

Conquering Data Visualization

with Tableau and Power BI

FA-0004 · two-day

Data & Analytics

Introduction

This two-day intensive course is crafted to empower participants with the skills needed to harness the power of leading business intelligence tools, Tableau and Power BI, for effective data analysis and visualization. As data becomes increasingly crucial in decision-making processes, the ability to quickly analyze and visualize information in a meaningful way is essential.

This course offers a deep dive into both Tableau and Power BI, guiding participants from the basics of data visualization to creating interactive dashboards and reports that can communicate insights effectively. Through a combination of expert instruction, hands-on exercises, and practical case studies, participants will learn how to leverage these tools to transform raw data into compelling visual stories that drive strategic decisions.

Learning outcomes

By the end of this course, participants will be able to:

- Navigate and utilize Tableau and Power BI interfaces effectively.
- Connect to various data sources and perform data transformations.
- Create and customize visualizations to highlight key insights.
- Design interactive dashboards and reports in both Tableau and Power BI.
- Apply best practices in data visualization and dashboard design.
- Share and publish dashboards for collaborative decision-making.

Prerequisites

- Basic understanding of data analysis concepts.
- Experience with Excel and Tableau.
- Licenced version of Microsoft Excel.
- Access to Tableau Publics (free)

Training outline

1. Day 1: Introduction to Tableau

Getting Started with Tableau

1. Overview of Tableau environment.
2. Accessing Tableau Public.
3. Understanding Data sources.
4. Connecting to data sources and data preparation.

Data Visualization Fundamentals in Tableau

1. Exploring visualization options.
2. Creating basic visualizations (charts, maps, tables).
3. Using Show Me to explore visualization options.

Deep Dive into Tableau Visualization Techniques

1. Advanced chart types and custom visualizations.
2. Utilizing calculated fields and parameters for dynamic insights.

Creating Dashboards and Stories in Tableau

1. Design principles for effective dashboards.
2. Building interactive dashboards with filters, actions, and tooltips.
3. Telling stories with data using Tableau Stories.

Hands-On Exercise: Building a Comprehensive Tableau Dashboard

1. Participants will use real-world data to create a dashboard that highlights key insights and trends.

2. Day 2: Power BI

Introduction to Power BI

1. Overview of Power BI ecosystem.
2. Connecting to data sources and using Power Query for data transformation.

Data Modeling and DAX in Power BI

1. Introduction to data modeling concepts.
2. Creating measures and calculated columns using DAX (Data Analysis Expressions).

Advanced Data Visualization in Power BI

1. Exploring a variety of visualization options.
2. Best practices for designing impactful visualizations.

Creating Interactive Dashboards in Power BI

1. Principles of dashboard design for clarity and impact.
2. Building interactive reports and dashboards with Bookmarks, Drill-throughs, and Q&A features.

Sharing and Collaborating with Power BI

1. Publishing reports and dashboards.
2. Collaboration features in Power BI Service (Apps, Workspaces).

Hands-On Exercise: Crafting a Dynamic Power BI Dashboard

1. Applying the day's lessons, participants will develop a Power BI dashboard based on a set of business requirements, focusing on visualization techniques and storytelling.

This course concludes with a comprehensive review of both tools' capabilities and how they can be applied in various business contexts. Participants will have the opportunity to present their dashboards, facilitating peer feedback and further learning.

A final Q&A session will allow for any unresolved questions, ensuring that all participants leave with a clear understanding of how to apply their new skills in real-world scenarios. Certificates of completion will be awarded to acknowledge the expertise gained in data visualization and business intelligence using Tableau and Power BI.

This course is designed to empower participants to transform data into actionable insights, driving data-driven decisions within their organizations.