
Microsoft Excel – Power BI Service

Description: Power BI is an intensive course that enables participants to acquire the necessary skills in creating, analysing and presenting data using an advanced business intelligence tool. During the course, participants will work with both the Power BI Desktop features and the Power BI Service platform, gaining hands-on experience in designing interactive reports and dashboards.

Time: 16 hours

Prerequisites:

- 1) Basic Knowledge of Excel: Familiarity with the basic functions of Excel is usually helpful as Power BI uses many similar concepts and skills.
- 2) Basic Knowledge of Databases: An understanding of basic database concepts, such as tables and relationships, will also be beneficial.
- 3) Fundamentals of Data Analytics: Although not a prerequisite, familiarity with basic data analytics and reporting concepts can facilitate an understanding of advanced Power BI features.

For whom:

- 1) Data Analysts: Those involved in data analysis and report generation.
- 2) Business professionals: Those responsible for monitoring and reporting on business performance.
- 3) Systems Administrators: Individuals who manage data and IT infrastructure.
- 4) Project Managers: Individuals who want to better understand and present project results.
- 5) Employees from sales, marketing, administration and logistics who want to learn about this tool.

Module: Introduction to Power BI

- 1) Nomenclature, structure of the Power BI Online window
- 2) Introduction to ETL tools
- 3) Introduction to data analysis

Module: Workspaces

- 1) Workspaces, organisation of the workspace, changing the workspace
- 2) Creating a workspace, closing workspaces
- 3) Licence modes (Pro, Premium), assigning users and groups

Module: Data flow

- 1) Creating data flow
- 2) Defining new tables - Power Query
- 3) Connecting tables to other data flows - Power Query - Connecting to a data source (workspace data flow, environment) - saving the flow

Module: Power Query - Data preparation

- 1) Editing queries

- 2) Modifying query steps
- 3) Changing the order of query steps
- 4) Managing columns (selecting, deleting, deleting other columns)
- 5) Reducing rows (keeping, deleting first, last, deleting non-standard rows)
- 6) Sorting data
- 7) Splitting columns
- 8) Promoting headings
- 9) Swapping values
- 10) Swapping errors
- 11) Changing data type
- 12) Filling up and down
- 13) Extraction (length, first, last)
- 14) Conditional column
- 15) Retrieving data from (table, range, text, CSV, txt, xml, xlsx)

Module: Data model

- 1) Opening the data model
- 2) Linking data using relationships
- 3) Dimension tables
- 4) Fact tables
- 5) Relationship directions
- 6) Types of tables

Module: DAX – calculation columns

- 1) Creating calculation columns in DAX
- 2) Use of logical operators
- 3) Use of date functions
- 4) Use of text functions
- 5) Use of mathematical functions

Module: DAX – creation of measures

- 1) Sum
- 2) Average
- 3) Distinctcount
- 4) Related
- 5) Sumx
- 6) Calculate

Module: Calendar

- 1) Calendar function
- 2) Dateadd
- 3) Creation of measures with time difference

Module: Reports

- 1) Creation of reports - introduction
- 2) Data tabs, Visualisations, Filters

- 3) Using visualisations - principles
- 4) Visualisations: Tables, matrix, tab, fragmenter
- 5) Chart visualisations: column, bar, line, point, pie, ring, funnel
- 6) Formatting visualisations
- 7) Building a report for a mobile device
- 8) Customising report views
- 9) Creating and renaming new report pages
- 10) Navigating between report pages (adding buttons)
- 11) Reading view
- 12) Saving a report and selecting a workspace
- 13) Editing an existing report
- 14) Publishing a report on the Web
- 15) Exporting to PowerPoint, PDF
- 16) Embedding reports

Module: Dashboard

- 1) Creating a dashboard
- 2) Adding a tile (web content, image)
- 3) Changing the theme of the dashboard
- 4) Mobile layout of the dashboard
- 5) Sharing the dashboard (user assignment)
- 6) Subscribing to the dashboard
- 7) Adding your dashboard to your favourites
- 8) Adding comments to the dashboard
- 9) Closing the dashboard
- 10) Assigning a report to a dashboard

Module: Split-page report (optional)

- 1) Adding data to a report
- 2) Creating a report divided into pages
- 3) Entering into the Power BI Report Builder
- 4) Creating a paginated report in the Power BI Report Builder
- 5) Publishing a page split report in the workspace

Module: Applications (optional)

- 1) Creating applications
- 2) Defining applications (name, description, logo, theme)
- 3) Adding contents to the application
- 4) Adding recipients
- 5) Publishing applications

Module: Questions and answers

- 1) Summarising the course
- 2) Asking questions and seeking answers
- 3) Distribution of certificates and completion of questionnaires