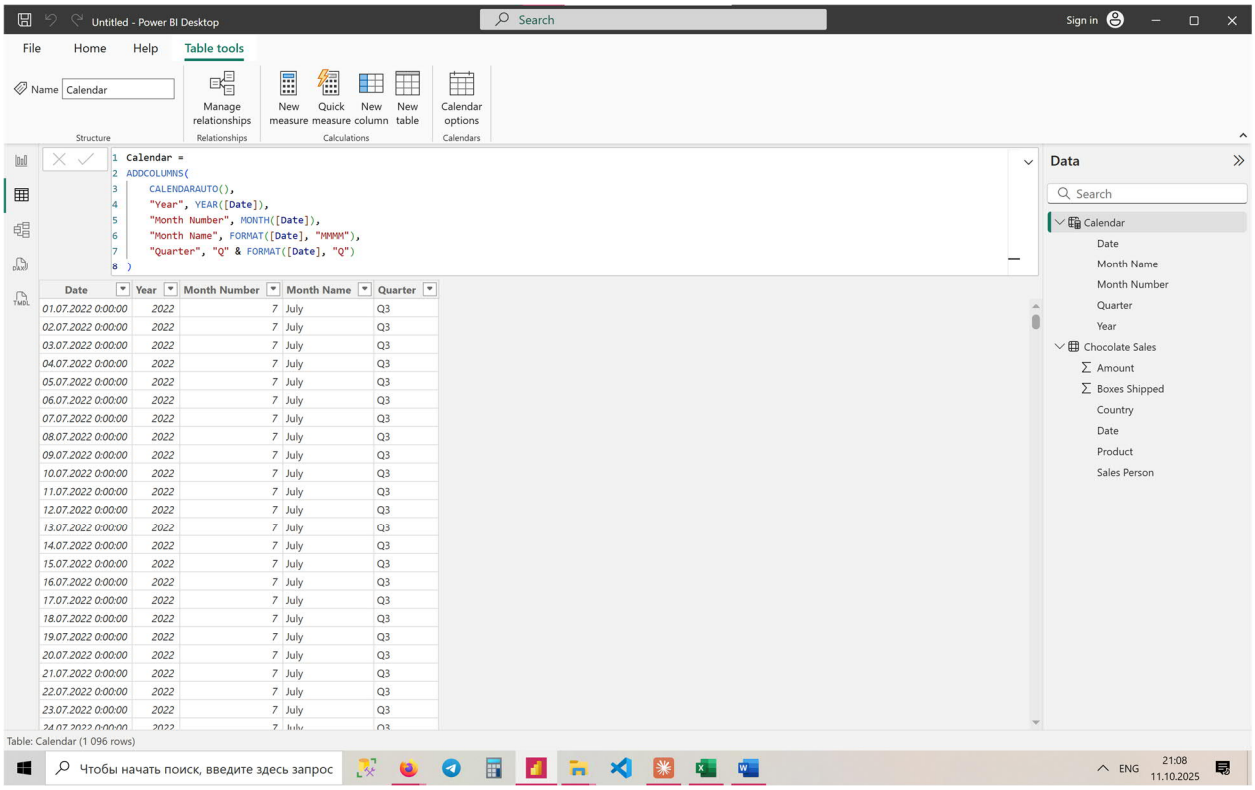
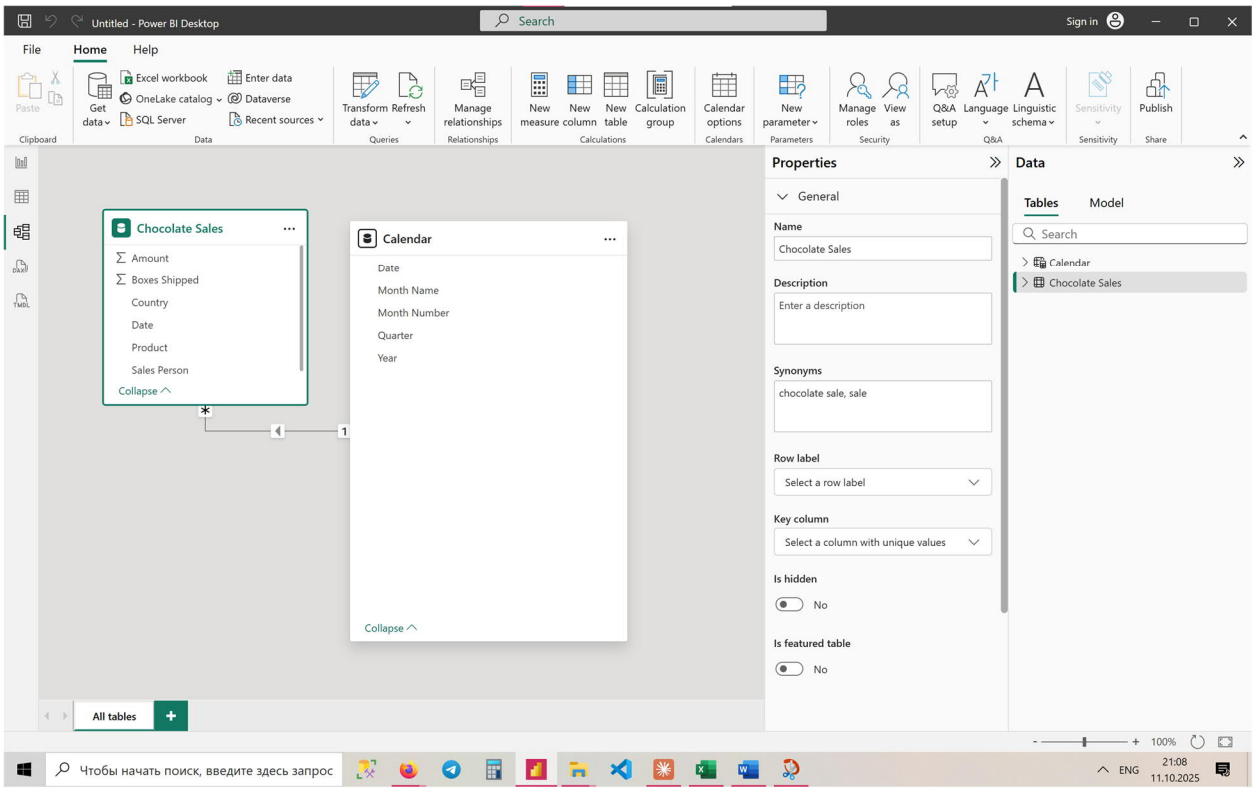
Lesson 13

Topic: Introduce time-based calculations.

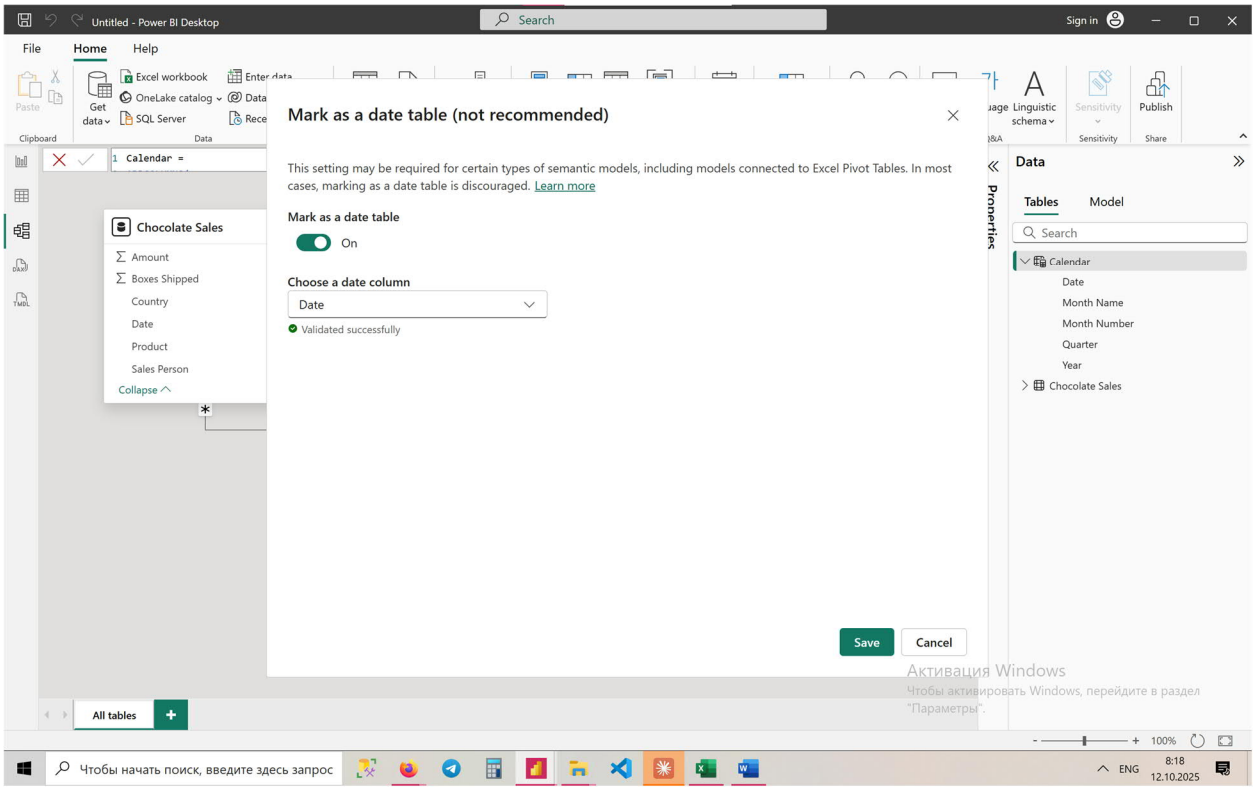
Prerequisites: Download Chocolate Sales.csv file and disable Auto DateTime options by Options in Current File and create new DATE table by using Calendarauto and Format functions.



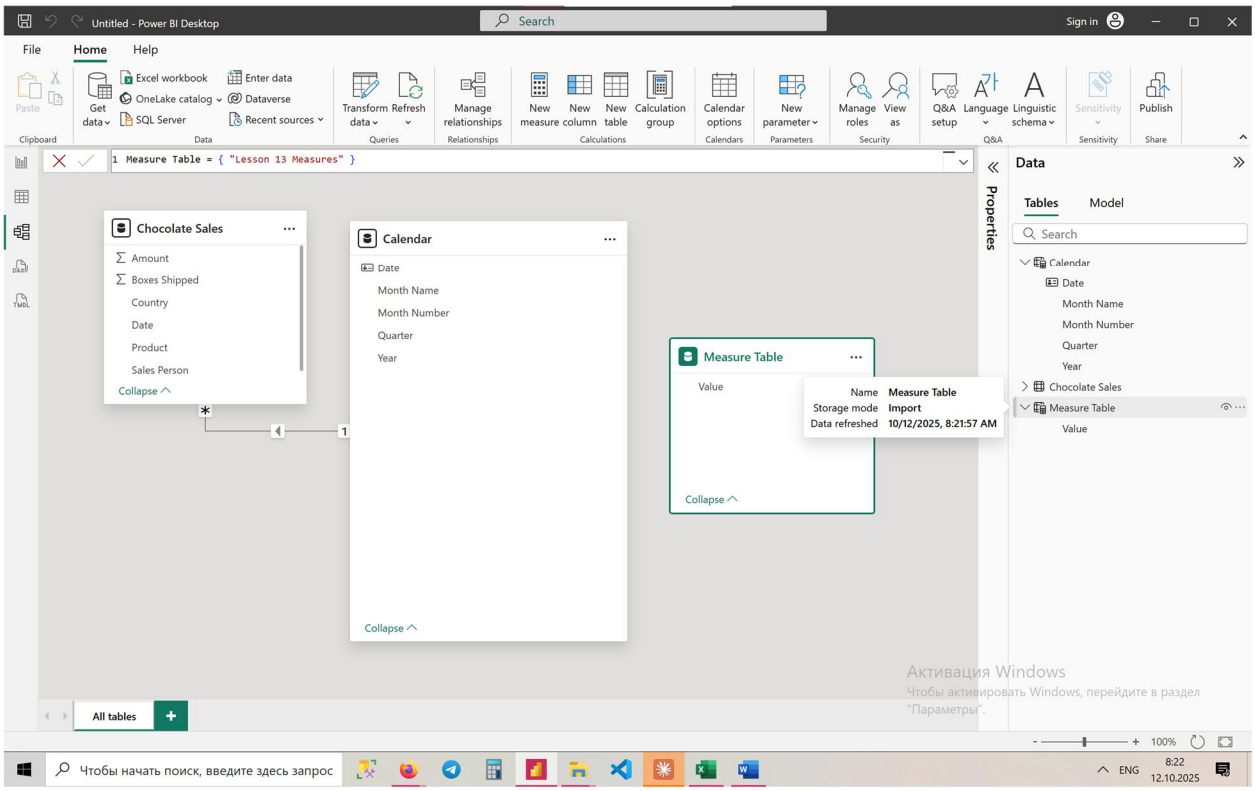
New table – Calendar



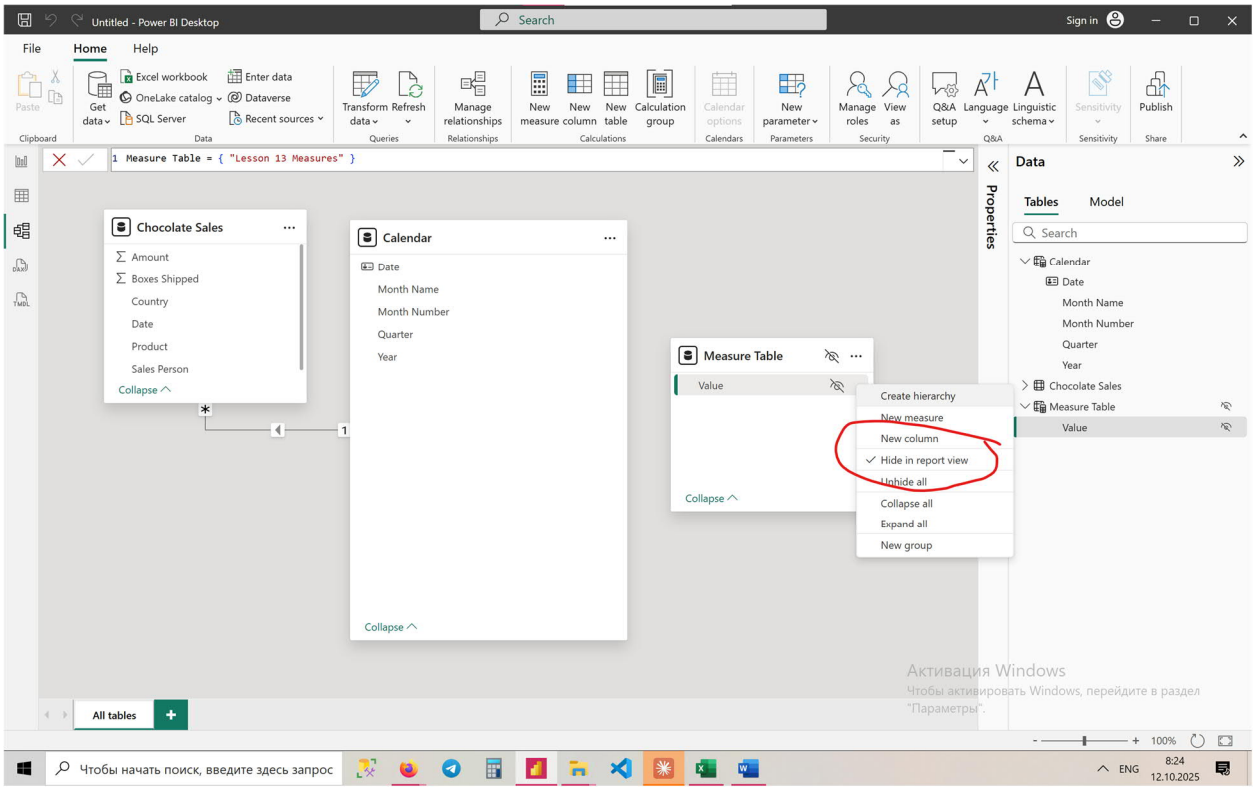
Connection by Date between 2 tables



Marking as a date table



Creating a new table only for measures

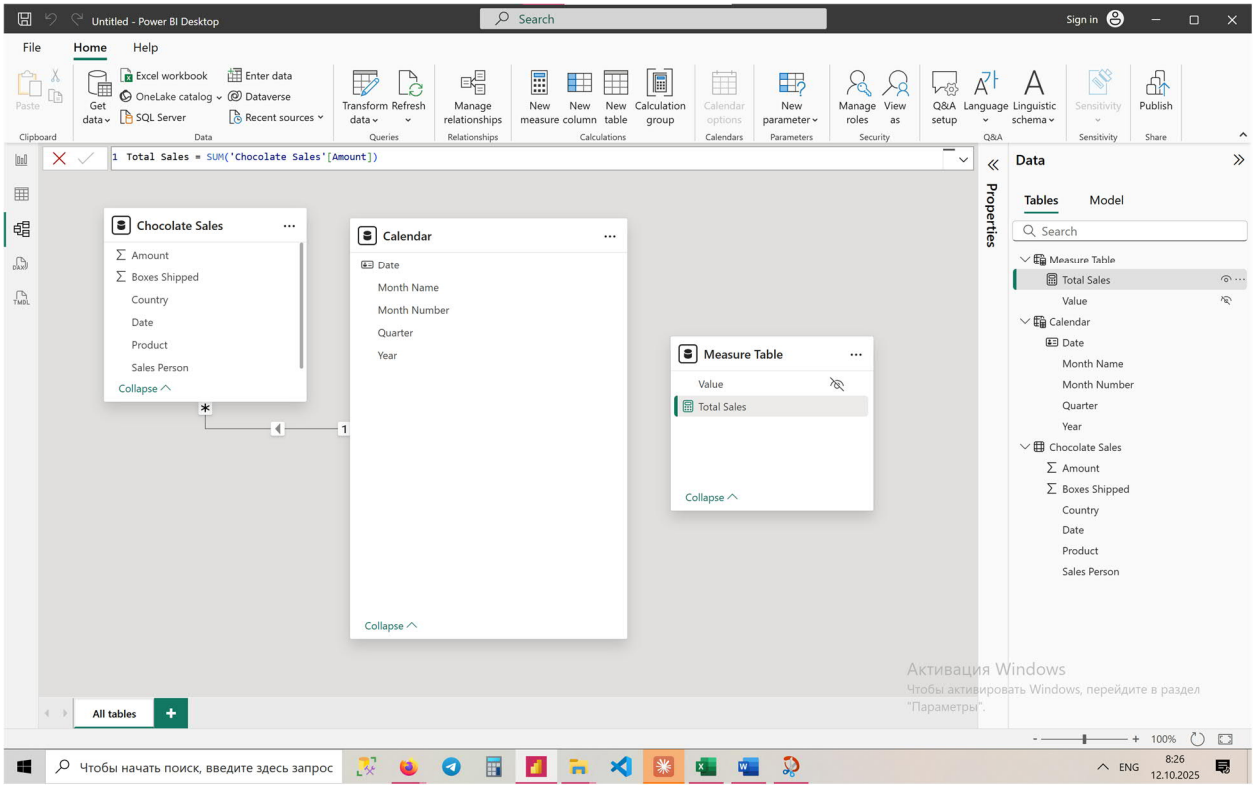


We should hide it

🟢⚫ASIC LEVEL (1–5)

1 Total Sales

Total Sales = SUM('Chocolate Sales'[Amount])



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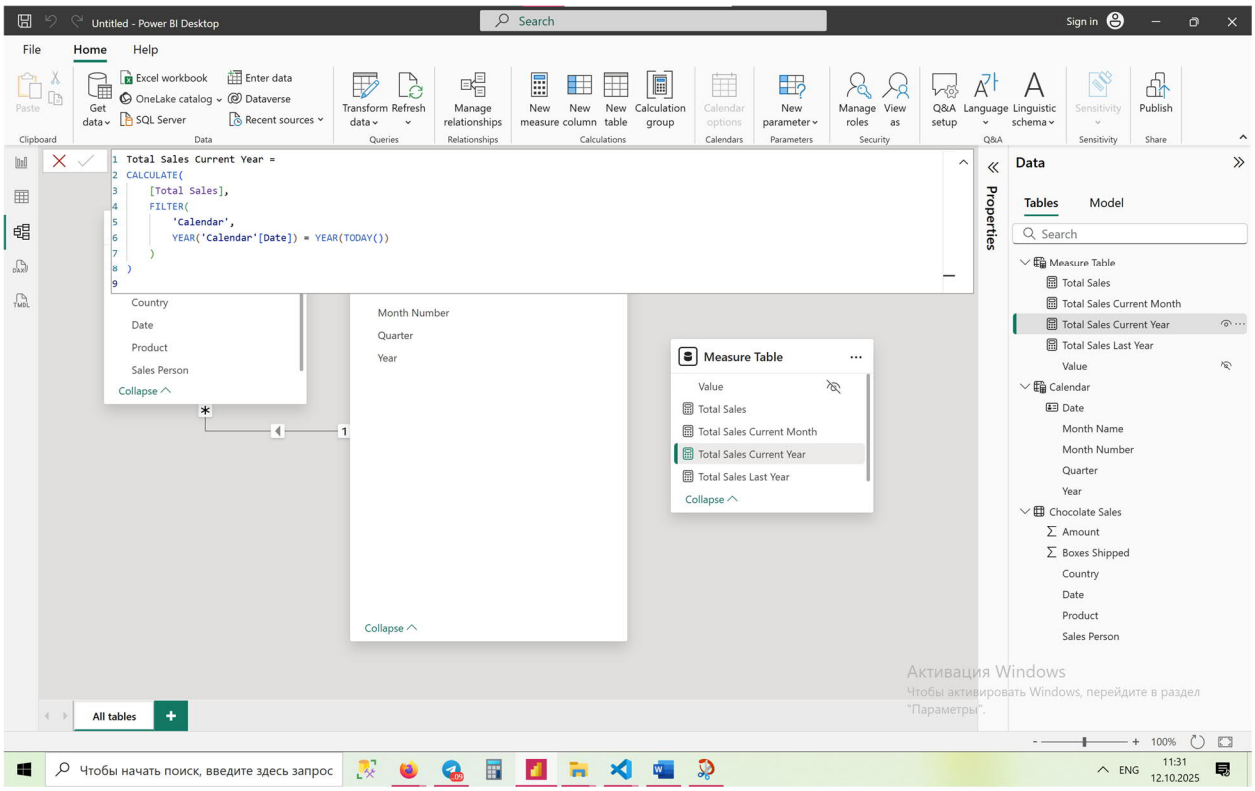
2. Total Sales — Current Year

```
Total Sales Current Year =
CALCULATE(
    [Total Sales],
    FILTER(
        'Calendar',
        YEAR('Calendar'[Date]) = YEAR(TODAY())
    )
)
```



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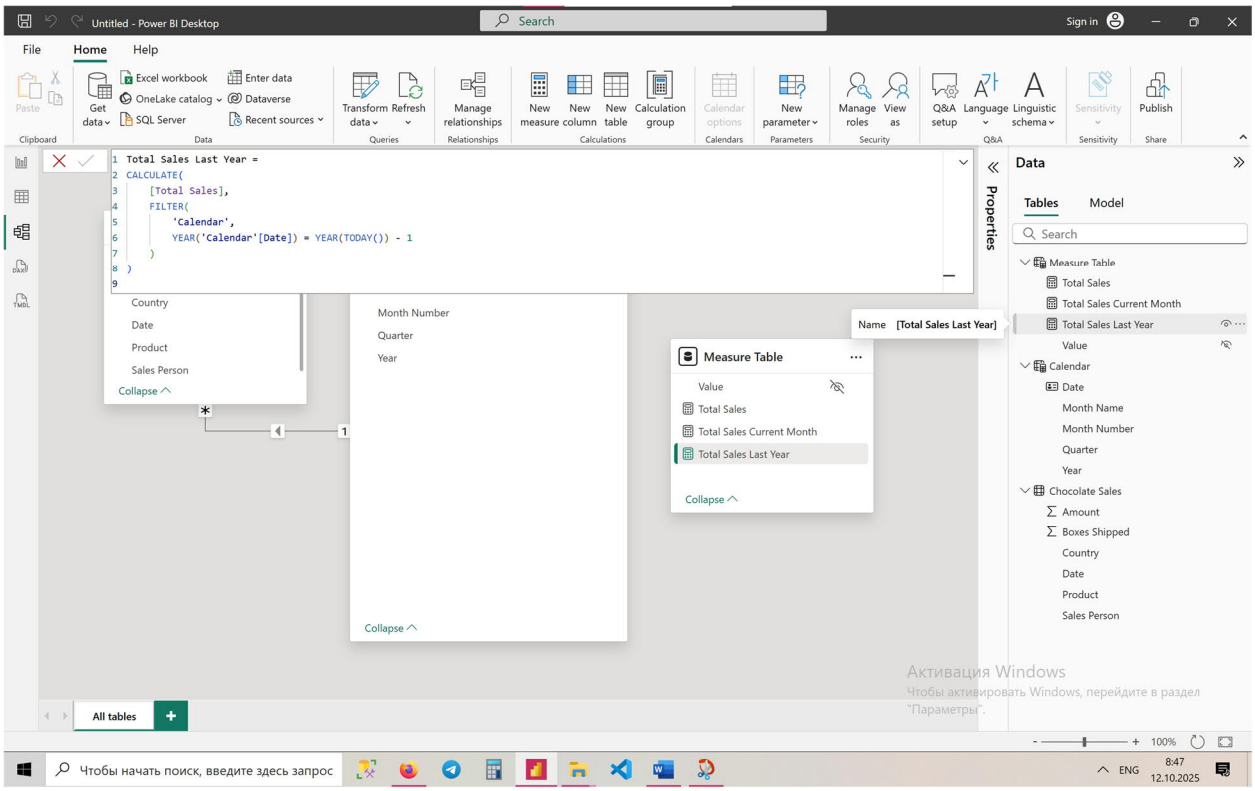
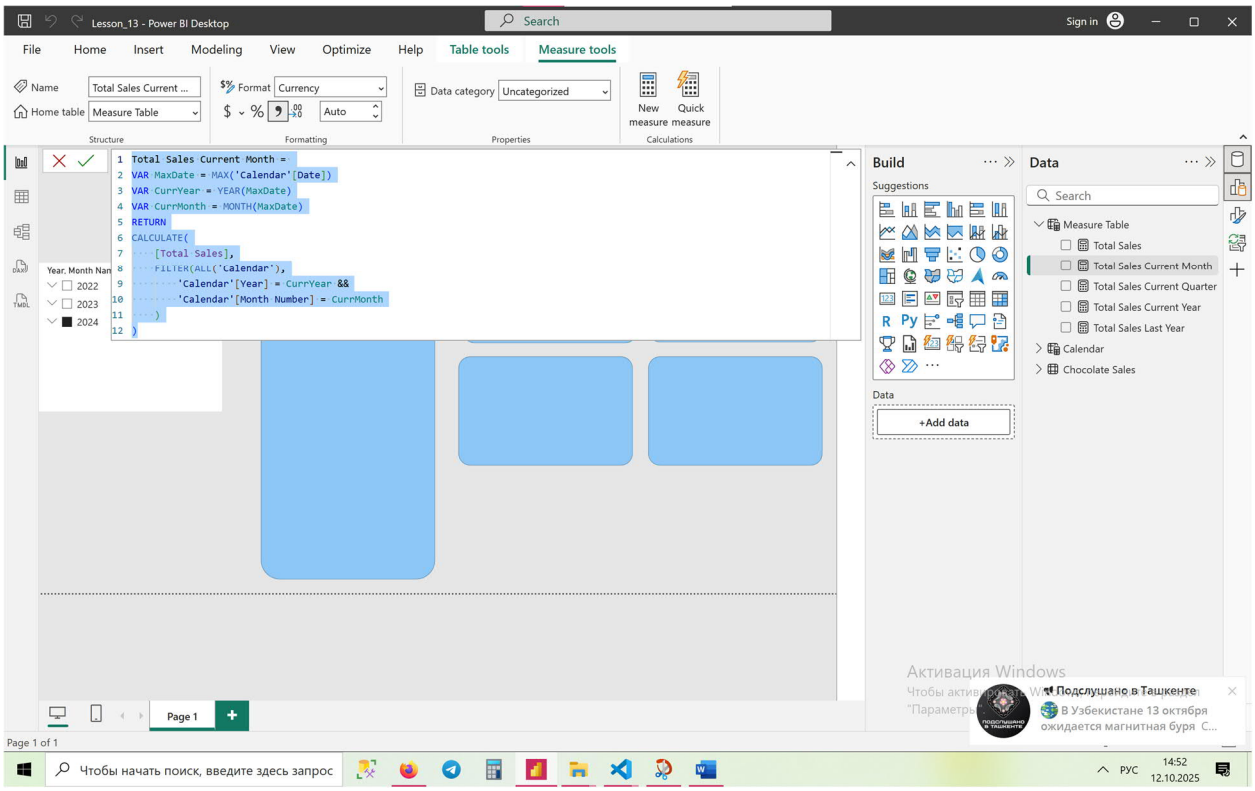
3. **Total Sales — Last Year**

```
Total Sales Last Year =
CALCULATE(
    [Total Sales],
    FILTER(
        'Calendar',
        YEAR('Calendar'[Date]) = YEAR(TODAY()) - 1
    )
)
```



4. Total Sales — Current Month

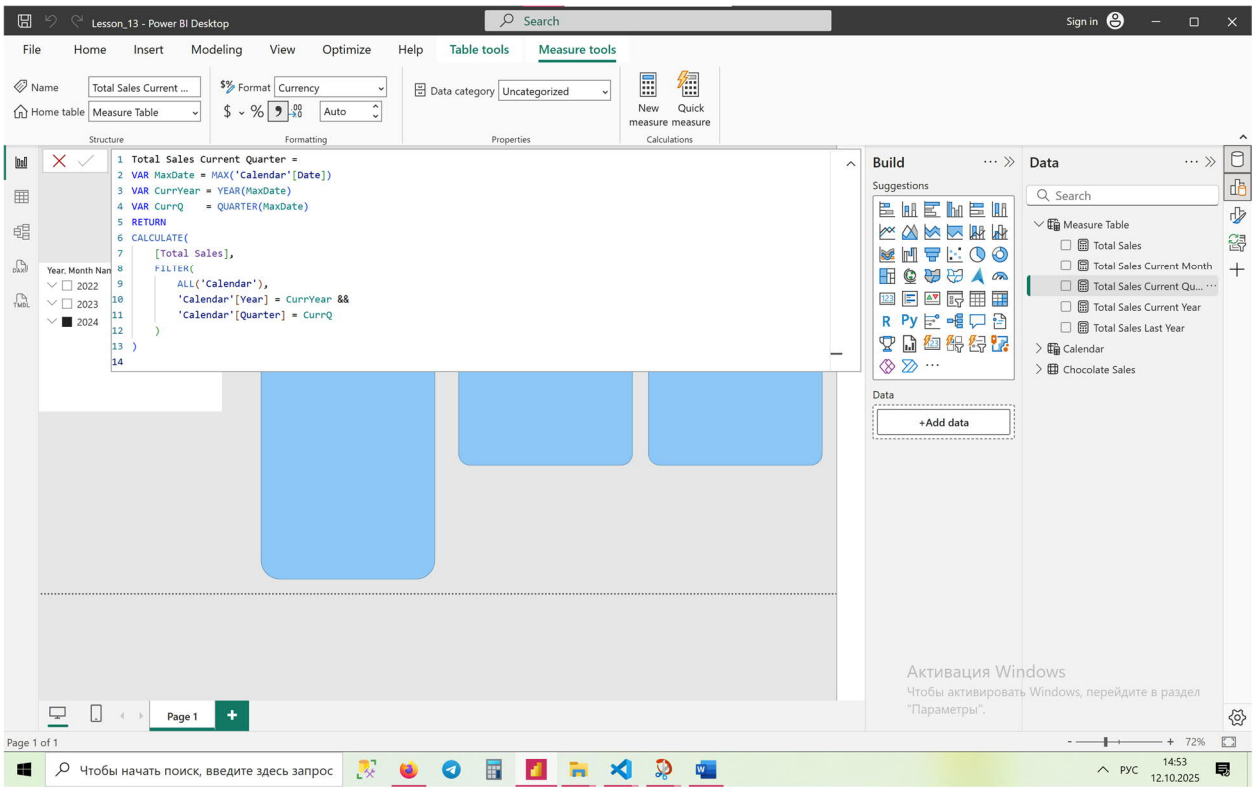
```
Total Sales Current Month =
VAR MaxDate = MAX('Calendar'[Date])
VAR CurrYear = YEAR(MaxDate)
VAR CurrMonth = MONTH(MaxDate)
RETURN
CALCULATE(
    [Total Sales],
    FILTER(ALL('Calendar'),
        'Calendar'[Year] = CurrYear &&
        'Calendar'[Month Number] = CurrMonth
    )
)
```



5. Create a measure to calculate total sales for the **current quarter.**

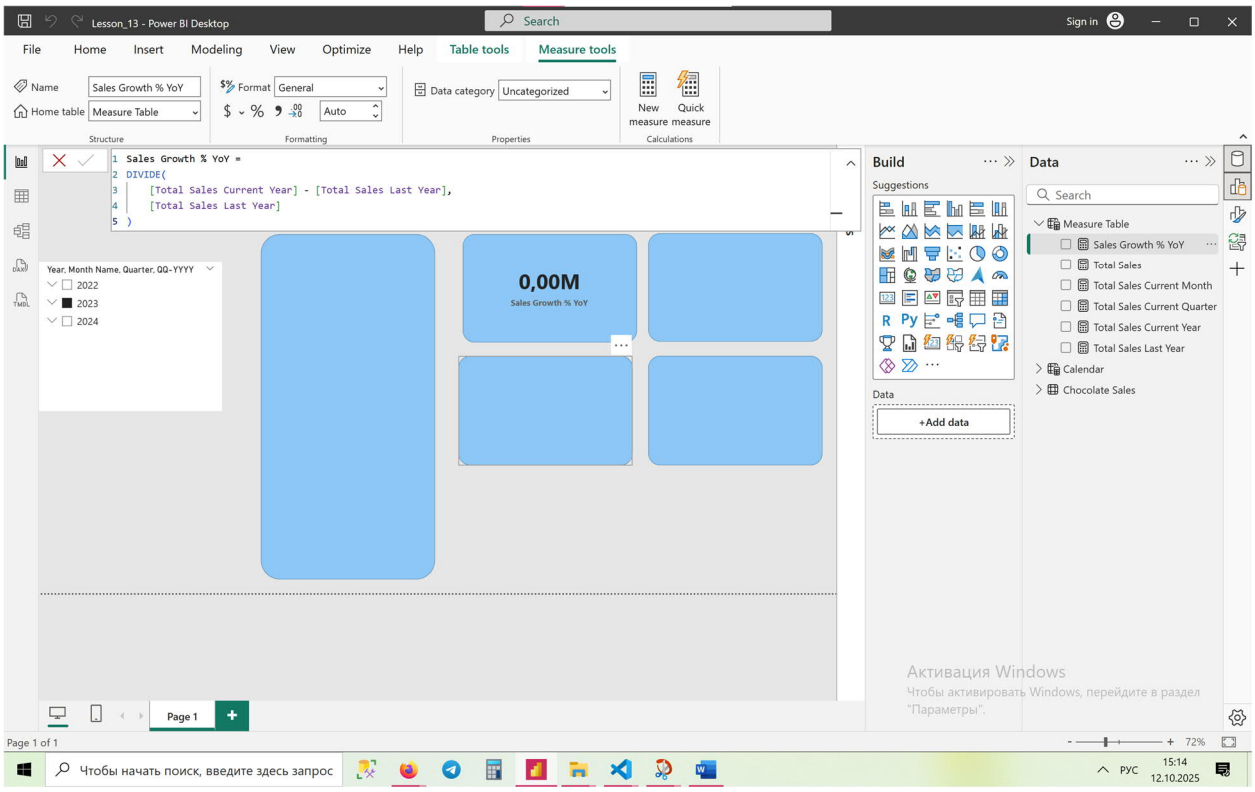
Total Sales Current Quarter =

```
VAR MaxDate = MAX('Calendar'[Date])
VAR CurrYear = YEAR(MaxDate)
VAR CurrQ    = QUARTER(MaxDate)
RETURN
CALCULATE(
    [Total Sales],
    FILTER(
        ALL('Calendar'),
        'Calendar'[Year] = CurrYear &&
        'Calendar'[Quarter] = CurrQ
    )
)
```



Intermediate (6–10)

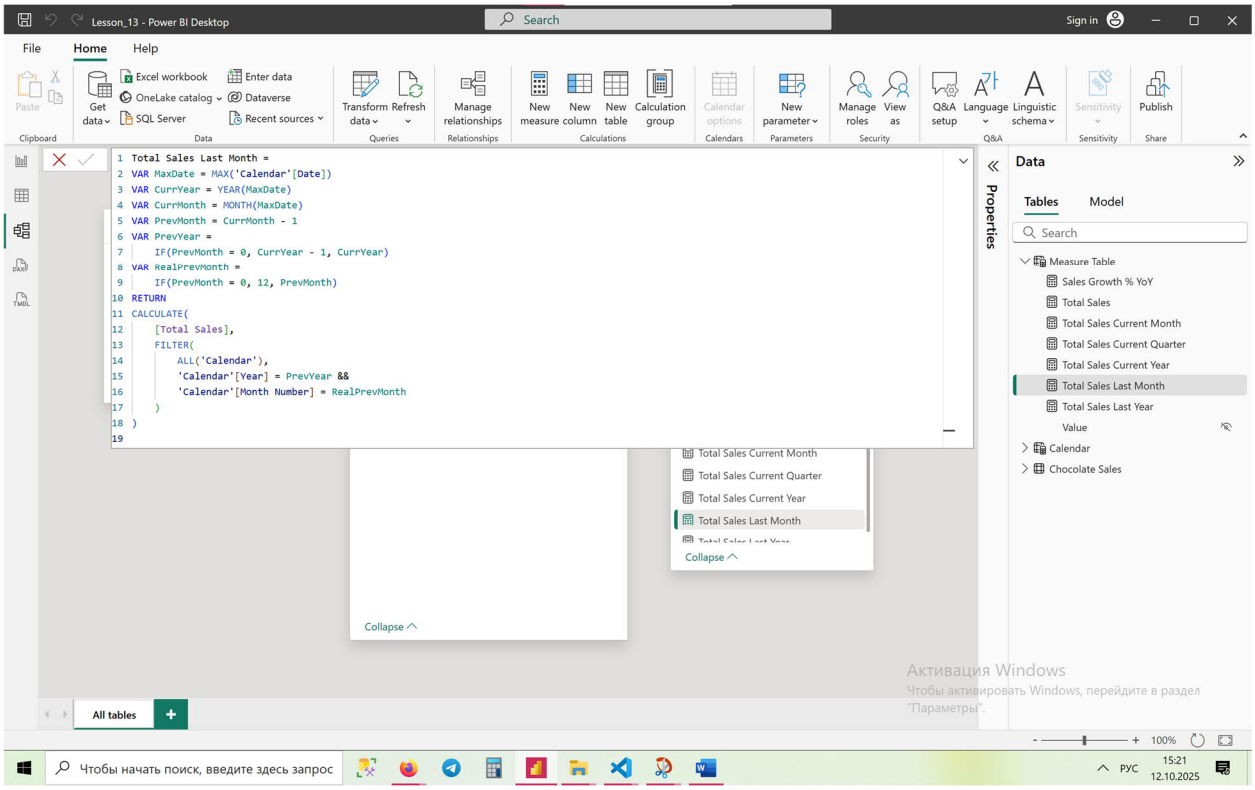
6. Sales Growth % Compared to Last Year (%YoY)



7. Create a measure to calculate to retrieve sales from the last month.

Total Sales Last Month =

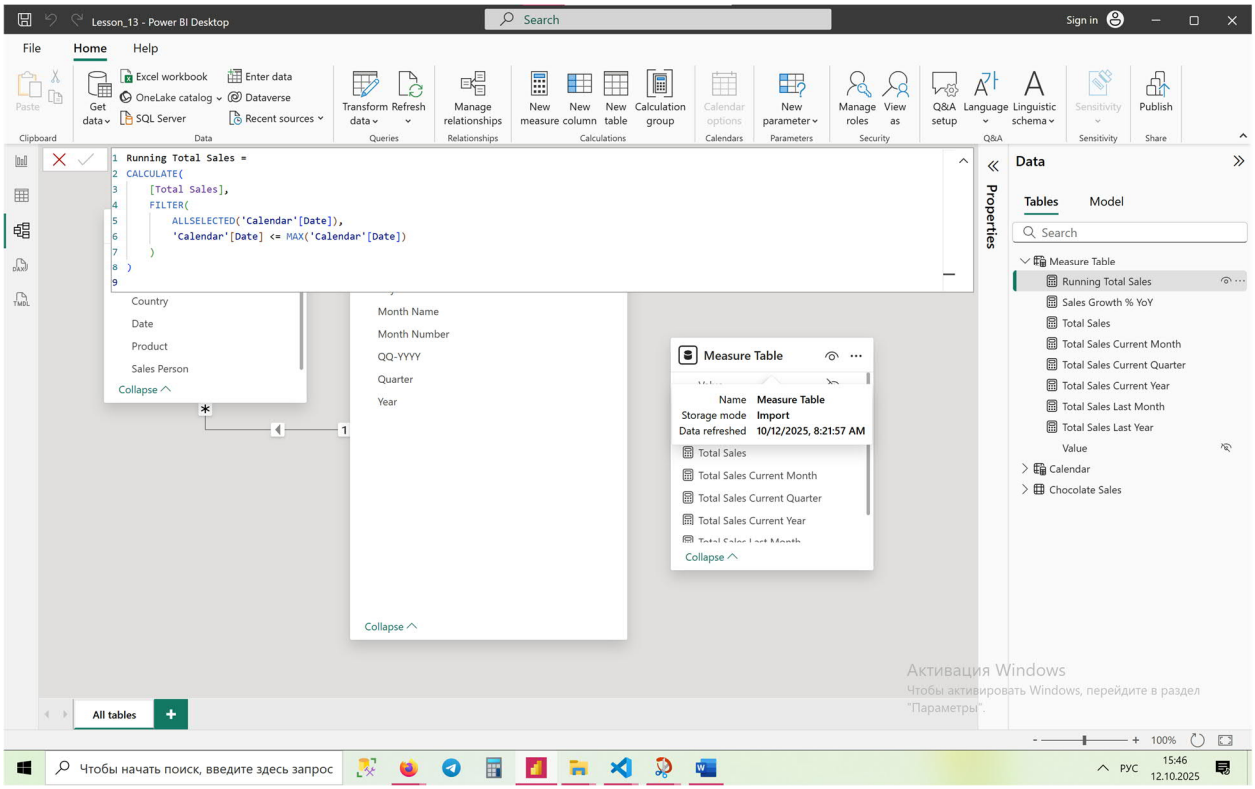
```
VAR MaxDate = MAX('Calendar'[Date])
VAR CurrYear = YEAR(MaxDate)
VAR CurrMonth = MONTH(MaxDate)
VAR PrevMonth = CurrMonth - 1
VAR PrevYear =
    IF(PrevMonth = 0, CurrYear - 1, CurrYear)
VAR RealPrevMonth =
    IF(PrevMonth = 0, 12, PrevMonth)
RETURN
CALCULATE(
    [Total Sales],
    FILTER(
        ALL('Calendar'),
        'Calendar'[Year] = PrevYear &&
        'Calendar'[Month Number] = RealPrevMonth
    )
)
```



8. Create a measure to calculate a running total of sales using

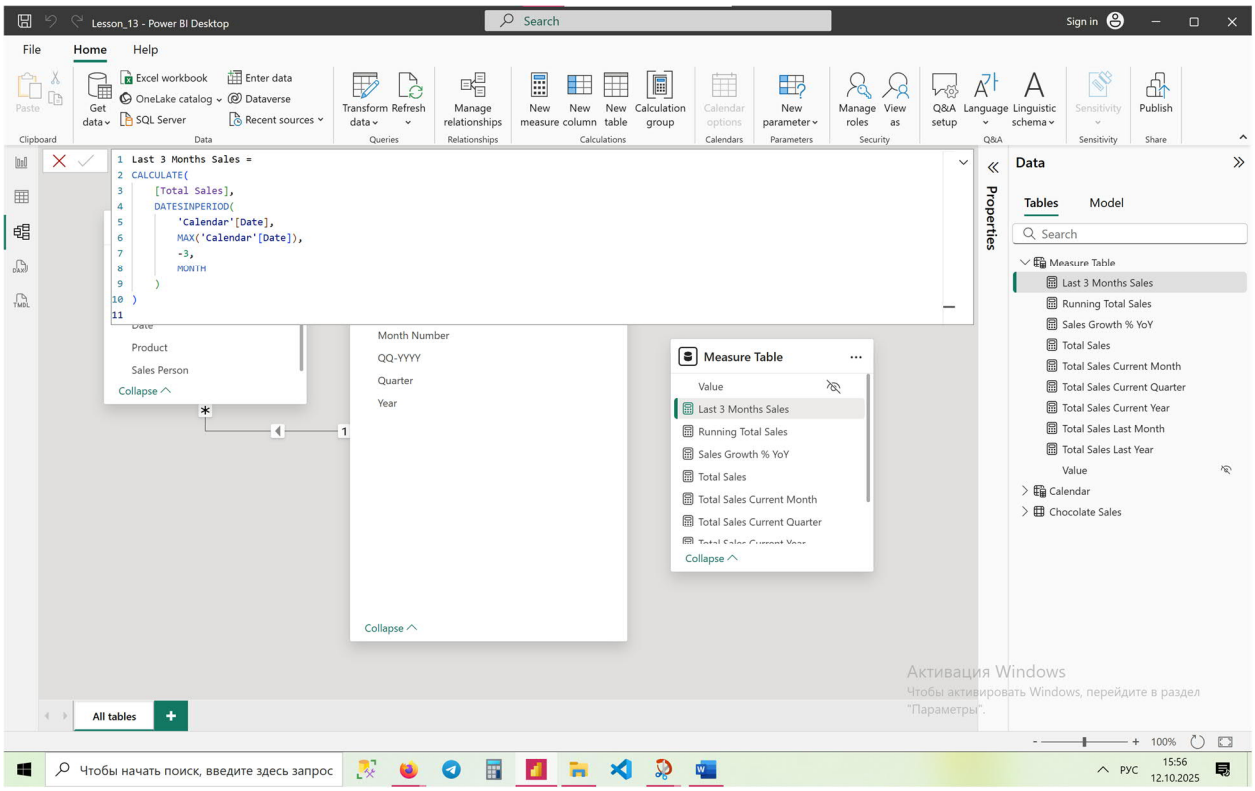
```
Running Total Sales =
CALCULATE(
    [Total Sales],
```

```
    FILTER(
        ALLSELECTED('Calendar'[Date]),
        'Calendar'[Date] <= MAX('Calendar'[Date])
    )
)
```



9. Create a measure to compute sales for the last 3 months.

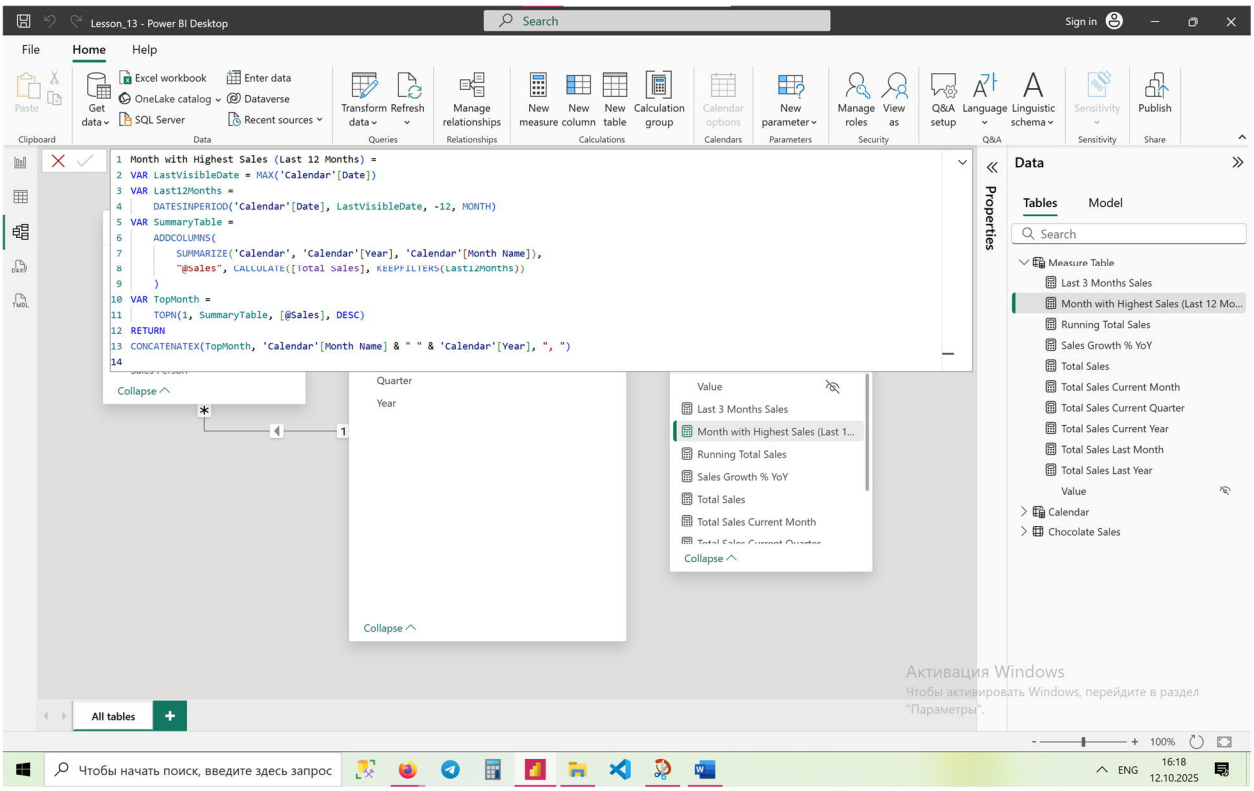
```
Last 3 Months Sales =
VAR LastVisibleDate = MAX('Calendar'[Date])
RETURN
CALCULATE(
    [Total Sales],
    FILTER(
        ALL('Calendar'),
        'Calendar'[Date] <= LastVisibleDate &&
        'Calendar'[Date] > EDATE(LastVisibleDate, -3)
    )
)
```



10. Create a measure to identify the month with the highest sales in the previous 12 months.

Month with Highest Sales (Last 12 Months) =

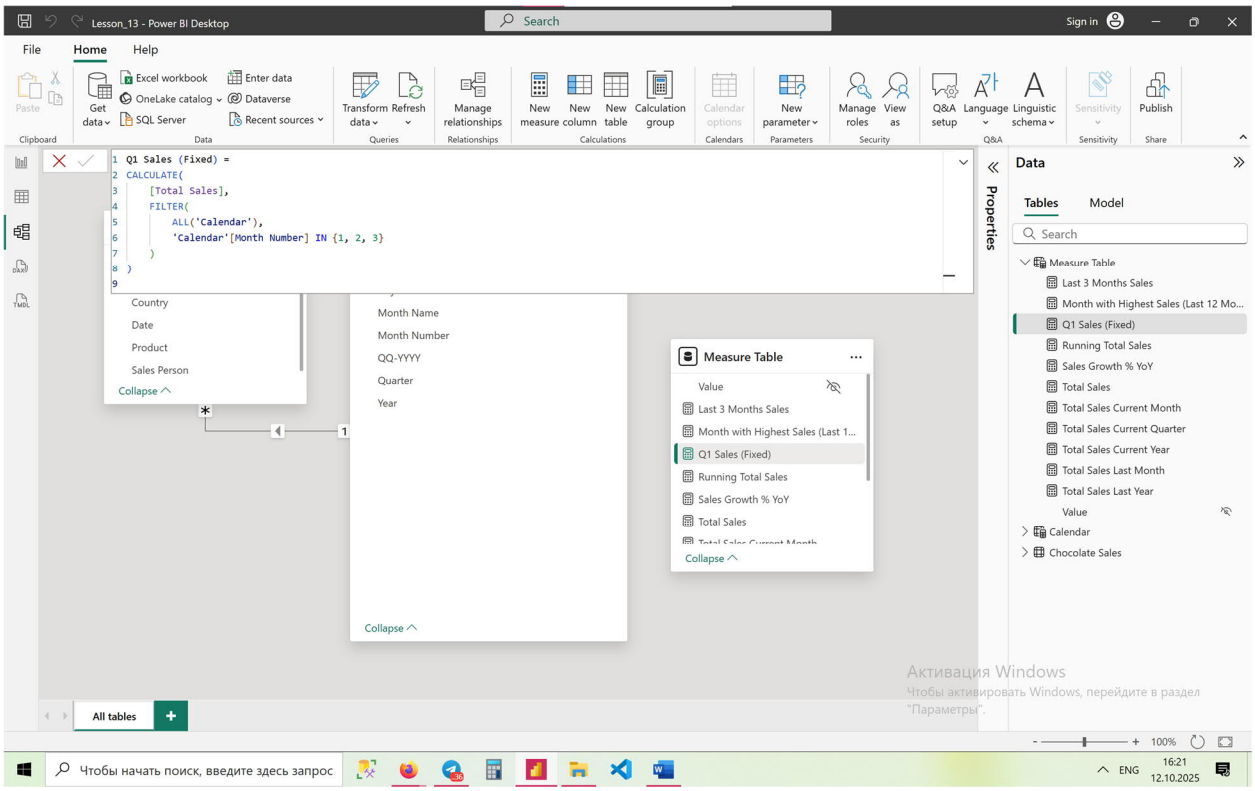
```
VAR LastVisibleDate = MAX('Calendar'[Date])
VAR Last12Months =
    DATESINPERIOD('Calendar'[Date], LastVisibleDate, -12, MONTH)
VAR SummaryTable =
    ADDCOLUMNS(
        SUMMARIZE('Calendar', 'Calendar'[Year], 'Calendar'[Month Name]),
        "@Sales", CALCULATE([Total Sales], KEEPFILTERS(Last12Months))
    )
VAR TopMonth =
    TOPN(1, SummaryTable, [@Sales], DESC)
RETURN
CONCATENATEX(TopMonth, 'Calendar'[Month Name] & " " & 'Calendar'[Year],
", ")
```



Advanced (11–15)

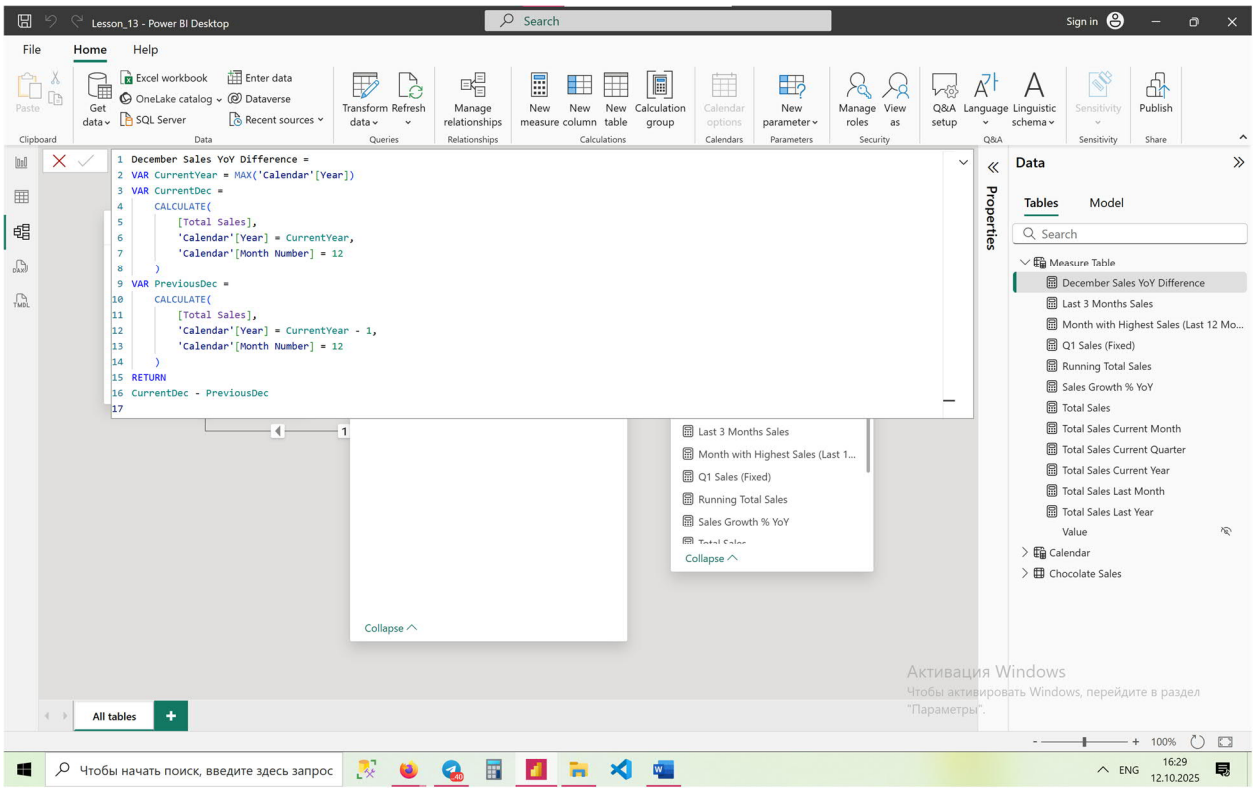
11. Create a measure to compare Q1 Sales of Each Year. Use time intelligence functions with filters to isolate and compare Q1 across years.

```
Q1 Sales (Fixed) =
CALCULATE(
    [Total Sales],
    FILTER(
        ALL('Calendar'),
        'Calendar'[Month Number] IN {1, 2, 3}
    )
)
```



12. Create a measure to Show YoY Difference Only for December.

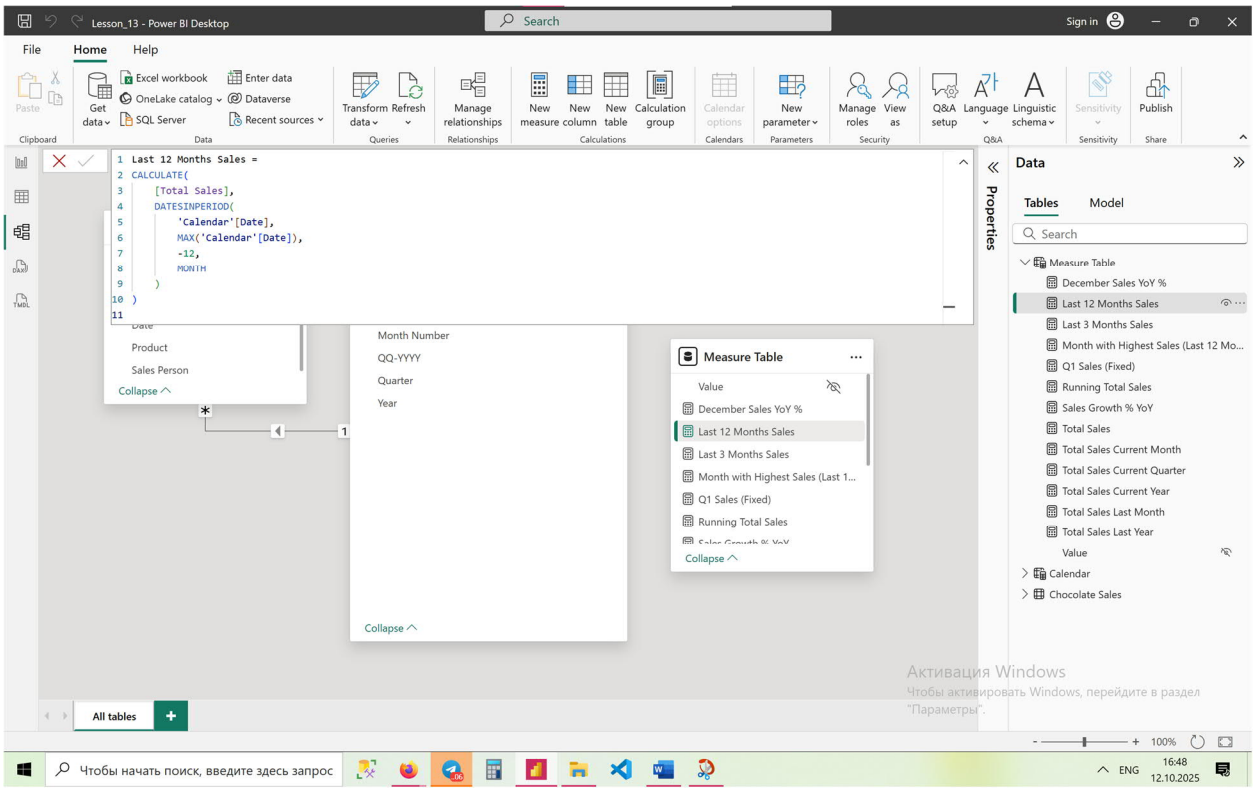
```
December Sales YoY Difference =
VAR CurrentYear = MAX('Calendar'[Year])
VAR CurrentDec =
    CALCULATE(
        [Total Sales],
        'Calendar'[Year] = CurrentYear,
        'Calendar'[Month Number] = 12
    )
VAR PreviousDec =
    CALCULATE(
        [Total Sales],
        'Calendar'[Year] = CurrentYear - 1,
        'Calendar'[Month Number] = 12
    )
RETURN
CurrentDec - PreviousDec
```



13. Create a measure that sums the last 12 months using.

Last 12 Months Sales =

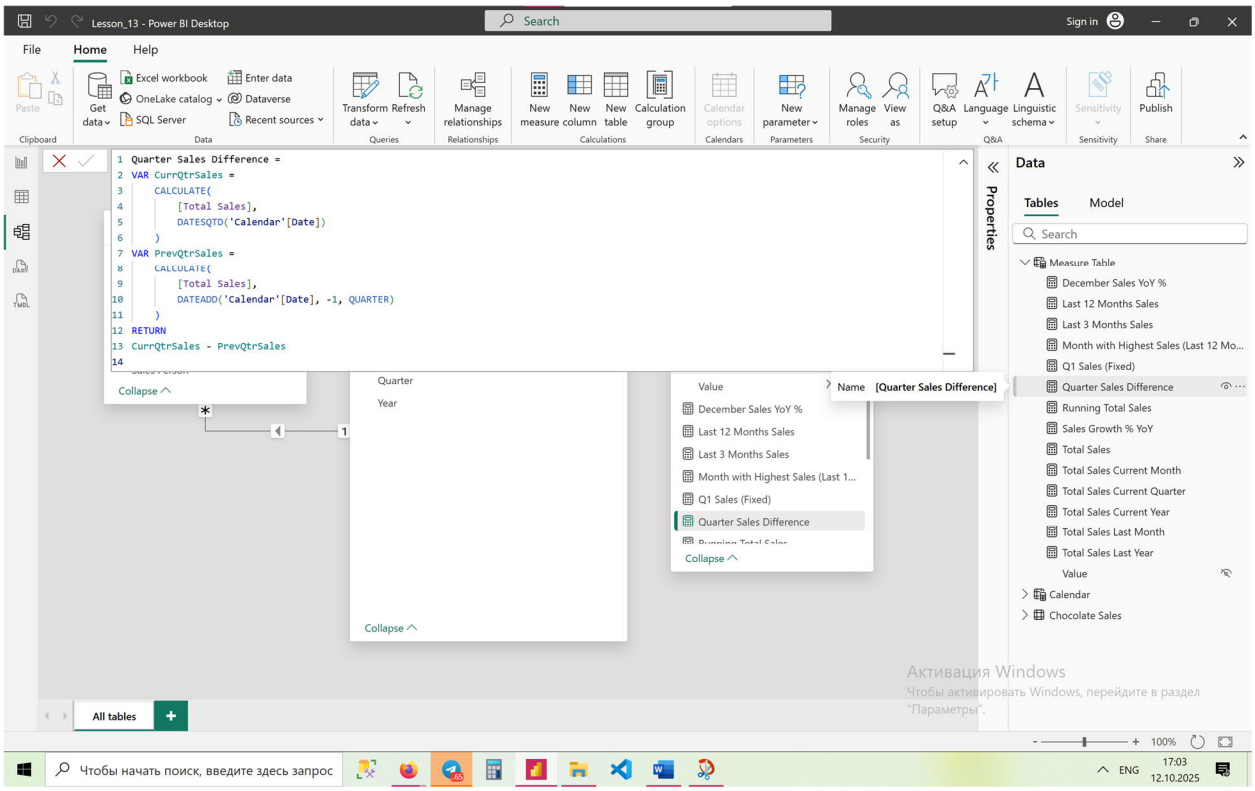
```
CALCULATE(
    [Total Sales],
    DATESINPERIOD(
        'Calendar'[Date],
        MAX('Calendar'[Date]),
        -12,
        MONTH
    )
)
```



14. Create a measure to identify sales Difference Between Current Quarter and Previous Quarter

Quarter Sales Difference =

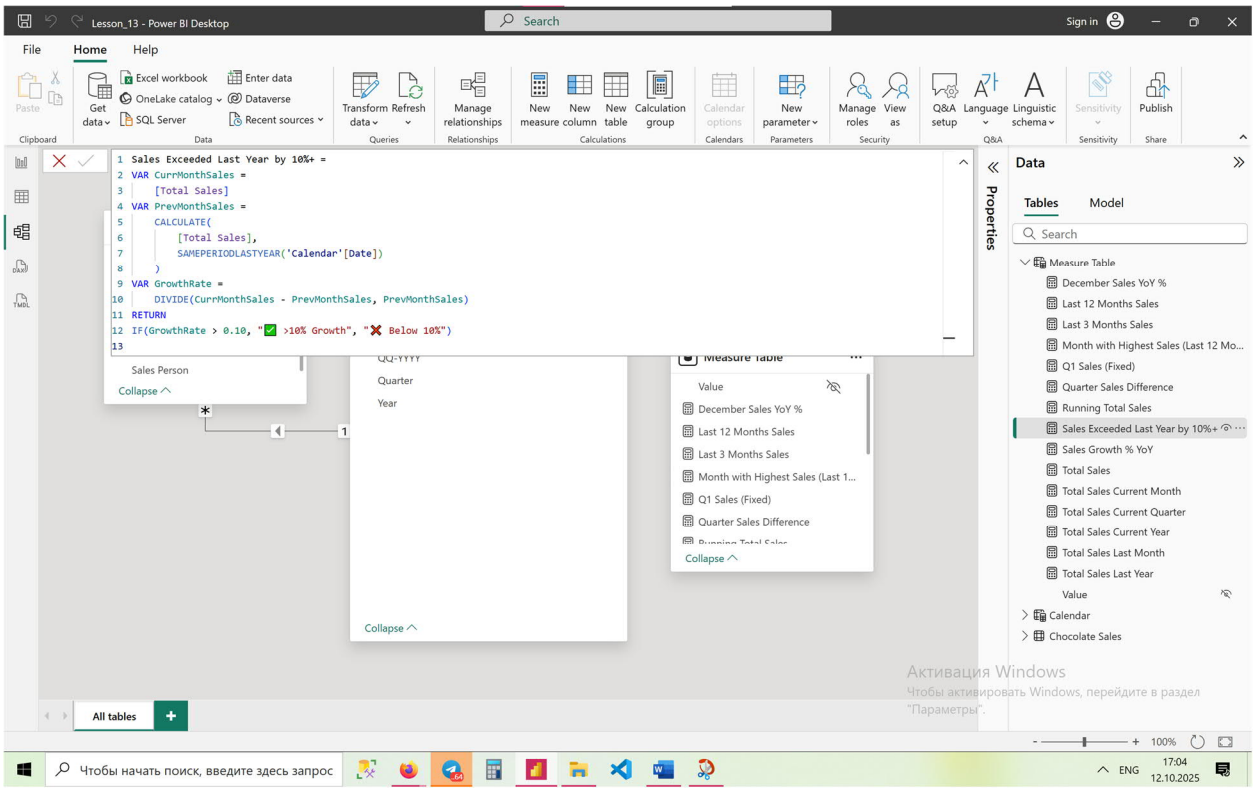
```
VAR CurrQtrSales =
    CALCULATE(
        [Total Sales],
        DATESQTD('Calendar'[Date])
    )
VAR PrevQtrSales =
    CALCULATE(
        [Total Sales],
        DATEADD('Calendar'[Date], -1, QUARTER)
    )
RETURN
CurrQtrSales – PrevQtrSales
```

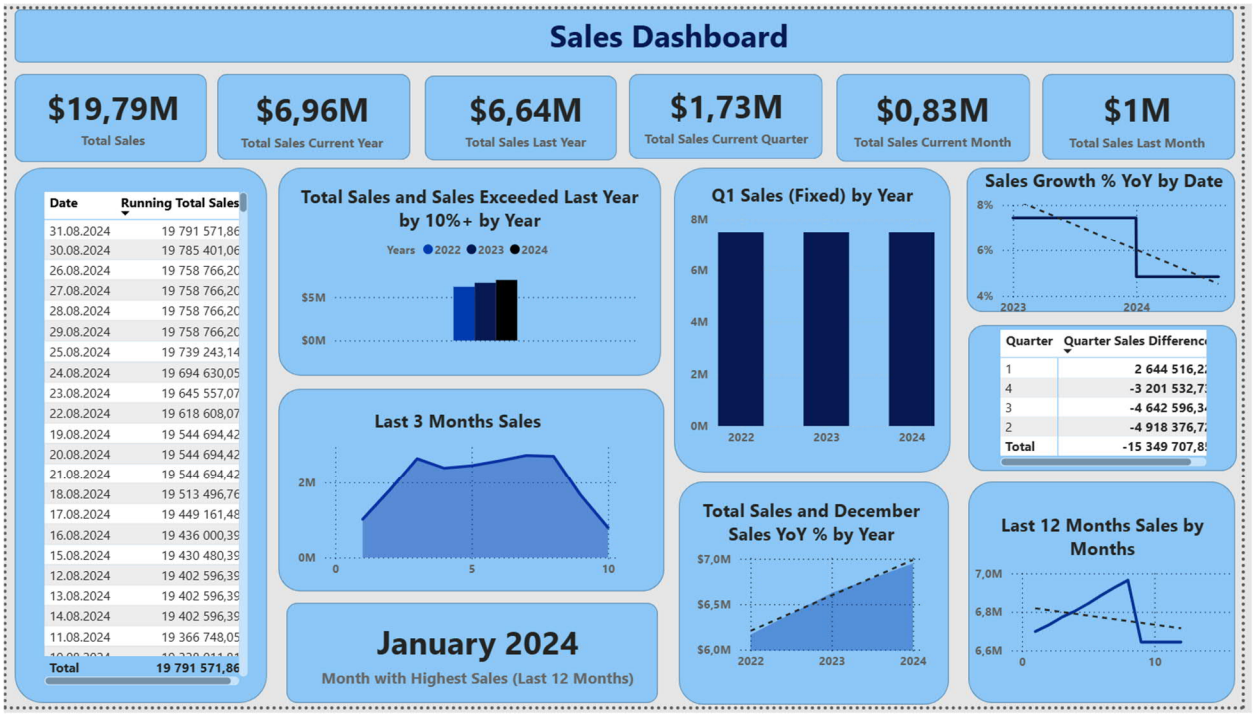


15. Create a measure to highlight Months Where Sales Exceeded Previous Year by 10%+
→ Compare monthly totals and return a flag when current > 110% of last year.

Sales Exceeded Last Year by 10%+ =

```
VAR CurrMonthSales =
    [Total Sales]
VAR PrevMonthSales =
    CALCULATE(
        [Total Sales],
        SAMEPERIODLASTYEAR('Calendar'[Date])
    )
VAR GrowthRate =
    DIVIDE(CurrMonthSales - PrevMonthSales, PrevMonthSales)
RETURN
IF(GrowthRate > 0.10, "✅ 10% Growth", "❌ Below 10%")
```


Lesson_13 - Power BI Desktop
Search
Sign in
File
Home
Help
Sales Exceeded Last Year by 10%+ =
VAR CurrMonthSales =
[Total Sales]
VAR PrevMonthSales =
CALCULATE(
[Total Sales],
SAMEPERIODLASTYEAR('Calendar'[Date])
)
VAR GrowthRate =
DIVIDE(CurrMonthSales - PrevMonthSales, PrevMonthSales)
RETURN
IF(GrowthRate > 0.10, "✅ >10% Growth", "❌ Below 10%")
Data
Tables
Model
Search
Sales Person
Collapse
Quarter
Year
Value
December Sales YoY %
Last 12 Months Sales
Last 3 Months Sales
Month with Highest Sales (Last 1...
Q1 Sales (Fixed)
Quarter Sales Difference
Sales Exceeded Last Year by 10%+
Sales Growth % YoY
Total Sales
Total Sales Current Month
Total Sales Current Quarter
Total Sales Current Year
Total Sales Last Month
Total Sales Last Year
Calendar
Chocolate Sales
All tables
Активация Windows
Чтобы активировать Windows, перейдите в раздел "Параметры".
Чтобы начать поиск, введите здесь запрос
ENG
17:04
12.10.2025


Sales Dashboard
$19,79M
Total Sales
$6,96M
Total Sales Current Year
$6,64M
Total Sales Last Year
$1,73M
Total Sales Current Quarter
$0,83M
Total Sales Current Month
$1M
Total Sales Last Month
Date
Running Total Sales
31.08.2024 19 791 571,86
30.08.2024 19 785 401,06
26.08.2024 19 758 766,20
27.08.2024 19 758 766,20
28.08.2024 19 758 766,20
29.08.2024 19 758 766,20
25.08.2024 19 739 243,14
24.08.2024 19 694 630,05
23.08.2024 19 645 557,07
22.08.2024 19 618 608,07
19.08.2024 19 544 694,42
20.08.2024 19 544 694,42
21.08.2024 19 544 694,42
18.08.2024 19 513 496,76
17.08.2024 19 449 161,48
16.08.2024 19 436 000,39
15.08.2024 19 430 480,39
12.08.2024 19 402 596,39
13.08.2024 19 402 596,39
14.08.2024 19 402 596,39
11.08.2024 19 366 748,05
Total 19 791 571,86
Total Sales and Sales Exceeded Last Year by 10%+ by Year
Years 2022 2023 2024
$5M
$0M
Last 3 Months Sales
2M
0M
0
5
10
January 2024
Month with Highest Sales (Last 12 Months)
Q1 Sales (Fixed) by Year
8M
6M
4M
2M
0M
2022
2023
2024
Total Sales and December Sales YoY % by Year
$7,0M
$6,5M
$6,0M
2022
2023
2024
Sales Growth % YoY by Date
8%
6%
4%
2023
2024
Quarter
Quarter Sales Differenc
1 2 644 516,2
4 -3 201 532,7
3 -4 642 596,3
2 -4 918 376,7
Total -15 349 707,8
Last 12 Months Sales by Months
7,0M
6,8M
6,6M
0
10