Lesson 8

Topic: Introduction to DAX Basics & Calculated Columns vs. Measures

Prerequisites: Download DAX_Practice_Data.xlsx file

1. What does DAX stand for?
2. Write a DAX formula to sum the Sales column.
3. What is the difference between a calculated column and a measure?
4. Use the DIVIDE function to calculate Profit Margin (Profit/Sales).
5. What does COUNTROWS() do in DAX?
6. Create a measure: Total Profit that subtracts total cost from total sales
7. Write a measure to calculate Average Sales per Product.
8. Use IF() to tag products as "High Profit" if Profit > 1000.
9. What is a circular dependency error in a calculated column?
10. Explain row context vs. filter context.
11. Write a measure to calculate YTD Sales using TOTALYTD().
12. Create a dynamic measure that switches between Sales, Profit, and Margin.
13. Optimize a slow DAX measure using variables (VAR).
14. Use CALCULATE() to override a filter
15. Write a measure that returns the highest sales amount

1.What does DAX stand for?
DAX stands for Data Analysis Expressions – it's a formula language used in Power BI, Excel Power Pivot, and SSAS to create calculated columns, measures, and custom tables.

3.What is the difference between a calculated column and a measure?
A calculated column takes up space in memory because its values are stored in the data model, while a measure does not take up memory as it is calculated on the fly during report interaction.

5.What does COUNTROWS() do in DAX?
COUNTROWS() returns the number of rows in a table or table expression.

9.What is a circular dependency error in a calculated column?
It occurs when a column depends on itself directly or indirectly, causing an endless loop – DAX cannot resolve the calculation.

10.Explain row context vs. filter context.
Row Context: Applies to calculated columns – evaluates expression per row.
Filter Context: Applies to measures – influenced by filters/slicers/visuals during calculation.