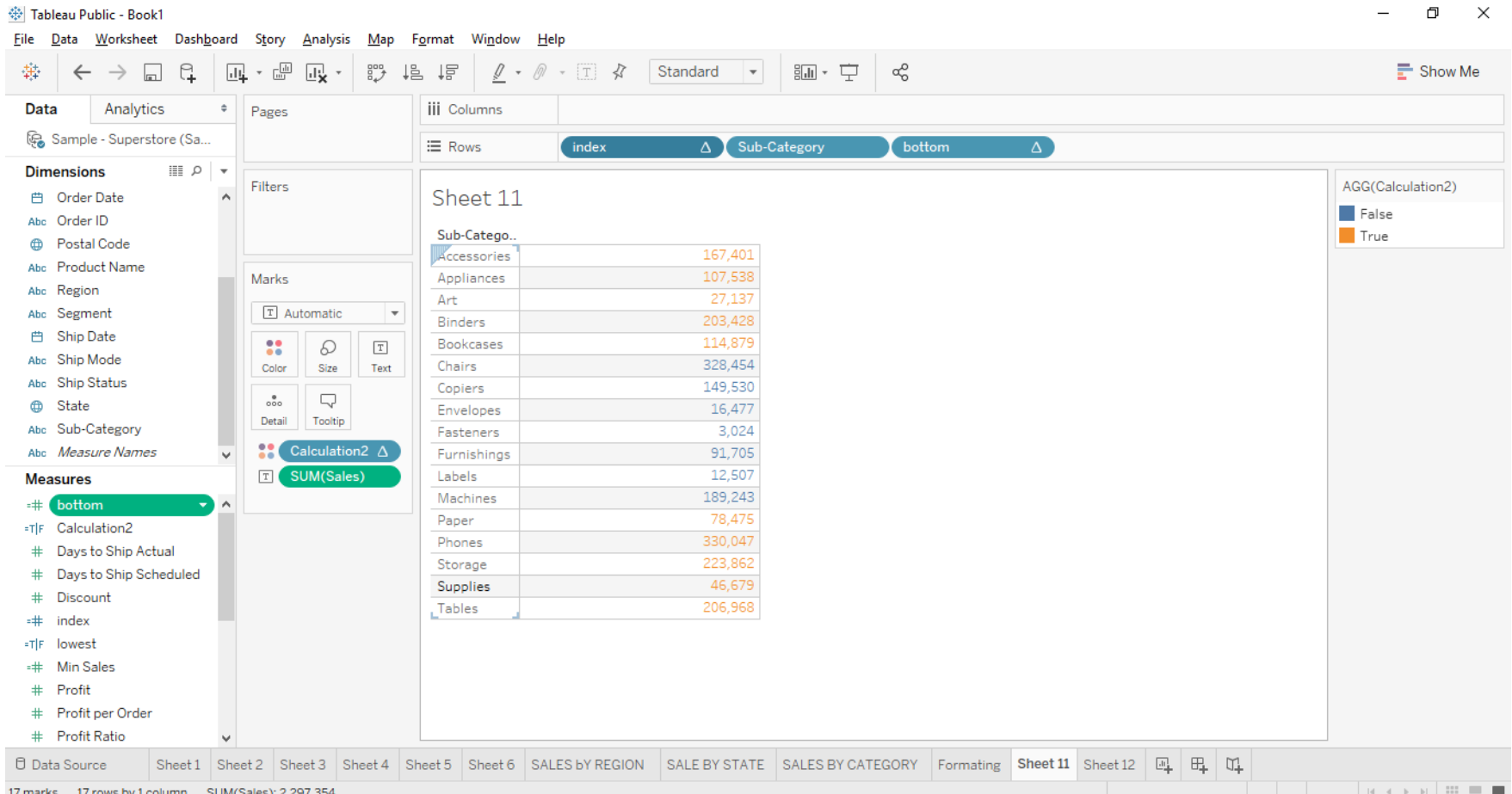


Calculations

Conditional Formatting : Formatting the data as per some condition.
For Eg: Highlighting the top 5 or bottom 5 sales.



NOTE: We need index & last function to implement conditional formatting.



Data | Analytics

Clipboard_20180210T07...
Sample - Superstore (Sa...)

Dimensions

- Order Date
- Order ID
- Postal Code
- Product Name
- Region
- Segment
- Ship Date
- Ship Mode
- Ship Status
- State
- Sub-Category
- Measure Names

Measures

- Days to Ship Actual
- Days to Ship Scheduled
- Discount
- index
- Last
- Profit
- Profit per Order
- Profit Ratio
- ProfitCategory
- Quantity

Pages

Columns

Sub-Category AGG(ProfitCategory)

Rows

Filters

Marks

Automatic

Color Size Text

Detail Tooltip

AGG(ProfitCat..)

SUM(Profit)

IF-ELSE 2

Sub-Catego..	ProfitCateg..	
Copiers	OK	55,618
Phones	OK	44,492
Accessories	OK	41,932
Paper	OK	34,053
Binders	OK	30,200
Chairs	OK	26,586
Storage	OK	21,280
Appliances	OK	18,132
Furnishings	OK	13,070
Envelopes	LowProfit	6,956
Art	LowProfit	6,530
Labels	LowProfit	5,558
Machines	LowProfit	3,387
Fasteners	LowProfit	952
Supplies	LowProfit	-1,187
Bookcases	LowProfit	-3,479
Tables	LowProfit	-17,733

Source | Sheet 1 | Sheet 2 | COMPUTE USING | ComputeUsing2 | conditionalFormatting | Rank | IF-ELSE | IF-ELSE 2

ASSIGNMENT



1. Display sub category & Region wise profit in the tabular format. Format the worksheet with black background. Font in bright color, no banding in rows/columns. Heading should be highlighted in different color.
2. Display in a form of horizontal bar chart category & subcategory wise total sales & Sales percentage. Percentage should be with respect to Category.
3. Represent year wise profit (running total)
4. Represent subcategory wise profit. Use conditional formatting to highlight top & bottom profit generating subcategory. The number should be dynamic.
5. Display monthly profit in a tabular format. Order date should be interactive. Increase & decrease should be highlighted using arrow.



CHARTS

Using Tableau we can create 24 different type of charts. Tableau gives us the best suited chart as per the dimensions and measures selected by us using Visualization Query Language.

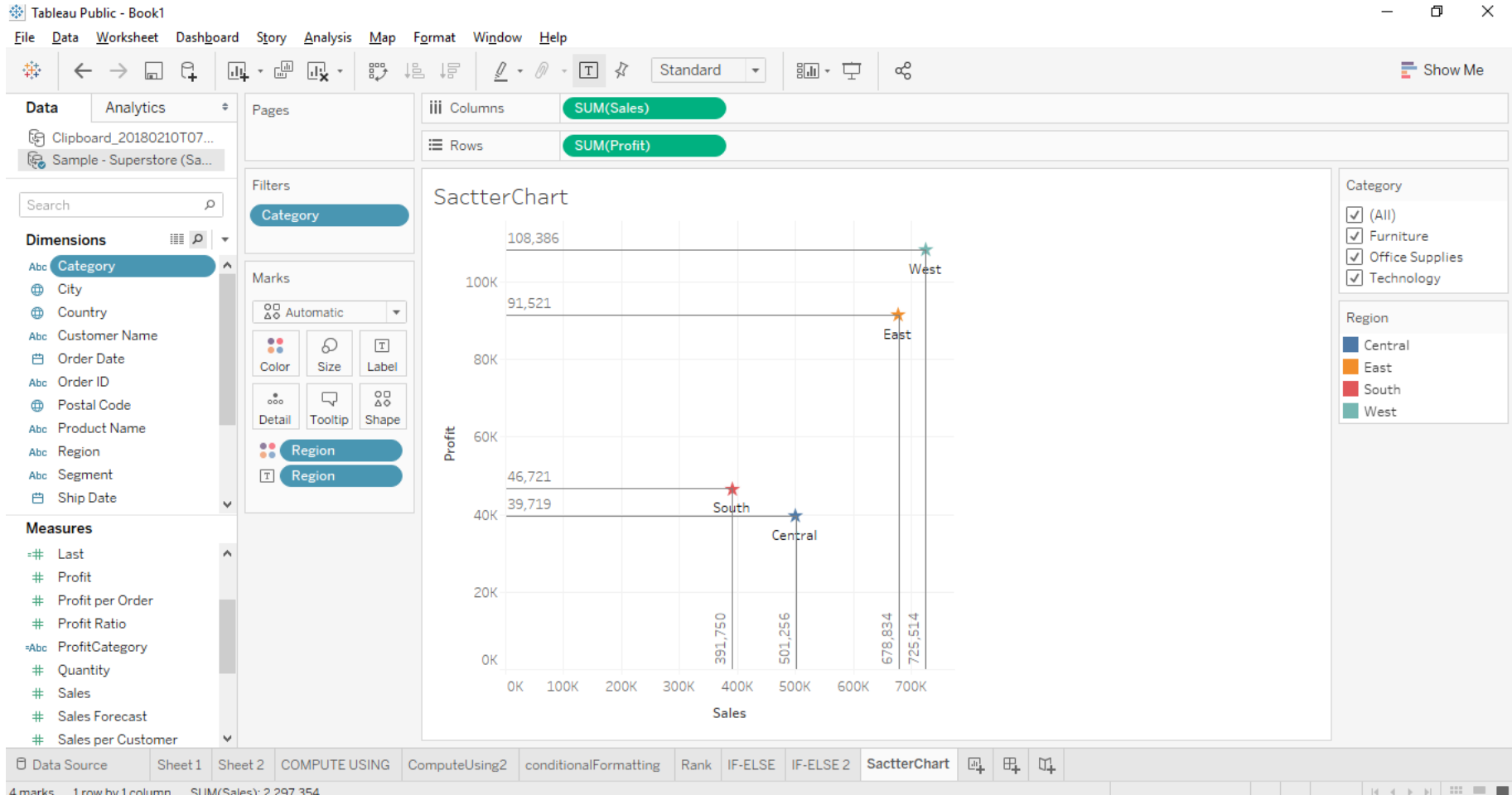
If we select Dimension First and Measure second we will get a text.

If we select Measure first and Dimension second we will get a graph.



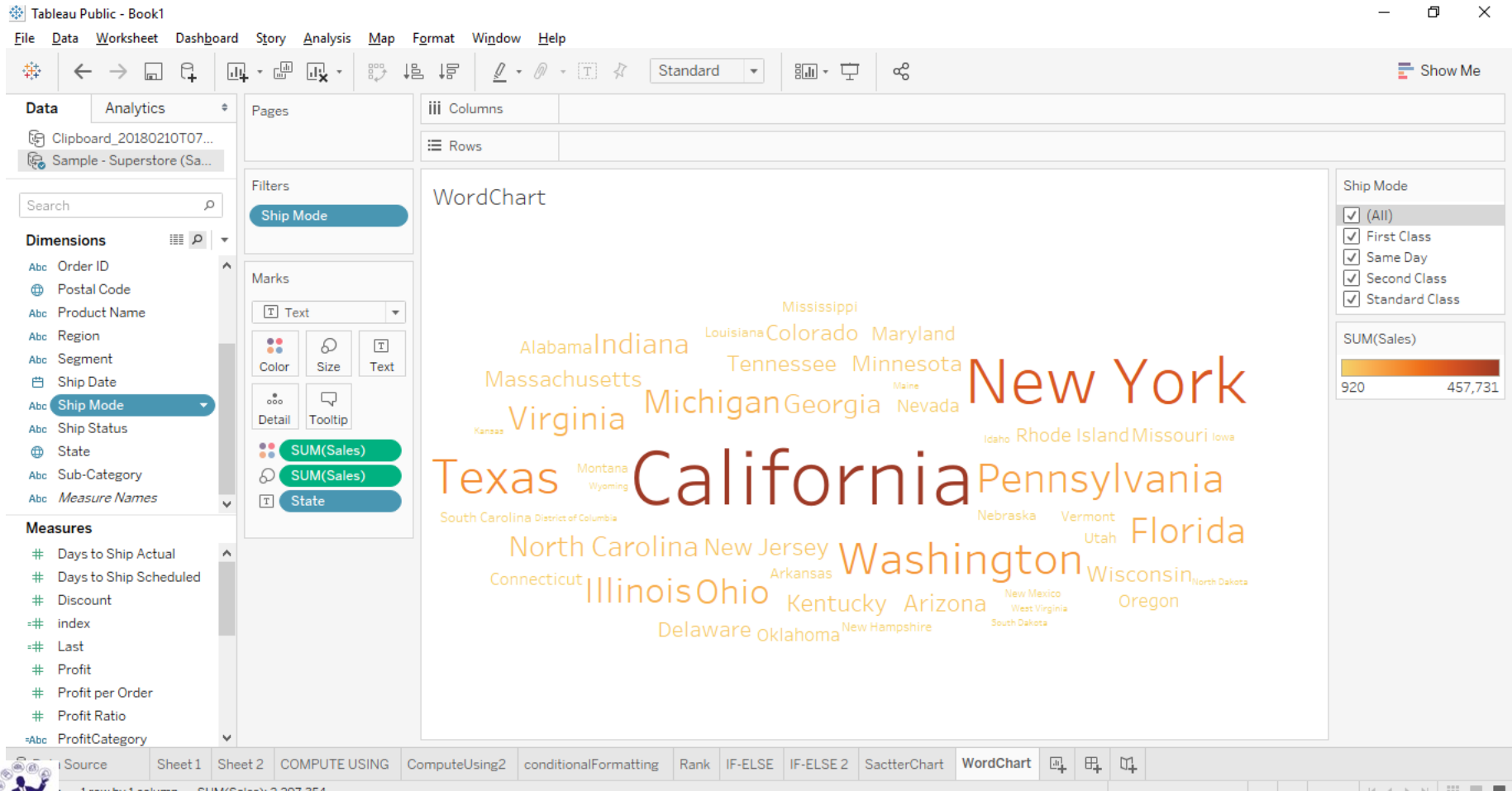
CHARTS

Scatter Charts: In scatter chart we get few points scattered on the plot area.



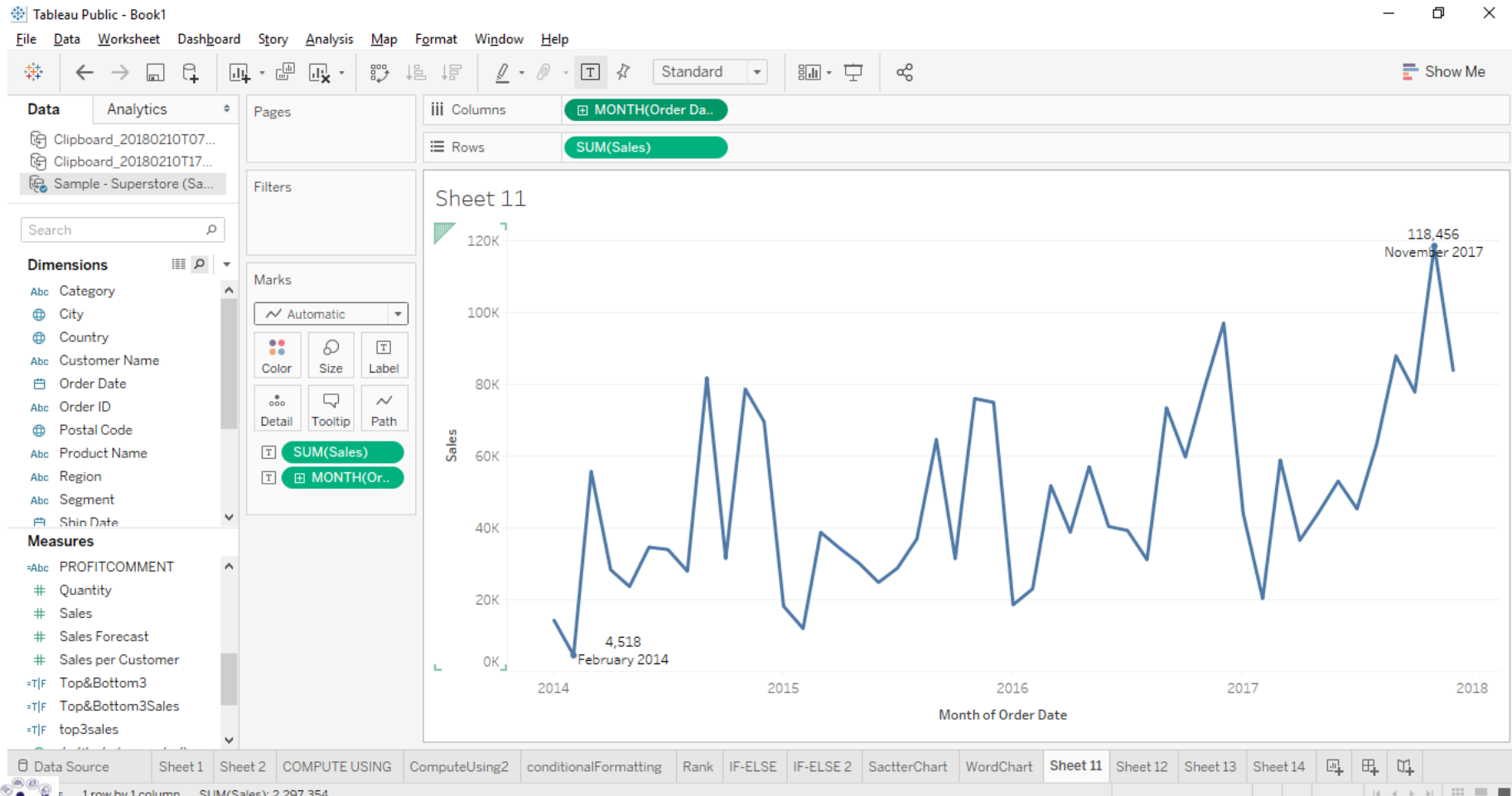
CHARTS

Word Maps: Dimension is displayed in different colors & size as per the measure value.



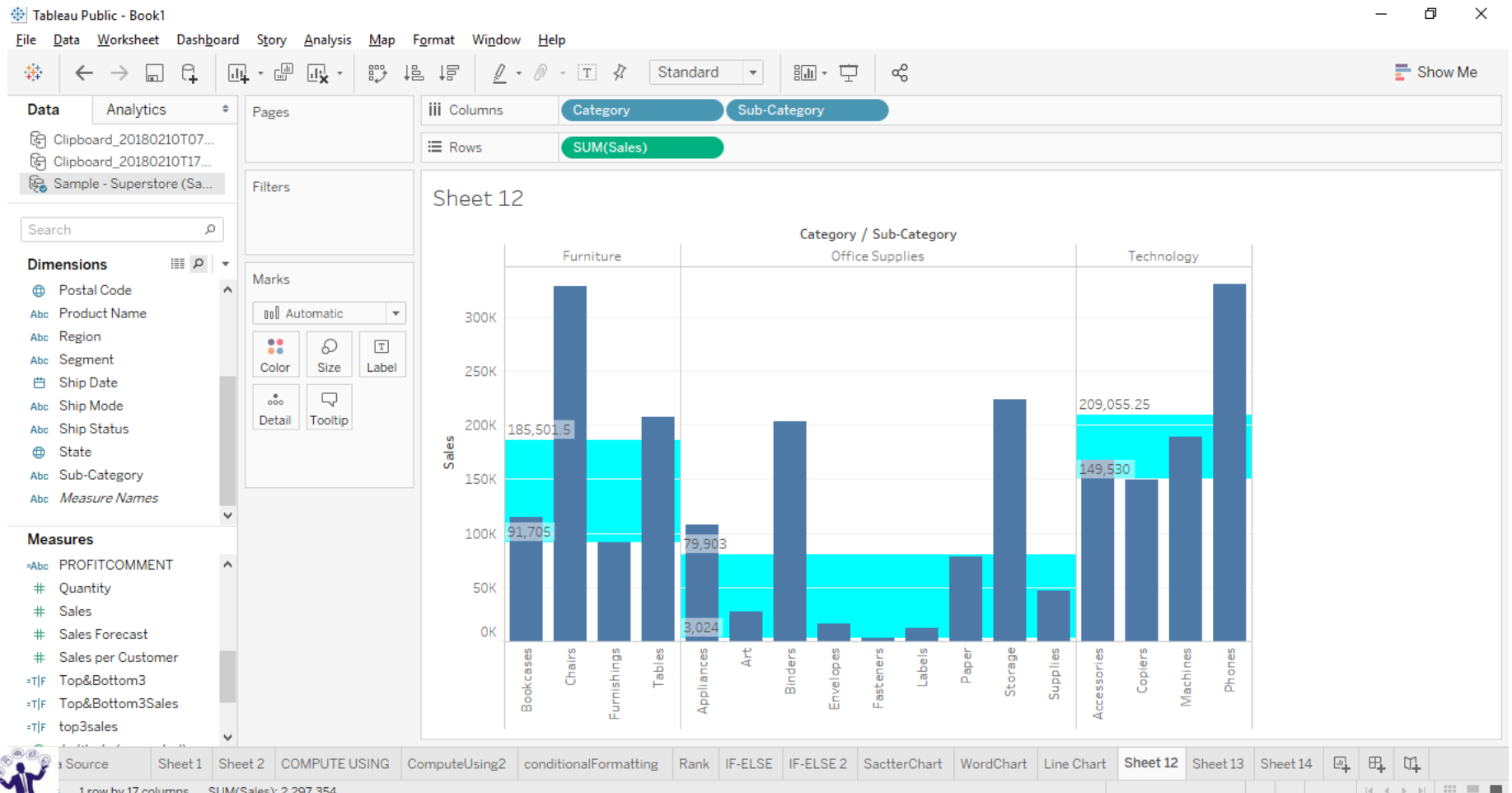
CHARTS

Line Chart: Tableau automatically gives a line chart when we are working with date field. A line chart can be continuous (Green) or discrete (Blue).



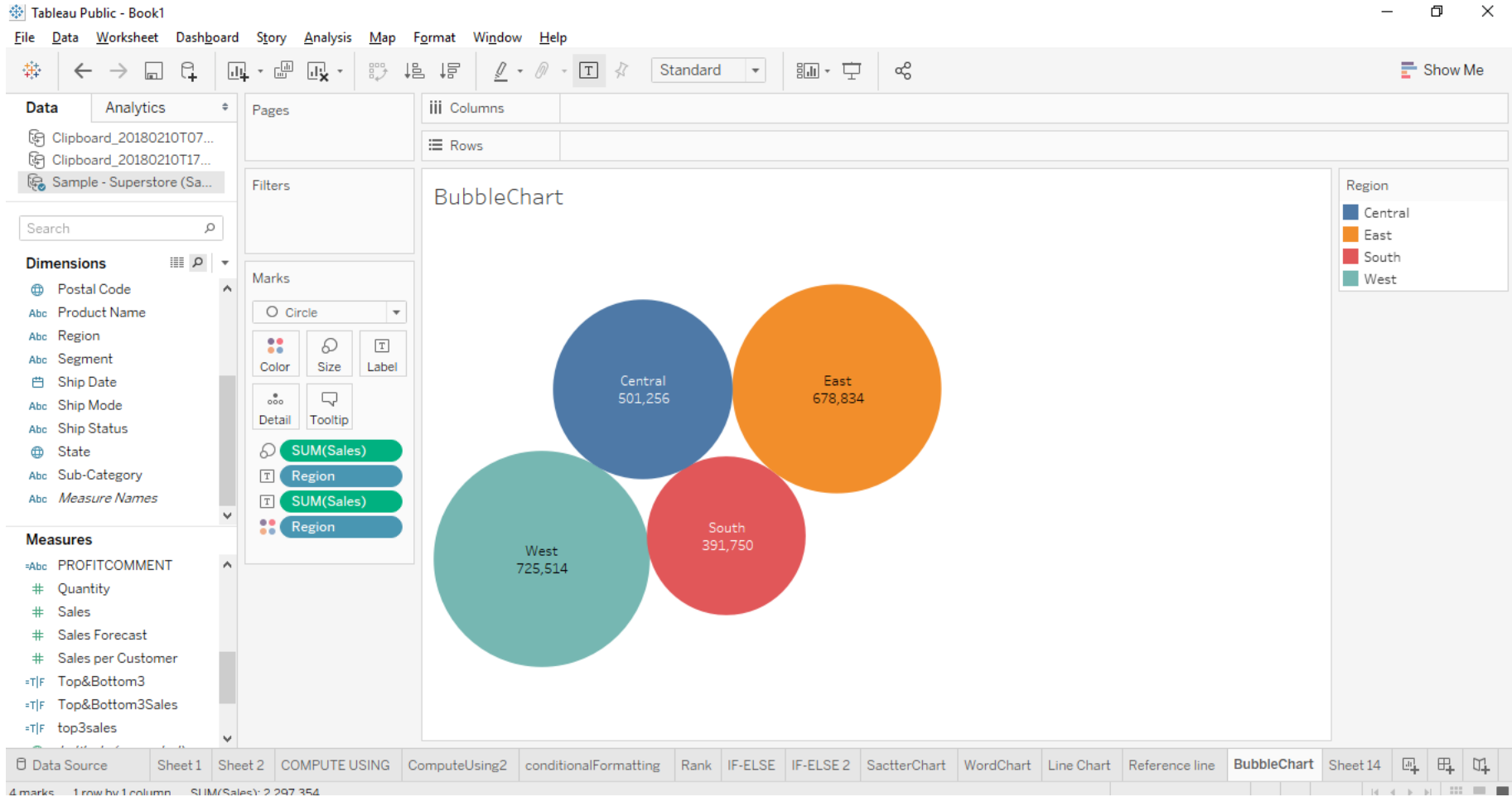
CHARTS

Reference Lines: These are used to identify / highlight the values with respect to a certain level. Eg: If we need to identify the below average and above average sales. To add a reference line right click on X axis and click on add reference line.



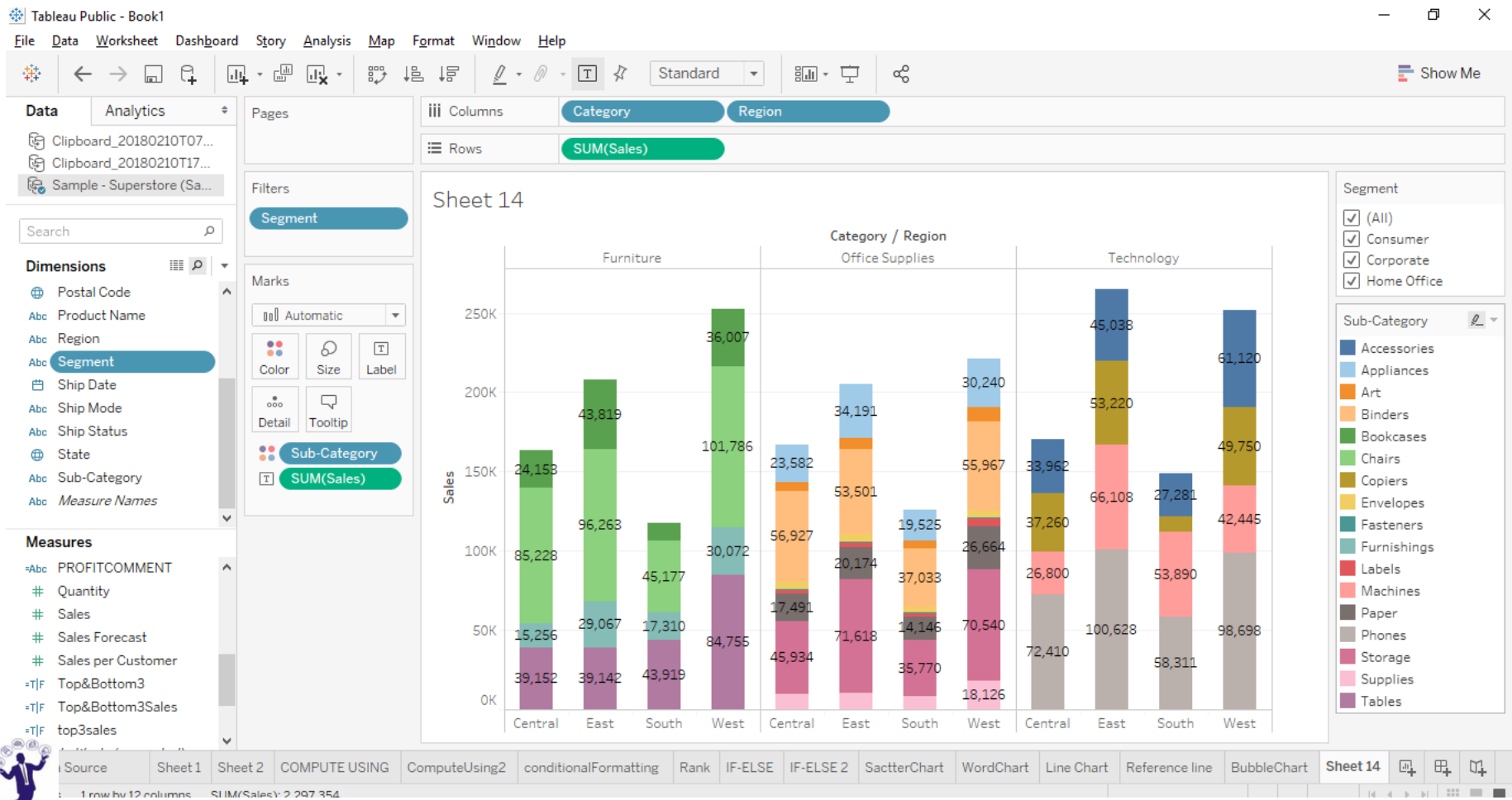
CHARTS

Bubble Chart: Circle represent dimensions & Size represents measures.



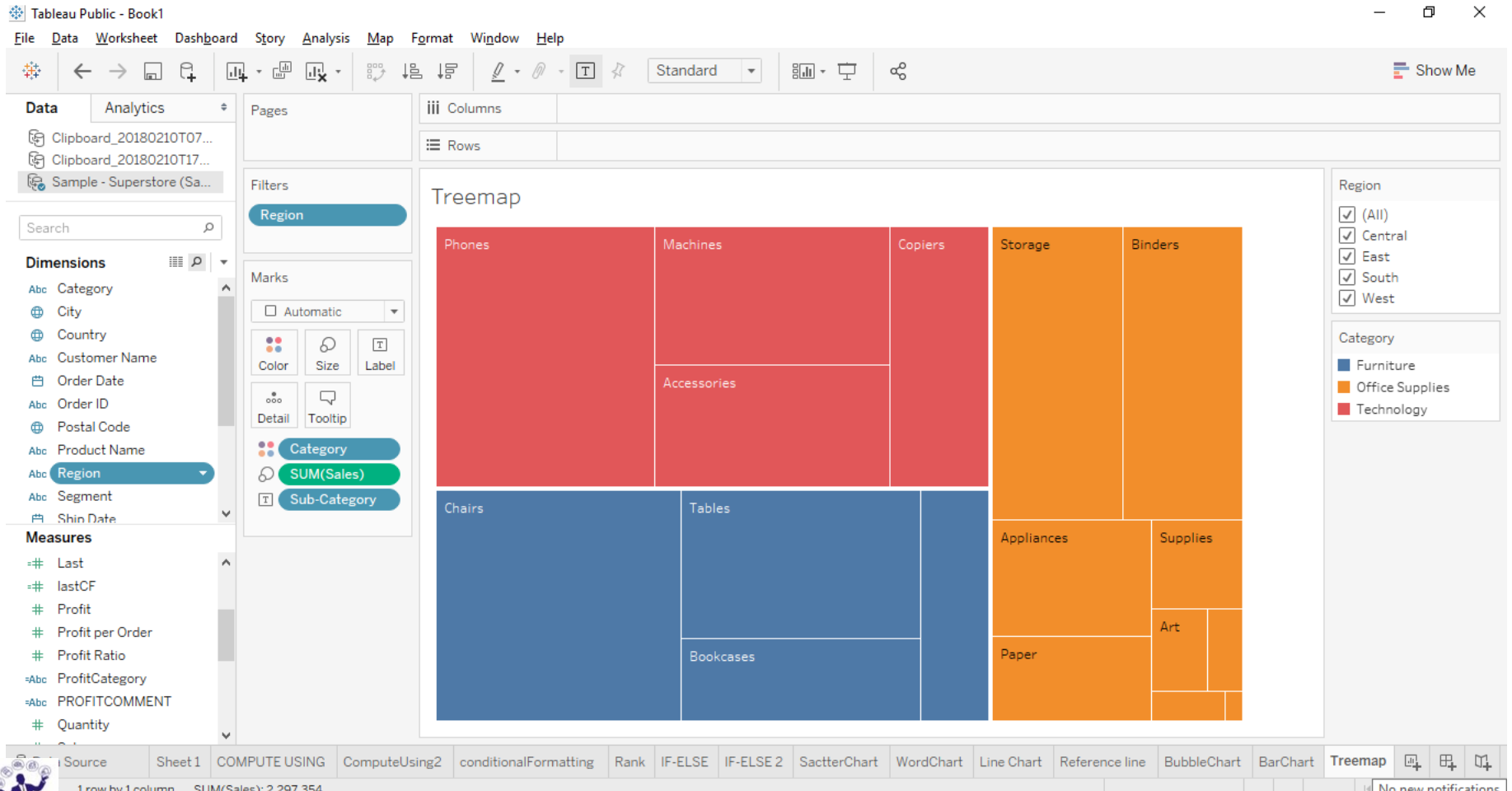
CHARTS

Bar Chart: Bar chart could be Stacked Bar Chart, Colored Bar Chart, Level Bar Chart & Interactive Bar Chart. If we put Dimensions in colors we will get stacked bar chart. If we put Measures in the colors we will get Colored Bar Chart.



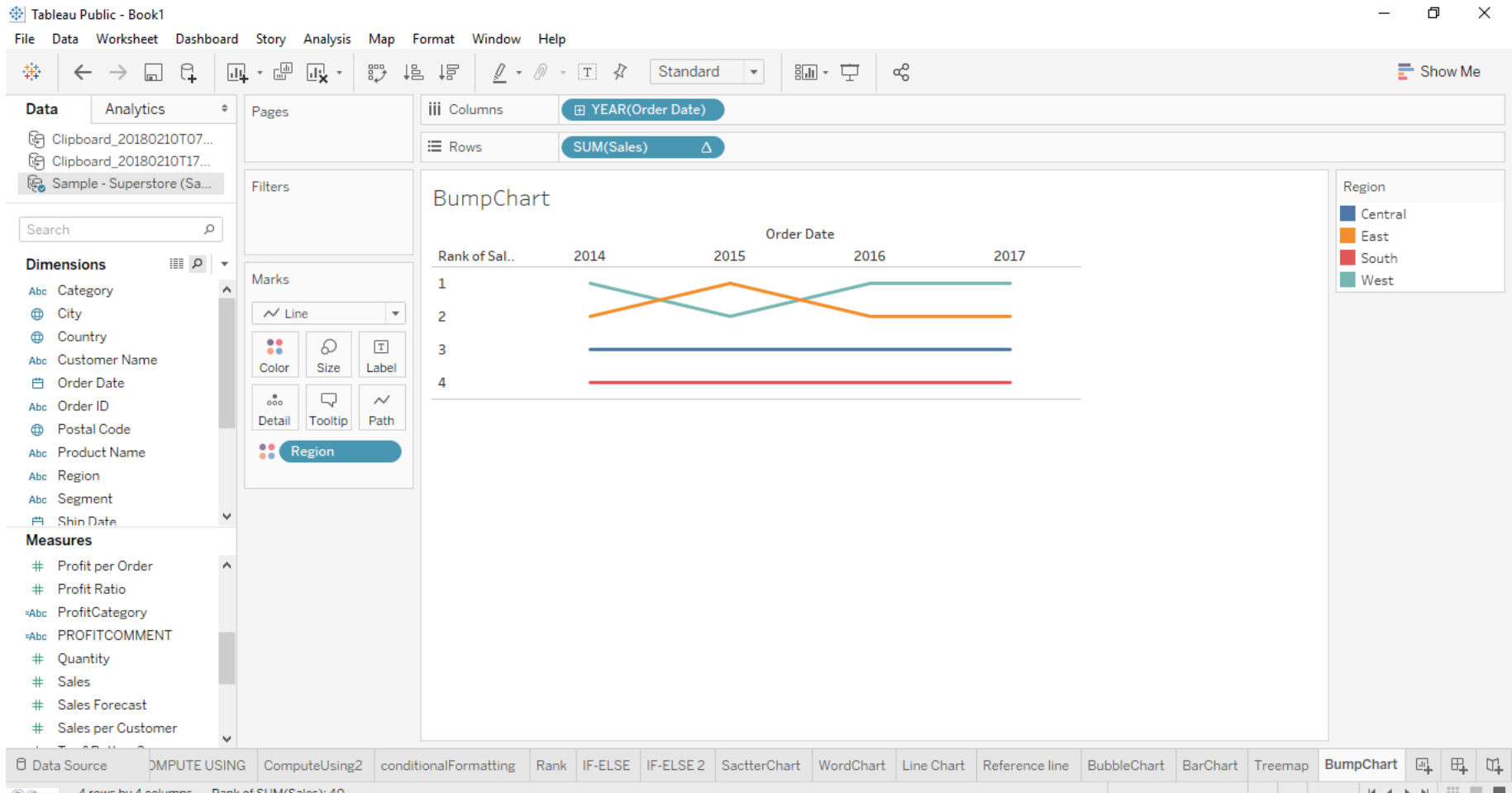
CHARTS

Tree Maps: This chart displays the data in a form of boxes / rectangles of various size.



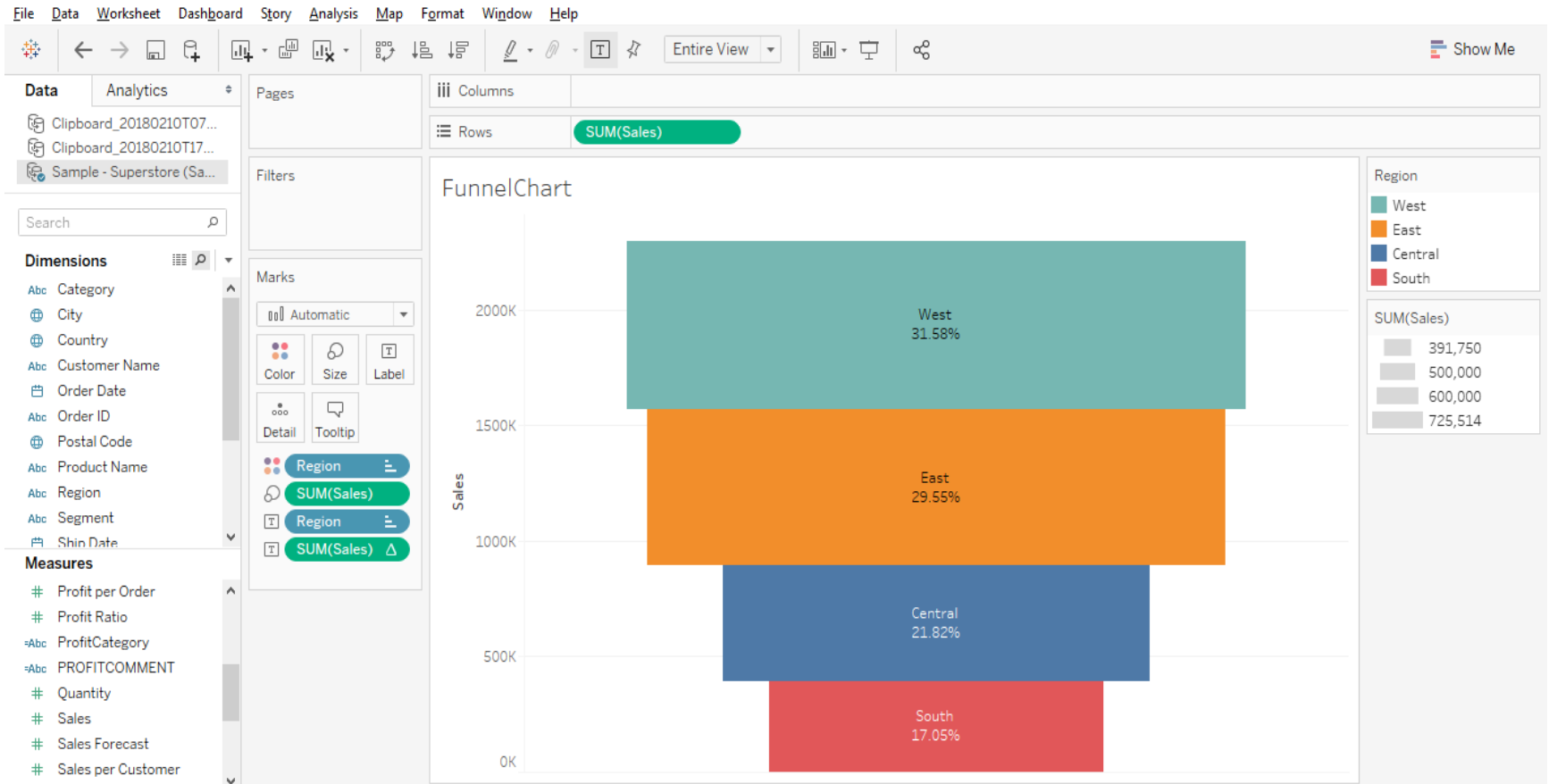
CHARTS

Bump Chart: It is the line chart where the rank changes with time.



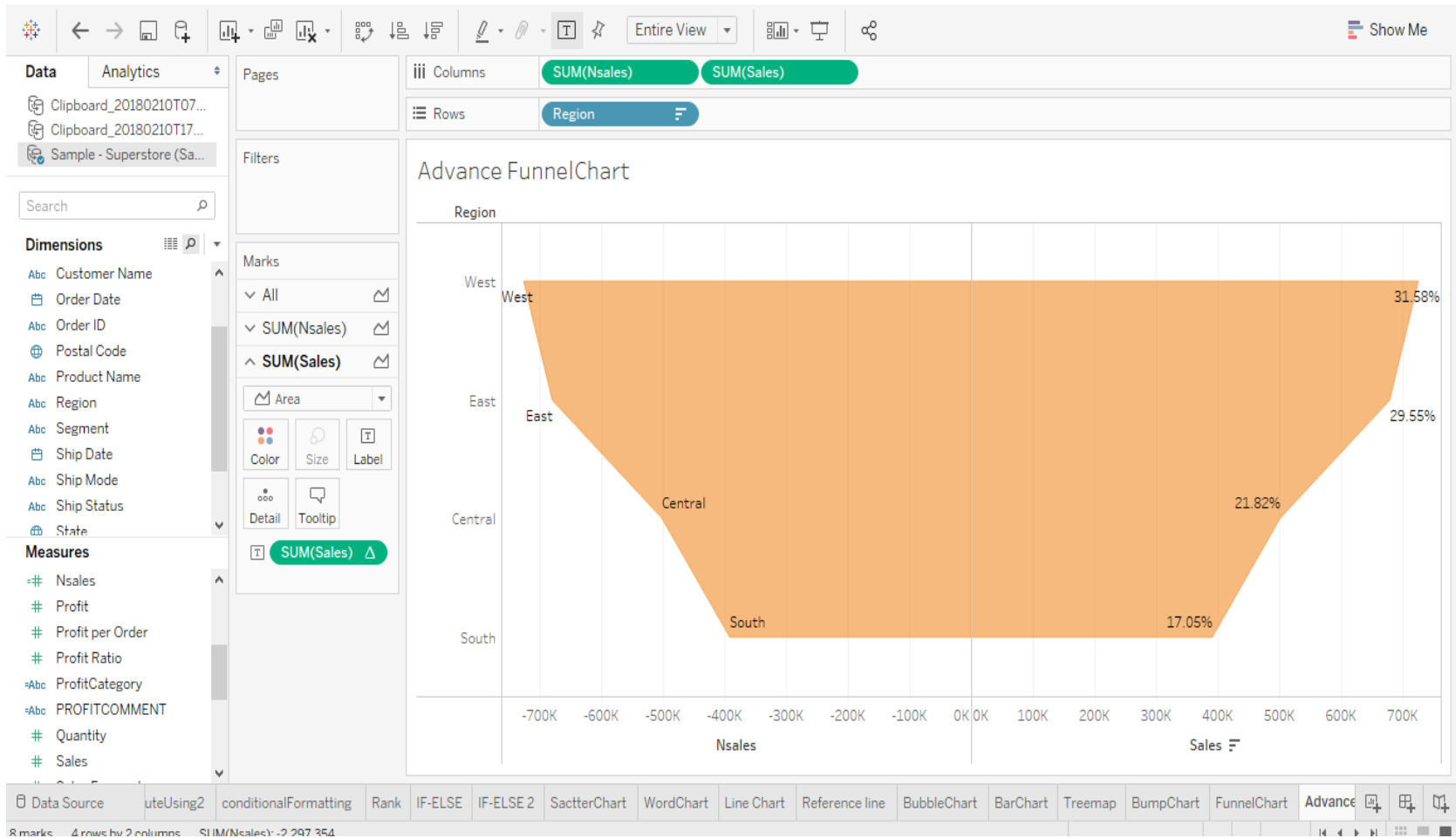
CHARTS

Funnel Chart: It is used to display a measure at different levels / sectors.



CHARTS

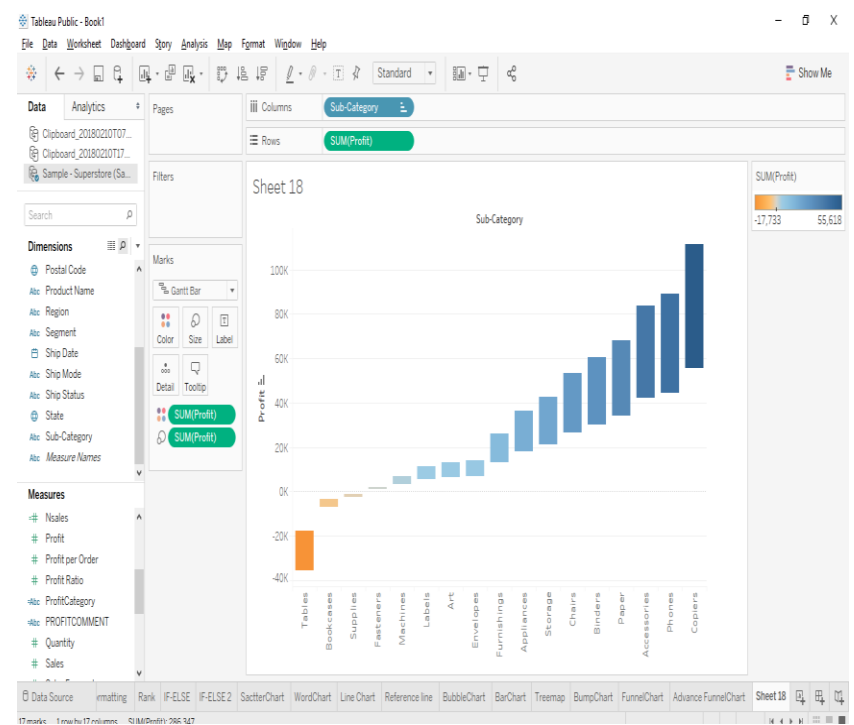
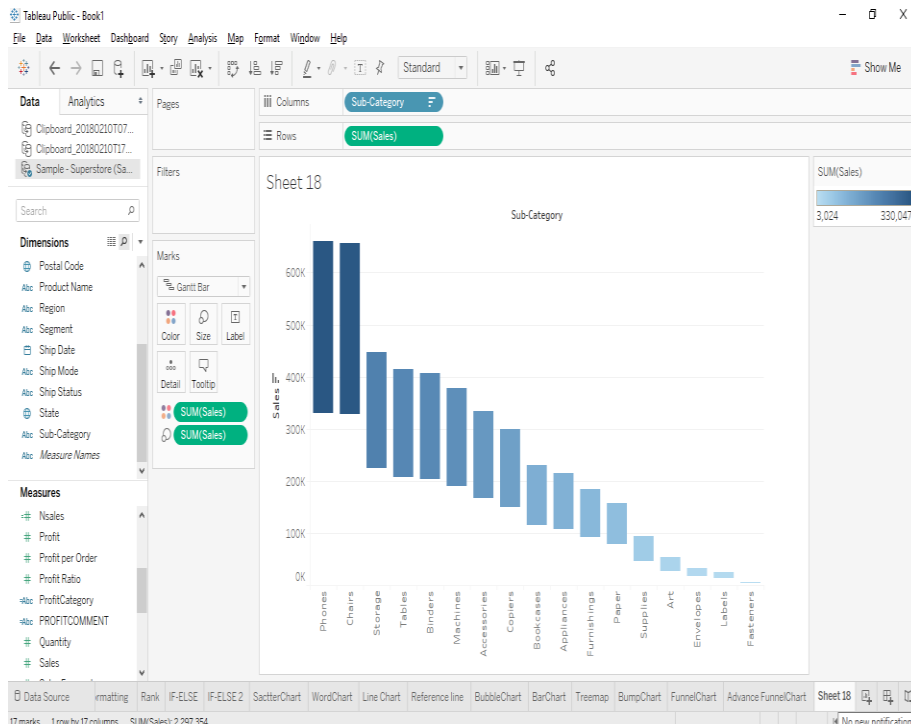
Advanced Funnel Chart: It is used to display a measure at different levels / sectors.



CHARTS - WATERFALL

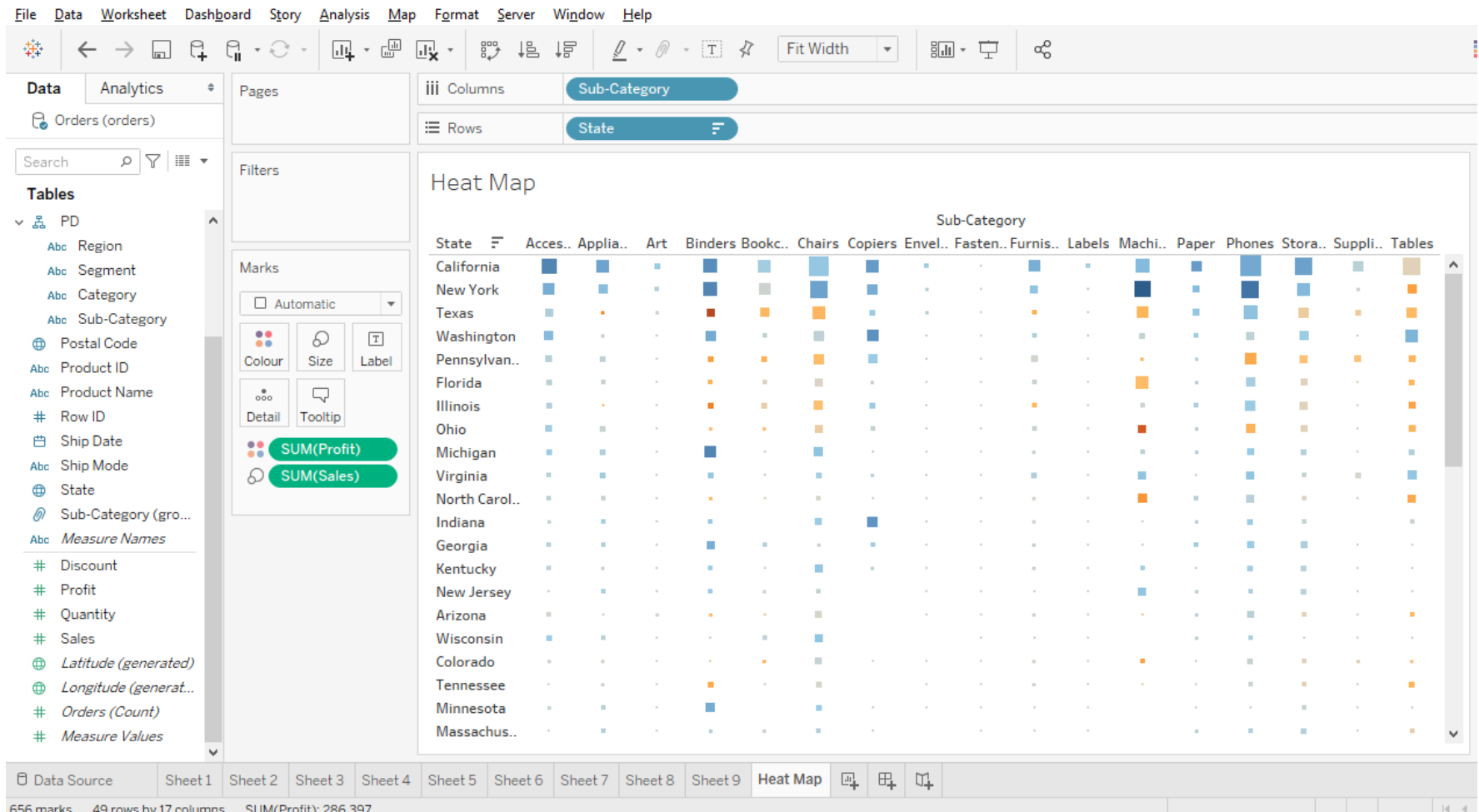
Waterfall Chart: These effectively display the cumulative effect of sequential positive and negative values, thus giving a view of water fall.

To create this chart we use Gantt Bar chart.



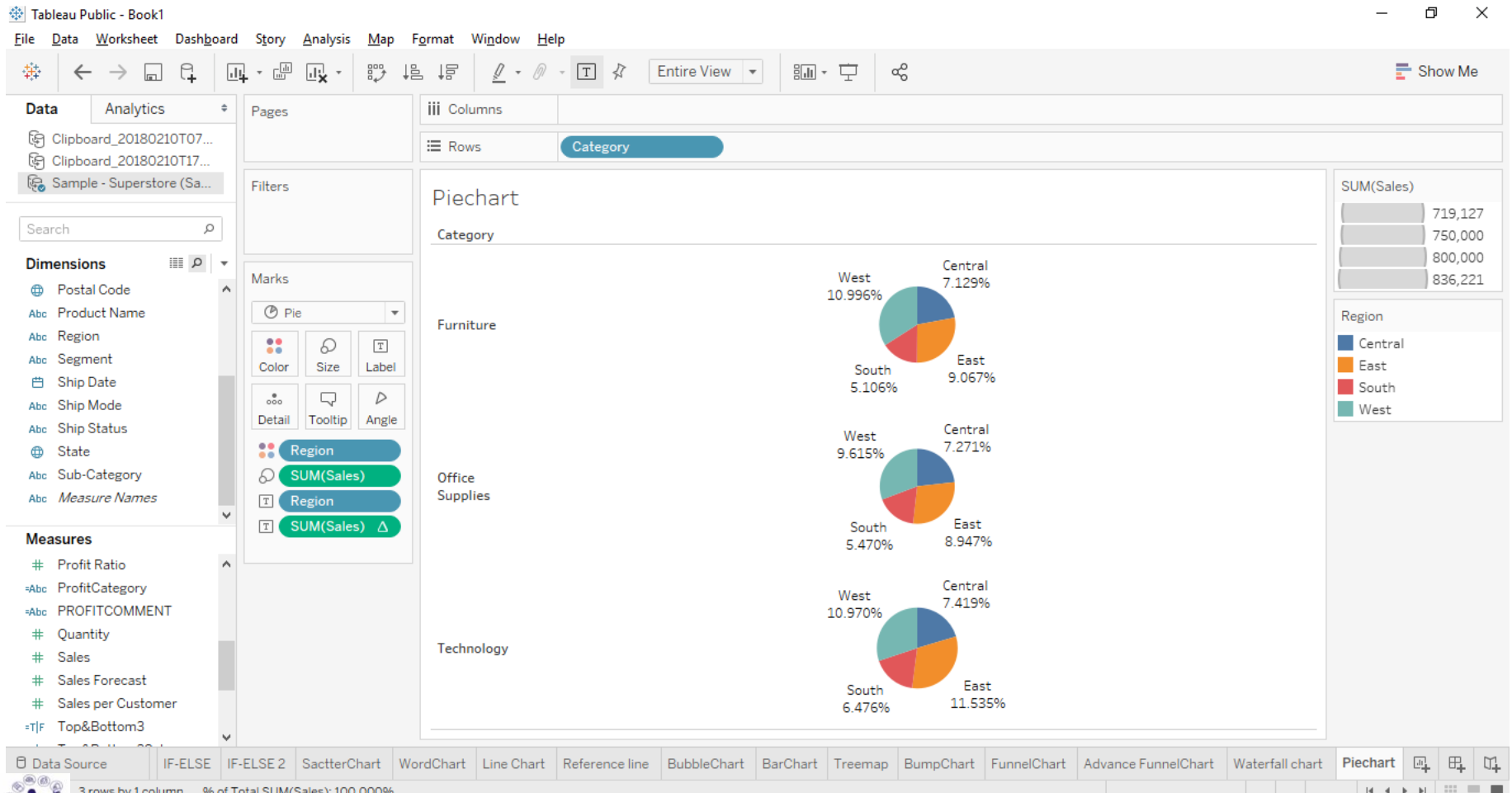
CHARTS - Heat Map

Heat Map is Used to display the data along with color. It will help to compare the data by their color.



CHARTS - PIE CHART

Pie Chart: Comparatively displays the measure value.



ASSIGNMENT

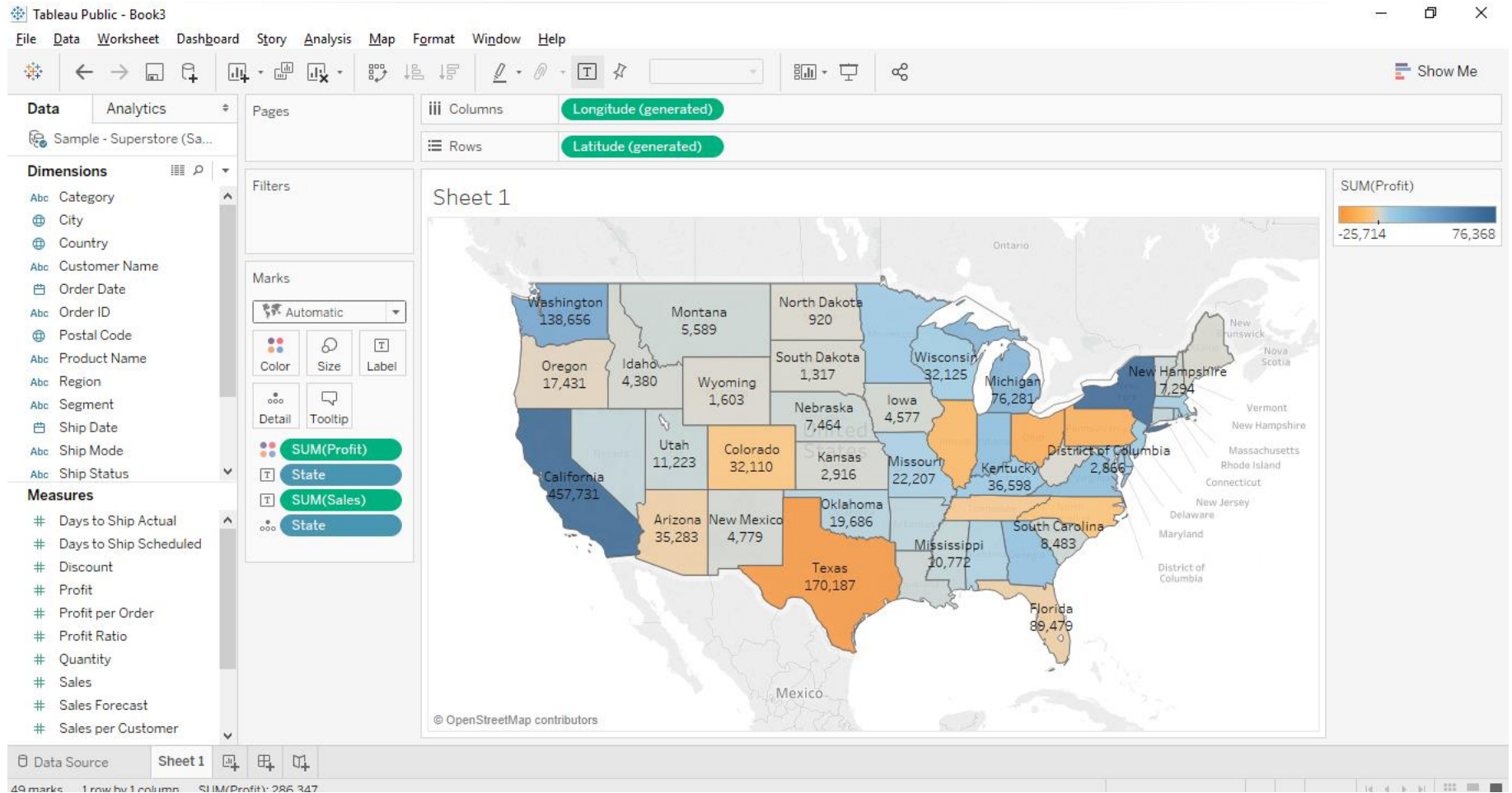


1. Create a Scatter chart to represent profit & sales for each segment.
2. Represent State wise sales using Word map.
3. Use a line graph to represent monthly Profit, Min & Max profit along with the month should be displayed.
4. Represent profit using a Bar chart category & Subcategory wise, focus should be on subcategories following above average (reference line).
5. Represent Region wise Sales & Profit using Bubble Chart
6. Tree map to represent Category, Segment, Region wise Sales
7. Adv Funnel to represent subcategory Sales
8. Represent segment wise profit using Pie Chart
9. Represent Subcategory wise profit using water fall chart



MAPS

MAPS: To represent the data geographically we create a Map chart.

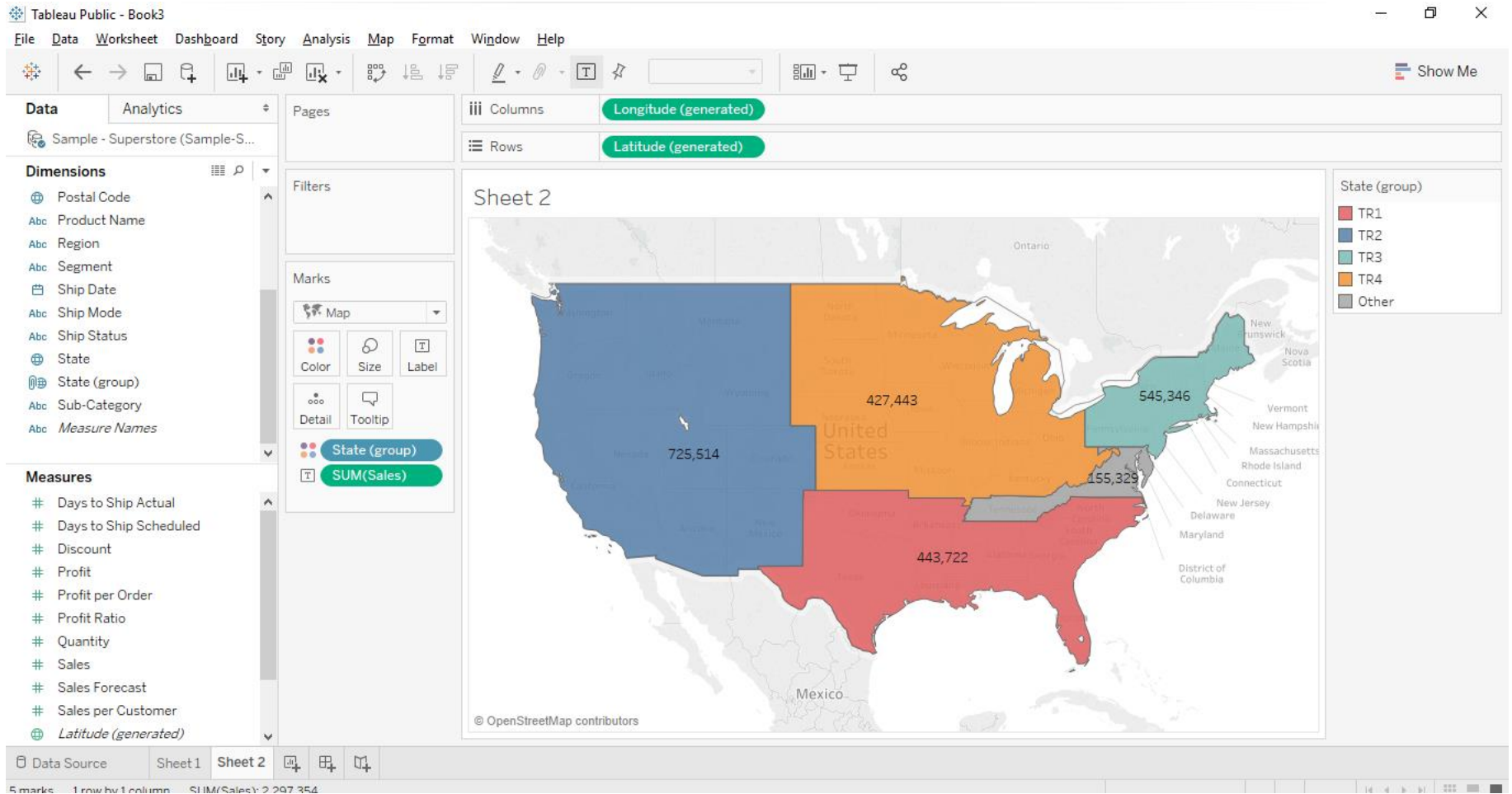


We can manipulate the maps using map options, map layers, Custom Territories



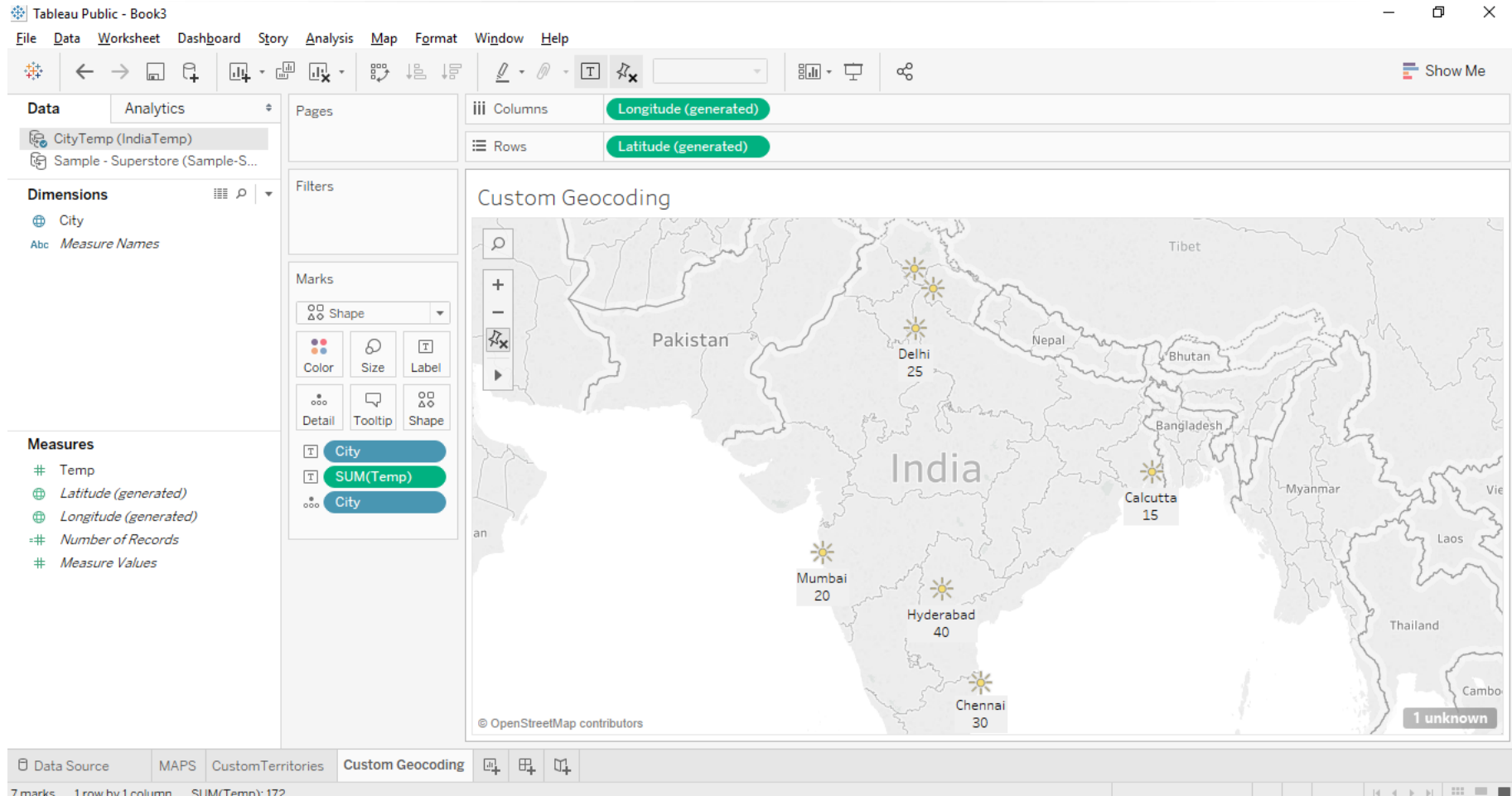
MAPS

Custom Territories : These are used to create custom groups.



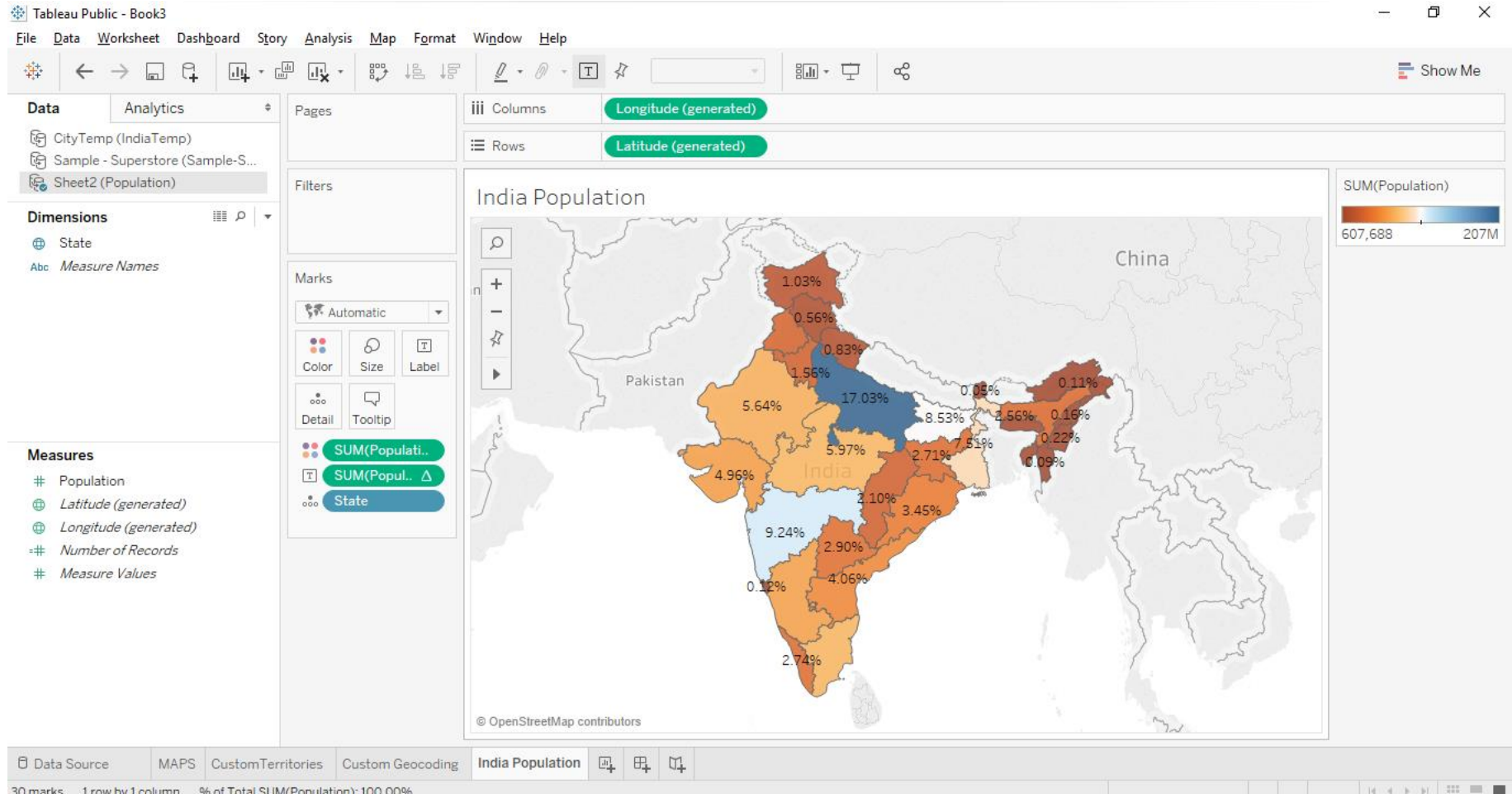
MAPS

Custom Geo-coding: These are used to customize the geographic area not recognized by tableau. groups.



MAPS

India Map: Display the population of various states in India.



Worksheet Options

- Create a new sheet. – Ctrl+M
- Rename a sheet
- Delete
- Copy & Paste
- Duplicate
- Duplicate as Crosstab
- Export
- Copy Formatting & Paste Formatting
- Describe Sheet
- Show Title
- Show Caption
- Show Summary
- Show Cards
- Show View Toolbar
- Highlighting



ASSIGNMENT



- Create a Category interactive bump chart to display subcategory wise bumps on the basis of years.
- Represent the state wise population percentage of India using MAP.
- Create a Region Interactive Horizontal Bar chart to represent Category & Subcategory wise Profit. The Chart should also display Dynamic Title & Caption.



Actions

Actions: These are the activities performed when we trigger an event.

Actions Filter : Target visual will be filtered with reference to source visual.

Tableau Public - Book3

File Data Worksheet Dashboard Story Analysis Map Format Window Help

Columns: Category
Rows: SUM(Sales)

Filters: Source

Dimensions:

- Product Name
- Region
- Segment
- Ship Date
- Ship Mode
- Ship Mode (group)
- Ship Status
- State
- State (group)
- Sub-Category
- Measure Names

Measures:

- Days to Ship Actual
- Days to Ship Scheduled
- Discount
- Profit
- Profit per Order
- Profit Ratio
- Quantity
- Sales
- Sales Forecast
- Sales per Customer

Actions

Connect sheets to external web resources using URL actions, or to other sheets in the same actions and Highlight actions.

Name	Run On	Source
Filter1	Select	Sample - Superstore (Sample-SuperstoreV1)

Add Action >

☐ Show actions for all sheets in this workbook

Target Sheets

Target

Clearing the selection will:

- ☒ Leave the filter
- ☐ Show all values
- ☐ Exclude all values

Target Filters

☐ Selected Fields ☒ All Fields

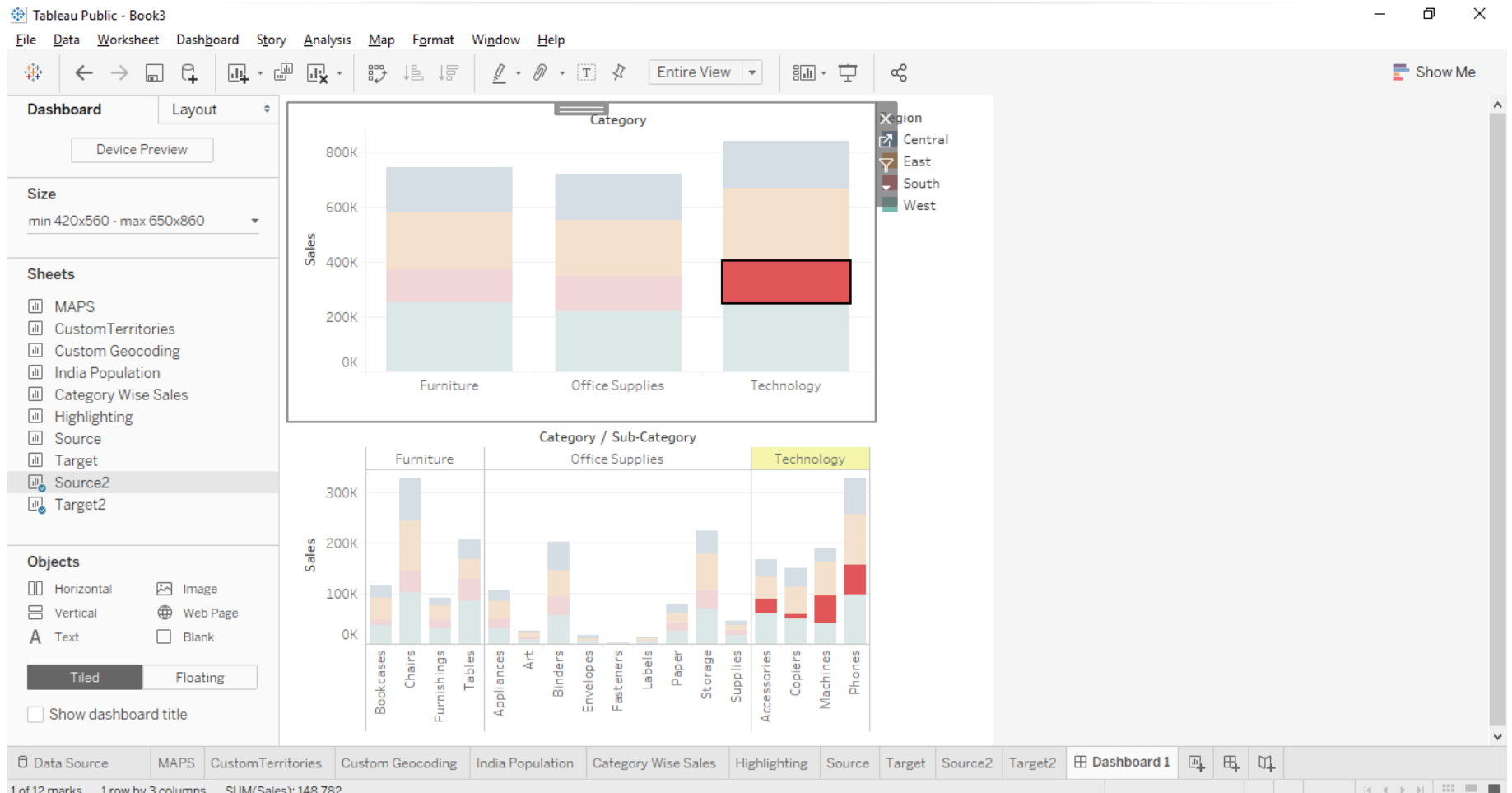
Source Field	Target Field	Target Data Source

Add Filter... Edit... Remove

OK Cancel

Actions

Actions Highlight: Using this feature highlighting will be done with some event.



Actions

Actions URL: This feature allows us to open a browser when some event occurs.

Tableau Public - Book3

File Data Worksheet Dashboard Story Analysis Map Format Window Help

Data Analytics

Orders (orders)

Search

Tables

- City
- Country
- Customer ID
- Customer Name
- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Region
- Row ID
- SC
- Segment
- Ship Date
- Ship Mode
- State
- State Set
- Sub-Category
- Measure Names
- AREA SALES

Parameters

- PSC

Columns: Longitude (generated)

Rows: Latitude (generated)

Sheet 3

Filters

Marks

- Automatic
- Colour
- Size
- Label
- Detail
- Tooltip
- SUM(Sales)
- SUM(Sales)
- State
- State
- State

Map showing US states with population data:

State	Population
Washington	138,641
Oregon	17,431
Idaho	4,382
Wyoming	1,603
Montana	5,589
North Dakota	920
South Dakota	1,316
Nebraska	7,465
Kansas	2,914
Oklahoma	19,683
Texas	170,188
New Mexico	4,784
Arizona	35,282
Utah	11,220
Colorado	32,108
Nevada	457,688
California	457,688

© 2021 Mapbox © OpenStreetMap

Actions

Actions let you create interactive relationships between data, dashboard objects, other workbook sheets and the web.

Name	Run On	Source	Fields
Hyperlink1	Menu	Sheet 3	State

Edit URL Action

Name: Hyperlink1

Source Sheets

Sheet 3

Run action on:

- Hover
- Select
- Menu

URL

https://en.wikipedia.org/wiki/<State>

Test Link

https://en.wikipedia.org/wiki/<State>

☐ URL Encode Data Values

☐ Allow Multiple Values

Item Delimiter: ,

Delimiter Escape: \

URL Target

- ☐ New Browser Tab
- ☐ Web Page Object
- ☒ Browser Tab if No Web Page Object Exists

OK Cancel



Actions

Actions Parameter : This feature allows us to dynamically set the value of the parameter.

- Create a parameter
- Create a Calculated field
- Assign action to assign the value to the parameter

The screenshot displays the Tableau Desktop interface with a horizontal bar chart titled 'ACTION PARAMETER'. The chart shows sales data for various categories: Technology (Phones, Machines, Accessories, Copiers), Furniture, and Office Supplies. The x-axis represents 'Sales' from 0K to 800K. The y-axis lists the categories. The 'Columns' shelf contains 'SUM(Sales)' and the 'Rows' shelf contains 'Category' and 'SC'.

Overlaid on the chart are two dialog boxes:

- Actions**: A table listing actions. The first row shows 'Parameter1' with 'Run On' set to 'Select', 'Source' set to 'ACTION PARAMETER', and 'Fields' set to 'PSC'.
- Edit Parameter Action**: A dialog for configuring the action. The 'Name' is 'Parameter1'. The 'Source Sheets' list includes 'ACTION PARAMET...'. The 'Run action on:' options are 'Hover', 'Select' (selected), and 'Menu'. The 'Target' section shows 'Parameter' set to 'PSC' and 'Field' set to 'None'.

The 'Parameters' pane on the left shows a parameter named 'PSC'.

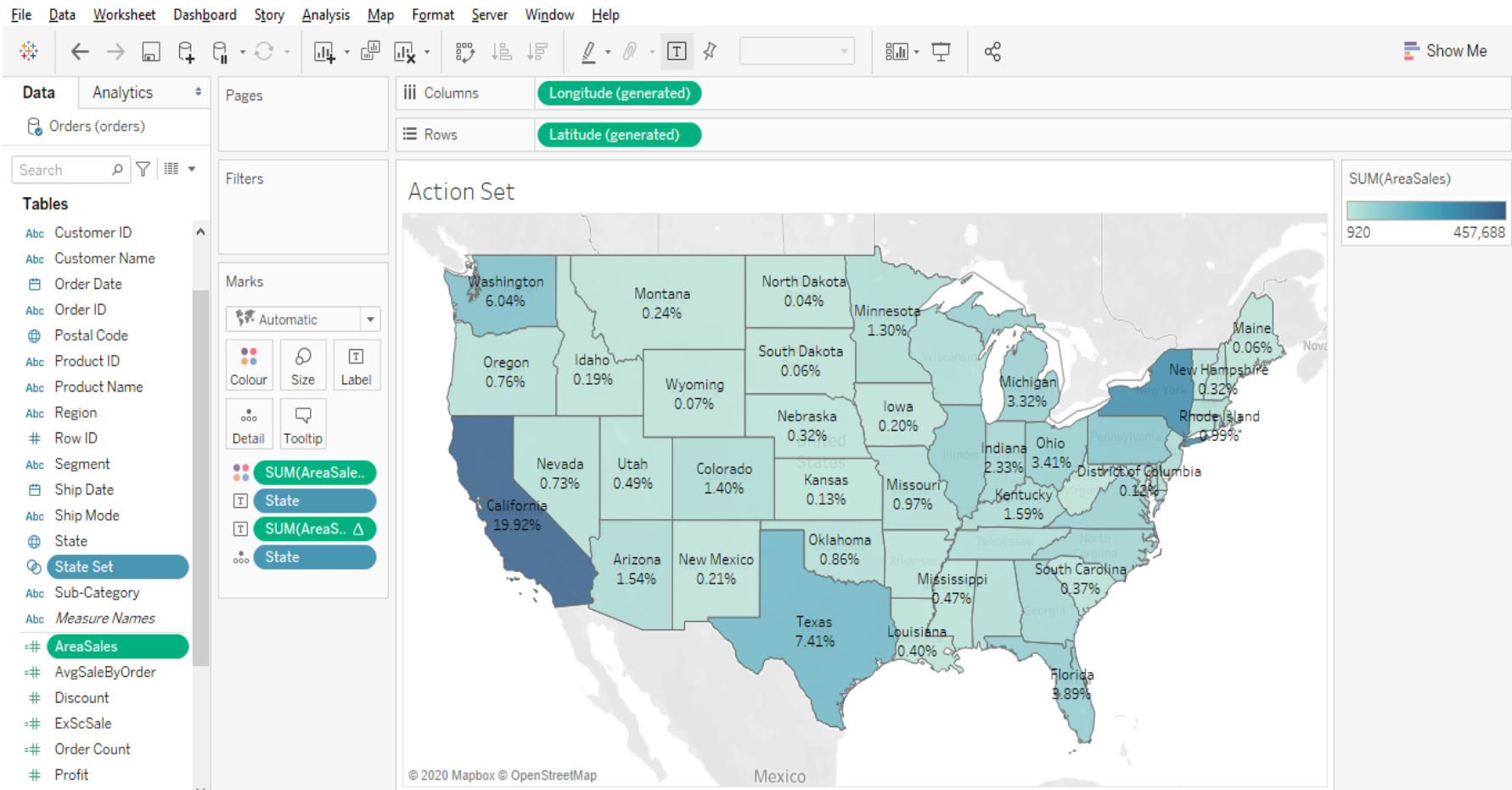
Category	Sub-Category	Sales
Technology	Phones	~280,000
	Machines	189,239
	Accessories	167,380
	Copiers	149,528
Furniture		~742,000
Office Supplies		~9,047



Actions

Actions Set: This feature allows us to dynamically pass the values to the set.

- Create a Set
- Create a Calculated field
- Assign action to set



ASSIGNMENT



- Using India Map Represent state wise percentage of Covid cases.
- In the another sheet create a bar chart to represent state wise Total Covid Cases, Recovered & Deaths.
- Use action so that the bar graph representation of Covid details should be displayed for the highlighted state.
- In sheet 1 represent Category & Region wise profit, category should be bifurcated on the basis of region.
- In sheet 2 represent Category , Subcategory & Region wise profit.
- Implement an Action on sheet 1 so that sheet 2 which is filtered on region & subcategory for the selected region in sheet 1.
- Create a US Map to display the %age sales contribution of each state. Implement an set action to give the sales comparison of the selected area.
- Represent segment wise profit using a barchart, Implement a action Parameter so that it can be drill down to region.

