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Complete Power BI training

4 days (28 hours)

Presentation

Power BI is one of the best Business Intelligence software packages on the market. It contains all the features you need to improve decision-making in your company:

- Use of several different data sources, such as CRM or ERP data. The tool can be connected to Microsoft products such as Excel and Azure Cloud.

- Intuitive dashboard interface to leverage data visualization

- Manage your data easily: Power BI uses a drag-and-drop system and queries are formulated in natural language.

- The ability to update your data several times a day

Our PowerBI training course will enable you to manage your data, use workspaces to collaborate on business analytics projects, use advanced features and create dashboards to track your results.

Like all our training courses, this one will introduce you to the latest version of the tool, PowerBI 2.128.751.0.

Objectives

- Describe the Power BI report creation cycle
- Establish connections to data sources
- Transform, clean and combine sources
- Structuring a data model
- Create your first DAX measurements and indicators
- Display indicators in PBI reports

- Share reports

Target audience

- Management controllers
- Data analysts
- IT specialists
- Business Analysts

PREREQUISITES

Good knowledge of Excel, especially calculation functions, lists, pivot tables and charts.

SOFTWARE PREREQUISITES (FOR IN-HOUSE TRAINING)

- Installing an Office 365 account with a Power BI online license
- Install Power Bi Desktop

RECOMMENDATIONS FOR PRE- AND POST-COURSE READING

- I recommend the blog of Alberto Ferrari and Marco Russo, who offer advanced expertise on Power BI and DAX.
- For an in-depth understanding of the features and possibilities offered by Power BI, see the official Microsoft documentation on Power BI.
- Best practices in report design: familiarize yourself with best practices for creating clear, concise and informative reports.
- Advanced use of Power BI functionalities: once you've mastered the basics, explore new advanced techniques. We suggest you take a look at the content of Enterprise DNA, experts in the field.
  - And more than 50 minutes of free video from Enterprise DNA :

Power BI training program

1?? half-day: Introduction to Power BI tools

- Definition of Business Intelligence

- Overview of Microsoft's Power BI solution
  - Power BI Desktop
  - Power BI Services
- The Power BI Desktop interface
- Access to Power BI
- Overview of the various technologies integrated into Power BI Desktop
- The Power BI report creation cycle
- Power BI licenses

2? half-day: Power Query - Creating queries

- Introduction to Power Query and its interface
- Data mode
- The principle of applied steps
- Obtain data from different sources
  - Flat files, Excel, databases, Cloud and Web
- Transform data with essential applied steps
  - Select columns, change data types, rename and swap columns
  - Use first line for headers, delete rows from dataset
  - Fill in
- Examples of practical work (for guidance only)
  - Create a query connected to an Excel file
  - Convert query column data types

3? half-day: Power Query - Creating queries (continued)

- Data cleansing
  - Split or merge columns, clean up gaps and field errors, replace values
- Add custom columns from :
  - Simple calculations
  - Conditional expressions
- Combining queries
  - Merging
  - By adding
- Update data
- Enter data
- Examples of practical work (for guidance only)
  - Create a merged query from 2 queries
  - Create a calculated column

4? half-day: Building a data model

- Vocabulary of relational models
  - Primary keys, foreign keys, relations, cardinalities
- The relational approach to Power BI models
  - The star schema
  - Fact tables
  - Dimension tables
- Model mode

- Create and manage relationships between tables
- DAX, the data query language
- Create calculated columns
- Generate a date table in DAX
- Examples of practical work (for guidance only)
  - Creating relationships between tables
  - Create a DAX table marked as a date table

5? half-day: Building a data model (continued)

- Create measures
  - Notion of evaluation context
  - Essential functions: RELATED, DIVIDE, IF, SWITCH, LEFT, RIGHT, YEAR, MONTH
  - Aggregation functions: SUM, AVERAGE, COUNTA
  - Iteration functions: SUMX, AVERAGEX, COUNTAX...
  - Use "quick measurements" to quickly perform the most common calculations and initial Time Intelligence measurements.

6? half-day: Creating visualizations

- Report mode
- How to build a visualization
- Data visualization best practices
- Choosing the right type of chart
- Tips for improving the visual impact of indicators
- Set up comparison, distribution and evolution graphs
  - Histograms, bars, rings, sectors, Treemap, curves
- Using visualizations to display data
  - Maps, tables and matrices

7? half-day: Creating visualizations (continued)

- Display analyses with map data
  - Maps and choropleth maps
- Explore formatting functions
- Filter tools
  - Segments and filter pane
  - Segment synchronization across multiple pages and filter scope
  - Creation of relative numerical and chronological filters
- KPIs
  - KPI visualization
  - Conditional formatting
- Interactive tools
  - Bookmarks
  - The buttons
- Theme management
  - Insert backgrounds, shapes and images
  - Modifying a theme
  - Save a theme

- Examples of practical work (for guidance only)
  - Create visual filters with segments
  - Use tables and matrices to display numerical analyses

8? half-day: Share your visualizations on the Power BI site

- Logging in and navigating the Power BI site
- Discovering workspaces
- Introduction to user rights management
- Reports, dashboards and datasets
- Publishing reports on a Power BI site
- Updating data between Power BI Desktop and Power BI Service
- Use Power BI Service tools to modify online content
- Share your reports and dashboards with other applications
- Integrate your Power BI reports into Teams

Complementary module (+ 1 half-day) : Power BI Mobile

- Back to Power BI visuals
- Switch to mobile mode
- Creating mobile version pages
- Publication and availability to users

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.