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

Date	27 June 2025
Team ID	LTVIP2025TMID42728
Project Name	Clean Teach: 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		
FR-4		

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system provides a clean and responsive web interface, allowing users to easily upload waste images and receive instant results.
NFR-2	**Security**	Image files are handled securely using Flask's file handling; system does not store any user data or images.
NFR-3	**Reliability**	The model consistently predicts accurate classifications for a wide variety of waste images under normal conditions.
NFR-4		The prediction and preview are delivered in under 2 seconds on average, even for high-resolution images.
	Availability	The application runs locally 24/7 and can be deployed online with minimal downtime using platforms like Render or Heroku.
	Scalability	The model and architecture can be scaled to integrate into mobile apps, smart bins, or cloud APIs with minimal changes.

NFR-5	**Availability**	The application runs locally 24/7 and can be deployed online with minimal downtime using platforms like Render or Heroku.
NFR-6	**Scalability**	The model and architecture can be scaled to integrate into mobile apps, smart bins, or cloud APIs with minimal changes.