DATA ANALYTICS

ASSIGNMENT 4

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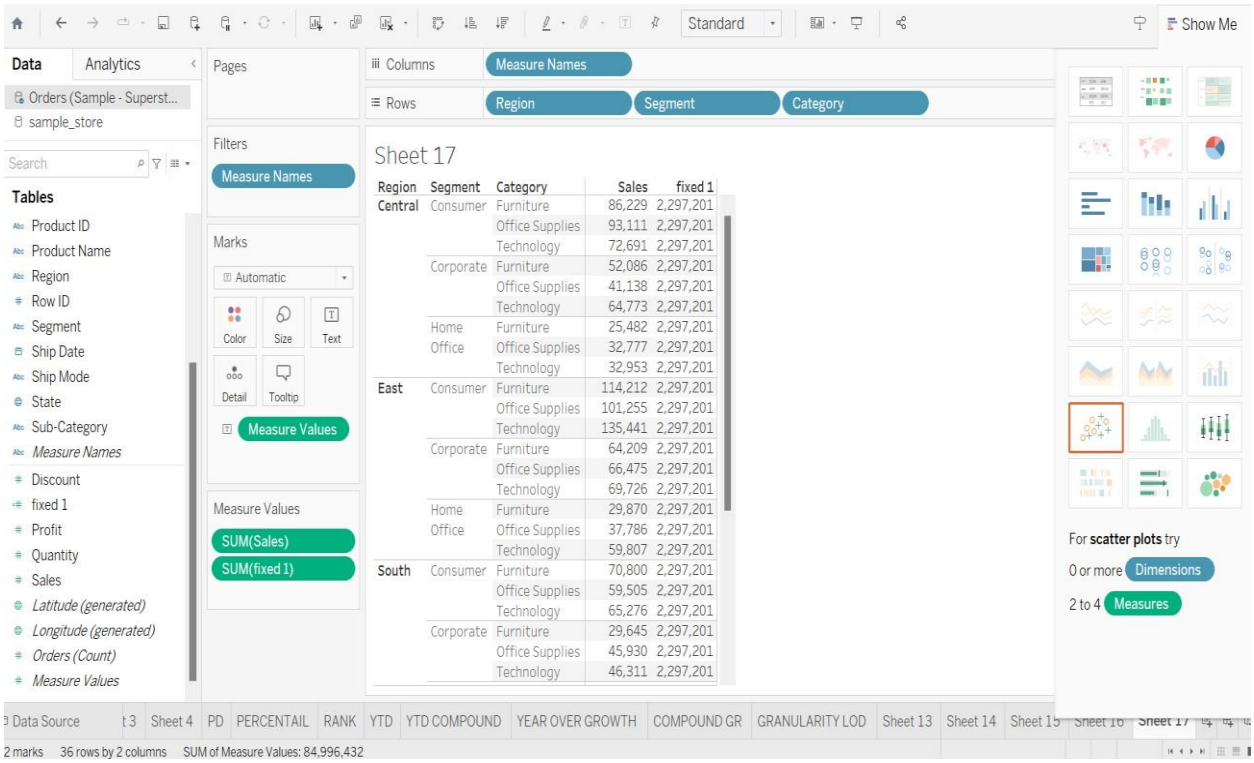
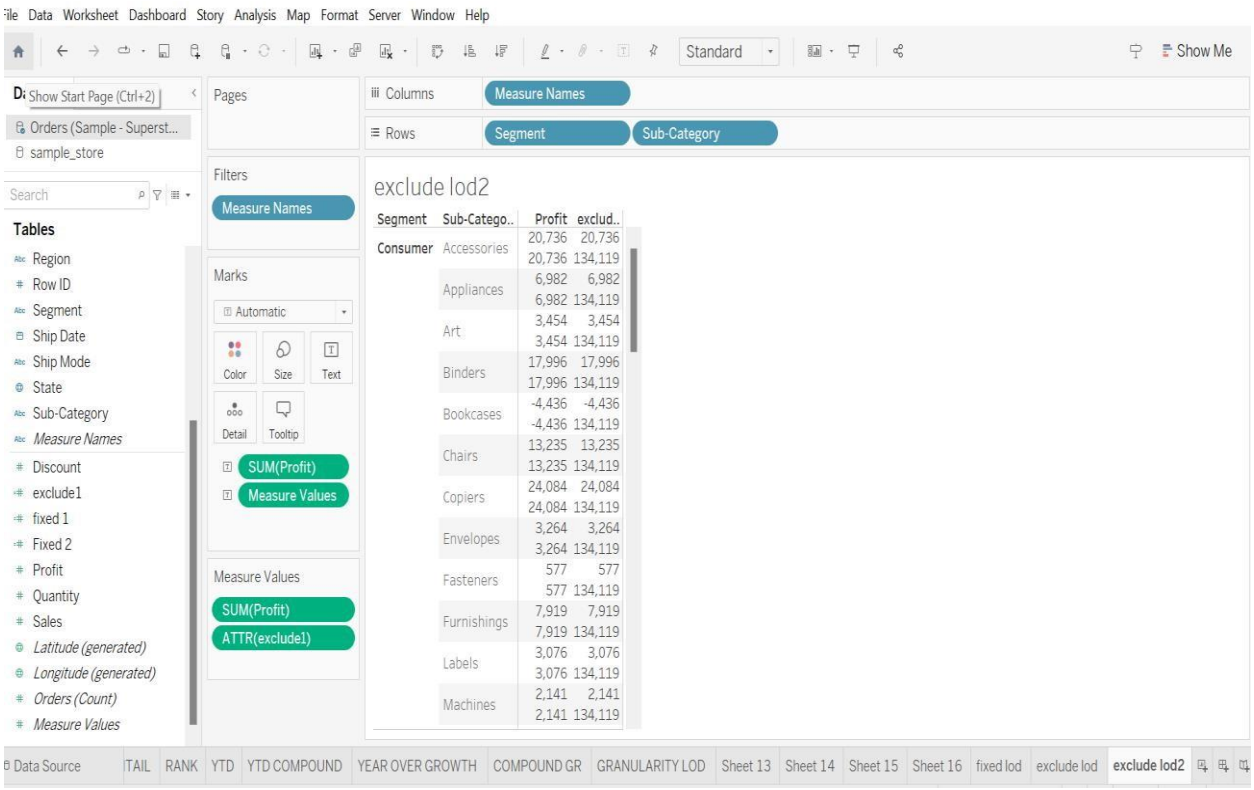
Creating Fixed LOD expression:



A Fixed Level of Detail (LOD) expression ensures that a particular level of detail remains unchanged, regardless of any additional dimensions or filters applied to the data. This helps maintain a consistent basis for aggregating information. Fixed LOD expressions maintain a specific level of detail.
{fixed:sum(sales)}: Sales distribution calculated at a fixed level of detail: This calculates the total sales amount at a set level of granularity, regardless of the dimensions used in visualization.

Creating exclude LOD expression



Exclude LOD expression calculates a value excluding certain dimensions from consideration. It allows for aggregations that ignore specific dimensions, offering a different perspective on the data.

Exclude LOD disregards certain dimensions in the calculations

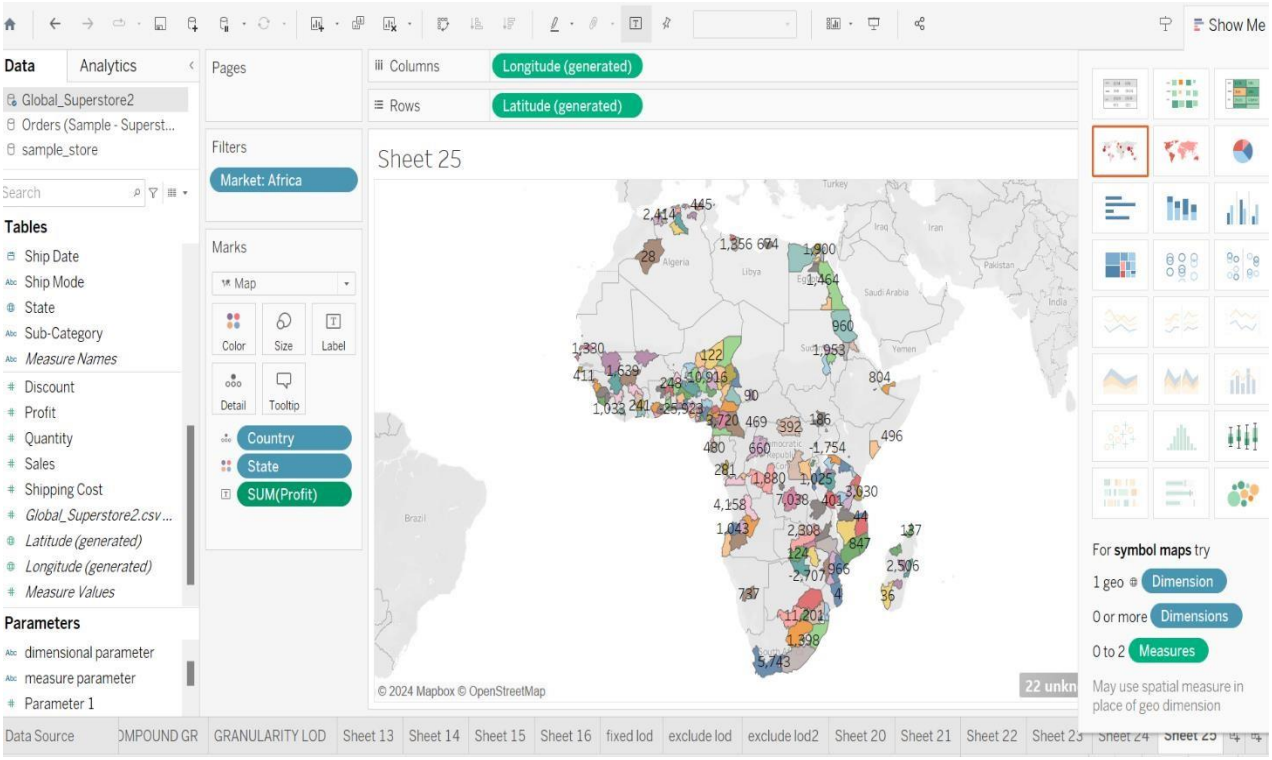
{Exclude[sub-category]: sum([profit])}

Exclude [sub category]: This is designed to exclude the “sub-category” dimensions.

SUM [Profit]: The aggregation function “sum ()” is applied to “profit” values. It sums up all the profit values.

Creating 2 map visualizations using geographical data.

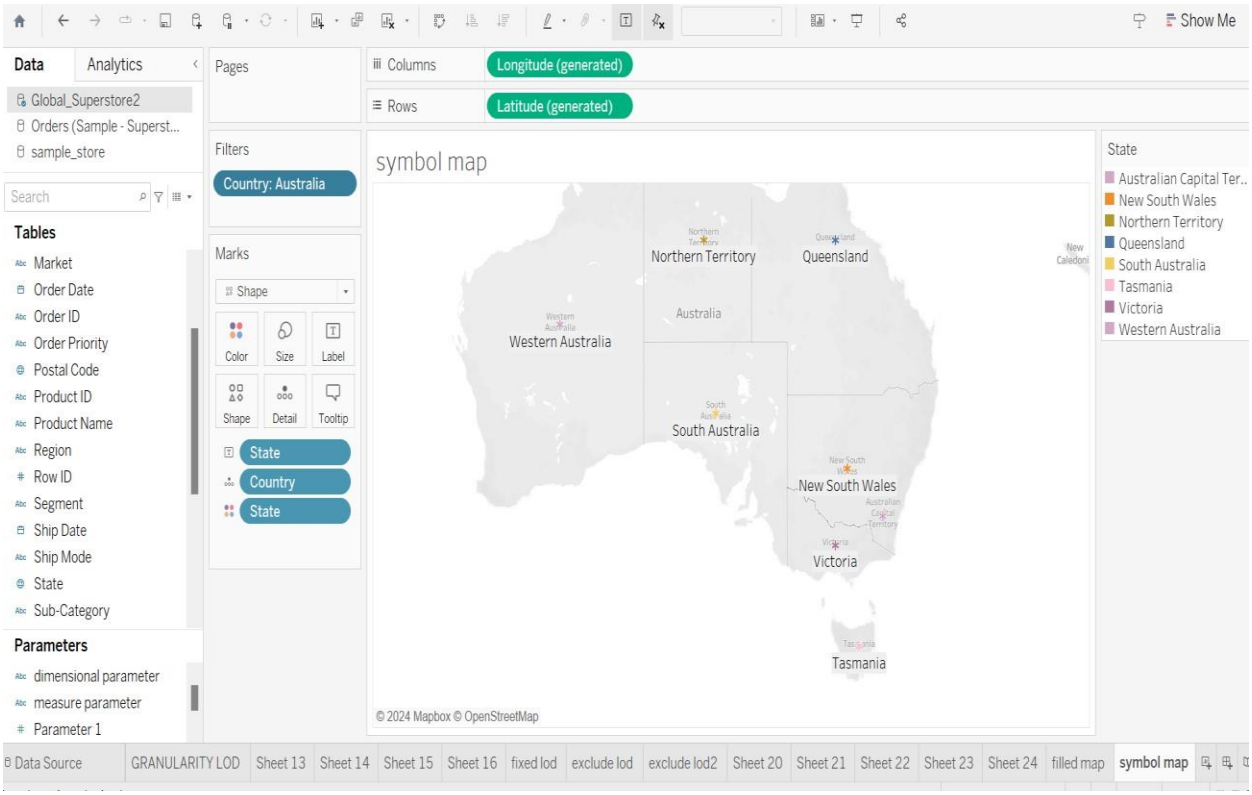
FILLED MAP:



I have developed a filled map visualization using a global store dataset that encompasses sales, profits, and various metrics spanning different countries and regions. I mapped longitude to columns and latitude to rows, while incorporating country, state, and profit into the visual representation. By assigning colors to states and applying a filter for the African market, I focused the visualization specifically on Africa.

This filled map effectively communicates profit distribution across various states within the African market. It serves as a valuable tool for stakeholders, enabling them to discern regional profitability trends and make data-driven decisions.

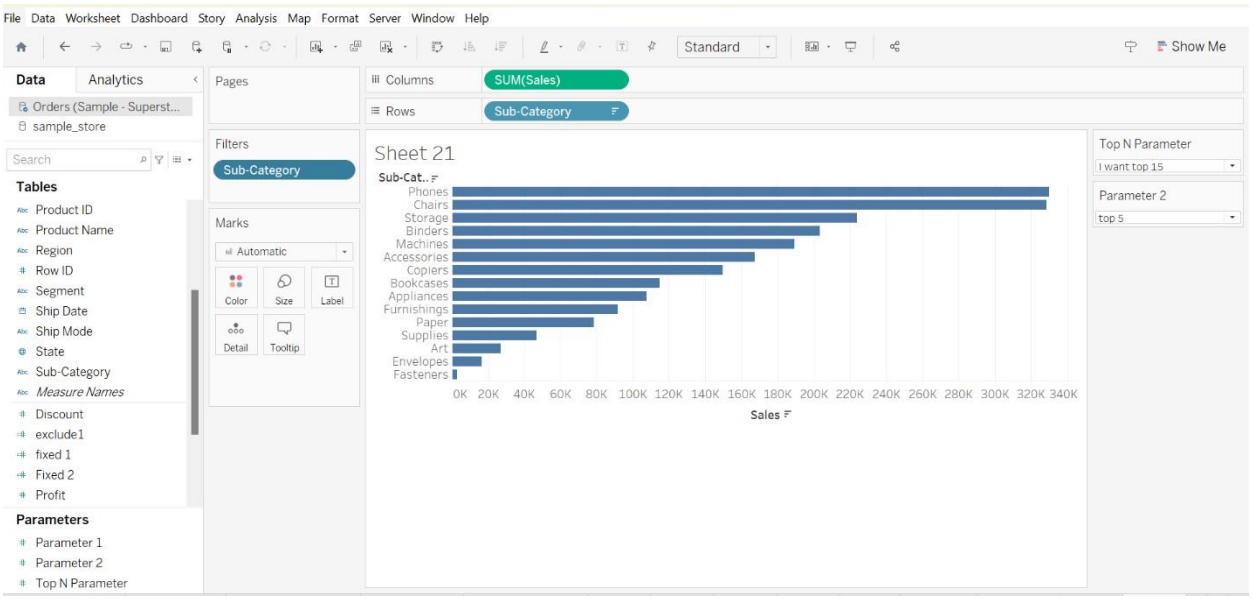
SYMBOL MAP:



I have crafted a symbol map visualization using a global store dataset, comprising sales, profits, and various metrics from diverse countries and regions. Longitude was assigned to columns and latitude to rows. Additionally, I utilized country, state, and profit as mark attributes, assigning colors to states. To focus specifically on Australia, I applied a country filter. Furthermore, I customized the symbol map by selecting the '*' symbol from the marks search bar.

This symbol map visualization for Australia serves as a robust tool for strategic decisionmaking, market analysis, and operational optimization.

Creating Top N Parameters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Parameter 2
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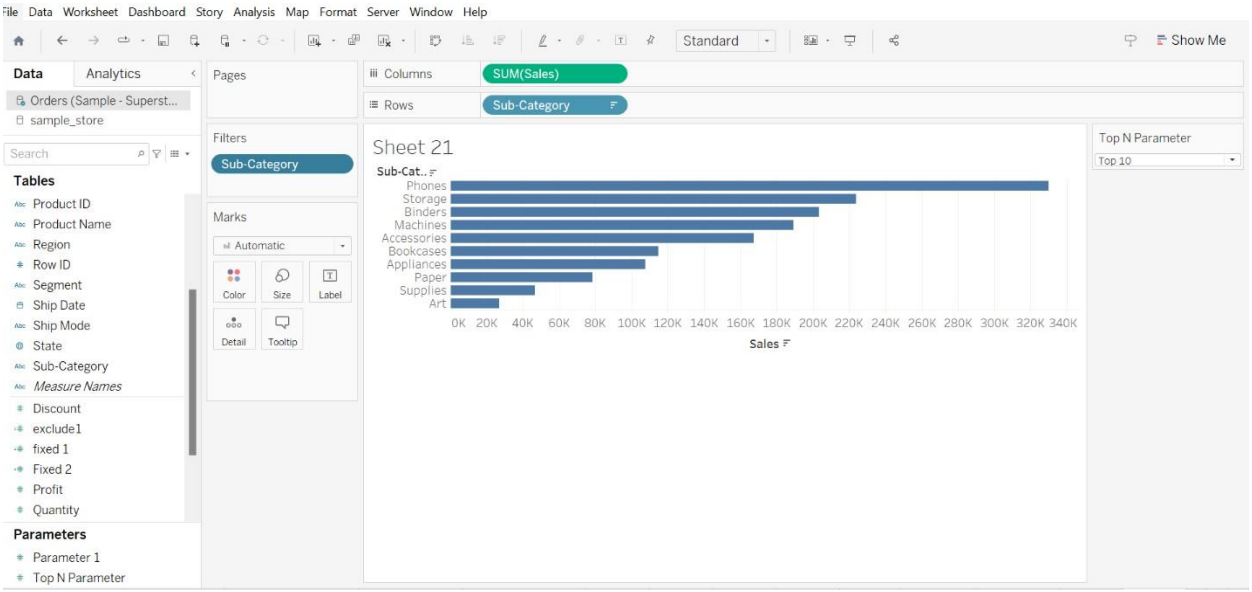
Sales
Top N Parameter
I want top 15
Parameter 2
top 5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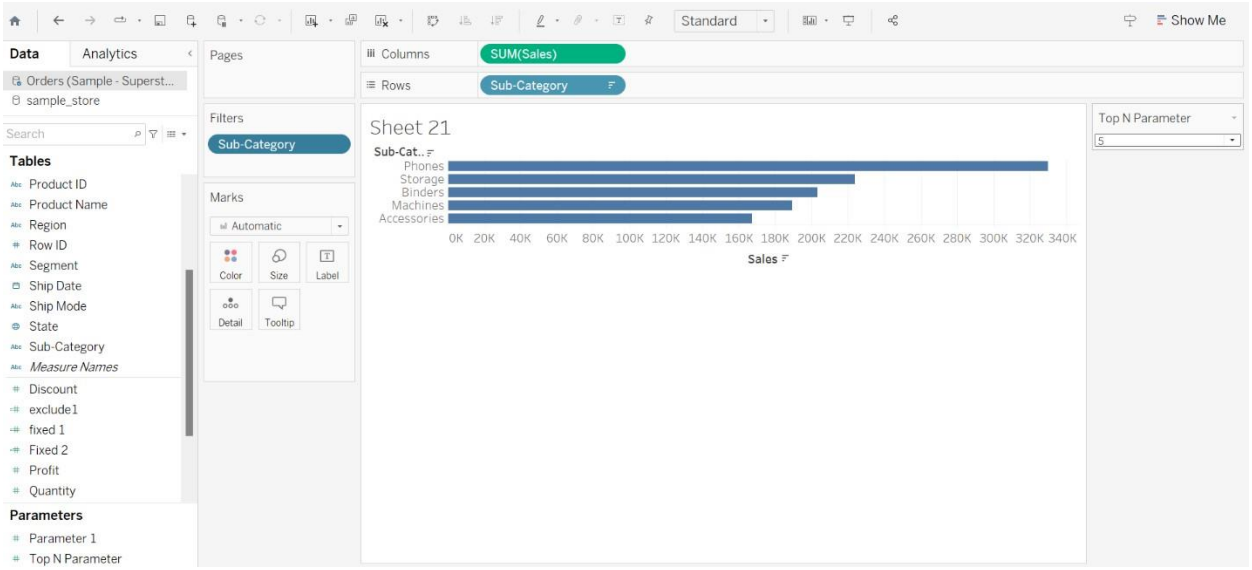
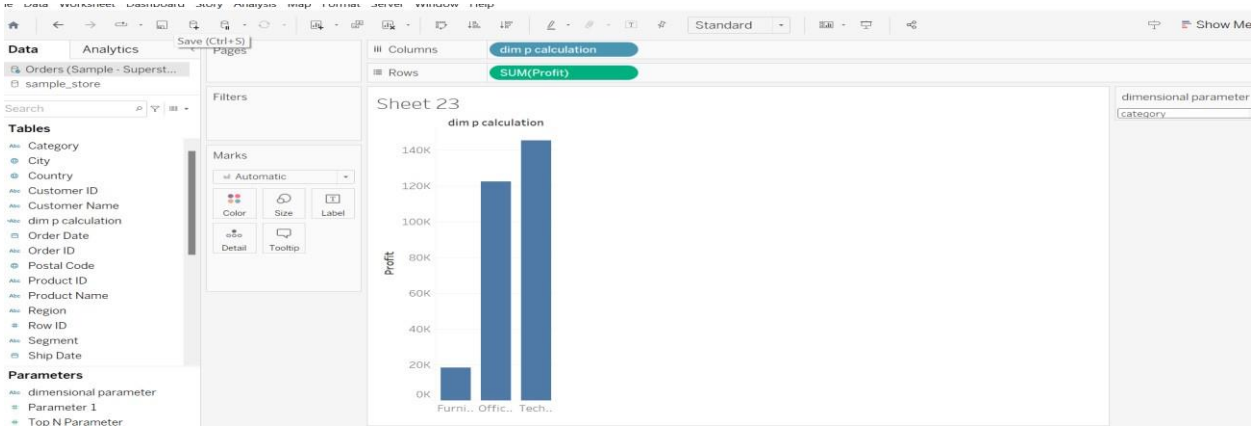
Sales
Top N Parameter
Top 10

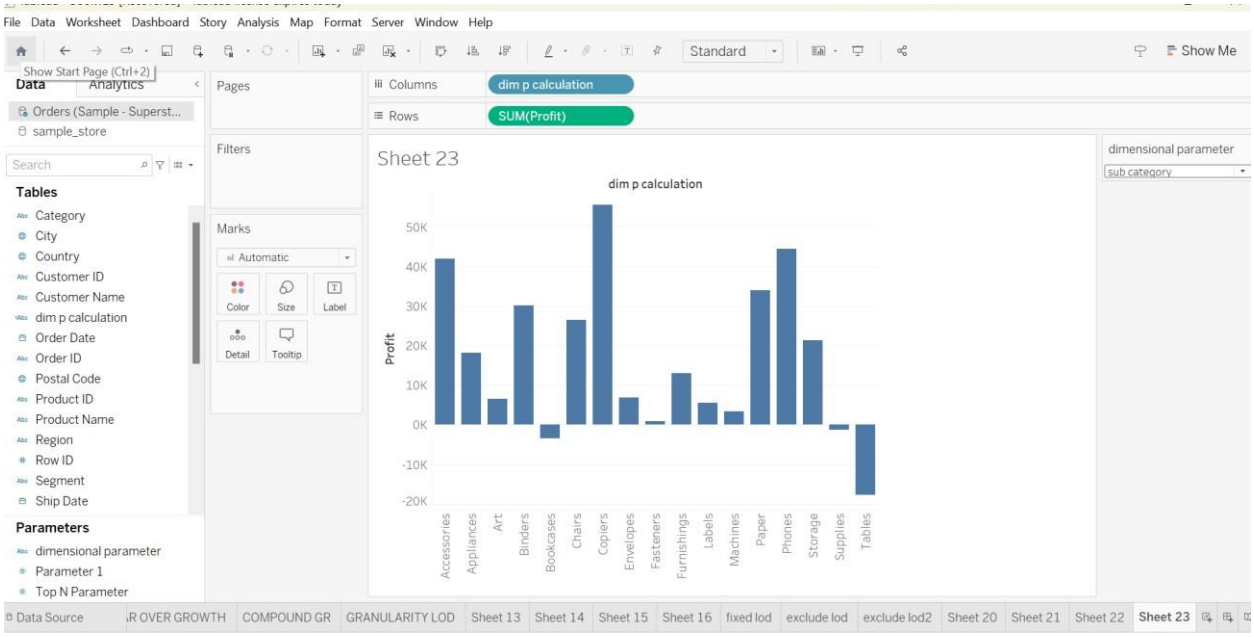


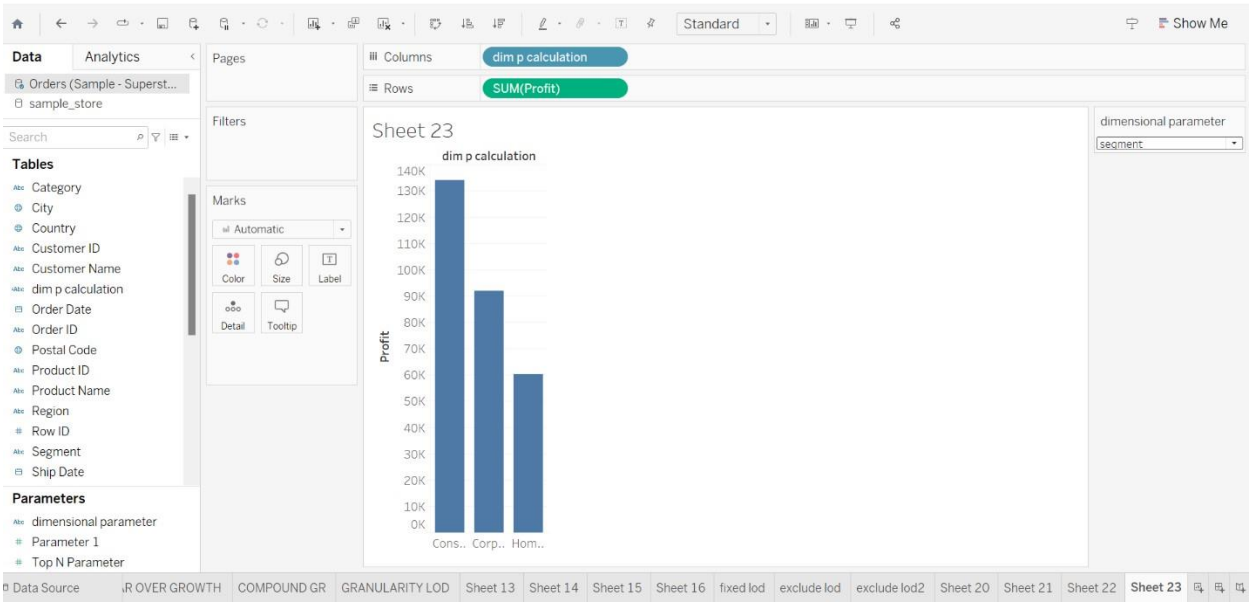
Firstly, I selected the sample store dataset and dragged the sales data to the column, and the sub-category to the rows. Then, I created a parameter by selecting 'Create Parameter' from the dropdown menu. I chose 'Integer' as the data type and selected the 'List' option. I added data values such as 'Top 5', 'Top 10', and 'Top 15' to the list. After clicking 'OK', the 'Top N' parameter was created.

Next, to utilize this parameter, I clicked on it and navigated to 'Show Parameters'. Here, I could select options such as 'Top 15', 'Top 10', or 'Top 5' subcategories. This enabled me to focus on the most significant data points and extract valuable insights from the visualization.

Dimensional parameters





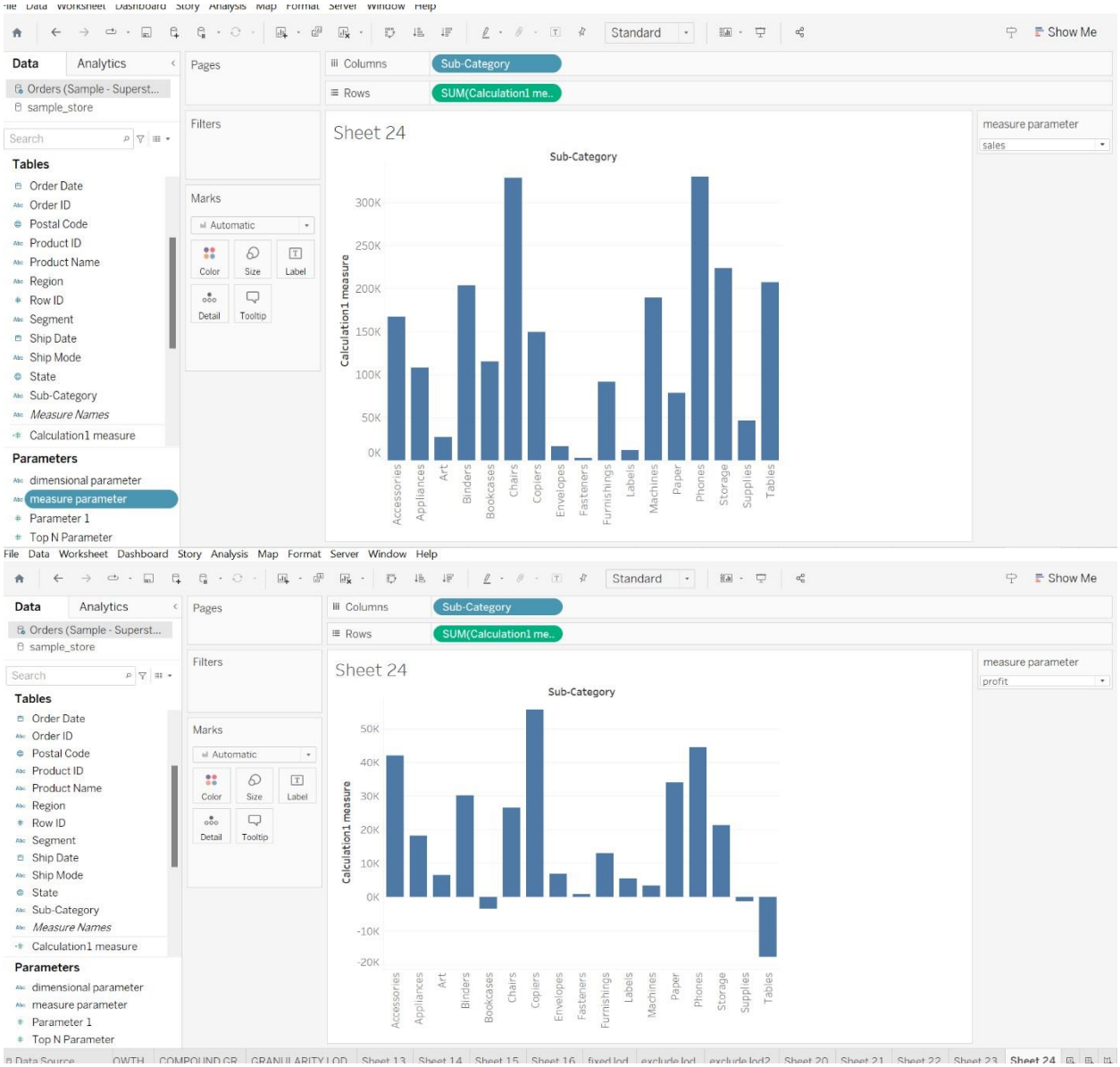


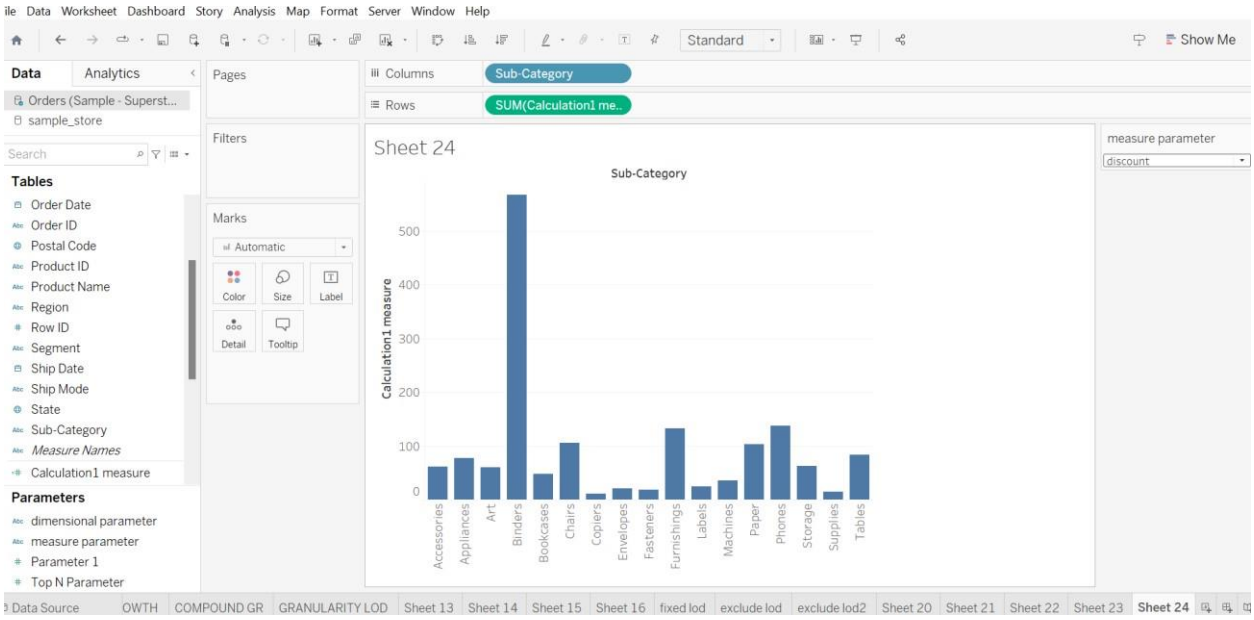
In this calculated field formula, we're leveraging Tableau's conditional logic to dynamically select dimensions based on the value of a parameter called "dimension parameter." This parameter allows users to specify their desired dimension for analysis, be it "category," "subcategory," or "segment."

The formula begins by evaluating the parameter's value. If the parameter is set to "category," the calculation returns the corresponding values from the "category" field. Similarly, if the parameter is set to "subcategory," it fetches data from the "sub category" field. Finally, if the parameter is set to "segment," the calculation retrieves data from the "segment" field.

This approach facilitates flexible analysis within Tableau, empowering users to switch between different dimensions seamlessly. By incorporating this calculated field into visualizations, users can dynamically explore their data, gaining insights tailored to their specific analytical needs.

MESURE PARAMETERS:





Calculated field: IF [measure parameter]=”sales” THEN[sales] ELSEIF[measure parameter]=”profit” THEN [profit] ELSEIF[measure parameter]=”discount” THEN[discount]END

I have calculated field operates based on the measure parameter provided. If the measure parameter is "sales," it retrieves the sales data. Similarly, if the measure parameter is "profit," it fetches the profit data. Moreover, if the measure parameter is "discount," it retrieves the discount data. This construct ensures versatility and adaptability in data analysis, allowing users to tailor their calculations according to the specific metrics they are interested in. By employing such calculated fields, analysts can efficiently manipulate and analyze data to derive valuable insights tailored to their requirements, thus enhancing decision-making processes within organizations.