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

Date	8 February 2026
Team ID	LTVIP2026TMIDS75799
Project Name	Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system should have a clean, intuitive UI for users to easily upload images and view results without technical expertise.
NFR-2	**Security**	The system should protect user data (images, login info) using encryption and secure authentication methods.
NFR-3	**Reliability**	The system should consistently provide accurate predictions with minimal failure or downtime during usage.
NFR-4	**Performance**	The prediction response time should be under 2 seconds for a single image classification.
NFR-5	**Availability**	The system should be available 24/7 with minimal service interruptions.
NFR-6	**Scalability**	The solution should handle increasing users or image inputs by scaling the model inference service and storage infrastructure as needed.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Account Management	Register using email and password
		Login to the system
FR-2	Profile Management	Update user profile details (name, contact info)
FR-3	Produce Image Input	Upload multiple images for batch analysis
FR-4	Smart Sorting Predictions	Classify produce into categories (e.g., Fresh, Slightly Spoiled, Rotten)