Top 20 Advanced Power BI DAX Questions and Answers

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1. How do you calculate Running Total using DAX?

Answer:

```
Running Total =
CALCULATE(
    SUM(Sales[SalesAmount]),
    FILTER(
        ALLSELECTED(Sales[Date]),
        Sales[Date] <= MAX(Sales[Date])
    )
)
```

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2. How do you calculate Year-over-Year (YoY) Growth?

Answer:

```
YoY Growth =
DIVIDE(
    [Total Sales] - CALCULATE([Total Sales],
SAMEPERIODLASTYEAR('Date'[Date])),
    CALCULATE([Total Sales], SAMEPERIODLASTYEAR('Date'[Date]))
)
```

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3. How do you calculate Sales of Previous Month?

Answer:

```
Previous Month Sales =
CALCULATE(
    [Total Sales],
    PREVIOUSMONTH('Date'[Date])
)
```

Answer:

```
Second Highest Sales =
CALCULATE(
    MAX(Sales[SalesAmount]),
    FILTER(
        Sales,
        Sales[SalesAmount] < CALCULATE(MAX(Sales[SalesAmount]))
    )
)
```

Answer:

CALCULATE modifies the context of a calculation. It's used to apply filters and change evaluation context.

Answer:

```
Cumulative Sales =
CALCULATE(
    [Total Sales],
    FILTER(
        ALLSELECTED('Date'[Date]),
        'Date'[Date] <= MAX('Date'[Date])
    )
)
```

Answer:
% of Total Sales =

```
DIVIDE(
    [Total Sales],
    CALCULATE([Total Sales], ALL(Sales))
)
```

Answer:

Create a measure:

Top N Sales = [Total Sales]

Then apply Top N filter in visual-level filters or use RANKX for more control:

Rank by Sales =

```
RANKX(
    ALL(Product[ProductName]),
    [Total Sales], , DESC
)
```

Answer:

Sales Diff YoY =

```
[Total Sales] - CALCULATE([Total Sales],
SAMEPERIODLASTYEAR('Date'[Date]))
```

Answer:

Sales by Ship Date =

```
CALCULATE(
    [Total Sales],
    USERELATIONSHIP(Sales[ShipDate], 'Date'[Date])
)
```

11. How to calculate Profit Margin %?

Answer:

Profit Margin % =
DIVIDE([Total Profit], [Total Sales]) * 100

12. How to create a Dynamic Measure based on slicer selection?

Answer:

Using a disconnected table (e.g., MeasureSelector) and SWITCH:

Selected Measure =
SWITCH(
    SELECTEDVALUE(MeasureSelector[Measure]),
    "Sales", [Total Sales],
    "Profit", [Total Profit],
    "Quantity", [Total Quantity]
)

13. How do you calculate average sales per customer?

Answer:

Avg Sales per Customer =
DIVIDE([Total Sales], DISTINCTCOUNT(Sales[CustomerID]))

14. How to calculate Rolling 3-Month Average Sales?

Answer:

Rolling 3 Month Avg Sales =
AVERAGEX(
    DATESINPERIOD('Date'[Date], MAX('Date'[Date]), -3, MONTH),
    [Total Sales]
)

15. How to create a KPI indicator using DAX?

Answer:

```
KPI Status =
SWITCH(
    TRUE(),
    [Sales Growth %] > 10, "Good",
    [Sales Growth %] > 0, "Average",
    "Poor"
)
```

16. How to calculate Last Non-Blank value (e.g., latest stock price)?

Answer:

```
Latest Sales =
CALCULATE(
    LASTNONBLANKVALUE('Date'[Date], [Total Sales]),
    [Total Sales]
)
```

17. How to compare sales of current month vs. same month last year?

Answer:

```
Sales Same Month LY =
CALCULATE(
    [Total Sales],
    SAMEPERIODLASTYEAR('Date'[Date])
)
```

18. How to rank customers based on total sales?

Answer:

Customer Rank =

RANKX(

 ALL(Customer[CustomerName]),

   [Total Sales], ,
   DESC

)

19. How to create a Dynamic Title in a Card Visual using DAX?

Answer:

Dynamic Title =

"Sales Report for " & SELECTEDVALUE('Region'[RegionName])

20. How to filter a table using a DAX measure (virtual table)?

Answer:

Top Customers Table =

TOPN(

5,

SUMMARIZE(Sales, Customer[CustomerName], "Sales", [Total Sales]),

[Total Sales],

DESC

)