

Calculations

Table Calculations (Percentage of Total): These are the calculations we do on the output received.

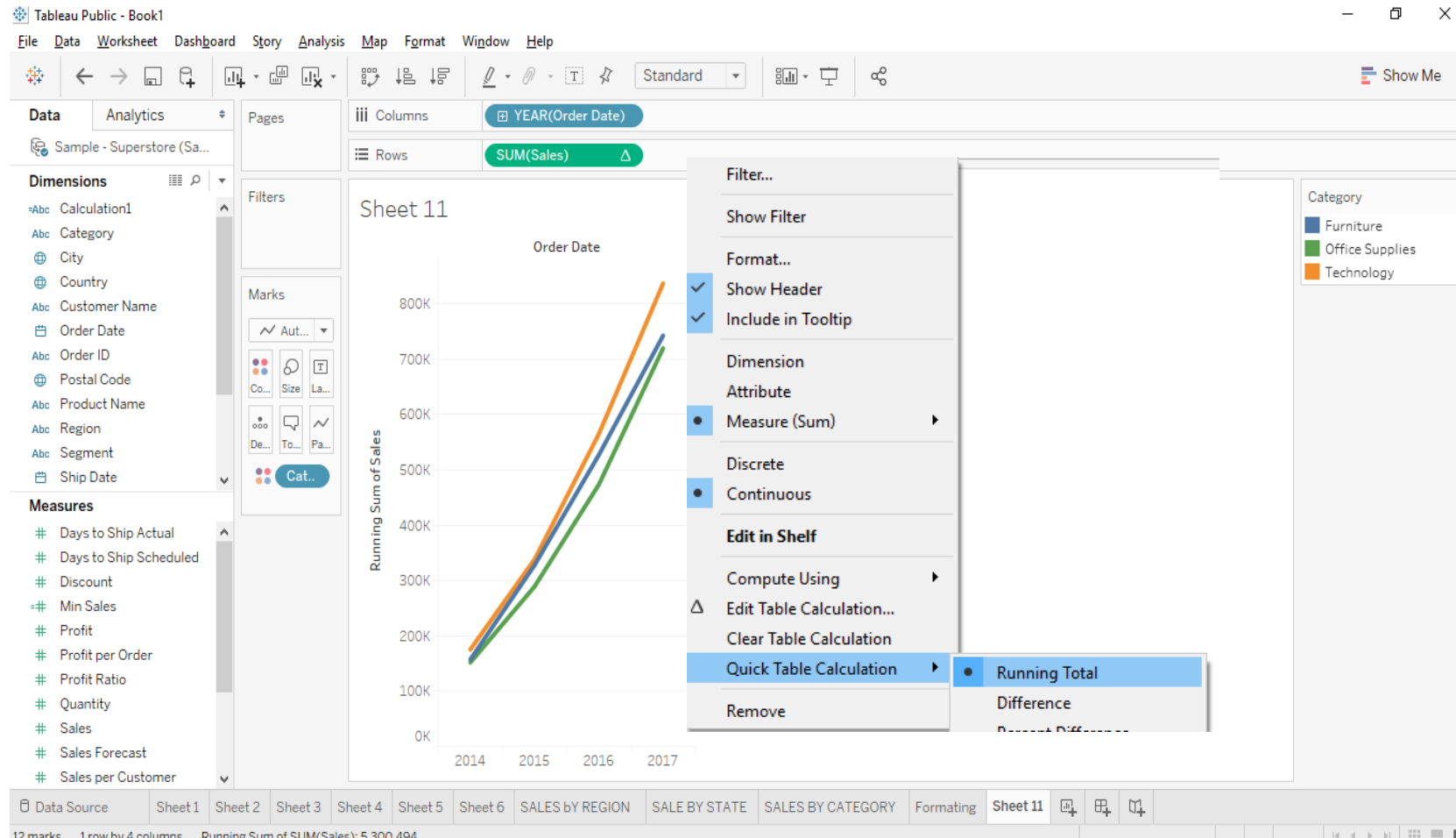
The screenshot shows the Tableau Public interface. The 'Columns' shelf contains 'Sub-Category'. The 'Rows' shelf is empty. The 'Marks' card is set to 'Automatic'. A context menu is open over the 'Marks' card, showing the 'Quick Table Calculation' option selected. The 'Percent of Total' option is highlighted in the submenu. The background view shows a table with 'Sub-Category' on the rows and a percentage value on the columns.

Sub-Category	% of Total
Accessories	7.29%
Appliances	4.68%
Art	1.18%
Binders	8.85%
Bookcases	5.00%
Chairs	14.30%
Copiers	6.51%
Envelopes	0.72%
Fasteners	0.13%
Furnishings	3.99%
Labels	0.54%
Machines	8.24%
Paper	3.42%
Phones	14.37%
Storage	9.74%
Running Total	2.03%
Difference	9.01%
Percent Difference	100.00%



Calculations

Table Calculations (Running Total): These are the calculations we do on the output received.



Calculations

Table Calculations (Percentage Difference) : Gives the percentage difference between previous & current value

The screenshot displays the Tableau Desktop interface. The main view is a table titled "PER DIFF" showing sales data by year and month. The columns are "Year of Order Date", "Month of Order Date", and "% Difference in Sales from...". The rows are grouped by year (2014) and then by month (January to December). The table shows the percentage difference in sales from the previous month.

Table Data:

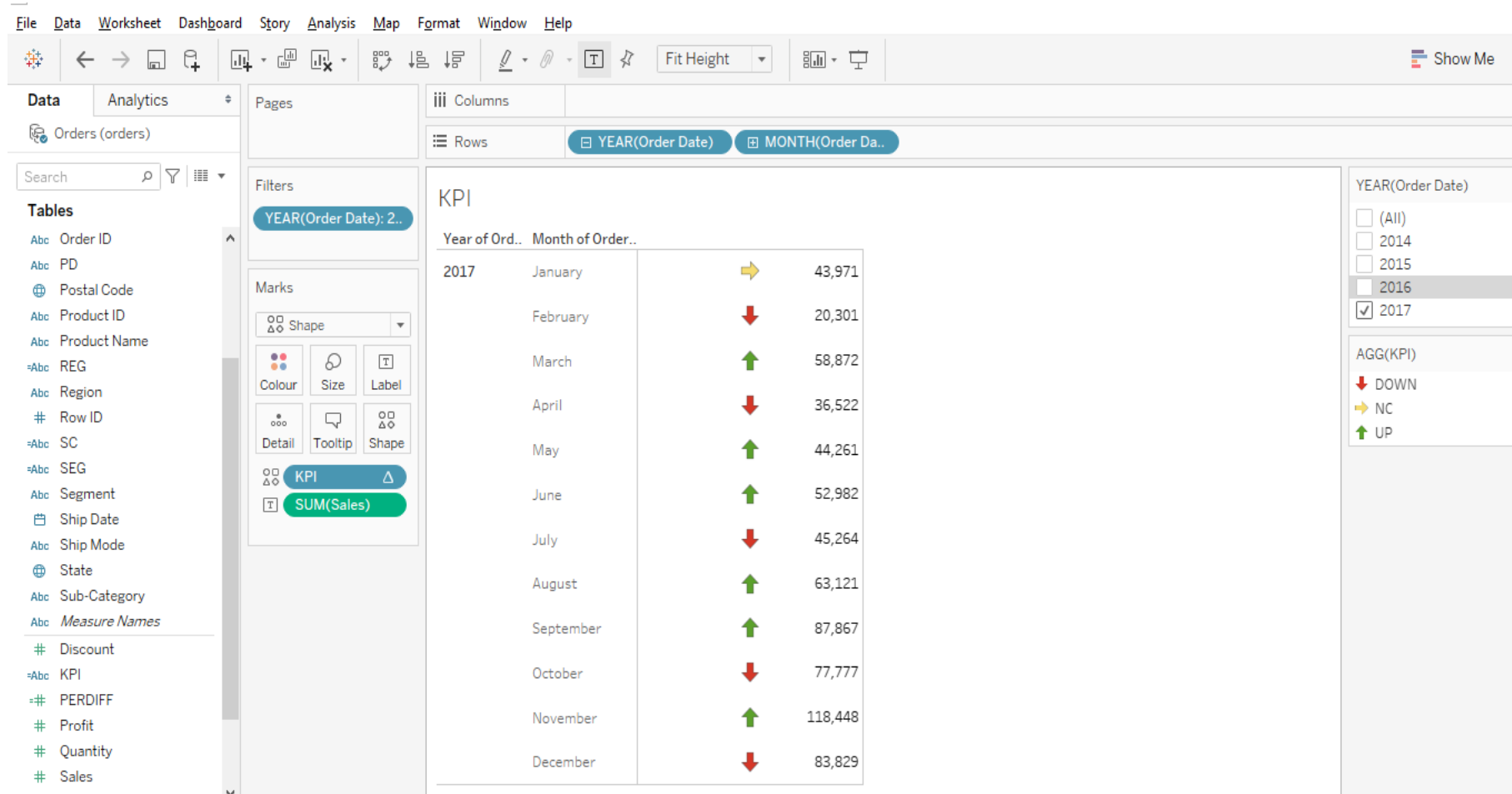
Year of Order Date	Month of Order Date	Sales	% Difference in Sales from...
2014	January	14,237	
	February	4,520	-68.25%
	March	55,691	1,132.13%
	April	28,295	-49.19%
	May	23,648	-16.42%
	June	34,595	46.29%
	July	33,946	-1.88%
	August	27,909	-17.78%
	September	81,777	193.01%
	October	31,453	-61.54%
	November	78,629	149.98%
	December	69,546	-11.55%

The interface includes a sidebar with "Data" and "Analytics" tabs, a "Columns" shelf with "Measure Names", and a "Rows" shelf with "YEAR(Order Date)" and "MONTH(Order Date)". The "Marks" shelf is set to "Automatic". The "Filters" shelf contains "YEAR(Order Date): 2014" and "Measure Names". The "Measure Values" shelf contains "SUM(Sales)". The "Parameters" shelf contains "P1".



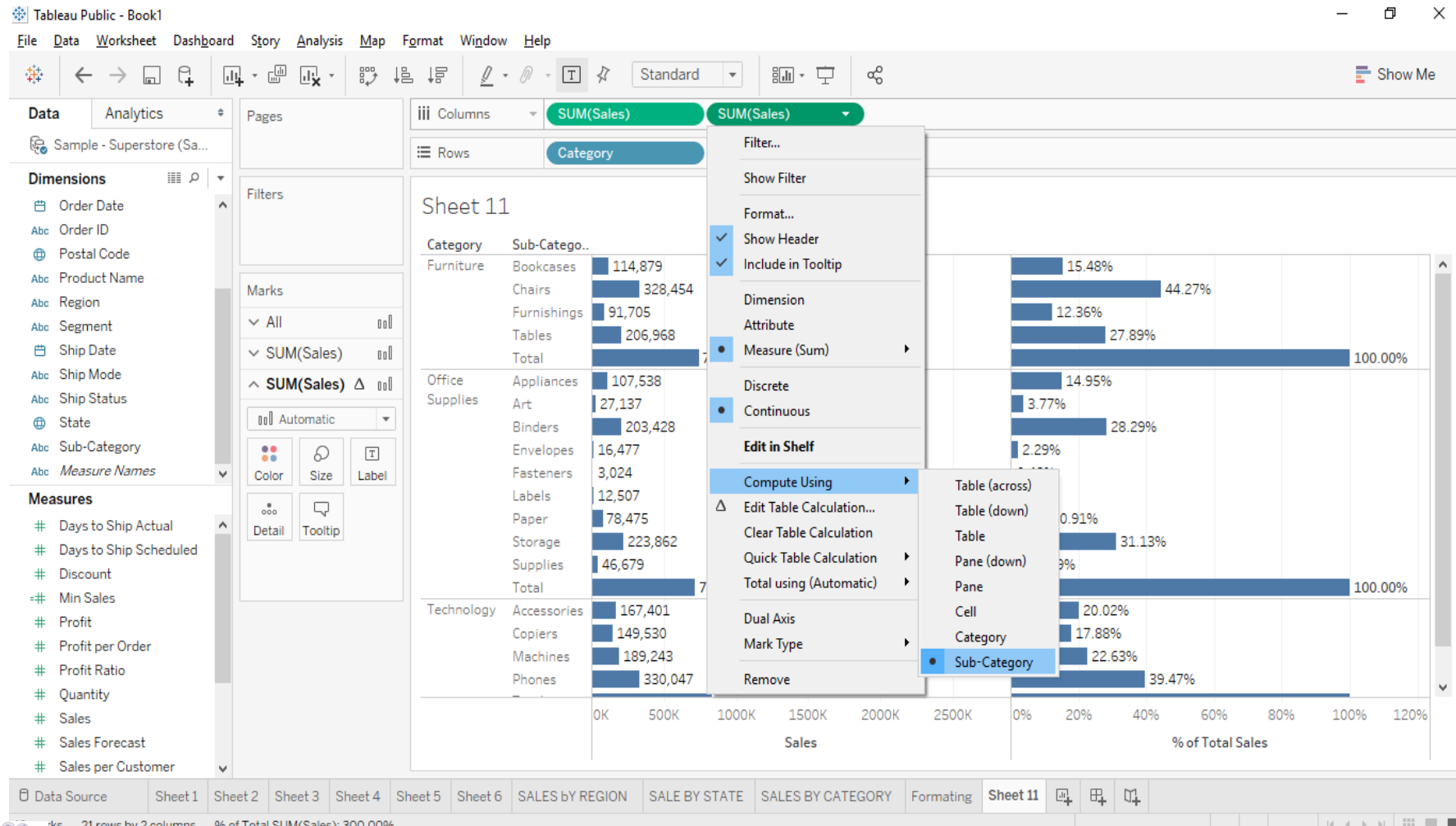
Calculations

KPI (Key Performance Indicators) : highlight the trend of the value.



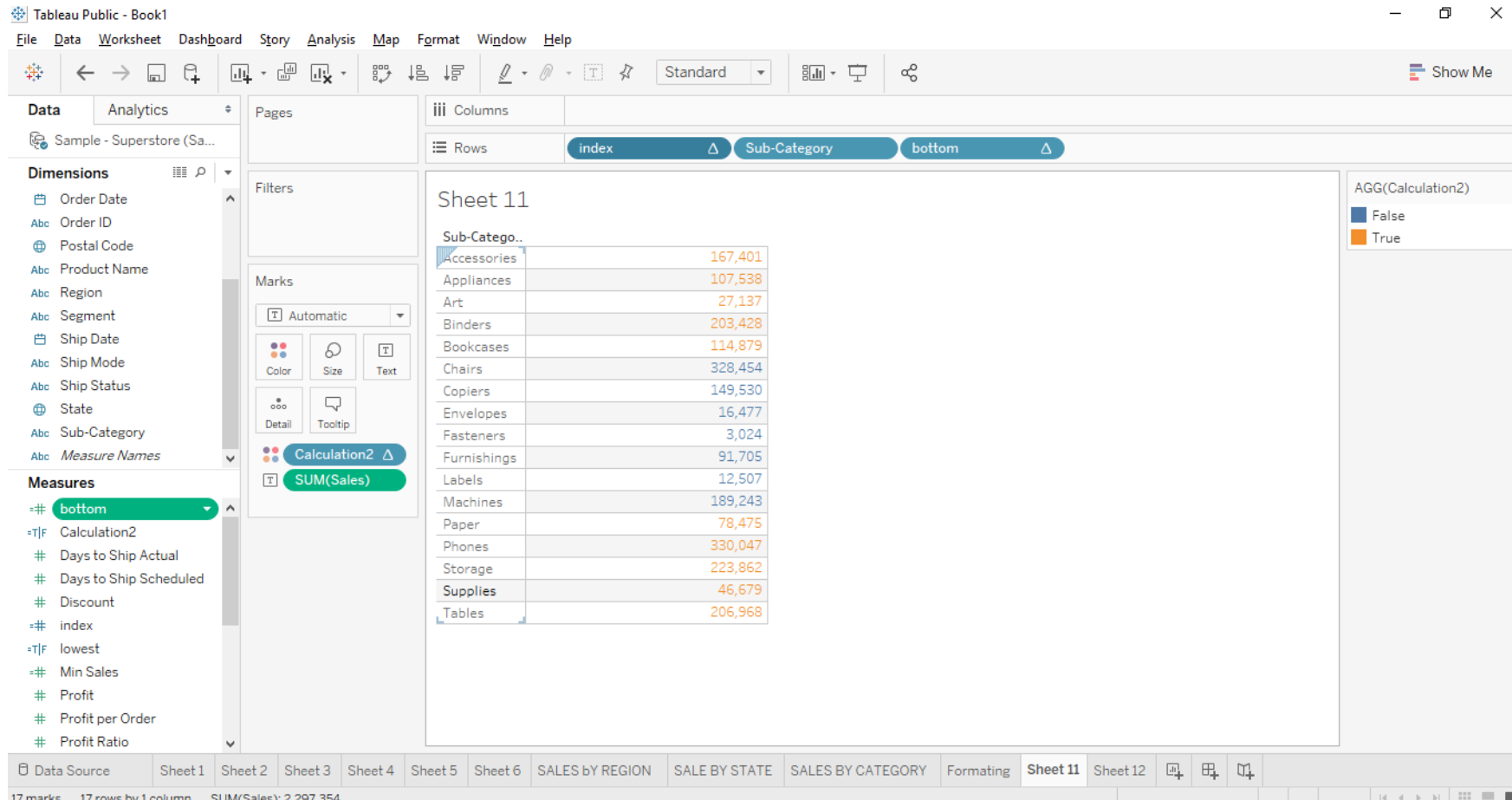
Calculations

Compute Using: It is the advance feature of quick table calculations.



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

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

AGG(ProfitCat..

SUM(Profit)

Columns

Rows

Sub-Category

AGG(ProfitCategory)

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.

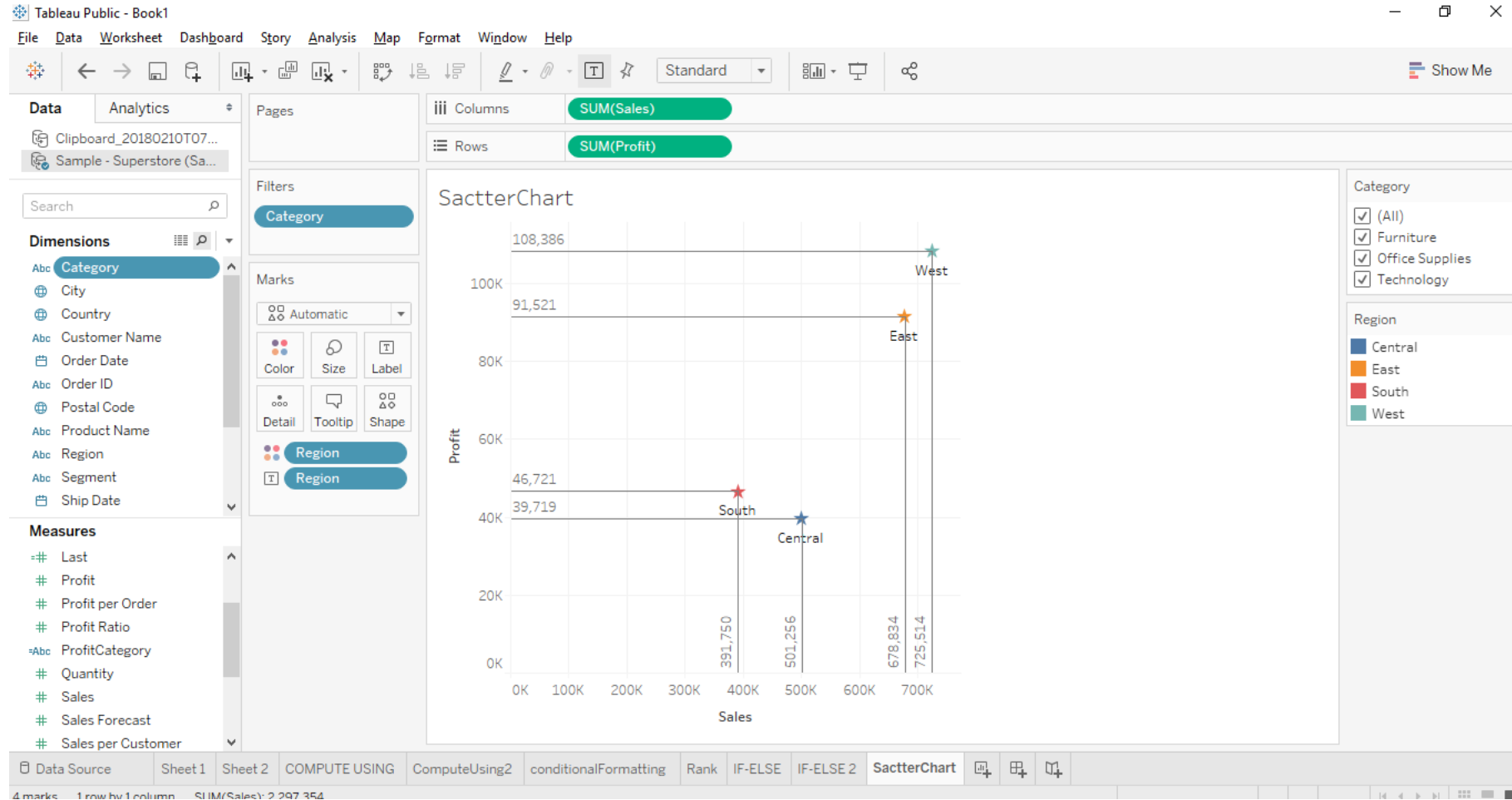
If we select Dimension First and Measure second we will get a text.

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



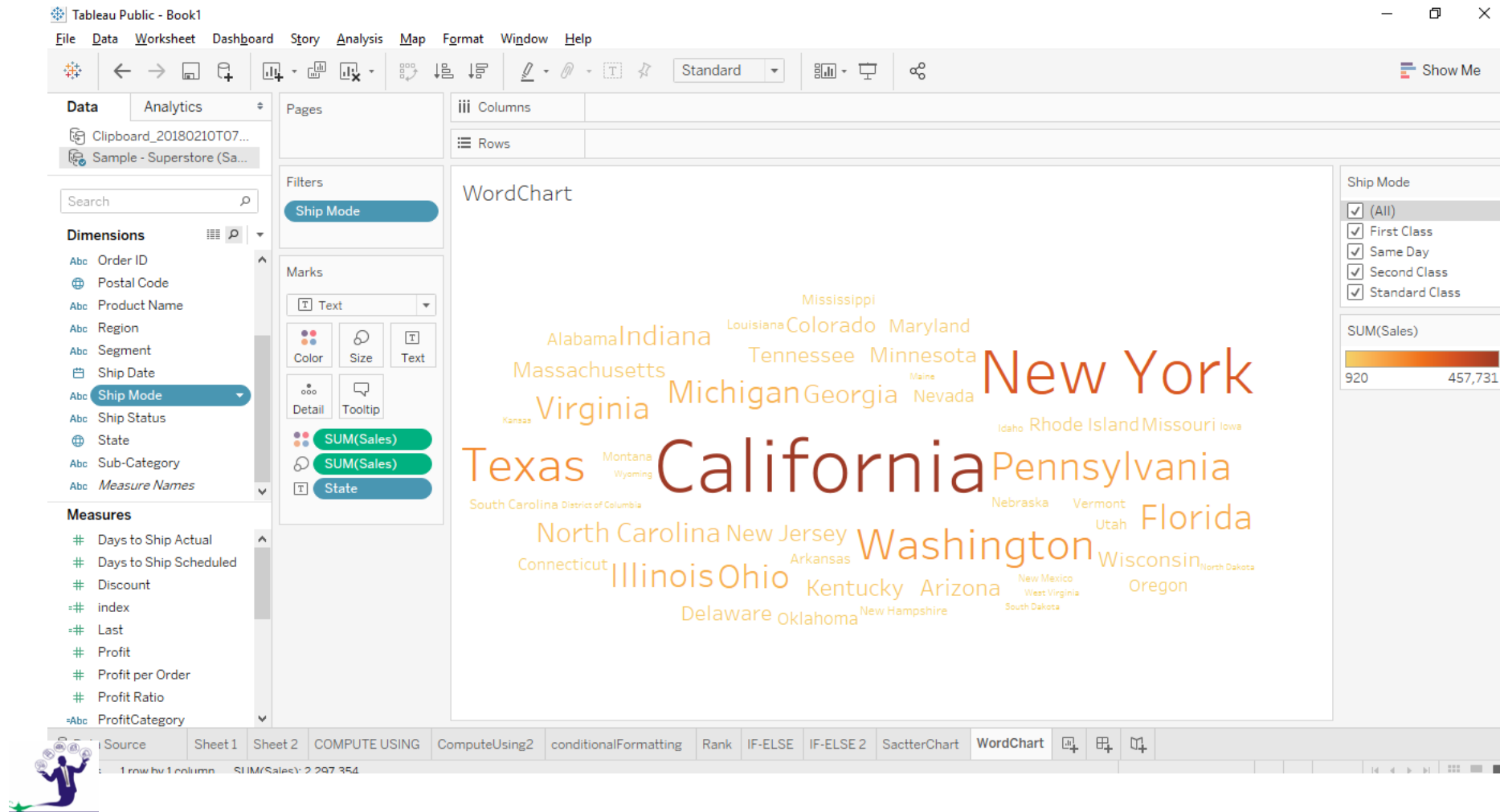
CHARTS

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



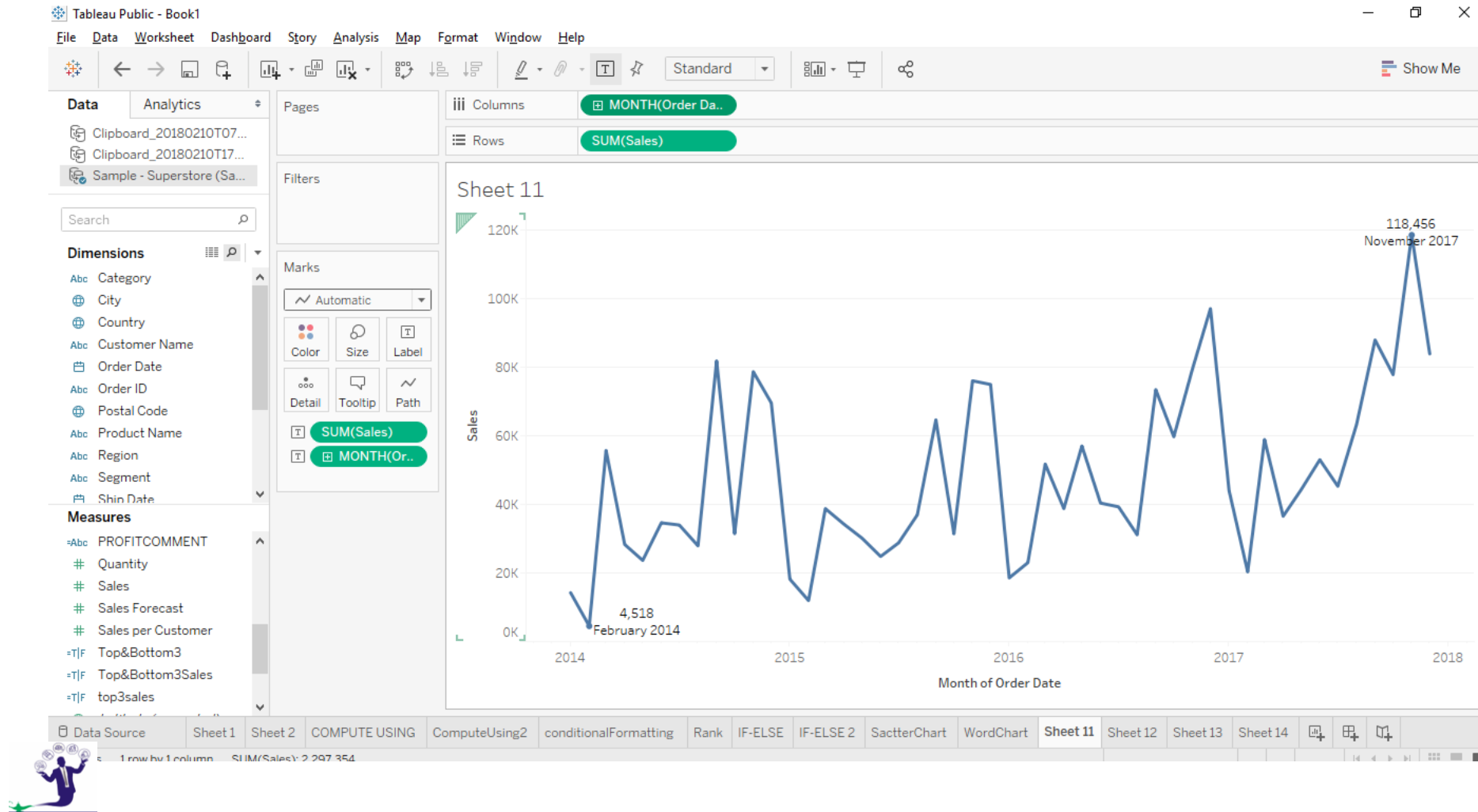
CHARTS

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



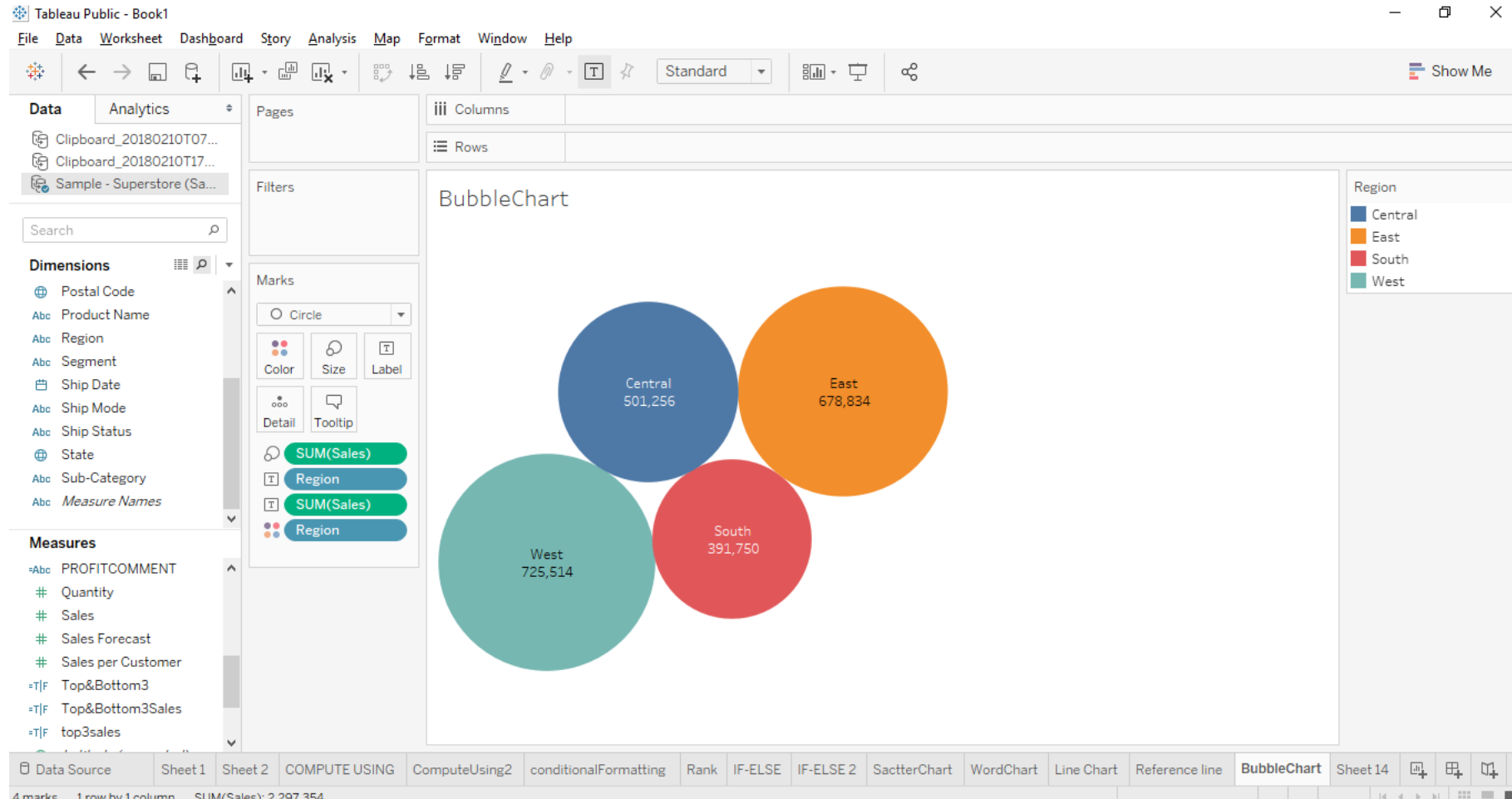
CHARTS

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).



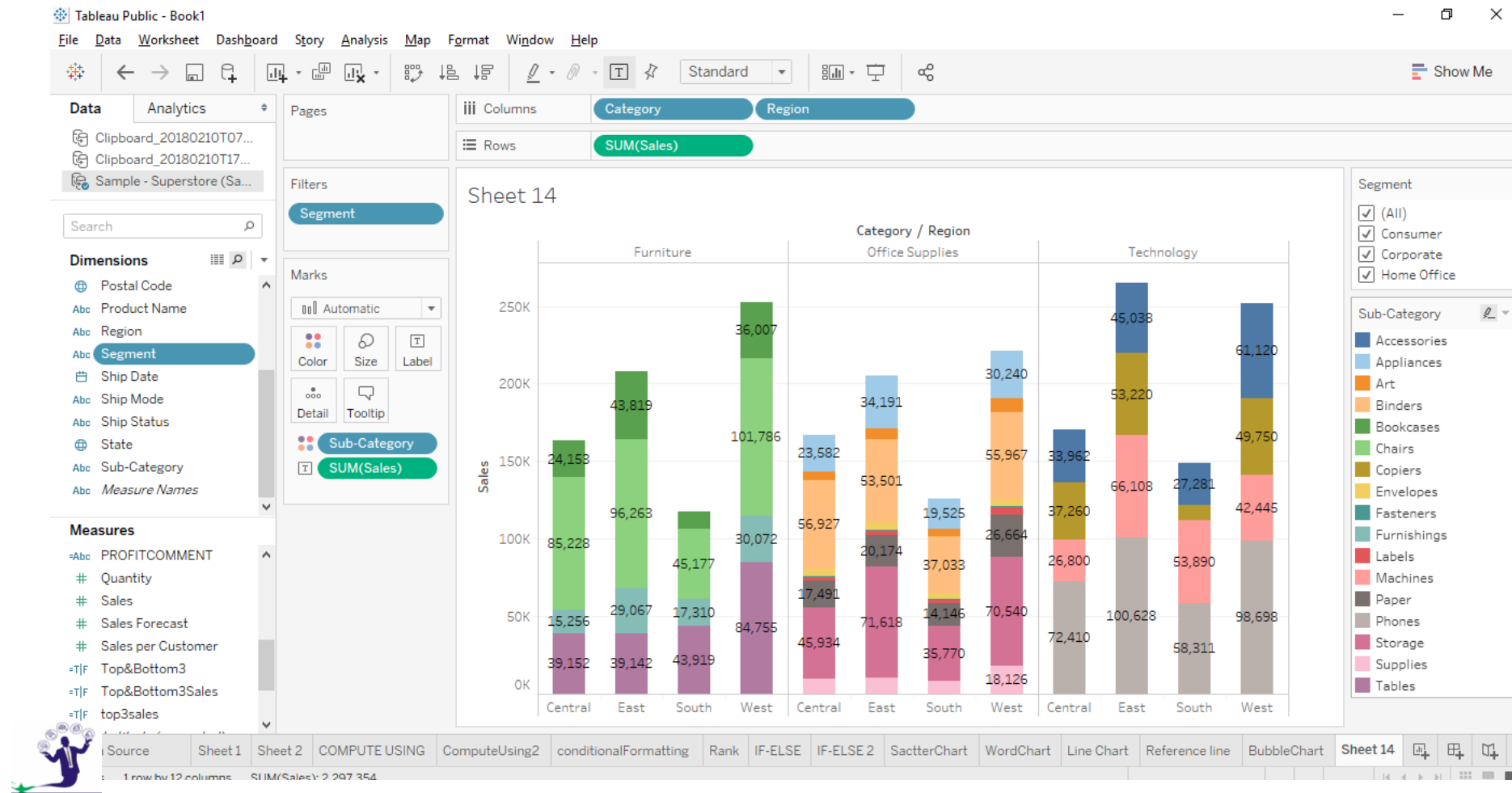
CHARTS

Bubble Chart: Circle represent dimensions & Size represents measures.



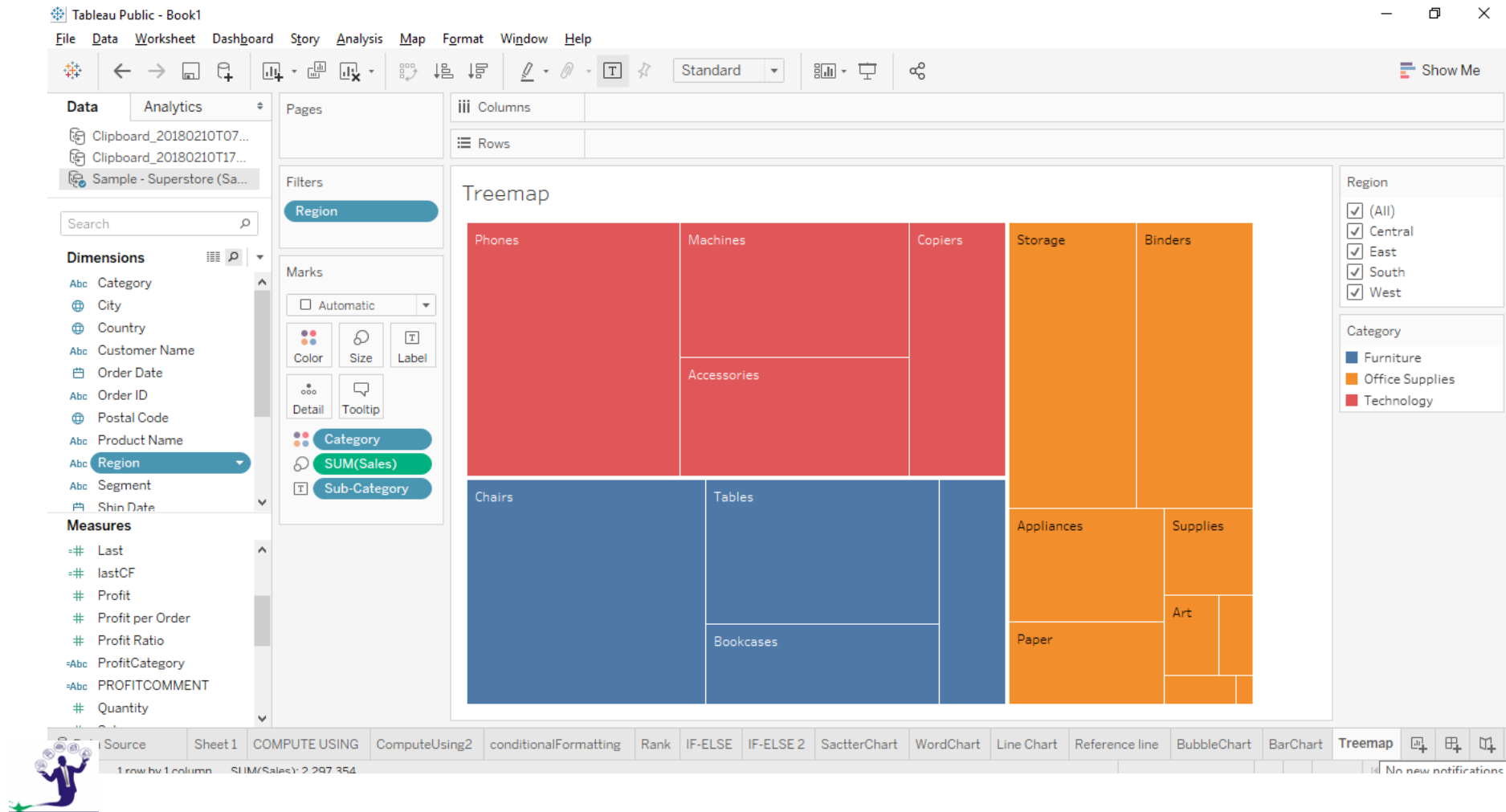
CHARTS

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.



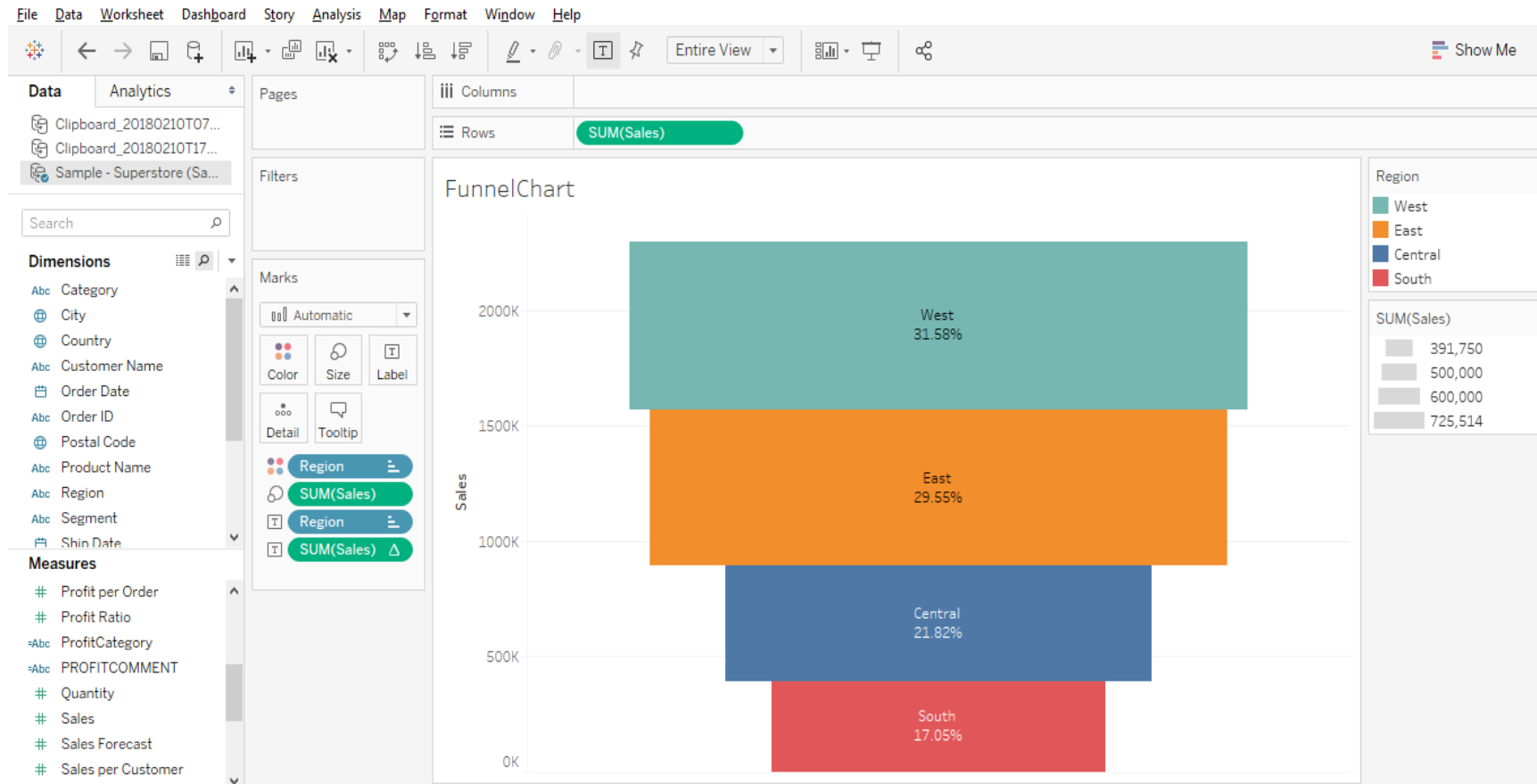
CHARTS

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



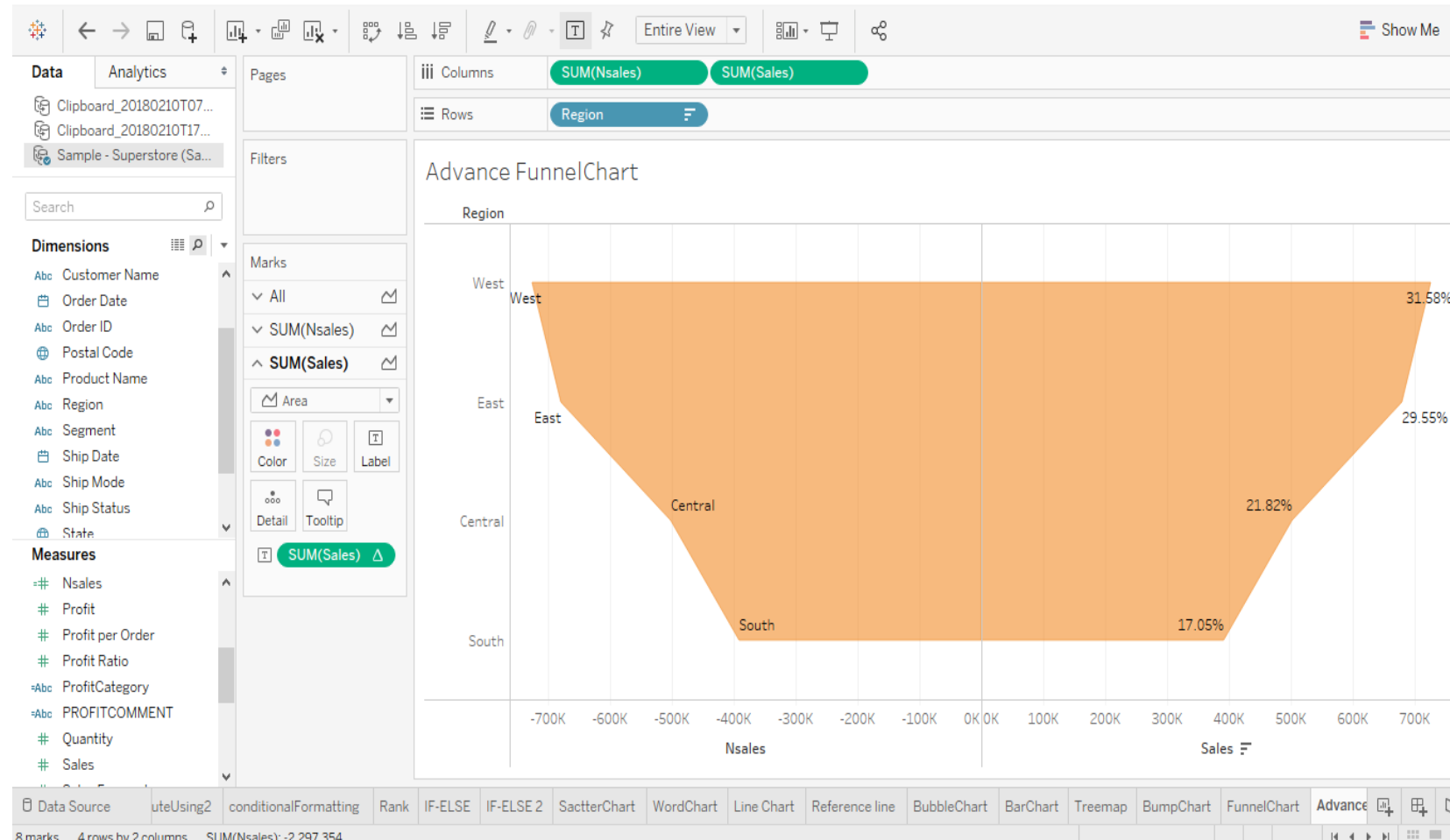
CHARTS

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



CHARTS

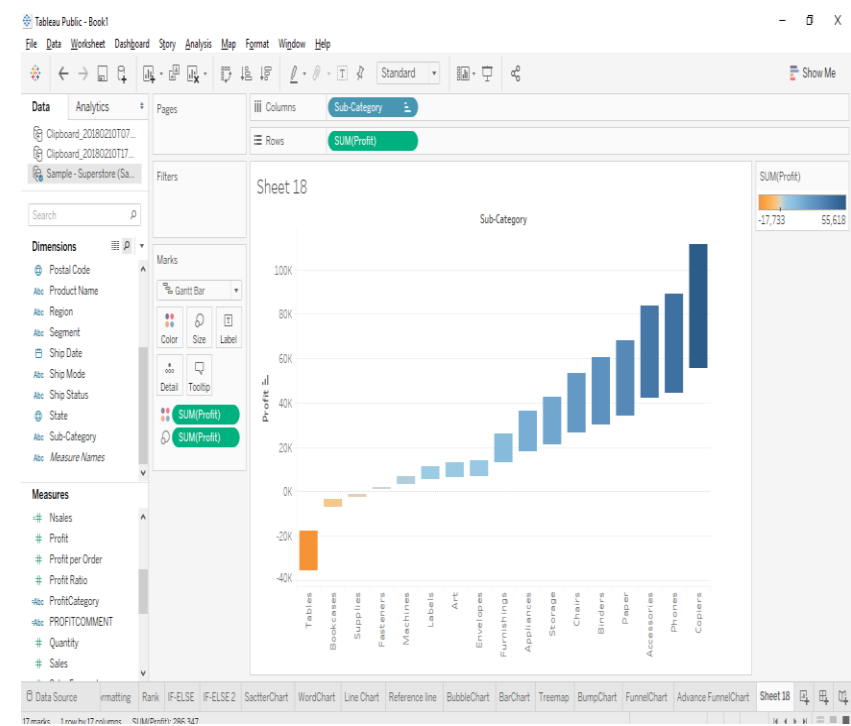
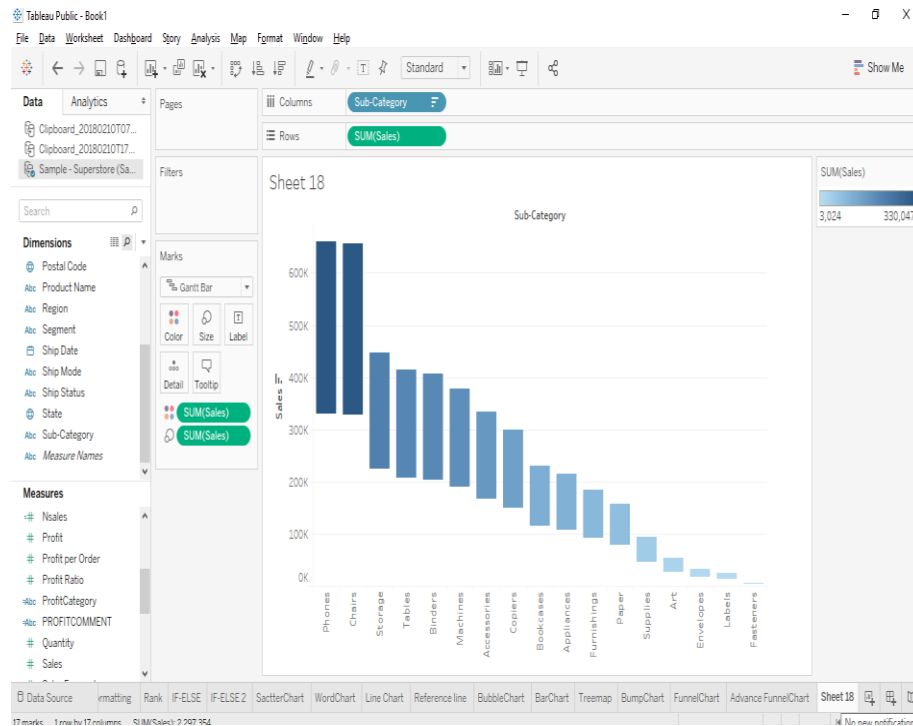
Advanced Funnel Chart: It is used to display a measure at different levels / sectors.



CHARTS - WATERFALL

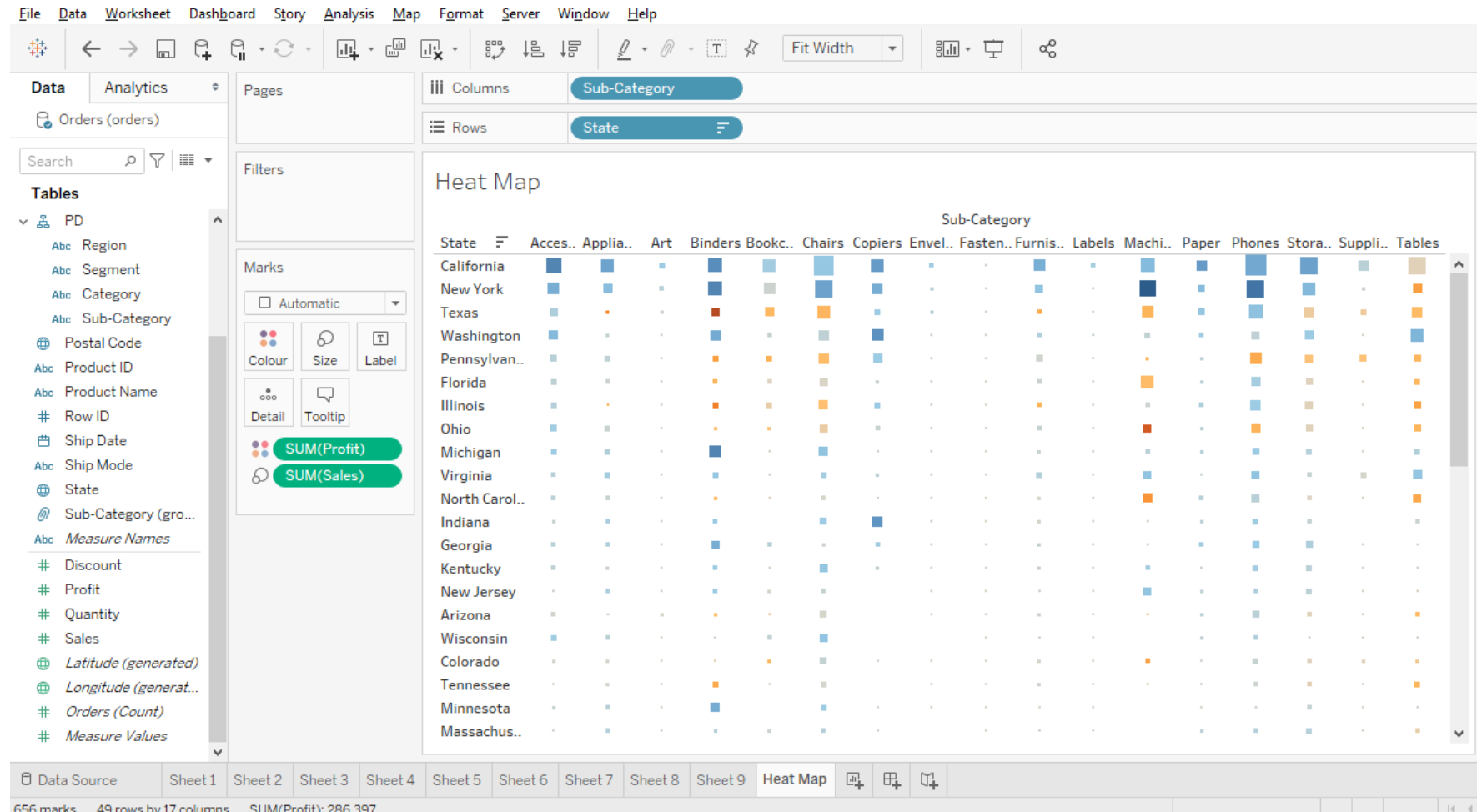
Waterfall Chart: These effectively display the cumulative effect of sequential positive and negative values, thus giving a view of water fall.

To create this chart we use Gantt Bar chart.



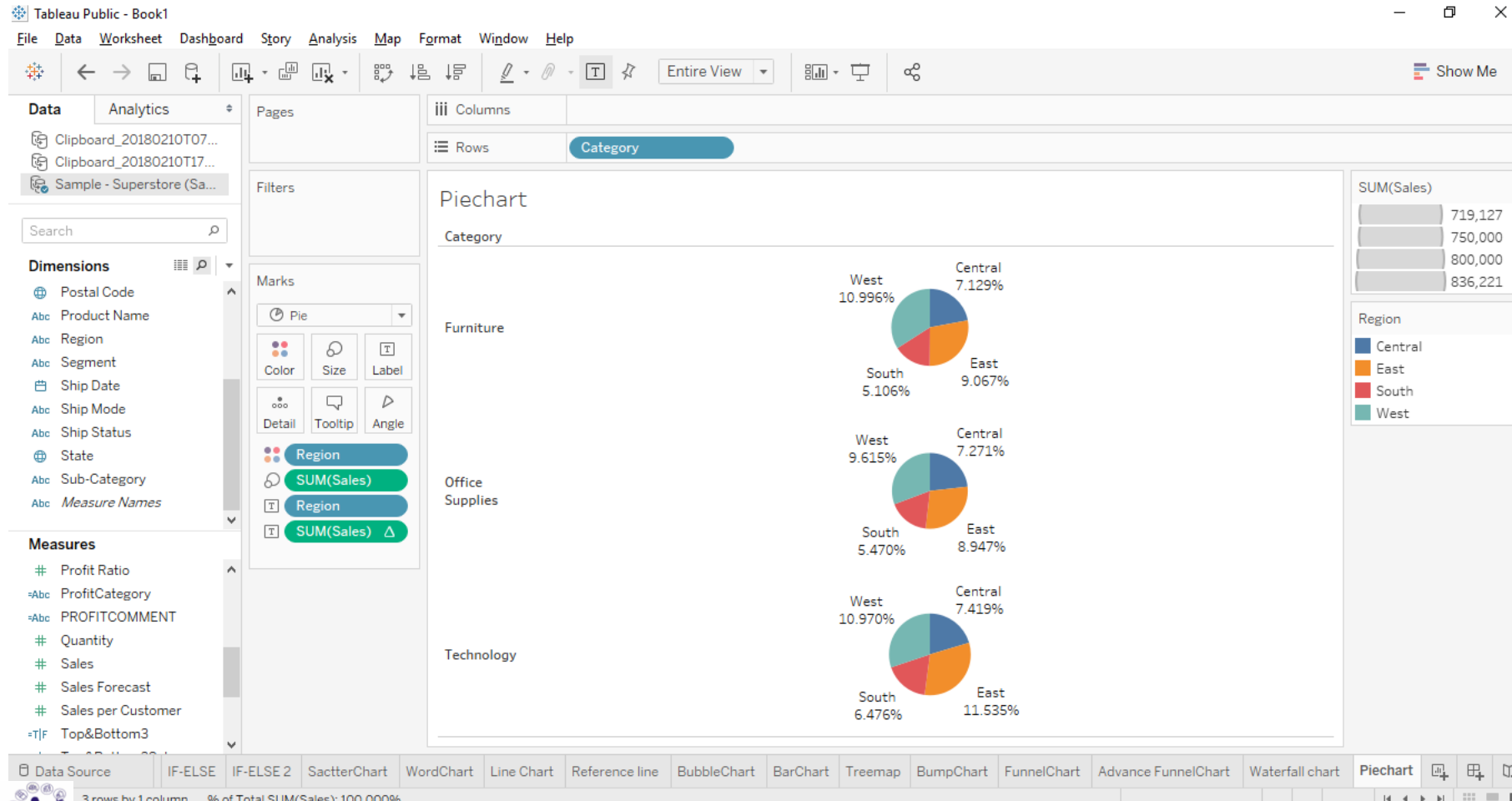
CHARTS - Heat Map

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



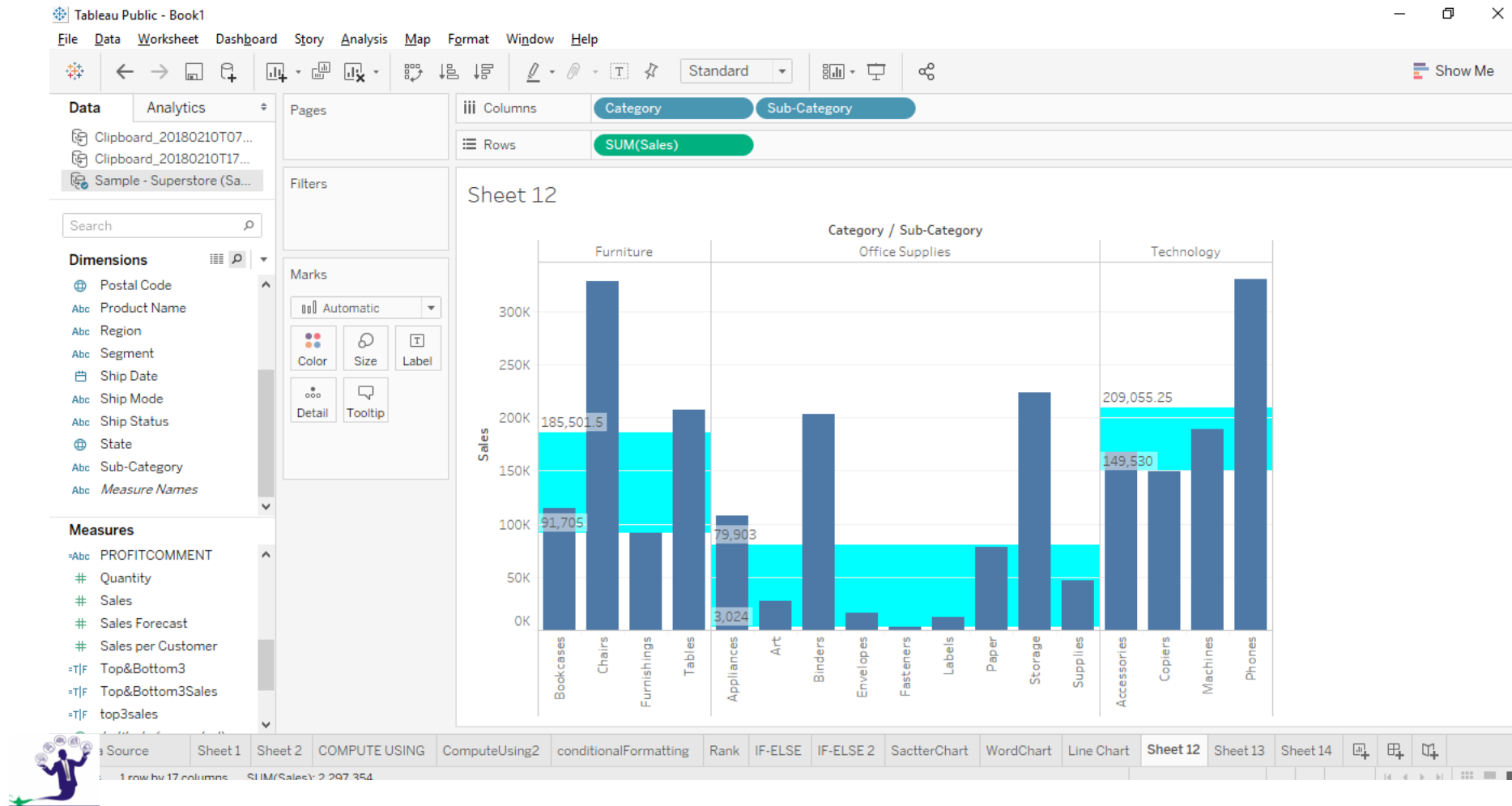
CHARTS - PIE CHART

Pie Chart: Comparatively displays the measure value.



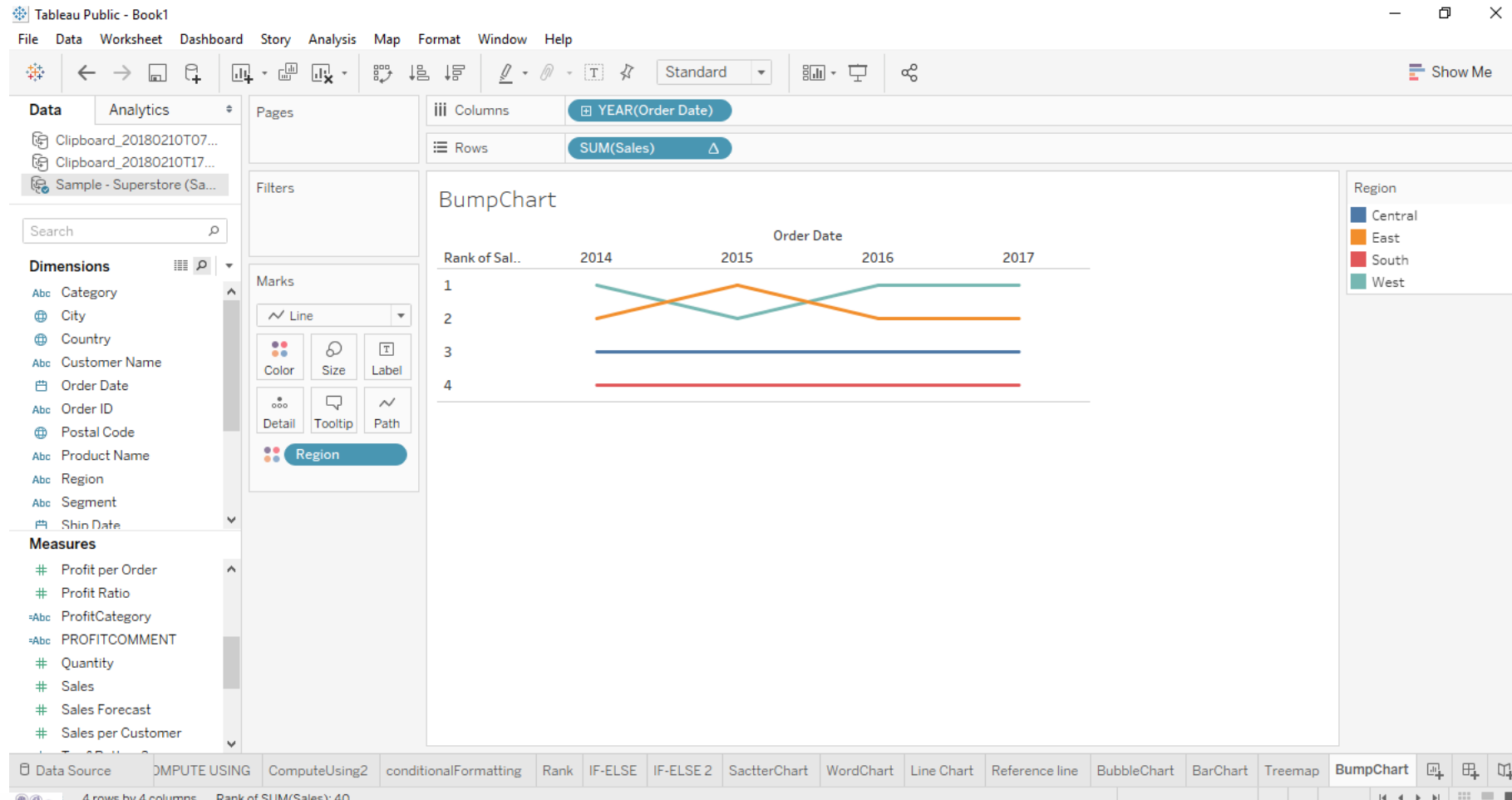
CHARTS

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

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



ASSIGNMENT

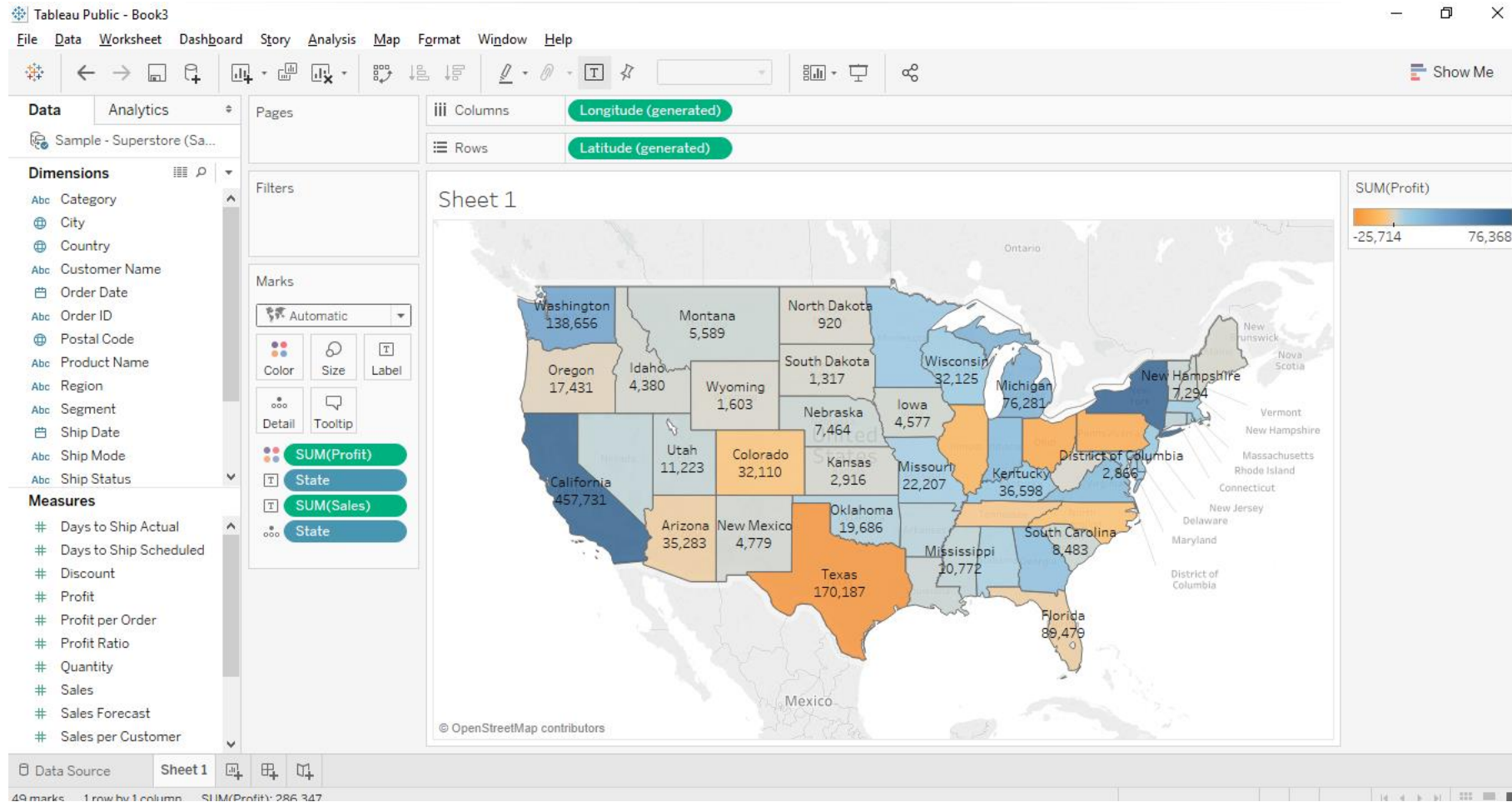


1. Create a Scatter chart to represent profit & sales for each segment.
2. Represent State wise sales using Word map.
3. Use a line graph to represent monthly Profit, Min & Max profit along with the month should be displayed.
4. Represent profit using a Bar chart category & Subcategory wise, focus should 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.

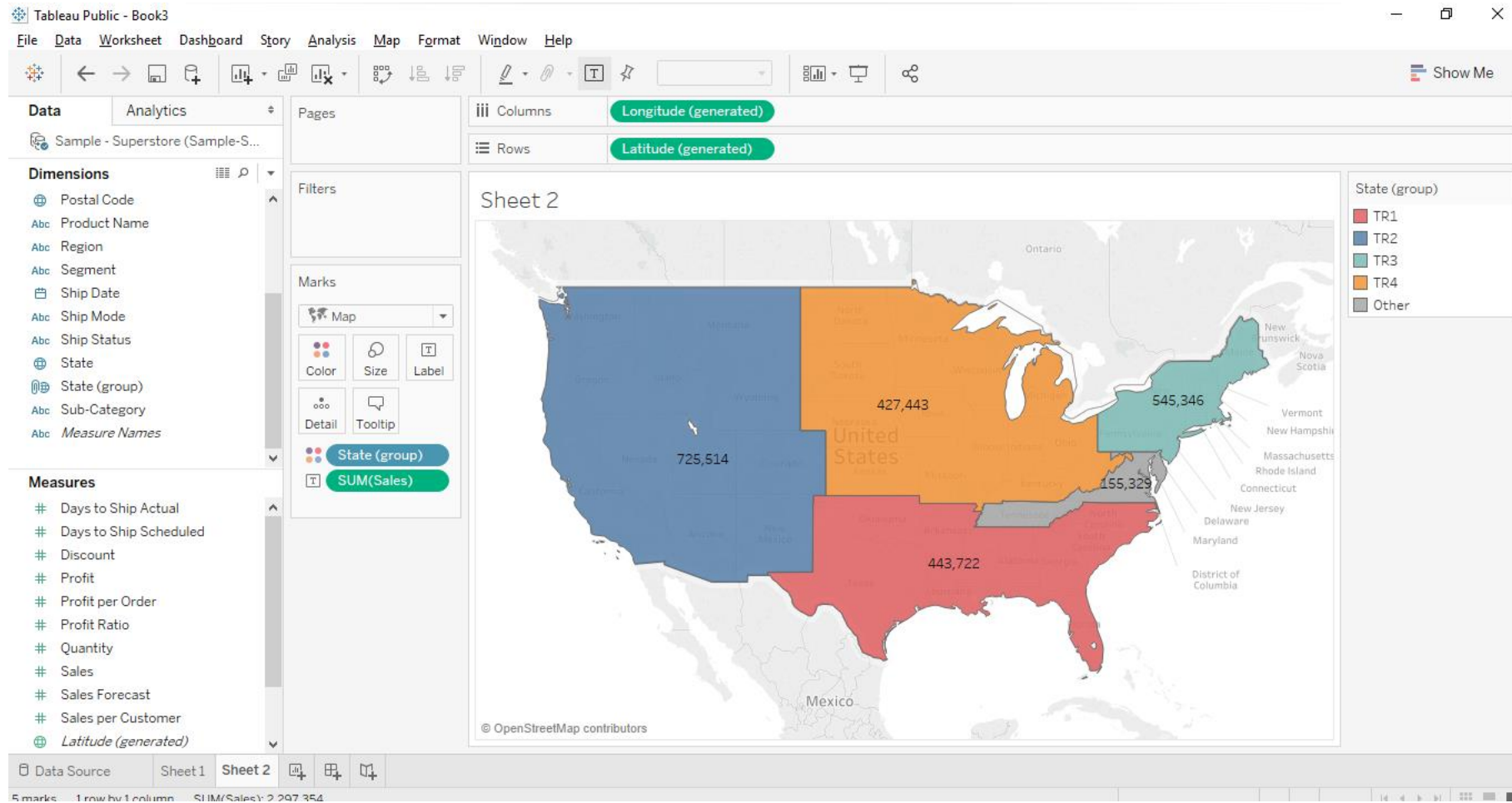


We can manipulate the maps using map options, map layers, Custom Territories



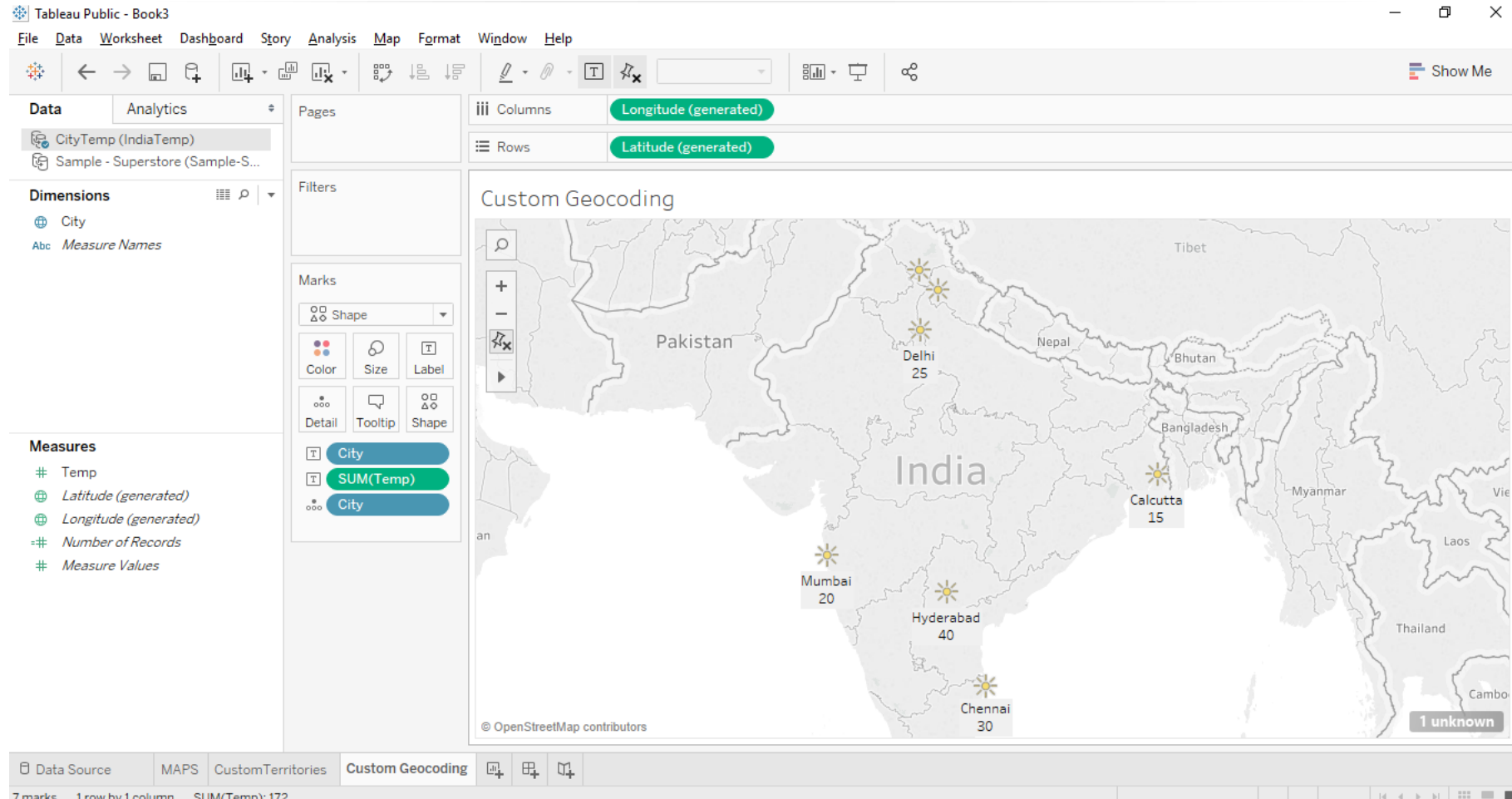
MAPS

Custom Territories : These are used to create custom groups.



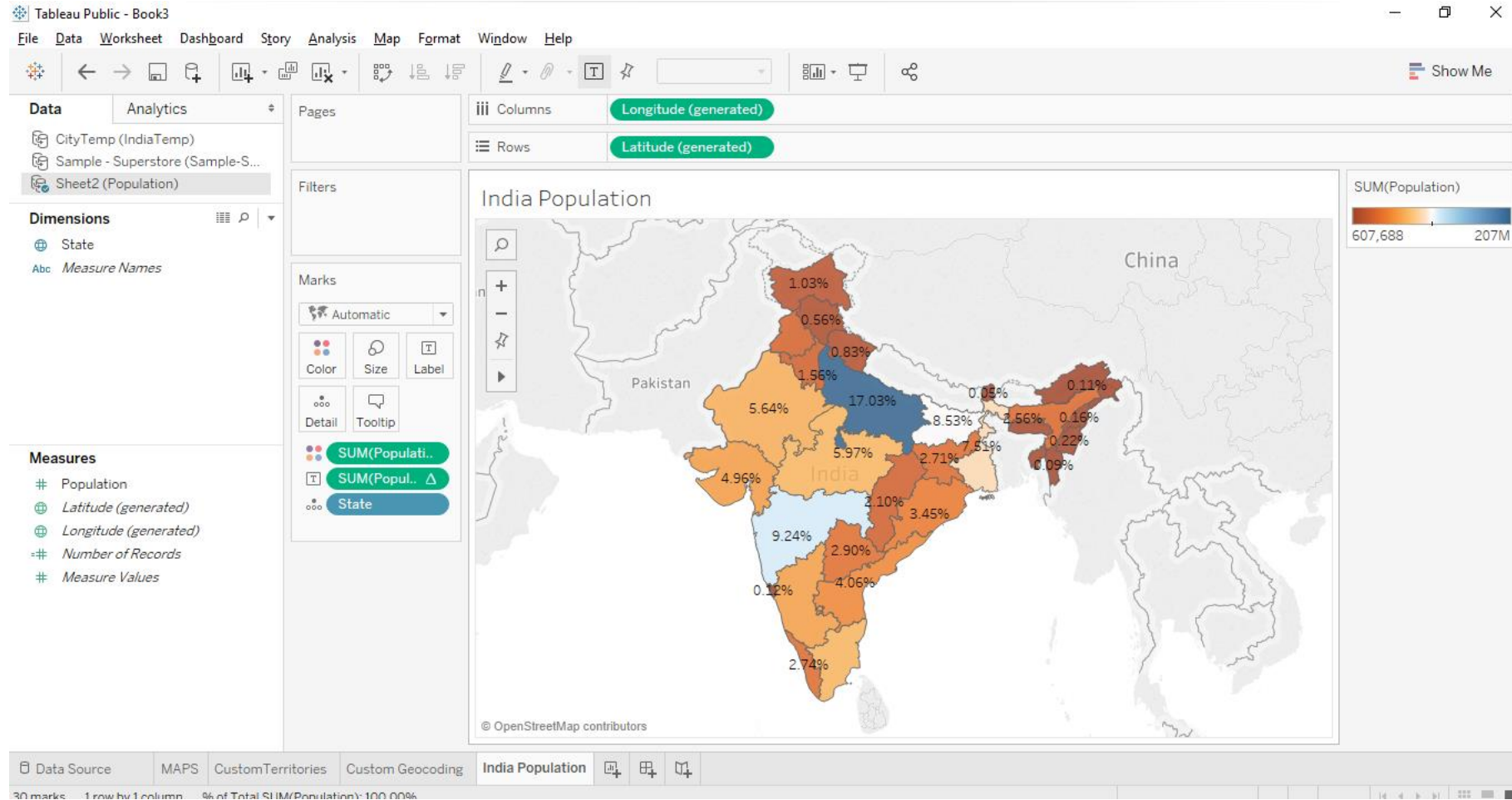
MAPS

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 sales 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.

