

Project Design Phase

Solution Architecture

Date	20 June 2025
Team ID	LTVIP2025TMID41277
Project Name	Smart sorting
Maximum Marks	4 Marks

Solution Architecture:

Architecture Overview

1. Client (Browser)

- HTML/CSS/JS pages (index, predict, result, etc.)
- User selects “Predict,” uploads an image.

2. Web Server (Flask App)

- app.py routes:
 - / → serves index.html
 - /predict → accepts upload, saves image
- Preprocessing: rescale & resize to 224×224
- Inference: loads fruit_classifier_model_v5.h5, runs model.predict()

3. Model (VGG16 + Top Layers)

- Pre-trained backbone (blocks 1–5) + custom dense layers
- Outputs 29-class softmax probabilities

4. Response & Presentation

- Flask returns result.html with predicted label
- Client displays result box (green/yellow)

Example - Solution Architecture Diagram:

