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

Date	31 January 2026
Team ID	LTVIP2026TMIDS52600
Project Name	Introduction to 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.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login using email and password Forgot password option Secure authentication
FR-4	Image Upload	User can upload fruit/vegetable image System accepts JPG/PNG formats Preview before submission
FR-5	Rotten/Fresh Detection	System analyses image using transfer learning model Classifies as Fresh or Rotten Displays confidence percentage
FR-6	Result Display	Shows detection result clearly Provide recommendation(use/discard) Save result history

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 have a simple and user friendly interface
NFR-2	Security	User data and login details must be protective using encryption
NFR-3	Reliability	System should give accurate and consistent results
NFR-4	Performance	Image processing and result display should happen with in few second
NFR-5	Availability	System should be available 24/7 without major down time
NFR-6	Scalability	System should handle multiple users at the same time without slowing down