Project Design Phase-I
Proposed Solution Template

Date	10 November 2023
Team ID	Team-591594
Project Name	Online Payments Fraud Detection using Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Develop an efficient real-time online payment fraud detection system, leveraging machine learning, data quality, and user authentication to strike a balance between detection accuracy and false positives.
2.	Idea / Solution description	Idea is to create a Flask app. Preprocess transaction data to handle missing values and outliers. Users can upload transactions via a user-friendly interface, and the app provides real-time fraud predictions. The model's outcome is displayed instantly, indicating whether a transaction is likely fraudulent.

3.	Novelty / Uniqueness	The novelty of this solution lies in its simplicity and real-time feedback. By integrating a basic machine learning model into a Flask web app, users can easily submit transactions and receive instant fraud predictions. The straightforward design makes it accessible, offering a practical foundation that can be expanded over time.
4.	Social Impact / Customer Satisfaction	This solution boosts online payment security, instills user confidence through a user-friendly Flask app, and provides real-time feedback for safer transactions. It effectively combines simplicity with robust fraud detection, contributing to heightened customer satisfaction and trust in online transactions.
5.	Business Model (Revenue Model)	Our revenue model is based on a subscription system, offering varying tiers for access to the Flask web app's online payments fraud detection features. Additional partnerships with e-commerce platforms and financial institutions provide collaborative revenue-sharing opportunities.
6.	Scalability of the Solution	Our solution is inherently scalable, with the Flask web app architecture facilitating easy deployment and expansion. The lightweight nature of Flask allows for efficient handling of increasing transaction volumes, while the modular design enables the integration of

		advanced machine learning models and additional features as needed.