

PL-300T00: Design and manage analytics solutions using Power BI



Days: 3

Prerequisites: Before attending, participants should have a basic understanding of core data concepts and familiarity with relational and non-relational data. Experience with data visualization and cloud concepts is helpful but not required.

Audience: This course is designed for Data Analysts, Business Intelligence Professionals, and Data Professionals who manage data models and reports. It is ideal for individuals seeking to gain expertise in designing and building scalable data models, transforming and cleaning data, and enabling advanced analytic capabilities using Microsoft Power BI.

Description: PL-300T00 equips learners with the essential skills to prepare data, model data, visualize data, and deploy and maintain deliverables using Power BI. This hands-on course also prepares participants for the Microsoft Certified: Power BI Data Analyst Associate certification.

Course Objectives: Upon completion of this course, participants will be able to:

- Prepare and transform data from various sources
- Design and develop data models using Power BI
- Create impactful visualizations and reports
- Deploy and maintain datasets, reports, and dashboards
- Implement security and governance features within Power BI Service

OUTLINE:

LESSON 1: GET STARTED WITH MICROSOFT DATA ANALYTICS

- Understand the role of a Data Analyst
- Introduction to the Power BI ecosystem
- Overview of data analytics in Microsoft

LESSON 2: PREPARE DATA IN POWER BI

- Connect to different data sources
- Clean and transform data using Power Query
- Profile data to ensure quality and consistency

LESSON 3: CLEAN, TRANSFORM, AND LOAD DATA

- Data shaping and transformation techniques
- Applying business rules and logic
- Combine data from multiple sources

LESSON 4: DESIGN A DATA MODEL IN POWER BI

- Introduction to data modeling concepts
- Defining and configuring relationships between tables
- Designing optimized star schemas

LESSON 5: CREATE MODEL CALCULATIONS USING DAX

- Introduction to Data Analysis Expressions (DAX)
- Creating calculated tables, columns, and measures
- Applying time intelligence functions for trend analysis

LESSON 6: OPTIMIZE MODEL PERFORMANCE

- Identifying and resolving performance issues
- Using aggregations and performance analyzer
- Best practices for model optimization

LESSON 7: CREATE REPORTS IN POWER BI

- Selecting appropriate visualizations
- Implementing filters, slicers, and drill through features
- Designing interactive and user-friendly reports

LESSON 8: PERFORM ADVANCED ANALYTICS

- Utilizing AI visuals and statistical analysis
- Identifying trends, outliers, and clusters

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- Integrating advanced analytics into reports

LESSON 9: CREATE AND MANAGE WORKSPACES

- Creating and managing Power BI workspaces
- Publishing reports and dashboards
- Managing dataset refreshes and data gateways

LESSON 10: MANAGE FILES AND DATASETS IN POWER BI

- Implementing dataflows and shared datasets
- Applying Row-Level Security (RLS)
- Promoting and certifying datasets

LESSON 11: PAGINATED REPORTS IN POWER BI

- Introduction to paginated reports
- Designing and publishing paginated reports