**Credit Card Fraud Detection**

### **Problem statement:**

Credit Card Fraud is one of the biggest issues faced by the government and the amount of money involved in this is generally enormous. As world is getting more towards digitalization, the risk of online fraud is also increasing. The websites with online payment mode contribute to rise in online frauds. Also, due to this pandemic situation(COVID-19), everyone prefers to do cashless transaction which increases the chances of people getting trapped into such frauds.

It is important that credit card companies are able to recognize fraudulent credit card transactions so that customers are not charged for items that they did not purchase. Among all of the online frauds, one such fraud is credit card fraud which is an ever-growing menace in the financial industry. Detecting fraudulent transaction is of great importance for any credit card company.

We are going to approach this real-life problem using Data Science.

### **Proposal:**

The development of a model that provide best results in identifying credit card fraudulent transactions.

This helps both, the credit card company and the customers from getting charged unnecessarily.

### **Data set**

The dataset is obtained from Kaggle. <https://www.kaggle.com/mlg-ulb/creditcardfraud>

The datasets contain transactions made by credit cards in September 2013 by european cardholders. This dataset presents transactions that occurred in two days, where we have 492 frauds out of 284,807 transactions. The dataset is highly unbalanced, the positive class (frauds) account for 0.172% of all transactions.

It contains only numerical input variables which are the result of a PCA transformation. Due to confidentiality issues, Features V1, V2, … V28 are the principal components obtained with PCA, the only features which have not been transformed with PCA are 'Time' and 'Amount'.

There are 284807 number of transactions(rows) and 31 features in this dataset.

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