**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 28 june 2025 |
| Team ID | LTVIP2025TMID59918 |
| 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.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | **Preprocessing of Images** | The system must preprocess input images before feeding them to the model. |
| FR-2 | **Accuracy** | Accuracy of predicting the fruits and vegetables freshness |
| FR-3 | **User Satisfaction** | Satisfaction of user with the accuracy of prediction |
| FR-4 | **Batch Processing Support** | For industrial use, the system should allow **batch image classification** |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Performance** | In batch processing, it should be able to handle **hundreds of images with minimal delay**. |
| NFR-2 | **Scalability** | The system should support **scaling to multiple users or devices** without degradation in performance. |
| NFR-3 | **Adaptability** | The solution should allow for **easy integration of new fruit/vegetable types** or spoilage categories with minimal retraining. |
| NFR-4 | ****Usability**** | The user interface should be **simple, intuitive, and accessible** for both technical and non-technical users. |
| NFR-5 | **Reliability** | The model must produce **consistent results** with an accuracy of at least **90% or higher**. |