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

Date	31 January 2025
Team ID	LTVIP2026TMIDS89328
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 Input Management	Transaction details entry through web form Input validation (numeric & required fields) Error handling for invalid inputs
FR-2	Fraud Prediction	Process transaction data Apply preprocessing (encoding & scaling) Predict transaction as Fraud / Legitimate
FR-3	Result Display	Display prediction result Show confidence score Highlight suspicious transactions visually
FR-4	Data Logging & Storage	Store prediction statistics in JSON file Maintain transaction history Update fraud count and safe transaction count

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, user-friendly web interface with clear instructions and easy navigation.
NFR-2	**Security**	User input must be validated and protected against malicious data. Secure handling of transaction information must be ensured.
NFR-3	**Reliability**	The system should consistently provide accurate predictions without crashes or failures.
NFR-4	**Performance**	The prediction response time should be less than a few seconds to ensure real-time detection.

NFR-5	**Availability**	The web application should be accessible whenever required during operation.
NFR-6	**Scalability**	The system should be capable of handling increasing transaction data and future model improvements.