Analyzing and Visualizing Data with Power BI

Start Here

Welcome to the Course

- Welcome!
- Course Basics
- Schedule and Grading

Set up the Lab Environment

- Installing Power BI Desktop
- Signing up for Power BI Service

DataSet Examples Usage

- DataSet / Examples Terms of Usage and Disclaimer

Pre-course survey
Survey

- Survey
- Survey Acknowledgement

- 0. Introduction
  - What is Power BI
    - Meet the Presenters
    - Introduction
    - Overview of Power BI
    - Connecting to Software as Services
    - Power BI Community
    - Summary
- 1. Power BI Desktop Data Transformations
  - Transforming Data using Power BI Desktop
    Quiz
    - Introduction to Power BI Desktop
    - Changing Locale
    - Connecting to a Database
    - Basic Transformations
    - Managing Query Groups
    - Splitting Columns
    - Changing Data Types
    - Working with Dates
    - Removing and Reordering Columns

- Conditional Columns
- Connecting to Files in a Folder
- Merge Queries
- Query Dependency View
- Transforming Less Structured Data
- Enter Data
- Query Parameters
- Summary
- Knowledge Checks

Lab 1
Lab

- Lab Overview
- Exercise 1- Import Data from Access Database
- Exercise 2- Import Data from a Folder Containing CSV Files
- Exercise 3- Import a Less Structured Data from an Excel File

2. Power BI Desktop Modelling

Data Modelling in Power BI Desktop
Quiz

- Introduction
- Managing Data Relationships
- Creating Calculated Columns

- Optimizing Models for Reporting
- Creating Calculated Measures
- Creating and Managing Hierarchies
- Using Calculated Tables
- Time Intelligence
- Manually Typing in a Data Table
- Include Exclude
- Grouping Binning
- Summary
- Knowledge Checks

Lab 2
Lab

- Lab Overview
- Exercise 1- Manage Table Relationships
- Exercise 2- Last Year Comparison
- Exercise 3- Year to Date
- Exercise 4- Market Share
- Exercise 5- Optimize the Data Model

3. Power BI Desktop Visualization

Visualizing Your Data
Quiz

- Introduction
- Pie and Treemap
- Hierarchical Axis and Concatenating
- Filter (Including TopN)
- Bar Chart with Line
- Analytics Pane
- Clustering (and Machine Learning)
- Slicer
- Focus Mode and See Data
- Date Slicer
- Map and Filled Map
- ESRI Map
- Table and Matrix
- Table Styles
- Scatter Chart
- Waterfall
- Gauge, Card, and KPI
- Coloring Charts
- Shapes, Textboxes, and Images
- Gridlines and Snap to Grid

Knowledge Checks

Working with Multiple Visualizations
Quiz

Page Layout and Formatting

Visual Relationship

Duplicate Page

Categories with No Data

Default Summarization and Categorization

Positioning, Aligning, and Sorting Visuals

Custom Hierarchies

R - Visual Integration

Summary

Knowledge Checks

Lab 3
Lab

Lab Overview

Exercise 1- Cross-Tabular Report

Exercise 2- Part-to-Whole Report

Exercise 3- Relationship Report

Exercise 4- Trend Report

Exercise 5- Rank Report

4. Power BI Service

Working with Power BI Service
Quiz

- Introduction
- Overview of Dashboards and Service
- Uploading to Power BI Service
- Quick Insights
- Configuring a Dashboard
- Adding Textbox, Image Widgets
- Featured and Favorite Dashboard
- Filtering Dashboard
- Dashboard Settings
- Natural Language Queries
- Featured Questions
- Sharing a Dashboard
- In-Focus Mode
- Pinning a Live Page
- Custom URL and Title
- TV Mode and Collapse Navigation
- Printing Dashboard and Exporting Data

- Export to CSV and Excel
- Power BI Notifications
- Alerts in the Power BI Service
- Personal Gateway
- Publishing to Web
- Admin Portal
- Knowledge Checks

Viewing Power BI Dashboard

- Viewing in Windows App
- Viewing in Android App
- Viewing in iPad
- Viewing in iPhone
- Summary

Lab 4
Lab

- Lab Overview
- Exercise 1- Upload PBI Report and Pin Visualizations
- Exercise 2- Share Dashboard and Update Report
- Exercise 3- Schedule Data Refresh

5. Working with Excel

- Connecting and Collaborating with Excel
  Quiz
  - Introduction
  - Importing Excel Data using Simple Table
  - Excel Workbook with Excel Data Model
  - Connecting to Excel Workbook on OneDrive for Business
  - Pinning Excel Tables or Visuals
  - Analyzing Data in Excel
  - Summary
  - Knowledge Checks
- Lab 5
  Lab
  - Lab Overview
  - Exercise 1- Upload Excel File with an Excel Table
  - Exercise 2- Upload an Excel File with a Data Model

6. Direct Connectivity

- Direct Connectivity
  Quiz
  - Introduction
  - Direct Connectivity to SQL Azure
  - Direct Connectivity to SQL Database

- Direct Connectivity to SSAS
- Using SSAS Connector
- SSAS Multi Dimensional Preview
- SAP HANA
- Summary
- Knowledge Checks

Lab 7
Lab

- Lab Overview
- Exercise 1- Direct Connectivity From Power BI Desktop
- Exercise 2- Direct Connectivity From Power BI Service

7. Developer API

Developer API
Quiz

- Introduction
- Interactive API Console
- Registering a Client App and Embedding a Tile
- Integrating a Tile to Your App
- Using PubNub to Push Data to a Tile
- Creating Custom Visuals
- Using Custom Visuals

- Power BI Embedded
- Summary
- Knowledge Checks
- Lab 8
  Lab
  - Lab Overview
  - Exercise- Use Custom Visuals

8. Mobile App

- Mobile App
  - Introduction
  - Report Gallery and Search
  - Mobile Dashboard Layout
  - Sharing and Annotating in Power BI Mobile
  - Taking Your Mobile Content Offline
  - Platform Specific Features
  - Search and Recent
  - Limiting Access to Mobile + MAM

Course Wrap-up

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Post-course Survey
Survey

Survey

Survey Acknowledgment