

## ANALYZING DATA WITH POWER BI

---

CODE: 20778

DURATION: 3 days

### Introduction

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.

### At Course Completion

After completing this course, students will be able to:

- Perform Power BI desktop data transformation.
- Describe Power BI desktop modelling.
- Create a Power BI desktop visualization.
- Implement the Power BI service.
- Describe how to connect to Excel data.
- Describe how to collaborate with Power BI data.
- Connect directly to data stores.
- Describe the Power BI developer API.
- Describe the Power BI mobile app.

### Prerequisites

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.

## COURSE CONTENT

### Module 1: Introduction to Self-Service BI Solutions

This 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

#### Lab: Exploring an Enterprise BI solution

- Viewing reports
- Creating a Power BI report
- Creating a Power BI dashboard

### 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

- Power BI
- The Power BI service

#### Lab: Creating a Power BI dashboard

- Connecting to Power BI data
- Create a Power BI dashboard

### 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

#### Lab: Importing data into Power BI

- Importing Excel files into Power BI
- Viewing reports from Excel files

### 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

#### Lab: Shaping and combining data

- Shape power BI data
- Combine Power BI data

### Module 5: Modelling data

This module describes how to shape and enhance data.

#### Lessons

- Relationships
- DAX queries
- Calculations and measures

#### Lab: Modelling Data

- Create relationships
- Calculations

### Module 6: Interactive Data Visualizations

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

#### Lessons

- Creating Power BI reports
- Managing a Power BI solution

#### Lab: Creating a Power BI report

- Connecting to Power BI data
- Building Power BI reports
- Creating a Power BI dashboard

### Module 7: Direct Connectivity

This module describes various connectivity options using Power BI.

#### Lessons

- Cloud data
- Connecting to analysis services

#### Lab: Direct Connectivity

- Direct connectivity from Power BI desktop
- Direct connectivity from the Power BI service

### Module 8: Developer API

This module describes the developer API within Power BI.

#### Lessons

- The developer API
- Custom visuals

#### Lab: Using the developer API

- Using custom visuals

### Module 9: Power BI mobile app

This module describes the Power BI mobile app.

#### Lessons

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