Start with PowerBI

"From Rookie to Rock"

DAX

Explanation

CALCULATE Part 4

Rules Summary

Patou Tips #46

CALCULATE
Evaluation Context

Evaluation Context

The **Evaluation Context** is composed of:

- ✓ Row context
- ✓ Filter context:

Row Context

Determines the row where the calculation is performed

Category	Subcategory	Sales	Price	Revenue (bad result)
⊟ IceCream	Chocolate	24 585	3,00	73 755
	Lemon	17 209	2,50	43 023
	Mint	14 749	2,50	36 873
	Strawberry	19 667	2,00	39 334
	Vanilla	22 126	3,00	66 378
	Total	**98 336**	**2,60**	**255 674**

Iteration functions (SUMX, AVERAGEX,...) read each line to create a line context which will trigger the transition context and iteration at each line.

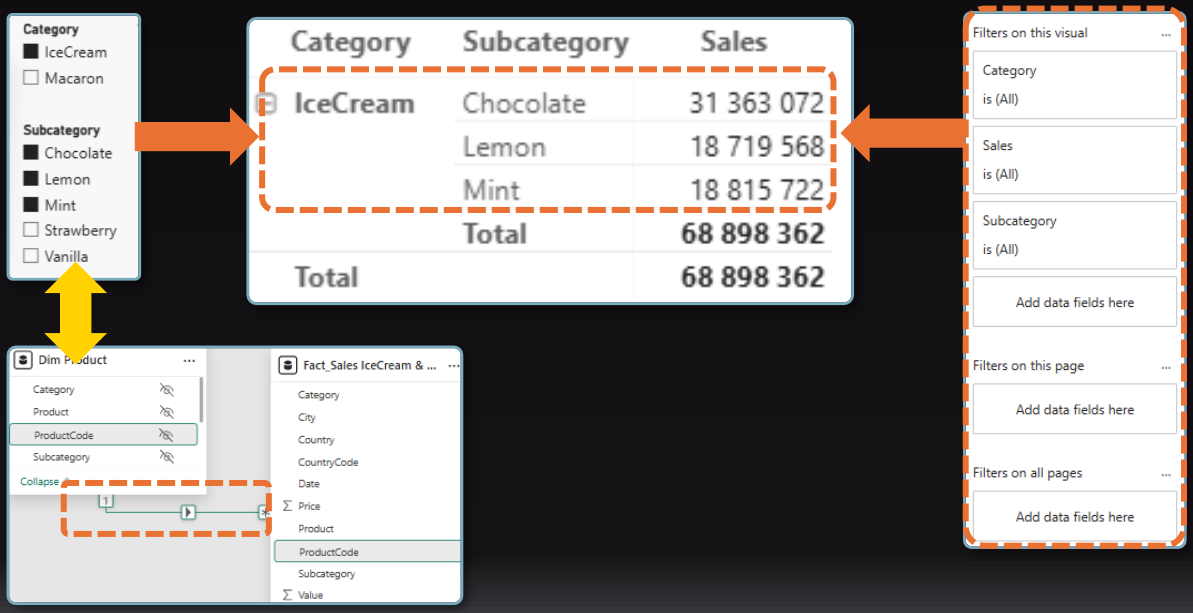
CALCULATE
Evaluation Context

Filter Context

Determines the visible rows and the scope of the calculation

Filtering contexts can be:

- ✓ Direct: via visual elements, filtering options such as slicers, filter panels, or modeling
- ✓ Indirect: via filter functions such as ALL (REMOVEFILTER), FILTER, ALLEXCEPT, etc.



CALCULATE
Context transition

Context Transition

Context transition is the calculation process but also the one that activates modeling relationships.

```
Revenue 2023 =
    CALCULATE(
        SUMX('Fact_Sales IceCream & Macaron',[Sales]*[Price]),
        FILTER('Dim Date','Dim Date'[Year]=2023)
    )
```

Category	Subcategory	Sales	Price	Revenue 2023
IceCream	Chocolate	31 363 072	3,00	33 344 037
	Lemon	18 719 568	2,50	19 449 205
	Mint	18 815 722	2,50	16 670 315
	Strawberry	13 730 939	2,00	17 782 736
	Vanilla	28 226 297	3,00	30 009 171
	Total	**110 855 598**	**2,60**	**117 255 464**
Macaron	Caramel	3 131 411	3,00	3 329 574
	Chocolate	9 405 133	3,00	9 999 423
	Lemon	4 699 821	2,50	4 164 155
	Pistachio	7 836 668	2,50	6 943 215
	Strawberry	6 268 250	2,00	4 442 962
	Total	**31 341 283**	**2,60**	**28 879 329**
Total		**142 196 881**	**2,60**	**146 134 793**

1. How does it work? The calculation takes into account the Context Filter for the Evaluation Context, here the year "2023".

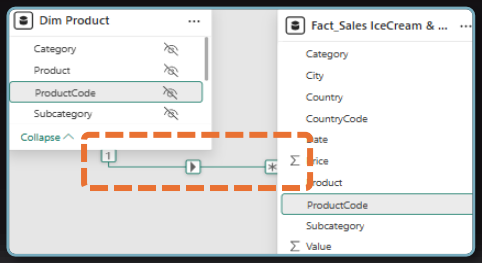
2. Then, still for the Evaluation Context, it takes into account the iteration function applied to each row. This Row Context triggers the Context Transition.

3. The Context Transition calculates the formula and activates all relationships according to the modeling.

CALCULATE
Wrap-up

The Evaluation Context (Filter + Row Context) determines the elements to be taken into account and the calculation scope. The Row Context then will trigger the context transition.

When the Transition Context is triggered, the modeling relationship will apply: cardinality, cross-filter direction.



1 **Evaluation Context**

- Filter Context
- Row Context

The Row Context trigger the Context Transition.

2 **Context Transition**

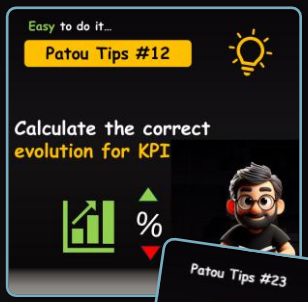
- Modelisation

3 **RESULT**

Learn and practice

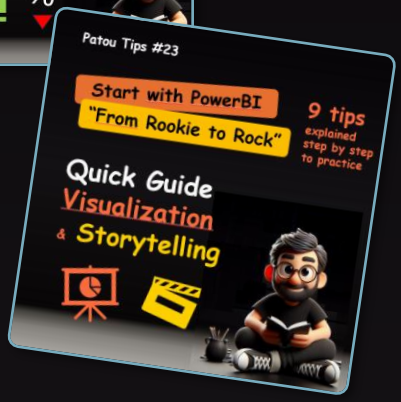
Find past issues of "Patou Tips" and download resources to practice on GitHub

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



Patou Tips #12
Calculate right evolution for KPI

Patou Tips #6
Create Customized Icon



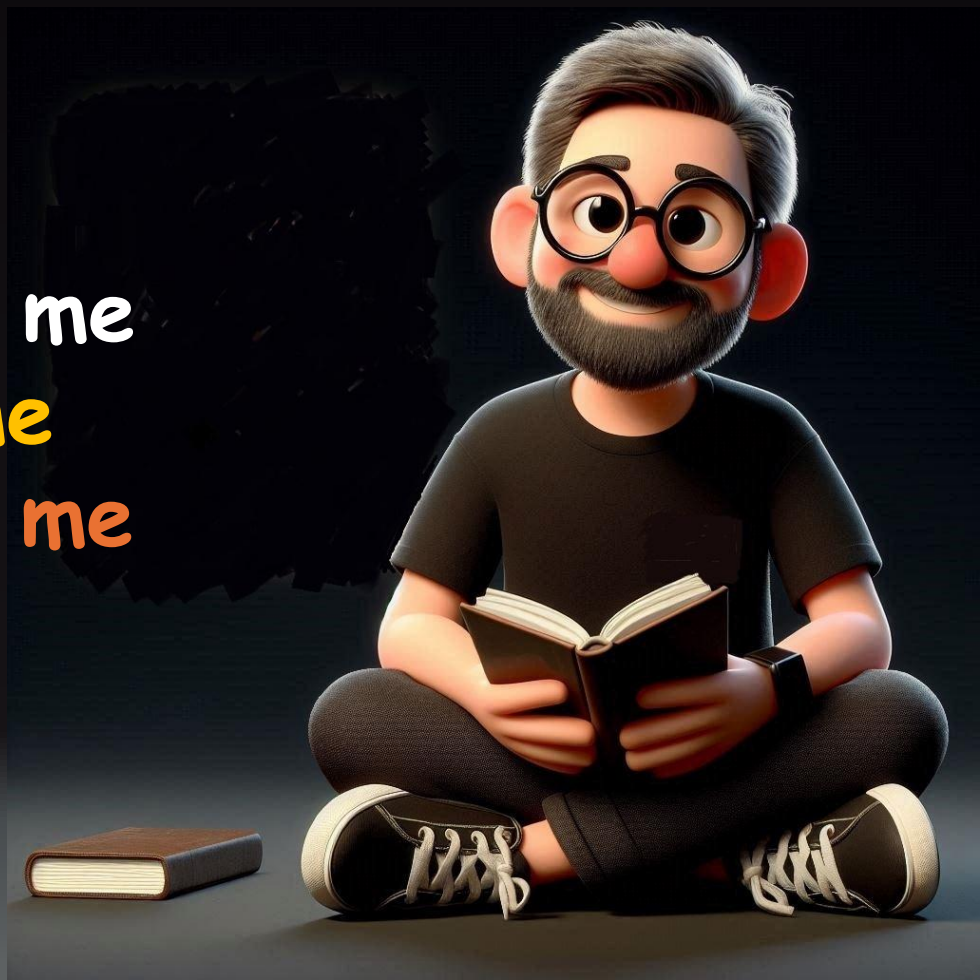
Patou Tips #23
Quick Guide Visualization & Storytelling

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

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

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

Patou Tips



Follow me
Like me
Share me