

**Q: i. Explain in detail the area graphs and line graphs in tableau and how to create them with examples. (With the help of an example create one in tableau)**

### Area Graph:

So, as we can see in the menu as well, there are two types of area graph, Continuous and discrete area graph.

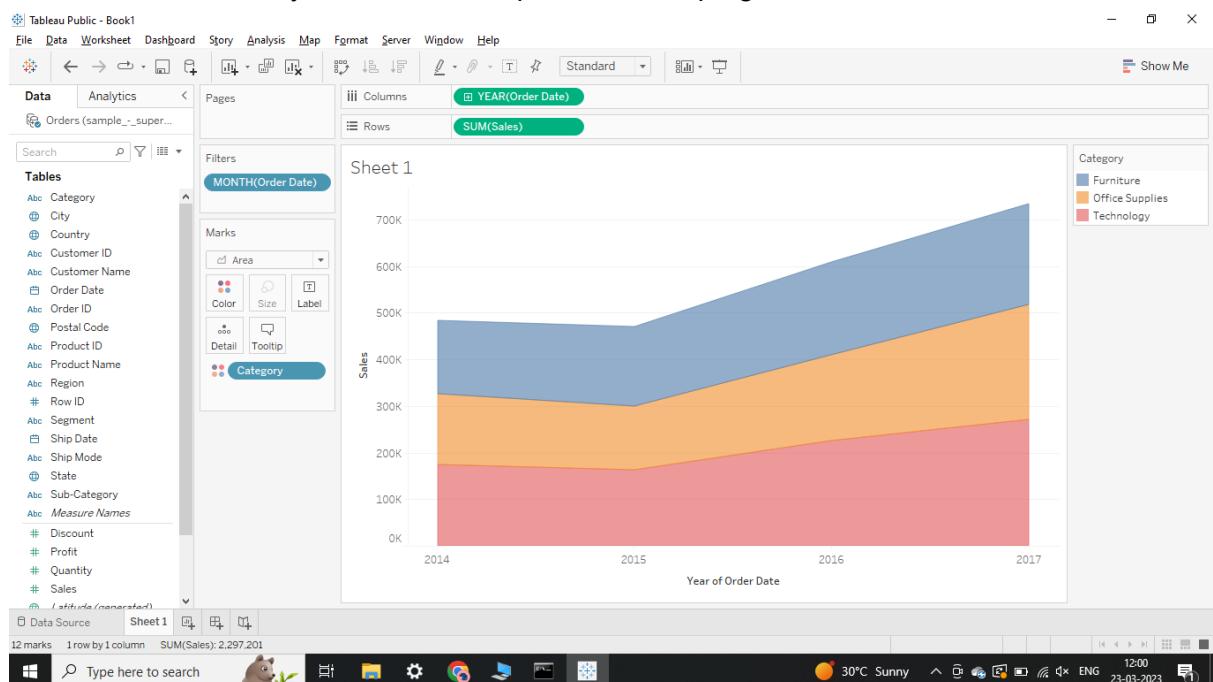
Here I have shown Continuous Area Graph

Here I am using the sample store dataset.

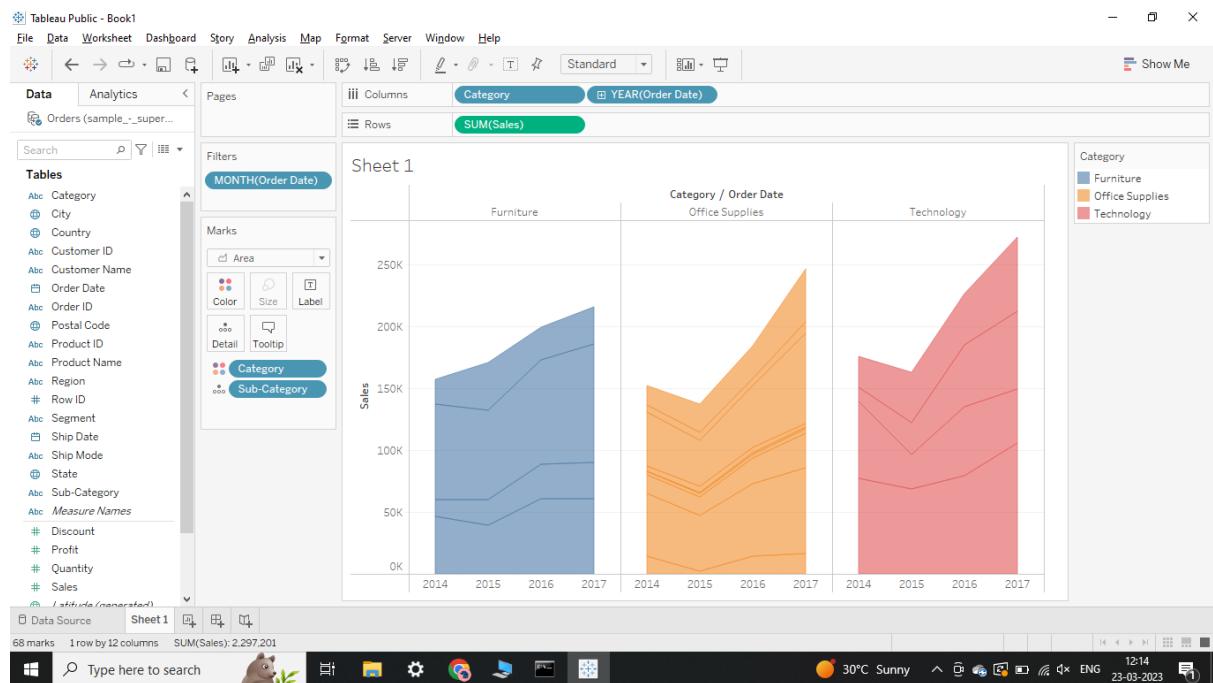
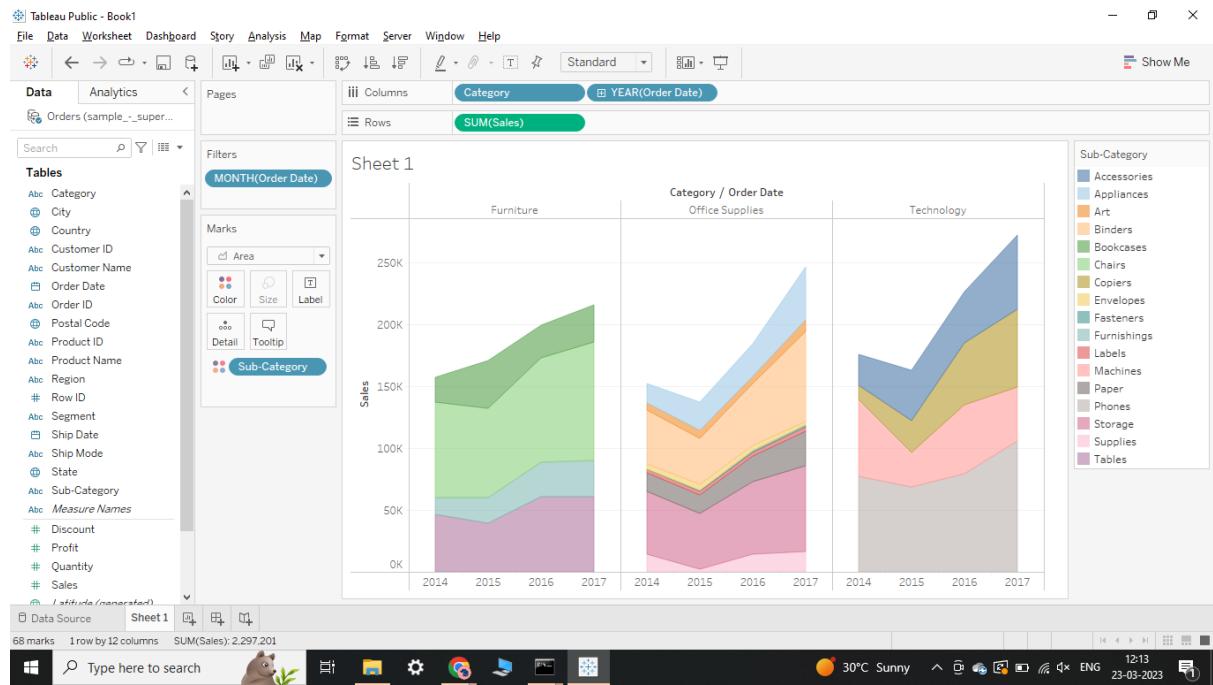
And in that, I am using ORDERS.

So firstly,

- Drop order date to the columns
- Drop sales to the rows
- Drop order date to the filters
- Drop category to the Colours, to add different colours to different categories
- And now, finally select Area Graph from the top right corner 'Show Me'



- Discrete Area Graph



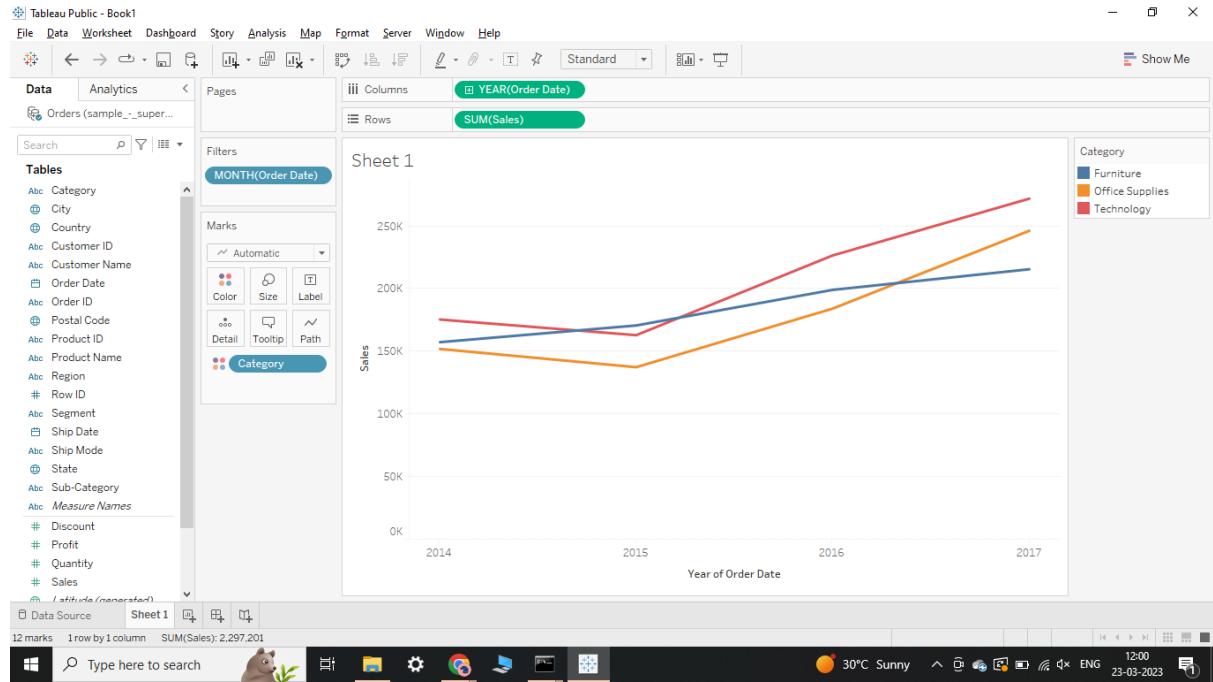
## Line Graph:

So line graph is useful to see the trends.

We can see the up and down easily.

It is very useful in stock market other than candle sticks to see which stock has a higher price than the other day and so on.

Same as Area graph, just select Line Graph from Show Me menu instead of Area Graph.



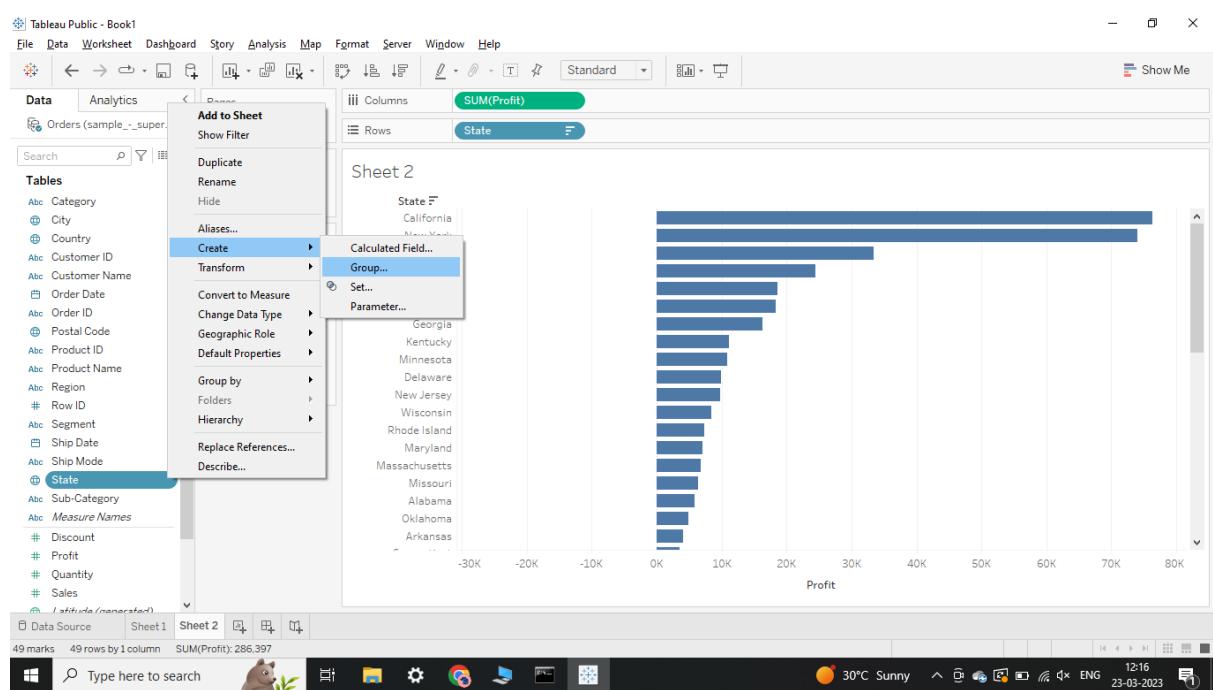
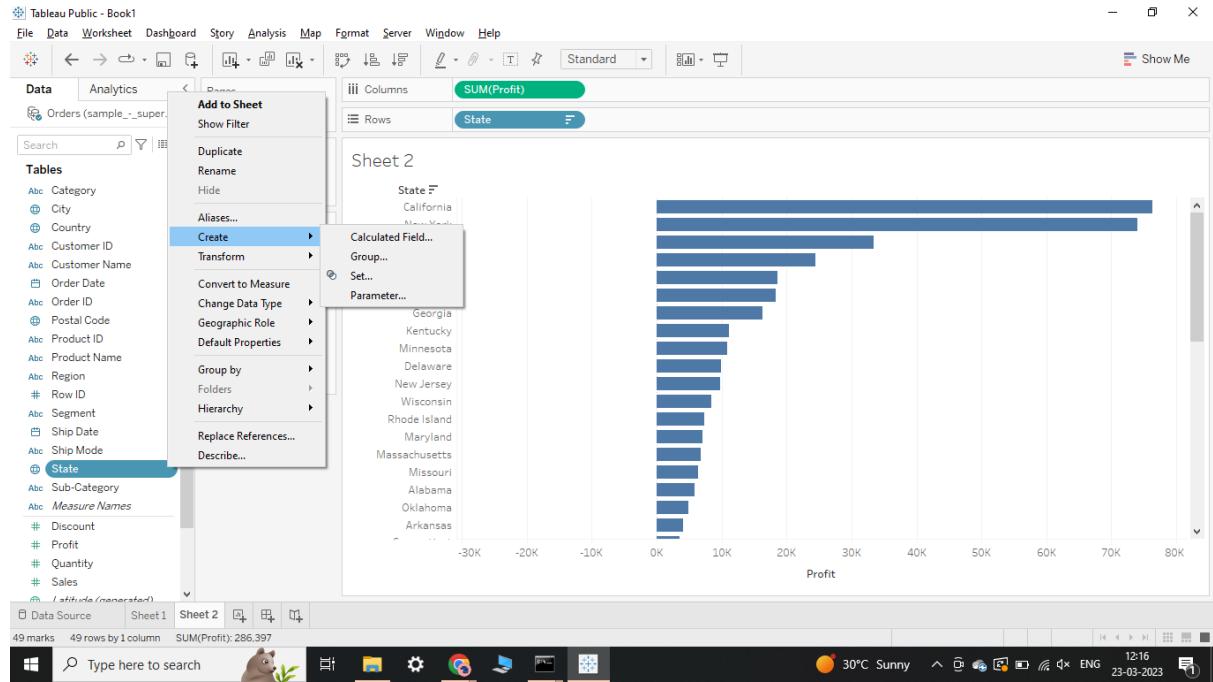
**Q:ii. What are the different steps in grouping fields and combining tables in tableau ? Explain with examples. (With the help of an example create one in tableau)**

### **GROUPING FIELDS**

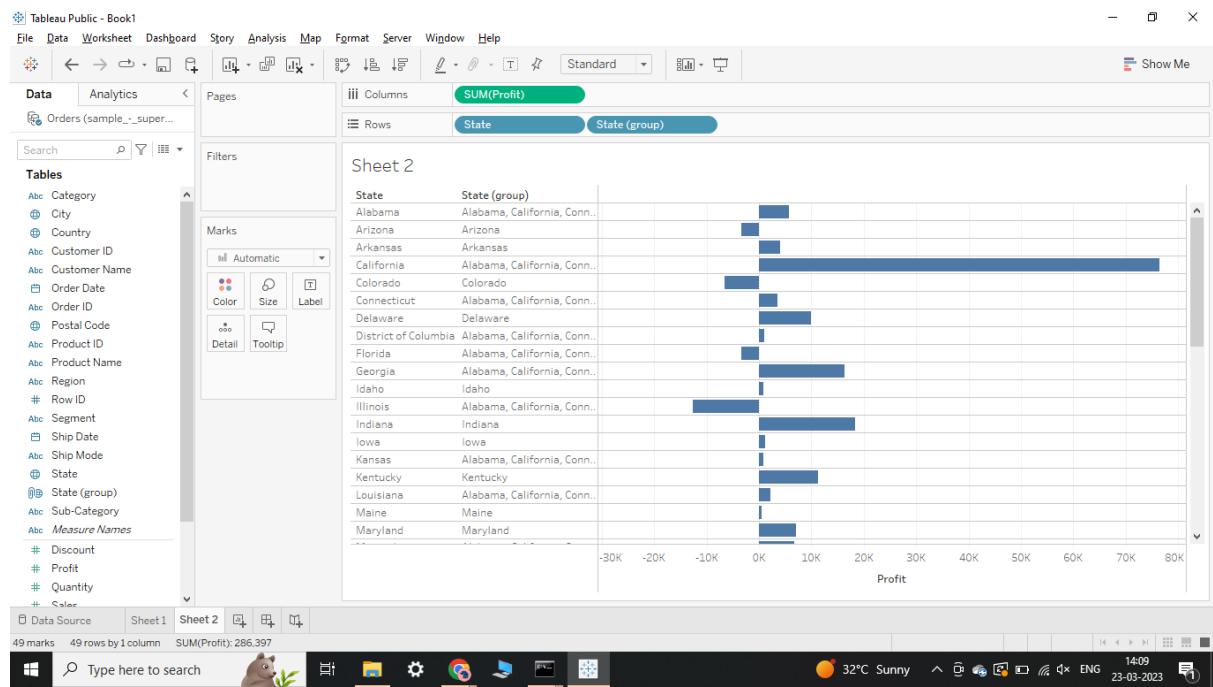
Grouping field means, as the name suggests, to group the fields together for which we want a clear view.

Steps:

- Right click on the field name
- Select Create and then group



- Now, we can see a fields name State(group) on the left panel.
- Now, we can drag and drop that field wherever we want to create a meaningful graph.



## COMBINING TABLES

Here, I have used Sample Store dataset to combine the tables.  
We can options on the left side bottom of how to combine, which fields to combine and so on.

Tableau Public - Book1

File Data Window Help

Connections Add

sample\_-\_superstore Microsoft Excel

Sheets Orders People Returns New Union New Table Extension

Orders (sample\_-\_superstore)

Filters 0 | Add

Orders — People

How do relationships differ from joins? Learn more

Orders Operator People

Abc Region = Abc Region (People)

Add more fields

Performance Options

Abc People Abc People

Person Region (People)

Abc Region	Abc Person	Abc Region (People)
Anna Andreadi	West	
Chuck Magee	East	
Kelly Williams	Central	
Cassandra Brandow	South	

Data Source Sheet 3

This screenshot shows a Tableau Public dashboard titled 'Orders (sample\_-\_superstore)'. On the left, the 'Connections' pane lists 'sample\_-\_superstore' (Microsoft Excel). The 'Sheets' pane shows 'Orders', 'People', and 'Returns'. The main workspace displays a relationship diagram where 'Orders' is connected to 'People' via a red arrow. Below the diagram, a table shows data from the joined 'Orders' and 'People' tables. The 'Region' column in 'Orders' is compared to the 'Region (People)' column in 'People' using an equals operator (=). The table includes rows for Anna Andreadi (West), Chuck Magee (East), Kelly Williams (Central), and Cassandra Brandow (South).

Tableau Public - Book1

File Data Window Help

Connections Add

sample\_-\_superstore Microsoft Excel

Sheets Orders People Returns New Union New Table Extension

Orders (sample\_-\_superstore)

Filters 0 | Add

Orders — People

How do relationships differ from joins? Learn more

Orders Operator People

Abc Category <= Abc Person

Add more fields

Performance Options

Abc People Abc People

Person Region (People)

Abc Category	Abc Person	Abc Region (People)
Anna Andreadi	West	
Chuck Magee	East	
Kelly Williams	Central	
Cassandra Brandow	South	

Data Source Sheet 3

This screenshot shows a second instance of a Tableau Public dashboard titled 'Orders (sample\_-\_superstore)'. The layout is identical to the first one, with the 'Connections' and 'Sheets' panes on the left and the relationship editor on the right. The key difference is in the relationship settings: the 'Category' field in 'Orders' is now compared to the 'Person' field in 'People' using a less than or equal to operator (<=). The resulting table shows the same four rows as the first screenshot.

Tableau Public - Book1

File Data Window Help

Connections Add

sample\_-\_superstore Microsoft Excel

Sheets Orders People Returns New Union New Table Extension

Orders (sample\_-\_superstore)

Filters 0 | Add

Orders → People

Abc Category

- Abc City
- Abc Country
- Abc Customer ID
- Abc Customer Name

Edit Calculation... or People

Abc Category <= Abc Person

Add more fields

Performance Options

4 rows

Abc People	Abc People	Region (People)
Anna Andreadi	West	
Chuck Magee	East	
Kelly Williams	Central	
Cassandra Brandow	South	

Data Source Sheet 3

Type here to search

Very high UV 14:44 23-03-2023 ENG

Tableau Public - Book1

File Data Window Help

Connections Add

sample\_-\_superstore Microsoft Excel

Sheets Orders People Returns New Union New Table Extension

Orders (sample\_-\_superstore)

Filters 0 | Add

Orders — People

How do relationships differ from joins? Learn more

Orders Operator People

Abc Category <= Abc Person

Add more fields <= > < > <= > >=

Performance Options

Abc People	Abc Region (People)
Person	
Anna Andreadi	West
Chuck Magee	East
Kelly Williams	Central
Cassandra Brandow	South

4 rows

Tableau Public - Book1

File Data Window Help

Connections Add

sample\_-\_superstore Microsoft Excel

Sheets Orders People Returns New Union New Table Extension

Orders (sample\_-\_superstore)

Filters 0 | Add

Orders — People

How do relationships differ from joins? Learn more

Orders Operator People

Abc Category <= Abc Person

Add more fields <= > < > <= > >=

Performance Options

Abc People

Person Region (People)

Anna Andreadi West

Chuck Magee East

Kelly Williams Central

Cassandra Brandow South

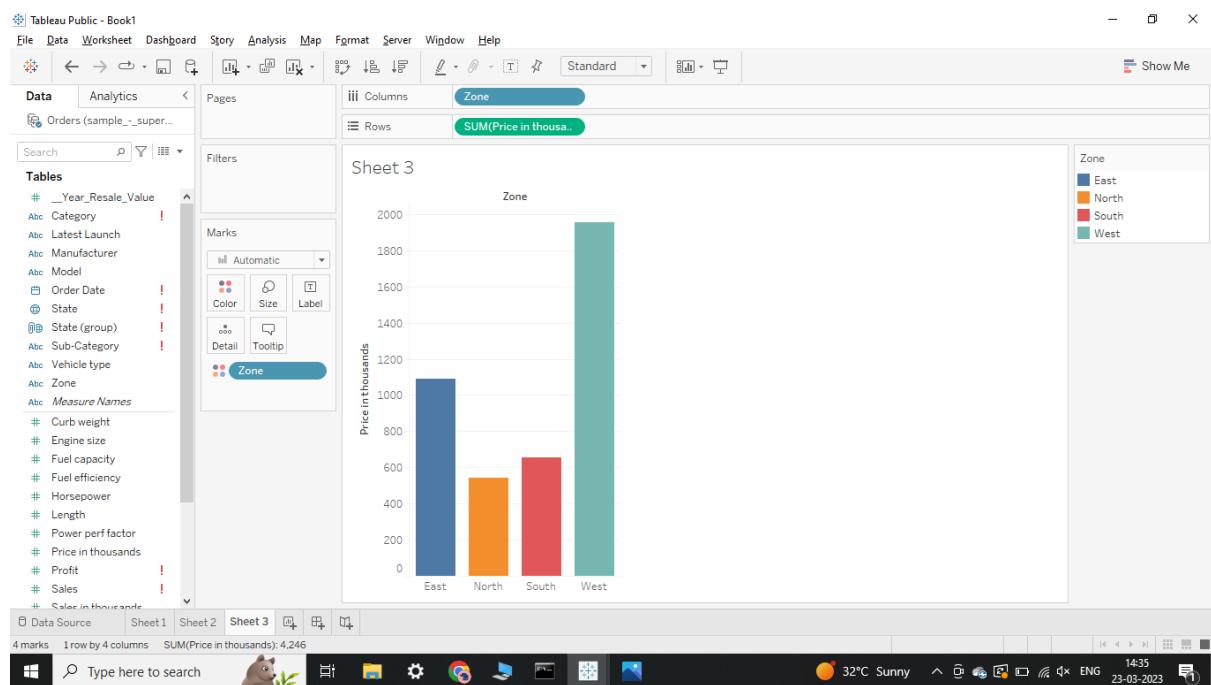
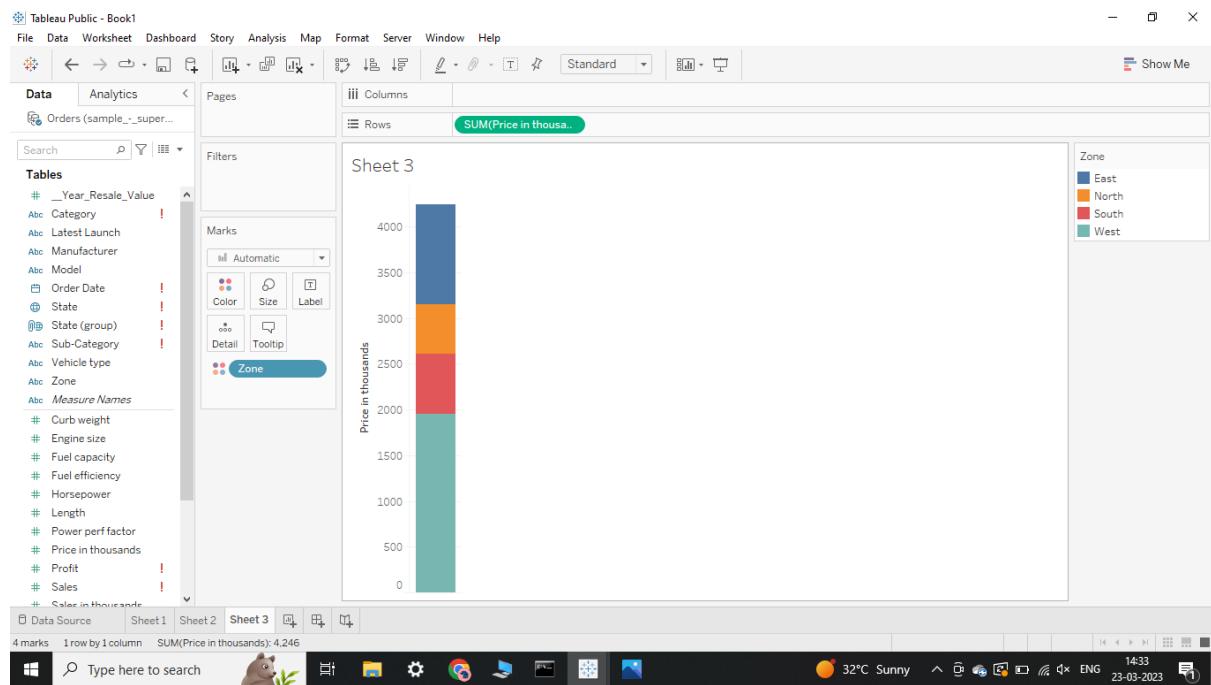
4 rows

**Q:iii. What is the use of color and size options in the marks cart of tableau ? (With the help of an example create one in tableau)**

⇒ COLOR: If there is multiple values in a field that need differentiation, then we can just drop that field in the color option.

It will have different colors for different items.

For example, here, i have taken bike dataset,



Here, as I have put Zone into the colours, it has different colours for different zones,

Like- Blue for East

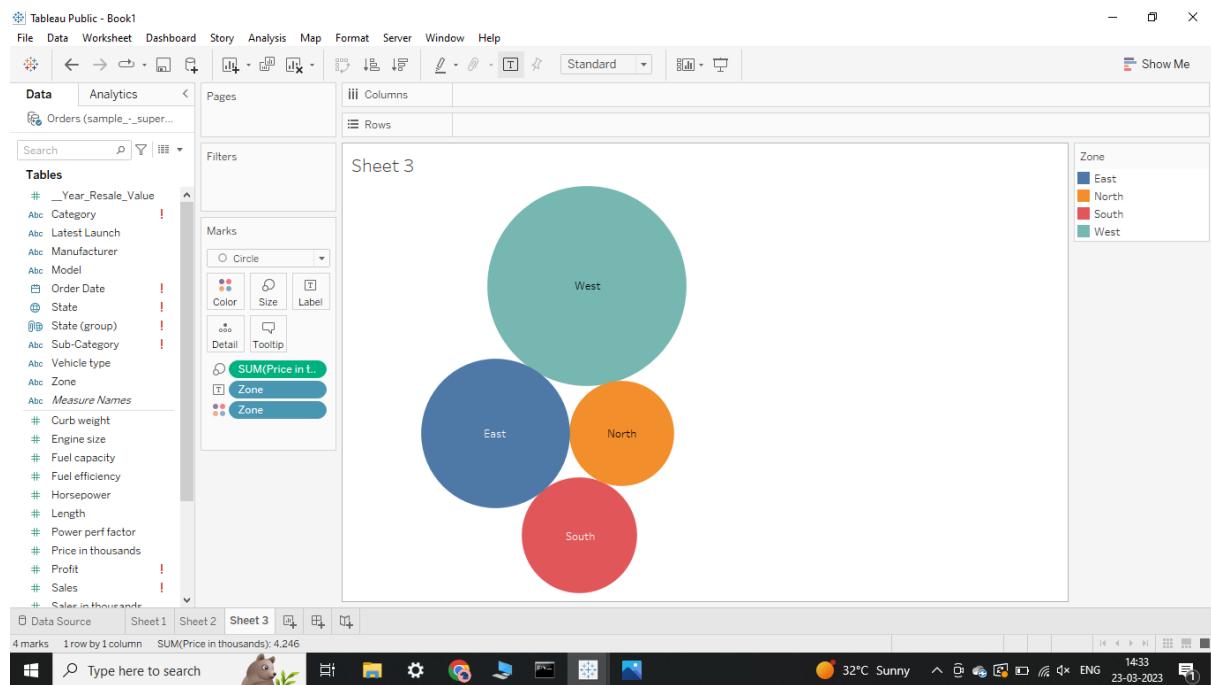
Orange for North

Red for South

Turquoise for West

⇒ SIZE: It will assign different size according to the condition.

Like, here, I have given Sum of Price in the Size, so if there is more price the size will also be more.



**Q:iv. What are the different joins supported by tableau? (With the help of an example create one in tableau)**

Here, I have used two self created excel sheets,

BOOK1-

<u>Sweets</u>	<u>States</u>
Rasogulla	Bengal
Jalebi	Gujarat
Peda	Mathura
Halwa	Punjab
Mysore pak	Tamil nadu

BOOK2-

<u>Sweets</u>	<u>Region</u>
Rasogulla	Bengal
Jalebi	Gujarat
Peda	Mathura
Halwa	Punjab
Mysore pak	Tamil nadu

We can simple perform joins or we can combine table by just dragging and dropping the two table that we want to combine.

Tableau Public - Book1

File Data Window Help

Connections Add

Book1 Microsoft Excel

Book2 Microsoft Excel

Sheets

Sheet1

New Union

New Table Extension

Orders (sample\_-\_superstore)

Filters 0 | Add

Sheet1 — Sheet11

5 rows

How do relationships differ from joins? Learn more

Sheet1 Operator Sheet11

Abc Sweets = Abc Sweets (Sheet11)

Add more fields

Performance Options

Abc Sheet11	Abc Sheet11
Sweets (Sheet11)	Region
Rasogulla	Bengal
Jalebi	Gujarat
Peda	Mathura
Halwa	Punjab
Mysore pak	Tamil nadu

Data Source Sheet 1 Sheet 2

Type here to search

32°C Sunny 14 4 3 9 14:14 23-03-2023

## INNER JOIN

Tableau Public - Book1

File Data Window Help

Connections Add

Book1 Microsoft Excel  
Book2 Microsoft Excel

Sheets Sheet1 New Union New Table Extension

Orders (sample\_-\_superstore)

Sheet1 is made of 2 tables.

Sheet1 Sheet11

Sheet1 11 fields 5 rows

Name Sheet1

Fields

Type	Field Name	Physical Table	Remote File
Abc	Sweets	Sheet1	Sweets
Abc	States	Sheet1	States
Abc	Sweets (Sheet11)	Sheet11	Sweets (Sheet11)
Abc	Region	Sheet11	Region
Group	State (group)	Group	State (group)

Abc	Abc	Abc	Abc	Abc	Abc
Sheet1	Sheet11	Sweets (Sheet11)	Sheet11	Region	Group
Rasogulla	Bengal	Rasogulla	Bengal	null	null
Jalebi	Gujarat	Jalebi	Gujarat	null	null
Peda	Mathura	Peda	Mathura	null	null
Halwa	Punjab	Halwa	Punjab	null	null
Mysore pak	Tamil nadu	Mysore pak	Tamil nadu	null	null

Data Source Sheet1 Sheet2

32°C Sunny 14:16 23-03-2023

Tableau Public - Book1

File Data Window Help

Connections Add

Book1 Microsoft Excel  
Book2 Microsoft Excel

Sheets Sheet1 New Union New Table Extension

Orders (sample\_-\_superstore)

Sheet1 is made of 2 tables.

Join

Inner Left Right Full Outer

Sheet1 Sheet11

Sweets = Sweets (Sheet11)

Add new join clause

Name Sheet1

Fields

Type	Field Name	Physical Table	Remote File
Abc	Sweets	Sheet1	Sweets
Abc	States	Sheet1	States
Abc	Sweets (Sheet11)	Sheet11	Sweets (Sheet11)
Abc	Region	Sheet11	Region
Group	State (group)	Group	State (group)

Abc	Abc	Abc	Abc	Abc	Abc
Sheet1	Sheet11	Sweets (Sheet11)	Sheet11	Region	Group
Rasogulla	Bengal	Rasogulla	Bengal	null	null
Jalebi	Gujarat	Jalebi	Gujarat	null	null
Peda	Mathura	Peda	Mathura	null	null
Halwa	Punjab	Halwa	Punjab	null	null
Mysore pak	Tamil nadu	Mysore pak	Tamil nadu	null	null

Data Source Sheet1 Sheet2

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## LEFT JOIN

The screenshot shows the Tableau interface with a data source named "Orders (sample\_-\_superstore)". The data source is composed of two tables: "Sheet1" and "Sheet11". A Left Join is applied between these two tables. The "Fields" pane displays the joined fields, including "Sweets", "States", "Sweets (Sheet11)", "Region", and "State (group)". The main view shows a table with the following data:

	Abc Sheet1	Abc Sheet1	Abc Sheet11	Abc Sheet11	Abc Group	Abc
Sweets	Sweets	States	Sweets (Sheet11)	Region	State (gro... !)	Categ... !
Rasogulla	Bengal	Rasogulla	Bengal	null	null	
Jalebi	Gujarat	Jalebi	Gujarat	null	null	
Peda	Mathura	Peda	Mathura	null	null	
Halwa	Punjab	Halwa	Punjab	null	null	
Mysore pak	Tamil nadu	Mysore pak	Tamil nadu	null	null	

## - RIGHT JOIN

The screenshot shows the Tableau interface with a data source named "Orders (sample\_-\_superstore)". The data source is composed of two tables: "Sheet1" and "Sheet11". A Right Join is applied between these two tables. The "Fields" pane displays the joined fields, including "Sweets", "States", "Sweets (Sheet11)", "Region", and "State (group)". The main view shows a table with the following data:

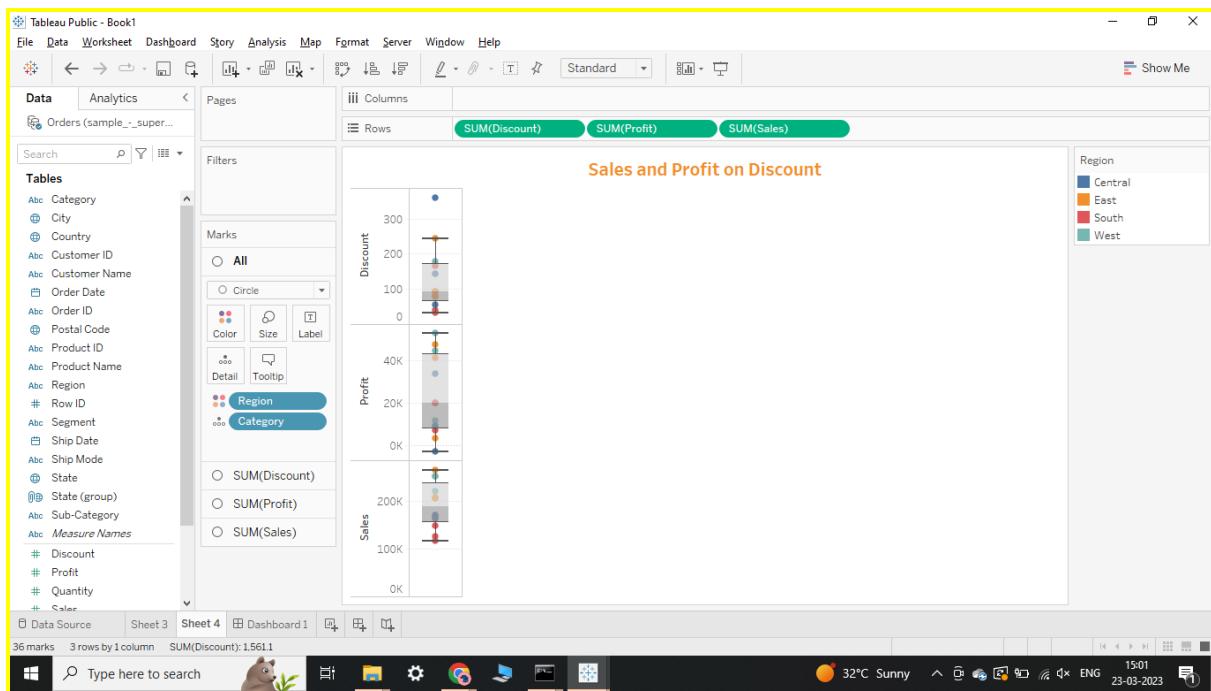
	Abc Sheet1	Abc Sheet1	Abc Sheet11	Abc Sheet11	Abc Group	Abc
Sweets	Sweets	States	Sweets (Sheet11)	Region	State (gro... !)	Categ... !
Rasogulla	Bengal	Rasogulla	Bengal	null	null	
Jalebi	Gujarat	Jalebi	Gujarat	null	null	
Peda	Mathura	Peda	Mathura	null	null	
Halwa	Punjab	Halwa	Punjab	null	null	
Mysore pak	Tamil nadu	Mysore pak	Tamil nadu	null	null	

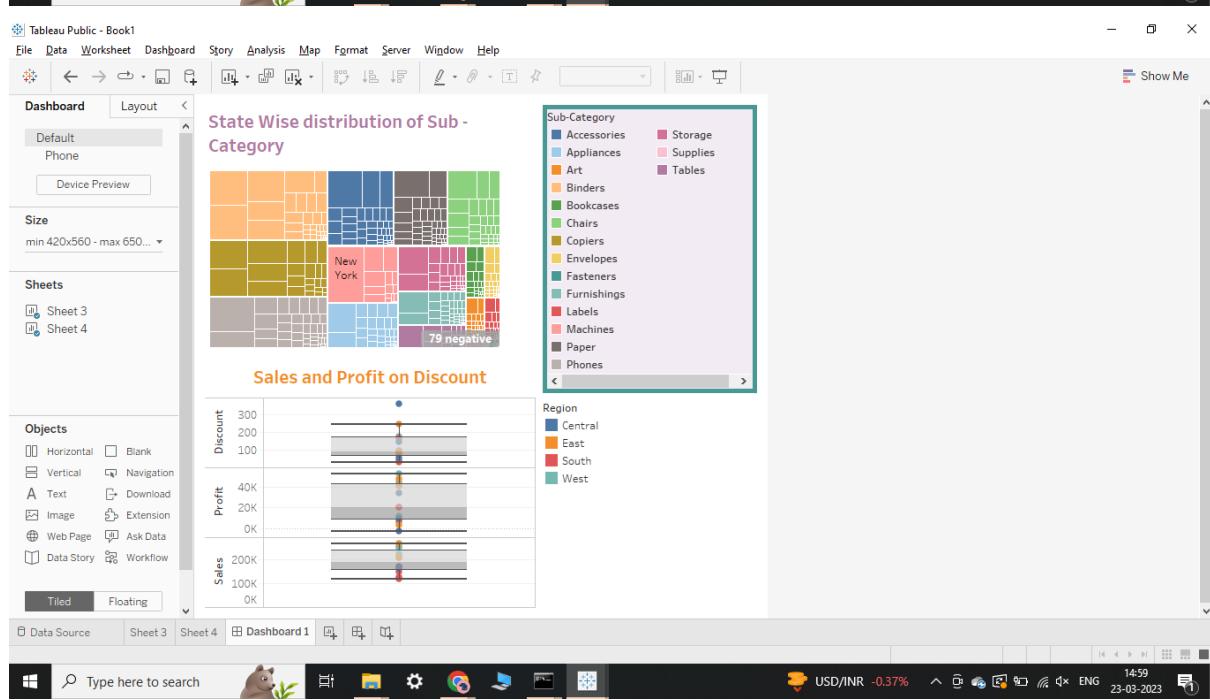
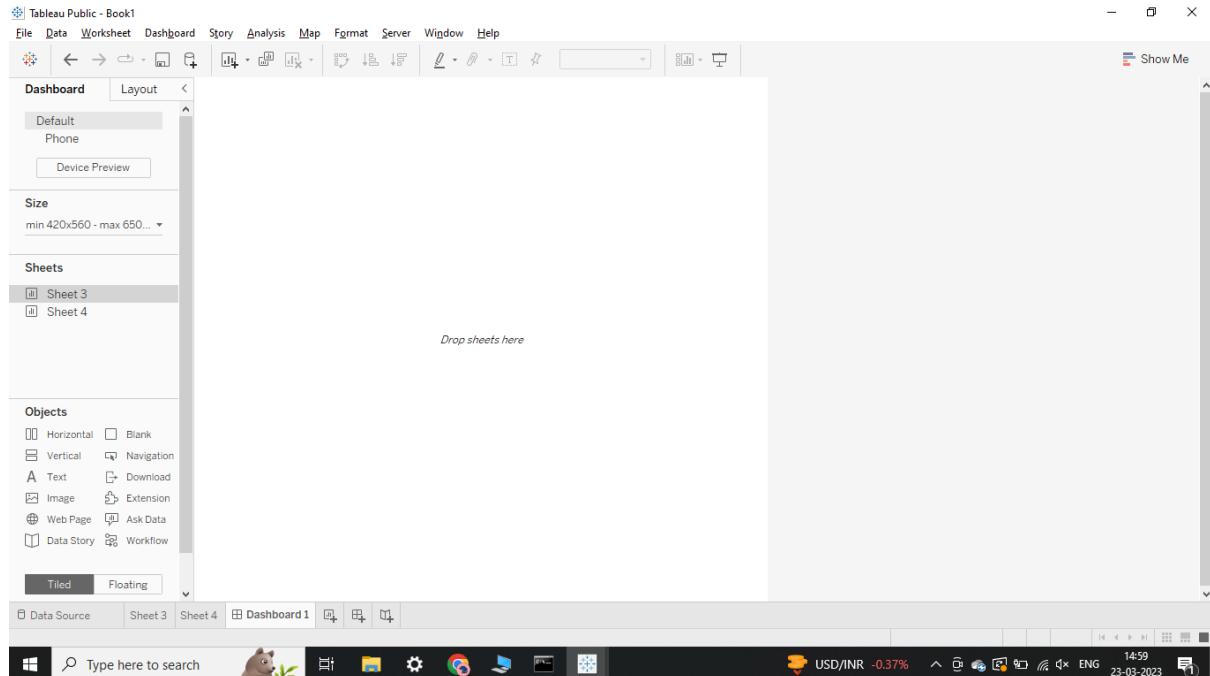
## - FULL OUTER JOIN

The screenshot shows the Tableau interface with a dashboard titled "Orders (sample\_-\_superstore)". A tooltip indicates that "Sheet1 is made of 2 tables." A diagram shows two nodes connected by a double-headed arrow, labeled "Sheet1" and "Sheet11". Below this, a table view shows data from "Sheet1" with 11 fields and 5 rows. The table includes columns for "Name" (Sheet1), "Fields" (Type, Field Name, Physical Table, Remote File), and a preview of the data. The preview table has columns for "Abc Sheet1", "Abc Sheet11", "Abc Sheet11", "Abc Sheet11", "Region", "State (group)", and "Category". The data includes entries like Rasogulla, Bengal, Rasogulla, Bengal, null, null; Jalebi, Gujarat, Jalebi, Gujarat, null, null; Peda, Mathura, Peda, Mathura, null, null; Halwa, Punjab, Halwa, Punjab, null, null; and Mysore pak, Tamil nadu, Mysore pak, Tamil nadu, null, null.

**Q:v.Explain the steps to create dashboard in tableau with example (With the help of an example create one in tableau)**

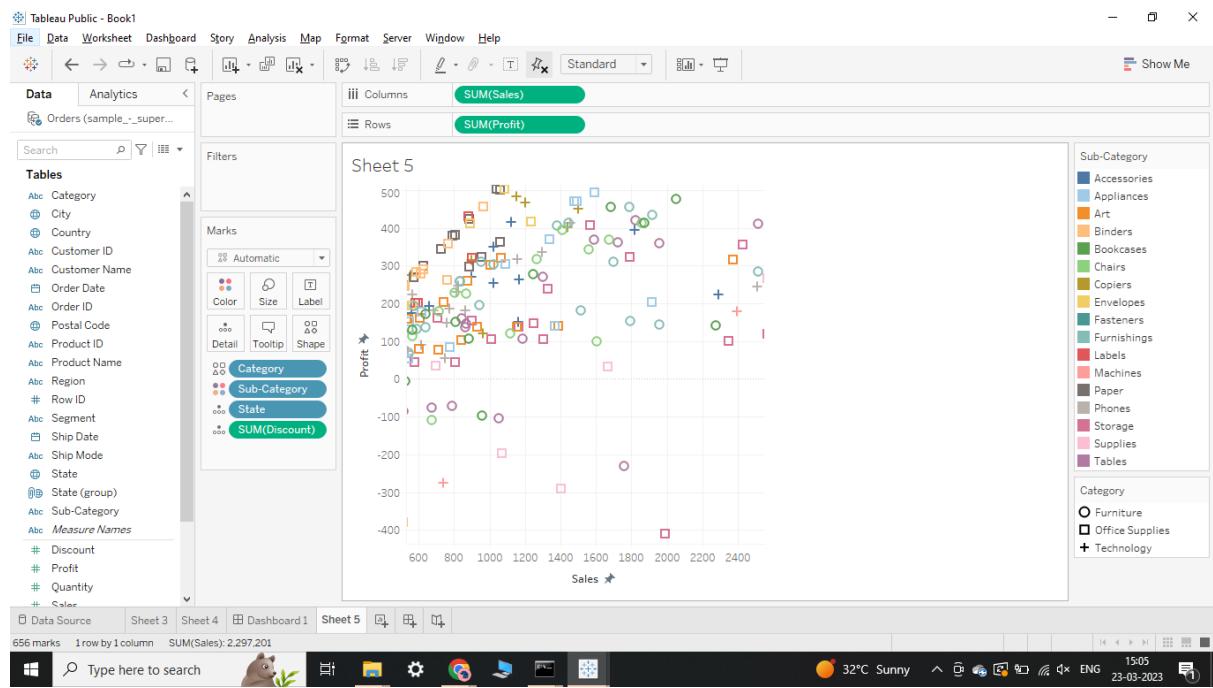
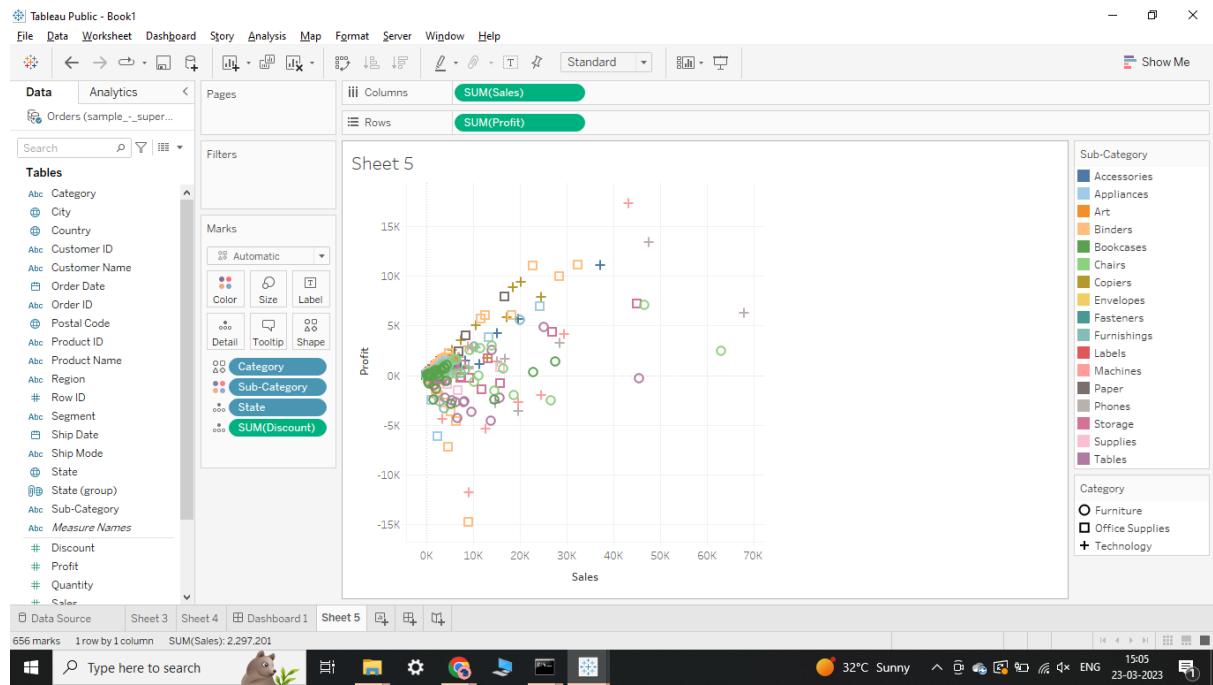
The screenshot shows a treemap visualization titled "State Wise distribution of Sub -Category". The visualization represents data at the state level, with states like New York, California, Michigan, and others serving as the primary categories. Within each state, smaller rectangles represent sub-categories, color-coded according to a legend on the right. The legend lists 20 sub-categories: Accessories, Appliances, Art, Binders, Bookcases, Chairs, Copiers, Envelopes, Fasteners, Furnishings, Labels, Machines, Paper, Phones, Storage, Supplies, and Tables. The treemap is highly detailed, showing numerous sub-categories for each state. The bottom of the screen shows the Windows taskbar with various icons and system status.



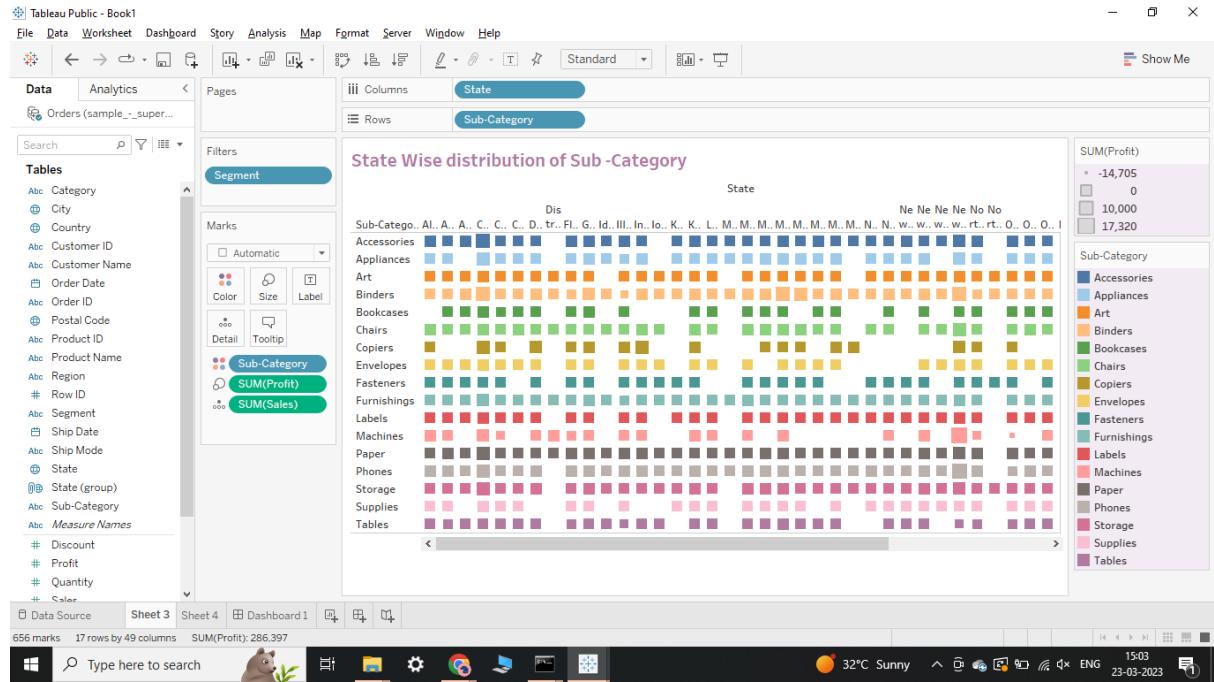


**Q:vi. Explain in detail the heat maps and scatter plot and how to create them with example (With the help of an example create one in tableau)**

⇒ Scatter Plot is specially used to view relation between numerical values.



⇒ Heat map is generally used for large datasets.  
 We can see where there is a greater density.  
 Good when there are overlapping values in our dataset.



**Q:vii. How to create table calculations in tableau with examples . (With the help of an example create one in tableau)**

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Data Analytics < Pages

Orders (sample\_-\_super...)

Search

Tables

- Category
- City
- Country
- Customer ID
- Customer Name
- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
- Row ID
- Segment
- Ship Date
- Ship Mode
- State
- State (group)
- Sub-Category
- Measure Names
- Discount
- Profit
- Quantity
- Sales

Marks

Columns: YEAR(Order Date)

Rows: YEAR(Order Date)

Sheet 6

Order Date

Year of Ord..	2014	2015	2016	2017
2014	Abc			
2015		Abc		
2016			Abc	
2017				Abc

Show Me

For text tables try  
1 or more Dimensions  
1 or more Measures

Data Source Sheet 3 Sheet 4 Dashboard 1 Sheet 5 Sheet 6

4 marks 4 rows by 4 columns

32°C Mostly sunny 15:17 ENG 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Data Analytics < Pages

Orders (sample\_-\_super...)

Search

Tables

- Category
- City
- Country
- Customer ID
- Customer Name
- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
- Row ID
- Segment
- Ship Date
- Ship Mode
- State
- State (group)
- Sub-Category
- Measure Names
- Discount
- Profit
- Quantity
- Sales

Marks

Columns: YEAR(Order Date)

Rows: YEAR(Order Date), QUARTER(Order Da...), MONTH(Order Da...

Sheet 6

Order Date

Year of Ord..	Quarter of ...	Month of O...	2014	2015	2016	2017
2014	Q1	January	Abc			
		February	Abc			
		March	Abc			
2014	Q2	April	Abc			
		May	Abc			
		June	Abc			
2014	Q3	July	Abc			
		August	Abc			
		September	Abc			
2014	Q4	October	Abc			
		November	Abc			
		December	Abc			
2015	Q1	January	Abc			
		February	Abc			
		March	Abc			
2015	Q2	April	Abc			
		May	Abc			
		June	Abc			
2015	Q3	July	Abc			
		August	Abc			
		September	Abc			

Show Me

48 marks 48 rows by 4 columns

32°C Mostly sunny 15:18 ENG 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Data Analytics < Pages

Orders (sample\_.super...)

Search

Tables

- Category
- City
- Country
- Customer ID
- Customer Name
- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
- Row ID
- Segment
- Ship Date
- Ship Mode
- State
- State (group)
- Sub-Category
- Measure Names
- Discount
- Profit
- Quantity
- Sales

Marks

Order Date

Quarter of...	Month of O...	2014	2015	2016	2017
Q1	January	Abc	Abc	Abc	Abc
	February	Abc	Abc	Abc	Abc
	March	Abc	Abc	Abc	Abc
Q2	April	Abc	Abc	Abc	Abc
	May	Abc	Abc	Abc	Abc
	June	Abc	Abc	Abc	Abc
Q3	July	Abc	Abc	Abc	Abc
	August	Abc	Abc	Abc	Abc
	September	Abc	Abc	Abc	Abc
Q4	October	Abc	Abc	Abc	Abc
	November	Abc	Abc	Abc	Abc
	December	Abc	Abc	Abc	Abc

Sheet 6

Order Date

Quarter of...	Month of O...	2014	2015	2016	2017
Q1	January	14,237	18,174	18,542	43,971
	February	4,520	11,951	22,979	20,301
	March	55,691	38,726	51,716	58,872
Q2	April	28,295	34,195	38,750	36,522
	May	23,648	30,132	56,988	44,261
	June	34,595	24,797	40,345	52,982
Q3	July	33,946	28,765	39,262	45,264
	August	27,909	36,898	31,115	63,121
	September	81,777	64,596	73,410	87,867
Q4	October	31,453	31,405	59,688	77,777
	November	78,629	75,973	79,412	118,448
	December	69,546	74,920	96,999	83,829

48 marks 12 rows by 4 columns

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Data Analytics < Pages

Orders (sample\_.super...)

Search

Tables

- Category
- City
- Country
- Customer ID
- Customer Name
- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
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Marks

Order Date

Quarter of...	Month of O...	2014	2015	2016	2017
Q1	January	14,237	18,174	18,542	43,971
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	November	78,629	75,973	79,412	118,448
	December	69,546	74,920	96,999	83,829

48 marks 12 rows by 4 columns SUM(Sales): 2,297,201

32°C Mostly sunny 15:18 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Data Analytics < Pages

Orders (sample\_.super...)

Search

Tables

- Category
- City
- Country
- Customer ID
- Customer Name
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- Profit
- Quantity
- Sales

Marks

Order Date

Quarter of...	Month of O...	2014	2015	2016	2017
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Order Date

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	March	55,691	38,726	51,716	58,872
Q2	April	28,295	34,195	38,750	36,522
	May	23,648	30,132	56,988	44,261
	June	34,595	24,797	40,345	52,982
Q3	July	33,946	28,765	39,262	45,264
	August	27,909	36,898	31,115	63,121
	September	81,777	64,596	73,410	87,867
Q4	October	31,453	31,405	59,688	77,777
	November	78,629	75,973	79,412	118,448
	December	69,546	74,920	96,999	83,829

48 marks 12 rows by 4 columns SUM(Sales): 2,297,201

32°C Mostly sunny 15:18 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis M Help

Filter... Standard Show Filter Apply to Worksheets EAR(Order Date) Show Me

Order Date

2014 2015 2016 2017

	2014	2015	2016	2017
14,237	18,174	18,542	43,971	
4,520	11,951	22,979	20,301	
55,691	38,726	51,716	58,872	
28,295	34,195	38,750	36,522	
23,648	30,132	56,988	44,261	
34,595	24,797	40,345	52,982	
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Order Date

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Tables

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

Data Source Sheet 3 Sheet 4 Dashboard 1 Sheet 5 Sheet 6

48 marks 12 rows by 4 columns SUM(Sales): 2,297,201

Type here to search

32°C Mostly sunny 15:19 ENG 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Tables

- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
- Row ID
- Segment
- Ship Date
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- Discount
- Profit
- Quantity
- Sales
- Latitude (generated)
- Longitude (generated)
- Orders (Count)
- Measure Values

Pages

Filters

Marks

Order Date

Quarter of ...	Month of O...	2014	2015	2016	2017
Q1	January	3,937	368	25,429	
	February	7,432	11,027	-2,678	
	March	-16,965	12,990	7,156	
Q2	April	5,900	4,555	-2,229	
	May	6,483	26,856	-12,727	
	June	-9,798	15,547	12,637	
Q3	July	-5,181	10,497	6,002	
	August	8,989	-5,783	32,006	
	September	-17,181	8,814	14,457	
Q4	October	-48	28,283	18,089	
	November	-2,656	3,439	39,036	
	December	5,374	22,080	-13,170	

Sheet 6

Order Date

Quarter of ...	Month of O...	2014	2015	2016	2017
Q1	January	3,937	368	25,429	
	February	7,432	11,027	-2,678	
	March	-16,965	12,990	7,156	
Q2	April	5,900	4,555	-2,229	
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	September	-17,181	8,814	14,457	
Q4	October	-48	28,283	18,089	
	November	-2,656	3,439	39,036	
	December	5,374	22,080	-13,170	

Data Source Sheet 3 Sheet 4 Dashboard 1 Sheet 5 Sheet 6

48 marks 12 rows by 4 columns Difference in SUM(Sales): 248,968

Windows Type here to search 32°C Mostly sunny 15:20 ENG 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Show Me

Tables

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

Pages

Filters

Marks

Order Date

Quarter of ...	Month of O...	2014	2015	2016	2017
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Sheet 6

Order Date

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	September	-17,181	8,814	14,457	
Q4	October	-48	28,283	18,089	
	November	-2,656	3,439	39,036	
	December	5,374	22,080	-13,170	

Data Source Sheet 3 Sheet 4

48 marks 12 rows by 4 columns Difference in SUM(Sales): 248,968

Windows Type here to search 32°C Mostly sunny 15:20 ENG 23-03-2023

Other than this, we can do it with formula,

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Standard

Show Me

Sub-Category

Category

Sheet 2 - Copiers

First day - LY

DATETRUNC("year", [Today - LY])

The calculation is valid. 1 Dependency Apply OK

Sub-Category

Category

Furniture

Office Supplies

Technology

Data Source Sheet 1 Sheet 2 Sheet 3

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Standard

Show Me

Sub-Category

Category

Sheet 2 - Copiers

today - CY

TODAY()

The calculation is valid. 3 Dependencies Apply OK

Sub-Category

Category

Furniture

Office Supplies

Technology

Data Source Sheet 1 Sheet 2 Sheet 3

The screenshot displays two separate Tableau sessions. Both sessions have the same interface elements: a top navigation bar with File, Data, Worksheet, Dashboard, Story, Analysis, Map, Format, Server, Window, and Help; a left sidebar with a 'Tables' section listing various dimensions and measures like Customer Name, Product ID, and Measure Names; and a right sidebar with a 'Sub-Category' section showing categories Furniture, Office Supplies, and Technology.

**Top Session:**

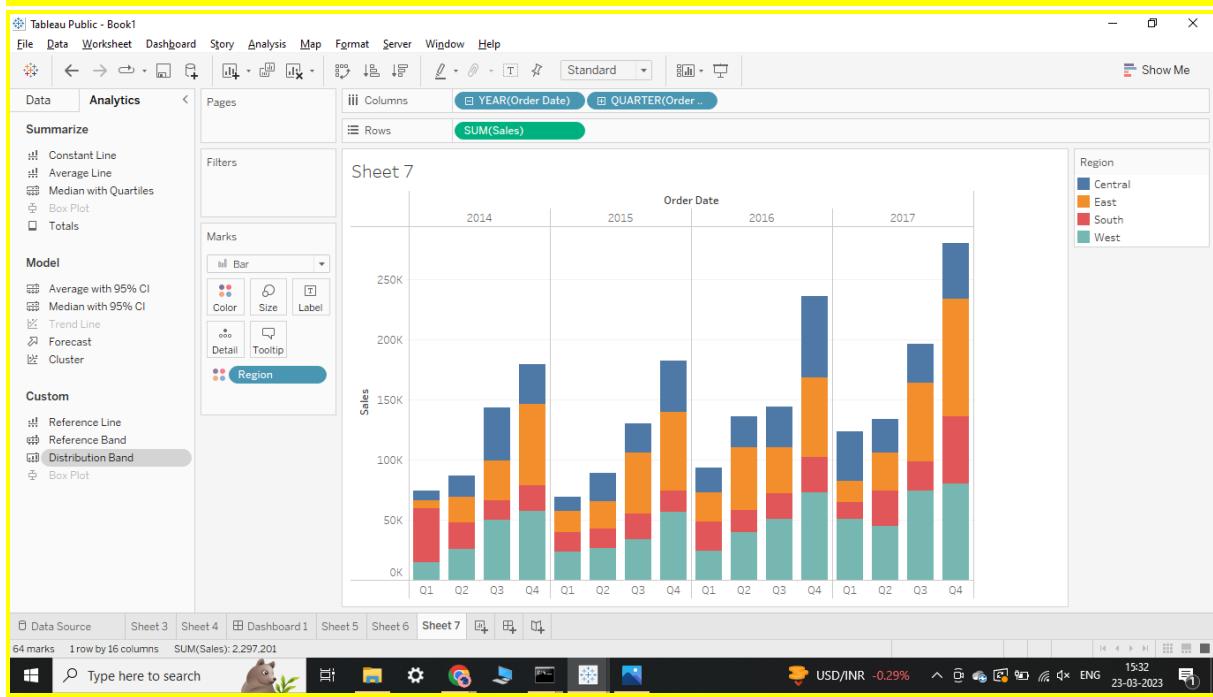
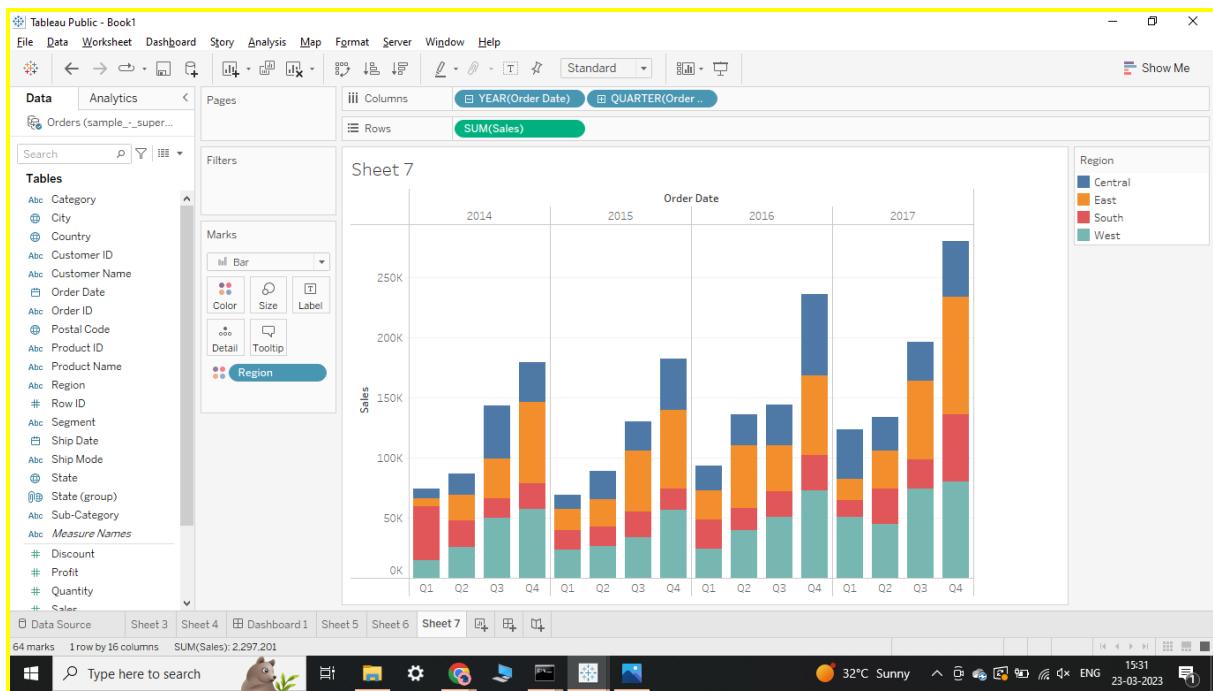
- Filter:** Sub-Category is set to 'Copiers'.
- Calculation:** A filter named 'Today - LY' is defined with the formula `DATEADD("year", -1, TODAY())`.
- Message:** A confirmation dialog box is open, stating "The calculation is valid." with 'Apply' and 'OK' buttons.

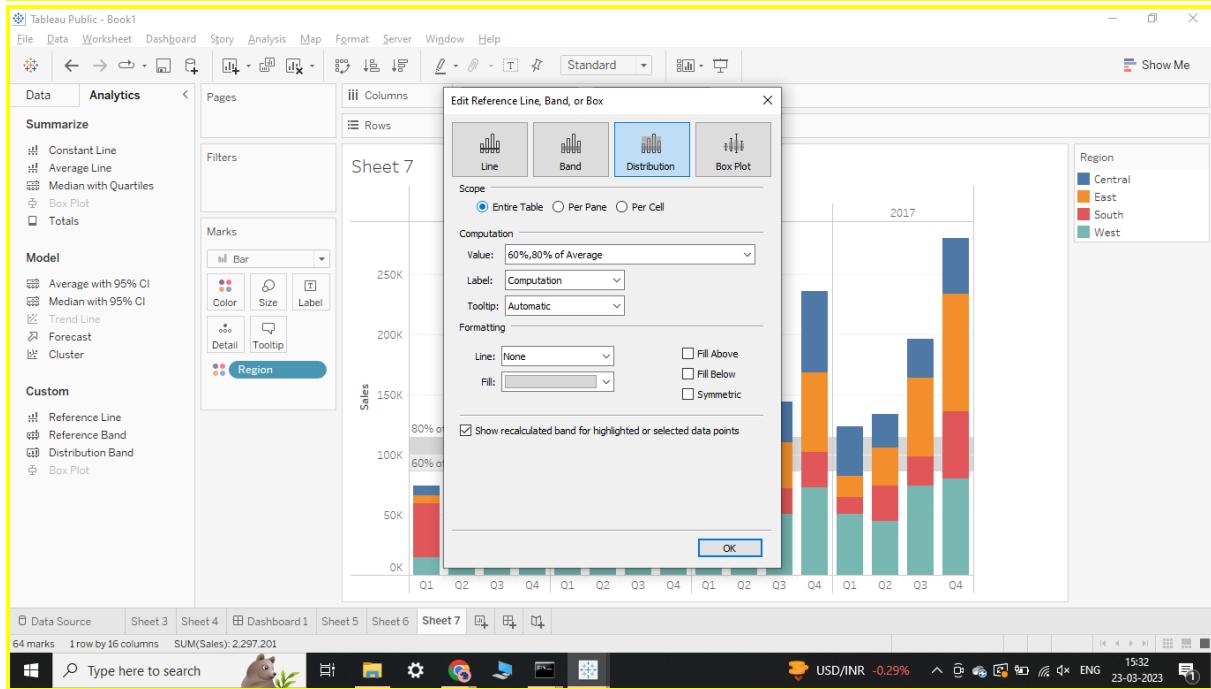
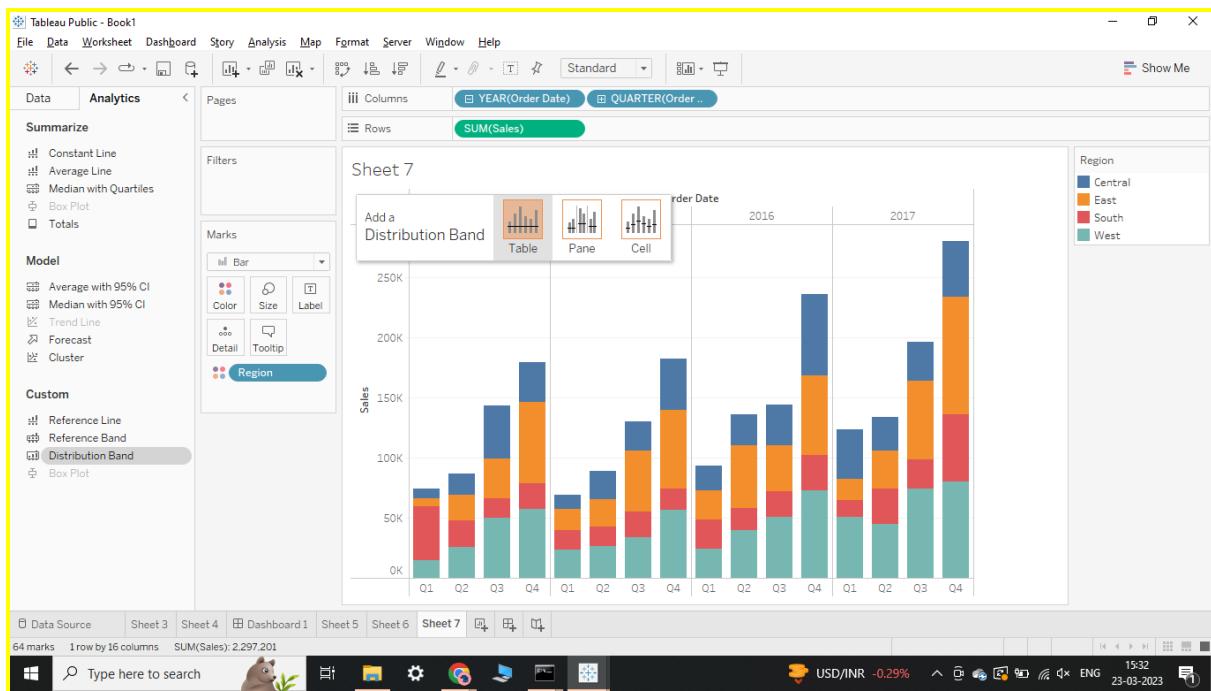
**Bottom Session:**

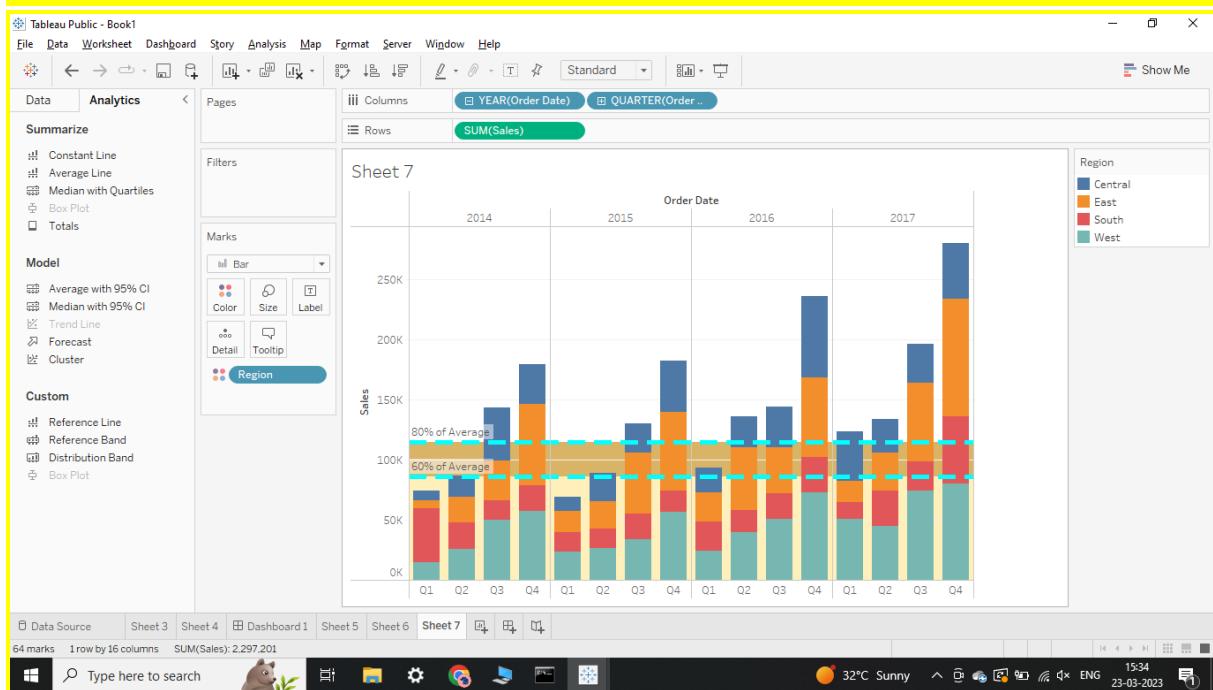
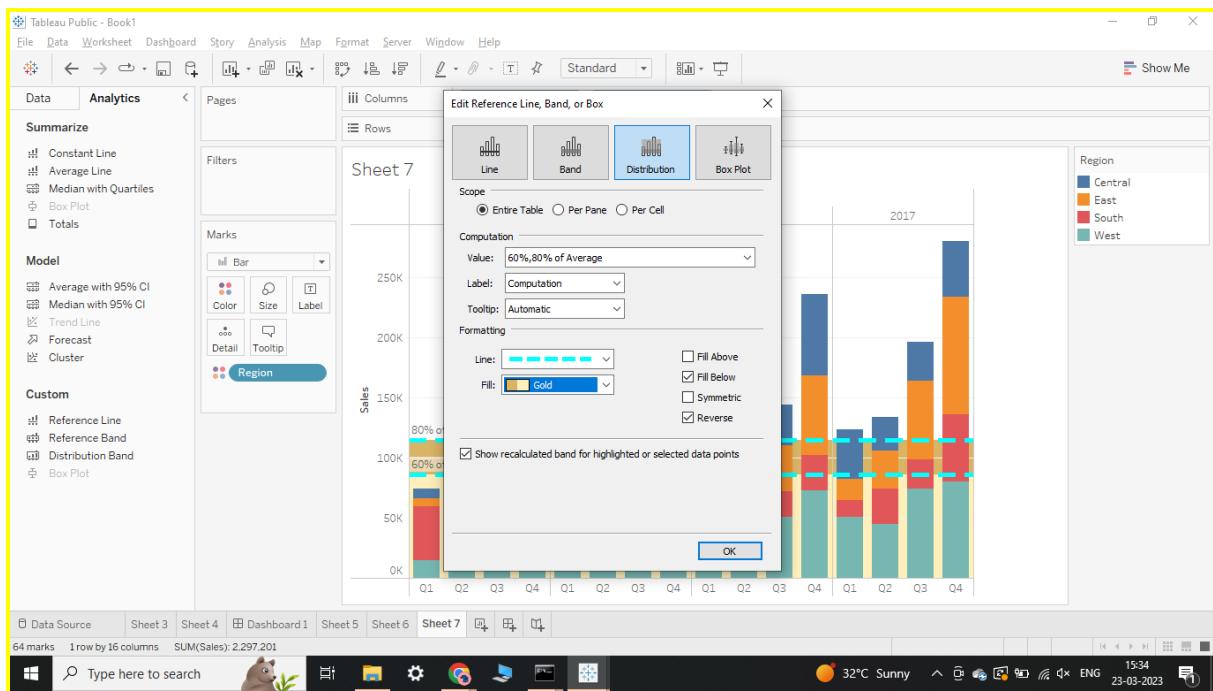
- Filter:** Sub-Category is set to 'Copiers'.
- Calculation:** A filter named 'YTD' is defined with the formula `[Order Date] <= TODAY() AND DATETRUNC("year", [Order Date]) = DATETRUNC("year", TODAY())`.
- Message:** A confirmation dialog box is open, stating "The calculation is valid." with 'Apply' and 'OK' buttons.

**Q:viii.Explain in detail the distribution bands in tableau and how to create them with example (With the help of an example create one in tableau)**

⇒ Distribution bands will shade the region in which the population average falls based on some condition that we have mentioned.

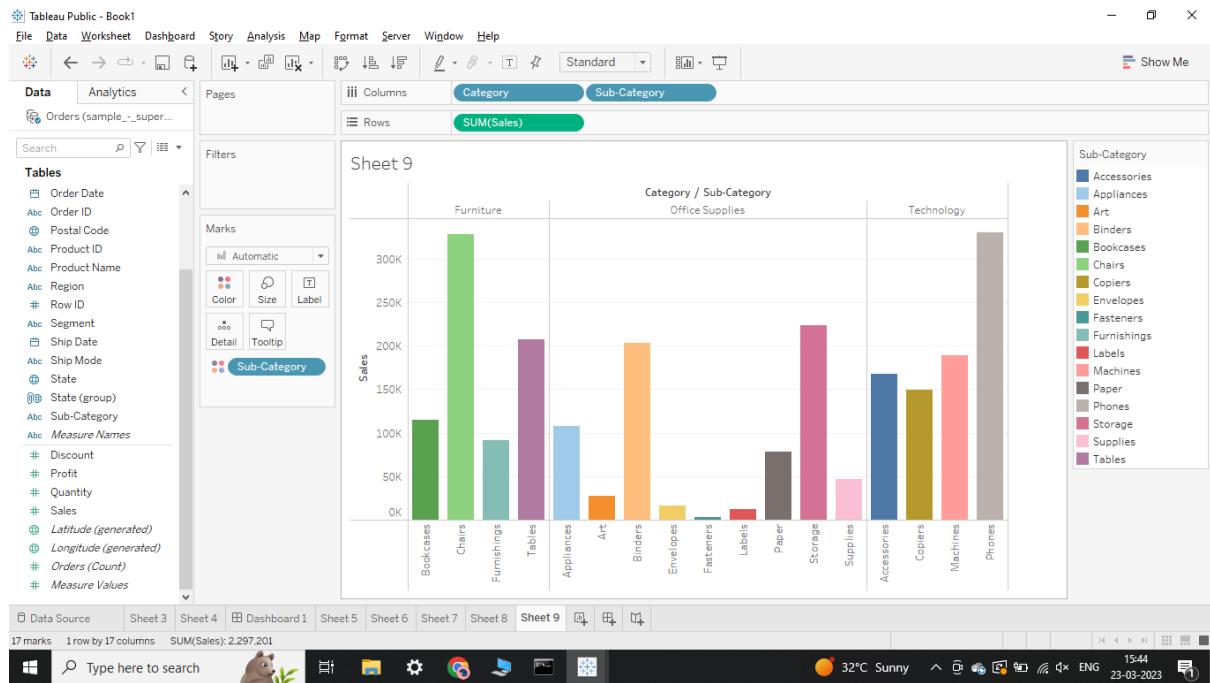




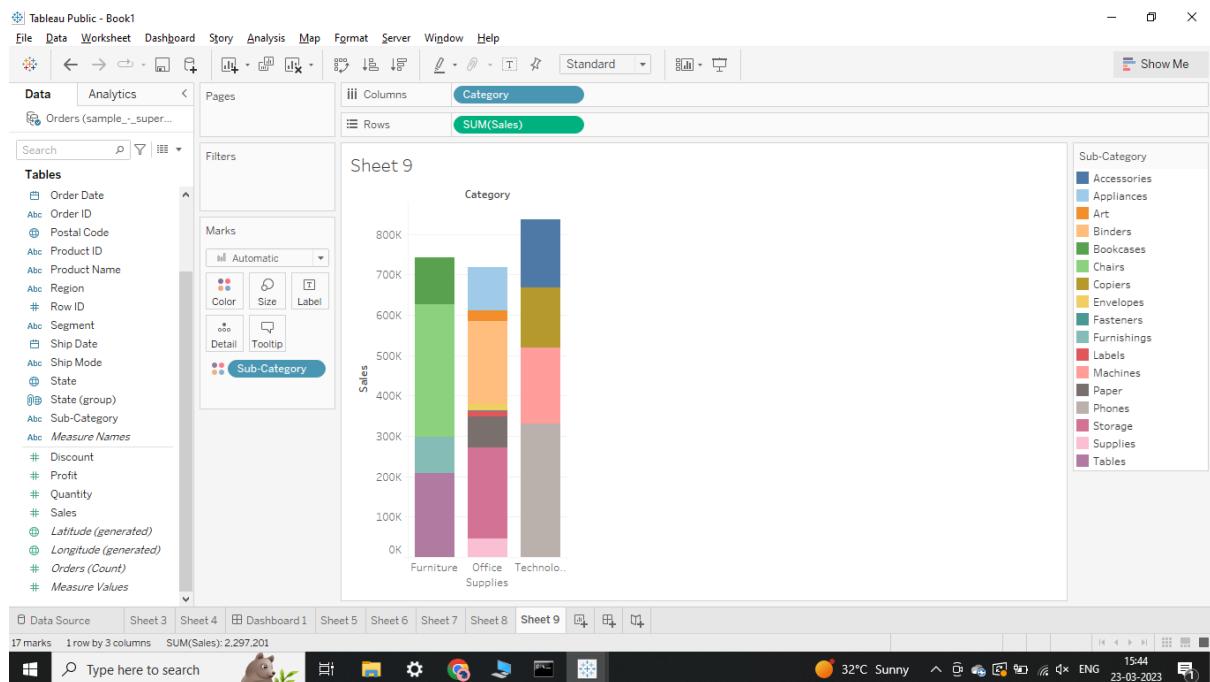


**Q:Ix.Explain the steps to create bar chart and pie diagram in tableau with example  
(With the help of an example create one in tableau)**

⇒ Side - By - Side Bar Chart:



### Stacked Bar Chart:



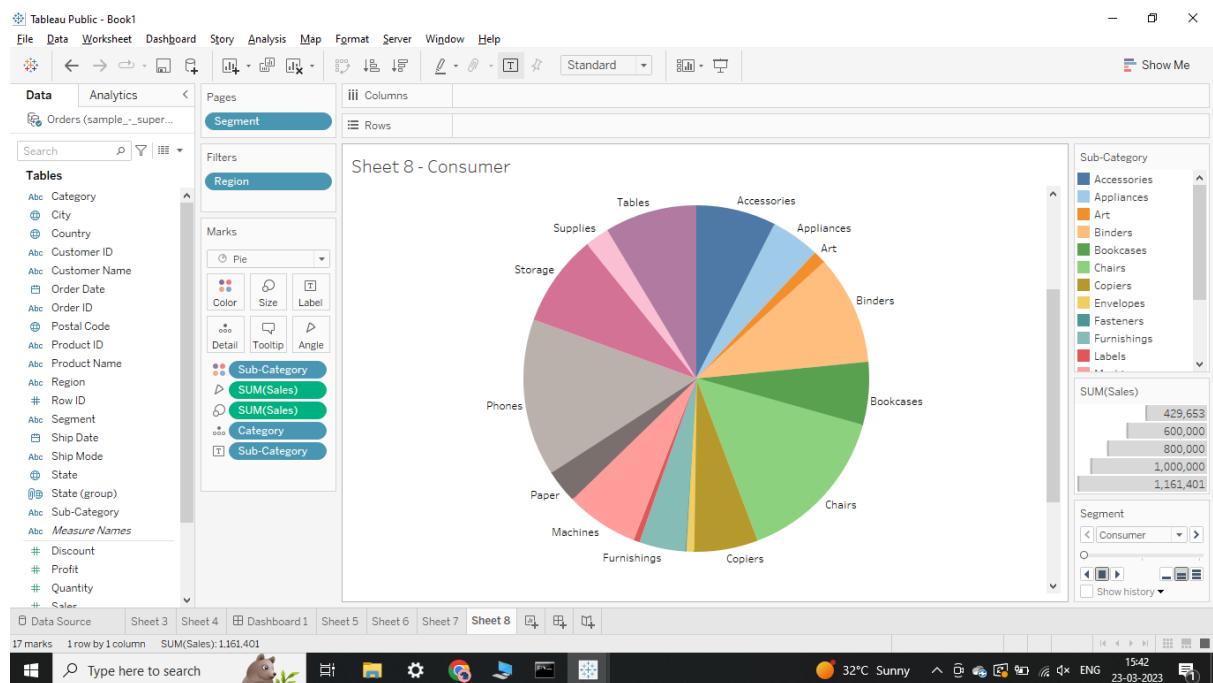
### Steps to create Bar Chart (any):

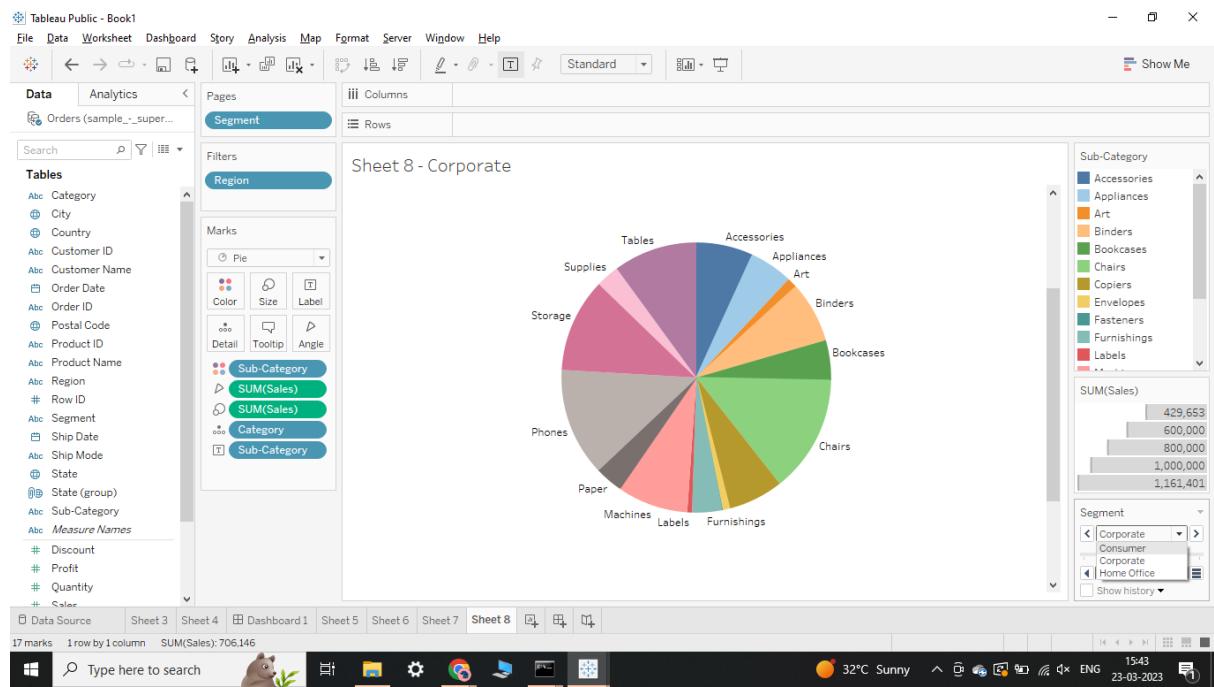
- Drag category to the column
- Drag sales to the rows
- Drag Sub-Category to the Colours.
- We can make extra changes according to our needs like adjust the size and give the labels and so on.
- In side by side bar, I have also dragged Sub-Category to the columns.
- And then finally, select the graph that you want (here- side by side bar and then stacked bar) from the 'Show Me' menu.

## ⇒ Pie Chart:

Steps to create pie chart:

- Drag all the columns that you want according to your need and then select pie chart from the 'Show Me' menu.
- Here, I have used Regions as filters, Segment as pages- which we can select from the bottom right corner, and other fields like sub-category, sales, category and used them for different uses.

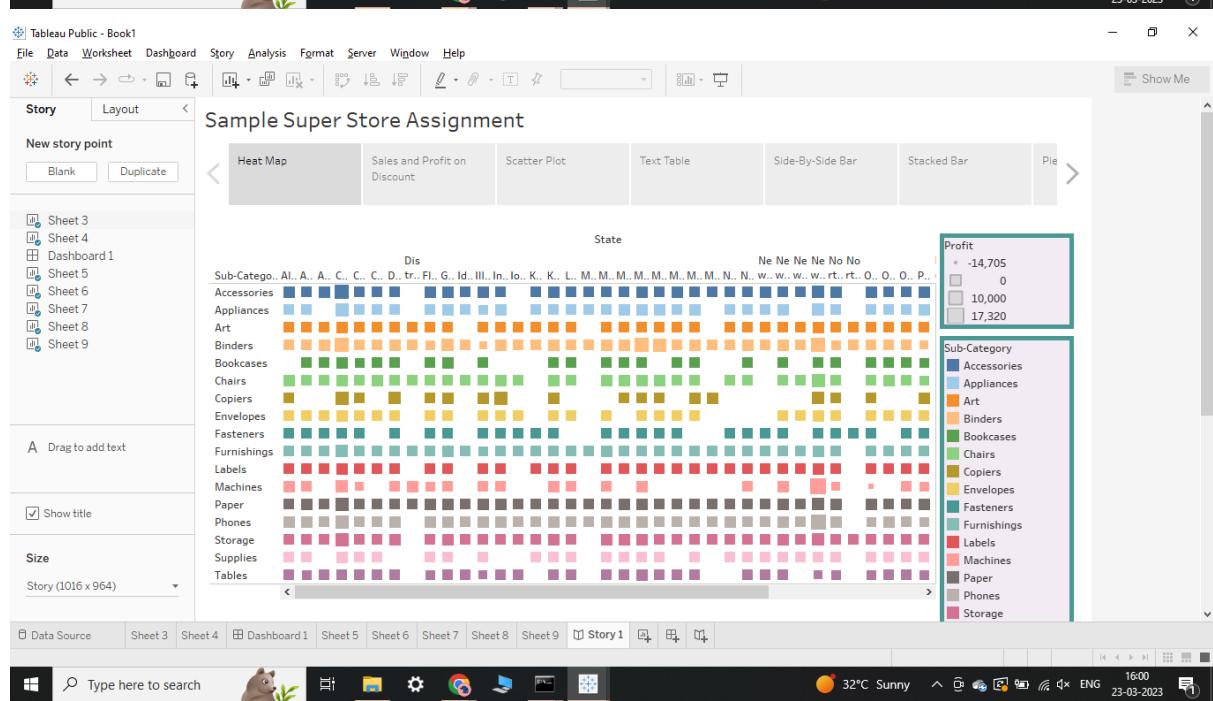
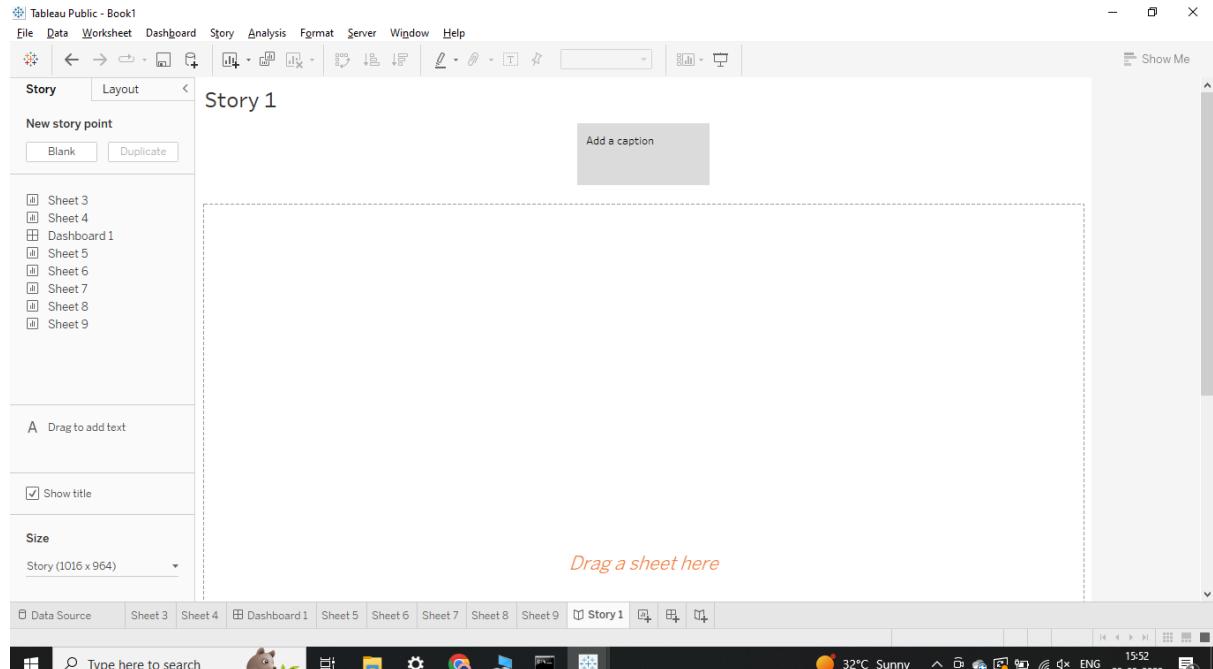




## Q:x. How to add story points on the dashboard (With the help of an example create one in tableau)

⇒ Story :

Just drag and drop all the sheets and dashboards that you want to add in to the story board.



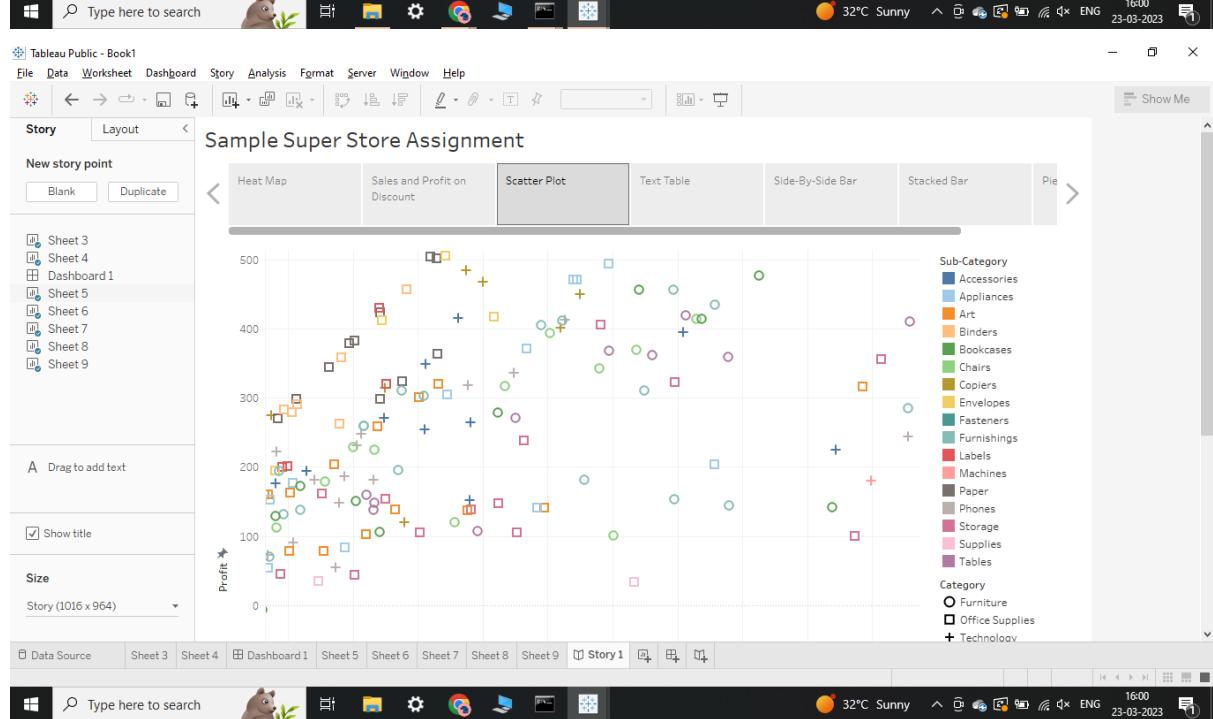
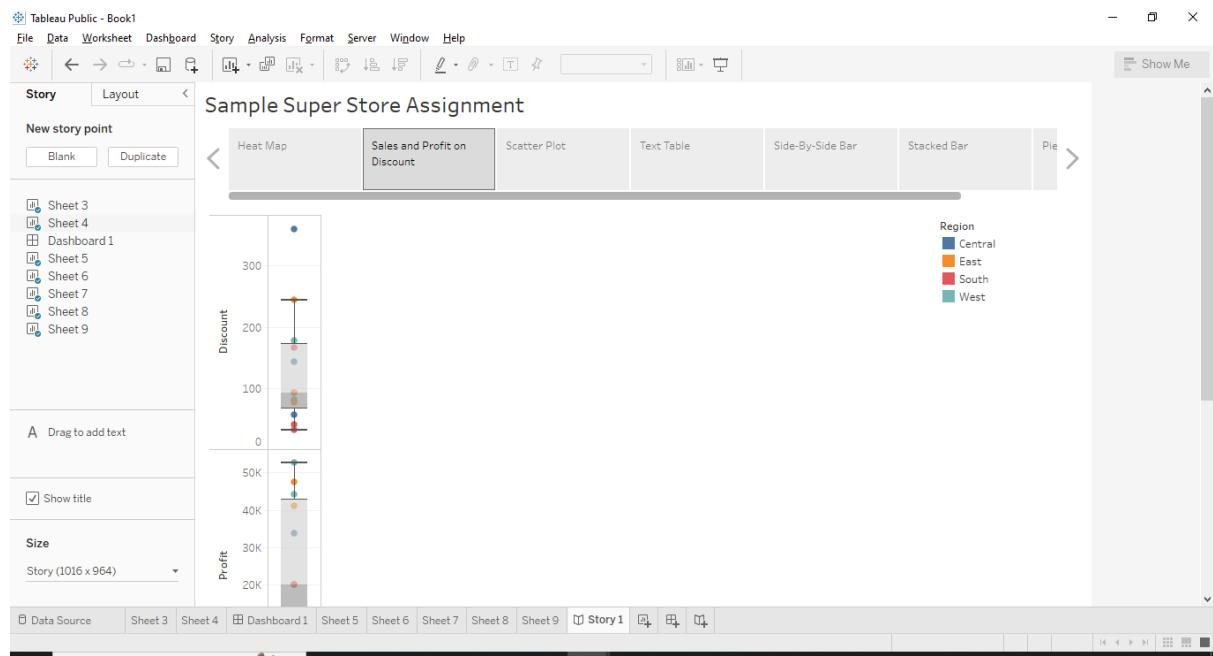


Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Format Server Window Help

Story Layout < Show Me

**Sample Super Store Assignment**

New story point

Blank Duplicate

Sheet 3 Sheet 4 Dashboard1 Sheet 5 Sheet 6 Sheet 7 Sheet 8 Sheet 9 Story 1

Heat Map Sales and Profit on Discount Scatter Plot Text Table Side-By-Side Bar Stacked Bar Pie

Quarter of...	Month of O...	Order Date	2014	2015	2016	2017
Q1	January		-51,372	-56,377	-53,028	
	February		-9,717	-6,223	4,436	-23,670
	March		51,171	26,775	28,737	38,571
Q2	April		-27,396	-4,531	-12,966	-22,351
	May		4,647	-4,064	18,238	7,740
	June		10,947	-5,334	-16,643	8,721
Q3	July		-649	3,968	-1,083	-7,717
	August		-6,037	8,133	-8,147	17,856
	September		53,668	27,698	42,295	24,746
Q4	October		-50,324	-33,191	-13,722	-10,090
	November		47,175	44,568	19,724	40,671
	December		-9,083	-1,053	17,587	-34,619

A Drag to add text

Show title

Size

Story (1016 x 964)

Data Source Sheet 3 Sheet 4 Dashboard1 Sheet 5 Sheet 6 Sheet 7 Sheet 8 Sheet 9 Story 1

32°C Sunny 16:00 23-03-2023

Tableau Public - Book1

File Data Worksheet Dashboard Story Analysis Format Server Window Help

Story Layout < Show Me

**Sample Super Store Assignment**

New story point

Blank Duplicate

Sheet 3 Sheet 4 Dashboard1 Sheet 5 Sheet 6 Sheet 7 Sheet 8 Sheet 9 Story 1

Heat Map Sales and Profit on Discount Scatter Plot Text Table Side-By-Side Bar Stacked Bar Pie

The chart displays total sales (Y-axis, 140K to 280K) for each year (X-axis). The bars are stacked by region: Central (blue), East (orange), South (red), and West (teal). Sales generally increased over time, with a significant jump in 2017.

Year	Region	Sales
2014	Central	~10K
2014	East	~10K
2014	South	~10K
2014	West	~10K
2015	Central	~30K
2015	East	~20K
2015	South	~10K
2015	West	~10K
2016	Central	~40K
2016	East	~10K
2016	South	~10K
2016	West	~10K
2017	Central	~50K
2017	East	~60K
2017	South	~10K
2017	West	~10K

A Drag to add text

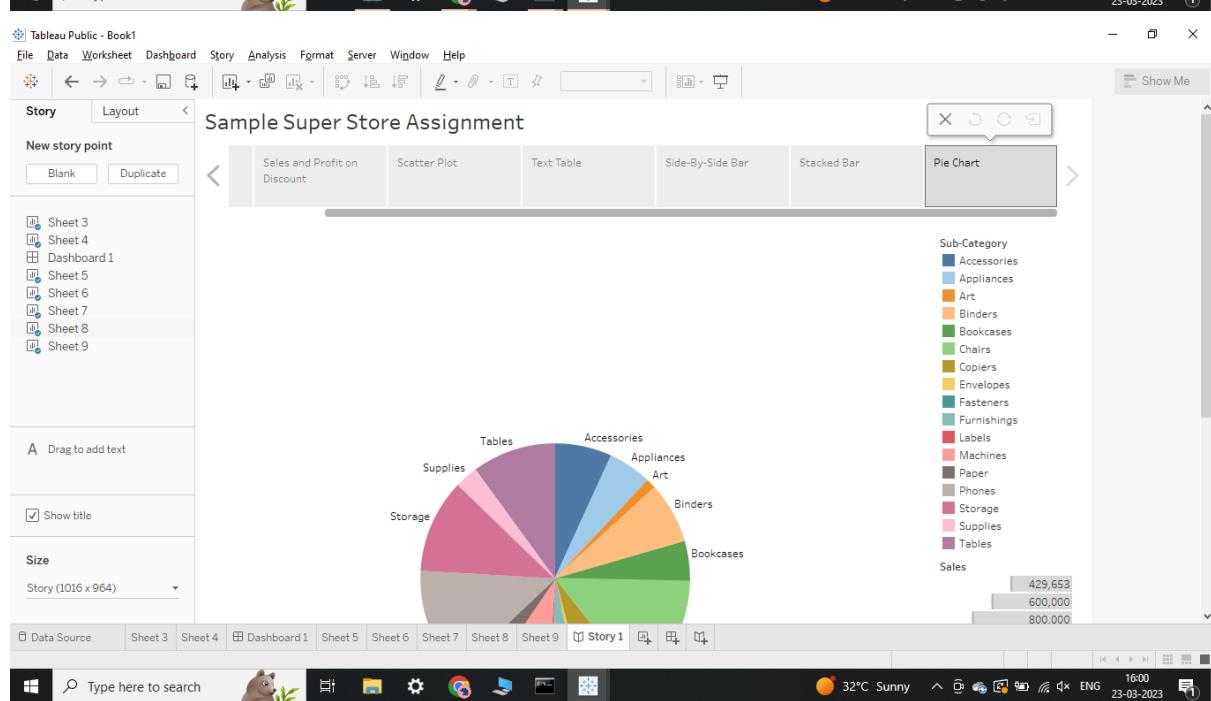
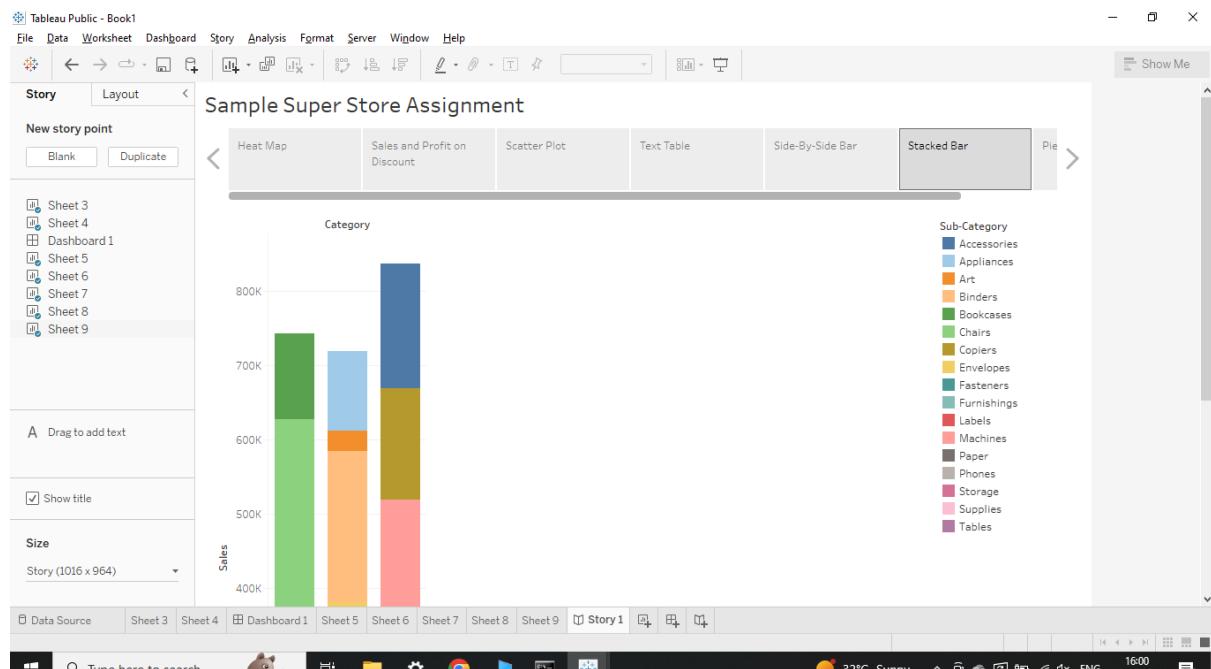
Show title

Size

Story (1016 x 964)

Data Source Sheet 3 Sheet 4 Dashboard1 Sheet 5 Sheet 6 Sheet 7 Sheet 8 Sheet 9 Story 1

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In this way, you can create a story