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

Date	31 January 2025
Team ID	LTVIP2026TMID91218
Project Name	Transferring identification of rotten and fresh fruits and vegetables
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 (Name, Email, Password)Registration through GmailRegistration through LinkedIn
FR-2	User Confirmation	Confirmation via EmailConfirmation via OTP
FR-3	Image Upload & Capture	Upload fruit/vegetable images from deviceCapture image using cameraValidate image format and size
FR-4	Image Processing & Classification	Image preprocessing (resize, normalize)Feature extraction using transfer learning modelClassification as Fresh or Rotten
FR-5	Result Display	Display classification result (Fresh/Rotten)Show confidence scoreProvide visual feedback
FR-6	History & Report Management	Store past predictionsView previous resultsDownload reports
FR-7	User Profile Management	View and edit profile detailsChange passwordLogout
FR-8	System Feedback & Alerts	Display processing statusError handling messagesNotification on successful prediction

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 with a simple and intuitive interface, allowing users to upload or capture images and view results without technical knowledge.
NFR-2	Security	User data and uploaded images should be securely stored and protected using authentication, authorization, and encrypted communication.
NFR-3	Reliability	The system should consistently provide accurate classification results with minimal errors under normal operating conditions.
NFR-4	Performance	The system should process and classify images quickly, providing results within a short response time.
NFR-5	Availability	The system should be available to users whenever required, with minimal downtime and proper error handling.
NFR-6	Scalability	The system should be capable of handling an increasing number of users and image uploads without degradation in performance.