

# 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.



# 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

Data Analytics

CityTemp (IndiaTemp)

Sample - Superstore (Sample-S...

Sheet2 (Population)

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

Columns

Category

Rows

SUM(Sales)

Filters

Source

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 (Sampl...

Add Action >

Show actions for all sheets in this workbook

200K

100K

0K

Furniture

Office Supplies

Technology

Edit Filter Action

Name: Filter1

Source Sheets:

Sample - Superstore (Sample-SuperstoreV1)

Run action on:

Category Wise Sales

Custom Territories

Highlighting

MAPS

Source

Target

Select

Menu

Run on single select only

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

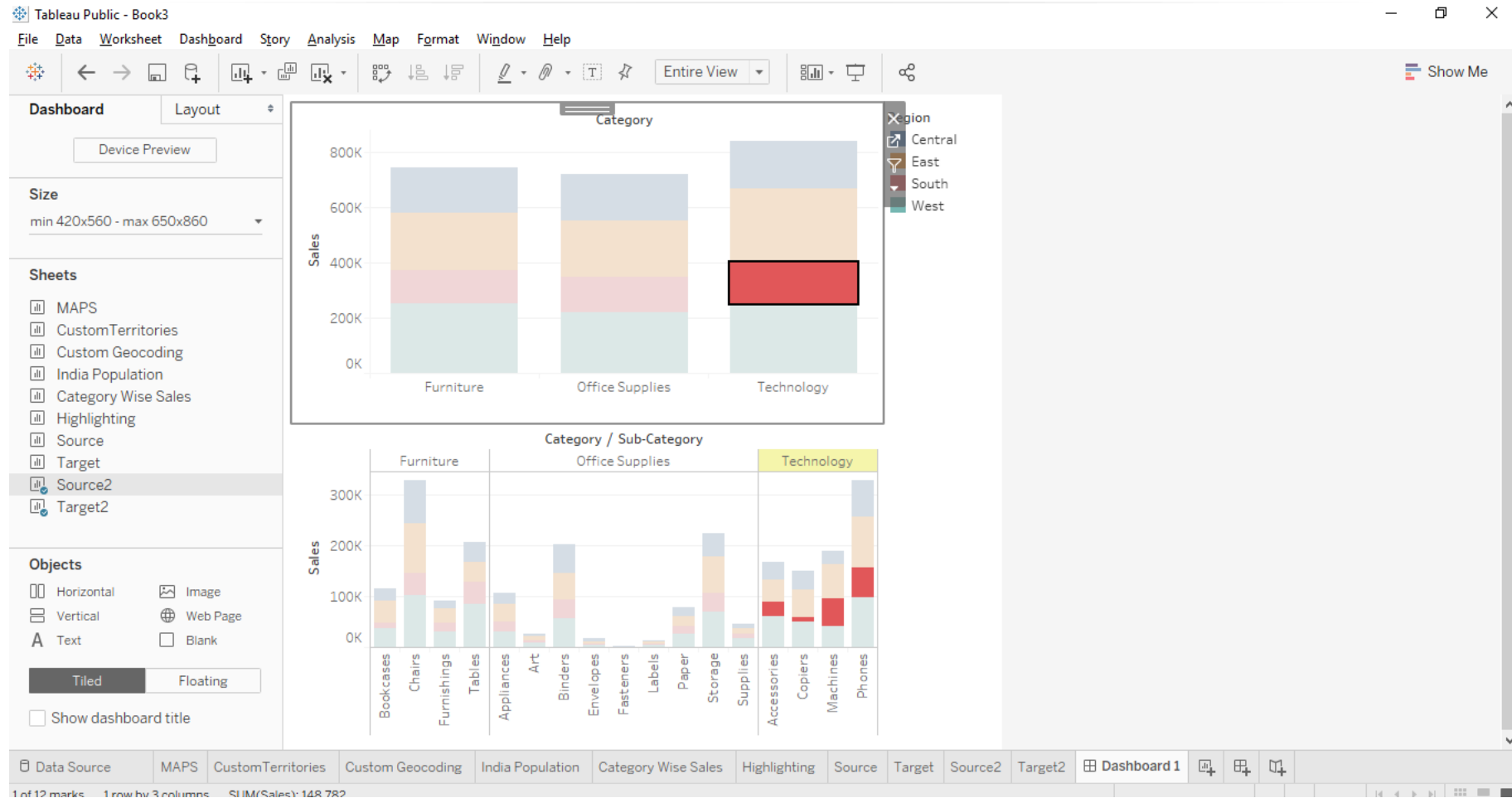
OK

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.

The screenshot shows the Tableau Public interface with a map of the United States. The map displays state sales data with labels for each state, such as Washington (138,641), Oregon (17,431), California (457,688), Texas (170,188), and others. The 'Columns' shelf contains 'Longitude (generated)' and the 'Rows' shelf contains 'Latitude (generated)'. The 'Marks' shelf is set to 'Automatic'. The 'Actions' dialog box is open, showing a table of actions. The 'Edit URL Action' dialog box is also open, showing the configuration for a 'Hyperlink1' action. The 'Name' field is 'Hyperlink1', the 'Run On' is 'Menu', the 'Source' is 'Sheet 3', and the 'Fields' is 'State'. The 'URL' field is 'https://en.wikipedia.org/wiki/<State>'. The 'Run action on:' options are 'Hover', 'Select', and 'Menu'. The 'URL Target' is set to 'New Browser Tab'.

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

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 interface with a bar chart titled "ACTION PARAMETER". The chart shows sales data categorized by "Category" and "SC". The x-axis represents "Sales" from 0K to 800K. The y-axis lists categories: Technology (Phones, Machines, Accessories, Copiers), Furniture, and Office Supplies. The chart is filtered by "Category" and "SC".

Two dialog boxes are overlaid on the chart:

- Actions**: This dialog box lists actions. The first action is "Parameter 1", which runs on "Select", has a source of "ACTION PARAMETER", and targets the field "PSC".
- Edit Parameter Action**: This dialog box allows editing the action. The "Name" is "Parameter 1". The "Source Sheets" are "ACTION PARAMET...". The "Run action on:" options are "Hover", "Select" (selected), and "Menu". The "Target" section shows the "Parameter" as "PSC" and the "Field" as "None". The "Clearing the selection will:" options are "Keep current value" and "Set value to" (selected).

The background chart data is as follows:

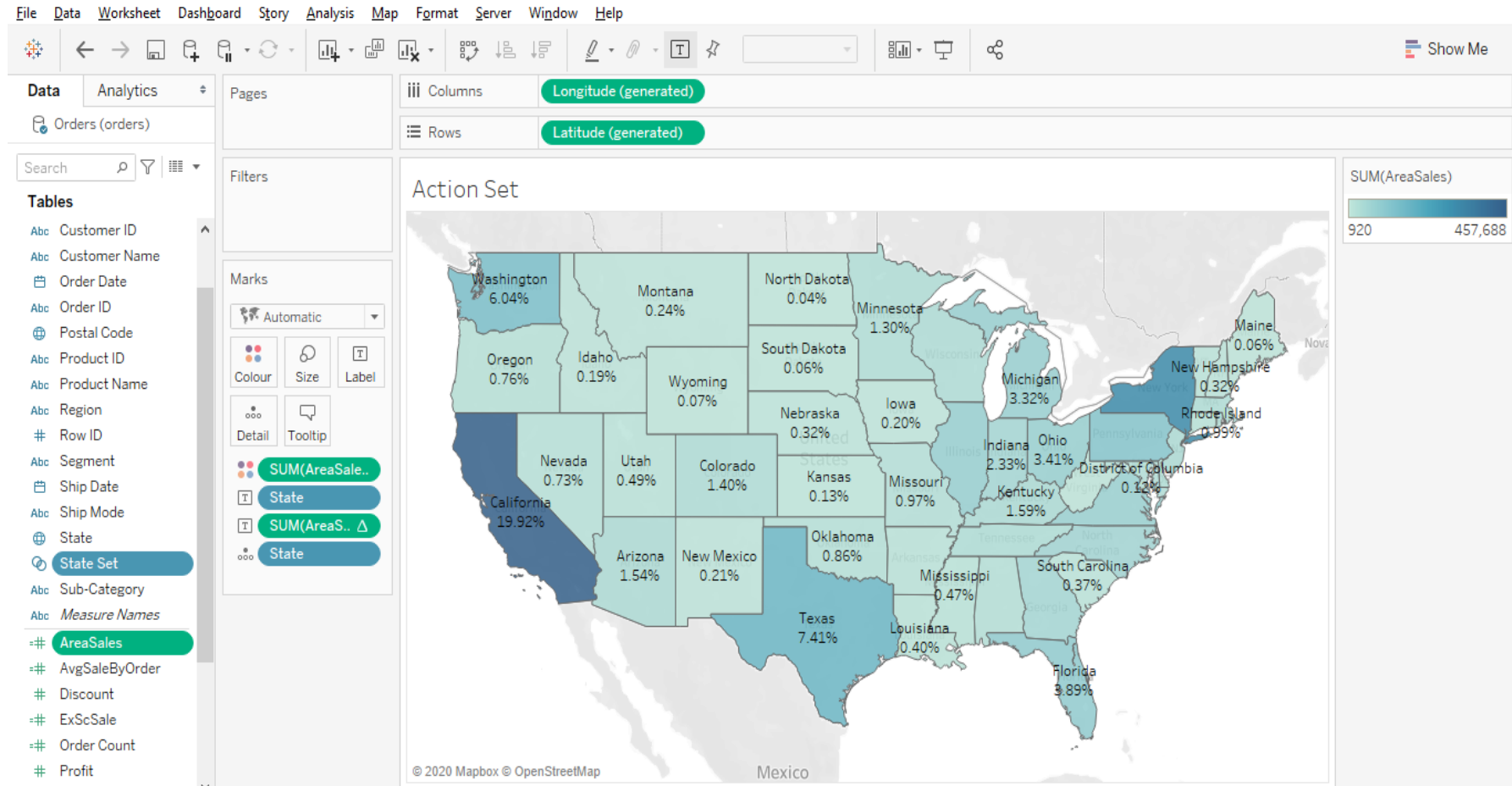
Category	SC	Sales
Technology	Phones	189,239
	Machines	167,380
	Accessories	149,528
	Copiers	742,000
Furniture		9,047
Office Supplies		



# 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.





# LOD Calculations

Level of detail expression allows us to compute aggregation that are not on level detail of the visualization

FIXED – Include the expression immaterial of it being included in the visualization is not included in the view

The screenshot shows the Tableau Desktop interface. The 'Columns' shelf contains 'Measure Names' and the 'Rows' shelf contains 'Category' and 'Sub-Category'. A table visualization is displayed on 'Sheet 9' with columns for 'Category', 'Sub-Category', 'FIXEDCATSALES', and 'Sales'. The data is grouped by 'Category' (Furniture, Office Supplies, Technology) and 'Sub-Category'. A dialog box for the 'FIXEDCATSALES' measure is open, showing the calculation: `{FIXED [Category] : SUM([Sales])}`. The dialog also indicates 'The calculation is valid.' and '1 Dependency'. The status bar at the bottom shows '34 marks', '17 rows by 2 columns', and 'SUM of Measure Values: 15,081,239'.

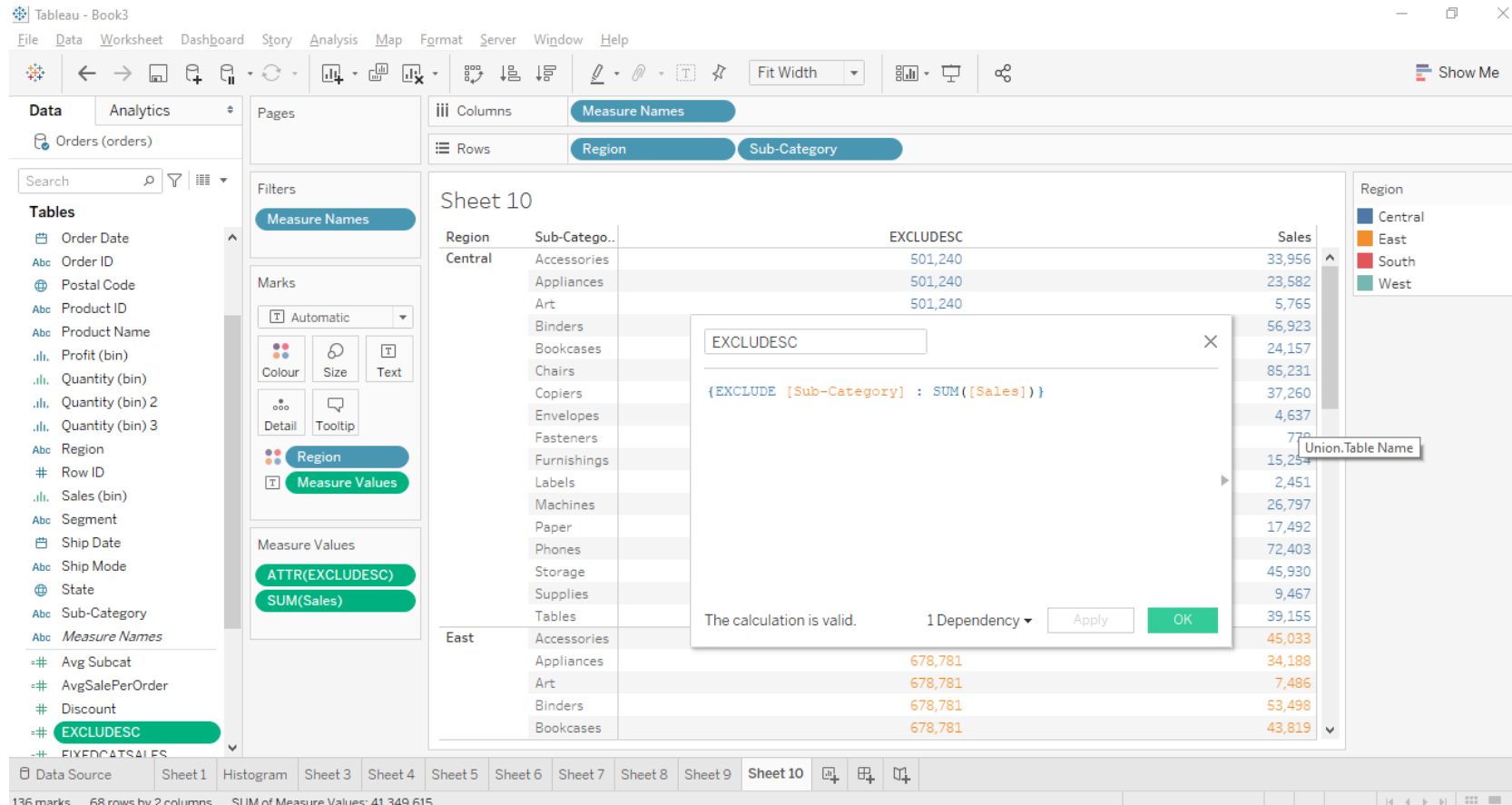
Category	Sub-Category	FIXEDCATSALES	Sales
Furniture	Bookcases	742,000	114,880
	Chairs	742,000	328,449
	Furnishings		91,705
	Tables		206,966
Office Supplies	Appliances		107,532
	Art		27,119
	Binders		203,413
	Envelopes		16,476
	Fasteners		3,024
	Labels		12,486
	Paper		78,479
	Storage		223,844
	Supplies		46,674
	Technology	Accessories	
Copiers		836,154	149,528
Machines		836,154	189,239
Phones		836,154	330,007



# LOD Calculations

Level of detail expression allows us to compute aggregation that are not on level detail of the visualization

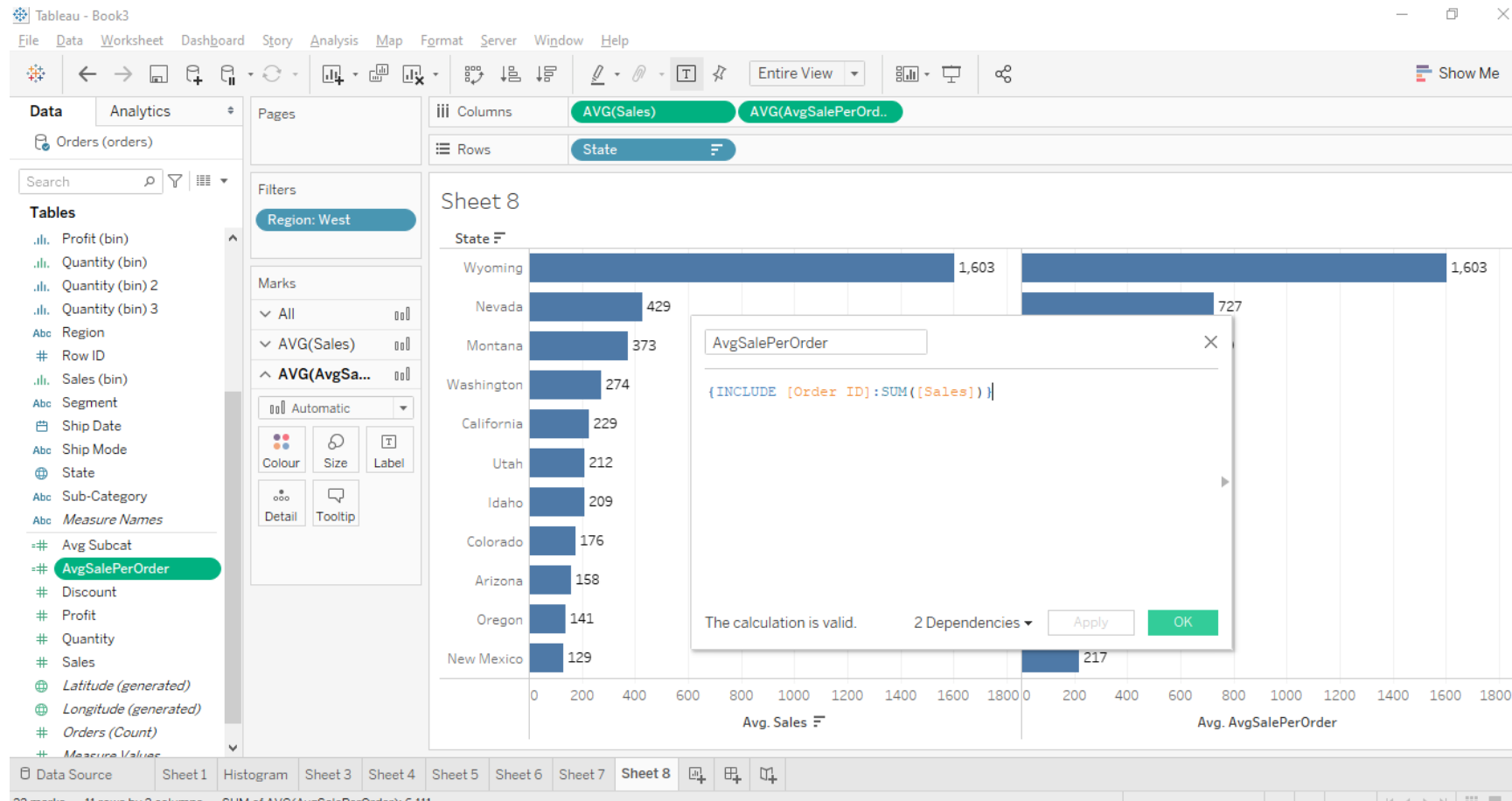
EXCLUDE – exclude the expression even if it is included in the view



# LOD Calculations

Level of detail expression allows us to compute aggregation that are not on level detail of the visualization

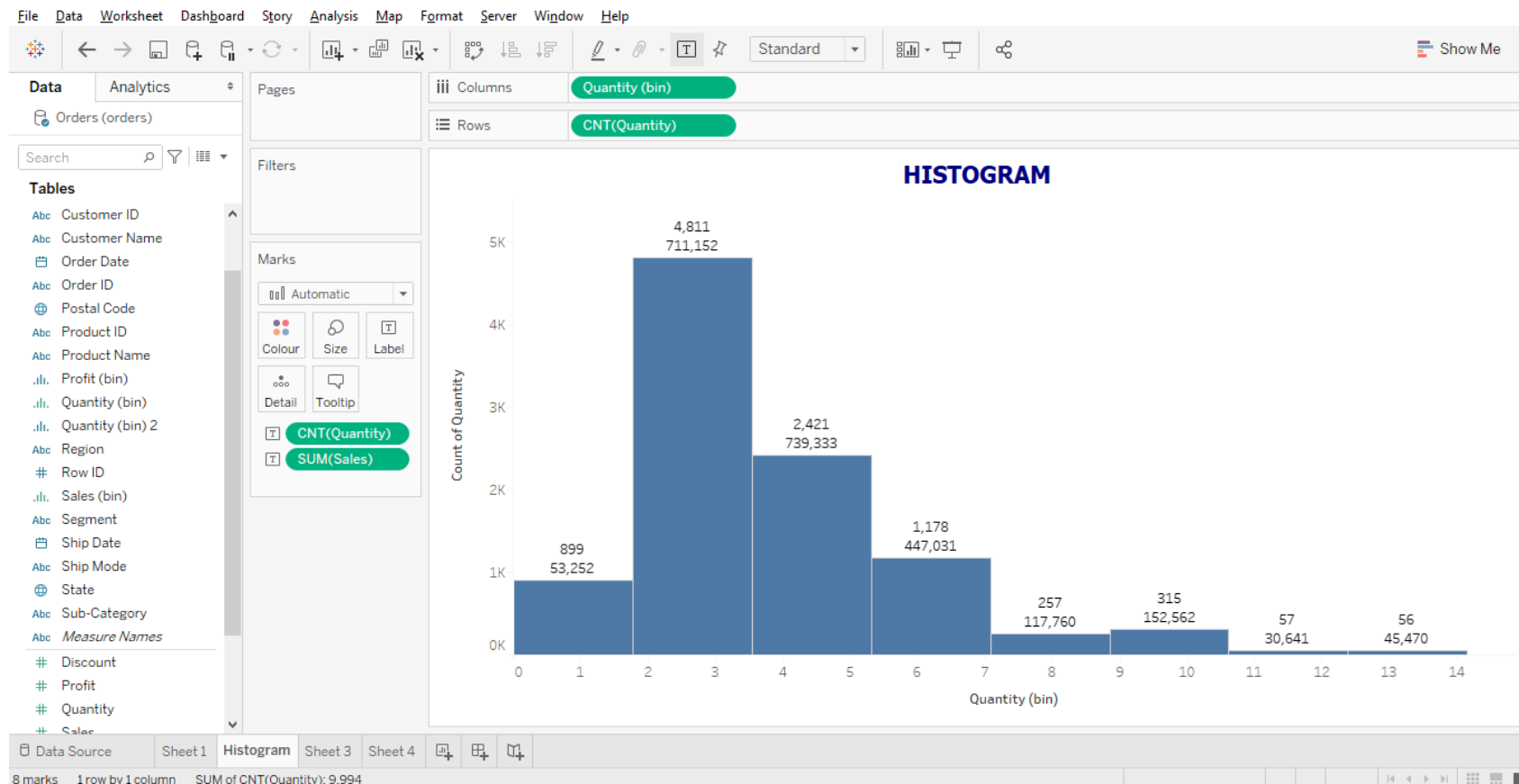
INCLUDE – Include the expression even if it is not included in the view



# Histogram

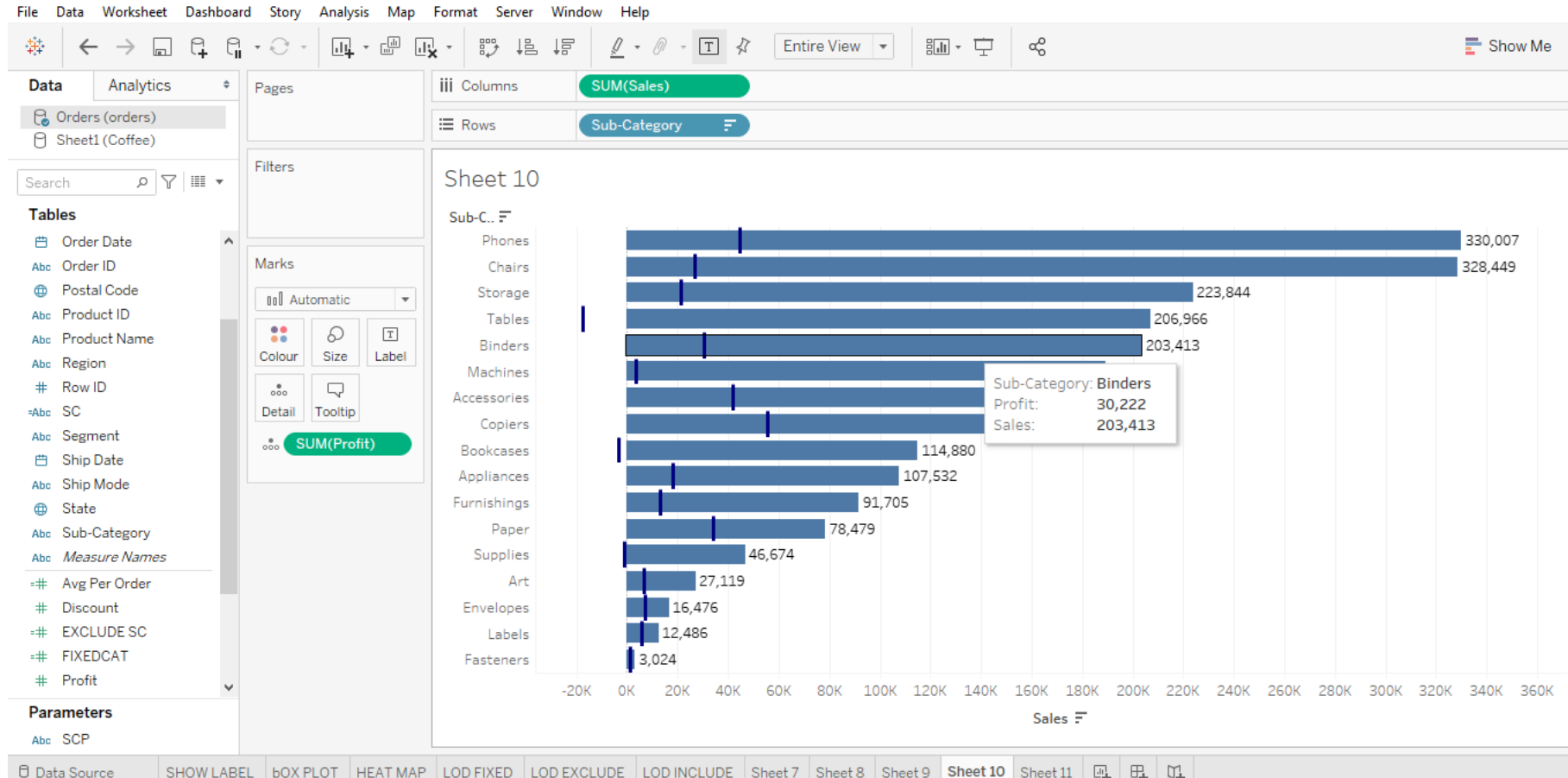
Histogram is same like bar chart however, it groups the values into range. Each bar in histogram represents the number of values present in that range.

Tableau creates a histogram by taking one measure. It creates an additional bin field for the measure used in creating a histogram.



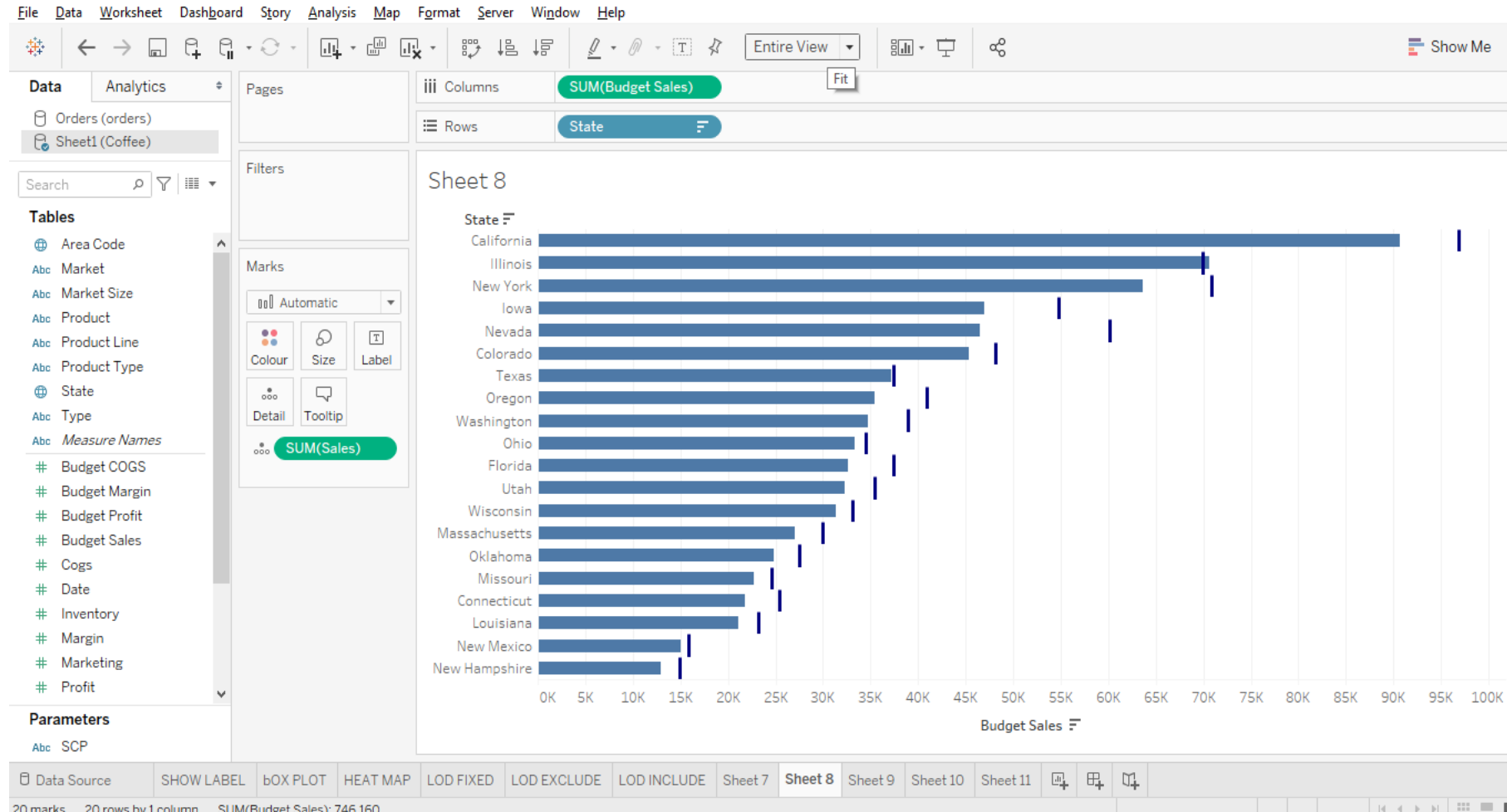
# Bullet Chart

Bullet Chart is a variation of Bar graph, used to compare value of one measure with another measure in the context of finding the variation in the first measure within a range of variations in the second measure.



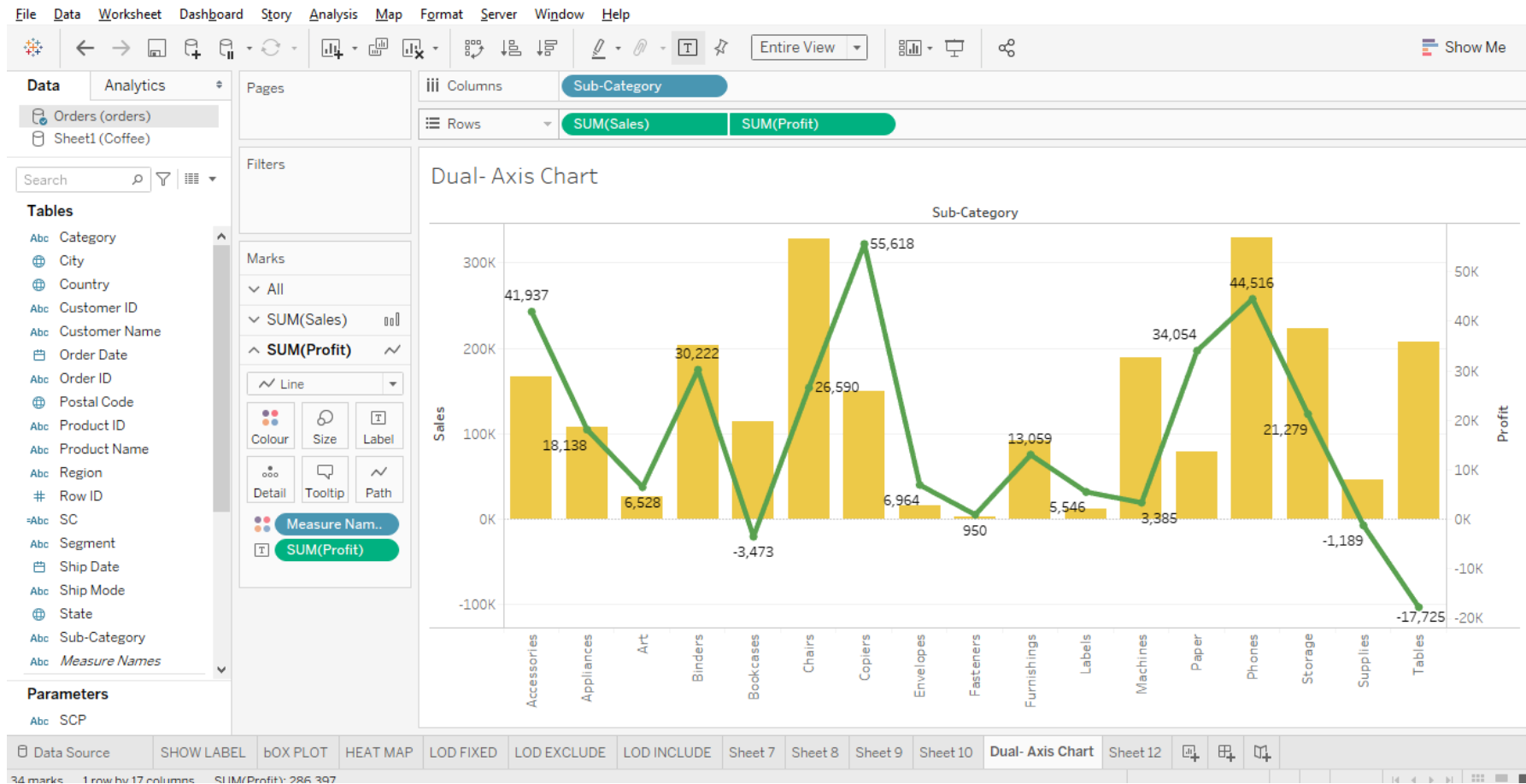
# Bullet Chart

Comparison of Sales target and Actual sales (Coffee Data Source)



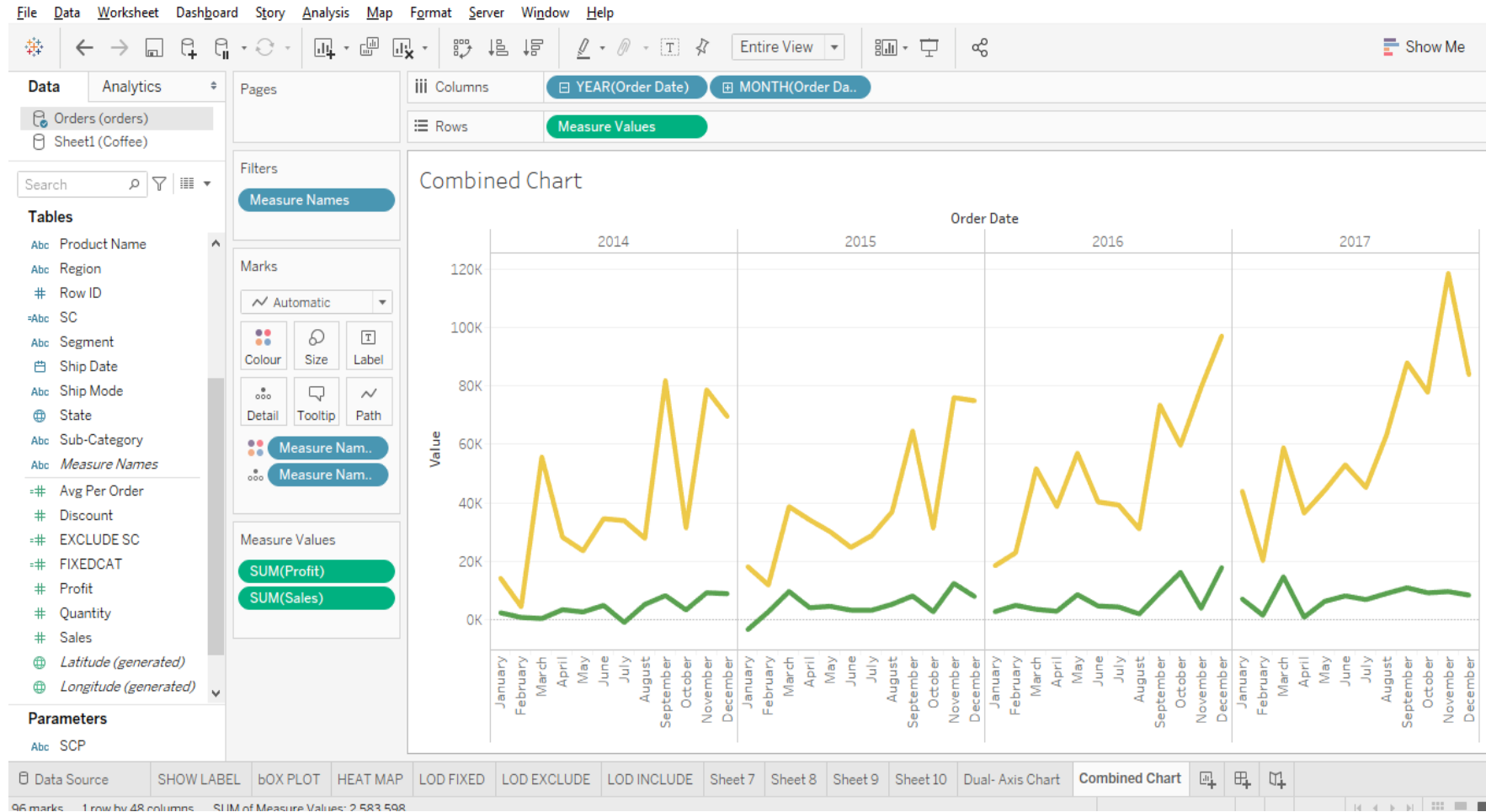
# Dual- Axis Chart

In Dual Axis chart we have two Y – Axis. These are helpful when we want to see the relationship between two or more variables in a limited space and in one view.



# Combined Chart

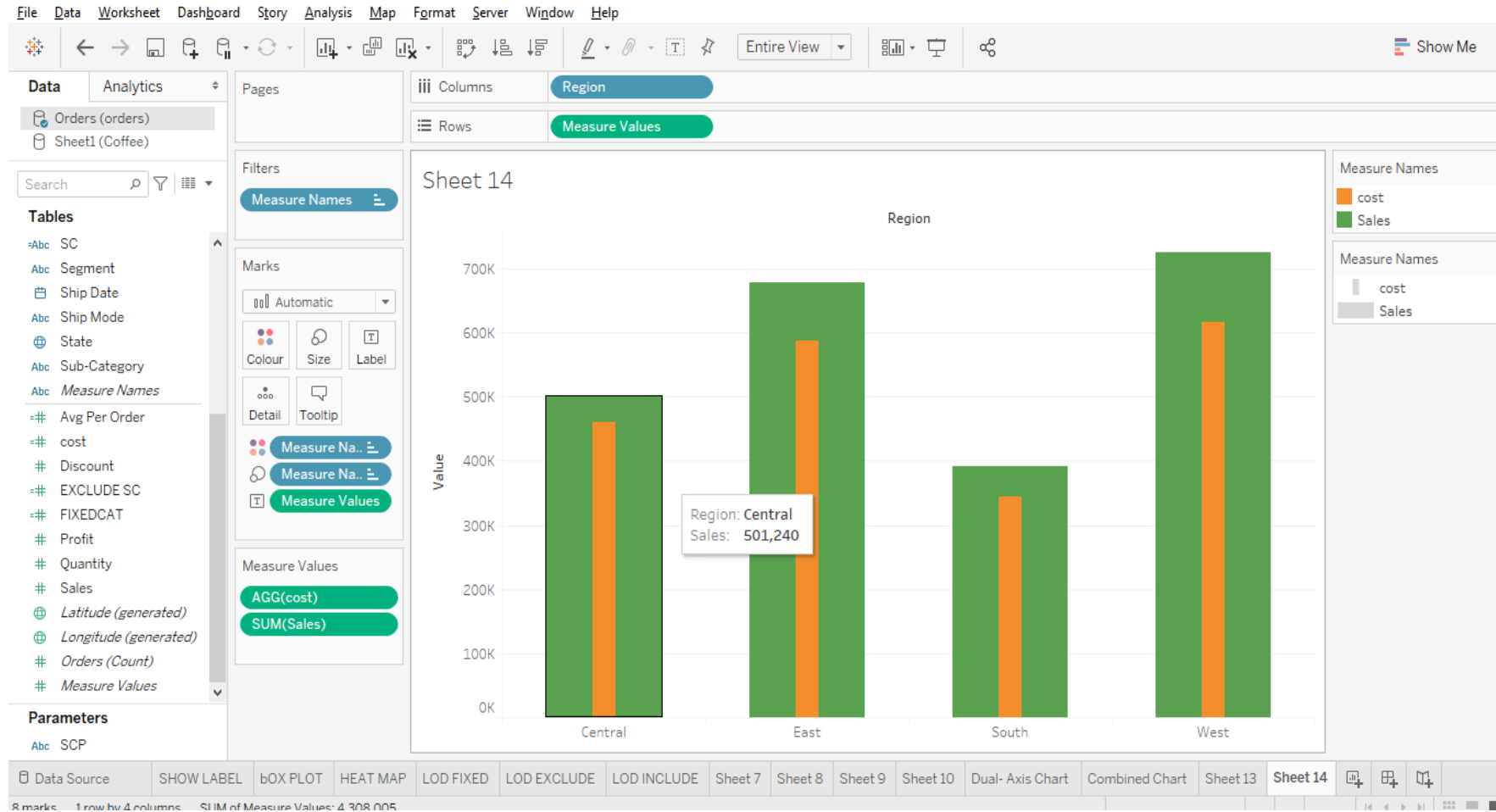
In Combined Chart two or more measures are plotted on same Y-Axis





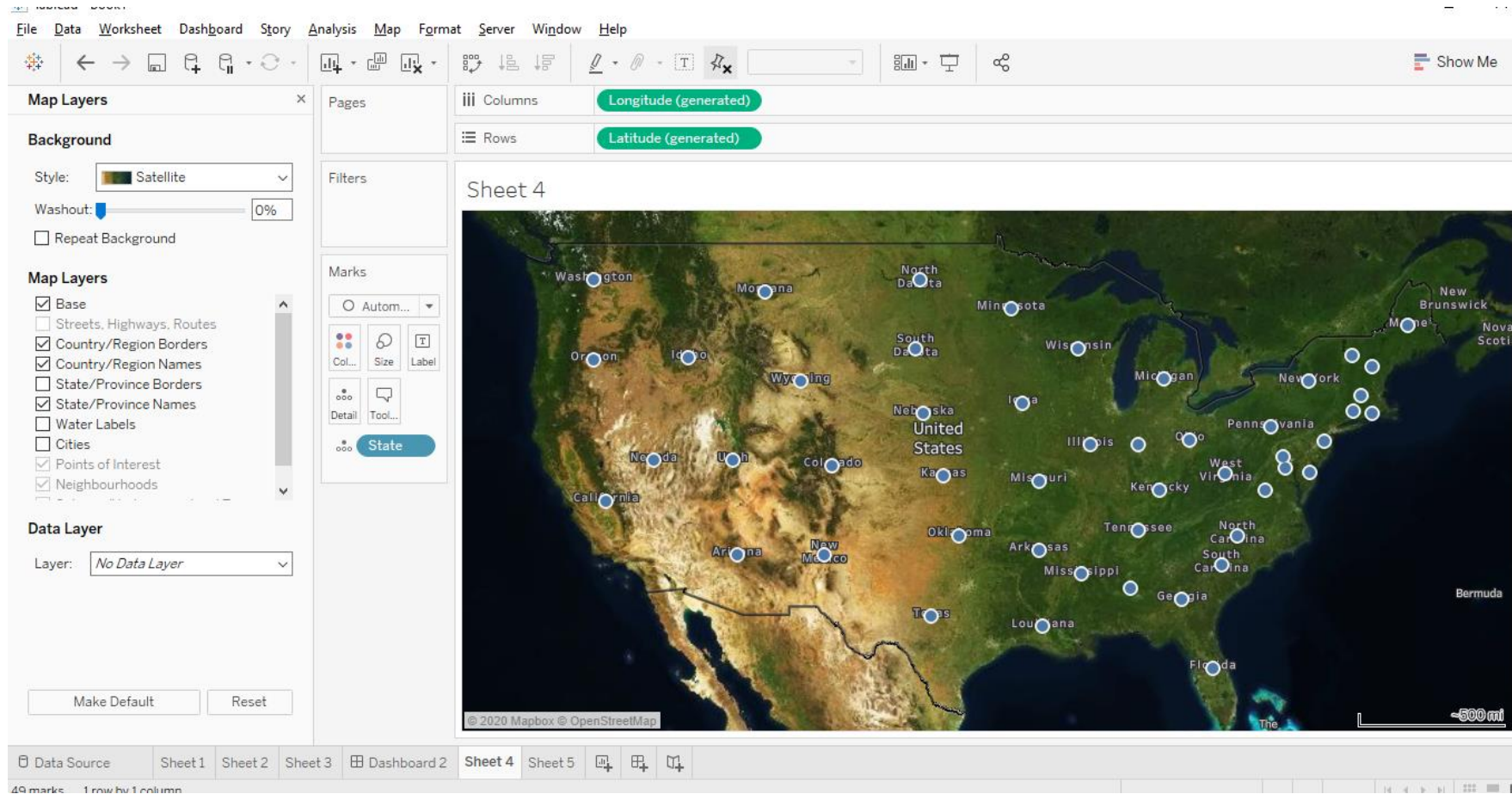
# Bars in Bar Chart

Bar in Bar chart is used when we need to plot two measures in the same bar. These are useful for comparing the two measures.



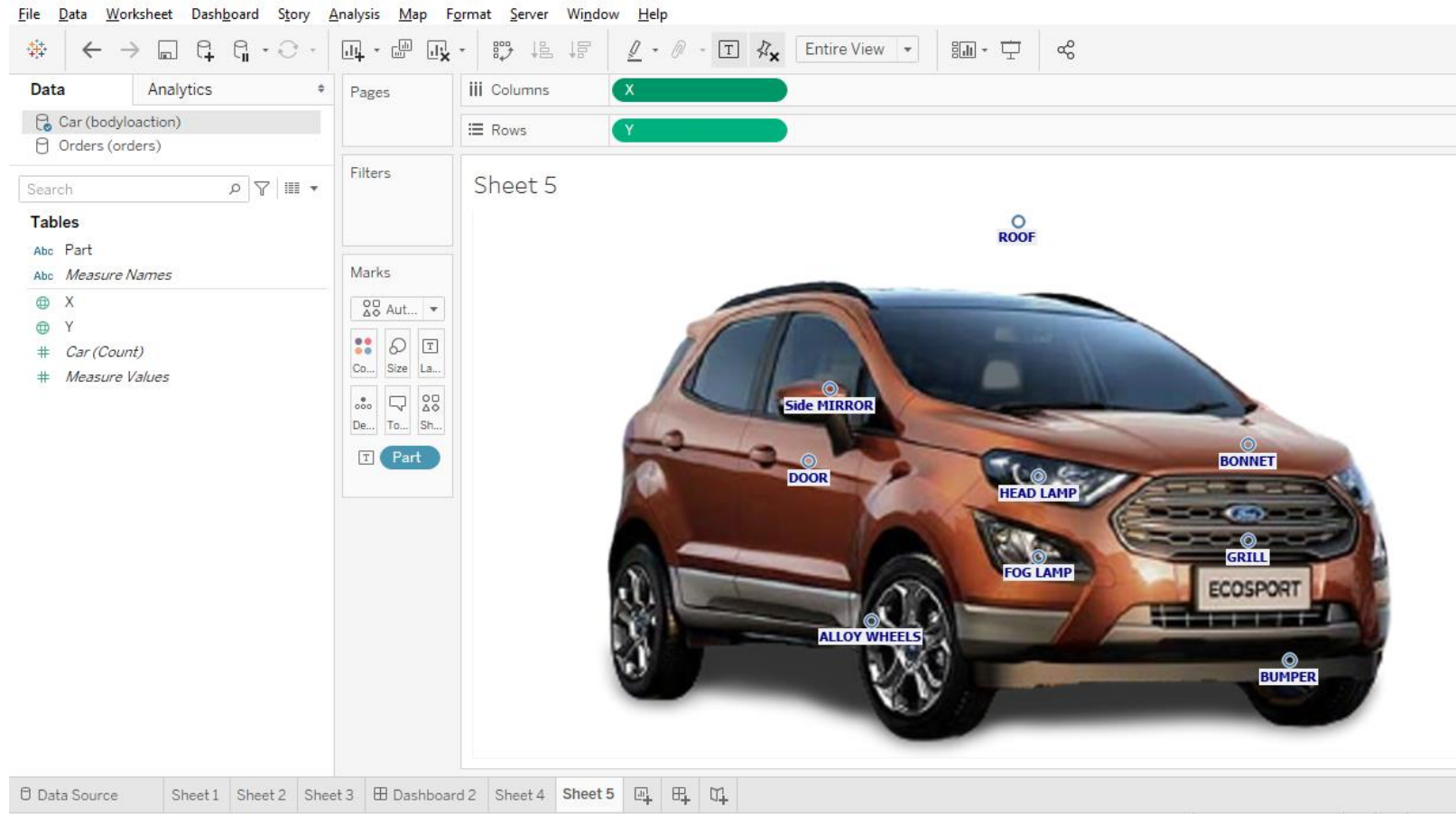
# Map Layers

Map layers are used to give other layers (layout) or background to Map like coast lines or Satellite



# Map Layers – Back Ground Image

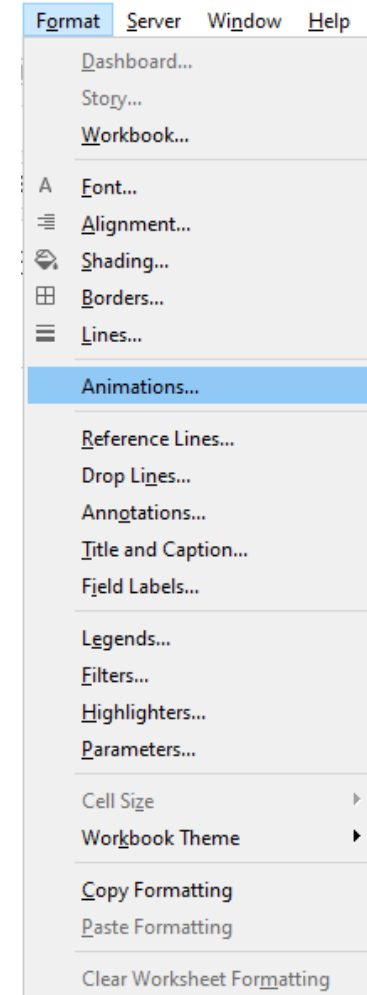
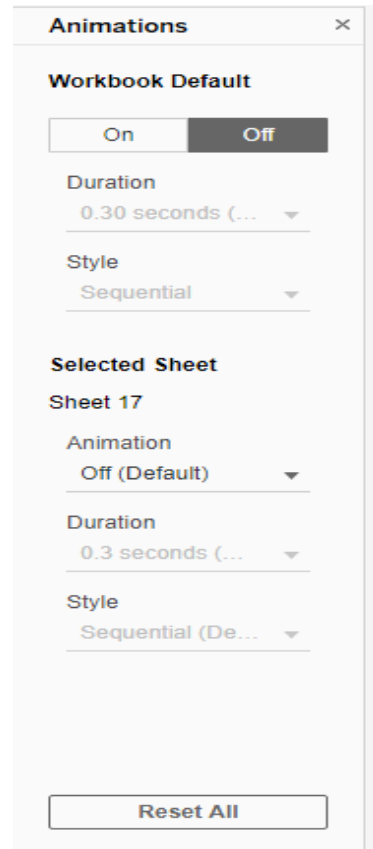
Back Ground Image can be used to create a custom map in Tableau



# Viz Animations

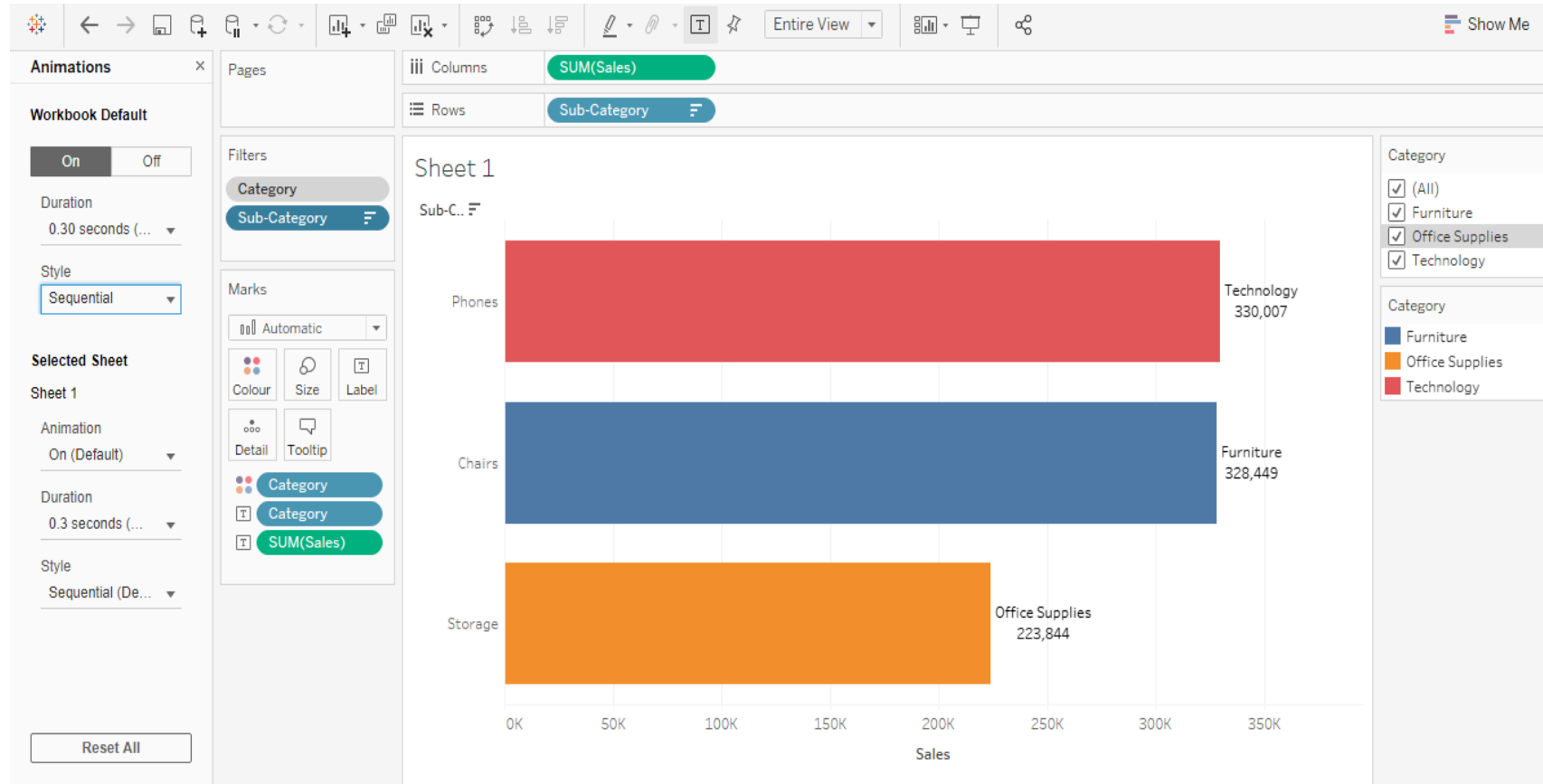
Tableau Viz animations was introduced in the version 2020.1. It's makes easier to explore, understand, and present your data, showing changes to tell powerful, moving data stories. Animations takes the data to the next level by putting data in motion.

**To enable animations, just go to Format > Animations...**



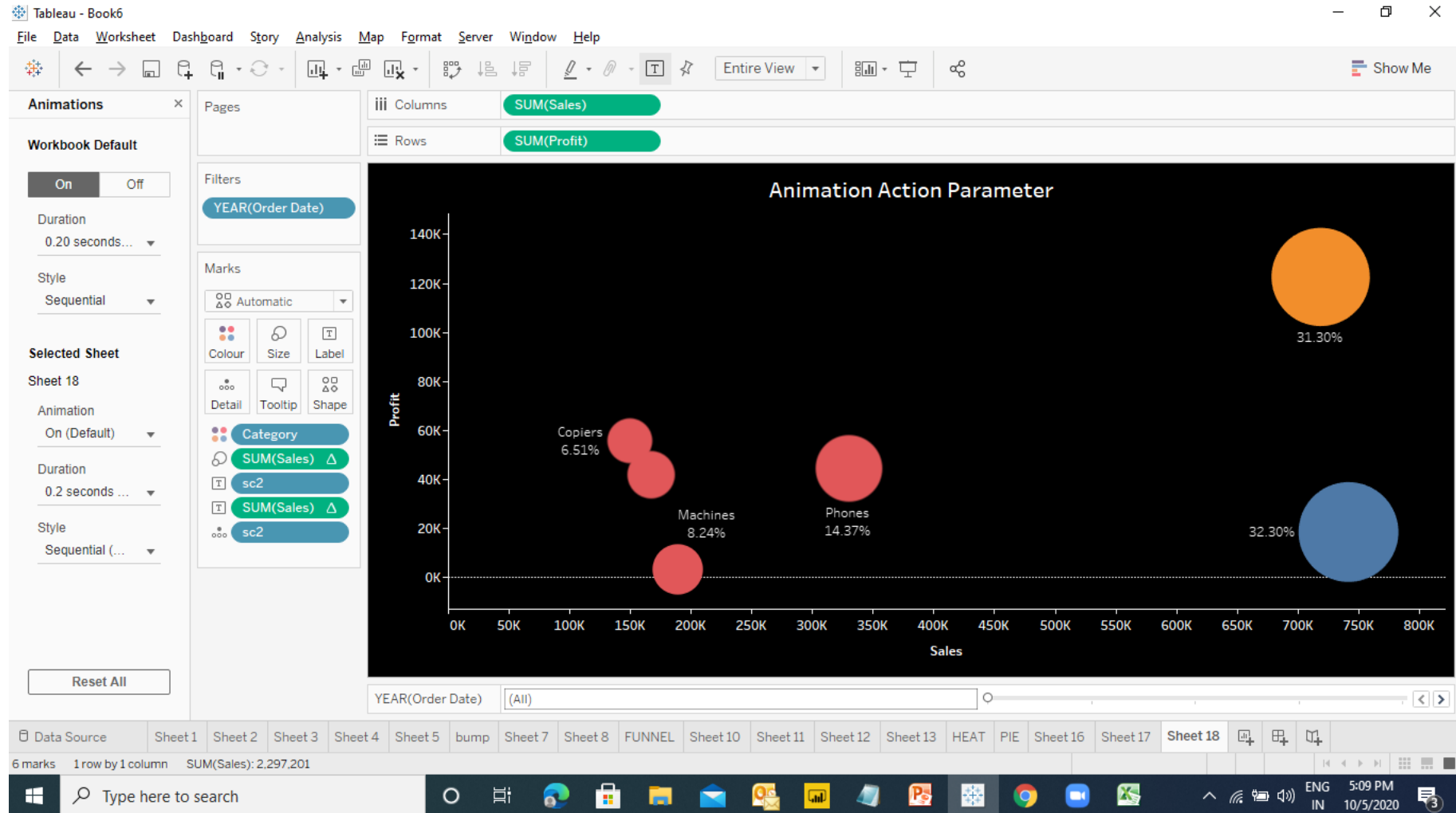
# Viz Animations

## Example 1 : Filter Animation



# Viz Animations

## Example 2: Action Parameter Animation

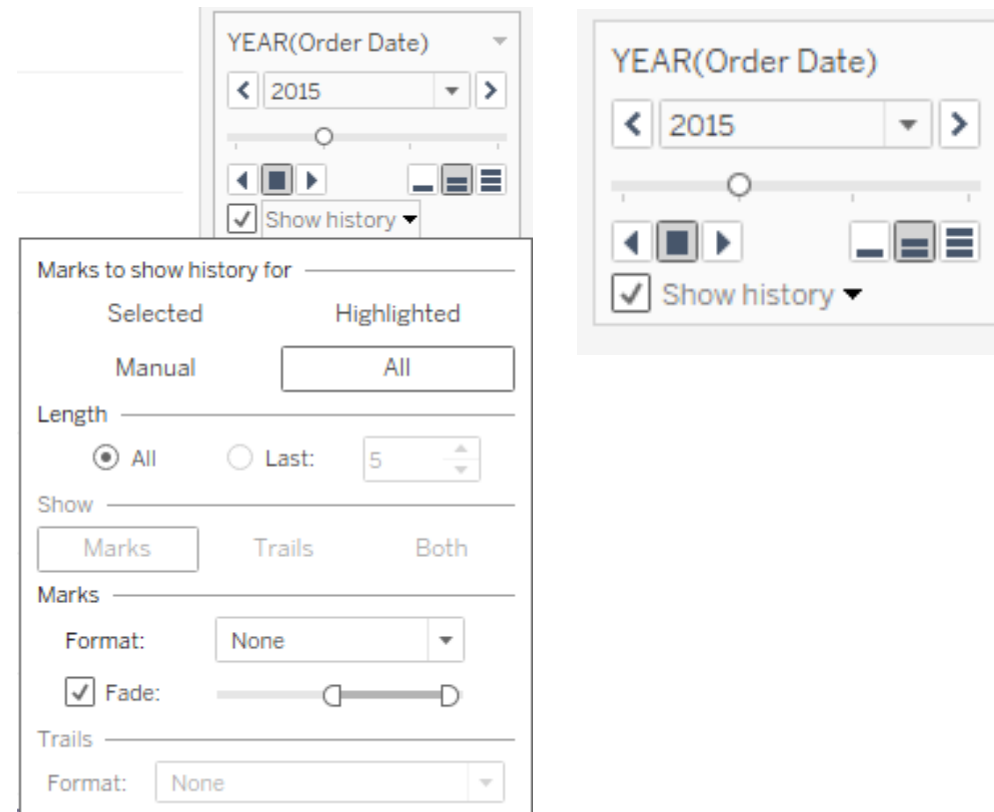


# Motion Chart

A motion chart, is a moving or a mobile chart which gives an idea of the trail or the path that data points follow and make a trend. Motion chart moves from a starting point and goes to the endpoint leaving a trail of data points occurring in its path.

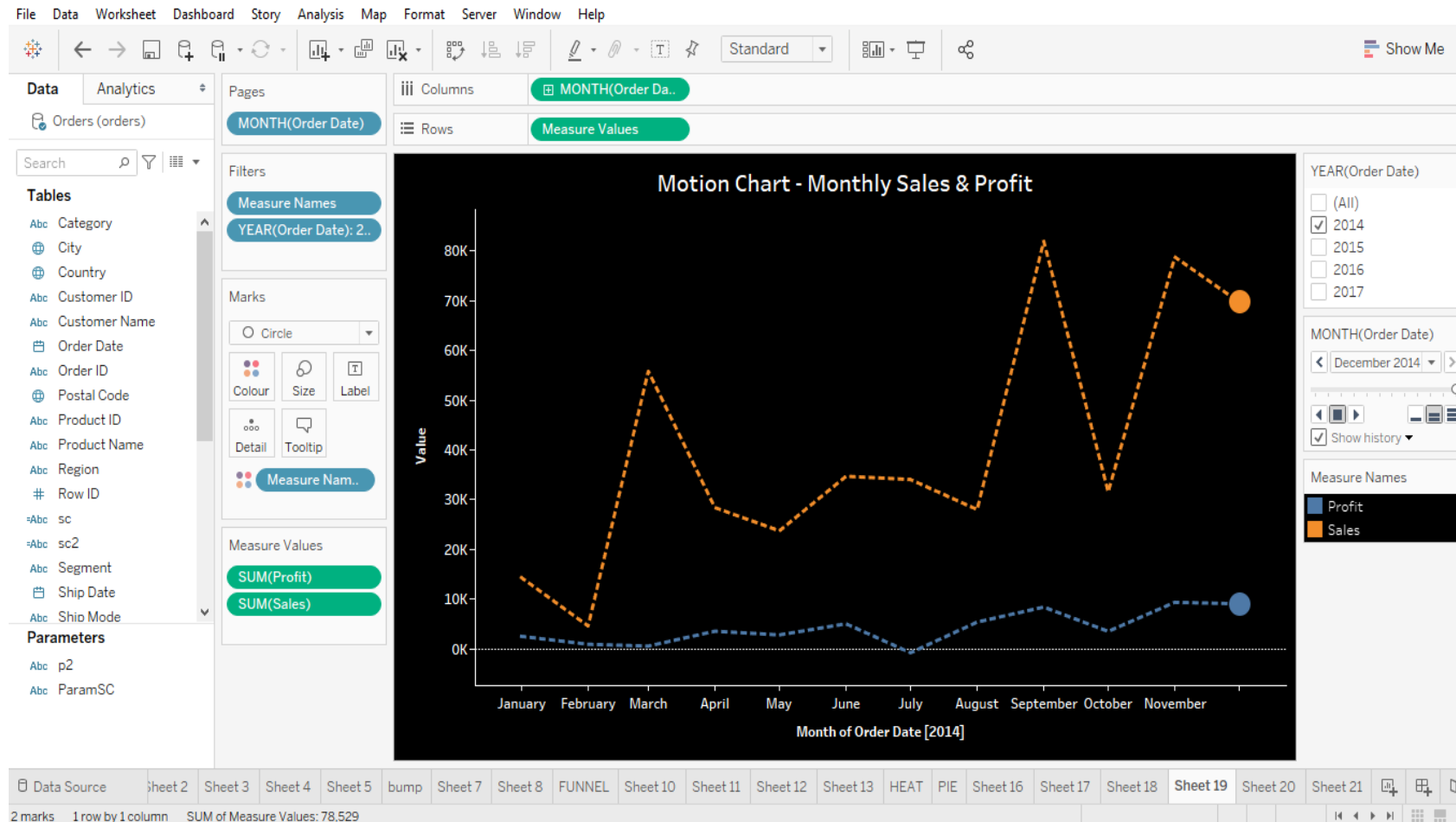
To make a motion chart we add the dimension field, (Order Date) into the Pages section, which gives a filter and play box on the right.

To set a motion path we need to use **Show history** option and edit the options.



# Motion Chart

Example 1: A motion chart to display monthly sales & profit





# Motion Chart

## Example 2: Year wise segment sales

