**Project Design Phase**

**Solution Architecture**

Date: 27 June 2025  
Team ID: LTVIP2025TMID35471  
Project Name: Smart Sorting: Transfer Learning for Identifying Rotten Fruits & Vegetables  
Maximum Marks: 4 Marks

Proposed Solution Architecture

Architecture Diagram

Diagram Description: • Image Capture: Cameras on conveyor belts, supermarket docks and fridge interiors  
• Preprocessing: Resize, normalize and augment images  
• Transfer Learning Model: Fine-tuned VGG16 CNN classifying into fresh/rotten categories  
• Alert System: Push notifications for operators and households via control panels and mobile app  
• Dashboard & Analytics: Real-time monitoring, spoilage trends and recipe suggestions

Copy the diagram and insert it into your Word document under “Architecture Diagram.”

