Start with PowerBI

"From Rookie to Rock"

DAX

Explanation

CALCULATE Part 2

Context transition, Calculation with ALL, ALLEXCEPT, ALLSELECTED

Patou Tips #44

3 CALCULATE
Calculation with ALL (1/2)

ALL remove all the filter specified inside the function. When nothing is specified, ALL remove all the filters.

Only ALL

Category	Subcategory	Sales	Calculate (ALL)
IceCream	Chocolate	31 363 072	142 196 881
	Lemon	18 719 568	142 196 881
	Mint	18 815 722	142 196 881
	Strawberry	13 730 939	142 196 881
	Vanilla	28 226 297	142 196 881
	Total	**110 855 598**	**142 196 881**
Macaron	Caramel	3 131 411	142 196 881
	Chocolate	9 405 133	142 196 881
	Lemon	4 699 821	142 196 881
	Pistachio	7 836 668	142 196 881
	Strawberry	6 268 250	142 196 881
	Total	**31 341 283**	**142 196 881**
Total		**142 196 881**	**142 196 881**

```
Calculate (ALL) =
    CALCULATE(
        [Sales],
        ALL()
    )
```

If nothing is specified, ALL removes all filters. The total "Sales" is finally displayed for all rows.

Note: ALL et REMOVEFILTERS are the same function.

3

CALCULATE
Context transition with ALL

In this example with an argument inside ALL, we begin to get a better feel for the context transition process.

ALL with argument

Category	Subcategory	Sales	Calculate (ALL Subcategory)
IceCream			110 855 598
	Lemon	18 719 568	110 855 598
	Mint	18 815 722	110 855 598
	Strawberry	13 730 939	110 855 598
	Vanilla	28 226 297	110 855 598
	Total	110 855 598	110 855 598
Macaron			31 341 283
	Chocolate	9 405 133	31 341 283
	Lemon	4 699 821	31 341 283
	Pistachio	7 836 668	31 341 283
	Strawberry	6 268 250	31 341 283
	Total	31 341 283	31 341 283
Total		142 196 881	142 196 881

```
Calculate (ALL Subcategory) =
    CALCULATE(
        [Sales],
        ALL('Dim Product'[Subcategory])
    )
```

Only the "Subcategory" filter is ignored. Therefore, for each "Subcategory," the "Sales" total is displayed for all rows.

The "Category" filter is only considered for each row; this is the context transition.

3 CALCULATE
Context transition with ALLEXCEPT

Context transition is important to understand how the calculations will work. Let's go further with another example.

```
Calculate (ALLEXCEPT Subcategory) =
    CALCULATE(
        [Sales],
ALLEXCEPT('Dim Product','Dim Product'[Subcategory])
        )
```

Category	Subcategory	Sales	Calculate (ALLEXCEPT Subcategory)
IceCream	Chocolate	31 363 072	40 768 205
	Lemon	18 719 568	23 419 389
	Mint	18 815 722	18 815 722
	Strawberry	13 730 939	19 999 189
	Vanilla	28 226 297	28 226 297
	Total	**110 855 598**	**142 196 881**
Macaron	Caramel	3 131 411	3 131 411
	Chocolate	9 405 133	40 768 205
	Lemon	4 699 821	23 419 389
	Pistachio	7 836 668	7 836 668
	Strawberry	6 268 250	19 999 189
	Total	**31 341 283**	**142 196 881**
Total		**142 196 881**	**142 196 881**

Only the "Subcategory" filter is taken into account. Therefore, for each "Subcategory" value, the context transition on the sales value will be applied by the same "Subcategory" value.

For the Chocolate "Subcategory", the total corresponds to the sum of all Chocolate values in the list. The process is identical for Lemon.

3 CALCULATE
Context transition with ALLSELECTED

We get the same behavior, context transition with ALL, the explanation is exactly the same as before.

```
Calculate (ALLSELECTED) =
    CALCULATE(
        [Sales],
        ALL('Dim Product'[Category])
        )
```

Category	Subcategory	Sales	Calculate (ALLSELECTED)
⊟ IceCream	Chocolate	31 363 072	40 768 205
	Lemon	18 719 569	23 419 389
	Mint	18 815 722	18 815 722
	Strawberry	13 730 939	19 999 189
	Vanilla	28 226 297	28 226 297
	Total	**110 855 598**	**142 196 881**
⊟ Macaron	Caramel	3 131 411	3 131 411
	Chocolate	9 405 133	40 768 205
	Lemon	4 699 821	23 419 389
	Pistachio	7 836 668	7 836 668
	Strawberry	6 268 250	19 999 189
	Total	**31 341 283**	**142 196 881**
Total		**142 196 881**	**142 196 881**

Only the "Subcategory" filter is taken into account. Therefore, for each "Subcategory" value, the context transition on the sales value will be applied by the same "Subcategory" value.

For the Chocolate "Subcategory", the total corresponds to the sum of all Chocolate values in the list. The process is identical for Lemon.

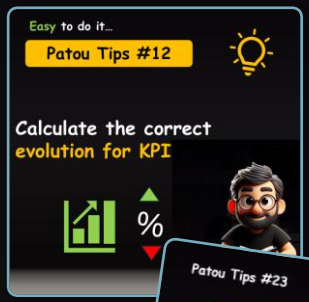
Learn and practice

Find past issues of "Patou Tips" and download resources to practice on GitHub

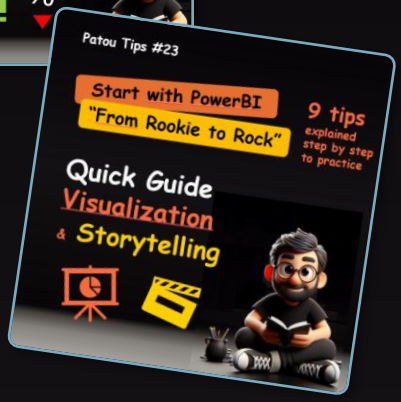
Patou Tips #5
Create a Customized Chart (for income statement)

Patou Tips #6
Create Customized Icon

Patou Tips #7
Create an Age Pyramid Chart (for Human Ressources)



Patou Tips #12
Calculate right evolution for KPI

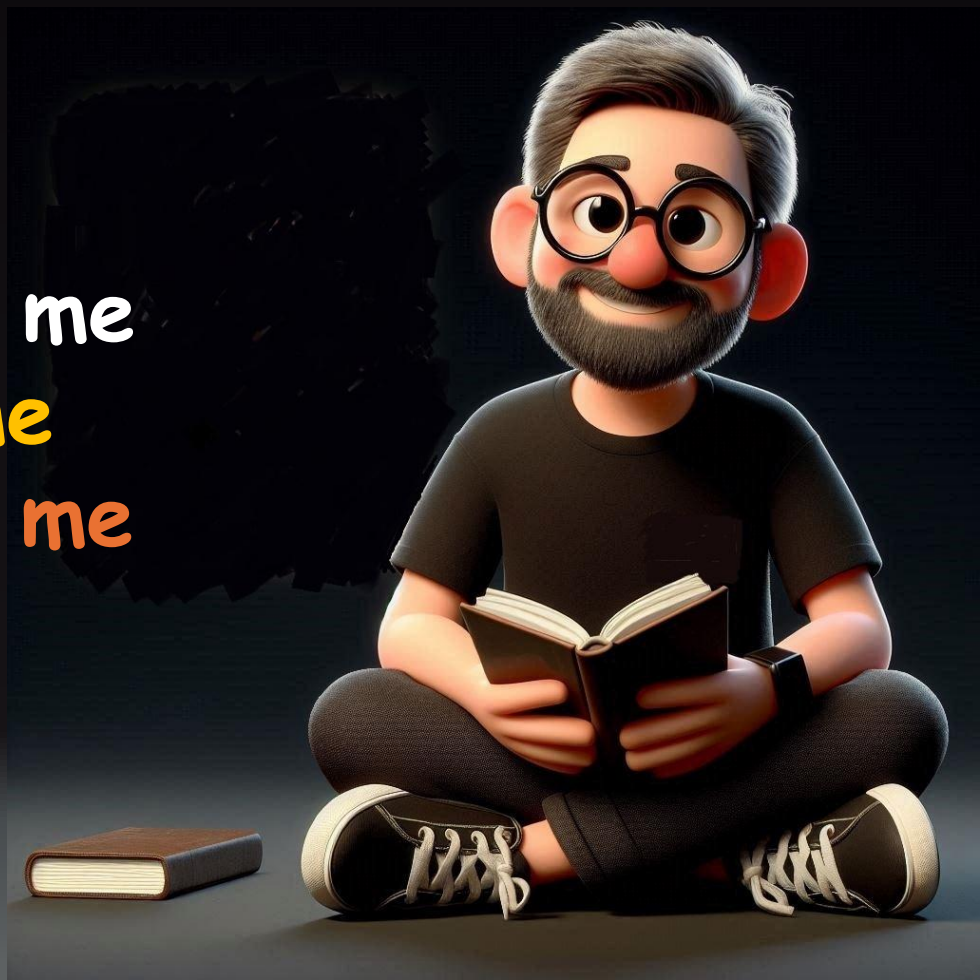


Patou Tips #23
Quick Guide Visualization & Storytelling

Resources on GitHub
https://github.com/PatouTips/Patou-Tips

Don’t forget!
This isn't the truth, it's just my truth!

Patou Tips



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