# Credit Card Financial Analysis Project

To develop a comprehensive credit card weekly dashboard that provides real-time insights into key performance metrics and trends, enabling stakeholders to monitor and analyse credit card operations effectively. This repository contains a comprehensive analysis of the project that leverages Power BI for data visualization and PostgreSQL for database management.

#### **Features**

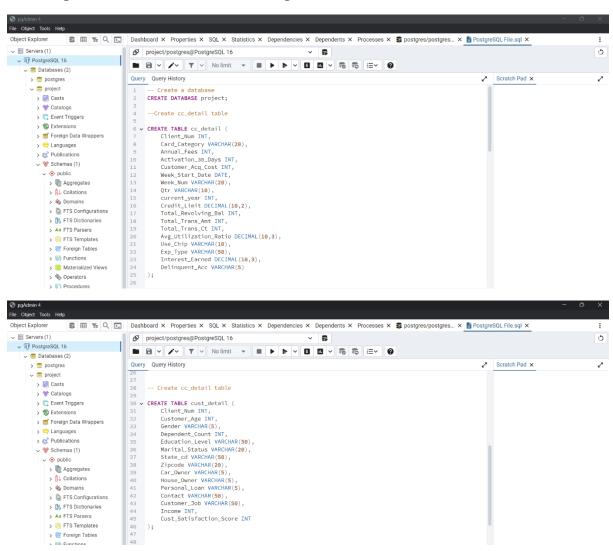
- 1. Data Storage: Efficient storage and management of credit card financial data using PostgreSQL.
- 2. Data Visualization: Interactive dashboards and reports created with Power BI. Analysis: Detailed analysis of credit card transactions, customer segmentation, and spending trends.
- 3. ETL Processes: Extract, Transform, Load (ETL) workflows to ensure data integrity and quality.
- 4. Reporting: Comprehensive financial reports for better decision-making.

### **Prerequisites**

- 1. PostgreSQL
- 2. Power BI
- 3. MS Excel

#### **Steps**

1. Creating database and tables in PostgreSQL



2. Copying data from the CSV files

```
-- copy cc_detail table
                                          49 -- copy cc_deti
50
51 v COPY cc_detail
52 FROM 'C:\Users'
53 DELIMITER ','
54 CSV HEADER;
55
> 

Extensions
> S Foreign Data Wrappers
                                                                         \swarn\OneDrive\Desktop\DA\power bi+mysql project\credit card report\credit_card.csv'
> 🤤 Languages
> 🕸 Publications
> 🖣 Aggregates
                                          58
59 COPY cust_detail
60 FROM 'C:\Users\sw
61 DELIMITER ','
62 CSV HEADER;
63
64
                                                  FROM 'C:\Users\swarn\OneDrive\Desktop\DA\power bi+mysql project\credit card report\customer.csv'
DELIMITER ','
     > 🏟 Domains
     > 🔓 FTS Configurations
     > T FTS Dictionaries
                                          55 -- copy additional data (week-53) in cc_detail table
66 
67 \cdot COPY cc_detail
68 FROM 'C:\Users\swarn\OneDrive\Desktop\DA\power bi+mysql project\credit card report\cc_add.csv'
68 FROM 'C:\Users\swarn\OneDrive\Desktop\DA\power bi+mysql project\credit card report\cc_add.csv'
60 CSV HEADER;
     >  FTS Configurations
> FTS Dictionaries
      > Aa FTS Parsers
     > @ FTS Templates
     > @ Foreign Tables
     > (ii) Functions
                                                   -- copy additional data (week-53) in cust_detail table (remember to update the file name and file local
      > C Materialized Views
                                          74
75 v COPY cust_detail
76 FROM 'C:\Users\swarn\OneDrive\Desktop\DA\power bi+mysql project\credit card report\cust_add.csv'
78 CSY HEADER;
     > 🐁 Operators
      > () Procedures
     > 1..3 Sequences
     v 🛅 Tables (2)
        > E cc_detail
                                        Data Output Messages Notifications
Total rows: 1000 of 10108 Query complete 00:00:00.121
                                                                                                                                                                                                                                                        Ln 75, Col 1
```

3. Creating some new columns in Power BI using DAX queries

```
DAX QUERIES:

(1) AgeGroup = SMITCH(
TRUC(),
    'public cust detail'[customer_age] < 30, "20-30",
    'public cust detail'[customer_age] > 30 && "public cust_detail'[customer_age] < 40, "30-40",
    'public cust_detail'[customer_age] >= 30 && "public cust_detail'[customer_age] < 50, "40-50",
    'public cust_detail'[customer_age] >= 50 && "public cust_detail'[customer_age] < 60, "50-60",
    'public cust_detail'[customer_age] >= 50 && "public cust_detail'[customer_age] < 60, "50-60",
    'public cust_detail'[income] < 35000, "Low",
    'public cust_detail'[income] < 35000, "Low",
    'public cust_detail'[income] >= 35000 && "public cust_detail'[income] <70000, "Med",
    'public cust_detail'[income] >= 70000, "High',
    'unknown"
)

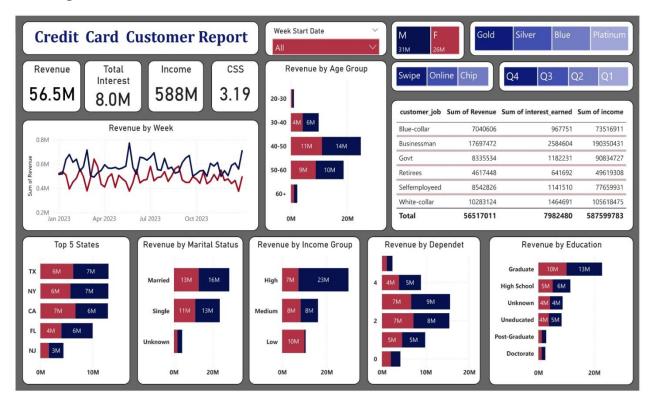
(3) week_num2 = WEEKNLM('public cc_detail'[week_start_date])

(4) Revenue = 'public cc_detail'[annual_fees] + 'public cc_detail'[total_trans_amt] + 'public cc_detail'[interest_earned]

(5) Current_week_Reveneue = CALCULATE(
    SUM('public cc_detail', Revenue]),
    FILTER(
    ALL('public cc_detail', Week_num2] = MAX('public cc_detail'[week_num2])))

(6) Previous_week_Reveneue = CALCULATE(
    SUM('public cc_detail', Revenue]),
    FILTER(
    ALL('public cc_detail', Revenue]),
    FILTER(
    ALL('public cc_detail', Neek_num2] = MAX('public cc_detail'[week_num2])-1))
```

4. Creating dashboards in Power BI





## **Project Insights(Week 53)**

- 1. Revenue increased by 28.8%
- 2. Overall revenue is 57M
- 3. Total interest is 8M
- 4. Total transaction amount is 46M
- 5. Male customers are contributing more in revenue 31M, female 26M
- 6. Blue & Silver credit card are contributing to 93% of overall transactions
- 7. TX, NY & CA is contributing to 68%
- 8. Overall Activation rate is 57.5%
- 9. Overall Delinquent rate is 6.06%