Experiment 2: To analyse sales performance data and build a sales funnel using any open source BI tool **(Tableau Public)**

Title:
To analyse sales performance data and build a sales funnel using Tableau Public.

Objective:

- To analyse sales performance using Tableau Public.
- To build a sales funnel visualization for tracking customer conversion stages.
- To interpret insights from sales data for decision-making.

Software/Tools Required:

- Tool: Tableau Public
- Dataset: Sample Superstore Dataset (CSV)
- System: Windows/Linux/Mac with internet access

Theory Overview:
Business Intelligence (BI):
Business Intelligence is a technology-driven process that helps organizations collect, analyze, and present business information to support decision-making. BI tools transform raw transactional data into meaningful insights through reports, dashboards, and interactive visualizations. These insights help businesses identify trends, monitor performance, and make data-driven decisions.

Sales Performance Analysis:
Sales performance analysis is the process of examining sales data to evaluate the effectiveness of strategies, sales teams, and customer engagement activities. It includes:

- Measuring key performance indicators (KPIs) like revenue, profit, conversion rates, and customer acquisition costs.
- Identifying top-performing products, regions, or sales representatives.
- Detecting bottlenecks in the sales process that reduce efficiency.
- Comparing actual sales with targets to evaluate goal achievement.

Sales Funnel in Business:
A sales funnel is a visual representation of the stages customers go through before making a purchase. It typically includes stages such as:

- **Leads/Prospects:** Initial potential customers showing interest.
- **Qualified Leads:** Prospects evaluated and filtered based on buying intent.
- **Opportunities:** Customers who are actively considering a purchase.
- **Closed Deals/Conversions:** Customers who complete the purchase.

This funnel allows businesses to understand where most prospects drop off, enabling them to refine their marketing and sales strategies.

Tableau Public for Sales Funnel Visualization:
Tableau Public is an open-source BI tool that provides:

- **Easy connectivity to datasets:** CSV, Excel, Google Sheets, or databases.
- **Drag-and-drop interface:** Enables quick visualization creation.
- **Calculated fields:** Allow creation of custom KPIs such as conversion rates.
- **Interactive dashboards:** Combine multiple charts (bar, line, pie, funnel) for comprehensive insights.

When applied to sales performance analysis, Tableau Public helps:

1. Visualize **regional and product-wise sales** using bar charts.
2. Track **sales trends over time** using line charts.
3. Show **profit distribution** across categories with pie charts.
4. Build a **sales funnel chart** that reflects customer conversion at each stage.

Thus, BI tools like Tableau Public make sales analysis highly visual, interactive, and actionable, empowering decision-makers to optimize strategies for growth.

Procedure (Using Tableau Public):

1. **Install Tableau Public**

   - Download from https://public.tableau.com.
   - Install and sign in with an email ID.

2. **Download Sample Dataset**

   - Use the "Sample Superstore" dataset.
   - Download link: Sample Superstore CSV.

3. **Connect Data**

   - Open Tableau Public → Click on "Text File" → Select SampleSuperstore.csv.

4. **Data Understanding**

   - Tableau displays dataset preview.
   - Important fields: Customer ID, Order Date, Sales, Profit, Category, Region, etc.

5. **Build Sales Funnel Visualization**

   - Create a calculated field for defining funnel stages (e.g., Leads, Qualified, Opportunities, Closed Deals).
   - Drag **Funnel Stage** to Rows and **Sales** to Columns.
   - Change visualization type to **Funnel Chart** (using bar chart → quick table calculation → percent of total).
   - Add filters (Region, Segment, Category) for deeper analysis.

6. **Additional Analysis**

- Bar Chart → Sales by Category.
- Line Chart → Sales Trend over Time.
- Pie Chart → Profit by Region.

Result/Observation:

- Sales data was successfully analysed in Tableau Public.
- A sales funnel was created to visualize the conversion journey of customers.
- Trends in category-wise sales, profit, and regional distribution were observed.

Conclusion:
Students learned to use Tableau Public for analysing sales performance data and creating a sales funnel visualization. This provided insights into customer conversion rates and sales strategies.

Viva Questions:

1. What is Tableau Public, and how is it different from Tableau Desktop?
2. What is a sales funnel, and why is it important?
3. Which steps are involved in creating a funnel chart in Tableau?
4. Explain the difference between dimension and measure in Tableau.

CO & PO Mapping:

- COs: L2, L3, L4
- POs: 1, 2, 5, 9

Faculty In-charge:
Mrs. Anamika Singh