

Excel Power Tools & Power BI – 2 days



Course Objectives

By the end of this course you will be able to use Excel PowerPivot tools confidently and be able:

- Create a PowerPivot model by importing data from various sources
- Understand and manage data relationships
- Create and edit hierarchies
- Insert calculated columns using Data Analysis Expression (DAX) formulas
- Insert, modify, and format PivotTables and PivotCharts
- Create and edit Measures (DAX aggregate functions)
- Create report dashboards using slicers, timelines and KPIs
- Use PowerView, PowerMaps and Power Query tools

Prerequisites

It is recommended that you have completed either the Excel Intermediate or Excel Advanced level workshops, or have equivalent experience. It is expected that you have a good understanding of Excel functions such as Defined Names, IFs and VLookups, Importing Data and a basic understanding of PivotTables.

Exercises

This course is instructor led, involving the utilisation of examples and exercises in a workshop environment.

TOPICS

Business Intelligence

- What is BI?
- Main Concepts
- Power Query
- Power Pivot
- Power BI Desktop
- Power Query

Common Data Import Sources

- Working with CSV files
- Working with Text Files
- Working with Excel Files (mini meta data)
- Working with other data sources

Understanding the Query

- Meta Data Query
- File Content Query

Filtering and Sorting Rows

- Filtering out unwanted Data
- Using Auto-Filter (problems)
- Using Number, Text and Date Filters
- Removing Duplicate Values
- Filtering out Rows with Errors
- Sorting

Working with Columns

- Moving / deleting Columns
- Splitting Columns
- Merging Columns

Changing Data Types

- Text
- Number
- Date/Time
- Locale

Table Transformations

- Unpivoting Columns to Rows
- Transposing a Table
- Creating Custom Column
- Loading Data
- Loading Data into a Worksheet
- Loading Data into the Excel Data Model
- Refreshing Queries Manually and Automatically

Power Query

Introduction to Power Query

- Query Concepts
- ETL
- Get & Transform
- Creating and editing Simple Query
- Get from Folder
- Query vs Source Data
- Writing 'Robust' Queries

Power Pivot

Understanding Power Pivot

- What is Power Pivot
- Pivot Table Examples with Excel
- Data
- Power Pivot Examples with a Data Model

Working with Data

- Working with Excel files
- What is in an Excel file?
- Working with Excel Tables
- Working with Data Ranges

Importing Data into Power Pivot

- Understanding Acceptable Data Types
- Adding Excel Tables to Power Pivot
- Adding and Maintaining Data in Power Pivot

Creating a Data Model

- What is a Data Model
- Understanding Key Fields
- Relationships in a Data Model
- Data Hierarchies

Using Calculations in Power Pivot

- Types of Calculations in Power Pivot
- Creating a Calculated Column
- Creating a Calculated Field (Measure)
- Understanding DAX Measures
- Rules and Best Practices
- Choosing Between Calculated Columns and Measures

Time intelligence

- Why a Date (Calendar) Table is required
- Generate a Date Table
- Mark as a Date Table
- Grouping dates for time analysis
- Time Intelligence functions

Data Visualisation - Excel Visualisation Tools

- Dashboard & Report principles
- Filtering Data using Slicers
- Creating Power Pivot Charts
- Formatting Power Pivot Charts
- Using Multiple Charts and Tables
- Connecting Slicers

Power BI Desktop

- Getting Data
- Data Model
- Time Intelligence
- Visualisations
- Spatial Intelligence
- Sharing Reports

Power BI (.com) Workshop

- Analyse typical user file, tasks, outcomes
- Set up data model based on real life file
- Discuss and create analytics for the model

Using DAX (Data Analysis Expressions)

- Understanding Data Analysis Expressions (DAX) Formulas
- Where to use DAX formulas
- Understanding the DAX syntax
- How to create DAX formulas
- Types of operations you can perform with DAX