

# **CREDIT CARD**

## **weekly status report**

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# ABSTRACT

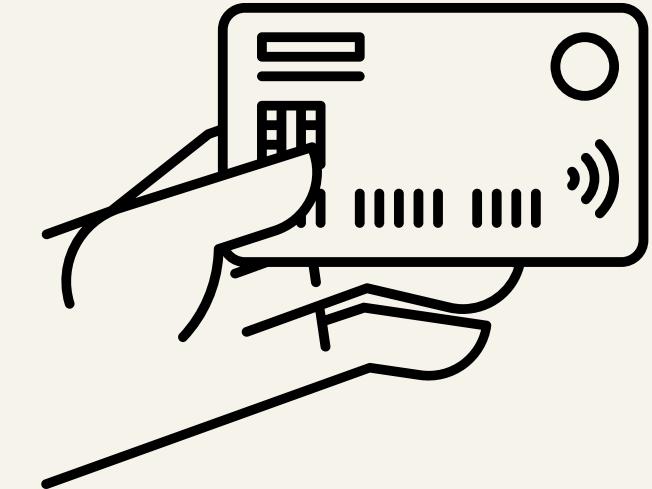
We created an HR Analytics Dashboard to provide data-driven insights for enhancing employee performance, increasing retention, and reducing attrition. The dashboard highlights key trends such as high attrition rates in specific sectors, age groups, and job roles. It also reveals a correlation between job satisfaction and attrition. These insights help HR managers implement strategies to retain top talent and improve workplace productivity.

# CONTENT

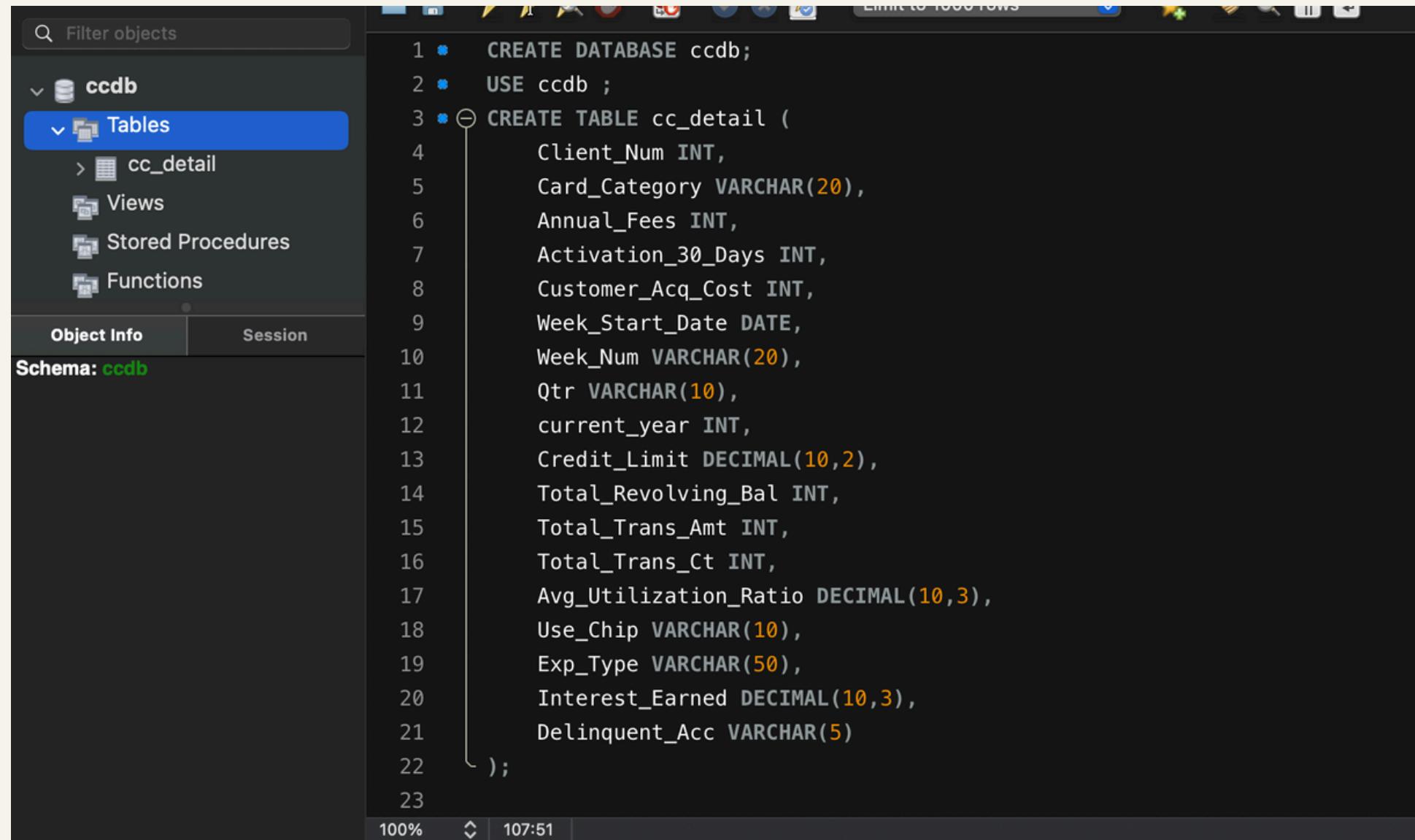
- 1. Project objective
- 2. Import Data to SQL Database
- 3. Power-bi
- 4. Data processing & DAX
- 5. Dashboard & insights
- 6. Resources & Profile
- 7. Conclusion

# 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 analyze credit card operations effectively.



# IMPORT DATA TO SQL DATABASE



The screenshot shows the MySQL Workbench interface. On the left, the schema tree for 'ccdb' is visible, with 'Tables' selected. Inside 'Tables', there is a single entry: 'cc\_detail'. The main pane displays the SQL code for creating the 'cc\_detail' table:

```

1 • CREATE DATABASE ccdb;
2 • USE ccdb ;
3 • CREATE TABLE cc_detail (
4     Client_Num INT,
5     Card_Category VARCHAR(20),
6     Annual_Fees INT,
7     Activation_30_Days INT,
8     Customer_Acq_Cost INT,
9     Week_Start_Date DATE,
10    Week_Num VARCHAR(20),
11    Qtr VARCHAR(10),
12    current_year INT,
13    Credit_Limit DECIMAL(10,2),
14    Total_Revolving_Bal INT,
15    Total_Trans_Amt INT,
16    Total_Trans_Ct INT,
17    Avg_Utilization_Ratio DECIMAL(10,3),
18    Use_Chip VARCHAR(10),
19    Exp_Type VARCHAR(50),
20    Interest_Earned DECIMAL(10,3),
21    Delinquent_Acc VARCHAR(5)
22 );
23

```



The screenshot shows the continuation of the SQL script. It includes the 'LOAD DATA INFILE' command used to import data from a CSV file into the 'cc\_detail' table:

```

23
24 • LOAD DATA INFILE '/Users/saurabbingole/Downloads/bepec/Projects/credit card dashboard/credit_card.csv'
25   INTO TABLE cc_detail
26   FIELDS TERMINATED BY ','
27   ENCLOSED BY ""
28   LINES TERMINATED BY '\n'
29   IGNORE 1 LINES
30   (Client_Num, Card_Category, Annual_Fees, Activation_30_Days, Customer_Acq_Cost, Week_Start_Date, Week_Num, Qt
31

```

We created the `cc\_detail` table and used the `LOAD DATA INFILE` command to import data from a CSV file into the table.



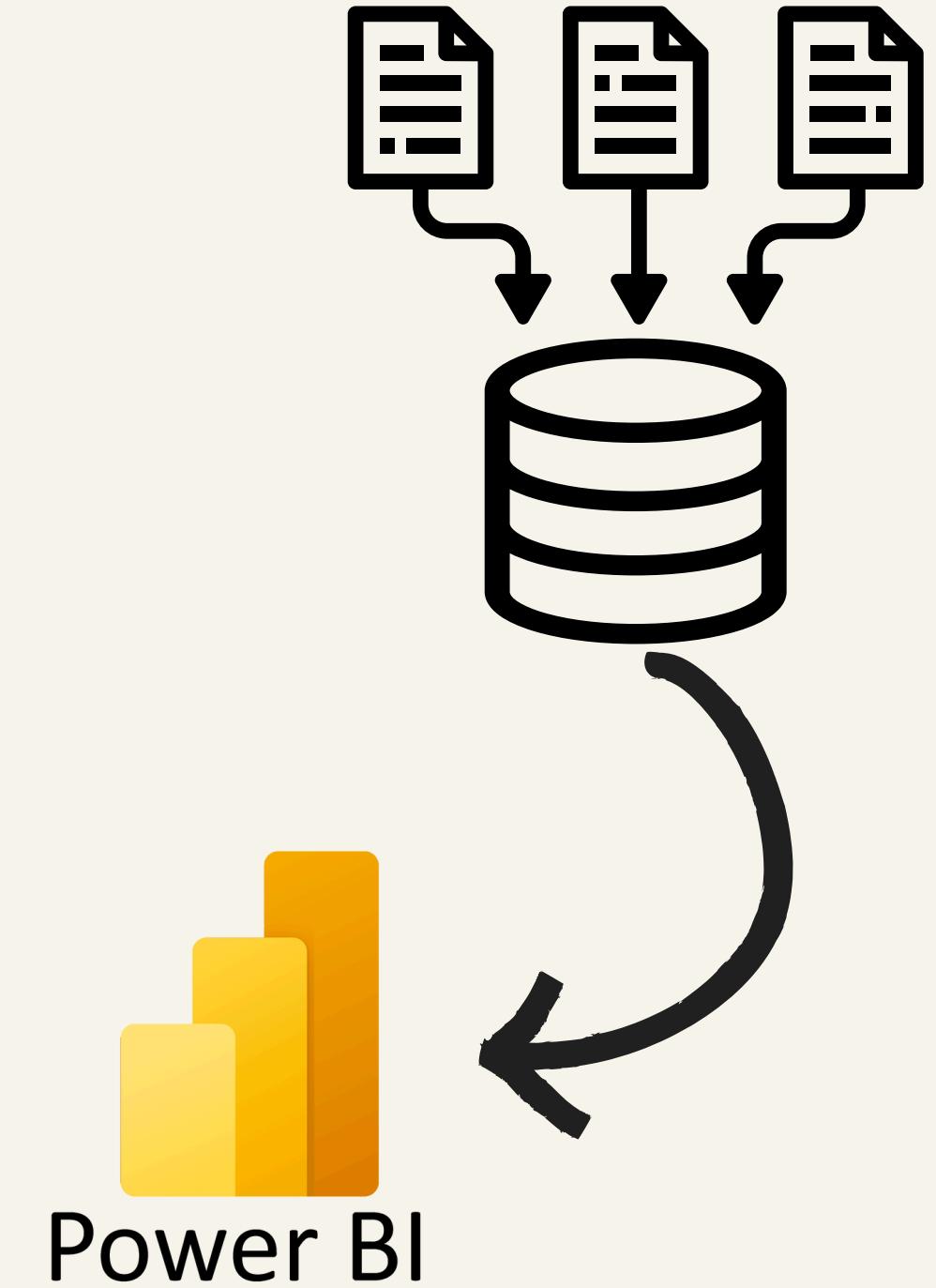
The screenshot shows the MySQL Workbench interface. On the left, the object browser displays a database named 'ccdb' with a table named 'cust\_detail'. The main pane shows the SQL code for creating the table and loading data from a CSV file.

```
33 • CREATE TABLE cust_detail (
34     Client_Num INT,
35     Customer_Age INT,
36     Gender VARCHAR(5),
37     Dependent_Count INT,
38     Education_Level VARCHAR(50),
39     Marital_Status VARCHAR(20),
40     State_cd VARCHAR(50),
41     Zipcode VARCHAR(20),
42     Car_Owner VARCHAR(5),
43     House_Owner VARCHAR(5),
44     Personal_Loan VARCHAR(5),
45     Contact VARCHAR(50),
46     Customer_Job VARCHAR(50),
47     Income INT,
48     Cust_Satisfaction_Score INT
49 );
50
51 • LOAD DATA LOCAL INFILE '/Users/saurabbingole/Downloads/bepec/Projects/credit card dashboard/customer.csv'
52 INTO TABLE cust_detail
53 FIELDS TERMINATED BY ','
54 ENCLOSED BY '\"'
55 LINES TERMINATED BY '\n'
56 IGNORE 1 LINES
```

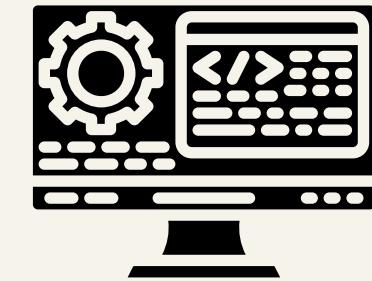
- Did the same for 'Cust\_detail' table where we use the 'customer.csv' dataset

# POWER BI

Load the data into power-bi desktop by connecting or importing data from SQL Database



# DAX QUERIES



```
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"  
)
```

- The **AgeGroup** and **IncomeGroup** DAX queries categorize customer ages and incomes into broader groups, respectively, to simplify analysis and visualization, making it easier to identify key trends and patterns.

- `week_num2 = WEEKNUM('public cc_detail'[week_start_date])`

---

- `Revenue = 'public cc_detail'[annual_fees] + 'publiccc_detail'[total_trans_amt] + 'publiccc_detail'[interest_earned]`

---

`Current_week_Revenue = CALCULATE(  
SUM('public cc_detail'[Revenue]),  
FILTER(  
ALL('public cc_detail'),  
'public cc_detail'[week_num2] = MAX('public  
cc_detail'[week_num2])))`

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

- 
- The Current\_week\_Revenue and Previous\_week\_Revenue DAX queries calculate the total revenue for the current and previous weeks, respectively. These measures were created to determine the week-over-week percentage change in revenue, enabling the analysis of short-term revenue trends and fluctuations.

# DASHBOARD

### Credit Card Transaction Report

Revenue <b>55M</b>	Total Interest <b>7.8M</b>	Trans Amount <b>45M</b>	Trans Count <b>656K</b>
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Card_Category	Sum of Revenue	Sum of Total_Trans_Amt	Sum of Interest_Earned
Platinum	1135608	953314	161629
Gold	2454072	2024078	373784
Silver	5586332	4586746	812081
Blue	46139398	36957875	6495888
<b>Total</b>	<b>55315410</b>	<b>44522013</b>	<b>7843382</b>

Q4 Q3 Q2 Q1

Week\_Start\_Date  
All

### QTR Revenue and total trans count

Quarter	Sum of Revenue	Sum of Total_Trans_Vol
Q1	14.0M	163.3K
Q2	13.8M	164.2K
Q3	14.2M	161.6K
Q4	13.3M	165K

F M

Silver Gold Plat...  
Blue

Med Low High

### Revenue by Education Level

Graduate	22M
High Sch...	11M
Unknown	8M
Uneducat...	8M
Post-Grad...	3M
Doctorate	2M

### Revenue by Expenditure Type

Bills	14M
Entertain...	10M
Fuel	9M
Grocery	9M
Food	8M
Travel	6M

### Revenue by Customer Job

Businessman	17M
White-collar	10M
Selfemployed	8M
Govt	8M
Blue-collar	7M
Retirees	5M

### Revenue by Card Category

Blue	46M
Silver	6M
Gold	2M
Platinum	1M

### Revenue by Use Chip

Swipe	35M
Chip	17M
Online	3M

## Credit Card Customer Report

Revenue **55M** Total Interest **7.8M** Income **576M** CSS **3.19**

Week\_Start\_Date: All

Revenue by Age Group

Age Group	M	F
20-30	10M	15M
30-40	4M	5M
40-50	11M	14M
50-60	9M	10M
60+	2M	3M

Customer\_Job Sum of Revenue Sum of Interest\_Earned Sum of Income

Customer_Job	Sum of Revenue	Sum of Interest_Earned	Sum of Income
Blue-collar	6904279	952801	7234567
Businessman	17387832	2539390	1869456
Govt	8111701	1160016	8812345
Retirees	4535184	630359	4805678
<b>Total</b>	<b>55315410</b>	<b>7843382</b>	<b>5759123</b>

Revenue By Week

Top 5 States

State	Revenue
TX	6M
NY	7M
CA	7M
FL	6M
NJ	3M

Revenue by Marital Status

Status	Revenue
Married	13M
Single	11M
Unknown	1M

Revenue by Income Group

Income Group	Revenue
High	7M
Med	8M
Low	10M

Revenue by Dependent Count

Dependents	Revenue
4	4M
3	7M
2	7M
1	4M
0	2M

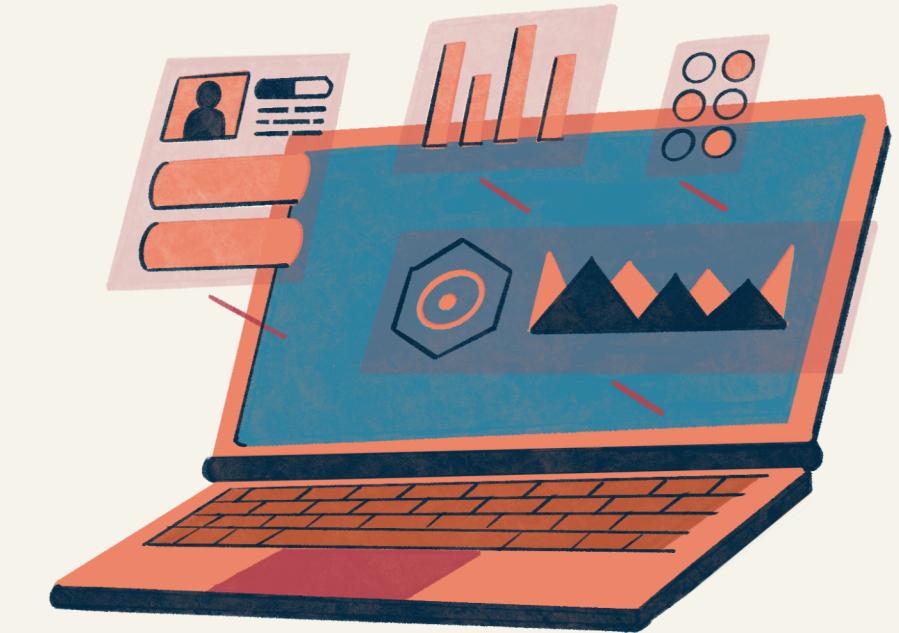
Revenue by Education

Education	Revenue
Graduate	10M
High School	5M
Unknown	4M
Uneducated	4M
Post-Grad...	1M
Doctorate	1M

# CREDIT CARD DATASET ANALYSIS

## I. Revenue Insights

- By Education Level:
  - Graduates are the top contributors, generating \$22M in revenue.
- By Expenditure Type:
  - Bills: Leading with \$14M in revenue.
  - Entertainment: The second-highest category.
- By Customer Job:
  - Businessmen: Leading contributors with \$17M.
- By Card Category:
  - Blue Card: The highest revenue generator at \$46M.
- By Age Group:
  - The 40-50 age group generates the most revenue, followed by the 50-60 age group.
- Top 3 States:
  - Texas, New York, and California are the highest revenue-generating states They contribute 68% to the overall revenue.



## ● 2. Financial Metrics

- Overall Revenue: \$55M
- Total Interest Earned: \$8M
- Total Transaction Amount: \$45M

## ● 3. Demographic Insights

### Gender Contribution:

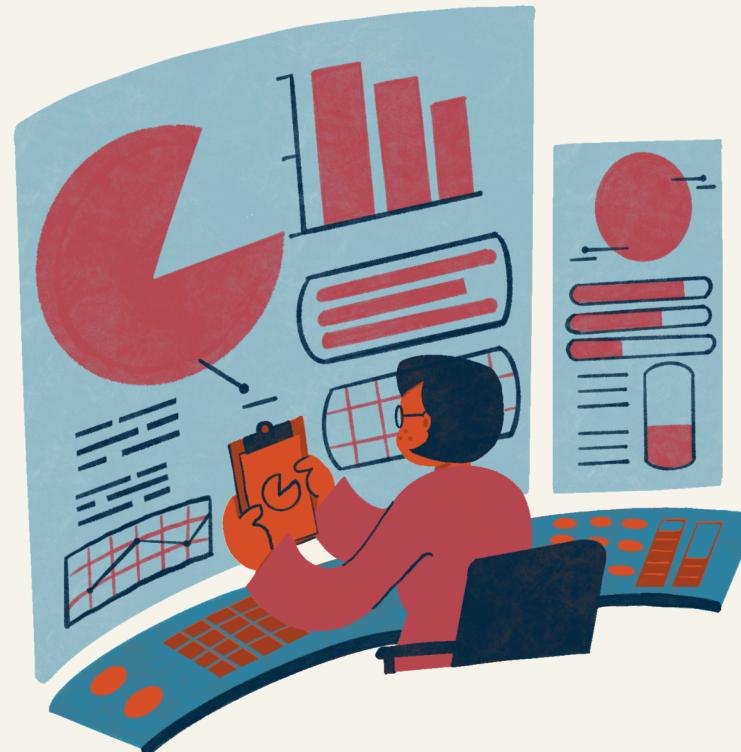
- Male Customers: \$30M
- Female Customers: \$25M

## ● 4. Card Category Contributions

- Blue & Silver Cards: Account for 93% of overall transactions.

## ● 5. Key Performance Indicators

- Overall Activation Rate: 57.5%
- Overall Delinquent Rate: 6.06%



# CONCLUSION

The analysis of the credit card dataset reveals key areas of strength and potential opportunities for growth. The company generates substantial revenue from graduate customers, businessmen, and individuals aged 40-50. The Blue card and major states like Texas, New York, and California play pivotal roles in driving revenue. However, there are opportunities to improve by targeting underrepresented demographics, enhancing product offerings, and addressing the relatively high delinquent rate. By leveraging these insights, the company can strategically enhance its product offerings, improve customer engagement, and maximize revenue growth. These findings provide a clear path forward for making informed business decisions to optimize performance and customer satisfaction.

# RESOURCES & PROFILE

1



Access the Dataset and Dashboard on  
My GitHub

[Github Link](#)

2



[Linkedin Profile Link](#)

# THANK YOU