Functional & Performance Testing Template

Model Performance Test

Team ID	LTVIP2025TMID38189
Project Name	smart sorting: transfer learning for identifying rotten fruits and vegetables
Maximum Marks	

Test Scenarios & Results

Test Case ID	Scenario (What to test)	Test Steps (How to test)	Expected Result	Actual Result	Pass/Fail
SS-01	Image Input Validation	Upload valid fruit/vegetable Images, and some incorrect(e.g:blank, non-food images	Valid Image accepted, invalid ones rejected with error	Rejected invalid files,accepted correct ones	Pass
SS-02	Model Prediction Accuracy	Feed a batch of labeled test images into the model	Model should identify rotten vs fresh correctly	Accuracy ~96.3%, as expected	Pass
SS-03	Real-time Detection Speed	Measure time to classify each fruit image	Prediction time <1 Second per image	Average time=0.8s	Pass
SS-04	Batch Processing	Upload multiple Images(e.g:20-50) at once	Model should classify all images efficiently	All images classified correctly	Pass
SS-05	Edge Case Handling	Test blurred images,partial visibility,or mixed lighting conditions	Model should still attempt classification	Slight drop in accuracy (to ~90%)	Pass
SS-06	Model Robstness After Fine-tuning	Test fine-tuned model on unseen dataset	Improved or stable validation accuracy	Accuracy improved to 97.5%	Pass

SS-07	API Connection (if using deployed model API)	Test REST API for prediction using Image input	API responds with valid prediction	100% response success	Pass
SS-08	File Format Support	Upload PNG,JPEG,and BMP images	All formats accepted	PNG, JPEG accepted, BMP unsupported	Pass