



Power BI Data Analyst

Duration: 3 Days

Who should attend:

This Power BI training course will discuss the various methods and best practices in line with business and technical requirements for modelling, visualising, and analysing data with Power BI. The course will also show how to access and process data from various data sources, including relational and non-relational data.

This course will also explore implementing proper security standards and policies across the Power BI spectrum, including datasets and groups. The course will also discuss managing and deploying 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.

Pre-requisites:

Delegates should have experience working with data in the cloud, they should understand core data concepts and have working knowledge of relational data in the cloud, non-relational data in the cloud, and data analysis and visualisation concepts. This can be gained from attending our **Microsoft Azure Data Fundamentals** training course.

Content

Module 1: Get Started with Microsoft Data Analytics

In this module, you'll learn:

- Data Analytics and Microsoft
- Explore the different roles in data
- Identify the tasks that are performed by a data analyst
- Describe the Power BI landscape of products and services
- Getting Started with Power BI

Lab: Getting Started

- Use the Power BI service

Module 2: Prepare Data in Power BI

In this module, you'll learn how to:

- Get data from various data sources
- Optimise performance
- Resolve data errors
- Identify and retrieve data from different data sources
- Understand the connection methods and their performance implications

Lab: Preparing Data in Power BI Desktop

- Use Microsoft Dataverse
- Connect to a data flow

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

In this module, you'll learn how to:

- Apply data shape transformations
- Enhance the structure of the data



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- Profile and examine the data

Lab: Transforming and Loading Data

Module 4: Design a Data Model in Power BI

In this module, you'll learn how to:

- Understand the basics of data modelling
- Working with tables
- Implement Dimensions and Hierarchies

Lab: Data Modelling in Power BI Desktop

- Create and Define Model Relationships and their cardinality
- Configure Tables
- Review the model interface
- Create Quick Measures
- Create histograms and rankings

Lab: Advanced Data Modelling in Power BI Desktop

- Configure many-to-many relationships
- Enforce row-level security

Module 5: Create Measures using DAX in Power BI

In this module, you'll learn how to:

- Understand DAX and DAX context
- Use DAX for simple formulas and expressions

Lab: Introduction to DAX in Power BI Desktop

- Use the CALCULATE() function to manipulate filter context
- Work with Time Intelligence and Key Performance Indicators

Lab: Advanced DAX in Power BI Desktop

- Create calculated tables and measures
- Create calculated columns
- Create and build simple measures

Module 6: Optimise Model Performance

In this module, you'll learn how to:

- Understand the importance of variables
- Optimise the model for performance
- Optimise DirectQuery Models
- Optimise the storage model
- Create and manage Aggregations

Module 7: Create Reports

In this module, you'll learn how to:

- Design a report page layout
- Enhance the report with effective visualisations
- Add basic report functionality
- Add report navigation and interactions

- Improve report performance
- Design for accessibility

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

Module 8: Create Dashboards

In this module, you'll learn how to:

- Create a Dashboard
- Understand real-time Dashboards
- Enhance Dashboard usability

Lab: Designing a report in Power BI Desktop - Part 1

- Pin visuals to a Dashboard
- Configure a Dashboard tile alert
- Use Q&A to create a dashboard tile

Module 9: Create Paginated Reports in Power BI

In this module, you'll learn how to:

- Explain paginated reports
- Create Paginated reports

Lab: Creating a Paginated report

- Use Power BI Report Builder
- Design a multi-page report layout
- Create and configure a data source and dataset
- Work with charts and tables
- Create a report parameter
- Export a report to PDF

Module 10: Perform Advanced Analytics

In this module, you'll learn how to:

- Explore statistical summary with Advanced Analytics
- Use the Analyse feature to gain Data Insights through AI visuals

Lab: Data Analysis in Power BI Desktop

- Create animated scatter charts
- Use the visual to forecast values
- Identify outliers in data
- Conduct time-series analysis
- Use the AI visuals



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- Use the Advanced Analytics custom visual
- Work with Decomposition Tree visual
- Work with the Key Influencers visual

Module 11: Manage Datasets in Power BI

In this module, you'll learn how to:

- Create and work with parameters
- Manage datasets
- Configure dataset refresh
- Troubleshoot gateway connectivity
- Understand the aspects of Power BI security
- Configure row-level security roles and group memberships

Module 12: Create and Manage Workspaces in Power BI

In this module, you'll learn how to:

- Creating Workspaces
- Sharing and Managing Assets
- Create and manage a workspace

Lab: Publishing and Sharing Power BI Content

- Map security principals to dataset roles
- Share a dashboard
- Understand workspace collaboration
- Monitor workspace usage and performance
- Publish and Distribute an App