User Acceptance Testing (UAT) Template

Date	27-Jan-2026
Team ID	LTVIP2026TMIDS65618
Project Name	Hematovision: Advanced Blood Cell Classification using Transfer Learning
Maximum Marks	4 Marks

Project Overview:

Project Name: HematoVision - Advanced Blood Cell Classification Using Transfer Learning

Project Description: HematoVision is an AI-based medical image classification system designed to identify different types of blood cells from microscopic images. The system uses deep learning and transfer learning techniques to accurately classify eosinophils, lymphocytes, monocytes, and neutrophils. It assists healthcare professionals by providing fast, reliable, and automated blood cell analysis.

Project Version: Version 1.0

Testing Period: 16th Dec 2025 to 20th Feb 2026

Testing Scope:

Features to be Tested:

- Upload microscopic blood cell image
- Preprocessing of the image
- AI model prediction of blood cell type
- Display of classification result
- System response time and accuracy
- Error handling for invalid image upload

User Requirements to be Tested:

- User can upload an image successfully
- System predicts correct blood cell category
- Result is displayed clearly to the user
- System handles incorrect inputs without crashing

Testing Environment:

URL/Location:

Colab Link: https://colab.research.google.com/drive/1AdAAyMo3Zo0_F2T_U80zePz9h4kMBRvt

Dataset URL: https://www.kaggle.com/datasets/paultimothymooney/blood-cells

Gradio Link: https://e608f0da86528c0f48.gradio.live

Credentials (if required):

UserName: bhumireddypadmavathi311@gmail.com

Password: b9y79IKM

Test Cases:

Test Case ID	**Test Scenario**	**Test Steps**	**Expected Result**	**Actual Result**	**Pass/Fail**
TC-001	Verify that the user can upload a blood cell image.	1. Open the HematoVision application. 2. Click on **Upload Image**. 3. Select a valid blood smear image file.	Image uploads successfully and preview is displayed.	Image uploaded and preview shown correctly.	Pass
TC-002	Check whether the trained model correctly classifies the uploaded image.	1. Upload a valid blood cell image. 2. Click **Classify / Predict** button.	System displays correct blood cell type *(e.g., Neutrophil, Lymphocyte, Monocyte, Eosinophil).*	Correct cell type predicted.	Pass

TC-003	Verify that prediction confidence is shown.	Upload image and run classification.	Confidence percentage appears with prediction.	Confidence score displayed.	Pass
TC-004	Check system response for non-image file.	Try uploading PDF or text file.	Error message: “Invalid file format. Please upload an image.”	Proper error shown.	Pass
TC-005	Ensure prediction is generated quickly.	1. Upload valid image. 2. Start prediction.	Result displayed within few seconds.	Output generated quickly.	Pass

Bug Tracking:

Bug ID	**Bug Description**	**Steps to reproduce**	**Severity**	**Status**	**Additional feedback**
BG-001	Large-size images take longer time to classify.	1. Upload high-resolution image (>5MB). 2. Run prediction.	Medium	Open	Resize image before processing to improve speed.
BG-002	Error message unclear when wrong file type uploaded.	Upload .pdf or .docx file.	Low	In Progress	Improve user-friendly message.
BG-003	Model gives wrong classification for low-quality images.	1. Upload blurred blood smear image. 2. Run prediction.	High	Open	Add image quality validation before prediction.

Sign-off:

Tester Name: Padmavathi Bhumireddy

Date: 12 Feb 2026

Signature: Padmavathi Bhumireddy

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.