

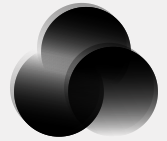


DA. SHUBHAM PANDIT

Aurex Bank – Dynamic Credit Card Performance Monitoring Dashboard

(Week-53)





Problem Statement

Aurex Bank, a tech-driven credit issuer, needs a dynamic and scalable analytics solution to track weekly credit card performance across financial, demographic, and behavioral dimensions. With rising customer acquisition costs, variable activation rates, and evolving delinquency risks, stakeholders require real-time KPIs to monitor revenue, transaction trends, and credit health. This dashboard integrates data from credit card operations and customer profiles—covering attributes like card type, usage patterns, credit limits, customer income, education, and satisfaction scores.



Database structure

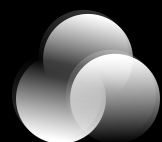
Analyst Perspective

Credit_Card

Client_Num	INT
Card_Category	VARCHAR
Annual_Fees	INT
Activation_30_Days	INT
Customer_Acq_Cost	INT
Week_Start_Date	DATE
Week_Num	VARCHAR
Qtr	VARCHAR
current_year	INT
Credit_Limit	NUMERIC
Total_Revolving_Bal	INT
Total_Trans_Amt	INT
Total_Trans_Ct	INT
Avg_Utilization_Ratio	NUMERIC
Use_Chip	VARCHAR
Exp_Type	VARCHAR
Interest_Earned	NUMERIC
Delinquent_Acc	VARCHAR

customer_detail

Client_Num	INT
Customer_Age	VARCHAR
Gender	INT
Dependent_Count	INT
Education_Level	INT
Marital_Status	DATE
state_cd	VARCHAR
Zipcode	VARCHAR
Car_Owner	INT
House_Owner	NUMERIC
Personal_loan	INT
contact	INT
Customer_Job	INT
Income	NUMERIC
Cust_Satisfaction_Score	VARCHAR



Insights – Week 53 (31st Dec)

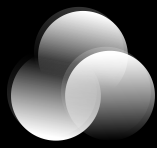
Analyst Perspective

Revenue increased by 28.8%, rising from \$933K (24 Dec) to \$1M (31 Dec), indicating a strong end-of-year performance due to holiday spending (Christmas, New Year).

Total transaction volume increased from 749K to 1M in just one week, showing a 33.5% jump, driven by festive purchases and heavy consumer activity.

However, the customer satisfaction score declined from 4.21 (24 Dec) to 3.49 (31 Dec). This drop may be attributed to service disruptions caused by high banking traffic, credit card declines, or loan rejections during peak season.

The decline could also be linked to an increase in denied applications or temporary dips in customer credit health, impacting their American FICO or VantageScores—possibly leading to frustration.



Year-To-Date (YTD) Overview and Insights

Analyst Perspective

Overall revenue for the year stands at \$57M.

Total interest earned amounts to \$8M, accounting for ~14% of overall revenue.

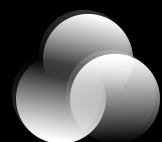
Total transaction amount processed is \$46M, indicating strong card usage and a healthy consumer base.

Male customers contributed \$31M in revenue, slightly ahead of female customers at \$26M, showing near parity.

Blue and Silver credit cards account for 93% of total transactions, indicating dominance of basic and mid-tier products.

Premium cards (Gold, Platinum) are underperforming in usage—highlighting upsell opportunity and need for better feature positioning or revised eligibility criteria.

Top 3 states—Texas (TX), New York (NY), and California (CA)—contributed to 68% of total transactions, suggesting high regional concentration. These states can be further leveraged for pilot campaigns and deeper segmentation.



Year-To-Date (YTD) Overview and Insights

Analyst Perspective

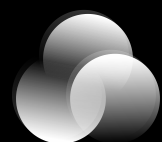
Overall activation rate is 57.5%, meaning nearly 42.5% of issued cards remain inactive. This presents a significant opportunity for activation campaigns via incentives, onboarding improvements, or behavioral nudges.

Overall delinquency rate is 6.06%, which is within acceptable limits but should be monitored. Segmentation by card type, geography, and demographics is advised to proactively manage risk.

Blue and Silver cards are transaction-heavy but may not be the most profitable. A revenue-per-card analysis is needed to evaluate margin vs. volume trade-offs.

Despite high revenue contribution from male customers, female customers also form a substantial portion. Targeted offers, rewards, or education-based financial campaigns can drive further engagement.

The dip in satisfaction score during the peak holiday week could impact NPS and retention—urgent root-cause analysis and service improvement protocols should be explored.



Year-To-Date (YTD) Overview and Insights

Analyst Perspective

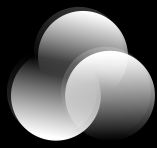
Activation journey drop-off points (post-onboarding, benefit awareness, etc.) should be identified using customer path analysis to increase the activation rate.

If delinquency is rising in particular regions or card tiers, then targeted communication, temporary credit limit restrictions, or auto-reminders may help control credit risk.

The significant increase in Week 53 performance (revenue and transactions) is seasonal—future planning should include pre-emptive staffing, system capacity scaling, and customer support enhancements.

ZIP-level and demographic-level insights can help identify underserved areas and create personalized campaigns.

Revenue from interest is modest—indicating more “transactors” than “revolvers.” There's scope to promote revolving credit options with responsible usage education.



Year-To-Date (YTD) Overview and Insights

Analyst Perspective

Customer segmentation based on satisfaction scores, income, credit behavior, and education can help optimize engagement and product placement.

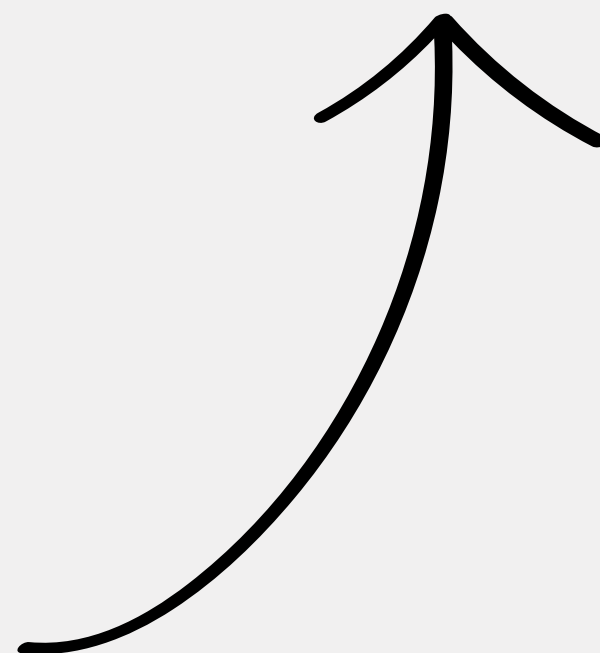
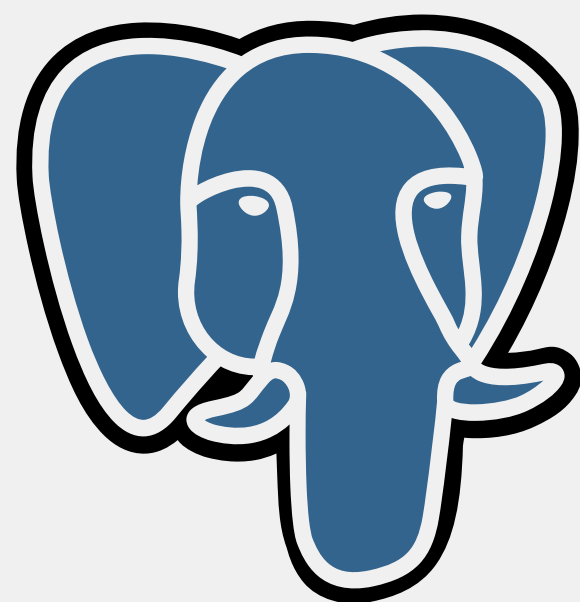
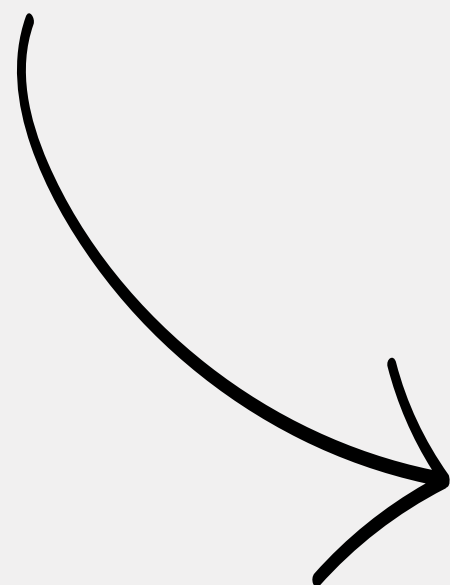
Integration of American credit score dynamics (like FICO/VantageScore) into customer journey data can help explain behavior like loan rejections and shape better approval workflows.

Weekly dashboards should include satisfaction score trends to ensure service quality does not degrade during peak cycles.

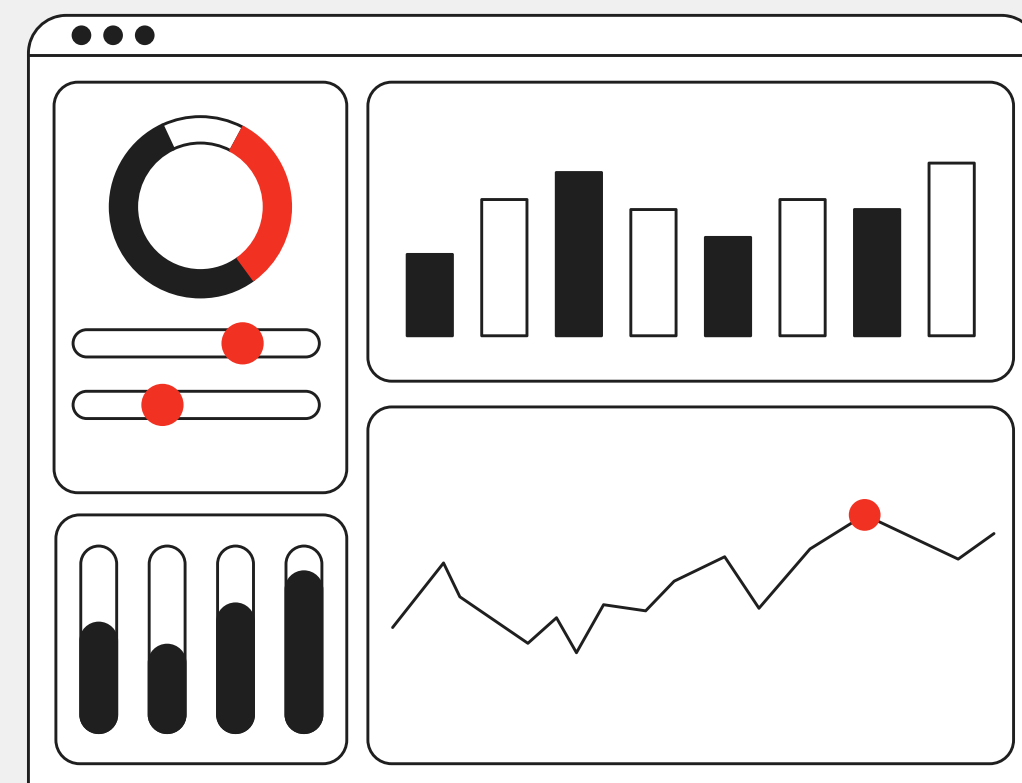
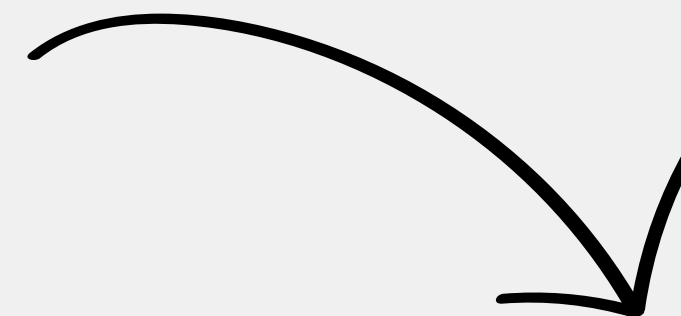
Stakeholders should use dynamic dashboards to track revenue, activation, and risk metrics in real-time and align marketing or credit policies quickly.



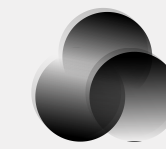
Data transformation



Power BI



Dax queries



DA. SHUBHAM PANDIT

age_group

```
1 age_group = SWITCH(  
2     TRUE(),  
3     'public cust_detail'[customer_age] < 30, "20-30",  
4     'public cust_detail'[customer_age] >= 30 && 'public cust_detail'[customer_age] < 40, "30-40",  
5     'public cust_detail'[customer_age] >= 40 && 'public cust_detail'[customer_age] < 50, "40-50",  
6     'public cust_detail'[customer_age] >= 50 && 'public cust_detail'[customer_age] < 60, "50-60",  
7     'public cust_detail'[customer_age] >= 60, "60+",  
8     "Unknown"  
9 )
```

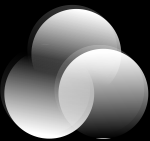
income_group

Structure	Formatting	Properties
<pre>1 income_group = SWITCH(2 TRUE(), 3 'public cust_detail'[income] < 35000, "Low", 4 'public cust_detail'[income] >= 35000 && 'public cust_detail'[income] < 70000, "Med", 5 'public cust_detail'[income] >= 70000, "High", 6 "Unknown" 7)</pre>		

New measure:

Structure	Formatting	Properties	Cal
<pre>1 current_week_revenue = CALCULATE(2 SUM('public cc_detail'[revenue]), 3 FILTER(4 ALL('public cc_detail'), 5 'public cc_detail'[week_num_2] = MAX('public cc_detail'[week_num_2]))</pre>			
Week-1	1	1155	

SQL queries



dA. Shubham pandit

```
Query Query History
1 select * from cc_detail
2
3 copy cc_detail
4 from 'D:\Data_Analytics\Credit_Card_Financial_Dashboard\credit_card.csv'
5 delimiter ','
6 csv header
7
8 copy cust_detail
9 from 'D:\Data_Analytics\Credit_Card_Financial_Dashboard\customer.csv'
10 delimiter ','
11 csv header
12
13 select * from cust_detail
14
```

Before Updation

client_num	card_category	annual_fees	activation_30_days	customer_acq_cost	week_start_date	week_num	qtr	cur
integer	character varying (20)	integer	integer	integer	date	character varying (20)	character varying (10)	integer
1	708082083	Blue	200	0	87	2023-01-01	Week-1	Q1
2	708083283	Blue	445	1	108	2023-01-01	Week-1	Q1
3	708084558	Blue	140	0	106	2023-01-01	Week-1	Q1
4	708085458	Blue	250	1	150	2023-01-01	Week-1	Q1
5	708086958	Blue	320	1	106	2023-01-01	Week-1	Q1
6	708095133	Blue	100	0	94	2023-01-01	Week-1	Q1
7	708098133	Blue	225	1	75	2023-01-01	Week-1	Q1
8	708099183	Blue	400	1	75	2023-01-01	Week-1	Q1
9	708100533	Blue	200	1	64	2023-01-01	Week-1	Q1

Total rows: 10108 Query complete 00:00:00.411 CRLF Ln 1, Col 1

```
Query Query History
1 select * from cc_detail
2
3 copy cc_detail
4 from 'D:\Data_Analytics\Credit_Card_Financial_Dashboard\cc_add.csv'
5 delimiter ','
6 csv header;
```

Data Output Messages Notifications

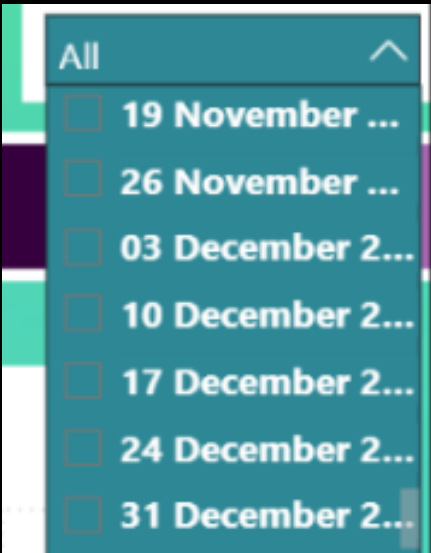
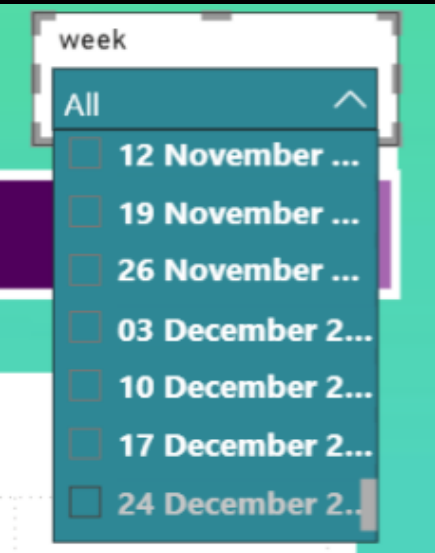
COPY 185

Query returned successfully in 131 msec.

After Updation

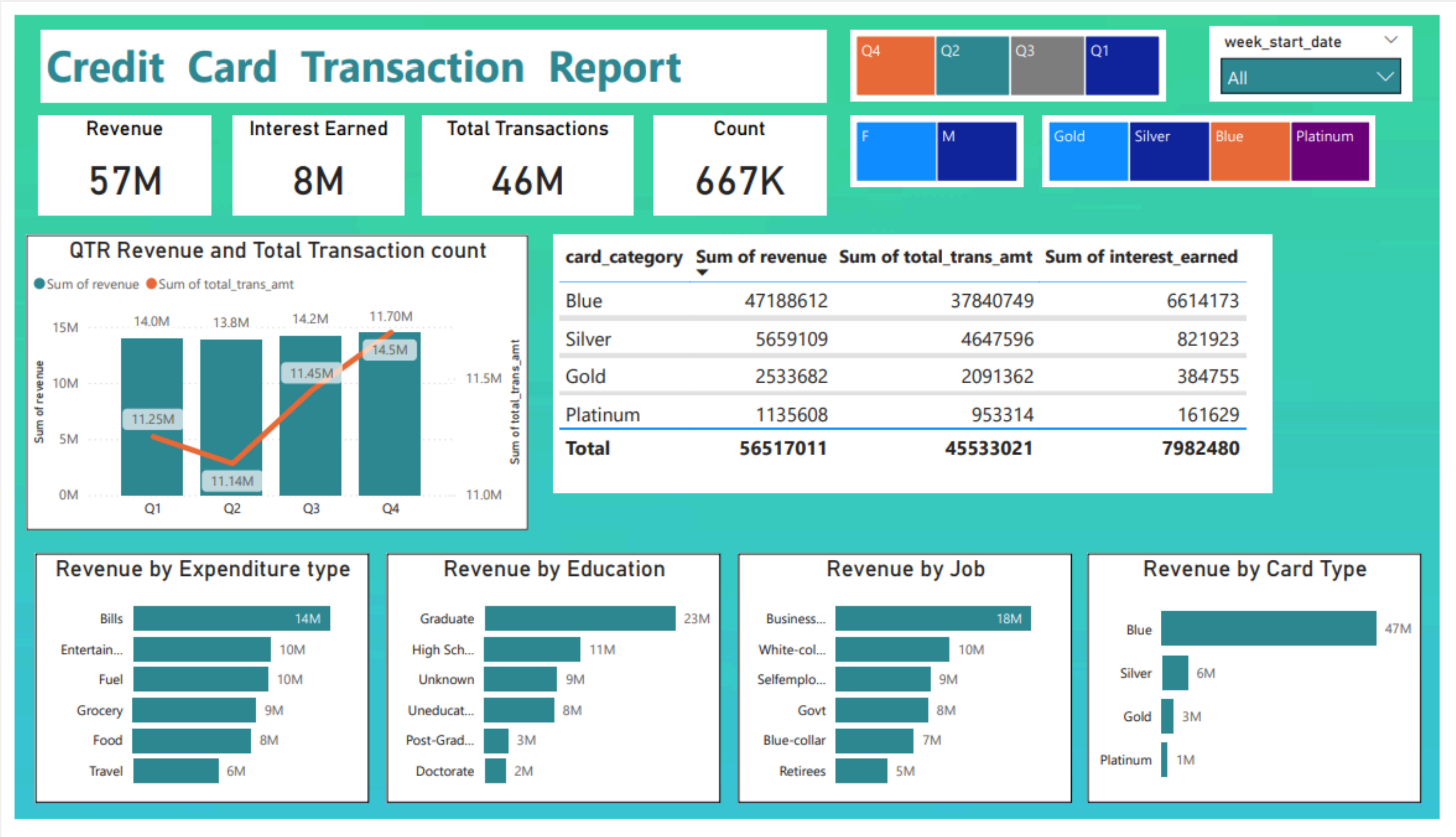
client_num	card_category	annual_fees	activation_30_days	customer_acq_cost	week_start_date	week_num	qtr	cur
integer	character varying (20)	integer	integer	integer	date	character varying (20)	character varying (10)	integer
1	708082083	Blue	200	0	87	2023-01-01	Week-1	Q1
2	708083283	Blue	445	1	108	2023-01-01	Week-1	Q1
3	708084558	Blue	140	0	106	2023-01-01	Week-1	Q1
4	708085458	Blue	250	1	150	2023-01-01	Week-1	Q1
5	708086958	Blue	320	1	106	2023-01-01	Week-1	Q1
6	708095133	Blue	100	0	94	2023-01-01	Week-1	Q1
7	708098133	Blue	225	1	75	2023-01-01	Week-1	Q1
8	708099183	Blue	400	1	75	2023-01-01	Week-1	Q1
9	708100533	Blue	200	1	64	2023-01-01	Week-1	Q1

Total rows: 10293 Query complete 00:00:00.312 CRLF Ln 1, Col 1



This Power BI dashboard is dynamic—weekly data (CSV) is loaded into PostgreSQL, auto-updating the dashboard. This streamlines weekly reviews, and can be scaled further by building a data pipeline for full automation.

Credit Card Transaction Report

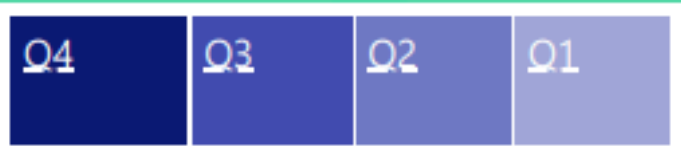


Credit Card Customer Report

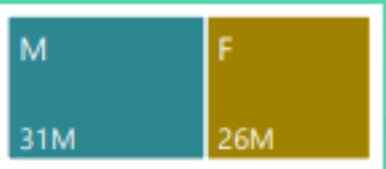


DA. SHUBHAM PANDIT

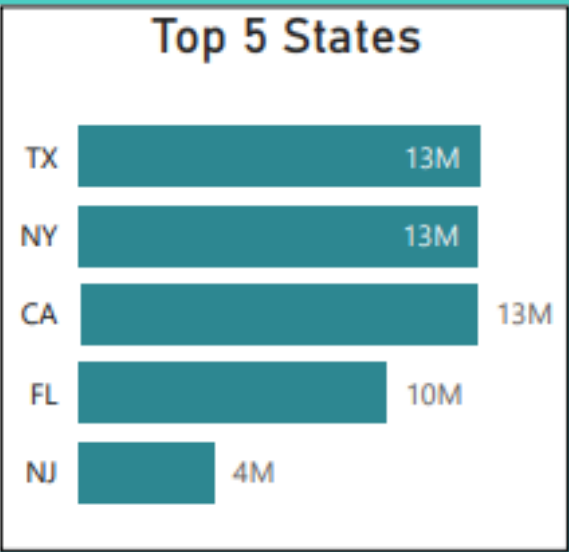
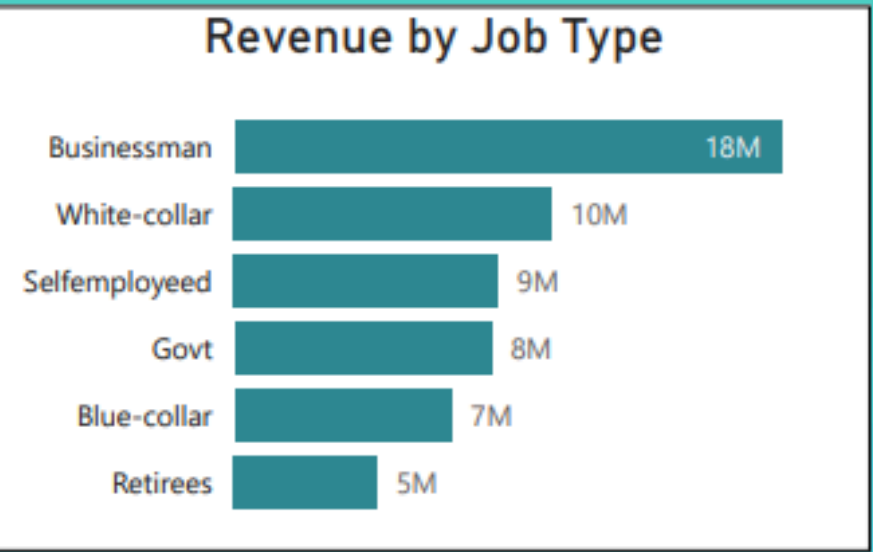
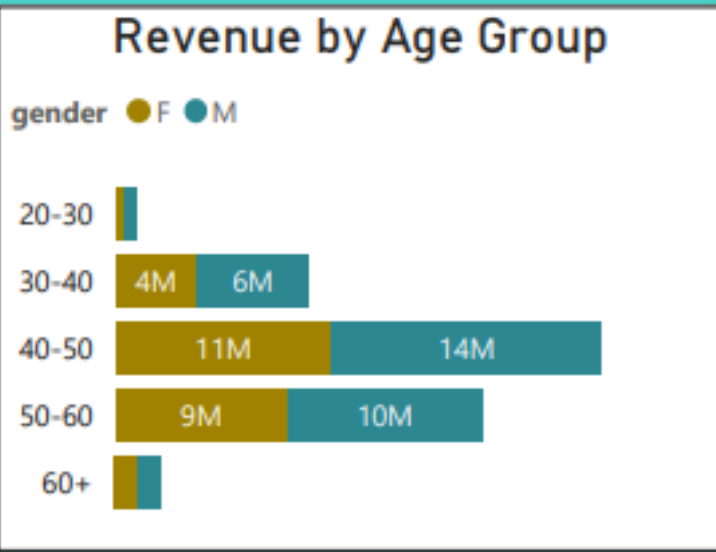
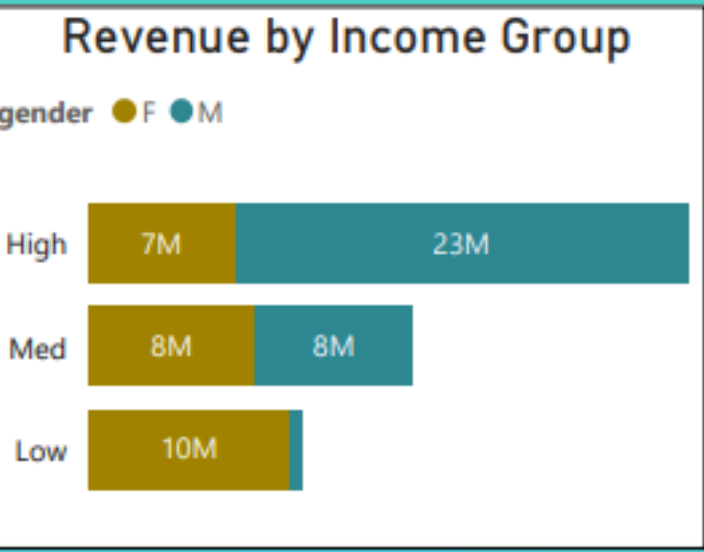
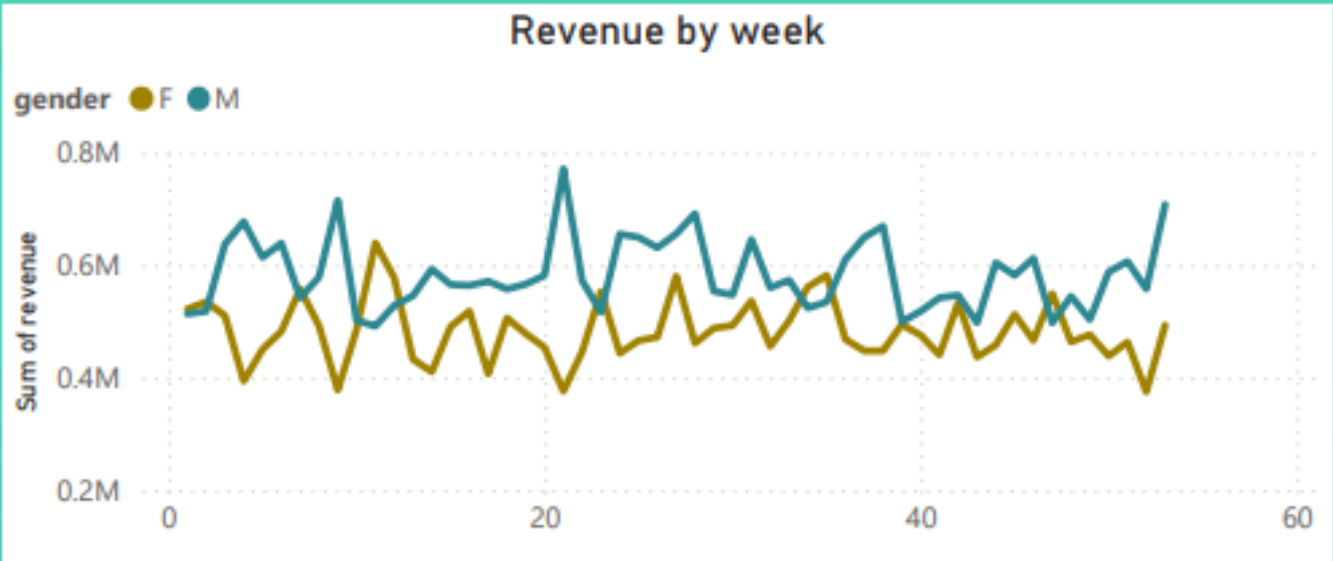
Credit Card Customer Report



Revenue	Interest Earned	Customers	Customer Satisfaction Score
57M	8M	10.29K	3.19



customer_job	Sum of revenue	Sum of interest_earned	Sum of income
Businessman	17697472	2584604	190350431
White-collar	10283124	1464691	105618475
Selfemployeed	8542826	1141510	77659931
Govt	8335534	1182231	90834727
Blue-collar	7040606	967751	73516911
Total	56517011	7982480	587599783





DA. SHUBHAM PANDIT

LINKEDIN: [HTTPS://WWW.LINKEDIN.COM/IN/SHUBHAM-PANDIT-04887822B/](https://www.linkedin.com/in/shubham-pandit-04887822b/)

GITHUB: [HTTPS://GITHUB.COM/SHUBHAMPANDIT1602/CREDIT_CARD_FINANCIAL_DASHBOARD](https://github.com/shubhampandit1602/CREDIT_CARD_FINANCIAL_DASHBOARD)



Thank you!