



Power BI

Intermediate Desktop 1 Day Course

Power BI

- A history of Business Intelligence
- The development of Self Service Business Intelligence
- Introducing Power BI
- How does Power BI fit in?
- Introducing the three main tools – Power BI Service, Power BI desktop & Power BI Mobile
- When to use Power BI Desktop Free versus Pro
- Signing up to the Power BI online service
- Which sources of Data can I use in Power BI Desktop? Content Samples

The BI Process

- The Business Intelligence process
- How Power BI relates to the standard BI processes.

Data Model & Transformation

- The Power Query process
- Data transformation principles
- Manual data clean-up example
- A demonstration of how Power Query helps with efficient use of data query
- Dimension and Fact Tables
- Data Model considerations
- Common Data Models

Power Query UI

- Queries Area
- Data section
- The Transformations Ribbons
- Query Settings Area
- M Language Area

Data Source

- Introduction to the data source used in this course
- Creating Tables of Data
- Import data from Excel
- Import data from Web
- Renaming Queries
- Grouping Queries

Column Transformations

- Adding Custom Columns
- Renaming Query Steps
- Changing Text Data Column Case
- Duplicating Columns
- Renaming Columns
- Splitting Columns
- Creating Conditional Columns
- Creating Index columns
- Reordering Columns
- Using the Navigate to Column tool
- Creating Date columns from Date/Time Columns

Data Transformations

- Removing rows from Tables
- Using first row as headers
- Filtering data
- Detect and change data type
- Filling Null areas with values
- Trimming text
- Replacing values

Date Transformations

- Disabling Auto Date/Time
- Extracting year
- Extracting quarter
- Extracting month
- Extracting date
- Filter dates

Unpivot data

- Unpivot columns

Append and Merge Queries

- Append Queries
- Merge Queries
- Merge Query Types
- Cleaning the resulting query

Load data

- Including and Excluding Queries in report refresh
- Enabling or disabling Query loading
- Applying Queries
- Viewing Query dependencies

Data Modelling

- Introduction to data modelling

Relationship view

- Auto detecting relationships
- Cardinality and Cross Filtering
- Creating relationships through Manage relationships
- Changing Cross Filtering
- Deleting relationships
- Drag and drop to create relationships

DAX

- An introduction to DAX
- Comparing M Language to DAX
- Comparing Measures to Calculated columns
- Creating a simple SUM measure
- Creating a Calculated column using the IF function
- Filter Propagation
- Filter Context

Functions

- Functions like Excel
- FORMAT function
- The 'X' functions
- Row Context
- SUMX function
- AVERAGEX function
- CALCULATE function
- DAX Logical Operators
- CALCULATE with multiple filters
- Using measures in Visuals
- Create a measure using FILTER function
- ALL and ALLSELECTED functions

Time Intelligence Functions

- The built-in Date Hierarchy
- Functions that return a single date
- Using the FIRSTDATE function
- Functions that return a table of dates
- Using the DATEADD function to create a Month on Month measure

Quick Measures

- Mark as Date Table
- Creating a Year to Date Quick measure
- Creating a Year to date measure with 30/6 as end of year date





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Creating a Quick measure from a Filter

Advanced Visualisations

- Card Visuals and Filters
- Create variance measures
- Using variance measures in a Waterfall chart
- Create drill down time series chart
- Drill down chart interaction
- Create drill down bar chart
- Creating What if Parameters
- Using What if parameters in a chart
- Enabling Q & A in Power BI Desktop
- Create a visual with Q & A
- Using Bookmarks in Power BI Desktop
- Bookmarks to filter data
- Bookmarks to change visuals
- Add buttons to access bookmarks

Dynamic Web Queries Using Parameters

- Importing a web query using parameters
- Creating a custom function
- Defining a List to create a new Query
- Invoking custom functions
- Using Error checking processes
- Cleaning queries
- Create measures and visualise queried data

Power BI Templates & Parameters

- Introduction to parameters in templates
- Enabling parameters in queries and transformations
- Creating a template file based on existing query and report
- Add a transformation parameter to the template

Connect Excel and Power BI Desktop

- Introduction to Power BI and Excel
- Ability to work with Desktop and Excel

- Analyse a Power BI Desktop data model in Excel
- Create a Power Pivot data model in Excel
- Add a KPI based measure to the data model
- Import the Excel data model to Desktop including the KPI

Extra Processes

- Comparing Multiple Scenarios through Waterfall Charts
- Using the Group By feature

Extended Exercise 1 – Transformations

- Opening files and checking connections
- Examine the underlying data
- Find and Replace
- Unpivot & Rename

Extended Exercise 2 – DAX

- Exercise goals
- Build Reports

