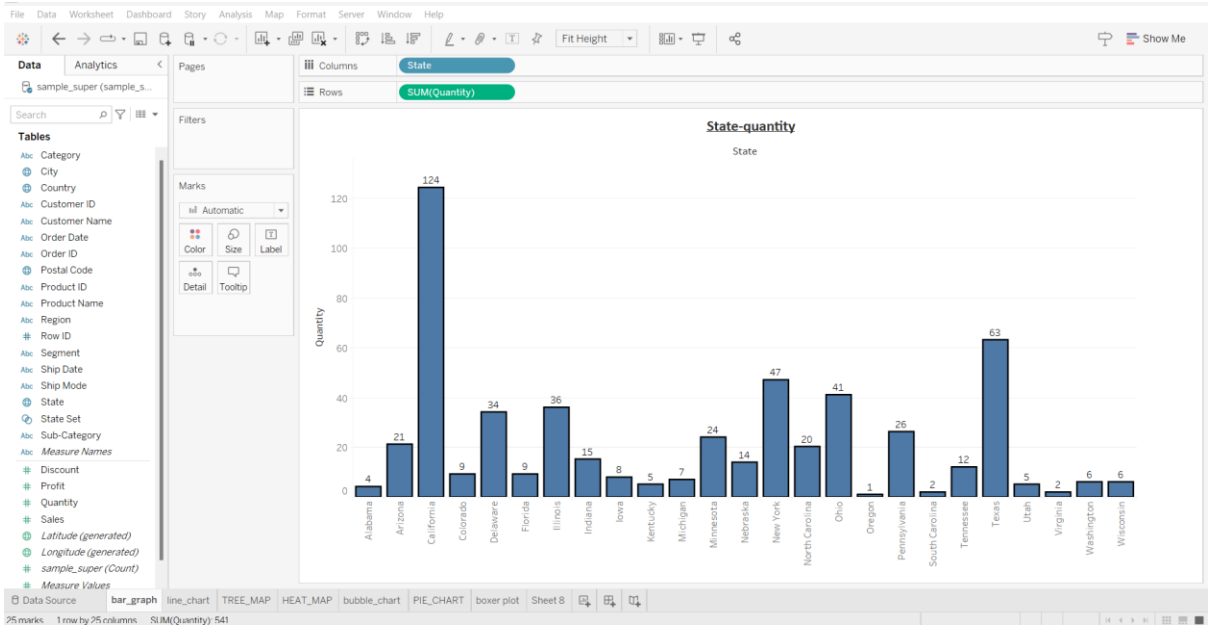
Name: Prajith DLVP **Reg No**:20BBS0130

Data Analytics

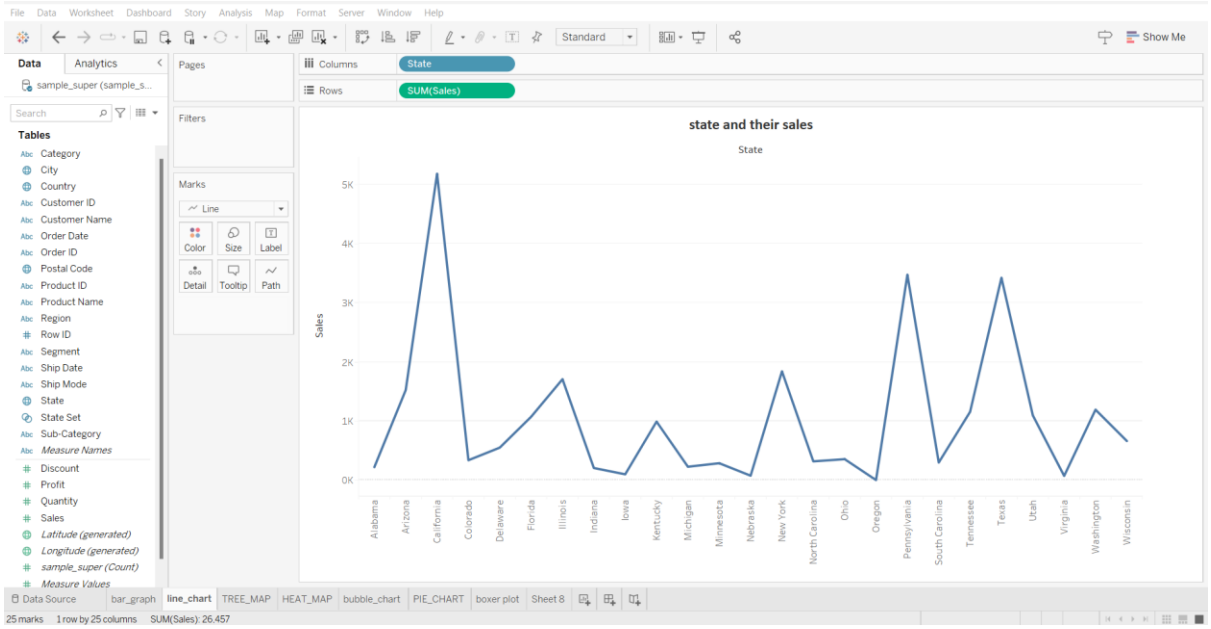
Assignment 2

1) Create any 7 data visualizations/charts and perform the following

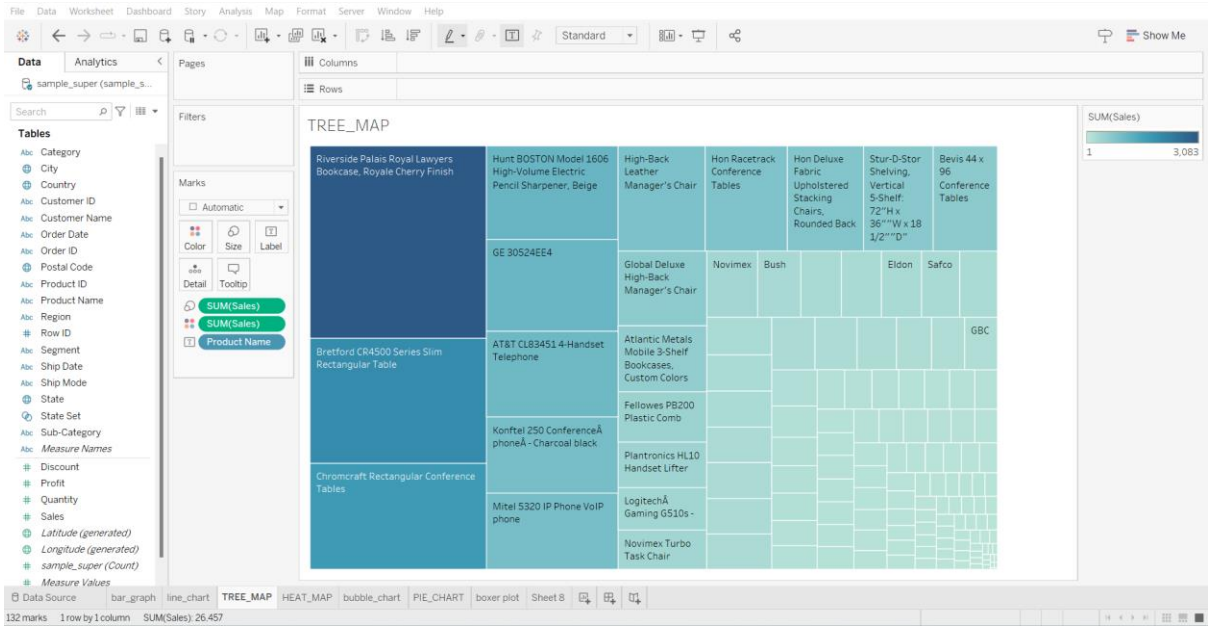
-Bar graph on state-quantity data



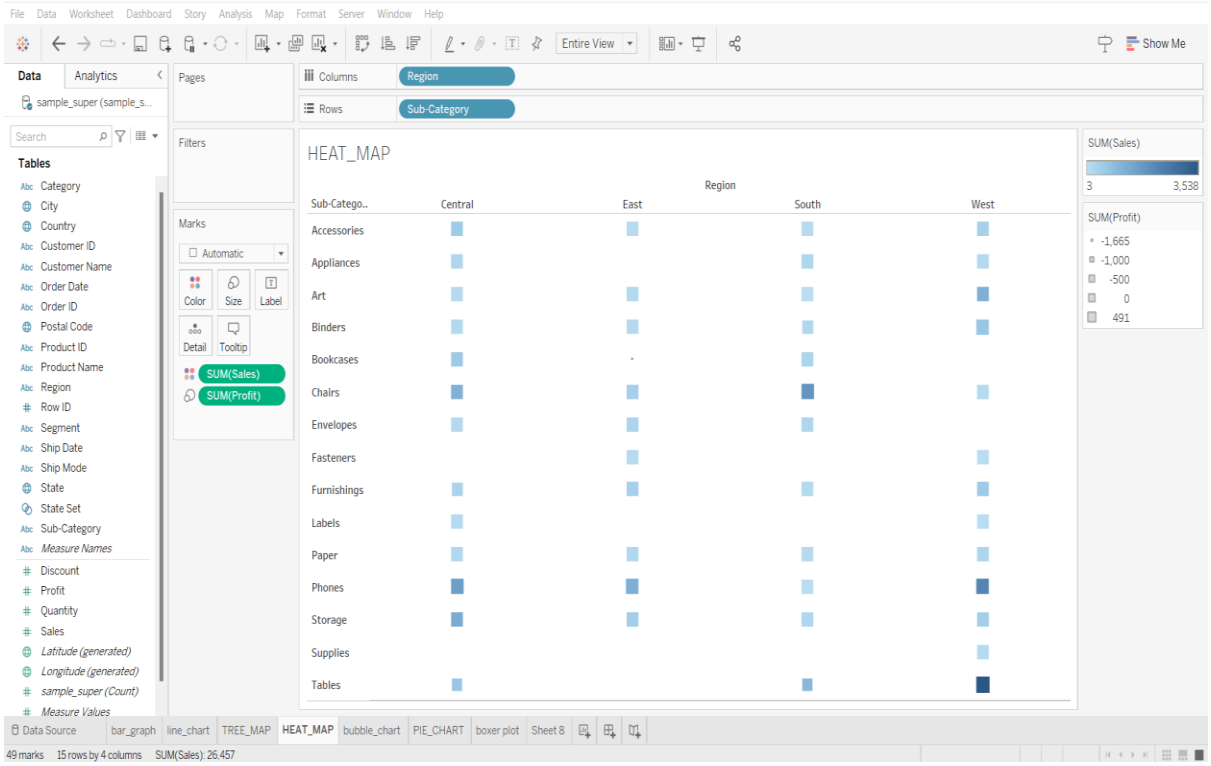
- line chart based on state and their sales data



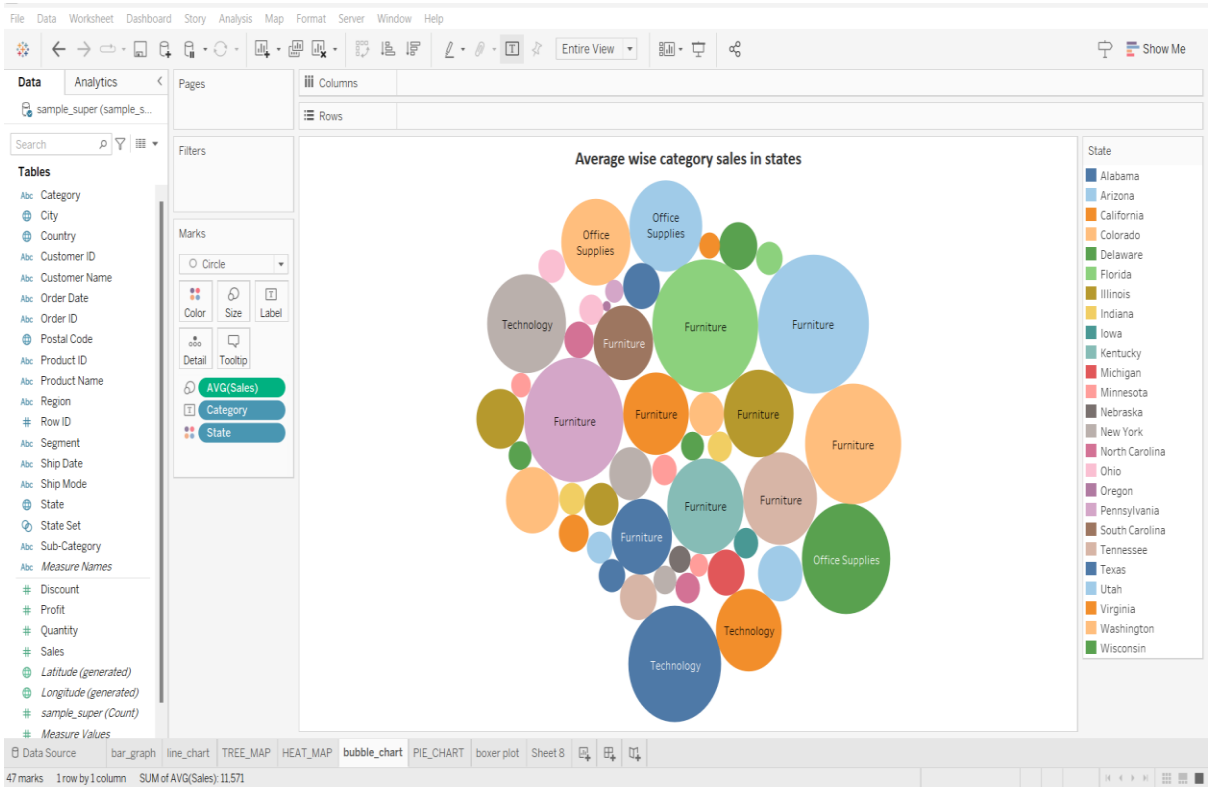
- tree map based on products and sales data



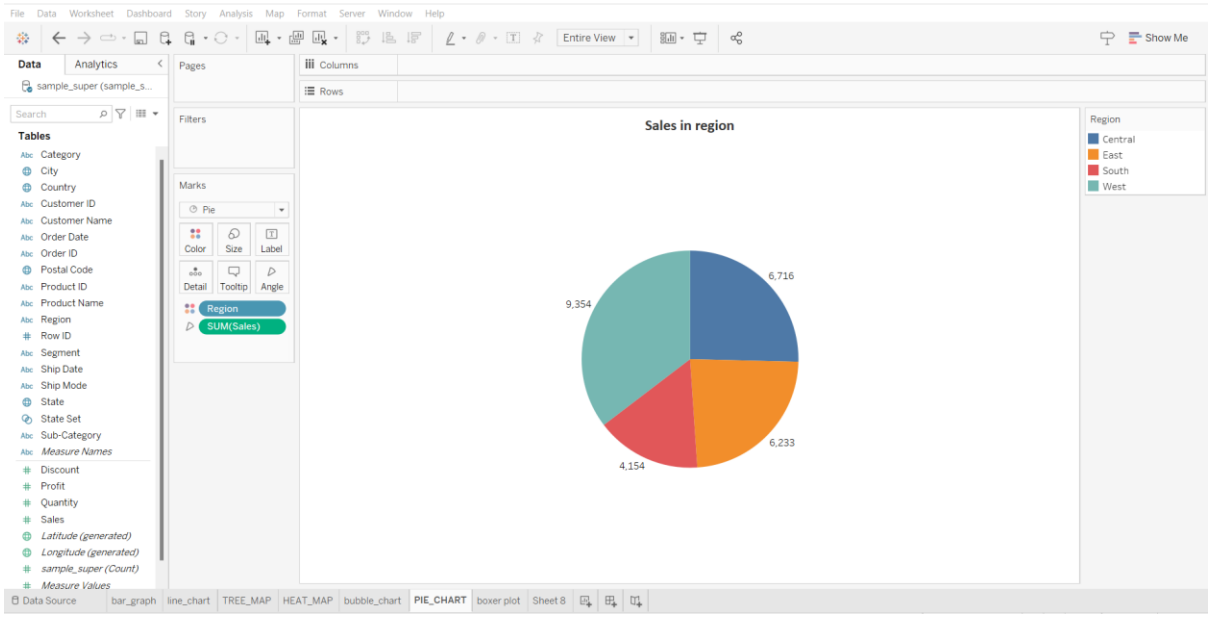
- heat map based on subcategory and region and profit,sales.



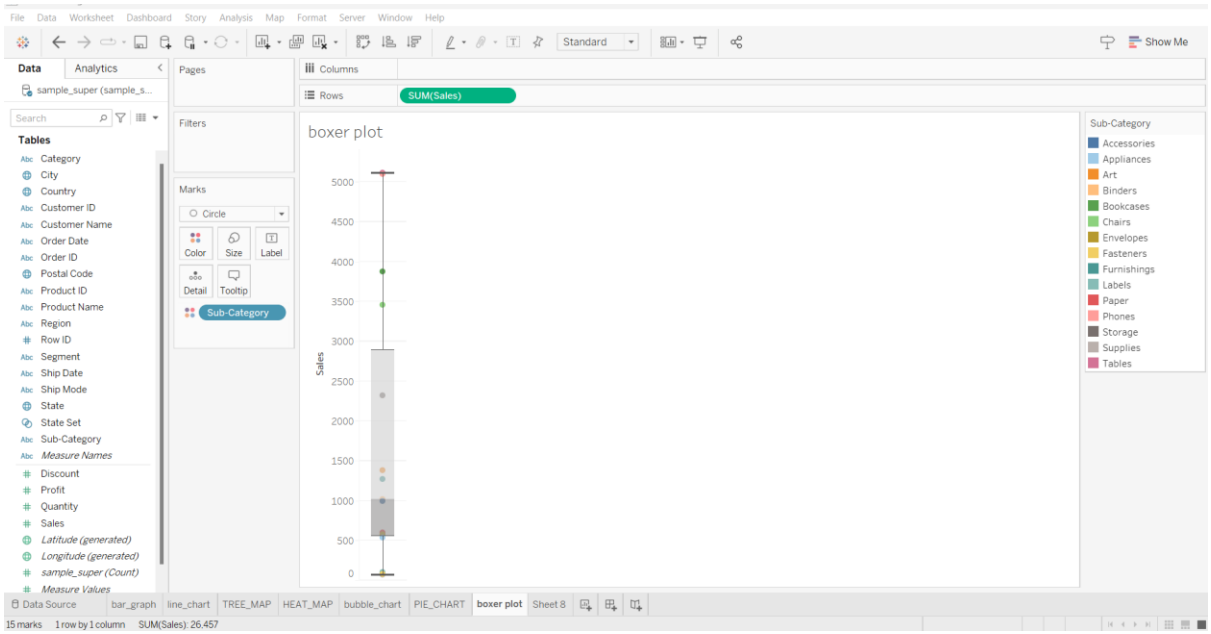
- bubble chart based on average category of sales in states



- pie chart based on sales in regions

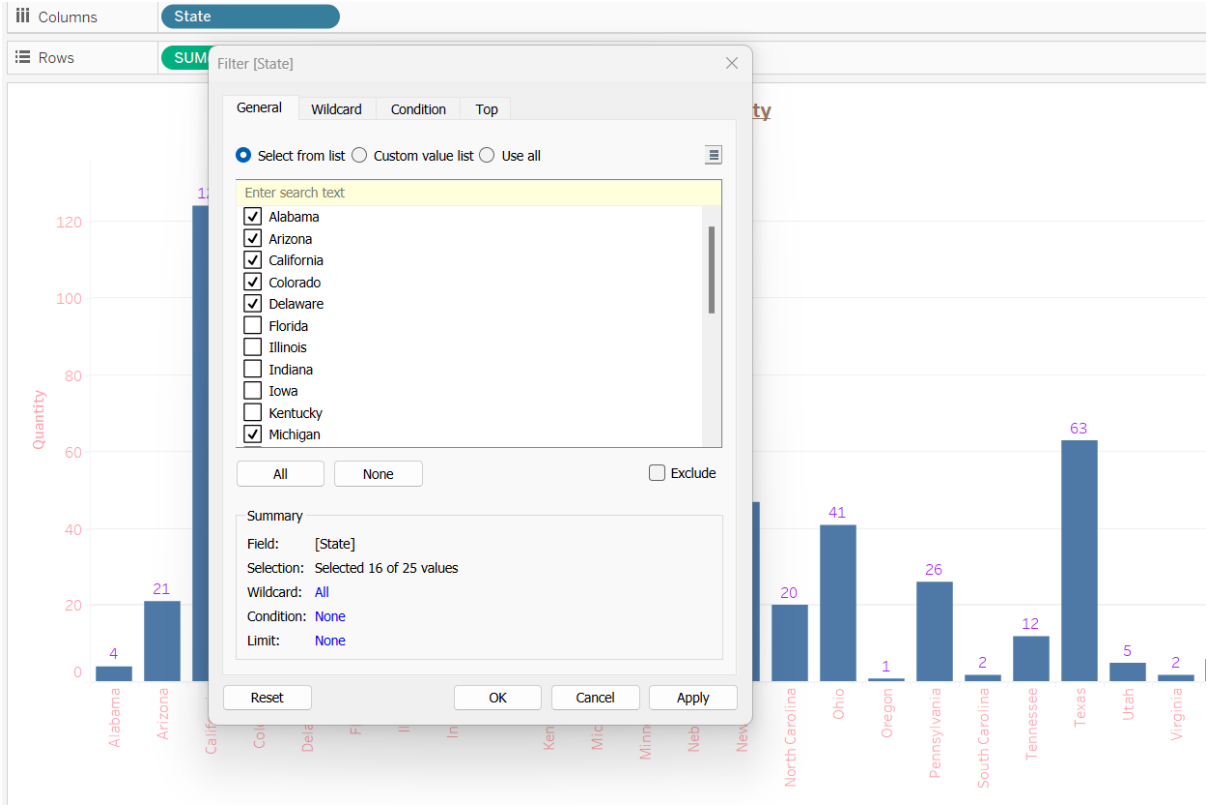


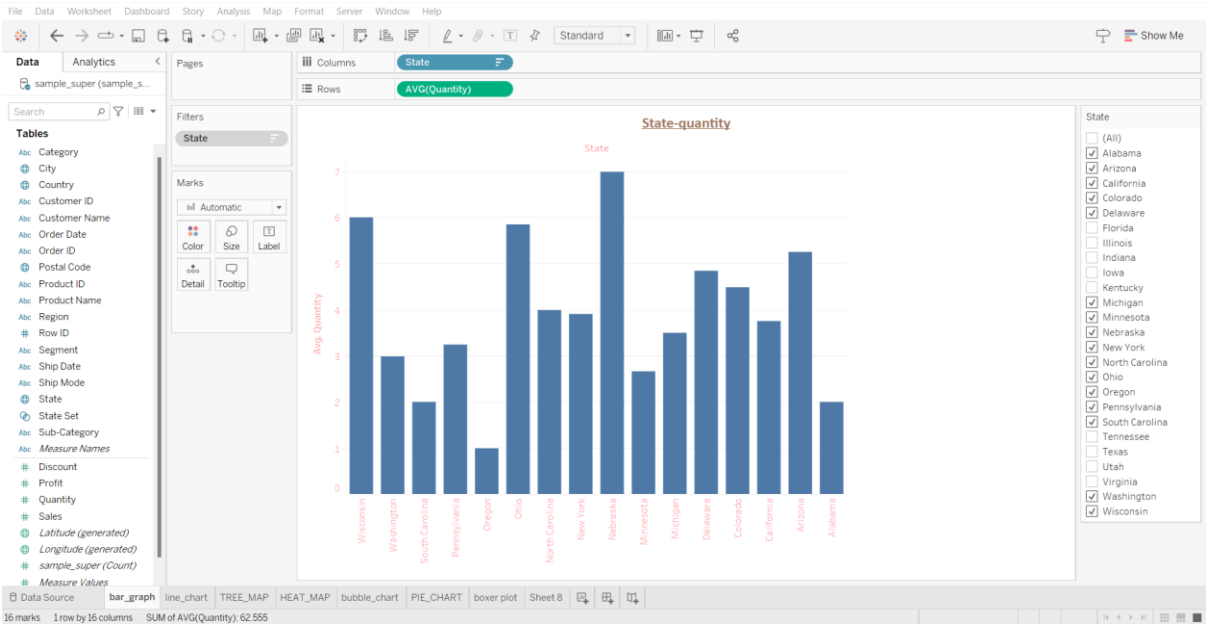
- boxer and whisper plot based on sub-category and their sales.



2) Apply dimension filter, context and measure filter on any of the three Visualizations

i) applying all above filters to the bar graph as shown below





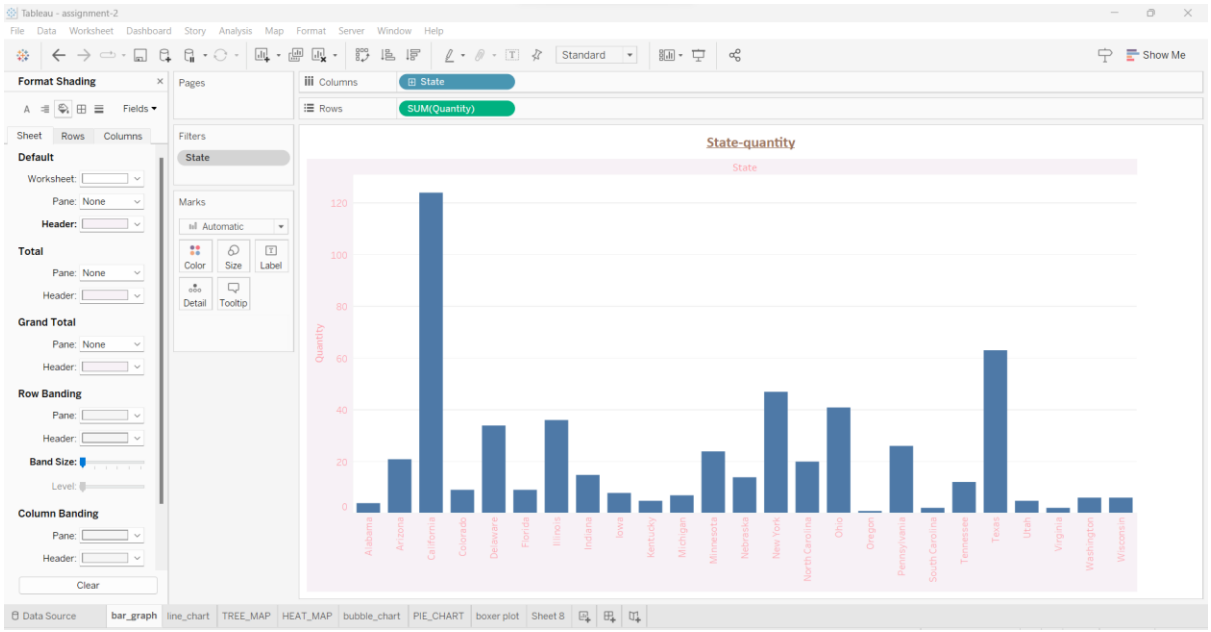
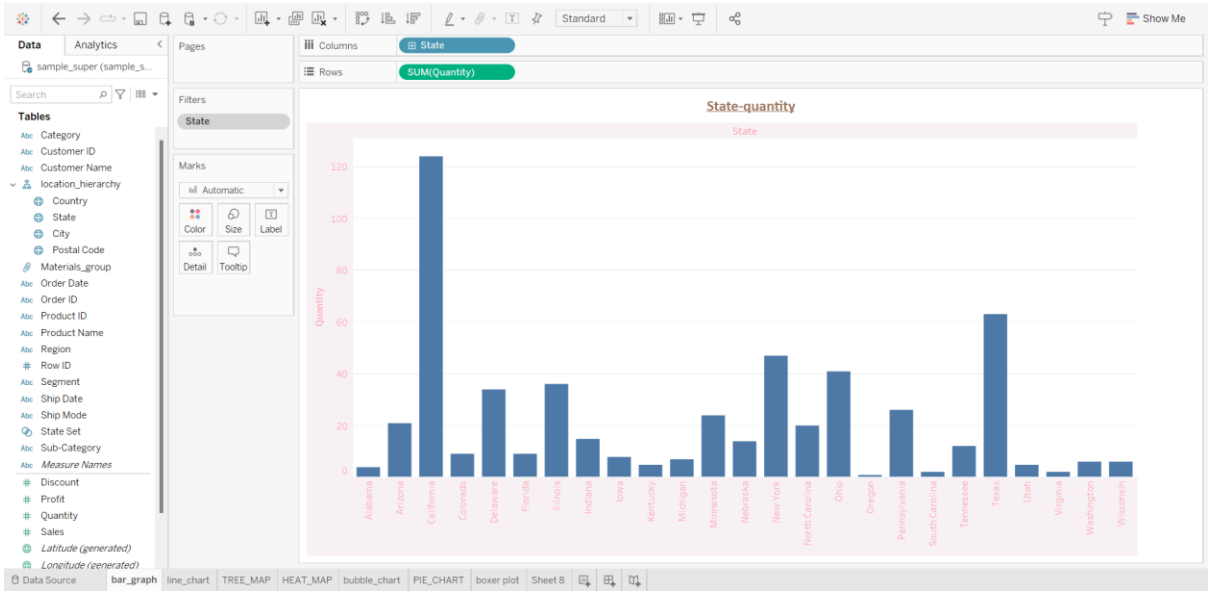


Tableau - assignment-2
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Format Shading
Fields
Sheet Rows Columns
Default
Worksheet:
Pane: None
Header:
Total
Pane: None
Header:
Grand Total
Pane: None
Header:
Row Banding
Pane:
Header:
Band Size:
Level:
Column Banding
Pane:
Header:
Clear
Pages
Filters
State
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
State
Rows
SUM(Quantity)
Standard
Show Me
State-quantity
State
Quantity
0
20
40
60
80
100
120
Alabama
Arizona
California
Colorado
Delaware
Florida
Illinois
Indiana
Iowa
Kentucky
Michigan
Minnesota
Nebraska
New York
North Carolina
Ohio
Oregon
Pennsylvania
South Carolina
Tennessee
Texas
Utah
Virginia
Washington
Wisconsin
Data Source
bar_graph
line_chart
TREE_MAP
HEAT_MAP
bubble_chart
PIE_CHART
boxer plot
Sheet 8


Data
Analytics
sample_super (sample_s...
Search
Tables
Category
Customer ID
Customer Name
location_hierarchy
Country
State
City
Postal Code
Materials_group
Order Date
Order ID
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State Set
Sub-Category
Measure Names
Discount
Profit
Quantity
Sales
Latitude (generated)
Longitude (generated)
Pages
Filters
State
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
State
Rows
SUM(Quantity)
Standard
Show Me
State-quantity
State
Quantity
0
20
40
60
80
100
120
Alabama
Arizona
California
Colorado
Delaware
Florida
Illinois
Indiana
Iowa
Kentucky
Michigan
Minnesota
Nebraska
New York
North Carolina
Ohio
Oregon
Pennsylvania
South Carolina
Tennessee
Texas
Utah
Virginia
Washington
Wisconsin
Data Source
bar_graph
line_chart
TREE_MAP
HEAT_MAP
bubble_chart
PIE_CHART
boxer plot
Sheet 8

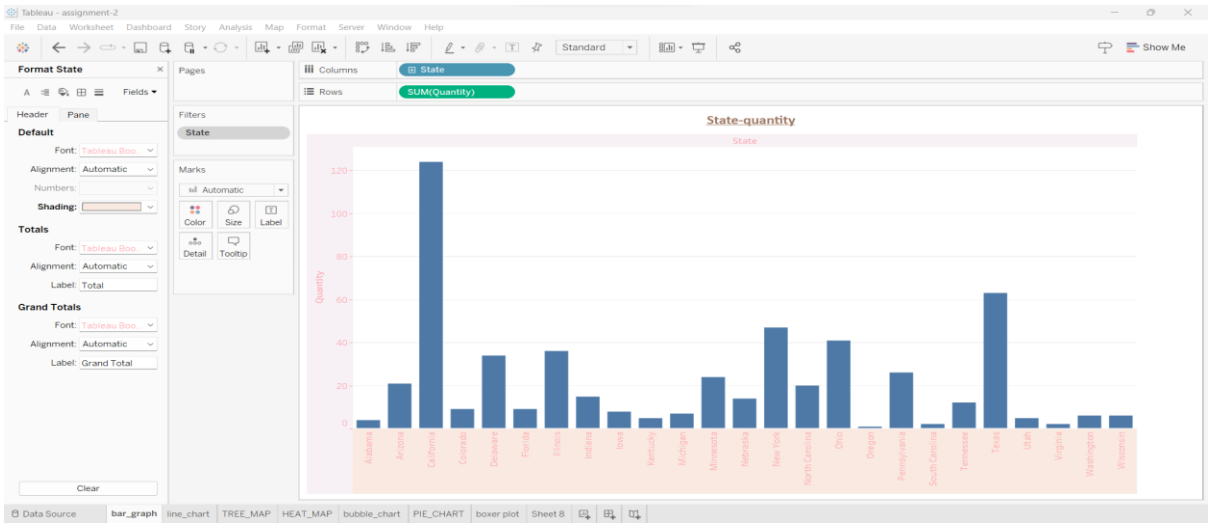
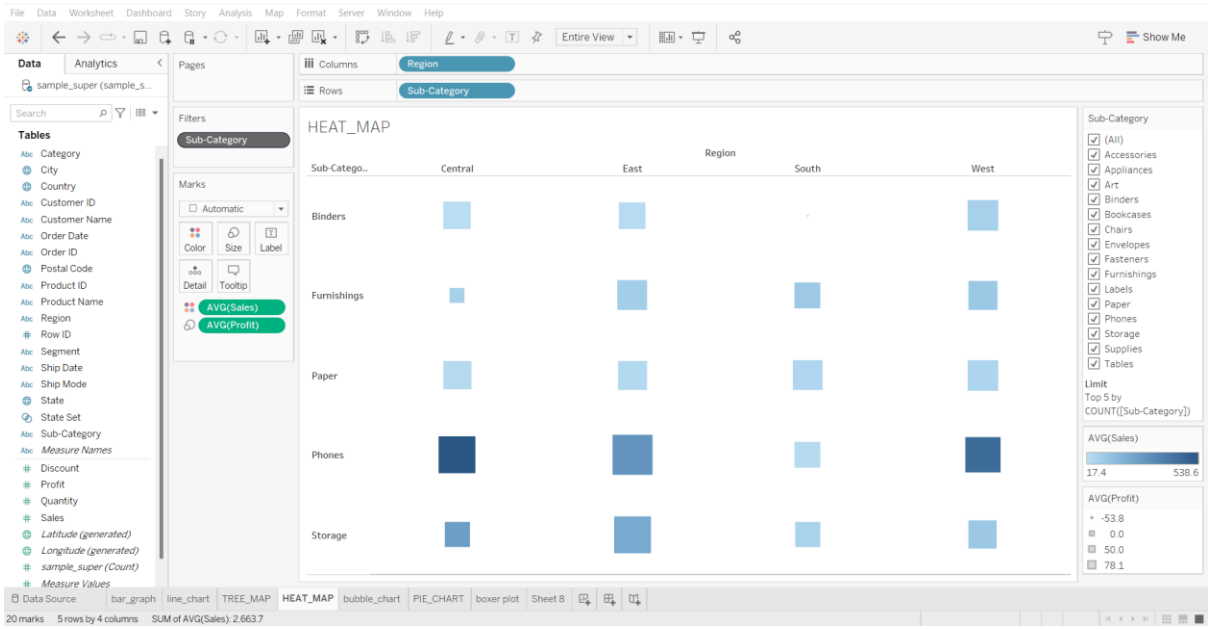
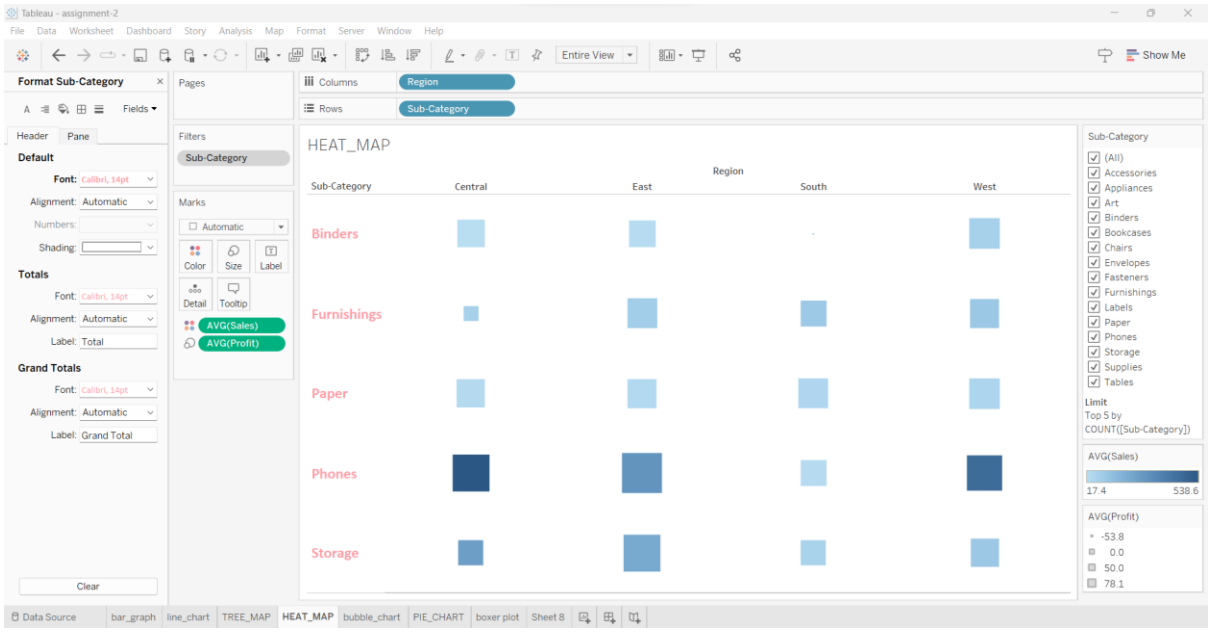


Tableau - assignment-2
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Format State
Fields
Header Pane
Default
Font: Tableau Boo...
Alignment: Automatic
Numbers:
Shading:
Totals
Font: Tableau Boo...
Alignment: Automatic
Label: Total
Grand Totals
Font: Tableau Boo...
Alignment: Automatic
Label: Grand Total
Clear
Pages
Filters
State
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Columns
State
Rows
SUM(Quantity)
Standard
Show Me
State-quantity
State
Quantity
0
20
40
60
80
100
120
Alabama
Arizona
California
Colorado
Delaware
Florida
Illinois
Indiana
Iowa
Kentucky
Michigan
Minnesota
Nebraska
New York
North Carolina
Ohio
Oregon
Pennsylvania
South Carolina
Tennessee
Texas
Utah
Virginia
Washington
Wisconsin
Data Source
bar_graph
line_chart
TREE_MAP
HEAT_MAP
bubble_chart
PIE_CHART
boxer plot
Sheet 8

ii) applying all above filters to the heat_map as shown below





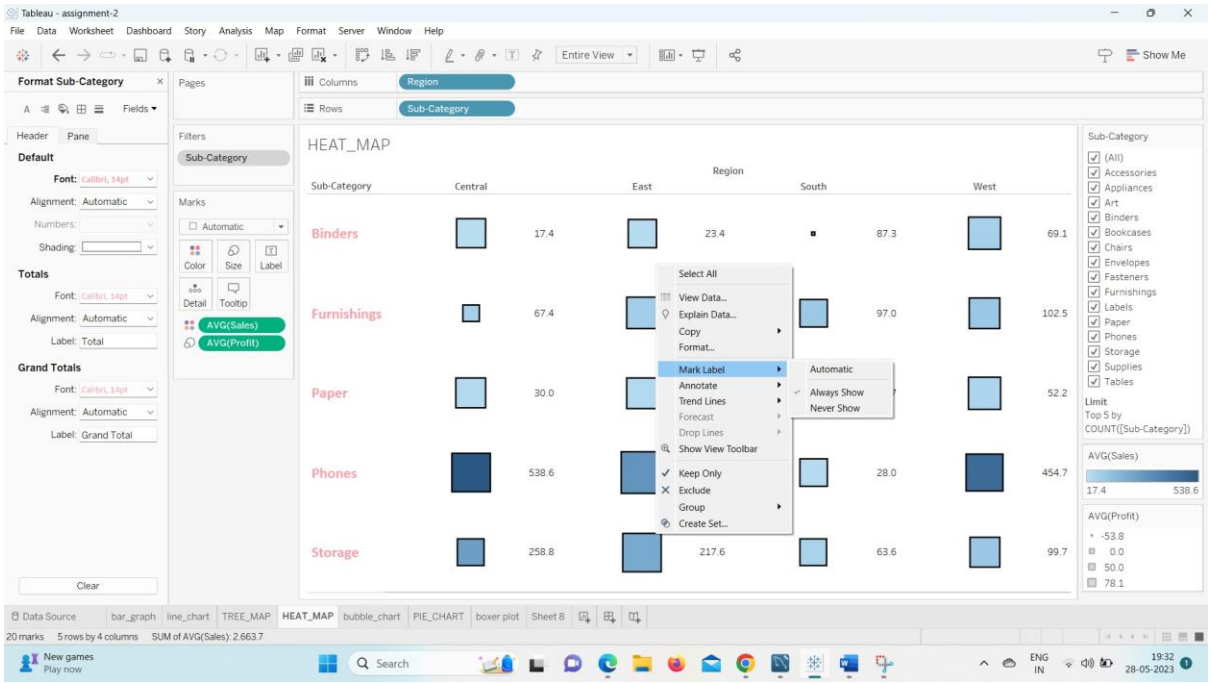
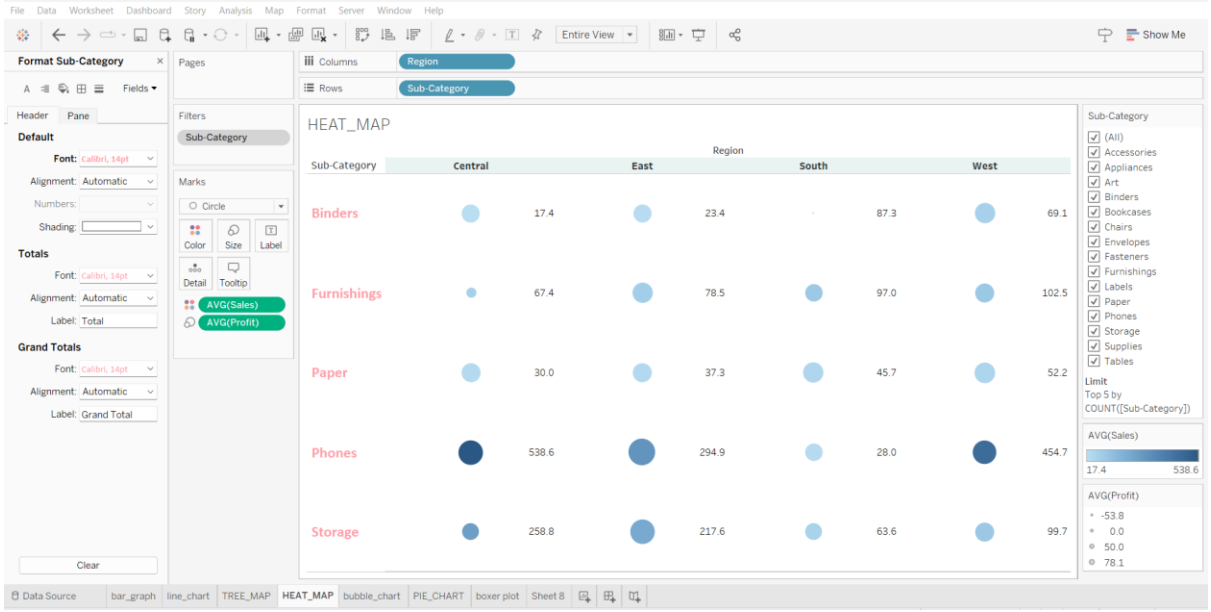
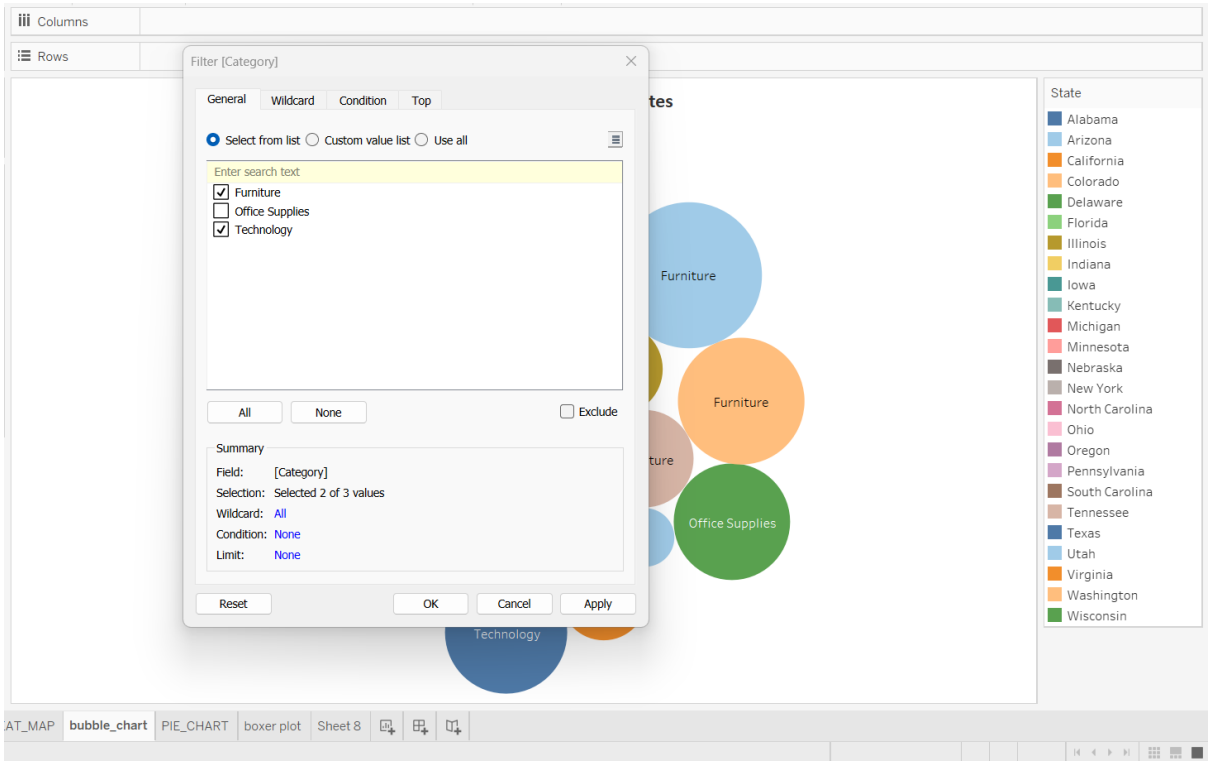
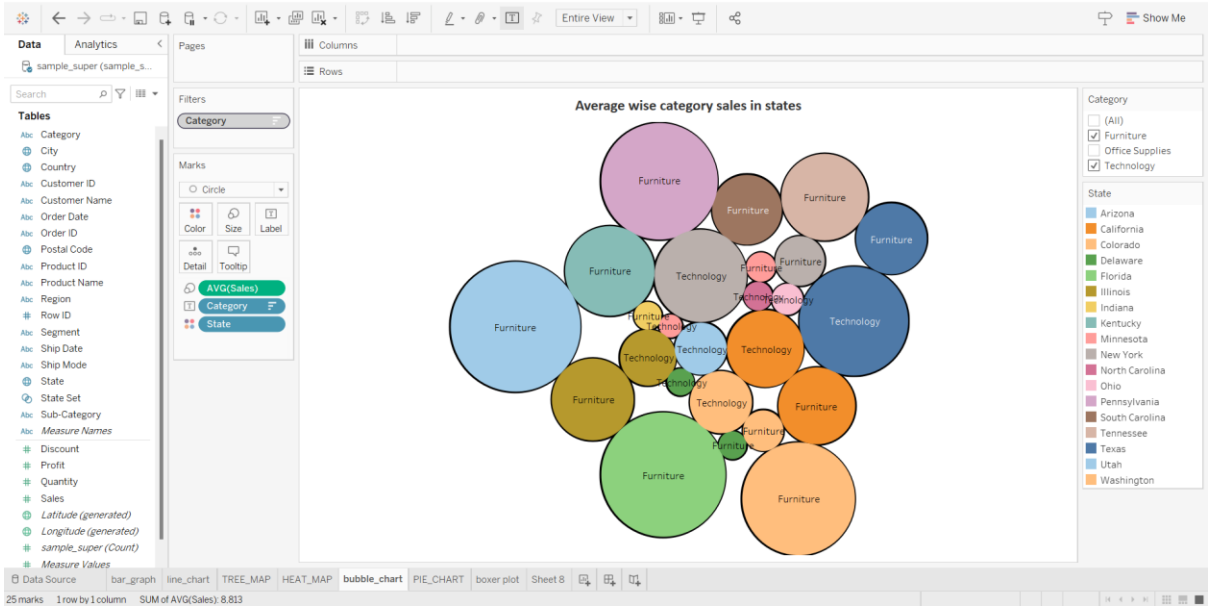


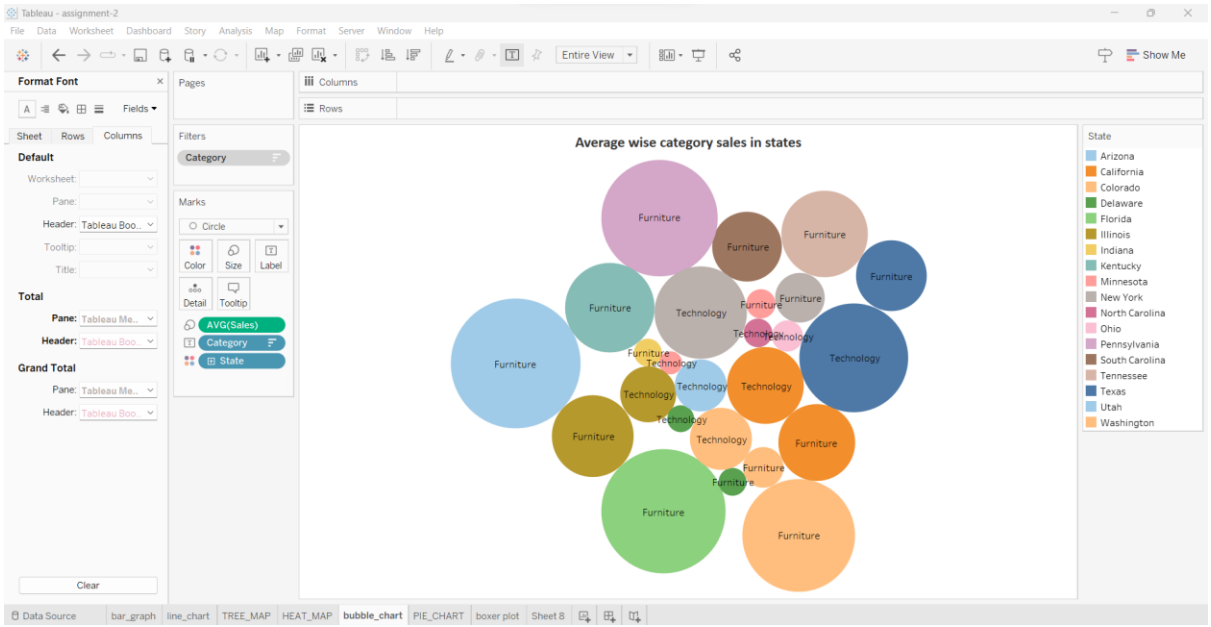
Tableau - assignment-2
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Format Sub-Category
Pages
Filters
Sub-Category
Marks
Columns
Region
Rows
Sub-Category
HEAT_MAP
Region
Sub-Category
Central
East
South
West
Binders
17.4
23.4
87.3
69.1
Furnishings
67.4
97.0
102.5
Paper
30.0
52.2
Phones
538.6
28.0
454.7
Storage
258.8
217.6
63.6
99.7
Select All
View Data...
Explain Data...
Copy
Format...
Mark Label
Annotate
Trend Lines
Forecast
Drop Lines
Show View Toolbar
Keep Only
Exclude
Group
Create Set...
Automatic
Always Show
Never Show
Sub-Category
AVG(Sales)
17.4
538.6
AVG(Profit)
-53.8
0.0
50.0
78.1
Data Source
bar_graph
line_chart
TREE_MAP
HEAT_MAP
bubble_chart
PIE_CHART
boxer plot
Sheet 8
20 marks
5 rows by 4 columns
SUM of AVG(Sales): 2,663.7


Format Sub-Category
Pages
Filters
Sub-Category
Marks
Circle
Columns
Region
Rows
Sub-Category
HEAT_MAP
Region
Sub-Category
Central
East
South
West
Binders
17.4
23.4
87.3
69.1
Furnishings
67.4
78.5
97.0
102.5
Paper
30.0
37.3
45.7
52.2
Phones
538.6
294.9
28.0
454.7
Storage
258.8
217.6
63.6
99.7
Sub-Category
AVG(Sales)
17.4
538.6
AVG(Profit)
-53.8
0.0
50.0
78.1
Data Source
bar_graph
line_chart
TREE_MAP
HEAT_MAP
bubble_chart
PIE_CHART
boxer plot
Sheet 8

iii) applying all above filters to bubble chart as shown below





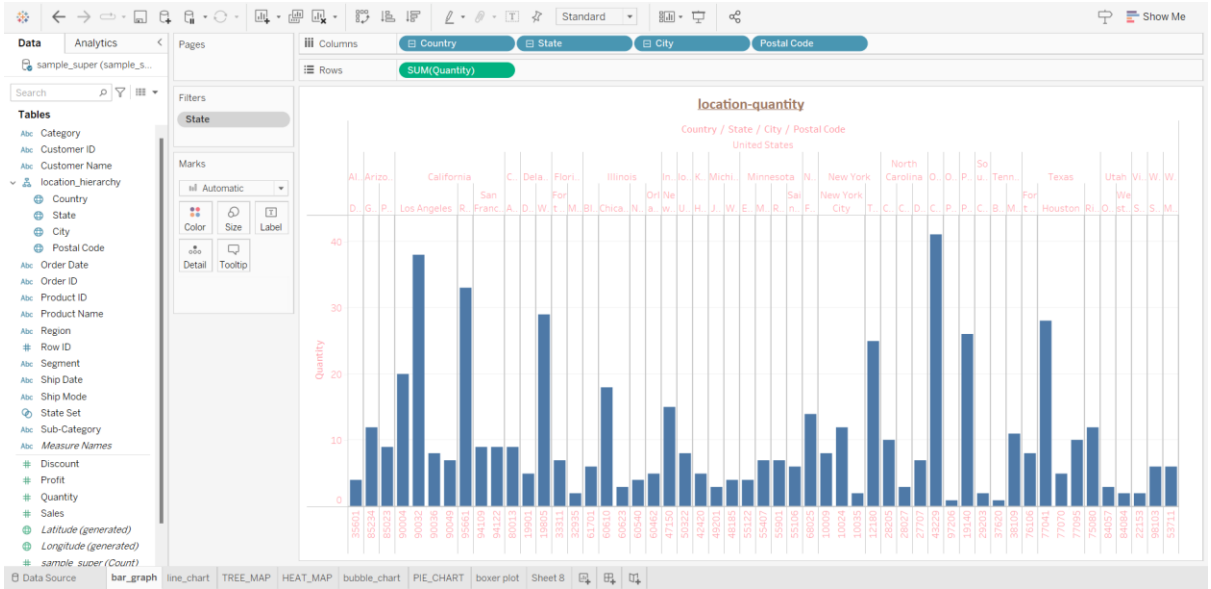


3) Perform the following data manipulations on your dataset

- **create a Hierarchy**
- **create a set**
- **create a group**

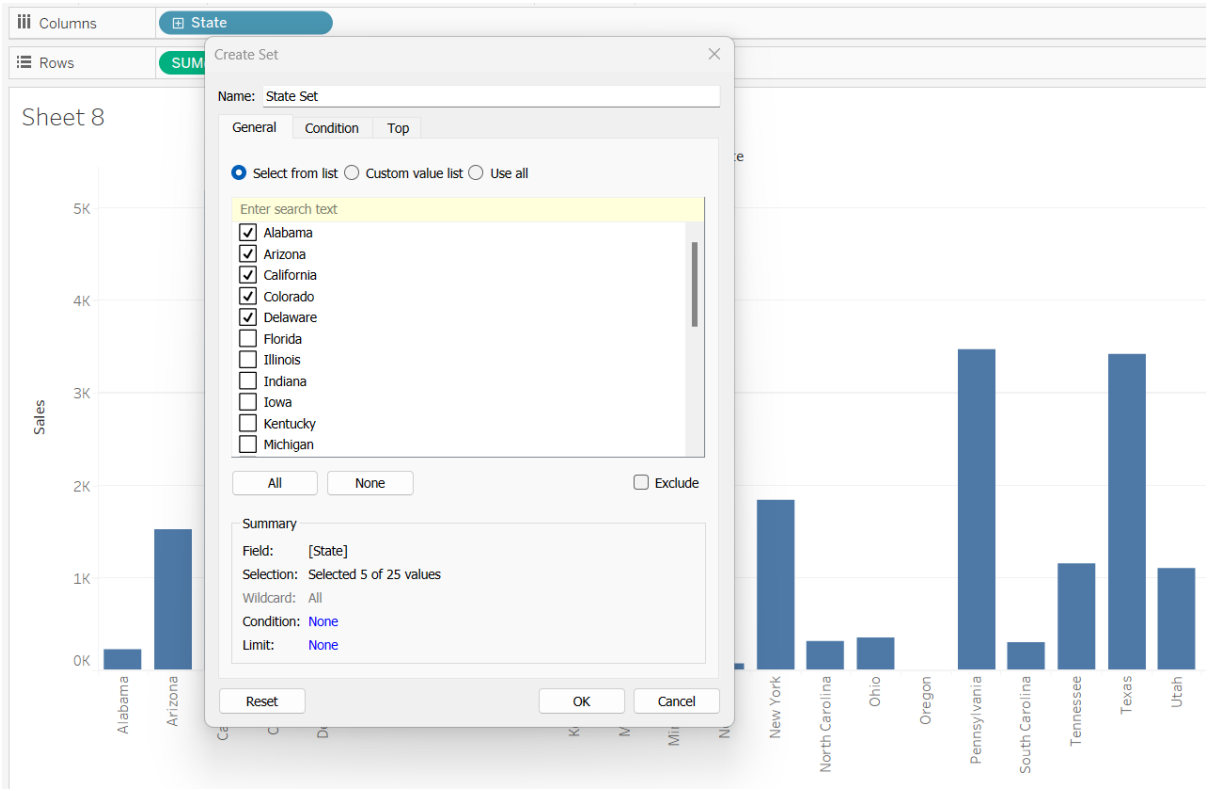
Create hierarchy:

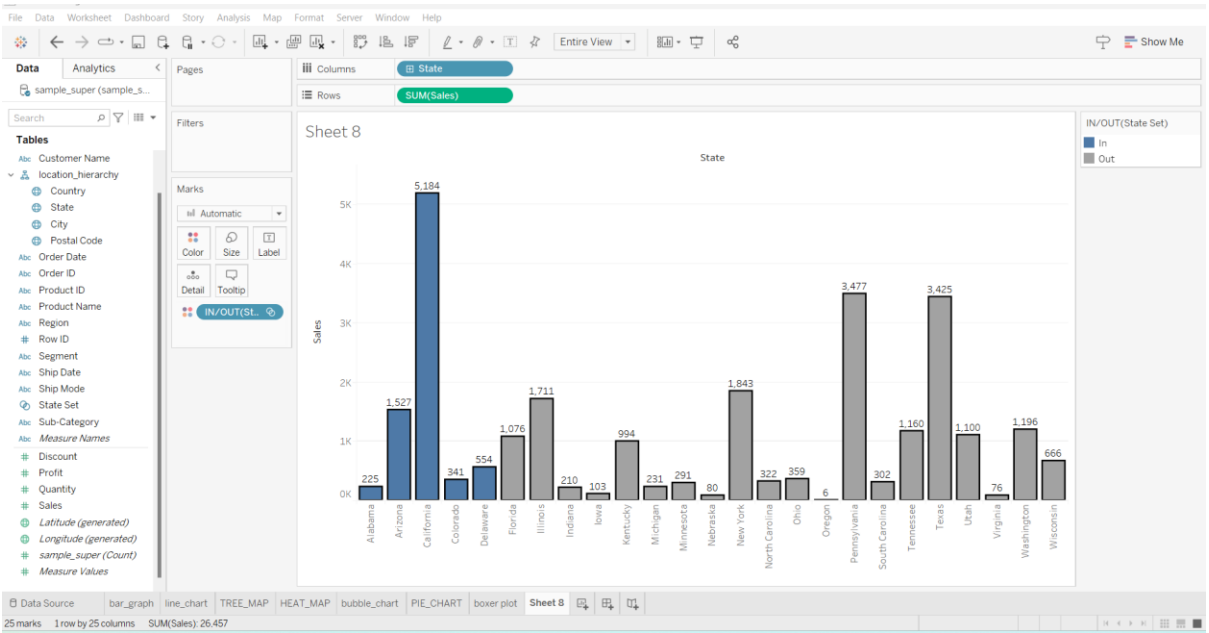
I have created a location hierarchy and it consists of country, state,city and postal code as shown below and displayed the bar graph of quantity based on location hierarchy:



Create a set

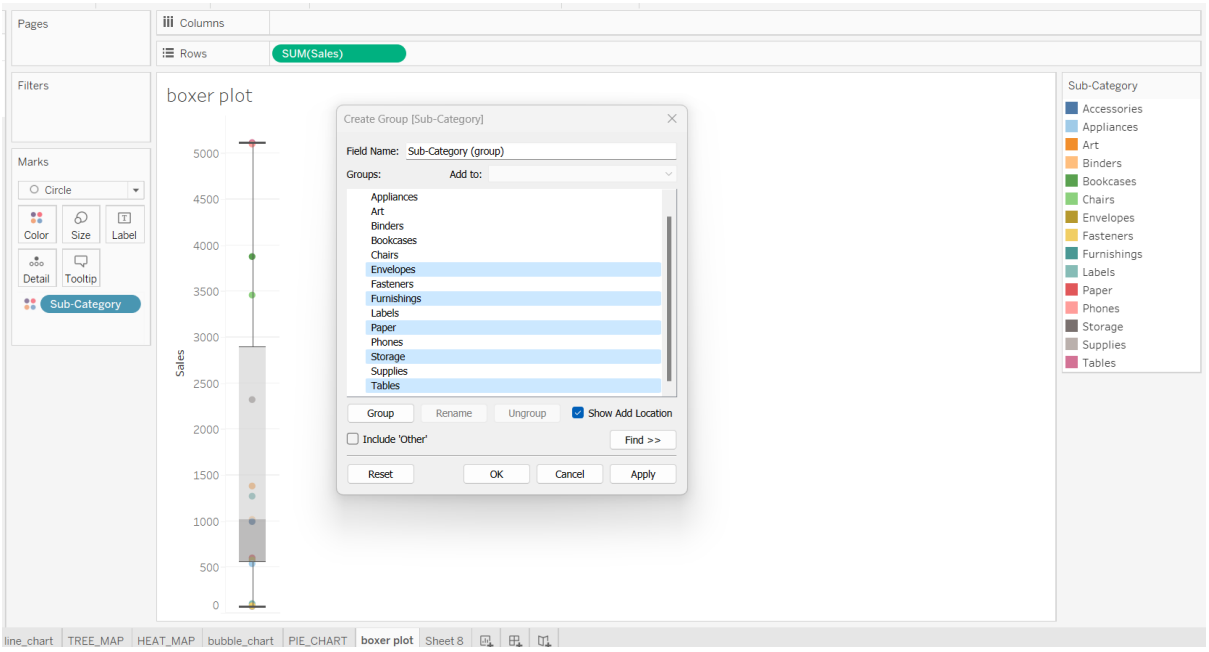
I have created a set on first five states and I have displayed those states sales are included and remaining states are out of set as shown below:

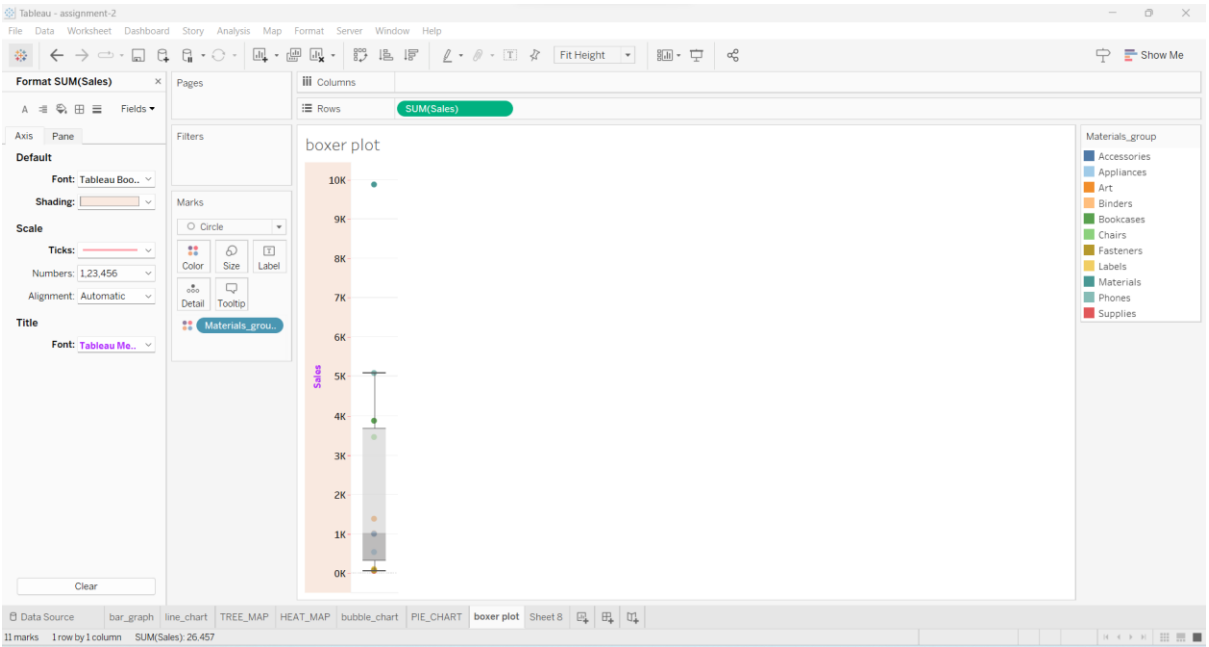


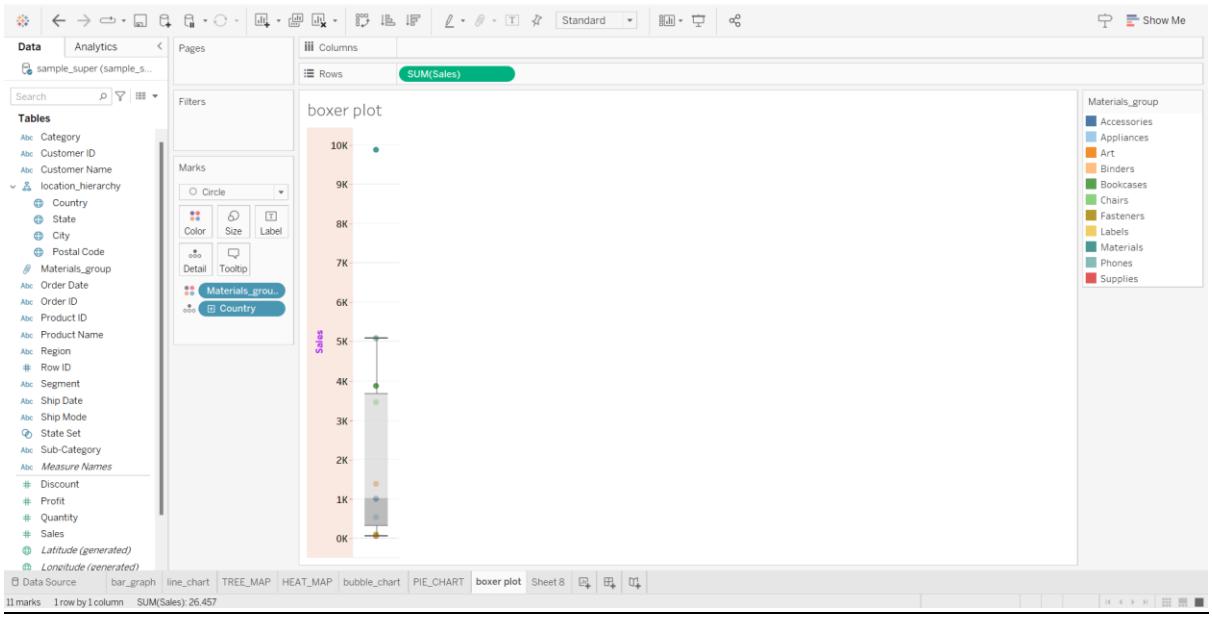


Create a group

here I have created material group and I have included envelopes, paper etc in that group and I displayed the boxer plot based on subcategory sales.






Data
Analytics
sample_super (sample_s...
Search
Tables
Category
Customer ID
Customer Name
location_hierarchy
Country
State
City
Postal Code
Materials_group
Order Date
Order ID
Product ID
Product Name
Region
Row ID
Segment
Ship Date
Ship Mode
State Set
Sub-Category
Measure Names
Discount
Profit
Quantity
Sales
Latitude (generated)
Longitude (generated)
Pages
Filters
Marks
Circle
Color
Size
Label
Detail
Tooltip
Materials_grou..
Country
Columns
Rows
SUM(Sales)
Standard
Show Me
boxer plot
Sales
10K
9K
8K
7K
6K
5K
4K
3K
2K
1K
0K
Materials_group
Accessories
Appliances
Art
Binders
Bookcases
Chairs
Fasteners
Labels
Materials
Phones
Supplies
Data Source
bar_graph
line_chart
TREE_MAP
HEAT_MAP
bubble_chart
PIE_CHART
boxer plot
Sheet 8
11 marks
1 row by 1 column
SUM(Sales): 26,457