

TASK 4

CREDIT CARD FRAUD DETECTION

- Build a machine learning model to identify fraudulent credit card transactions.
- Preprocess and normalize the transaction data, handle class imbalance issues, and split the dataset into training and testing sets.
- Train a classification algorithm, such as logistic regression or random forests, to classify transactions as fraudulent or genuine.
- Evaluate the model's performance using metrics like precision, recall, and F1-score, and consider techniques like oversampling or undersampling for improving results.

Credit Card Fraud Detection Dataset:

The Credit Card Fraud Detection dataset contains information about credit card transactions, including whether they are fraudulent or genuine.

In the Credit Card Fraud Detection model, we use features such as 'Time', 'V1' through 'V28', and 'Normalized_Amount' to predict the target variable 'Class', which determines whether a transaction is fraudulent or genuine.

Features :

1. Time: The number of seconds elapsed between this transaction and the first transaction in the dataset.
2. V1-V28: Principal components obtained through dimensionality reduction (anonymized features to protect user privacy).
3. Amount: Transaction amount.
4. Normalized_Amount: Transaction amount after normalization.

Target:

5. Class: Target variable indicating whether the transaction is fraudulent (1) or genuine (0).

Model Used : LogisticRegression