# Project Design Phase-II

Data Flow Diagram & User Stories

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Project Name: HEMATOVISION: Advanced Blood Cell Classification Using Transfer Learning

Maximum Marks: 4 Marks

## Data Flow Diagram (DFD)

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

### Level 0 DFD - Description

External Entities:  
- User (Mobile/Web)  
- Doctor/Clinician  
- Admin  
  
Processes:  
1. Upload Blood Sample Image  
2. Preprocess & Analyze Image (Transfer Learning Model)  
3. Classify Blood Cells  
4. Display/Store Results  
  
Data Stores:  
- User Profile Data  
- Processed Image Data  
- Classification Results  
  
Data Flow:  
- User uploads an image → goes to “Preprocess & Analyze Image”  
- That connects to the ML model → output flows to “Classify Blood Cells”  
- Results go to both: display for user, and to the classification database  
- User and admin can view reports via dashboard

## User Stories

Use the below template to list all the user stories for the product.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance Criteria | Priority | Release |
| Customer (Mobile user) | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password. | I can access my account/dashboard | High | Sprint-1 |
|  | Email Confirmation | USN-2 | As a user, I will receive confirmation email once I have registered for the application | I can receive confirmation email & click confirm | High | Sprint-1 |
|  | Social Registration (FB) | USN-3 | As a user, I can register for the application through Facebook | I can register & access the dashboard with Facebook Login | Low | Sprint-2 |
|  | Social Registration (Gmail) | USN-4 | As a user, I can register for the application through Gmail | I can access the app with Gmail login | Medium | Sprint-1 |
|  | Login | USN-5 | As a user, I can log into the application by entering email & password | I can securely log in | High | Sprint-1 |
|  | Upload Image | USN-6 | As a user, I can upload a blood smear image for analysis | Image uploads successfully and goes to processing | High | Sprint-2 |
|  | View Result | USN-7 | As a user, I can view classification results for uploaded images | Blood cell classification results are shown | High | Sprint-2 |
| Customer (Web user) | Web Access | USN-8 | As a web user, I can register/login/upload images like mobile users | All actions work on web as well | High | Sprint-2 |
| Customer Care Executive | Support Dashboard | USN-9 | As a support executive, I can access user queries and data issues | I can view and respond to tickets | Medium | Sprint-3 |
| Administrator | Manage Users/Data | USN-10 | As an admin, I can manage users, view logs and control model versions | Admin dashboard is functional | High | Sprint-3 |