

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	31 January 2025
Team ID	LTVIP2026TMIDS42143
Project Name	online payments fraud detection using machine learning
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Access	Access application via web browser
FR-2	Transaction Input	Enter transaction details (step, type, amount, balances)
FR-3	Enter transaction details (step, type, amount, balances)	Convert transaction type using Label Encoder (encoder.pkl)
FR-4	Fraud Prediction	Send input data to ML model (model.pkl)
FR-5	Result Display	Display prediction result on UI Highlight Fraud transactions clearly

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system should have a simple and user-friendly interface for entering transaction details and viewing results.
NFR-2	Security	User input data must be validated to prevent injection attacks. Model files (model.pkl, encoder.pkl) must be securely stored.
NFR-3	Reliability	The system should provide consistent and accurate fraud predictions without crashes.
NFR-4	Performance	The prediction response time should be less than 2 seconds for each transaction.
NFR-5	Availability	The web application should be accessible 24/7 when deployed on cloud/server.
NFR-6	Scalability	The system should handle multiple concurrent users and scale when deployed using production servers (e.g., Gunicorn, cloud hosting).