DAX Formulas

Date Table

Creates a date table with continuous dates ranging from the minimum to the maximum order date found in the 'Sales Data' table. This is essential for time-based analysis.

Date Table = CALENDAR(MIN('Sales Data'[Order Date]),MAX('Sales Data'[Order Date]))

Month

Extracts the month from the 'Date Table' date and formats it as a three-letter abbreviation (e.g., 'Jan', 'Feb'). This is useful for visualizations that require month labels.

Month = FORMAT('Date Table'[Date],'mmm')

Month Number

Returns the month number (1-12) from the date in the 'Date Table'. This can be used for sorting or calculations.

Month Number = MONTH('Date Table'[Date])

Year

Extracts the year from the date in the 'Date Table'. This helps in filtering and grouping data by year.

Year = YEAR('Date Table'[Date])

CY Profit

Calculates the total profit for the currently selected year. It uses the selected year from the slicer or visual context and sums the total profit accordingly.

CY Profit = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR CurrentYearProfit = CALCULATE([Total Profit], 'Date Table'[Year] = SelectedYear) RETURN CurrentYearProfit

CY Qty

Calculates the total quantity sold for the currently selected year using the same logic as the current

year profit.

CY Qty = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR CurrentYearQty = CALCULATE([Total Quantity], 'Date Table'[Year] = SelectedYear) RETURN CurrentYearQty

CY Sales

Computes the total sales amount for the currently selected year.

CY Sales = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR CurrentYearSales = CALCULATE([Total Sales], 'Date Table'[Year] = SelectedYear) RETURN CurrentYearSales

Dynamic Title

Retrieves the maximum value from the selected metrics table, which can be used to create dynamic titles based on user selection.

Dynamic Title = MAX('Select Metric'[Select Metric])

Dynamic Map Title

Constructs a dynamic title for maps that includes the selected metric and a suffix 'By States' to change map title dynamically.

DynamicMapTitle = MAX('Select Metric'[Select Metric]) & ' ' & 'By States'

Previous Year KPI Sales

Calculates the total sales from the previous year. If there are no sales, it returns 'No Data'; otherwise, it formats the value in thousands.

Previous Year KPI Sales = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR PreviousYearSales = CALCULATE([Total Sales],'Date Table'[Year] = SelectedYear -1) VAR FormatePYSales = FORMAT(PreviousYearSales/1000, '0.00') RETURN IF(ISBLANK(PreviousYearSales), 'Previous Year Sales: No Data', 'Previous Year Sales: ' & '$' & FormatePYSales & 'K')

PY Profit

Computes the total profit for the previous year using the selected year context.

PY Profit = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR PreviousYearProfit = CALCULATE([Total Profit], 'Date Table'[Year] = SelectedYear -1) RETURN PreviousYearProfit

PY Qty

Calculates the total quantity sold in the previous year.

PY Qty = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR PreviousYearQty = CALCULATE([Total Quantity], 'Date Table'[Year] = SelectedYear -1) RETURN PreviousYearQty

PY Sales

Determines the total sales amount from the previous year.

PY Sales = VAR SelectedYear = SELECTEDVALUE('Date Table'[Year]) VAR PreviousYearSales = CALCULATE([Total Sales], 'Date Table'[Year] = SelectedYear - 1) RETURN PreviousYearSales

Total Profit

Sums up the profit from the 'Sales Data' table to provide the total profit across all records.

Total Profit = SUM('Sales Data'[Profit])

Total Quantity

Computes the total quantity sold from the 'Sales Data' table.

Total Quantity = SUM('Sales Data'[Quantity])

Total Sales

Totals the sales figures from the 'Sales Data' table.

Total Sales = SUM('Sales Data'[Sales])

YoY Profit

Calculates the year-over-year change in profit. It uses arrows to indicate whether profit has increased (up arrow) or decreased (down arrow).

YoY Profit = VAR CurrentYearsProfit = [CY Profit] VAR PreviousYearProfit = [PY Profit] VAR

YoYChange = DIVIDE(CurrentYearsProfit - PreviousYearProfit , PreviousYearProfit) VAR PRINT = IF(YoYChange > 0 , UNICHAR(9650) & ' ' & FORMAT(YoYChange, '0%'), UNICHAR(9660) & ' ' & FORMAT(YoYChange, '0%')) RETURN PRINT

YoY Qty

Similar to the YoY Profit calculation, it measures the year-over-year change in quantity sold and returns formatted output with arrows.

YoY Qty = VAR CurrentYearsQty = [CY Qty] VAR PreviousYearQty = [PY Qty] VAR YoYChange = DIVIDE(CurrentYearsQty - PreviousYearQty , PreviousYearQty) VAR PRINT = IF(YoYChange > 0 , UNICHAR(9650) & ' ' & FORMAT(YoYChange, '0%'), UNICHAR(9660) & ' ' & FORMAT(YoYChange, '0%')) RETURN PRINT

YoY Sales

Calculates the year-over-year change in sales, formatted similarly to the previous YoY calculations.

YoY Sales = VAR CurrentYearSales = [CY Sales] VAR PreviousYearSales = [PY Sales] VAR YoYChange = DIVIDE(CurrentYearSales - PreviousYearSales , PreviousYearSales) VAR PRINT = IF(YoYChange > 0 , UNICHAR(9650) & ' ' & FORMAT(YoYChange, '0%'), UNICHAR(9660) & ' ' & FORMAT(YoYChange, '0%')) RETURN PRINT

Select Metric

Creates a table of metrics (Sales, Profit, Quantity) that allows users to select which metric to visualize. This is often used in combination with slicers or other user inputs.

Select Metric = { ('Sales', NAMEOF('Sales Data'[Total Sales]), 0), ('Profit', NAMEOF('Sales Data'[Total Profit]), 1), ('Quantity', NAMEOF('Sales Data'[Total Quantity]), 2) }