Created by – Nikhil Kumar (GitHub : https://github.com/nikhil999777)

Credit card data analysis Power Bi Project Report

Project 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 analyse credit card operations effectively.

Database Creation and Data Import in MySQL

- Created a new database in MySQL: CREATE DATABASE ccdb;
- Created the required tables and imported data from two CSV files : credit_card and customer.
- Modified column data types during the import process to match the required schema.

Adding Additional Data for Real-Time Insights after creating the Power BI dashboard :

The following SQL queries were used to append new records to existing tables from additional CSV files:

1. For the credit_card table:

```
LOAD DATA LOCAL INFILE 'C:/Users/nikhi/Desktop/power bi
project/Credit_Card_Financial_Dashboard-main/credit_card_add.csv'

INTO TABLE credit_card

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;
```

2. For the customer table:

```
LOAD DATA LOCAL INFILE 'C:/Users/nikhi/Desktop/power bi
project/Credit_Card_Financial_Dashboard-main/customer_add.csv'

INTO TABLE customer

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;
```

Integration with Power BI

- Imported the MySQL database (ccdb) into Power BI Desktop for visualization.

- Created measures and calculated columns using DAX queries to generate interactive dashboards.

DAX Queries used :

- **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, "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))

Project Insights

WoW change:

- Revenue increased by 28.8%,
- Total Transaction Amt & Count increased by --% & --%
- Customer count increased by --%

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%