

Tableau

1. Introduction to Data Visualization & Business Intelligence

- A. What is Data Visualization & why it matters?
- B. Overview of Business Intelligence (BI)
- C. Role of data storytelling and dashboards in decision making
- D. Tableau in the BI ecosystem
- E. Tableau Products: Desktop, Public, Server, Online/Cloud

2. Getting Started with Tableau

- A. Installing Tableau Desktop / Tableau Public
- B. Tableau Interface Overview
- C. Menu, Shelves, Marks, Data Pane
- D. Tableau workspace navigation
- E. Supported data sources and file types
- F. Extract vs. Live connections
- G. Connecting to data and metadata concepts

3. Data Preparation & Management

- A. Dimensions vs. Measures
- B. Data Types & default properties
- C. Joins, Unions, and Data Blending
- D. Data cleaning basics: missing data, duplicates
- E. Renaming and organizing metadata
- F. Efficient data import techniques

4. Basic Visual Analytics

- A. Creating basic charts:
 - Bar charts
 - Line charts
 - Pie charts
- B. Sorting, Filtering, and Grouping
- C. Highlighting and Labeling
- D. Best use of “Show Me” panel
- E. Quick calculations (basic aggregate stats)

5. Intermediate Visualization Techniques

- A. Maps & geospatial insights
- B. Scatter plots & bubble charts
- C. Tree maps, heat maps

- D. Combined axes & dual axis charts
- E. Trend lines, Reference lines, Forecasting
- F. Parameters & Sets (dynamic filtering)

6. Advanced Analytics

- A. Advanced calculations
- B. Logical functions
- C. Date functions
- D. Table calculations
- E. Level of Detail (LOD) expressions
- F. Clustering & segmentation
- G. Analytical insights with drill downs and hierarchies

7. Dashboards & Stories

- A. Dashboard fundamentals
- B. Laying out views, objects, legends
- C. Interactive dashboards: filters, highlight & URL actions
- D. Device layouts (mobile, tablet views)
- E. Dashboard formatting best practices
- F. Creating Stories & storytelling techniques

8. Sharing & Publishing

- A. Saving workbooks & data sources
- B. Publishing dashboards to Tableau Server / Online
- C. Permissions & collaboration
- D. Interactive sharing and user-based filters
- E. Exporting & embedding visuals

Mini Projects:

- A. Sales analytics dashboard
- B. Operational KPI trackers
- C. HR attrition dashboards
- D. E-commerce performance reports
- E. Capstone project: end-to-end dashboard with real dataset