Course : Power BI Desktop: designing dynamic, interactive dashboards

ENI certification - RS RS7103

Practical course - 4d - 28h00 - Ref. PBB
Price : 2580 € E.T.

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Teaching objectives

At the end of the training, the participant will be able to:

- ✅ Import data by connecting to different data sources
- ✅ Transforming data in Power Query
- ✅ Structure, visualize and optimize table relationships in the model view
- ✅ Perform dynamic calculations by adding calculated columns and measurements based on DAX functions
- ✅ Create a report with dynamic, interactive visuals
- ✅ Publish a report

Intended audience

Non-IT professionals who have reached the limits of Excel and need to design interactive dashboards with Power BI.

Prerequisites

Fluency in the use of spreadsheets, knowledge of databases desirable.

Certification

La certification ENI « Power BI Desktop » est incluse lors de l'inscription à cette formation. Elle est accessible en ligne 24h/24. L'évaluation, chronométrée (1h), comprend 34 cas pratiques inspirés de situations professionnelles concrètes, ainsi que 56 questions sous forme de QCM et QCU. Cette approche permet d'évaluer les compétences du candidat dans un contexte réaliste. Le score, noté sur 1 000, détermine le niveau atteint : opérationnel (entre 500 et 700 points) ou avancé (entre 701 et 1 000 points). La certification est obtenue dès 500 points. Elle atteste de la maîtrise de Power BI Desktop pour la modélisation et la transformation de données, la création de rapports interactifs, et l'utilisation des fonctionnalités analytiques de l'outil. Les résultats sont accessibles immédiatement après l'épreuve, et le certificat officiel, accompagné des résultats détaillés, est envoyé par e-mail sous quelques jours. Cette certification est enregistrée au Répertoire Spécifique de France Compétences sous le numéro RS7103.

Course schedule

1   Introduction

- Panorama of Business Intelligence in 2024.
- Introduction to the Microsoft ecosystem.
- The Power BI application design cycle.

Hands-on work
Opening Power BI Desktop, presentation of the interface.

2   Import data by connecting to different sources

- Different connection modes: Import, Direct Query.
- Connection to structured data (xlsx, csc, RDBMS).
- Connection to unstructured data (Web page).
- Source modification.
- Data update.

Hands-on work
Connection to an xlsx file, connection to a csv file connection to a Windows folder.

3   Transforming data in Power Query

- Introducing the Power Query tool.
- Introduction to regular formatting functions (Transpose, Unpivot, Fill...).
- Data quality diagnostics.
- Data profiling (counting, duplicate detection, etc.).
- Data correction following import (type incompatibility).
- Merge/add queries, combine files in a folder.
- Create new columns (custom, conditional, based on examples, etc.).
- Data filtering.
- Best practices.

Hands-on work
Import new files, combine, add, merge, create new columns, calculate date differences, apply format, correct data, transform data, convert types.

(4) Modeling

- Establish relationships (joins) between tables.
- Relationship properties (meaning, cardinalities).
- Atypical relationships (many-to-many, circular references).
- Best practices for creating an effective model.
- Object naming convention (Tables, Columns, Measures, Parameters).
- Creating and integrating a calendar in a Power BI model.
- Create semantic layer (document properties, create thematic folders, hide objects).
- Good modeling practices.

Hands-on work
Create a "sales analysis" model by importing several files (orders, invoices, returns, products, etc.).

(5) Data analysis

- Definition of a measurement.
- Analytical applications.
- Best practices for efficient analysis.
- Group your measurements in the same table.
- Quick action.
- Use cases.
- DAX language: presentation, syntax.
- The "calculate" function and the notion of calculation context.
- Time Intelligence type calculations (yearly totals, time variations, etc.).
- Contextualized calculations.

Hands-on work
Creation of new metrics, use of quick metrics for accumulation and variation, creation of KPIs based on the sales analysis model.

(6) Data visualization

- Introducing the Microsoft visual palette and Market Place.
- Presentation of the different components (Structure / Formatting / Analysis).
- Create a report page.
- Discovery of basic visuals.
- Modification of interactions between elements.
- Segments and their properties.
- Discover the filter shutter.
- Extraction filter for detailed analysis.
- Tooltip report page.
- Hierarchies for data exploration (Drill Dow).
- Insert images, backgrounds, apply themes, graphics.
- Using bookmarks for dynamic display.
- Setting up page navigation.
- Best practices.

Hands-on work
Produce 3 pages of reports with different types of visuals (Matrix, Curve, Histogram, Waterfall Graph, Bubble Chart...).

(7) Publication

- Publish a report in the Power BI service.
- Introducing the PowerBI.com portal.
- Workspaces.
- Create a report on a published dataset.
- Integrate collaborative comments.
- Dashboard creation.
- Applications.
- Automatic dataset refresh.
- "Row Level Security" to automatically filter rows by user.

Hands-on work

Creation of a complete Sales Analysis Report with graphics, including a Dashboard home page and analytical pages accessible via a summary.

Dates and locations

REMOTE CLASS
2026 : 23 June, 6 Oct., 8 Dec.

PARIS LA DÉFENSE
2026 : 17 Mar., 23 June, 6 Oct., 8 Dec.