



20778 - Analysing Data with PowerBI

NEXTTECH

20778 - Analysing Data with PowerBI

Course Overview

The main purpose of the course is to give students a good understanding of data analysis with Power BI. The course includes creating visualizations, the Power BI Service, and the Power BI Mobile App.

Duration

3 Days

Course Outline

Students will complete the following modules.

Module 1: Introduction to Self-Service BI Solutions

Introduces business intelligence (BI) and how-to self-serve with BI.

Lessons:

- Introduction to business intelligence
- Introduction to data analysis
- Introduction to data visualization
- Overview of self-service BI
- Considerations for self-service BI
- Microsoft tools for self-service BI
- Exploring an Enterprise BI solution
- Viewing reports
- Creating a Power BI report
- Creating a Power BI dashboard

After completing this module, students will be able to:

- Describe the trends in BI
- Describe the process of data analysis in Power BI.
- Use the key visualizations in Power BI.
- Describe the rationale for self-service BI.
- Describe considerations for self-service BI.
- Understand how you can use Microsoft products to implement a BI solution.

Module 2: Introducing Power BI

This module introduces Power BI desktop, and explores the features that enable the rapid creation and publication of sophisticated data visualizations.

Lessons:





20778 - Analysing Data with PowerBI

- Power BI
- The Power BI service
- Creating a Power BI dashboard
- Connecting to Power BI data
- Create a Power BI dashboard

After completing this module, students will be able to:

- Develop reports using the Power BI Desktop app.
- Use report items to create dashboards on the Power BI portal.
- Understand the components of the Power BI service including licensing and tenant management.

Module 3: Power BI

At the end of this module students will be able to explain the rationale and advantages of using Power BI.
Lessons:

- Using Excel as a data source for Power BI
- The Power BI data model
- Using databases as a data source for Power BI
- The Power BI service
- Importing data into Power BI
- Importing Excel files into Power BI
- Viewing reports from Excel files

After completing this module, students will be able to:

- Describe the data model and know how to optimize data within the model.
- Connect to Excel files and import data
- Use on-premises and cloud Microsoft SQL Server databases as a data source, along with the R script data connector
- Take advantage of the features of the Power BI service by using Q&A to ask questions in natural query language and create content packs and groups.

Module 4: Shaping and Combining Data

With Power BI desktop you can shape and combine data with powerful, built-in tools. This module introduces the tools that are available for preparing your data and transforming it into a form ready for reporting.

Lessons:

- Power BI desktop queries
- Shaping data
- Combining data
- Shaping and combining data
- Shape and combine Power BI data

After completing this module, students will be able to:

- Perform a range of query editing skills in Power BI
- Shape data, using formatting and transformations.
- Combine data together from tables in your dataset.

Module 5: Modelling data

This module describes how to shape and enhance data.



20778 - Analysing Data with PowerBI

Lessons:

- Relationships
- DAX queries
- Calculations and measures
- Modelling data
- Create relationships
- Calculations

After completing this module, students will be able to:

- Describe relationships between data tables.
- Understand the DAX syntax, and use DAX functions to enhance your dataset.
- Create calculated columns, calculated tables and measures.

Module 6: Interactive Data Visualisations

This module describes how to create and manage interactive data visualisations.

Lessons:

- Creating Power BI reports
- Managing a Power BI solution
- Creating a Power BI report
- Connecting to Power BI data
- Building Power BI reports
- Creating a Power BI dashboard

After completing this module, students will be able to:

- Use Power BI desktop to create interactive data visualizations.
- Manage a power BI solution.

Module 7: Direct Connectivity

This module describes various connectivity options using Power BI.

Lessons:

- Cloud data
- Connecting to analysis services
- Direct Connectivity
- Direct connectivity from Power BI desktop
- Direct connectivity from the Power BI service

After completing this module, students will be able to:

- Use Power BI direct connectivity to access data in Azure SQL data warehouse, in addition to big data sources such as Hadoop
- Use Power BI with SQL Server Analysis Services data, including Analysis services models running in multidimensional mode.

Module 8: Developer API

This module describes the developer API within Power BI.



20778 - Analysing Data with PowerBI

Lessons:

- The developer API
- Custom visuals
- Using the developer API
- Using custom visuals

After completing this module, students will be able to:

- Describe the developer API.
- Use the developer API to create custom visuals.

Module 9: Power BI mobile app

This module describes the Power BI mobile.

Lessons:

- The Power BI mobile app
- Using the Power BI mobile app
- Power BI embedded

After completing this module, students will be able to:

- Describe the Power BI mobile app.
- Download and use the Power BI mobile app.
- Describe Power BI embedded and when you would want to use it.

Pre-requisites

Before attending this course, students must have:

- Excellent knowledge of relational databases and reporting.
- Some basic knowledge of data warehouse schema topology (including star and snowflake schemas).
- Some exposure to basic programming constructs (such as looping and branching).
- An awareness of key business priorities such as revenue, profitability, and financial accounting is desirable.
- Familiarity with Microsoft Office applications – particularly Excel.

