

Project Design Phase
Proposed Solution Template

Date	June 2025
Team ID	LTVIP2025TMID33624
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.

S.No.	Parameter	Description
	Problem Statement (Problem to be solved)	Difficulty in accurately identifying whether fruits and vegetables are fresh or rotten, leading to food waste, health risks, and financial loss.
	Idea / Solution description	A machine learning-based web application using transfer learning (VGG16) that classifies fruits and vegetables as fresh or rotten through image input.
	Novelty / Uniqueness	Uses deep learning to detect spoilage from visual features; offers an intuitive image upload + prediction interface, combined with storage tips .
	Social Impact / Customer Satisfaction	Helps reduce food waste, ensures safer consumption, and promotes food hygiene. Increases customer confidence in food quality.
	Business Model (Revenue Model)	Freemium model: Free for basic users, subscription for businesses (grocery stores, supply chains). Possible API access for retail integration.
	Scalability of the Solution	Highly scalable — can be expanded to detect more categories, integrated into mobile apps, grocery platforms, or IoT smart kitchen appliances.