Based on the "Online Transaction Fault Detection" Power BI report, there are several key insights that can be drawn from the provided dataset. These include:

1.DONUT CHART

DESCRIPTION: The donut chart represents the overall fraud ratet. The chart is divided into two sections: fraud transactions and non-fraud transactions. The two sections are represented in different colours. The chart provides a visual representation of the proportion of fraudulent transactions in the dataset.

INSIGHTS & CONCLUSION: By looking at the chart, we can determine that the fraud rate for online transactions in the dataset is relatively low, with only a small percentage(0.13%) of transactions being classified as fraud. This suggests that the majority of online transactions are legitimate.

2.PIE CHART

DESCRIPTION: The pie chart shows the distribution of transactions based on their transaction type. The chart is divided into segments based on the different transaction types, such as CASH\_IN, CASH\_OUT, DEBIT, PAYMENT, and TRANSFER. Each segment is labeled with its corresponding transaction type, and the size of the segment corresponds to the proportion of transactions with that type.

INSIGHTS & CONCLUSION: We can see that the most common transaction types are CASH\_OUT(35.17%) and PAYMENT(33.81%), followed by CASH\_IN(21.99) and TRANSFER(8.38). Additionally, the chart shows that DEBIT transactions are the least common transaction type in the dataset.

3.TABLE CHART

DESCRIPTION: The table chart shows the count of fraud transactions based on their transaction type. The chart is organized in rows by transaction type and in columns by the count of fraudulent transactions for each type. The table provides a detailed breakdown of the number of fraudulent transactions by transaction type.

INSIGHTS & CONCLUSION: We can see that the highest that is 4116 number of fraudulent transactions occur in CASH\_OUT transactions, followed by TRANSFER transactions with count of 4097 fraud transactions. Overall total 8213 transactions were caught as a fraudulent transactions. CASH\_IN transactions have the lowest number of fraudulent transactions. The chart provides valuable insights into the areas where fraudulent activity is most prevalent, allowing the project team to take targeted measures to prevent future fraudulent transactions. By monitoring the trends in the fraudulent transaction count, the team can evaluate the effectiveness of their fraud detection system and make necessary improvements.

4. Line Chart

DESCRIPTION: The line chart shows the relationship between the step and the isFraud column and the step and the amount column in the dataset. The x-axis of the chart represents the step number which represents time, and the y-axis represents amount column in 1st line chart and isFraud column in 2nd line chart.

INSIGHTS & CONCLUSION: The line chart provides insights into the relationship between the step and the isFraud column and the step and the amount column. In the first chart (step vs amount) we can see that the amount of transactions is generally higher in the earlier steps and then levels off in the later steps, suggesting that the volume of transactions may be more concentrated during certain periods, In the second chart (step vs isFraud), we can see that there are spikes in the number of fraud transactions in certain steps, indicating that there may be specific periods of time where fraudulent activity is more prevalent.

5. HORIZONTAL BAR CHART

DESCRIPTION: The horizontal bar chart shows the top 5 recipient accounts (nameDest) that have the highest number of fraudulent transactions. The y-axis of the chart represents the recipient account (nameDest), and the x-axis represents the number of fraudulent transactions (isFraud). The chart displays horizontal bars that represent each recipient account, sorted in descending order by the number of fraudulent transactions.

INSIGHTS & CONCLUSION: The horizontal bar chart provides insights into which recipient accounts are most frequently targeted by fraudsters. By identifying the top 5 recipient accounts that have the highest number of fraudulent transactions, the chart can help the project team to focus its fraud prevention efforts on these accounts. Additionally, the chart can help the team to identify any patterns or trends in the data that may be contributing to the high number of fraudulent transactions.