**Credit Card Weekly Status**

**Objective:**

To develop a comprehensive credit card weekly dashboard that provides real-time insights into key performance metrics and trends, enabling stakeholders to monitor and analyze credit card operations effectively.

**Solution:**

**Step 1: Import data to SQL database:**

1. Analyse the data in the CSV file.
2. Create a database in any of the database software:

CREATE DATABASE ccdb;

1. Import data into the database (or)
2. Create cc\_detail table:

CREATE TABLE cc\_detail (

Client\_Num INT,

Card\_Category VARCHAR(20),

Annual\_Fees INT,

Activation\_30\_Days INT,

Customer\_Acq\_Cost INT,

Week\_Start\_Date DATE,

Week\_Num VARCHAR(20),

Qtr VARCHAR(10),

current\_year INT,

Credit\_Limit DECIMAL(10,2),

Total\_Revolving\_Bal INT,

Total\_Trans\_Amt INT,

Total\_Trans\_Ct INT,

Avg\_Utilization\_Ratio DECIMAL(10,3),

Use\_Chip VARCHAR(10),

Exp\_Type VARCHAR(50),

Interest\_Earned DECIMAL(10,3),

Delinquent\_Acc VARCHAR(5)

);

1. Create cust\_detail table:

CREATE TABLE cust\_detail (

Client\_Num INT,

Customer\_Age INT,

Gender VARCHAR(5),

Dependent\_Count INT,

Education\_Level VARCHAR(50),

Marital\_Status VARCHAR(20),

State\_cd VARCHAR(50),

Zipcode VARCHAR(20),

Car\_Owner VARCHAR(5),

House\_Owner VARCHAR(5),

Personal\_Loan VARCHAR(5),

Contact VARCHAR(50),

Customer\_Job VARCHAR(50),

Income INT,

Cust\_Satisfaction\_Score INT

);

1. Copy csv data into SQL (remember to update the file name and file location in below query):
2. copy cc\_detail table:

COPY cc\_detail

FROM 'D:\credit\_card.csv'

DELIMITER ','

CSV HEADER;

1. copy cust\_detail table:

COPY cust\_detail

FROM 'D:\customer.csv'

DELIMITER ','

CSV HEADER;

1. Insert additional data into SQL, using same COPY function:
2. copy additional data (week-53) in cc\_detail table:

COPY cc\_detail

FROM 'D:\cc\_add.csv'

DELIMITER ','

CSV HEADER;

1. copy additional data (week-53) in cust\_detail table (remember to update the file name and file location in below query):

COPY cust\_detail

FROM 'D:\cust\_add.csv'

DELIMITER ','

CSV HEADER;

1. Connect database to the PowerBI

**Step 2: Data Processing & DAX Query:**

1. Data Cleaning (i.e., make sure no NULL Values & Duplicate Values)

Tip: It is better to do data cleaning in SQL

Data Processing (i.e., checking all the columns in Power BI Table View )

1. DAX Query:

Task1:

When we visualize the data of Customer\_Age vs Income we are getting ungrouped analytical graph.

So, first we create a new Column (AgeGroup) in customer\_details with DAX

AgeGroup = SWITCH(

TRUE(),

'customer\_details'[Customer\_Age] < 30 , "20-30",

'customer\_details'[Customer\_Age] >= 30 && 'customer\_details'[Customer\_Age] < 40 , "30-40",

'customer\_details'[Customer\_Age] >= 40 && 'customer\_details'[Customer\_Age] < 50 , "40-50",

'customer\_details'[Customer\_Age] >= 50 && 'customer\_details'[Customer\_Age] < 60 , "50-60",

'customer\_details'[Customer\_Age] >= 60, "60+",

"Unknown"

)

Task 2:

Second we create a new Column (IncomeGroup) in customer\_details with DAX

IncomeGroup = SWITCH(

TRUE(),

'customer\_details'[Income] < 35000 , "Low",

'customer\_details'[Income] >= 35000 && 'customer\_details'[Income] < 70000 , "Medium",

'customer\_details'[Income] >= 70000 , "High",

"Unknown"

)

Task 3:

Create a Week Table in Report View

Third we create a new Column (Week\_Num2) in credit\_card\_details with DAX

Week\_Num2 = WEEKNUM('credit\_card\_details'[Week\_Start\_Date])

Task 4:

Fourth we create a new Column (Revenue) in credit\_card\_details with DAX

Revenue = 'credit\_card\_details'[Annual\_Fees] + 'credit\_card\_details'[Total\_Trans\_Amt] + 'credit\_card\_details'[Interest\_Earned]

Task 5:

Fourth we create a new Measure (Current\_Week\_Revenue) in credit\_card\_details with DAX Current\_week\_Revenue = CALCULATE(

SUM('credit\_card\_details'[Revenue]),

FILTER(

ALL('credit\_card\_details'),

'credit\_card\_details'[Week\_Num2] = MAX('credit\_card\_details'[Week\_Num2])))

Task 6:

Fourth we create a new Measure (Previous\_Week\_Revenue) in credit\_card\_details with DAX Previous\_week\_Revenue = CALCULATE(

SUM('credit\_card\_details'[Revenue]),

FILTER(

ALL('credit\_card\_details'),

'credit\_card\_details'[Week\_Num2] = MAX('credit\_card\_details'[Week\_Num2])-1))

Task 7:

Fifth we create a new Measure (WoW\_Revenue\_Growth) in credit\_card\_details with DAX WoW\_Revenue\_Growth = DIVIDE(([Current\_week\_Revenue] -[Previous\_Week\_Revenue]),[Previous\_Week\_Revenue])

**Step3: Dashboard and Insights:**

1. Create dashboard for the Weekly Credit Card Transaction & Customer

Importing additional data to SQL & refresh in Power BI

1. Insights:
2. WoW change:

• Revenue increased by 28.8%

• Total Transaction Amt & Count increased by xx% & xx%

• Customer count increased by xx%

1. Overview YTD:

• Overall revenue is 57M

• Total interest is 8M

• Total transaction amount is 46M

• Male customers are contributing more in revenue 31M, female 26M

• Blue & Silver credit card are contributing to 93% of overall transactions

• TX, NY & CA is contributing to 68%

• Overall Activation rate is 57.5%

• Overall Delinquent rate is 6.06%

**Conclusion:**

• Developed an interactive dashboard using transaction and customer data from a SQL database, to provide real-time insights.

• Streamlined data processing & analysis to monitor key performance metrics and trends.

• Shared actionable insights with stakeholders based on dashboard findings to support decision-making processes.