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Project Design Phase
Proposed Solution Template

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Date	20 February 2026
Team ID	LTVIP2026TMIDS89328
Project Name	Online payments fraud detection using machine learning
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Online payment systems face increasing fraudulent transactions, causing financial losses for businesses and customers. There is a need for a system that detects and prevents fraudulent transactions in real time
2.	Idea / Solution Description	Develop a machine learning-based fraud detection system that analyzes transaction data in real time, calculates fraud probability, and automatically flags or blocks suspicious transactions while allowing legitimate payments.
3.	Novelty / Uniqueness	Unlike traditional rule-based systems, this solution uses behavioral patterns, device data, location, and transaction history with ML models to detect complex and evolving fraud patterns in real time.
4.	Social Impact / Customer Satisfaction	Protects customers from financial losses, increases trust in online payment platforms, and reduces fraud-related operational costs for businesses.
5.	Business Model (Revenue Model)	The system can be offered as a subscription-based SaaS solution to banks, fintech companies, and e-commerce platforms, generating revenue per transaction monitored or per active user.
6.	Scalability of the Solution	Can scale horizontally to handle millions of transactions in real time using cloud-based services, distributed databases, and scalable ML deployment pipelines.