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

Date	29 June 2025
Team ID	LTVIP2025TMID38848
Project Name	cleantech: transforming waste management with transfer 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 Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Prediction System	Input patient clinical data through form Predict liver cirrhosis using ML model Display prediction result (Cirrhosis / No Cirrhosis)
FR-4	User Interaction with Results	Reset form for new prediction View model confidence score (optional) Show medical disclaimer and guidance

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 be easy to use by doctors and patients with minimal technical knowledge. The user interface must be clean, form-based, and responsive across devices.
NFR-2	**Security**	The system must ensure secure handling of patient data. If user data is stored, it should follow basic encryption and avoid exposure. The model and backend should be protected from unauthorized access.
NFR-3	**Reliability**	The system should perform accurately and consistently under normal usage. Predictions must be generated reliably based on correct model logic.
NFR-4	**Performance**	The system should respond to prediction requests within 1–2 seconds. Backend processes like model

		loading and form submission should be optimized for speed.
NFR-5	**Availability**	The system should be accessible at all times (ideally 24/7) during deployment. Downtime should be minimal during maintenance or updates.
NFR-6	**Scalability**	The system architecture should allow future expansion (e.g., adding more medical conditions, models, or supporting more users simultaneously).