#### Parameter DETECTION DETECTION Anomaly Detection in Credit Card Transactions Dashboard Countofcreditcard Countoffraudtrans TYPE Normalamounttrans 161.50K 881.59K 631K 383 10.00M 6.42M 0.06% All Fraud\_transactions Normalamounttrans Fraud\_transactions Countoffraudtrans Highest\_fraud\_trans Highest\_Normal\_trans %offraud\_trans Countofcreditcard **Distributions Of Transactions Amount** Sum of amount by step and type Countofcreditcard, Countoffraudtrans, Normalamounttrans and Merchants id Countofcreditcard Fraud transactions by step • CASH\_IN • CASH\_OUT • DEBIT • PAYMENT • TRANSFER 41.42bn Countofcreditc... ● Countoffrau... ● Normala... ● Fraud tr... M1002397229 40bn 3bn M1084679935 2bn 34.81bn M1146045332 M1193574469 30bn M1291225334 M134992544 30 10 15 20 25 35 23.5bn M1410596183 step M1486662162 ung 20bn isFraud, oldbalanceOrg and amount M1498929187 isFraud ●0 ●1 M1700096287 10M M1789180334 10bn M605544821 amount 5M M647711936 2.41bn M677494625 M803988075 **0M** 2M 10M 30M 0M 20M Countofcreditcard, Countoffraudtrans, Normalamounttr... oldbalanceOrg

# **SUMMARY SECTION**

# **KEY INSIGHTS**

- 1. There are 5 types of transactions in this dataset, which are Transfer, Cash-in, Cash-out, Debit, Payments.
- 2. Total number of transactions are 6,30,894 Were recorded in the dataset.
- 3. The total number of fraud transactions are 383.
- 4. Total percentage of the fraudulent transaction is 0.06%.
- 5. The Highest Fraud Transaction is of 10 millions.
- 6. Highest number of transactions are from cash-out Type, and the lowest transactions are of debit type.
- 7. There are no merchants of high occurrence of fraudulent transactions.

# **SUMMARY OF THE DASHBOARD**

- 1. **DISTRIBUTION OF TRANSACTIONS AMOUNT (STACKED COLUMN CHART)** where there are sum of amount and types of transactions.
- <sup>2</sup>. Top 10 merchants with highest number of transactions using table.
- 3. **SUM OF AMOUNT BY STEP (LINE CHART)** Where there is sum of amount and step.
- 4. **SUM OF OLDBALANCEORG AND SUM OF AMOUNT (SCATTER CHART)** where in the "X" axis it is sum of oldbalanceorg and in the "Y" axis it is sum of amount and in the values it is amount.
- 5. NORMAL AMOUNT TRANSACTIONS CARD, FRAUD TRANSACTIONS CARD, COUNT OF CREDIT CARD, COUNT OF FRAUD TRANSACTIONS CARD, HIGHEST FRAUD TRANSACTIONS CARD, HIGHEST NORMAL TRANSACTIONS CARD AND % OF FRAUD TRANSACTIONS CARD.

# **KEY INSIGHTS OF THE MENTION CHARTS IN THE DASHBOARD**

### **Clustered Column Chart:**

Ideal for showing the distribution of transaction amounts, helping to identify patterns and anomalies.

### **Scatter Plot:**

· Effective for visualizing relationships between 'oldbalanceOrg' and 'amount,' potentially revealing anomalies.

### **Line Chart:**

·Useful for observing trends over time, identifying unusual spikes or drops in transaction amounts.

## **Table:**

• Presents a clear comparison of transaction counts for different merchants.

These charts provide a balance between clarity, interpretability, and the ability to spot anomalies in credit card transactions.