

DA Assignment 3

Objective:

The objective of this assignment is to familiarize students with advanced data manipulation techniques using sets in Tableau.

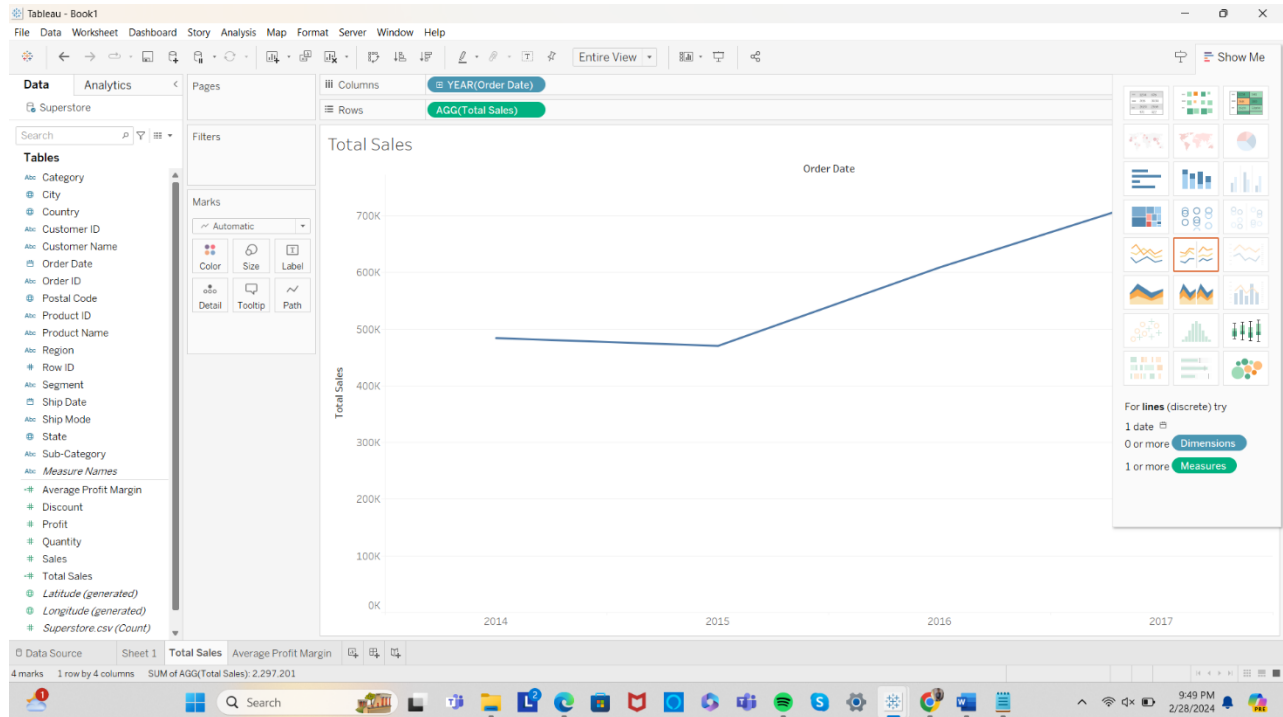
- Define at least two sets based on specific criteria from your dataset (e.g., high-value customers, top-performing products).
- Experiment with combining sets using UNION, INTERSECT, and MINUS operations.
- Create 2 Calculation field using any aggregate function
- Create any 3 visualization using quick Table Calculations

Dataset: Kindly Use Superstore Dataset

CALCULATION FIELD USING ANY AGGREGATE FUNCTION:

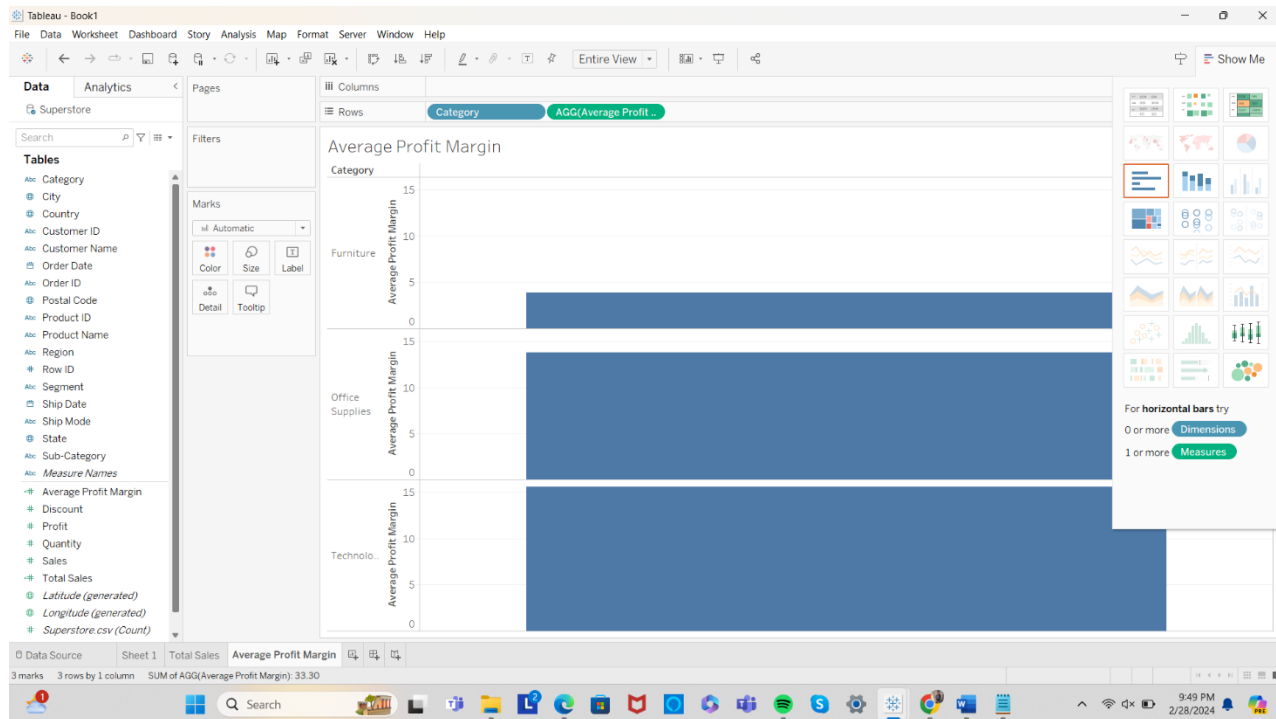
Total Sales Visualization:

- Create a new worksheet.
- Drag the "Order Date" field to the Columns shelf to create a time-based analysis.
- Drag the "Total Sales" calculation field to the Rows shelf. This will create a measure showing the total sales over time.
- You can choose the appropriate visualization type for your analysis, such as a line chart or bar chart.
- Keep it in the Entire View.



Average Profit Margin Visualization:

- Create another new worksheet.
- Drag the "Category" or "Sub-Category" field to the Rows shelf to segment the data.
- Drag the "Average Profit Margin" calculation field to the Rows shelf or to the Label shelf to display the average profit margin for each category or sub-category.
- You can use a bar chart or any other appropriate visualization type to display the average profit margin by category or sub-category.
- Keep it in the Entire View.



The calculated fields are used in both visualizations to perform specific calculations on the data:

The "Total Sales" calculated field sums up the sales for each transaction.

The "Average Profit Margin" calculated field calculates the average profit margin based on the profit and sales values.

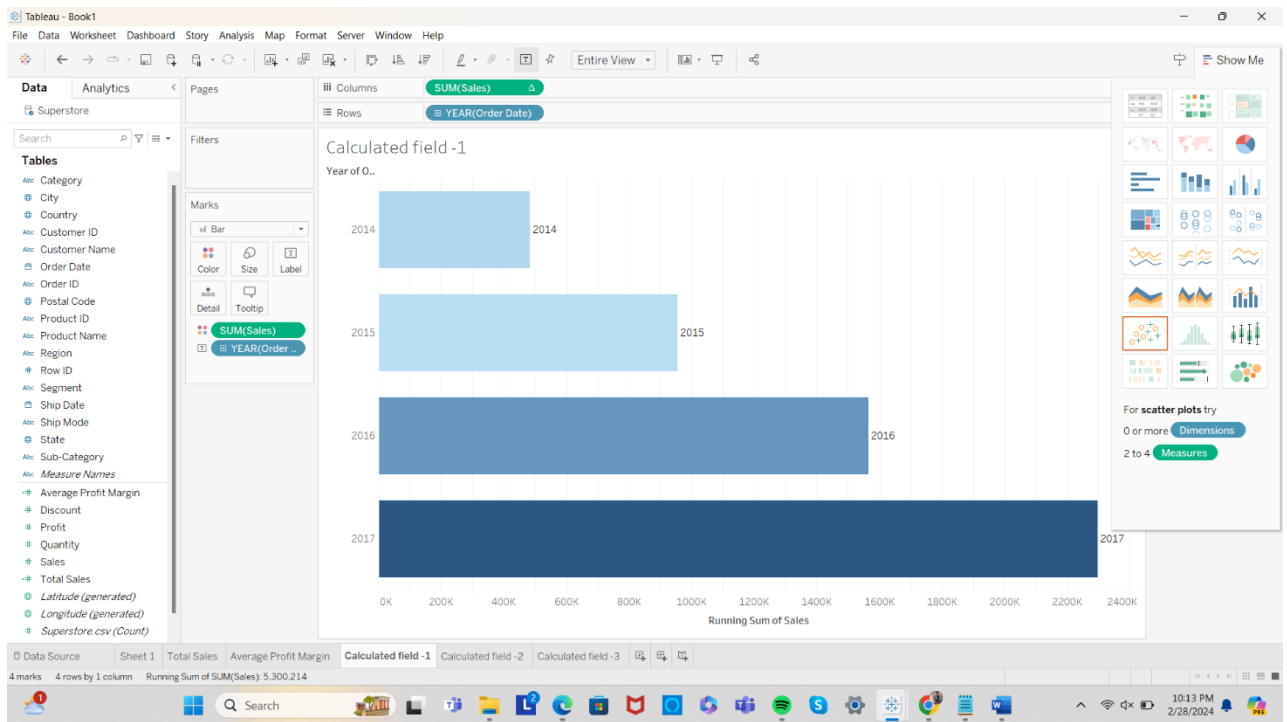
By incorporating these calculated fields into the visualizations, you gain insights into the total sales over time and the average profit margin by category or sub-category, helping you make informed decisions based on your data analysis.

VISUALIZATION USING QUICK TABLE CALCULATIONS

Running Total Line Chart:

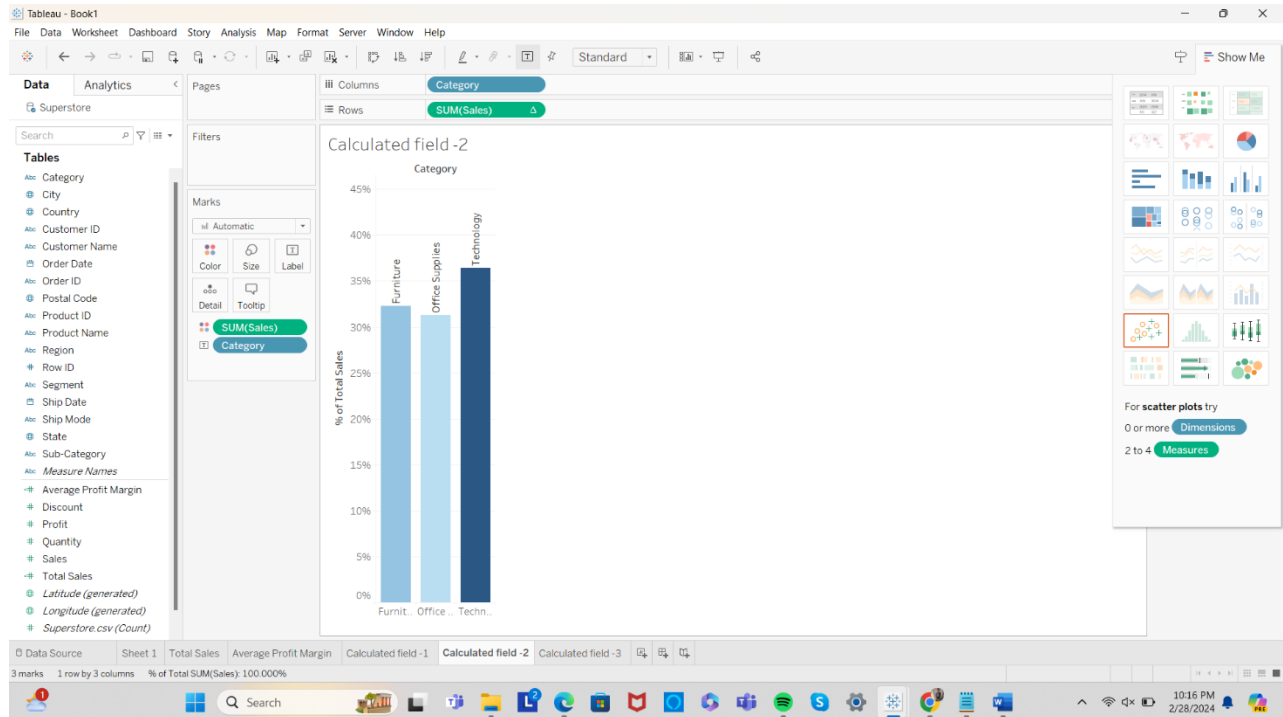
- Drag the desired measure “Sales” to the Rows shelf.
- Drag the dimension that represents time “Order Date” to the Columns shelf.
- Right-click on the measure pill in the Rows shelf, hover over "Quick Table Calculation," and select "Running Total." This will create a running total of the sales over time.
- Adjust the visualization type if necessary “line chart”.
- Drag “Sales” and “Order Date” to the Text and Color shelves.

- Keep it in the Entire View.



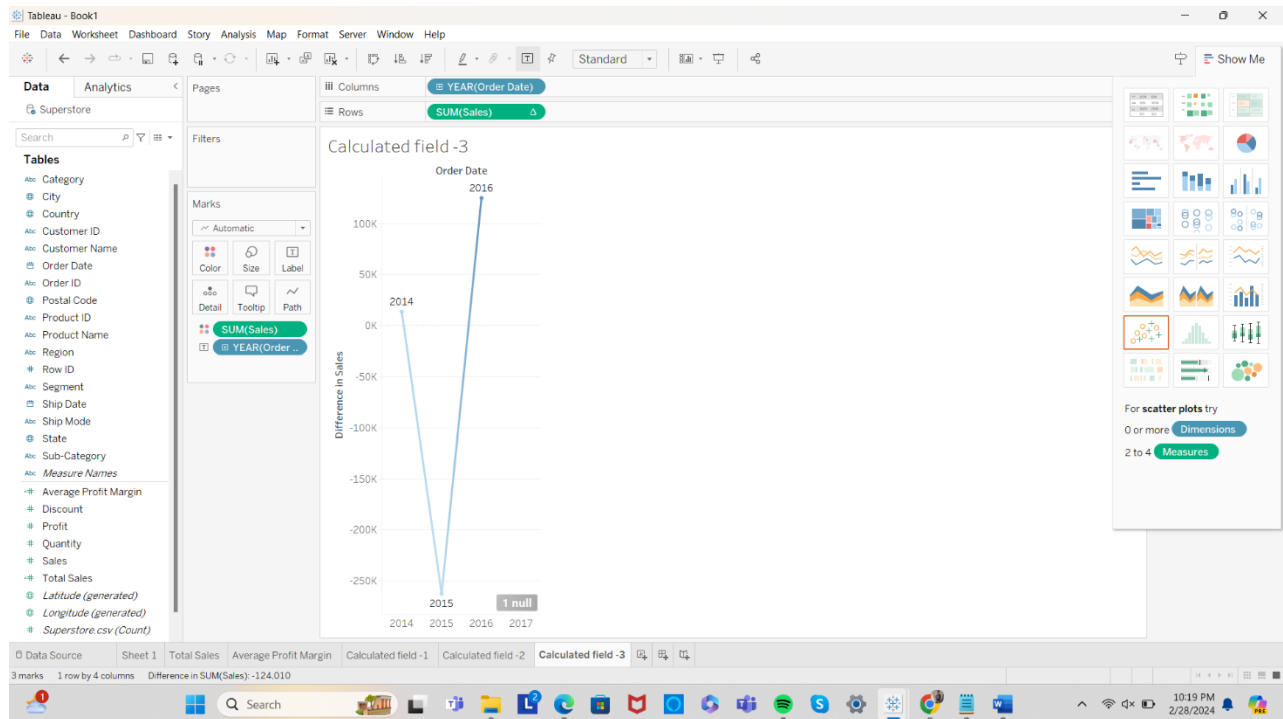
Percent of Total Bar Chart:

- Drag the desired measure “Sales” to the Rows shelf.
- Drag the dimension that you want to break down the percent of total by “Category” to the Columns shelf.
- Right-click on the measure pill in the Rows shelf, hover over "Quick Table Calculation," and select "Percent of Total." This will show the percent of total sales for each category.
- Choose the appropriate visualization type bar chart.
- Drag the “Sales” and “Category” to the Text and Color shelves.



Difference from Previous Year Line Chart:

- Drag the desired measure "Sales" to the Rows shelf.
- Drag the dimension that represents time "Order Date" to the Columns shelf.
- Right-click on the measure pill in the Rows shelf, hover over "Quick Table Calculation," and select "Difference." Then, select "Year over Year" or "Previous" to calculate the difference from the previous year.
- Adjust the visualization type if necessary "line chart".
- Drag the fields to the Color and Text fields in the Marks pane for the additional visualisation.



By using quick table calculations, you can easily create various visualizations that provide valuable insights into your data without the need to create separate calculated fields.