DATA ANALYSIS EXPRESSION (DAX) FOR POWER BI

Course ID : POWER-BI-DAX

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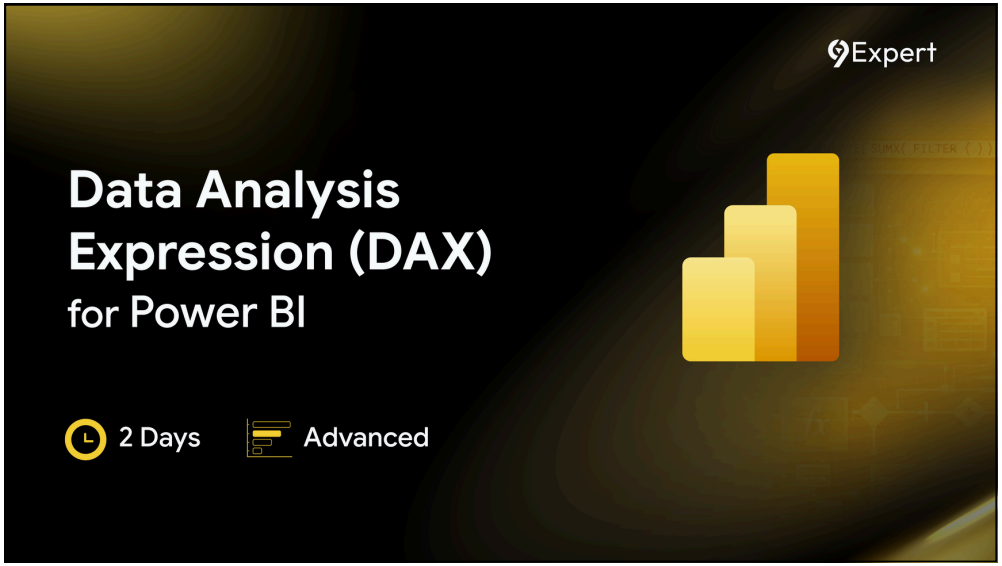

Duration: 2 Days

(12 Hours) 09:00 AM – 04:00 PM

Price: 8,900 THB

* (excluding VAT 7%)
* Eligible for 200% tax deduction

Training Schedule

www.9experttraining.com

Category: Power Platform, Business, Data

This course introduces participants to Data Analysis Expressions (DAX), a powerful formula language in Power BI for performing advanced calculations and data modeling. DAX enables users to create measures, calculated columns, and tables that support complex business scenarios. Through intensive workshops and real-world case studies, participants will gain practical skills to apply DAX effectively in building dashboards and visualizations.

Objectives

1. Understanding the purpose and capabilities of DAX
2. Summarizing data using calculated columns, measures, and tables
3. Creating date dimensions using DAX
4. Appling time intelligence functions for time-based analysis
5. Integrating DAX calculations into dashboards and visualizations

Target Audience

1. Chief Data Officers (CDOs)
2. Business Analysts
3. Data Analysts
4. Business Directors and Managers

Prerequisites

1. Familiarity with the Windows OS and general internet usage
2. Experience in working with data for reporting and analysis
3. Basic knowledge of Excel formulas (e.g., SUM, COUNT, IF, SUMIF, VLOOKUP)
4. Prior experience using Power BI

System Requirements

1. Windows 10 or Windows 11
2. Microsoft Power BI Desktop (available as a free download)

TRAINING TOPICS

DAY 1 Morning Session 9:00 AM – 12:00 PM

1. Introduction to DAX

- Overview of DAX and its role in Power BI
- Exploring DAX syntax and data types
- Applying DAX in Business Intelligence scenarios
- Introduction DAX Studio
- Reviewing practical use cases

2. Calculated Columns and Measures

- Understanding the differences and use cases
- Considering performance optimization
- Applying conditional formatting with measures
- Case Study: Creating ratio and percentage indicators with icons and color formatting

DAY 1 Afternoon Session 1:00 PM – 4:00 PM

3. DAX Functions

- Exploring aggregate, counting, logical, information, text, date & time, and relationship functions
- Case Study: Sales Performance Analysis
- Workshop: Applying DAX functions in practical scenarios

4. Creating Date Tables

- Building date dimensions for time-based reporting
- Using functions such as CALENDAR, CALENDARAUTO, and ADDCOLUMNS
- Creating date hierarchy and analyzing sales trend
- Workshop: Designing and implementing a date table

DAY 2 Morning Session 9:00 AM – 12:00 PM

5. DAX Table Functions

- Exploring table functions: FILTER, ALL, RELATEDTABLE, DISTINCT, TOPN
- Workshop: Applying table functions in practical scenarios

6. X Aggregation Functions

- Exploring iterator functions: SUMX, AVERAGEX, COUNTX, RANKX, CONCATENATEX
- Applying statistical functions and performance optimization techniques
- Workshop: Creating calculated measures using X functions

7. Using CALCULATE for Conditional Logic

- Applying the CALCULATE function for both simple and complex condition handling
- Workshop: Building conditional logic with CALCULATE

DAY 2 Afternoon Session 1:00 PM – 4:00 PM

8. Time Intelligence

- Understanding key time intelligence concepts: YTD, QTD, MTD, cumulative totals, and percentage change
- Using functions such as DATESYTD, DATESQTD, DATESMTD, DATEADD, and DATEINPERIOD
- Workshop: Applying time intelligence functions for trend and growth analysis

9. What-If Parameters

- Creating interactive parameters for scenario analysis
- Performing scenario modeling and forecasting
- Workshop: Building dynamic what-if analysis in Power BI

10. Visualization Integration

- Integrating DAX results into Power BI visualizations
- Case Studies:
  - Creating dynamic measures and chart titles
  - Designing a sales performance dashboard
  - Developing a production summary report
  - Building human resources performance reporting

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