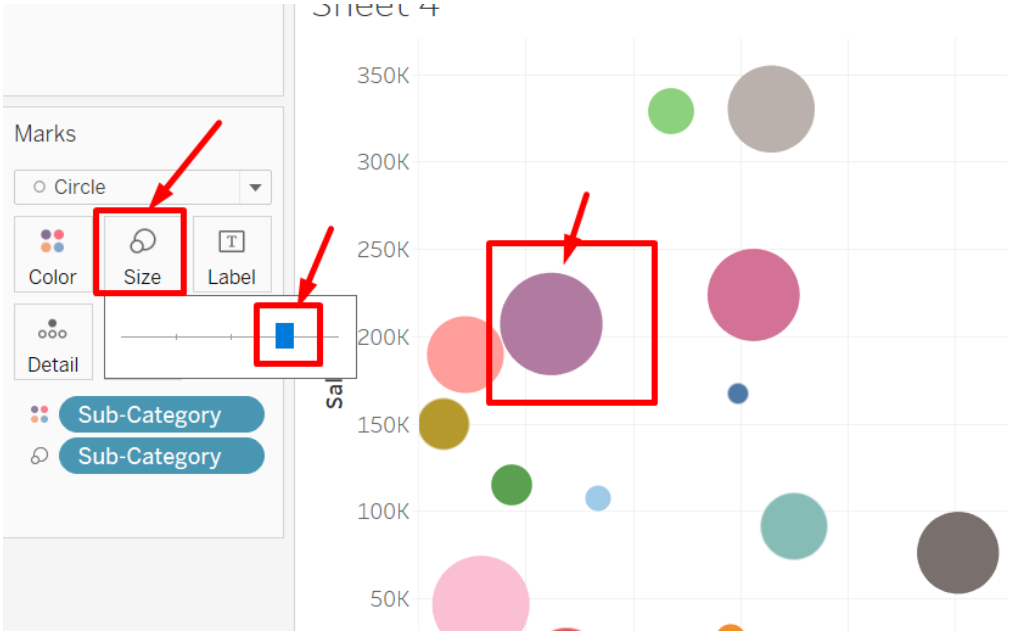

- Scatter plot is used for comparing market size – to show relative comparison
- Scatter plot is complete!!!

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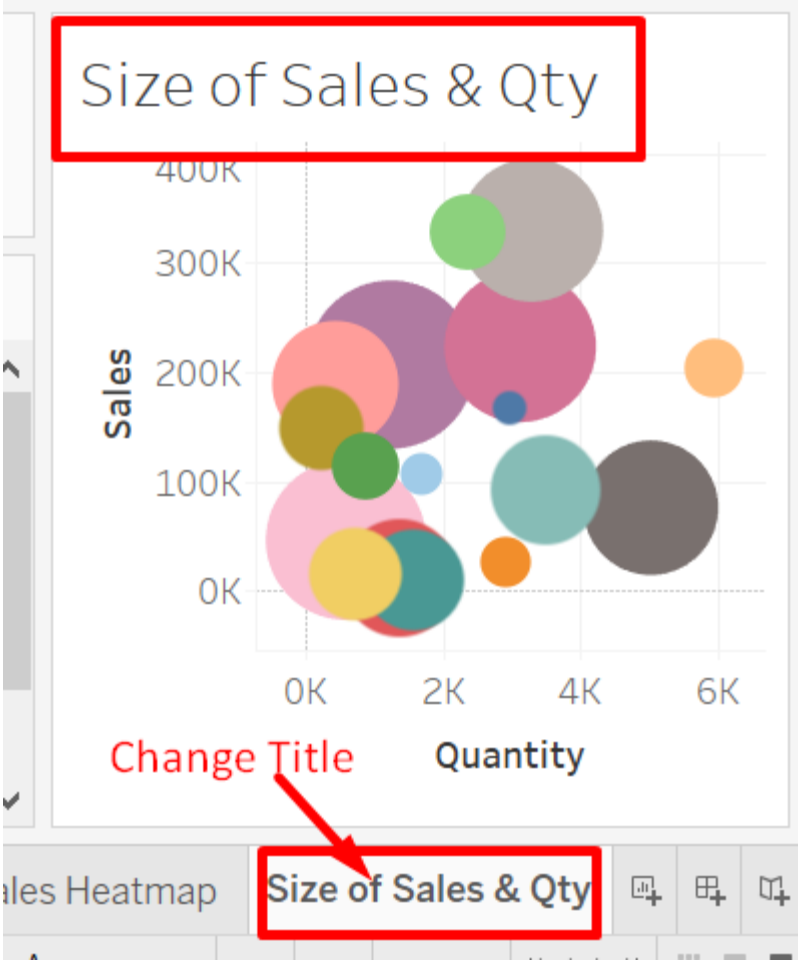
- 

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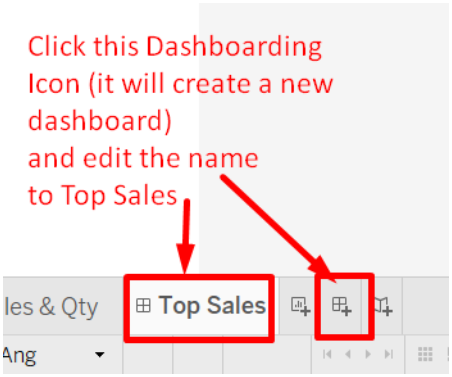
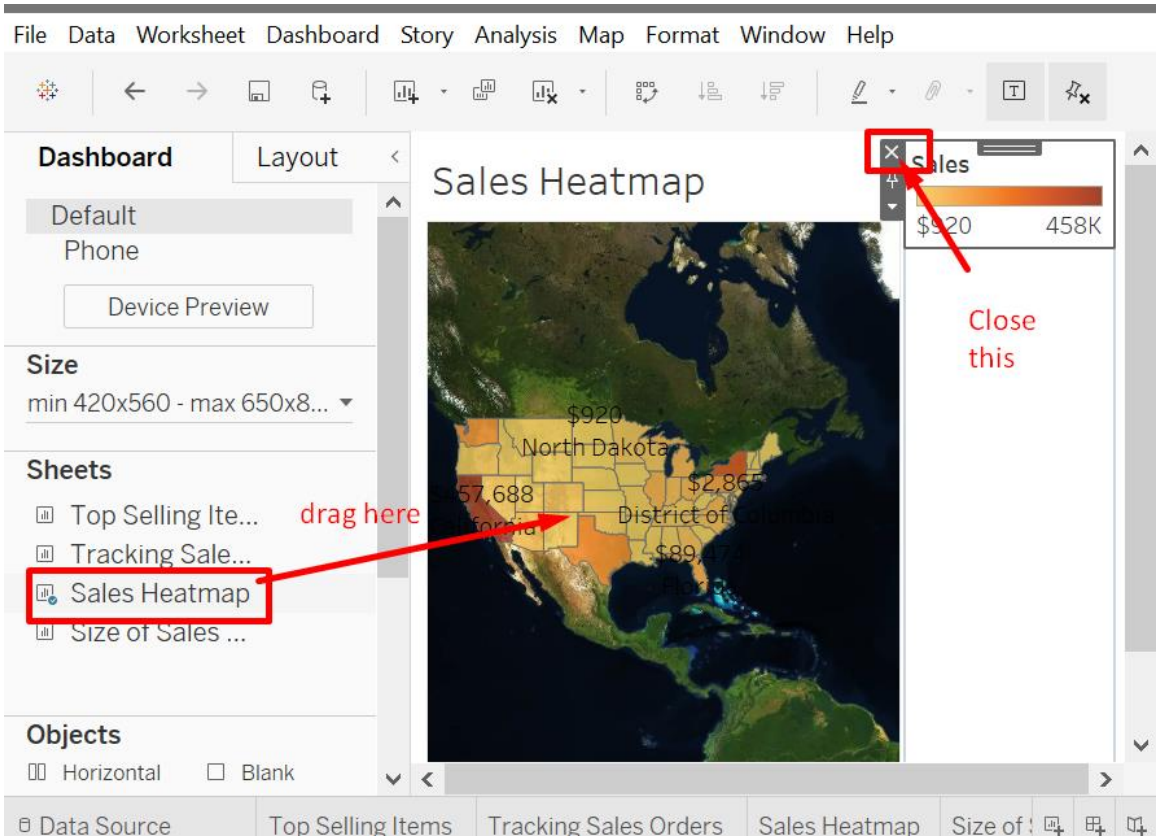
D. DASHBOARDING





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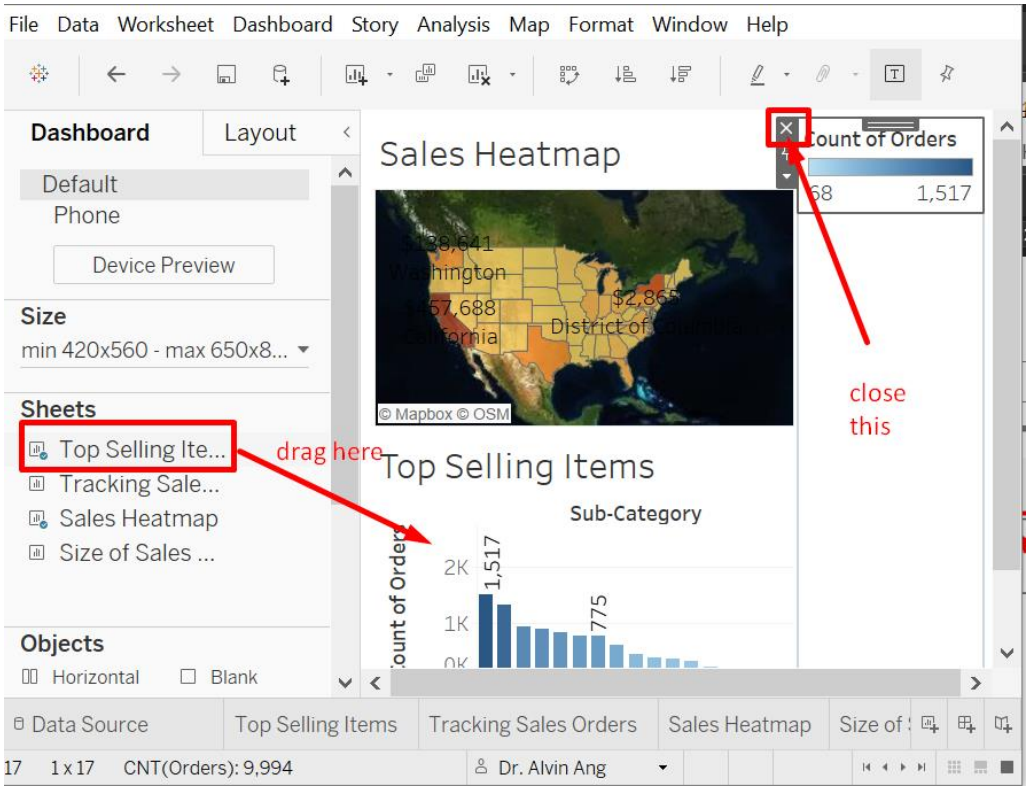

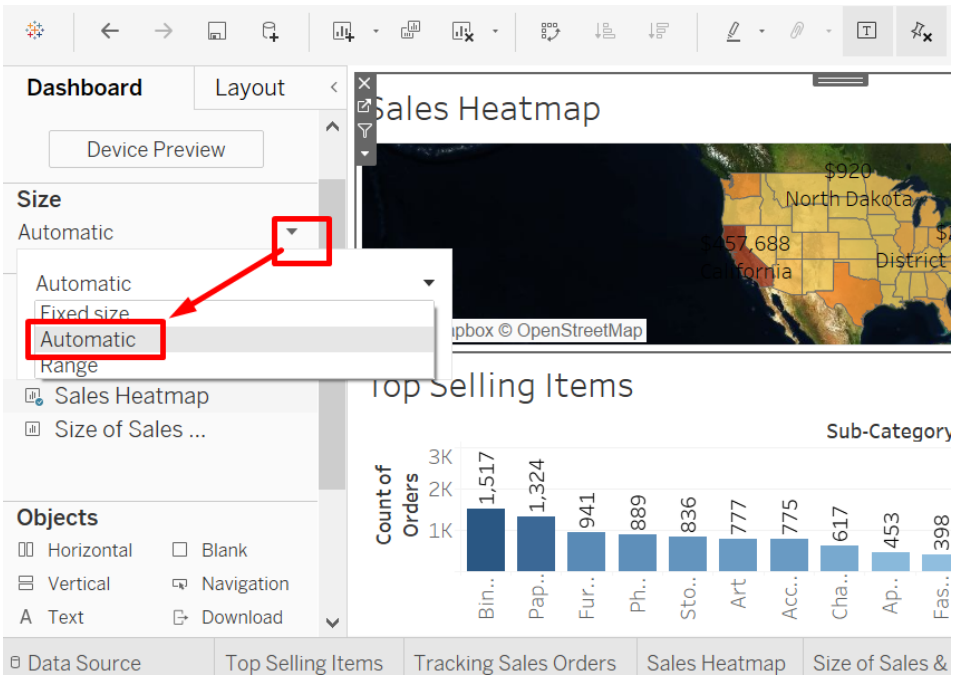

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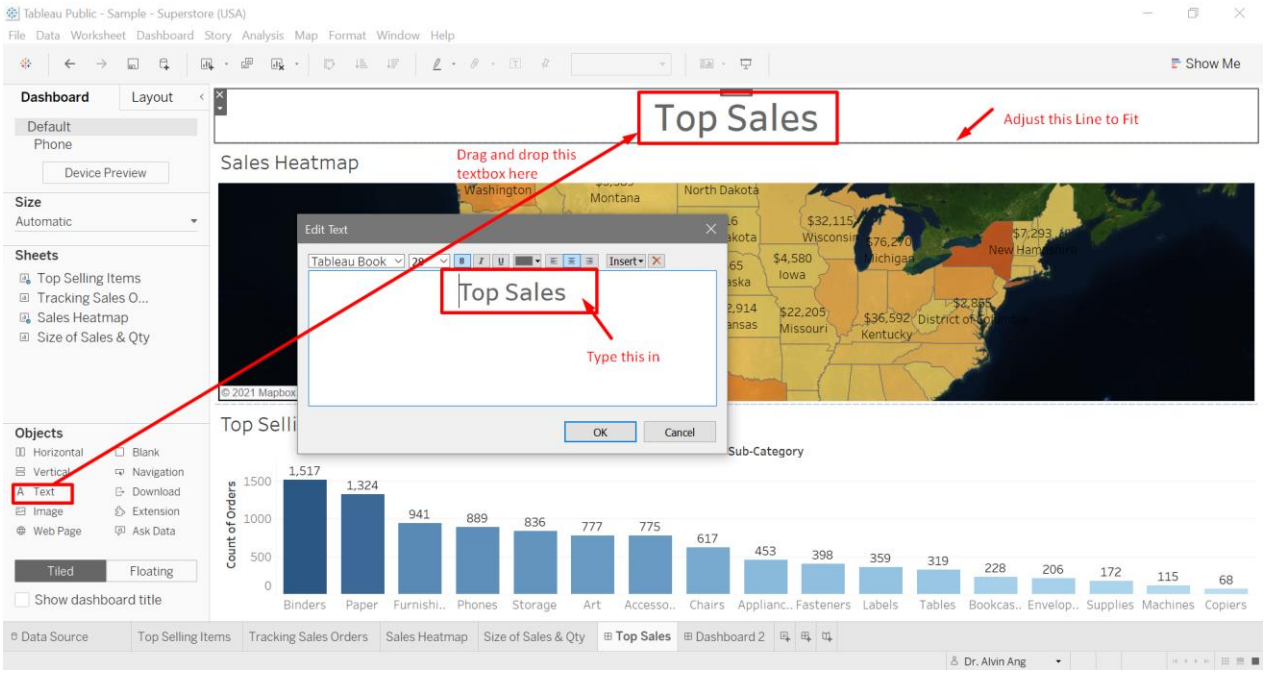

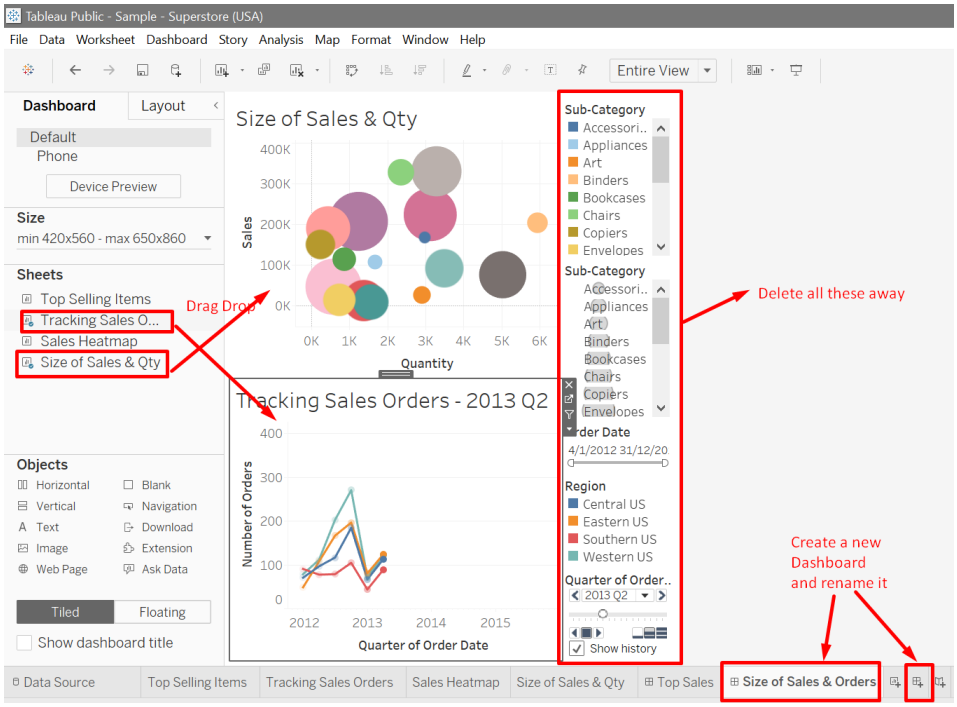

- SAVE YOUR WORK ELSE IS ALL GONE!!!

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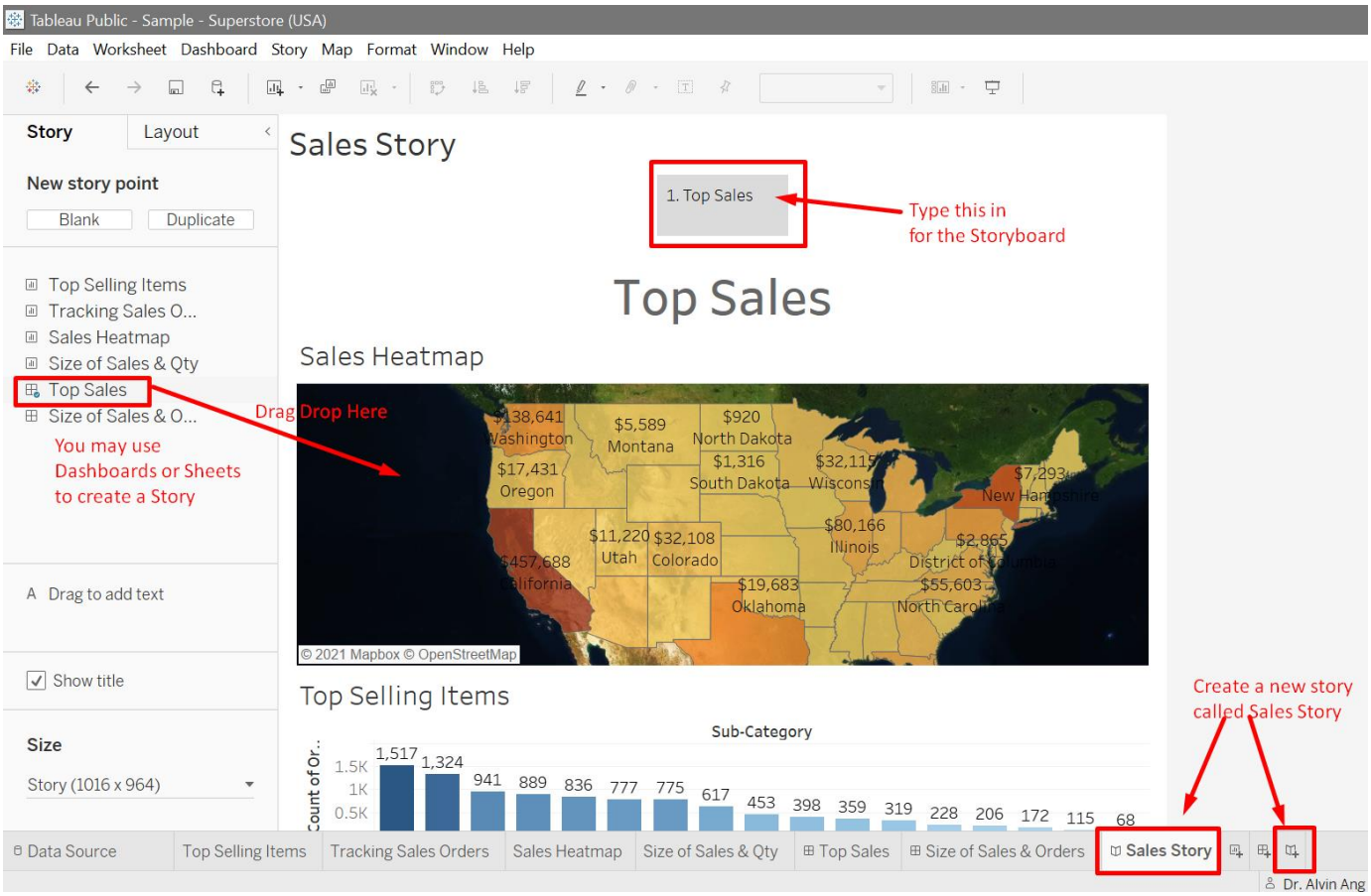
E. STORY TELLING



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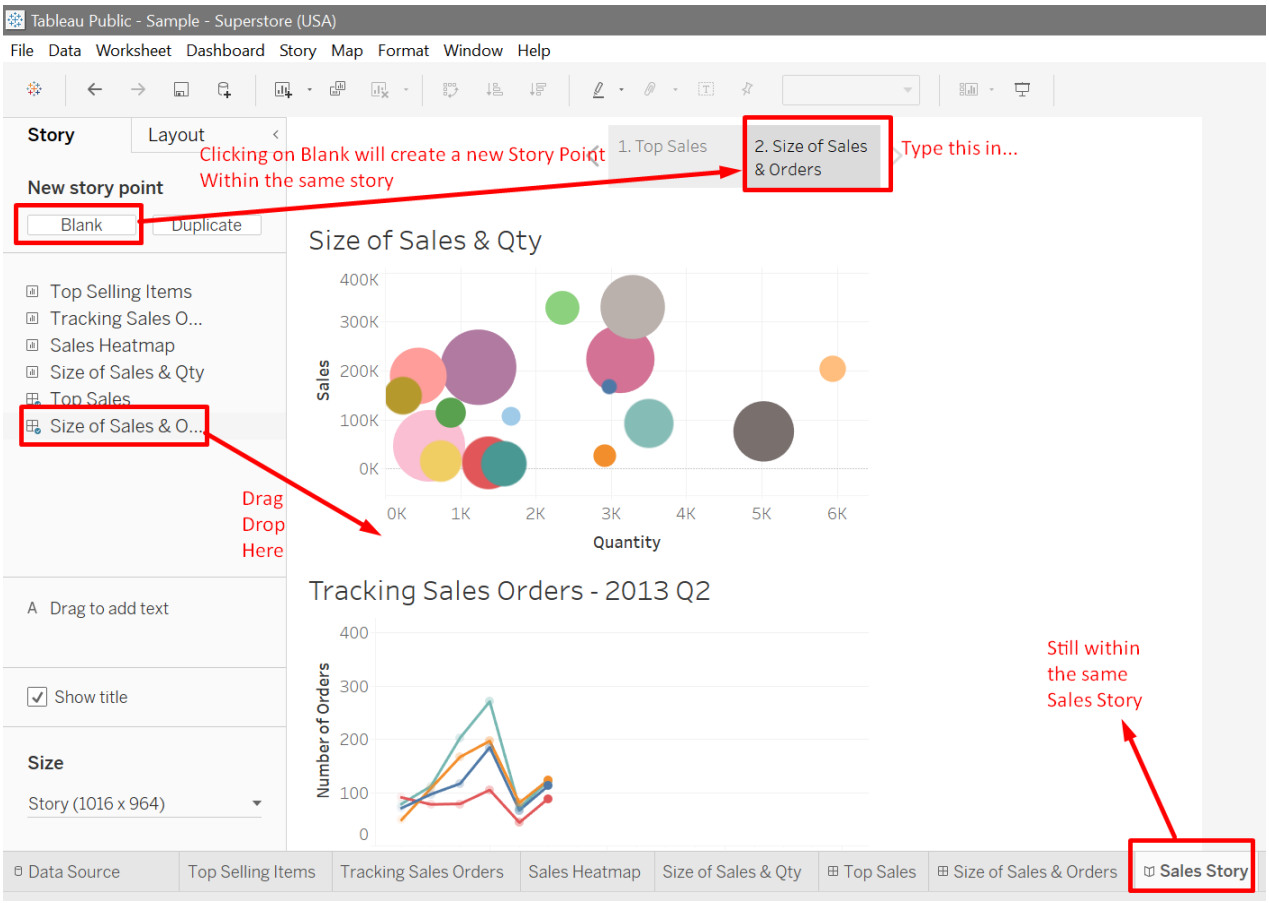

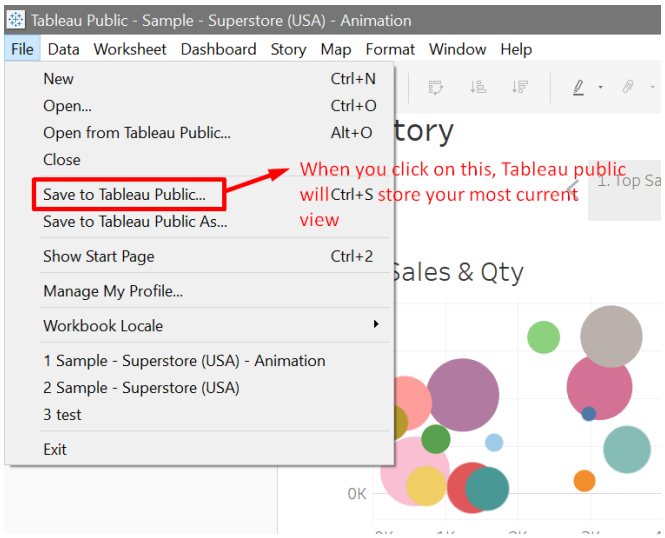

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II. SUMMARY OF PART I

A. STORYBOARD 1

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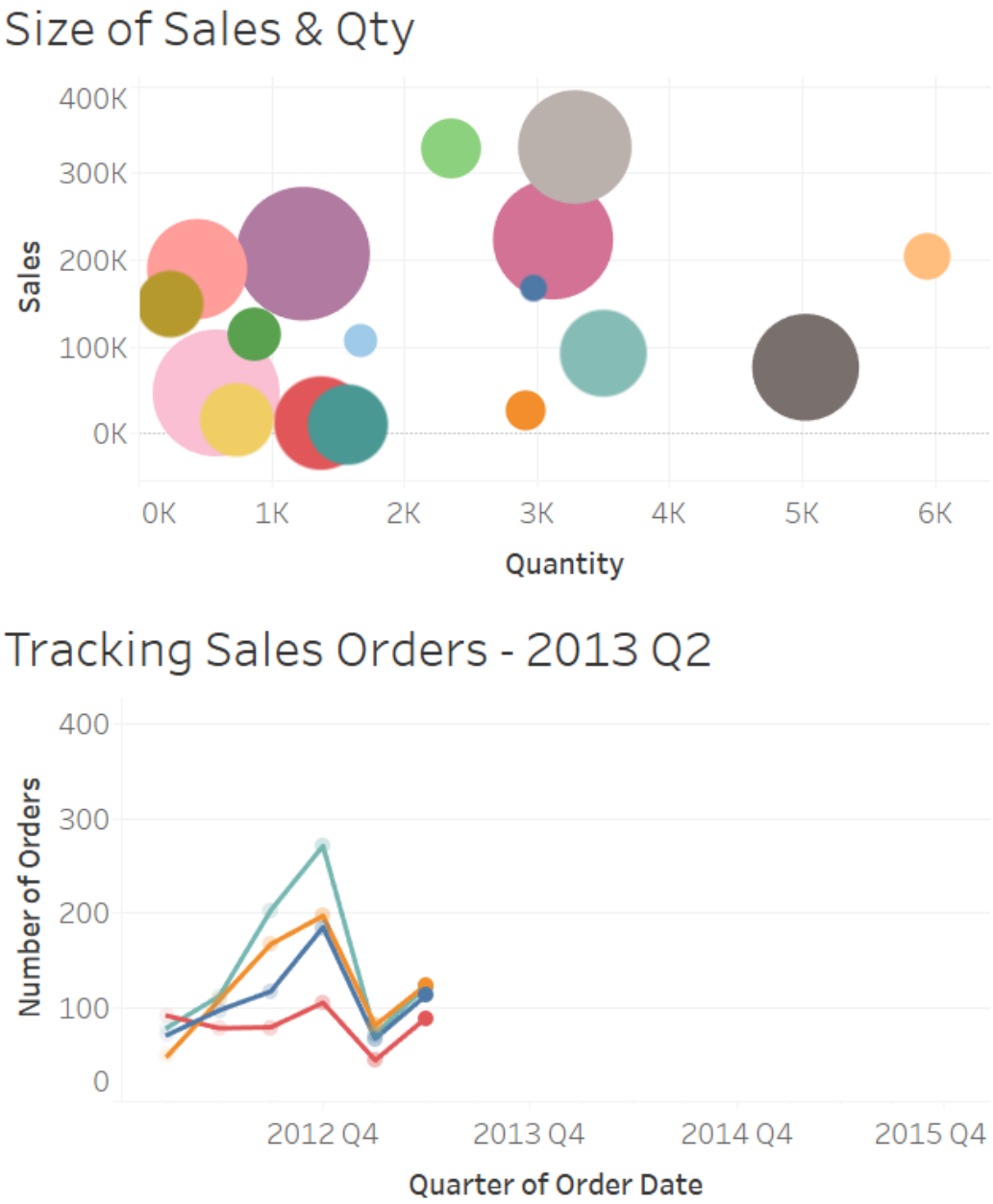
B. STORYBOARD 2



- In this manuscript, we learnt how to use Tableau to visualize Sales Data
- We created 2 storyboards which Tableau will give a link to view them in their cloud.

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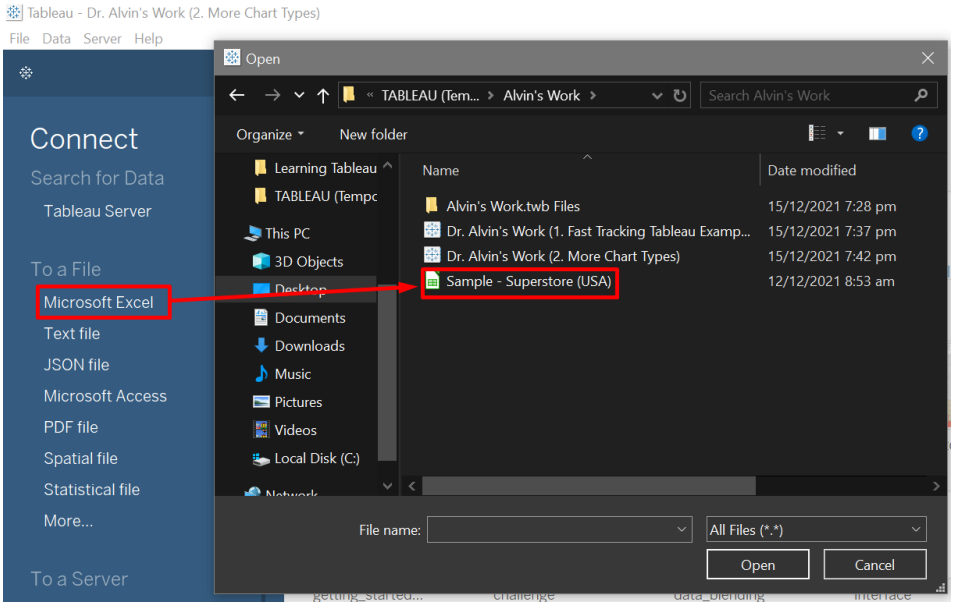
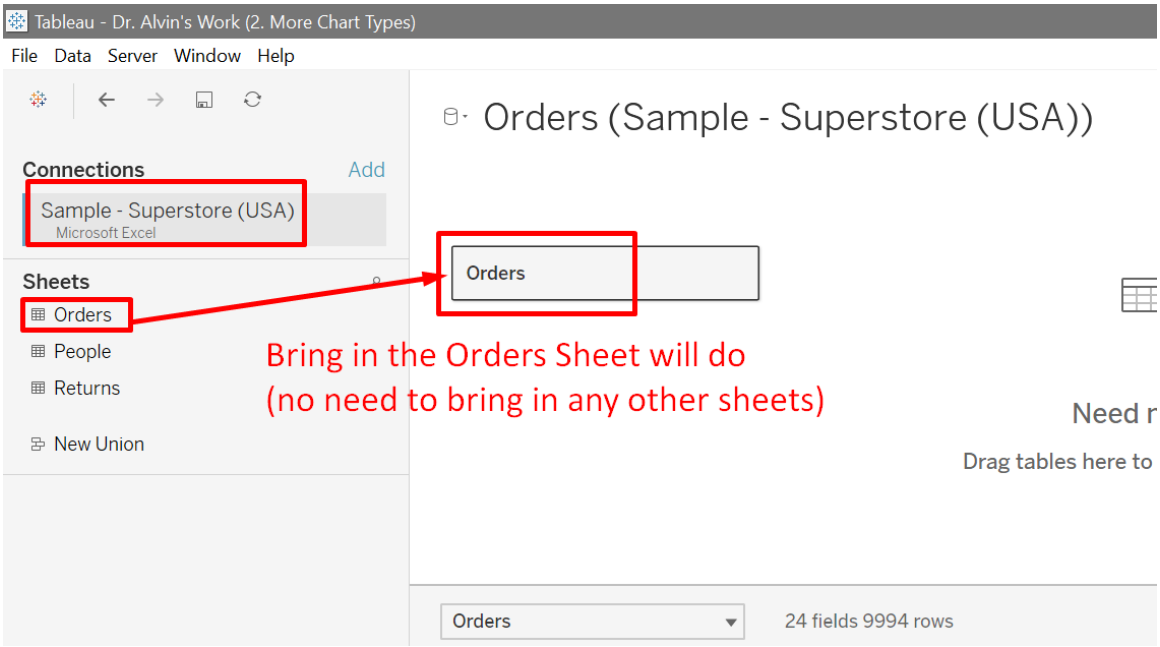
III. MORE CHART TYPES

Data source taken from https://www.alvinang.sg/s/Sample-Superstore-USA.xls

A. CREATE A NEW WORKBOOK IN TABLEAU





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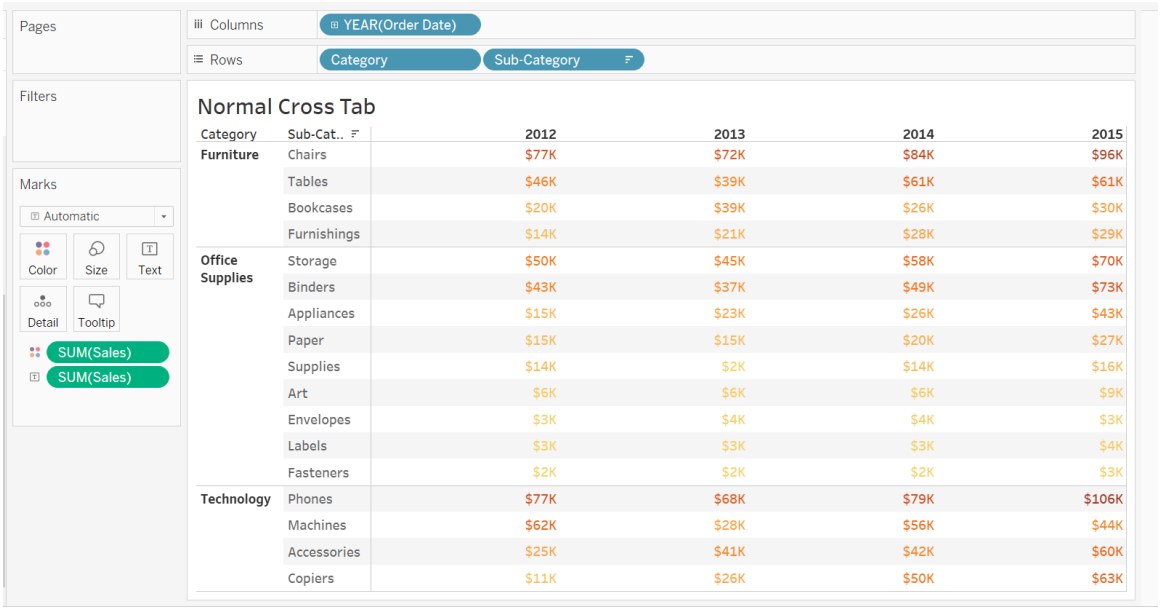
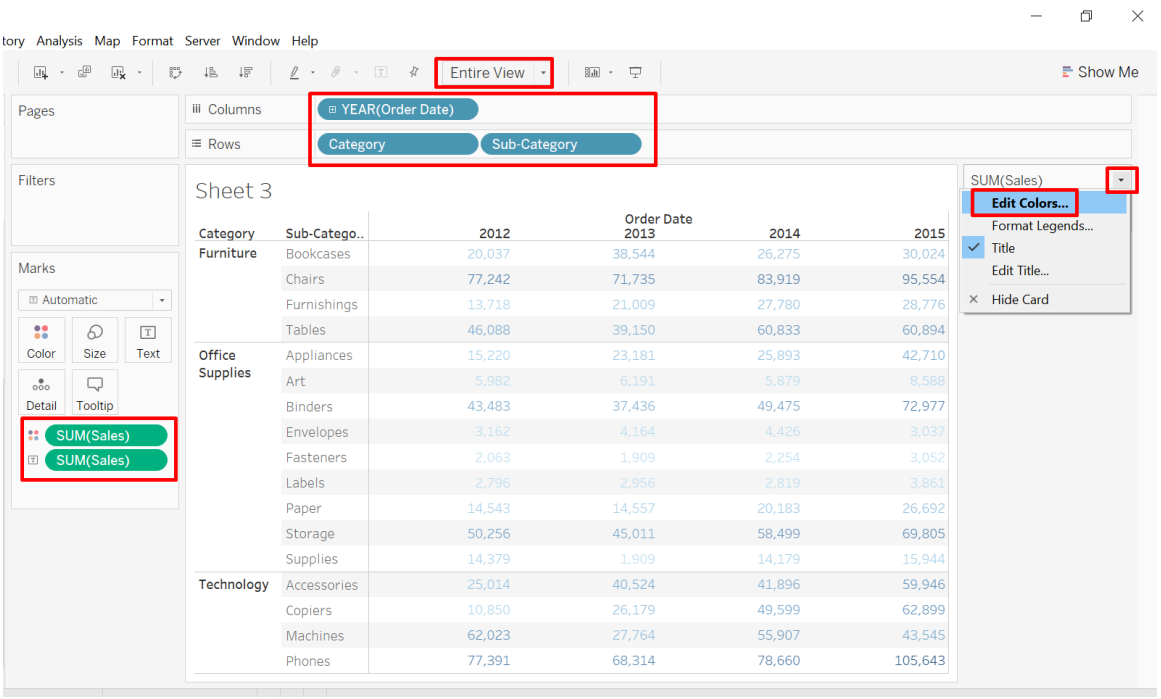
B. NORMAL CROSS TAB

Achieve This:



Category	Sub-Cat..	2012	2013	2014	2015
Furniture	Chairs	$77K	$72K	$84K	$96K
	Tables	$46K	$39K	$61K	$61K
	Bookcases	$20K	$39K	$26K	$30K
	Furnishings	$14K	$21K	$28K	$29K
Office Supplies	Storage	$50K	$45K	$58K	$70K
	Binders	$43K	$37K	$49K	$73K
	Appliances	$15K	$23K	$26K	$43K
	Paper	$15K	$15K	$20K	$27K
	Supplies	$14K	$2K	$14K	$16K
	Art	$6K	$6K	$6K	$9K
	Envelopes	$3K	$4K	$4K	$3K
	Labels	$3K	$3K	$3K	$4K
	Fasteners	$2K	$2K	$2K	$3K
Technology	Phones	$77K	$68K	$79K	$106K
	Machines	$62K	$28K	$56K	$44K
	Accessories	$25K	$41K	$42K	$60K
	Copiers	$11K	$26K	$50K	$63K



Category	Sub-Catego..	Order Date 2012	2013	2014	2015
Furniture	Bookcases	20,037	38,544	26,275	30,024
	Chairs	77,242	71,735	83,919	95,554
	Furnishings	13,718	21,009	27,780	28,776
	Tables	46,088	39,150	60,833	60,894
Office Supplies	Appliances	15,220	23,181	25,893	42,710
	Art	5,982	6,191	5,879	8,588
	Binders	43,483	37,436	49,475	72,977
	Envelopes	3,162	4,164	4,426	3,037
	Fasteners	2,063	1,909	2,254	3,052
	Labels	2,796	2,956	2,819	3,861
	Paper	14,543	14,557	20,183	26,692
	Storage	50,256	45,011	58,499	69,805
	Supplies	14,379	1,909	14,179	15,944
Technology	Accessories	25,014	40,524	41,896	59,946
	Copiers	10,850	26,179	49,599	62,899
	Machines	62,023	27,764	55,907	43,545
	Phones	77,391	68,314	78,660	105,643

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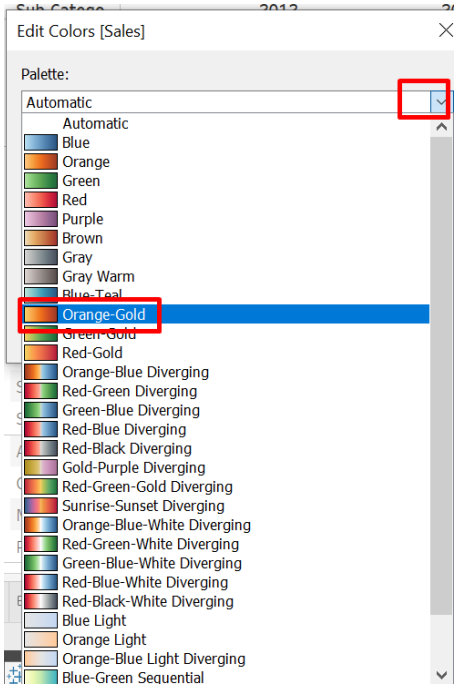

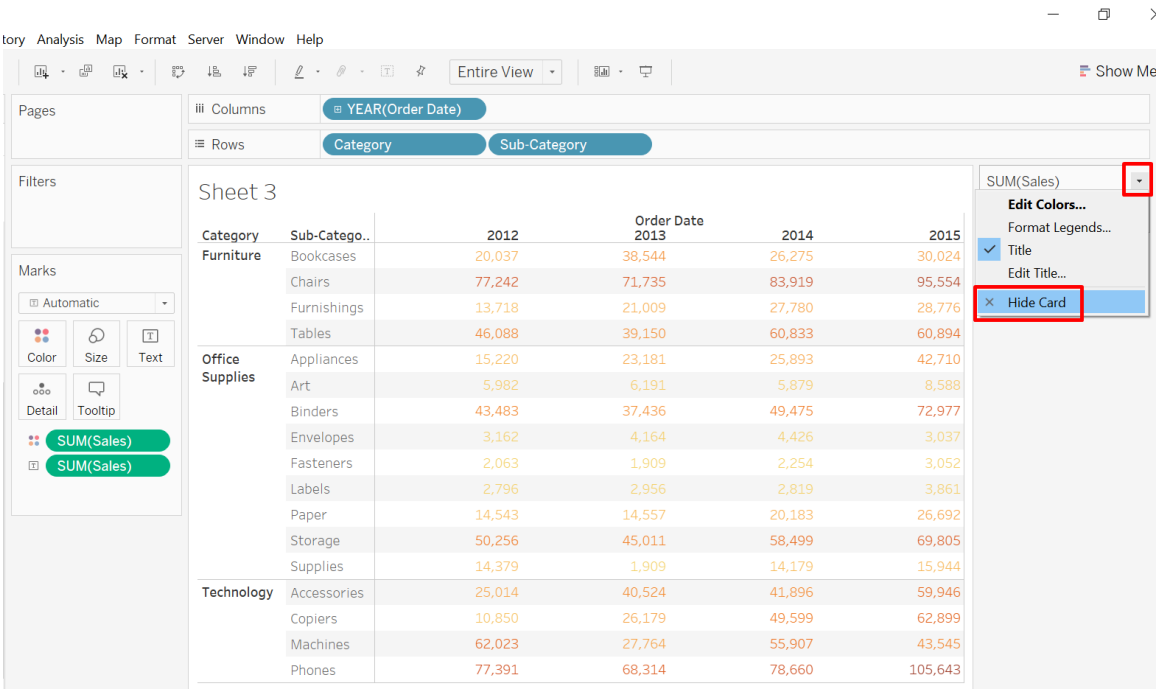

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Office Supplies	Appliances	15,220	23,181	25,893	42,710
	Art	5,982	6,191	5,879	8,588
	Binders	43,483	37,436	49,475	72,977
	Envelopes	3,162	4,164	4,426	3,037
	Fasteners	2,063	1,909	2,254	3,052
	Labels	2,796	2,956	2,819	3,861
	Paper	14,543	14,557	20,183	26,692
	Storage	50,256	45,011	58,499	69,805
	Supplies	14,379	1,909	14,179	15,944
Technology	Accessories	25,014	40,524	41,896	59,946
	Copiers	10,850	26,179	49,599	62,899
	Machines	62,023	27,764	55,907	43,545
	Phones	77,391	68,314	78,660	105,643

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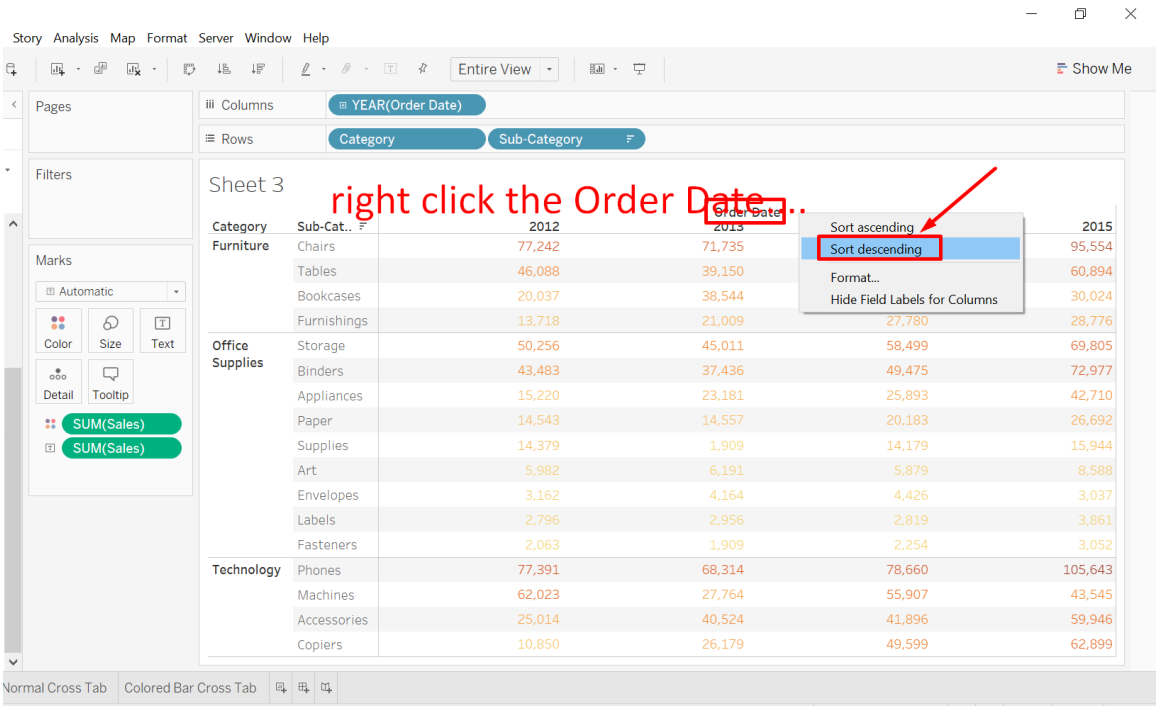
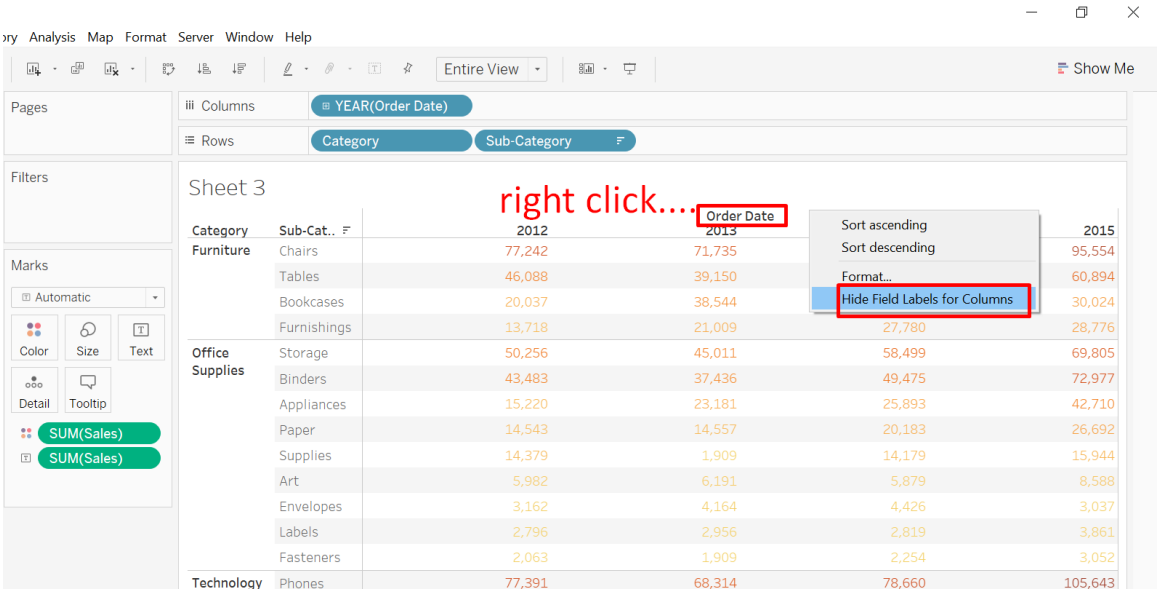


Category	Sub-Cat..	2012	2013	2014	2015
Furniture	Chairs	77,242	71,735		95,554
	Tables	46,088	39,150		60,894
	Bookcases	20,037	38,544		30,024
	Furnishings	13,718	21,009	27,780	28,776
Office Supplies	Storage	50,256	45,011	58,499	69,805
	Binders	43,483	37,436	49,475	72,977
	Appliances	15,220	23,181	25,893	42,710
	Paper	14,543	14,557	20,183	26,692
	Supplies	14,379	1,909	14,179	15,944
	Art	5,982	6,191	5,879	8,588
	Envelopes	3,162	4,164	4,426	3,037
	Labels	2,796	2,956	2,819	3,861
	Fasteners	2,063	1,909	2,254	3,052
Technology	Phones	77,391	68,314	78,660	105,643
	Machines	62,023	27,764	55,907	43,545
	Accessories	25,014	40,524	41,896	59,946
	Copiers	10,850	26,179	49,599	62,899



Category	Sub-Cat..	2012	2013	2014	2015
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	Tables	46,088	39,150		60,894
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	Binders	43,483	37,436	49,475	72,977
	Appliances	15,220	23,181	25,893	42,710
	Paper	14,543	14,557	20,183	26,692
	Supplies	14,379	1,909	14,179	15,944
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	Envelopes	3,162	4,164	4,426	3,037
	Labels	2,796	2,956	2,819	3,861
	Fasteners	2,063	1,909	2,254	3,052
Technology	Phones	77,391	68,314	78,660	105,643

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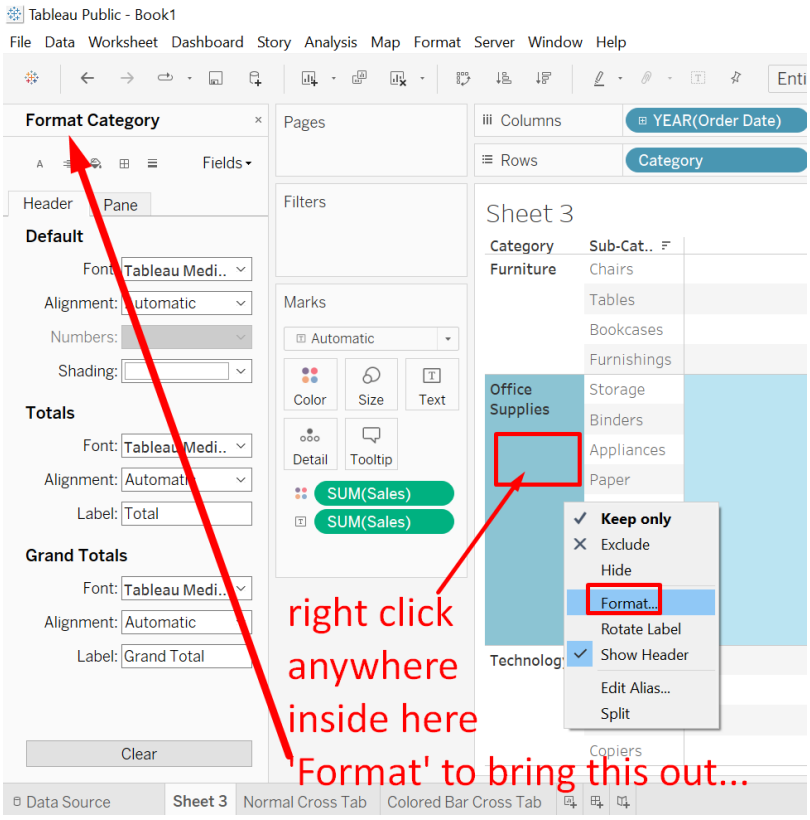

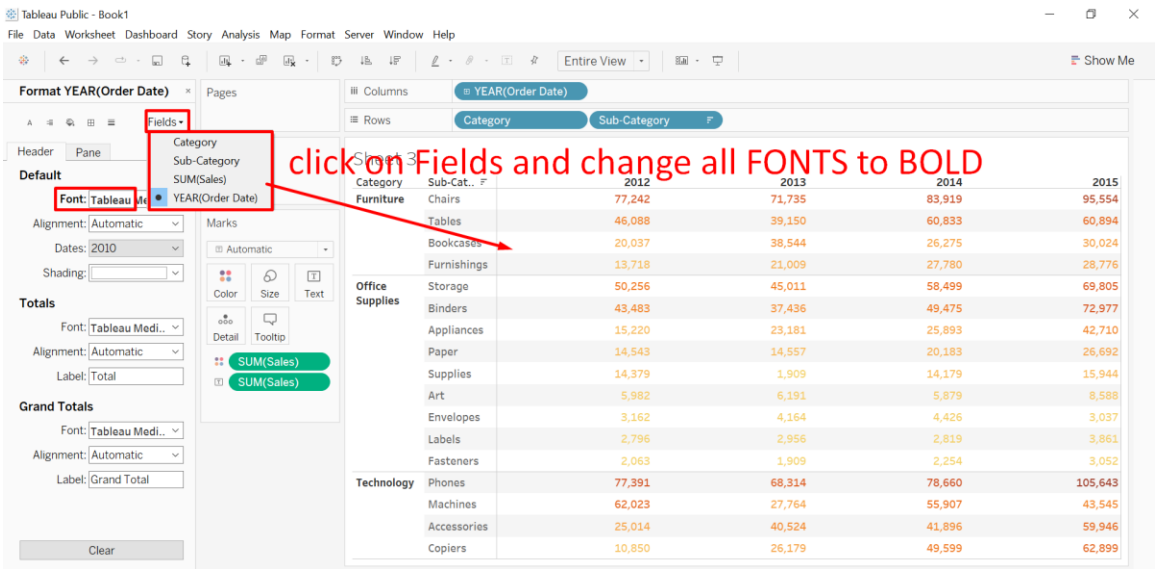

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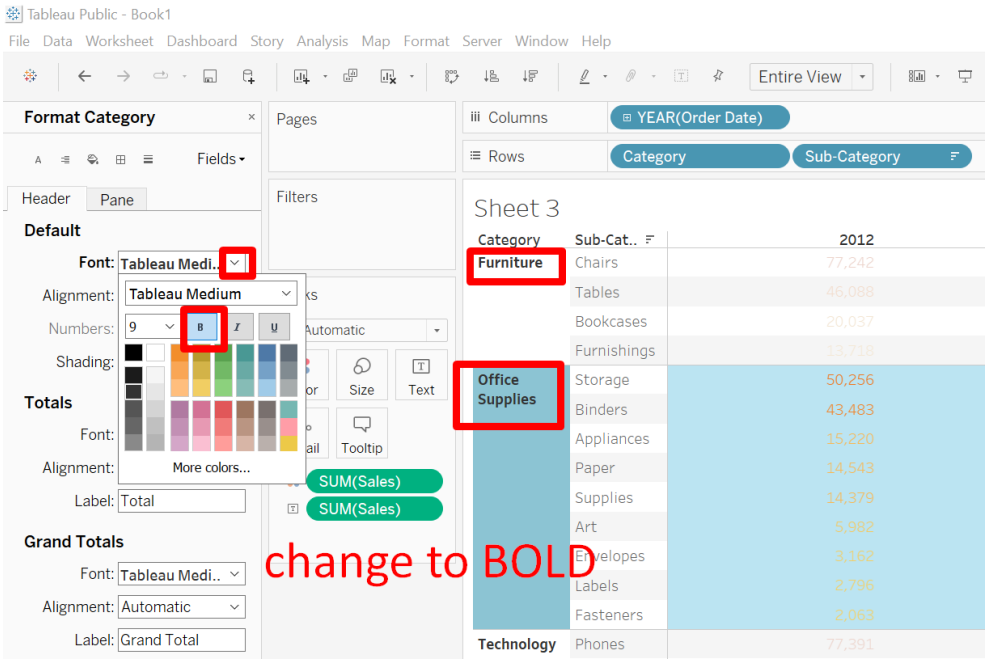

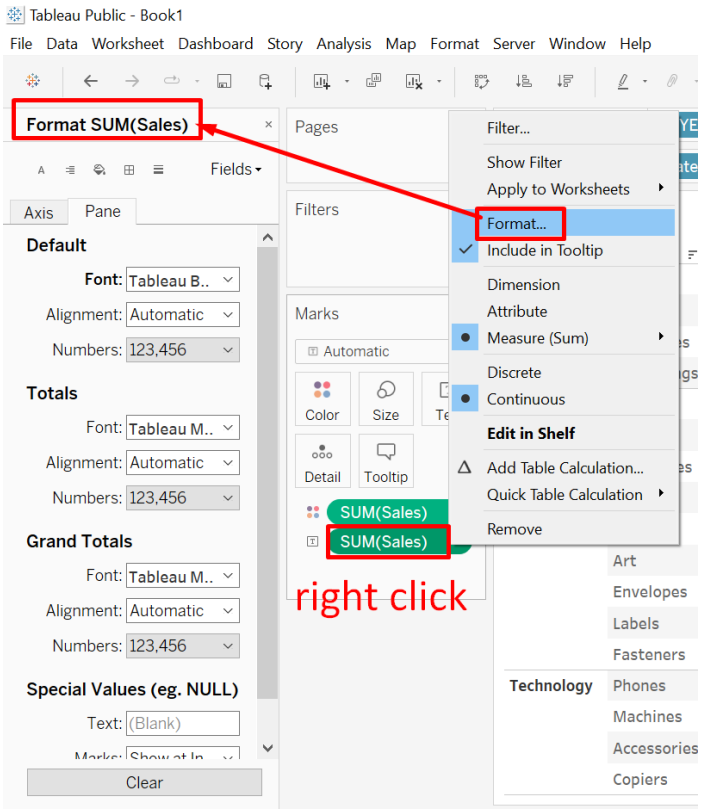

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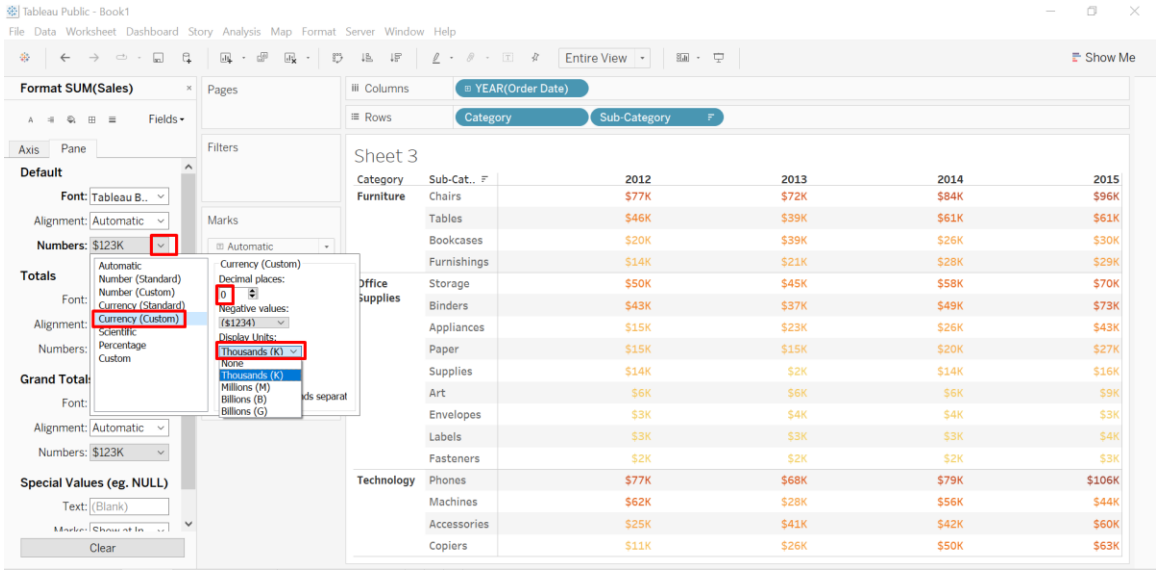

1. BAR CROSS TAB

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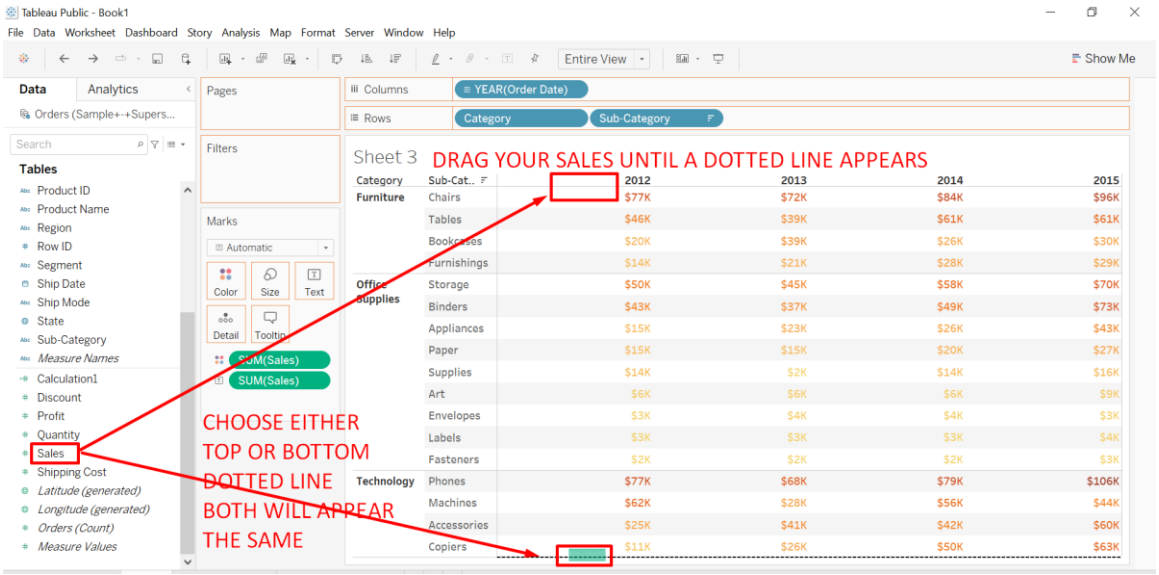

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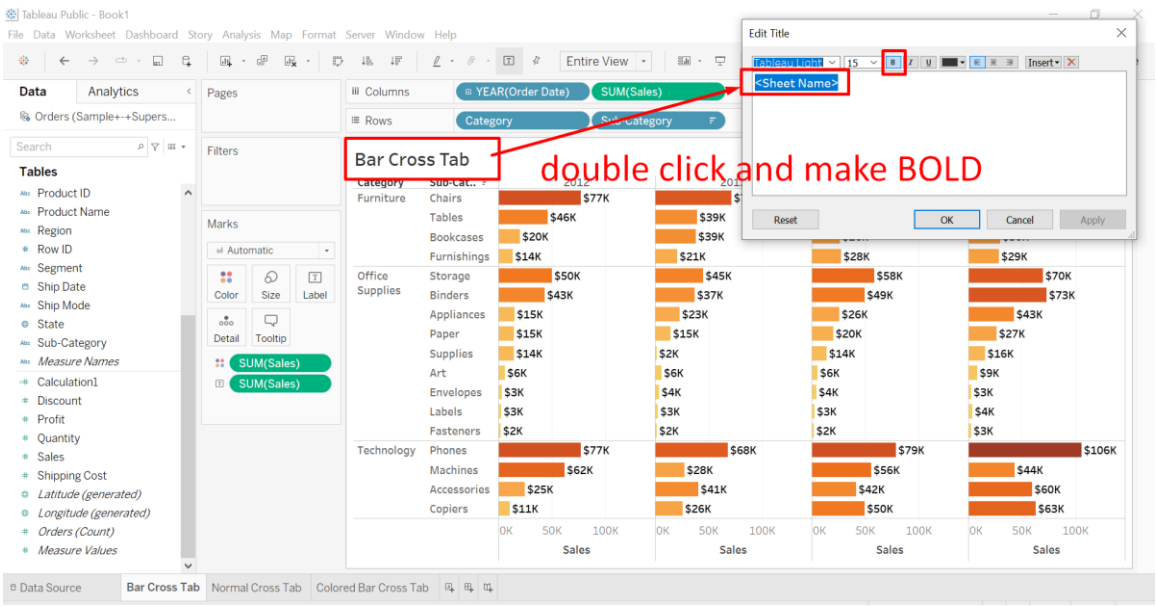

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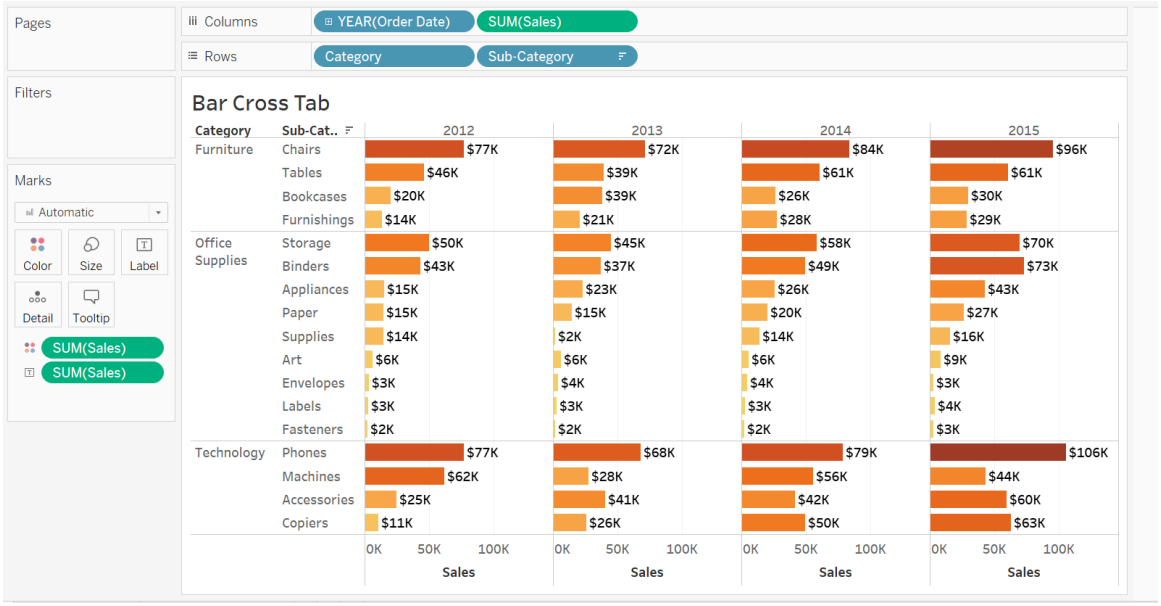

Category	Sub-Cat..	2012	2013	2014	2015
Furniture	Chairs	$77K	$72K	$84K	$96K
	Tables	$46K	$39K	$61K	$61K
	Bookcases	$20K	$39K	$26K	$30K
	Furnishings	$14K	$21K	$28K	$29K
Office Supplies	Storage	$50K	$45K	$58K	$70K
	Binders	$43K	$37K	$49K	$73K
	Appliances	$15K	$23K	$26K	$43K
	Paper	$15K	$15K	$20K	$27K
	Supplies	$14K	$2K	$14K	$16K
	Art	$6K	$6K	$6K	$9K
	Envelopes	$3K	$4K	$4K	$3K
	Labels	$3K	$3K	$3K	$4K
	Fasteners	$2K	$2K	$2K	$3K
Technology	Phones	$77K	$68K	$79K	$106K
	Machines	$62K	$28K	$56K	$44K
	Accessories	$25K	$41K	$42K	$60K
	Copiers	$11K	$26K	$50K	$63K

0K 50K 100K Sales

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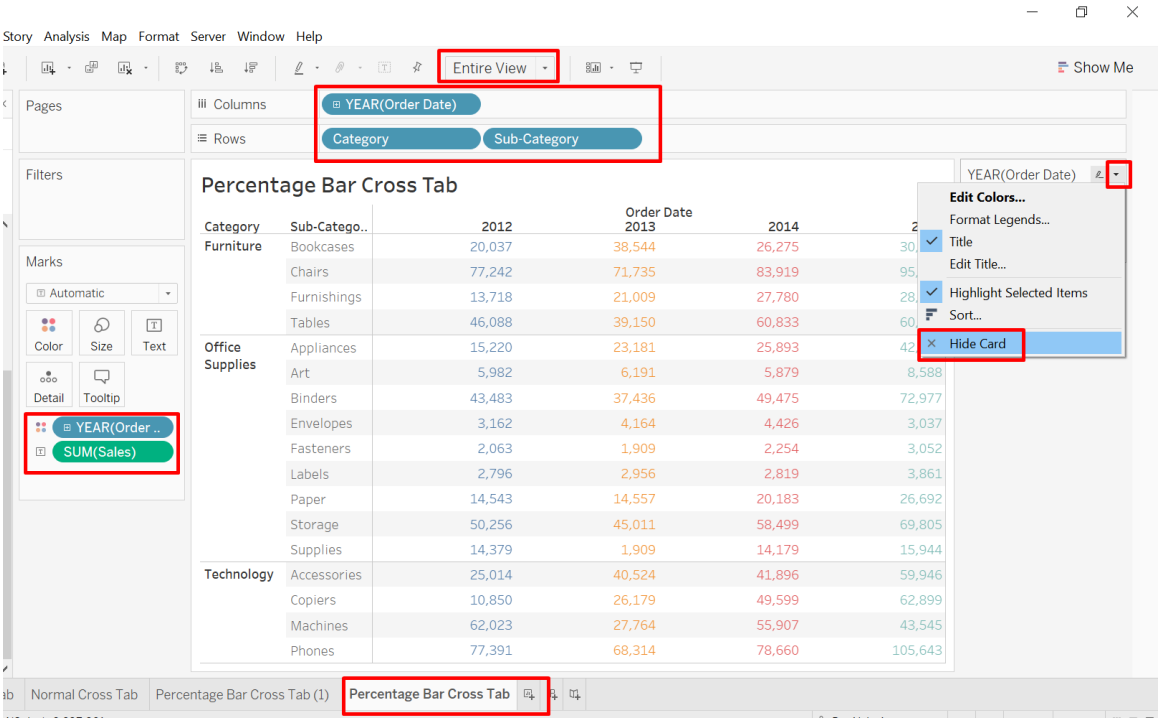
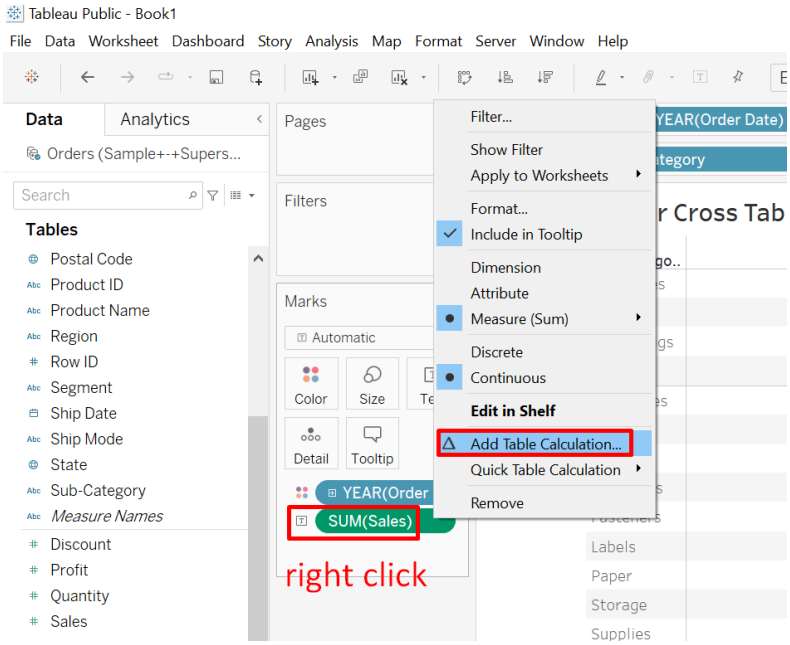
2. PERCENTAGE BAR CROSS TAB

Restart Afresh….





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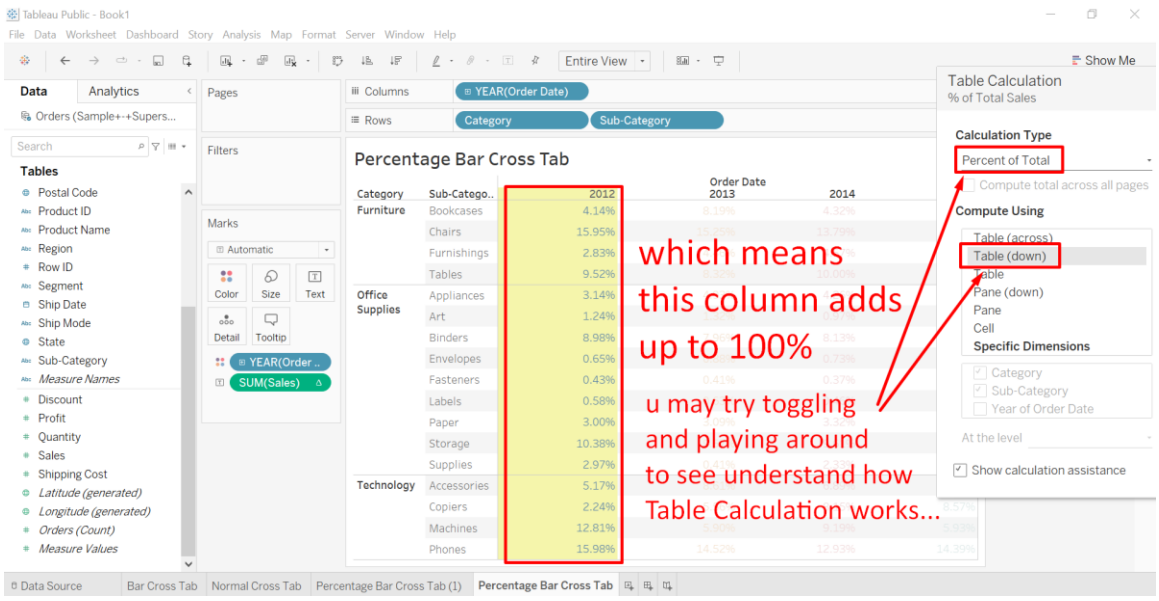

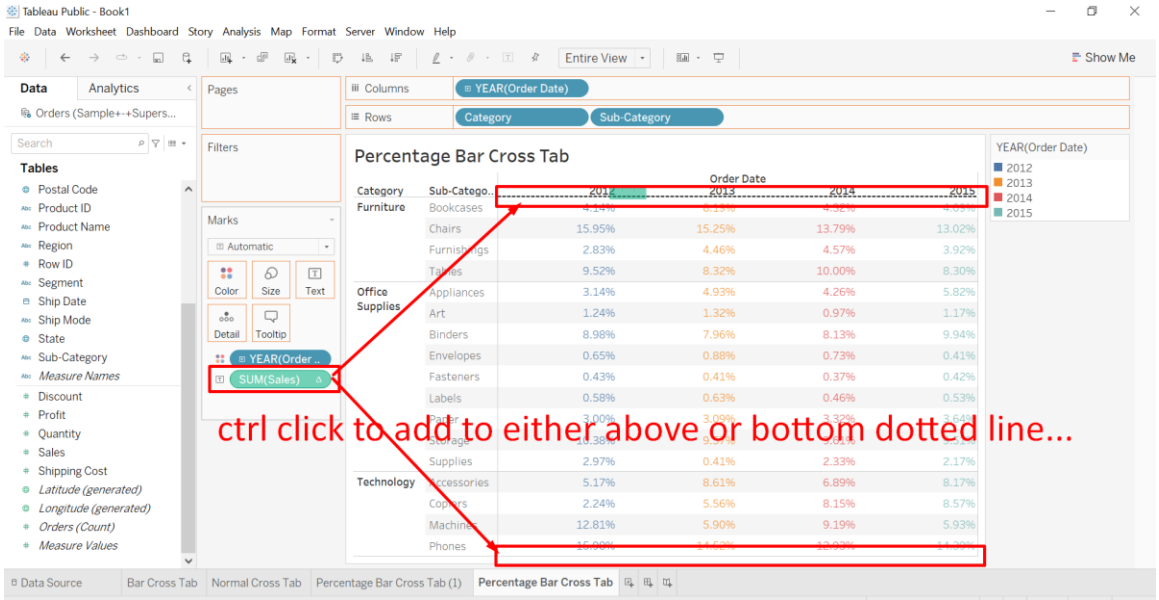

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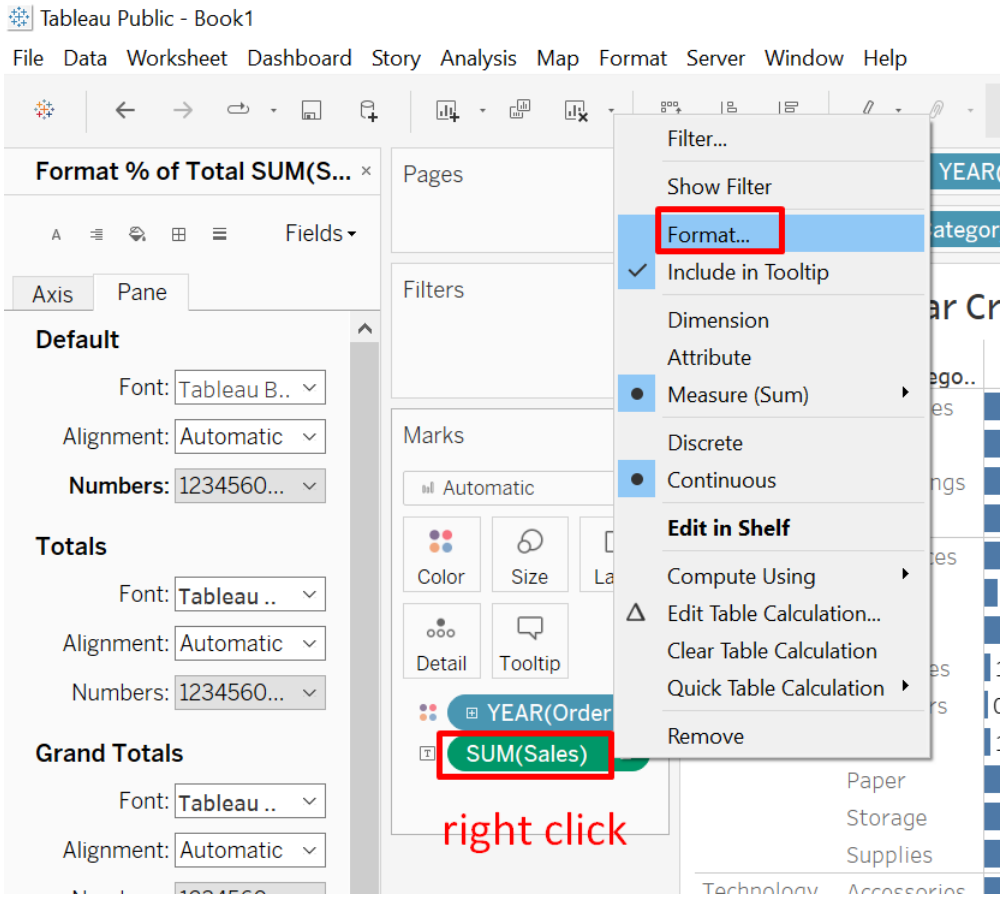

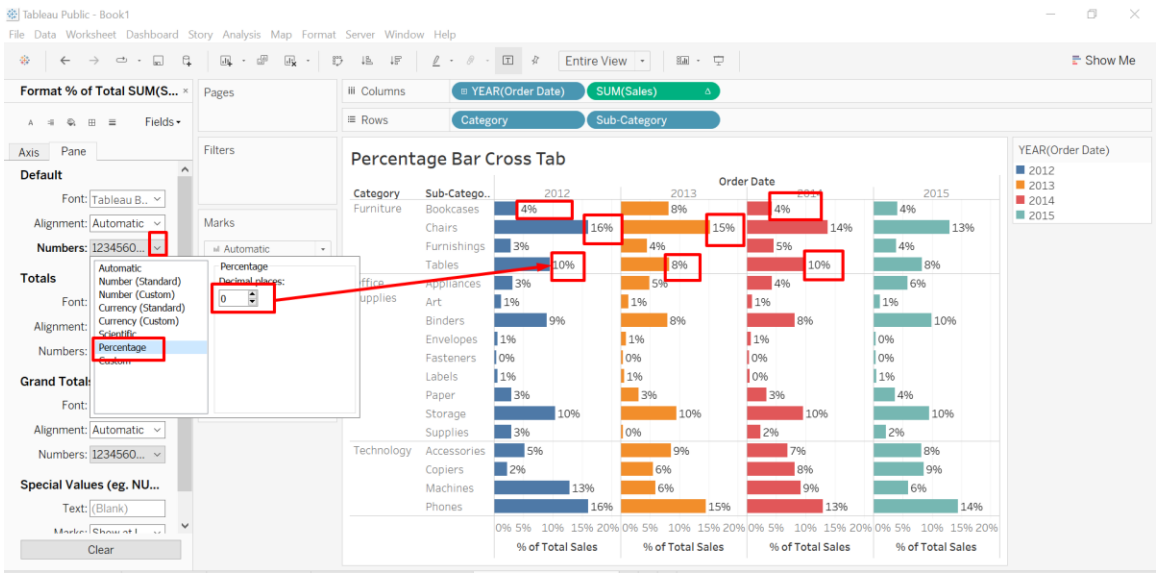

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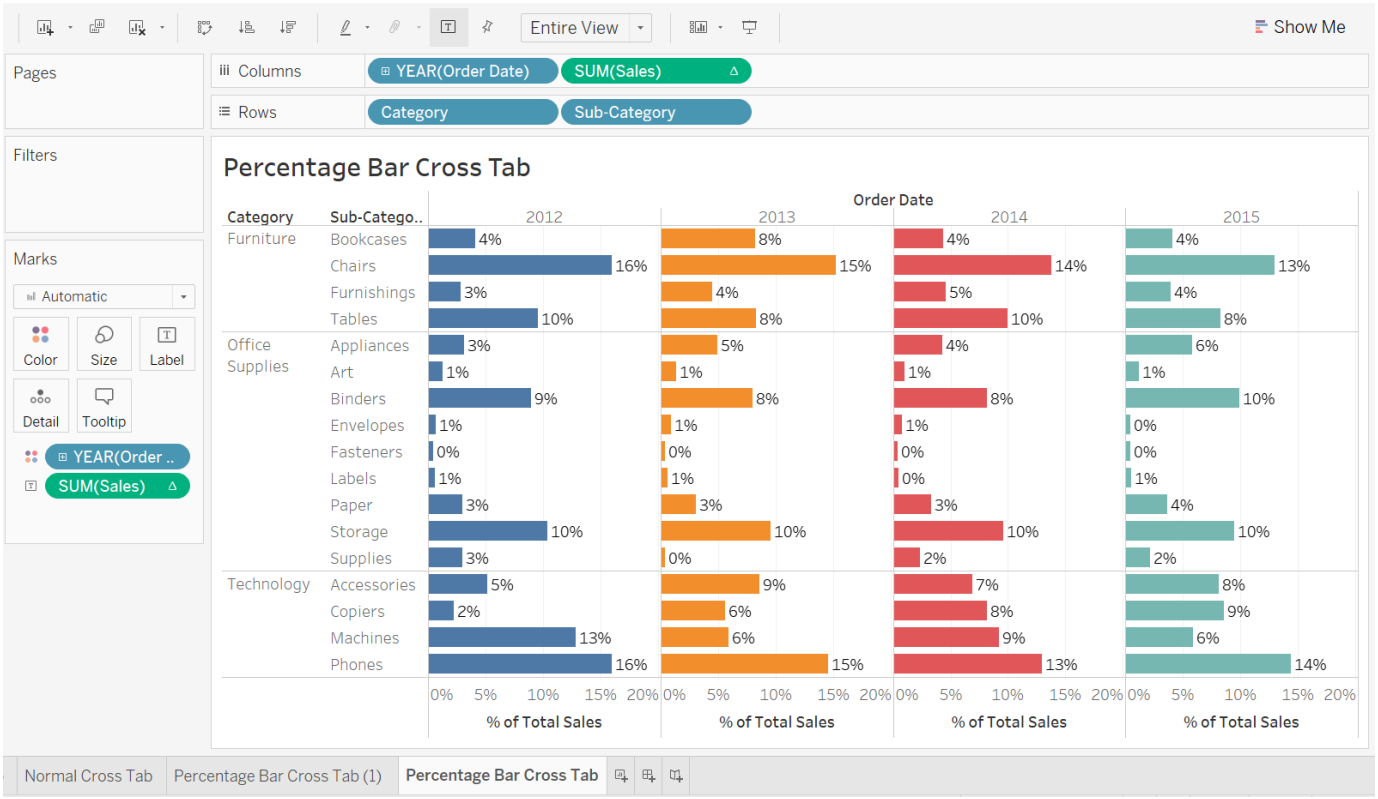

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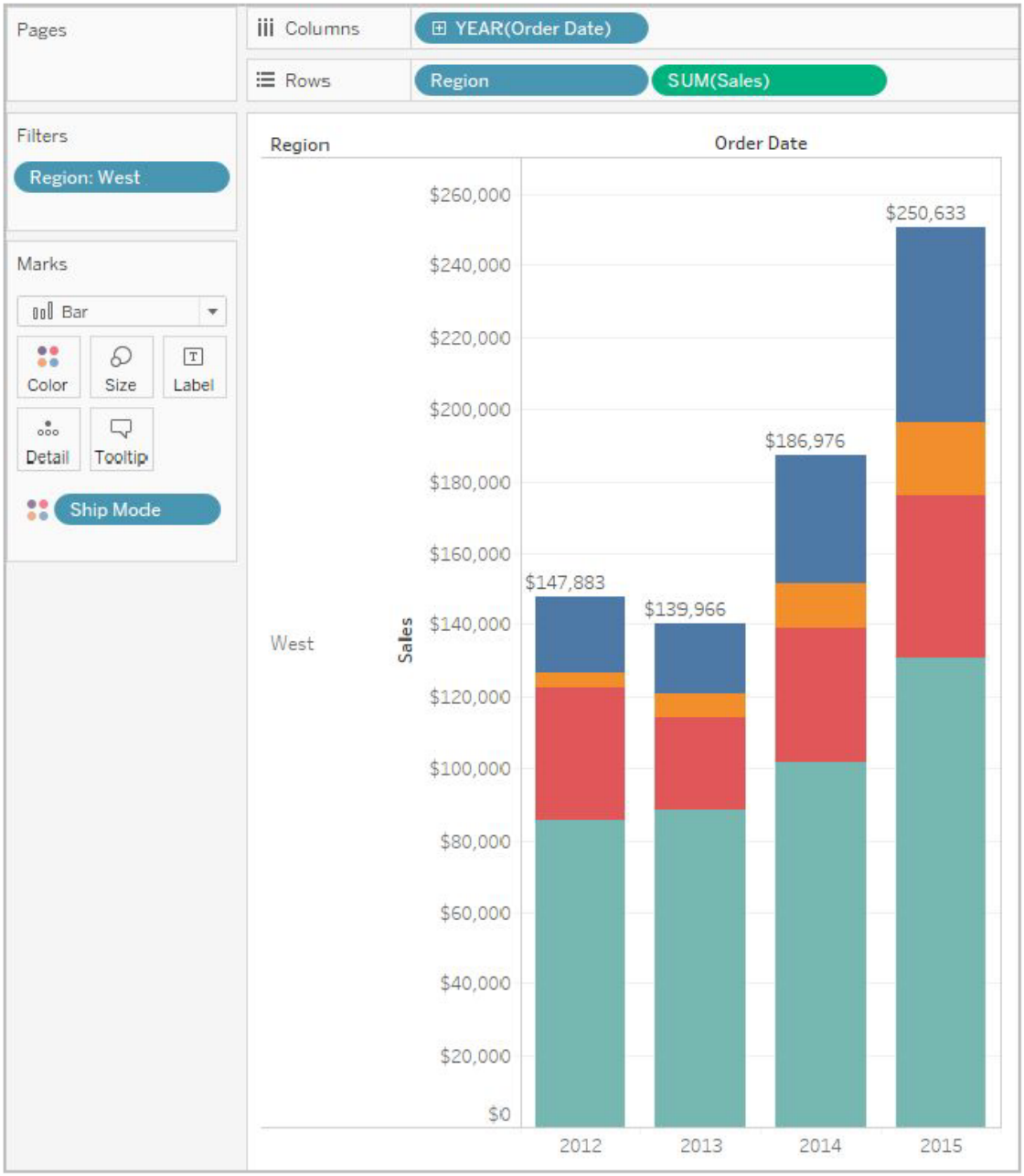
C. BAR CHART

We shall achieve this:



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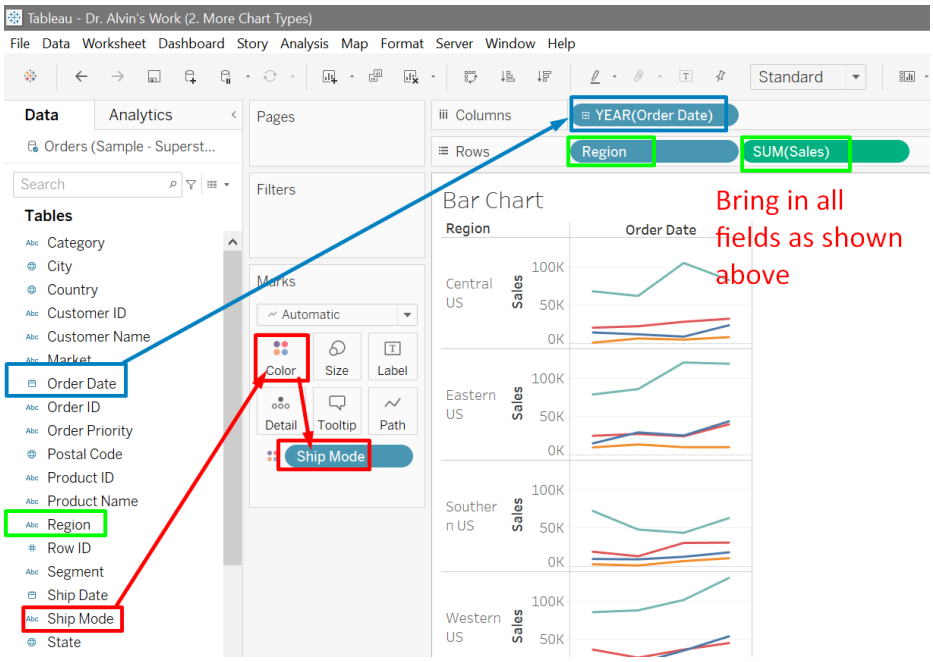

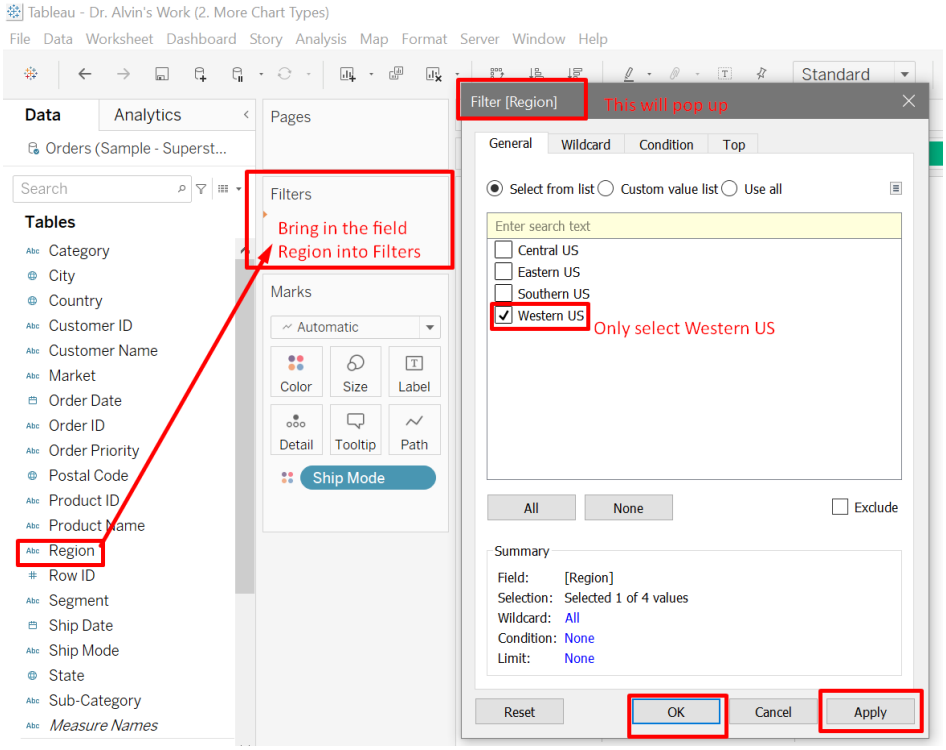

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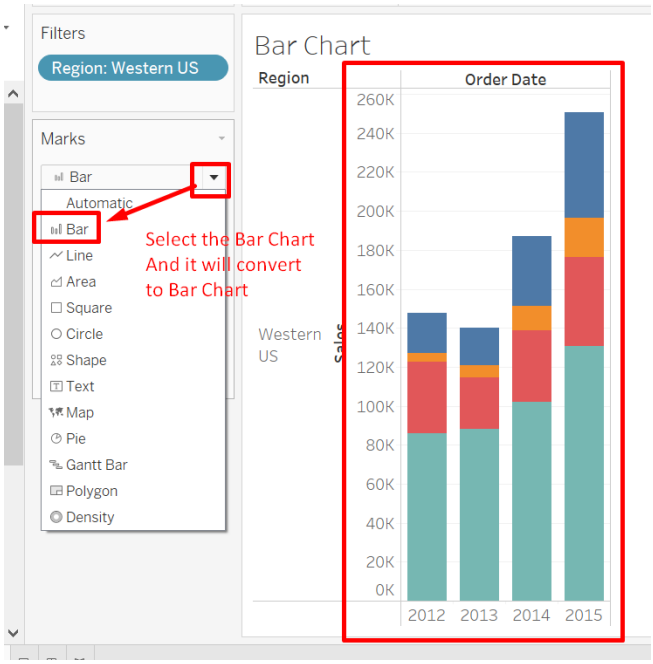

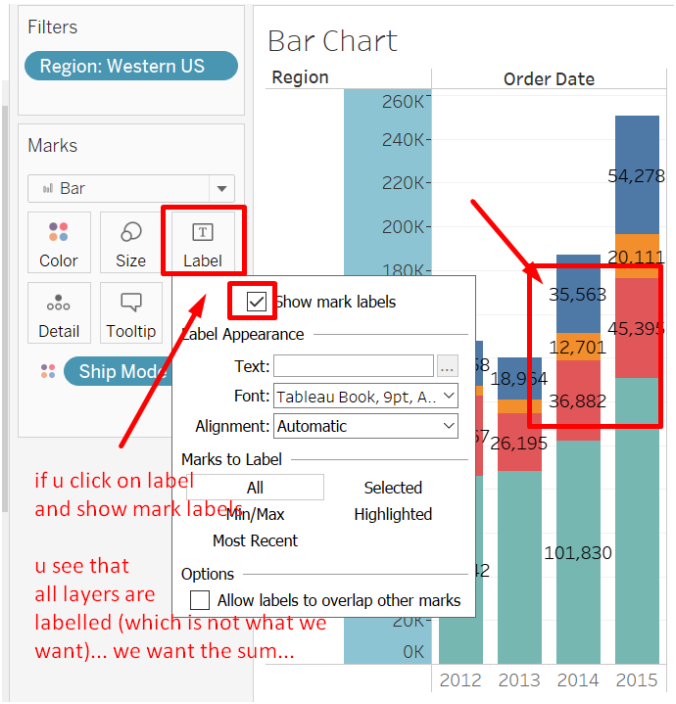

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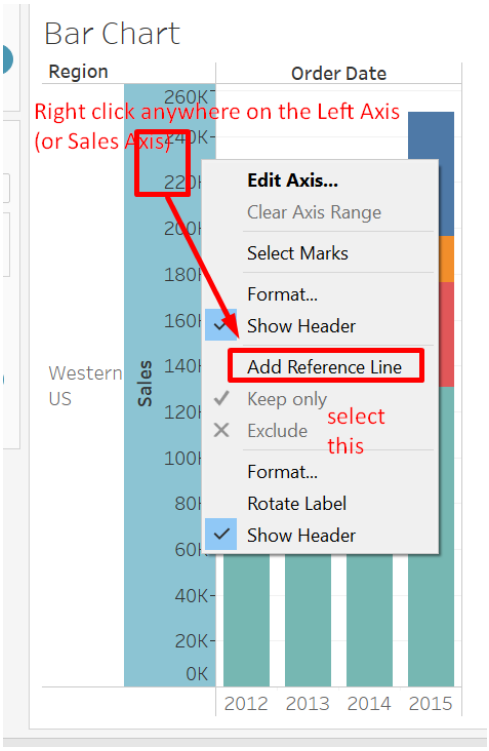

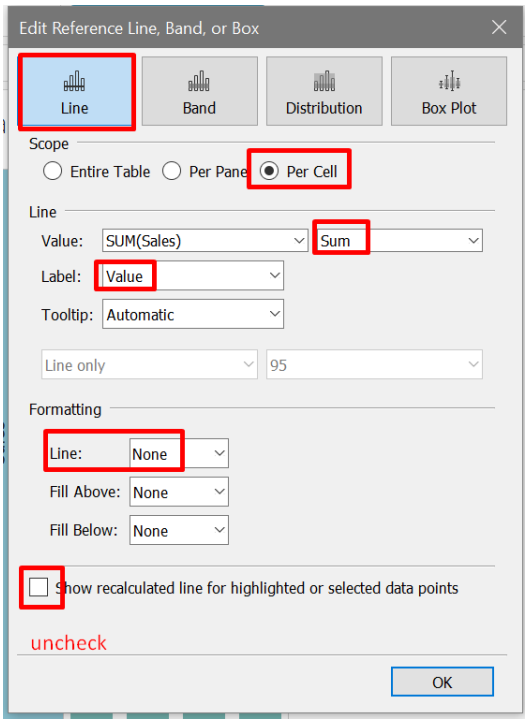

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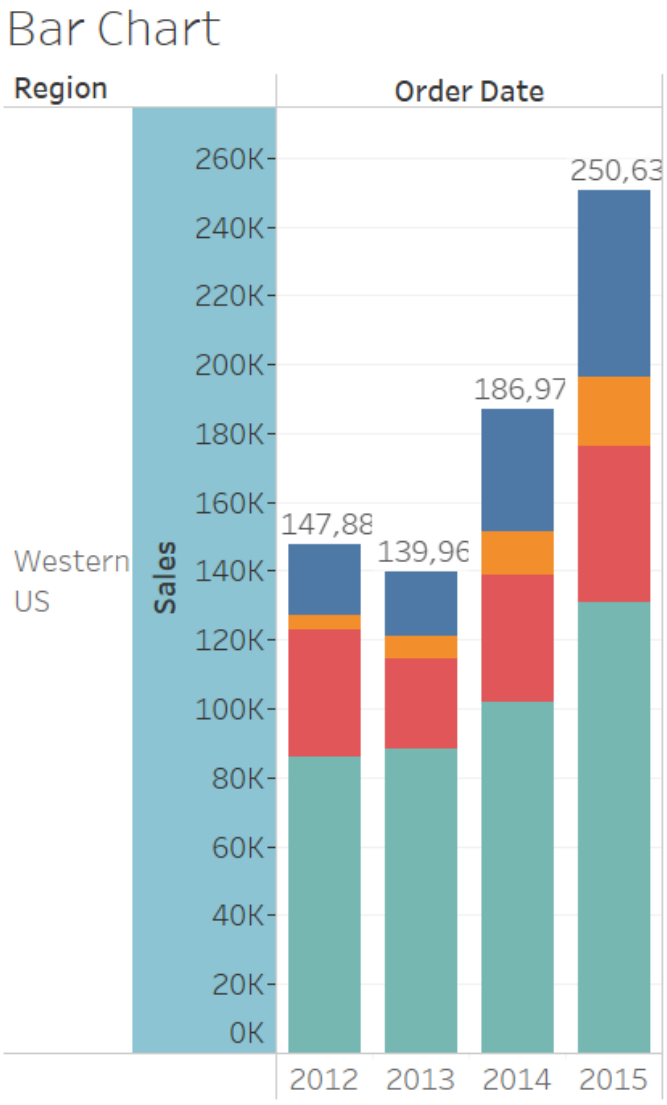
Our bar chart is done.



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D. BOX PLOT

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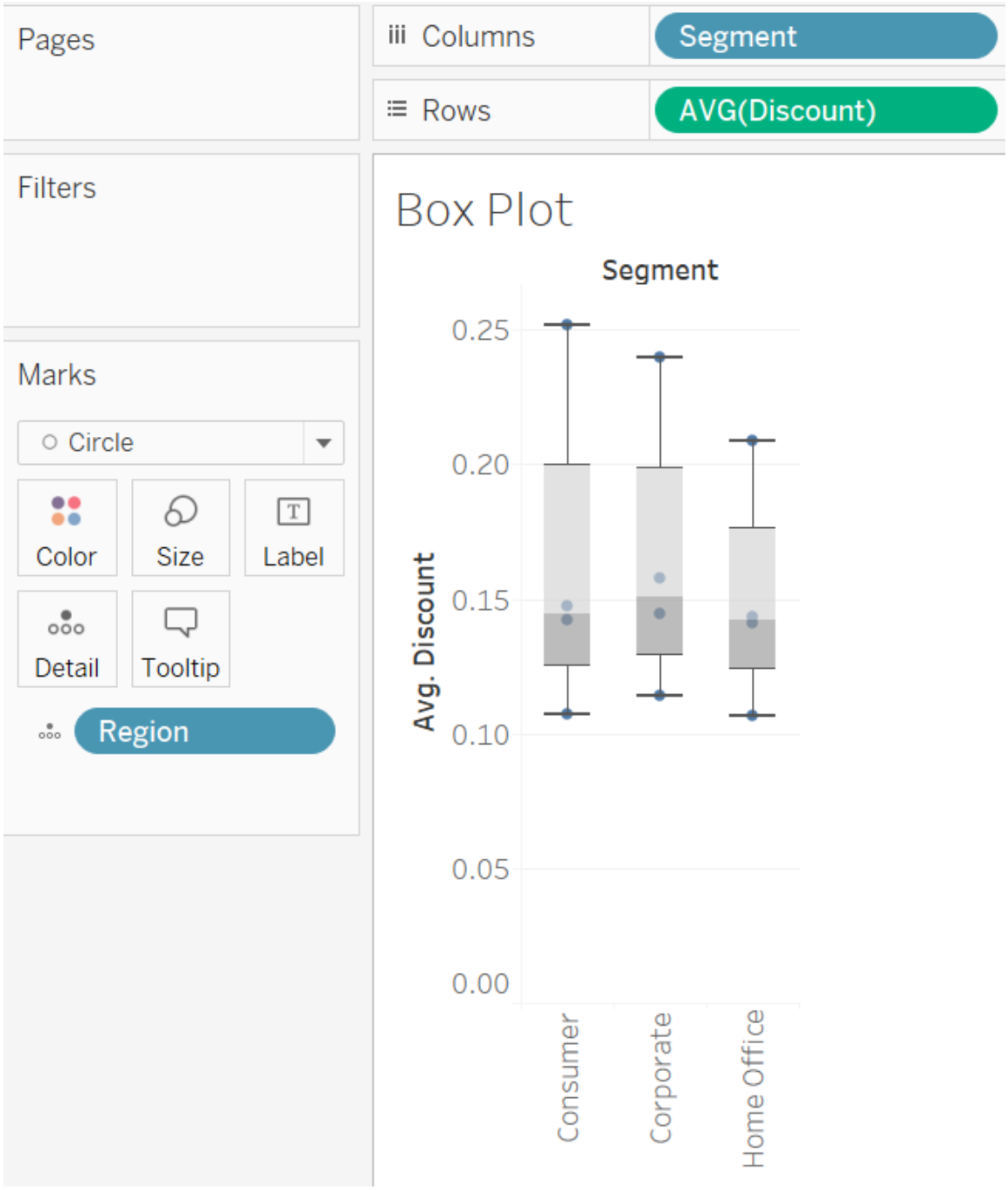

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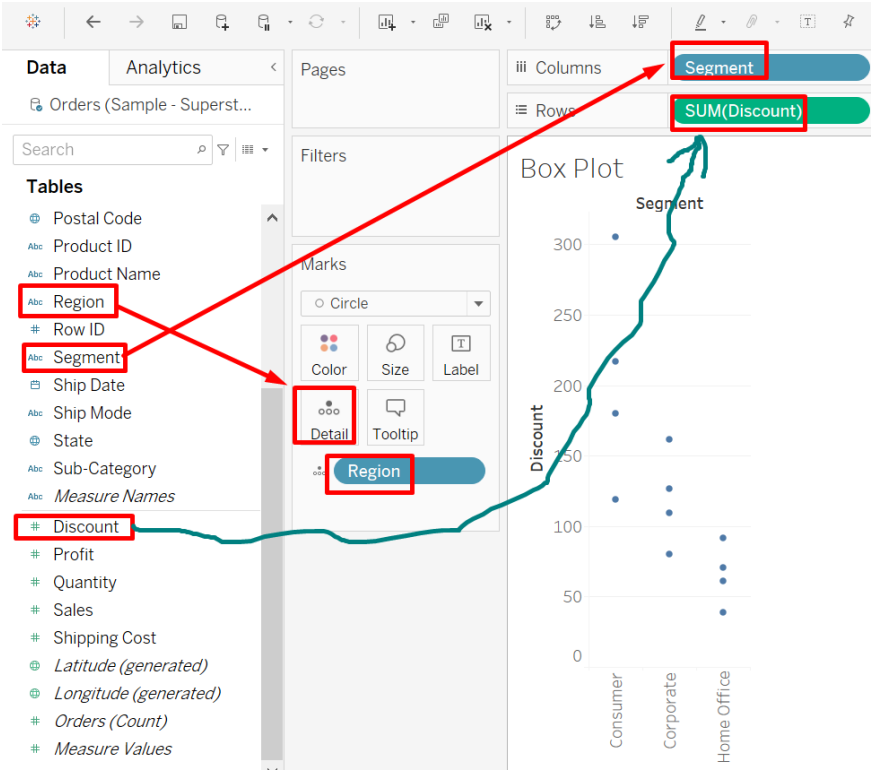

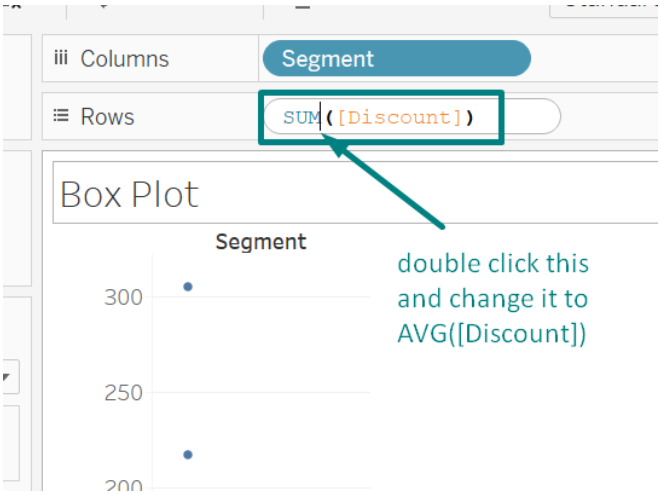

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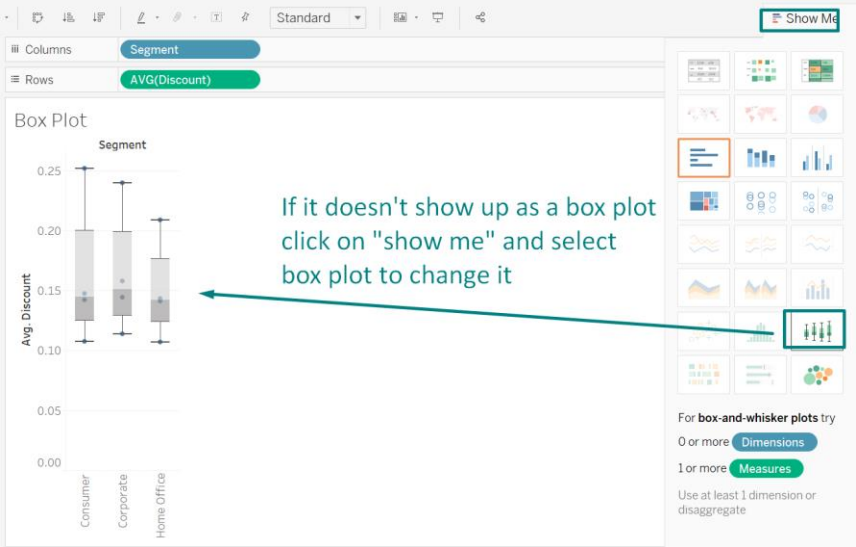

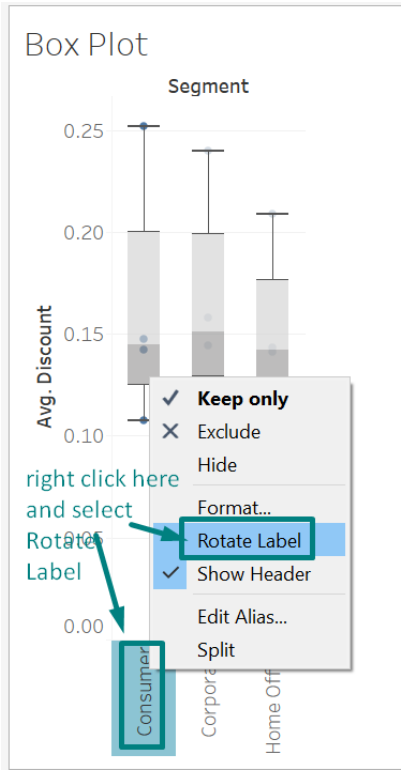

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E. AREA CHART

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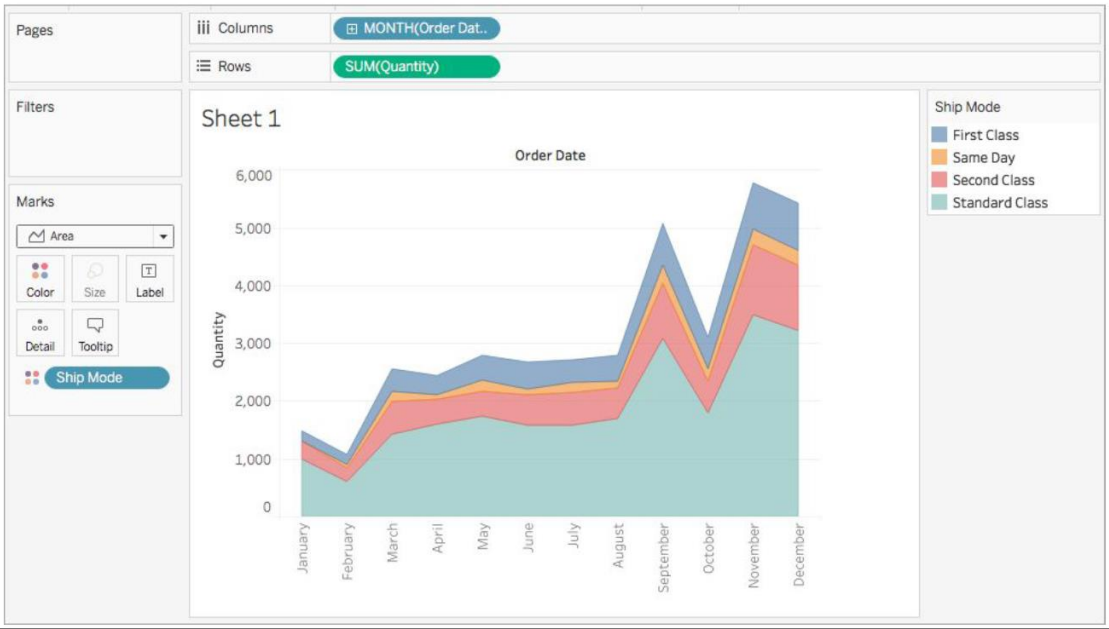

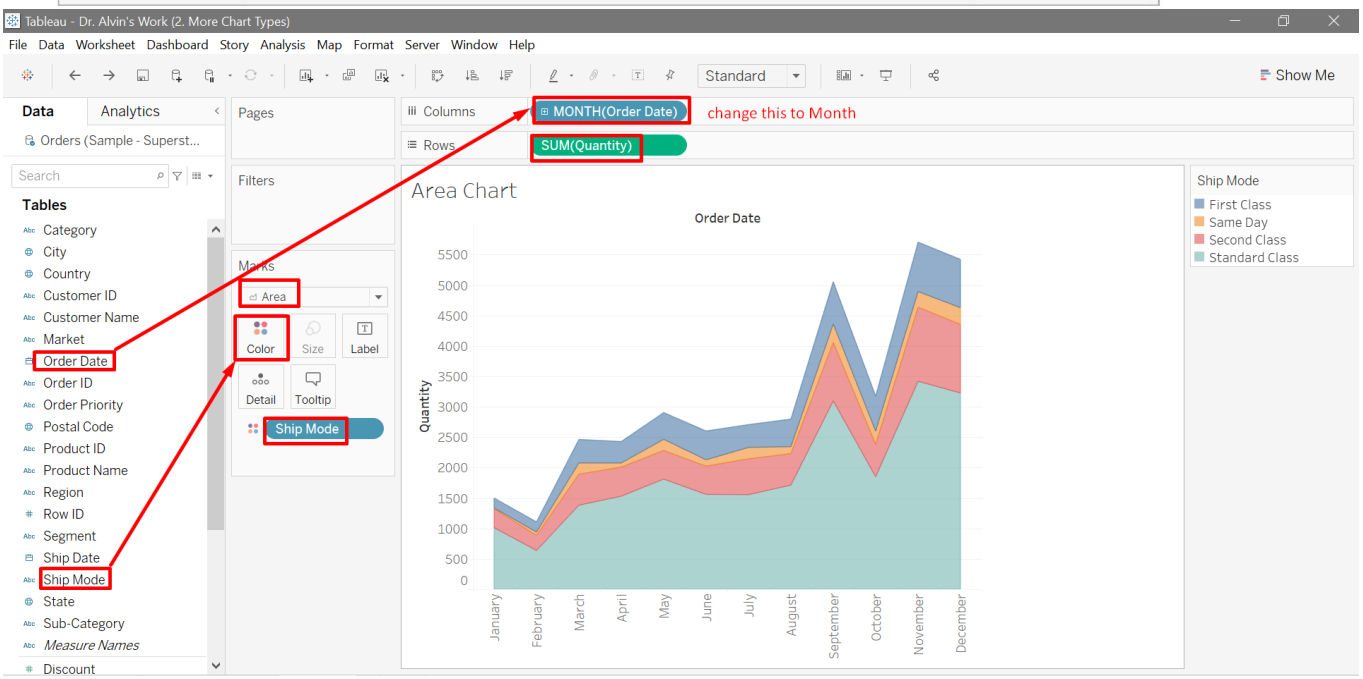

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F. HISTOGRAM (NEW)

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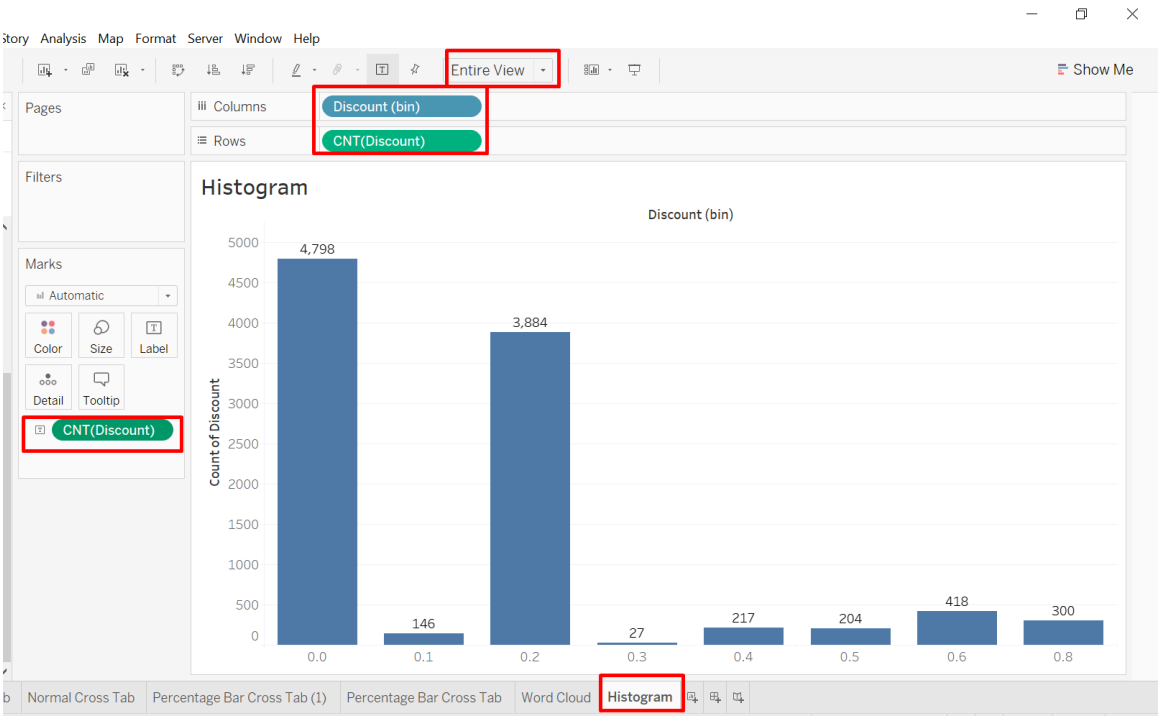

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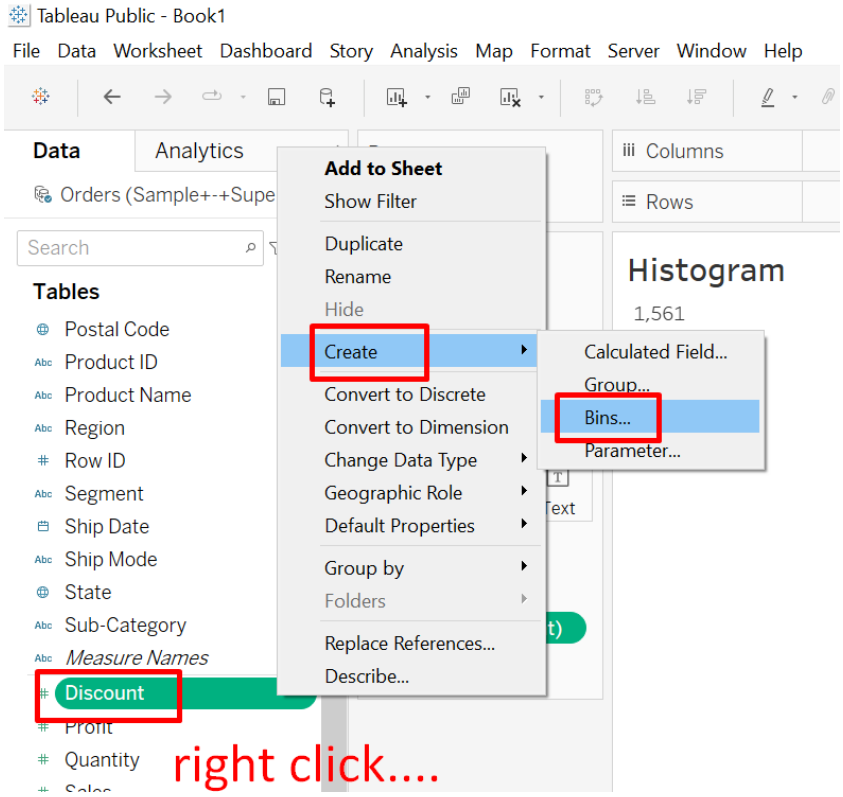

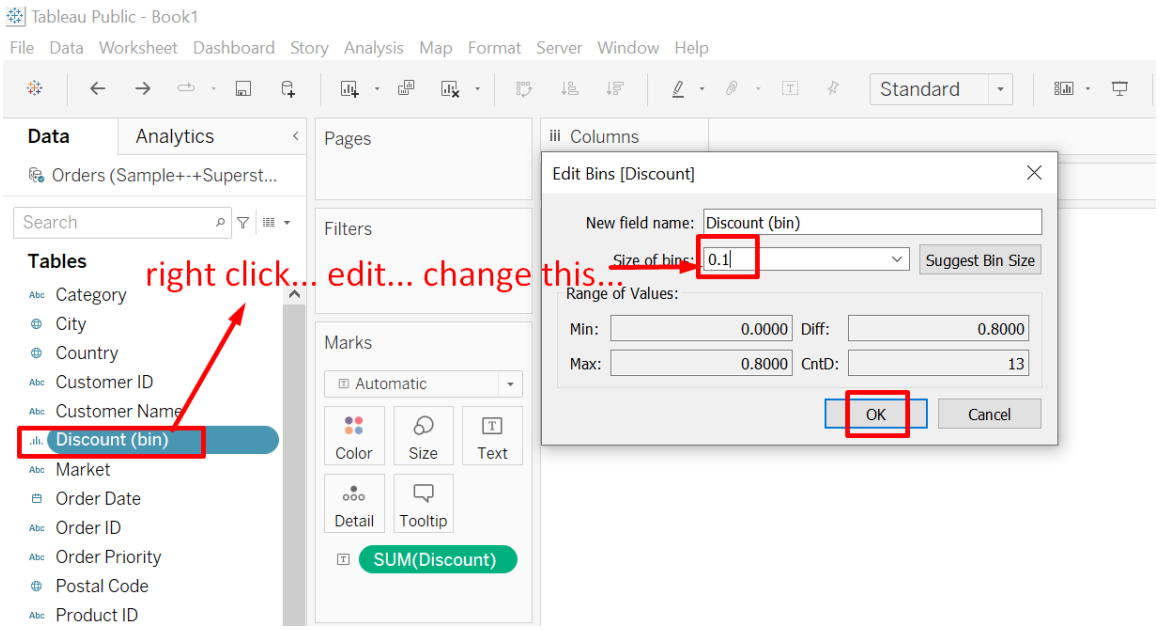

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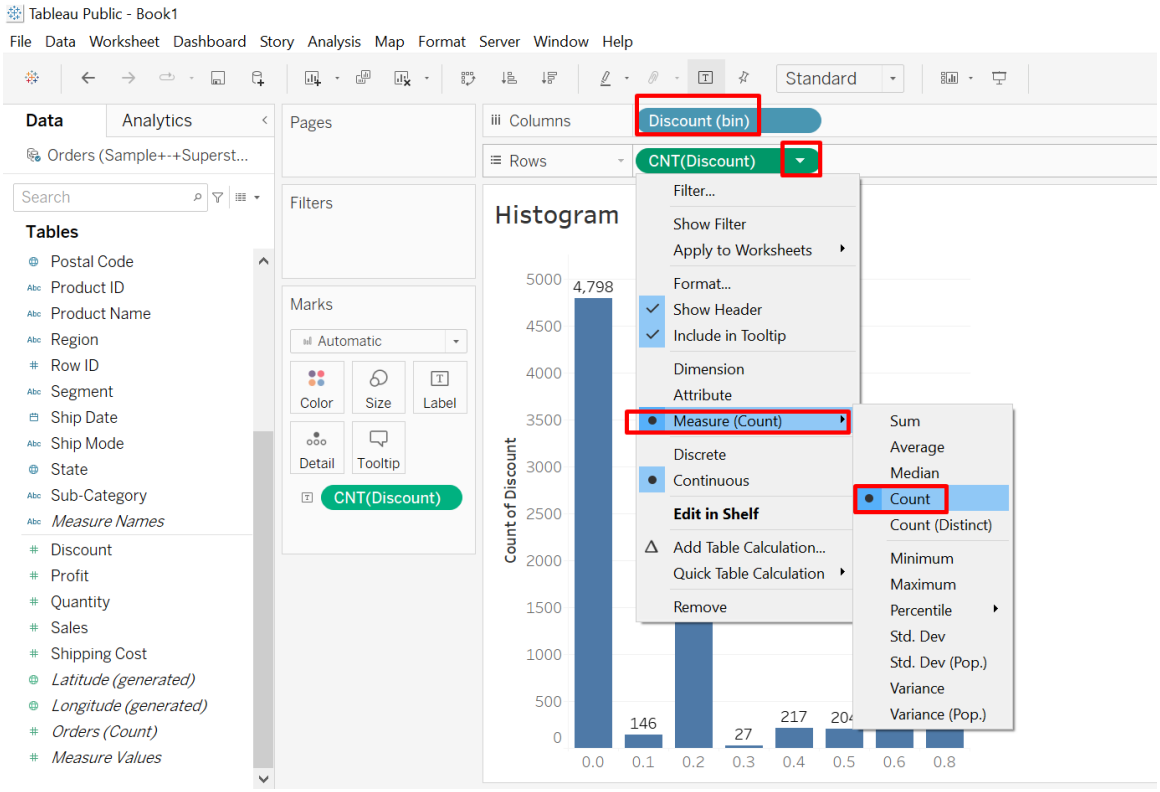

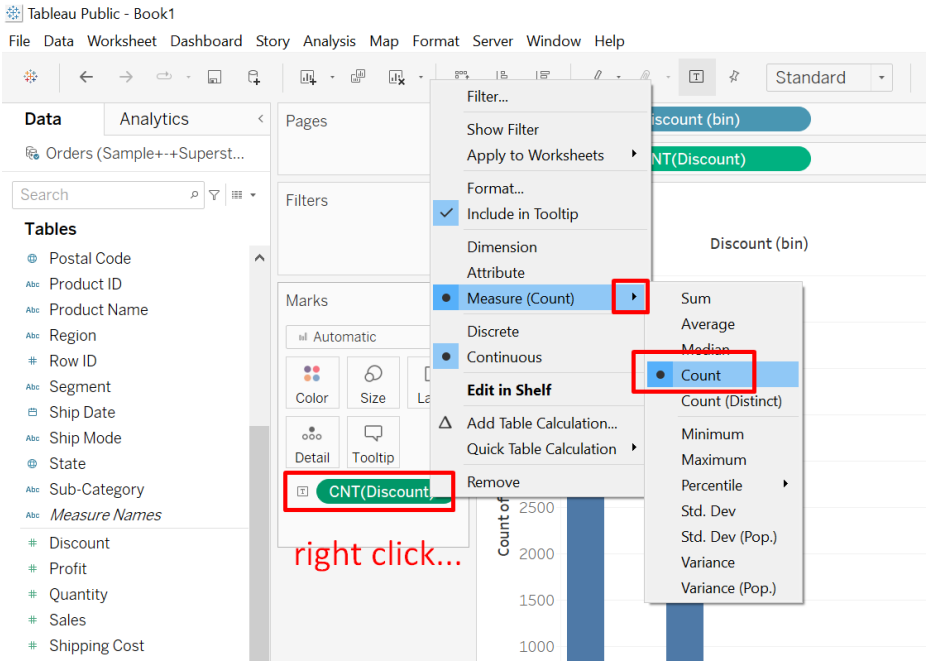

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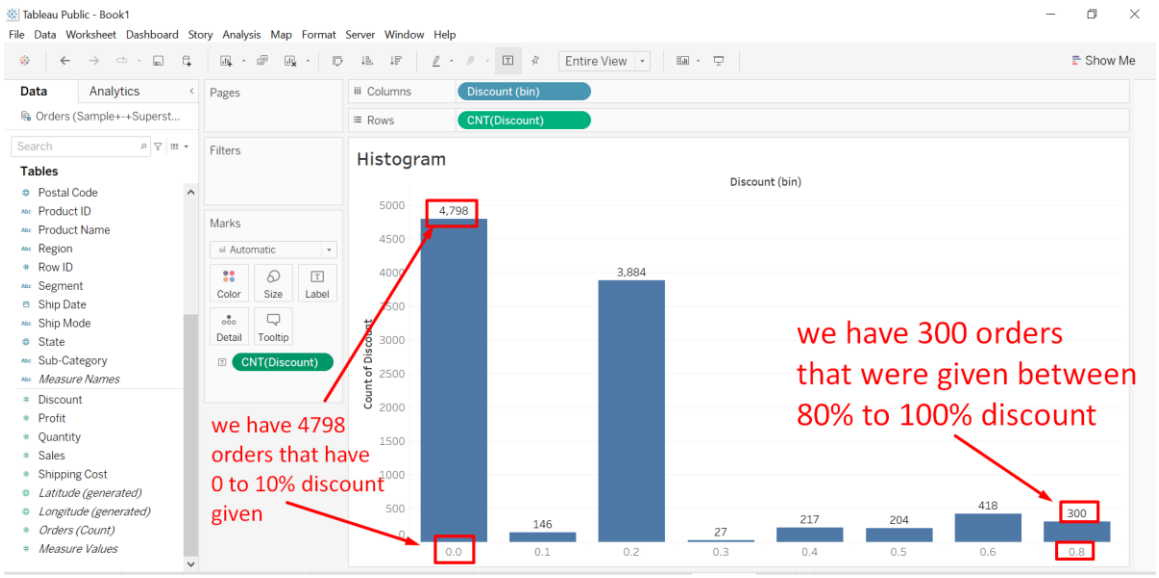

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1. ADVANCED CUMULATIVE HISTOGRAM

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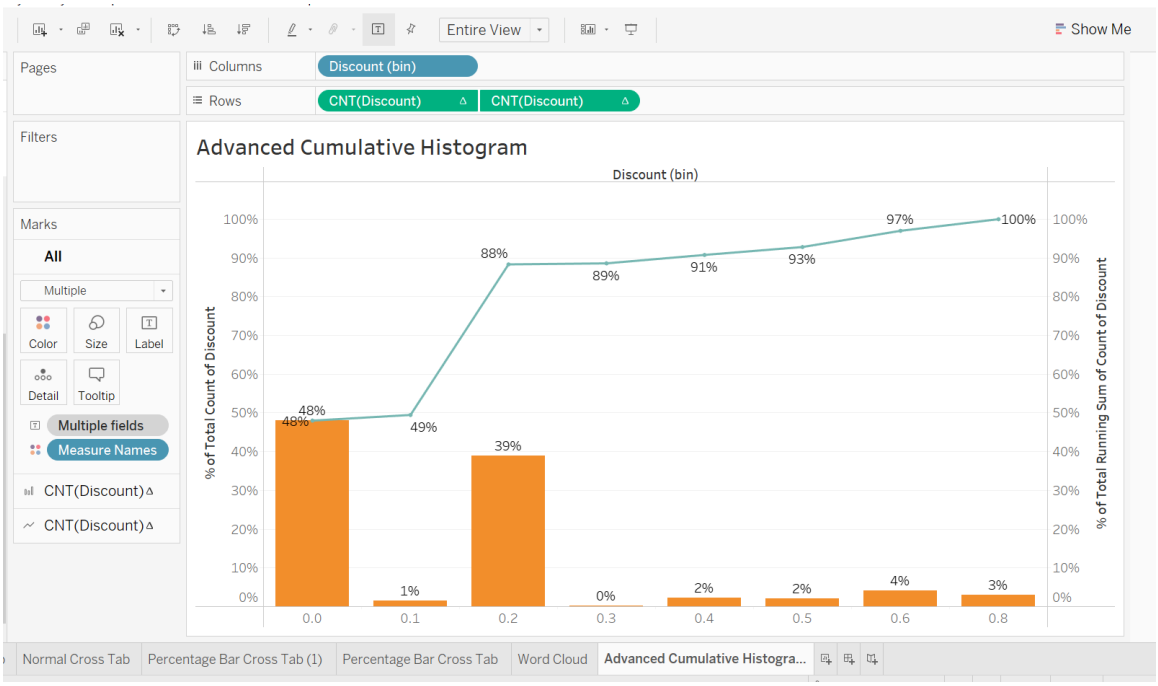

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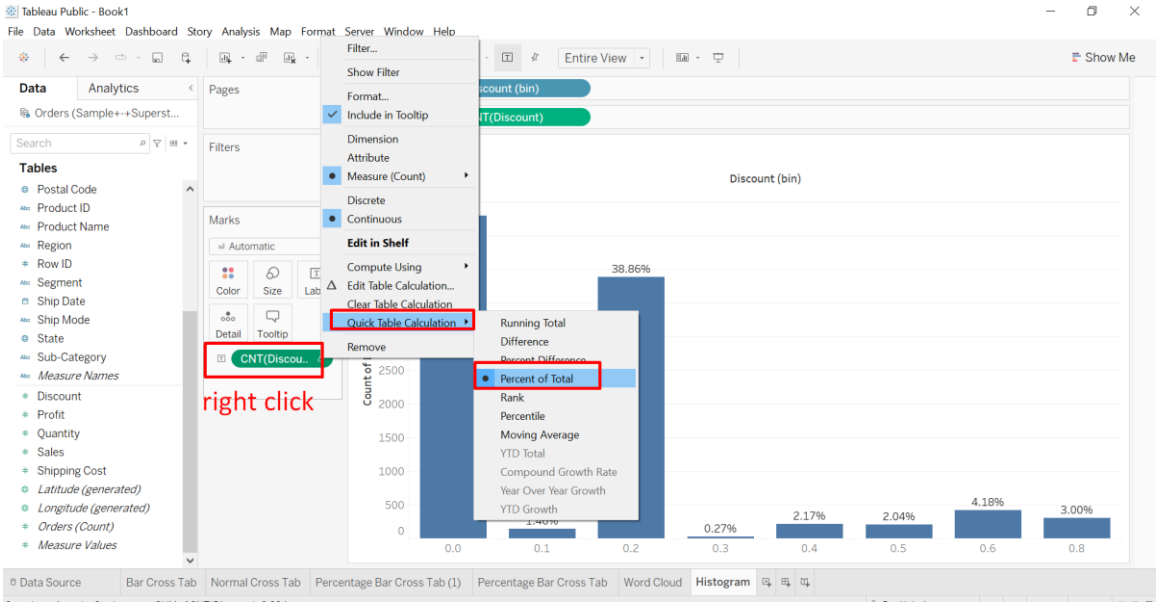

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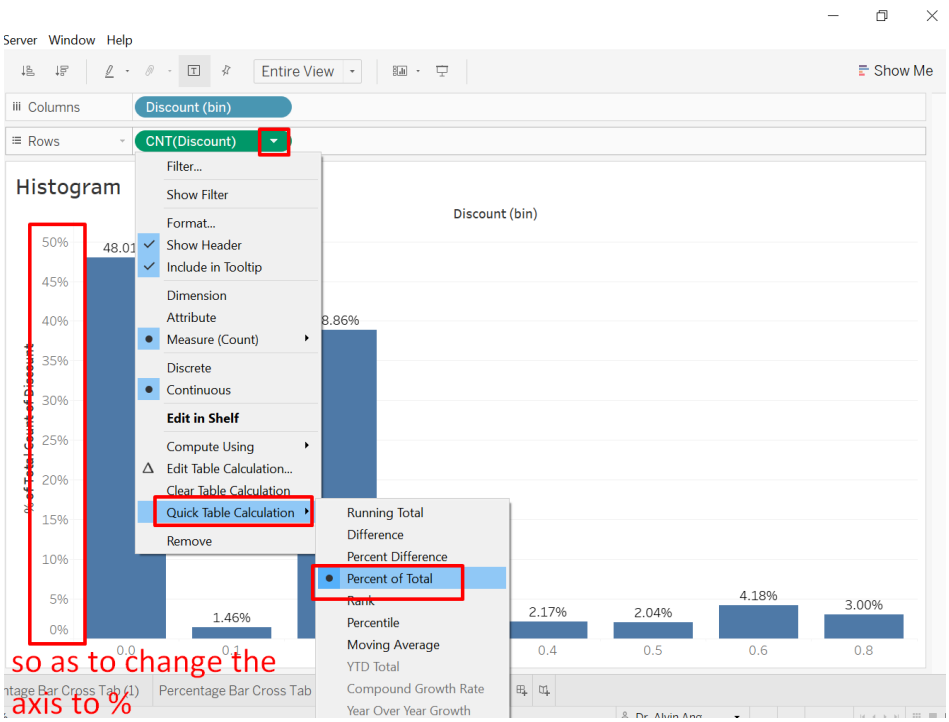

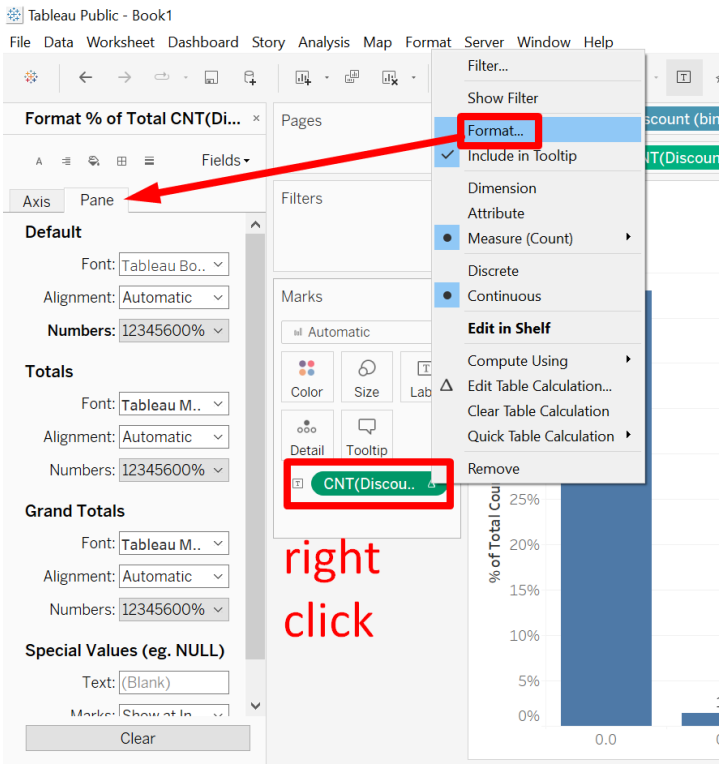

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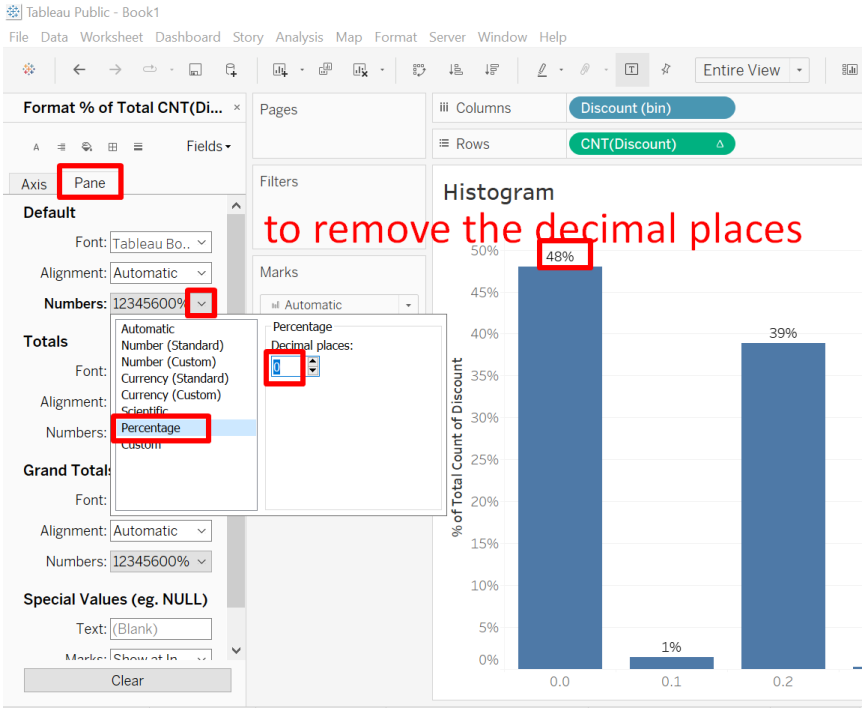

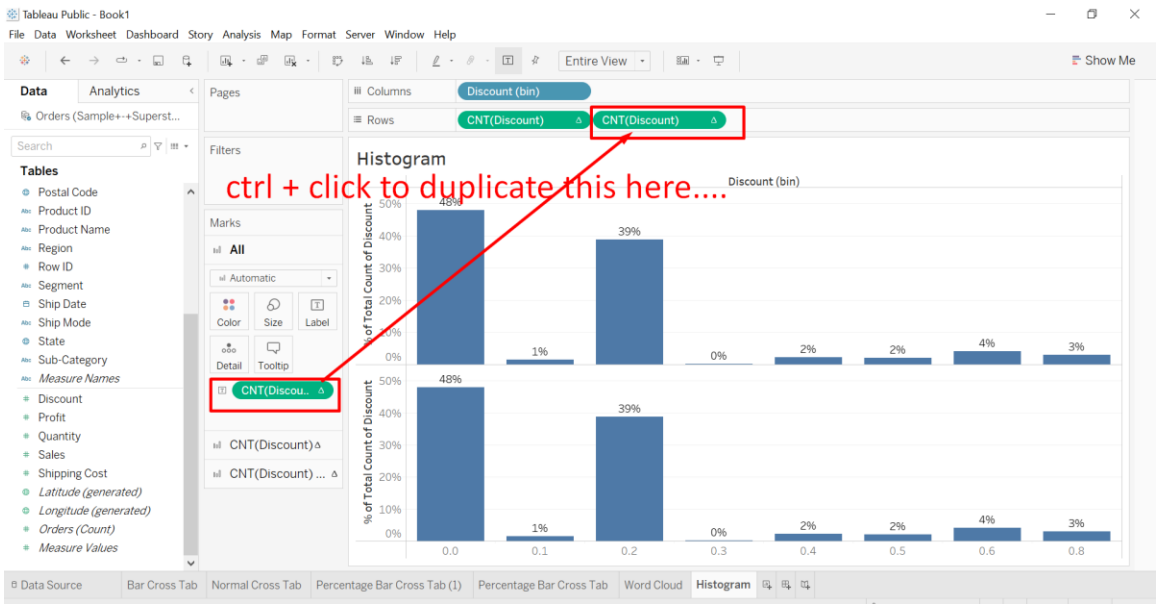

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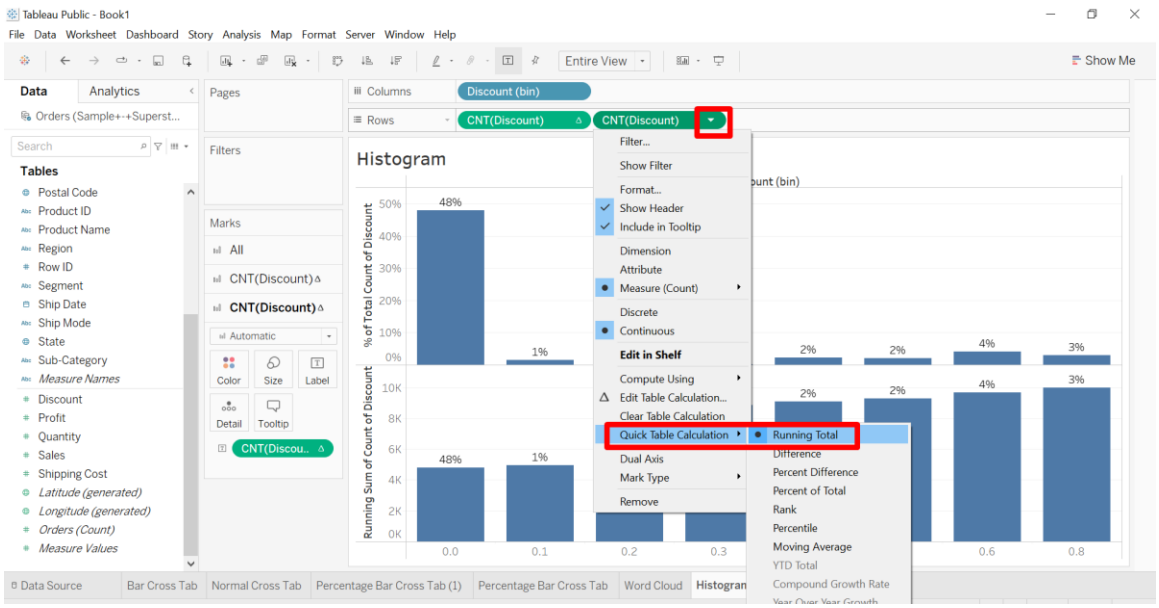

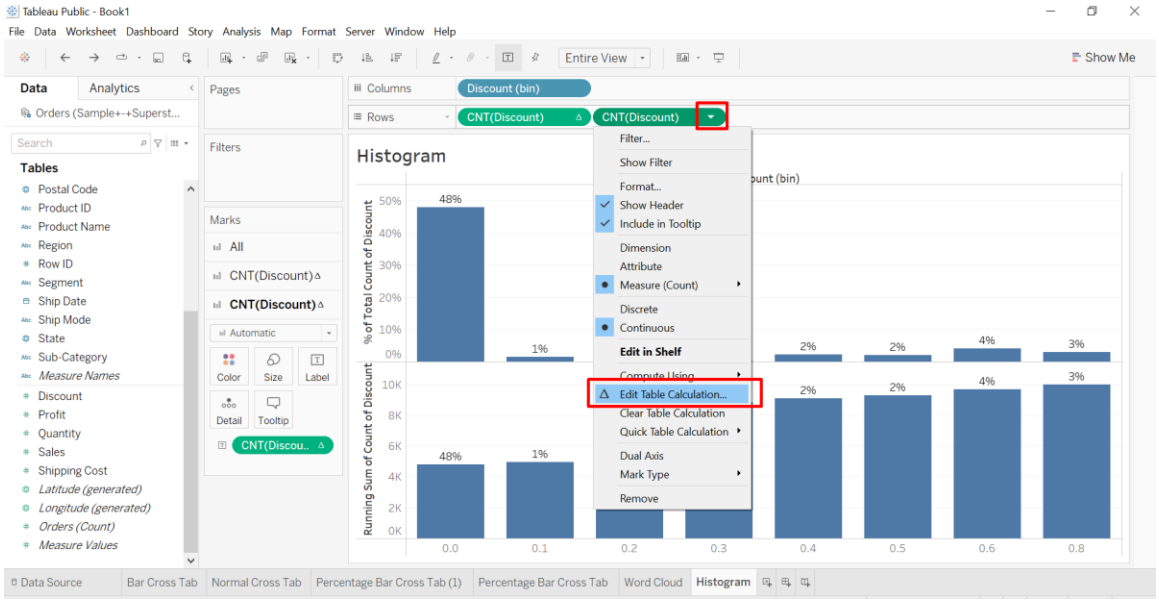

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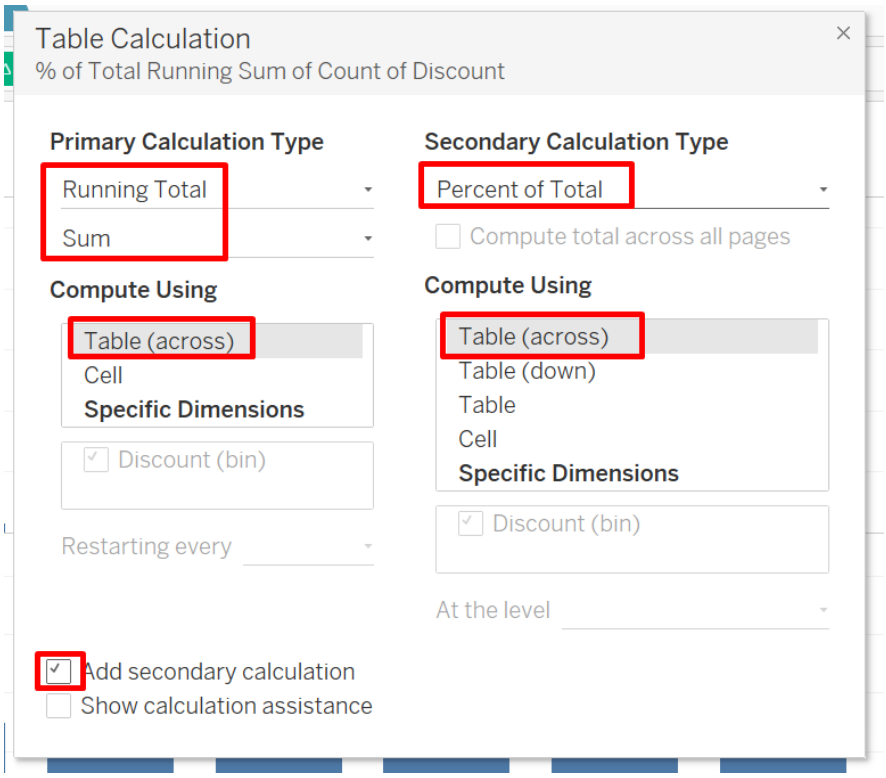

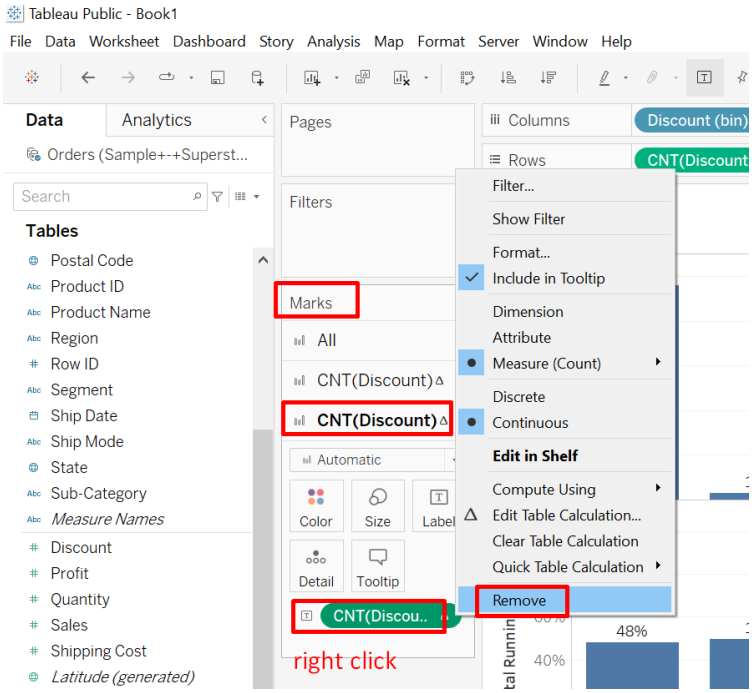

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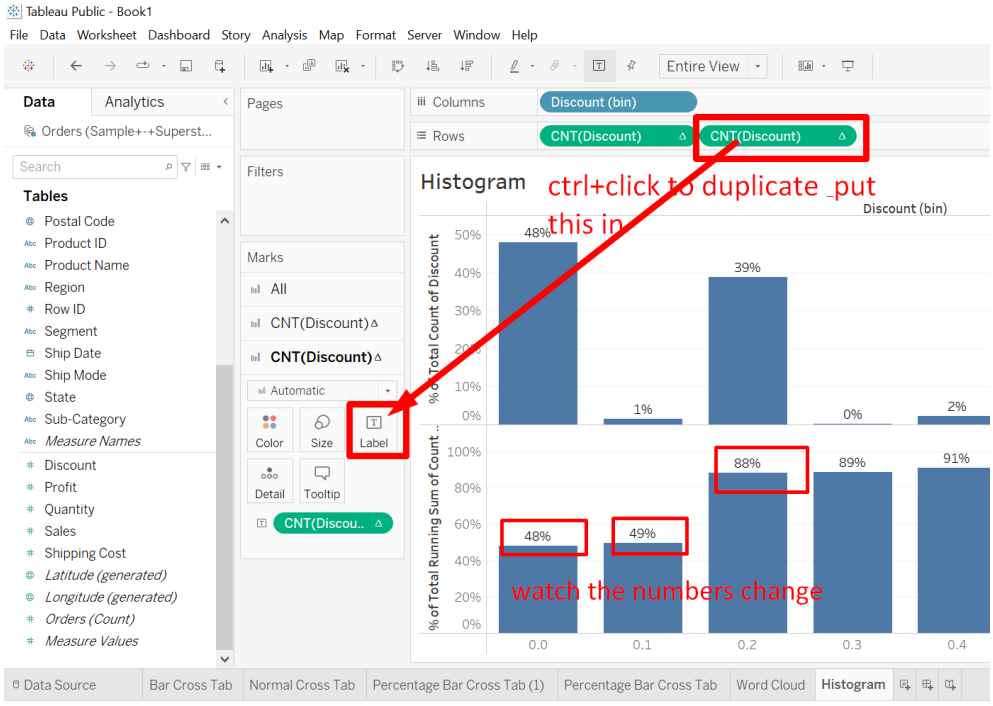

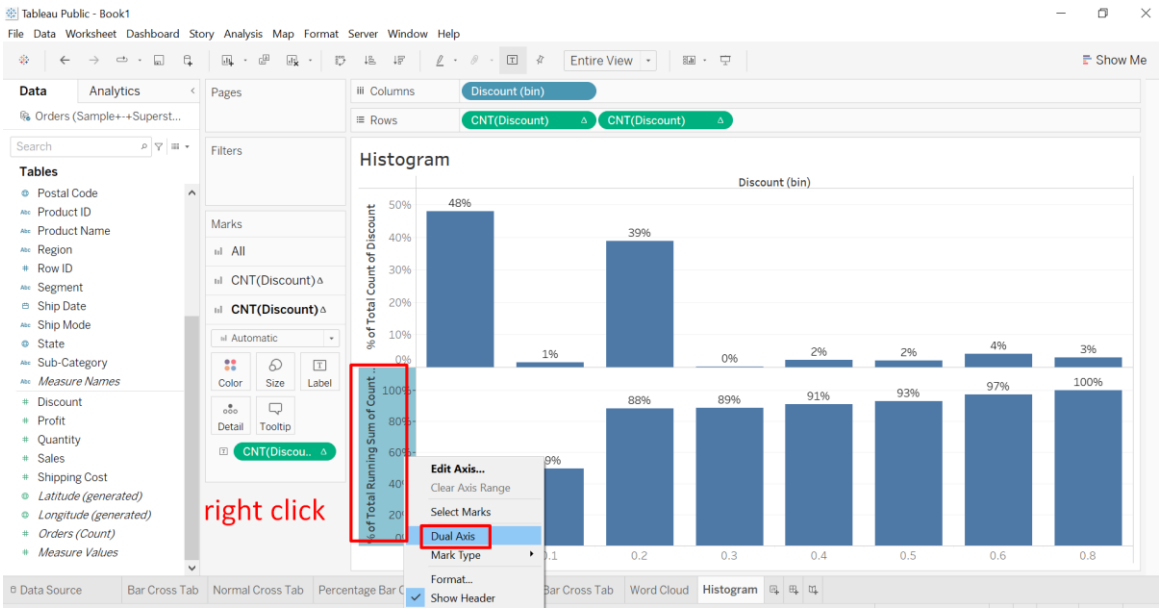

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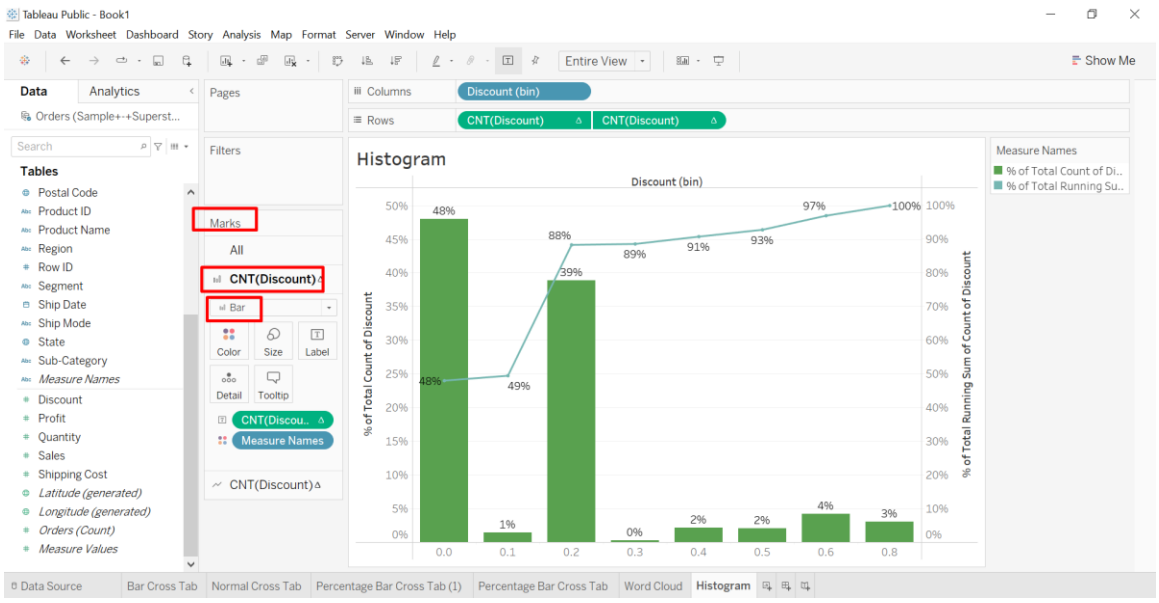

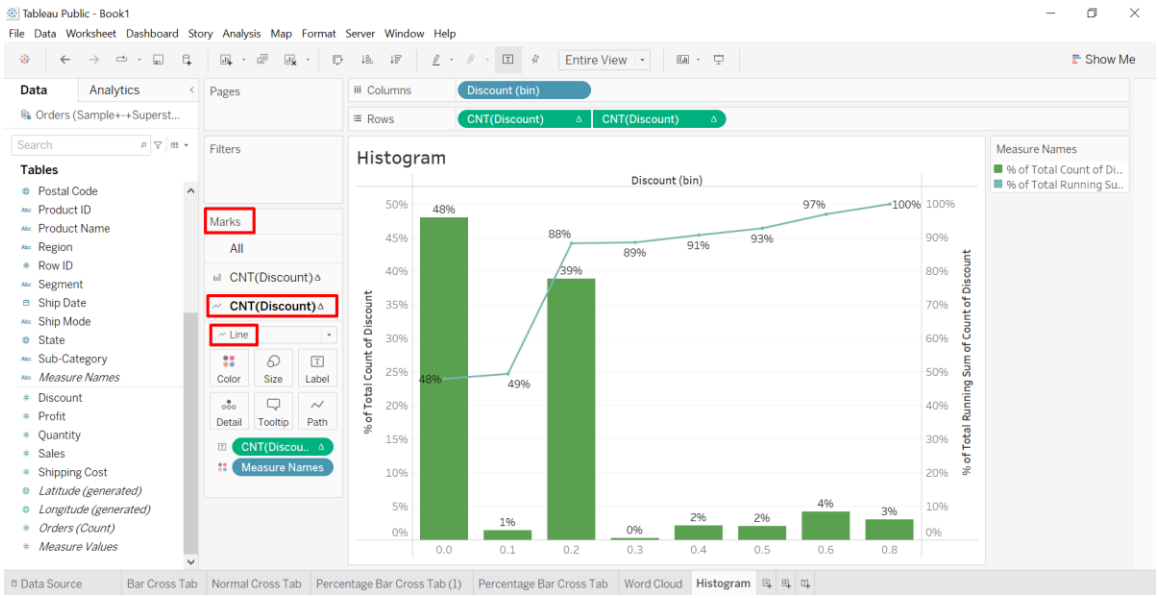

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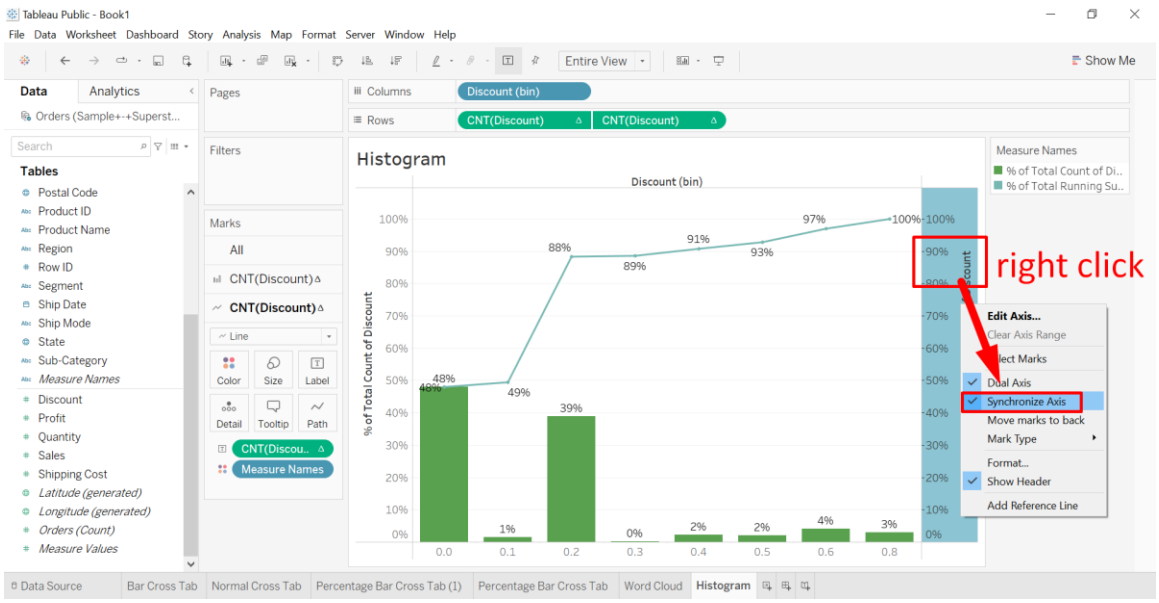

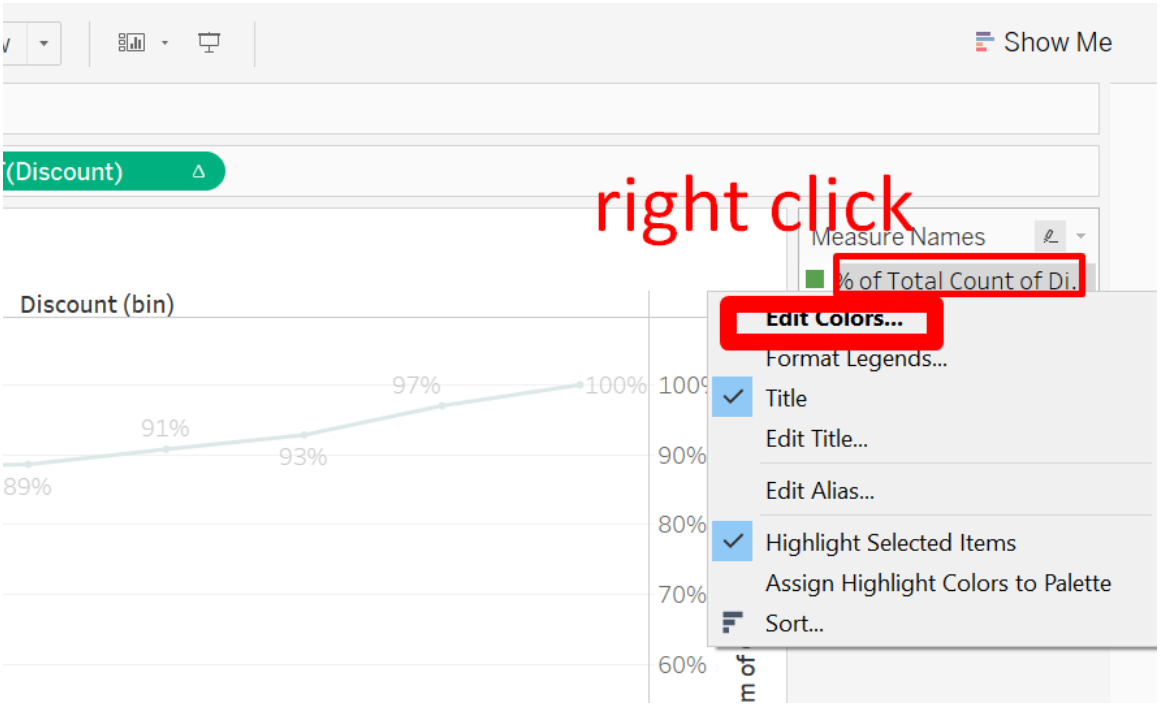

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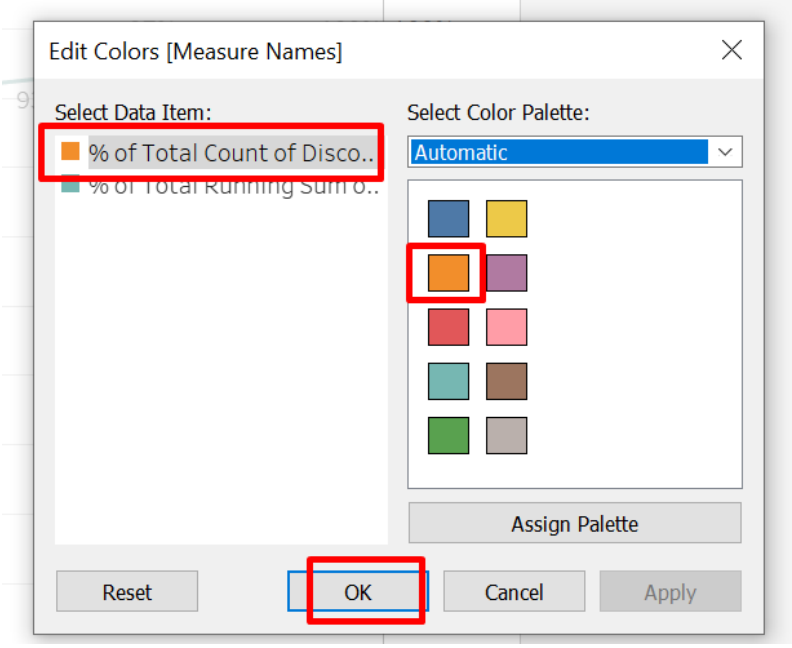

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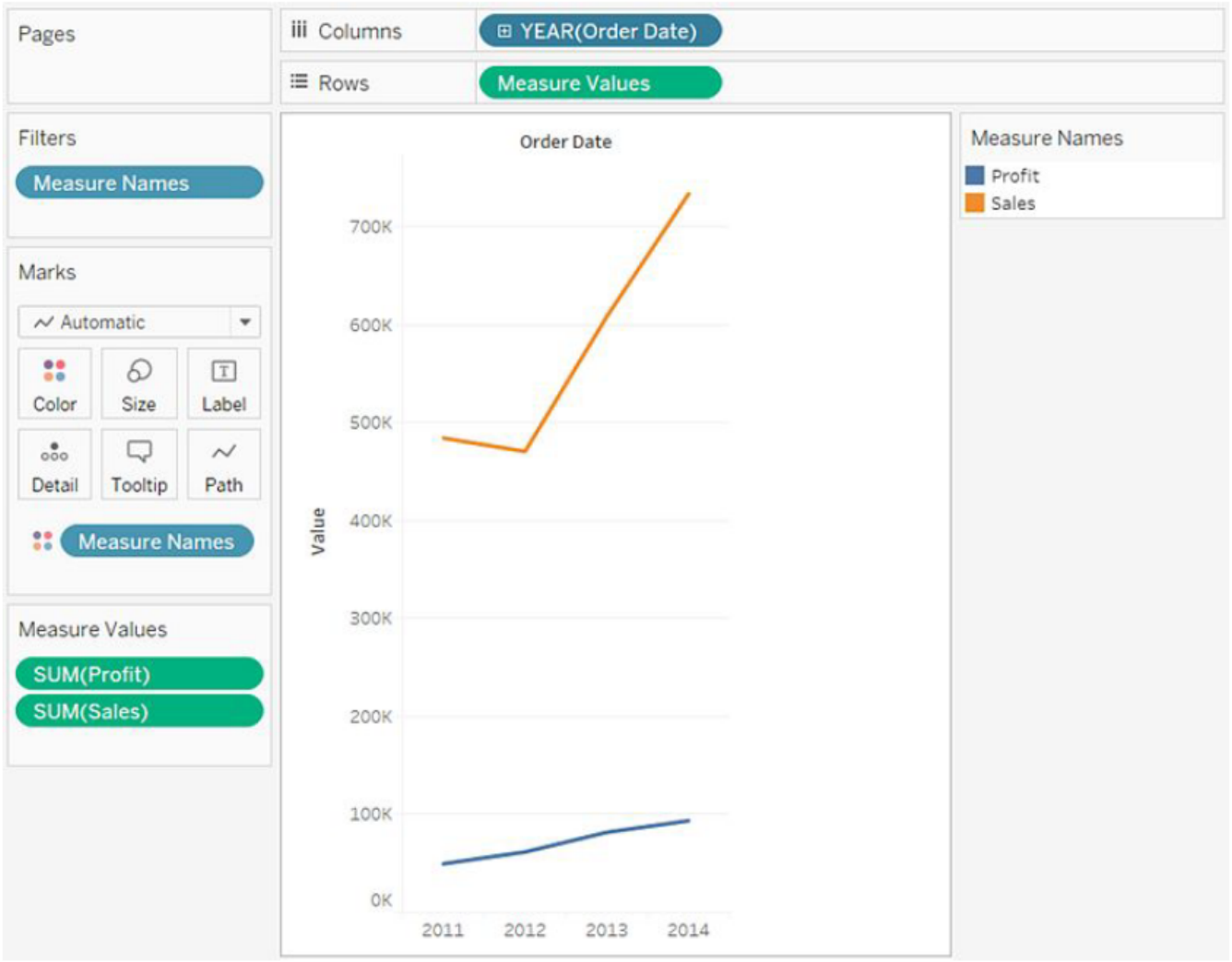
G. LINE CHART

We will achieve this



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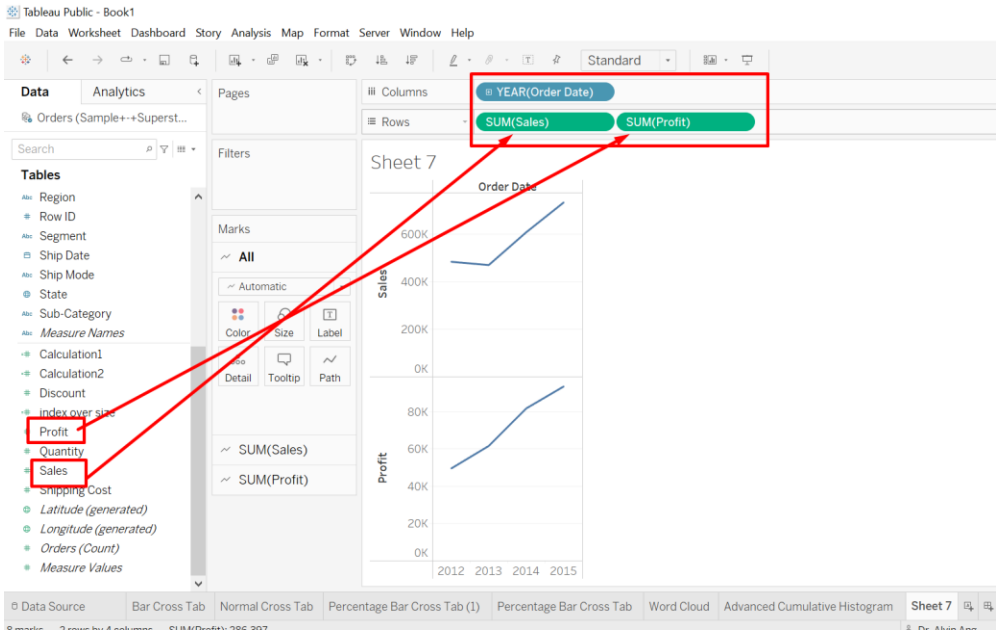
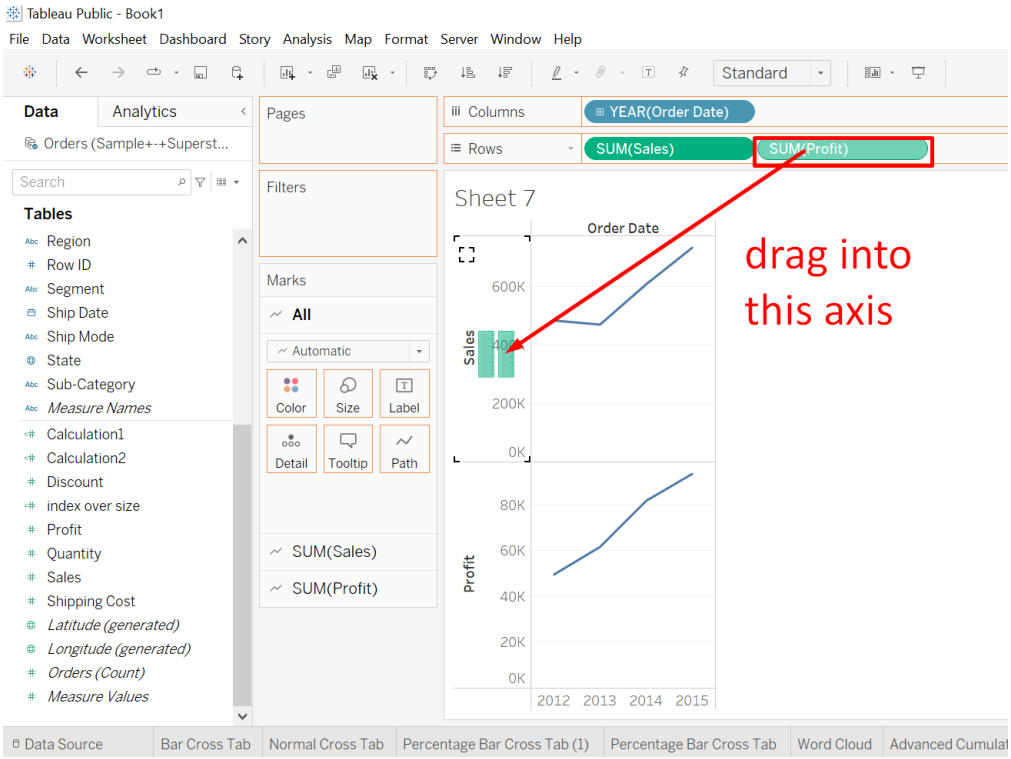
1. USING DRAG DROP APPROACH





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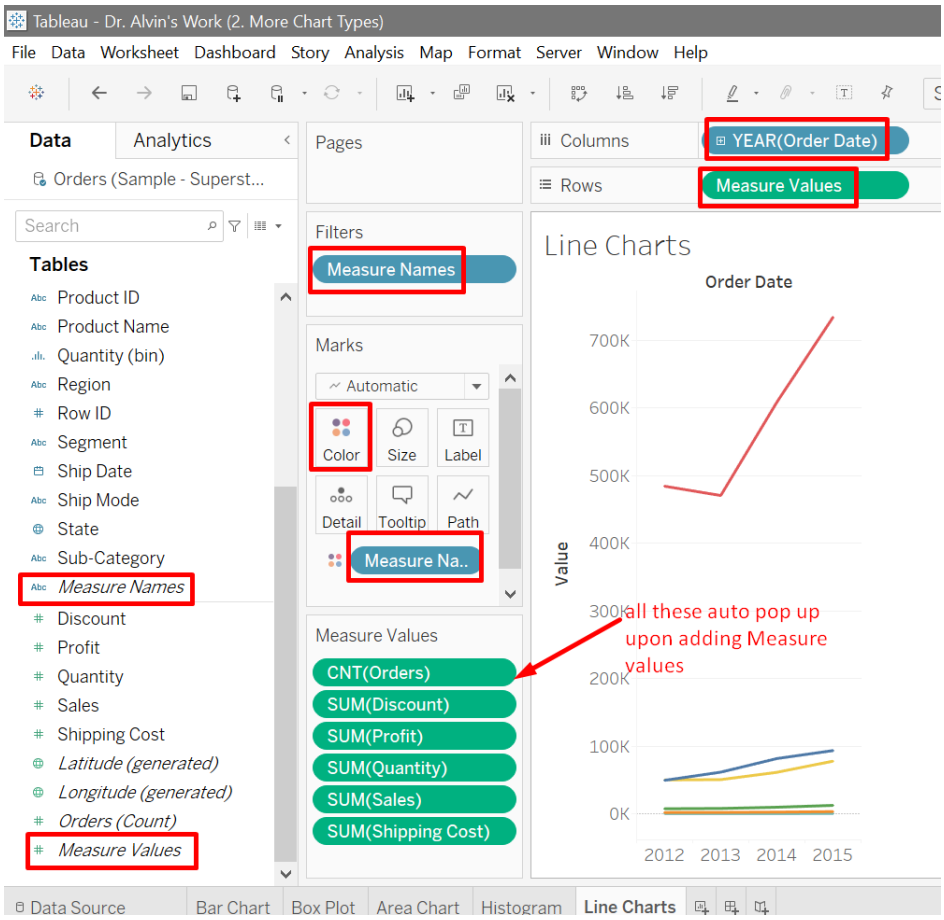
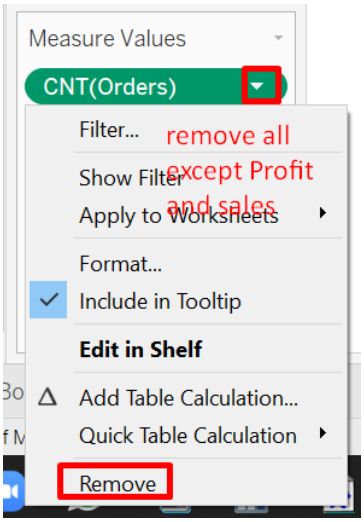
2. USING MEASURE VALUES APPROACH





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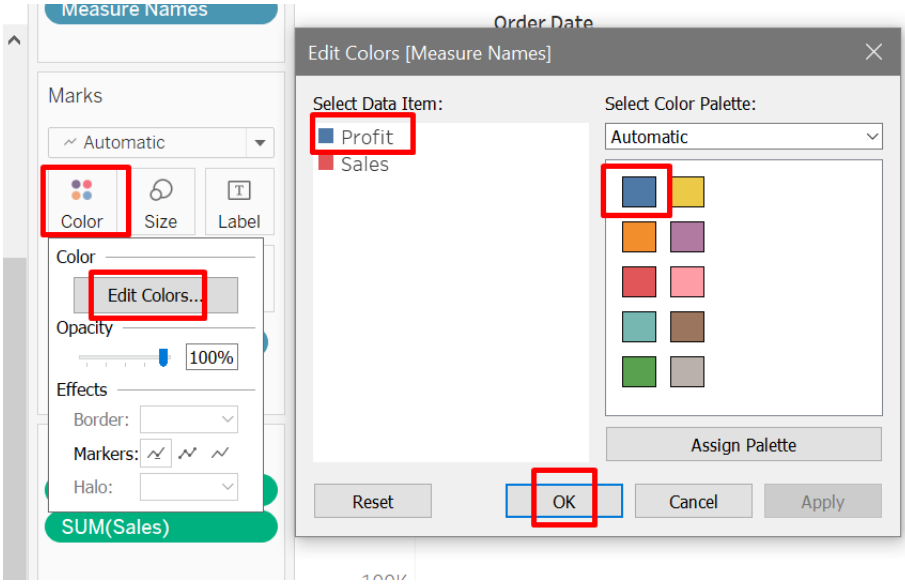
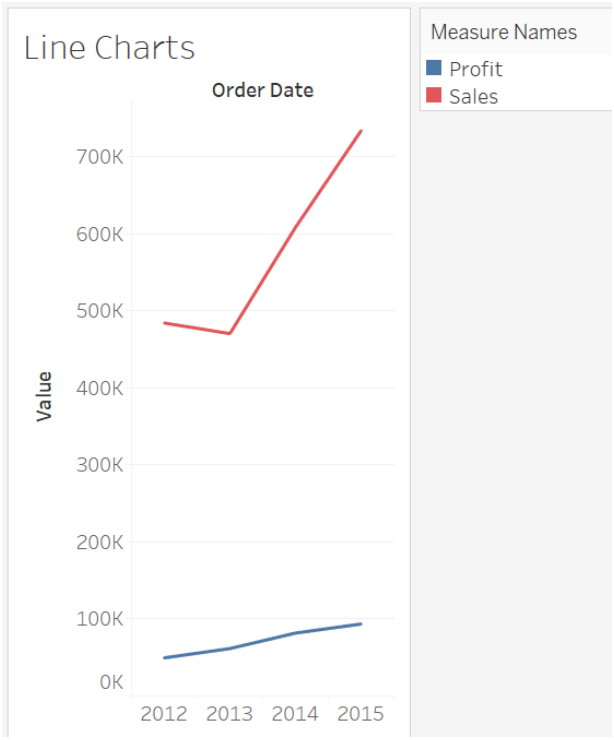
You can change the colors if you want





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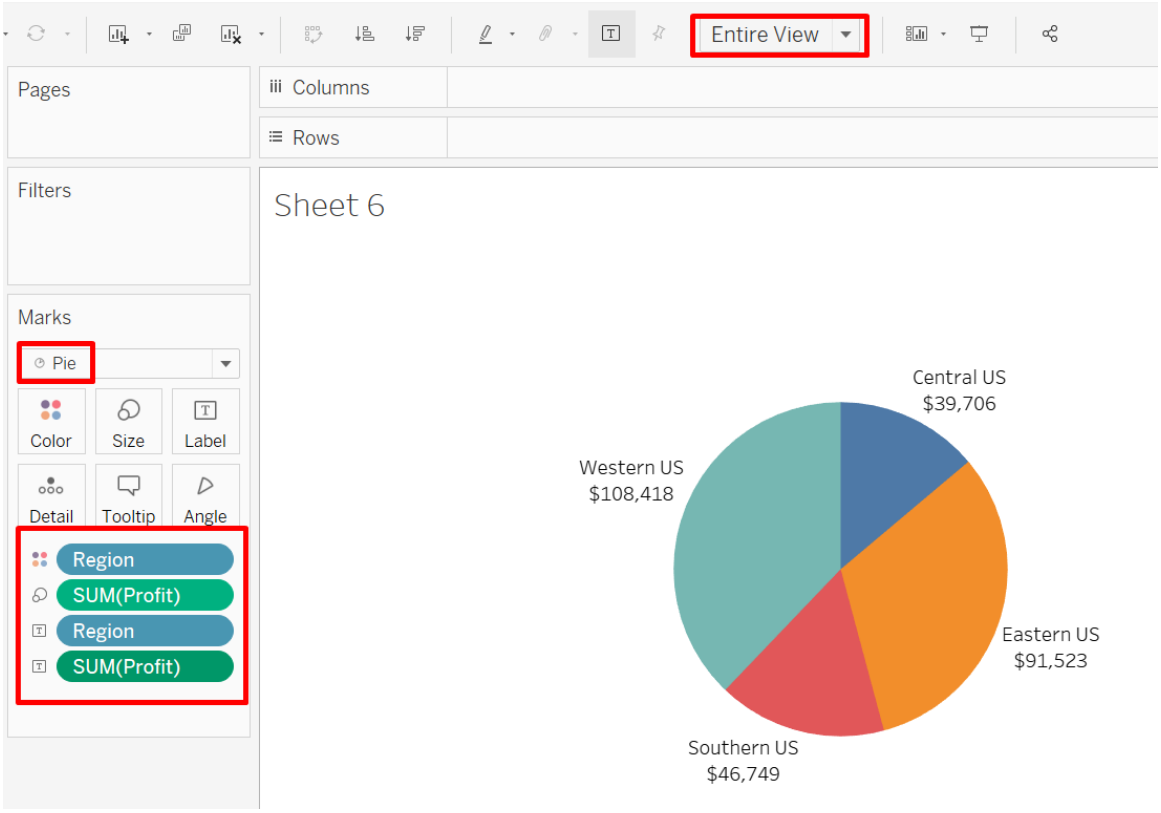
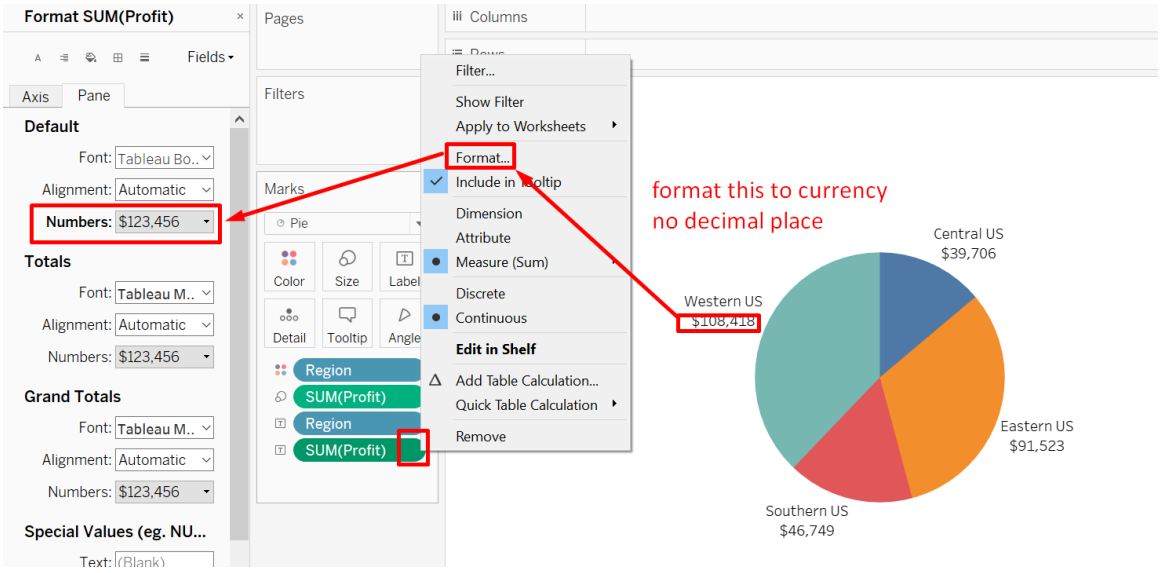
H. PIE CHART





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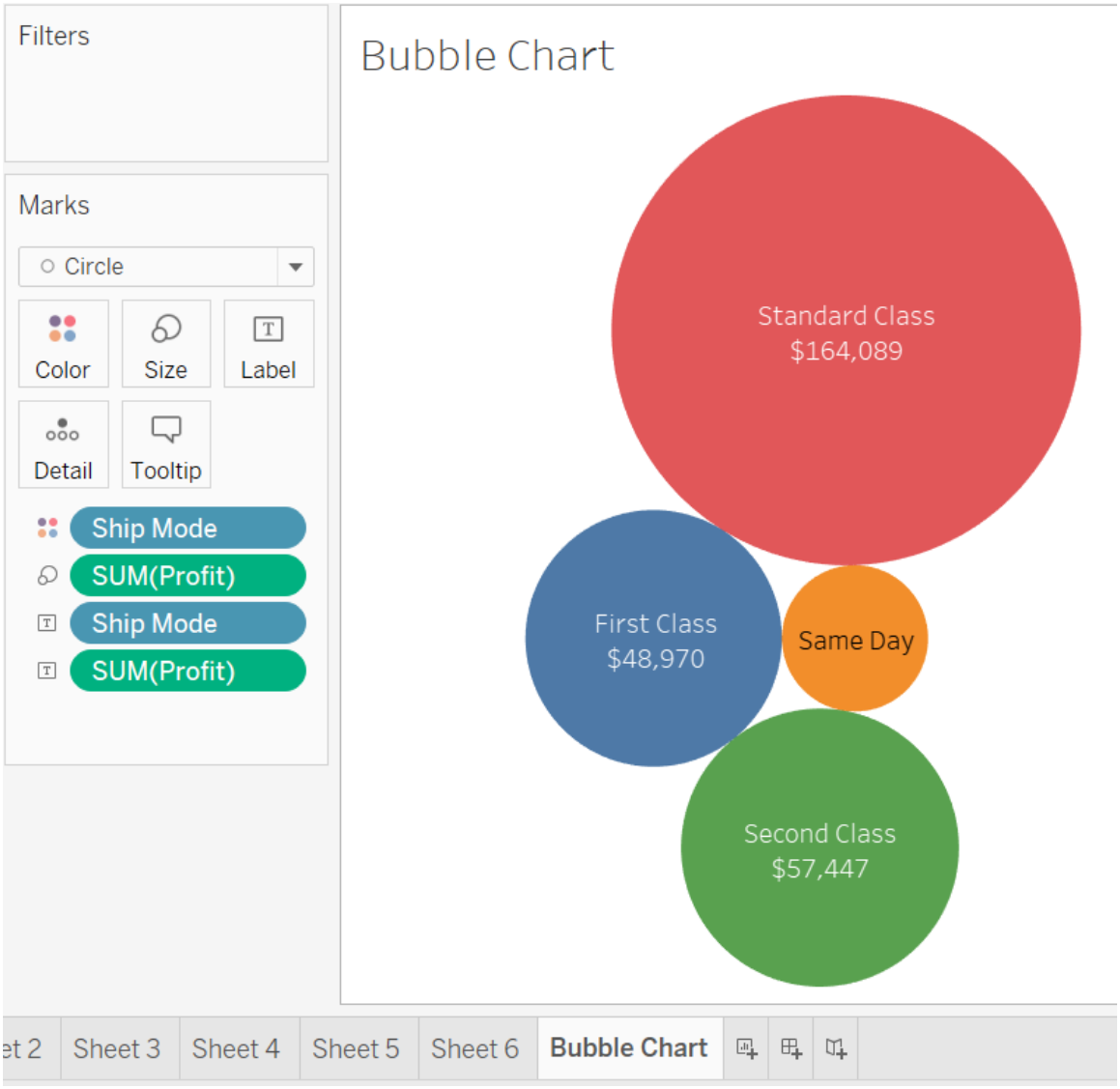
I. BUBBLE CHART



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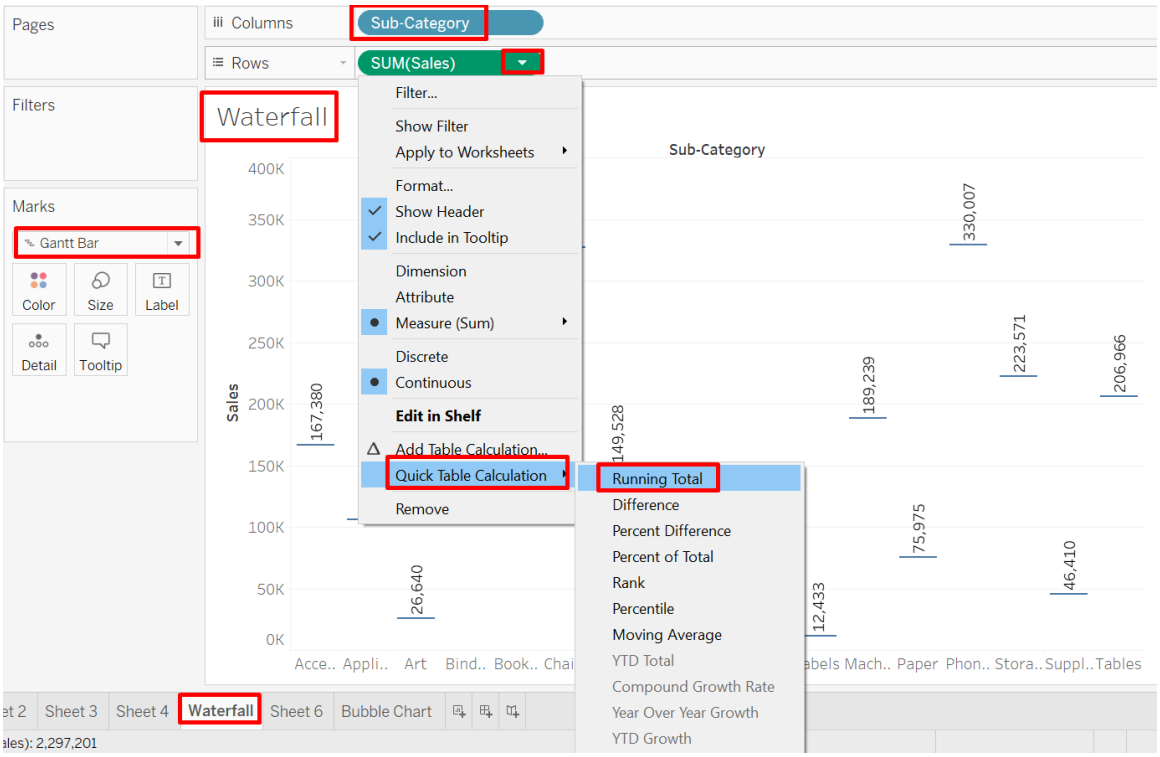
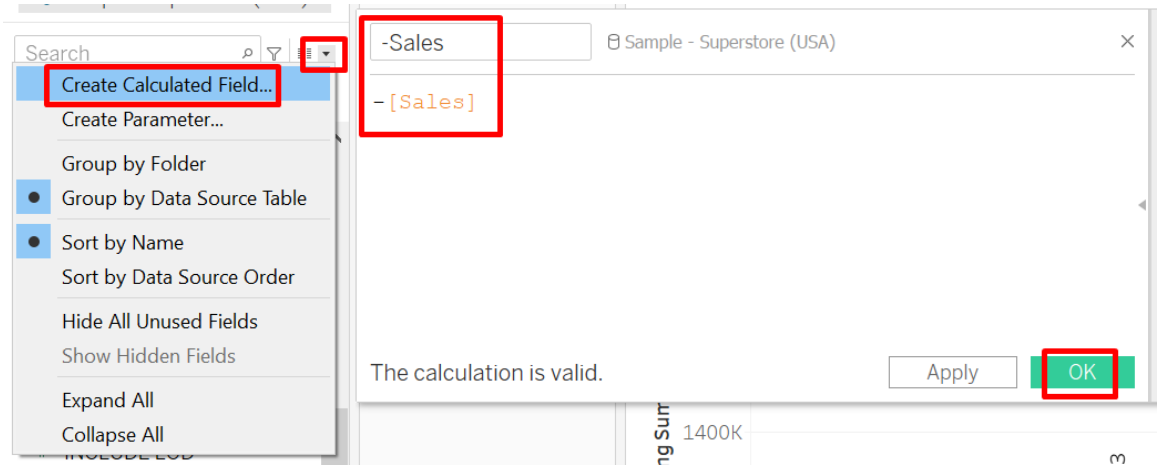
J. WATERFALL CHART





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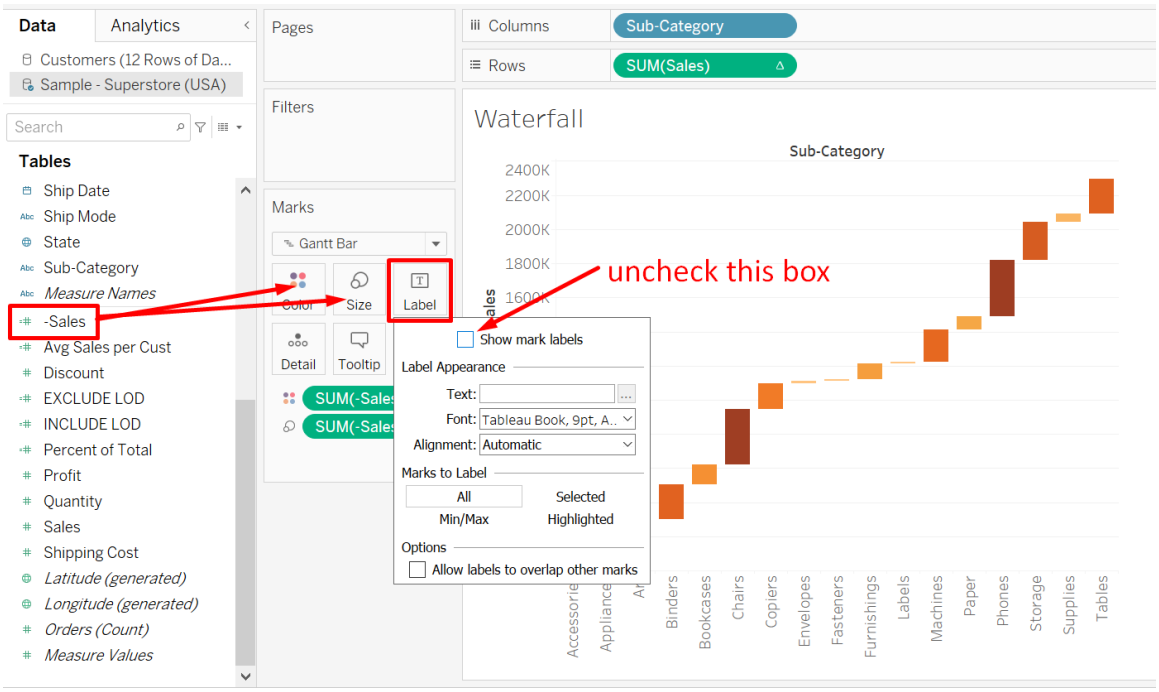
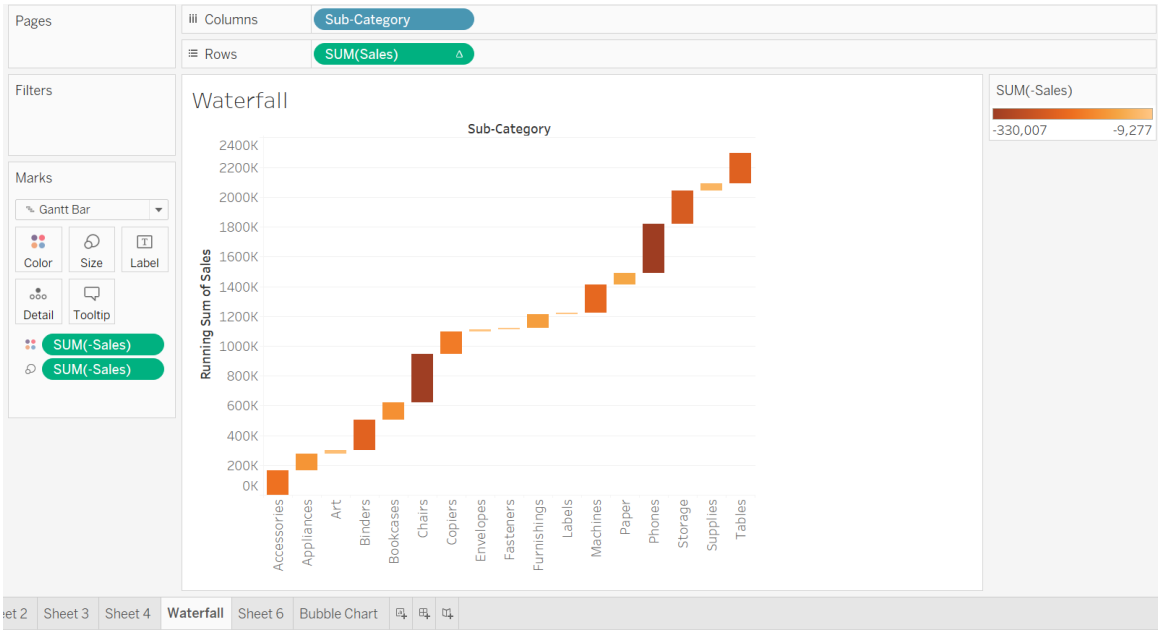


Waterfall Chart Produced:



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K. MULTI CATEGORICAL LINE CHART

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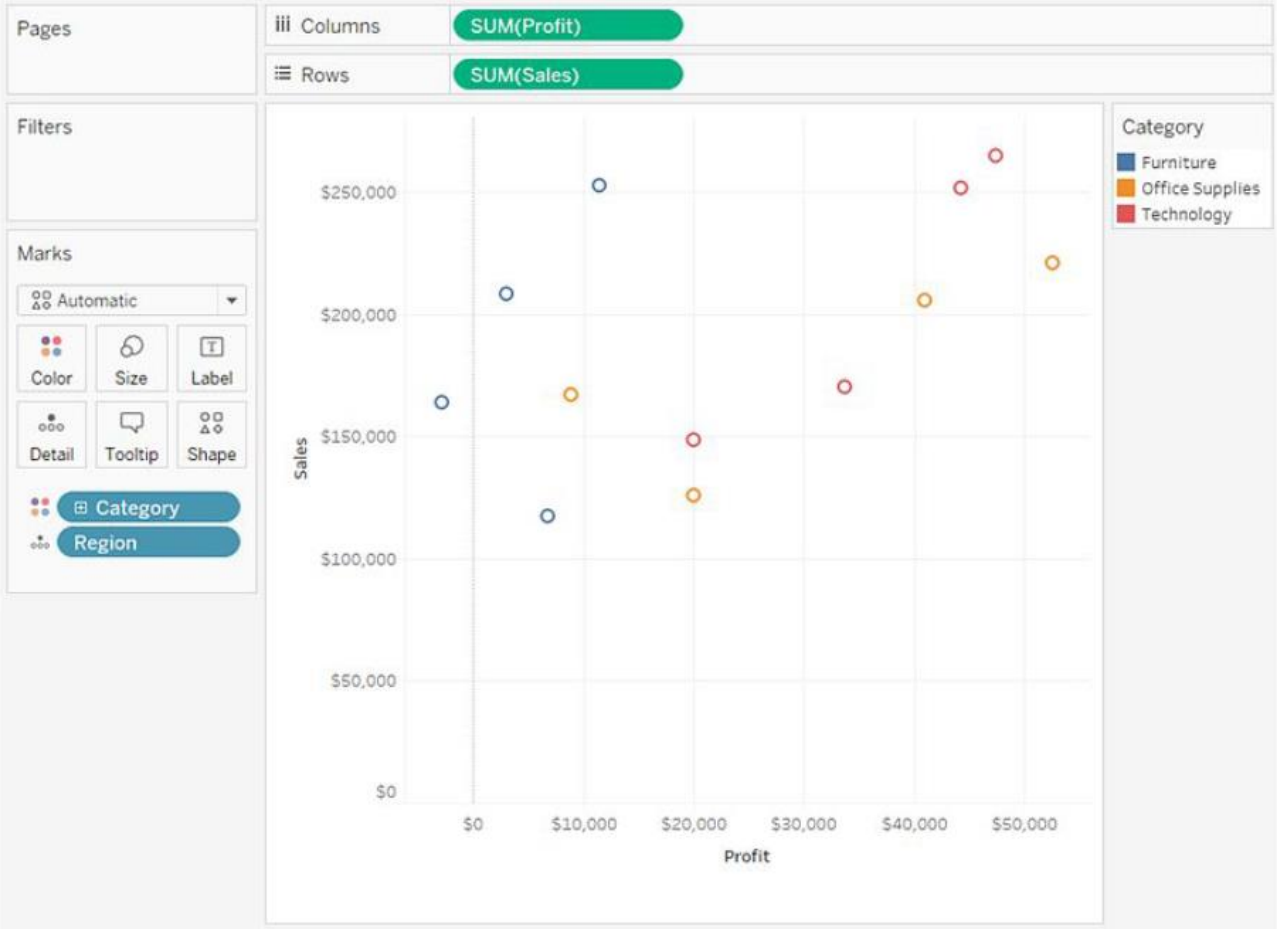
L. SCATTER PLOT

1. EXAMPLE 1



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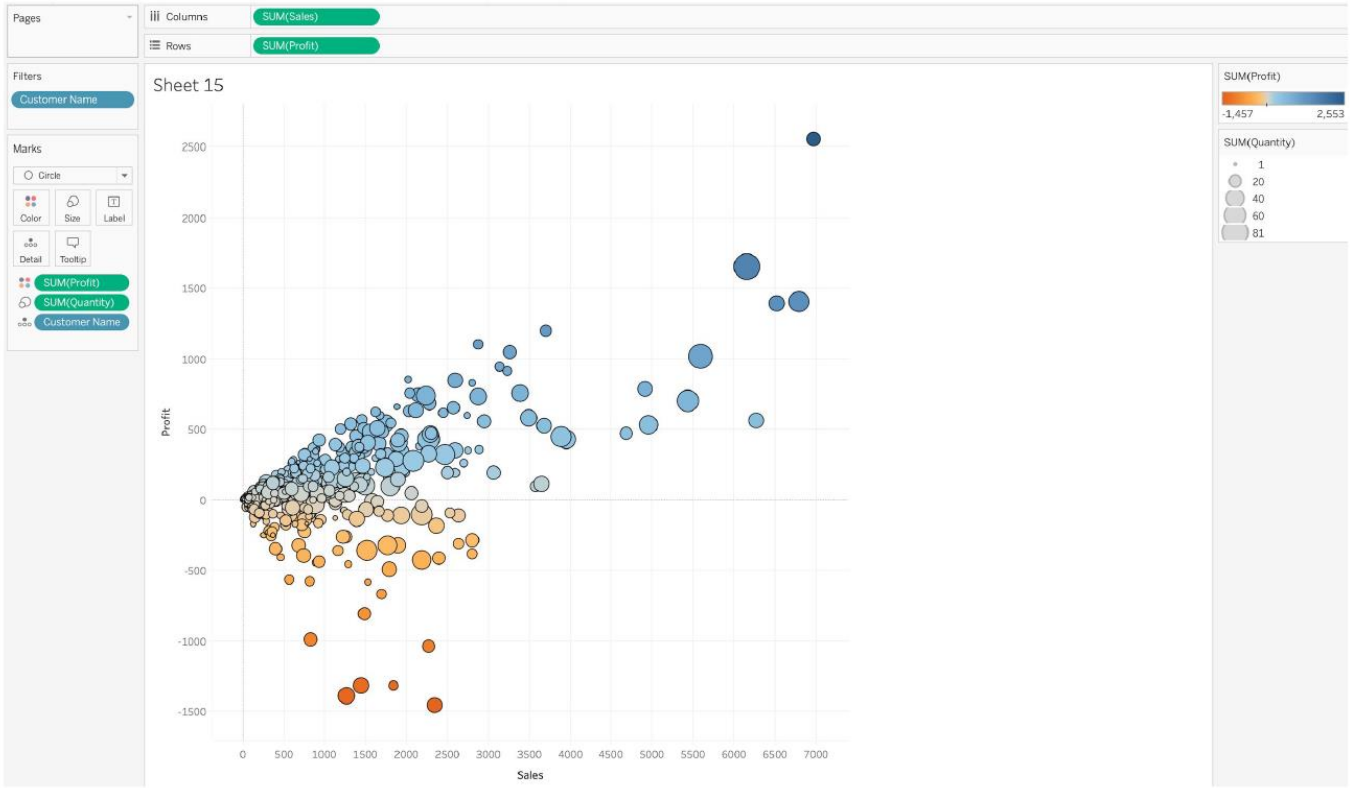
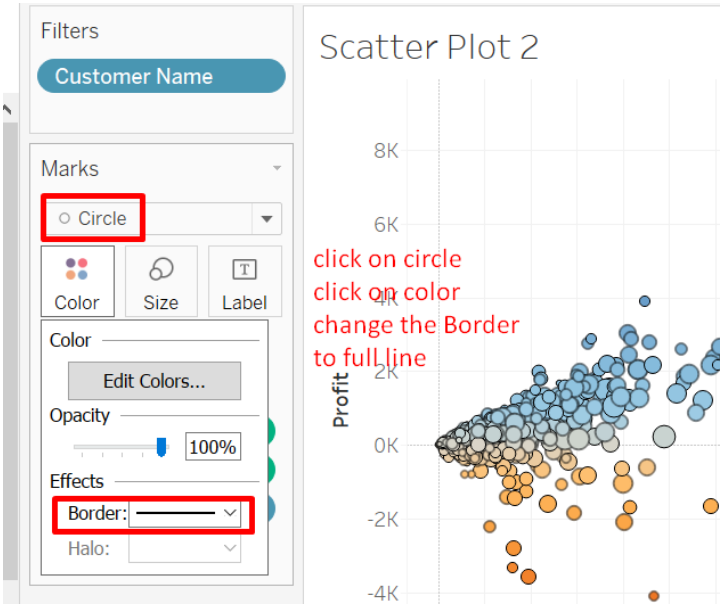
2. EXAMPLE 2





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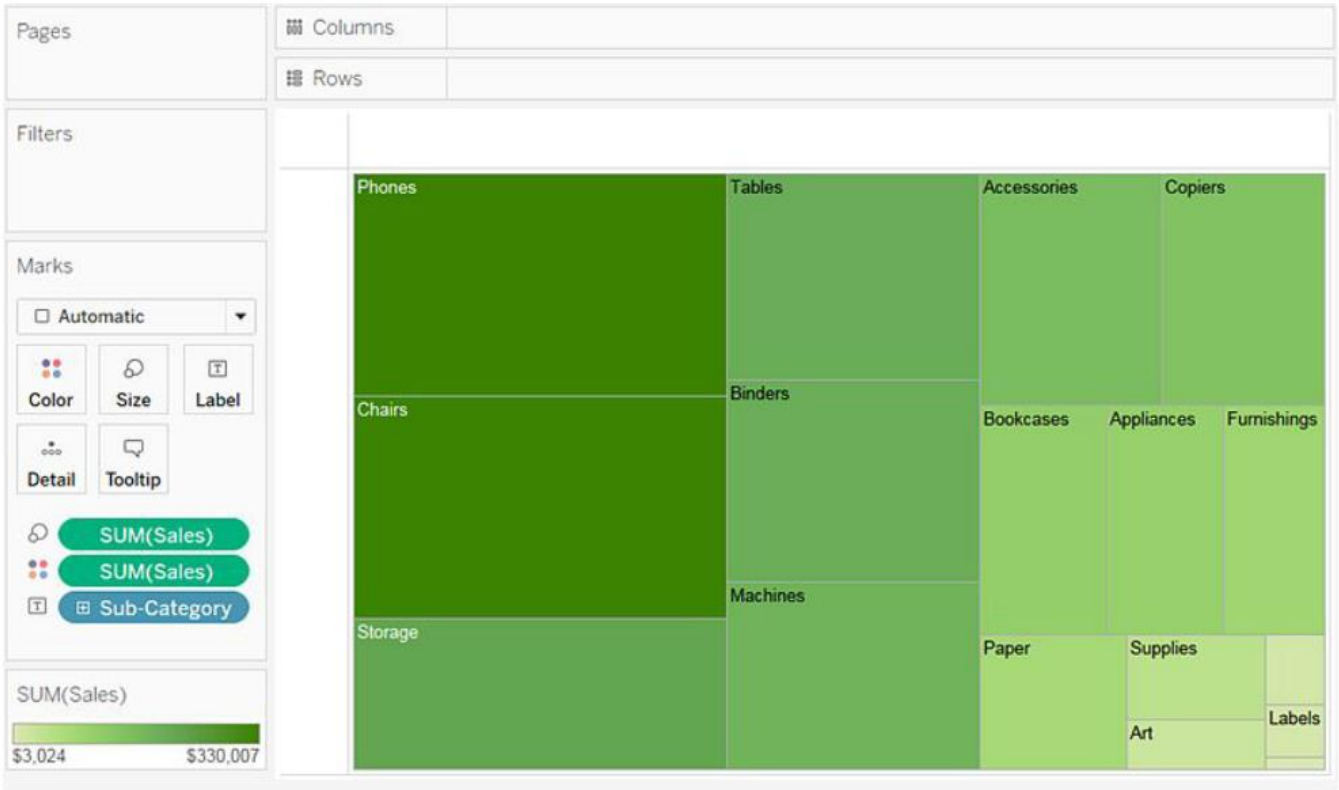
M. TREEMAP



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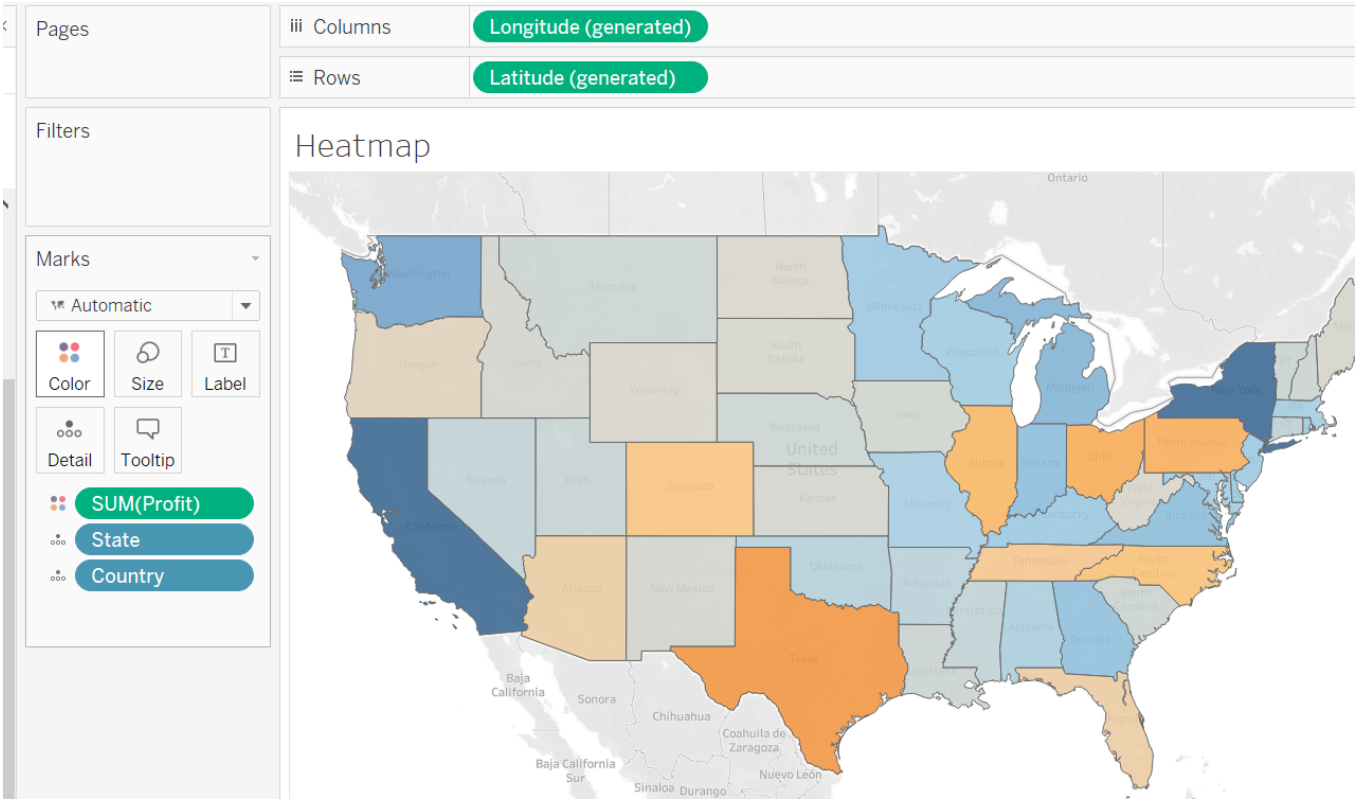
N. HEATMAP



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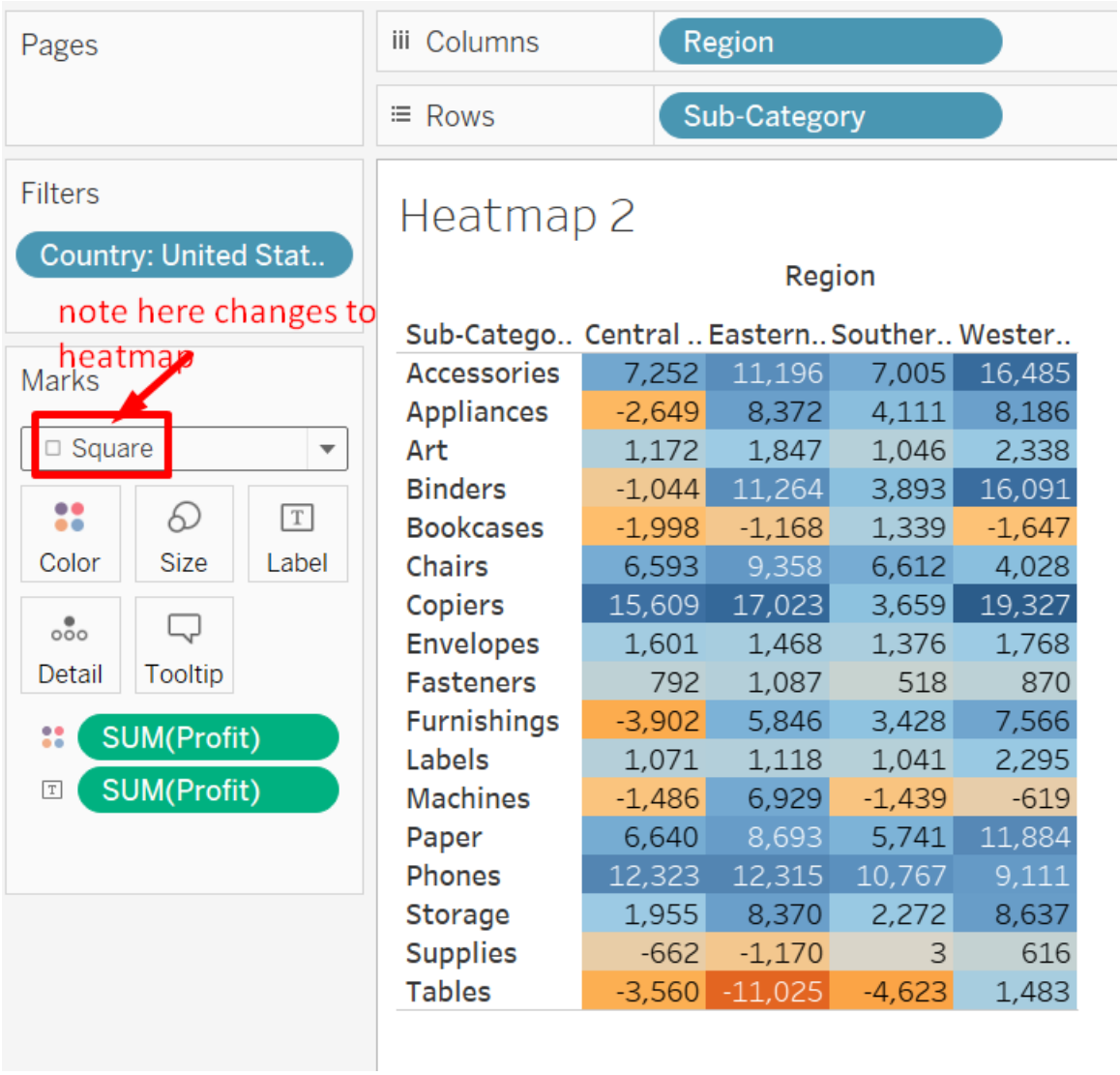
O. HIGHLIGHT TABLE



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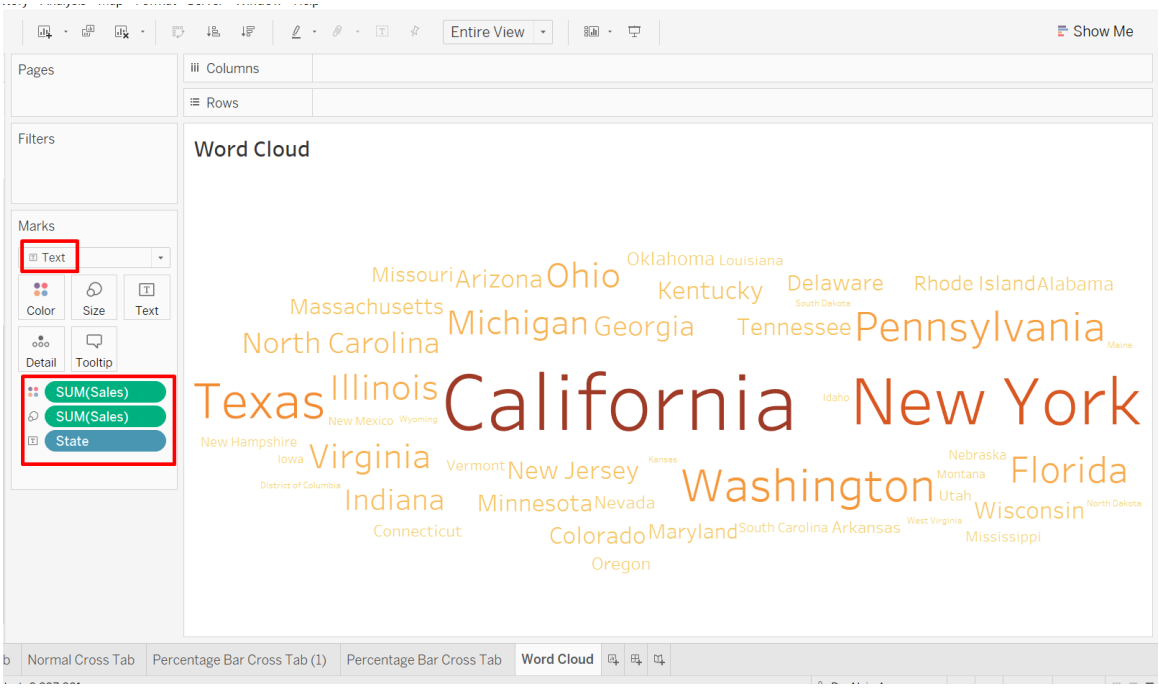
P. WORD CLOUD



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Q. GRADIENT BAR CHART

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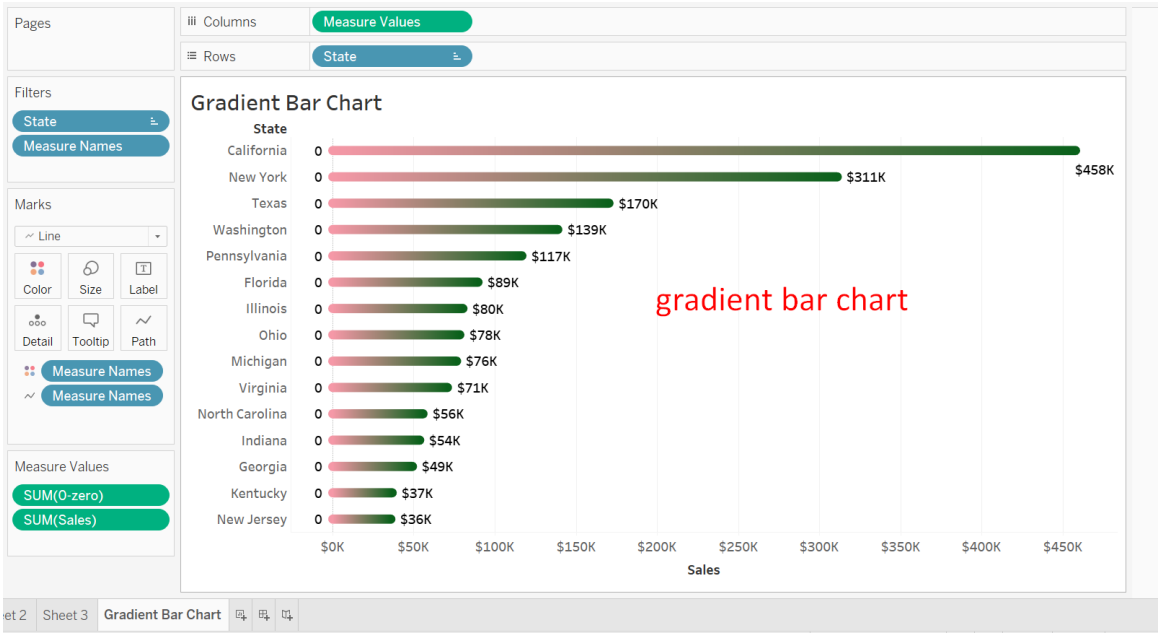

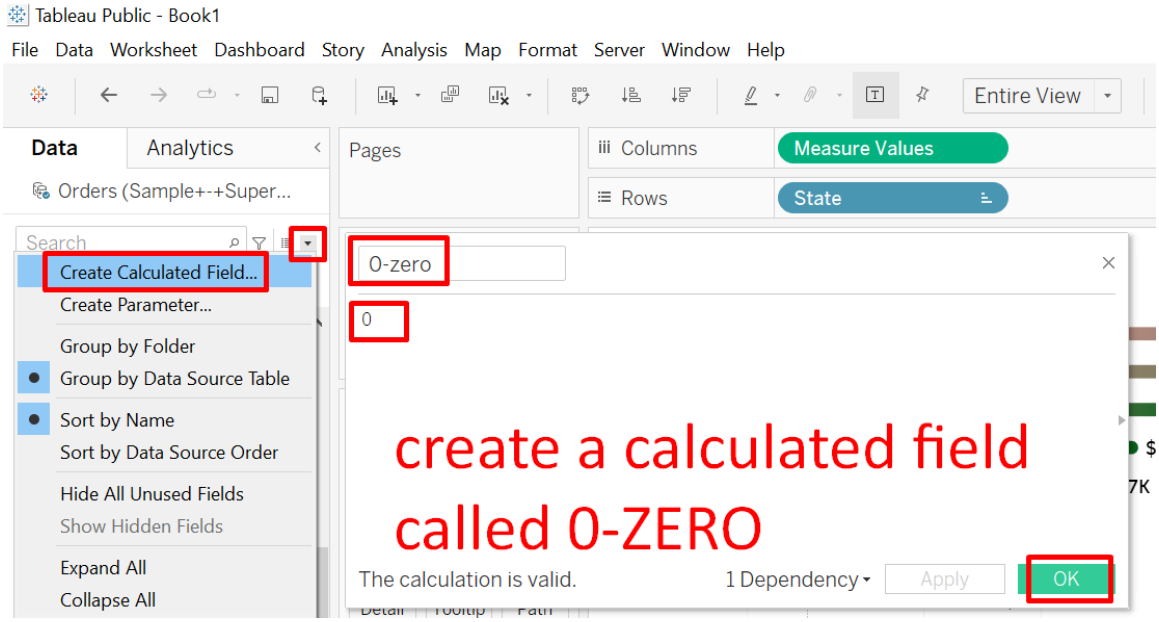

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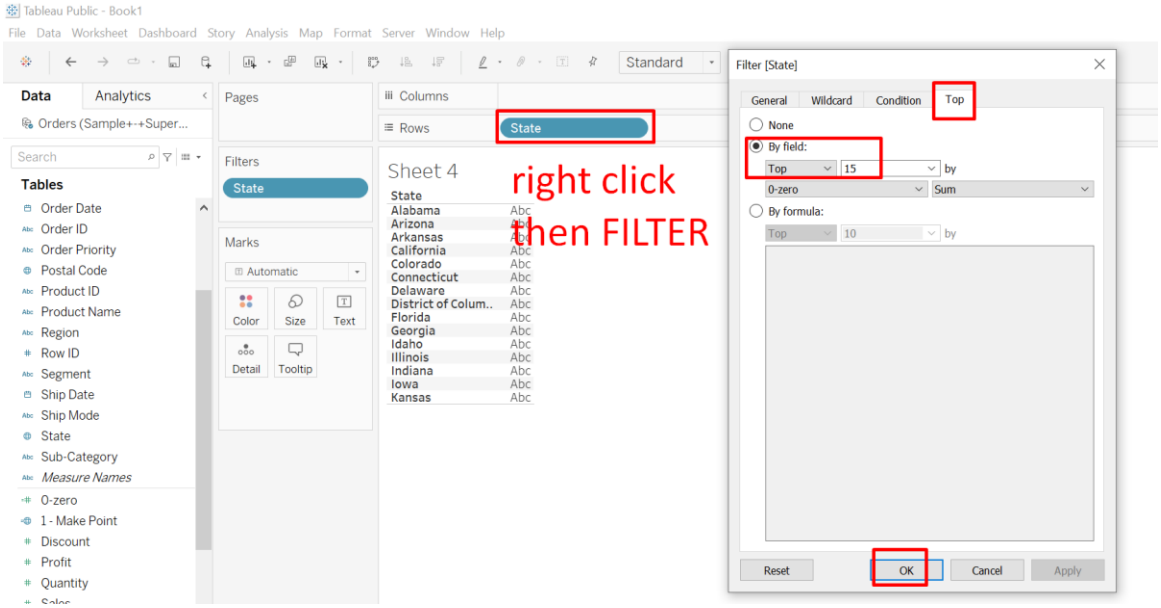

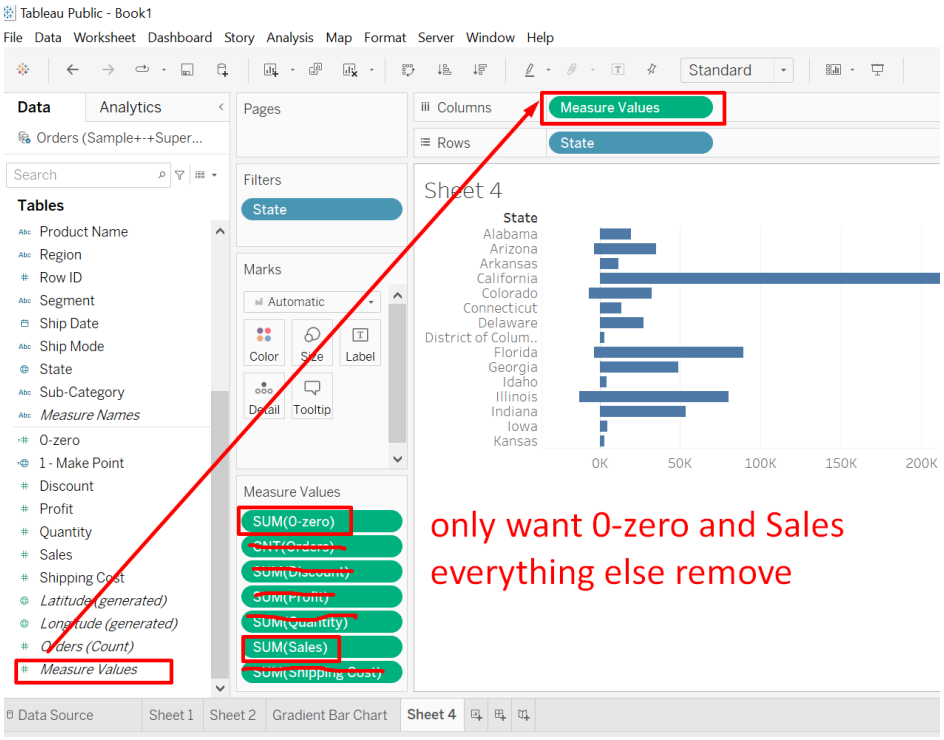

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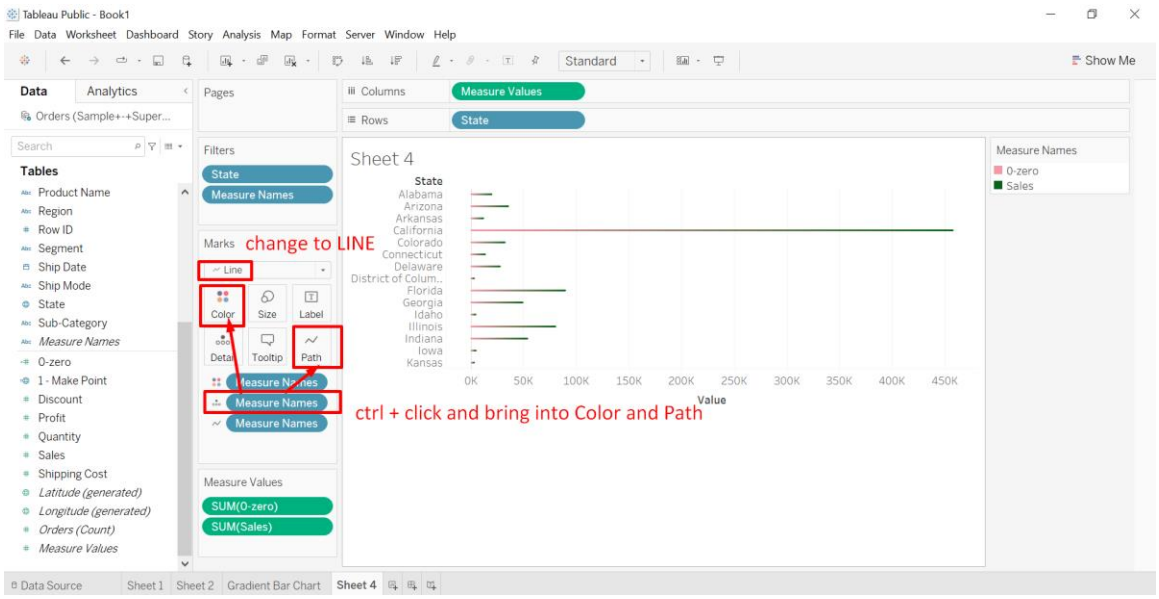

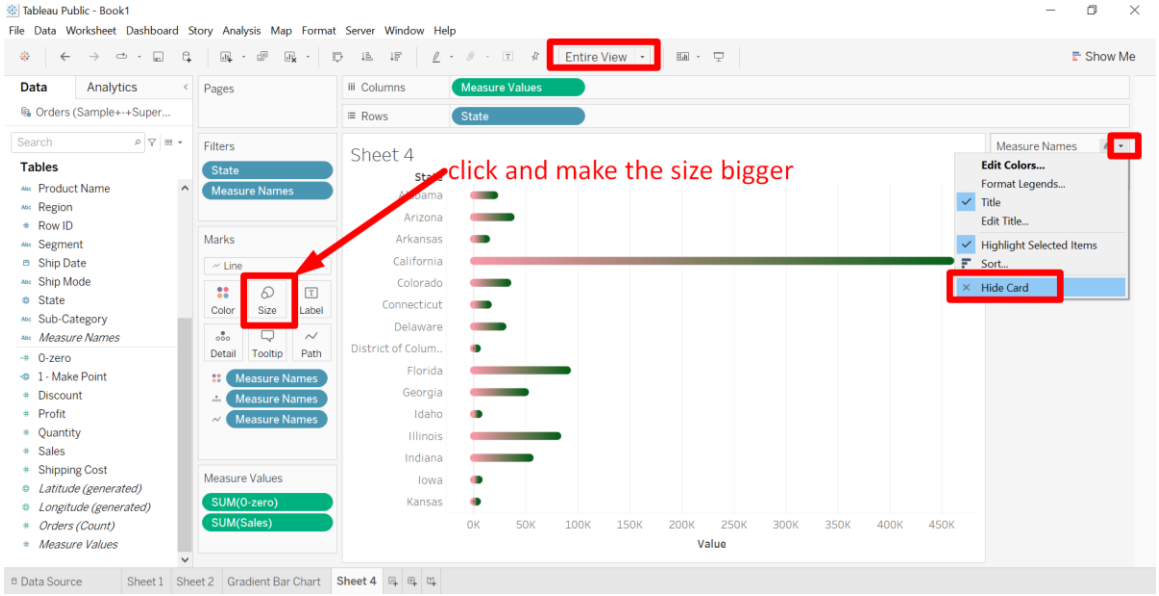

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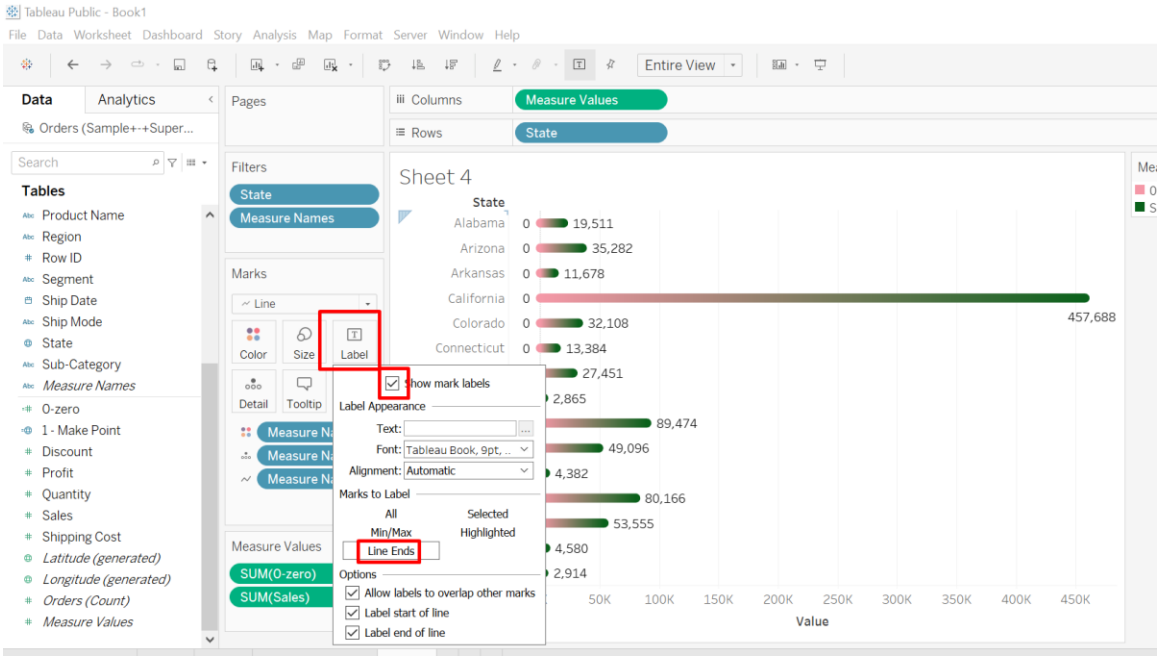

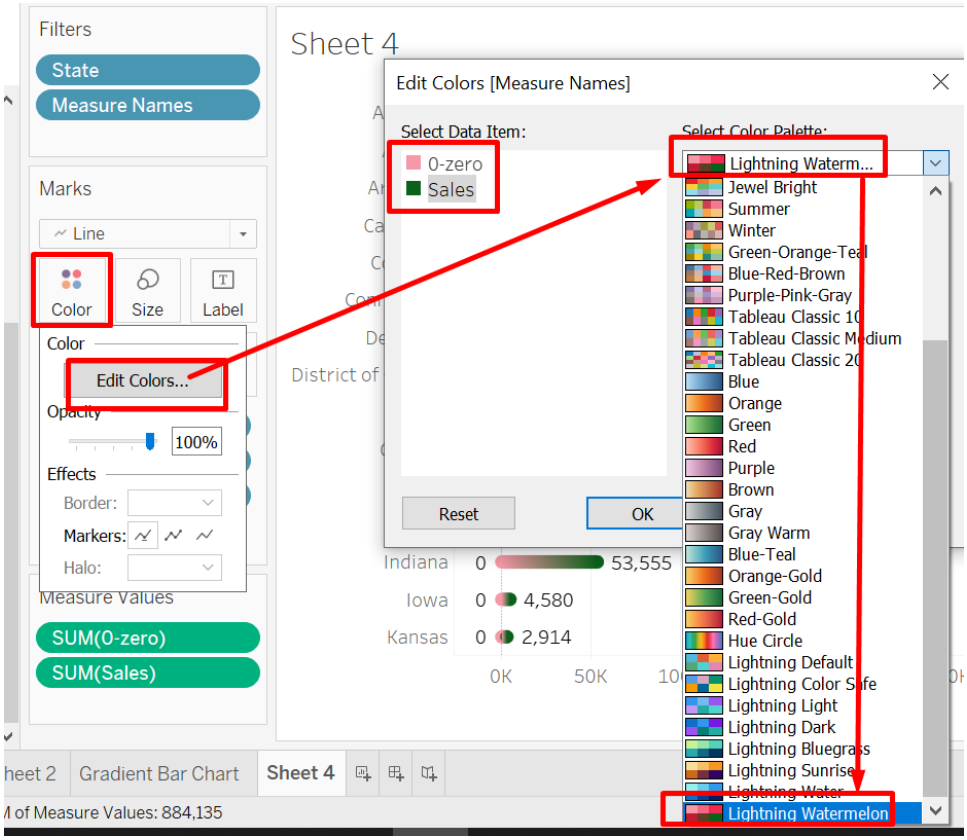

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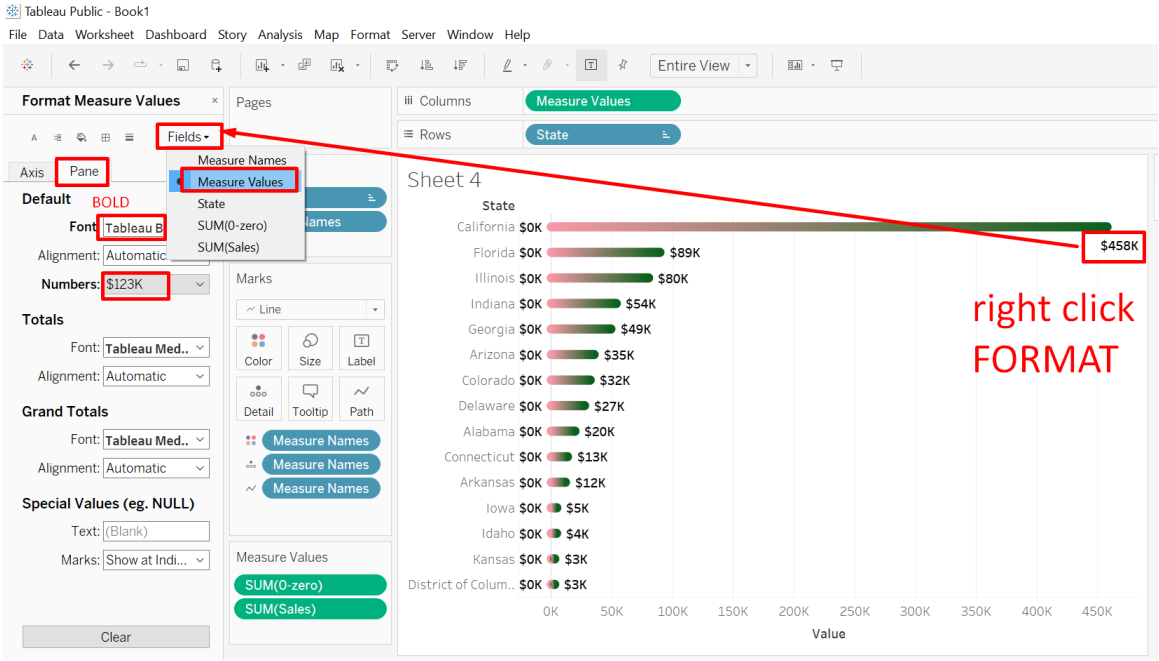

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R. BUTTERFLY CHART

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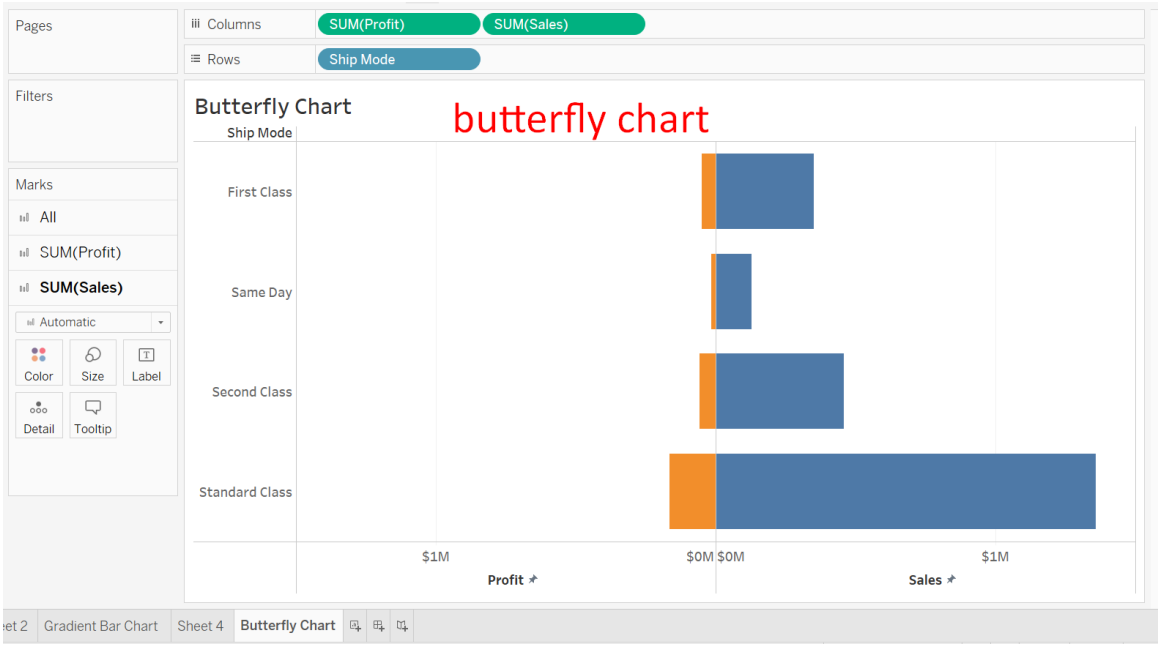

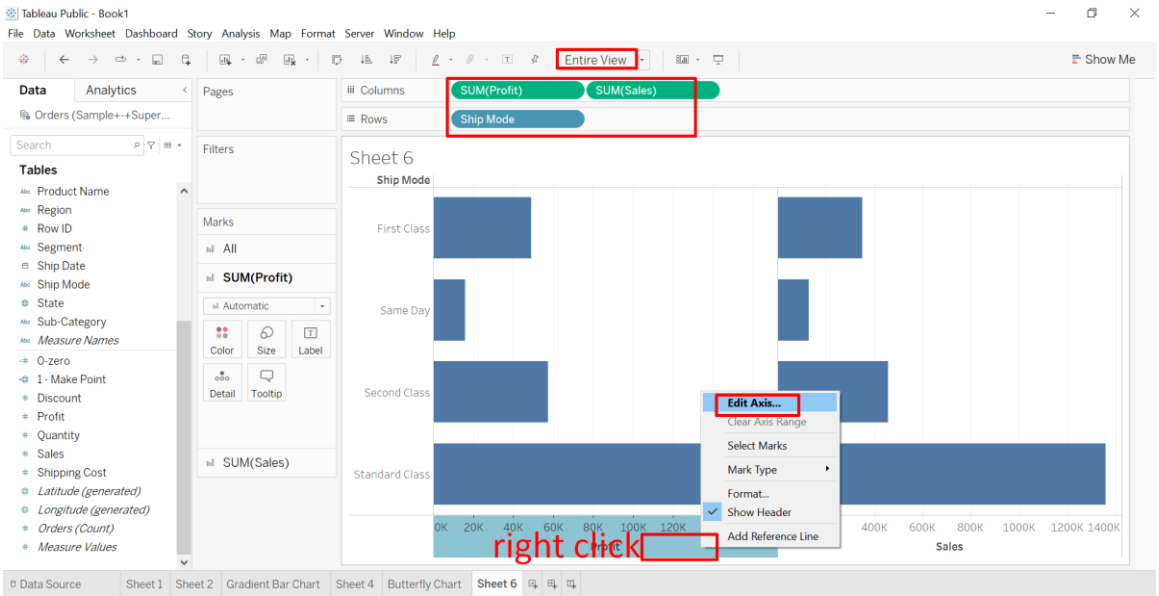

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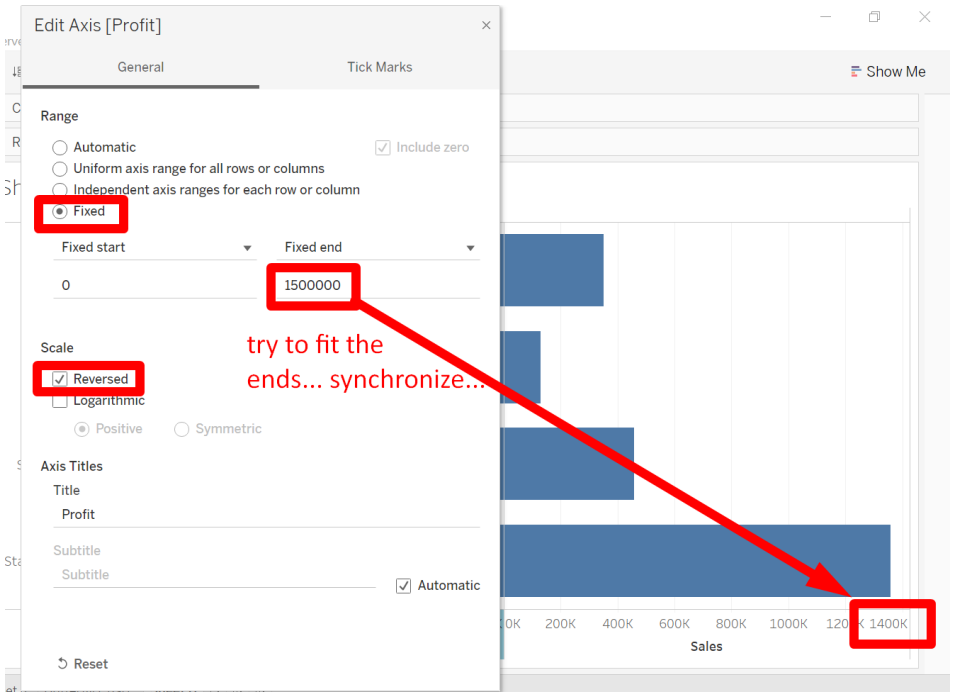

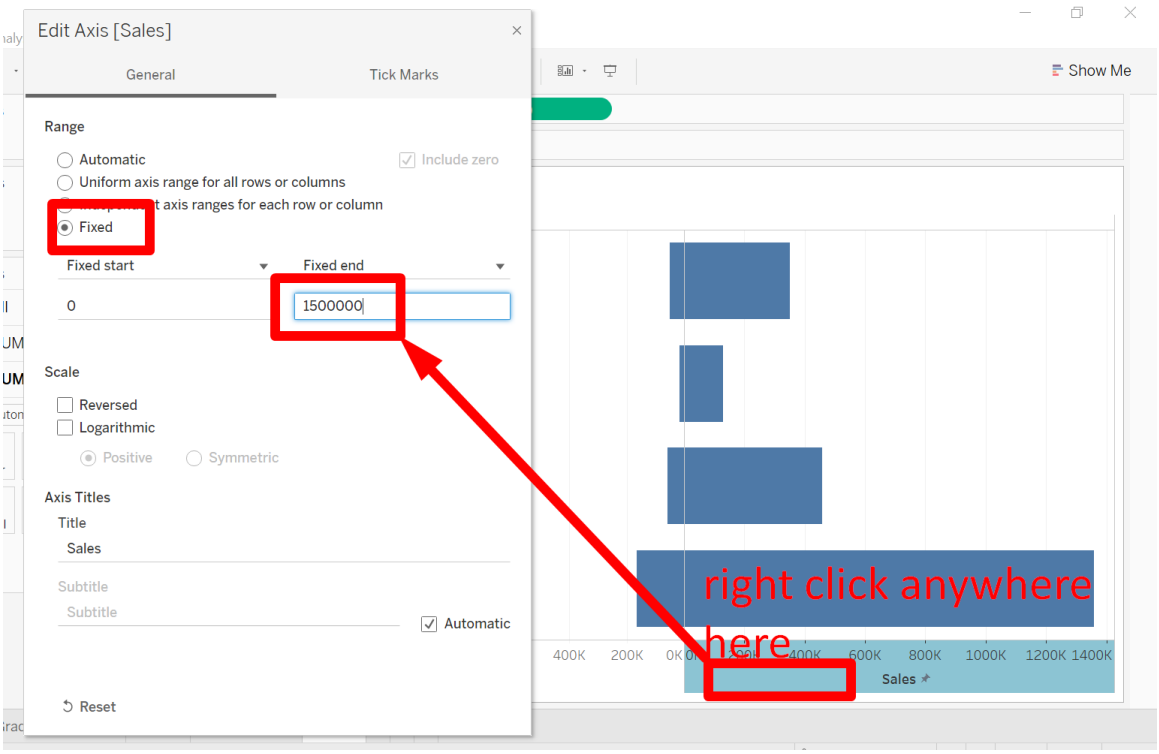

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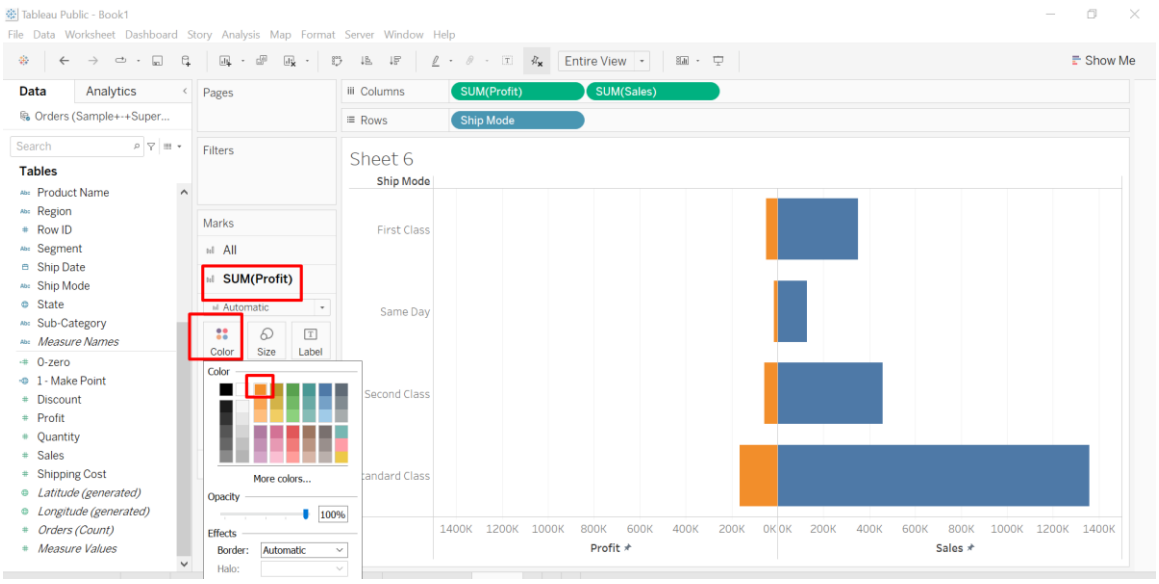

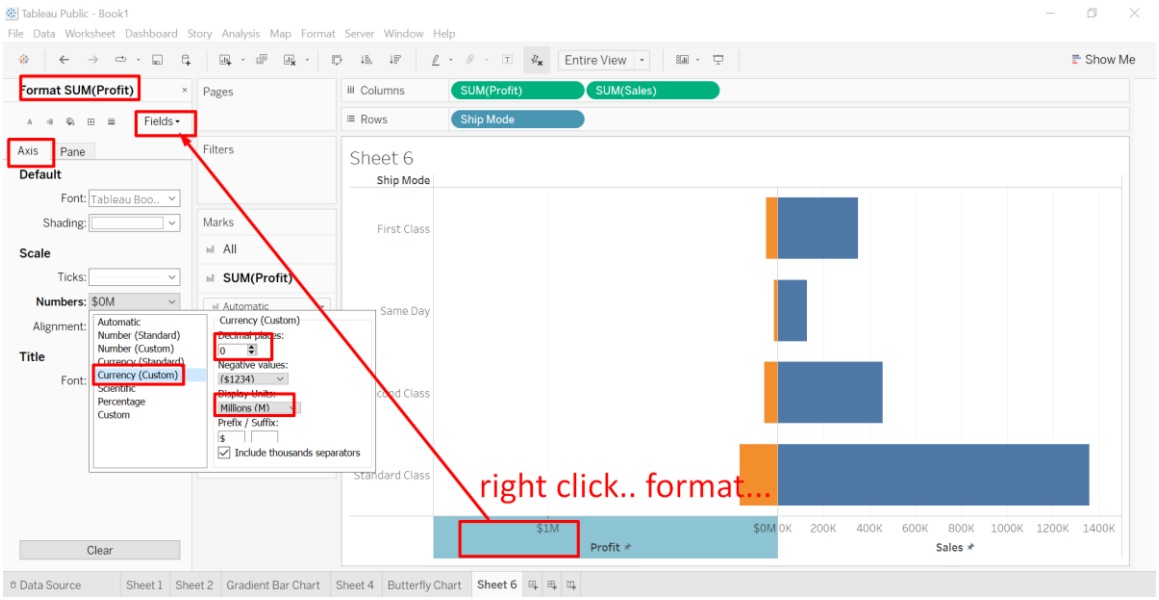

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S. FUNNEL CHART

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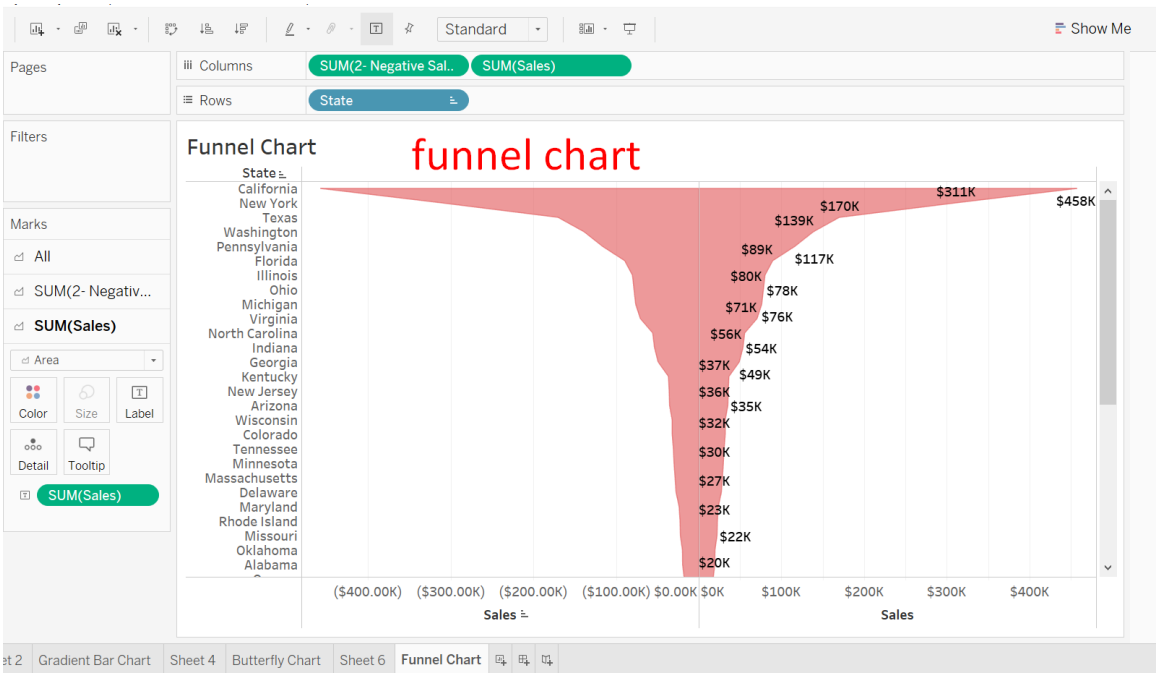

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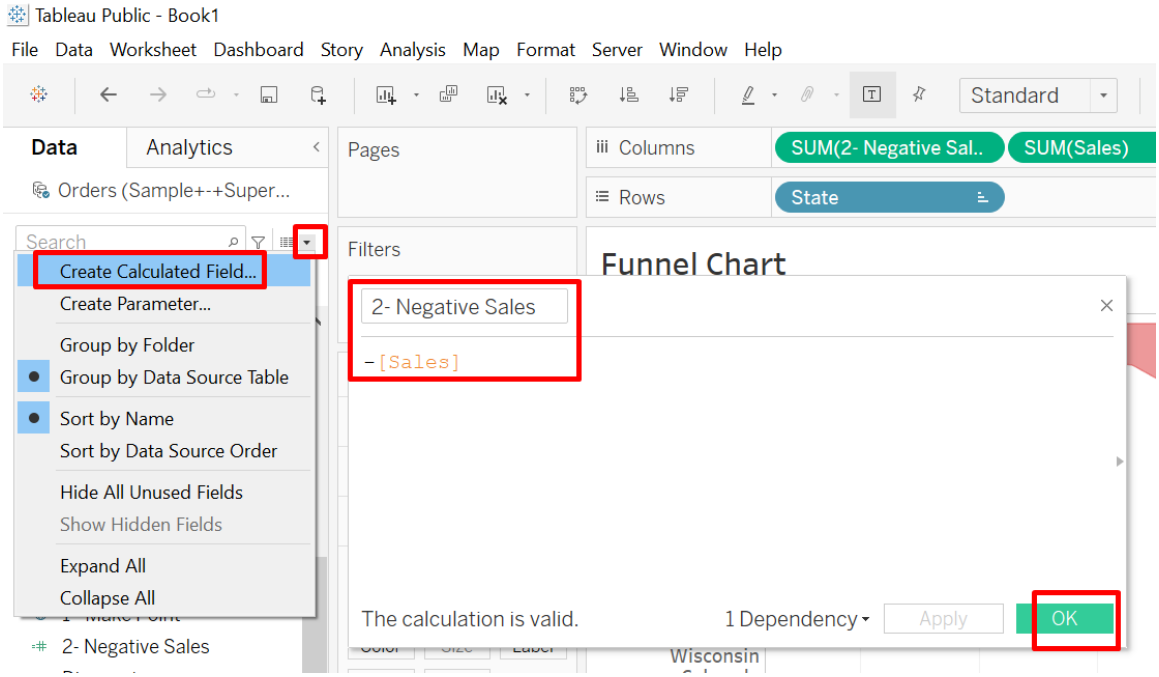

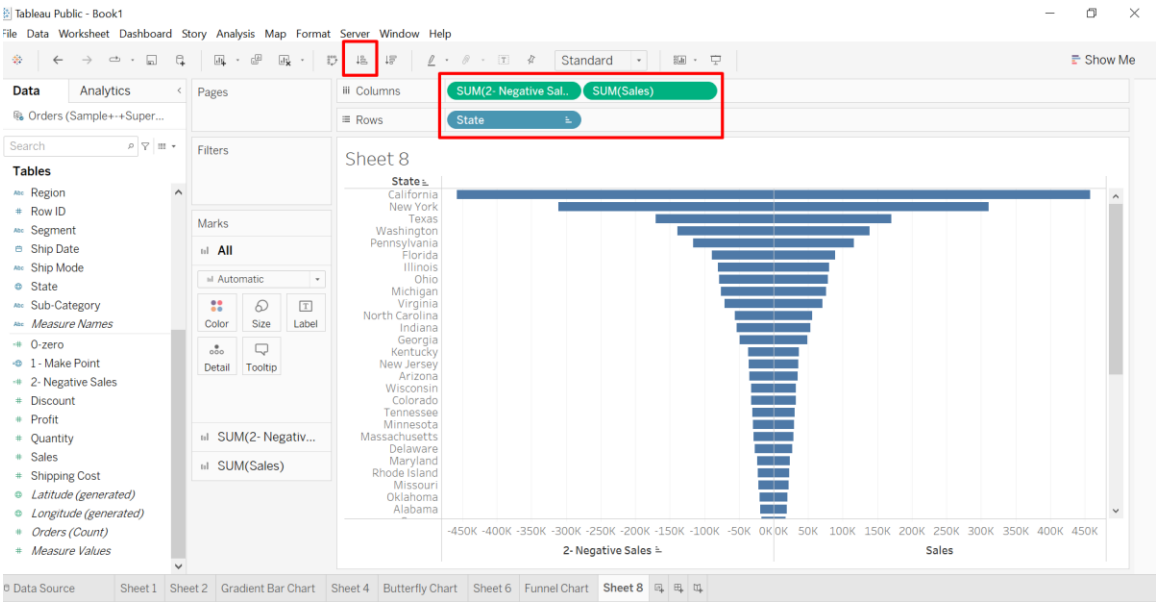

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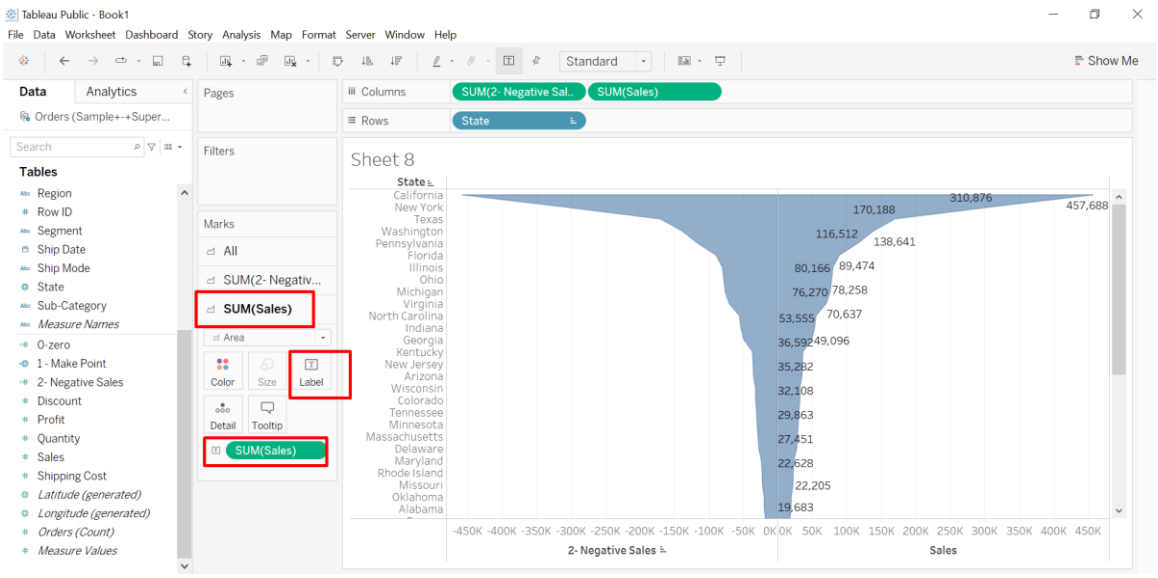

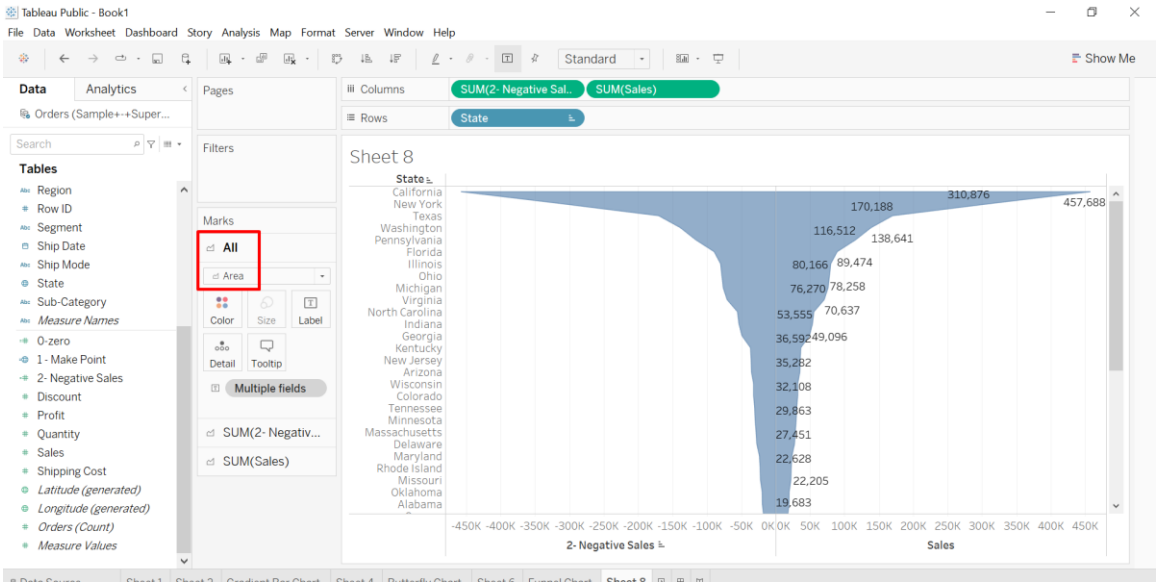

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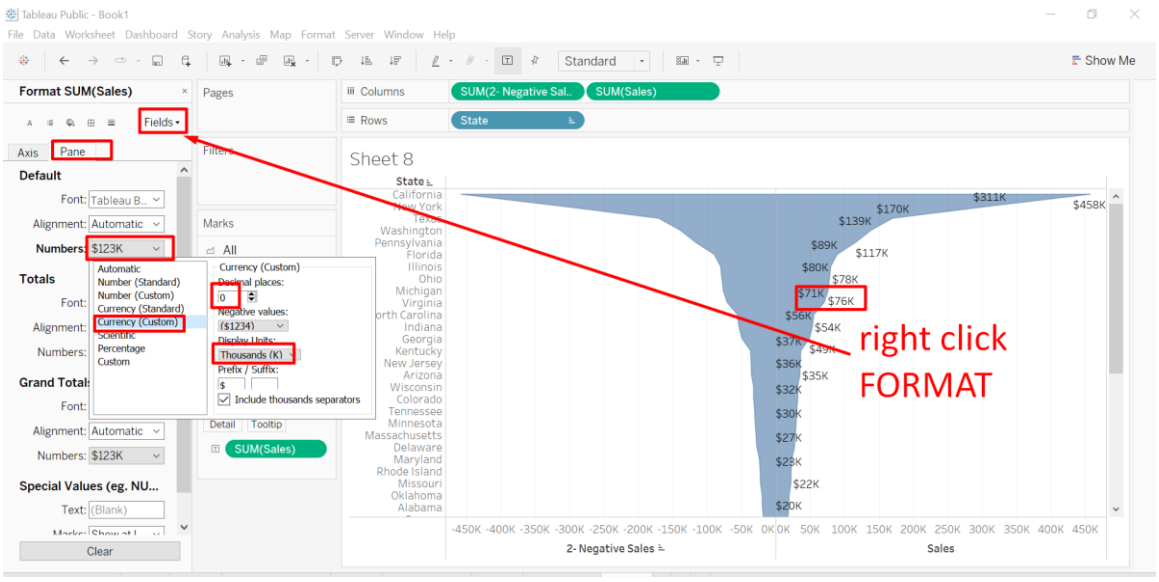

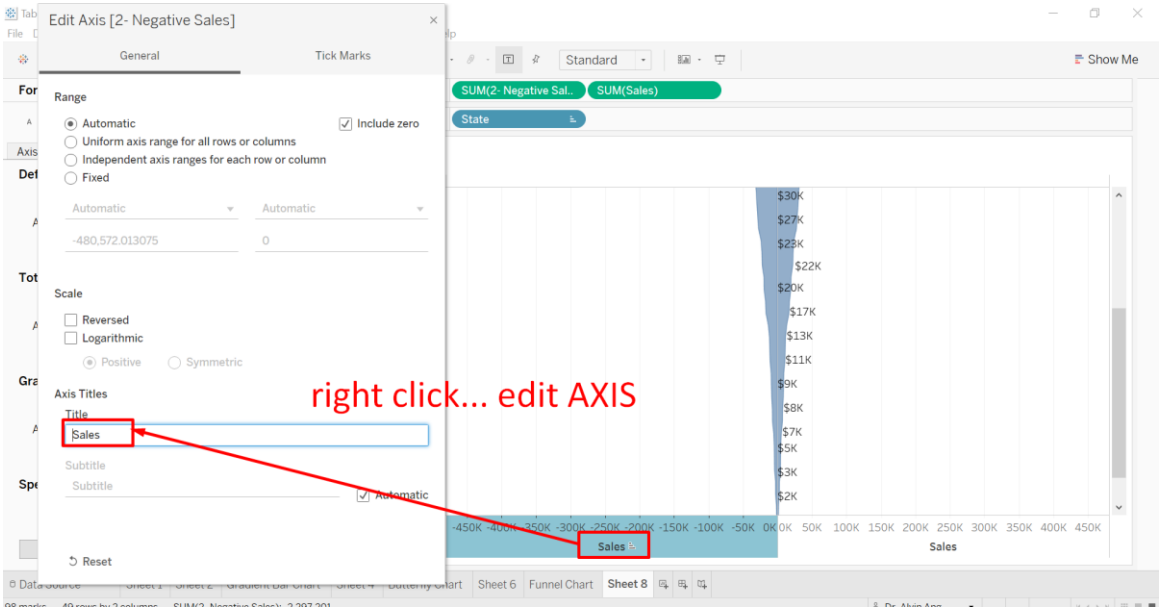

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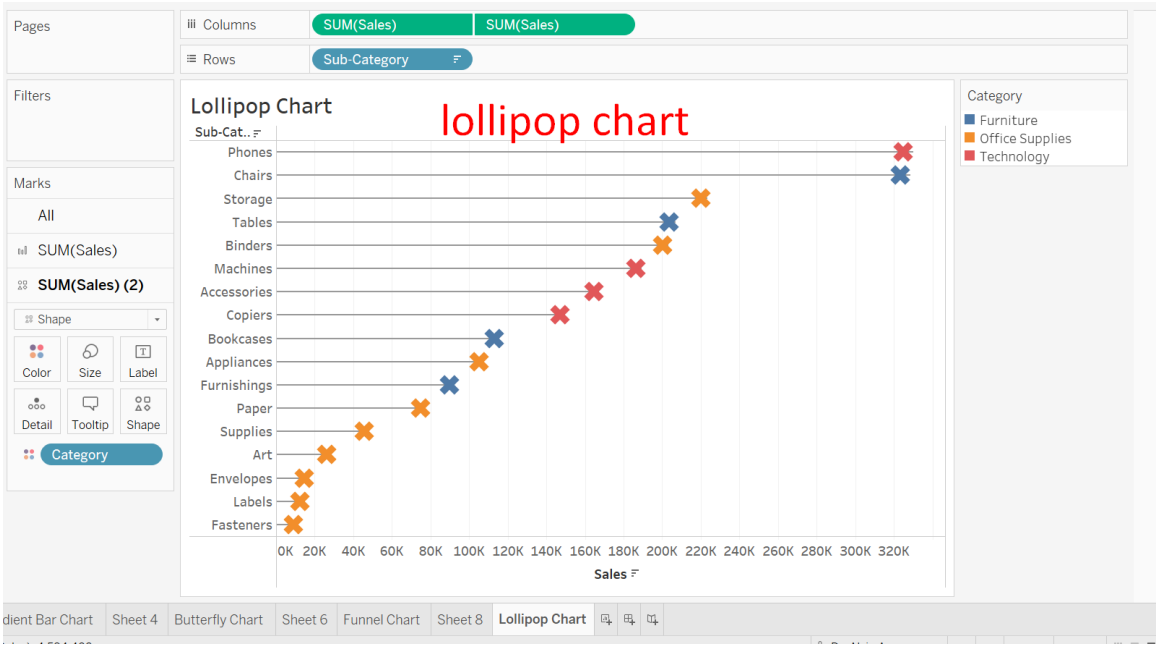
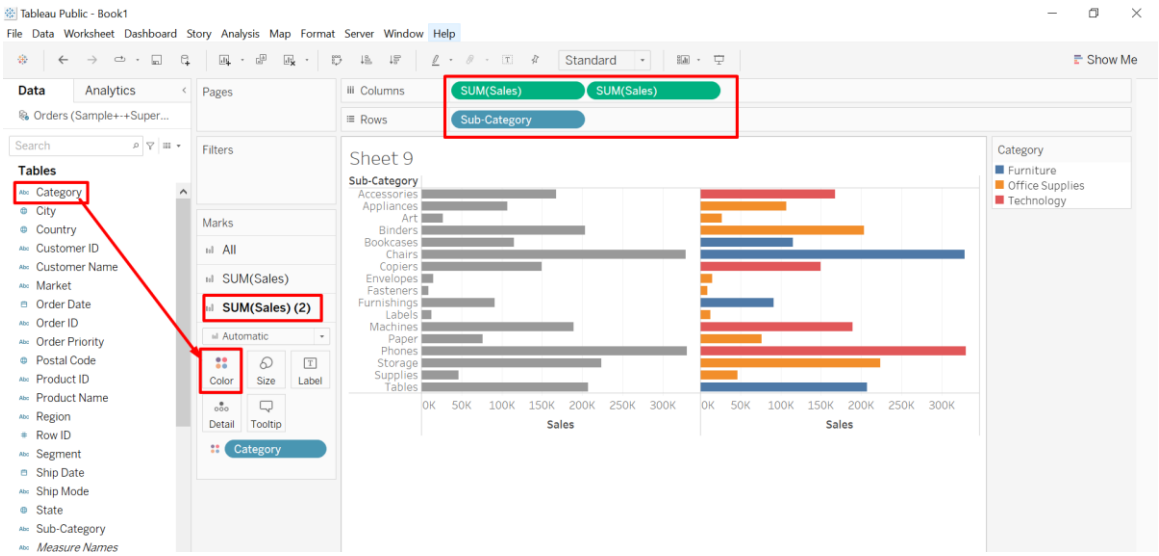
T. LOLLIPOP CHART

We shall achieve this….





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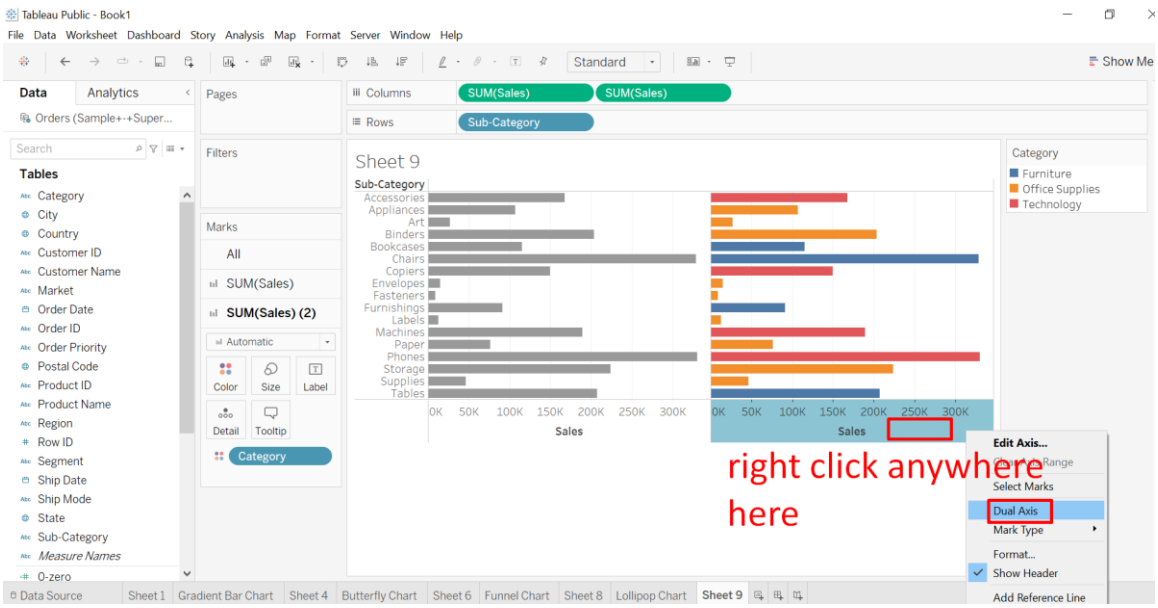

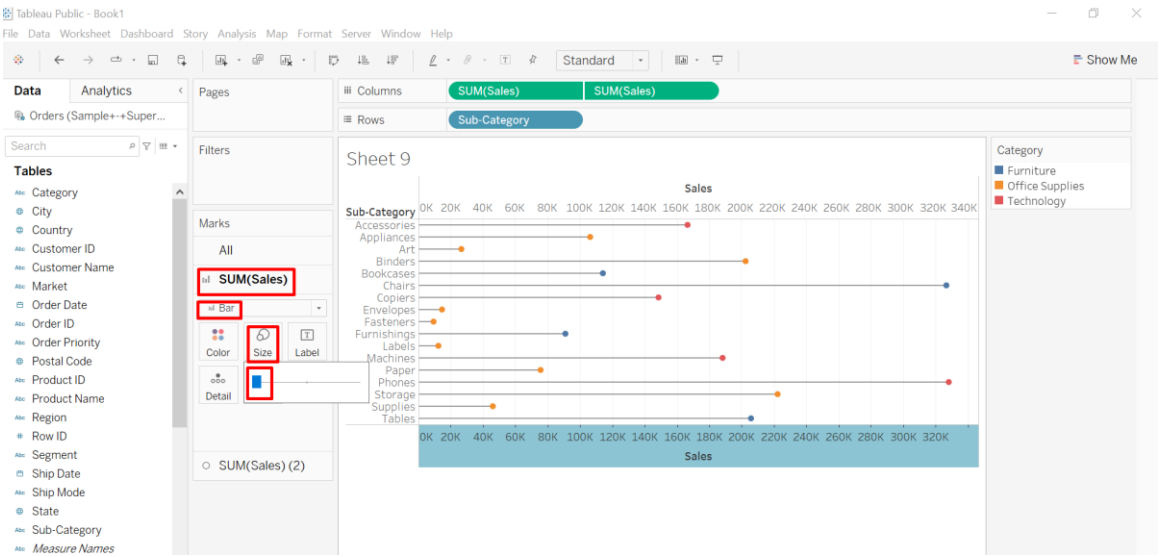

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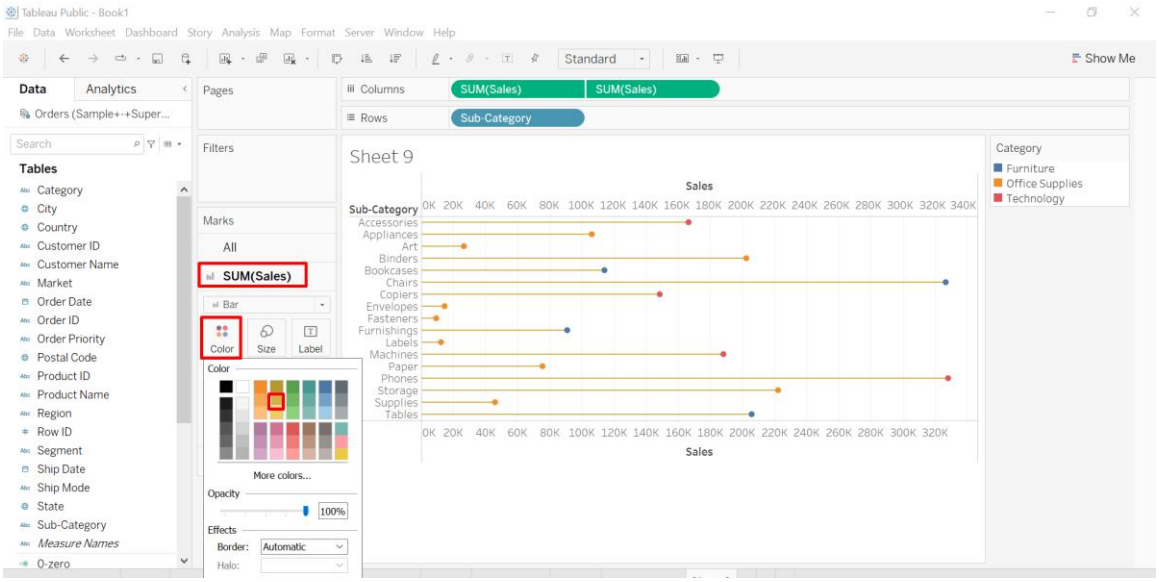

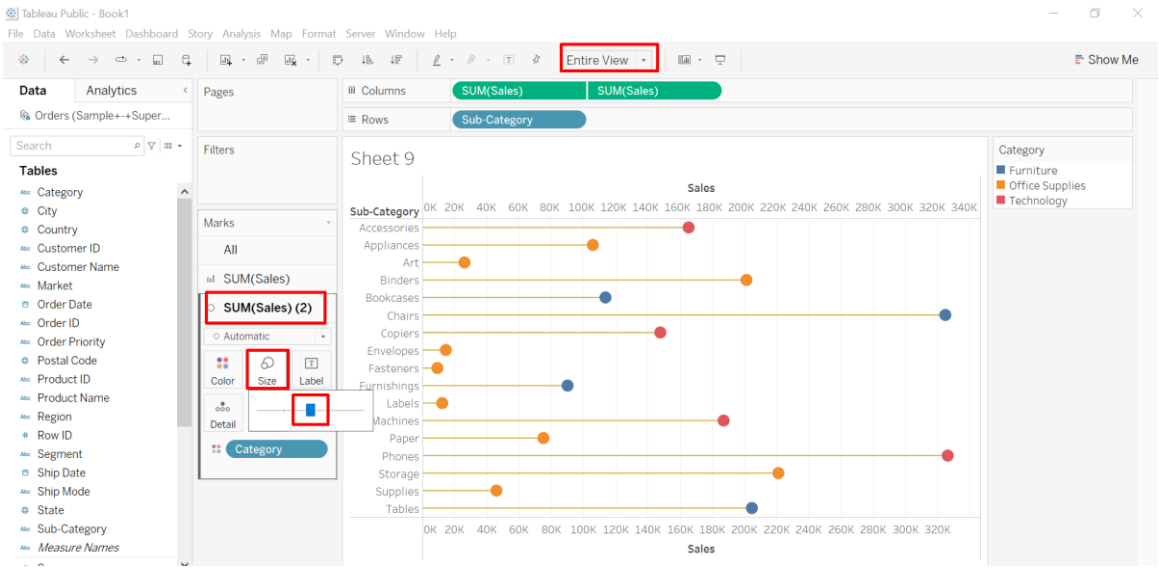

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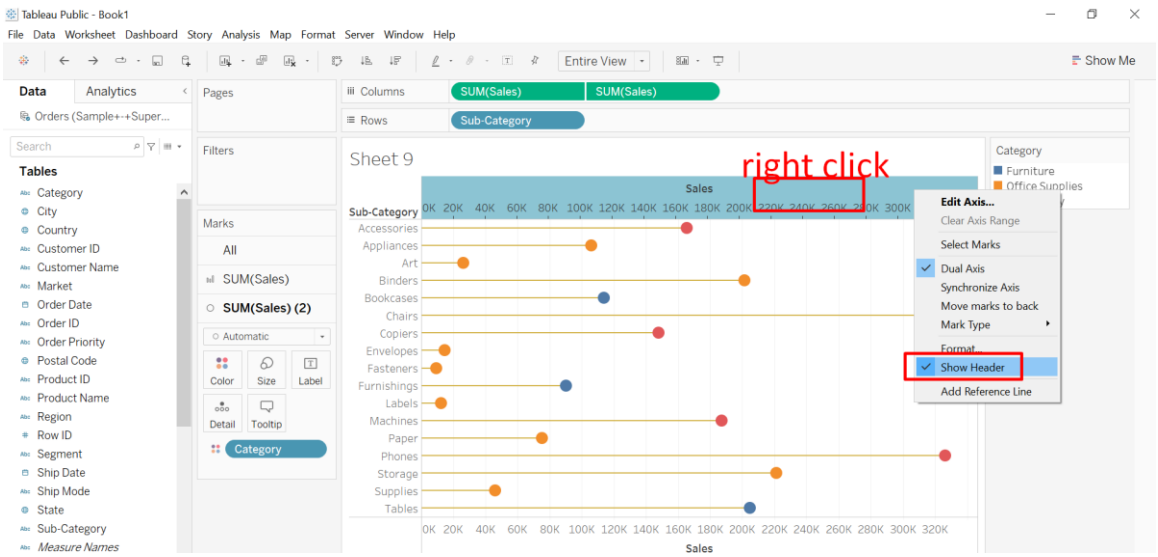

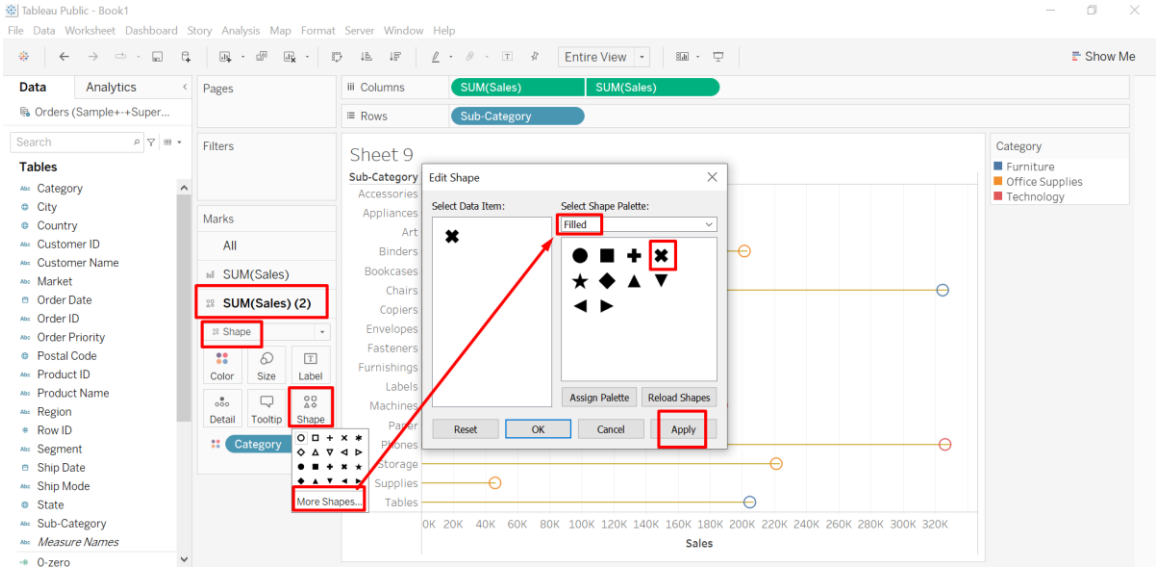

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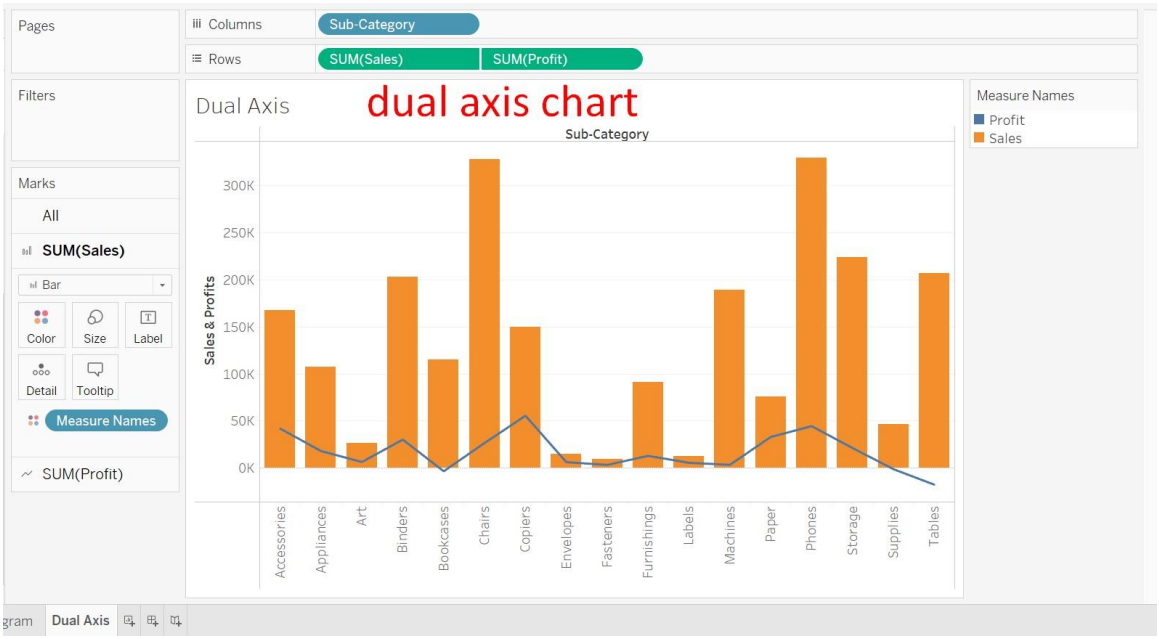
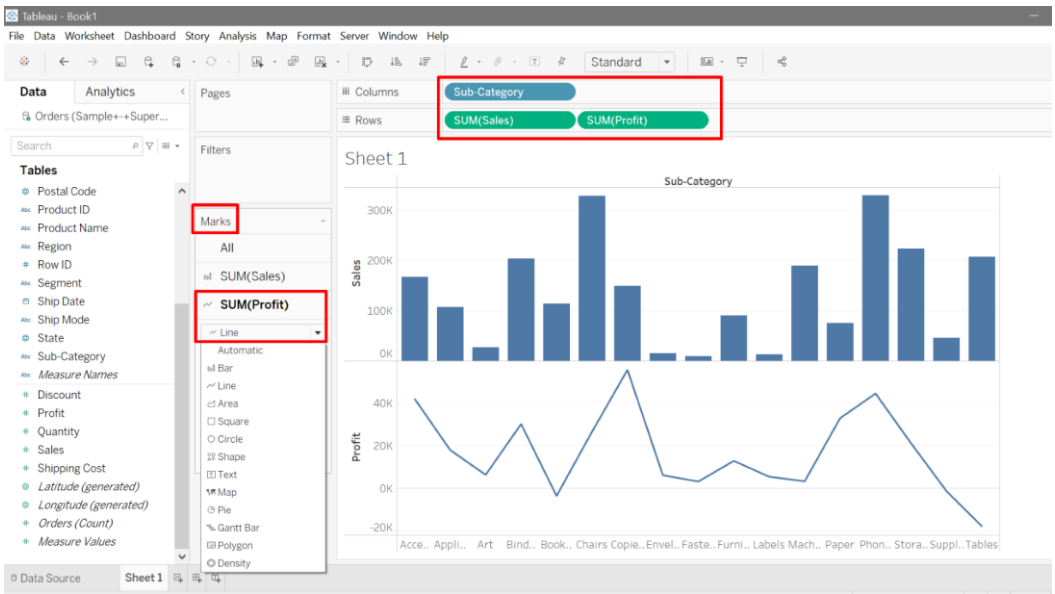
U. DUAL AXIS

https://www.alvinang.sg/s/Sample-Superstore-USA.xls

we shall do this:





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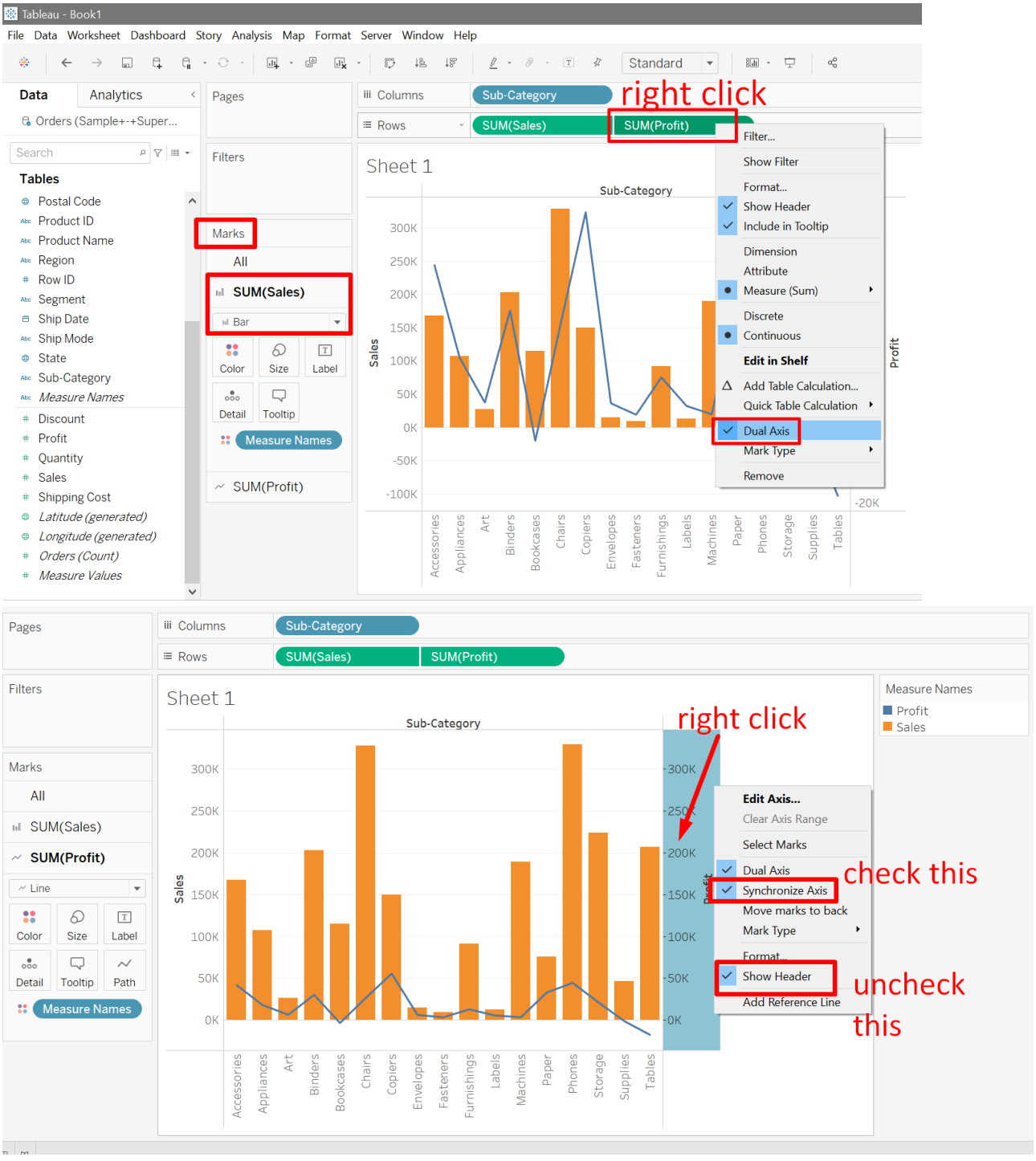

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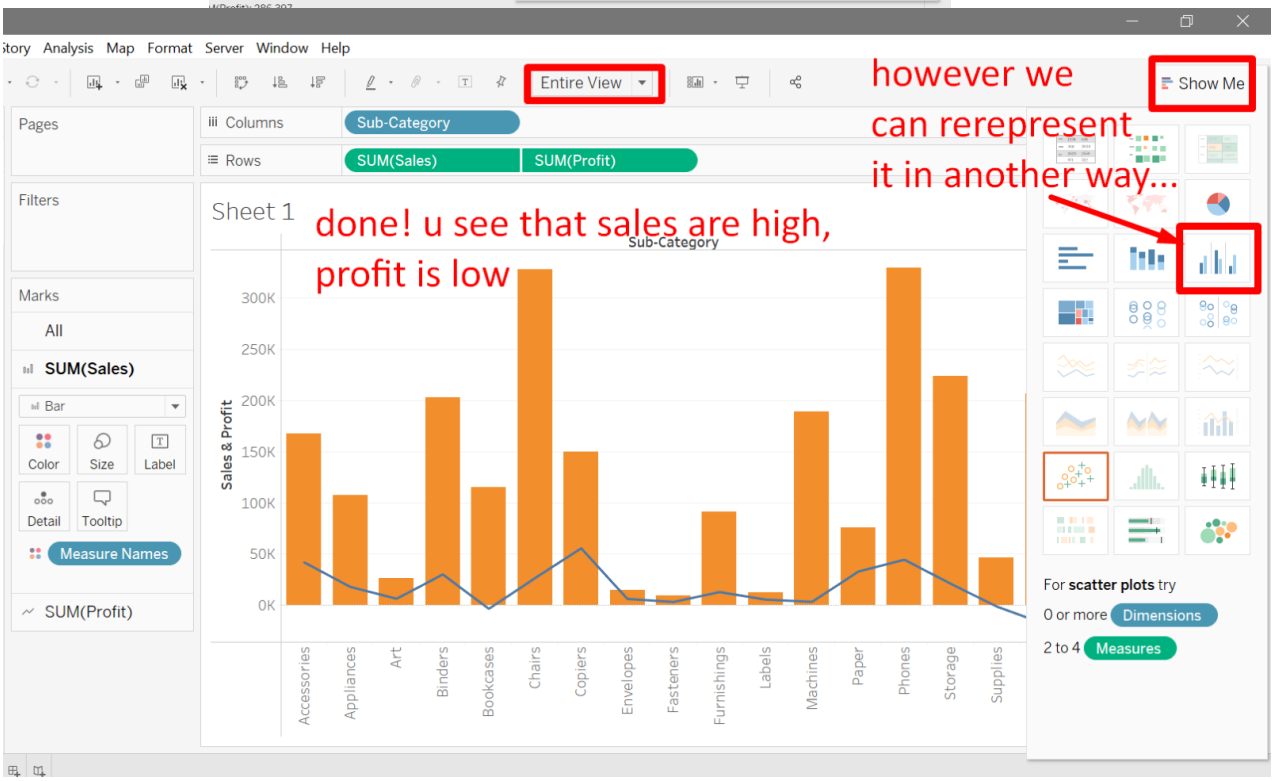

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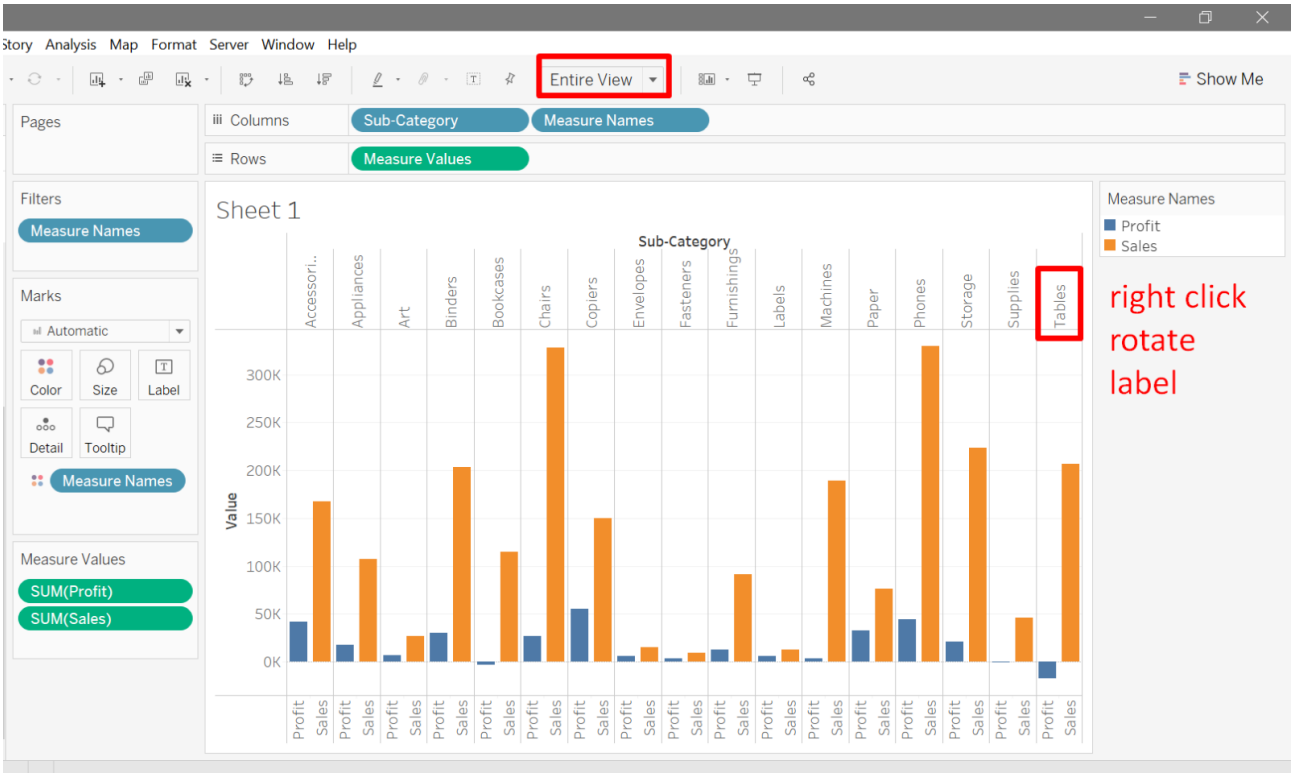
V. SIDE BY SIDE BARS

Continue off from previous section…



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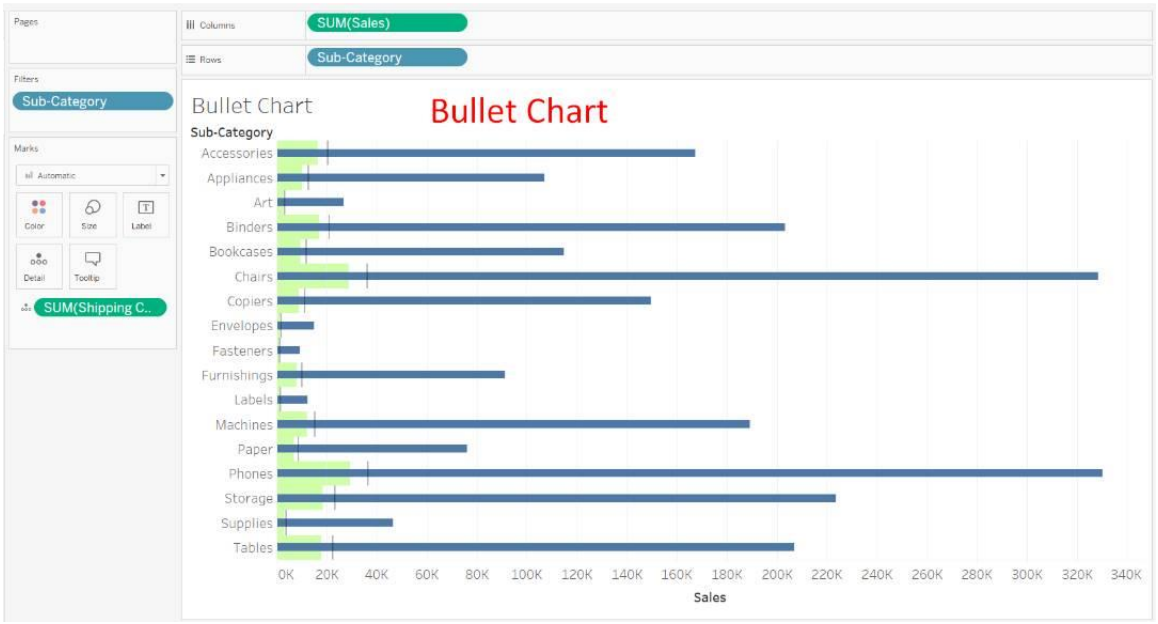
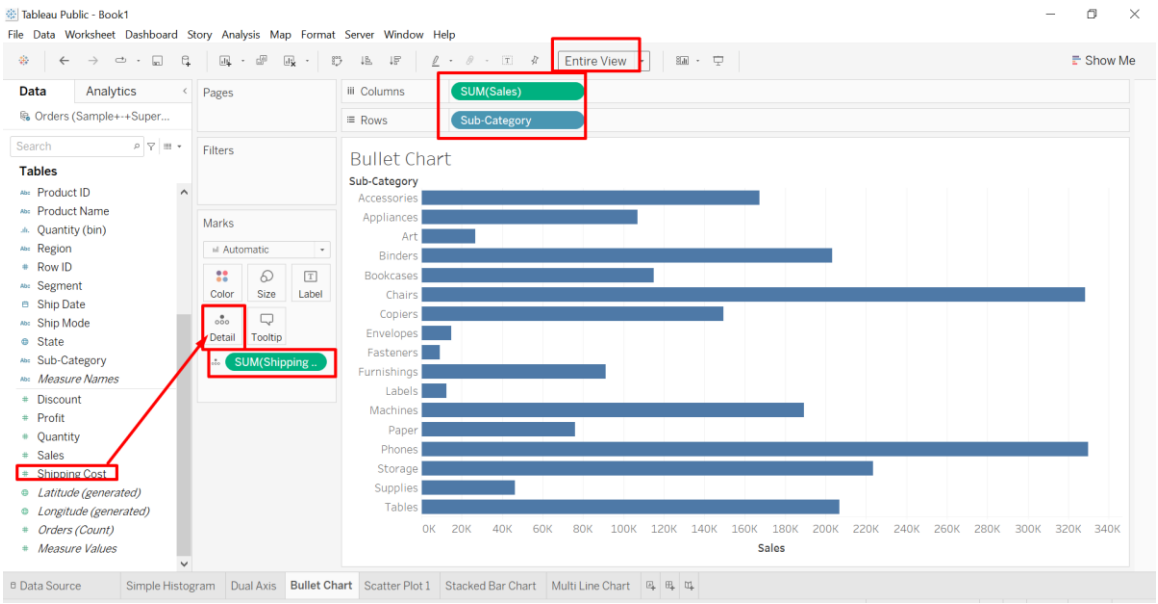
W. BULLET CHART





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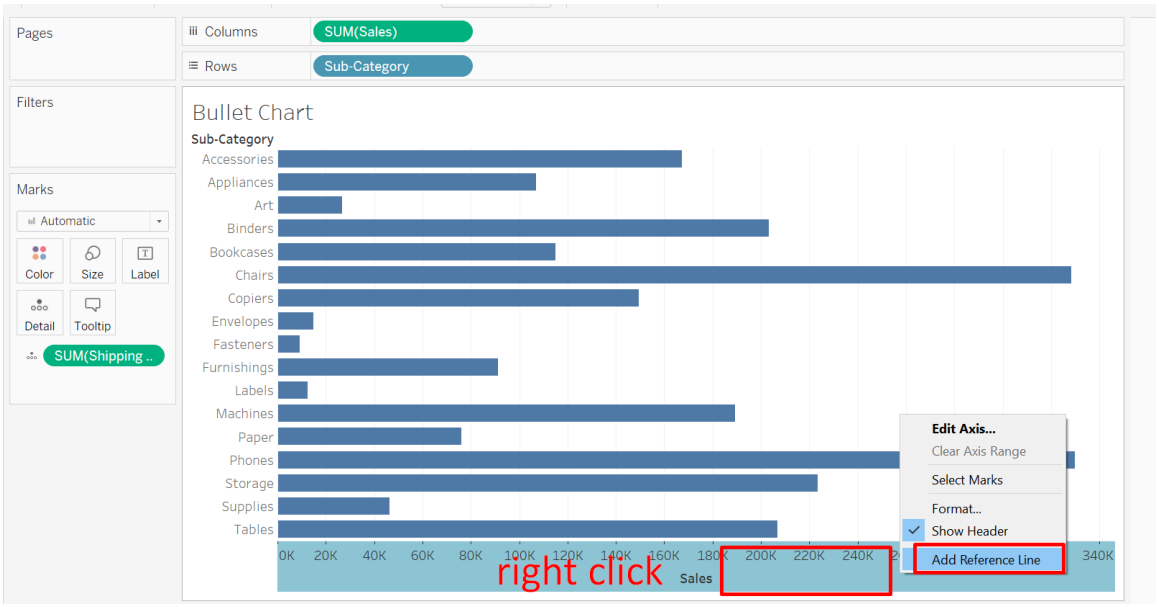

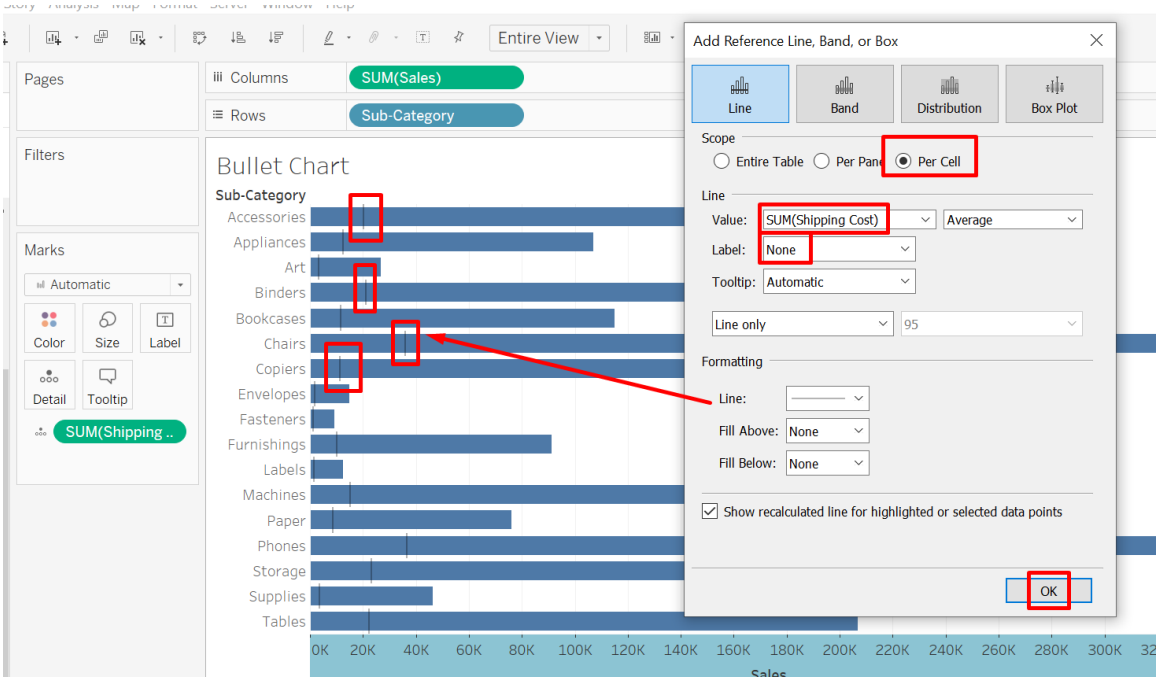

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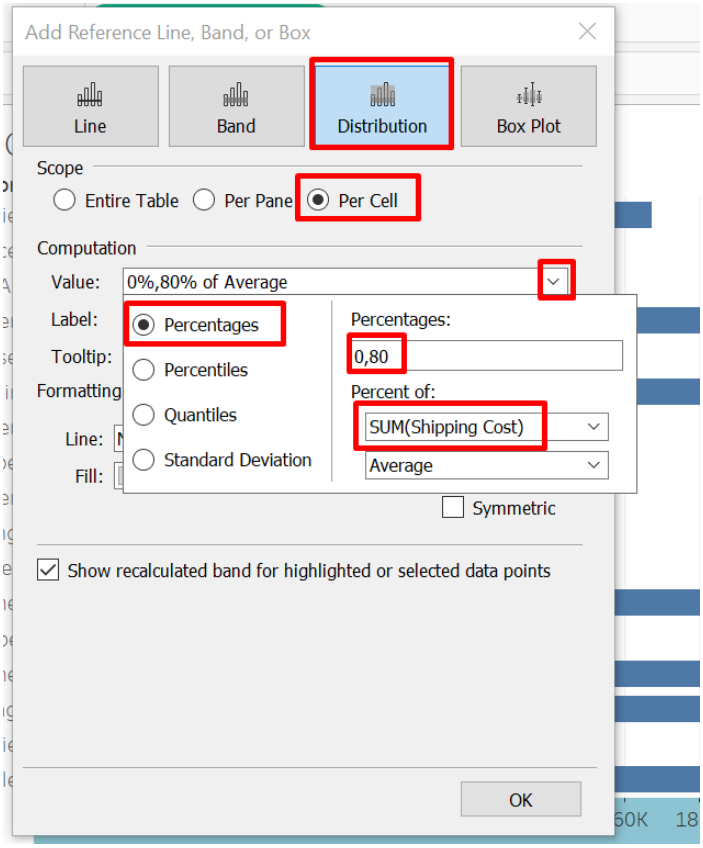

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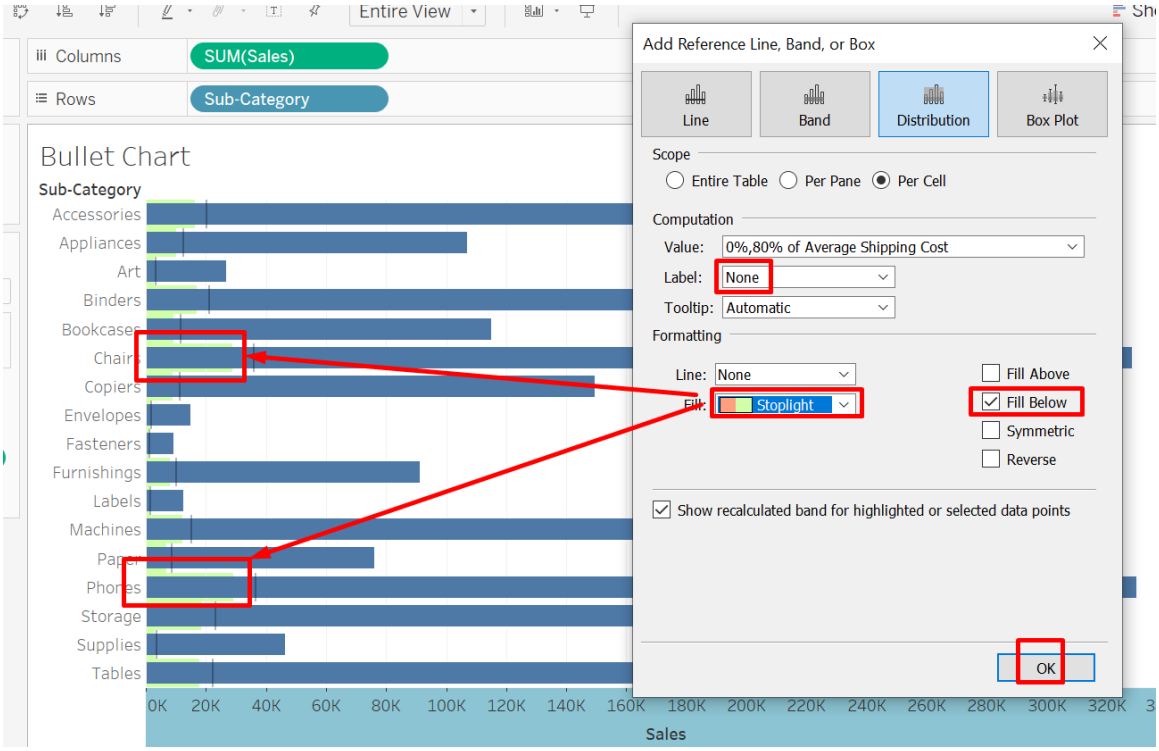

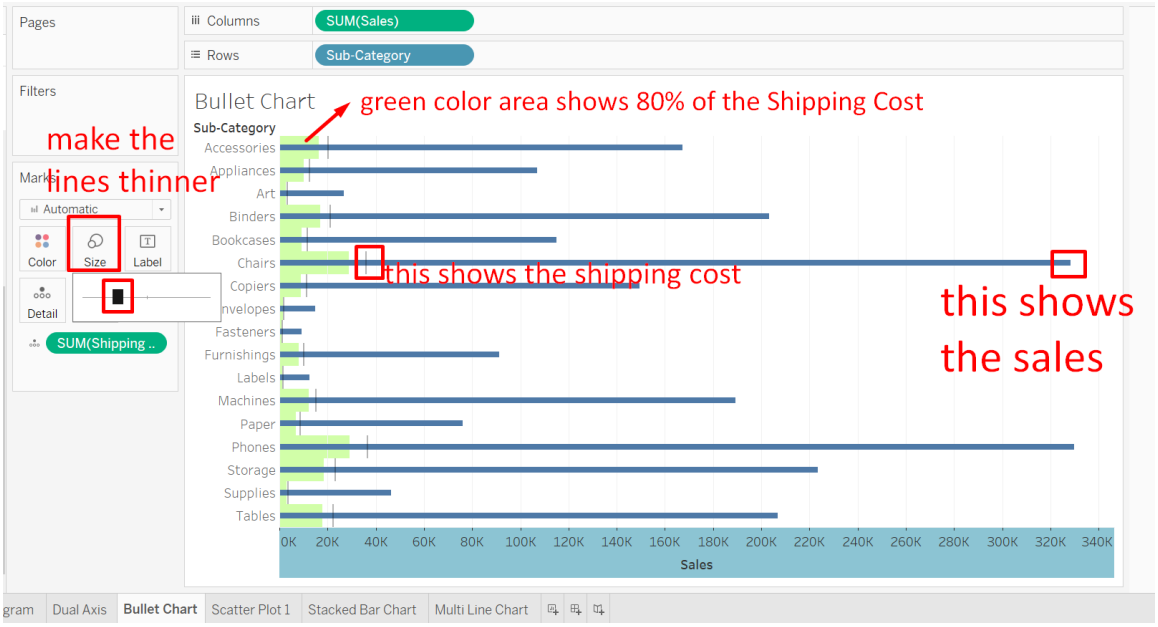

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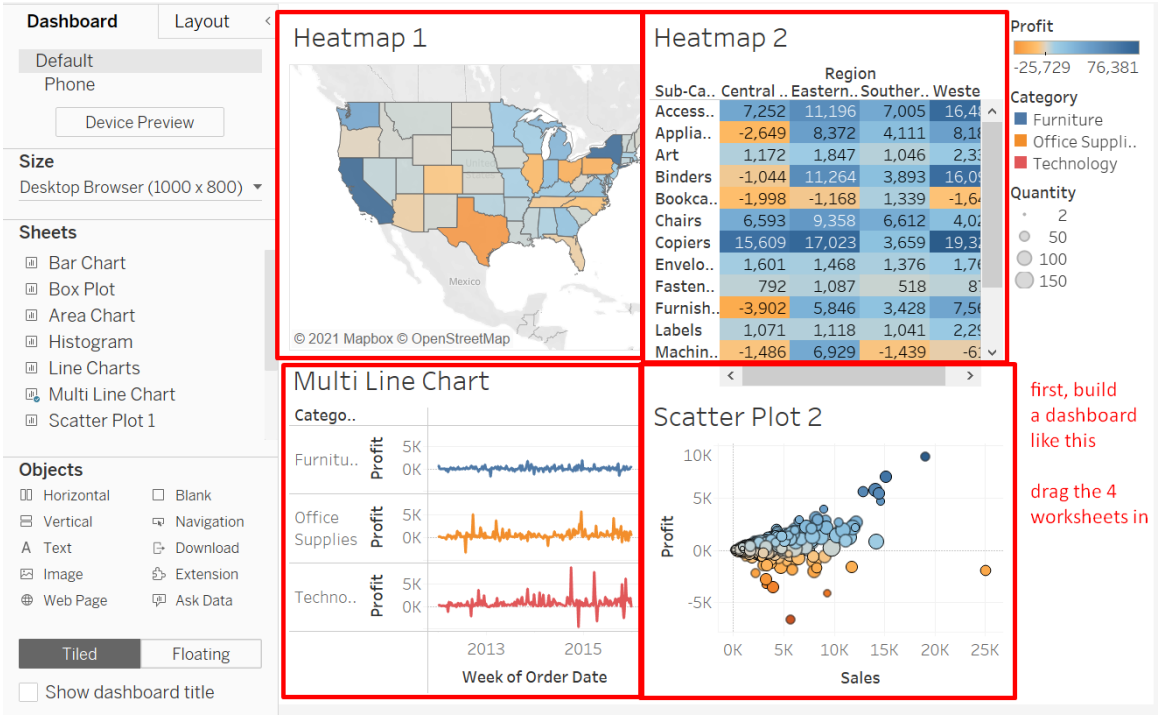
A. 4 WS

1. Who is your audience?
2. Where will they view the dashboard?
3. Why are you building it?
4. What elements do you want?

B. FILTER VIA STATES



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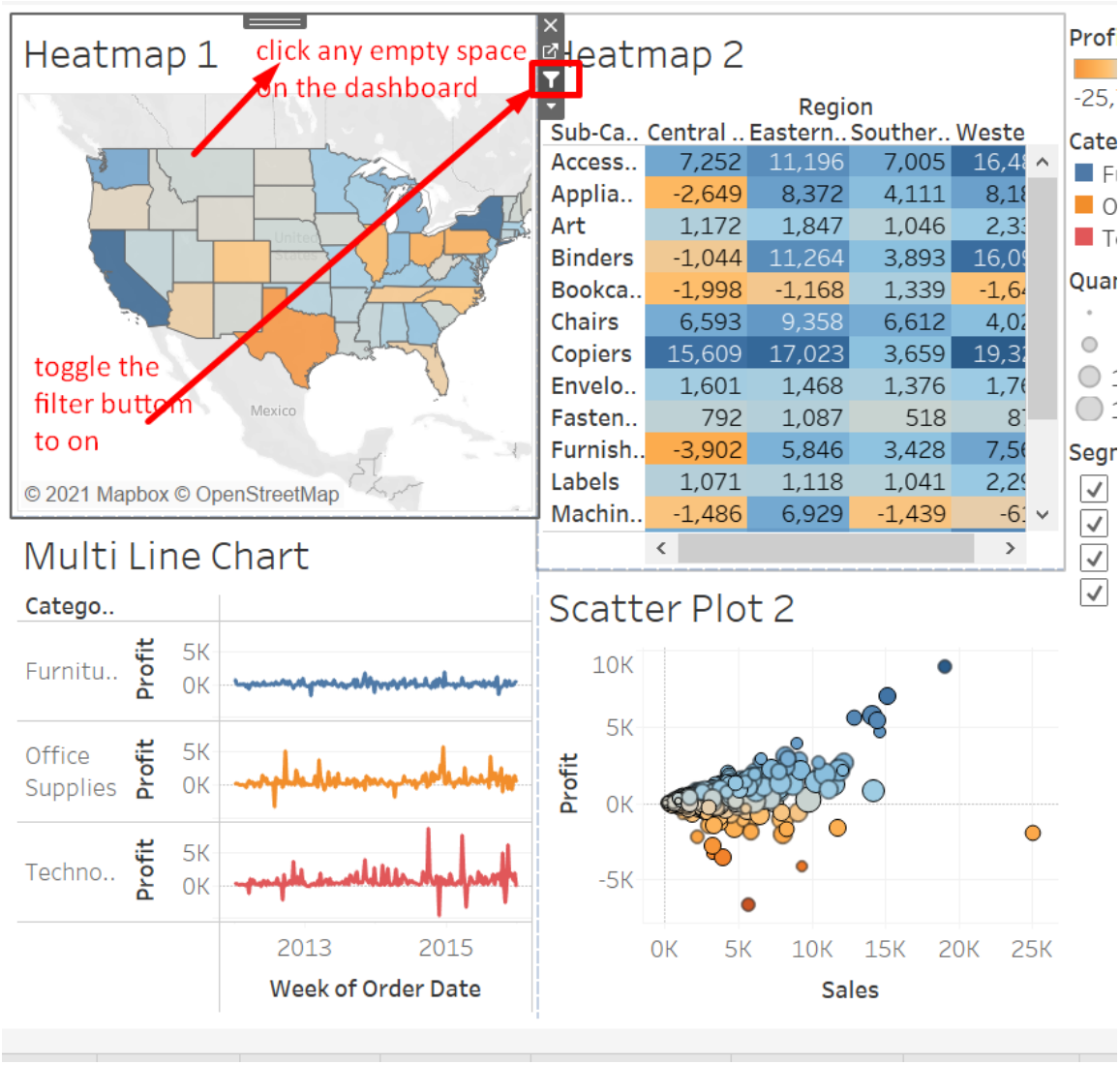

- By clicking on the filter toggle, you have selected tha map to be the "main filter for all other charts"

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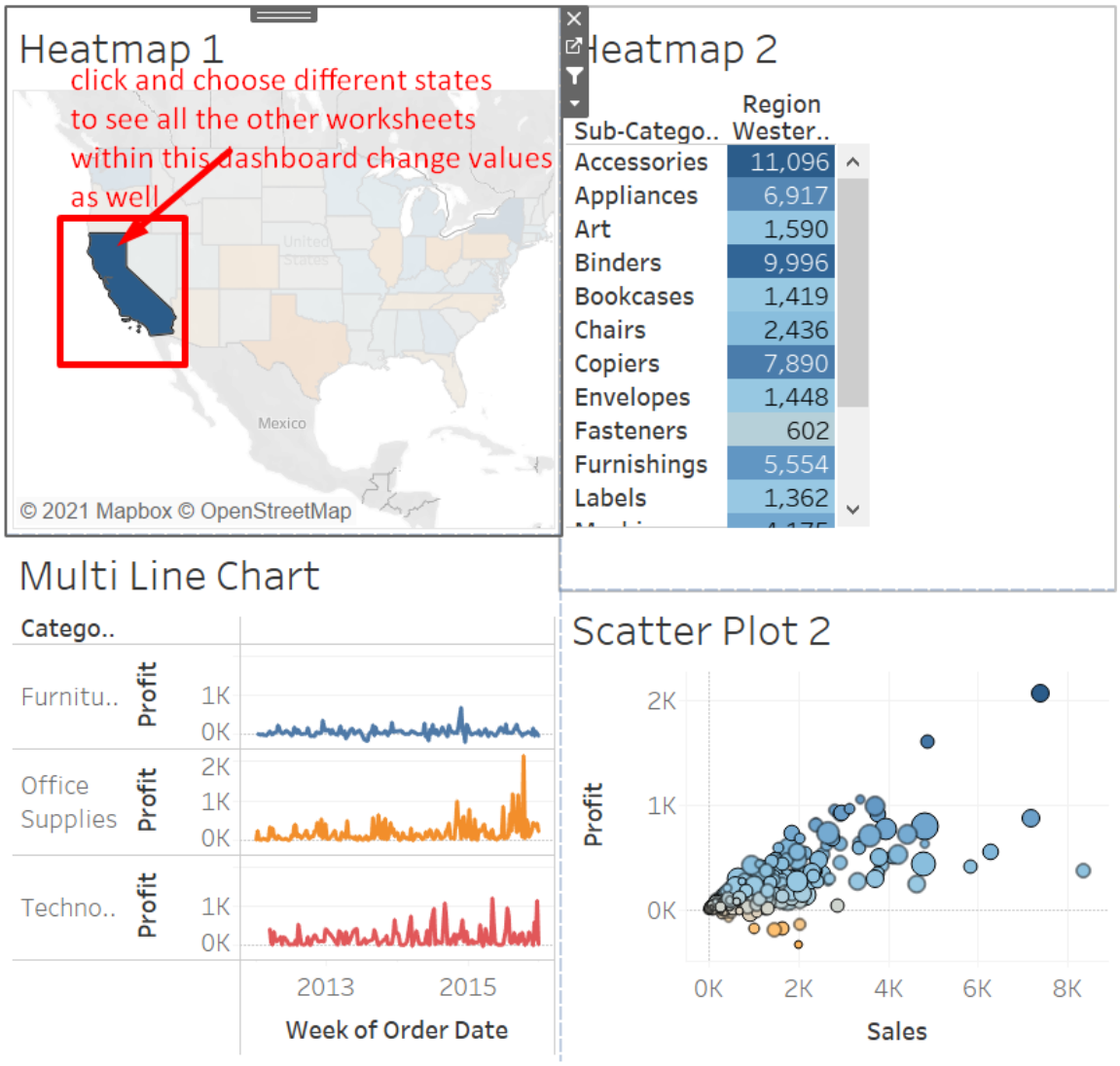

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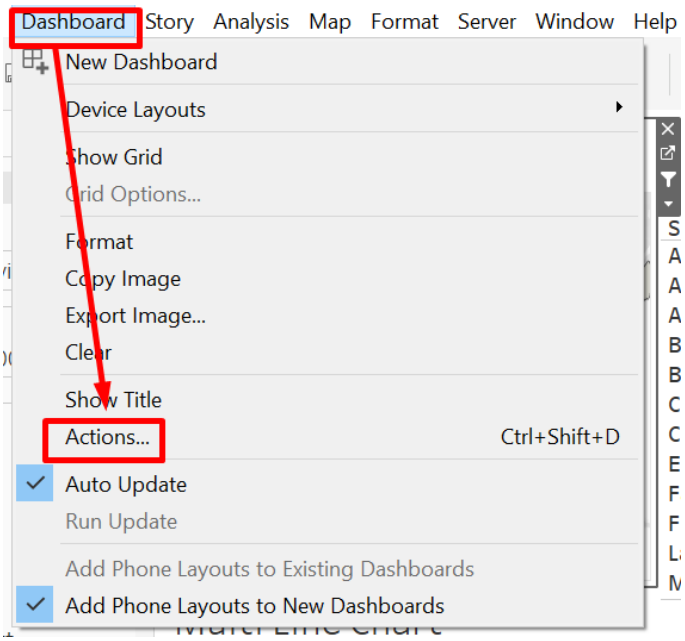

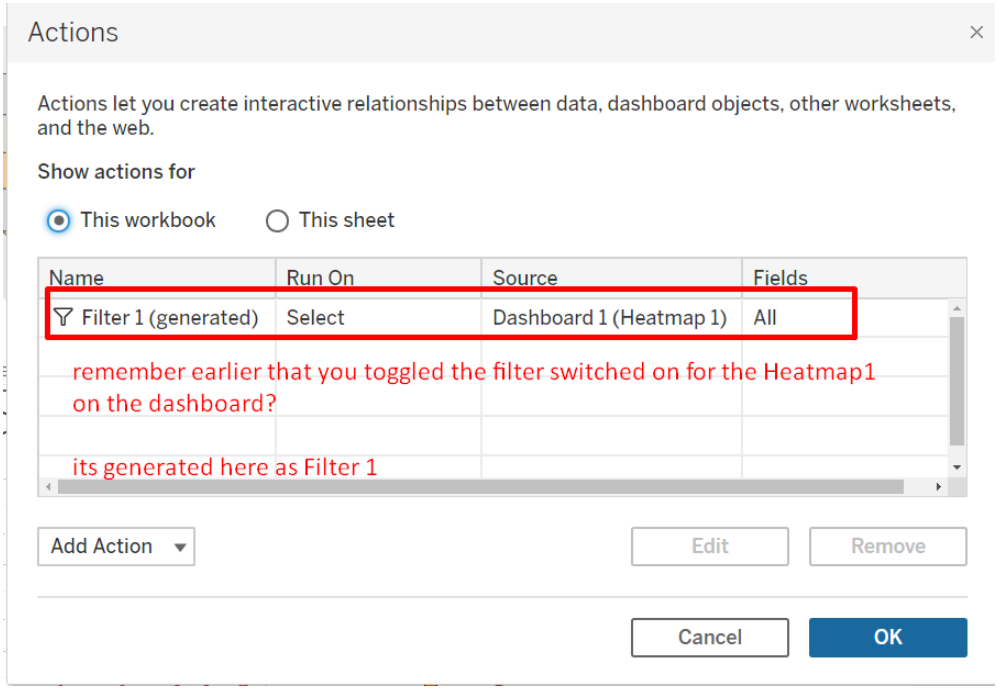

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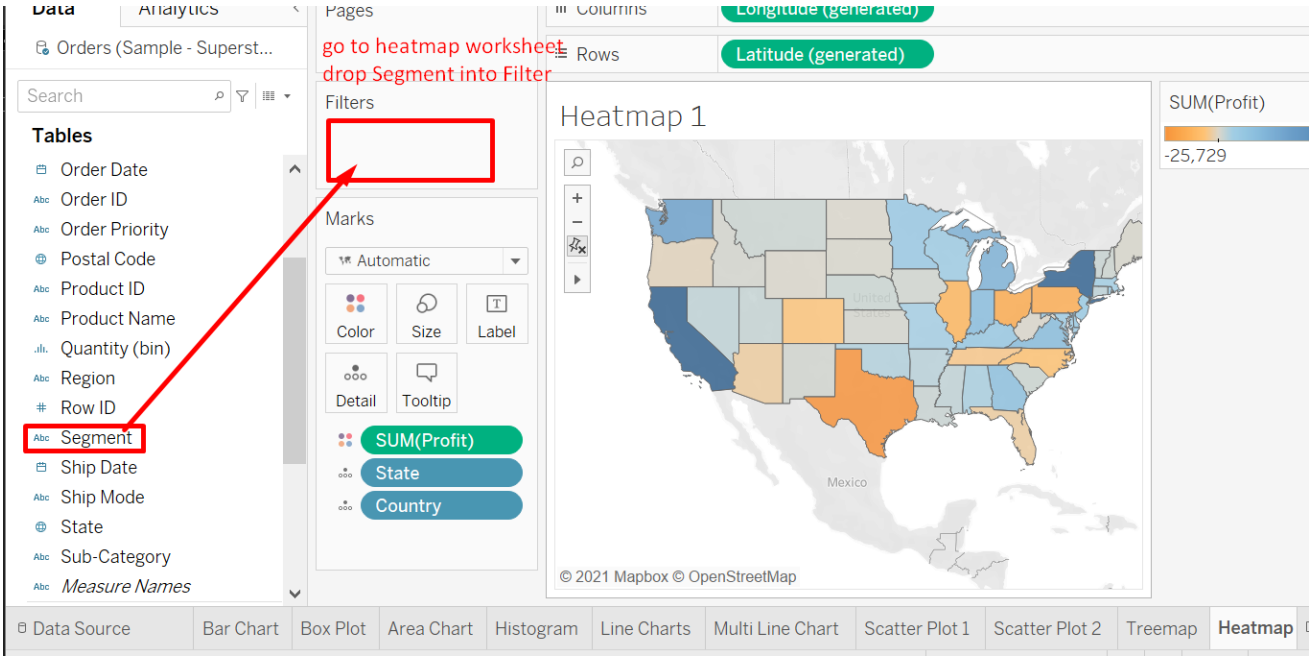
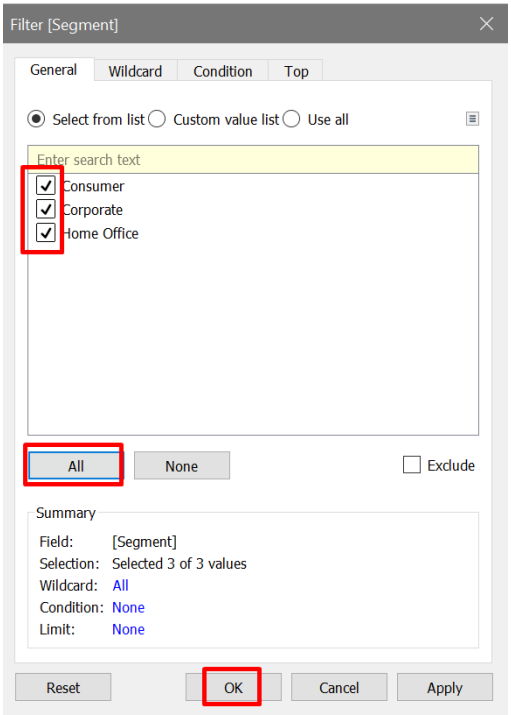
C. FILTERING A DASHBOARD VIA MULTIPLE WORKSHEETS





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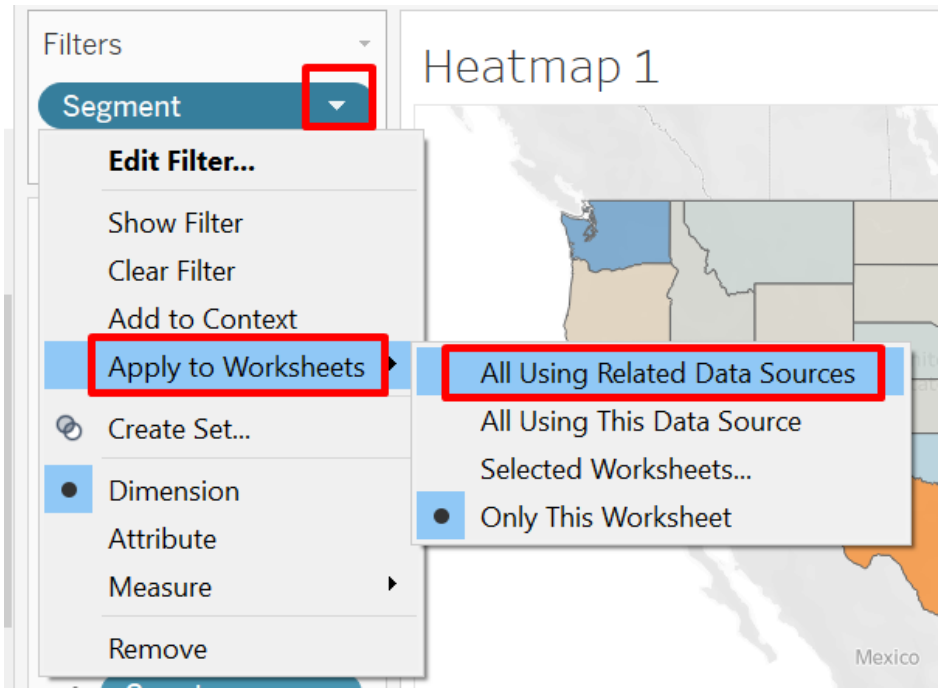

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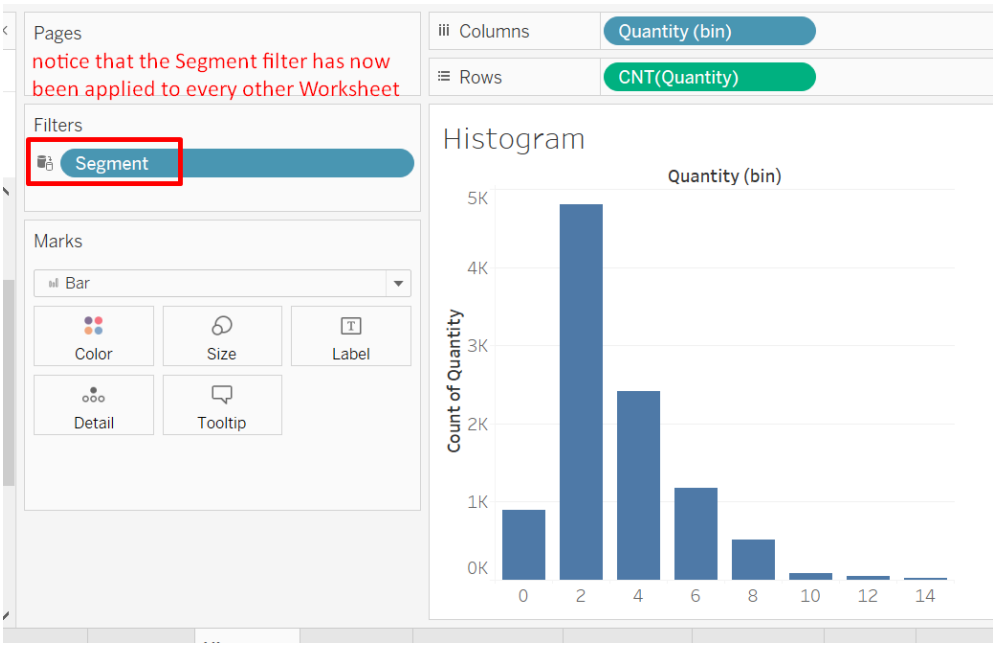

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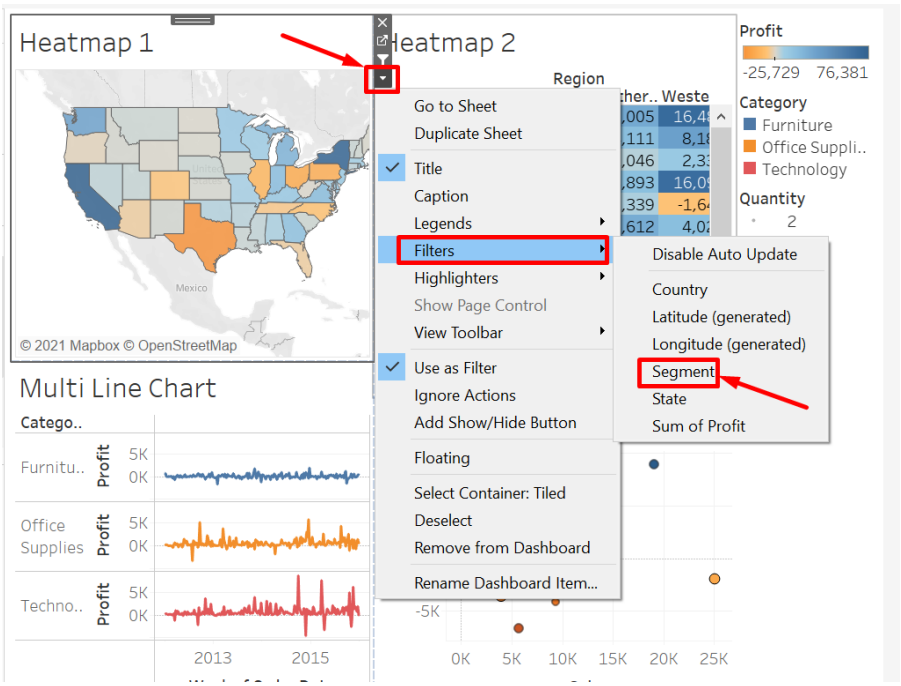

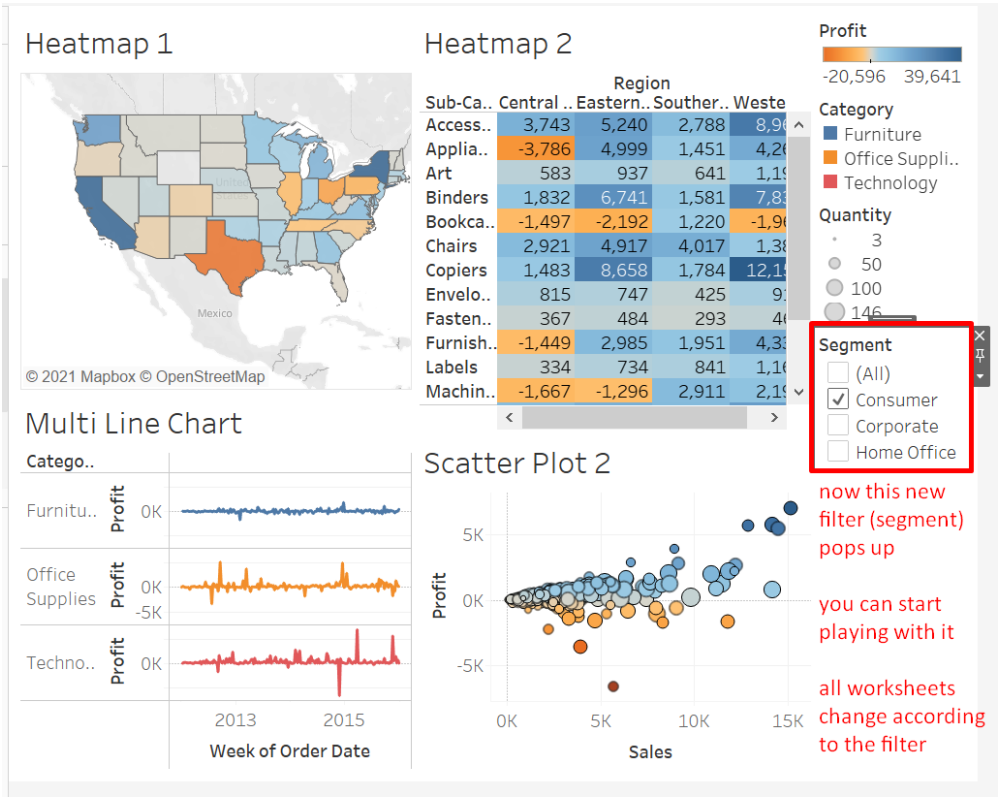

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D. HIGHLIGHTING

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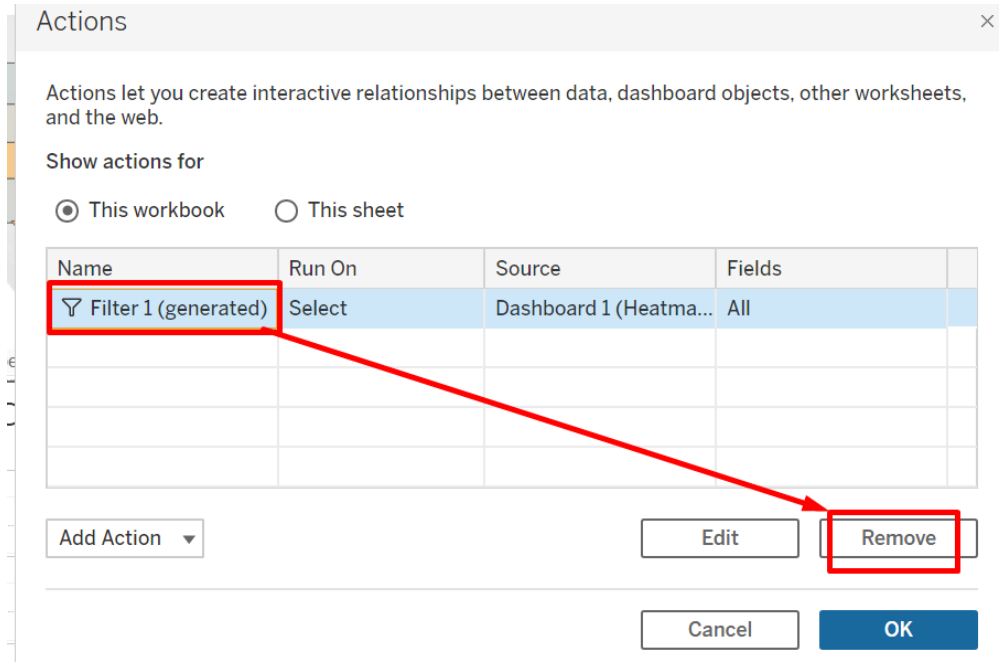

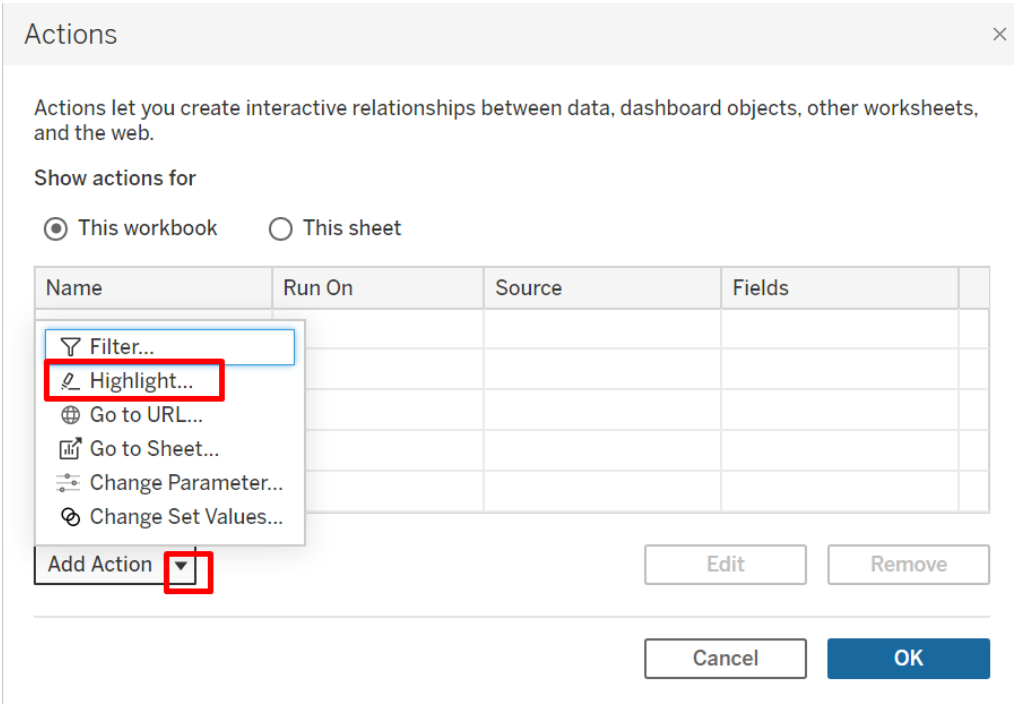

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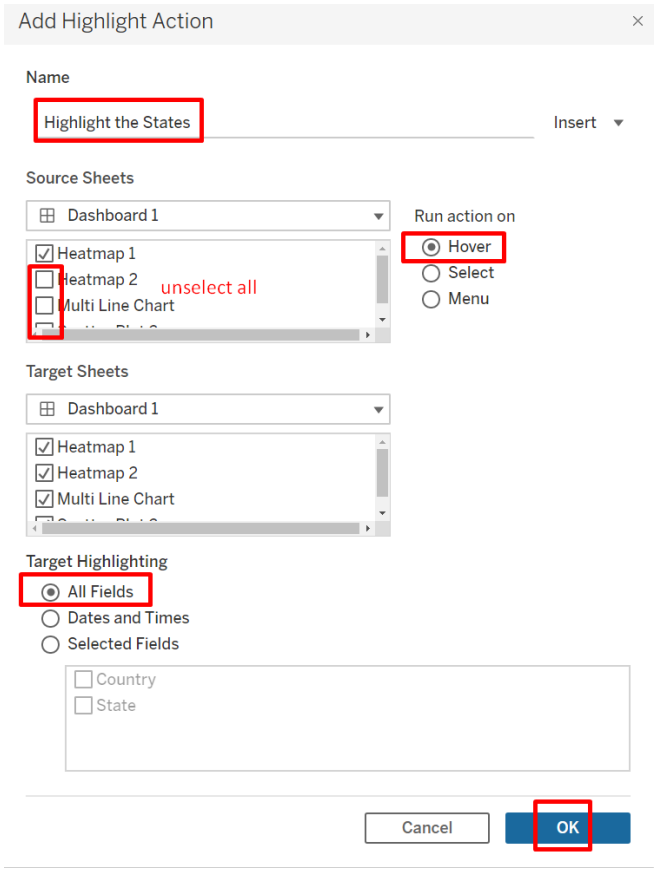

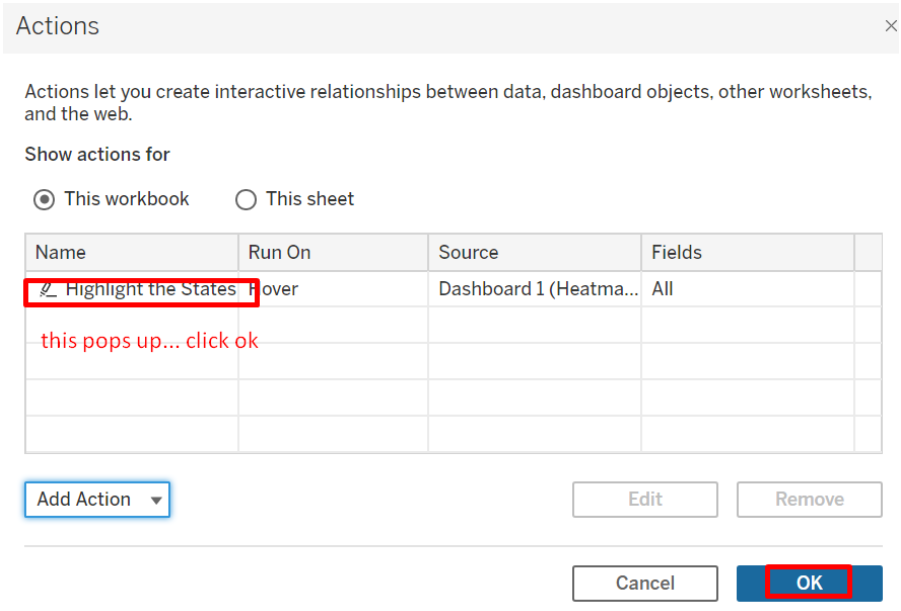

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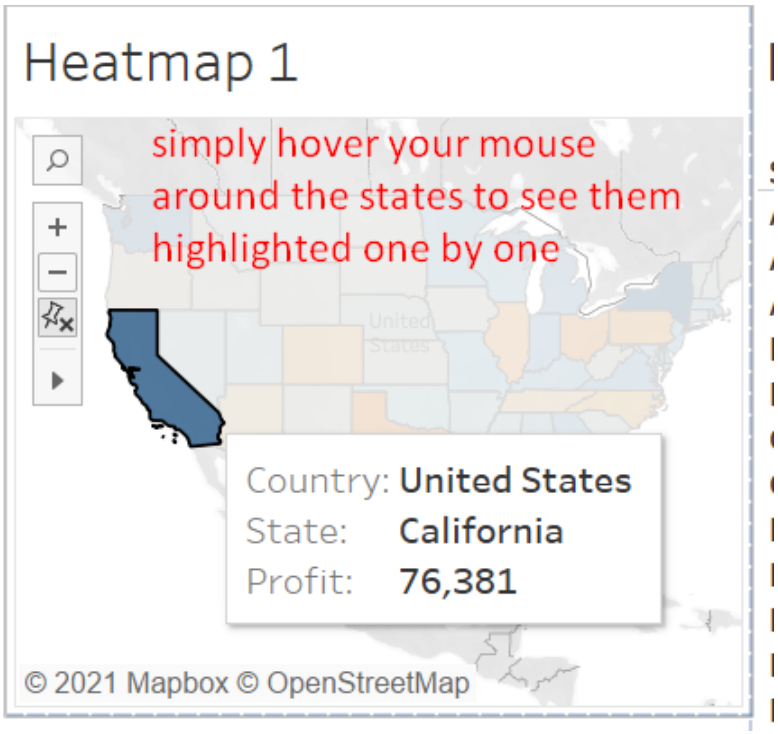

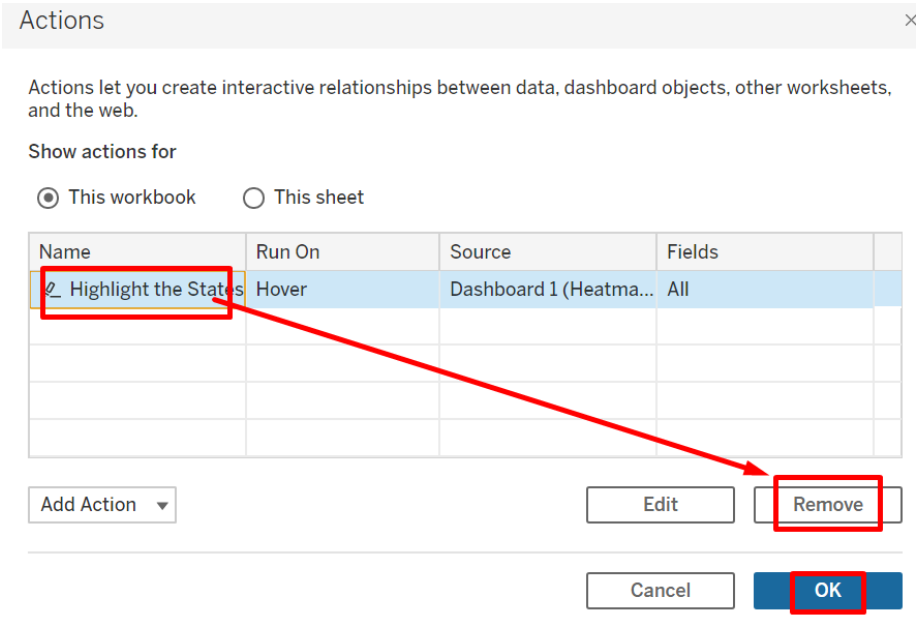

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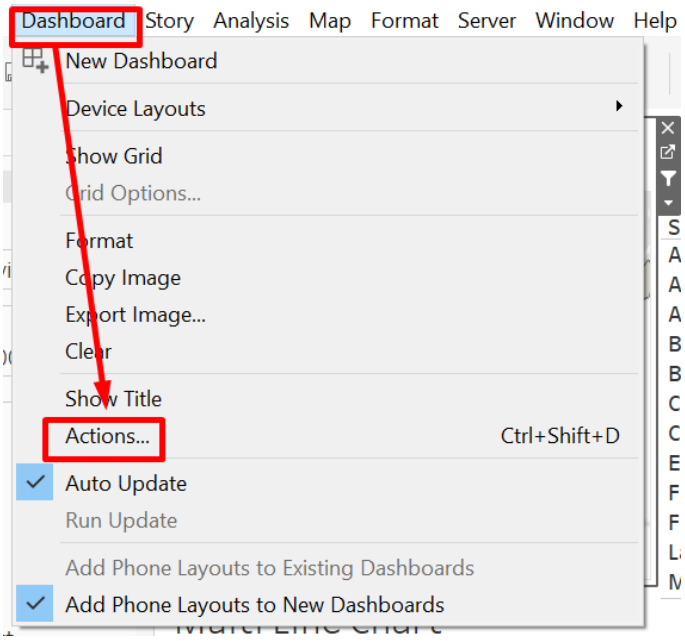
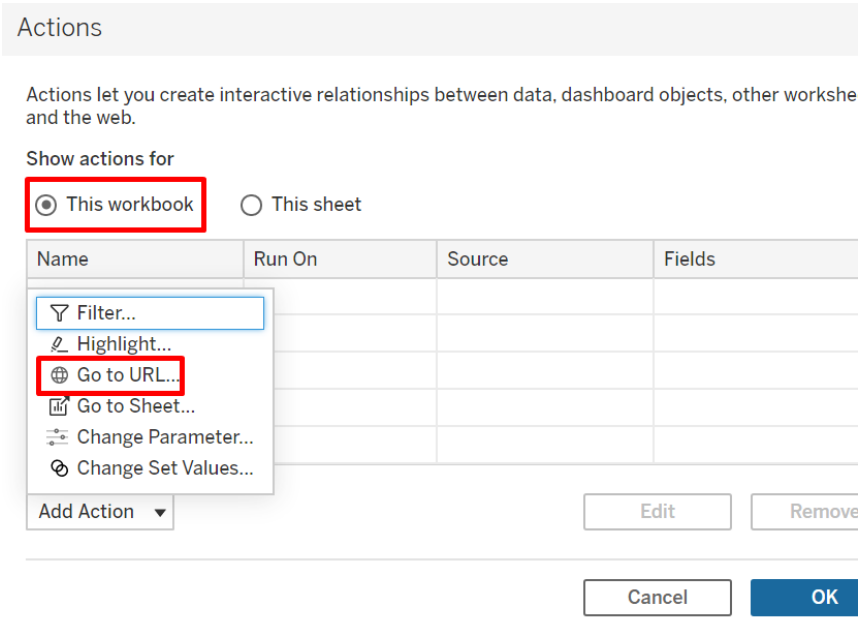
E. URL





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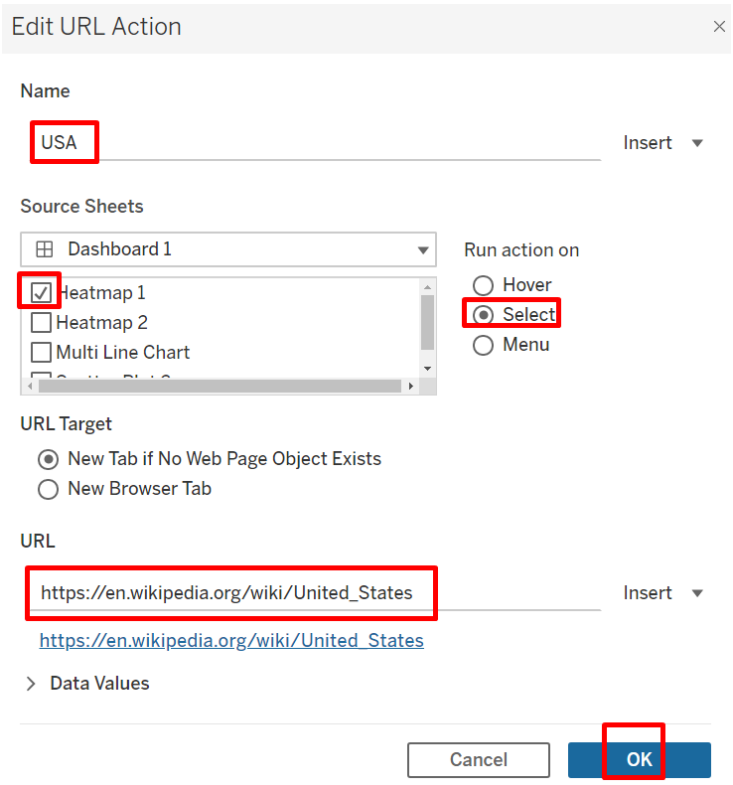

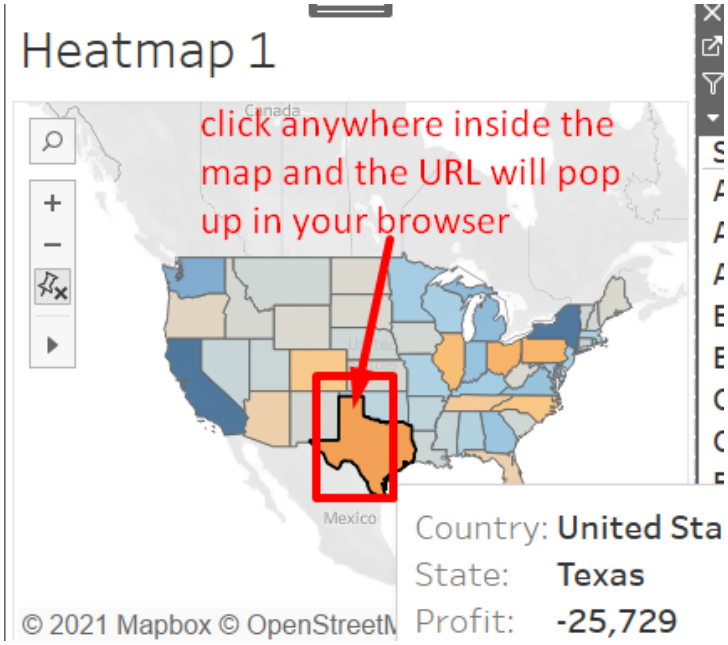

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Dr. Alvin Ang earned his Ph.D., Masters and Bachelor degrees from NTU, Singapore. He was a Professor, Scientist and Financial Consultant. Currently, he is a Personal/Business Advisor.

More about him at www.AlvinAng.sg

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