

Power BI - Intermediate

Detailed Content

Power BI

- An introduction to the different
- Power BI Products
- When to use Power BI Desktop
- Power BI licensing
- Online Services and Databases that Power BI can connect to

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
- Referring to and Using Measures and Calculated Columns
- Creating a simple SUM measure

Power BI - Intermediate

Creating a Calculated column using the IF function
Simple DAX functions
The X Functions as iterators
Comparing SUM to SUMX
A use for AVERAGEX

Quick Measures

Introduction to Quick Measures
Quick Measure Categories
Aggregate per Category
Filters
Fine tuning the Quick Measure
Totals
Arithmetic
Text

Time Intelligence Functions

Visuals for Date / Time Reporting
Create a column for abbreviated month
Mark as Date Table
Quick Measure for Year to Date
Quick Measure for YTD with different year end
Quick Measure on an existing measure using YTD

Advanced Visualisations

Introduction to Waterfall charts
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

Secure and Share Data

Introduction to Row Level Security
Create Row Level Security roles
Test Row Level Security in Power BI Desktop
Overview of Online Sharing
Create Workspace Apps
Publish to a Workspace
Sharing workspace apps
Testing Workspace App in the Power BI service
Testing RLS in the App
Assigning Members to roles
Editing Workspace Apps
Creating reports in workspace apps
Unpublish App
Delete Workspaces

Extended Topic A – Transformations

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

Extended Topic B – Query Parameters (Dynamic Web Query)

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

Extended Topic C – Group By

Using the Group By feature

Data Normalisation Appendix

The Normal Forms
1st Normal Form
2nd Normal Form
3rd Normal Form
Primary Keys
Relationships