

DAX IN POWER BI PART I

Course Duration: 1 Day; Instructor-led/ remote online training

OVERVIEW

DAX formulas include functions, operators, and values to perform advanced calculations and queries on data in related tables and columns in tabular data models in Power BI. Learning how to create effective DAX formulas will help you get the most out of your data.

WHEN TO USE

- being able to select, join, filter data in a dynamic way
- create smarter calculated columns and/or measures by which you can limit the data the dashboard has to fetch and visualize
- shows a cumulative growth in value overtime
- compare sales in a date range to another date range

AUDIENCE

- Sales Executive / Managers
- Business Analyst
- Resource Planning Team
- Project Managers
- Purchasing Manager
- Financial Executive / Managers

PREREQUISITES

- familiar with creating formulas in Microsoft Excel
- import data from various source into Power BI
- understand relationship between tables
- creating visual reports in Power BI

METHODOLOGY

This program will be conducted with interactive lectures, PowerPoint presentation, discussion, and practical exercise.

OUTLINES

Module 1: Introduction to DAX

- What is DAX?
- DAX data types
- Calculated columns
- Measures
- Aggregation functions

- Counting values
- Conditional functions
- Handling errors
- Using variables
- Mathematical functions
- Relational functions

Module 2: Table Functions

- Introduction to table functions
- Filtering a table
- Ignoring filters
- Mixing filters
- DISTINCT Function
- How many values for a column?
- ALLSELECTED function
- RELATEDTABLE function
- Tables and relationships
- Tables with one row and one column
- Table variables

Module 3: Evaluation Contexts

- Introduction to evaluation contexts
- Filter context
- Row context
- Context errors
- Filtering a table
- Using RELATED in a row context
- Ranking by price
- Evaluation contexts and relationships
- Filters and relationships

Module 4: CALCULATE Function

- Introduction to CALCULATE function
- CALCULATE function examples
- CALCULATE function recap
- What is a filter context?
- KEEPFILTERS function
- CALCULATE operators
- Use one column only in a compact syntax
- Variables and evaluation contexts

Module 5: Advanced Evaluation Contexts

- CALCULATE modifiers
- USERRELATIONSHIP function
- CROSSFILTER function
- ALL function
- ALLSELECTED function
- KEEPFILTERS function

- Context transition
- Circular dependency
- CALCULATE execution order

Module 6: Iterators

- Working with iterators
- MINX and MAXX functions
- Useful iterators
- RANKX function
- ISINSCOPE function

Module 7: Building a Date Table

- Introduction to date tables
- Auto Date/Time
- CALENDARAUTO function
- Mark as date table
- Using multiple dates

Module 8: Time Intelligence in DAX

- What is time intelligence?
- Time intelligence functions
- DATEADD function
- DATESINPERIOD function
- Running total
- Mixing time intelligence functions
- Semi-additive measures
- Calculation over weeks

Module 9: Hierarchies in DAX

- What are hierarchies?
- FILTER and CROSSFILTER function
- Percentages over hierarchies
- Parent-child hierarchies