**Credit Card Analysis Report**

**Project Objective :**

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

**Steps Following to Create a Credit Card Analysis Dashboard in PowerBI :**

**1️. Data Collection & Storage**

* 📥 **Download CSV data** from **Kaggle**.
* 🗄️ **Import CSV files into PostgreSQL** database using pgAdmin or COPY command.

**2️. Connecting PostgreSQL to Power BI**

* 🔗 Open **Power BI** → Click **Get Data** → Select **PostgreSQL Database**.
* 🔑 Enter **Server Name, Database Name, and Credentials**.
* 🔍 Use **Import Query** to load data into Power BI.

**3️. Data Cleaning & Transformation (Power Query)**

* ✅ **Check for NULL values** and handle missing data.
* 🔄 **Remove duplicates** for data integrity.
* 🏷️ **Correct data types** (e.g., Date, Numeric, Text).
* 📊 **Assess data quality** using Power Query profiling tools.

**4️. Data Modeling & Relationships**

* 🔗 **Create relationships** between tables (Transactions ↔ Customers).
* 🧮 **Define DAX Measures & Columns** :

**AgeGroup** = SWITCH(

TRUE(),

'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] >= 40 && '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] >= 60, "60+",

"unknown"

)

**IncomeGroup** = SWITCH(

TRUE(),

'public cust\_detail'[income] < 35000, "Low",

'public cust\_detail'[income] >= 35000 && 'public cust\_detail'[income] <70000, "Med",

'public cust\_detail'[income] >= 70000, "High",

"unknown"

)

**week\_num2** = WEEKNUM('public cc\_detail'[week\_start\_date])

**Revenue** = 'public cc\_detail'[annual\_fees] + 'public cc\_detail'[total\_trans\_amt] + 'public cc\_detail'[interest\_earned]

**Current\_week\_Reveneue** = CALCULATE(

SUM('public cc\_detail'[Revenue]),

FILTER(

ALL('public cc\_detail'),

'public cc\_detail'[week\_num2] = MAX('public cc\_detail'[week\_num2])))

**Previous\_week\_Reveneue** = CALCULATE(

SUM('public cc\_detail'[Revenue]),

FILTER(

ALL('public cc\_detail'),

'public cc\_detail'[week\_num2] = MAX('public cc\_detail'[week\_num2])-1))

**5️. Building the Dashboard**

* 📌 **KPI Cards** → Total Revenue, Total Interest, Transaction Count, Transaction Amount, Delinquent Rate, Customer Acquisition Cost, Delinquent Accounts, Average Customer Satisfaction Score.
* 📊 **Visuals** → Bar Chart, Line Chart, Treemap, Table,Column Chart.
* 🎛 **Filters & Slicers** → Date.

**Project Insights :**

**• Revenue increased by at last week 28.8%,**

**• 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%**

**• 84% Revenue comes from 40-50 & 50-60 Age Group**