

## Power BI Desktop Introduction 2 Day Course

### Overview

Microsoft's Power BI is a cloud-based business analytics service that allows you to gather, shape, analyse and visually explore data. The **Power BI Desktop** is where you CREATE data models and build visual reports. Once reports are created most use the **Power BI Service** i.e. **App.PowerBI.com** to create Dashboards they can share with others to view and interact with, via browsers or on mobile devices.

### Audience

Business/Data analysts or anyone who needs to interpret and communicate large quantities of information clearly by summarising it into easy-to-read tables and graphs.

### Course Objectives

At the end of this course, delegates will be able to:

- Create and Publish reports
- Use data from various sources to create a data model
- Create and use visualisations to drill through data
- Create custom formulae using DAX functions
- Use queries to manage data
- Create charts



### Prerequisites

Delegates must have extensive knowledge of working with Pivot tables and an understanding of database principles would be useful as well as Excel analytical skills.

### Course Contents (2 days)

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| <ul style="list-style-type: none"><li>• What is Microsoft Power BI?<ul style="list-style-type: none"><li>○ The Power BI environment</li><li>○ Working with the Fields and Visualisation Panes</li><li>○ Using Report View and Data View</li></ul></li><li>• Data Sources<ul style="list-style-type: none"><li>○ Using Excel, CSV/Text files, Folders and SQL server as data sources</li></ul></li><li>• Introduction to DAX<ul style="list-style-type: none"><li>○ Why are custom calculations useful?</li><li>○ Creating Calculated Columns &amp; Measures</li><li>○ Understanding Evaluation Context</li><li>○ Using COUNTROWS and DistinctCount</li><li>○ SUMX and CALCULATE</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Visualisations<ul style="list-style-type: none"><li>○ Adding visualisation to a Report Canvas</li><li>○ Controlling visualisation interactions</li><li>○ Using Drill Down and Drill Through</li><li>○ Creating and using Hierarchies</li><li>○ Custom Tooltips</li></ul></li><li>• Calendars<ul style="list-style-type: none"><li>○ Importance of calendars</li><li>○ Creating a calendar via DAX</li></ul></li><li>• Time intelligence<ul style="list-style-type: none"><li>○ Time Intelligence Functions</li><li>○ Comparison with Previous periods</li><li>○ Aggregations over time</li></ul></li></ul> |
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- Data Model Relationships
    - Understanding the Data Model
    - Data and Relationship Views
    - Creating and Managing relationships
    - Advanced Relationship options
    - Cross Filter directions
  - Advanced DAX functions
    - ALL
    - FILTER
    - X Functions
    - HASONEVALUE
    - Other functions
  - Using Queries
    - The role of Queries in data import
    - Extract, Transform & Load (ETL)
    - Working with Applied Steps
    - Exploring some data transformations
      - Unpivot
      - Split columns
      - Extract
      - Group
      - Replacing values
    - Creating and using Query Parameters
    - Dealing with errors
    - Calculated columns
    - Append and Merge Queries
  - Charts
    - Dual- Axis
    - Gauge and Ribbon charts
    - Custom visuals
- Preparing for Publishing
    - Adding bookmarks
    - Creating action buttons
    - Setting up User Roles
  - Publishing to the Power BI Service
    - Publish your Report to PowerBI.com
    - Creating Dashboards
    - Using Quick Insights
    - Using Q&A for interactive data searching
  - Sharing Dashboards – *Discussion Only*
    - How to share interactive Power BI Dashboards with internal staff and external contacts
    - Creating a Power BI App
    - Sharing using Power BI, Web, PowerPoint
    - Creating and Managing Content Packs
    - Power BI mobile apps
  - Data Refresh – *Discussion Only*
    - Manually refreshing data
    - Installing and using: the Personal Gateway & the Enterprise Gateway
    - Creating a Scheduled Refresh

### **Course Materials**

Enliten IT will provide each delegate with a workbook and other useful reference materials where applicable. These may be either paper based or in Adobe pdf format or a combination thereof.

Enliten IT reserves the right to modify course content and materials as required in the interests of continuous course improvement, at any time, without notification.

The suggested course duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.