

# PowerPivot with Excel 2010/2013



## Introduction

PowerPivot is an add-in for Microsoft Excel 2010/2013 that enables you to import millions of rows of data from multiple data sources into a single Excel workbook, create relationships between heterogeneous data, create calculated columns and measures using formulas, build PivotTables and PivotCharts, and then further analyse the data so that you can make timely business decisions without requiring IT assistance.

Our 2 Day PowerPivot training course will enable delegates to maximise the benefit of this useful tool.

### Prerequisites

This course is designed for Advanced users - a knowledge of Pivot tables and Advanced functions is essential.

### Introduction

- What is PowerPivot?
- What is a PivotTable?
  - Example with classical Excel PivotTable
    First Steps with PowerPivot
    - Example with PowerPivot

### Basic PowerPivot Concepts

- Formatting Numbers
- Handling Technical and Useless Columns
- Understanding Calculated Columns
- Using Lookup Tables
- Understanding Calculated Fields
- Handling Many Tables
- Refreshing Data
- Using Slicers

### **SharePoint Integration**

- PowerPivot for SharePoint
   DewerPivot C
  - PowerPivot Gallery
  - Publishing an Excel Workbook o Parameters Pane
  - PowerPivot Data Refresh
    - Data Connections
    - User Credentials

### **Power View**

- Creating a Power View Report
- Inserting New Views in Power View
- Type of Charts & Maps
- Applying Filters to Power View Reports
- Creating Tiles

### Shaping Reports

- Defining KPIs
- Creating Hierarchies
- Properties for Power View Reports
- Named Sets in Excel
- Using Perspectives
- Drillthrough with PowerPivot

### Loading Data and Models

- Understanding Data Connections
  - Different Kind of Connections
  - Using Existing Connections
  - Loading Tables from SQL Server
    - Filtering Options
      - Loading and Detecting Relationships
      - Loading from Views
  - Loading from Access
    - Issues in the Query Designer
       Best Practices
  - Loading Data from Analysis Services
    - The MDX Query Designer
    - Handling of Keys in SSAS
    - OLAP cube or DataMart?
  - Using Linked Tables
  - Loading from Excel Workbooks
  - Loading from Text Files
    - Using the Schema.INI configuration
  - Using Copy & Paste Operations
  - Loading From Data Feeds
    - Reporting Services Reports
      - Internet Data Feeds
      - Windows Azure Data Market
- Loading From SharePoint



Mullan Training 1<sup>st</sup> Floor, Blackstaff Studios, 8–10 Amelia Street Blackstaff Square, Belfast BT2 7GS Tel: 028 9032 2228 Fax: 028 9032 2229 info@mullantraining.com www.mullantraining.com



## PowerPivot with Excel 2010/2013

### Introduction

### **COURSE CONTENT (Contd.)**

### **Understanding Data Models**

- What is a Data Model?
- Why PowerPivot Users need Data Modelling?
- Physical and Logical Data Models
  - o Normalization and
    - Denormalization
  - Empty and Default Values
  - Understanding How and When to Denormalize
- SQL Query Designer as a Data Modelling Tool
  - o Different kinds of Joins
  - o Setting Relationship Manually
  - Understanding OUTER Joins

### Introduction to DAX

- Calculation Foundations
  - o DAX Data Types
  - DAX Operators
- Calculated Columns Examples
- Calculated Fields Examples
- Introduction to the Execution Context (Row and Filter)
- Choosing Between Calculated Columns and Calculated Fields
- Handling Errors in DAX
- Common DAX Functions Examples
  - Statistical and Logical Functions
    - Information Functions
    - Mathematical Functions
    - Text Functions
    - Date and Time Functions

### **Table Functions and CALCULATE**

- Filtering Table with FILTER
- Mixing ALL and Other Filters
- Use of RELATEDTABLE
- CALCULATE Examples and Relationships



### Time Intelligence in PowerPivot

- Why a Calendar Table is Useful
  - Attribute Consolidation
     Common Calendar
    - Calculations
- Creating a Calendar Table with Excel • Excel Tips to Create a
  - Excel lips to Creat Calendar Table
  - Working Days Calculation
- Common Calendar Calculations
  - X To Date (YTD, QTD, MTD)
    - o Same Period Last Year
    - Other Custom Aggregation Function
    - Delta Over Previous Year

### **Basic DAX Patterns**

- Banding in PowerPivot
- New and Returning Customers
- Compare Budget and Sales
- Many-to-Many Relationships
- Merge Values from Different Tables
- ABC / Pareto Analysis

	- 🗶)		date.xlsx - PowerPivot		_ = 3
Home	Table	Column			
From From Database" Files" Get External	From Data Feeds *	Refresh Existing Connections Connections	To New Paste Paste Table Append Replace Paste from Clipboard	Calculation	PivotTable Switch to Workbook
[Calendar Year]	-	CY 2008		10	
Calendar Year	Calend	arM 🚡 🖬 Add	Column		
CY 2008	Januar	y 2008			
CY 2008	Februa	ry 2008			
CY 2008	March	2008			
CY 2008	April 2	308			
CY 2008 CY 2008	April 20 May 20				
		08			



Mullan Training 1<sup>st</sup> Floor, Blackstaff Studios, 8–10 Amelia Street Blackstaff Square, Belfast BT2 7GS Tel: 028 9032 2228 Fax: 028 9032 2229 info@mullantraining.com www.mullantraining.com