**DAX Functions**

To enhance data analysis and derive meaningful insights, I wrote the following DAX functions to create measures and calculated columns tailored to the project’s needs.

**Base Metrics: This includes the following;**

* Total Revenue = SUMX( 'Sales Data',

'Sales Data'[OrderQuantity] \* RELATED('Product Lookup'[ProductPrice]) )

* Total Cost = SUMX( 'Sales Data',

'Sales Data'[OrderQuantity] \* RELATED('Product Lookup'[ProductCost]) )

* Total Profit = [Total Revenue] - [Total Cost]
* Total Orders = DISTINCTCOUNT( 'Sales Data'[OrderNumber])
* Total Returns = COUNT( 'Returns Data'[ReturnQuantity])
* Total Returned Quantity = SUM( 'Returns Data'[ReturnQuantity])
* Total Customers = DISTINCTCOUNT('Sales Data'[CustomerKey])
* Average Revenue Per Customer = DIVIDE( [Total Revenue], [Total Customers])
* Return Rate = DIVIDE( [Total Returned Quantity], [Total Quantity Sold])
* Average Retail price = AVERAGE( 'Product Lookup'[ProductPrice])

**Time Intelligence Measures**

* Previous Month Revenue = CALCULATE( [Total Revenue], PARALLELPERIOD('Calendar Lookup'[Date], -1, MONTH) )
* Previous Month Profit = CALCULATE( [Total Profit], PARALLELPERIOD( 'Calendar Lookup'[Date], -1, MONTH) )
* Previous Month Orders = CALCULATE( [Total Orders], DATEADD('Calendar Lookup'[Date], -1, MONTH) )
* Previous Month Returns = CALCULATE( [Total Returns], PARALLELPERIOD('Calendar Lookup'[Date], -1, MONTH) )
* Revenue Target = [Previous Month Revenue] \* 1.1
* Profit Target = [Previous Month Profit] \* 1.1
* Order target = [Previous Month Orders] \* 1.1

**Calculated Columns**

* Day Of Week = WEEKDAY( 'Calendar Lookup'[Date], 2)
* Day type = IF( 'Calendar Lookup'[Day Of Week] IN {6,7} , "Weekend", "Weekday")
* Price Point = SWITCH( TRUE(), 'Product Lookup'[ProductPrice] > 500, "High", 'Product Lookup'[ProductPrice] > 100, "Mid-Range", "Low")
* Quantity Type = IF( 'Sales Data'[OrderQuantity] > 1, "Multiple Item", "Single Item" )