Tables, DAX Measures and Calculated Columns

Table 1: Transaction table: Original, it consists of fields like: transaction\_id, transaction\_date, transaction\_time, transaction\_qty, store\_id, store\_location, product\_id, unit\_price, product\_category, product\_type, product\_detail

Calculated Column in this table: 1. Sales = Transactions[Unit\_Price]\*Transactions[Transaction\_QTY]

2. Hour = HOUR(Transactions[Transaction\_Time])

Table 2: Date Table: this table is created manually and fields consists of calculated columns:

1. Date\_Table = CALENDAR(min(Transactions[Transaction\_Date]),max(Transactions[Transaction\_Date]))
2. Month = FORMAT(Date\_Table[Date],"mmm") to extract first 3 letters of month name.
3. Month\_Nummber = MONTH(Date\_Table[Date]) to extract the month number
4. Month\_Year = FORMAT(Date\_Table[Date],"mmm yyyy")
5. Day\_Name = FORMAT(Date\_Table[Date],"DDD")
6. Day\_Name = FORMAT(Date\_Table[Date],"DDD")
7. Day\_Number = FORMAT(Date\_Table[Date],"D")
8. Week\_Day\_Number = WEEKDAY(Date\_Table[Date],2)
9. Weekday/Weekend = if(Date\_Table[Day\_Name] = "Sat" || Date\_Table[Day\_Name] = "Sun","Weekend", "Weekday")
10. Date hierarchy created which includes of year, quarter, month, day.

DAX Measures: There are 21 measures that are in transaction table. They are:

1. CM Sales = var selected\_month=SELECTEDVALUE(Date\_Table[Month]) – CM means Current Month

            return

            TOTALMTD(CALCULATE([Total\_Sales],Date\_Table[Month]=selected\_month),Date\_Table[Date])

2. CM\_Orders = var selected\_month=SELECTEDVALUE(Date\_Table[Month])

            return

            TOTALMTD(CALCULATE([Total\_Orders],Date\_Table[Month]=selected\_month),Date\_Table[Date])

3. CM\_QTY\_Sold = var selected\_month=SELECTEDVALUE(Date\_Table[Month])

            return

            TOTALMTD(CALCULATE([Total\_QTY\_Sold],Date\_Table[Month]=selected\_month),Date\_Table[Date])

4. Color For Bars = IF([Total\_Sales]>[Daily\_Avg\_Sales],"Above\_Avg","Below\_Avg") - Bars are colored based on calculation

5. Daily\_Avg\_Sales = AVERAGEX(ALLSELECTED(Transactions[Transaction\_Date]),[Total\_Sales])

6. Foot\_Note = "Hover Over On This Visuals to See Details" this is just a note mentioned below the calendar visual, if we hower mouse on any of the date, a customised tootip has been created for more details

7. Label\_For\_Product\_Category = SELECTEDVALUE(Transactions[Product\_Category]) &" | "&FORMAT([Total\_Sales]/1000,"$0.00K") – for each bar, label is customised mentioned in the formula and same as for Label\_For\_Product\_Type, Label\_For\_Store\_location

8. Label\_For\_Product\_Type = SELECTEDVALUE(Transactions[Product\_Type]) &" | "&FORMAT([Total\_Sales]/1000,"$0.00K") -

9. Label\_For\_Store\_location = SELECTEDVALUE(Transactions[Store\_Location]) &" | "&FORMAT([Total\_Sales]/1000,"$0.00K")

10. MoM\_Orders = Var month\_diff = [CM\_Orders]-[PM\_Orders] – MOM means Month On Month

 var mom = ([CM\_Orders]-[PM\_Orders])/[PM\_Orders]

 var \_sign = if(month\_diff>0,"+","")

 var \_sign\_trend=if(month\_diff>0,"▲","▼")

 return

 \_sign\_trend & " "& \_sign&format(mom,"#0.0%" & " | " & \_sign & FORMAT(month\_diff/1000,"0.0K")) & " "&"vs LM"

11. MoM\_QTY\_Sold = Var month\_diff = [CM\_QTY\_Sold]-[PM\_QTY\_Sold]

 var mom = ([CM\_QTY\_Sold]-[PM\_QTY\_Sold])/[PM\_QTY\_Sold]

 var \_sign = if(month\_diff>0,"+","")

 var \_sign\_trend=if(month\_diff>0,"▲","▼")

 return

 \_sign\_trend & " "& \_sign&format(mom,"#0.0%" & " | " & \_sign & FORMAT(month\_diff/1000,"0.0K")) & " "&"vs LM"

12. MoM\_Sales = Var month\_diff = [CM Sales]-[PM Sales]

 var mom = ([CM Sales]-[PM Sales])/[PM Sales]

 var \_sign = if(month\_diff>0,"+","")

 var \_sign\_trend=if(month\_diff>0,"▲","▼")

 return

 \_sign\_trend & " "& \_sign&format(mom,"#0.0%" & " | " & \_sign & FORMAT(month\_diff/1000,"0.0K")) & " "&"vs LM"

13. New\_MOM\_Label = Var month\_diff = [CM Sales]-[PM Sales]

 var mom = ([CM Sales]-[PM Sales])/[PM Sales]

 var \_sign = if(month\_diff>0,"+","")

 var \_sign\_trend=if(month\_diff>0,"▲","▼")

 return

 \_sign\_trend & " "& \_sign&format(mom,"#0.0%")

14. PlaceHolder = 0

15. PM Sales = CALCULATE([CM Sales],DATEADD(Date\_Table[Date],-1,MONTH))

16. PM\_Orders = CALCULATE([CM\_Orders],DATEADD(Date\_Table[Date],-1,MONTH))

17. PM\_QTY\_Sold = CALCULATE([CM\_QTY\_Sold],DATEADD(Date\_Table[Date],-1,MONTH))

18. Total\_Orders = DISTINCTCOUNT(Transactions[Transaction\_ID])

19. Total\_QTY\_Sold = sum(Transactions[Transaction\_QTY])

20. Total\_Sales = SUM(Transactions[Sales])

21. TT for Hour = "Hour No:" & " " & FORMAT(AVERAGE(Transactions[Hour]),0) – TT means Tooltip, it is customised tooltip formula shown in tooltip.