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

Date	3 June 2025
Team ID	LTVIP2025TMID38618
Project Name	Revolutionizing Liver Care : Predicting Liver Cirrhosis using Advanced Machine Learning Techniques
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	Data Input Interface	Allow user to input clinical values (e.g., Hemoglobin, Bilirubin, Platelet Count, etc.) Form validation and formatting
FR-2	Model Prediction	Use trained ML model to predict liver cirrhosis status Return prediction output as "Positive" or "Negative"
FR-3	Result Report Generation	Downloadable prediction report Include charts or risk level indicator
FR-4	Prediction Output	Display predicted liver cirrhosis status in the console/output cell
FR-5	Code Availability	Source code and sample dataset are hosted on GitHub for reproducibility

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The interface should be simple, intuitive, and user-friendly for both doctors and non-technical users.
NFR-2	**Security**	All data inputs and predictions must be securely processed; user credentials and health data should be encrypted
NFR-3	**Reliability**	The model should consistently deliver correct results based on trained data without unexpected failures.
NFR-4	**Performance**	Predictions must be generated within 2–3 seconds of data input.
NFR-5	**Availability**	The system should be accessible 24/7 with minimal downtime.
NFR-6	**Scalability**	Should support a growing number of users and accommodate additional disease prediction modules in future.