CREDIT CARD

TRANSACTION FINANCIAL DASHBOARD

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ABSTRACT

This project aims to develop a comprehensive credit card weekly dashboard that provides real-time insights into key performance metrics and trends. The dashboard enables stakeholders to monitor and analyze credit card operations effectively, using Power BI for data visualization and analysis.

INTRODUCTION

The primary objective of this project is to create an interactive dashboard using transaction and customer data from a SQL database. The dashboard provides real-time insights into credit card performance, helping stakeholders make informed decisions.

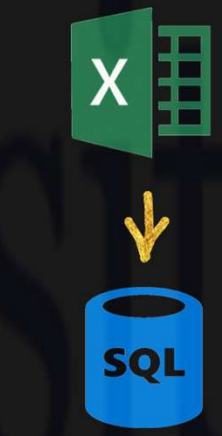
CONTENTS IN THIS PROJECT

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

1. Prepare csv file
2. Create tables in SQL
3. import csv file into SQL



Data Output | Messages | Notifications

```
COPY 10108

Query returned successfully in 82 msec.
```

BRIEF ABOUT POWER BI

- **Power BI Overview:** Power BI is a data visualization tool that enables users to create interactive dashboards and reports.

- **DAX:** Data Analysis Expressions (DAX) is a library of functions used in Power BI for data manipulation and calculations.

- **Measures and Calculated Columns:** Measures are dynamic calculations used in data analysis, while calculated columns are static and calculated during data import.

ADVANTAGES OF POWER BI

- **Real-time Data Processing:** Power BI allows for real-time data analysis and visualization.

- **Interactive Dashboards:** Users can interact with the data through dynamic dashboards.

- **Integration:** Power BI integrates seamlessly with various data sources like SQL, Excel, and more.

ADVANTAGES COMPARED TO OTHER VISULIZATION TOOLS

Cost-effective: Power BI offers a more affordable pricing model compared to tools like Tableau.

Ease of Use: User-friendly interface that is easy to learn and use.

Advanced Analytics: Provides powerful analytics capabilities with DAX and other advanced functions.

PROBLEM STATEMENT

The need for real-time insights into credit card operations to monitor performance metrics and trends. Traditional reporting methods were not efficient enough to provide timely and actionable insights.

DATA DESCRIPTION

Data Sources: Data was collected from SQL databases, including transaction and customer data.

Data Processing: Data was processed using SQL and DAX queries to create meaningful insights.

Example DAX Queries:

- AgeGroup calculation
- IncomeGroup calculation
- Revenue calculations

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"
)
```

DAX Queries

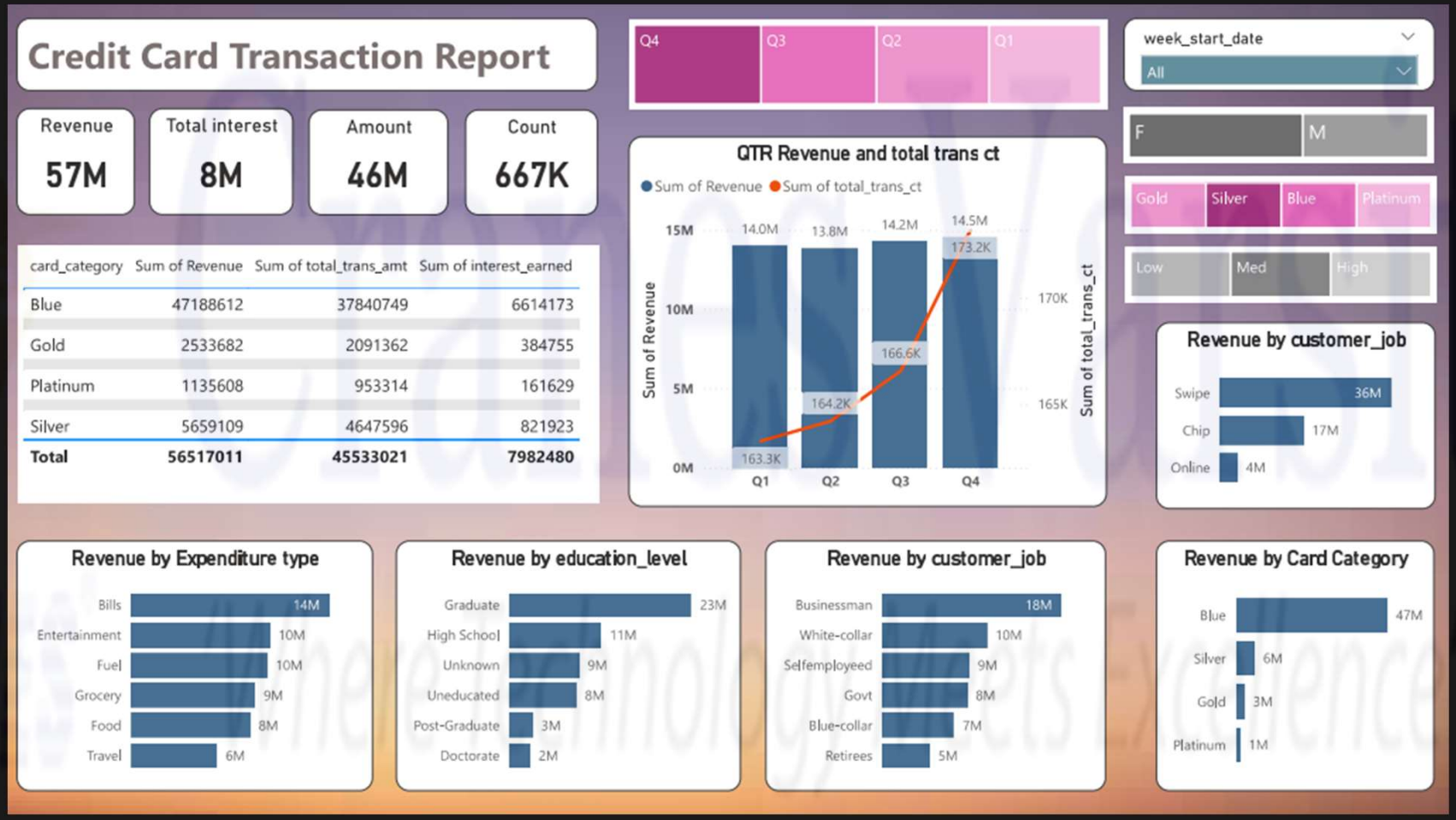
week_num2 = WEEKNUM('public cc_detail'[week_start_date])

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))

SCREENSHOTS



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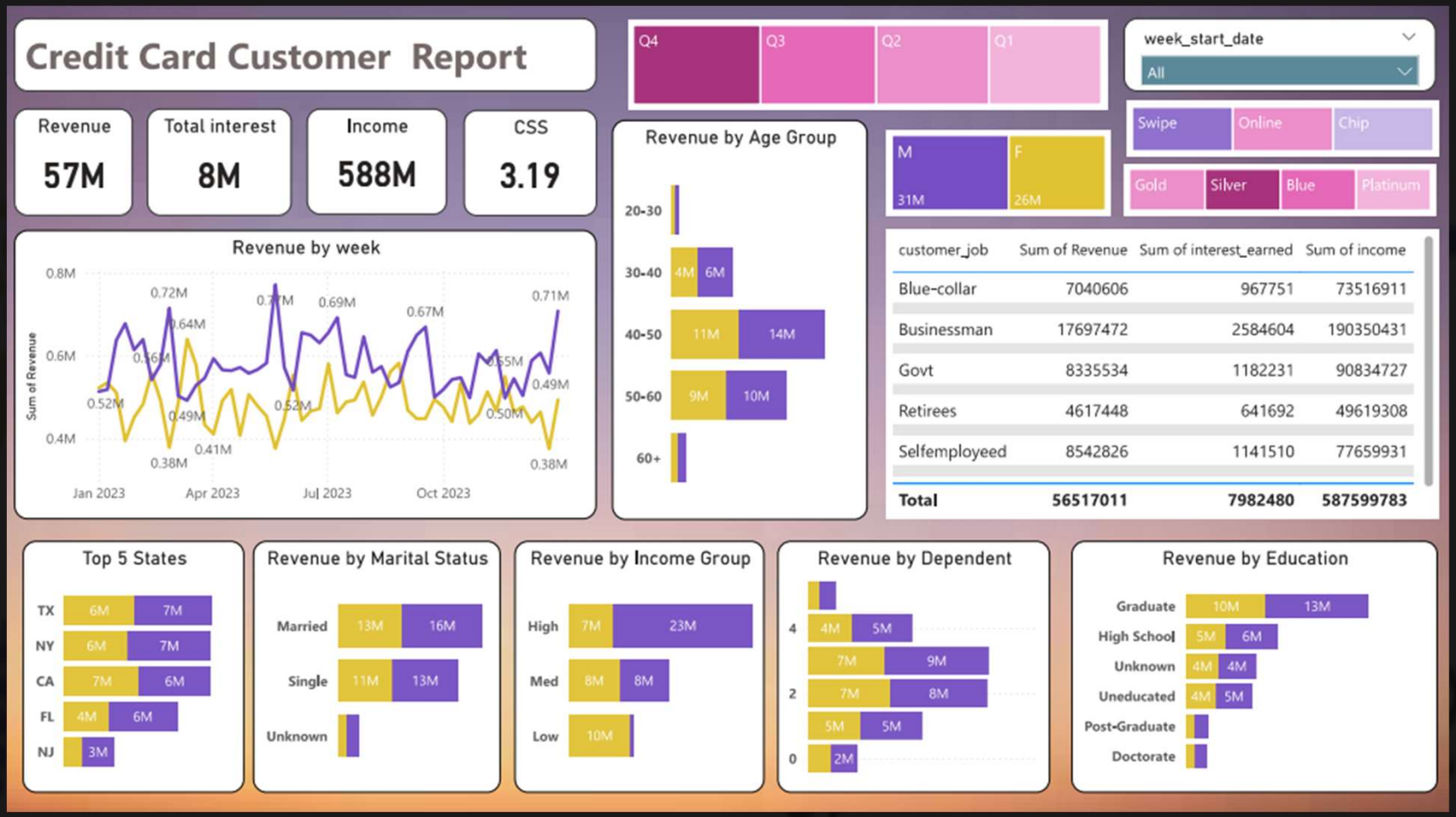

Project Insights- Week 53 (31st Dec)

WoW change:

- Revenue increased by 28.8%,

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%

Note: You can add more insights

CONCLUSION

- **Summary:** The dashboard provides valuable real-time insights into credit card operations, aiding stakeholders in making informed decisions. The use of Power BI and DAX enhanced the efficiency and effectiveness of data analysis.

- **Future Work:** Potential improvements and future enhancements to the dashboard.

Download Data

GitHub:

https://github.com/Sujith43/-CreditCard_Analytics


THANK YOU
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