
PBI006: Data Visualisation & Analytics with Power BI

Duration: 2 Days; Instructor-led

COURSE DESCRIPTION

Getting insights from your data is the goal of data analytics. Power BI can access vast volumes of data from multiple sources, and allow you to view, analyse, and visualise the data. The most important part of any BI tool is combining, cleaning and re-organising data into a tabular format to enable data modelling and analytics.

This programme will provide you with the basic knowledge and skills to create simple reports and analyse data with Power BI Desktop. You will get to learn the key concepts in business intelligence, data analysis, and data visualisation, as well as the rationale for self-service BI, considerations for using self-service BI, and how Microsoft products can be used to implement a self-service BI solution.

OBJECTIVES

This programme seeks to help you to:

- Understand key features of a self-service BI solution
- Understand Power BI and its data sources
- Model, shape, and combine data
- Perform Power BI data visualisations

AUDIENCE

Managers, Executives and business users who need to analyse data and create interactive reports or dashboards

COURSE OUTLINE

Module 1: Introduction to Self-Service BI Solutions

- Introduction to business intelligence
- Introduction to data analysis
- Introduction to data visualisation
- Microsoft tools for self-service BI

Module 2: Introducing Power BI

- Power BI Desktop
- Creating a Microsoft account and its advantages
- Power BI service (cloud based)
- Microsoft Power BI vs Other BI applications

Module 3: Power BI Data

- Identify and connect to a data source
- Handling data from multiple sources
- Changing the data source settings
- Select a storage mode/load settings
- Examine data structures, interrogate column properties
- Remove unnecessary rows/columns for optimisation of performance

Module 4: Interactive Data Visualisations

- Creating Power BI reports
- Choosing the right visuals
- Adding visuals to reports
- Configure and formatting visuals
- Importing custom visuals from App Source
- Importing downloaded visuals from file
- Using slicers to filter visuals
- Using the filter pane to filter visuals and reports
- Perform top N analysis
- Sorting visuals and configuring a custom sort
- Creating a hierarchy and performing drilldown into data
- Using built-in measures to summarise data
- Edit and configure interactions between visuals
- Design and configure for accessibility

Module 5: Shaping and Combining Data

- Introduction to Power Query
- Resolve inconsistencies, unexpected/null values, and data quality issues
- Identify and create appropriate keys for joins
- Transforming and re-shaping data, date transformations
- Apply user-friendly naming conventions to columns and queries
- Combining data (multiple scenarios in appending data)
- Combining data (merging data vs related tables)
- Configure data loading
- Formulas in Power Query

Module 6: Modelling Data

- Introduction to Power Pivot
- Understanding Relationships
- Introduction to Data Analysis Expression (DAX)
- Formulas in Power Pivot: Calculated columns and measures
- Handling dates in Power Pivot
- Best practise in data modelling
- Building an Interactive Report