# **User Acceptance Testing (UAT) Template**

**Date**: 27 June 2025  
**Team ID**: LTVIP2025TMID45523  
**Project Name**: Enchanted Wings: Marvels of Butterfly Species  
**Maximum Marks**: Not Specified

## **Project Overview**

**Project Name**: Enchanted Wings: Marvels of Butterfly Species  
**Project Description**: A butterfly image classification system using transfer learning to classify 6499 images across 75 species, enabling real-time species identification for biodiversity monitoring, ecological research, and citizen science via a mobile app and API.  
**Project Version**: 1.0  
**Testing Period**: 27 June 2025 to 4 July 2025

**Testing Scope**:

* Features: Image upload, species classification, confidence score display, geolocation tagging, citizen science data submission.
* User Stories:
  + As a citizen scientist, I want to upload a butterfly image and receive accurate species identification to contribute to conservation.
  + As a field researcher, I want to classify images in real-time with geolocation data to track species distribution.
  + As an ecologist, I want to access aggregated classification data for research.

**Testing Environment**:

* **URL/Location**: Mobile app (iOS/Android) and API endpoint (e.g., <https://enchantedwings.api/classify>).
* **Credentials (if required)**: Test account - Username: test\_user, Password: Butterfly2025.

## **Test Cases**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1. | Image Upload and Classification | 1. Open mobile app.  2. Upload a valid .jpg butterfly image.  3. Click “Classify.” | App displays species name and confidence score (>80%). | Species correctly identified with 90% confidence. | Pass |
| 2. | Invalid Image Upload | 1. Open mobile app.  2. Upload an invalid file (e.g., .txt).  3. Click “Classify.” | Error message: “Invalid file format. Use .jpg or .png.” | Error message displayed as expected. | Pass |
| 3. | Geolocation Tagging | 1. Open mobile app with GPS enabled.  2. Upload a butterfly image.  3. Submit with geolocation. | Image tagged with correct latitude/longitude and stored | Geolocation data saved accurately. | Pass |
| 4. | API Classification Request | 1. Send POST request to API with valid image and API key.  2. Check response. | Returns JSON with species name and confidence score | JSON response received with correct data. | Pass |

## **Bug Tracking**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bug ID | Bug Description | Steps to Reproduce | Severity | Status | Additional Feedback |
| 1. | Confidence Score Not Displayed | 1. Open mobile app.  2. Upload valid butterfly image.  3. Click “Classify.” | Medium | Open | Confidence score missing on some Android devices; suggest UI fix. |
| 2. | Slow API Response | 1. Send 10 concurrent API classification requests.  2. Measure response time. | High | In Progress | Response time exceeds 5 seconds; optimize server performance. |

**Notes**:

* Test cases cover positive (valid inputs) and negative (invalid inputs) scenarios.
* Testers should provide detailed feedback on usability and suggestions for improvement.
* Bug tracking includes severity, status, and reproducible steps.
* Obtain sign-off from project manager and product owner before deployment.