DATA ANALYTICS

ASSIGNMENT-4

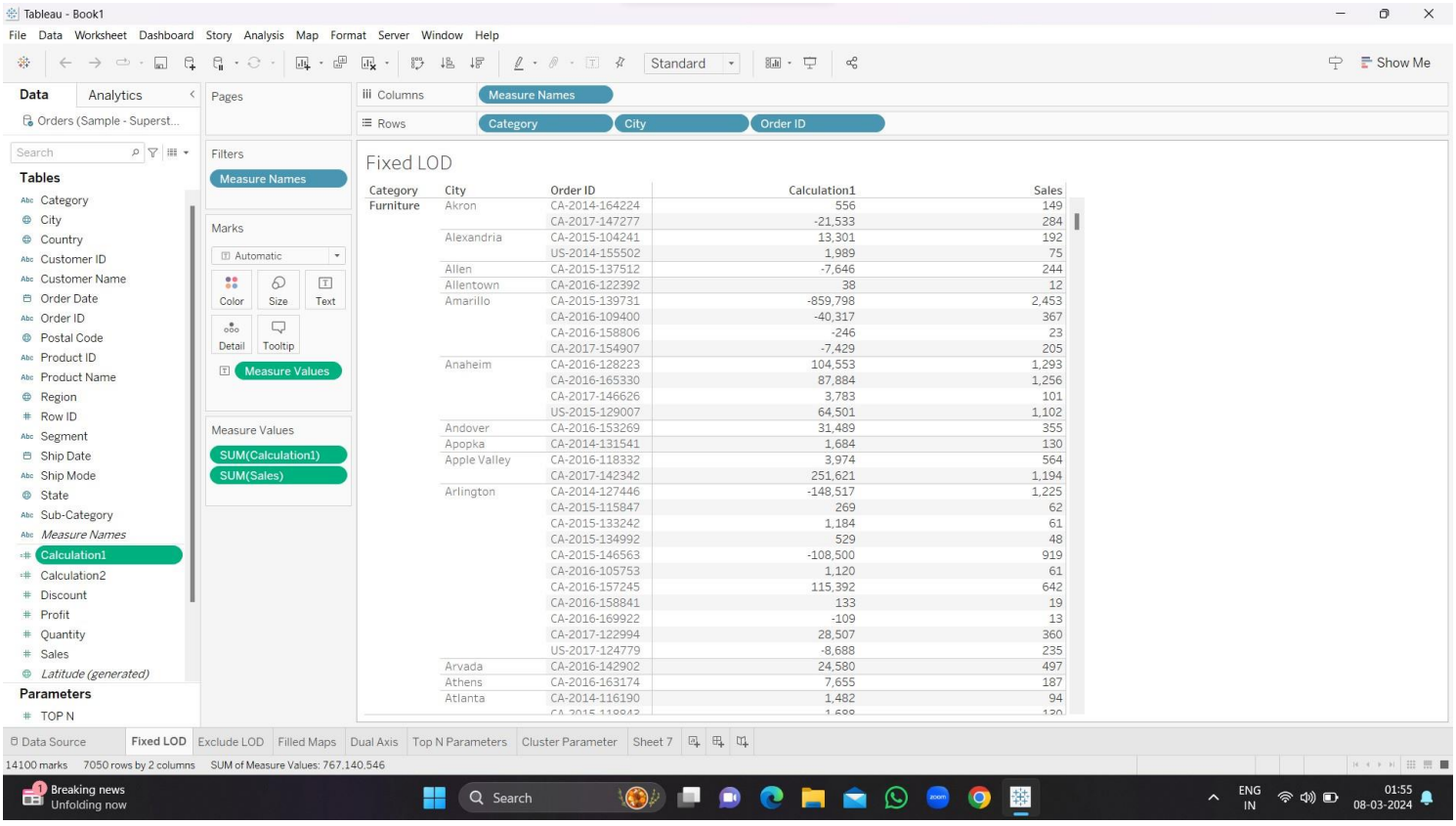
TASK-1

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 like measure names values are considered as the columns and similarly the different data like category, city and order id values are considered as the rows based on these values, we can observe that a fixed column (Calculation 1) with measure value sales is obtained.

Fixed LOD



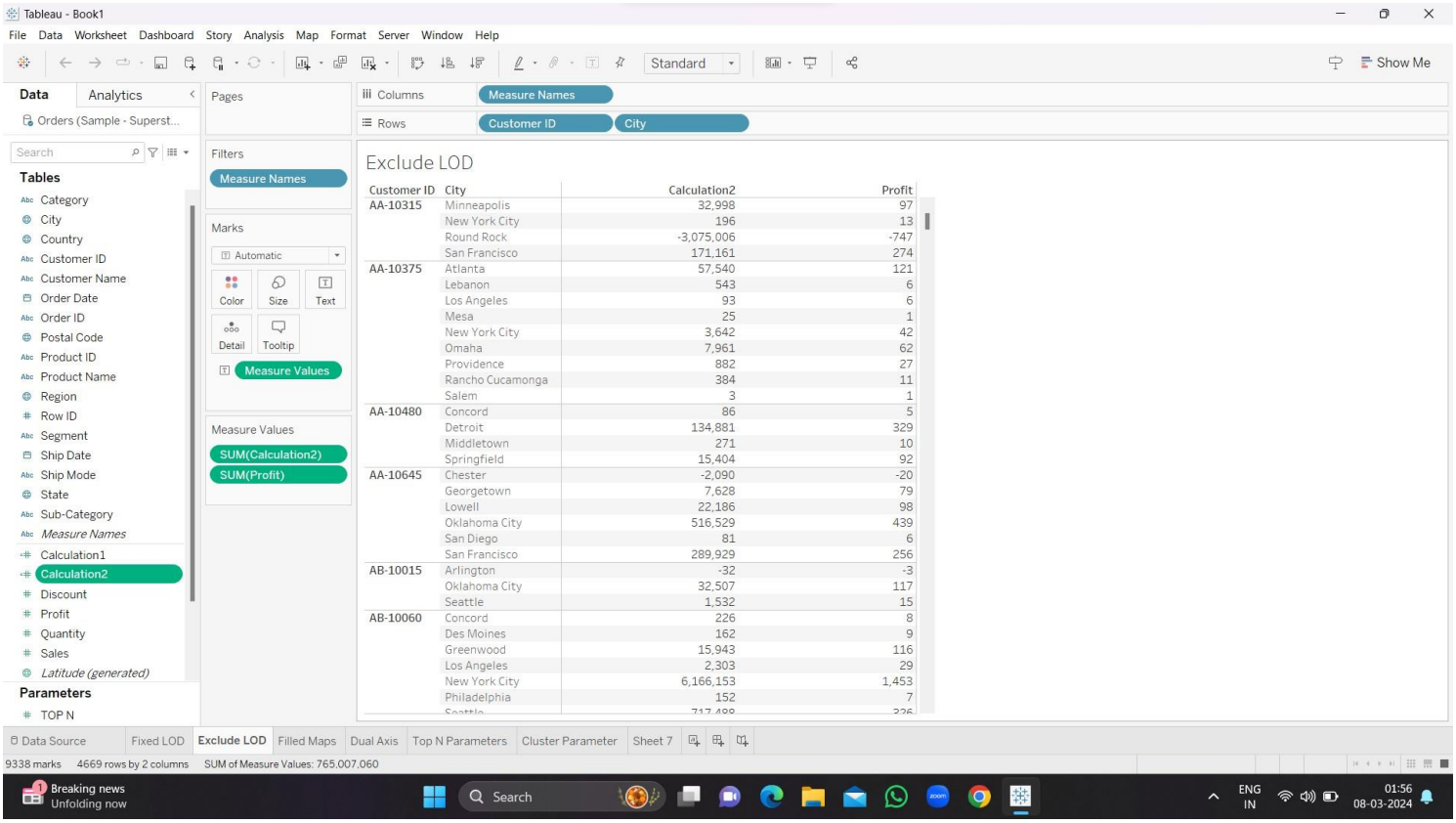
EXCLUDE LOD:

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 customer ID and city in rows and measure names in column. Based on these values, we can observe that (Calculation 2) with measure value profit is obtained.

Exclude LOD



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 analyse 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. Filled map

2. Dual Axis map

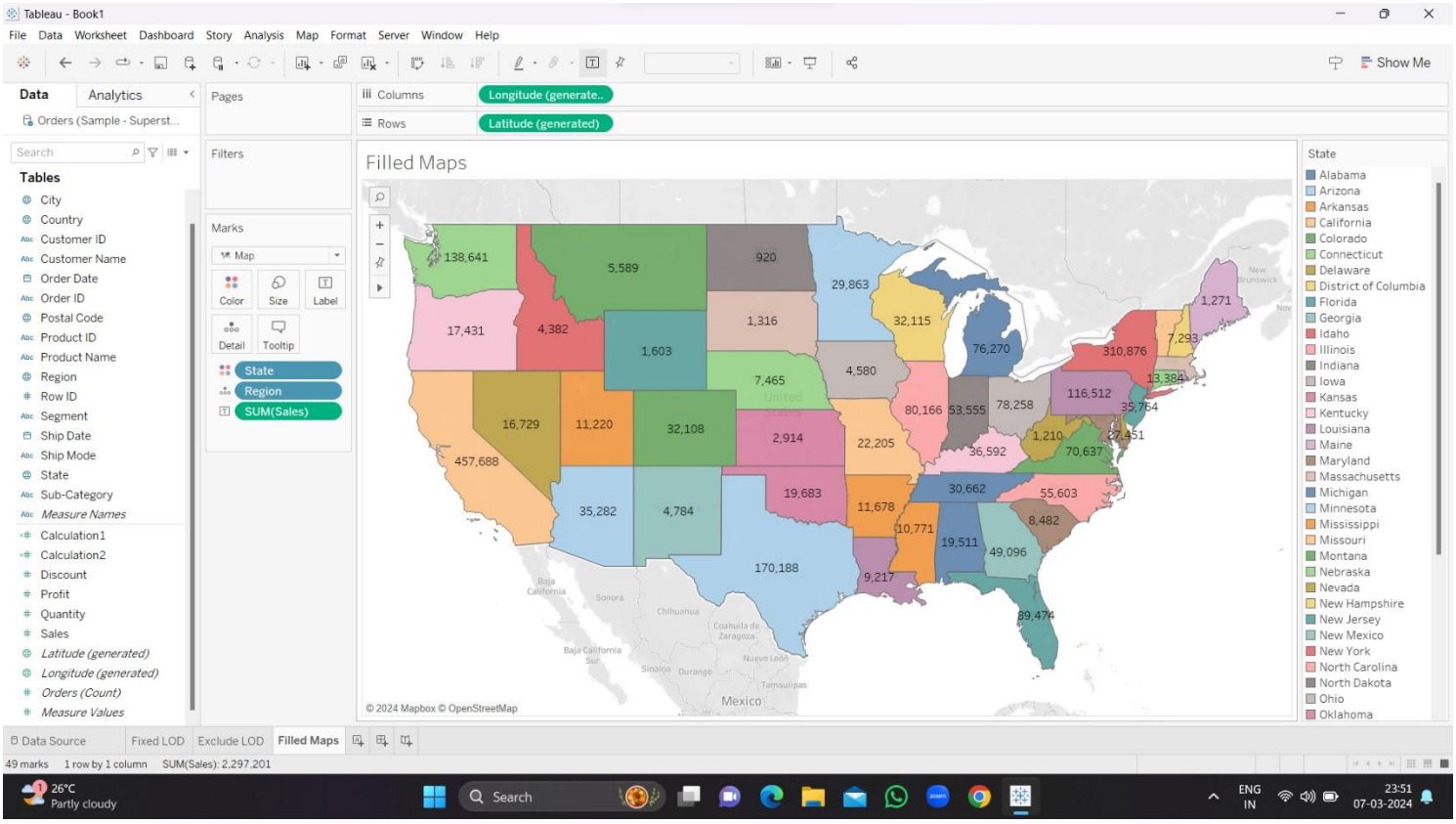
In these visualizations global super store data is used,

Filled Map:

Filled map visualization is a method of graphically representing numerical data where the value of each data point is indicated using colours.

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

Filled Map



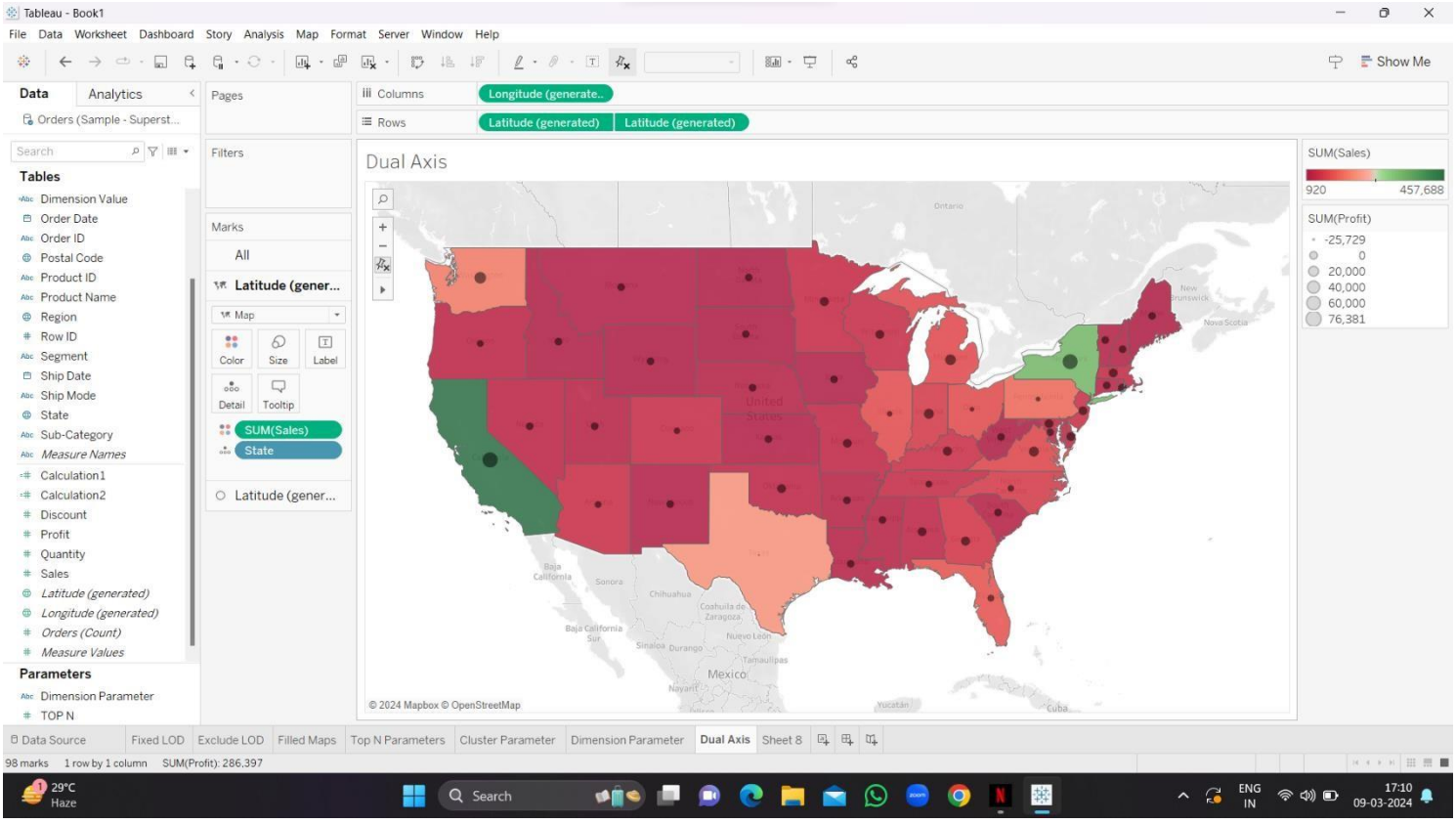
Dual Axis Map:

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 and take measure value sales as background. Next duplicate the latitude in the row so that we can get another chart. In that we remove sales and drag profit into the size and keep it into automatic. Now we change the map into dual axis. By this we can easily get to know about both the sales and profit simultaneously of various states. In this way we can combine two different measures using dual axis.

With this dual axis layered map, users can easily tell which state generated more Profit and Sales. This is the resultant dual axis map,

Dual Axis Map



Task-3

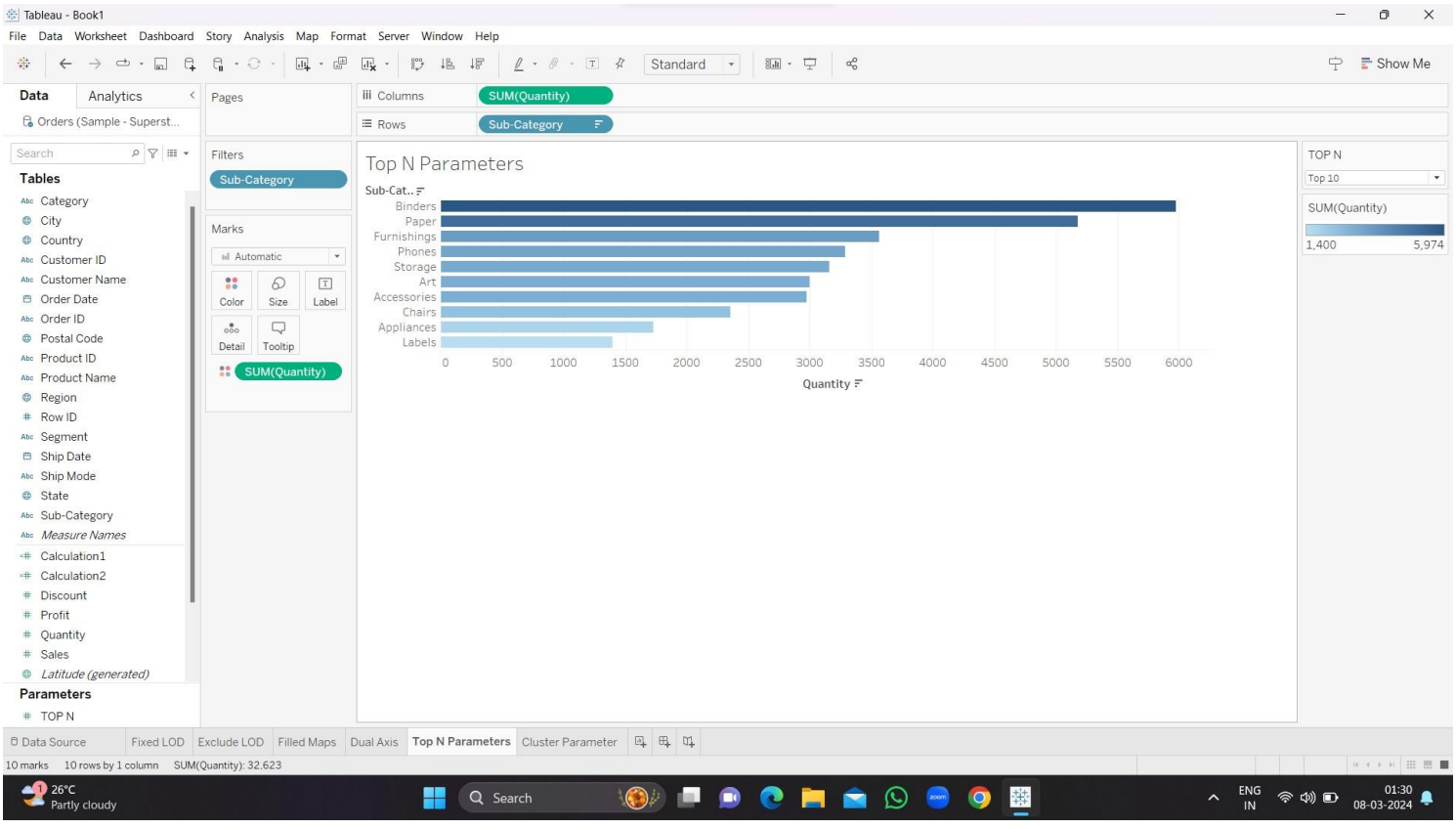
Top N Parameter:

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 10

sub category values according to their quantity. We used sum of quantity in column field and sub category in rows field that we got the resultant visualization showing top 10 sub category values in a descending order.

Top N Parameter



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.

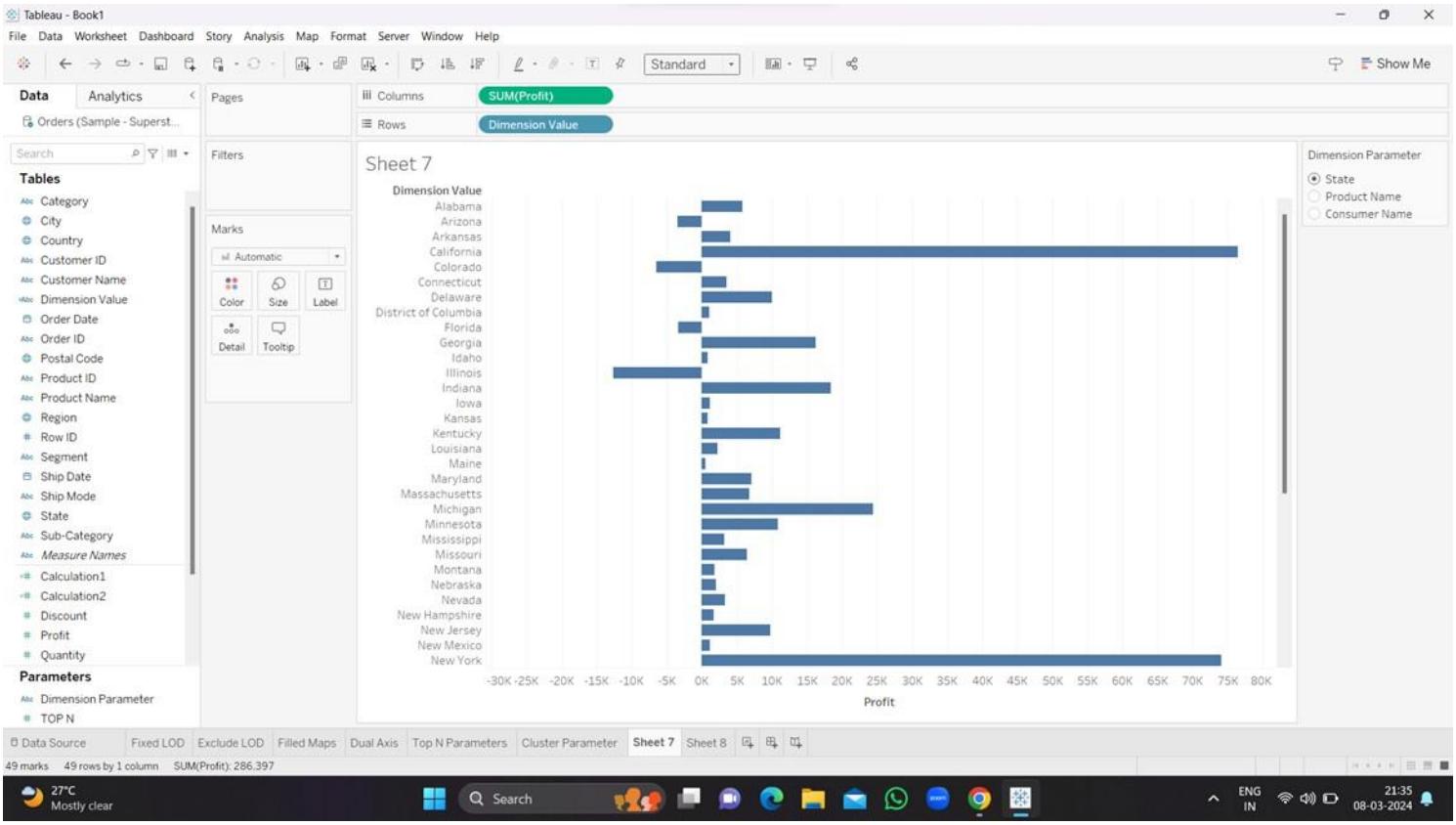
➢ Dimensions are categorical data fields that represent qualitative attributes.

➢ 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 Dimension value (Calculation) in row field gives the resultant visualization shows the profit of categorical values by performed calculation.

Dimension Parameter

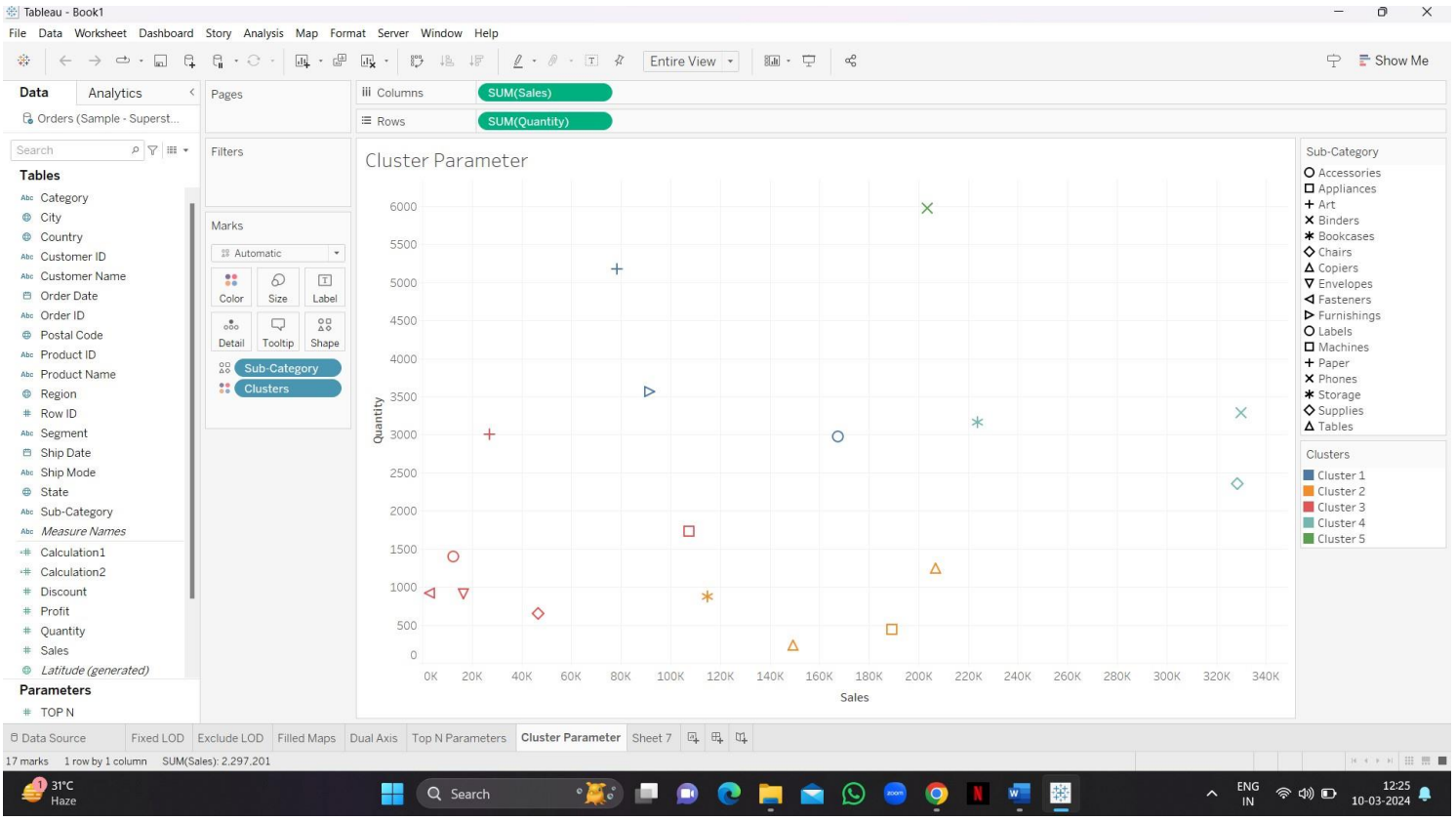


Cluster Parameter:

Cluster parameter uses K-Means as the clustering algorithm and groups data based on the mean values of the cluster. Cluster Parameters allows you to group and find underlying trends in your data. However, the built-in cluster does so based on the dimensions in the view.

In below visualization we use sum of sales in column field and Quantity in row field gives the resultant visualization shows the sales of categorical values by performed cluster parameter underlying sub-category trends in data.

Cluster Parameter



THANK YOU