

## Power BI: Advanced

Hands-on course of 2 days - 14h

Ref.: BIG - Price 2025: 1 480 (excl. taxes)

### EDUCATIONAL OBJECTIVES

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

Use the language M to create optimized data models

Design sophisticated measures with the language DAX

Create complex reports with Power BI Desktop

Create a presentation and scenario tailored to your message.

### TEACHING METHODS

Combination of lectures and hands-on work.

## THE PROGRAMME

last updated: 04/2024

### 1) Overview, refreshers, and best practices

- Refresher on the design cycle of a Power BI report.
- Connecting and preparing data.
- Understanding the structure of a star schema, fact tables, and dimension tables.
- Expression of need and identifying sources of data.
- Organizing tables and relationships, defining measures, visualization.

### 2) Using queries to design an appropriate model

- Merging requests to reduce snowflakes.
- Aggregating and stacking sources.
- Importing data from a list of sources.
- Customizing functions and passing parameters in M.
- Managing errors.

*Hands-on work : Designing a single table from multiple queries. Importing a set of workbooks and files in batches. Designing a function for cleaning up text.*

### 3) Working with the Time dimension

- Using variables in DAX to produce a calendar, lists, and functions to produce a calendar in M.
- Cumulative sum by period. Comparing periods. Cumulative sum over sliding periods.
- Using Time Intelligence functions to create period comparisons, cumulative sums, and sliding periods.
- Using the functions: DATEADD, DATESYTD, DATESBETWEEN, DATESINPERIOD, CLOSINGBALANCE.
- Working with multiple date columns and double relationships with USERELATIONSHIP.
- Filtering data over the current period.

*Hands-on work : Creating a calendar table incorporating paid holidays. Measuring progress. Doing a cumulative sum over 12 sliding months.*

### 4) Using advanced DAX functions

- Calculating a cumulative sum with the EARLIER function.
- The CALCULATE function with multiple conditions and the FILTER function.
- The function of managing blank values: ISBLANK.

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

### TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@ORSYS.fr to review your request and its feasibility.

- DAX table creation functions: FILTER, CALCULATETABLE, ADDCOLUMNS, SUMMARIZE, UNION, etc.

*Hands-on work : Taking advanced measurements. Creating cumulative sum and sorting columns. Filtering sorted columns. Working with tables in memory.*

#### 5) Display, navigation, and visualizations

- Creating a background, a theme, a report template.
- Using bookmarks for navigation and storytelling.
- Representing with images. Preparing dynamic comments and customizing tooltips.
- Defining a personalized visual with the Synoptic Panel.
- Creating Master Detail reports using drillthrough filters.
- Using the filter pane and selection pane.

*Hands-on work : Defining a graphical identity and incorporating it into a report template. Setting up navigation and exploration tools. Presenting a scenario.*

## DATES

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### REMOTE CLASS

2025 : 21 août, 13 nov.