

Tableau – Data Visualization

Duration: 40 hours

Prerequisites

- There are no pre-requisites for this course, Basic knowledge of SQL is advantageous.

Tableau: Data Visualization

1. Business Intelligence Overview

- Introduction to Tableau
- Product Components
- Architecture
- Need of Data Visualization
- Data Connectors
- Data Model
- File Types
- Dimensions & Measures
- Show Me
- Installing Tableau
- Different Tableau versions and pricing
- Home Screen
- Workspace
- Look and feel of dashboards created in Tableau
- Joins Supported in Tableau.

2. Hierarchy

- Worksheet Options
- Heap Map
- Tree Map
- Highlight table
- Symbol Map
- Filled Map.

3. Scatter Plot

- Gantt Chart
- Bullet Graph
- Sorting-computed and manual
- Filters
- Normal
- Top
- Context
- Conditional
- Cascading-All values and only relevant values.

4. Data Source Filters

- User Filter overview
- Parameters
- Groups
- Sets Basic.

5. Constant Sets

- Computed Sets
- IN Members-Out Members
- Combined Sets
- Aggregated & non Aggregated Values
- Adhoc Calculations
- Types of Calculations (Basic, Table, LOD)
- Bins
- Difference Between (Groups, Sets, Bins)
- Calculated Fields
- ZN Function
- How to find No of occurrence of letters?

6. Date Functions

- How to find no of days to ship?
- how to find month
- Type Conversions
- Logical Functions
- IIF Function
- User Functions
- Table Calculations
- First()
- Last()
- Index()
- Rank()
- Rank Dense()
- Rank Modified
- Rank Percentile
- Rank Unique
- Running Average
- Windows Functions
- Conditional Coloring using windows functions
- Difference between Normal Aggregation & Windows Aggregations
- Quick Table Calculations - Compute Using Table Across-Pane Across Etc.
- Calculation Assistance

7. Table Calculations

- Running Total Difference
- Percentage Difference
- Percent of Total Percentile
- Moving Average
- YTD Total
- Compound growth Rate
- Rank Methods- "Competition, Modified Competition, Dense"
- LOD Calculations-Fixed LOD
- Include LOD
- Exclude LOD with examples
- Include
- Exclude LOD
- What is specified dimension & what is view, dimension

8. Page Shelf

- Analytics Window
- Constant Line
- Average Line
- Median with quartiles & Totals
- Model (Average with 95% CI, median with 95%, quartile, cluster)
- Custom (Reference Line, Reference Band, Distribution, Band) with examples
- Confidence Interval (CI)
- Clusters
- K-Means
- Clustering

9. Forecasting

- 4 Factors of forecasting (Trend, Seasonality, Cyclic Fluctuations, Residues/Noise)
- Forecast Options
- Forecast Models
- Additive
- Multiplicative
- Quality
- Trend Line
 - Types (Linear, Exponential, Logarithmic, Polynomial)

- Options(Linear, Exponential, Logarithmic, Polynomial Degree)

- Box plot
- Dashboards
- Purpose of Dashboard
- Actions
- Actions-Filters
- Action-
- Highlight
- Action URL
- Select
- Hover
- Menu in Actions with examples

10.Device Preview

- Layout manager
- Layout Objects
- Horizontal Vertical
- Objects
- text
- Images
- Fixed and floating sheets
- Story
- Caption
- number
- dots, etc..

11.Data Blending

- Data Blending Example
- Cross Database Joins
- Data Extracts.

12.API Integration With Tableau

- JavaScript For Embedded Analytics Using

13.Maps using Groups

- Dual axis maps
- YTD
- MTD
- QTD Calculations
- How to calculate Last Year Sales
- Current Year Sales
- Current Month & Last Month Sales
- Year over Year Change of Sales.

14. Advanced Visualizations

- Gant Chart
- Histogram
- Funnel Chart
- Traditional
- funnel chart
- Bump Chart
- Donut Chart
- Lollipop Chart
- Waterfall Chart
- Control Chart.

15. Tableau Online

- User Interface
- Publishing Workbooks
- Data Sources
- Scheduling
- Extract Refresh
- Creating Projects
- Creating Groups

- Creating
- Users
- Assigning Permissions to users
- Subscriptions of reports.

16. Tableau Online User Filter

- Data Source filters

17. Tableau with R Integration

- Installation of R & R Studio
- Installing packages in R studio
- Using libraries of Reserve()
- How to Start R Service
- Connecting Tableau With R
- Implementing the functions of tableau
 - SCRIPT_Int
 - SCRIPT_Real
 - SCRIPT_Bool
 - SCRIPT_Str
- Predictions OF measure values using R With Tableau.

Project Implementation with Real Time Scenario.

- ❖ **Interview Guidelines within Classroom**
- ❖ **Interview Preparation Material.**
- ❖ **Tableau Study Material – E-Books**