**Project Design Phase-II**

**Data Flow Diagram & User Stories**

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| Date | 27 June 2025 |
| Team ID | **LTVIP2025TMID35735** |
| Project Name | **Revolutionizing Liver Care : Predicting Liver Cirrhosis using Advanced Machine Learning Techniques** |
| Maximum Marks | 4 Marks |

**Data Flow Diagrams:**

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.

DFD Level 1 – Expanded Process Flow

**Example:** [**(Simplified)**](https://developer.ibm.com/patterns/visualize-unstructured-text/)

[User Input]

|

[Input Validator]---[Data Preprocessor]—[ML Model]

|

[Validator Output]

**[Patient/User]**

**↓**

**[Frontend Interface] <---> [Prediction API] <---> [ML Model]**

**↓ ↑**

**[Feedback System] [Preprocessed Dataset]**

**User Stories**

| **User Type** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Acceptance Criteria** | **Priority** | **Release** |
| --- | --- | --- | --- | --- | --- | --- |
| Patient (Web user) | Registration | USN-1 | As a user, I can register using email, password, and confirm password to access liver prediction dashboard. | I can access the dashboard after successful login | High | Sprint-1 |
|  | Login | USN-2 | As a user, I can log into the application using email and password. | I can log in and see my health prediction page | High | Sprint-1 |
|  | Liver Prediction | USN-3 | As a user, I can enter my medical parameters (bilirubin, enzymes, etc.) and receive cirrhosis risk prediction. | I can input my data and receive a result (High/Moderate/Low risk) | High | Sprint-2 |
|  | Report Generation | USN-4 | As a user, I can download my prediction and explanation as a PDF report. | I can view and download prediction results | Medium | Sprint-3 |
|  | Feedback Submission | USN-5 | As a user, I can give feedback on whether the prediction matched my actual diagnosis. | Feedback form appears after prediction | Low | Sprint-4 |
| Admin/Health Staff | User Management | USN-6 | As an admin, I can view registered users and delete misuse accounts. | Admin can view/manage users in admin panel | Medium | Sprint-4 |
|  | Prediction Logs | USN-7 | As a healthcare staff, I can access patient predictions with timestamp and inputs. | Doctor can see user prediction history | High | Sprint-4 |