



## Power BI® Desktop *Modeling and Visualizing Data*

### Course Description

**Course Overview:** Use Power BI Desktop to create a complete and deliverable solution. Load your data, shape it with queries, create measures using DAX functions, and present and visualize your data.

**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 new analytical toolset) to make timely and strategic business decisions.

If you already know Excel, you need to take the 2-Day Power BI Desktop course if you:

- Need to integrate data from more than one source or data type
- Consolidate your data using the =VLOOKUP() function
- Need more sophisticated and flexible reports than traditional Pivot Tables
- Create calculated fields in Pivot Tables to further analyze your summary data
- Re-create the same Pivot Tables to report updates to the data

**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, basic PowerPoint skills and/or some database experience would be helpful.

### Course Objectives

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

#### Day 1

- Navigate in Power BI
- Import Data
- Create Data Models
- Create Reports using Data Model Data
- Use DAX Functions
- Create Measures and KPIs

#### Day 2

- Query Data
- Create Tables, Matrices and Charts
- Create Dashboards
- Create Map-Based Visualizations

### Course Content

#### Lesson 1: Introducing Power BI

- Why Use Power BI Desktop?
- Exploring the Data Model Manager Interface

#### Lesson 2: Importing Data into the Data Model

- Importing Data from Relational Databases
- Import Data from Excel

#### Lesson 3: Creating the Data Model

- What is a Data Model?
- Creating Table Relationships
- Creating a Star Schema
- Making a User Friendly Model
- Creating a Date Table

#### Lesson 4: Creating Calculations with DAX

- What is DAX?
- Implementing DAX Operators
- Working with Text Functions
- Using DAX Date and Time Functions

#### Lesson 5: Creating Measures with DAX

- Implicit vs Explicit Measures
- Creating Common Aggregates
- Mastering Data Context
- Altering the Query Context
- Using Filter Functions
- Creating KPIs

### Course Content (continued on next page)



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### **Course Content** (continued from previous page)

#### **Lesson 6: Data Discovery with Queries**

- Discovering and Importing Data
- Transforming, Cleansing and Filtering Data
- Merging and Shaping Data

#### **Lesson 7: Creating Standard Visualizations**

- Creating Tables and Matrices
- Constructing Bar, Column, and Pie Charts
- Building Line and Scatter Charts
- Creating Map-Based Visualizations

#### **Lesson 8: Creating Interactive Dashboards**

- Linking Visualizations
- Filtering Groups and Views