

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

Date	25 th June 2025
Team ID	LTVIP2025TMID34982
Project Name	Smart Sorting using 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	Image Upload & Prediction	Upload image via web form Show predicted class (healthy/rotten)
FR-2	Model Integration	Load pre-trained VGG16 model (.h5) Predict using trained model
FR-3	User Interface	Provide clean, responsive interface Display image preview after upload
FR-4	Data Visualization	Show sample images from each class Display basic stats (class count)

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Simple browser interface usable by anyone without coding knowledge
NFR-2	Security	Secure image uploads handled with file type and size checks
NFR-3	Reliability	System produces consistent results for same input images.
NFR-4	Performance	Image prediction within 2–3 seconds on standard laptop/PC.
NFR-5	Availability	Can be run offline or locally; no cloud dependency.
NFR-6	Scalability	Can be trained with additional classes or deployed on mobile/IoT.