

3 Day Power BI Training Agenda

Day 1



Overview of Power BI

- The Value Offering
- Licensing and Pricing
- Market Positioning



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 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



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**



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



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 Functionality

- Adding Drill-Downs
- **Creating Drill-Through Reports**
- Using Focus Mode
- Filtering Reports by Relative Dates
- Viewing the Underlying Data Driving a Visualization
- Customizing Report Visual Interactivity
- Exporting Data from Power BI
- Explain the Increase or Decrease in Visuals
- How to Create Historical Categorical Trends
- **Build a Qty Shipped Vs Qty Sold Report**
- Building Reports using Q&A
- Optimizing Report Slicers
- **Building a Year Over Year Report**
- Cross Highlighting or Cross Filtering



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



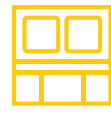
Slicing Reports by Measures

- **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**
- Custom Sorting of Reporting Rows
- **Create a Basic Profit and Loss Report**
- Handling Sign Control Without Affecting the Grand Total
- **Creating KPIs for Finance**



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**
- Using Parameters in Filters
- Changing Parameters in the Cloud Service



Solution Makeovers (time permitting)

- **Apply Skills to Enhance an Existing Model**
- Perform Checks on:
 - Data Model, Calculations
 - Report Intention
 - Report Design & Report Functionality
- **Apply Fixes and Improvements**

