
Power BI Workshop – 24 Hours

Course description

This course provides a comprehensive and hands-on introduction to Power BI as a modern self-service BI platform. Participants learn how to build a complete analytics solution—from data ingestion and transformation, through data modelling and DAX development, to the creation of interactive reports and management dashboards.

The course covers Power BI Desktop and Power BI Service, focusing on best practices for data preparation using Power Query, dimensional modelling (star and snowflake schemas), KPI and time-intelligence measures with DAX, advanced visualization techniques, and secure sharing in the Power BI cloud environment. Emphasis is placed on building scalable, automated, and business-ready BI solutions.

Learning Outcomes

- Importing and transforming data from multiple sources using Power Query
- Designing dimensional data models (star/snowflake) and managing relationships
- Building KPIs and advanced DAX measures, including time intelligence
- Creating interactive reports and dashboards with best-practice visualizations
- Publishing, sharing, and managing content securely in Power BI Service
- Operating automated refresh, gateways, and user permissions in the cloud

Prerequisites

- Basic understanding of data concepts and tables
- Familiarity with Excel or reporting tools
- Basic SQL knowledge is an advantage
- No prior experience with Power BI or DAX is required

Target Audience

- Data Analysts
- BI Analysts and BI Developers
- Data Engineers working with analytics layers
- Information Systems and BI Implementers
- Business users transitioning to self-service BI
- Professionals responsible for reporting and dashboards

Course Syllabus

Introduction

- Self-Service BI
- Tool structure and architecture
- Development workflow with Power BI (understanding the end-to-end flow)

Data Import and Transformation Using Power BI Query Editor

- Introduction to Power BI Query Editor
- Extract – Importing data from various sources:
 - Files (Excel, text)
 - SQL databases
 - Folders
- Transform – Data transformation and process automation
- Creating a date dimension (enabling slicing and analysis by day of week, month, quarter, and year)
- Developing automated data transformation processes:
 - Joining tables
 - Creating calculated columns
 - Data filtering
 - Splitting and merging columns
 - Data cleansing

Introduction to the M language

Modelling and Measure Creation for Interactive Data Analysis

- Data modelling best practices
- Methodologies for developing data models
- Introduction to Star Schema and Snowflake Schema
- Defining and managing relationships between tables

Measures

- Overview and definition of measures and KPIs

-
- Introduction to the DAX language and the impact of the data model on measure design
 - Developing measures using DAX
 - Creating time-intelligence measures for period-over-period comparison and cumulative calculations

Reports

- Report design and development
- Best practices and tips for effective report design
- Using filters and various visualizations
- Adding custom visuals and colour themes from Microsoft AppSource
- Using bookmarks, tooltips, and drill-through functionality
- Using buttons for enhanced interactivity
- Mobile-optimized report design

Power BI Service – The Power BI Cloud Environment

- Introduction to the Power BI cloud service
- Publishing the model from Power BI Desktop to the cloud workspace
- Installing and configuring the Gateway
- Creating dashboards
- Sharing reports and dashboards
- Managing user permissions and workspaces
- Scheduling automatic data refresh and configuring data sources via the Gateway