

Project Design Phase

Proposed Solution Template

Date	31 January 2026
Team ID	LTVIP2026TMIDS55701
Project Name	Online Payment Fraud Detection using Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Online payment fraud causes significant financial losses to businesses and consumers. Existing solutions often lack accuracy and require manual intervention.
2.	Idea / Solution description	A Flask-based web application that uses a machine learning classifier (SVM/Random Forest) to detect fraudulent transactions.
3.	Novelty / Uniqueness	Combines multiple classification algorithms (Random Forest, SVM, Decision Tree, ExtraTrees) to improve detection accuracy.
4.	Social Impact / Customer Satisfaction	Protects consumers from financial harm and identity theft. Reduces chargeback rates for merchants.
5.	Business Model (Revenue Model)	Can be offered as a SaaS (Software as a Service) to banks, fintech companies, and e-commerce platforms.
6.	Scalability of the Solution	The modular architecture allows retraining on expanded or region-specific datasets. Additional features can be easily integrated.