



CERTIFICATE IN TABLEAU

DURATION: 60 Hours

TOTAL CREDITS: 2

COURSE SYLLABUS

Objective

The objective of this course is to equip students with the knowledge and skills necessary for effectively handling data visualization and BI using Tableau.

Exit Profile

- Understand the fundamentals of data visualization and its importance in data analysis.
- Understand the Basic concepts of Tableau.
- Understand the Tableau Interface, work with various Database servers and connect them to Tableau.
- Create and manage different types of charts in Tableau.
- Creating and managing dynamic columns in Tableau Reports.
- Apply Filters on Data in Tableau.
- Understand the Concepts of Story, Story Line, Story Point etc., Creating and Manipulating Story Points.
- Publishing the completed Tableau works.

Career Path

- Data Analyst
- Business Analyst
- Tableau consultant
- Business Intelligence Developer and Manager

Course Outline

Course Name:	Certificate in Tableau	Duration:	60 H
Module	Topic	Duration	Total Duration
Module 1	Overview	1 H	3 H
	Advantages of Tableau	1 H	
	Disadvantages of Tableau	1 H	
Module 2	Overview of the Tableau Interface	1 H	6 H
	Creating a Workbook	1 H	
	Selecting Data Connector	1 H	
	Connecting to Different Data Sources (Excel, SQL, Cloud, etc.)	1 H	
	Creating SQL Queries	1 H	
	Creating Worksheets	1 H	
Module 3	Overview	0.5	10 H
	Understanding Data Types in Tableau	1 H	
	Common Charts in Tableau	8.5 H	
Module 4	Creating Calculated Fields	1 H	9 H
	Combining Fields	1 H	
	Finding a Sequence inside a String	2 H	
	Assigning Categories for Value Ranges	1 H	
	Calculating Percent Change	1 H	
	Using Table Calculations	1 H	
Module 5	LOD (Level of Detail) Expressions (Fixed, Include, Exclude)	2 H	9 H
	Overview	1 H	
	Specifying Number Formats	1 H	

Module 6	Advanced Analytics Functions	1 H	8 H
	Segmentation & Cohort Analytics in Tableau	1 H	
	Clustering	1 H	
	Using Sets & Set Actions	1 H	
	Grouping Data	2 H	
	Using Parameters for Dynamic Analysis	1 H	
	Order of Operations in Tableau	0.5 H	
	Filtering Headers	0.5 H	
	Filtering Categorical Data (Dimensions)	2 H	
	Filtering Quantitative Data (Measures)	2 H	
	Filtering Dates	1 H	
	Filtering Table Calculations	1 H	
	Sorting Data in Tableau (Manual, Nested, Computed, etc.)	1 H	
Module 7	Creating a Dashboard	0.5 H	8 H
	Adding Interactivity to Dashboards	0.5 H	
	Adding Dashboard Objects & Setting Options	2 H	
	Story Line & Storytelling Concepts	0.5 H	
	Creating Story Points	0.5 H	
	Layout Options	2 H	
	Fitting a Dashboard to a Story	0.5 H	
	Formatting a Story	1 H	
	Presenting a Story	0.5 H	
Module 8	Steps to Publish a Workbook	1 H	7 H
	Setting Permissions for Users	1 H	
	Managing Data Sources	2 H	
	Publishing Options	1 H	
	Exporting & Sharing Visualizations	1 H	
	Embedding Tableau Dashboards in Websites or Reports	1 H	

Course In Detail

Module 1: Introduction to Tableau

- Overview
- Advantages of Tableau
- Disadvantages of Tableau

Module 2: Tableau Interface & Data Connection

- Overview of the Tableau Interface
 - Understanding the Tableau Workspace
 - Menu and Toolbar Overview
- Creating a Workbook
 - Setting Up a New Workbook
 - Saving and Managing Workbooks
- Selecting Data Connector
 - Types of Data Connectors Available
 - Choosing the Right Connector for Your Data
- Connecting to Different Data Sources
 - Connecting to Excel Files
 - Connecting to SQL Databases
 - Connecting to Cloud-Based Data Sources
- Creating SQL Queries
 - Writing Custom SQL Queries
 - Using Custom SQL for Data Manipulation
- Creating Worksheets
 - Adding and Managing Worksheets
 - Navigating Between Multiple Worksheets

Module 3: Data Visualization & Chart Types

- Overview of Data Visualization
- Understanding Data Types in Tableau
 - Measures vs. Dimensions
 - Continuous vs. Discrete Data
- Types of Charts and Graphs
 - Area Charts
 - Bar Charts
 - Line Charts

- Pie Charts
- Crosstabs
- Scatter Plot
- Box Plot
- Histogram
- Dual-Axis & Combination Charts
- Bullet Graphs
- Treemaps & Heatmaps
- Waterfall & Gantt Charts
- Highlight Tables

Module 4: Calculated Fields & Runtime Columns

- Creating Calculated Fields
 - Basic Arithmetic Calculations
 - Logical Calculations
- Combining Fields
 - Creating Concatenated Fields
 - Merging Fields for Better Analysis
- Finding a Sequence Inside a String
 - Using String Functions in Tableau
 - Searching and Extracting Substrings
- Assigning Categories for Value Ranges
 - Defining Value Buckets
 - Creating Dynamic Categories
- Calculating Percent Change
 - Using Table Calculations for Percent Difference
 - Understanding Growth Rate Analysis
- Using Table Calculations
 - Running Totals, Moving Averages
 - Window Calculations
- LOD (Level of Detail) Expressions
 - Fixed, Include, Exclude Expressions
 - Advanced Aggregations Using LOD

Module 5: Data Formatting & Advanced Functions

- Overview of Data Formatting
- Specifying Number Formats
 - Formatting Numeric Data
 - Customizing Currency, Percentages, and Decimals
- Advanced Analytics Functions
 - Trend Lines & Forecasting
 - Statistical Models in Tableau

- Segmentation & Cohort Analytics
 - Understanding Customer Segmentation
 - Cohort Analysis in Tableau
 - Clustering in Tableau
 - Creating and Visualizing Clusters
 - Using Sets & Set Actions
 - Creating and Manipulating Sets
 - Interactive Analysis with Set Actions
 - Grouping Data for Better Insights
 - Using Parameters for Dynamic Analysis
 - Creating and Implementing Parameters
 - Enhancing Reports with Dynamic Controls
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Module 6: Filters & Sorting

- Order of Operations in Tableau
 - Understanding the Execution Order of Filters
 - Applying Filters in Tableau
 - Filtering Headers
 - Filtering Dimensions, Measures, and Dates
 - Filtering Table Calculations
 - Customizing Filter Interactions
 - Showing Filters in Views
 - Customizing Filter Cards
 - Filter Card Modes and Options
 - Sorting Data in Tableau
 - Manual Sorting
 - Nested Sorting
 - Computed Sorting
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Module 7: Dashboards & Storytelling

- Creating a Dashboard
 - Adding Multiple Sheets to a Dashboard
 - Adjusting Layout and Sizing
- Adding Interactivity to Dashboards
 - Using Filters and Actions
 - Highlighting and Drilling Down
- Dashboard Objects & Customization
 - Adding Images, Text, and Web Objects
 - Showing and Hiding Objects
 - Security Options for Web Page Objects
- Storytelling with Tableau
 - Creating Story Points

- Formatting and Customizing Story Layouts
 - Presenting a Story in Tableau
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Module 8: Publishing & Sharing

- Steps to Publish a Workbook
 - Publishing to Tableau Public
 - Publishing to Tableau Server
- Setting Permissions for Users
 - Role-Based Access Control
 - Managing User Access
- Managing Data Sources
 - Creating Data Extracts
 - Managing Live Connections
- Publishing Options
 - Saving and Version Control
- Exporting & Sharing Visualizations
 - Exporting to PDF, Images, and PowerPoint
 - Embedding Tableau Dashboards in Websites and Reports