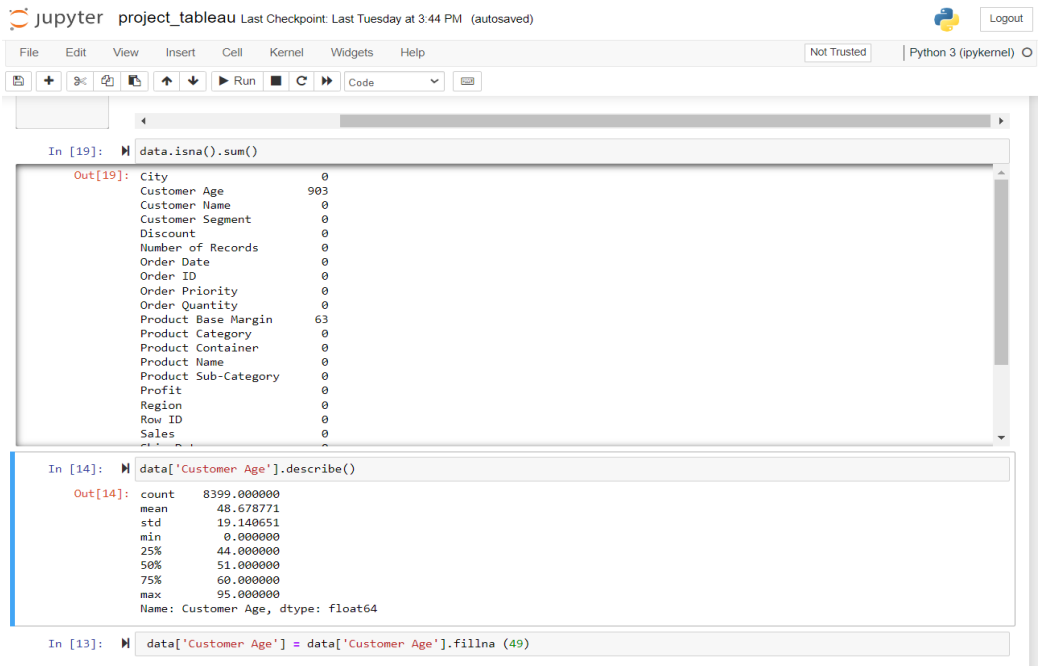
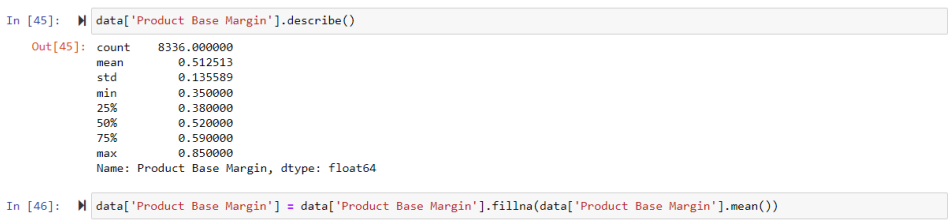
Dataset: Walmart Retail Data

Final Presentation

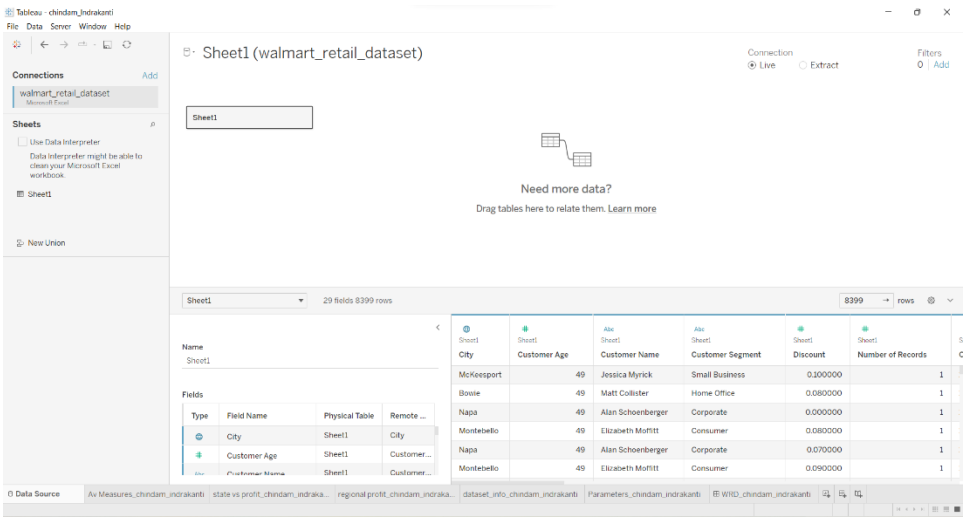
We have designed a Walmart Retail Data Analysis dashboard to show the comprehensive overview of company performance using one of the data visualization tools called ‘Tableau’. We are looking to find the trends for different regions and states that show the profits, sales, and discounts for different areas.

We must ensure that our data is clean before we can build the dashboard. Since our data had not been cleansed, we used Python to remove null values from the dataset and modified the datatype as necessary. We had two columns with null values, as shown in the screenshot below. We calculated the mean and median, and since there wasn't much of a difference between them, we changed the null values to the mean value.

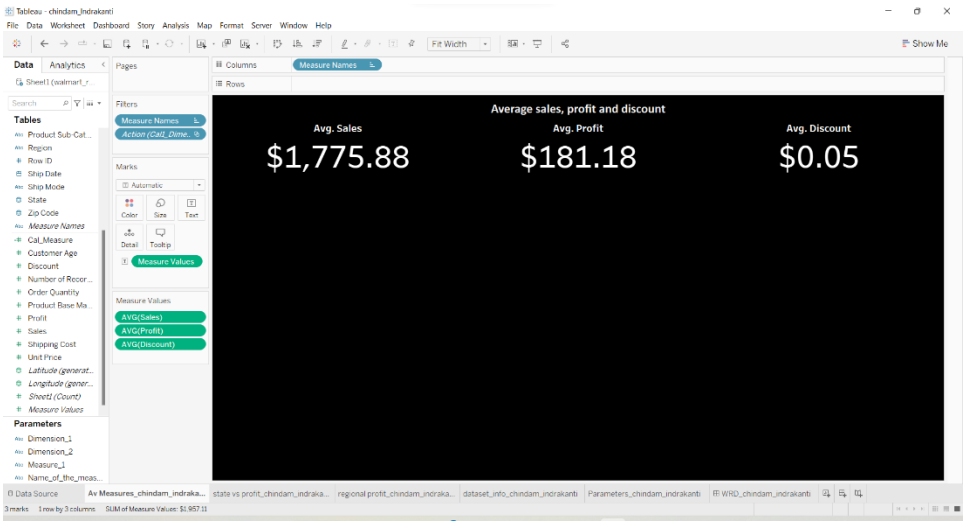




We imported the Dataset ‘Walmart Retail Dataset’ into the tableau.

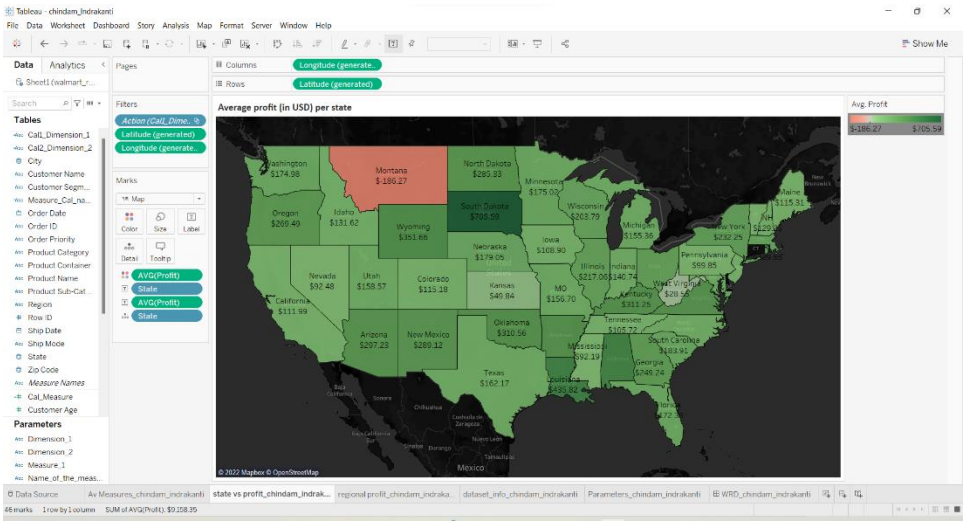


Profit allows the business owner or other members of the organization or company to see the return on investment. Calculating average daily sales is important for providing organizations with an overall view of their sales operations. This can help a company budget its expenses and forecast future sales and the company would like to know the average discount they give to the customers, so we have created a chart to show all of these in one sheet as shown below. We took the black background because it will be attractive to the audience so that they can easily read the content there on the sheet.

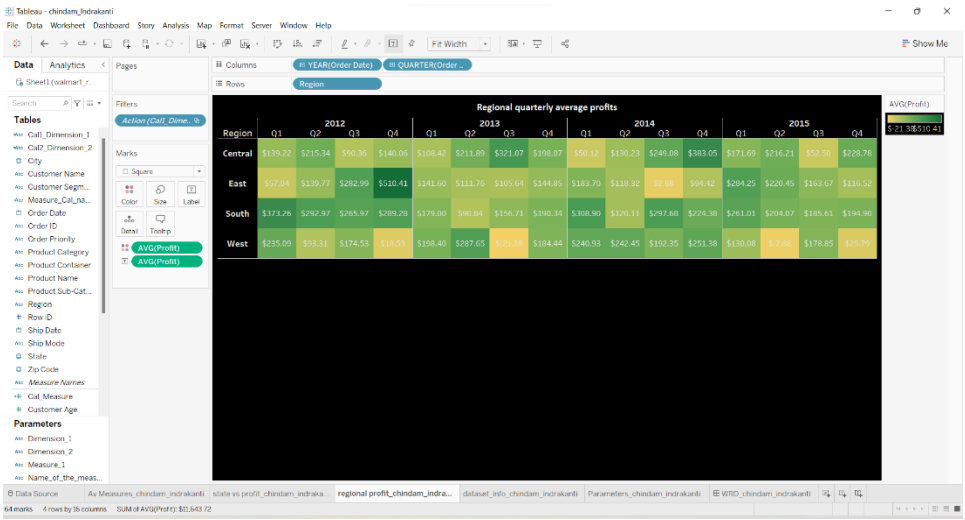


In the above image we can see that the average profit for the whole data, but company might be interested in knowing the state wise profit, so we calculated the average profit for each state as shown in the below chart, and we selected a map chart because it is a good way to give a general feel of how data breaks down regionally. We also used the color for average profit which shows

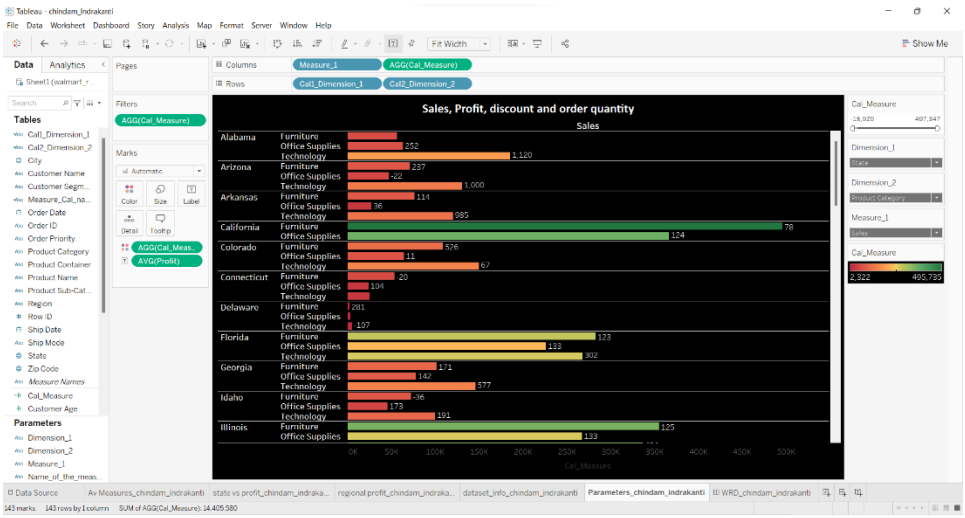
that, '**darker the color higher the profit'** and we can say just by looking the color in the chart that 'Montana' is having loss.



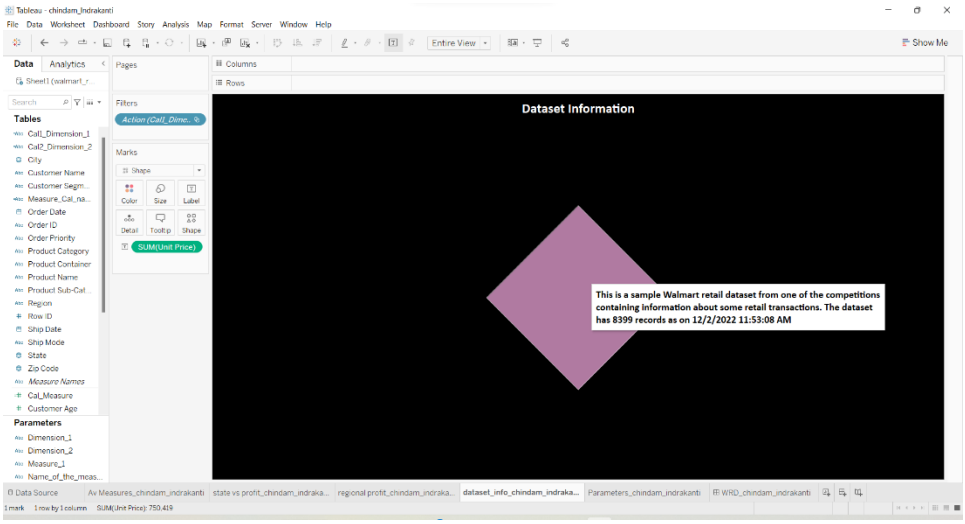
We also calculated the average profit for each region as shown below and we feel that this is very important chart to let our audience or customers compare this against one another and directly see which region and in which year the profit is more, or we can say underperforming versus others.



We used parameters in the below chart because Interactive dashboards are so important which will impact the audience behavior, parameters help us to do that, these enable the audience a way to interact with tables. We can allow users to choose which fields they want to see and can give them a little bit more control and as a sample we are showing the sales of product categories for each state, and we also used filter just to filter the range of values to display.

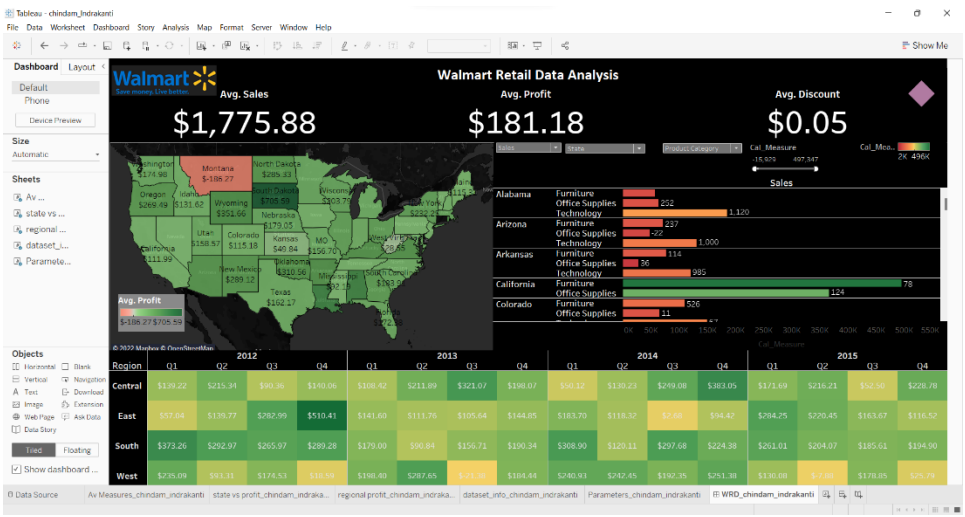


We also thought of showing a little bit of information regarding our dashboard, so we used the Tooltip to do it and we can select which shape we want, and we selected the below shape.



As we worked on the Walmart dataset, we chose Walmart logo and our Layout of our dashboard as shown below.

After we created all the above sheets, we finally built the interactive dashboard below, and we have given the title as 'Walmart Retail Data Analysis' along with the Walmart logo. We think that the colors that we used in all the charts are most suitable for the dark background.



As we said Interactive dashboard, charts should respond to one another, so we tested them by just selecting one of the states called ‘Arizona’ and all the charts show the information for that state.