CREDIT CARD WEEKLY STATUS REPORT

BREIF

- **The goal of this project was to design a Credit Card Weekly Status Report Dashboard that gives a clear picture of customer usage and overall business performance.**

- **The work was carried out using Structured Query Language (SQL) for preparing and cleaning the raw dataset, and Microsoft Power BI for building visualizations and applying analytical formulas through Data Analysis Expressions (DAX).**

- **The dataset used contained more than 1.2 million transaction records and details of over 10,000 unique customers.**

- **The dashboard highlights key information such as revenue generation, customer demographics, spending patterns, and risk indicators like activation and delinquency rates.**

PROJECT DEVELOPMENT STAGES

Data Collection and Preparation

- **Raw data in CSV format was imported into PostgreSQL (SQL database).**
- **Tables were created for transactions (cc_detail) and customers (cust_detail).**
- **Issues like incorrect date formats and duplicate records were identified and corrected.**

Data Modeling and Transformation

- **The SQL database was connected with Power BI.**
- **Key performance indicators (KPIs) such as revenue, active customers, and delinquency were defined.**

Dashboard Design

- **Power BI was used to design interactive visualizations with filters, slicers, and KPIs.**
- **Data Analysis Expressions (DAX) were applied for segmentation and time-based calculations.**

CUSTOMER SEGMENTATION LOGIC

Age Groups:

- Customers were categorized into ranges such as 20–30, 30–40, 40–50, 50–60, and 60+ years.

Income Groups:

- Segmentation into Low Income (<₹35,000), Medium Income (₹35,000–70,000), and High Income (>₹70,000).

Weekly Analysis:

- Each transaction date was converted into a week number to support weekly trend comparisons.

🔍 These segmentations helped in building a customer profile view and identifying which groups contribute most to revenue.

REVENUE AND CUSTOMER METRICS

Revenue Formula:

- **Revenue was calculated as the sum of Annual Fees + Transaction Amount + Interest Earned.**

Weekly Revenue Tracking:

- **Current week revenue was compared against the previous week to measure growth or decline.**

Total Customers:

- **Counted as 10,293 unique active customers using DISTINCTCOUNT in Power BI.**
- **Active Customer Percentage: Compared active customers with registered customers, showing 85% engagement.**

🔍 **These measures provided clarity on how revenue is generated and how actively customers are using credit cards.**

RISK AND PERFORMANCE INDICATORS

Average Customer Age:

- **46 years, showing a middle-aged customer base.**

Satisfaction Score:

- **Average score of 3/5, pointing towards moderate satisfaction.**

Activation Rate:

- **57.5% of customers activated their cards within 30 days of issuance.**

Delinquency Rate:

- **6.06% of customers showed delayed or missed payments.**

Week-on-Week Growth:

- **Revenue increased by 4.2% in the most recent week.**

🔍 **These risk indicators are crucial for monitoring financial health and identifying areas of concern.**

YEAR-TO-DATE (YTD) INSIGHTS

Revenue Performance:

- ₹57M in total revenue, including ₹8M from interest income.

Customer Contribution:

- Male customers generated ₹31M, female customers generated ₹26M.

Card Usage:

- Blue and Silver cards together accounted for 93% of all transactions.

Regional Insights:

- Texas, New York, and California contributed 68% of the total revenue.

Customer Base:

- Out of 12,000 registered customers, 10,293 are active, showing 85% participation.

🔍 These insights helped pinpoint where the business is strong and where there are opportunities to improve.

CREDIT CARD TRANSACTION REPORT

Weekly Transaction & Revenue Insights

week_start_date

All

Total Transactions (Amt)	Total Transactions (Count)
46M	667.2K

Category-wise Credit Card Summary

card_category	Sum of Revenue	Sum of total_trans_amt	Sum of interest_earned
Platinum	1,135,608.05	953314	161,629.05
Gold	2,533,682.16	2091362	384,755.16
Silver	5,659,108.98	4647596	821,922.98
Total	56,517,010.81	45533021	7,982,479.81

15M 14.0M 13.8M 14.2M 14.5M

Revenue

10M

5M

166.6K

164.2K

163.3K

0M

Q1   Q2   Q3   Q4

170K

Sum of Total Transaction Count

165K

Q3 Med

Q2   Gold   Blue

Q1 High Silver Platinum
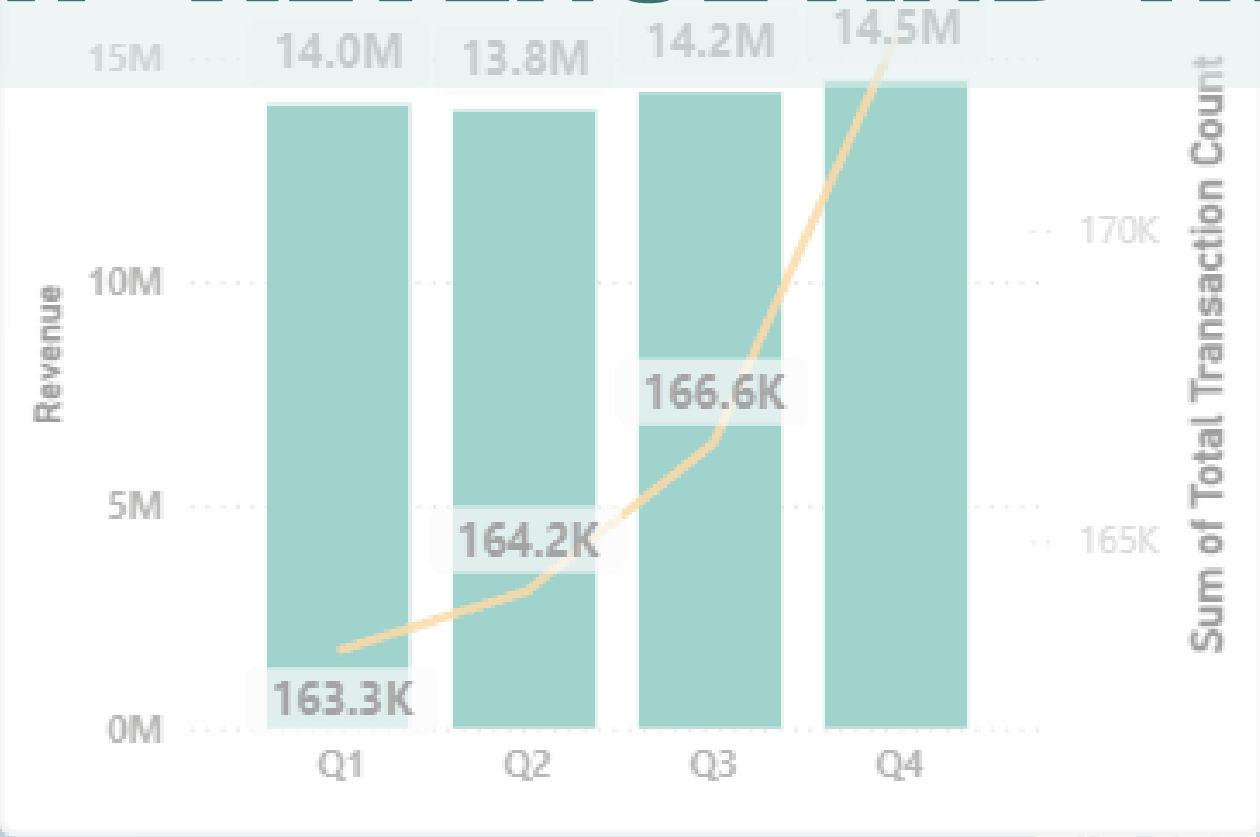
Revenue by Card Category

Blue	47M
Silver	6M
Gold	3M
Platinum	1M

Revenue by Education Level

Revenue by Customer Job

Revenue by Expense Type

Revenue by Payment

36M

Doctorate 2M

Retirees 5M

- The first dashboard page presents a summary of financial performance.
- It includes KPIs such as Revenue, Interest, and Transaction Amount, along with filters for card type, gender, and location.
- Visuals such as treemaps and bar charts make it easy to identify which categories and regions are driving results.

DASHBOARD OVERVIEW: CUSTOMER DEMOGRAPHICS

CREDIT CARD CUSTOMER REPORT

Customer Demographics & Spending Insights

Week_start_date

All

Average Age
46

Total Customers
10K

57M

8M

20-30

30-40 | 4M | 6M

40-50 | 11M | 14M

50-60 | 9M | 10M
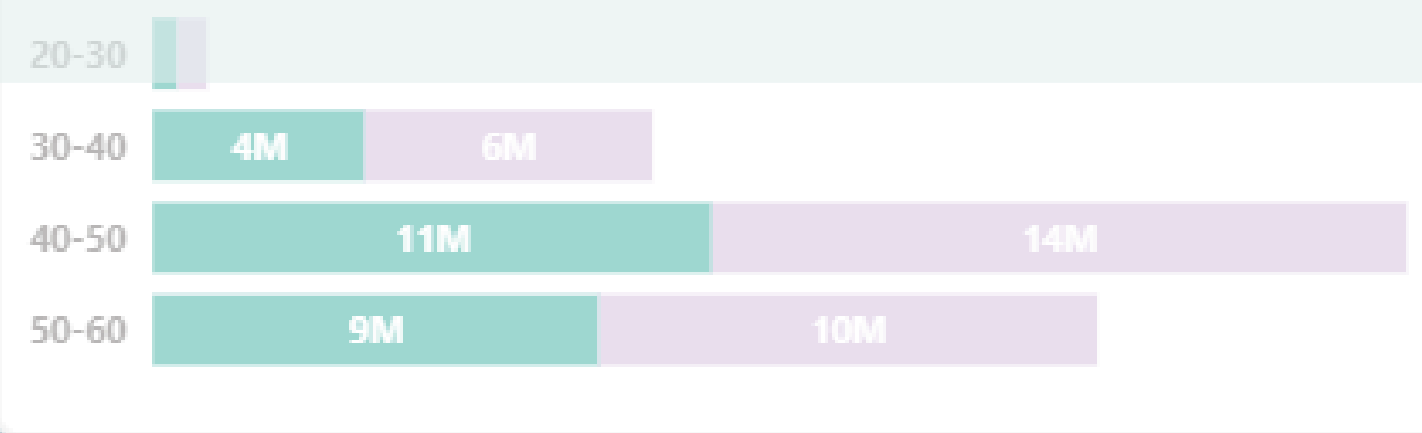
Q3 | Med
Q2 | | Gold | Blue
Q1 | High | Silver | Platinum

Customer Job-wise Credit Card Summary

customer_job	Sum of Revenue	Sum of interest_earned	Sum of income
Businessman	17,697,472.01	2,584,604.01	190350431
White-collar	10,283,123.92	1,464,690.92	105618475
Govt	8,335,533.84	1,182,230.84	90834727
Selfemployeed	8,542,826.40	1,141,510.40	77659931
Blue-collar	7,040,606.42	967,751.42	73516911

Revenue by Week

gender ● F ● M

Sum of Revenue: 0.8M, 0.6M, 0.4M

unknown | 4M | 4M
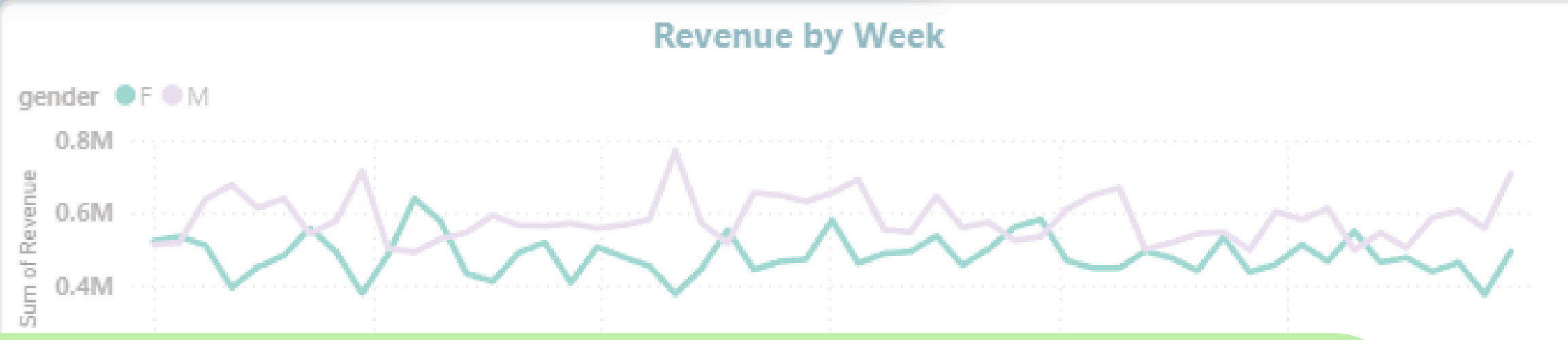
- The second dashboard page focuses on the customer profile.
- It includes demographics such as age, income group, education level, and gender distribution.
- Key KPIs include Total Customers, Average Age, and Revenue by Segment.
- This helps the business understand who their primary customers are and how different groups spend.

DASHBOARD OVERVIEW: RISK AND WEEKLY TRENDS

Week-over-week revenue comparison (Previous vs Current, with % change)

week_num2			
52	1,070,439.10	933,134.43	-12.8%
43	1,080,205.07	934,631.07	-13.5%
17	1,082,608.69	978,441.30	-9.6%
13	1,106,532.92	978,564.76	-11.6%
49	1,008,776.60	980,152.37	-2.8%
41	994,113.68	982,974.09	-1.1%
10	1,093,501.86	987,820.46	-9.7%
40	994,184.42	994,113.68	-0.0%
39	1,117,637.54	994,184.42	-11.0%
14	978,564.76	1,003,843.69	2.6%
48	1,047,120.33	1,008,776.60	-3.7%
32	1,182,651.53	1,015,951.26	-14.1%
22	1,147,869.75	1,018,518.29	-11.3%
44	934,631.07	1,062,062.37	13.7%
Total	933,134.43	1,201,600.58	28.8%

Delinquency Analysis

delinquent_acc							Total
0	14.75%	17.81%	14.00%	9.16%	23.87%	14.35%	93.94%
1	0.85%	0.99%	1.10%	0.61%	1.66%	0.85%	6.06%
Total	15.60%	18.80%	15.10%	9.77%	25.53%	15.19%	100.00%

delinquent_acc	%GT Count of delinquent_acc
0	93.94%
1	6.06%
Total	100.00%

Activation within 30 days

activation_30_days	%GT Count of activation_30_days

- The third page covers risk management and weekly monitoring.
- It highlights delinquency, activation rates, and week-on-week revenue changes.

CONCLUSION

A complete dashboard was developed by integrating SQL for data preparation and Power BI for visualization and analysis.

₹57M	10.3K	6.06%
Revenue	Active Customer	Delinquency Rate

- The project delivered insights into revenue growth, customer behavior, and risk levels.
- Key findings included ₹57M revenue, 10.3K active customers, and a 6.06% delinquency rate.
- This project demonstrates how data analytics can support decision-making and improve business strategy.

Future scope includes using predictive analytics to forecast customer churn and lifetime value.

THANK YOU

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