

FILTER CONTEXT DAX FUNCTIONS - SUMMARY NOTES

- 1. CALCULATE()

* Modifies the filter context to evaluate an expression in a new context.

* Example:

```
CALCULATE(SUM(Sales[Amount]), Region[Country] = "India")
```

- 2. ALL()

* Removes filters from the specified column or table.

* Used to get unfiltered totals, in ranking, running totals, etc.

* Example:

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

- 3. FILTER()

* Creates a custom row context (virtual table) to be used in CALCULATE.

* Used for advanced logic inside CALCULATE.

* Example:

```
FILTER(ALL(Sales[Year]), Sales[Year] <= MAX(Sales[Year]))
```

- 4. VALUES()

* Returns a unique list of values in a column.

* Often used in slicer logic or COUNTROWS(VALUES(...))

* Example: VALUES(Customer[Country])

- 5. ALLSELECTED()

* Keeps only filters selected in visuals/slicers, but removes implicit row-level filters.

* Great for calculating % share based on visible data.

* Example:

```
CALCULATE(SUM(Sales[Amount]), ALLSELECTED(Customer[Country]))
```

- 6. KEEPFILTERS()

* Keeps the existing filters and applies additional filters.

* Prevents CALCULATE from overriding existing filters.

* Example:

```
CALCULATE(SUM(Sales[Amount]), KEEPFILTERS(Product[Category] = "Books"))
```

- 7. REMOVEFILTERS()

* Clears all filters on the specified columns/tables.

* Used to make totals unaffected by slicers/filters.

* Example:

```
CALCULATE(SUM(Sales[Amount]), REMOVEFILTERS(Product))
```

- 8. SELECTEDVALUE()

* Returns the value if only one value is selected, else returns blank (or default).

* Very useful for dynamic titles or selections.

* Example:

```
SELECTEDVALUE(Customer[Country], "All Countries")
```

- KEY CONCEPTS TO MASTER

* Context Transition (Row Context -> Filter Context)

* Row Context vs Filter Context

* How CALCULATE modifies filters using FILTER/ALL/REMOVEFILTERS

* Visual interaction with ALL vs ALLSELECTED

LEVEL YOU'RE AT: Intermediate

-> Comfortable with core DAX structure

-> Exploring filter context in depth

-> Learning how context affects calculation results

NEXT FOCUS AREAS

- Practice using ALL, ALLSELECTED, FILTER inside CALCULATE

- Try RANKX, Running Totals, % of Total using slicers

- Understand when SELECTEDVALUE vs VALUES is needed