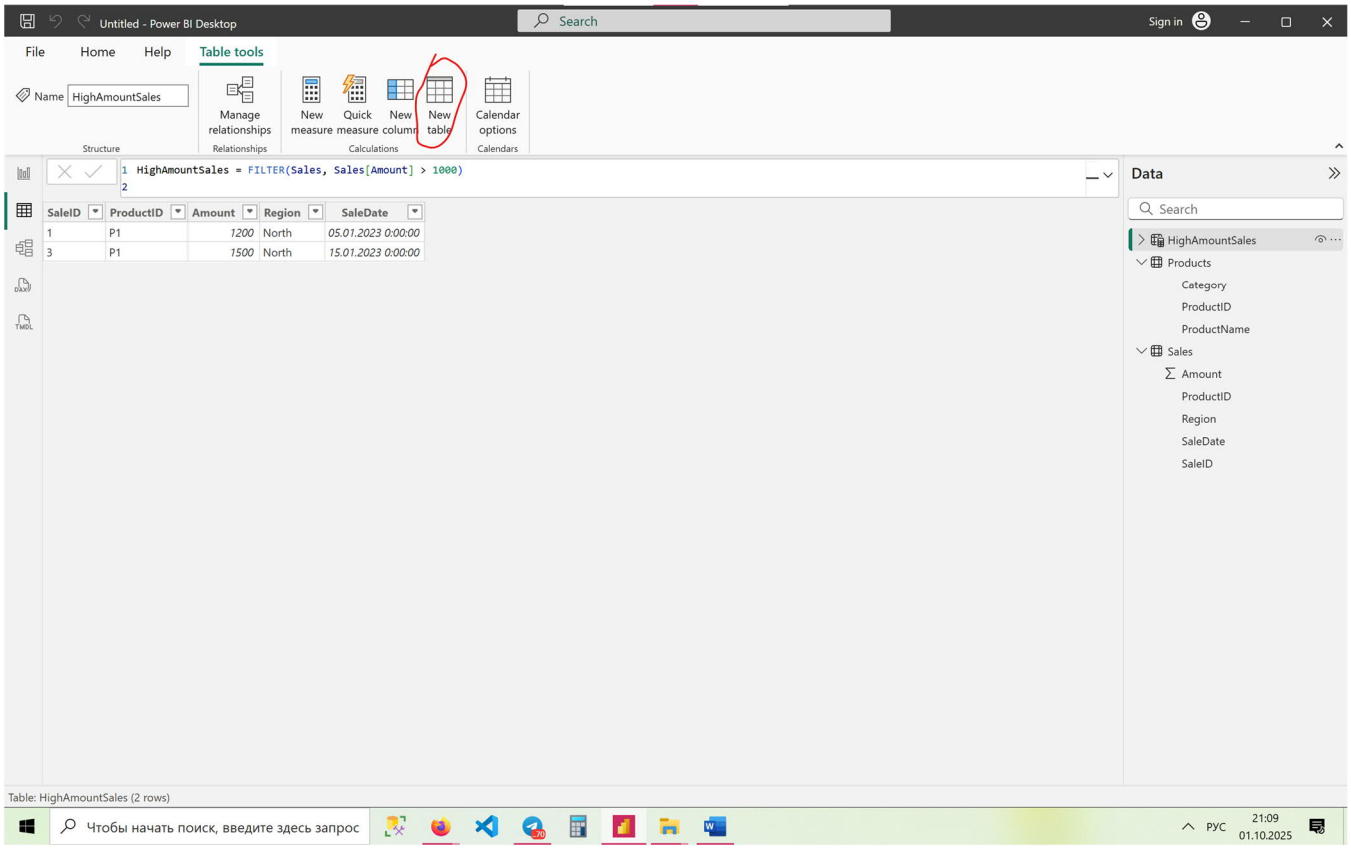
Lesson-10. Advanced Filtering in DAX

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

FILTER returns a **table** containing only rows that meet the condition.

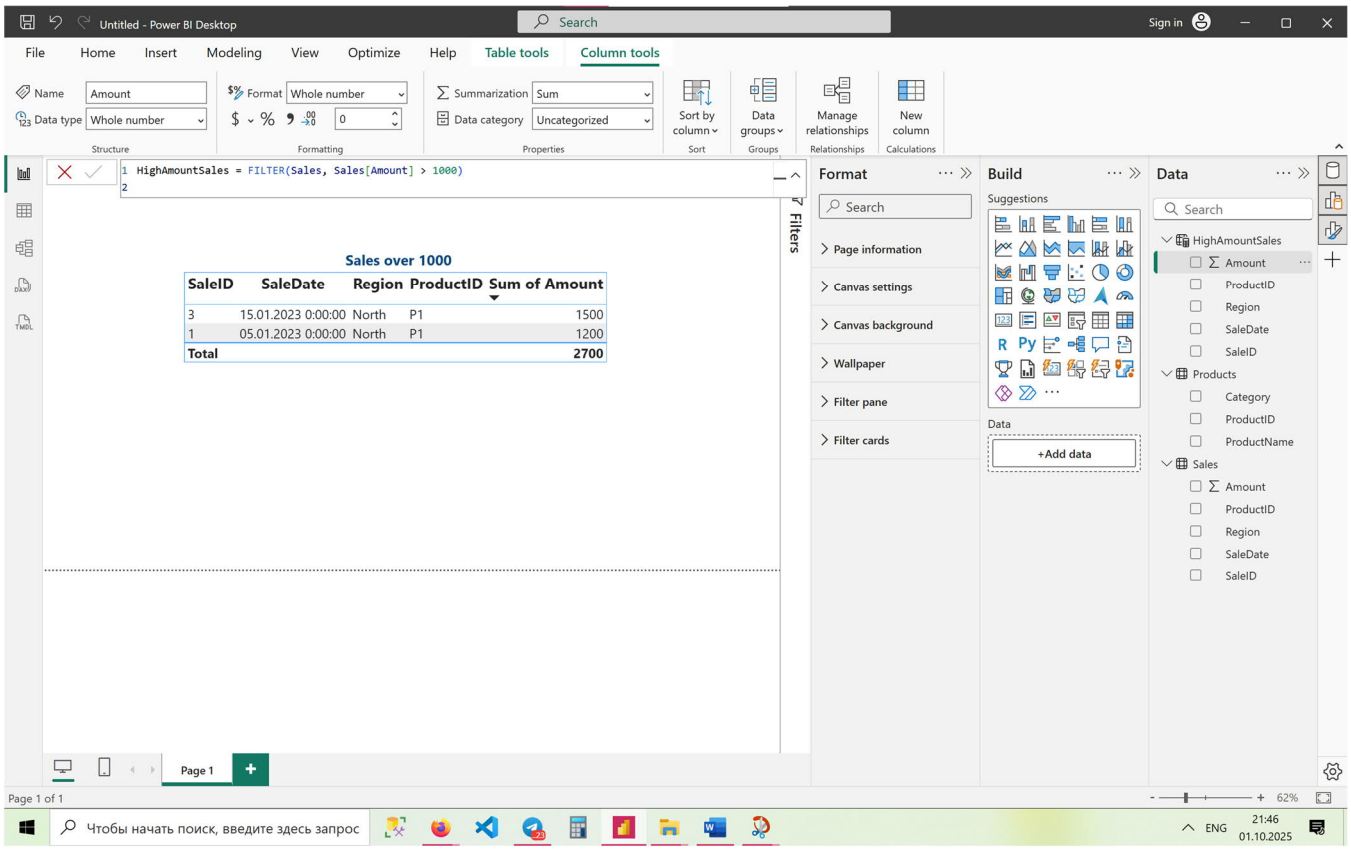


✅ [redacted]ly rows where Amount > 1000.

---

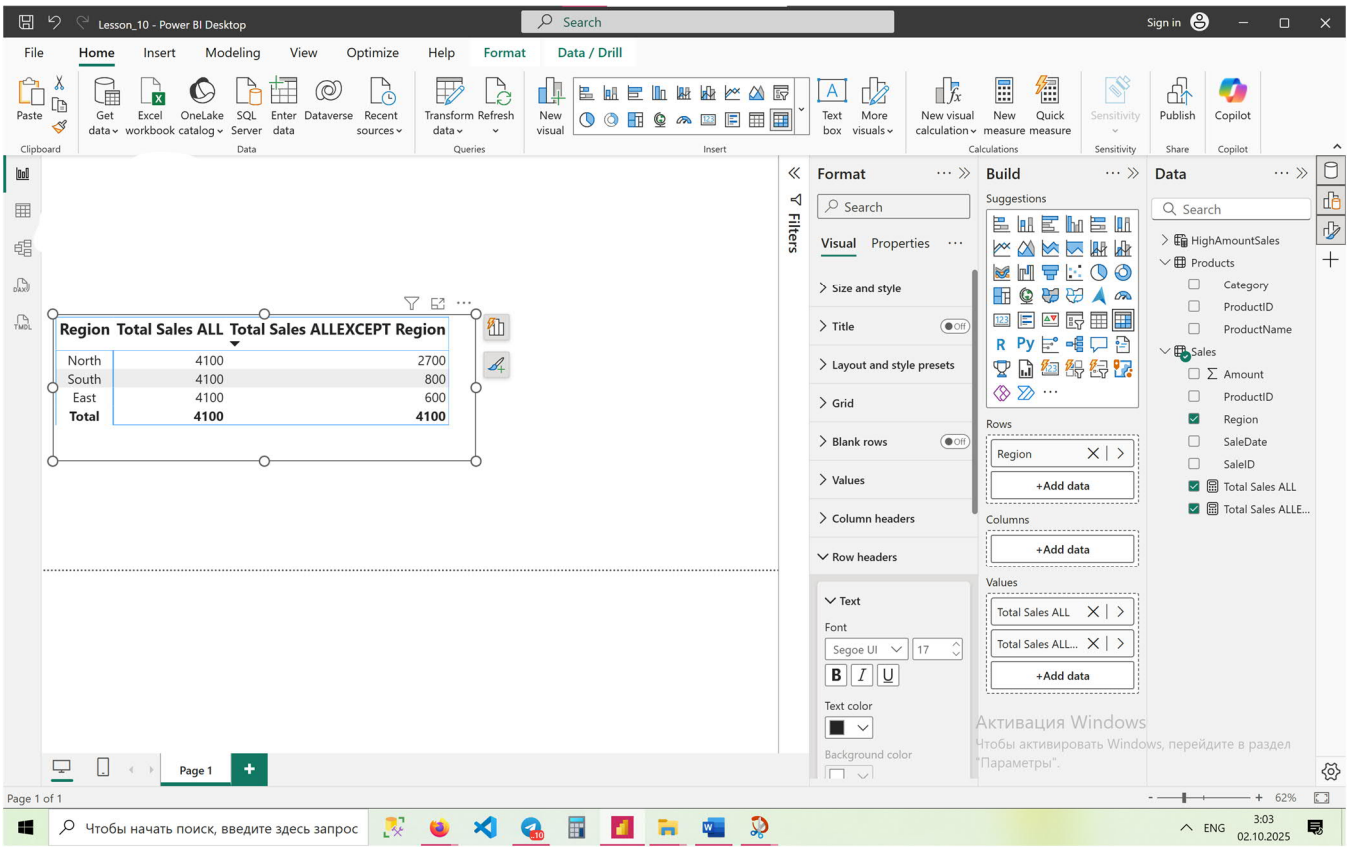
2. High Sales measure summing Amount > 1000 using FILTER

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



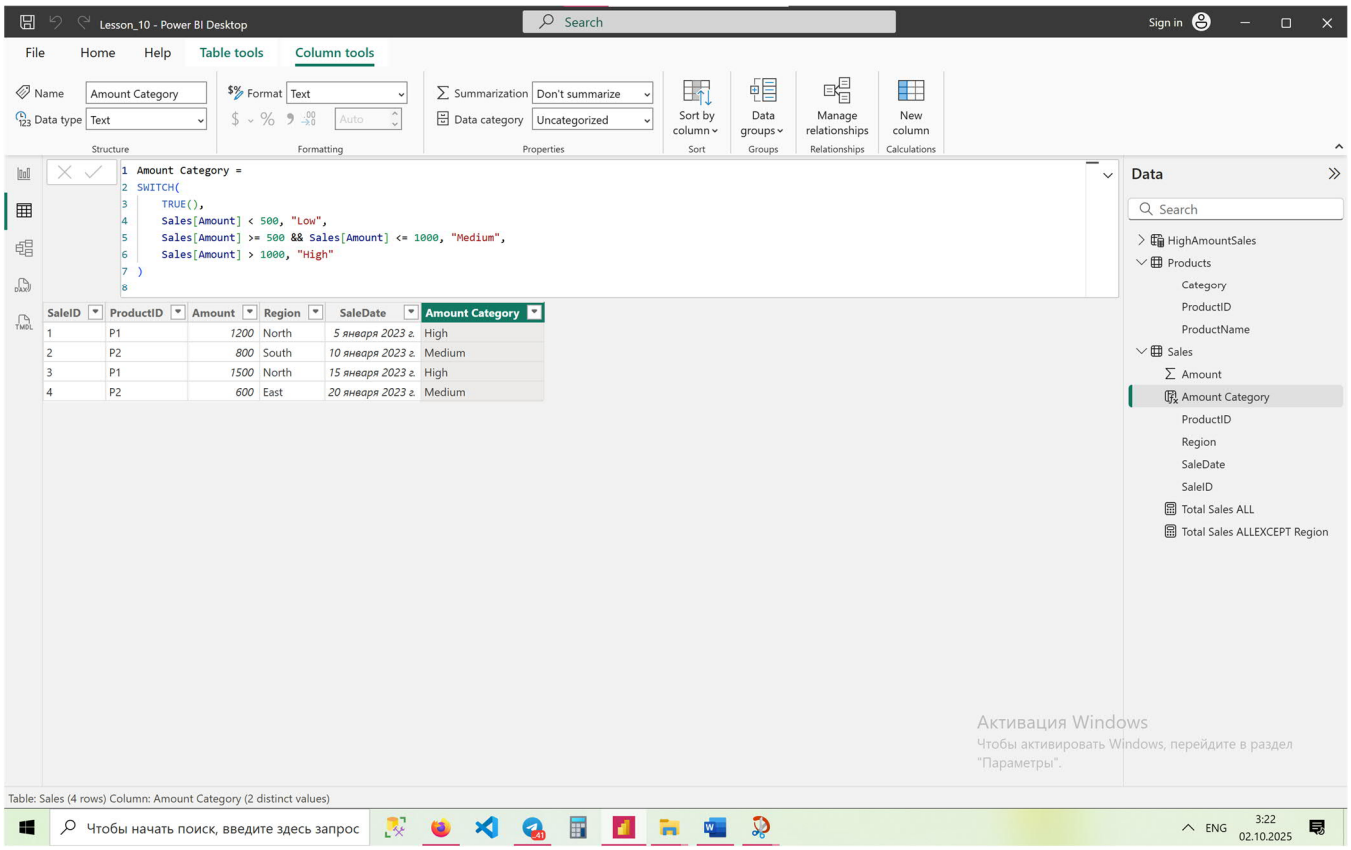
3. How does ALLEXCEPT(Sales, Sales[Region]) differ from ALL(Sales)?

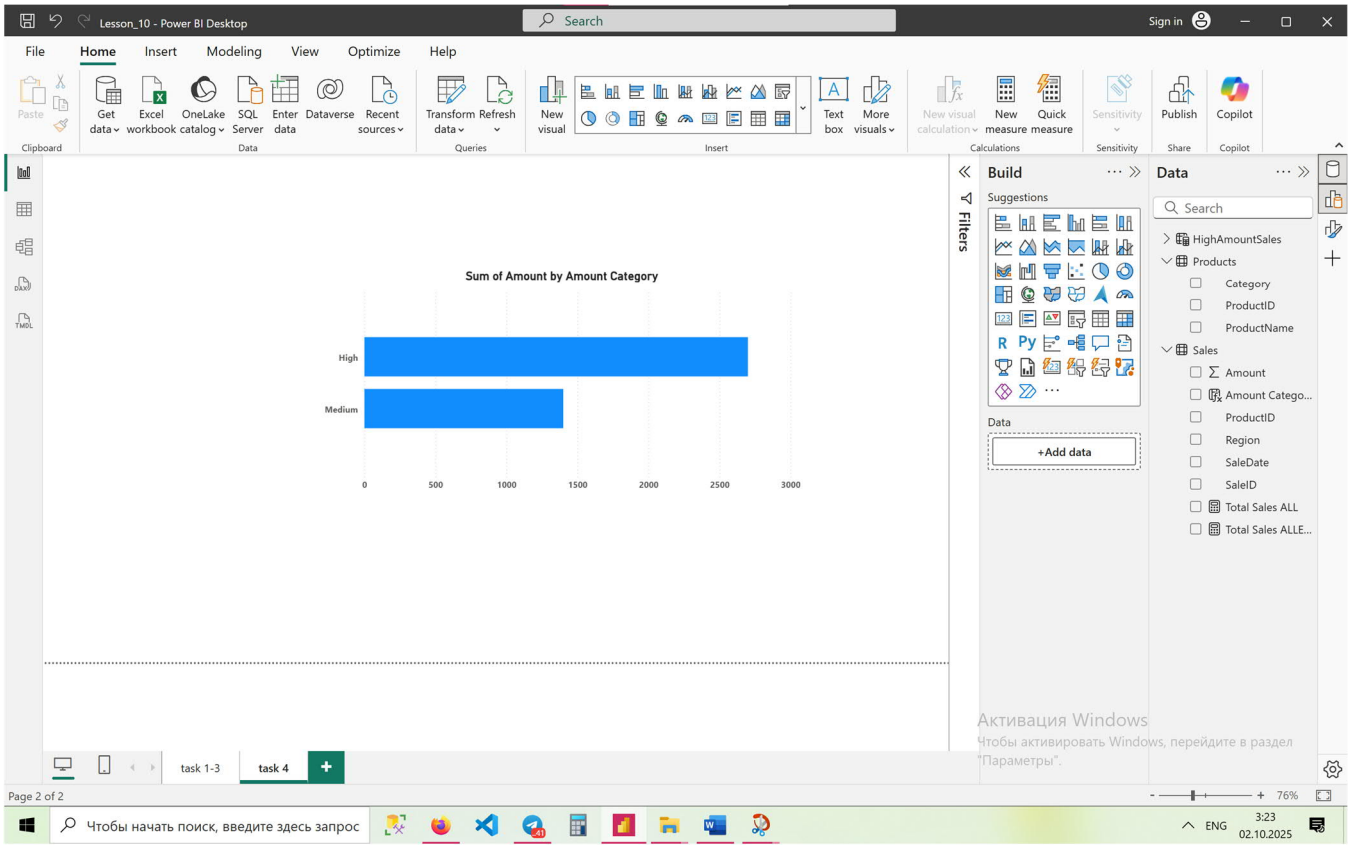
- ALL(Sales) → removes **all filters** on the Sales table.
- ALLEXCEPT(Sales, Sales[Region]) → removes all filters **except** the Region filter.
Example: if filter Region = North is applied:
- ALL(Sales) → includes all regions.
- ALLEXCEPT(Sales, Sales[Region]) → keeps only North, ignores other column filters.



4. Use SWITCH to categorize Amount:

"Medium" if 500–1000
"High" if > 1000 ```



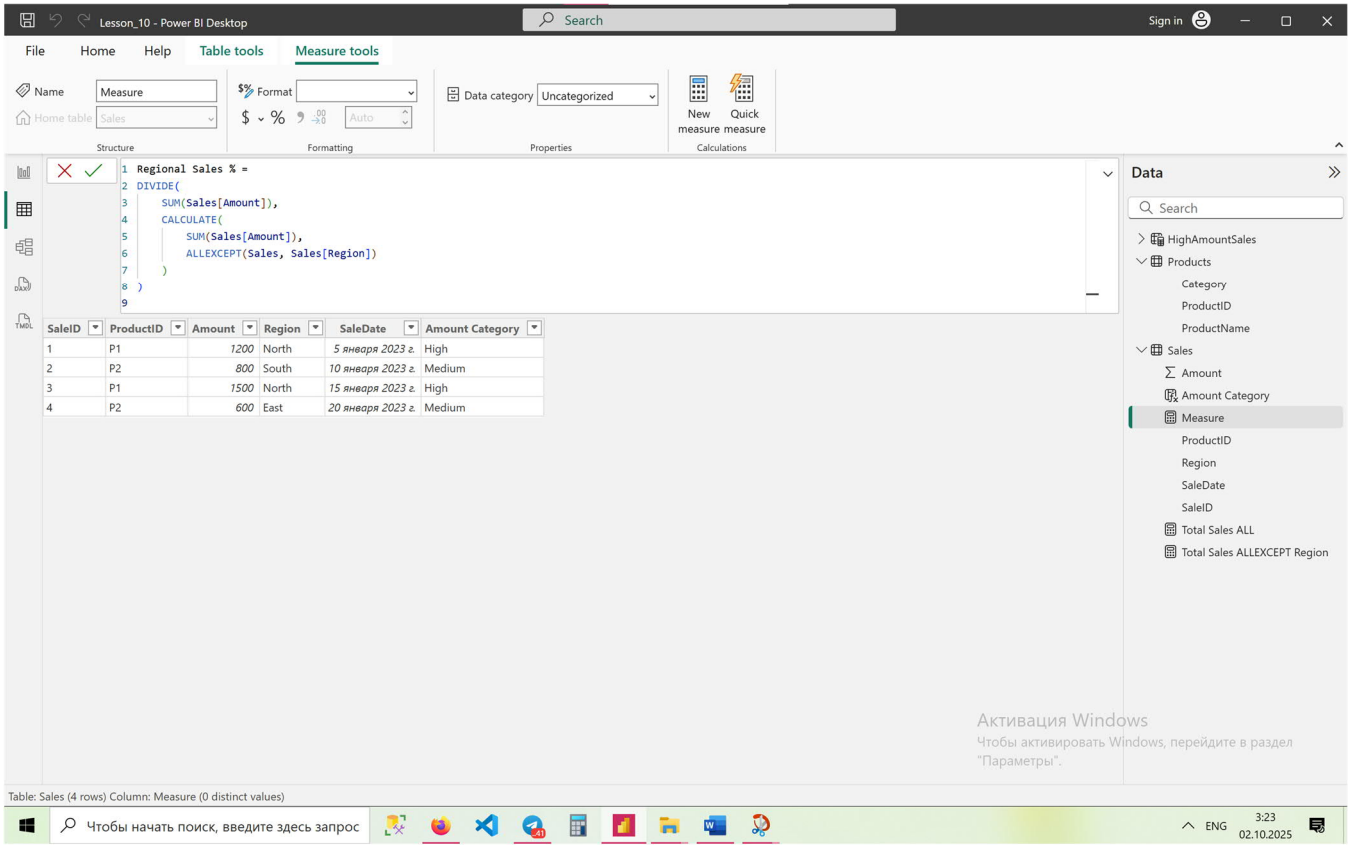


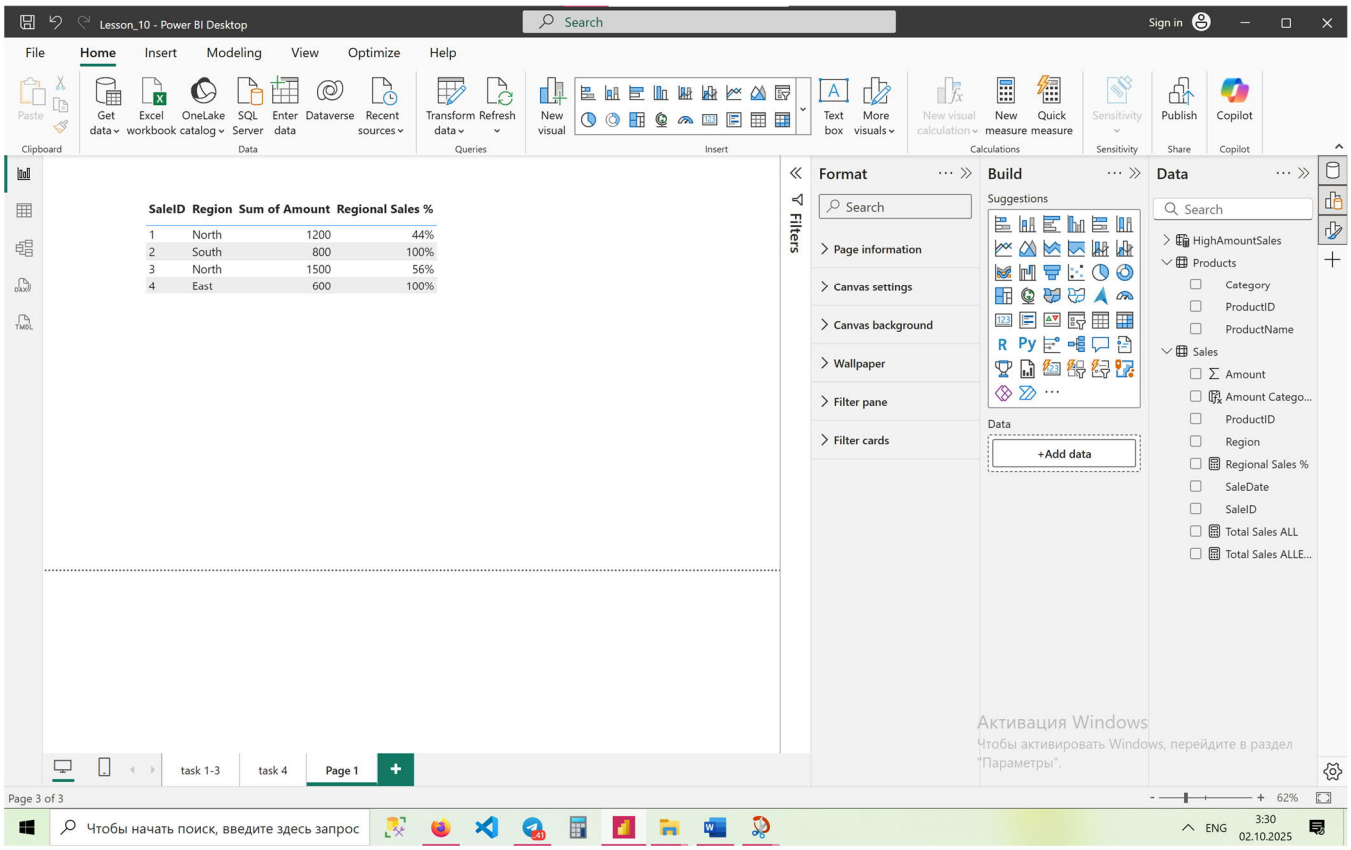
5. What is the purpose of ALLSELECTED?

It removes filters applied within a visual but still respects slicers and external filters. It is useful for percentage-of-total calculations where you want to compare a selection against the total visible context.

6. Write a measure Regional Sales % showing each sale's contribution to its region's total (use ALLEXCEPT).

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





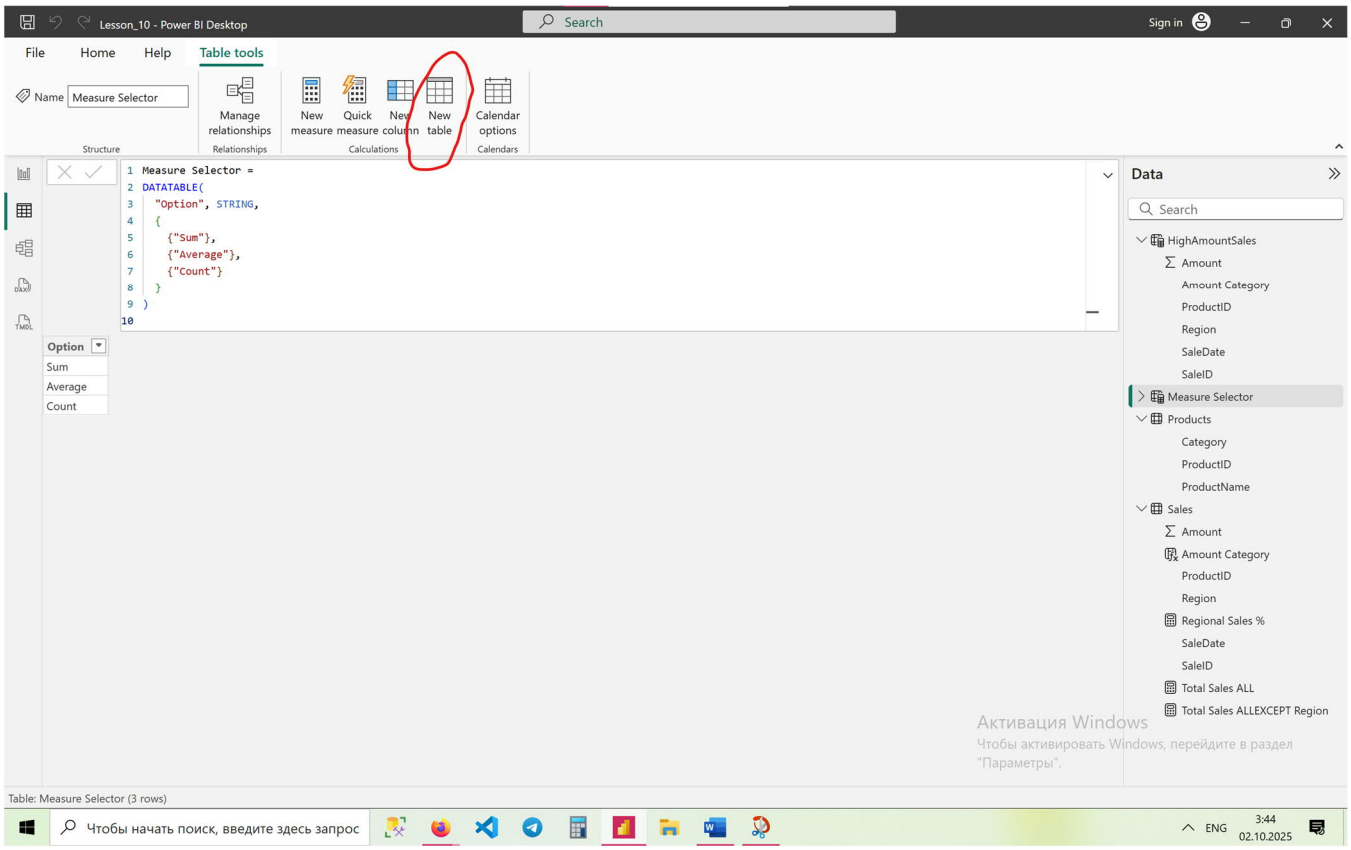
SaleID	Region	Sum of Amount	Regional Sales %
1	North	1200	44%
2	South	800	100%
3	North	1500	56%
4	East	600	100%

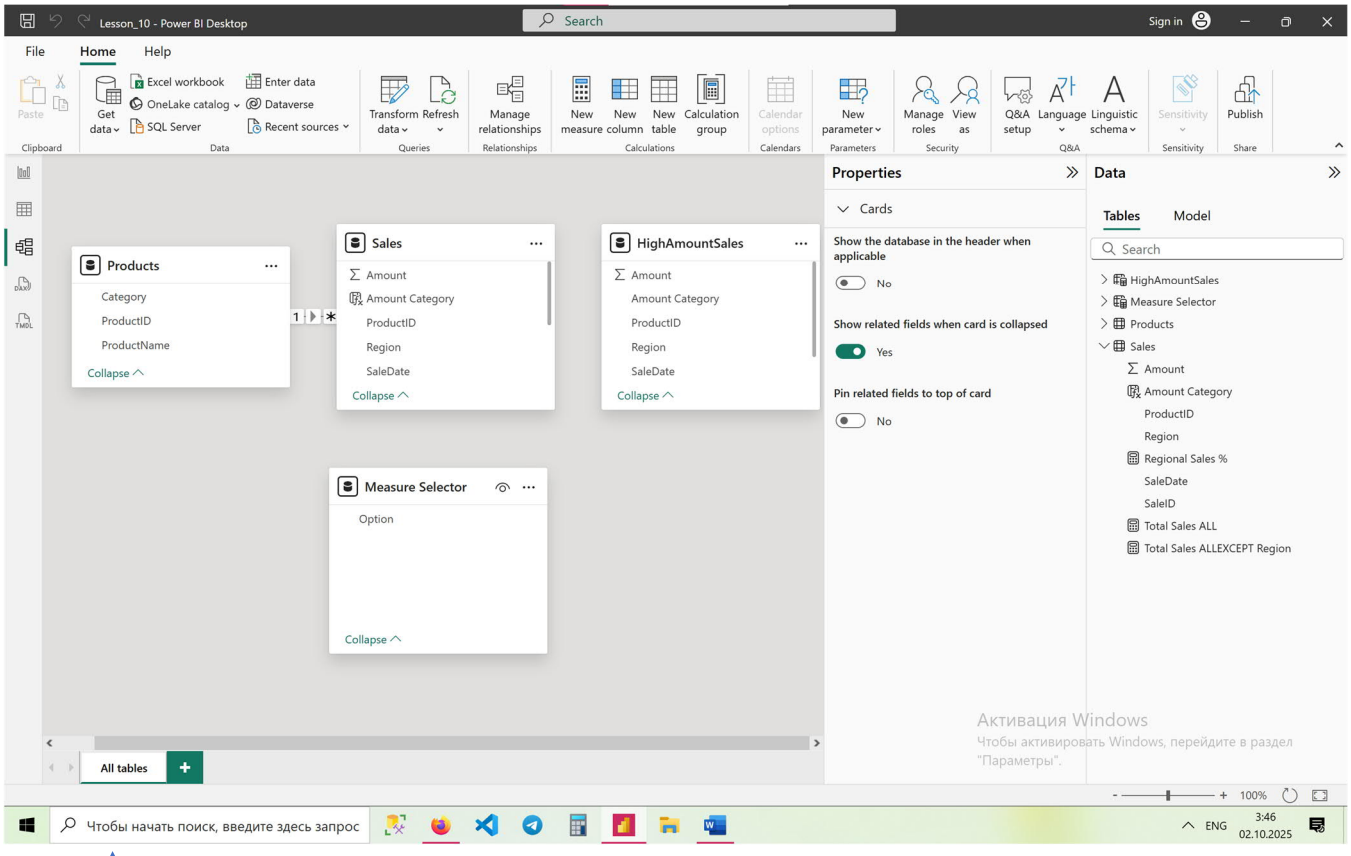
---

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

1.

```
Measure Selector =
DATATABLE(
  "Option", STRING,
  {
    {"Sum"},
    {"Average"},
    {"Count"}
  }
)
```





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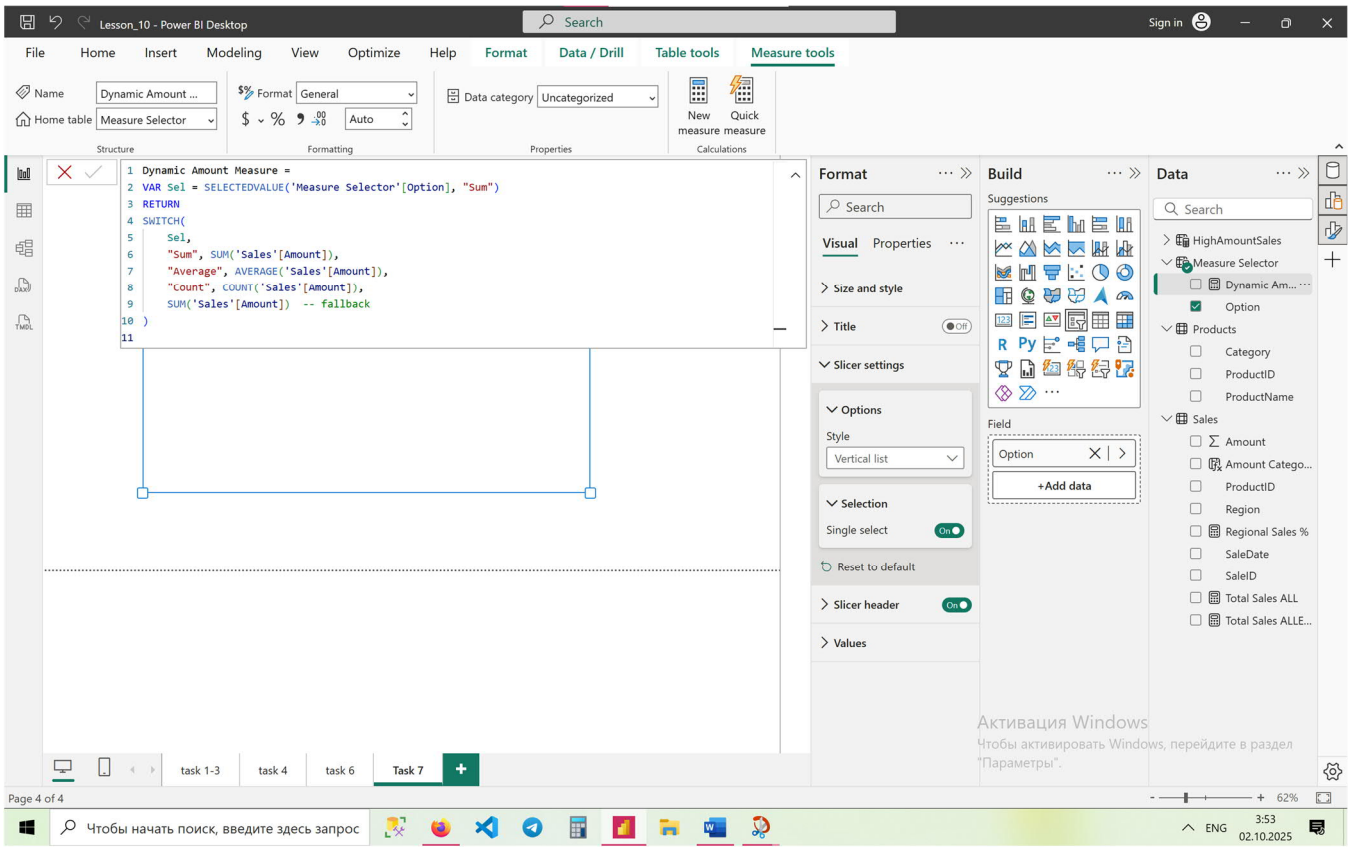
Lesson_10 - Power BI Desktop
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Quick measure
Calculations
1 Dynamic Amount Measure =
2 VAR Sel = SELECTEDVALUE('Measure Selector'[Option], "Sum")
3 RETURN
4 SWITCH(
5 Sel,
6 "Sum", SUM('Sales'[Amount]),
7 "Average", AVERAGE('Sales'[Amount]),
8 "Count", COUNT('Sales'[Amount]),
9 SUM('Sales'[Amount]) -- fallback
10)
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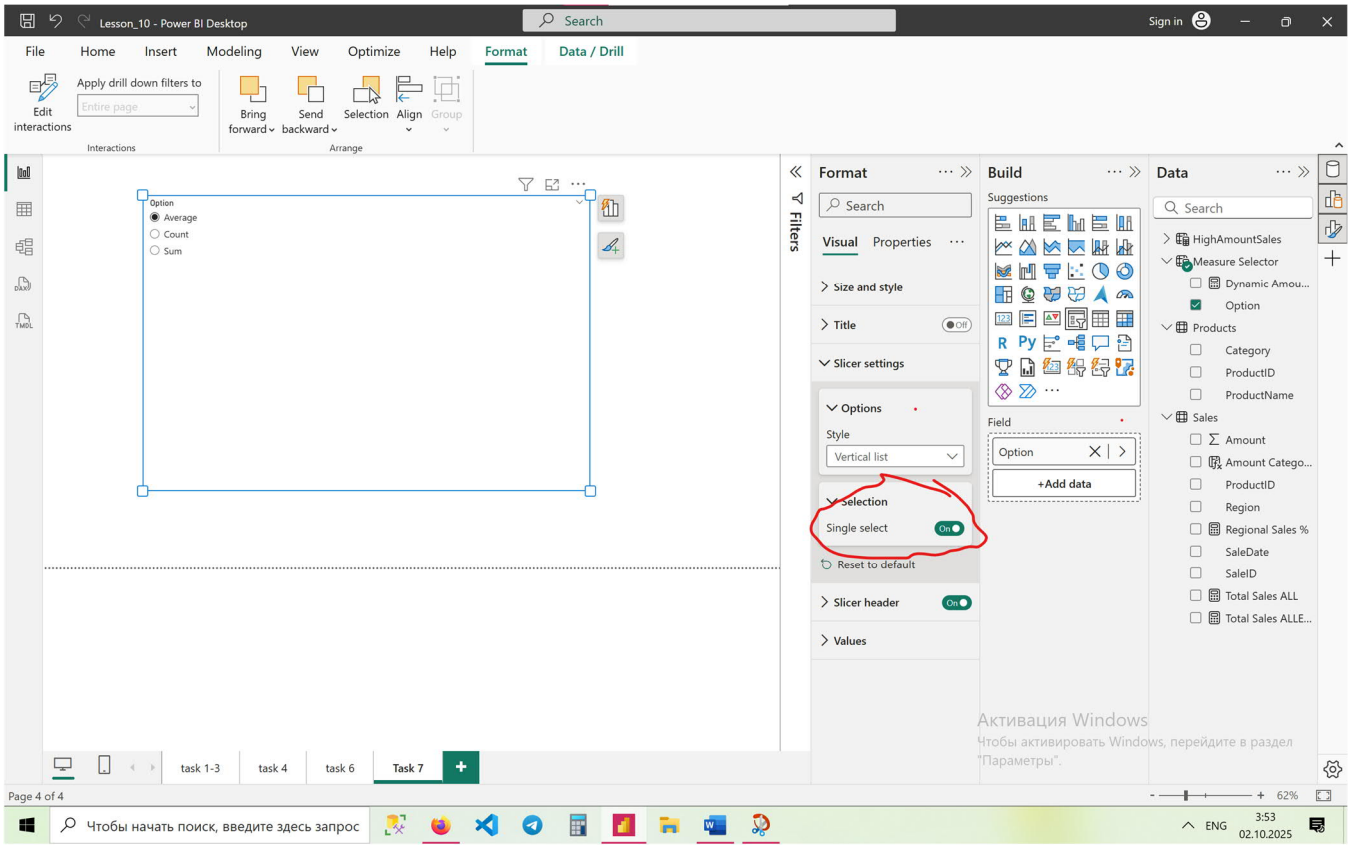
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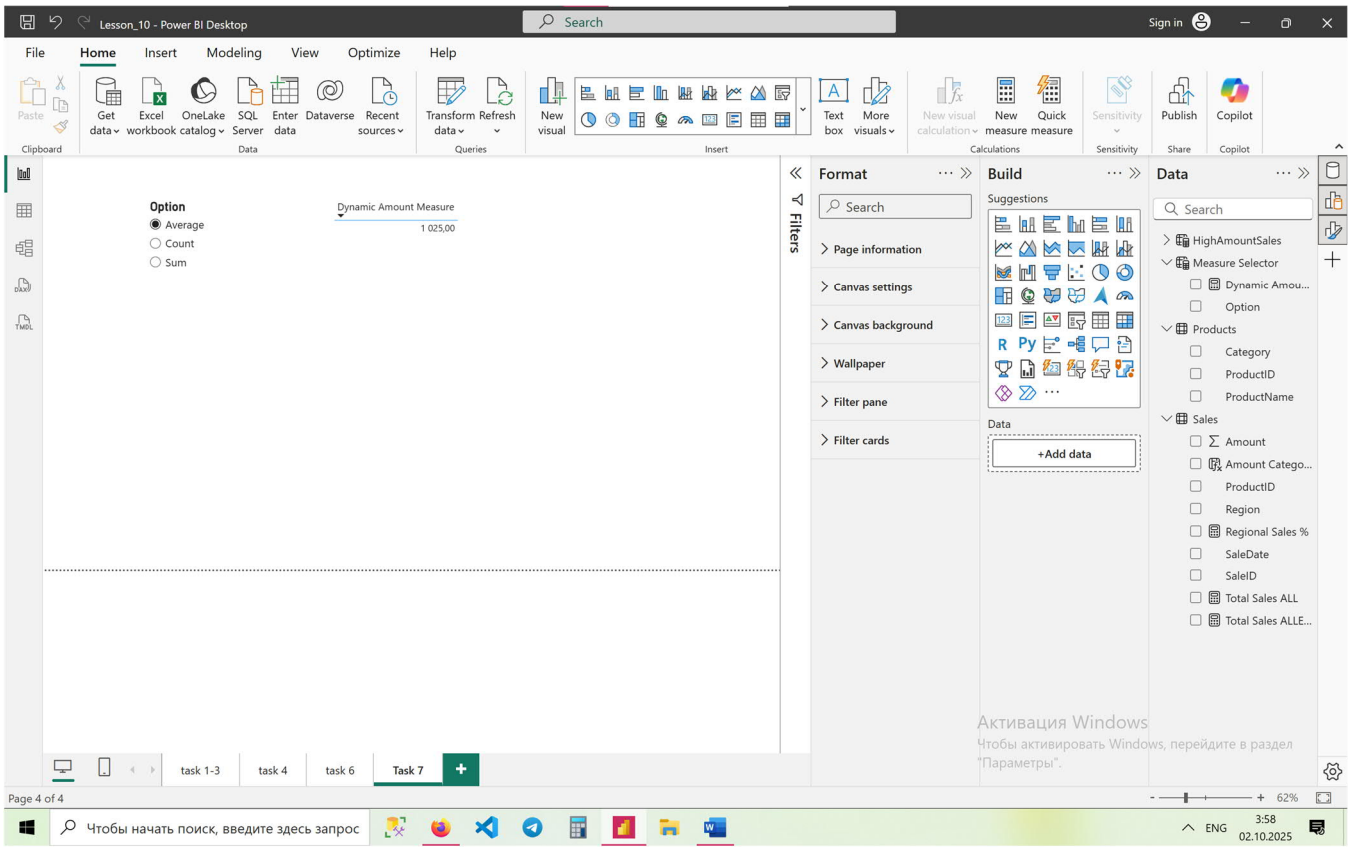
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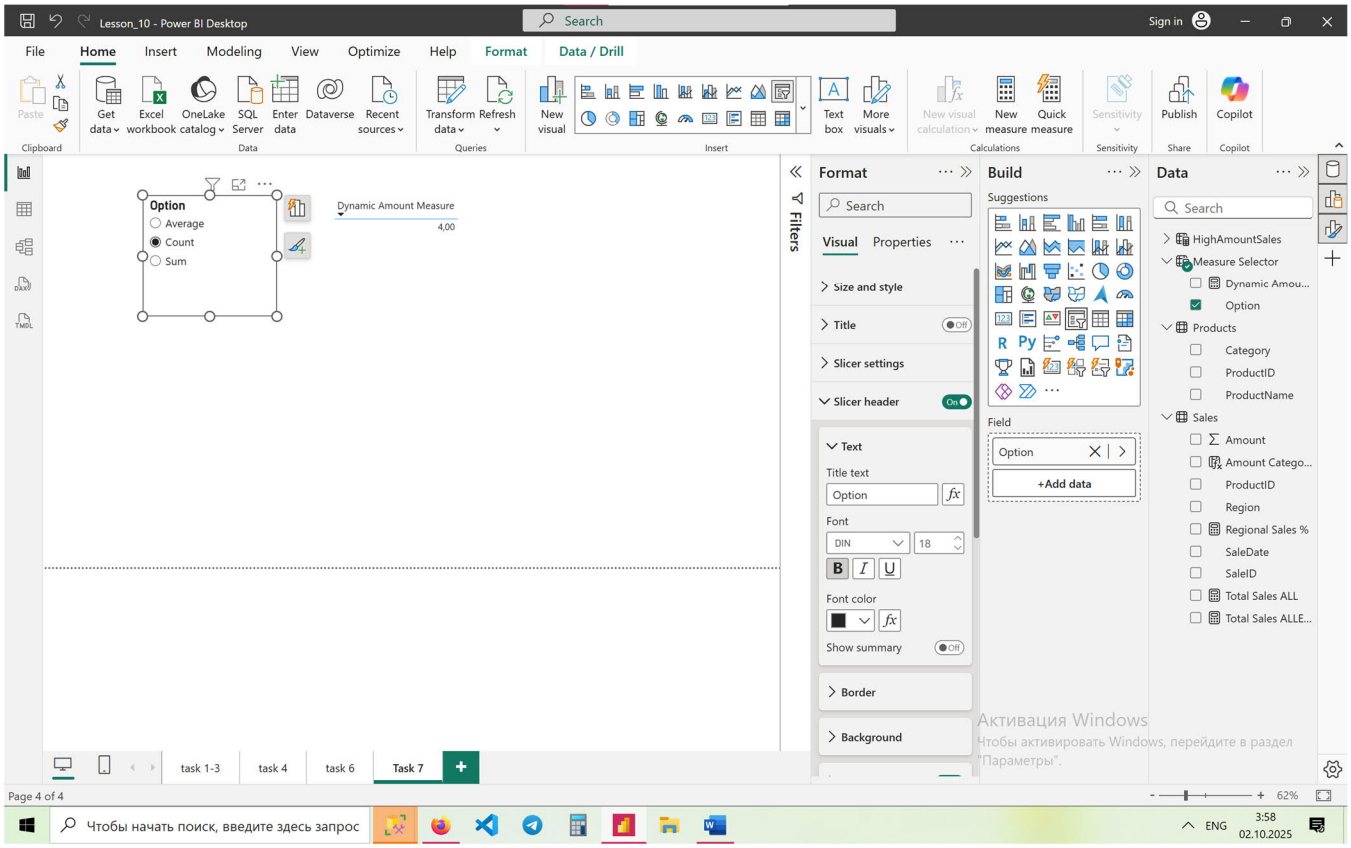
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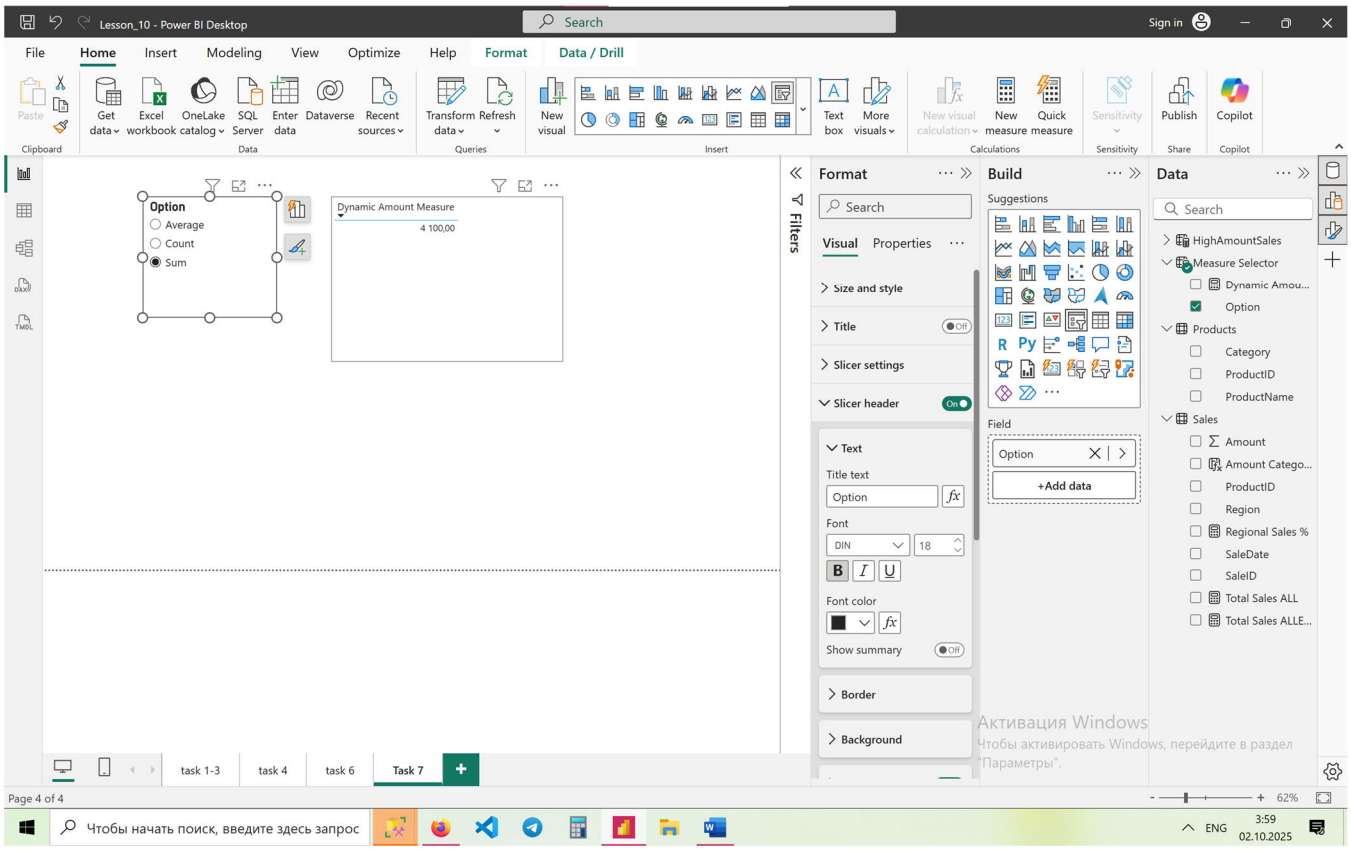
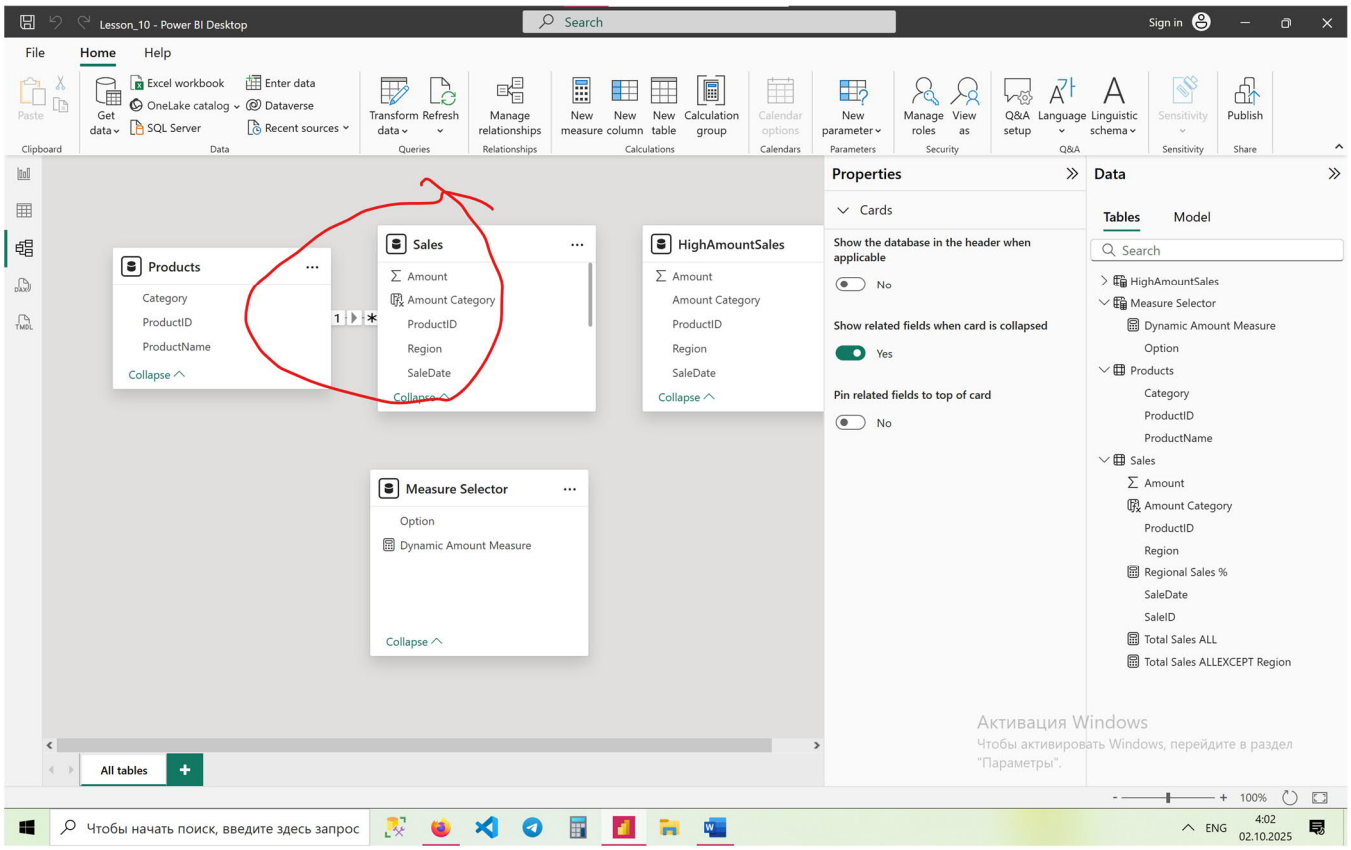


8. Use FILTER inside CALCULATE to exclude "Furniture" sales (Products[Category] = "Furniture").

```
Sales Excl Furniture =
CALCULATE(
    SUM('Sales'[Amount]),
    FILTER(
        'Products',
        'Products'[Category] <> "Furniture"
    )
)
```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Show the database in the header when applicable
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Show related fields when card is collapsed
Yes
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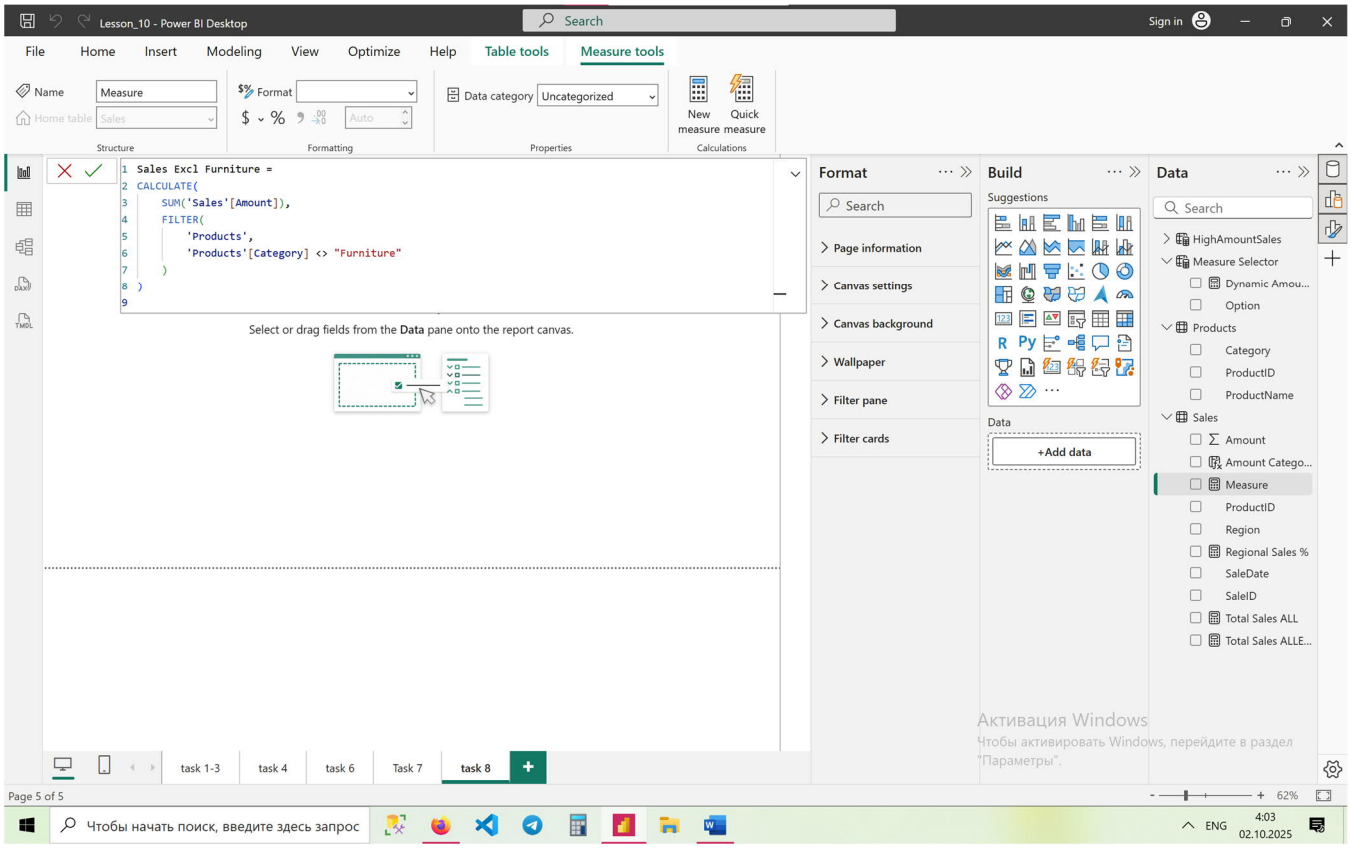
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Uncategorized
Properties
New measure
Quick measure
Calculations
1 Sales Excl Furniture =
2 CALCULATE(
3 SUM('Sales'[Amount]),
4 FILTER(
5 'Products',
6 'Products'[Category] <> "Furniture"
7)
8)
9
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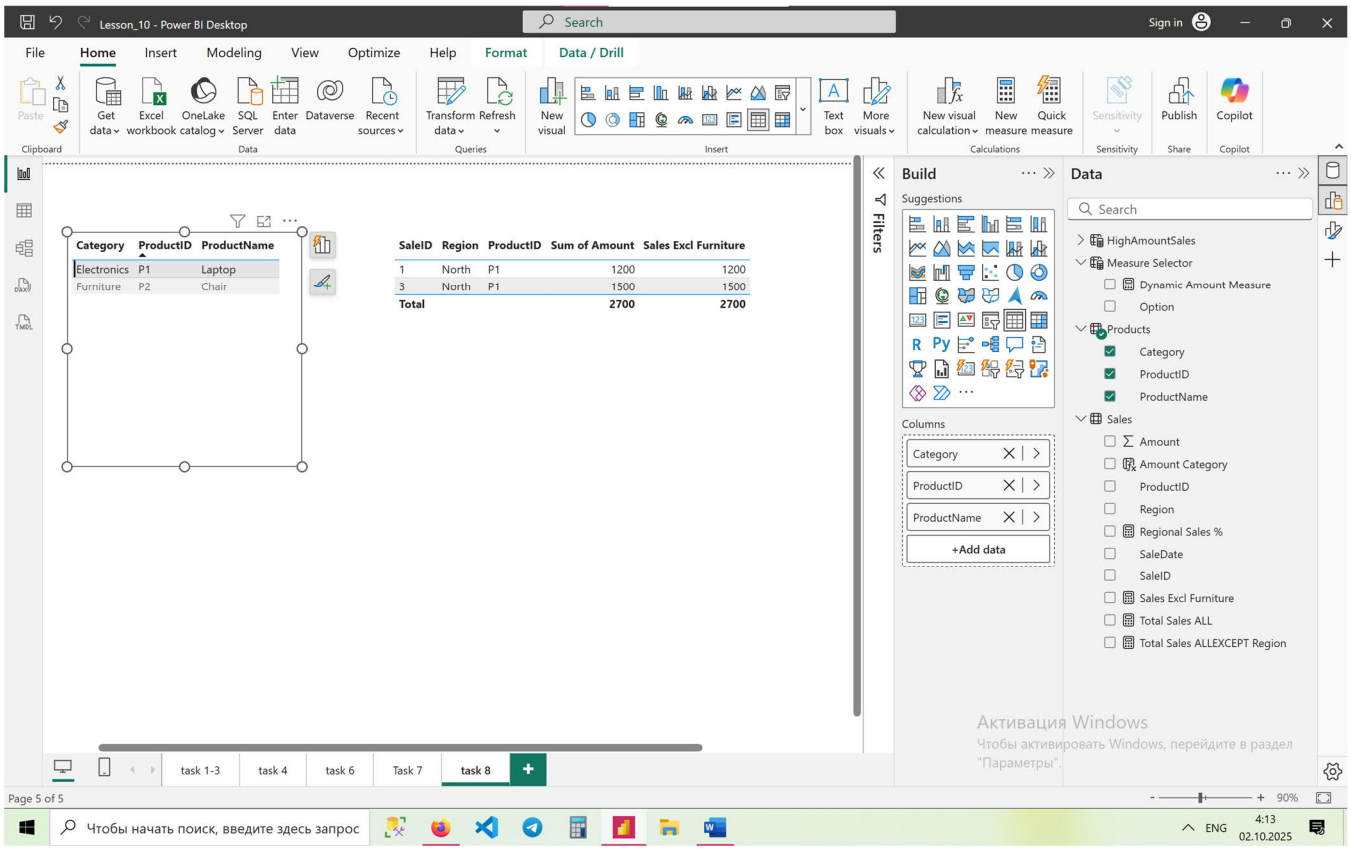
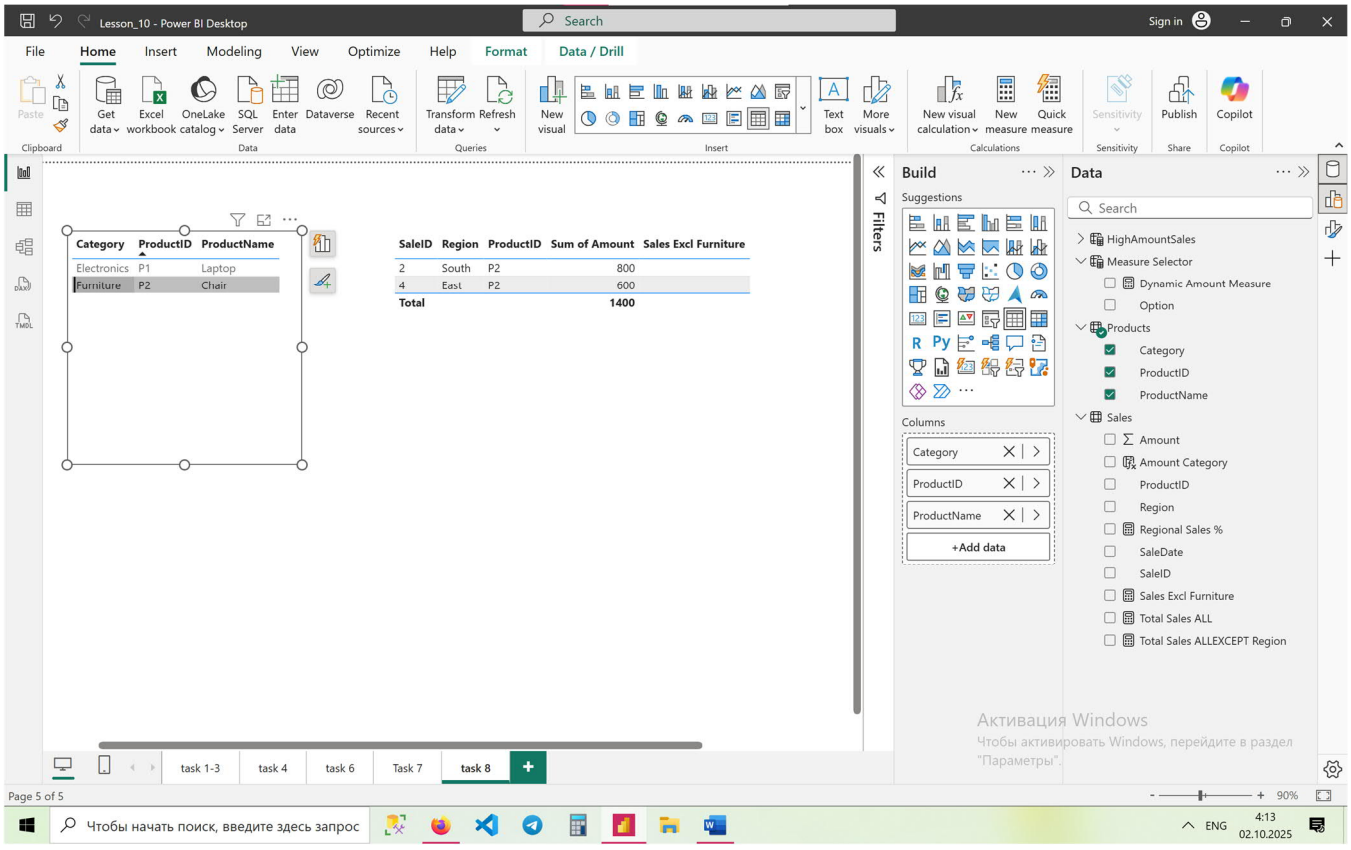
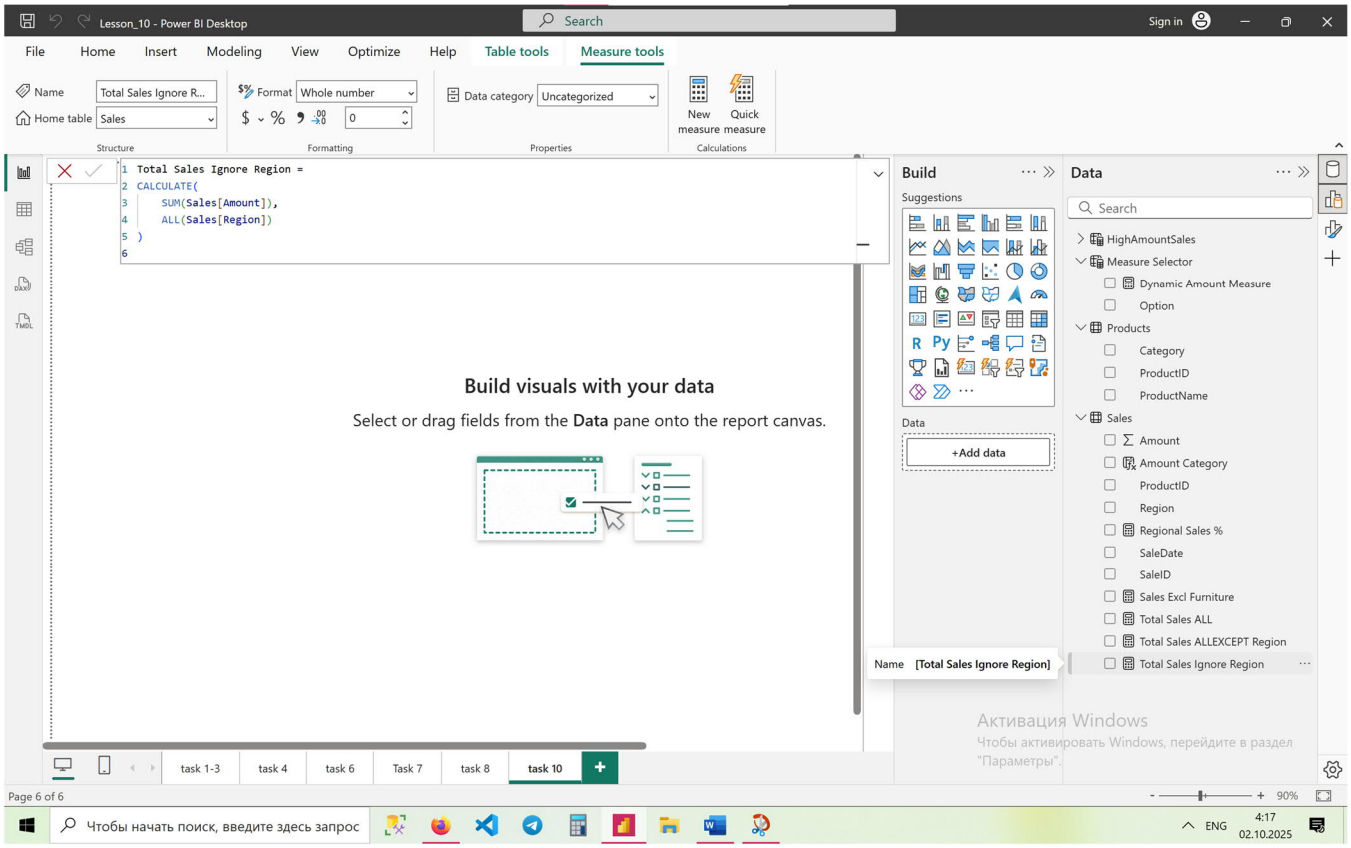


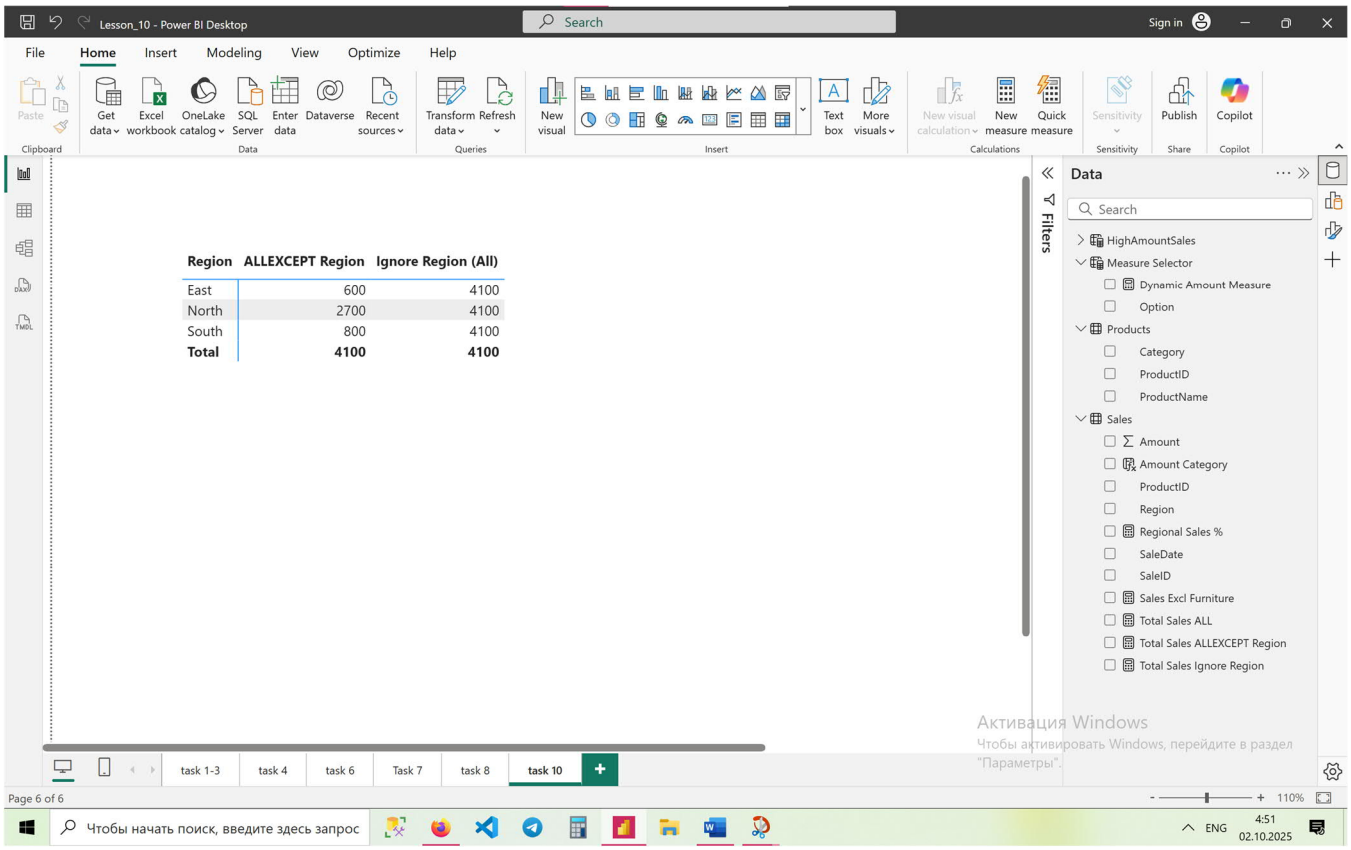


9. Why might ALLSELECTED behave unexpectedly in a pivot table?
Because pivot tables can apply implicit filters at the visual level, ALLSELECTED may return totals influenced by row/column selections, leading to results that differ from expected “global” totals.

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

```
Total Sales Ignore Region =
CALCULATE(
    SUM(Sales[Amount]),
    ALL(Sales[Region])
)
```





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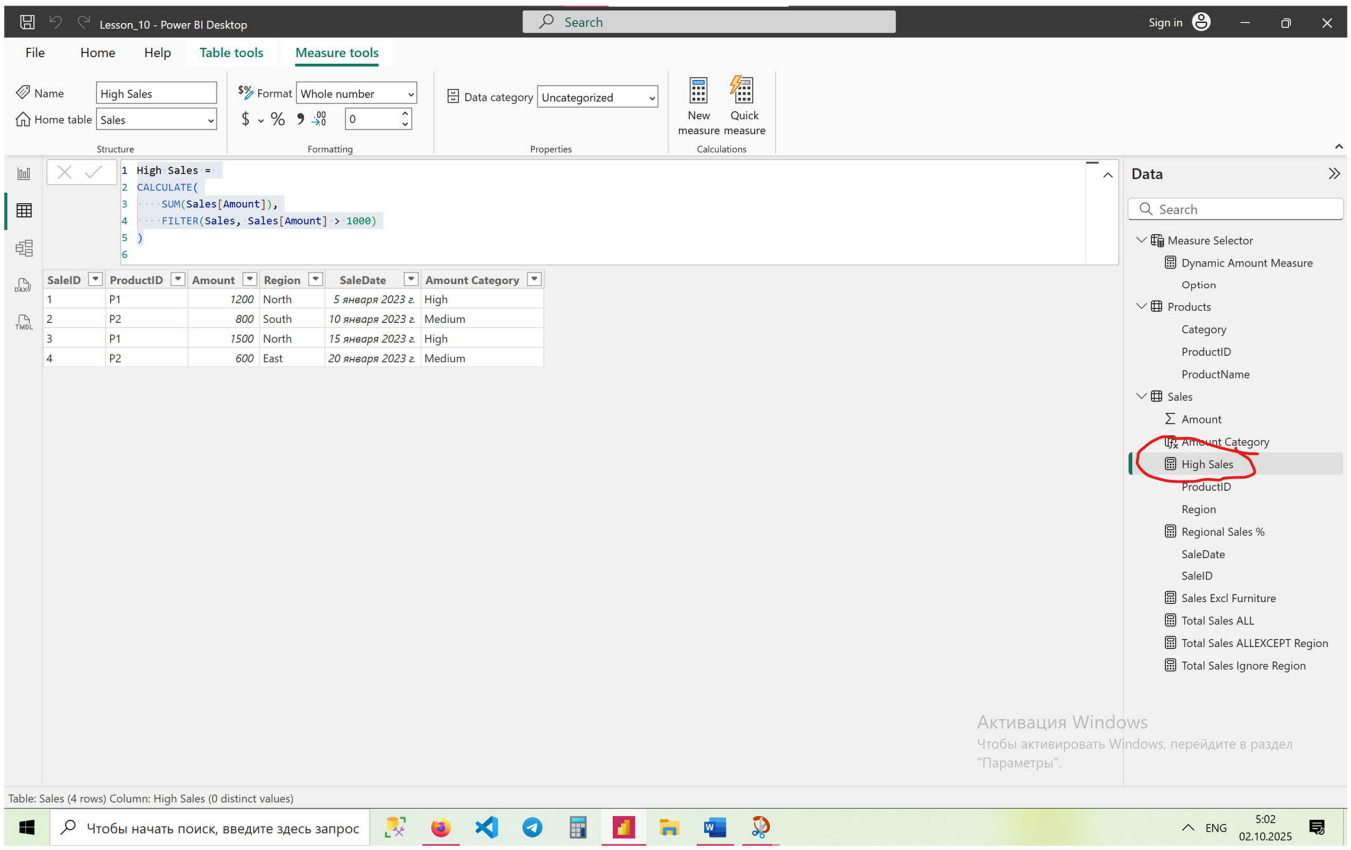
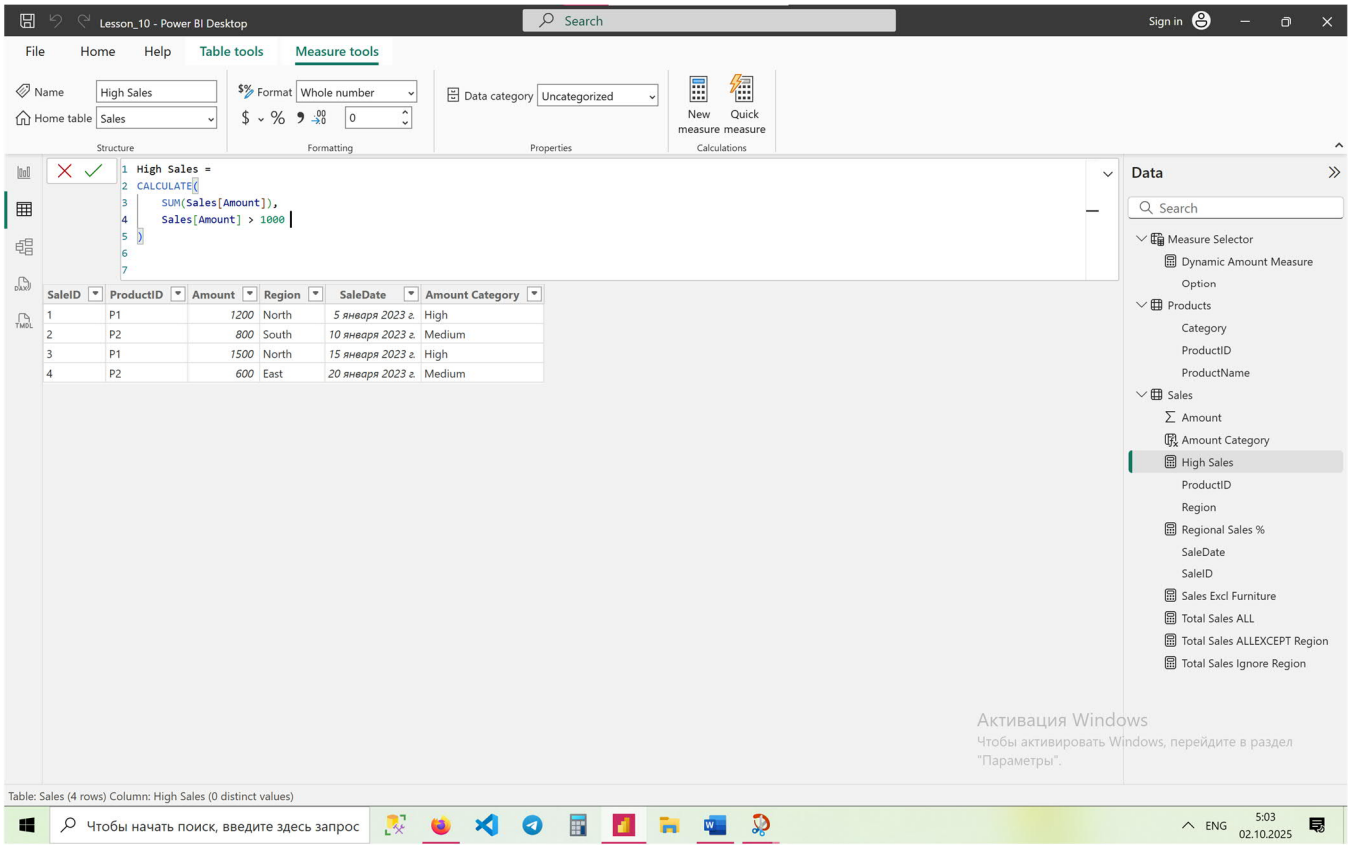
11. Optimize this measure:

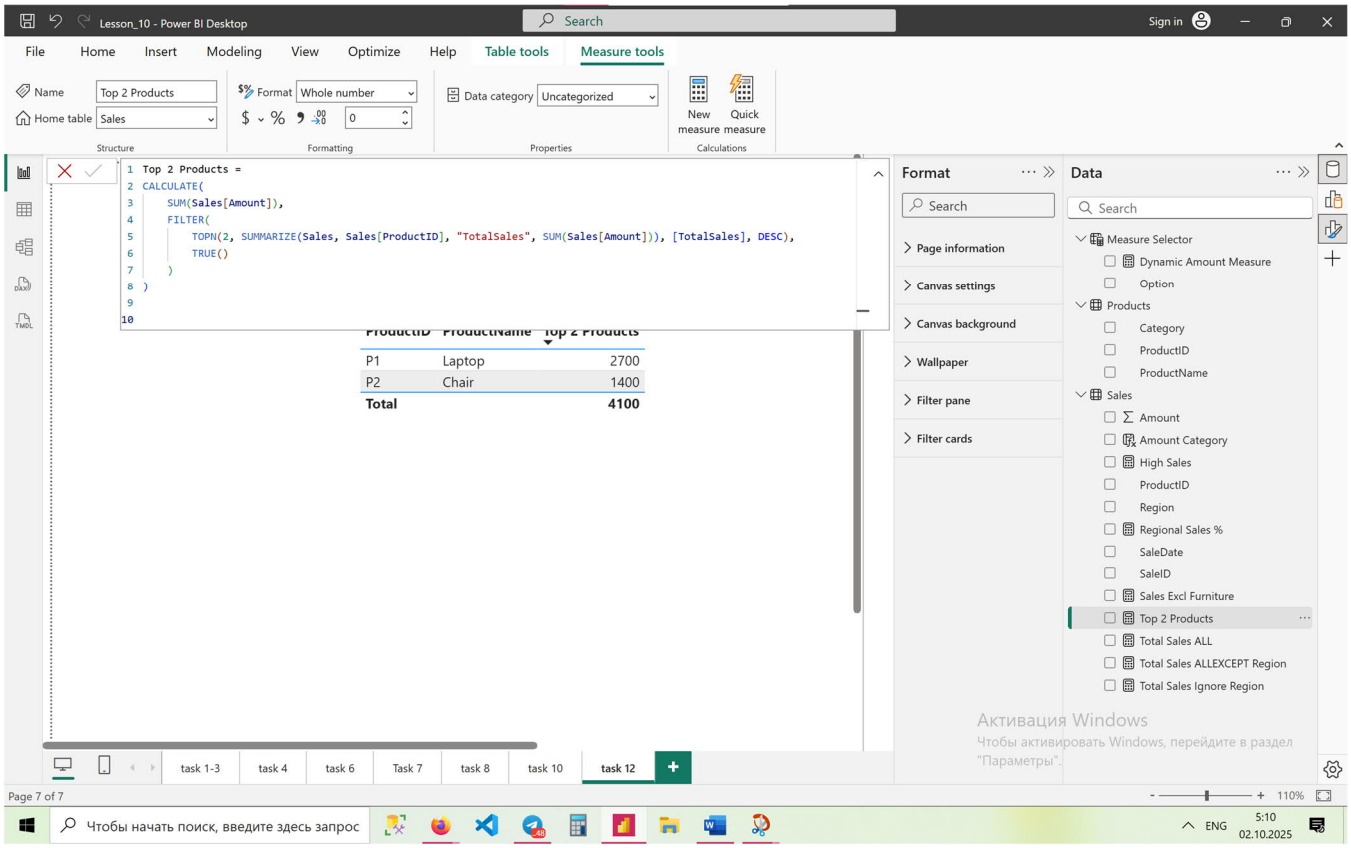
```
High Sales =
CALCULATE(
    SUM(Sales[Amount]),
    Sales[Amount] > 1000
)
```

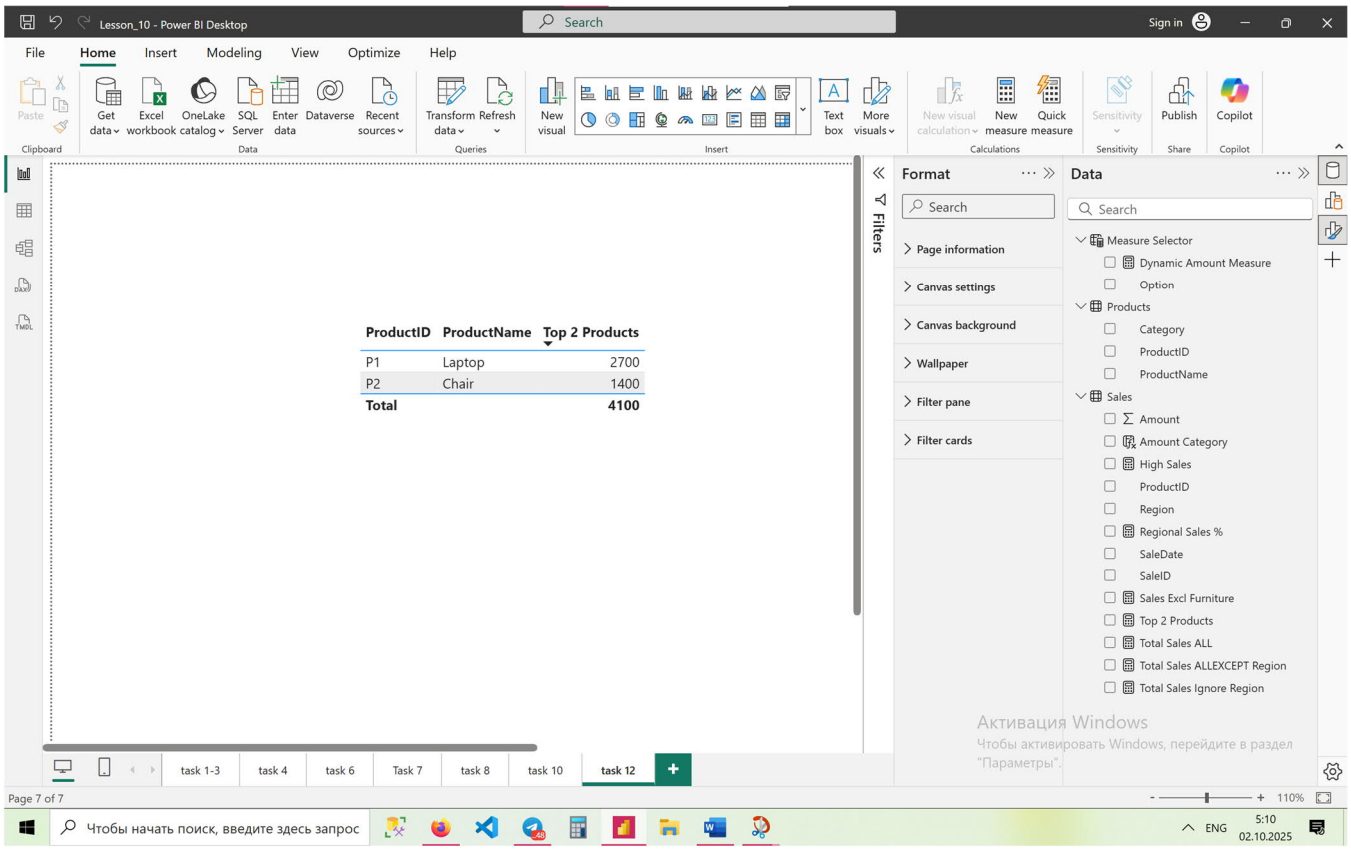




12. Write a measure Top 2 Products using TOPN and FILTER to show the highest-grossing products.

```
Top 2 Products =
CALCULATE(
    SUM(Sales[Amount]),
    FILTER(
        TOPN(2, SUMMARIZE(Sales, Sales[ProductID], "TotalSales", SUM(Sales[Amount])), [TotalSales], DESC),
        TRUE()
    )
)
```





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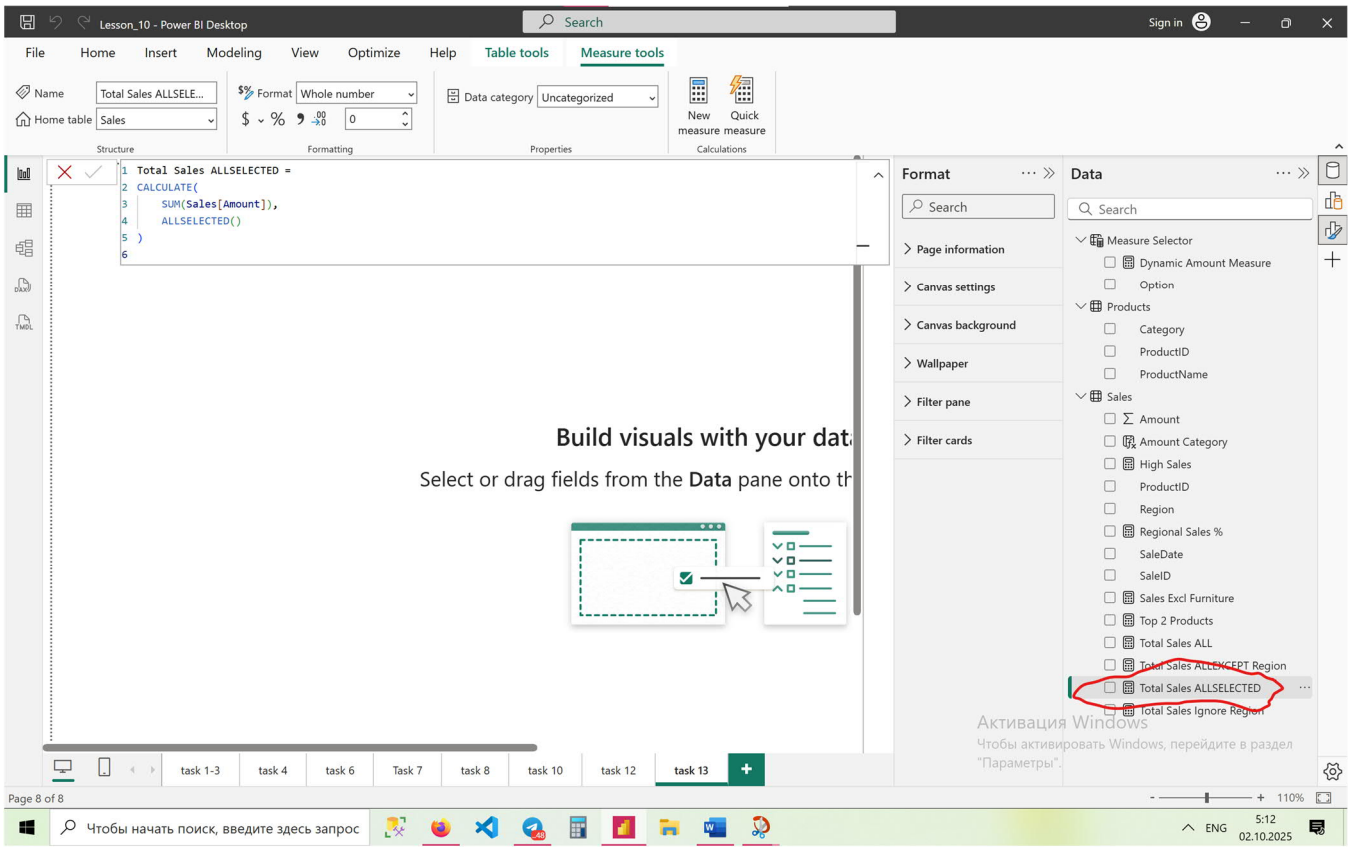
13. Use ALLSELECTED with no parameters to respect slicers but ignore visual-level filters.

```
Total Sales (ALLSELECTED) =
CALCULATE(
    SUM(Sales[Amount]),
    ALLSELECTED()
)
```


Lesson_10 - Power BI Desktop
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1 Total Sales ALLSELECTED =
2 CALCULATE(
3 SUM(Sales[Amount]),
4 ALLSELECTED()
5)
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Sales Excl Furniture
Top 2 Products
Total Sales ALL
Total Sales ALLEXCEPT Region
Total Sales ALLSELECTED
Total Sales Ignore Region
Активация Windows
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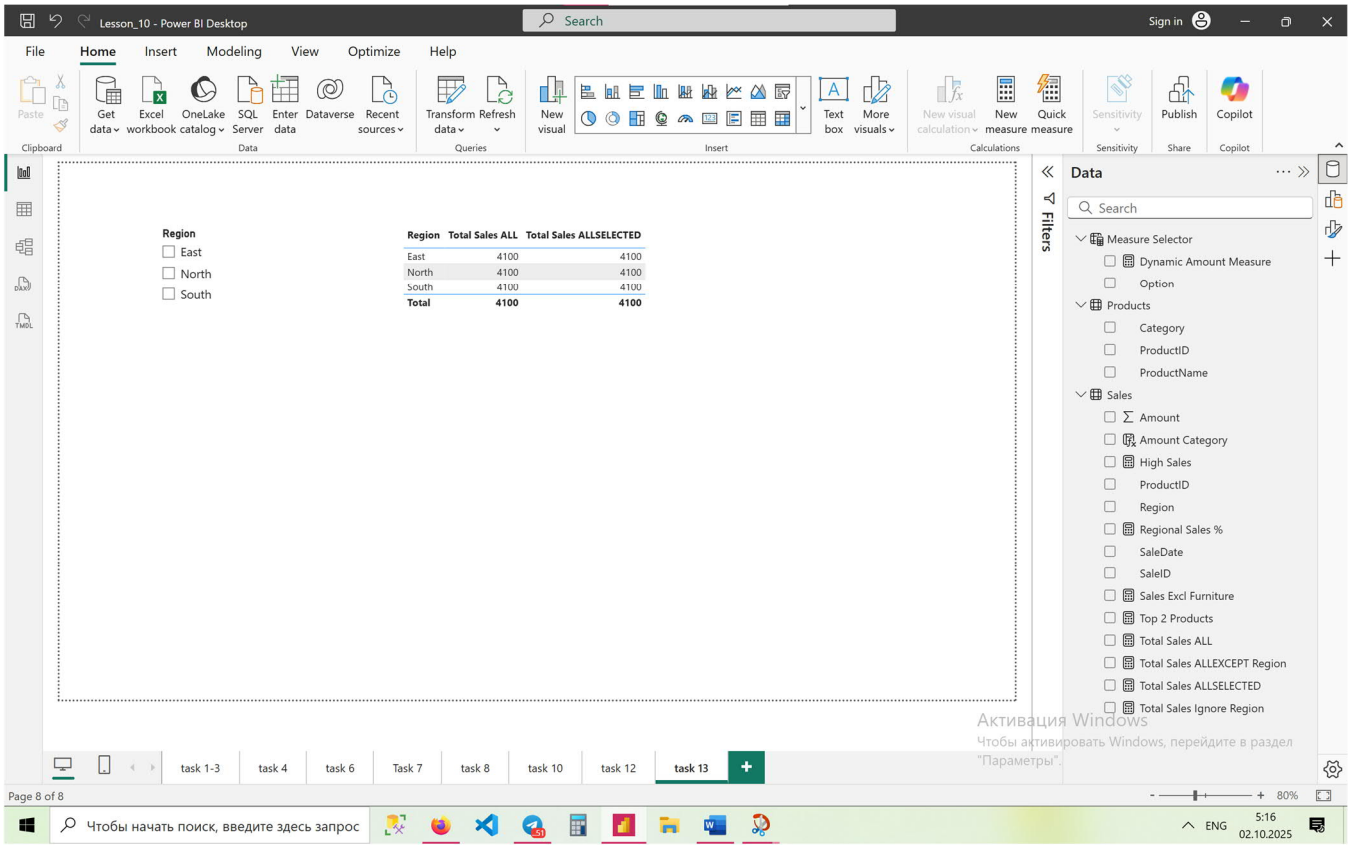
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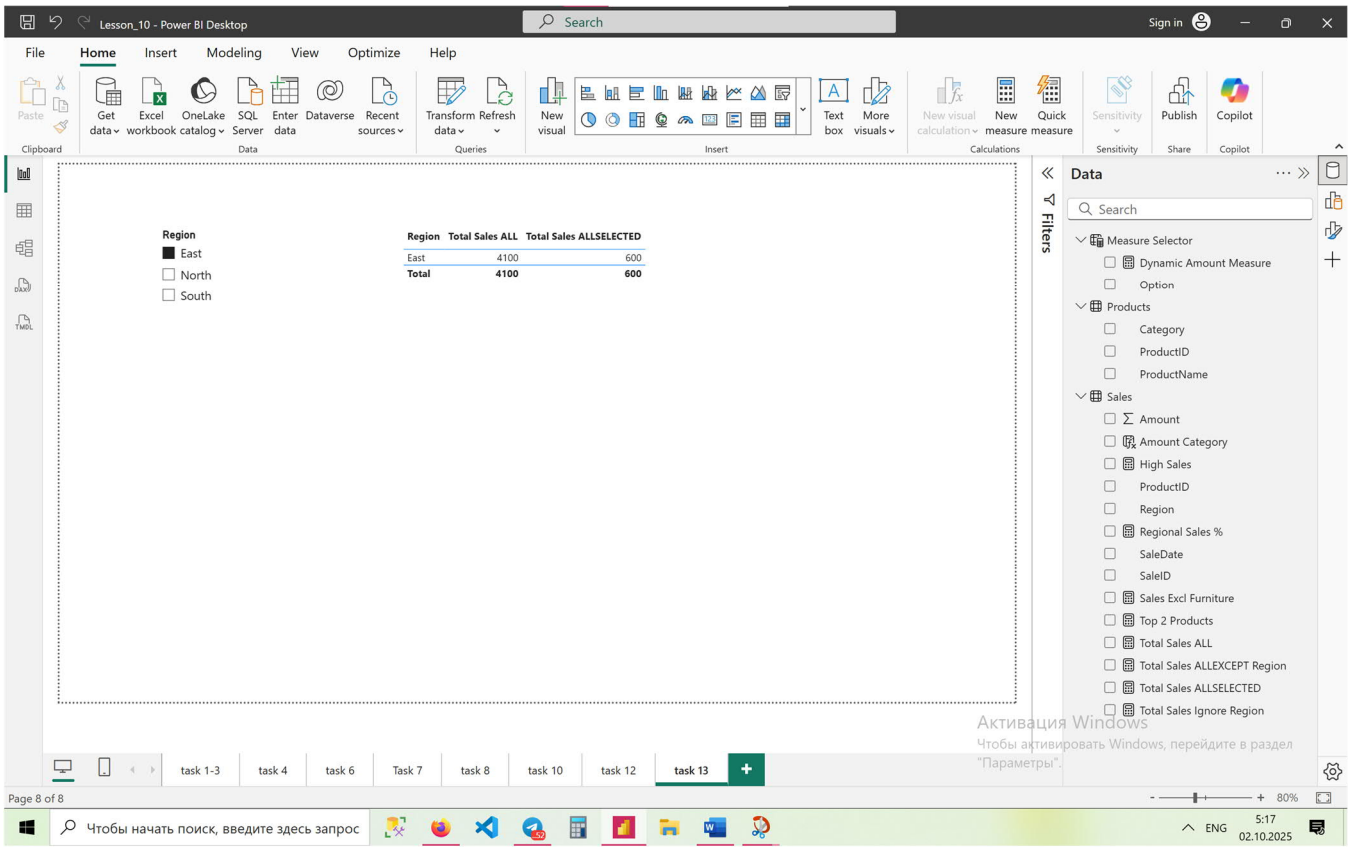

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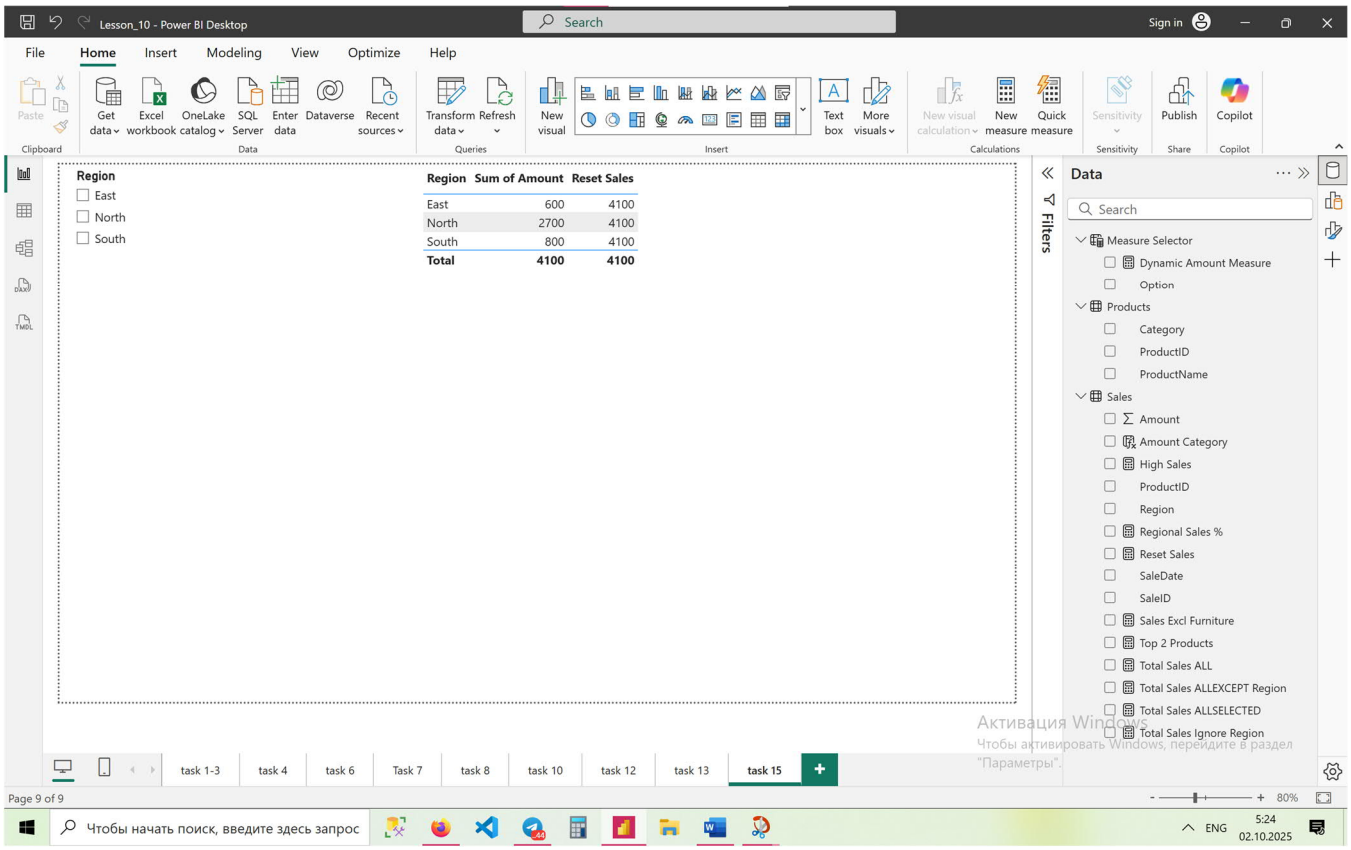
14. Debug: A SWITCH measure returns incorrect values when fields are added to a matrix visual.

This happens because SWITCH with SELECTEDVALUE may return BLANK when multiple values exist in the current context. To fix it, use HASONEVALUE or add a default case in SWITCH to handle multiple contexts.

---

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

```
Reset Sales =
CALCULATE(
    SUM(Sales[Amount]),
    ALL(Sales)
)
```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North 2700 4100
South 800 4100
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Top 2 Products
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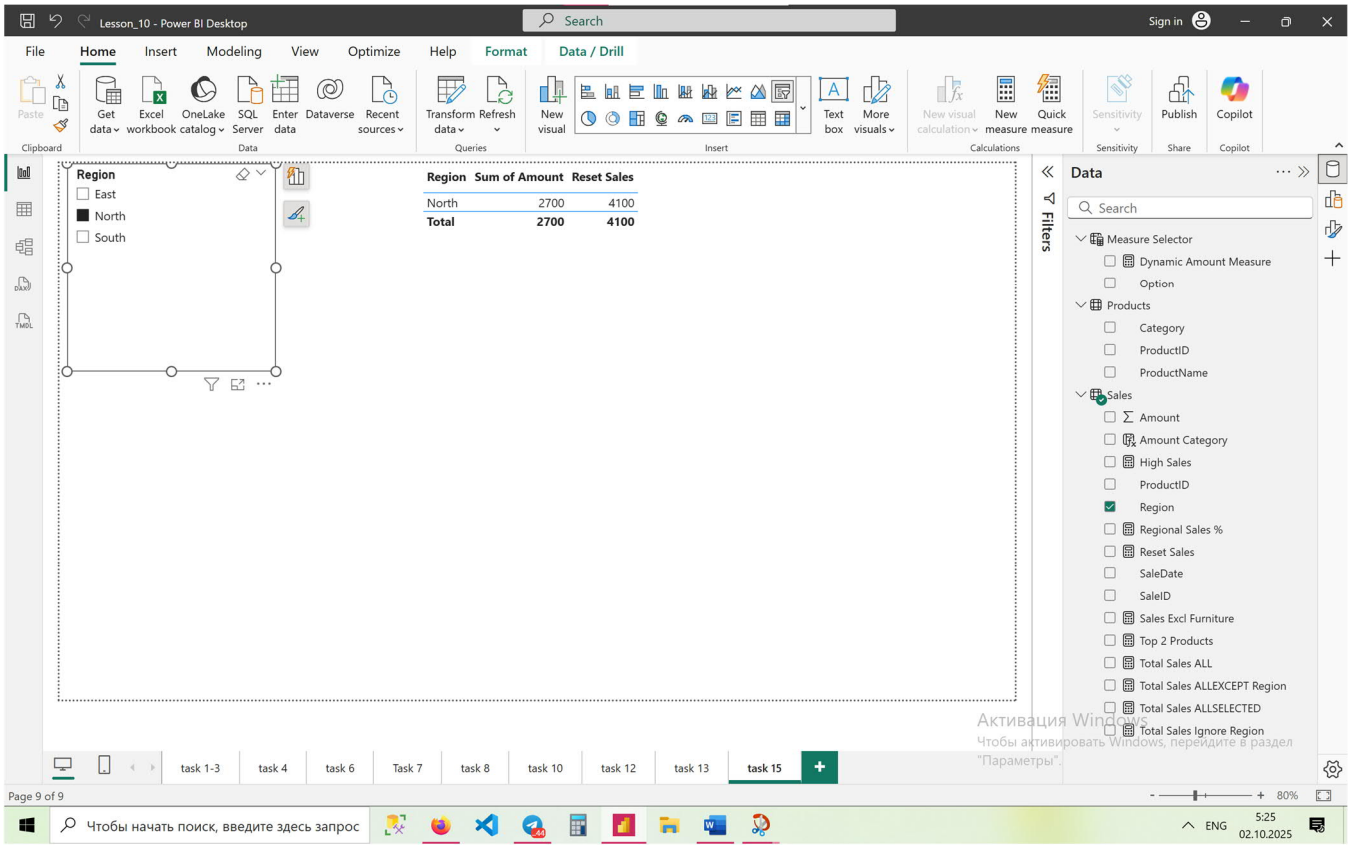
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Region Sum of Amount Reset Sales
North 2700 4100
Total 2700 4100
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Measure Selector
Dynamic Amount Measure
Option
Products
Category
ProductID
ProductName
Sales
Amount
Amount Category
High Sales
ProductID
Region
Regional Sales %
Reset Sales
SaleDate
SaleID
Sales Excl Furniture
Top 2 Products
Total Sales ALL
Total Sales ALLEXCEPT Region
Total Sales ALLSELECTED
Total Sales Ignore Region
Filters
task 1-3
task 4
task 6
Task 7
task 8
task 10
task 12
task 13
task 15
Page 9 of 9
80%
Чтобы начать поиск, введите здесь запрос
ENG
5:25
02.10.2025