

Date	29 june 2025
Team Id	LTVIP2025TMID46028
Project Name	Smart-Sorting-Transfer-Learning-for-Identifying-Rotten-Fruits-and-Vegetables
Maximum Marks	4 marks

Brainstorm & Idea Prioritization Template

Step 1: Team Gathering, Collaboration, and Select the Problem Statement

Manual sorting of fruits and vegetables in food industries and supermarkets is time-consuming, error-prone, and labor-intensive. There is a need for an automated, intelligent solution that can identify and remove rotten produce using image classification.

Objective:

Build a deep learning-based web application that uses transfer learning (VGG16) to classify fruits and vegetables as Fresh or Rotten, and provide real-time predictions via an intuitive UI.

Step 2: Brainstorm, Idea Listing and Grouping

Idea / Feature	Group / Category
Use transfer learning for fast model training	AI / Deep Learning
Integrate model into a Flask web app	Backend / Web Application
Upload interface for images	Frontend / UI
Provide prediction as "Fresh" or "Rotten"	Model Output / UI
Use pre-trained VGG16 model	Deep Learning Model

Train on publicly available dataset (Kaggle)	Dataset
Create a demo video and user flow	Documentation / Presentation
Future enhancement: mobile app integration	Scalability / Roadmap
Smart home fridge alert system	Use Case / Smart Home
Automate sorting in food industries	Use Case / Industrial

Step 3: Idea Prioritization

Priority Level	Idea / Feature	Why?
● High	Upload → Predict → Show Result flow	Core functionality
● High	Use VGG16 and transfer learning	Fast, efficient training
● Medium	Build for Render deployment	Optional, but useful
● Medium	Add Google Drive model backup	To avoid large file uploads
● Low	Add real-time camera prediction	Advanced feature for future
● Low	Smart fridge integration	For smart home use case
● Medium	Create demo script & README.md	Required for presentation
● High	Dataset grouping into Fresh/Rotten	Directly affects accuracy