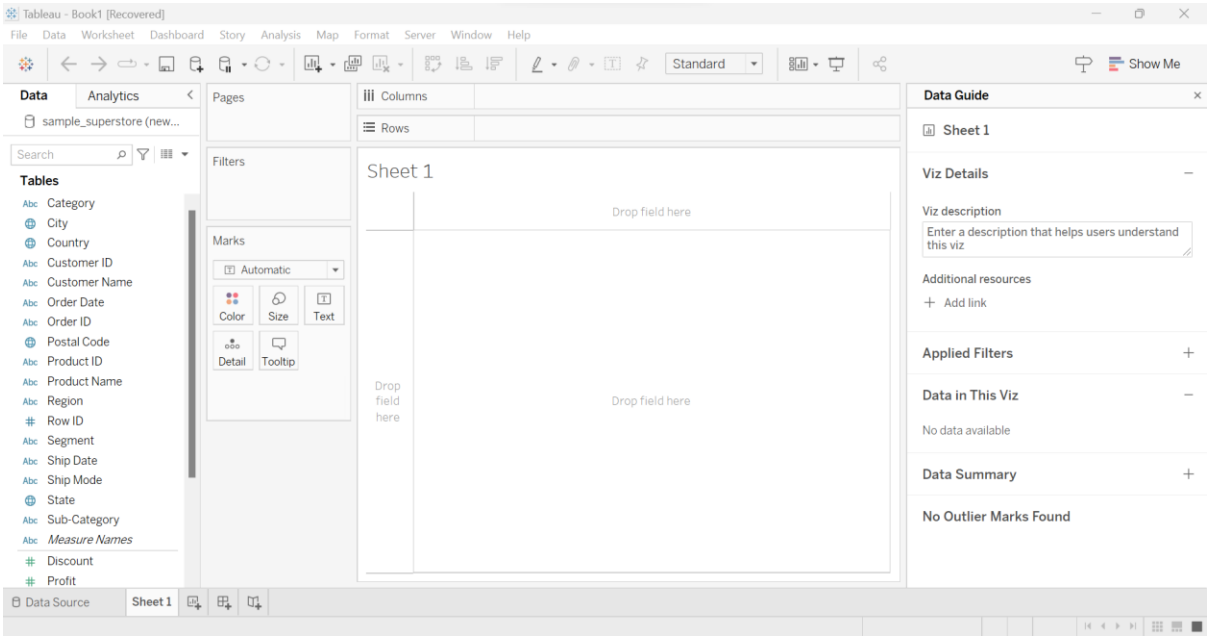
M VINEELA REDDY 20BCT0257

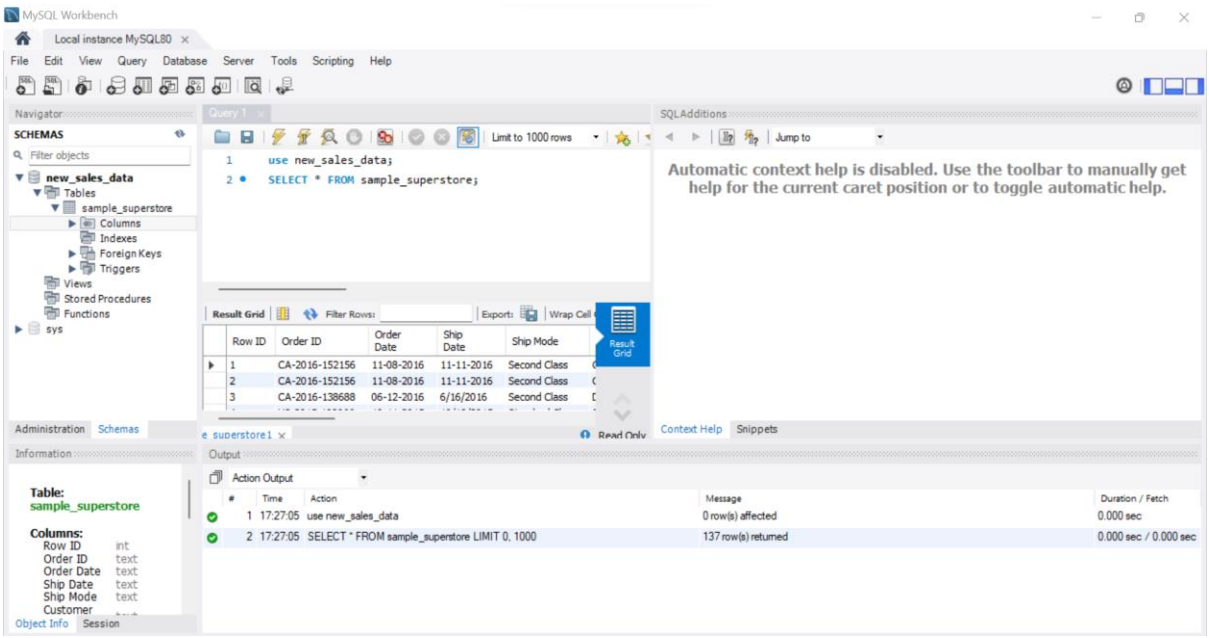
ASSIGNMENT-1

1) Download tableau desktop & Mysql in your PC or laptop

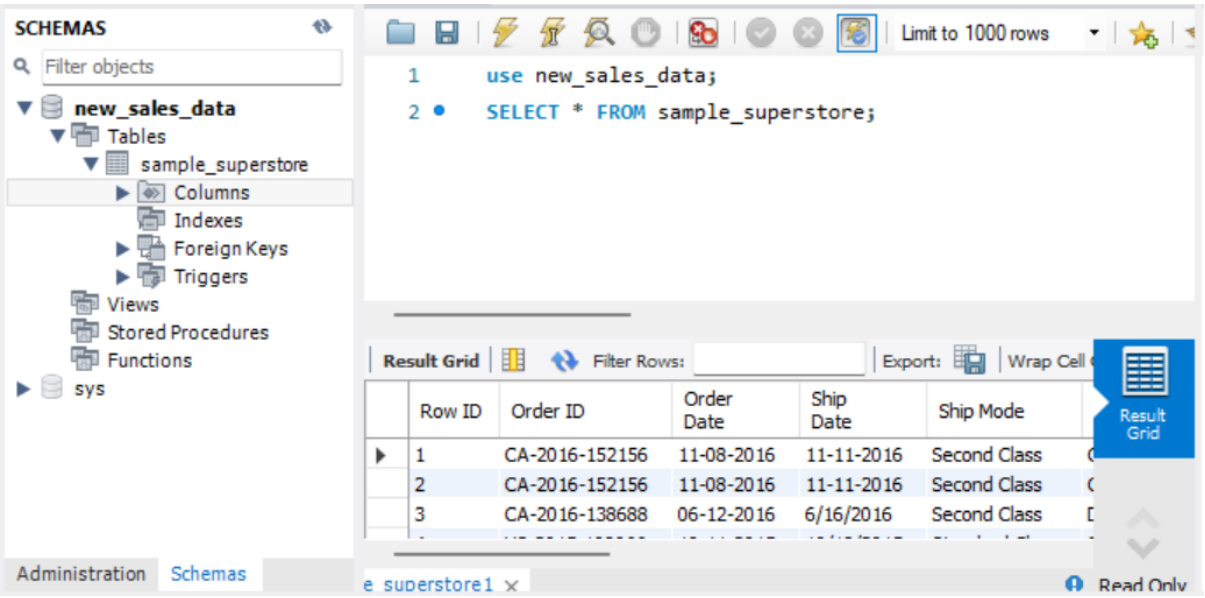
- **Tableau:** Tableau is a visual analytics platform transforming the way we use data to solve problems—empowering people and organizations to make the most of their data.



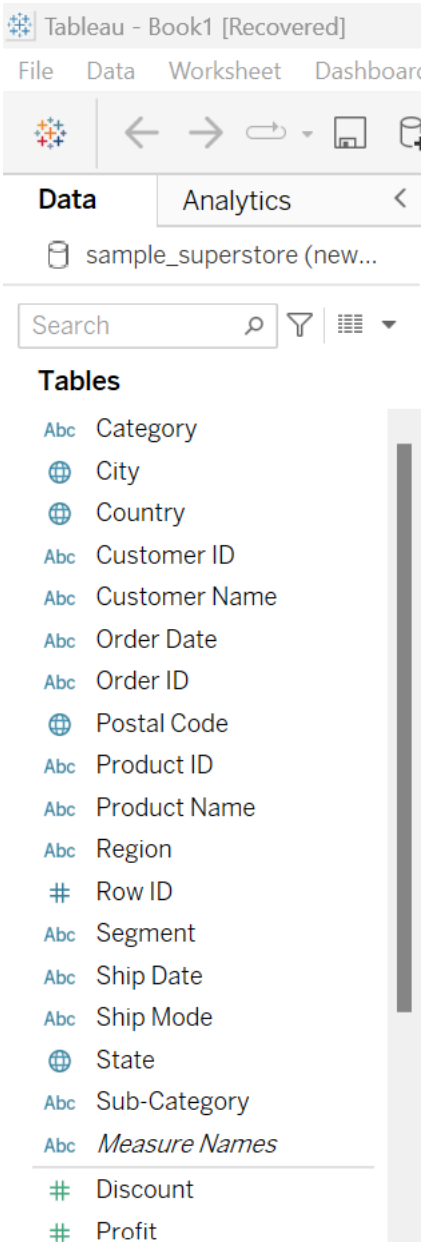
- **Mysql**



2) Create a new schema in your Mysql workbench and upload your data

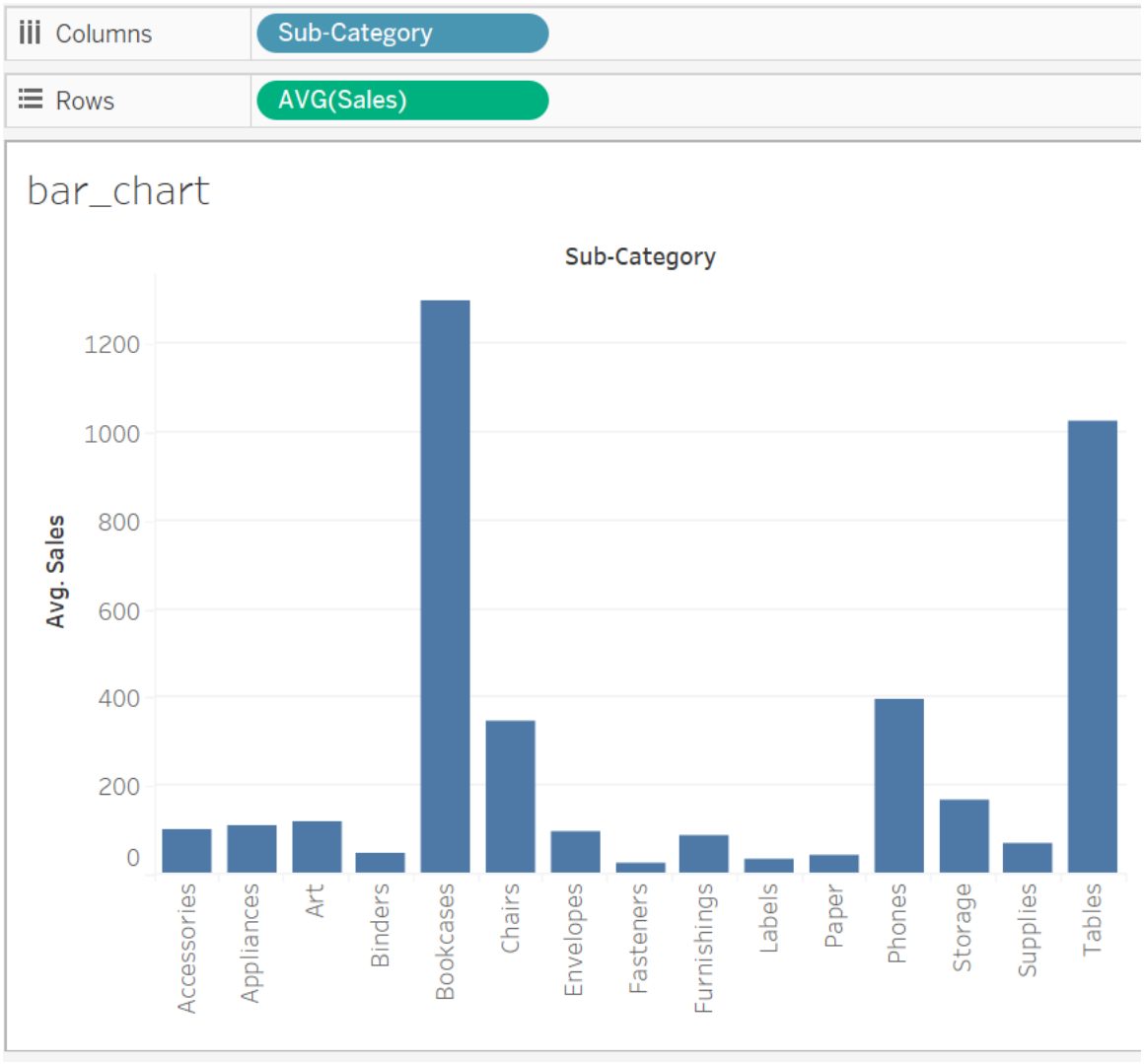


3) Connect your Mysql and Tableau



4) Create the below 5 charts/plots

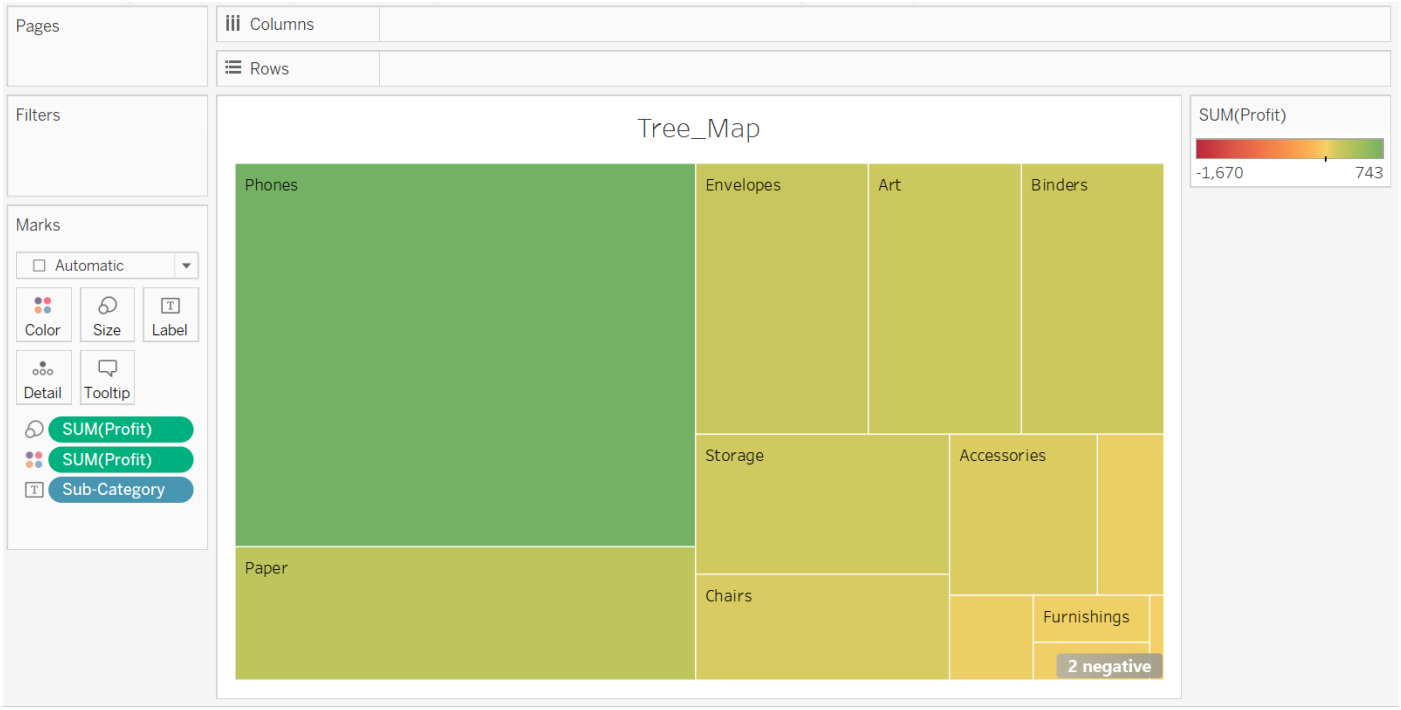
● **Bar chart :** Bar charts enable us to compare numerical values like integers and percentages. They use the length of each bar to represent the value of each variable. For example, bar charts show variations in categories or subcategories scaling width or height across simple, spaced bars, or rectangles.



From the above Bar chart we can conclude that Bookcases category has the highest average sales and Fasteners has the lowest average sales

● **Tree map:** The treemap functions as a visualization composed of nested rectangles. These rectangles represent certain categories within a selected dimension and are ordered in a hierarchy, or "tree." Quantities and patterns can be compared and displayed in a limited chart space. Treemaps represent part to whole relationships.

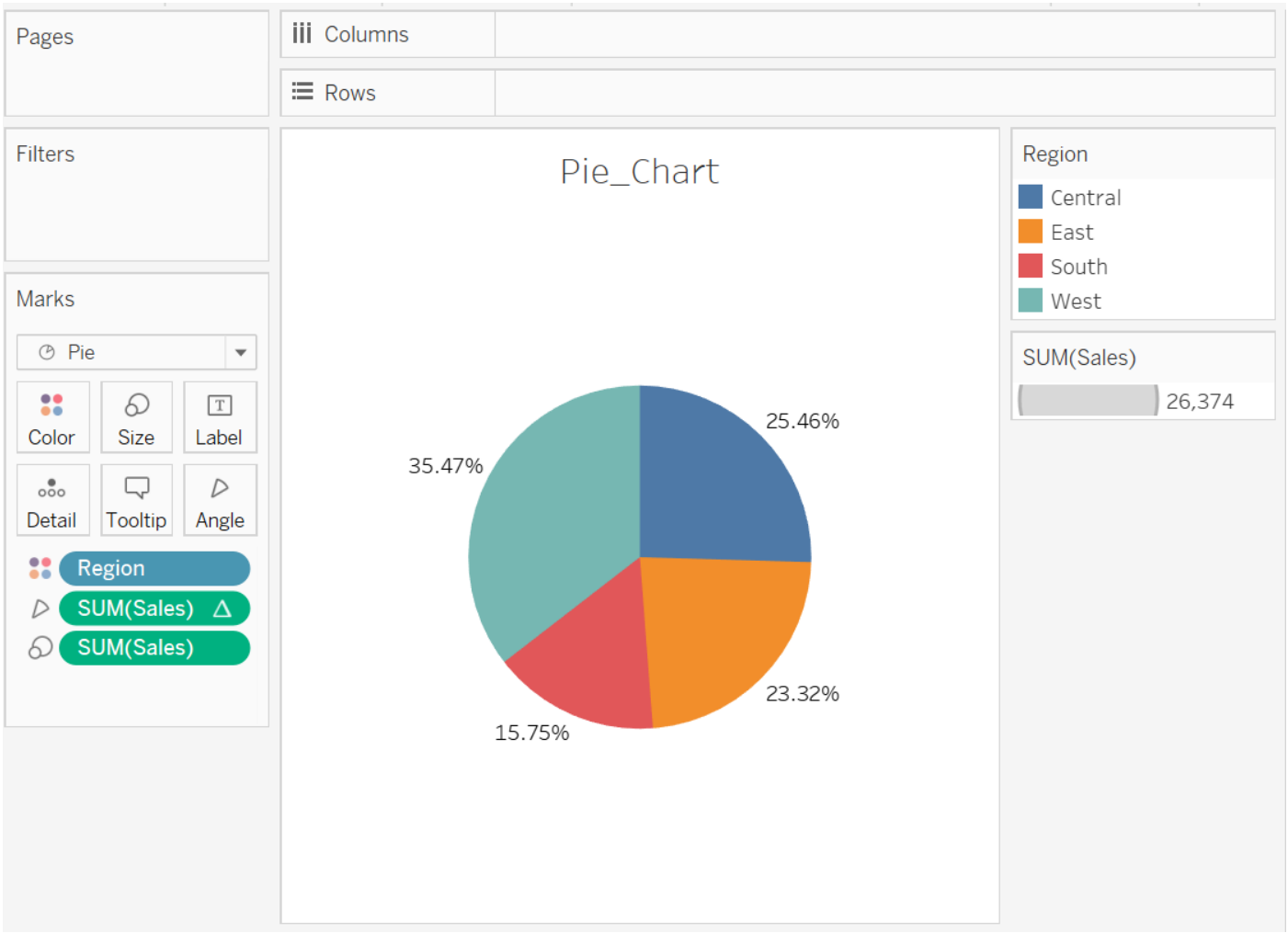
From the below tree Map we can see the profit and loss based on the scale and the colour .



● **Heatmap:** A density heat map is used to analyze the areas in a plot where data points are dense or scattered. Heat maps are specifically used where there is a huge data set with overlapping data values. This helps analysts to see the areas with greater density and discover data trends.

From the above Heat Map we can conclude that Tables have most profit in west region and bookcases have most loss in east region

● **Pie chart :** A pie chart helps organize and show data as a percentage of a whole. True to the name, this kind of visualization uses a circle to represent the whole, and slices of that circle, or "pie", to represent the specific categories that compose the whole. This type of chart helps the user compare the relationship between different dimensions (Ex. categories, products, individuals, countries, etc.) within a specific context. Usually, the chart splits the numerical data (measure) into percentages of the total sum. Each slice represents the proportion of the value, and should be measured accordingly.



From the above Pie chart we can observe the percentages of each region and we can see that west region has more percentage than others for sales (profit)

● **Horizontal bar chart:** The chart makes quick work of information consumption for the report viewer. They can immediately see comparative relationships as well as approximate numeric values.

From the below horizontal bar chart based on the Sample-superstore , we can see the chart with subcategory and profit.

Pages

Columns | Sub-Category

Rows | SUM(Profit)

Filters

Marks

Automatic

Color | Size | Label

Detail | Tooltip