Project Design Phase-II

Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2025TMID36593
Project Name	HematoVision: Advanced Blood Cell Classification Using Transfer Learning
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a visual representation of how data flows through a system. For HematoVision, the DFD includes user input (blood cell image), image preprocessing, model prediction, and the display of the classification result. Below is a simplified example DFD for HematoVision:

- Entities:
  - User
  - Flask App
  - Deep Learning Model (MobileNetV2)
  - Result Display

1. Flow:
   1. User uploads an image.
   2. Flask app handles request and forwards image.
   3. Model receives image, preprocesses, and returns predicted class.
   4. Flask app sends result to user.
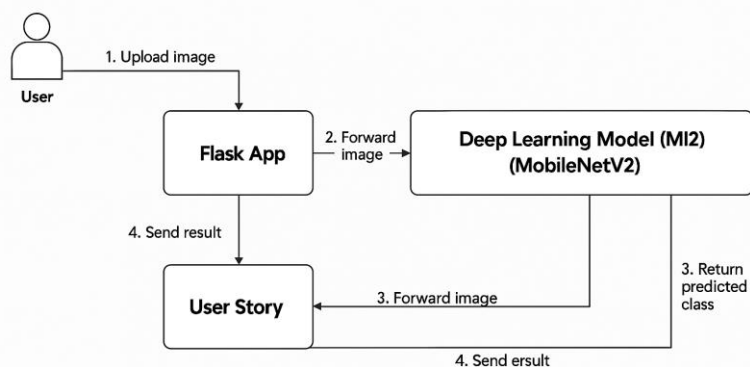
User Stories

Below are the user stories for the HematoVision application.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority & Release
Pathologist	Upload Image	USN-1	As a user, I can upload a blood cell image to classify.	Image is uploaded successfully.	High, Sprint-1
Pathologist	Classification	USN-2	As a user, I get the predicted blood cell type.	Result is shown after upload.	High, Sprint-1
Student	Education Mode	USN-3	As a student, I can test images for learning.	System classifies and explains result.	Medium, Sprint-2
Admin	Data Monitoring	USN-4	As an admin, I can track uploaded images.	Admin dashboard logs image metadata.	Low, Sprint-3
Doctor	Report Export	USN-5	As a doctor, I can export classification results.	PDF/CSV report is downloaded.	Medium, Sprint-3