

Data Analytics

with Tableau

Assignment-4

Task-1

FIXED LOD : This function allows users to define a fixed level of detail for a particular calculation, regardless of the level of detail in their view. Fixed LOD functions are useful when users need to perform calculations at a specific level of detail, such as at the customer or product level.

In below visualizations we can see that different data values are considered as the columns and rows, based on this values we can observe that a fixed column with measured values are obtained.

In second visualization we get another fixed value for the same values which are considered in first visualization. Based on fixed values we get appropriate sales values for the customer in both the visualizations.

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Standard

Data Analytics Pages

Orders (Sample - Superst...

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
- Sub-Category
- Discount
- Exclude 1

Filters

Measure Names

Marks

Automatic

Color Size Text

Detail Tooltip

Measure Values

Measure Values

SUM(Fixed 1)

SUM(Sales)

Fixed LOD

Category	Region	Segment	Fixed 1	Sales
Furniture	Central	Consumer	2,297,201	86,229
		Corporate	2,297,201	52,086
		Home Office	2,297,201	25,482
	East	Consumer	2,297,201	114,212
		Corporate	2,297,201	64,209
		Home Office	2,297,201	29,870
	South	Consumer	2,297,201	70,800
		Corporate	2,297,201	29,645
		Home Office	2,297,201	16,853
Office Supplies	West	Consumer	2,297,201	119,808
		Corporate	2,297,201	83,080
		Home Office	2,297,201	49,725
	Central	Consumer	2,297,201	93,111
		Corporate	2,297,201	41,138
		Home Office	2,297,201	32,777
	East	Consumer	2,297,201	101,255
		Corporate	2,297,201	66,475
		Home Office	2,297,201	37,786
	South	Consumer	2,297,201	59,505
		Corporate	2,297,201	45,930
		Home Office	2,297,201	20,217
	West	Consumer	2,297,201	110,081

Data Guide

Fixed 1

Viz Details

Viz description

Enter a description that helps users understand this viz

Additional resources

+ Add link

Accessibility

Edit alt text

Applied Filters

Data in This Viz

Orders (Sample - Superstore)

- Category
- Measure Names
- Region
- Segment

Data Source Sheet 1 Fixed 1 Fixed 2 Sheet 4 Fixed 3 Sheet 6 Fixed 4 Sheet 8 Exclude 1 Sheet 10

EXCLUDE LOD : These functions allow users to exclude specific fields from the calculation while still preserving the level of detail of the view. Exclude LOD functions are useful when users need to perform calculations that exclude specific fields but still need to preserve the level of detail in their view.

In below visualizations we can observe that excluded values to get the detailed view of sales compared to fixed lod we excluded the segments field from the rows.

We use category and region in rows and measures names in column.

Exclude LOD 2

Segment	Sub-Catego..	Exclude 2	Profit
Consumer	Accessories	134,119	20,736
	Appliances	134,119	6,982
	Art	134,119	3,454
	Binders	134,119	17,996
	Bookcases	134,119	-4,436
	Chairs	134,119	13,235
	Copiers	134,119	24,084
	Envelopes	134,119	3,264
	Fasteners	134,119	577
	Furnishings	134,119	7,919
	Labels	134,119	3,076
	Machines	134,119	2,141
	Paper	134,119	15,535
	Phones	134,119	23,837
Corporate	Storage	134,119	7,104
	Supplies	134,119	-1,658
	Tables	134,119	-9,728
	Accessories	91,979	12,707
	Appliances	91,979	7,430
	Art	91,979	2,005
	Binders	91,979	6,377
	Bookcases	91,979	638
	Chairs	91,979	8,345

Measure Values

ATTR(Exclude 2)

SUM(Profit)

SUM(Sales)

Applied Filters

Data in This Viz

Orders (Sample - Superstore)

Measure Names

Segment

Sub-Category

Measure Values

Task-2

Visualizing geographic information helps data consumers quickly and easily derive insights and meaning. Tableau is designed to make the most of geographical data, with instant geocoding, tableau automatically turns the location data. Map visualization is used to analyze and display the geographically related data and present in the forms of map.

In Task 2 we created different map visualizations using geographical data

They are : 1. Heat Map

2. Symbol Map

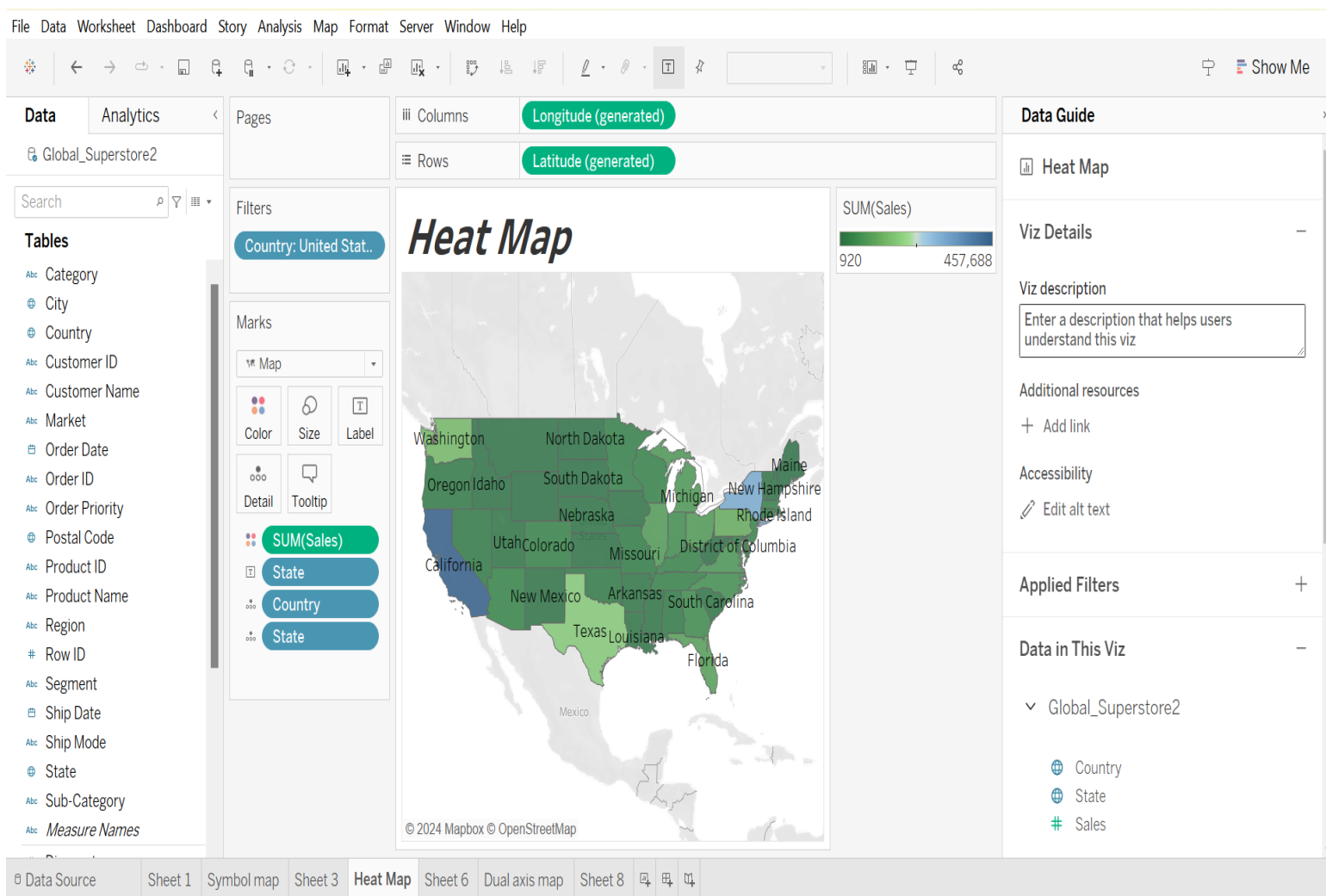
3. Dual Axis map

In this visualizations global super store data is used,

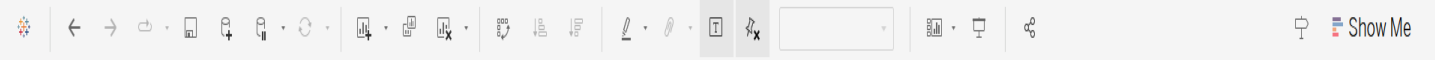
Heat Map: Heatmap visualization is a method of graphically representing numerical data where the value of each data point is indicated using colors.

In this heat map longitude value is taken in column field and latitude value is taken in row field then we get resultant heat map. Here we can observe that the sales values are represented with different shades of colours respected to different areas.

Symbol map: A symbol is an abstraction or pictorial representation of something else. Symbols on a map consist of discrete points, lines, or shaded areas; they have size, form, and color. Map symbols present information collectively, leading to appreciation of form, relative position, distribution, and structure.



In below symbol map we use longitude values in column field and latitude values in row filed, state in colour for clear visulizationand country in detail then we get the resultant symbol map.



Data

Analytics

Global_Superstore2

Search

Tables

Category

City

Country

Customer ID

Customer Name

Market

Order Date

Order ID

Order Priority

Postal Code

Product ID

Product Name

Region

Row ID

Segment

Ship Date

Ship Mode

State

Sub-Category

Measure Names

Pages

Columns

Longitude (generated)

Rows

Latitude (generated)

Filters

Country: India

Marks

Shape

Color

Size

Label

Detail

Tooltip

Shape

State

State

Country

Symbol Map

State

Andhra Pradesh

Assam

Bihar

Chandigarh

Chhattisgarh

Delhi

Gujarat

Haryana

Jammu and Kashmir

Jharkhand

Karnataka

Kerala

Madhya Pradesh

Maharashtra

Manipur

Odisha

Puducherry

Punjab

Rajasthan

Tamil Nadu

Telangana

Tripura

Uttar Pradesh

Uttarakhand

West Bengal

Data Guide

Symbol map

Viz Details

Viz description

Enter a description that helps users understand this viz

Additional resources

Add link

Accessibility

Edit alt text

Applied Filters

Data in This Viz

Global_Superstore2

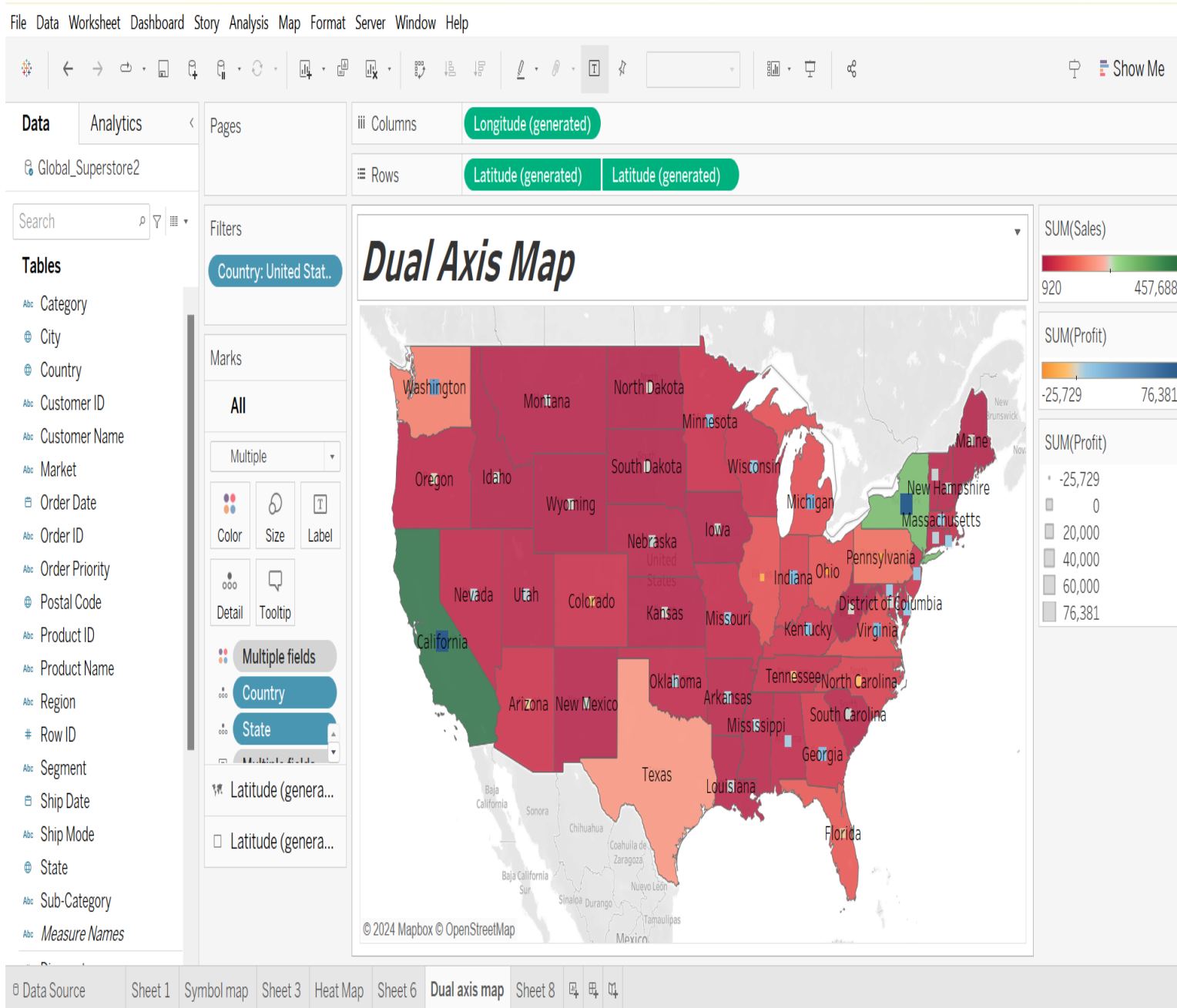
Country

State

Dual Axis_: Dual axis map is a map with two sets of geographical data overlaid on top of one another.

🗺️ To create dual axis map we use longitude in column and latitude in row as well as multiple fields in colors, state field and country in detail then we get the resultant dual axis map.

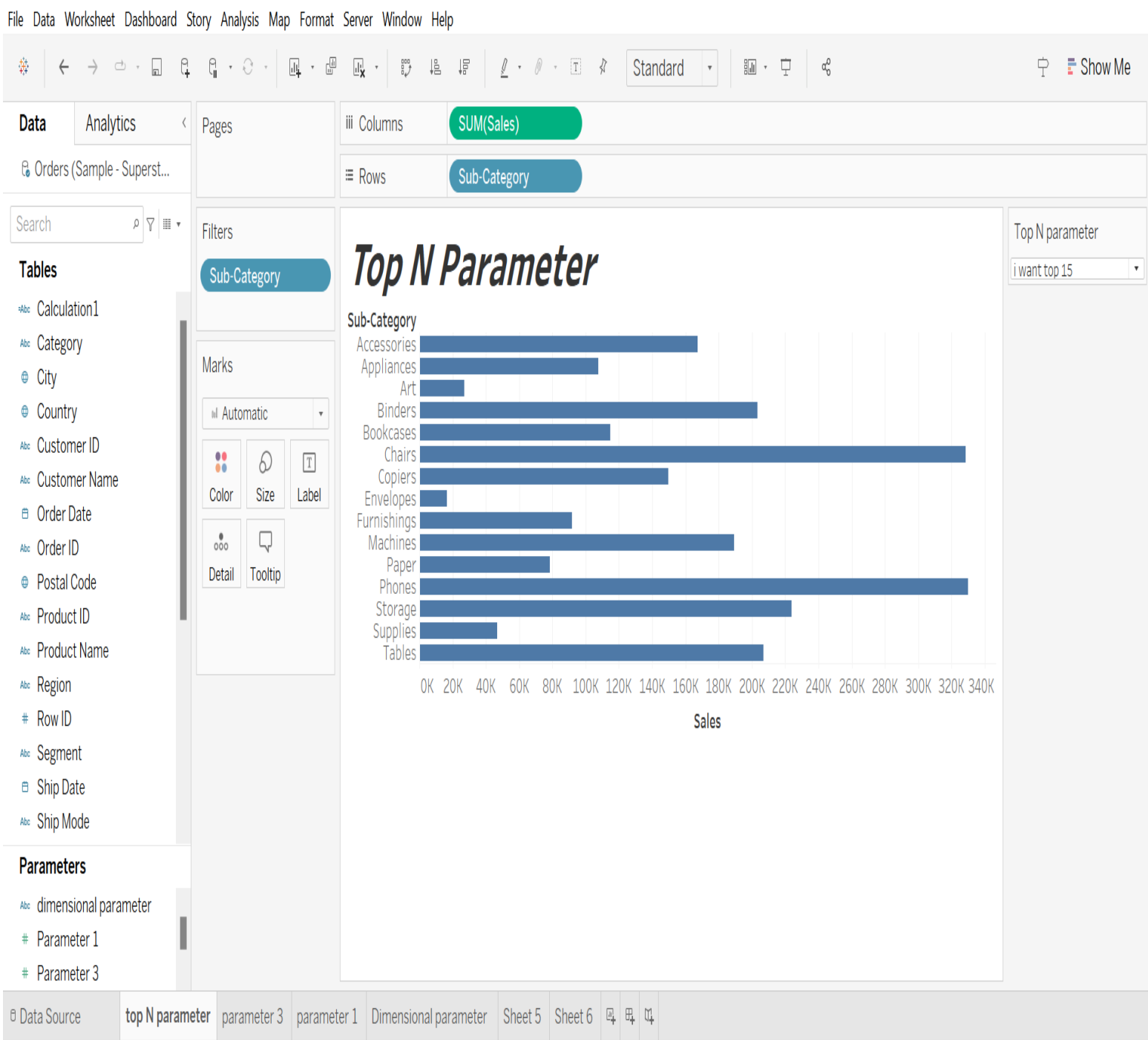
With this dual axis layered map, users can easily tell which state generated more sales while at the same time tell the leading cities within those high performing states



Task-3

Top N parameter : A Top N parameter returns data according to a number you assign it, hence the N in the name.

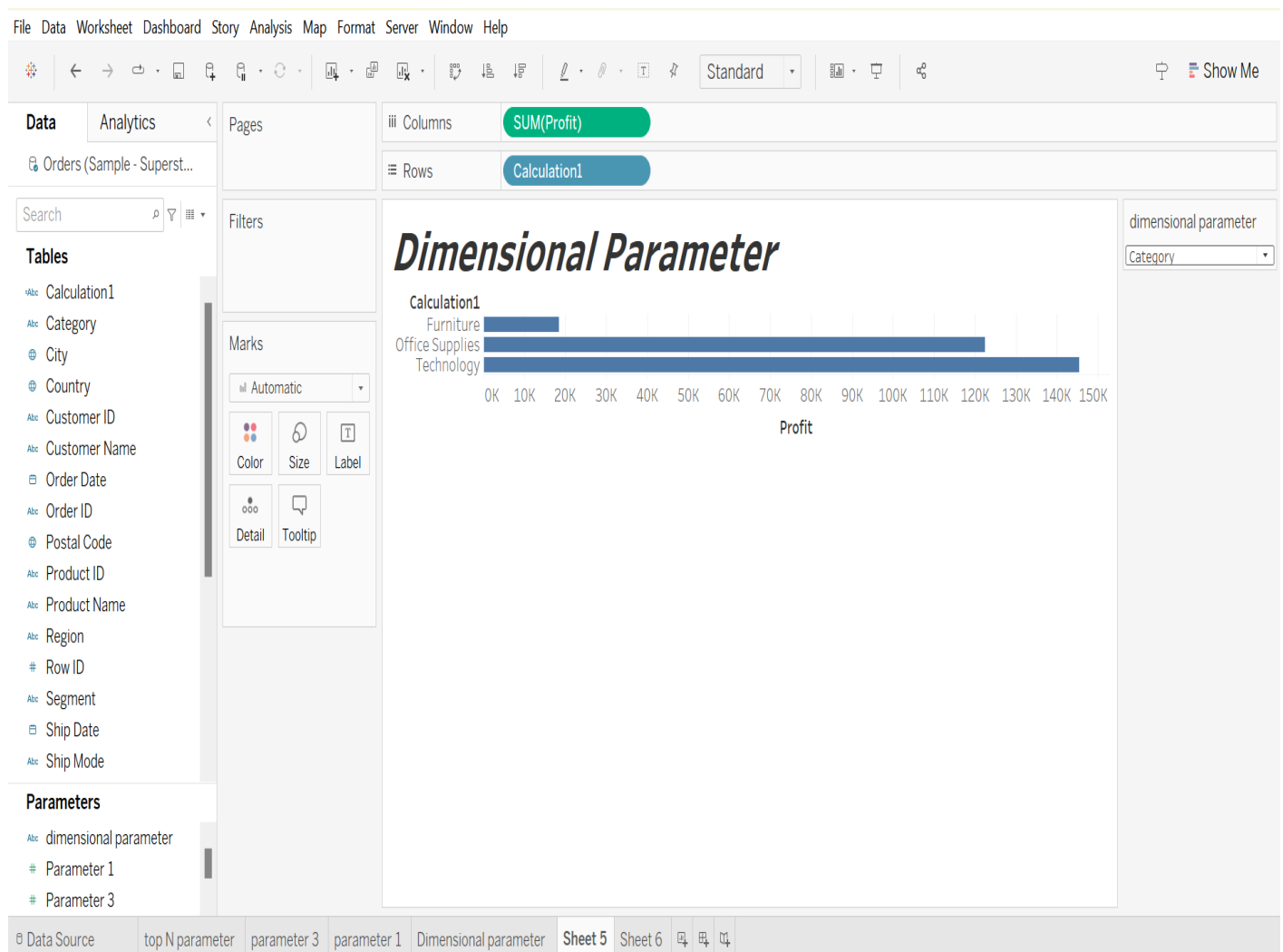
In below visualization we can observe that the Top N parameter display the top 25 sub category values according to their sales. We used sum of sales in column field and sub category in rows field the we got the resultant visualization showing top 15 sub category values.



Dimensional Parameter: Dimensions contains qualitative values (such a names, dates or geographical data). We can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view.

- Dimensions are categorical data fields that represent qualitative attributes.
- They provide context and structure to data, allowing users to segment, group, and categorize information for analysis.
- They are typically used on the rows and columns of a visualization, defining the axes of charts and graphs.

In below visualization we use sum of profit in column field and calculation in row field gives the resultant visualization shows the the profit of categorical values by performed calculation



Dynamic Dimensional Parameter : Dynamic dimensional parameter is very similar to dynamic dimensional parameter, but the values in dimension are changed dynamically according to the user guidance.

- ❖ After creating a dimensional parameter we use it in the visualizations then we get the resultant visualization by performing the calculations below.
- ❖ The values in visualizations changes according to the dynamic changes in dimensional parameter.

