Data Analytics

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.

Data | Analytics

Orders (Sample - Superst...

Search

Tables

- Abc Category
- City
- Country
- Abc Customer ID
- Abc Customer Name
- Order Date
- Abc Order ID
- Postal Code
- Abc Product ID
- Abc Product Name
- Abc Region
- # Row ID
- Abc Segment
- Ship Date
- Abc Ship Mode
- State
- Abc Sub-Category
- Abc *Measure Names*
- # Discount
- Exclude 1

Pages

Columns Measure Names

Rows Category   Region   Segment

Filters

Measure Names

Marks

Automatic

Color Size Text

Detail Tooltip

Measure Values

Measure Values

SUM(Fixed 2)

SUM(Sales)

Fixed LOD 2

Category	Region	Segment	Fixed 2	Sales
Furniture	Central	Consumer	742,000	86,229
		Corporate	742,000	52,086
		Home Office	742,000	25,482
	East	Consumer	742,000	114,212
		Corporate	742,000	64,209
		Home Office	742,000	29,870
	South	Consumer	742,000	70,800
		Corporate	742,000	29,645
		Home Office	742,000	16,853
	West	Consumer	742,000	119,808
		Corporate	742,000	83,080
		Home Office	742,000	49,725
Office Supplies	Central	Consumer	719,047	93,111
		Corporate	719,047	41,138
		Home Office	719,047	32,777
	East	Consumer	719,047	101,255
		Corporate	719,047	66,475
		Home Office	719,047	37,786
	South	Consumer	719,047	59,505
		Corporate	719,047	45,930
		Home Office	719,047	20,217
	West	Consumer	719,047	110,081
		Corporate	719,047	77,134

Data Guide

Fixed 2

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)

- Abc Category
- Abc Measure Names
- Abc Region
- Abc Segment

Standard

Show Me

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 perserve 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 segemts field from the rows.

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

Data   **Analytics**

Orders (Sample - Superst...

Search

Tables

- Abc Category
- ⊕ City
- ⊕ Country
- Abc Customer ID
- Abc Customer Name
- ⊕ Order Date
- Abc Order ID
- ⊕ Postal Code
- Abc Product ID
- Abc Product Name
- Abc Region
- # Row ID
- Abc Segment
- ⊕ Ship Date
- Abc Ship Mode
- ⊕ State
- Abc Sub-Category
- Abc Measure Names
- # Discount
- # Exclude 1

Pages

Filters

Measure Names

Marks

⊞ Automatic

Color   Size   Text

Detail   Tooltip

⊞ Measure Values

Measure Values

ATTR(Exclude 2)

SUM(Profit)

Columns   Measure Names

Rows   Segment   Sub-Category

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
	Storage	134,119	7,104
	Supplies	134,119	-1,658
	Tables	134,119	-9,728
Corporate	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

Data Guide   ×

Sheet 10

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)

- Abc Measure Names
- Abc Segment
- Abc Sub-Category
- # Measure Values

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

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.
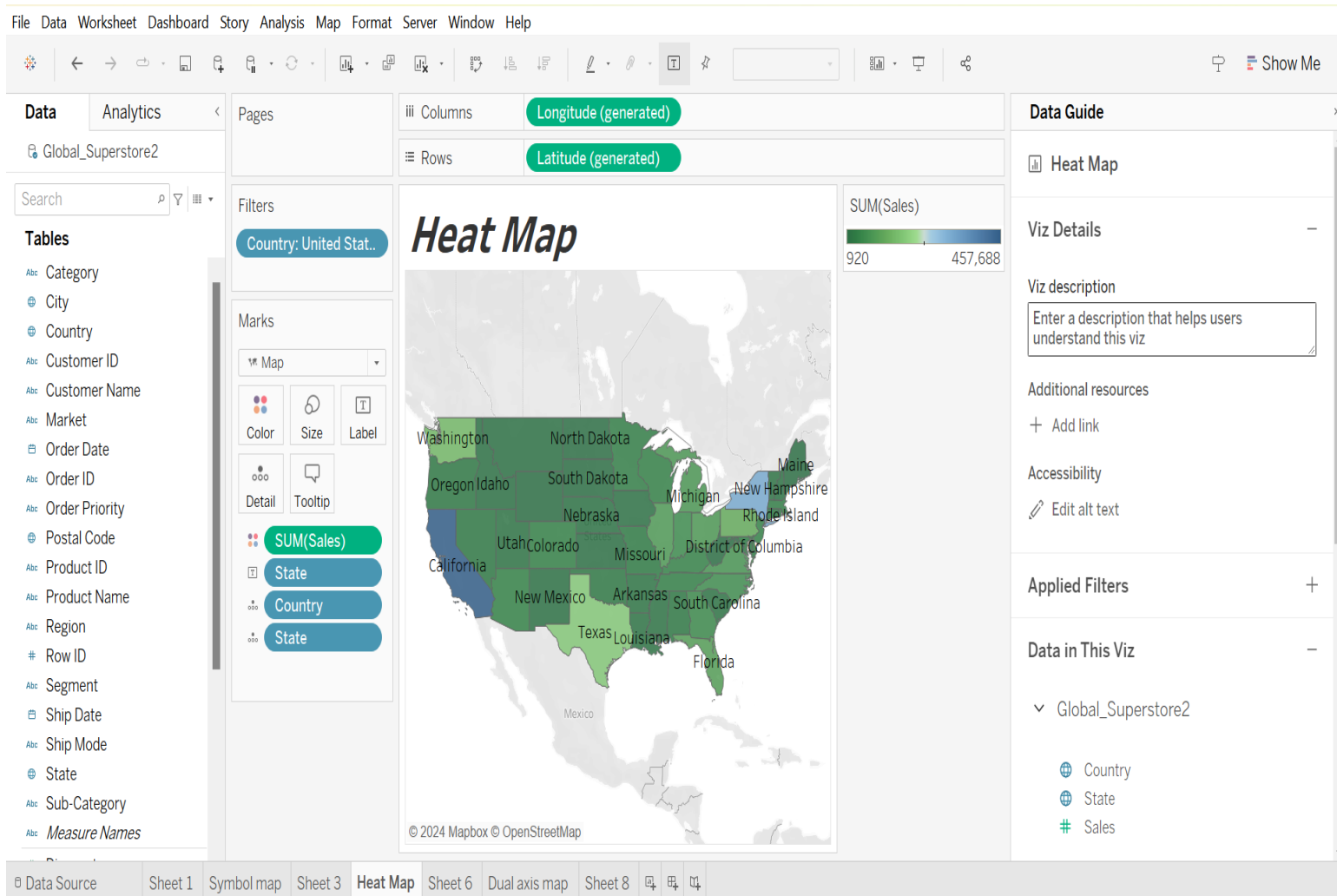
Symbol map: A symbol is an abstraction or pictorial representation of something else. Symbols on a map consist of discrete points, lines, or shaded areas; they have size, form, and color. Map symbols present information collectively, leading to appreciation of form, relative position, distribution, and 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.
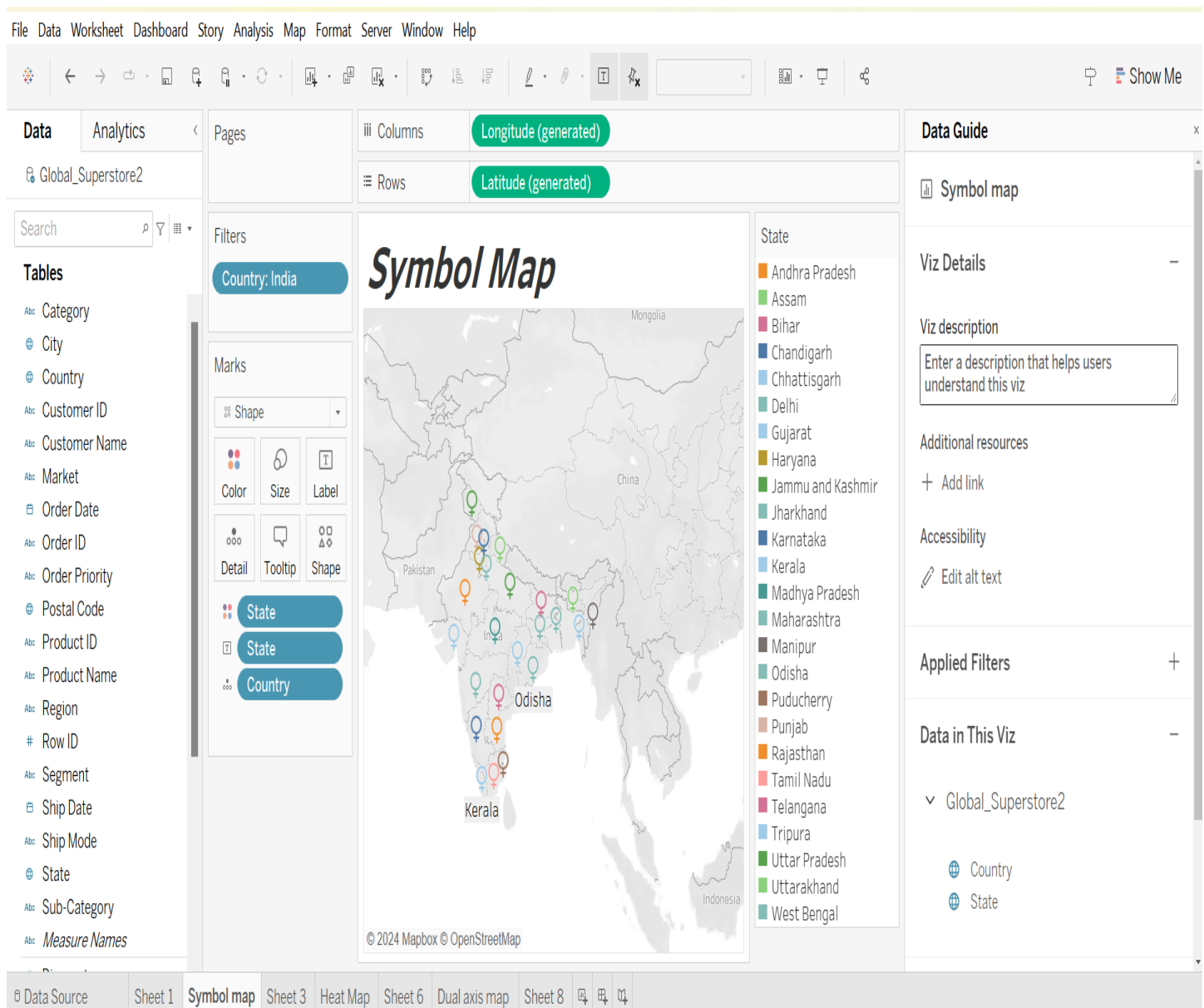
Dual Axis : Dual axis map is a map with two sets of geographical data overlaid on top of one another.

   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
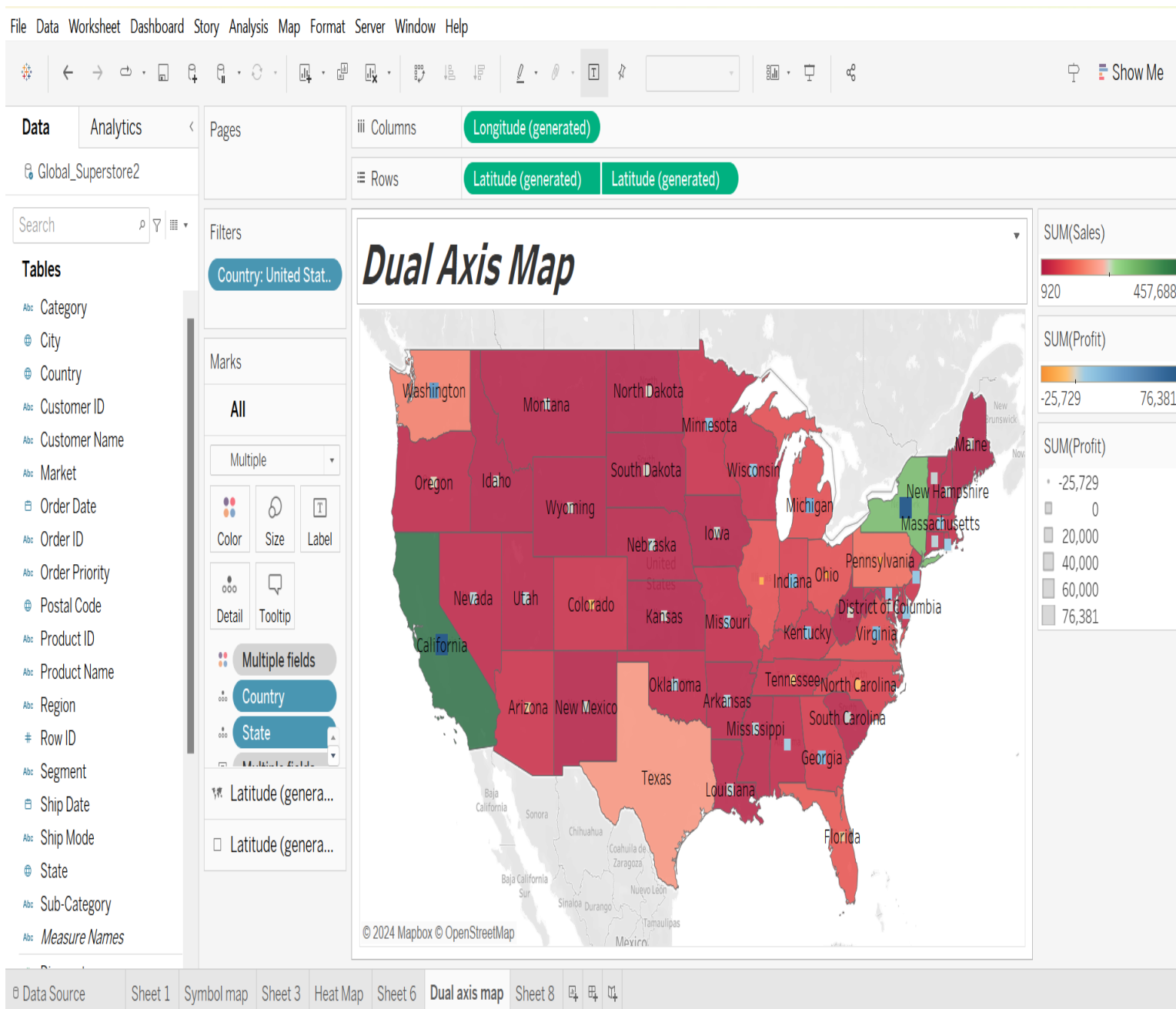
Task-3

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 colum field and sub category im rows field the we got the resultant visualization showing top 15 sub category values.
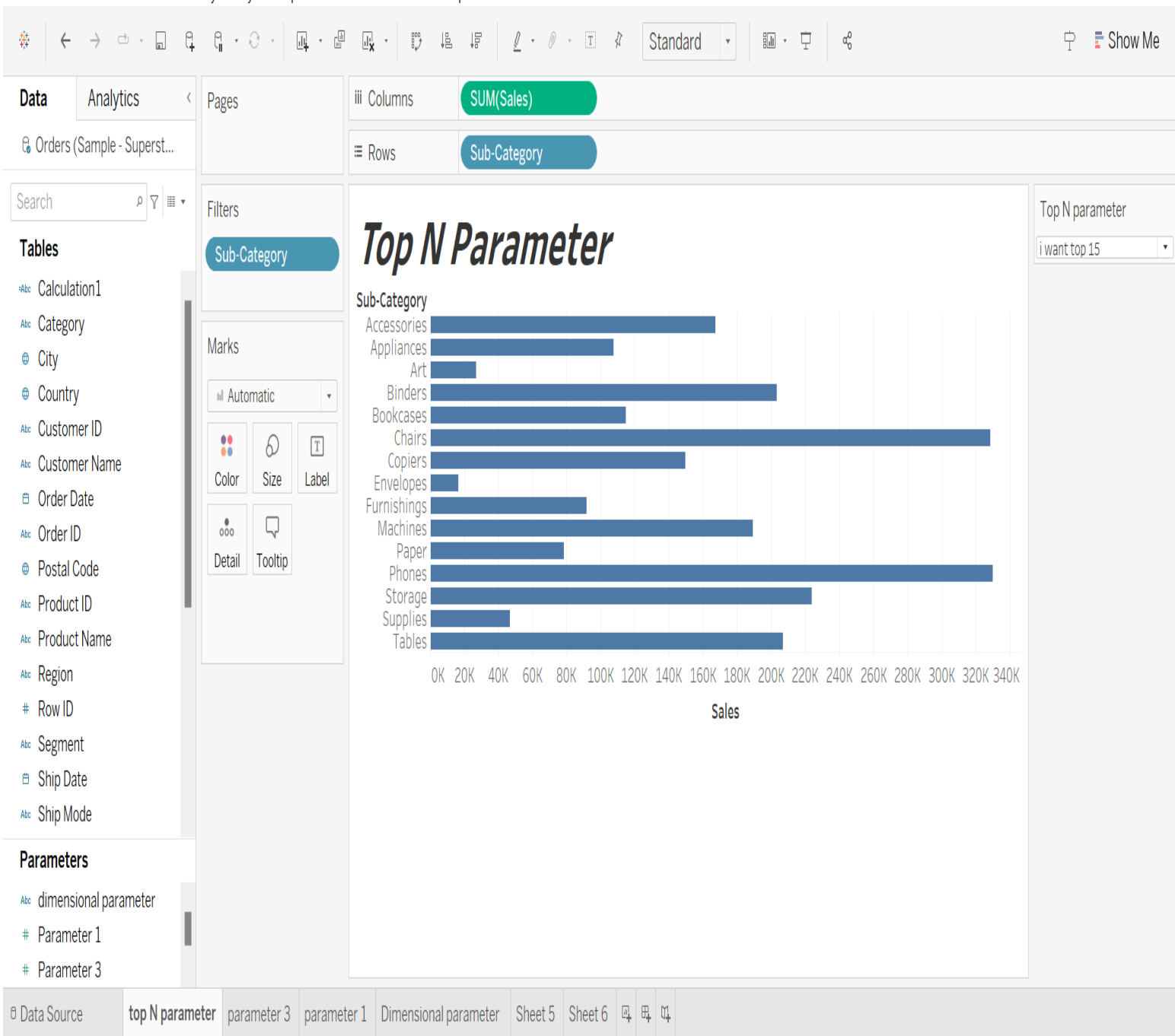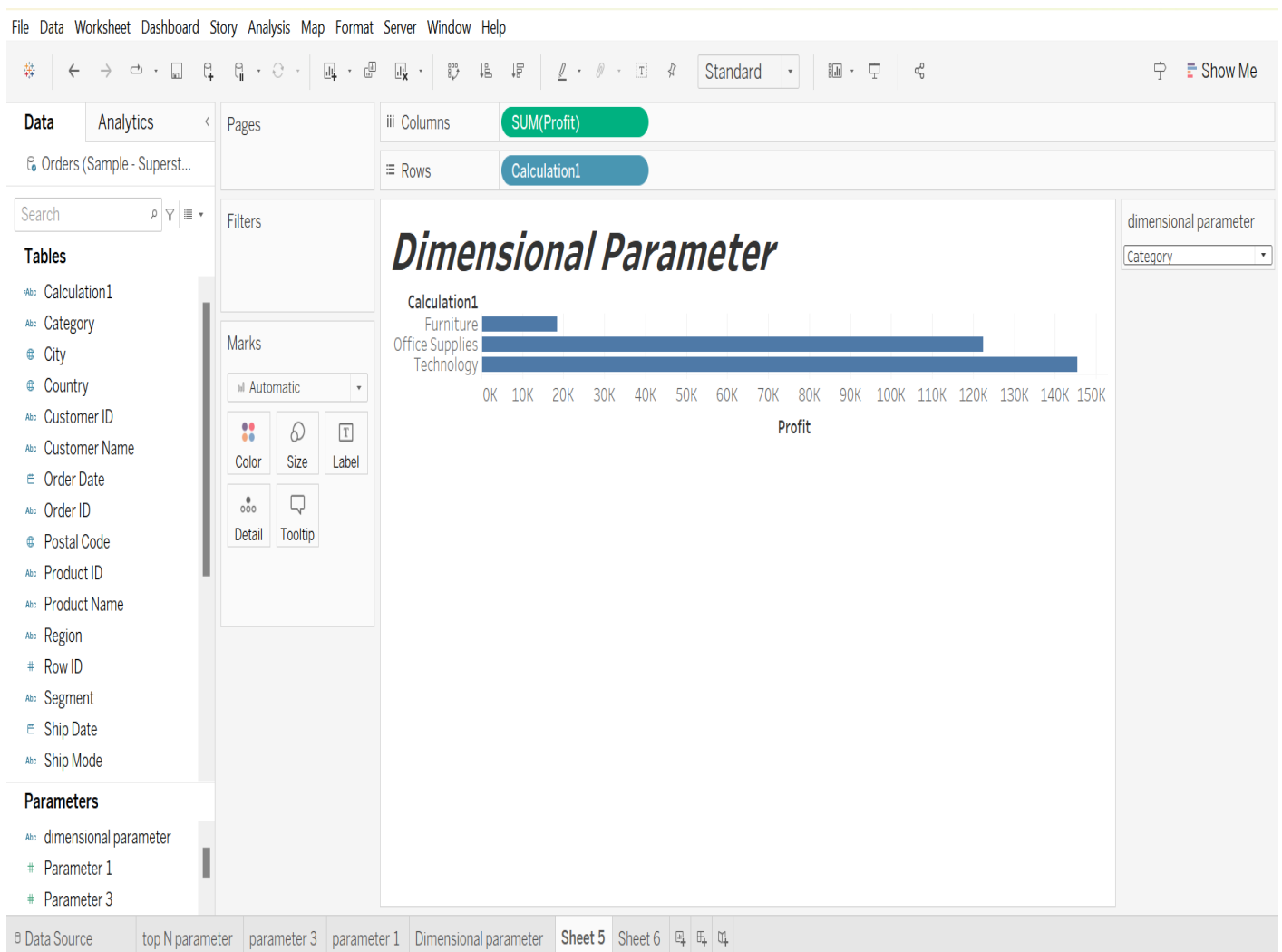
Dimensional Parameter : Dimensions contains qualitative values (such a names, dates or geographical data). We can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view.
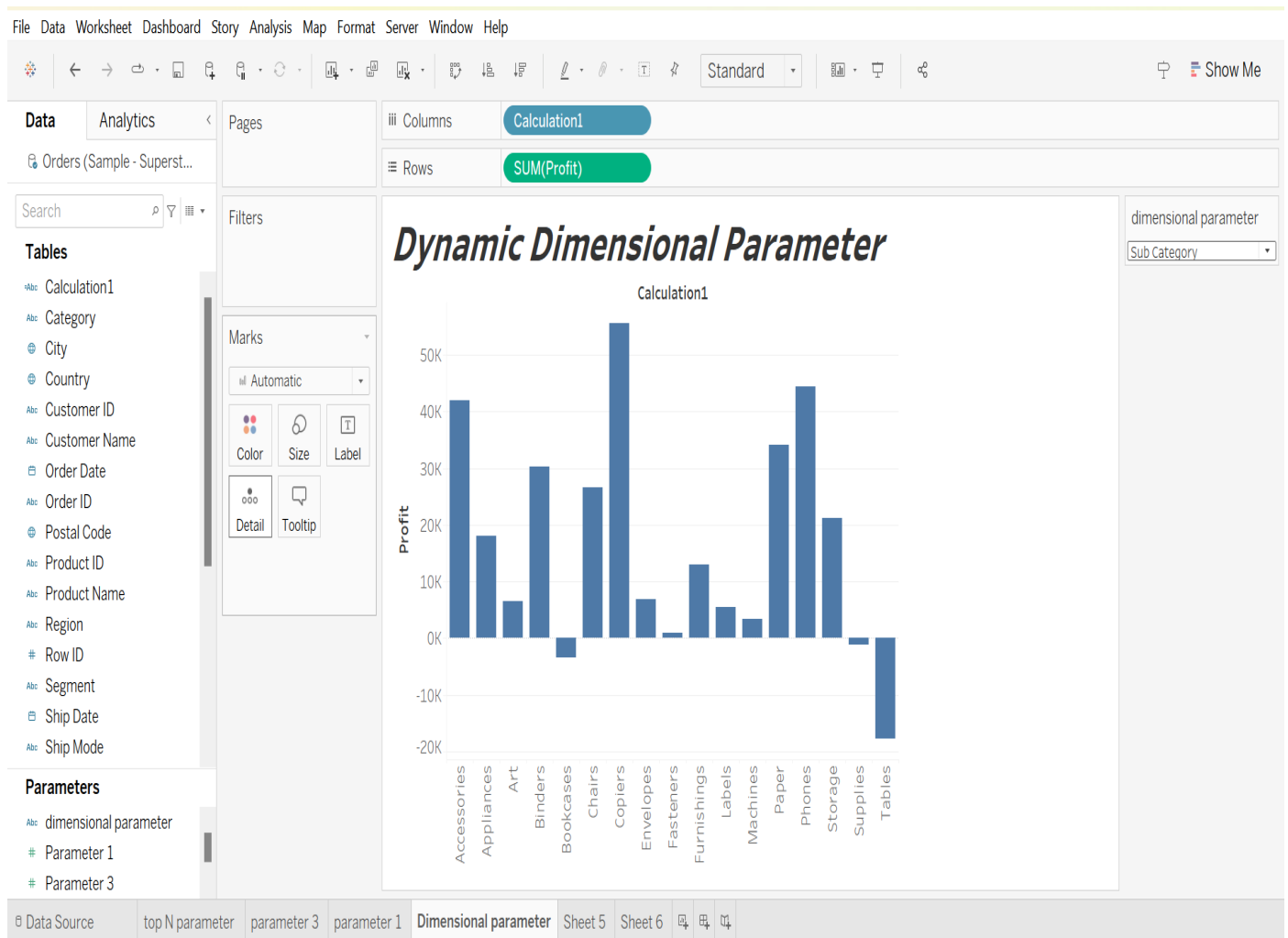
➢ Dimensions are categorical data fields that represent qualitative attributes.
➢ They provide context and structure to data, allowing users to segment, group, and categorize information for analysis.
➢ They are typically used on the rows and columns of a visualization, defining the axes of charts and 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 calcualtion

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.

THANK YOU