

# User Acceptance Testing (UAT) Template

Date	19 February 2026
Team ID	LTVIP2026TMIDS89552
Project Name	Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables
Maximum Marks	

## Project Overview:

Project Name: Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables

Project Description: NutriGaze is a deep learning-based web application that classifies fruits and vegetables as *Healthy* or *Rotten* using image processing techniques. The system uses a pre-trained CNN model (VGG16 transfer learning) integrated with a Flask web application. Users can upload an image and receive classification results.

Project Version: v1.0

Testing Period: 10 February 2026 to 18 February 2026

## Testing Scope:

### Features & Functionalities to be Tested:

- Image upload functionality.
- Image preprocessing (resizing to 224x224, normalization / preprocessing).
- CNN model prediction and classification.
- Flask backend integration.
- Web UI responsiveness and navigation.

### User Stories / Requirements to be Tested:

- As a user, I can upload an image of a fruit or vegetable.
- As a user, I can receive a prediction (Healthy or Rotten).
- As a user, I can navigate between Home, About, and Prediction pages.
- As a project owner, I can verify model accuracy and performance metrics.

## Testing Environment:

**URL/Location:** Localhost (Flask Server)

**Credentials (if required):** Not applicable (open access during testing).

**Test Cases:**

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-001	Image Upload Validation	Upload valid image (JPG/PNG)	Image uploaded successfully		
TC-002	Invalid File Handling	Upload non-image file	Error message displayed		
TC-003	Prediction Output	Upload valid fruits and click Predict	Correct class (Healthy/Rotten) displayed.		
TC-004	Error Handling	Submit without uploading Image	“Please upload image.” Message shown.		
TC-005	UI Navigation	Navigate between pages	All pages load correctly		

**Bug Tracking:**

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-001	Wrong classification for some healthy apples	Upload healthy apple image	Medium	Open	Improve fine-tuning layers
BG-002	Low accuracy after model modification	Retrain model	High	In Progress	Check preprocessing consistency
BG-003	No prediction if model file missing	Remove .h5 file and run app	Low	Closed	Added file existence check

**Sign-off:**

Tester Name: Sarvani

Date: 18 February 2026

Signature: \_\_\_\_\_

**Notes:**

- Ensure that all test cases cover both positive and negative scenarios.
- Encourage testers to provide detailed feedback, including any suggestions for improvement.
- Bug tracking should include details such as severity, status, and steps to reproduce.
- Obtain sign-off from both the project manager and product owner before proceeding with deployment.