Project Report

Sales and customer Analysis using Tableau

Table of Contents

1.Specify The Business Problem

2. Abstract

3.Business Requirements

4.Literature Survey

5.Social Or Business Impact

6. Setup and Installation

7. App Creation and Data Upload

8. Data Preparation

9. Visualization Creation 10. Dashboard

11. Project Analysis and Scope

12. Conclusion

1. Business Problem

This project aims to help businesses understand and improve their sales performance using Tableau. By focusing on important sales trends and how products are doing, it helps businesses spot changes in order volume and profit. The main goal is to give businesses clear information so they can make better decisions and improve their strategies over time.

2. Abstract

The project, called "Sales Data Analysis Using Tableau," focuses on analyzing how sales change over time and how different products are performing. Tableau's visualization tools are used to create interactive dashboards that make it easy to see important sales patterns. These dashboards highlight changes in order volume and profit, helping businesses understand which products are doing well and which need more attention. By providing clear insights, this project aims to help businesses make quicker and smarter decisions, leading to better sales strategies and overall performance.

3. Business Requirements

- Data Integration: Gather sales data from various sources and bring it together in one place to make it easier to analyze.

- Visualization: Use Tableau to create easy-to-understand dashboards that show important sales trends and product performance in a clear and visual way.

- Analytics: Analyze sales data to find patterns, like changes in order volume or profit over time, to help businesses improve their decision-making.

- Real-Time Tracking: Implement real-time monitoring of sales data, allowing businesses to quickly respond to changes in the market, like sudden shifts in demand.

- Decision Making: Provide fast and actionable insights that help businesses make quick decisions when facing unexpected events or changes in sales trends.

4. Literature Survey

Research on using data analysis tools like Tableau shows that businesses can significantly improve how they understand and manage their sales performance. Studies highlight that visualizing data makes it easier for businesses to see trends, spot changes in sales, and make better decisions. Many successful projects from different industries have demonstrated that analysing sales data helps companies increase efficiency, improve their product strategies, and make more informed decisions. However, it is also important for businesses to have strong data management practices in place to fully benefit from the insights that data analysis can provide.

5. Social or Business Impact

- Social Impact Analysis:

Use Tableau to create visualizations that show how different customer groups are affecting sales trends. By doing this, you can see how data-driven insights have helped improve things like customer satisfaction and financial inclusion. Look for patterns that show a connection between using data analysis and making a positive impact on customers' experiences.

- Business Impact Analysis:

Tableau can help you see how data-driven sales analysis is affecting businesses, especially in areas like retail, e-commerce, and banking. By evaluating the data, you can measure how analyzing sales has improved things like product sales, customer onboarding, and overall efficiency. This helps businesses fine-tune their strategies, boost profits, and stay ahead of the competition.

6. Setup and Installation

- Creating an Account and Understanding Tableau Online:

1. Head to Tableau's website (https://www.tableau.com/try) and sign up for a new account.
2. Once you're set up, log in to Tableau Online to get started with your workspace.

- File Placement:

1. Open Tableau Desktop or Tableau Online.
2. Navigate to where your data files are stored, so you're ready to start working with them.

- Launching Tableau:

1. Open Tableau Online or launch Tableau Desktop on your computer.
2. Get comfortable with the interface and the different tools available to create visualizations.

7. Create a New Workbook and Upload Data:

- Create a New Workbook:

1. Click on "New Workbook" to kick off your project in Tableau.

- Upload the Data File:

1. Download your sales data set from the source you're using.
2. In Tableau, upload that data into your new workbook. Make sure everything is set up right, with the first row as headers if necessary. Once your data is uploaded, you can start building visualizations to explore trends like order volume and profit fluctuations.

8. Data Preparation

- 1. Removing Duplicates and Null Values:

In Tableau, you can clean your data to ensure its accurate and ready for analysis.

- Open your Tableau workbook and go to the Data Source tab.

- From here, review your data.

- To remove duplicates, filter out rows that repeat the same information.

- For null values (missing data), either fill them with relevant information or remove those rows, depending on what makes sense for your analysis.

- 2. Sample Data:

Your dataset will contain details about various columns, such as product names, sales amounts, and dates. Review the column descriptions in the CSV file, making sure each column is correctly labelled and the data is formatted properly. You can then continue analysing trends in sales and product performance.

9. Visualization

-Line Graph

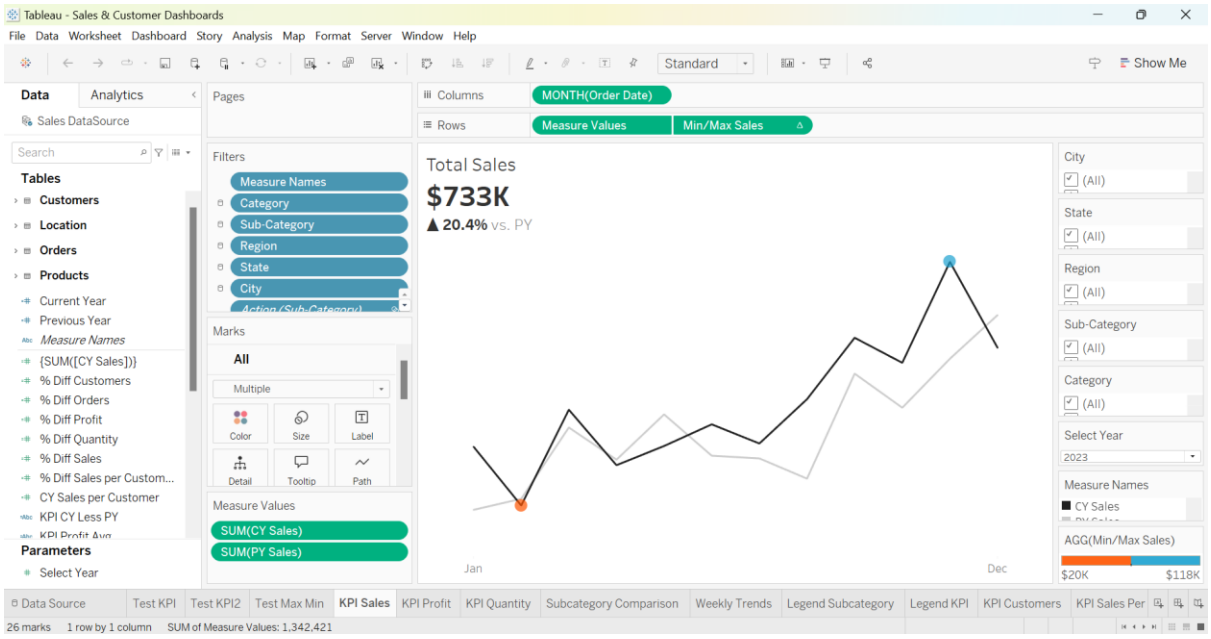


Tableau - Sales & Customer Dashboards
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
Sales DataSource
Pages
Columns
MONTH(Order Date)
Rows
Measure Values
Min/Max Sales
Filters
Measure Names
Category
Sub-Category
Region
State
City
Marks
All
Multiple
Color
Size
Label
Detail
Tooltip
Path
Measure Values
SUM(CY Sales)
SUM(PY Sales)
Tables
Customers
Location
Orders
Products
Current Year
Previous Year
Measure Names
{SUM([CY Sales])}
% Diff Customers
% Diff Orders
% Diff Profit
% Diff Quantity
% Diff Sales
% Diff Sales per Custom...
CY Sales per Customer
KPI CY Less PY
Parameters
Select Year
Total Sales
$733K
▲ 20.4% vs. PY
Jan
Dec
City
(All)
State
(All)
Region
(All)
Sub-Category
(All)
Category
(All)
Select Year
2023
Measure Names
CY Sales
AGG(Min/Max Sales)
$20K
$118K
Data Source
Test KPI
Test KPI2
Test Max Min
KPI Sales
KPI Profit
KPI Quantity
Subcategory Comparison
Weekly Trends
Legend Subcategory
Legend KPI
KPI Customers
KPI Sales Per
26 marks
1 row by 1 column
SUM of Measure Values: 1,342,421

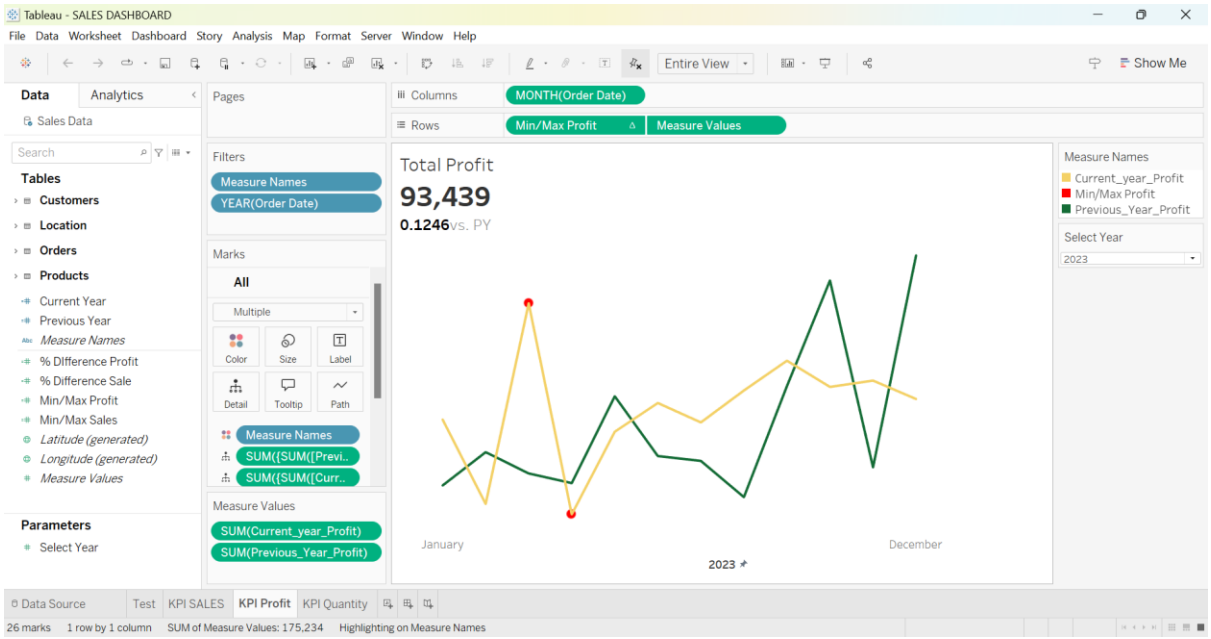
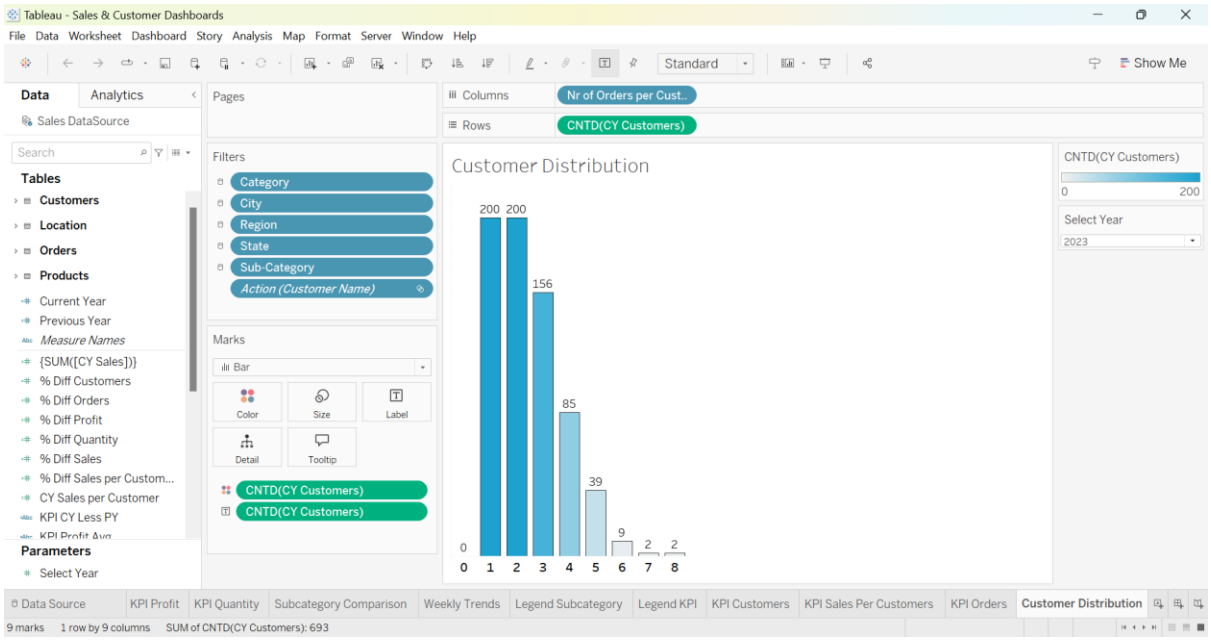
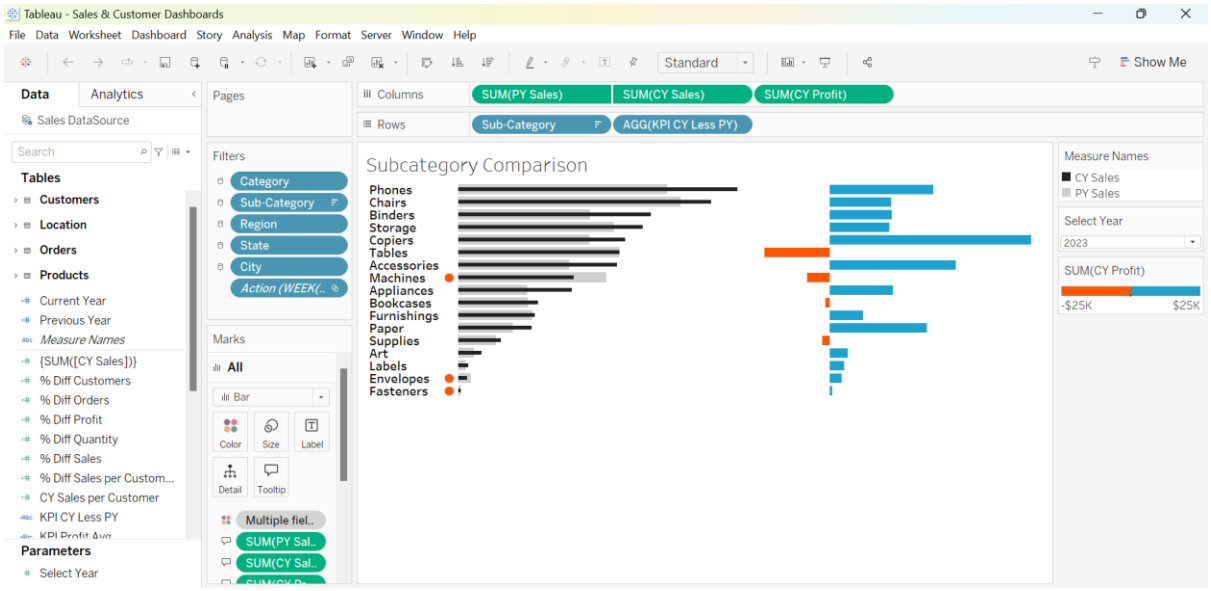


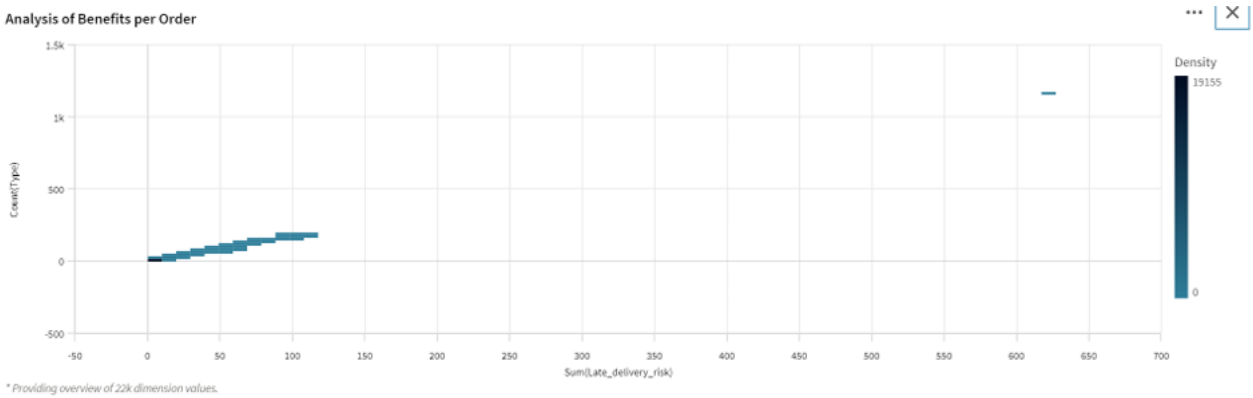
Tableau - SALES DASHBOARD
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
Sales Data
Pages
Columns
MONTH(Order Date)
Rows
Min/Max Profit
Measure Values
Filters
Measure Names
YEAR(Order Date)
Marks
All
Multiple
Color
Size
Label
Detail
Tooltip
Path
Measure Names
SUM([SUM([Previ..
SUM([SUM([Curr..
Measure Values
SUM(Current_year_Profit)
SUM(Previous_Year_Profit)
Tables
Customers
Location
Orders
Products
Current Year
Previous Year
Measure Names
% Difference Profit
% Difference Sale
Min/Max Profit
Min/Max Sales
Latitude (generated)
Longitude (generated)
Measure Values
Parameters
Select Year
Total Profit
93,439
0.1246 vs. PY
January
December
2023
Measure Names
Current_year_Profit
Min/Max Profit
Previous_Year_Profit
Select Year
2023
Data Source
Test
KPI SALES
KPI Profit
KPI Quantity
26 marks
1 row by 1 column
SUM of Measure Values: 175,234
Highlighting on Measure Names

-Bar Graph

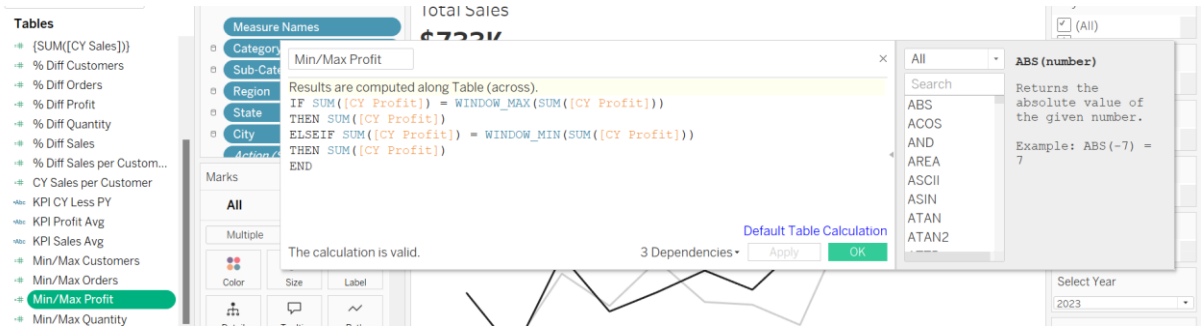




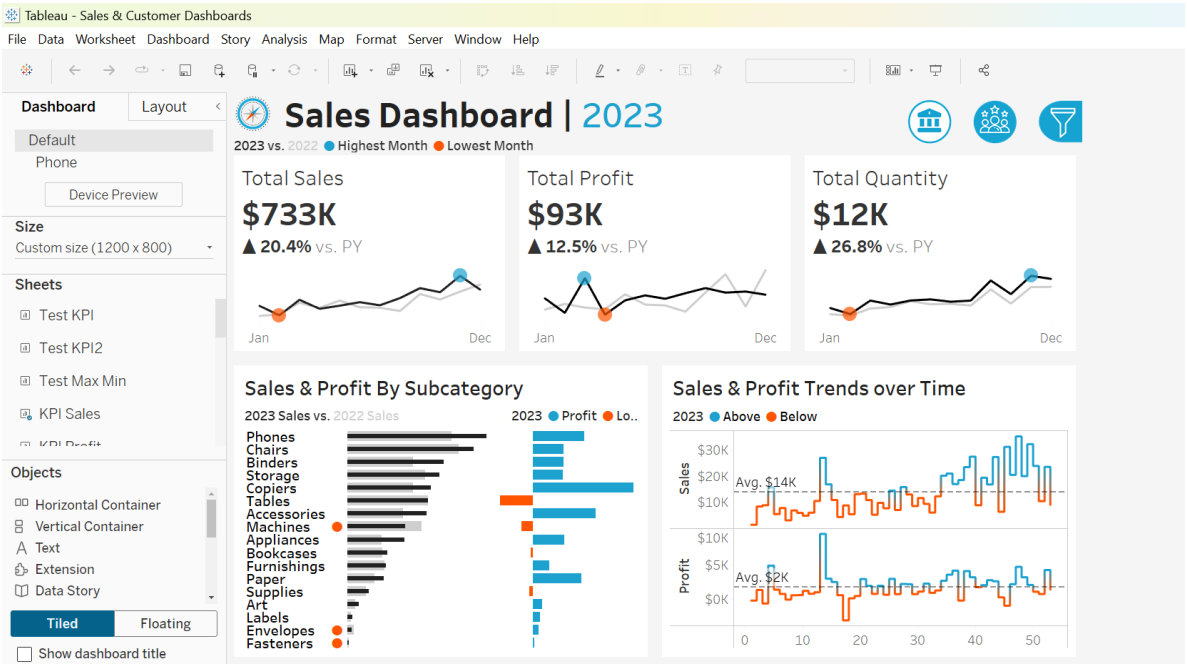
-Scatter Plot

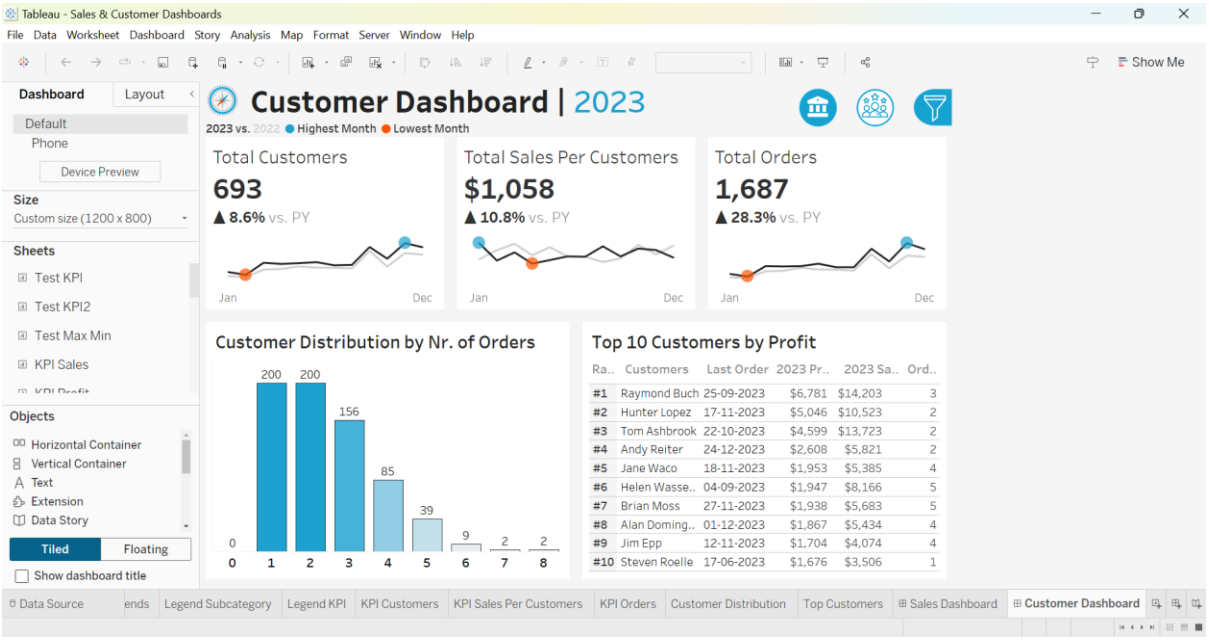


-Calculated Fields:



10. Dashboards





11. Project Analysis and Scope:

This project focuses on providing a clear and useful way to analyze sales data using Tableau's powerful analytics and visualization tools. By pulling data from different sources and analyzing it in real-time, businesses can gain valuable insights into their sales trends and product performance. The project covers key areas like tracking order volumes, monitoring profit changes, and helping businesses make quick decisions. It also looks at the potential social and business impacts, giving a well-rounded view of how data analysis can improve sales strategies.

12. Conclusion:

The "Sales Data Analysis Using Tableau" project shows how effective data analysis and visualization can be in improving business performance. By using Tableau, businesses can easily track sales trends, boost profit margins, and make better decisions based on real-time insights. This project not only focuses on making operations more efficient but also highlights how data analysis can have a positive impact on both businesses and their customers. The findings from this project can serve as a guide for other companies looking to improve their sales and operations using data-driven strategies.

GitHub Repository Link: https://github.com/HarshvardhanT/Sales-and-customer-Analysis-using-Tableau