



The Modern Excel Power Query Advanced



Table



Slicer



PivotTable



PivotChart



Interactive Dashboards

Data Model

DAX

Power Pivot

Power Query

Power BI

Excel Online



Table of Contents

Power Query Advanced – The Expert Skills	3
Duration	3
Objectives	3
Pre-requisite	3
Outline of Power Query Advanced	4
1. Review of Power Query Basics	4
1.1 Recap of Power Query Fundamentals	4
1.2 Advanced Loading Options	4
2. Advanced Data Transformation Techniques	4
2.1 Advanced Text and Numeric Transformations	4
2.2 Working with Custom Functions	4
3. Advanced Data Cleaning and Preparation	4
3.1 Handling Errors and Exceptions	4
3.2 Advanced Filtering and Conditional Logic	4
4. Advanced M Language and Expressions	5
4.1 Understanding M Language	5
4.2 M Code Profiling and Optimization	5
5. Advanced Query Techniques	5
5.1 Advanced Joins and Merging	5
5.2 Unpivoting and Pivoting Data	5
6. Advanced Data Source Connectivity	5
6.1 Web Scraping and API Integration	5
6.2 Custom Connectors and Extensibility	5
7. Performance Optimization and Troubleshooting	5
7.1 Query Folding Optimization	5
7.2 Troubleshooting and Debugging	6
8. Real-world Applications and Case Studies	6
8.1 Complex Data Transformation Workflows	6
8.2 Power Query in Power BI Integration	6
8.3 Q&A and Expert Panel Discussion	6



O32

Power Query Advanced – The Expert Skills

A customizable course according to your company's requirements.

Duration

16 hours

Objectives

1. Introduction to Power Query
2. Introduction to Data Transformation in Power Query
3. Data Transformation Techniques
4. Introduction to Power Query Functions
5. Query Folding and Optimization
6. Data Loading and Output
7. Real-world Applications and Case Studies

Pre-requisite

You must have worked on Excel for at least 12 months.



O32

Outline of Power Query Advanced

1. Review of Power Query Basics

1.1 Recap of Power Query Fundamentals

- Quick review of basic transformations and connections
- Overview of key concepts such as query folding

1.2 Advanced Loading Options

- Fine-tuning loading options for optimal performance
- Leveraging advanced options for data import and refresh

2. Advanced Data Transformation Techniques

2.1 Advanced Text and Numeric Transformations

- Using M language for complex text manipulations
- Advanced numerical transformations and calculations

2.2 Working with Custom Functions

- Creating and utilizing custom functions in M language
- Parameterized queries for dynamic transformations

3. Advanced Data Cleaning and Preparation

3.1 Handling Errors and Exceptions

- Implementing error handling techniques
- Dealing with common data quality issues

3.2 Advanced Filtering and Conditional Logic

- Dynamic filtering using parameters
- Implementing complex conditional transformations



4. Advanced M Language and Expressions

4.1 Understanding M Language

- In-depth exploration of M language syntax and structure
- Writing complex M expressions for advanced transformations

4.2 M Code Profiling and Optimization

- Profiling and optimizing M code for performance
- Techniques for efficient script writing

5. Advanced Query Techniques

5.1 Advanced Joins and Merging

- Handling complex join scenarios
- Merging queries with multiple conditions

5.2 Unpivoting and Pivoting Data

- Techniques for unpivoting and pivoting data in advanced scenarios
- Dynamic unpivoting using M language

6. Advanced Data Source Connectivity

6.1 Web Scraping and API Integration

- Extracting data from websites through web scraping
- Connecting to APIs for real-time data retrieval

6.2 Custom Connectors and Extensibility

- Creating and using custom connectors
- Extending Power Query capabilities with external libraries

7. Performance Optimization and Troubleshooting

7.1 Query Folding Optimization

- Maximizing query folding for improved performance
- Monitoring and optimizing data transformation steps



Table



Slicer



PivotTable



PivotChart



Interactive Dashboards



7.2 Troubleshooting and Debugging

- Techniques for identifying and resolving errors
- Utilizing the Query Diagnostics tool

8. Real-world Applications and Case Studies

8.1 Complex Data Transformation Workflows

- Building intricate data transformation workflows
- Addressing real-world business cases

8.2 Power Query in Power BI Integration

- Leveraging Power Query in Power BI for advanced analytics
- Integrating Excel and Power BI for seamless data workflows

8.3 Q&A and Expert Panel Discussion

- Addressing participant questions and engaging in in-depth discussions
- Leveraging the expertise of the instructor and guest speakers



Table



Slicer



PivotTable



PivotChart



Interactive Dashboards