



Vidyavardhini's College of Engineering & Technology

Department of Computer Engineering

Academic Year : 2024-25

Experiment No. 7
Develop a dashboard and reporting tool based on real time social media data
Date of Performance: 25/02/2025
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Aim: Develop a dashboard and reporting tool based on real time social media data.

Objective: To develop a real-time dashboard and reporting tool using Power BI for analyzing social media data to provide actionable insights for businesses.

Theory:

Tableau is a powerful Business Intelligence (BI) tool used to analyze and visualize data for better decision-making within organizations. It offers a wide range of functionalities that help users connect to various data sources, create interactive dashboards, and share insights across teams.

Data models created from Tableau can be used in several ways, including the following:

- Telling stories through charts and data visualizations.
- Examining what-if scenarios within the data.
- Creating reports that answer questions in real time and help with forecasting to make sure departments meet business metrics.

Key Features:

- Data Connection and Transformation: Tableau allows users to connect to multiple data sources, including databases, spreadsheets, and cloud platforms, enabling seamless data integration. It offers robust data transformation capabilities to clean and prepare data for analysis.
- Interactive Data Visualizations: Users can create rich and interactive visualizations such as charts, graphs, maps, and dashboards using Tableau's intuitive drag-and-drop interface. These visuals can be customized and linked to provide dynamic insights.
- Real-Time Analytics: Tableau supports real-time data analytics, enabling users to monitor key metrics, track performance, and detect trends as they happen. This feature is beneficial for making timely decisions and responding to changing business conditions.
- Collaboration and Sharing: Tableau provides collaboration features that allow teams to work together on projects, share insights, and collaborate on dashboards. Users can publish interactive dashboards to Tableau Server or Tableau Online for widespread access.
- Advanced Analytics: Tableau offers advanced analytics capabilities such as predictive analytics, statistical analysis, and what-if scenarios. These functionalities empower users to gain deeper insights, forecast trends, and simulate business scenarios.

Advantages:

- Ease of Use: Tableau's user-friendly interface and intuitive tools make it accessible to both technical and non-technical users, facilitating widespread adoption within organizations.
- Data Integration: Tableau seamlessly integrates with various data sources, applications, and cloud platforms, allowing users to work with diverse data sets and systems.
- Customer Support: Tableau provides comprehensive customer support, including documentation, training resources, and a vibrant user community, ensuring users have assistance when needed.



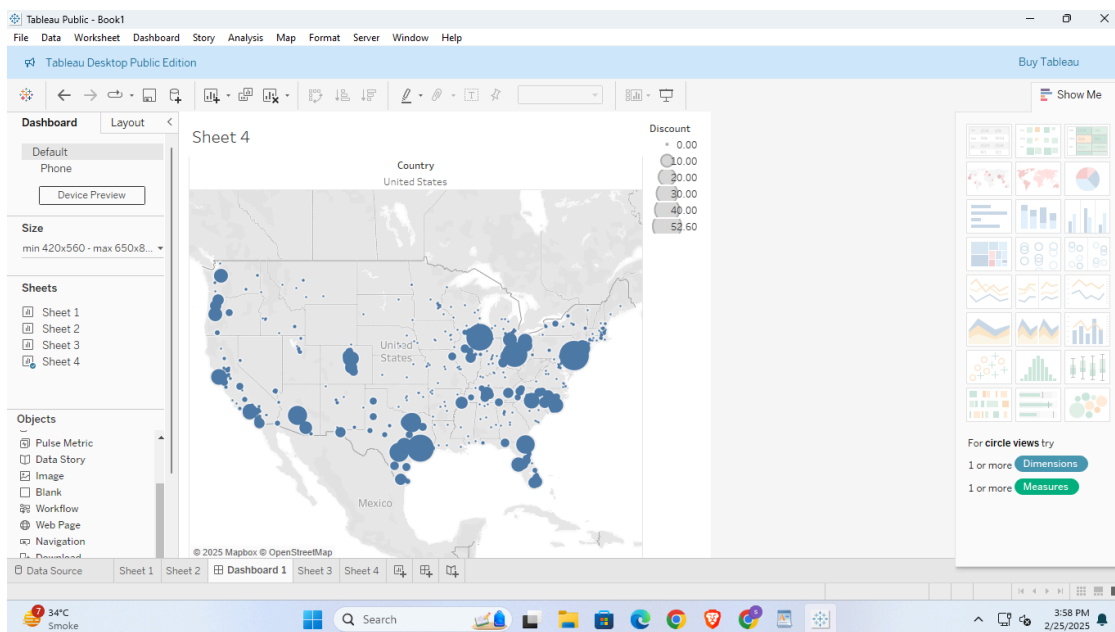
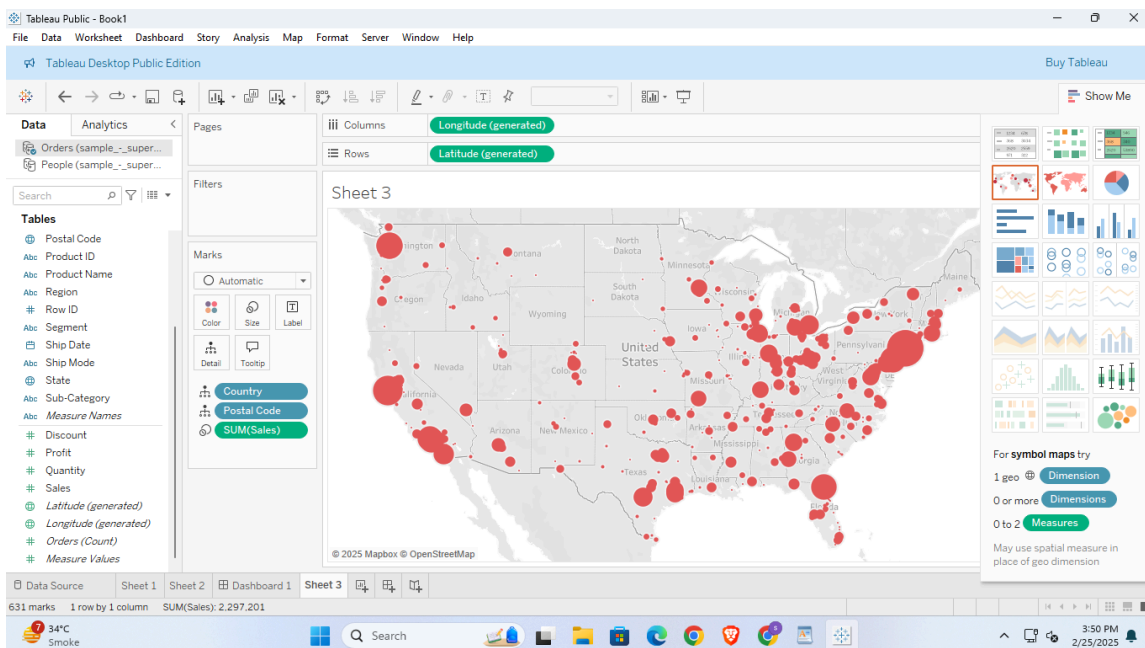
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- **Customization:** Tableau offers extensive customization options for visuals and dashboards, enabling users to tailor analytics to specific business needs and objectives.
- **Collaboration and Scalability:** Tableau promotes collaboration among teams through shared workbooks and centralized data repositories. It is scalable and can handle large volumes of data, catering to the needs of enterprises and growing businesses alike.

Dashboard:





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Conclusion:

Tableau is a data analysis and visualization tool that helps businesses understand their data and make informed decisions. It helps users explore and manage data, and discover and share insights. Tableau helps businesses be more data-driven. It can help cut down analysis time and change behaviors. It can help make wise business decisions based on the information presented.