**PROJECT SUMMARY**

**Fraud Analysis in Online Sports Platform**

The primary goal of the project is to analyze fraudulent transactions in Online Sports Platform.

The provided dataset contains the following features:

|  |  |
| --- | --- |
| Fraud | Identifies a fraudulent transaction(1) and non-fraudulent (0) |
| Total\_pending\_deposit | Value of Total Deposits Pending |
| Avg\_dep\_rejected | (Total Deposits Rejected /Nº Total Deposits Rejected) I |
| Nr\_days\_without\_activity | Number of days that passed between the customer registration and the customer first activity on the website |
| Total\_rejected\_WD | Value of Total Withdrawals Rejected |
| Avg\_dep\_per\_day | No of Deposits Approved/ Days / activity |
| Amt\_approved\_deposit | Value of Total Deposits Approved |

The dataset was provided in SQL server database. Tableau Desktop was used to connect to Sql database to extract the data from SQL.

OBSERVATIONS:

* About 62% transactions are fraud in the dataset.
* The dataset does not contain any missing values and no duplicate values.
* After analyzing the dataset, we can see that the distribution of all the features are right skewed.
* Boxplot for features also show that outliers are present on the higher side.
* There seems low correlation between all the features.
* Maximum average deposits/ day are 1 with frequency of 287 followed by 0 deposits/ day with frequency of 196. In both fraud and non-fraud case, same pattern can be observed.
* Days without activity feature proves that as the number of idle days increased more was the probability of the transaction to be fraud.
* The total approved Deposits are $ 12.48M of which $6.10M are fraud which accounts for 48.87% of total and $6.38M are non-fraud transactions
* The total pending Deposits are $ 1.12M of which $0.55M are fraud which accounts for 49.1% of total pending deposits and $0.57M are non-fraud transactions
* The total rejected Withdrawals are $ 2.06M of which $1.01M are fraud which accounts for 49.02% of total rejected withdrawals and $1.05M are non-fraud transactions