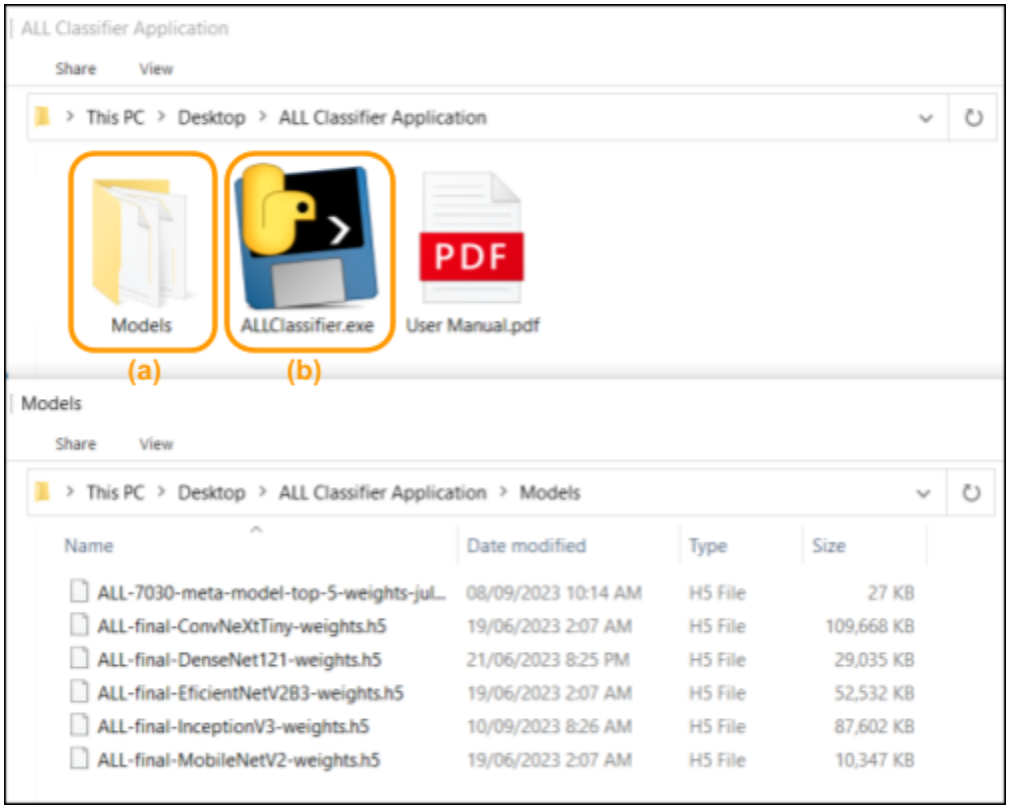
ALL CLASSIFIER APPLICATION USER MANUAL

Release v1.0 | Dayata, Yap, Bandalan | Dec 6, 2023

I. Application files and resources

1. Obtain the model files for the application.
    a. Go to http://tinyurl.com/ALLClassifierModels and download the **6 model files** in the given folder.
    b. Place the downloaded model files inside the **Models folder** (see (a) in the photo below)

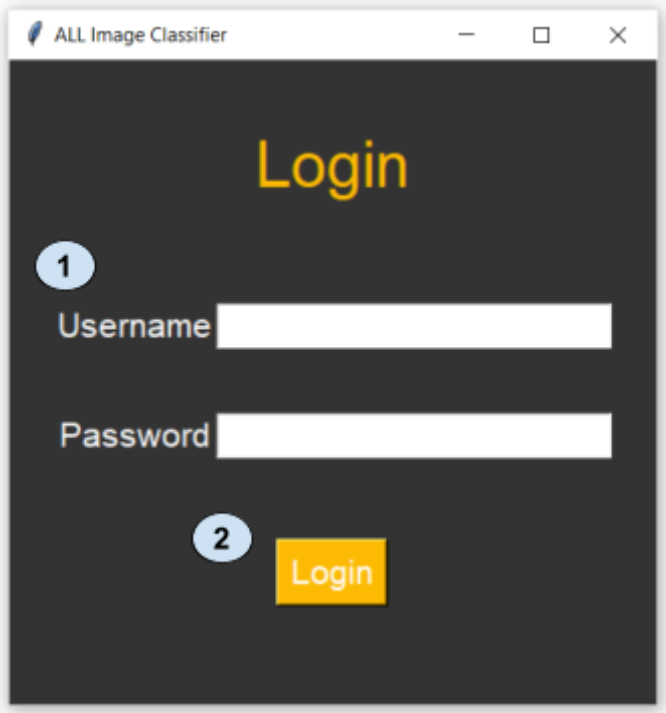
2. Ensure the following are present in the same directory as the application before starting the application:
    a. **Models folder** → The folder containing the models used for image classification. This should contain **6 model files** with the **.h5 file extension**.
    b. **ALLClassifier.exe** → The main application



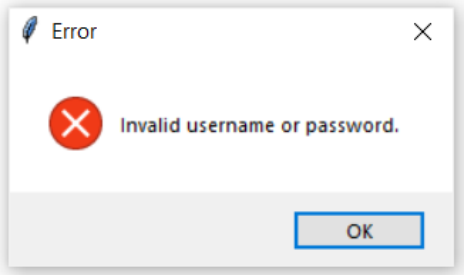
II. Starting the application

1. Click the **ALLClassifier.exe** file. A log in screen should appear.

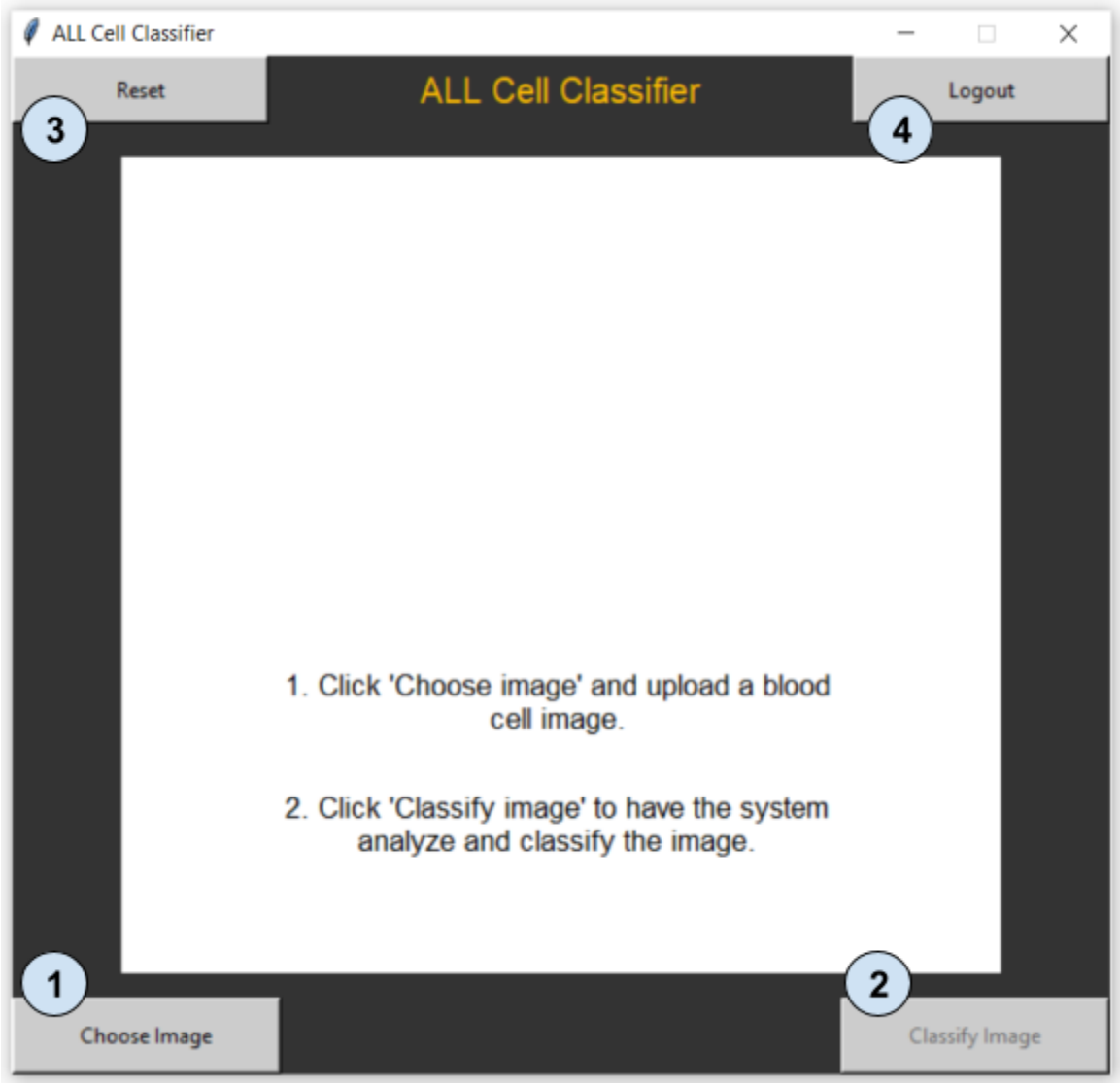
III. Login screen



1. Enter your **username** and **password.** (Default: Username - admin, Password - admin)
2. Click the **Login** button.
3. If the credentials are correct, then the classifier window will appear. Otherwise, a pop-up message will appear instructing you to re-enter your credentials.



IV. Image classification screen

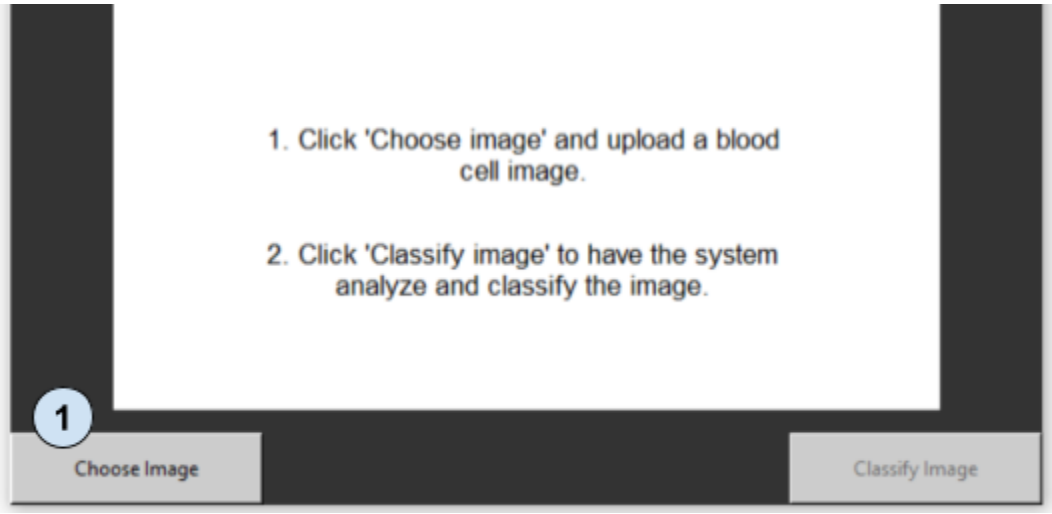


Buttons available:

#	Button	Action
1	Choose Image	Opens a window for the user to upload image
2	Classify Image	Classifies the image on screen into ALL and HEM
3	Reset	Clears the image and result on screen
4	Logout	Logs out of the application

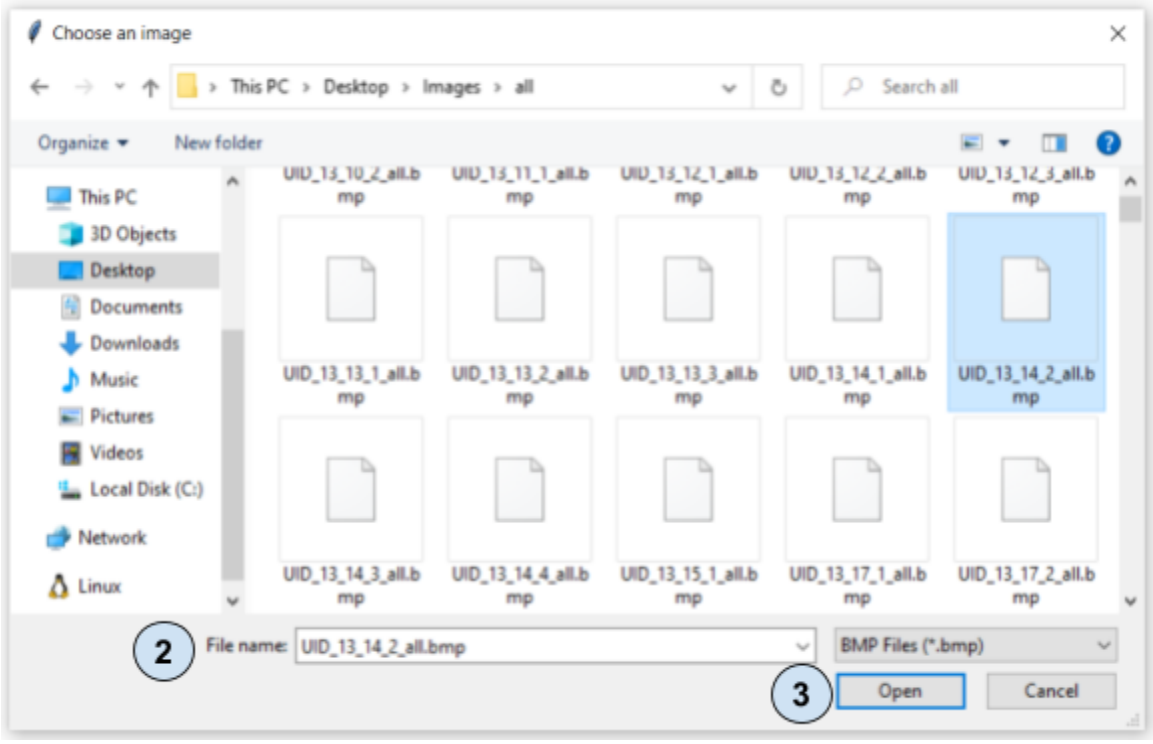
Steps for image classification:

1. Click "**Choose image**" to open the file upload window.

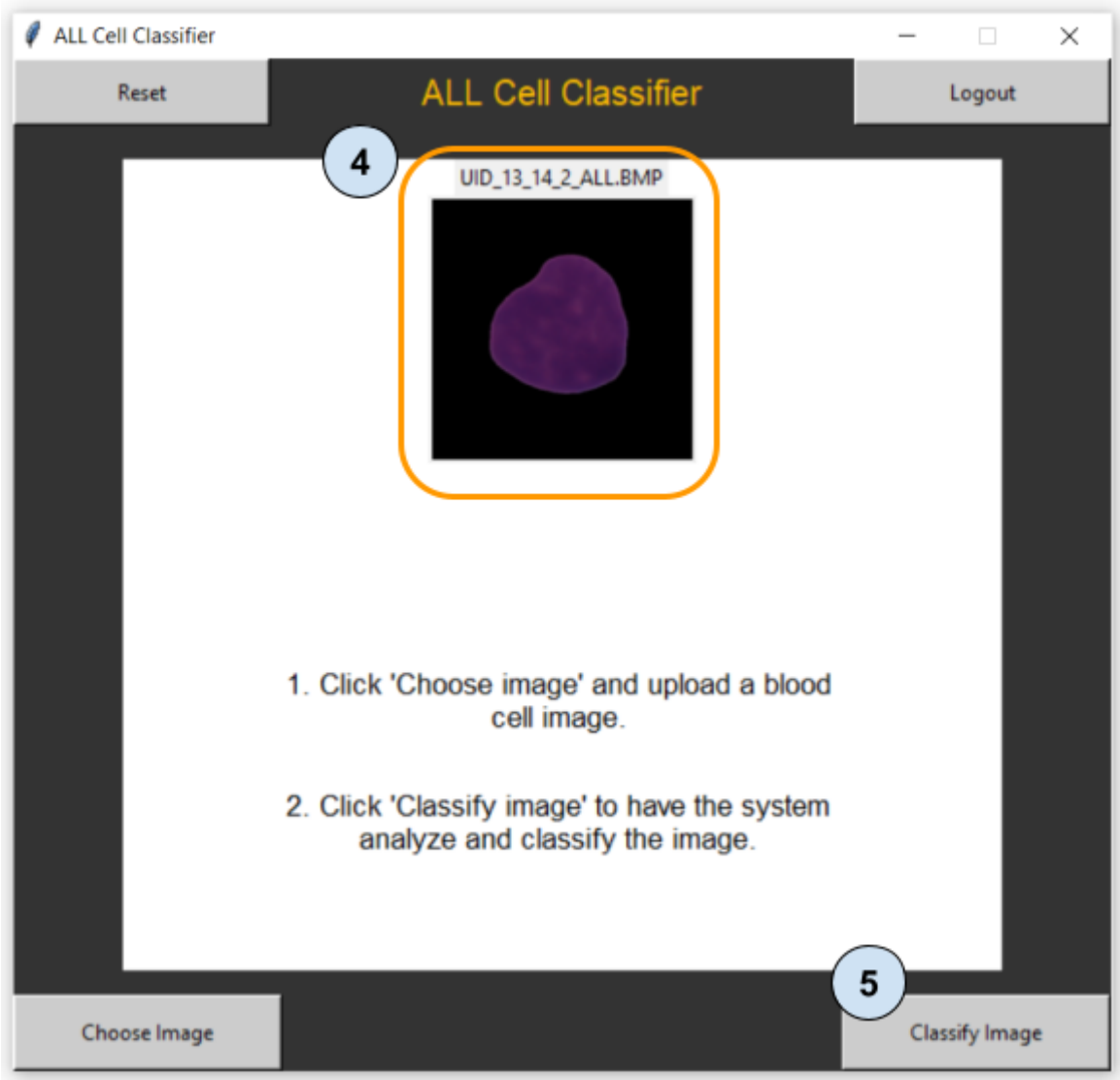


2. In the file upload window, navigate and select the image. Note that only bitmap (.bmp) files will be shown and accepted in the system.

3. Click "**Open**".



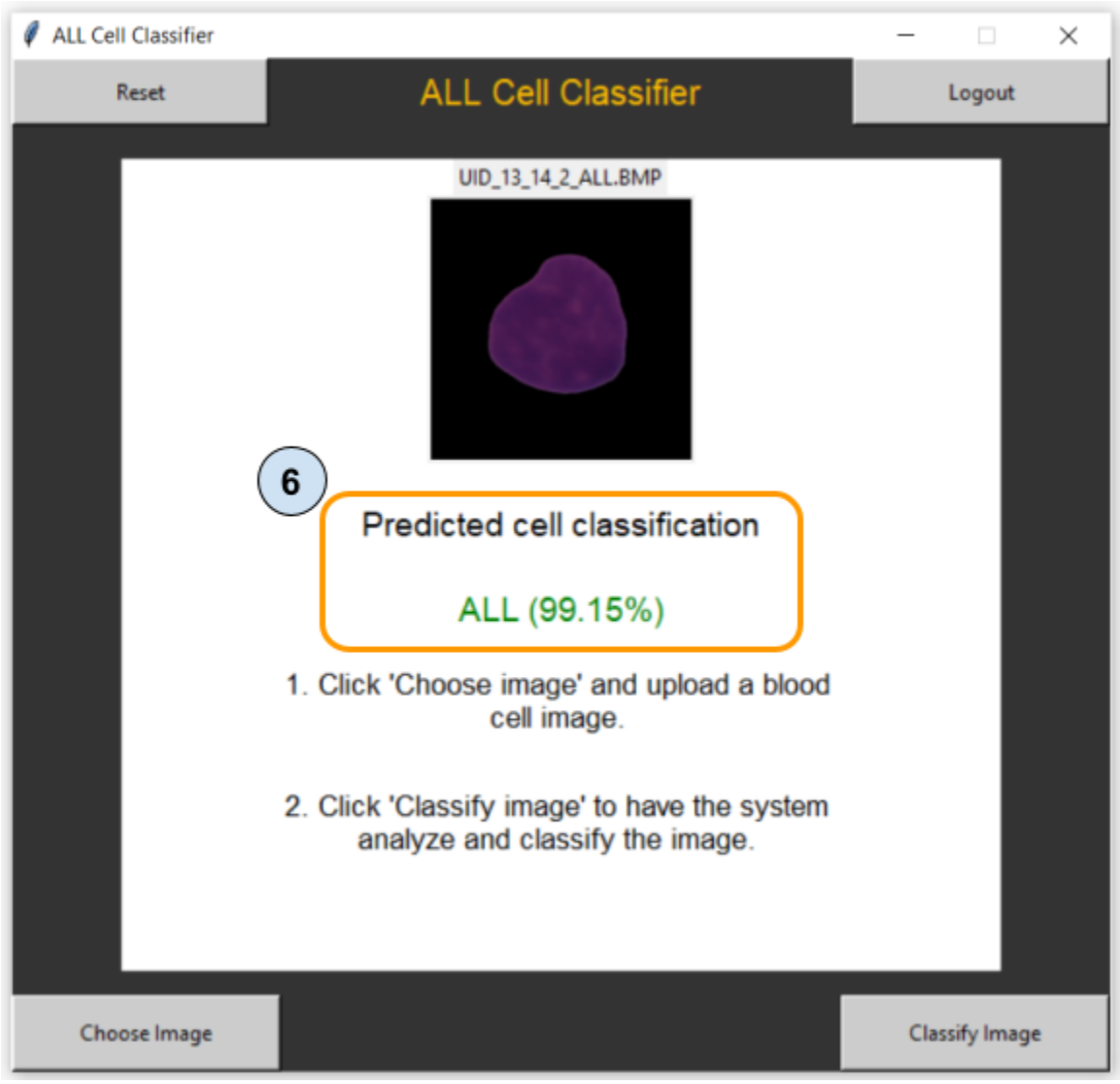
4. The file name and the image of the uploaded file will appear on top of the screen.



5. Click "**Classify Image**" to have the system analyze and classify the image as either ALL or HEM.

   Note: This button is not available when there is no image uploaded, or right after the "Reset" button has been clicked.

6. The results of the classification will then be shown below the image.
    a. **Predicted cell classification:**
        - ALL (Acute Lymphoblastic Leukemia)
        - HEM (Normal Blood Cell)
    b. **Prediction probability:**
        - The likelihood of the predicted class in percentage



Note: This app should not serve as a substitute for professional clinical diagnosis. Proper procedures should be done with enough samples to verify the result and overall status of the patient.