

Project Design Phase-I
Proposed Solution

Date	21 September 2023
Team ID	592689
Project Name	Online Payment Fraud Detection using ML
Maximum Marks	2 Marks

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	The growth in internet and e-commerce appears to involve the use of online credit/debit card transactions. The increase in the use of credit / debit cards is causing an increase in fraud. The frauds can be detected through various approaches, yet they lag in their accuracy and its own specific drawbacks. If there are any changes in the conduct of the transaction, the frauds are predicted and taken for further process. Due to large amount of data credit / debit card fraud detection problem is rectified by the proposed method.
2.	Idea / Solution description	We will be using classification algorithms such as Decision tree, Random forest, svm, and Extra tree classifier, xgboost Classifier. We will train and test the data with these algorithms. From this the best model is selected and saved in pkl format. We will be doing flask integration and IBM deployment.
3.	Novelty / Uniqueness	Novelty or uniqueness in fraud detection algorithms is essential to stay ahead of fraudsters who are constantly evolving their tactics. Some key aspects are : Feature engineering, machine learning models, real time analysis, deep learning and neural networks, unsupervised learning, graph analysis.
4.	Social Impact / Customer Satisfaction	Fraud detection algorithms have significant social and customer satisfaction implications. Minimizing false positives, Customer experience , ethical considerations,

		fairness and bias , regulatory compliance, transparency
5.	Business Model (Revenue Model)	Generate revenue through subscription fees from businesses subscribing to your fraud detection services. Additionally, earn revenue through strategic collaborations with financial institutions and cybersecurity firms, receiving a share of the value generated from integrated fraud prevention solutions. Continuous service improvement and expanding partnerships will drive customer acquisition and revenue growth over time .
6.	Scalability of the Solution	Data handling, parallel processing, real-time processing, cloud services, caching , feature engineering.