XL8051-*Power Query and M in Excel*

DURATION: 2 Days; Instructor-led

DESCRIPTION

In Excel, you can integrate multiple data sources, define relationships between data sources, process analysis services cubes, and develop interactive dashboards that can be shared on the web. Indeed, the new Microsoft BI tools blur the line between Excel analysis and what is traditionally IT enterprise-level data management and reporting capabilities.

With these new tools in the Excel wheelhouse, it's becoming important for business analysts to expand their skill sets to new territory, including database management, query design, data integration, multidimensional reporting, and a host of other skills. Excel analysts must expand their skill set knowledge base from the one-dimensional spreadsheets to relational databases, data integration, and multidimensional reporting.

That's where this course comes in. Here, you're introduced to the mysterious world of Power Query. You find out how to leverage the rich set of tools and reporting capabilities to save time, automate data clean-up, and substantially enhance your data analysis and reporting capabilities.

The course also includes introductions to M script and how to attach M script in VBA automation.

PREREQUISITES
Intermediate knowledge of Microsoft Excel is essential

AUDIENCE

Excel users whoever seriously use Excel to deal with business Intelligence.

COURSE OBJECTIVES
The objective of this course is to give you a solid overview of ETL in Power Query. Upon completion of this course, you will be able to:

- Extract data from databases and external files for use in Excel reporting
- Scrape and import data from the web
- Build automated processes to clean and transform data

METHODOLOGY
This course will be conducted with heavy hands-on exercises, discussions, and case study with minimum theory.

OUTLINES

Module 1: Introducing Power Query
- Power Query Basics
- Power Query and Query Editor Ribbon
- Understanding Column-Level Actions
- Understanding Table Actions

Module 2: Power Query Connection Types
- Importing Data from Files
- Importing Data from Database Systems
- Getting data from The Web
- Managing Data Source Settings
- Data Profiling with Power Query

Module 3: Basic Transformation
- Rename Columns
- Replace Values
- Change Column Type
- Sort Column
- Filter Records
- Split Columns
- Reduce Rows
- Reorder Columns
- Insert Index Column
- Promote/Demote header

Module 4: Transforming Your Way to Better Data
- Completing Common Transformation Tasks
- Creating Custom Columns
- Grouping and Aggregating Data
- Working with Custom Data Types

Module 5: Making Queries Work Together
- Reusing Query Steps
- Understanding the Append Feature
- Understanding the Merge Feature

Module 6: Other Transformations
- Transpose
- Pivot/Unpivot

Module 7: Introduction to M Script
- Advanced Editor
- M Expressions
- M Functions
- Passing M Functions
- M Variables

Module 8: Extending Power Query with Custom Functions

- Creating and Using a Basic Custom Function
- Creating a Function to Merge Data from Multiple Excel Files
- Creating Parameter Queries

Module 9: Using M in Excel VBA automation

- Automation in Excel VBA
- Script to involve M script in VBA code
- Trigger the activation of M script in VBA

Module 10: Tips for Working with Power Query

- Getting Quick Information from the Queries & Connections Pane
- Organizing Queries in Groups
- Selecting Columns in Queries Faster
- Renaming Query Steps
- Quickly Creating Reference Tables
- Viewing Query Dependencies
- Setting a Default Load Behavior
- Preventing Automatic Data Type Changes
- Disabling Privacy Settings to Improve Performance
- Disabling Relationship Detection