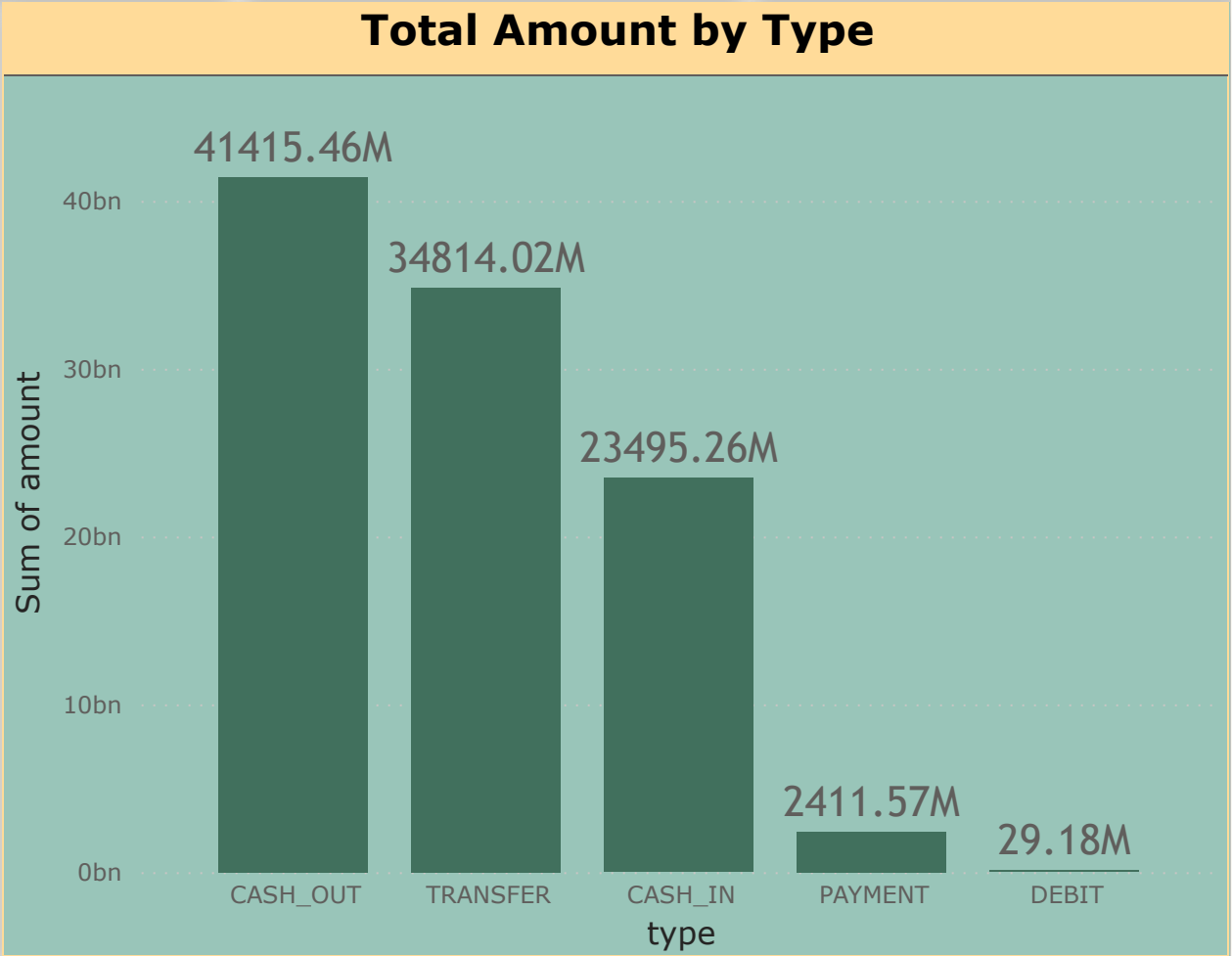
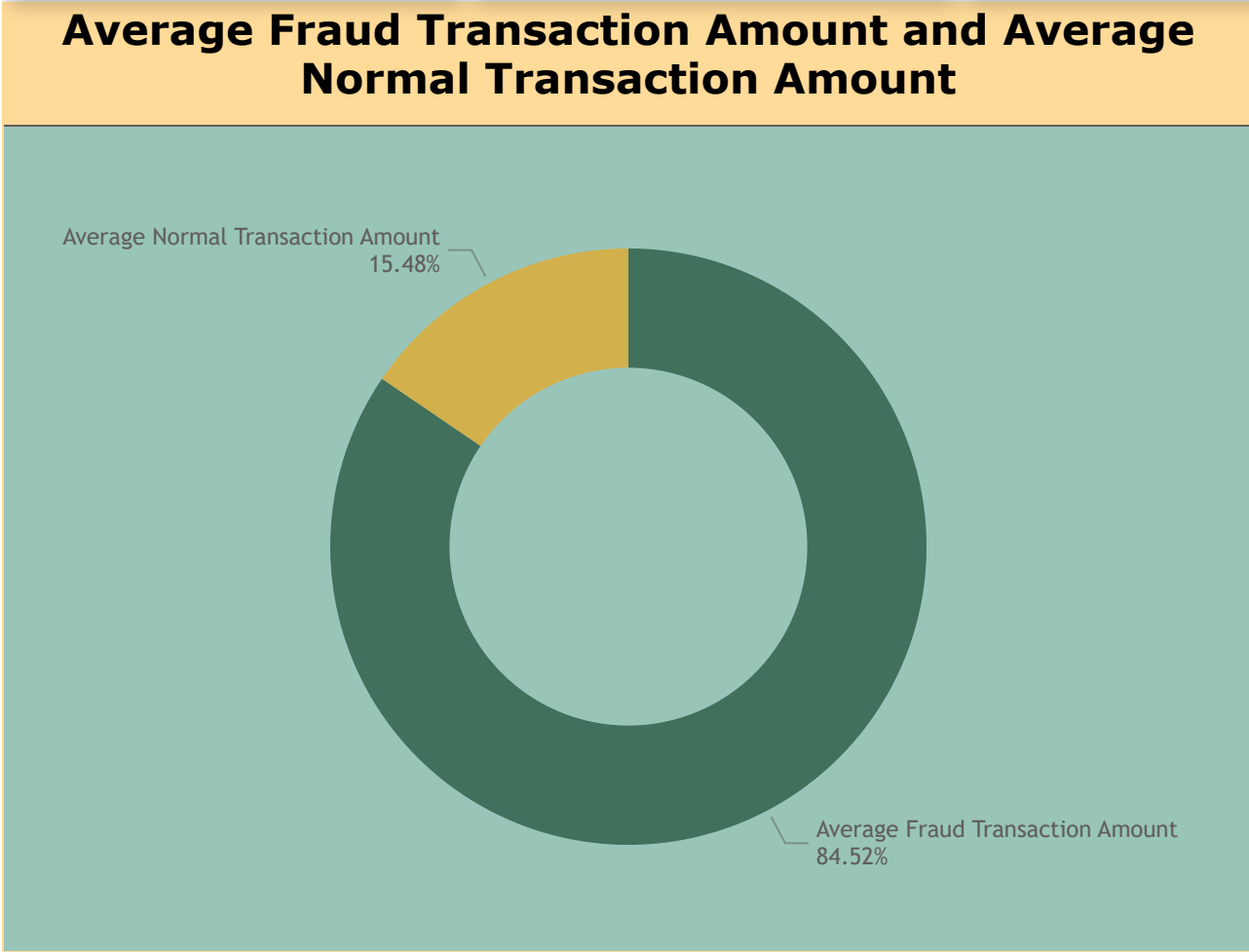
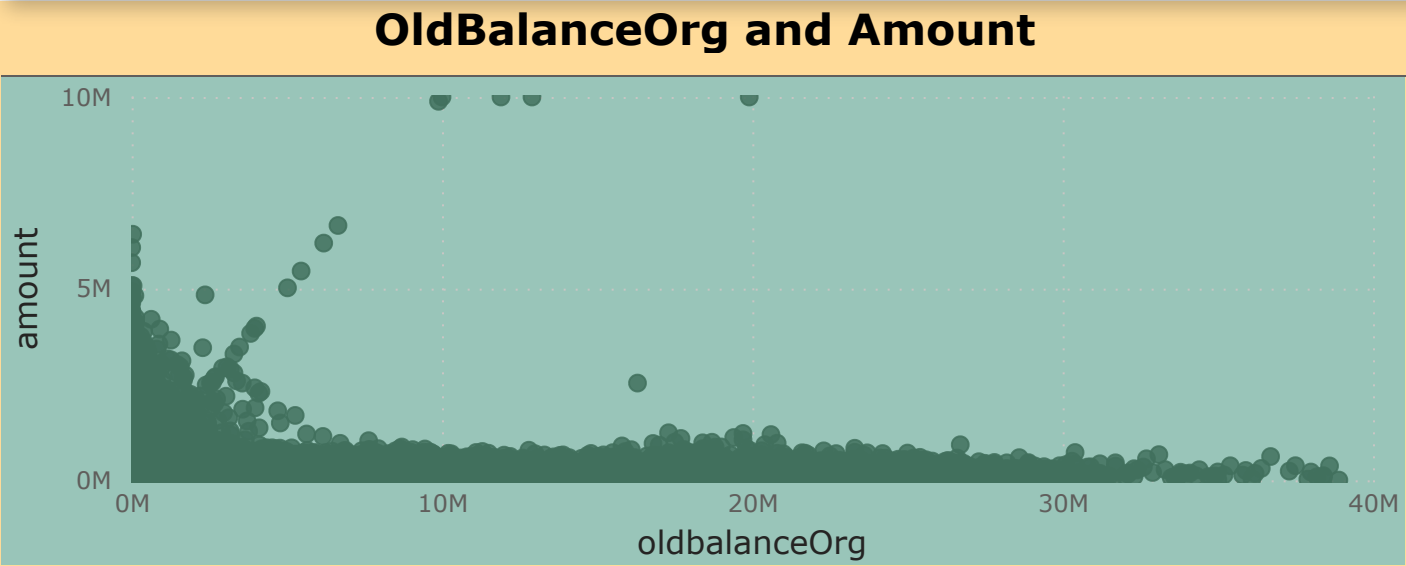


Credit Card Payments	Fraudent Credit Card Payments	Highest Fraud Transaction Amount	Maximum Transaction Difference	Fraudlent Transaction Precentage
631K	383	10.00M	-3.58M	0.06%



Anomaly Detection Analysis in Credit Cards



nameDest	credit card payments
C985934102	95
C977993101	80
C665576141	85
C451111351	76
C306206744	75
C248609774	87
C2083562754	85
C1590550415	83
C1360767589	79
C1286084959	89

Type

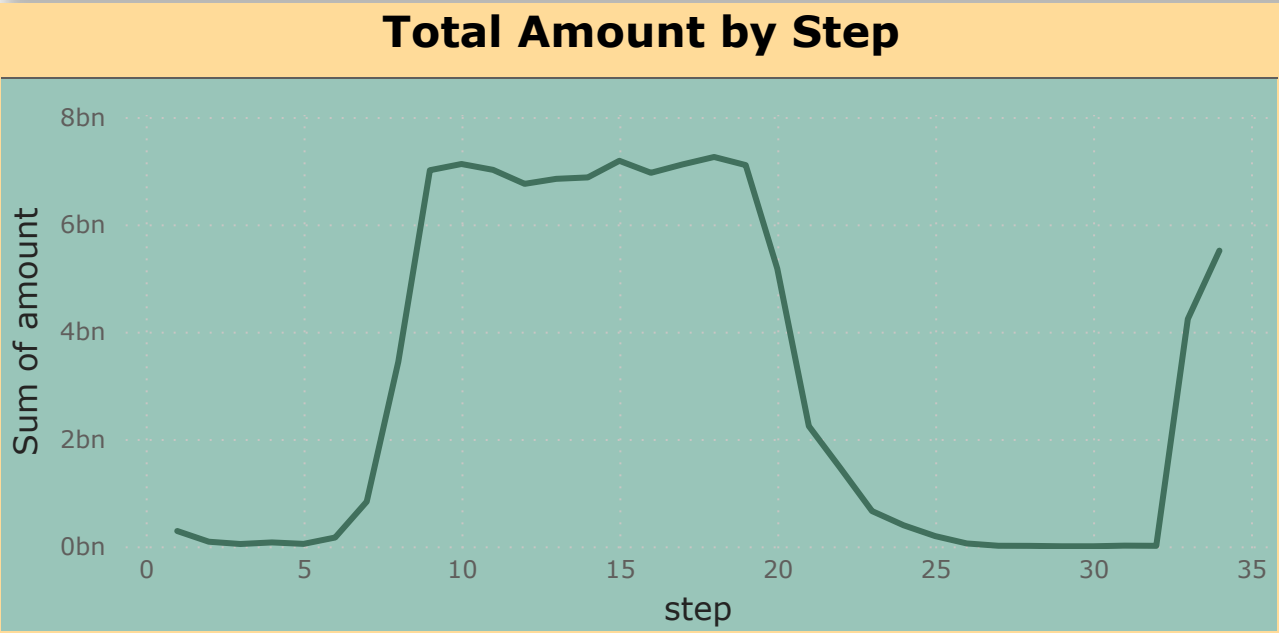
CASH_IN

CASH_OUT

DEBIT

PAYMENT

TRANSFER



nameDest	fraud credit card payments
C185805228	2
C200064275	2
C410033330	2
C1002031672	1
C1007251739	1
C1009459055	1
C1009564356	1
C1009901500	1
C101179743	1
C1013511446	1
C1017580631	1
Total	383

Is Fraud

0

1

SUMMARIZATION

Scatter Plot between OldBalanceOrg and Amount - This scatter plot gives the relationship between the initial balance amount before the transaction (OldBalanceAmount) and the transaction amount. This chart is also used to find outliers.

Line Chart between Total Amount by Step - This chart gives the trend of the total transaction amount with steps. In this dataset, one step is equal to one hour. This chart suggests that the 18th step records the highest total transaction amount, i.e., 7.25 billion.

Top 10 Merchants with Highest Number of Transactions using Table Visualization - This table gives a list of the top 10 merchants. The highest number of transactions recorded by a single merchant is 95.

Table Visualization to find out the Merchants with a high number of Frauds - This table suggests that 380 merchants committed frauds, out of which 3 merchants committed 2 frauds.

INSIGHTS

- The visualizations are used to derive the following insights:
- The total number of transactions recorded is 630894 with 383 fraud transactions. The percentage of fraudulent transactions is 0.06%.
- The fraud transactions happened only in cash-out type and transfer-type payments.
- The total number of transactions that happened in cash-out type payments is 224K with 197 fraud transactions. The percentage of fraudulent transactions for cash-out payments is 0.09%.
- The total number of transactions that happened in transfer-type payments is 52K with 186 fraud transactions. The percentage of fraud transactions for transfer payments is 0.36%.
- The highest number of frauds happened in transfer-type payments which means that proper safety is to be ensured for this payment type along with the cash-out type.
- The maximum fraud amount was 10M and was done with 6 individuals.
- 3 different customers were targeted twice with the maximum fraud amount of 828720 at once.
- The total Fraud amount is approximately 102 billion.
- The most used payment type is cash-out with 224K transactions and a total amount of 23,495 billion.
- The least used payment type is the debit type with only 4769 transactions and a total amount of 29 million.