



DA-100T00: Analyzing Data with Power BI

Course ID #: 7000-390-ZZ-Z

Hours: 28

Course Content

Course Description:

This course will discuss the various methods and best practices that are in line with business and technical requirements for modeling, visualizing, and analyzing data with Power BI. The course will also show how to access and process data from a range of data sources including both relational and non-relational data. This course will also explore how to implement proper security standards and policies across the Power BI spectrum including datasets and groups. The course will also discuss how to manage and deploy reports and dashboards for sharing and content distribution. Finally, this course will show how to build paginated reports within the Power BI service and publish them to a workspace for inclusion within Power BI.

At Course Completion:

After completing this course, student will be able to:

- Ingest, clean, and transform data
- Model data for performance and scalability
- Design and create reports for data analysis
- Apply and perform advanced report analytics
- Manage and share report assets
- Create paginated reports in Power BI

Prerequisites:

In addition to their professional experience, students who take this training should have technical knowledge equivalent to the information found in the Azure Fundamentals course.

Target Student:

The audience for this course is data professionals and business intelligence professionals who want to learn how to accurately perform data analysis using Power BI. This course is also targeted toward those individuals who develop reports that visualize data from the data platform technologies that exist on both in the cloud and on-premises.



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Topics:

Module 1: Get Started with Microsoft Data Analytics

- Data Analytics and Microsoft
- Getting Started with Power BI
- Lab : Getting Started
- Getting Started

Module 2: Prepare Data in Power BI

- Get data from various data sources
- Optimize performance
- Resolve data errors
- Lab : Preparing Data in Power BI Desktop
- Prepare Data

Module 3: Clean, Transform, and Load Data in Power BI

- Data shaping
- Enhance the data structure
- Data Profiling
- Lab : Transforming and Loading Data
- Loading Data

Module 4: Design a Data Model in Power BI

- Introduction to data modeling
- Working with tables
- Dimensions and Hierarchies
- Lab : Data Modeling in Power BI Desktop
- Create Model Relationships
- Configure Tables
- Review the model interface
- Create Quick Measures
- Lab : Advanced Data Modeling in Power BI Desktop
- Configure many-to-many relationships

- Enforce row-level security

Module 5: Create Measures using DAX in Power BI

- Introduction to DAX
- DAX context
- Advanced DAX
- Lab : Introduction to DAX in Power BI Desktop
- Create calculated tables
- Create calculated columns
- Create measures
- Lab : Advanced DAX in Power BI Desktop
- Use the CALCULATE() function to manipulate filter context
- use Time Intelligence functions

Module 6: Optimize Model Performance

- Optimize the model for performance
- Optimize DirectQuery Models
- Create and manage Aggregations

Module 7: Create Reports

- Design a report
- Enhance the report
- Lab : Designing a report in Power BI
- Create a live connection in Power BI Desktop
- Design a report
- Configure visual fields and format properties
- Lab : Enhancing Power BI reports with interaction and formatting
- Create and configure Sync Slicers



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- Create a drillthrough page
- Apply conditional formatting
- Create and use Bookmarks

- Map security principals to dataset roles
- Share a dashboard
- Publish an App

Module 8: Create Dashboards

- Create a Dashboard
- Real-time Dashboards
- Enhance a Dashboard
- Lab : Designing a report in Power BI Desktop - Part 1
- Create a Dashboard
- Pin visuals to a Dashboard
- Configure a Dashboard tile alert
- Use Q&A to create a dashboard tile

Module 12: Manage Datasets in Power BI

- Parameters
- Datasets

Module 13: Row-level security

- Security in Power BI

Module 9: Create Paginated Reports in Power BI

- Paginated report overview
- Create Paginated reports
- Lab : Creating a Paginated report
- Use Power BI Report Builder
- Design a multi-page report layout
- Define a data source
- Define a dataset
- Create a report parameter
- Export a report to PDF

Module 10: Perform Advanced Analytics

- Advanced Analytics
- Data Insights through AI visuals
- Lab : Data Analysis in Power BI Desktop
- Create animated scatter charts
- Use the visual to forecast values
- Work with Decomposition Tree visual
- Work with the Key Influencers visual

Module 11: Create and Manage Workspaces

- Creating Workspaces
- Sharing and Managing Assets
- Lab : Publishing and Sharing Power BI Content