

**Course Name** : **Intermediate Tableau Desktop**  
**Duration** : **2 Days (Physical Classroom / Virtual Live Instructor)**  
**Skill Level** : **Intermediate**

**COURSE DESCRIPTION:**

This Intermediate Tableau course is designed for individuals with a foundational understanding of Tableau, seeking to elevate their data visualization and analytical skills. The course covers a wide range of advanced topics, including complex data connections, sophisticated visualization techniques, and performance optimization strategies. Participants will learn how to connect to multiple data sources simultaneously, create custom SQL queries, and utilize unions and joins effectively. The course also explores advanced chart types such as dual-axis and combination charts, histograms, box plots, Pareto charts, and more. Additionally, participants will gain expertise in advanced mapping techniques, including custom geocoding and spatial analytics, as well as designing effective and interactive dashboards optimized for various devices.

The course also covers performance optimization techniques, ensuring that dashboards and queries run efficiently. By the end of the course, participants will have the skills to create dynamic, high-performing dashboards and seamlessly integrate Tableau into their broader analytical workflows. The course concludes with a comprehensive review, an open Q&A session, and guidance on next steps, ensuring that participants are well-equipped to apply their new skills in real-world scenarios.

**WHAT WILL YOU LEARN?**

In this intermediate Tableau course, you will learn to connect to multiple data sources, perform custom SQL queries, and optimize data extracts for improved performance. You will master creating sophisticated visualizations such as dual-axis charts, histograms, and advanced mapping techniques, including geocoding and spatial analytics. You will also learn best practices for designing effective, interactive dashboards tailored for different devices, integrating Tableau with R and Python for enhanced analytics, and optimizing Tableau Server performance. The course will equip you with the skills to build dynamic, high-performing dashboards and seamlessly incorporate Tableau into your analytical workflows.

**PREREQUISITE:**

Basic Tableau knowledge required.

**METHODOLOGY:**

This program will be conducted with interactive lectures, PowerPoint presentations, discussions, and practical exercises. This course can be conducted as instructor-led (ILT) or virtual instructor-led training (VILT).

**JOB SCOPE:**

Upon completion of this course, candidates may pursue the following career paths:

- Data Visualization Engineer
- Business Intelligence Developer
- Business Analyst
- Data Engineer

## MODULE 1: RECAP OF TABLEAU BASICS

- Welcome
- Introduction to Tableau Desktop interface
- Connecting to data sources (files, databases)
- Building basic visualizations (bar charts, line charts, scatter plots)
- Sorting and filtering data in visualizations
- Understanding marks card and shelves
- Introduction to calculated fields and basic calculations

## MODULE 2: ADVANCED DATA CONNECTIONS AND PREPARATION

- Connecting to multiple data sources simultaneously
- Data source filters and performance considerations
- Using unions and joins effectively
- Custom SQL connections and queries

## MODULE 3: ADVANCED CHART TYPES AND VISUALIZATIONS

- Dual-axis and combination charts
- Histograms, box plots, and Pareto charts
- Waterfall and Gantt charts
- Using custom shapes and images in visualizations

## MODULE 4: ADVANCED MAPPING TECHNIQUES

- Customizing maps (background images, map layers)
- Geocoding and spatial files
- Advanced mapping techniques (path maps, density maps)
- Mapping with custom territories and spatial analytics

## MODULE 5: DASHBOARD DESIGN BEST PRACTICES

- Designing effective dashboards
- Utilizing actions (filter, highlight, URL)
- Dashboard formatting and layout containers
- Designing for different devices (desktop vs. mobile)

## MODULE 6: INTEGRATION AND AUTOMATION

- Integrating Tableau with R and Python
- Tableau Server vs. Tableau Online
- Embedding Tableau visualizations in web applications
- Introduction to Tableau Prep Builder for data preparation

## MODULE 7: PERFORMANCE OPTIMIZATION

- Optimizing data extracts for faster performance
- Query performance optimization techniques
- Techniques for improving dashboard performance
- Monitoring and managing Tableau server performance

## COURSE REVIEW & QA

- Summary of Key Concepts
- Open Q&A Session
- Feedback and Next Steps