0191 3778377
sales@ittrainingsolutions.co.uk
contact us to book

Microsoft Power BI Complete

Duration : 4 days

Course Overview

This 4-day course is intended for anyone who is new to designing and implementing self-service Business Intelligence (BI) solutions using Microsoft Power BI Desktop and the Power BI Service. It is ideal for anyone who needs a total immersion in the subject matter as the course structure is very comprehensive. The training is delivered with plenty of illustrated examples and augmented with practical hands-on exercises to enhance the learning experience. Also, as Power BI Desktop and the Power BI Service are continually evolving, this course is regularly reviewed and updated to keep the delivered content as fresh and relevant as possible, thus ensuring maximum productivity from the learning experience. Due to the very comprehensive nature of this course, the content delivered may vary depending on new and updated features, delegate requirements, and course objectives.

This course is also commensurate with the "PL-300 Microsoft Power BI Data Analyst" course and serves as ideal preparation for the Microsoft PL-300 exam. In addition to providing the knowledge required for this exam, this course takes a broader and more practical approach to Power BI, demonstrating useful techniques that will prove extremely helpful in the workplace.

The first part of the course introduces the capabilities and components of Power BI Desktop before delving into the realms of discovering and loading data from a variety of sources. Primarily focussed on using Power Query to create queries for implementation in data models, students will learn how to shape and transform loaded data, mashup data from various sources by merging and appending data, and manage, structure, and parameterise queries. Delving behind the scenes, students will also be introduced to the M language, highlighting ways in which existing code can be tweaked and how user defined code and functions can be implemented.

Part two of the course introduces students to tabular data modelling concepts, preparing the data in readiness for use in reports and dashboards. The importance of implementing relationships is also covered. In order to enhance the data model, students will be introduced to the DAX expression language to enable them to implement calculated columns, measures, and tables. Consideration is also given to implementing time intelligence in the design of data models.

In part three, you will learn how to create and design reports and implement visualisations. We will first look at text-based visuals before moving on to graphical components like charts, gauges and KPIs (Key Performance Indicators). The implementation of maps in reports is also given coverage. To create interactivity in reports, students will also learn how to implement various types of filters and slicers.

Finally, in part four, we turn our attention to the Power BI Web Service. Attendees will learn how to publish reports to the Power BI Service and how to organize and secure content. The creation and use of dashboards will be considered, and the sharing of content will also be given coverage. We will look at user accessibility issues and consider how users, including mobile users, can interact with report content. Managing and refreshing datasets in the Power BI Service is also included.

Additionally, with the course structure being fully modularised, customised versions of this course can be devised and delivered to suit individual requirements – just ask for details.

Prerequisites

There are no specific technical prerequisites for this course, but a familiarity with Excel and/or relational database technologies may prove beneficial. The main consideration is to have a basic understanding of your business needs to collect, cleanse, and analyse data, in order to be able to visualise and gain insights into that data.

Course content liable to change without notice

IT TRAINING SOLUTIONS LTD
Oakville | 14 Durham Road West | Bowburn | Durham | DH6 5AU
☎ 0191 3778377 | ✉ : enquiries@ittrainingsolutions.co.uk | www.ittrainingsolutions.co.uk

Objectives

Upon successful completion of this course, students will be able to:

- Understand the Role Power BI plays in Self-Service BI
- Understand the Constituent Parts of Power BI Desktop
- Discover and Load Various Types of Data
- Shape and Transform Datasets
- Mashup Data
- Parameterise Queries
- Implement a Tabular Data Model
- Create and Manage Relationships
- Gain an Understanding of DAX
- Implement Calculated Columns and Measures
- Implement Time Intelligence
- Create Reports with Text-Based Visualisations
- Implement Conditional Formatting
- Create and Implement Charts
- Implement Gauges and KPIs
- Implement Maps
- Implement Filters
- Implement Slicers
- Analyse Visualization Performance
- Analyse Data with Advanced Visuals
- Understand the Role of the Power BI Service
- Publish Reports and Create Dashboards
- Manage and Secure Content in the Power BI Service
- Enhance the Report Consumer Usability Experience
- Create and Distribute Apps

Course Content

Part 1   Introduction and Power Query

1   Introducing Power BI
Explore the Different Roles in Data
Identify the Tasks Performed by a Data Analyst
Describe the Power BI Products and Services
Introducing Power BI Desktop

2   Loading Data
Load Data from Text and Excel Files
Load Data from Relational Databases
Import, DirectQuery, and Connect Live Modes
Composite Mode
Load Data from OneDrive and SharePoint
Load Data from Microsoft Dataverse
Load Data from the Internet
Connect to a Published Dataset
Connect to a Dataflow

3   Transforming Data
Profile Data
Cleanse Data
Shape Datasets
Transform Datasets
Query Folding
Merge and Append Data
Fuzzy Lookups
Structure and Manage Queries
View Query Dependencies
Power Query Parameters
Power BI Template Files
Introduction to the M Language
Create a User Defined Function with M
Get the Time of the Last Data Refresh

Part 2   Data Modelling and DAX

4   Data Modelling
Basic Data Modelling Concepts
Fact and Dimension Tables
Configure Table and Column Properties
Categorise Data
Sorting Columns
Organise Content with Display Folders
Create and Manage Relationships
Understand Filter Propagation

5   The DAX Expression Language
Introduction to DAX
Extend the Data Model with Calculated
Columns
Add Measures to the Data Model
Implicit v Explicit Measures
Quick Measures
Manipulate the Filter Context with
CALCULATE
Create Calculated Tables
Use Variables
Create a Date Table
Analyse Data over Time (Time Intelligence)
Optimise the Storage Model
Optimise DirectQuery Models
Create and Manage Aggregations

Part 3   Reports and Visuals

6   Visualising Data
Implement and Format Table and Matrix
Visuals
Rename Fields in Visuals
Show Items with no Data
Conditionally Format Visual Content
Use Card Visuals
Implement and Format Charts
Report Themes
Use the Small Multiples Chart Option
Sparklines
Use Tooltips
Implement Reports as Tooltips
Implement and Use Hierarchies
Group and Bin Data
Continuous v Categorical Axis
Custom Grouping
Automatically Find Clusters of Data
Animate Scatter Charts
Use the Analytics Pane
Forecasting & Anomaly Detection
Use the Analyse Feature
Tree Maps
Gauges and KPIs
Implement Maps
Resolve Location Errors in Maps
Implement Slicers
Visual, Page, and Report Level Filters
Synchronise Slicers across Pages
Cross-Filtering and Cross-Highlighting
Analyse the Performance of Visuals

Part 4   Enhancing and Publishing Reports

7   Enhancing the User Experience
Analyse Data with Decomposition Trees
Analyse Data with Key Influencers
Drillthrough Reports
What-If Parameters
Field Parameters
Implement Bookmarks
Implement Buttons
Text Boxes, Shapes, and Images
Page & Bookmark Navigation
Show and Hide Content
Implement and Manage Q&A
Smart Narrative
Custom Visuals and Slicers
Scorecards & Power BI Metrics (aka Goals)
Mobile Report Layout

8   The Power BI Web Service
Introduction to the Power BI Web Service
Publish Reports to the Power BI Web Service
Manage and Organise Content in Workspaces
Create and Manage Dashboards
Dashboard Themes
Set up Data Alerts
Share Content and Workspaces
Create and Distribute Apps
Promote & Certify Content
Sensitivity Labels
Secure Data with Row Level Security (RLS)
Object Level Security
Refresh Datasets
Understand Data Gateways
Change Detection
Incremental Refresh
Quick Insights
Analyse in Excel
Export Reports
Support for Paginated Reports in Power BI