Lesson 10

Topic: Advanced Filtering in DAX

Prerequisites: Download Lesson 10.xlsx file.

1. What does FILTER(Sales, Sales[Amount] > 1000) return?
2. Write a measure High Sales that sums Amount where Amount > 1000 using FILTER.
3. How does ALLEXCEPT(Sales, Sales[Region]) differ from ALL(Sales)?
4. Use SWITCH to categorize Amount:
   "Medium" if 500–1000
   "High" if > 1000 ```
5. What is the purpose of ALLSELECTED?
6. Write a measure Regional Sales % showing each sale's contribution to its region's total (use ALLEXCEPT).
7. Create a dynamic measure using SWITCH to toggle between SUM, AVERAGE, and COUNT of Amount.
8. Use FILTER inside CALCULATE to exclude "Furniture" sales (Products[Category] = "Furniture").
9. Why might ALLSELECTED behave unexpectedly in a pivot table?
10. Write a measure that calculates total sales and ignores filters from region
11. Optimize this measure:
    High Sales = CALCULATE(SUM(Sales\[Amount]), FILTER(Sales, Sales\[Amount] > 1000)) (Hint: Replace FILTER with a Boolean filter inside CALCULATE.)
12. Write a measure Top 2 Products using TOPN and FILTER to show the highest-grossing products.
13. Use ALLSELECTED with no parameters to respect slicers but ignore visual-level filters.
14. Debug: A SWITCH measure returns incorrect values when fields are added to a matrix visual.
15. Simulate a "reset filters" button using ALL in a measure.

1.What does FILTER(Sales, Sales[Amount] > 1000) return?
This is used to extract the values from the Sales table where the Amount column is greater than 1000.

3. How does ALLEXCEPT(Sales, Sales[Region]) differ from ALL(Sales)?
ALLEXCEPT(Sales, Sales[Region]) removes all filters from the Sales table except for the Region.
ALL(Sales) removes all filters from the Sales table.

5. What is the purpose of ALLSELECTED?

It respects the context of the filters we selected, but ignores other filters inside the visual.

9. Why might ALLSELECTED behave unexpectedly in a pivot table?
Sometimes ALLSELECTED returns unexpected results when a drilldown is performed in a pivot table (i.e., when a row is clicked), because it also takes into account the interactive filters within the visual context.

11. Optimize this measure:
   High Sales = CALCULATE(SUM(Sales\[Amount]), FILTER(Sales, Sales\[Amount] > 1000)) (Hint: Replace FILTER with a Boolean filter inside CALCULATE.)
High Sales = CALCULATE(SUM(Sales[Amount]), Sales[Amount] > 1000)

14. Debug: A SWITCH measure returns incorrect values when fields are added to a matrix visual
Usually, the reason is that SELECTEDVALUE() returns BLANK() when multiple values are selected, which doesn't match any case inside SWITCH. The solution is to provide a default value.