



Power BI® Boot Camp

Course Description

Course Overview: Set up your data model; extract, transform and load your data with Power Query; create measures using DAX in Power BI Desktop; and present and visualize your data in Power BI Desktop and Power BI Service. **Sanitize** your data, **Analyze** your data, and **Visualize** your data! Although you may feel like a Power Nap after 4 days in class, it will be worth it!

Target Student: This course is for students who want to join the Business Intelligence revolution! Students who take this course want to learn how to use Power BI (Microsoft's powerful analytical toolset) to make timely and strategic business decisions.

This course is for students who need:

- Modern interactive visuals
- The ability to analyze large data sets - millions of rows
- Flexible, sophisticated, and agile data analysis
- Secure, robust, automated data refresh
- Integrated data from more than one source or data type

You will also benefit from taking this Power BI Boot Camp if you are:

- A business leader who needs to mine data for actionable insight – using existing resources and on short deadlines
- An IT or database professional looking to increase professional agility and dramatically expand capabilities
- Part of an organization looking to leverage Microsoft's revolutionary Power BI offerings

Prerequisites: To ensure your success, we recommend you first take the following CompuTrain courses or have equivalent knowledge: Microsoft® Excel®: Introduction, and Microsoft® Excel®: Intermediate. Alternately, relational database experience and/or training would be helpful.

Course Objectives

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

- Navigate the Power BI Interface
- Extract, Transform and Load Data Using Power Query
- Understand the Difference Between Import, Direct Query and Live Connection
- Create Efficient Data Models
- Use DAX Functions to Create Measures (>40), Columns and Tables
- Create Tables, Matrices and Charts in Power BI Desktop
- Understand how to Create Interactive Dashboards in Power BI Service
- Understand the Power BI Service: Workspaces, Reports, Dashboards & Apps

Course Content (continued on next page)



Power BI® Boot Camp

Course Content (continued from previous page)

Day 1 (Power BI Data Modeling)

Lesson 1: Power BI Solution Overview

- What is Power BI?
- What is Power BI Desktop?
- What is Power BI Service?
- Understand the “The Big Picture”
- Interact with visuals

Lesson 2: Creating a Basic Power BI Report

- Query Data file and load to Power BI
- Explore Power BI Desktop GUI
- Create Basic Visualizations
- Create simple DAX Measures

Lesson 3: Understanding Data Models

- What is a Data Model?
- Create Table Relationships
- Create a Star Schema
- Create Hierarchies
- Design a User-Friendly Model
- Understand Data Connection Options

Lesson 4: Introduction to Power Query

- Set Data Types
- Apply Basic Transformations

Lesson 5: Introduction to DAX Calculations

- What is DAX?
- Implement DAX Operators
- Use a Text Function to Create a Calculated Column
- Use DAX Date and Time Functions
- Write Basic Measures Using DAX

Day 2 (Power Query or Get Data)

Lesson 1: Introducing Power Query

- Why Use Power Query/Get and Transform Data?
- Explore the Power Query Editor Interface

Lesson 2: Understanding Data Types

- Override Power Query Defaults
- Apply Data Types
- Use the Data Type Using Locale

Lesson 3: Querying Delimited & Nondelimited Text Files

- Trim and Clean Text
- Split & Combine Columns

Lesson 4: Shaping and Filtering Data

- Unpivot Data
- Split Columns to Other Columns and to Rows
- Filter and Sort in Power Query
- Group and Summarize Data

Lesson 5: Appending & Merging Data

- Perform Basic Append Query
- Import all Files in a Folder
- Filter Files
- Preserve File Properties
- Edit the “Transform Sample File” in Helper Queries
- Perform Merge Query

Lesson 6: Importing Data from Databases

- Connect to SQL Database
- Extract Data from Related Tables

Lesson 7: Importing Web Data

- Import Tables from the Internet

Lesson 8: Adding Calculated Columns

- Add Date Columns
- Create Custom & Conditional Columns
- Add Index Columns



Power BI® Boot Camp

Course Content (continued from previous page)

Day 3 (DAX)

Lesson 1: Introduction to DAX

- What is DAX?
- Create Calculated Columns vs Measures
- Understand the Syntax of DAX
- Understand Implicit vs Explicit Measures

Lesson 2: Creating Measures with DAX

- Work with Text Functions
- Use Statistical Functions
- Create Logical Functions

Lesson 3: Basic Iterator Functions

- Understand Row Context
- Understand When to use X-Functions vs Aggregators
- Using Iterator Functions

Lesson 4: Understanding Filter Propagation

- Understand Filter Context
- Alter the Query Context
- Create Advanced Filters

Lesson 5: Incorporating Time Intelligence

- Use DAX Date and Time Functions
- Shift the Date Context

Lesson 6: Relationship Building Calculations

- Get Data from Related Tables
- Use Inactive Relationships in Measures

Day 4 (Visualizing Data)

Lesson 1: Creating & Formatting Visualizations

- Build Combo Charts
- Enable Drill Down
- Format Options
- Construct Bar, Column, and Donut Charts
- Create Tables and Matrices
- Build Line and Scatter Charts

Lesson 2: Creating Interactive Dashboards

- Add Slicers
- Create Page Filters
- Create Report Filters
- Align Elements on a Page

Lesson 3: Adding More Visualizations

- Add KPIs
- Understand Ribbon Charts
- Insert Pictures
- Design Card Visuals

Lesson 4: Visualization Tips and Tricks

- Enable Spotlight
- Create Bookmarks
- Understand Show as Table & Export Data
- Understand Natural Language Queries

Lesson 5: Customizing Your Power BI Solution

- Edit interactions between Visuals
- Add Drill Through Interactions
- Create Labels with SelectedValue
- Create Action Buttons
- Apply Custom Visuals
- Setup Phone View

Lesson 6: Publishing Your Power BI Solution

- Dashboards vs. Reports vs. Live Dashboards