

COURSE OUTLINE

DA-100T00: Analyzing Data with Power BI

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
4 Day(s)	Intermediate	SQL Server	In Class	N/A

Course Overview

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.

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.

Audience

The audience for this course are 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.

At Course Completion

After completing this course, students 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

Topics

Module 1: Get Started with Microsoft Data Analytics

This module explores the different roles in the data space, outlines the important roles and responsibilities of a Data Analysts, and then explores the landscape of the Power BI portfolio.

Lessons

- Data Analytics and Microsoft
- Getting Started with Power BI

Module 2: Prepare Data in Power BI

This module explores identifying and retrieving data from various data sources. You will also learn the options for connectivity and data storage, and understand the difference and performance implications of connecting directly to data vs. importing it.

Lessons

- Get data from various data sources

- Optimize performance
- Resolve data errors

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

This module teaches you the process of profiling and understanding the condition of the data. They will learn how to identify anomalies, look at the size and shape of their data, and perform the proper data cleaning and transforming steps to prepare the data for loading into the model.

Lessons

- Data shaping
- Enhance the data structure
- Data Profiling

Module 4: Design a Data Model in Power BI

This module teaches the fundamental concepts of designing and developing a data model for proper performance and scalability. This module will also help you understand and tackle many of the common data modeling issues, including relationships, security, and performance.

Lessons

- Introduction to data modeling
- Working with tables
- Dimensions and Hierarchies

Module 5: Create Measures using DAX in Power BI

This module introduces you to the world of DAX and its true power for enhancing a model. You will learn about aggregations and the concepts of Measures, calculated columns and tables, and Time Intelligence functions to solve calculation and data analysis problems.

Lessons

- Introduction to DAX
- DAX context
- Advanced DAX

Module 6: Optimize Model Performance

In this module you are introduced to steps, processes, concepts, and data modeling best practices necessary to optimize a data model for enterprise-level performance.

Lessons

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

Module 7: Create Reports

This module introduces you to the fundamental concepts and principles of designing and building a report, including selecting the correct visuals, designing a page layout, and applying basic but critical functionality. The important topic of designing for accessibility is also covered.

Lessons

- Design a report
- Enhance the report

Module 8: Create Dashboards

In this module you will learn how to tell a compelling story through the use of dashboards and the different navigation tools available to provide navigation. You will be introduced to features and functionality and how to enhance dashboards for usability and insights.

Lessons

- Create a Dashboard
- Real-time Dashboards
- Enhance a Dashboard

Module 9: Create Paginated Reports in Power BI

This module will teach you about paginated reports, including what they are how they fit into Power BI. You will then learn how to build and publish a report.

Lessons

- Paginated report overview
- Create Paginated reports

Module 10: Perform Advanced Analytics

This module helps you apply additional features to enhance the report for analytical insights in the data, equipping you with the steps to use the report for actual data analysis. You will also perform advanced analytics using AI visuals on the report for even deeper and meaningful data insights.

Lessons

- Advanced Analytics
- Data Insights through AI visuals

Module 11: Create and Manage Workspaces

This module will introduce you to Workspaces, including how to create and manage them. You will also learn how to share content, including reports and dashboards, and then learn how to distribute an App.

Lessons

- Creating Workspaces
- Sharing and Managing Assets

Module 12: Manage Datasets in Power BI

In this module you will learn the concepts of managing Power BI assets, including datasets and workspaces. You will also publish datasets to the Power BI service, then refresh and secure them.

Lessons

- Parameters
- Datasets

Module 13: Row-level security

This module teaches you the steps for implementing and configuring security in Power BI to secure Power BI assets.

Lessons

- Security in Power BI