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

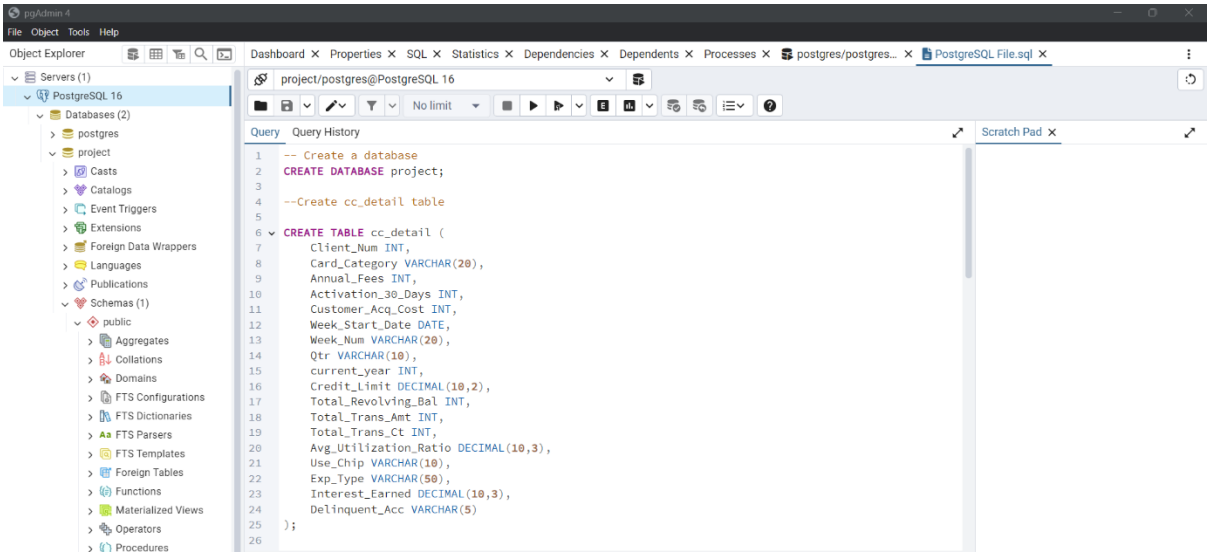
1. Data Storage : Efficient storage and management of credit card financial data using PostgreSQL.
2. Data Visualization : Interactive dashboards and reports created with Power BI. Analysis: Detailed analysis of credit card transactions, customer segmentation, and spending trends.
3. ETL Processes :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

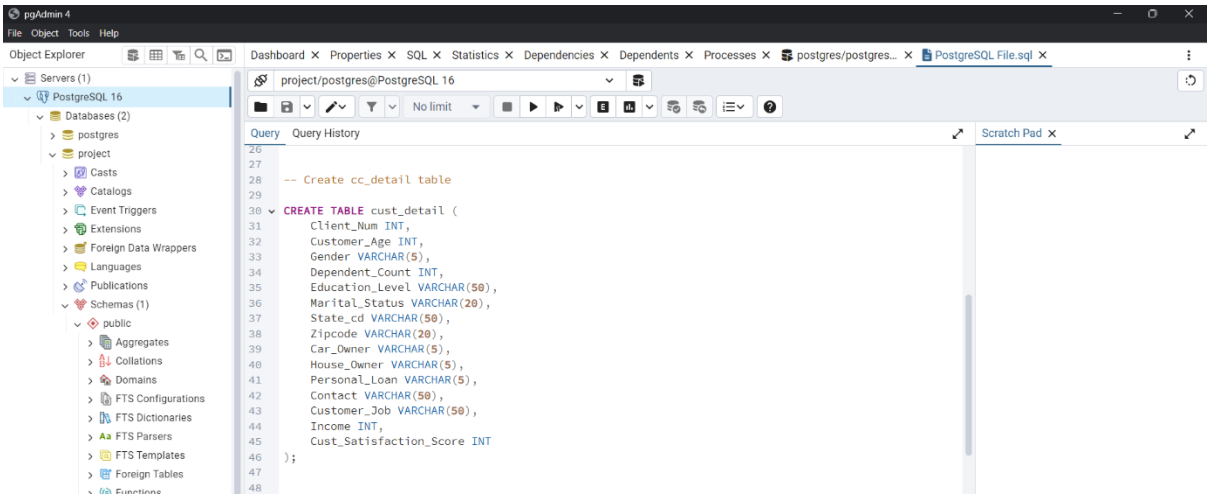
Prerequisites

1. PostgreSQL
2. Power BI
3. MS Excel

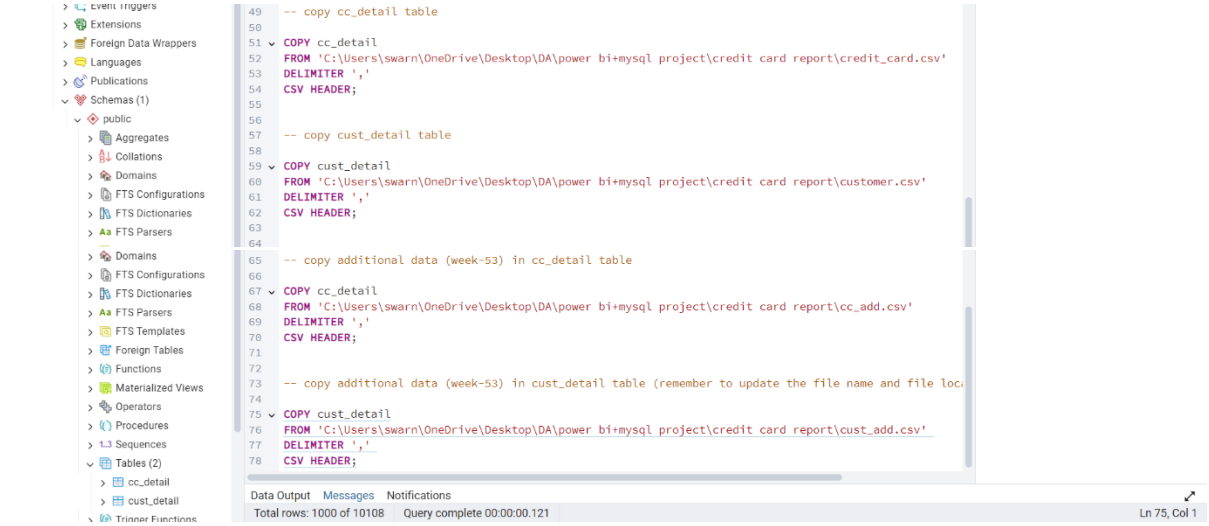
Steps

1. Creating database and tables in PostgreSQL





2. Copying data from the CSV files



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

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DAX QUERIES:

(1) 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"
 )

(2) 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"
)

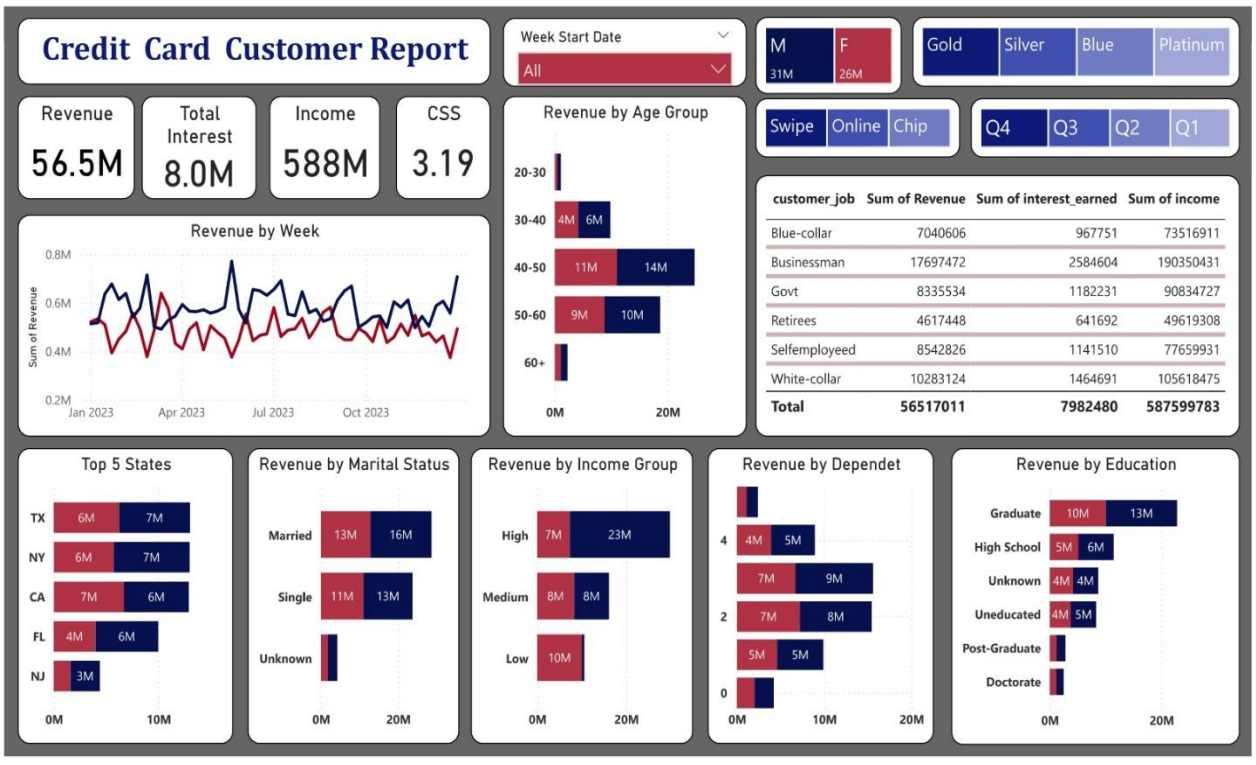
(3) week_num2 = WEEKNUM('public cc_detail'[week_start_date])

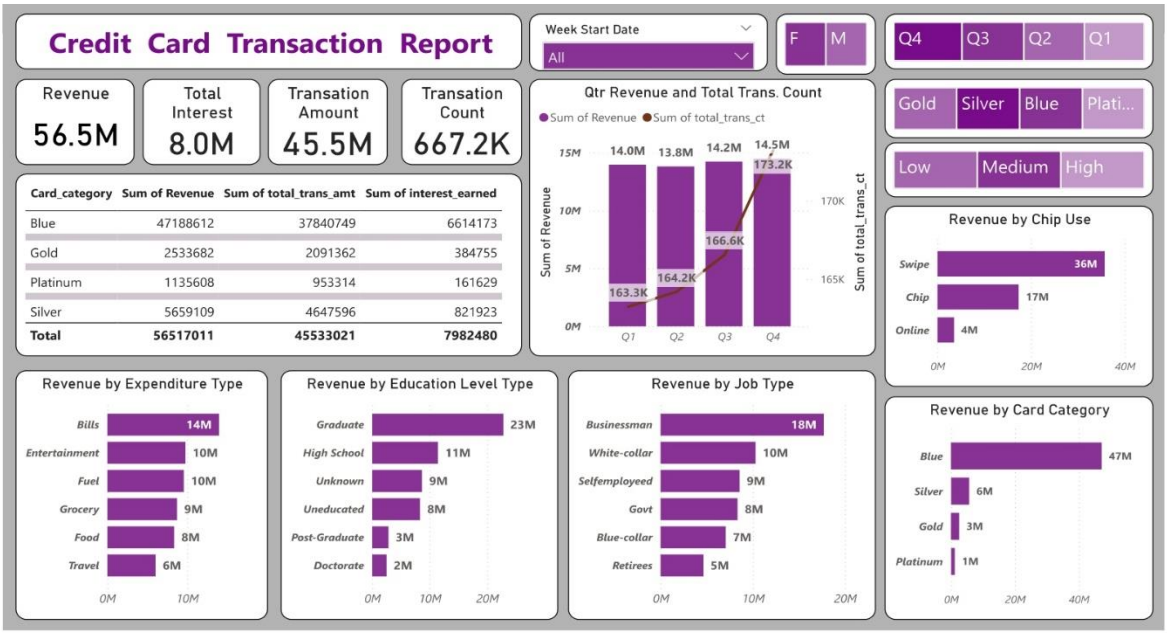
(4) Revenue = 'public cc_detail'[annual_fees] + 'public cc_detail'[total_trans_amt] + 'public cc_detail'[interest_earned]

(5) Current_week_Reveneue = CALCULATE(
 SUM('public cc_detail'[Revenue]),
 FILTER(
 ALL('public cc_detail'),
 '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'),
 'public cc_detail'[week_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%