CREDIT CARD TRANSACTION WEEKLY REPORT

BUSINESS PRESENTATION

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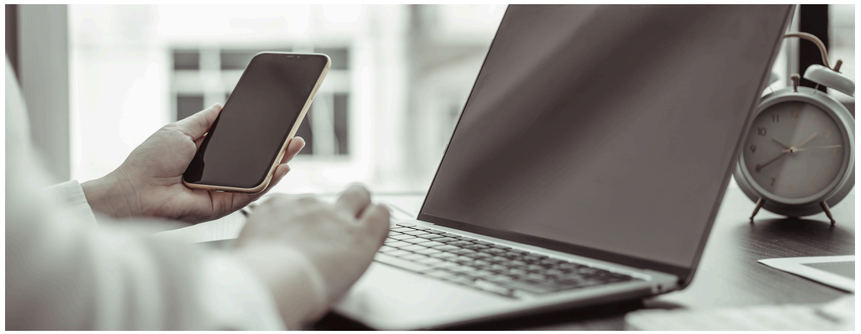
PROJECT OBJECTIVE



- To create an **interactive** and **data-driven** credit card **dashboard** using **SQL & Power BI** that provides comprehensive insights into key performance metrics and customer trends.

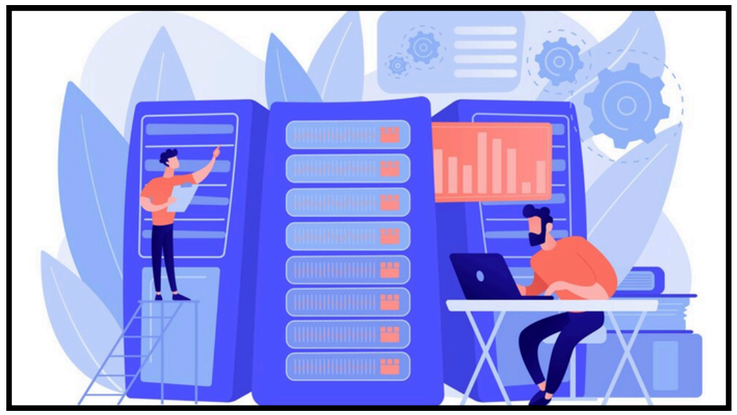
- The dashboard aims to facilitate the monitoring of revenue, transaction volumes, customer demographics, and expenditure patterns while highlighting the impact of factors such as income groups, education levels, age groups, and usage behavior.

- This empowers businesses to make informed decisions, enhance operational efficiency, and optimize credit card strategies to improve customer engagement and profitability.

STEPS INVOLVED

Data Preparation & Cleaning:

Created **SQL tables** to organize the dataset effectively. Imported the data from **CSV files into SQL** for storage and processing. Performed data cleaning to check duplicates, handle missing values, and ensure data integrity.



Transformation in Power BI:

Imported the cleaned data from **SQL into Power BI.** Utilized **Power Query Editor** to further transform and shape the data for visualization.

Applied **DAX functions** to create calculated columns, measures, and aggregations for advanced insights.

Dashboard Design

Designed and built **interactive dashboards in Power BI** to showcase key metrics and trends related to credit card operations.

Focused on actionable insights into revenue trends, customer demographics, transaction volumes, and spending patterns.

Data Analysis Expression Queries (1/3)

(DAX QUERIES)

01

```
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"
    )
```

02

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

Data Analysis Expression Queries (2/3)

(DAX QUERIES)

03

```
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")
```

04

```
WoW_Revenue = DIVIDE(([Current_Week_Revenue]-
[Previous_Week_Revenue]), [Previous_Week_Revenue])
```

Data Analysis Expression Queries (3/3)

(DAX QUERIES)

05

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

06

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

Credit Card Transaction Report

Q4 | Q3 | Q2 | Q1

F | M

week_start_date: All

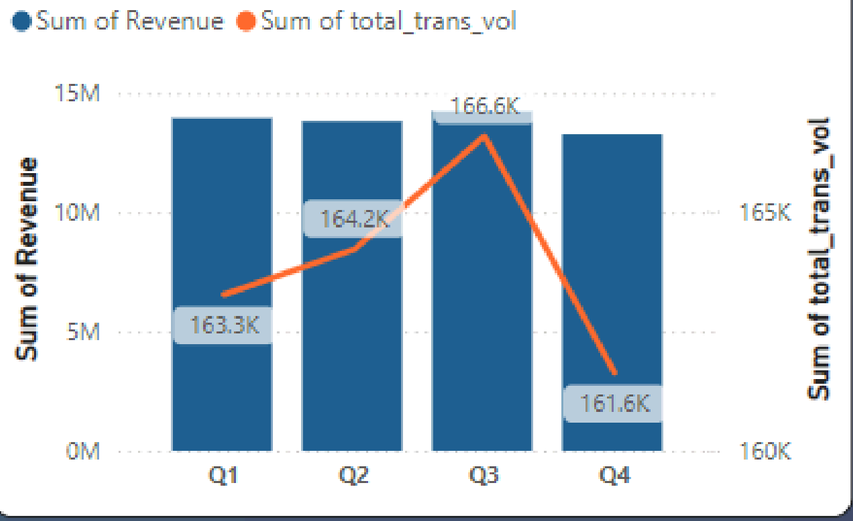
Low | Med | High

Silver | Blue | Gold | Plati...

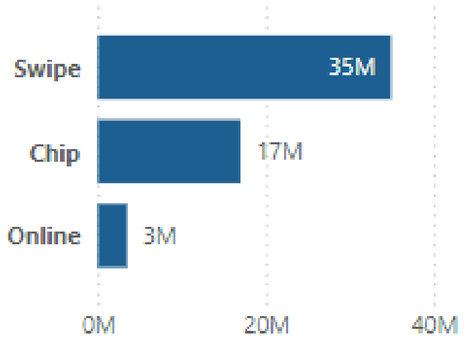
Revenue	Total Interest	Transaction Amt.	Transaction Count
55M	7.84M	45M	656K

card_category	Sum of Revenue	Sum of total_trans_amt	Sum of interest_earned
Blue	46139398	36957875	64,95,887.74
Silver	5586332	4586746	8,12,081.28
Gold	2454072	2024078	3,73,784.16
Platinum	1135608	953314	1,61,629.05
Total	**55315410**	**44522013**	**78,43,382.23**

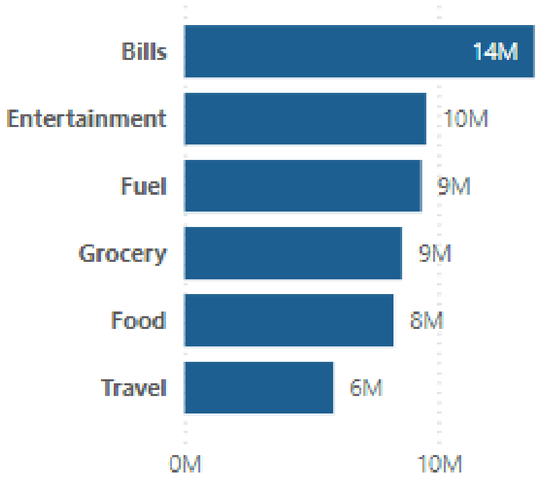
Quarterly Revenue & Total Transaction Count



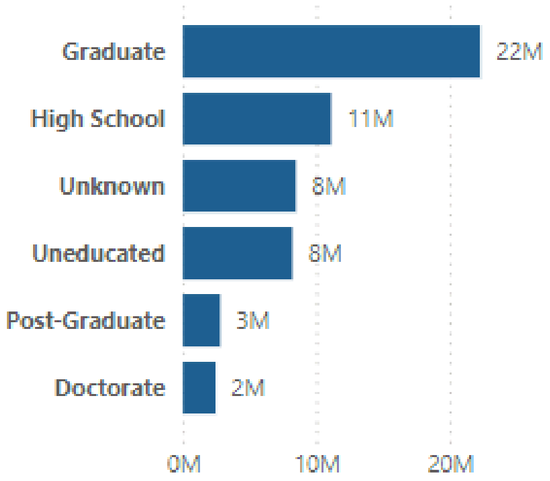
Revenue by Use Chip



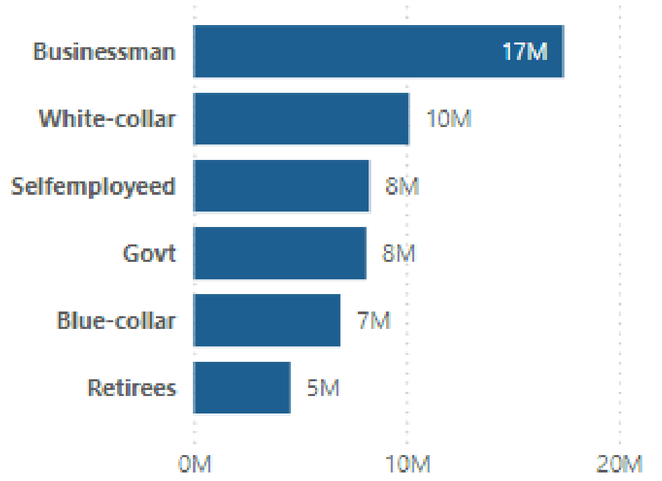
Revenue by Expenditure



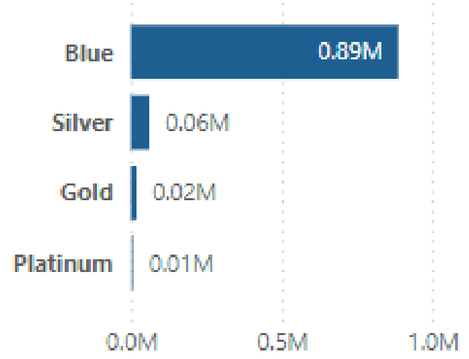
Revenue by Education



Revenue by Customer Job



Revenue by Card Category



KEY INSIGHTS (1/2)

1. Revenue and Transactions:

- Total revenue is **55 Million**, with a total transaction amount of **45 Million** approx.
- The total **interest earned** is **7.84 Million**, and the total transaction count is **656K.**

2. Card Categories:

- The **highest revenue** is generated from **Blue cards (46 Million)**, followed by **Silver cards (5.58 Million)**.
- Revenue **Platinum cards (0.01 Million)** is comparatively **less** from the rest of the category.

3. Quarterly Trends:

- Revenue peaks in **Q3 (16.6 Million)** and dips slightly in **Q4 (15Million).**

KEY INSIGHTS (2/2)

5. Customer Segmentation:

- **Graduates** contribute the **most to revenue (22 Million),** while **Doctorates** contribute the **least (2 Million).**
- **Businessmen** are the **top contributors** by profession **(17 Million)**, followed by **white-collar professionals (10 Million).**

6. Expenditure Categories:

- **Bills** generate the **highest revenue (14 Million),** followed by **entertainment (10 Million)** and **fuel (9 Million).**
- **Travel** generates the **least revenue (6 Million).**

7. Revenue by Usage:

- **Most revenue** is generated through **swipe transactions (35 Million),** followed by **chip transactions (17 Million).**
- **Online transactions** contribute the **least (3 Million).**

Credit Card Customer Report

Q4 | Q3 | Q2 | Q1

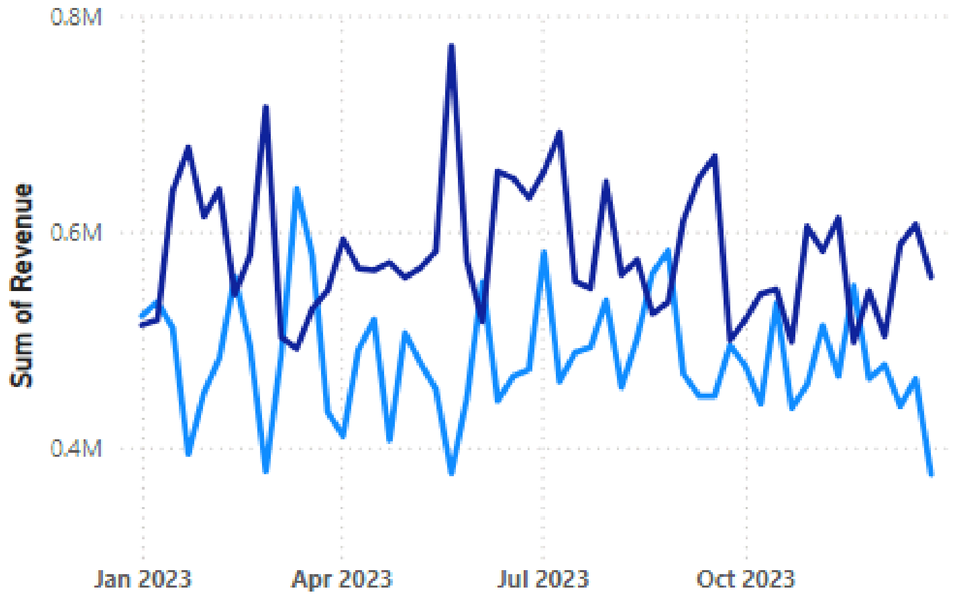
F | M

week_start_date: All

Low | Med | High

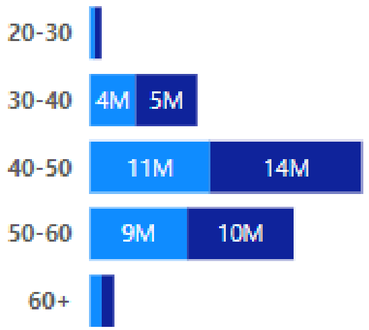
Silver | Blue | Gold | Plati...

Yearly Revenue Based on Gender



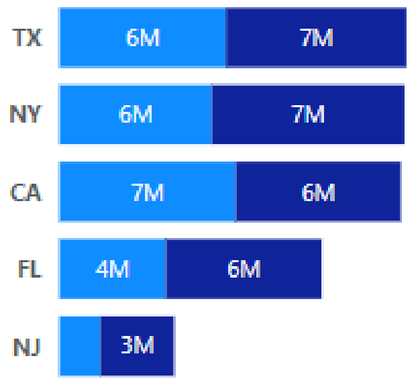
Revenue	Total Interest	Income	CSS
55M	7.84M	576M	3.19

Age Group

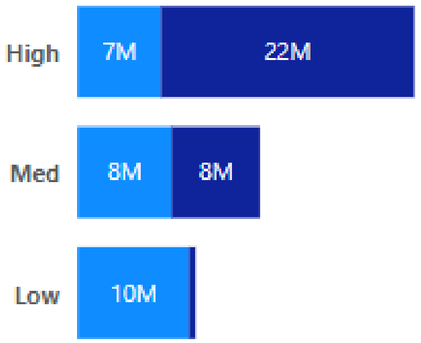


customer_job	Sum of Revenue	Sum of income	Sum of total_trans_amt
Blue-collar	6904279	72262158	5488838
Businessman	17387832	186959919	14285412
Govt	8111701	88773989	6507875
Retirees	4535184	48675030	3623120
Selfemployeed	8261758	75313288	6395026
White-collar	10114656	103930055	8221742
Total	**55315410**	**575914439**	**44522013**

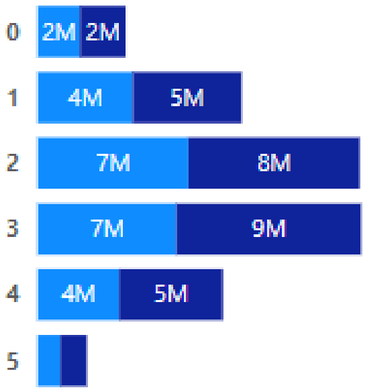
Top 5 States



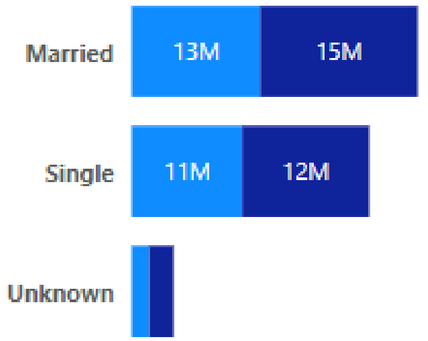
Income Group



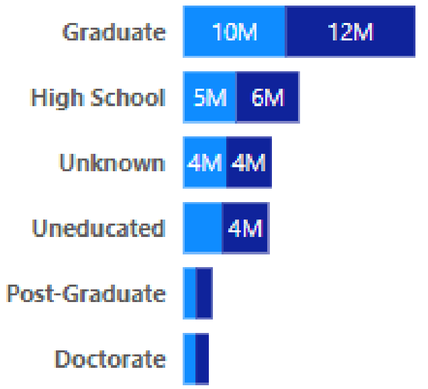
Dependent Count



Marital Status



Education Level



KEY INSIGHTS (1/2)

1. Key Metrics:

- The **total customer income** is **$576 Million,** and the **Customer Satisfaction Score (CSS)** is **3.19.**

2. Revenue Trends by Gender:

- Revenue varies significantly across the year**, peaking** in **April and July 2023.**
- **Male customers** contribute slightly **more revenue** than **female customers.**

3. Customer Demographics:

- **Customers aged 40–50** contribute the **highest revenue ($14 Million),** while those **aged 60+** contribute the **least.**
- **Married customers** generate slightly **more revenue** compared to **single customers.**
- **Graduates** are the **largest contributors** in terms of education, with **$10 Million** in **revenue.**

KEY INSIGHTS (2/2)

4. Top 5 States by Revenue:

- The states generating the most **revenue** are **Texas (TX)** and **New York (NY), each contributing $6 Million.**
- **New Jersey (NJ)** contributes **less revenue** among the top states.

5. Income Groups:

- The **high-income group** dominates **revenue** contributions with **$22 Million** followed by **medium-income group,** and the **low-income group.**

6. Revenue by Occupation:

- **Businessmen** are the **highest contributors,** generating **$17 Million** in **revenue** while the **blue-collar workers** have the **lowest contributions** by **$6.9 Million.**

7. Dependent Count:

- Customers with **1 or 2 dependents** contribute the **most revenue ($5 Million each).** Customers with **5 or more dependents** contribute the **least revenue.**

THANK YOU

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