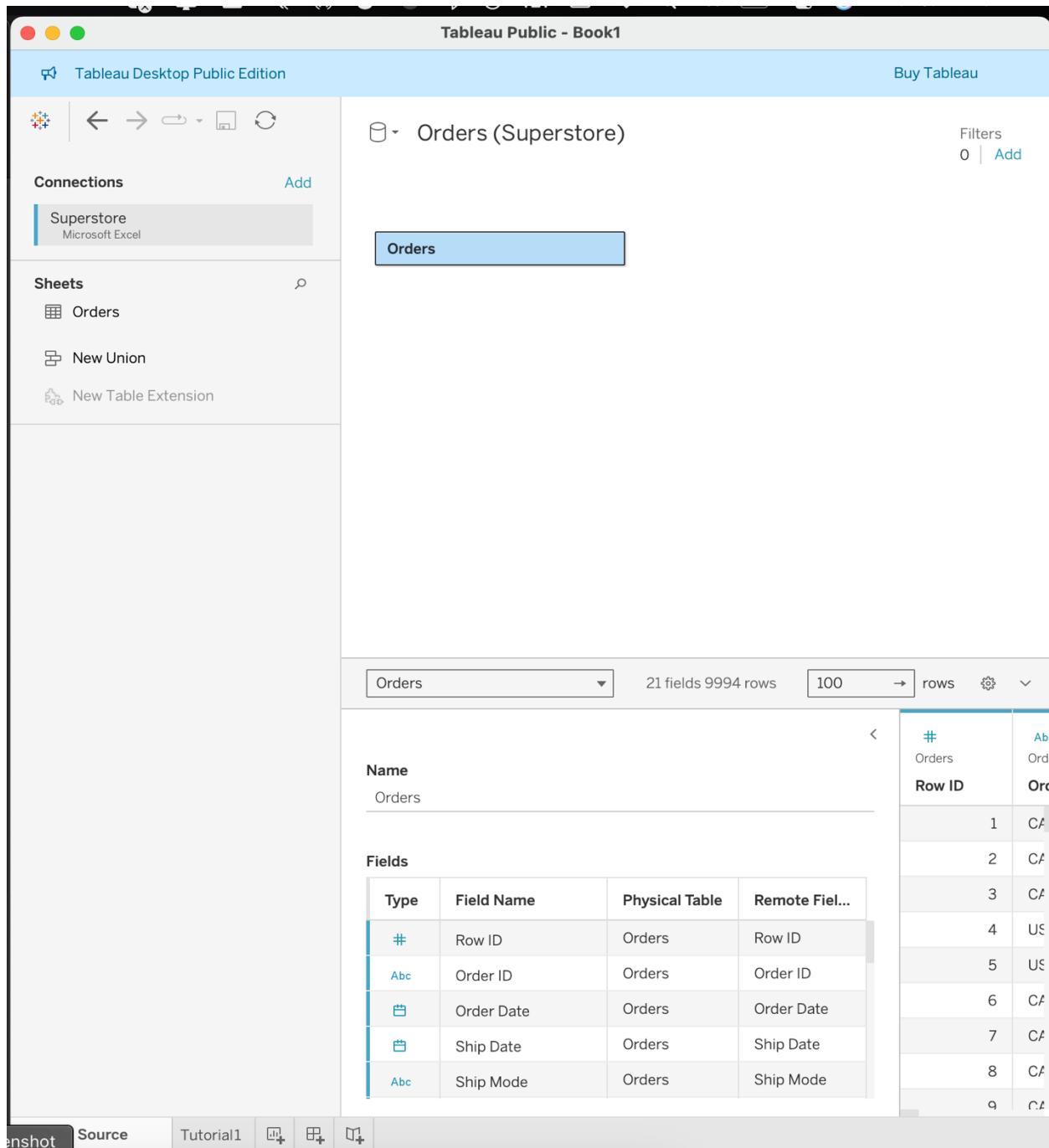


CSCE 5320.002 - Scientific Data Visualization.
Ganesh Gundekarla
11700551

Report of Activity 2 :

- A. Uploading the provided excel file in the document.



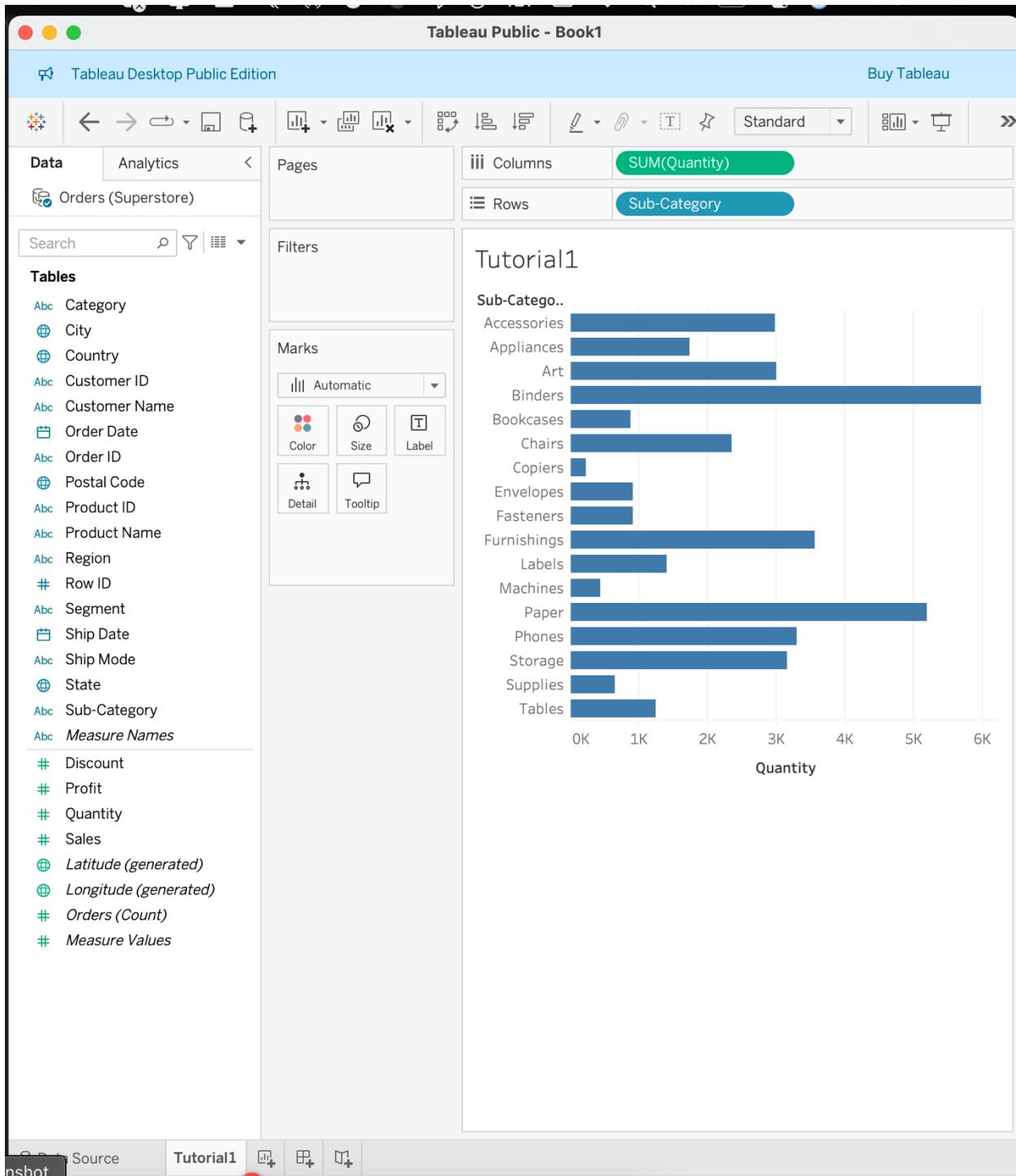
The screenshot shows the Tableau Public interface with the title "Tableau Public - Book1". On the left, the "Connections" pane shows a single connection named "Superstore" (Microsoft Excel). Below it, the "Sheets" pane lists "Orders", "New Union", and "New Table Extension". The main workspace displays the "Orders (Superstore)" data source. A blue box highlights the "Orders" sheet. At the bottom, a preview of the "Orders" table is shown with columns: Row ID, Order ID, Order Date, Ship Date, and Ship Mode. The first few rows of data are visible.

Type	Field Name	Physical Table	Remote Fiel...
#	Row ID	Orders	Row ID
Abc	Order ID	Orders	Order ID
White	Order Date	Orders	Order Date
White	Ship Date	Orders	Ship Date
Abc	Ship Mode	Orders	Ship Mode

b. TUTORIAL 1 :

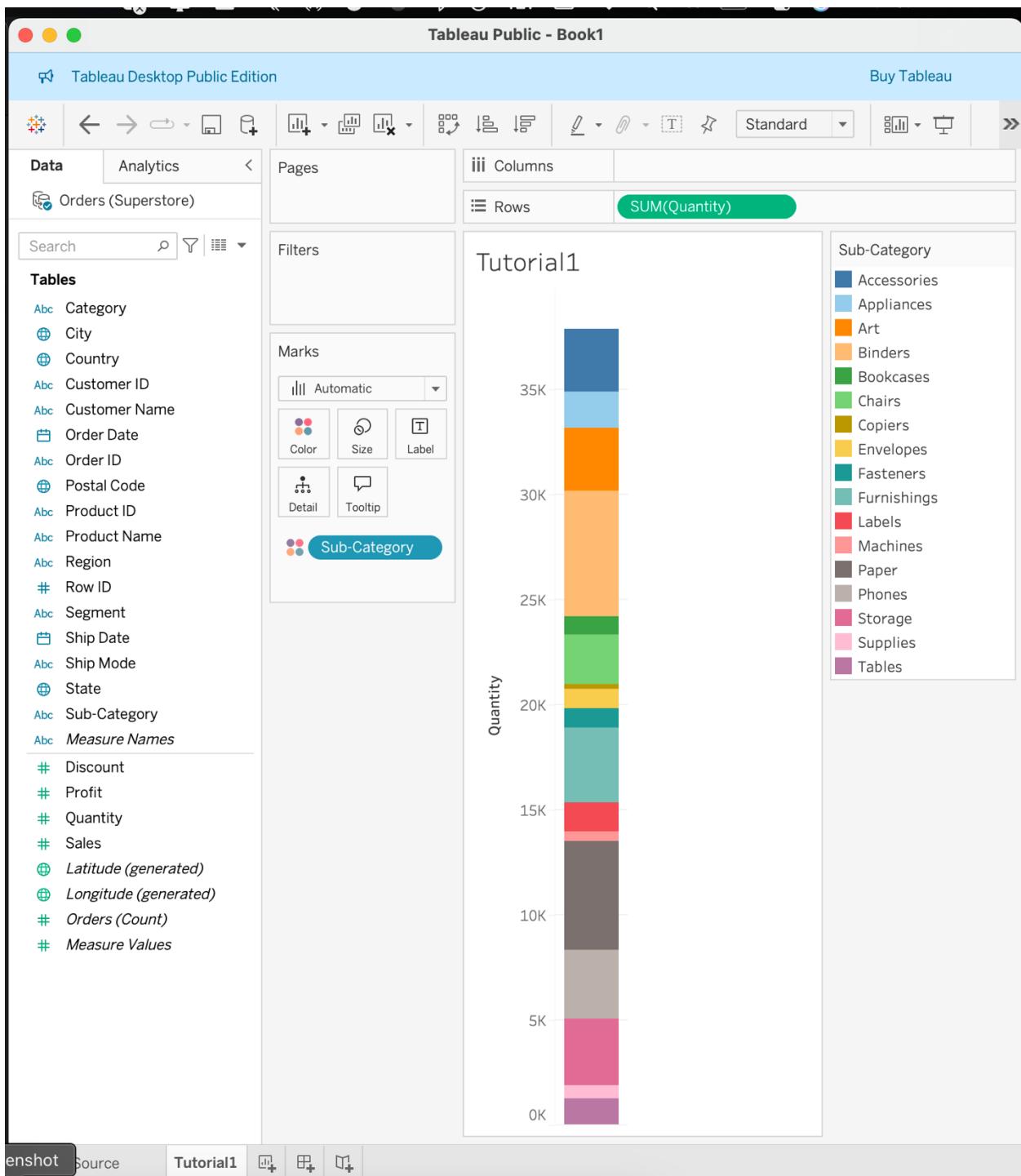
Here, I had added the sub category to the rows and the sum of the quantity to the columns as provided from the tutorial.

Horizontal bar graph



Here, we could see that the quantity is a much more quantitative data and it is represented as the sum of values and the sub category is a much more categorical data and its been classified using this values.

STACKED BAR CHART approach for the same graph.



Here , this is the same approach but here , each observed category is being placed on the same column and each coloured rows represent different category.

Step 3 : Using the Heat Maps visualization :

Tableau Public - Book1

Tableau Desktop Public Edition

Buy Tableau

Data Analytics < Orders (Superstore)

Search

Tables

- Abc Category
- ⊕ City
- ⊕ Country
- Abc Customer ID
- Abc Customer Name
- ⊕ Order Date
- Abc Order ID
- ⊕ Postal Code
- Abc Product ID
- Abc Product Name
- Abc Region
- # Row ID
- Abc Segment
- ⊕ Ship Date
- Abc Ship Mode
- ⊕ State
- Abc Sub-Category
- Abc Measure Names
- # Discount
- # Profit
- # Quantity
- # Sales
- ⊕ Latitude (generated)
- ⊕ Longitude (generated)
- ⊕ Orders (Count)
- # Measure Values

Pages Columns Rows Sub-Category

Tutorial1

Sub-Catego..

Accessories	
Appliances	
Art	
Binders	
Bookcases	
Chairs	
Copiers	
Envelopes	
Fasteners	
Furnishings	
Labels	
Machines	
Paper	
Phones	
Storage	
Supplies	
Tables	

For horizontal bars try

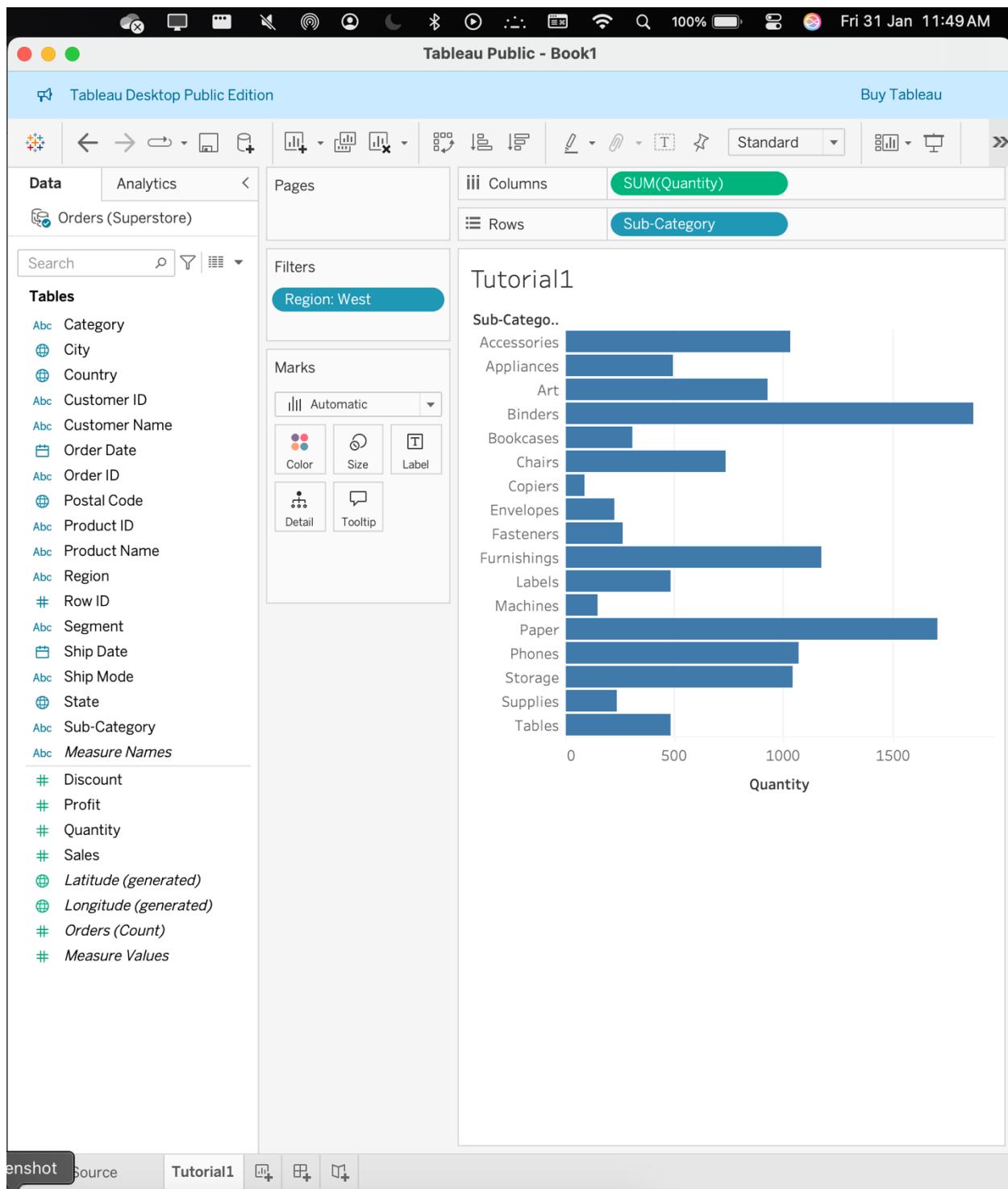
0 or more Dimensions

1 or more Measures

Screenshot Source Tutorial1

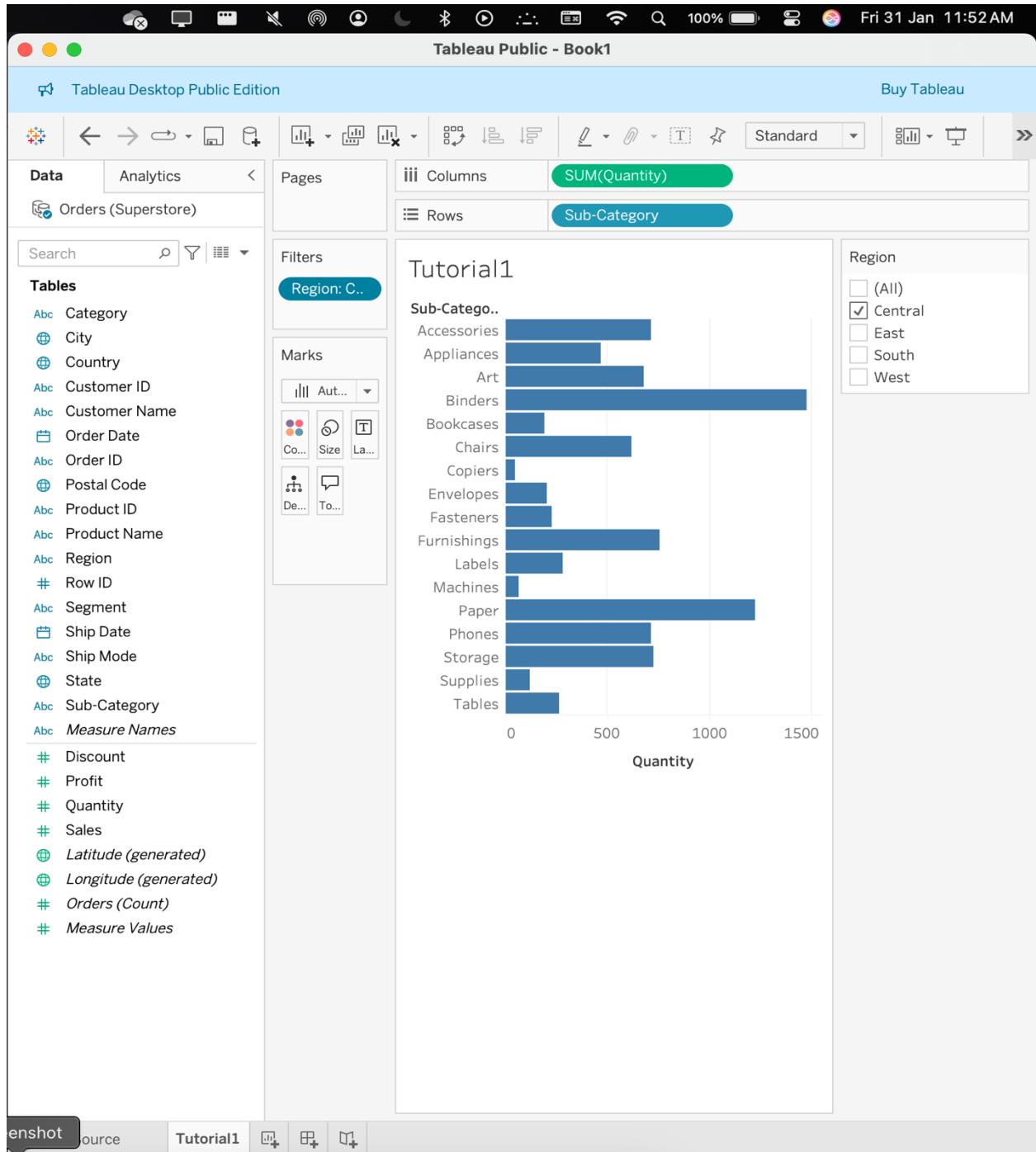
Here, the size of each box represents the amount of value it holds and this box size varies on the values of the quantities. Each boxes varies and it shows how much of the position it holds in the table.

Step 4 : addign region to the filter.



Before this step , our data was solely based on irrespective of the region and once I've added this filter , we get easier way to have this visualization as per our selected region and it shows based on our particular region.

Step 5 :

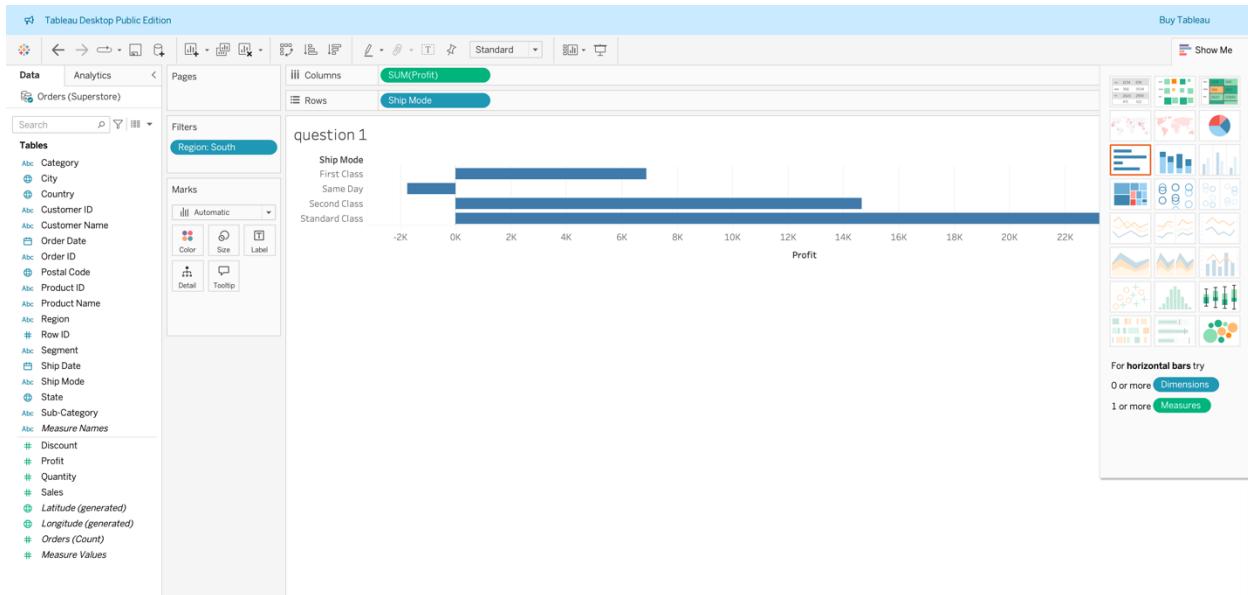


Here, all we did is to change the region from west to the central region and once selection this option , we will be having information of the quantities of the different categories that is being sold in the central region.

QUESTION 1 :

Step 1 :

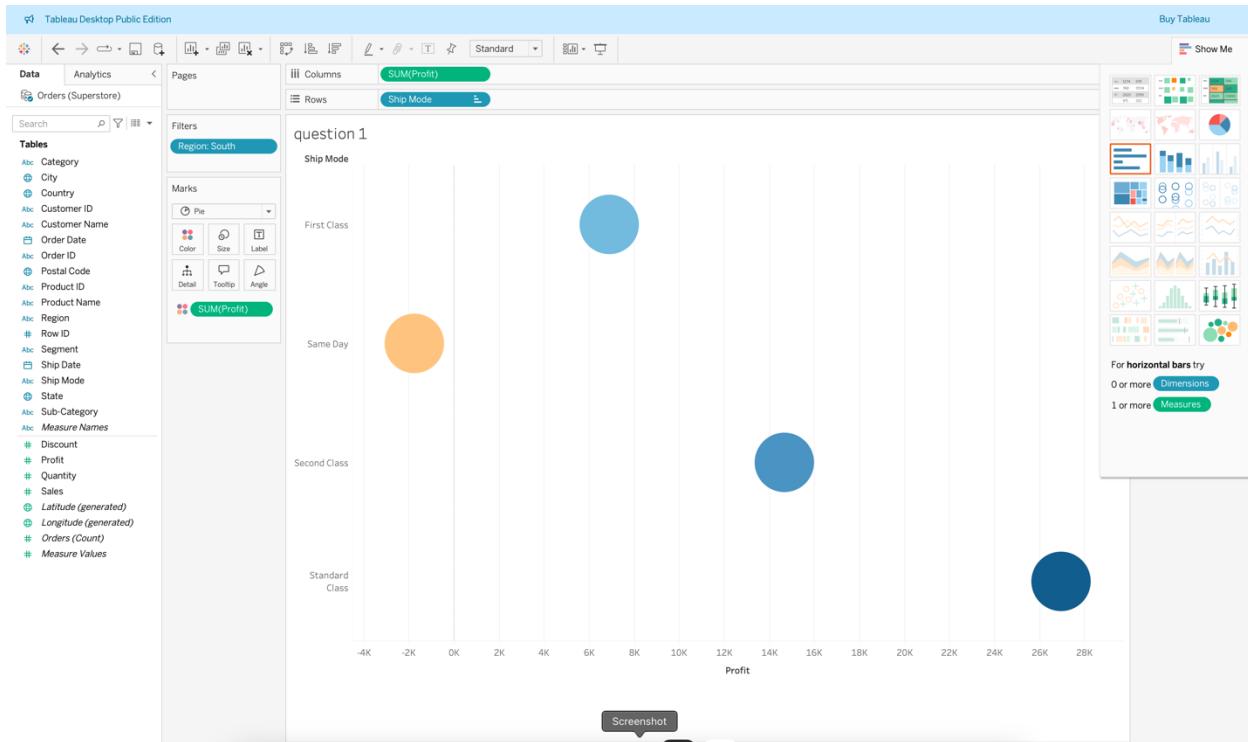
Added ship mode in the rows and the profits into the column section .



Step 2 : visualize it using 2 charts :

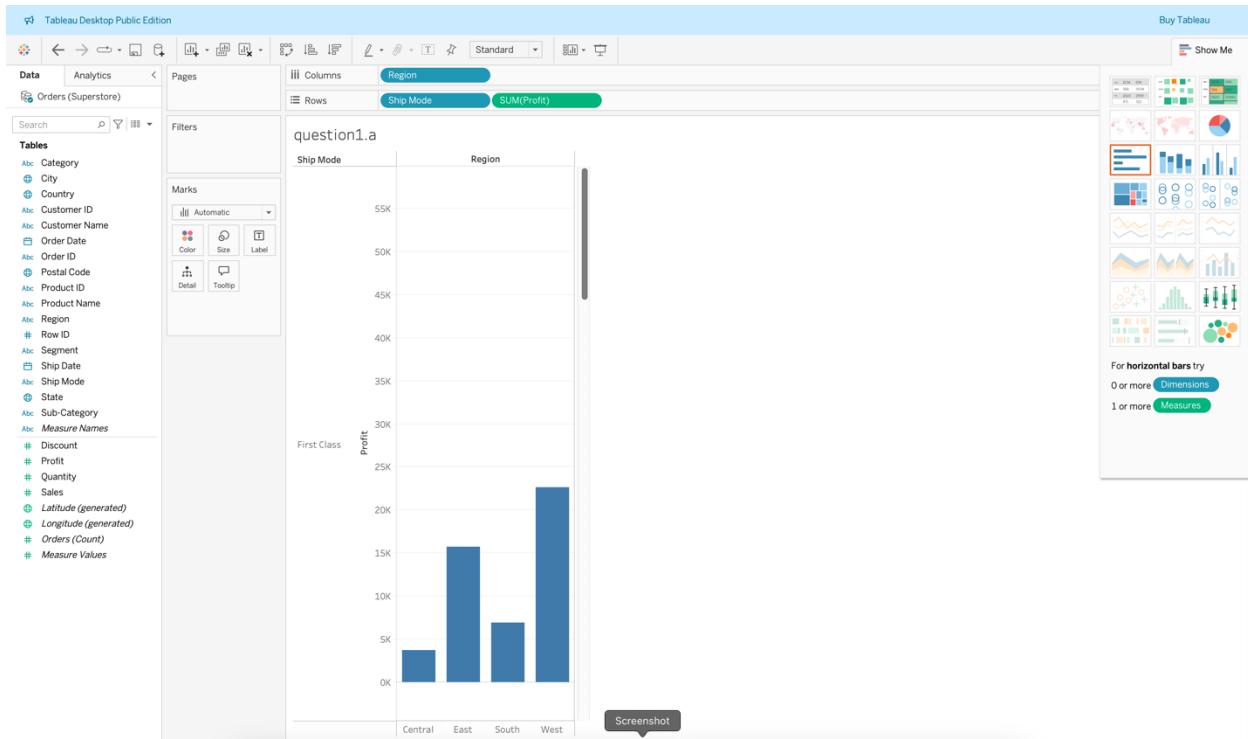
Here, we have visualized it using the pie chart and when we have the same in the column and the rows we pasted In the earlier graph and we can have a visualization of how the profits are being distributed across the different types of days.

. we could observe that the same day has a profit which is being described in the minus side and this terms as a loss on the 'same day' . the 'standar class' has the highest profit.

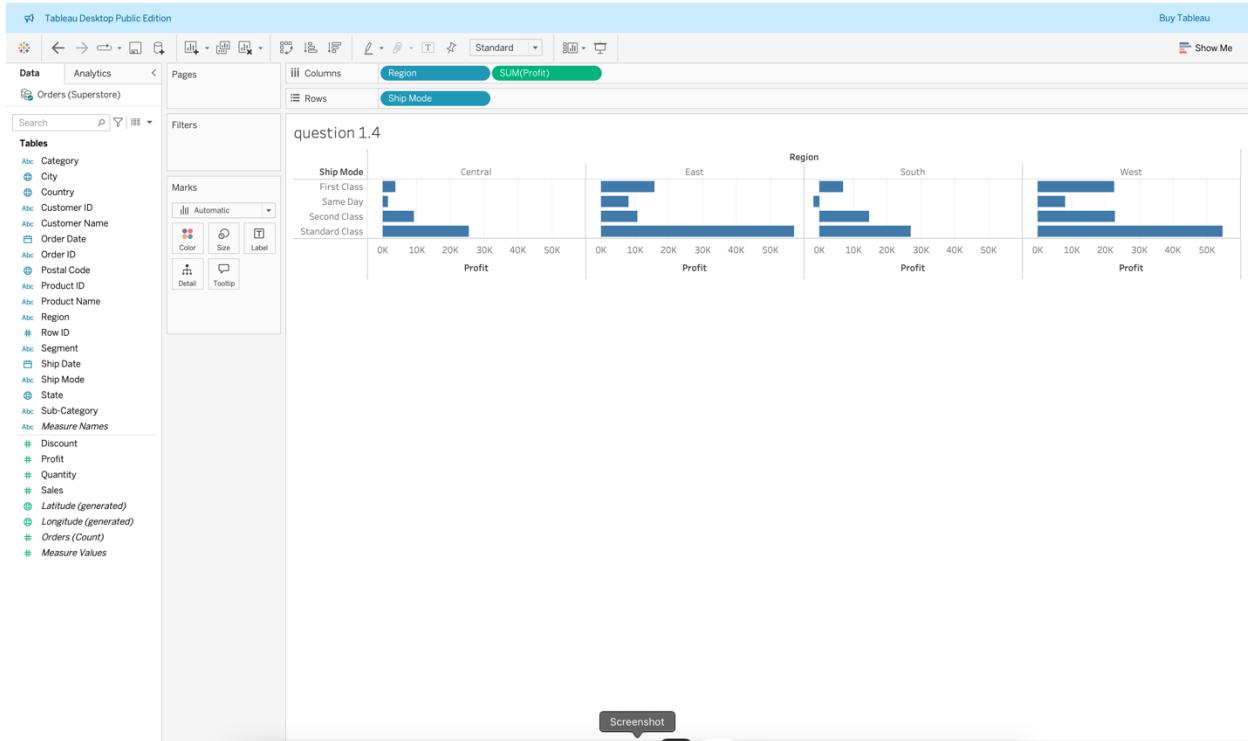


Question 3 :

West has the max profit in the first class with the quantity of 22,638.

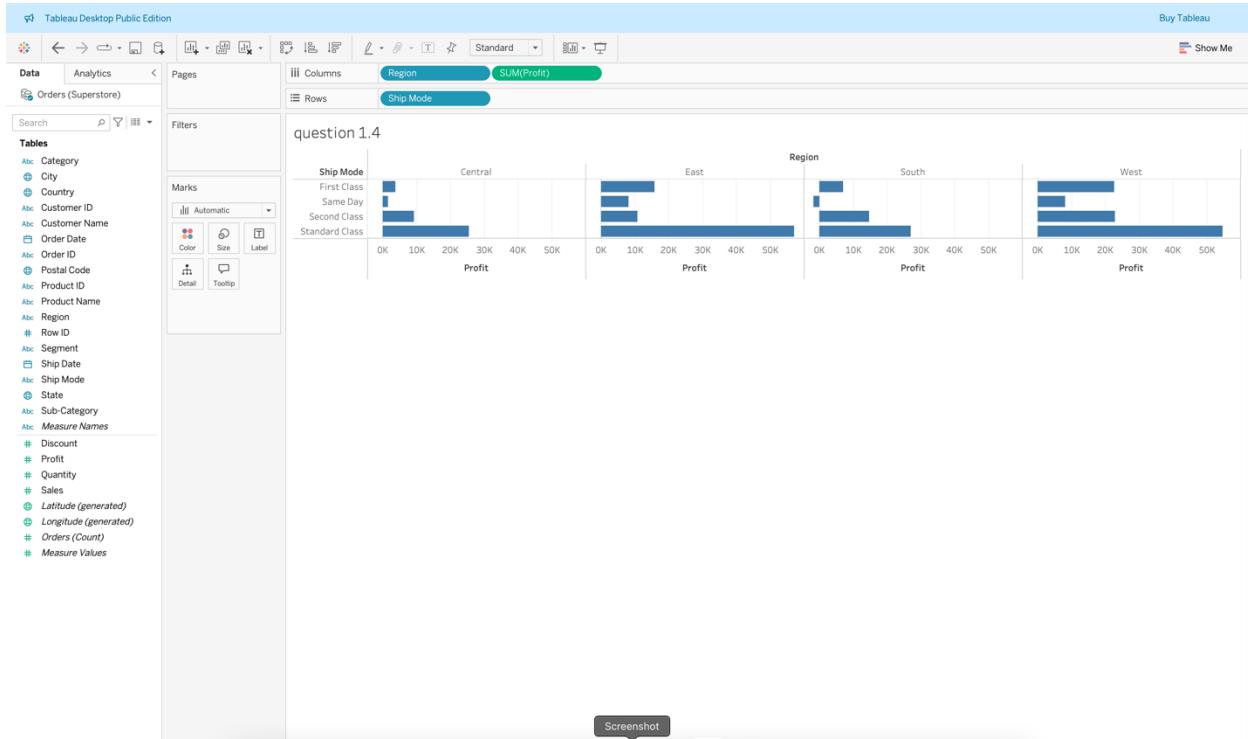


Question 4 :



Lowest profit : same day has the lowest recorded, yes it does perform poorly in all regions.

Question 5 :

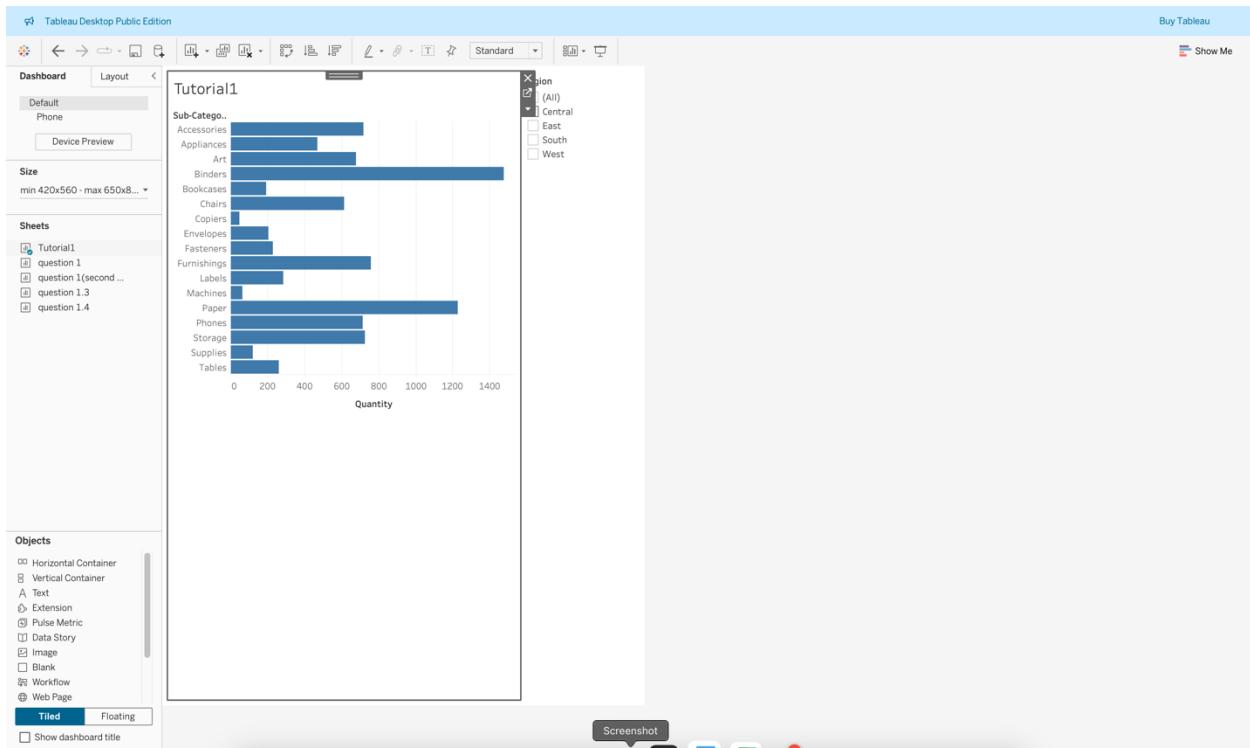


Analysis:

From the above all visualizations , we can say that the same day has the lowest profit of all and it also is recorded to be the lowest in all of the regions, whereas the standard class in the ship mode is recorded to be the highest profit of all the ones and it's profit margin is very high(double the profit) than any mode .

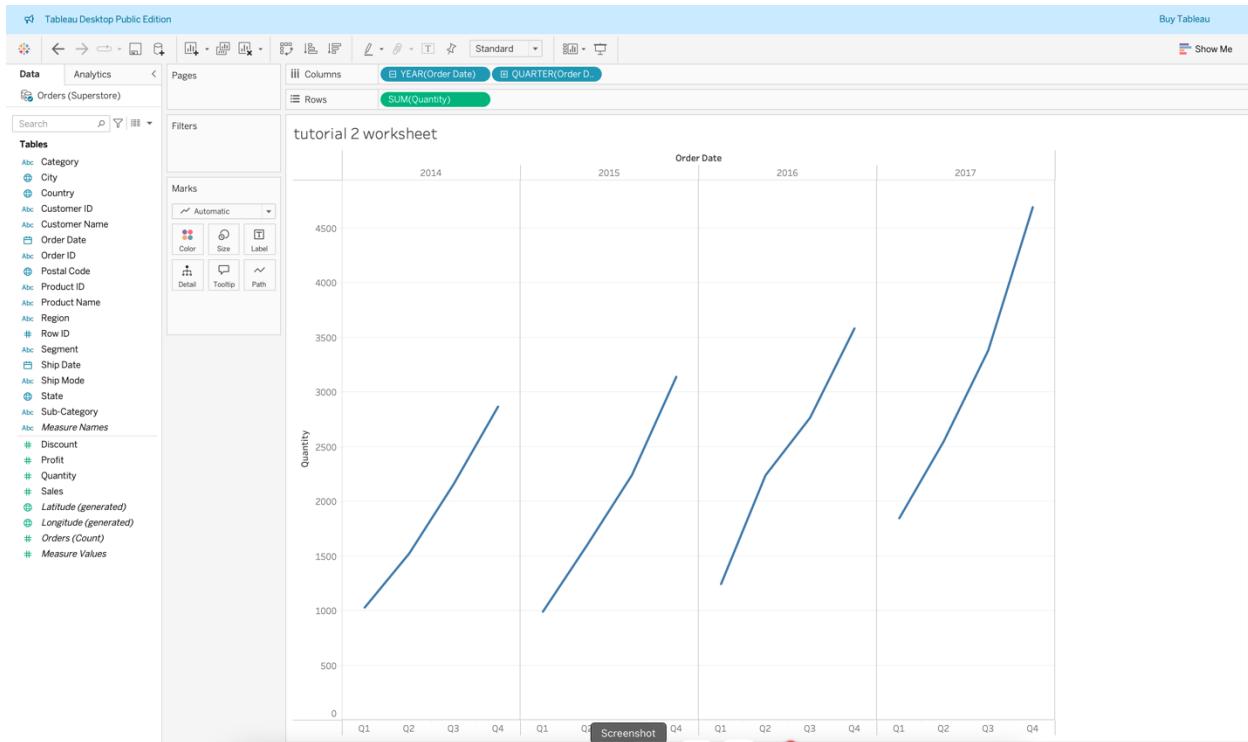
Tutorial 2:

Step 1 : creating the dashboard

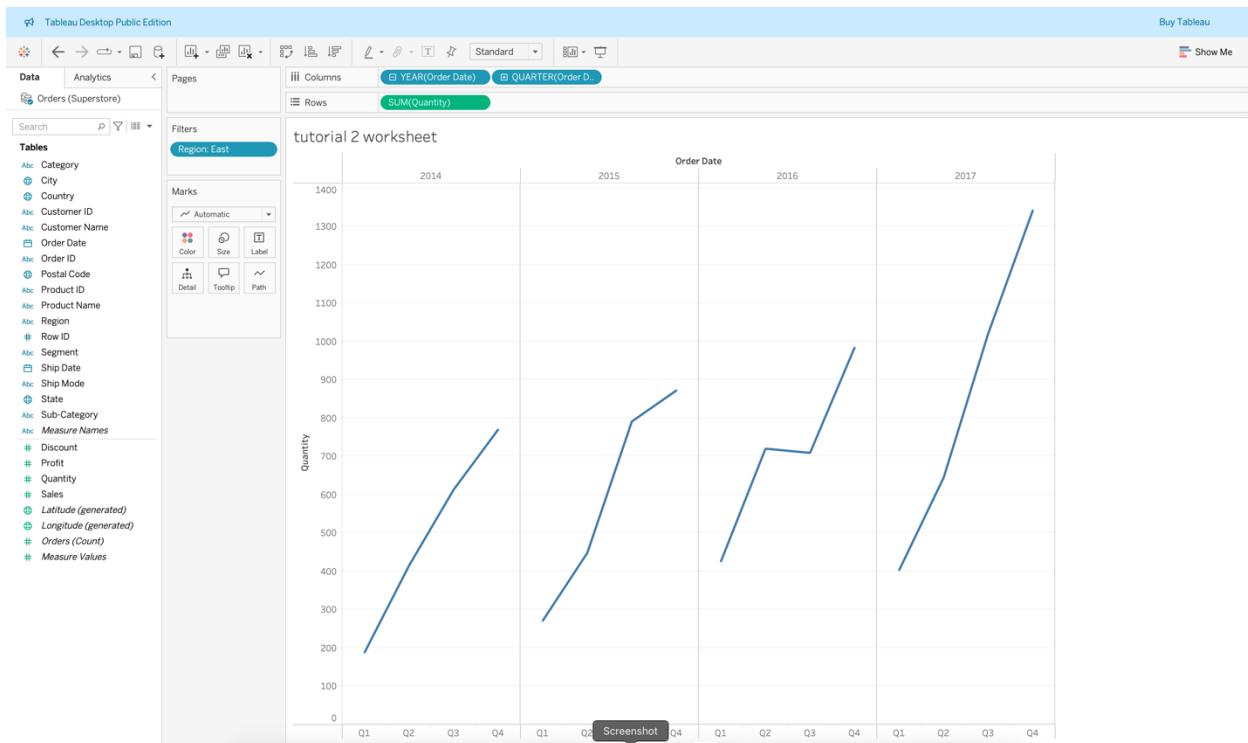


Step 2 :

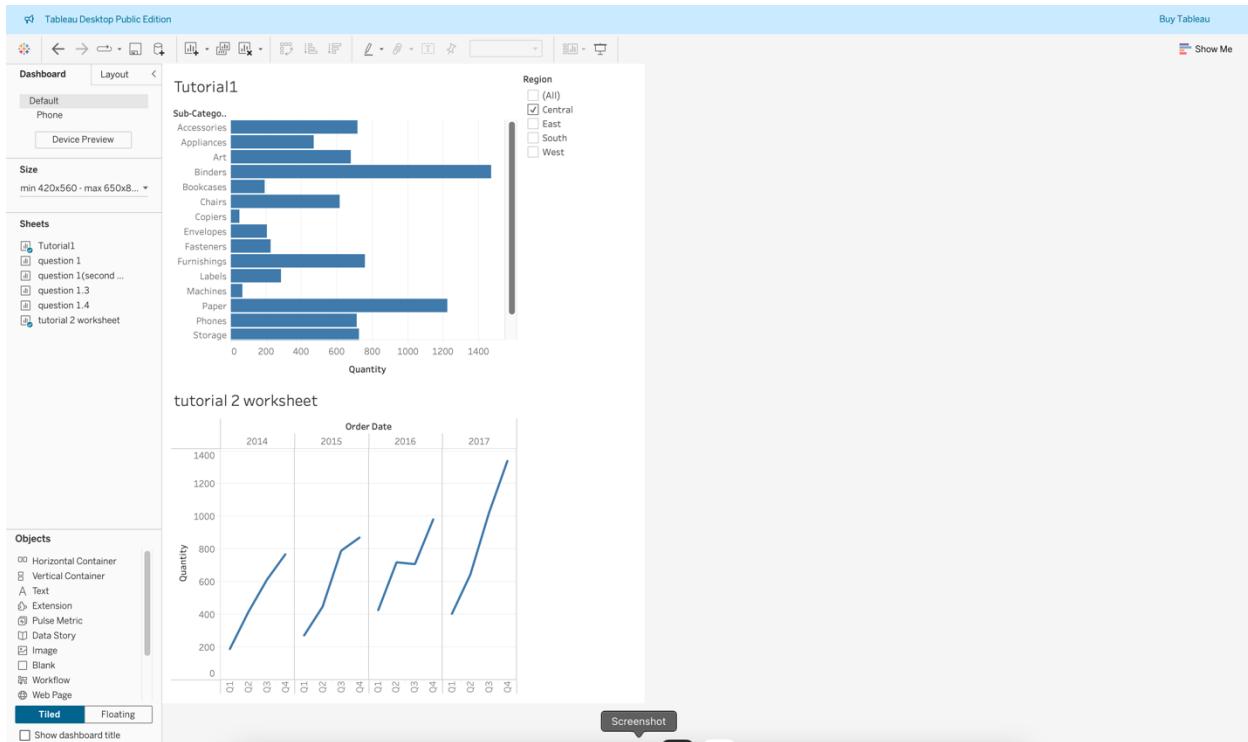
This one is a line graph visualization . this one represents the change in the values over quarters of time.



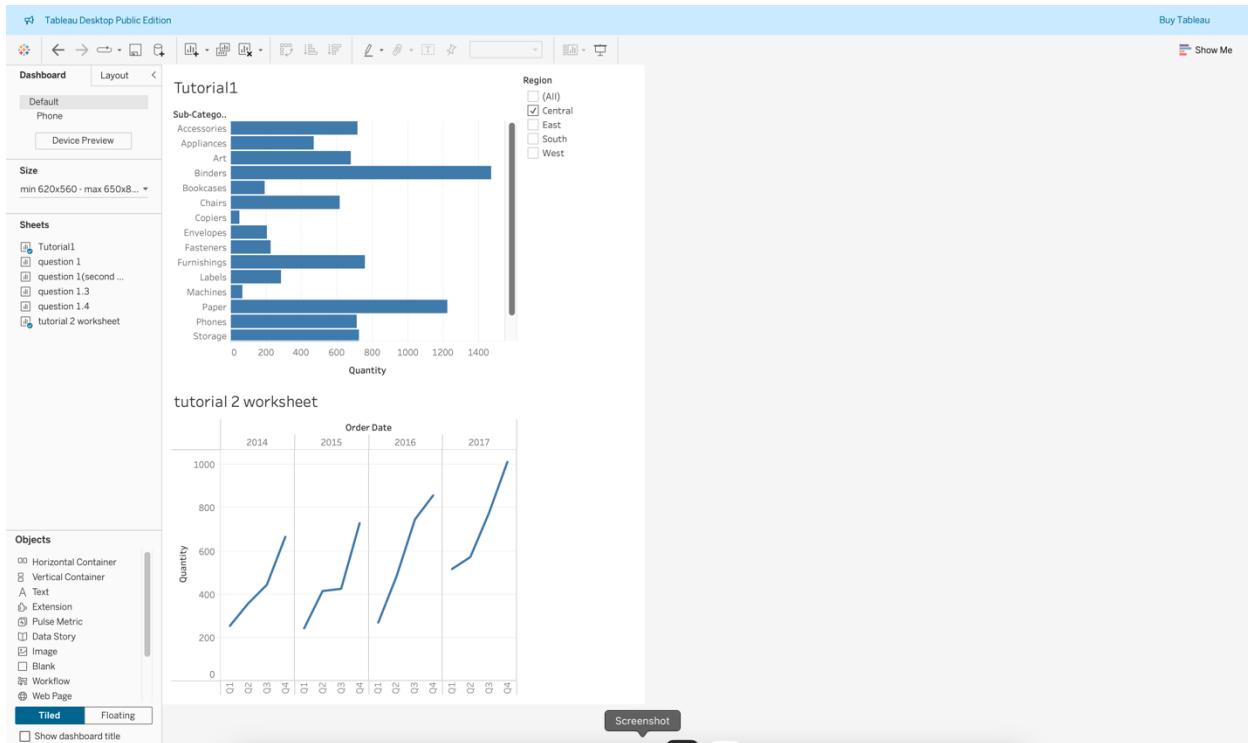
Step 3 :



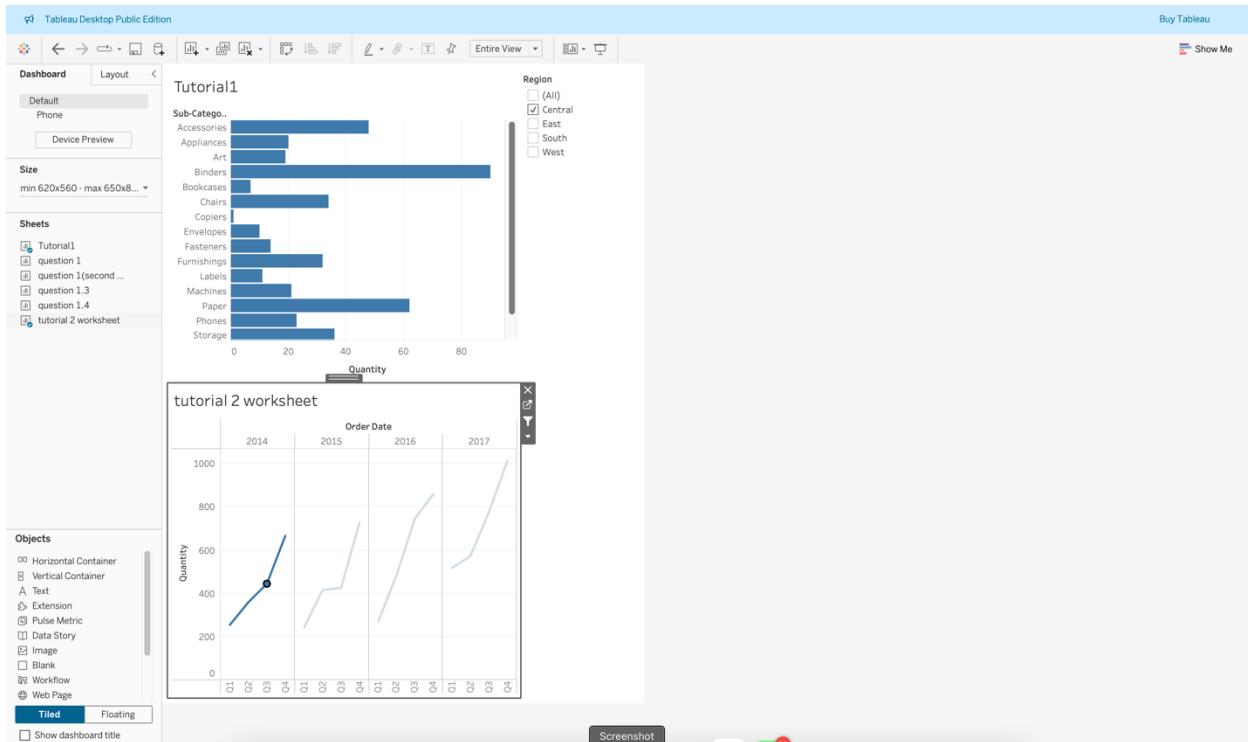
Step 4 : adding worksheet to the dashboard.



Step 5 : interlinking worksheet 1 data .

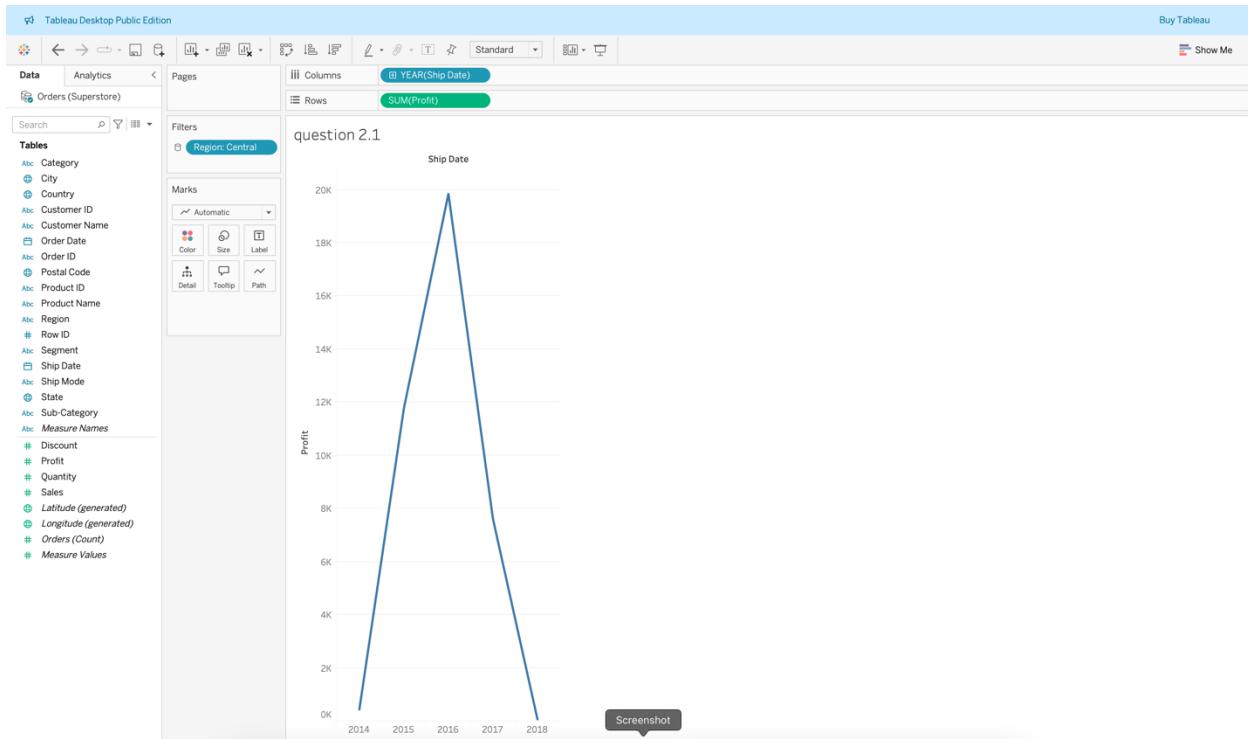


Step 6 :

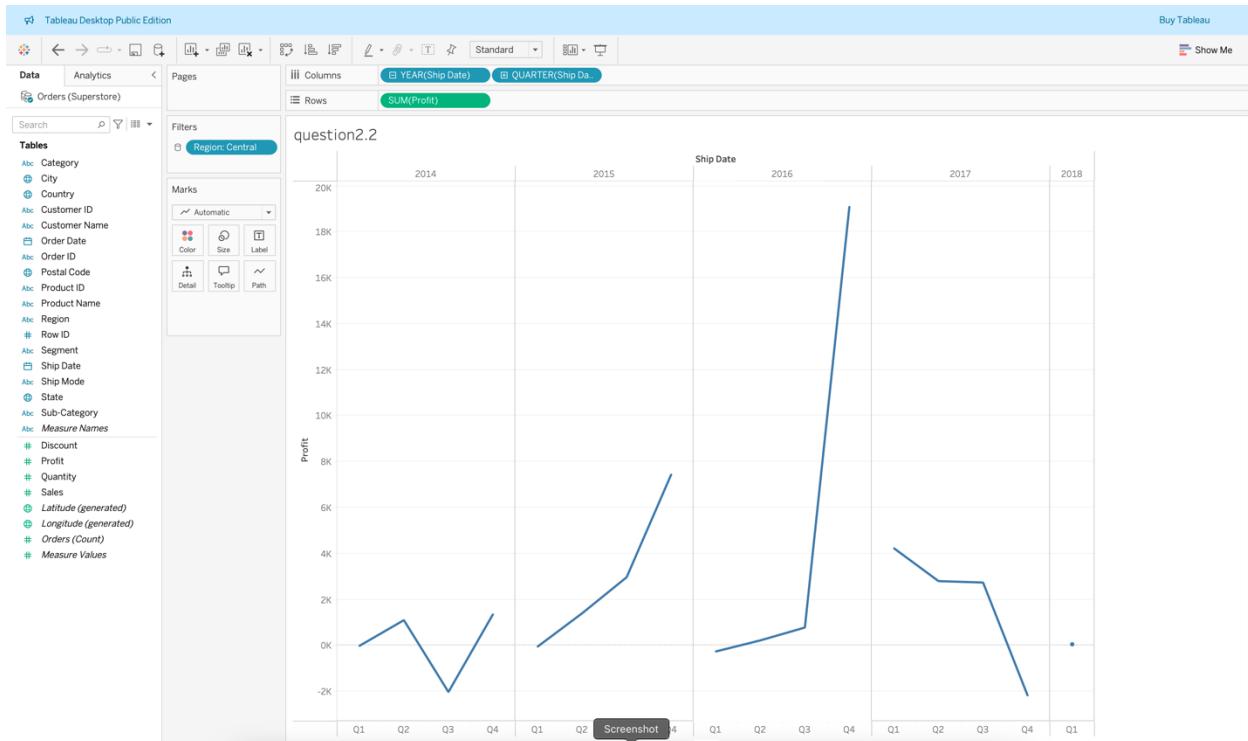


Question 2 :

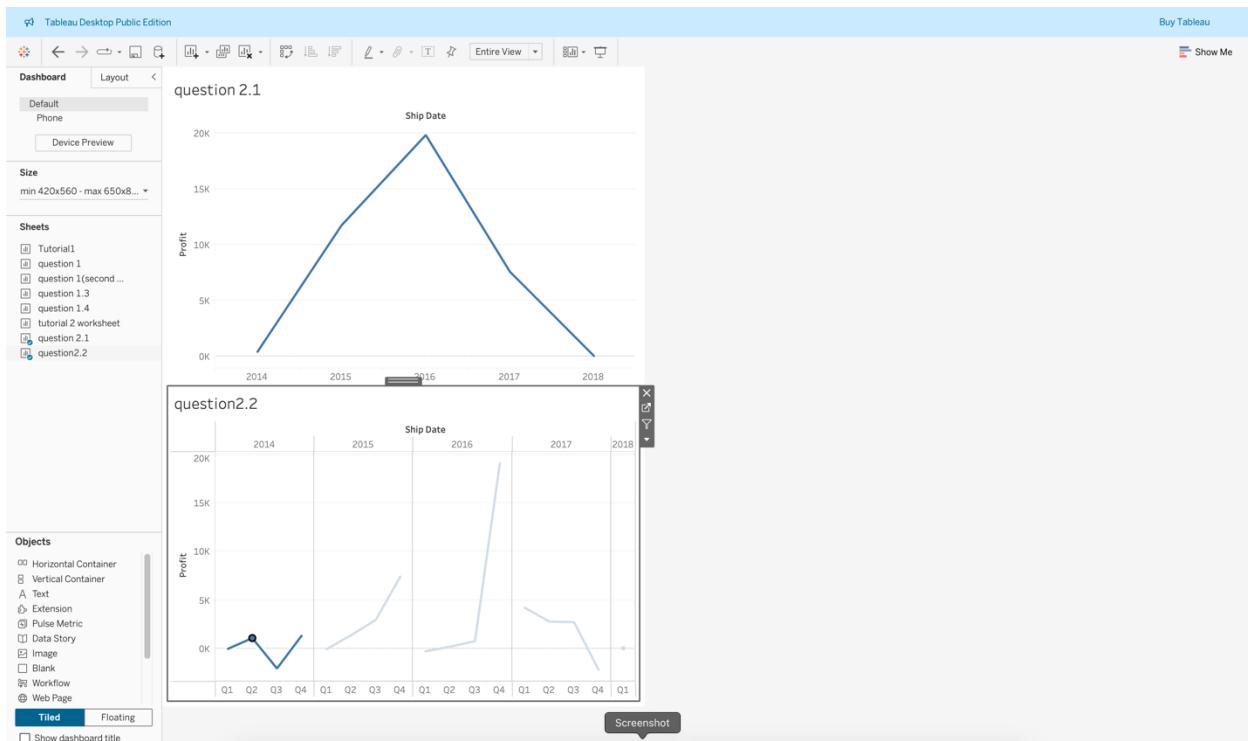
a.



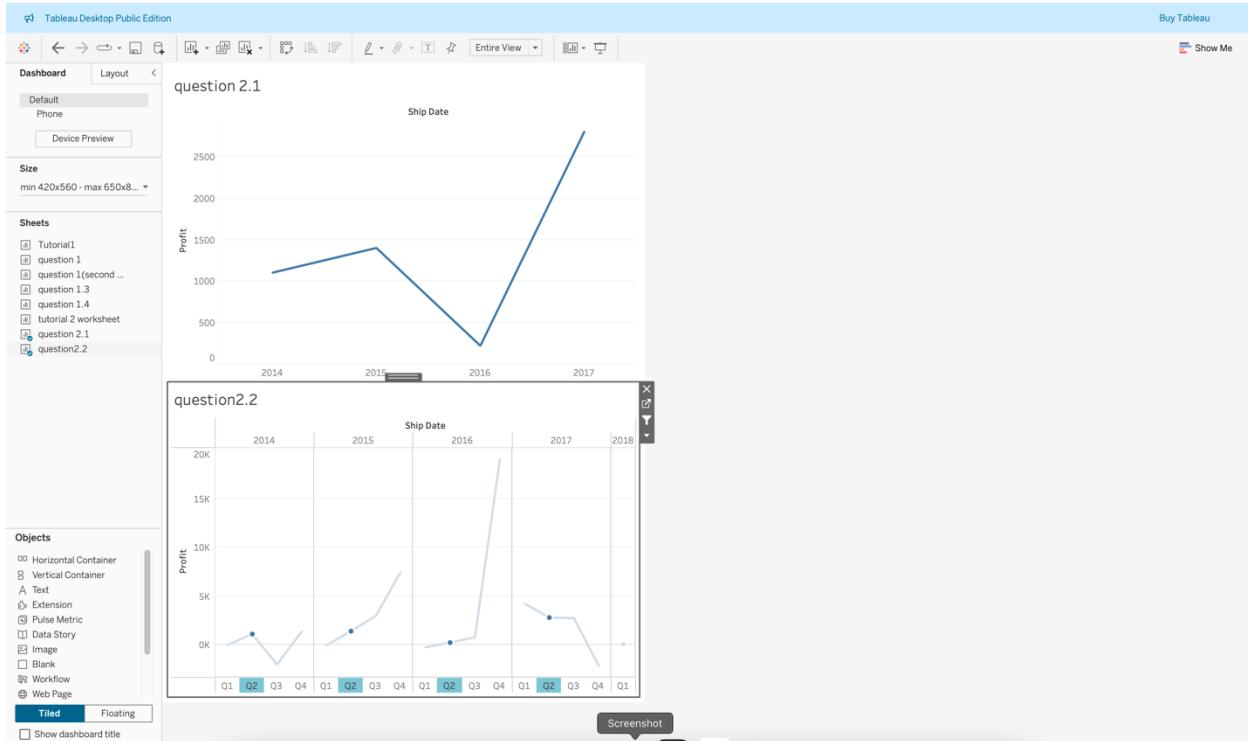
Question 2.b



Question 2.c interactivity.



Question 2.d



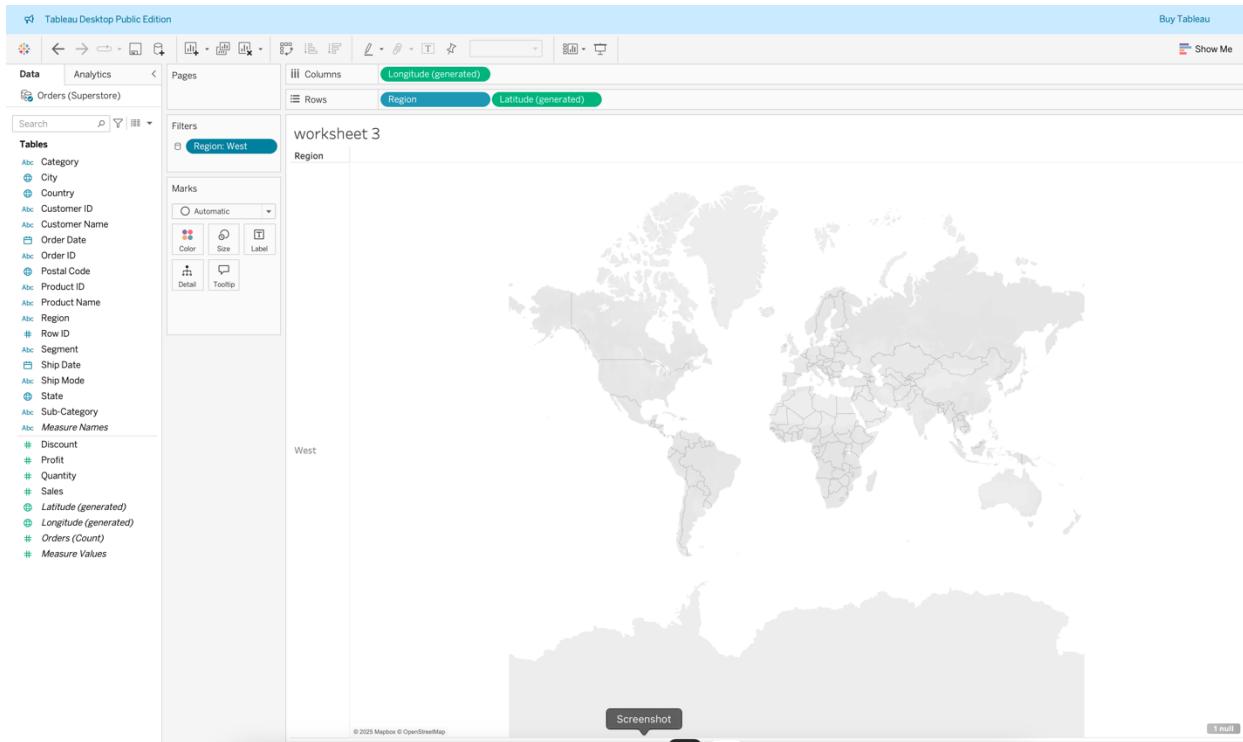
Here, if we have the quarter 2 for every year selected , we can see the profit has increased marginally and had seen a huge dip before it reaches to it's highest profit in 2017.

Question 2.e.

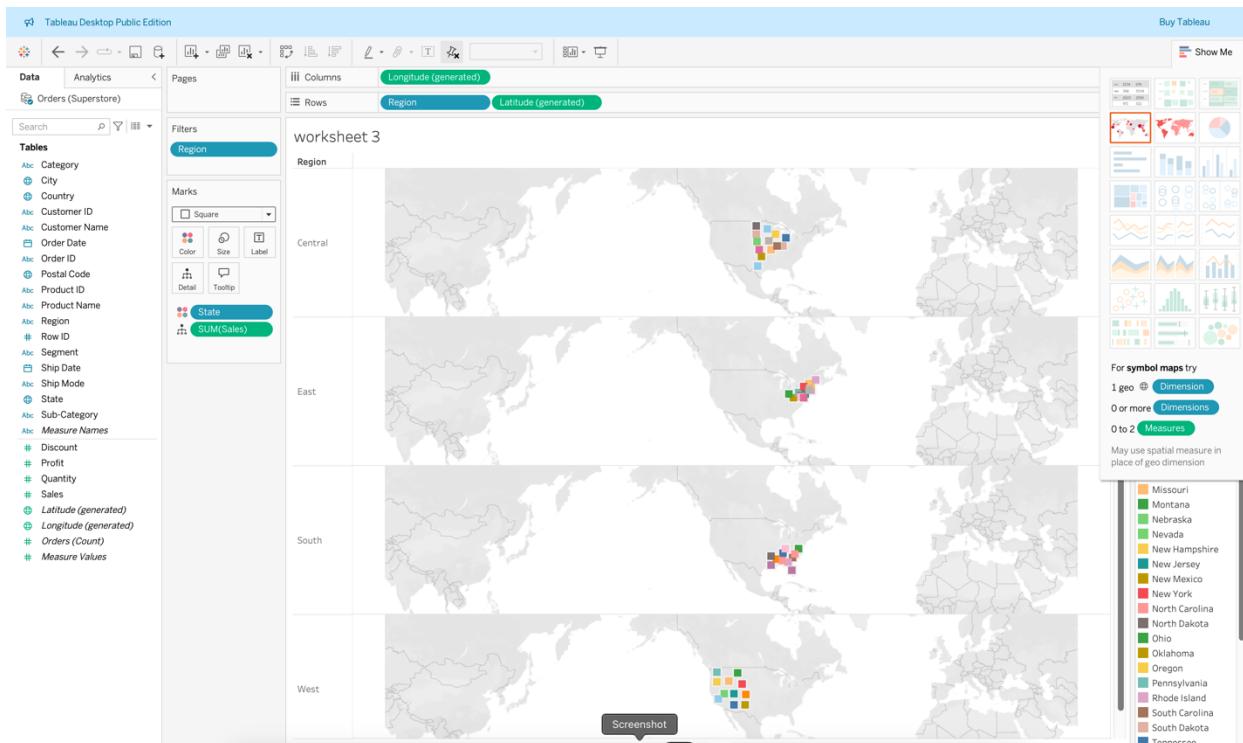
The task was give us an understanding how line. Chart was able to provide an understanding in the data where the profit was being varied over 4 years and we could easily filter out the quarters and along with respective profits gained in over those quarters with the help of filters.

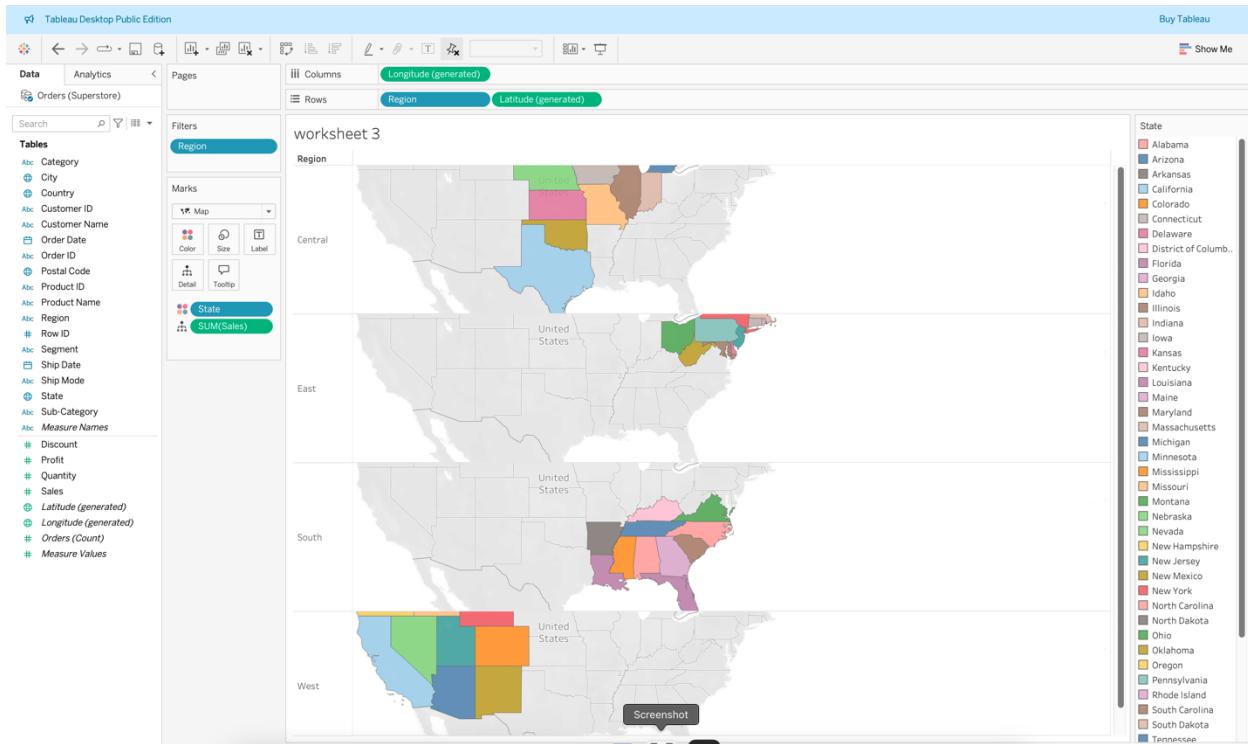
TUTORIAL 3 :

Step 1 :



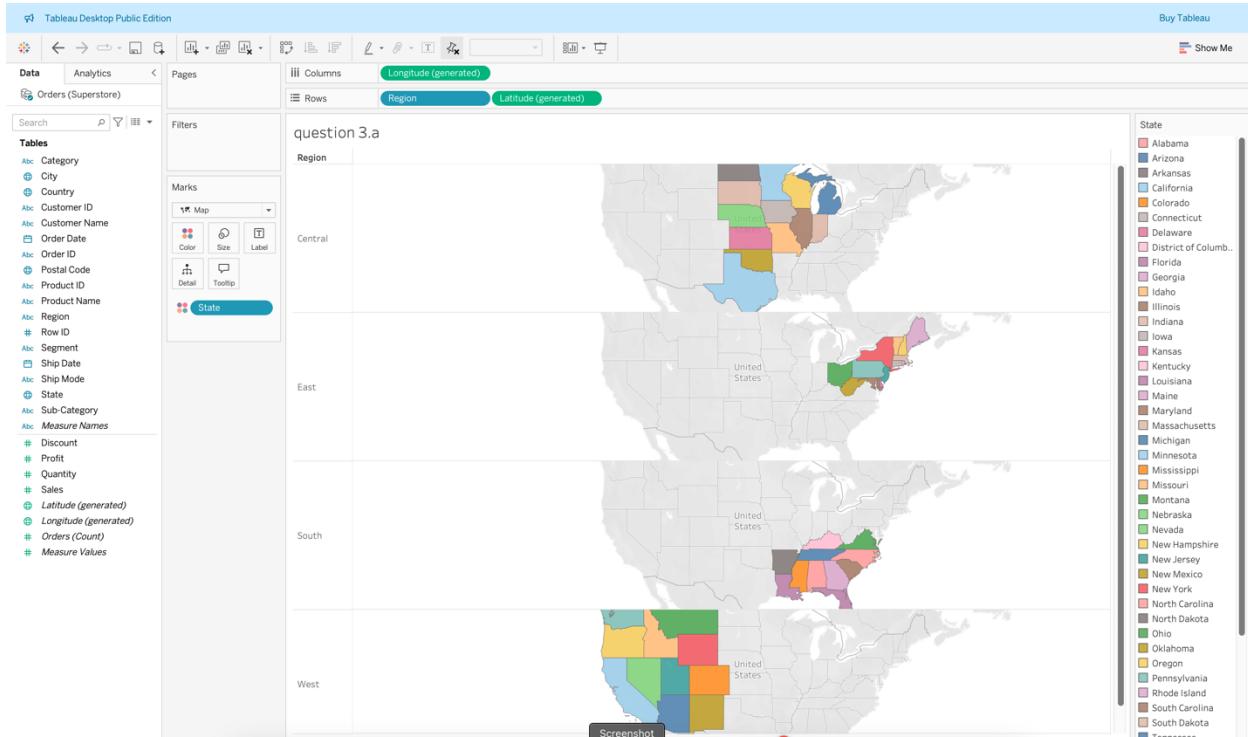
Step 2 :



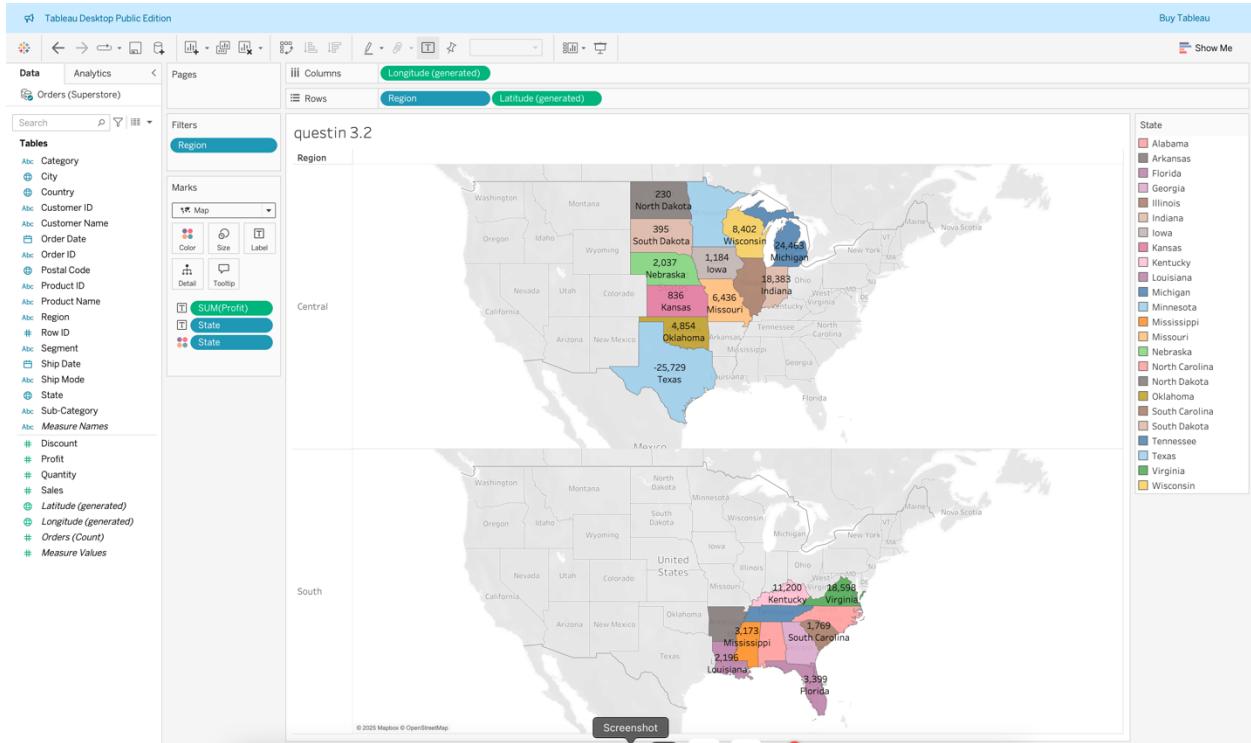


Question 3 :

Question 3.1



Question 3.2



Question 3.3 :

From the above graph we could see

Profit in oklahoma: 4,854

Profit in texas: -25,729 (loss)

Question 3.4

We wont be able to see the graph.

Question 3.5

Yes , we can set each state with our desired color.

