

Ref: EBEN3POWBI

# Power BI Desktop

Everyday data processing and analysis for dashboard design

## Goal


The aim of this course is to learn how to connect to one or more sources, prepare the data in order to turn it into useful information and design a modern and engaging dashboard to present and publish the data. After the main modules, you will be able to apply your new skills with one or more exercises. The files needed to carry out the exercises are available to download. We also provide the correct final versions for comparison.

Target audience	Prerequisites	Estimated time to study the essential modules
Any person needing to process and analyse large volumes of data in order to design efficient and pertinent dashboards using Power BI Desktop.	An intermediate Excel level is necessary to pursue this course.	5:46h

## Educational content

### ► The essential module

Power BI Desktop - Everyday data processing and analysis for dashboard design (with solved exercises)

 Video	This module provides educational videos of a total duration of 5:46h.
	<ul style="list-style-type: none"> <li>• <b>Introduction and presentation</b> <ul style="list-style-type: none"> <li>- Introduction to Power BI (Desktop, Service, Platform)</li> <li>- Discovering the work cycle</li> <li>- Understanding common usage scenarios</li> </ul> </li> <li>• <b>Connection and data preparation</b> <ul style="list-style-type: none"> <li>- Connecting to an Excel workbook</li> <li>- Transforming Excel Data after import</li> <li>- Importing a pivot table from an Excel workbook</li> <li>- Refreshing report data</li> <li>- Exercise: Importing orders from an Excel workbook</li> <li>- Solution: Importing orders from an Excel workbook</li> <li>- Connecting to a database</li> <li>- Filtering data from the imported database</li> <li>- Adding columns from examples and conditional columns</li> <li>- Connecting to a semantic model</li> <li>- Connecting to other data sources (txt, csv, pdf, SharePoint list)</li> <li>- Exercise: Importing tables</li> <li>- Solution: Importing tables</li> </ul> </li> </ul>

- **Model setup**
  - Introduction and steps: Role of the Model view
  - Building relationships
  - Creating the date table
  - Creating explicit measures
  - Organize fields in the Model view
  - Exercise: Setting up the Sales file model
  - Solution: Setting up the Sales file model
  - Exercise: Setting up the Books file model
  - Solution: Setting up the Books file model
- **Dashboard and visual creation**
  - Creating a template page for the report
  - Enabling and using On-object interaction
  - Creating and formatting a bar chart
  - Creating and formatting a line chart
  - Creating and formatting a pie chart
  - Representing a global metric with a Card
  - Representing geographic data
  - Creating a simple table
  - Creating a crosstab (matrix)
  - Exercise: Building a dashboard from the Sales file
  - Solution: Building a dashboard from the Sales file
  - Exercise: Building a dashboard from the Books file
  - Solution: Building a dashboard from the Books file
- **Interactions**
  - Using the Filter pane
  - Setting interactions by default
  - Using slicers
  - Exploring data details with tooltips
  - Exercise: Adjusting the interactions of the dashboard
  - Solution: Adjusting the interactions of the dashboard
- **Advanced analysis using DAX and other techniques**
  - Changing the aggregation function of implicit measures
  - Using visual calculations
  - Improving the display format of visual calculations
  - Key DAX concepts
  - Adding with SUM and SUMX
  - Counting rows and distinct values with COUNTROWS and DISTINCTCOUNT
  - Using the CALCULATE function
  - Analysing changes over time with the DATEADD function
  - Exercise: Using the CALCULATE, COUNTROWS and DATEADD functions to create tables
  - Solution: Using the CALCULATE, COUNTROWS and DATEADD functions to create tables
- **Publishing and sharing**
  - Sharing a report outside the Power BI Service platform
  - Publishing a report and using a report published on Power BI Service