**Project Design Phase**

**Proposed Solution Template**

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| Date | 26 june 2025 |
| Team ID | LTVIP2025TMID34904 |
| Project Name | Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in the proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | To develop a smart sorting system that can accurately identify and separate rotten fruits and vegetables using machine learning techniques, improving food quality and reducing waste. |
|  | Idea / Solution description | The system will use image processing and machine learning models to classify fruits and vegetables as fresh or rotten. A user-friendly interface and automated sorting mechanism will be integrated to streamline the process. |
|  | Novelty / Uniqueness | Unlike manual sorting or basic visual inspection, this solution leverages advanced transfer learning models for more accurate, faster, and automated sorting of fruits and vegetables. |
|  | Social Impact / Customer Satisfaction | Reduces food waste, ensures better quality for consumers, enhances efficiency in food supply chains, and promotes healthier food choices. |
|  | Business Model (Revenue Model) | Revenue can be generated by selling the solution to food processing industries, supermarkets, and farmers. Subscription-based maintenance services can also be offered |
|  | Scalability of the Solution | |  | | --- | |  |  |  | | --- | | The solution can be scaled to different types of fruits and vegetables, and can be deployed in supermarkets, warehouses, and farms, with cloud-based monitoring and analytics. | |