

# Power BI Boss

## POWER BI INTERMEDIATE TO ADVANCED

Duration: 2 – 3 Days

## Overview

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This Intermediate Power BI training course builds on the Power BI Analyst class, teaching the advanced dashboard skills participants need in order to successfully build more sophisticated data visualizations. During the class, students connect to various data sources, shape and combine data, work with reports, and create and share more sophisticated dashboards. Attendees gain practical, real-world skills they can immediately use in their current projects. This course can be taught over 3 days for the less experienced users or accelerated over 2 days for the more advanced users.

## Objectives

- Plan Power BI Projects with organizational goals in mind
- Incorporate DAX for deeper analysis
- Model and transform data
- Create a Deployment Strategy
- Integrate with Azure DevOps for CI/CD
- Determine and apply role-based security
- Administer Power BI to an organization
- Build custom dashboards using Power BI Desktop

## Outline

- Planning Power BI Projects
  - Power BI deployment modes
  - Project discovery and ingestion
  - Power BI project roles
  - Power BI licenses
  - Data warehouse bus matrix
  - Dataset design process
  - Data profiling
  - Dataset planning
  - Sample project analysis
- Power BI Desktop
  - Overview
  - Use Cases
  - Architecting a PBIX file
  - Preview features
  - Visualizations
  - Data Models
  - Analyzing data in the PBIX tables
  - Navigation
- Power BI Query Editor
  - Loading Data Models

- Leveraging parameters
  - Advanced Query Editor
  - Data transformation
  - Data manipulation
  - Joining multiple data sources
    - On premise
    - Cloud
    - Hybrid
  - Understanding query process
- Connecting to Sources and Transforming Data
  - Query design per dataset mode
  - Data sources
  - SQL views
  - M queries
  - Query folding
  - M Query examples
  - M editing tools
- Designing Import and DirectQuery Data Models
  - Dataset layers
  - The Data Model
  - Relationships
  - Model metadata
  - Optimizing performance
- Developing DAX Measures and Security Roles
  - DAX measures
  - Base measures
  - Date intelligence metrics
  - Dimension metrics
  - Ranking metrics
  - Security roles
  - Performance testing
- Applying Custom Visuals, Animation, and Analytics
  - Drill through report pages
  - Bookmarks
  - ArcGIS Map visual for Power BI
  - Waterfall chart breakdown
  - Analytics pane
  - Quick Insights
  - Custom visuals
  - Animation and data storytelling
- Data Visualization
  - End User Interaction design
  - End User Experience design
  - How to select the right visual
  - Understanding visual data alignment
- Data Architecting
  - Snowflake schema
  - Star schema
  - Designing to leverage relationships
  - Dynamic filtering

- Designing Power BI Dashboards and Architectures
  - Dashboards versus reports
  - Dashboard design
  - Multi-dashboard architectures
  - Dashboard tiles
  - Live report pages
  - Mobile-optimized dashboards
- Managing Application Workspaces and Content
  - Application workspaces
  - Staged deployments
  - Dashboard data classifications
  - Version control
  - Metadata management
- Managing the On-Premises Data Gateway
  - On-premises data gateway planning
  - Gateway clusters
  - Gateway architectures
  - Gateway security
  - Gateway configuration
  - Managing gateway clusters
  - Troubleshooting and monitoring gateways
  - Scheduled data refresh
  - DirectQuery datasets
  - Live connections to Analysis Services models
  - Dashboard cache refresh
- Deploying the Power BI Report Server
  - Planning for the Power BI Report Server
  - Installation
  - Configuration
  - Upgrade cycles
  - Report Server Desktop Application
  - Report Server Web Portal
  - Power BI mobile applications
  - Report server administration
  - Scale Power BI Report Server
- Creating Power BI Apps and Content Distribution
  - Content distribution methods
  - Power BI apps
  - Self-Service BI workspace
  - Sharing dashboards and reports
  - SharePoint Online embedding
  - Custom application embedding
  - Publish to web
  - Data alerts
  - Email Subscriptions
  - Analyze in Excel
- Administering Power BI for an Organization
  - Data governance for Power BI
  - Azure Active Directory
- Power BI Admin Portal

- Usage metrics reports
  - Audit logs
  - Power BI Premium capacities
- **Scaling with Premium and Analysis Services**
  - Power BI Premium
  - Power BI Premium capacity allocation
  - Premium capacity estimations
  - Analysis Services
  - Migration of Power BI Desktop to Analysis Services
- **Power BI Dataflows**
  - Build an ETL
  - Distributing Dataflow
  - Connecting to Dataflows
  - Management
- **Power BI Security**
  - Role based access
  - Designing for RLS
  - Dynamic Role level security
  - Leveraging the AAD
  - Implementing in the Power BI Service
- **Integration with Azure DevOps**
  - PBIX version control
  - Continuous Integration
  - Continuous Deployment
  - Aligning as an Agile/Scrum BI team
  - Pull Requests
  - Builds
  - Releases
  - Pipeline Management
  - Automatic deployment to Power BI Service
  - Gated deployments with approvals
  - Security
  - Projects

## Class Requirements

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Successful completion of the Power BI Analyst course, or some equivalent introductory course.