

Credit Card Anomaly Detection

\$161.5K

Avg Normal Transaction

630.89K

Total No of CC Transaction

\$6.42M

Highest Normal Transaction

0.06%

Percentage of fraudulent transactions

\$881.59K

Average Fraud Transaction

383

Total No of Fraud CC Transaction

\$10M

Highest Fraud Transaction

\$3.58M

Diff btw the Highest Normal & Fraud Transa...

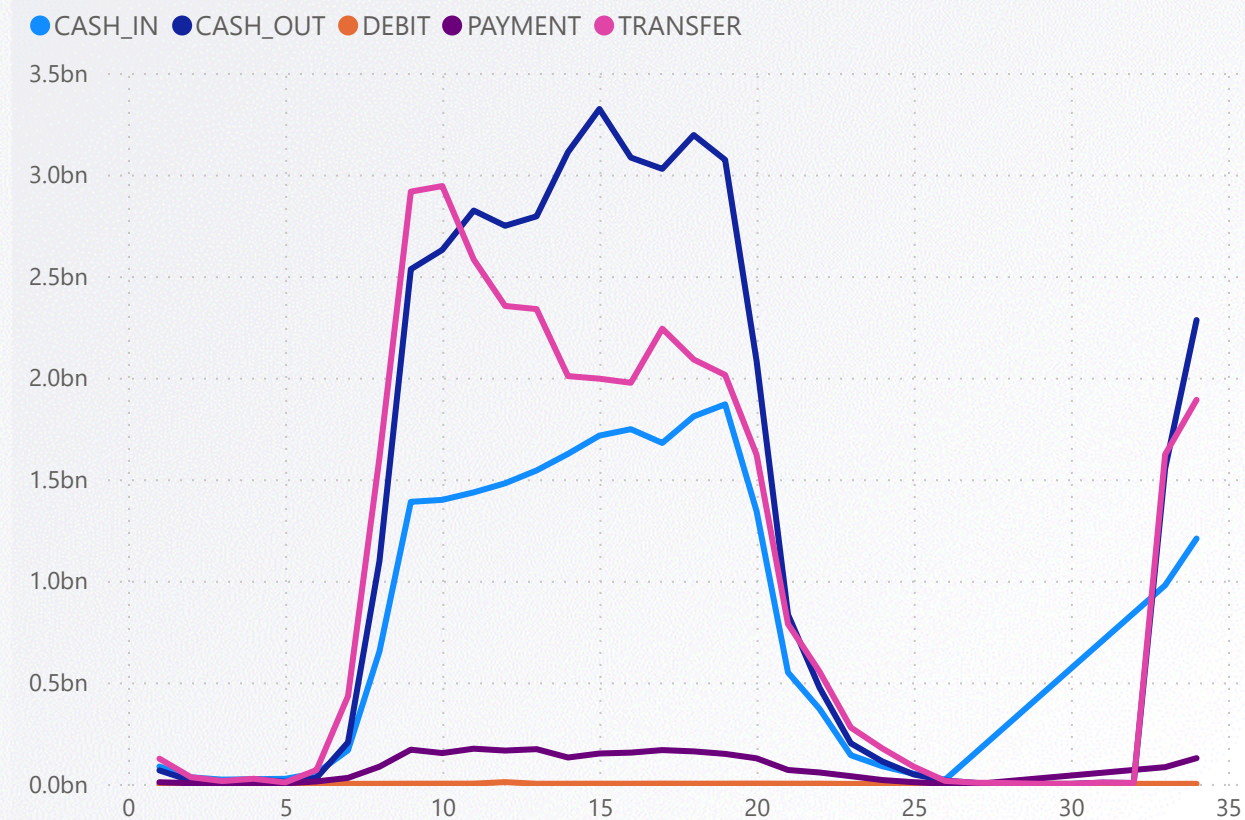
Fraud/Not Fraud

All

TOP 10 MERCHANT TRANSACTION COUNT

M1002397229	2
M1084679935	2
M1146045332	2
M1193574469	2
M1291225334	2
M134992544	2
M1410596183	2
M1486662162	2
M1498929187	2
M1700096287	2
M1789180334	2
M605544821	2
M647711936	2
M677494625	2
M803988075	2

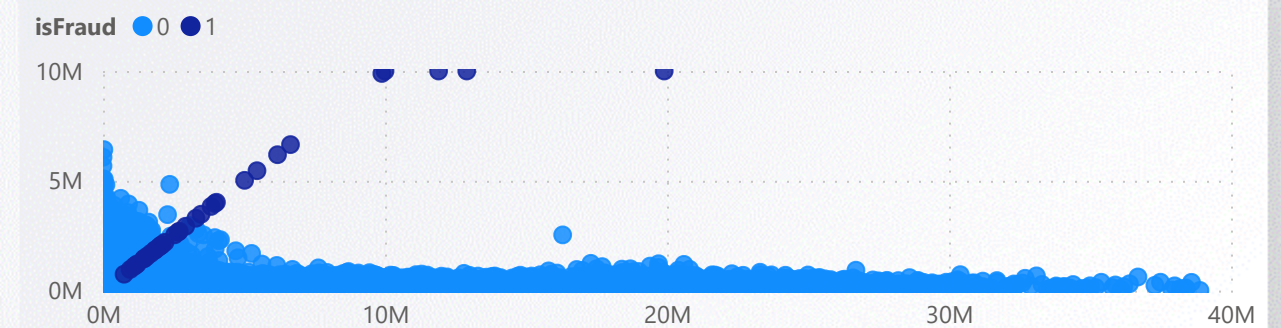
TRANSACTION AMOUNT OVER TIME



DISTRIBUTION OF TRANSACTION AMOUNTS



RELATIONSHIP BETWEEN 'OLDBALANCEORG' AND 'AMOUNT'



KEY INSIGHTS DERIVED FROM THE TRANSACTION DATA

- . Upon analyzing credit card transactions, a significant number of fraudulent activities were uncovered within the dataset.
- . The total recorded transactions amount to 630,894, with 383 identified as fraud, constituting 0.06% of the total transactions.
- . Transactions were categorized into five types: cash in, cash out, debit, payment, and transfer. Notably, fraudulent transactions were predominantly detected in the 'transfer' and 'cash out' categories, with approximate values of \$169 million and \$168 million, respectively (the overall total fraud amount is \$337 million). This underscores the importance of heightened scrutiny to ensure the safety of these transaction types.
- . The 'cash out' type is the most frequently used, comprising 224,013 transactions totaling around \$41 billion. In contrast, the 'debit' type is the least utilized, with only 4,769 transactions amounting to approximately \$29 million. The line chart depicts a concentration of transactions within the 10 to 20 steps range, representing the highest total transaction volume of approximately \$7.3 billion. A significant portion of this amount, totaling \$3.3 billion, falls into the 'cash out' category, signifying a notably high-value subset.
- . Three customers have committed fraud twice, with 'c185805228' standing out for the highest fraudulent amount of \$1.1 million, an exceptionally large fraud amount for a single individual.

In conclusion, the analysis underscores the importance of staying vigilant and proactive in preventing fraud, particularly in 'transfer' and 'cash out' transactions. It highlights the significance of understanding the distribution of transaction volumes, identifying repeat offenders, and implementing robust fraud detection systems to safeguard financial transactions.