Lesson 10 - Advanced Filtering in DAX

1. What does FILTER(Sales, Sales[Amount] > 1000) return?

It returns a table of rows where Amount > 1000.

2. Write a measure High Sales that sums Amount where Amount > 1000 using FILTER.

High Sales = CALCULATE(SUM(Sales[Amount]), FILTER(Sales, Sales[Amount] > 1000))

3. How does ALLEXCEPT(Sales, Sales[Region]) differ from ALL(Sales)?

ALLEXCEPT removes all filters except on Region; ALL removes all filters.

4. Use SWITCH to categorize Amount: 'Low' if < 500, 'Medium' if 500–1000, 'High' if > 1000.

SWITCH(TRUE(), Sales[Amount]<500, "Low", Sales[Amount]<=1000, "Medium", "High")

5. What is the purpose of ALLSELECTED?

ALLSELECTED keeps slicers' filters but ignores visual-level filters.

6. Write a measure Regional Sales % using ALLEXCEPT.

Regional Sales % = DIVIDE(SUM(Sales[Amount]), CALCULATE(SUM(Sales[Amount]), ALLEXCEPT(Sales, Sales[Region])))

7. Create a dynamic measure using SWITCH to toggle between SUM, AVERAGE, and COUNT of Amount.

Dynamic Measure = SWITCH([Selection], "SUM", SUM(Sales[Amount]), "AVERAGE", AVERAGE(Sales[Amount]), "COUNT", COUNT(Sales[Amount]))

8. Use FILTER inside CALCULATE to exclude 'Furniture' sales.

CALCULATE(SUM(Sales[Amount]), FILTER(Sales, Sales[Category] <> "Furniture"))

9. Why might ALLSELECTED behave unexpectedly in a pivot table?

Because it considers slicer selections, not all visuals behave the same.

10. Write a measure that calculates total sales and ignores filters from region.

CALCULATE(SUM(Sales[Amount]), ALL(Sales[Region]))

11. Optimize this measure: High Sales = CALCULATE(SUM(Sales[Amount]), FILTER(Sales, Sales[Amount] > 1000))

High Sales = CALCULATE(SUM(Sales[Amount]), Sales[Amount] > 1000)

12. Write a measure Top 2 Products using TOPN and FILTER.

Top 2 Sales Amount = CALCULATE(SUM(Sales[Amount]), FILTER(Sales, Sales[ProductID] IN SELECTCOLUMNS(TOPN(2, SUMMARIZE(Sales, Sales[ProductID], "Total", SUM(Sales[Amount])), [Total], DESC), "ProductID", Sales[ProductID])))

13. Use ALLSELECTED with no parameters to respect slicers but ignore visual-level filters.

ALLSELECTED() keeps slicer context, drops visual filters.

14. Debug: A SWITCH measure returns incorrect values when fields are added to a matrix visual.

It may be due to incorrect logic in SWITCH or missing RETURN in VAR structure.

15. Simulate a "reset filters" button using ALL in a measure.

CALCULATE(SUM(Sales[Amount]), ALL(Sales))