

Introduction to DAX for Power BI

Course ISI-1591

2 Days

Instructor-led, Hands on

Introduction

This two-day instructor-led course is intended for business users who have been using Power BI and want to use DAX to create custom calculations in their data models. In this class, you will be introduced to using Data Analysis Expressions (DAX), which is the expression language that is used to create custom calculations in the Power BI Data model. The course covers some of the theoretical underpinnings of the data model and the DAX language, but the emphasis is on using DAX to solve common business problems. You will learn how to write your own calculated columns, measures, and tables, how to visualize the way Power BI computes DAX calculations, and how to troubleshoot custom code.

This course is intended for business users who have been using Power BI to build analytic solutions and are ready to take advantage of the power and flexibility that DAX provides. Learning DAX is a very common next step for experienced Power BI users.

At Course Completion

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

- Getting started with DAX
- Performing basic calculations
- Working with context in the data model
- Performing more advanced calculations
- Working with time
- Enhancing the user experience

Prerequisites

Although experience with Power BI Desktop is not strictly required for this class, students with at least some familiarity will be better equipped to get the most out of the lab work.

DAX functions that are covered in this class include:

- Date and time functions
- Filter functions
- Information functions
- Logical functions
- Math and Statistical Functions
- Table manipulation functions
- Text functions
- Time intelligence functions.

Contact ISInc for more information at 916.920.1700 or by visiting our website at <http://www.isinc.com>

Course Outline

Module 1: Getting started with DAX

- What is DAX?
- Basics of DAX syntax
- Creating a calculated column
- Creating a calculated measure
- Creating a calculated table
- Differences in evaluation context
- Rules of evaluation
- Working with variables
- Commenting your code
- Testing your code

Module 2: Performing basic calculations

- Implicit measures
- Adding quick measures
- Doing basic math
- Using logic in your calculations
- Aggregating and summarizing data
- Working with DAX data types

Module 3: Working with context in the data model

- Context defined
- Data modeling basics
- Introduction to dimensional modeling
- Relationships and their effect on the evaluation context
- Getting data from other tables using RELATED() and RELATEDTABLE()
- Modifying the context using CALCULATE()
- Looking up data without using relationships

Module 4: Performing more advanced calculations

- Handling errors gracefully
- Using DAX iterator functions
- Using table manipulation functions
- Troubleshooting your calculations using the Performance Analyzer and DAX Studio

Module 5: Working with time

- Performing date calculations
- Working with date tables
- Generating a date table with the CALENDAR() function



- Defining custom operating periods
- YTD, QTD, and MTD calculations
- Custom to-date calculations
- Finding year-over-year change
- Finding moving averages

Module 6: Enhancing the user experience

- Controlling visibility of your measures
- Using What-if parameters
- Adding banding
- Using DAX to provide row-level security