

## Lesson-14

Use variable to calculate % Growth in Sales Compared to Last Year

% Growth Last Year =

```
VAR currentYear = YEAR(MAX(Sales[Date]))
VAR currentYearSales = CALCULATE([Total SalesAmount], FILTER(ALL('Calendar Table'), YEAR([Date]) = currentYear))

VAR prevYearSales = CALCULATE([Total SalesAmount], FILTER(ALL('Calendar Table'), YEAR([Date]) = currentYear - 1))
VAR res = DIVIDE(currentYearSales - prevYearSales, prevYearSales)
RETURN res
```

Use variable to calculate the difference between Sales Amount of current month and previous month

Diff Current and Prev =

```
VAR currentDate = MAX(Sales[Date])
VAR currentMonth = MONTH(currentDate)
VAR currentYear = YEAR(currentDate)

VAR currentMonthSales = CALCULATE([Total SalesAmount],
FILTER(Sales, MONTH(Sales[Date]) = currentMonth && YEAR(Sales[Date] = currentYear )))

VAR prevMonthDate = EOMONTH(currentDate, -1)
VAR PrevMonth = MONTH(prevMonthDate)
VAR PrevYear = YEAR(PrevMonth)

VAR prevMonthSales = CALCULATE([Total SalesAmount],
FILTER(Sales, MONTH(Sales[Date]) = PrevMonth && YEAR(Sales[Date] = PrevYear)))

RETURN currentMonthSales - prevMonthSales
```

Calculate total boxes shipped and average monthly boxes in one measure using VAR

TotalAndAvgBoxes =

```
VAR Total_Box_Shipped = SUM(Sales[Boxes Shipped])
VAR countMonth = COUNT('Calendar Table'[Month Name])
VAR Average_Monthly_Box = DIVIDE(Total_Box_Shipped, countMonth)

RETURN CONCATENATE("Total Box: " & FORMAT(Total_Box_Shipped, "###0.00"), " Average: " &
FORMAT(Average_Monthly_Box, "###0.00"))
```

Calculate total boxes shipped and average monthly boxes in one measure using VAR and return average monthly boxes.

```
Average BoxShipped =
VAR Source = SUMMARIZE('Calendar Table', [Year], [Month Name], "Sales", [Total SalesAmount])
VAR countMonth = COUNTROWS(FILTER(Source, [Sales] > 0 ))
VAR TotalBoxShipped = SUM(Sales[Boxes Shipped])
VAR res = DIVIDE(TotalBoxShipped, countMonth, 0)
RETURN res
```

Calculate growth percentage from last month.

```
MonthOverMonthGrowth =  
VAR prevMonthSales = CALCULATE([Total SalesAmount], PREVIOUSMONTH('Calendar Table'[Date]))  
RETURN DIVIDE([Total SalesAmount] - prevMonthSales, prevMonthSales)
```

Create a moving average of sales over the last 3 months.

Use Card to show a Dynamic Message Based on Sales Rank and YoY Performance. For each chocolate product show a message like:

"Top Performer - Sales up by X%"

"Consistent Performer"

"Needs Improvement"

Ps:(use selectedvalue, rankx, and Time Intelligence functions)

List Top 5 tips to optimize DAX query manually and explain why you choose.

What is the benefit of using DAX optimization tools like DAX Studio, Performance Analyzer, Tabular Editor

Create a flag (Yes/No) if a product is in the top 5 by total sales. Use RANKX in a variable; avoid calculating rank more than once.