

Updated on 01/07/2024

[Sign up](#)

Power Query training

2 days (14 hours)

Presentation

Our Power Query training course will teach you how to automate your Excel data management. Thanks to this tool, you'll be able to import data from several different sources (SQL server, xml, json...) and prepare them efficiently for your business needs.

Our Power Query training course begins by teaching the fundamentals of data science, with a particular focus on ETL (Extract, Transform, Load). This essential data science process.

You'll learn how to obtain your data from different sources and formats. Then modify them to make them compliant and usable. And finally, join them together for analysis.

Our training program also includes important techniques for combining multiple data. This includes teaching how to combine queries, best practices and the M language.

In addition, our course is "hands-on" oriented. Indeed, many exercises will be proposed in order to correctly assimilate the concepts taught.

Objectives

- Discover best practices for querying with Power Query
- Discover the M language
- Connecting different sources
- Preparing tables and data with Power Query
- Use Power Query on Excel and Power BI

Target audience

Excel users.

Prerequisites

- Mastery of basic Excel functions
- [Test My Knowledge](#)

Software requirements

Microsoft account with Excel.

Recommendations for pre- and post-course reading

- [Manage sources and permissions](#) on Power Query to guarantee the security of your data
- The [official](#) Power Query [library](#)
- A long article on applying [complex mathematical formulas](#) with the M language
- Take [your queries](#) to the next level!
- Learn how to load multiple files into Power BI using a Power Query function

Power Query training program

Day 1

Introducing Power Query

- What is an ETL (Extract, Transform and Load)?
- Why use Power Query?
- Discover the Data tab and the Retrieve and transform data group
- Power Query interface overview
- The concept of applied steps

Obtain data from different sources

- Create queries from external files
 - Flat files (TXT, CSV)
 - Excel files
 - Cloud and Web (OneDrive, SharePoint, website)
- Create a query from an internal table
- Update data

Transforming and cleansing data

- Define header line
- Check and apply the right data type
- Select useful data
 - Select columns
 - Keep / delete lines
 - Filter data
 - Delete duplicates
 - Delete errors
- Replace Null values
- Split / concatenate columns
- Transform columns
 - Delete spaces
 - Clean
 - Changing the case
- Transforming data
- From text columns
 - From numeric columns
 - From chronological columns
- Remarkable transformations
 - Pivoting a table
 - De-icing columns

Examples of practical work (for guidance only)

- Create various queries from different data sources (ERP, database)
- Create complex queries using query transformation tools
- Turning a double-entry table into a list

Day 2

Add calculated columns and group rows

- Column creation
 - Customized to insert calculations
 - Conditional
 - Using examples
 - Index
- Line grouping
 - Select the columns to be grouped
 - Selecting the aggregates to be applied
- Using a custom function

Combining queries

- Combining queries by merging
 - Choose join type
- Combine queries by adding
 - Add a query to the workbook query
 - Compile all files in a folder

- Duplicating a query
- Creating a query reference

Discoveries and best practices

- Naming the stages
- Add a description to a stage
- Configure display to discern column quality and profile
- Display the query dependencies window
- Understanding the potential of M
- Using the advanced editor

Examples of practical work (for guidance only)

- Design calculations within queries to produce statistics
- Use calculation functions by example to compose an e-mail or a trigram
- Create combined queries to merge and add to obtain a single query from multiple sources
- Calculating seniority

Companies concerned

This 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 is used to check correct acquisition.

skills.

Sanction

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