3 Day Power BI Training Agenda

Day 1

Overview of Power BI

• The Value Offering
• Licensing and Pricing
• Market Positioning

Power BI Cloud Service (the wow features)

• Overview of the Cloud Service
• Role and Functionality for Consumers
• Building a CFO Dashboard
• Dashboard Flow and Navigation
• Power BI for Mobile
• How to use Q&A (Natural Language Queries)
• Obtaining Value from Quick Insights
• Connecting to Services (Content Packs)
• Using the Demo Samples
• Publish to web (Embedded View)
• Exporting Reports to PowerPoint

Importing and Transforming Data

• Importing Data from various sources
• Using Direct Query
• Understanding Query Design & the ETL Process
• Query Building Best Practice
• Understanding Applied Steps
• Data Transformations
  - Cleaning Data (covers many different methods)
  - Merging Datasets
  - Unpivoting Data
  - Combining Files from a Folder
  - Appending Datasets
  - Creating Columns from Examples
  - Extracting Data, Conditional Columns
• Using a Dynamic Fiscal Calendar Table

Power BI Desktop

• Overview of Power BI Desktop
• Similarities to Excel Power Pivot
• Similarities to Excel Power Query
• Technical Options & Settings
• Monthly Updates
• Data Modeling 101
• Introduction to Facts & Dimensions
• Building a Star Schema
• Ways to handle Granularity
• More than one Fact Table

Data Modeling Checks

• Creating Relationships
• Handling Multiple Relationships with the Fact Table
• Default Summarization of Fields
• Custom Sorting of Columns
• Data Types & Formatting
• Optimizing Q&A - Creating Data Synonyms

Report Building

• Build a Time Example Intelligence Report
• Introduction to DAX - Understanding DAX Syntax
• Implicit Vs Explicit Measures
• Calculated Measures Vs Calculated Columns
• Base Measures & Metrics
• DAX Best Practices
Day 2

Report Building (cont.)

- Commonly Used DAX Functions
  - Sum, Average, Count, DistinctCount
  - Time Intelligence (MTD, QTD, YTD, Prior Year)
  - Understanding 'Calculate' and the filter context
  - IF, HasOneValue
  - Using a Safe Divide Function
  - UserRelationship Function
  - Using the Blank() Function

- Optimizing Measures for Self-Service BI
- Copying and Moving Measures
- Using Quick Measures
- Build a Monthly Trend Report
- Dynamic Headings & Dates
- Types of Slicers and Filters
- Understanding KPI cards
- Using Field, Format, Analytics Pane
- Building Tabular Reports
- Replicating Excel Pivot Tables
- Types of Conditional Formatting
- Optimizing the Matrix Layouts

Report Visualisations

- Choosing Visuals Based on Context
- Using Custom Visuals
- Optimizing the use of Maps
- Optimizing Waterfall Charts
- Getting Value from Scatter, Ribbon & Bullet Charts
- Moving away from 1 Dimensional Story-telling

Optimizing the Design

- Adding & Optimizing Tool Tips
- Using the Format Painter
- Visual Alignment Tips
- Custom Page Sizing
- Using Logos & Custom Icons
- Making Enhancements with Shapes and Lines
- Formatting Tips & Tricks
- Best Practice Guidelines and Development Tips
- Removing or Hiding Data Model Redundancies

Governance & Distribution

- Understanding Row Level Security
- Creating and Testing Security Roles
- Publishing Models to the Cloud Service
- Adding Users to Security Defined Roles
- Basic Sharing of Dashboards & Reports
- Creating App Workspaces
- Collaborating on Reports
- Publishing Organisational Apps for Distribution of Content
- Adding Users & Editing Workspaces
- Connecting to Apps
- Organisational Content Packs
- Role of a Power BI Cloud Service Administrator

Data Refreshing

- Overview of the Data Gateway
- Scheduling Data Refreshes
- Refreshing On-Demand
Day 3

Advanced Report Building

Using What-if Analysis

- Understanding the What-if Parameter Concepts
- Build a What-if Analysis Report
- DAX: ‘GENERATESERIES’ & ‘SELECTEDVALUE’
- Showcasing Other Use Cases

Power BI Bookmarking

- Understanding the Value Offering
- Using Bookmarks for Presentations
- How to use Bookmarks to Enhance the Visual Story
- Switching Between Chart Types
- Use Buttons or Images with Bookmarks
- Creating a Report Menu Page with Bookmarks
- Consolidating Report Views onto a Single Page

Slicing Reports by Measures

- How to Switch between Comparison Metrics
- Creating Helper tables in Power BI
- How to Capture Slicer Selections with DAX
- Using the DAX ‘SWITCH’ Function
- Creating Dynamic Headers
- Showcasing Other Use Cases

Filter Contexts with DAX

- Understanding the DAX Filter Context
- Evaluation, Row & Filter
- Filtering with ‘Calculate’
- Using the ‘FILTER’ Function
- Using the ‘ALL’ & ‘ALLEXPECT’ Function
- Using Relative and TopN Filters
- Filtering with Iterators

Advanced Tabular Layouts

- Overcoming Layout Limitations with Custom Mapping
- Creating a Dynamic Mapping Table
- Adding conditional columns in Power Query
- Adding Mapping Tables to the Data Model
- Custom Sorting of Reporting Rows
- Creating a Basic Profit and Loss Report
- How to apply the concepts to personal data

Dynamic Row Level Security (RLS)

- Usage Scenarios
- Mapping User IDs to the Data Model
- DAX Functions for Returning Usernames
- Adding Roles in Power BI Desktop
- Assign Users to Power BI Security

Using Query Parameters and PBI Templates

- Creating Parameters
- Passing Parameters into Queries
- Creating Power BI Template Files
- Using Template files with Query Parameters
- Changing Parameters from the cloud service

Review of Best Practices

- Summarising key concepts
- Sharing a Power BI best practice ‘Cheat Sheet’
- Review of additional Power BI features (time permitting)