CREDIT CARD

WEEKLY ANALYSIS REPORT

(By Nirnay singh)

CONTENT

Project Overview

The goal of this project is to develop an interactive and comprehensive credit card dashboard that uncover trends and provide actionable insights to improve customer service and reduce operational risks. Through descriptive and predictive analysis, the project aims to deliver meaningful patterns and predictions to enhance financial decision-making processes and enabling stakeholders to monitor and analyze the credit card operations effectively.

Download Data

GitHub link:

https://github.com/Nirnays03/Credit_Card_Analysis_Dashboard

Import Data to SQL database

1)Prepare CSV file

2) SQL Query to create and import data from csv files:

- a) Create a database

CREATE DATABASE ccdb;

Create cc_detail table

```
CREATE TABLE cc_detail1 (
    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)   );
```

-- Create cc_detail1 table

```
CREATE TABLE cust_detail1 (
   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   );
```

-- 3. Copy csv data into SQL (remember to update the file name and file location in below query)

-- copy cc_detail1 table

```
COPY cc_detail1
FROM 'C:\credit_card.csv'
DELIMITER ','
CSV HEADER;
```

-- copy cust_detail1 table

```
COPY cust_detail1
FROM 'C:\customer.csv'
DELIMITER ','
CSV HEADER;
```

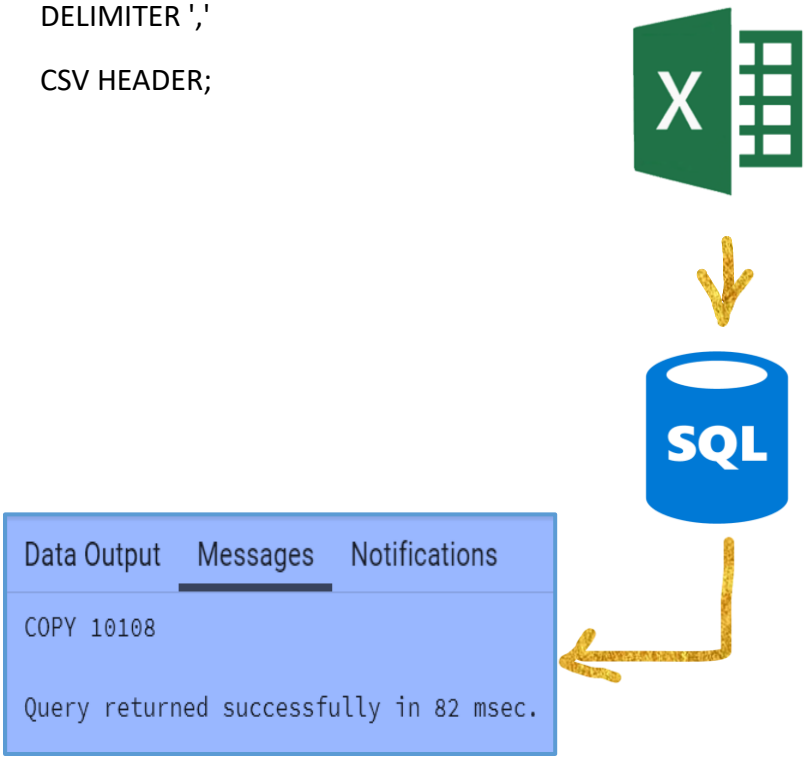
-- 4. Insert additional data into SQL, using same COPY function

-- copy additional data (week-53) in cc_detail1 table

```
COPY cc_detail1
FROM 'C:\cc_add.csv'
DELIMITER ','
CSV HEADER;
```

-- copy additional data (week-53) in cust_detail1 table (remember to update the file name and file location in below query)

```
COPY cust_detail1
FROM 'C:\cust_add.csv'
DELIMITER ','
CSV HEADER;
```



DAX QUERIES

Age_Group = SWITCH(

TRUE(),

'public cust_detail1'[customer_age]<30,"20-30",

'public cust_detail1'[customer_age]>=30 && 'public cust_detail1'[customer_age]<40,

"30-40",

'public cust_detail1'[customer_age]>=40 && 'public cust_detail1'[customer_age]<50,

"40-50",

'public cust_detail1'[customer_age]>=50 && 'public cust_detail1'[customer_age]<60,

"50-60",

'public cust_detail1'[customer_age]>+60,"60+",

"unknown")

Income_Group = SWITCH(

TRUE(),

'public cust_detail1'[income]<30000,"low",

'public cust_detail1'[income]>=30000 && 'public cust_detail1'[income]<70000,"mid",

'public cust_detail1'[income]>=70000,"high",

"unknown"

)

revenue = 'public cc_detail1'[total_trans_amt]+'public cc_detail1'[interest_earned]+'public cc_detail1'[annual_fees]

weeknum2 = WEEKNUM('public cc_detail1'[week_start_date])

wow_revenue = DIVIDE(([current_week_revenue]-[previous_week_revenue]),[previous_week_revenue])

current_week_revenue = CALCULATE(

SUM('public cc_detail1'[revenue]),

FILTER(ALL('public cc_detail1'),

'public cc_detail1'[weeknum2]=MAX('public cc_detail1'[weeknum2])))

previous_week_revenue = CALCULATE(

SUM('public cc_detail1'[revenue]),

FILTER(ALL('public cc_detail1'),

'public cc_detail1'[weeknum2]=MAX('public cc_detail1'[weeknum2])-1))

Project Insights- Latest Week (31st dec)

WoW change:

- Revenue increased by 28.8%,
- Total Transaction Amt & Count increased by 35.03% & 3.39%
- Customer count increased by 12.80%.

Overview YTD:

- Overall revenue is 57M
- Total interest is 8M
- Total transaction amount is 46M
- Customer acquisition cost is 991k.
- Customer satisfaction score is 33k.
- Total clients are 10.29k .
- Male customers are contributing more in revenue 31M, female26M
- Blue & Silver credit card are contributing to 93% to overall trans.
- TX, NY & CA is contributing to 68%
- Overall Activation rate is 57.5%
- Overall Delinquent rate is 6.06%
    - The most delinquent job category is self employed i.e 1.66%.
    - The least delinquent category is retirees i.e 0.61%.

Summary

Credit card financial dashboard using Power BI

• 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.

• The dashboard reveals positive trends in transaction growth and customer engagement, with increasing online activity and high-value spending segments driving revenue

• By implementing the outlined recommendations, the organization can enhance profitability, improve customer satisfaction, and strengthen its operational capabilities.