**Financial Data**

**Q1 - running total = CALCULATE(**

**SUM(credit\_card[Total\_Trans\_Amt])**

**,FILTER(**

**ALL(credit\_card)**

**,credit\_card[Week\_Start\_Date] <= MAX(credit\_card[Week\_Start\_Date])**

**)**

**)**

**Q2 – Moving\_average\_of\_4\_weeks =**

**VAR Week\_4 =**

**DATESINPERIOD(Calendar[Date], MAX(Calendar[Date]), -28, DAY)**

**VAR Total\_amount =**

**CALCULATE([Total transaction amount], Week\_4)**

**VAR week\_num =**

**CALCULATE(DISTINCTCOUNT('Credit card'[Week\_Num]), Week\_4)**

**RETURN**

**DIVIDE(Total\_amount, week\_num, 0)**

**Q3 –**

**MoM\_Growth\_% =**

**VAR PrevMonth =**

**CALCULATE (**

**SUM ( 'credit\_card'[Total\_Trans\_Amt] ),**

**DATEADD ( 'Calendar'[Date], -1, MONTH )**

**)**

**VAR CurrMonth =**

**SUM ( 'credit\_card'[Total\_Trans\_Amt] )**

**RETURN**

**DIVIDE ( CurrMonth - PrevMonth, PrevMonth, 0 )**

**WoW\_Growth\_% =**

**VAR PrevWeek =**

**CALCULATE (**

**SUM ( 'credit\_card'[Total\_Trans\_Amt] ),**

**DATEADD ( 'Calendar'[Date], -7, DAY )**

**)**

**VAR CurrWeek =**

**SUM ( 'credit\_card'[Total\_Trans\_Amt] )**

**RETURN**

**DIVIDE ( CurrWeek - PrevWeek, PrevWeek, 0 )**

**Q4 – cac\_ta =**

**DIVIDE (**

**SUM ( 'credit\_card'[Customer\_Acq\_Cost] ),**

**SUM ( 'credit\_card'[Total\_Trans\_Amt] )**

**)**

**Q5 –**

**Yearly\_Utilization\_Ratio =**

**DIVIDE(**

**SUM('credit\_card'[Total\_Trans\_Amt]),**

**sum(credit\_card[Credit\_Limit])**

**)**

**Q6 –**

**interest\_by\_rev\_bal =**

**DIVIDE (**

**SUM ( 'credit\_card'[Interest\_Earned] ),**

**SUM ( 'credit\_card'[Total\_Revolving\_Bal] ),**

**0**

**)**

**Q7 –**

**Top\_5\_Clients\_Table =**

**TOPN (**

**5,**

**SUMMARIZE (**

**'credit\_card',**

**'credit\_card'[Client\_Num],**

**"Total\_Amount", SUM ( 'credit\_card'[Total\_Trans\_Amt] )**

**),**

**[Total\_Amount],**

**DESC**

**)**

**Q8 –**

**avg\_uti\_exceeds\_80 =**

**IF (**

**AVERAGE ( 'credit\_card'[Avg\_Utilization\_Ratio] ) > 0.8,**

**TRUE,**

**FALSE**

**)**

**Q9 –**

**no\_trans\_in\_last\_6\_months =**

**VAR months\_6 =**

**CALCULATE (**

**SUM ( 'credit\_card'[Total\_Trans\_Amt] ),**

**DATESINPERIOD (**

**'calendar'[Date],**

**MAX ( 'calendar'[Date] ),**

**-6,**

**MONTH**

**)**

**)**

**RETURN**

**IF ( months\_6 = 0 || ISBLANK ( months\_6 ), TRUE, FALSE )**

**Q10 –**

**delinquency\_rate =**

**var delinquent\_acc =**

**CALCULATE(**

**COUNTROWS('credit\_card'),**

**'credit\_card'[Delinquent\_Acc] > 0**

**)**

**var total\_accounts =**

**COUNTROWS('credit\_card')**

**return**

**DIVIDE(delinquent\_acc, total\_accounts, 0)**

**Q11 –**

**normalized\_revolving\_balance =**

**VAR min\_value = MIN('credit\_card'[Total\_Revolving\_Bal])**

**VAR max\_value = MAX('credit\_card'[Total\_Revolving\_Bal])**

**VAR total\_rev\_bal = SUM('credit\_card'[Total\_Revolving\_Bal])**

**RETURN DIVIDE(**

**total\_rev\_bal - min\_value,**

**max\_value - min\_value,**

**0**

**)**

**credit\_risk\_score =**

**0.5 \* [avg\_uti\_exceeds\_80]+0.3\*[delinquency\_rate]+0.2\*[normalized\_revolving\_balance]**

**Q12 – Income\_Credit\_Correlation =**

**VAR AvgX = AVERAGE(Customers[Income])**

**VAR AvgY = AVERAGE(Credit\_Card[Credit\_Limit])**

**VAR Co\_variance =**

**AVERAGEX(**

**Customers,**

**(Customers[Income] - AvgX) \***

**(RELATED(Credit\_Card[Credit\_Limit]) - AvgY)**

**)**

**VAR StdDevX = STDEVX.P(Customers, Customers[Income])**

**VAR StdDevY = STDEVX.P(Customers, RELATED(Credit\_Card[Credit\_Limit]))**

**RETURN DIVIDE(Co\_variance, StdDevX \* StdDevY)**

**Q13 - avg\_score\_by\_card\_category =**

**SUMMARIZE(**

**'credit\_card',**

**'credit\_card'[Card\_Category],**

**"Avg Score",**

**ROUND(**

**AVERAGEX(**

**RELATEDTABLE('customers'),**

**customers[Cust\_Satisfaction\_Score]**

**),**

**2**

**)**

**)**

**Q14 –**

**loan\_yes =**

**CALCULATE(**

**AVERAGE('credit\_card'[Credit\_Limit]),**

**FILTER(**

**'customers',**

**'customers'[Personal\_loan] = "yes"**

**)**

**)**

**loan\_no =**

**CALCULATE(**

**AVERAGE('credit\_card'[Credit\_Limit]),**

**FILTER(**

**'customers',**

**'customers'[Personal\_loan] = "no"**

**)**

**)**

**Q15 –**

**HighRiskFlag =**

**VAR RevolveBal = CALCULATE(SUM('credit\_card'[Total\_Revolving\_Bal]))**

**VAR CreditLimit = CALCULATE(SUM('credit\_card'[Credit\_Limit]))**

**var avg\_uti\_ratio = CALCULATE(AVERAGE(credit\_card[Avg\_Utilization\_Ratio]))**

**RETURN**

**IF(**

**RevolveBal > 0.9 \* CreditLimit**

**&& avg\_uti\_ratio > 0.8,**

**1, 0**

**)**