

**Project Design Phase**  
**Proposed Solution**

Date	18 June 2025
Team ID	LTVIP2025TMID41277
Project Name	Smart sorting
Maximum Marks	2 Marks

**Proposed Solution:**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Many people, especially in rural and market areas, face difficulty in identifying whether fruits or vegetables are fresh or rotten. This leads to food waste, health issues, and poor customer satisfaction.
2.	Idea / Solution description	Many people, especially in rural and market areas, face difficulty in identifying whether fruits or vegetables are fresh or rotten. This leads to food waste, health issues, and poor customer satisfaction.
3.	Novelty / Uniqueness	Unlike manual checking or traditional apps, this solution uses a <b>deep learning model (VGG16)</b> trained on thousands of real images to give accurate predictions. It can be used by farmers, vendors, and consumers without any technical knowledge.
4.	Social Impact / Customer Satisfaction	Helps reduce food waste, improves public health, and supports small-scale sellers and consumers with a free and easy tool to check freshness. This builds trust and satisfaction among users.
5.	Business Model (Revenue Model)	Initially offered for free. Later, revenue can be generated through <b>ads, subscription plans</b> , or by offering the model as a service (API) to online grocery apps, markets, or farmers.
6.	Scalability of the Solution	The model can be trained with more classes and images to support other food items. It can be converted into a <b>mobile app</b> , and support multiple languages to reach a wider audience globally.