#### Sanjivani Rural Education Society's

# Sanjivani College of Engineering, Kopargaon-423603

(An Autonomous Institute Affiliated to Savitribai Phule Pune University, Pune)
NAAC 'A' Grade Accredited, ISO 9001:2015 Certified

## **Department of Information Technology**

NBA Accredited-UG Program

Class: S.Y. B. Tech Semester: IV

**Subject: Data Visualization and Story Telling (SEIT261)** 

Practical No.: 09

## Title:

Implementing assignment based on designing basic dashboards in tableau,

## **Software Requirements:**

• Tableau Public

## **Objectives:**

- To design and build interactive dashboards using basic Tableau visualizations.
- To apply data filtering, formatting, and layout techniques for effective data presentation.
- To interpret and communicate key insights from the visualized data.

### Theory:

Tableau is a powerful data visualization tool used for converting raw data into interactive and easy-to-understand visual formats. It allows users to create a wide variety of charts, graphs, and dashboards with minimal programming knowledge. Tableau is widely used in business intelligence and analytics for its ability to generate real-time insights and support data-driven decision-making.

A **dashboard** in Tableau is a collection of several visualizations combined on a single screen, designed to provide a comprehensive view of the data. Dashboards help users monitor performance, track trends, and explore data from different perspectives. Users can interact with dashboards through filters, drop-downs, and actions, making them highly dynamic and user-friendly.

Creating an effective dashboard involves:

- Understanding the purpose of the analysis.
- Choosing the right type of visualization for the data.
- Ensuring clarity and simplicity in design.
- Making the dashboard interactive and responsive.

## Steps to Create a Basic Dashboard in Tableau

#### 1. Connect to Data Source

- Open Tableau and select the desired data source (Excel, CSV, database, etc.).
- Load and review the data structure.

## 2. Prepare the Data

- Clean the data if needed (rename fields, remove nulls, change data types).
- Create calculated fields or hierarchies if necessary.

#### 3. Create Individual Visualizations

- Drag and drop dimensions and measures to create charts (e.g., bar chart, line chart, pie chart).
- Customize each chart with colors, labels, and filters.

#### 4. Build a Dashboard

- Click on the "Dashboard" tab to create a new dashboard.
- o Drag the desired sheets (visualizations) into the dashboard workspace.

## 5. Add Interactivity

- Use filters, parameters, and dashboard actions (like filter or highlight actions) to make the dashboard interactive.
- Adjust layout and container options for a clean design.

#### 6. Format the Dashboard

- Set titles, background colors, borders, and alignments.
- Ensure consistent font styles and sizes.

#### 7. Review and Test

- Check that filters and interactions work as expected.
- Test the dashboard on different screen sizes (if needed).

## 8. Save and Share

• Save your work locally or publish it to Tableau Public or Tableau Server.

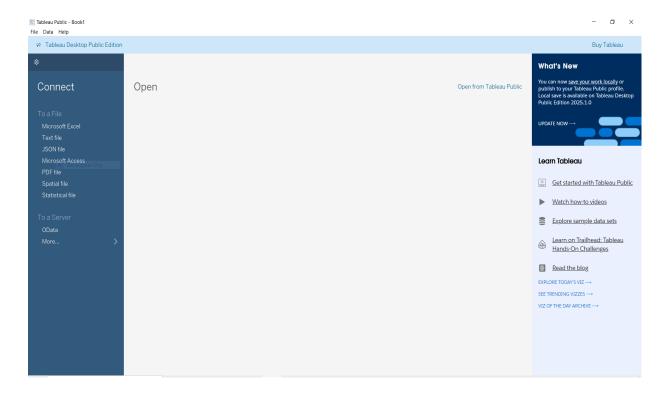


Fig 1. Tableau Public Workspace

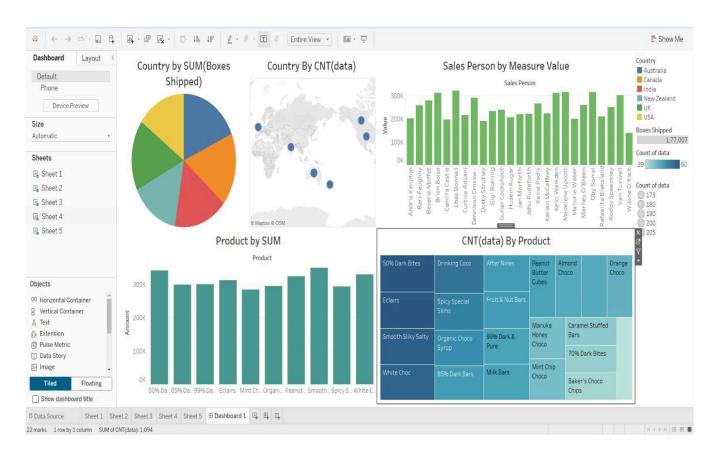


Fig 5. Sales Analysis Dashboard

## **Frequently Asked Questions:**

- 1. What is a dashboard in Tableau?
- 2. How is a worksheet different from a dashboard in Tableau?
- 3. Can I make a dashboard interactive in Tableau?
- 4. What types of charts can be included in a dashboard?
- 5. How do I share my Tableau dashboard with others?

## **Conclusion:**

Thus, Successfully Implement Designing dashboards in Tableau is an essential skill for visualizing and understanding data effectively. With its user-friendly interface and powerful features, Tableau enables users to create interactive and insightful dashboards that support better decision-making. By following the basic steps and best practices, even beginners can turn raw data into meaningful stories. This assignment helps build a strong foundation in data visualization using one of the leading tools in the industry.

#### **References:**

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