**DISADVANTAGES**

* Loss track of transaction
* Unsuitable data or transaction
* Difficult to recover problem
* Low Accuracy
* In efficient performance due to low dimensional data.

**ADVANTAGES**

* Frequently Access and Used Data.
* More efficient result for detect Fraud Detection discover.
* High accuracy
* Less detection time
* Get user based historical records.
* Avoid complex problem.

**CONCLUSION:**

Detection of credit card fraud is an intent part of testing for the researchers over a long time and will be an interesting part of testing in the coming time. We are introducing a fraud detection system for credit-cards by applying three different algorithms and training our machine using these algorithms with the transaction records we have. The model that we built helps the authorities to get notified of the fraud in credit-cards and take the further necessary steps over the transaction and label the transaction as fraud or legitimate transaction. These algorithms show us that the given transaction tends to be a type of fraud or not, these algorithms were selected using experimentation, discussion and feature importance techniques as shown in methodology. It is a real-time transaction data from European credit-card holders which explains the skewness of data. Therefore, we can infer that there is a requirement of applying feature selection technique. We used a supervised and unsupervised algorithms like IForest, SVM and GB to select the features from our transaction dataset which uses correlation and variance as parameters to select the features. We have set the summation of variance as 95% for selecting the features using the IForest, SVM and GB algorithm. We also applied the IForest, SVM and GB feature selection algorithm as there are no features which have high variance and correlation with the class column which determines the transaction as fraud or not. We have applied the three machine learning algorithms as stated in methodology and the models indicate a high accuracy score for each one of them. The scores of each model were 99.7%, 99.8%, 99.7% for the iforest, support vector machine and gradient boosting classifier algorithms respectively. As these models have high accuracy and get the best results with high precision in determining the fraud detections in credit card transaction records.

**FUTURE ENHANCEMENTS:**

Reaching a Goal of 100% should be the target of our accuracy score for our machine model which detects the fraud detection of credit card transactions. But reaching a 100% accuracy score we can infer that our model is being over fitted with data which is giving us the output which is being already trained for it. So, for future enhancements we can convey that the precision and confusion matrix values can be improved with a high range. We can furthermore implement new algorithms to our indian credit-card holders transaction dataset and combine the results for these algorithms for precision and confusion matrix to get more legitimate values. The data set can be improved too with replacing the highly skewed values to normalized values and bringing a pattern to it which helps us in building a more accurate model. The outliers can be minimized in the present data set as they confuse the model while training it. The correlation and variance is also less in the dataset which can be improved to by minimizing the skewness of the data. These will increase the modularity and versatility of our project and make it more accurate to predict the transactions are tending to fraud or not. These improvements require the knowledge and support of experts from different sectors like: machine learning and artificial intelligence experts, data scientists and also bankers who will help us to provide the better form of data.