Project Design Phase-II
Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2026TMIDS77028
Project Name	Rising Waters – A Machine Learning Approach to Flood Prediction
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 0

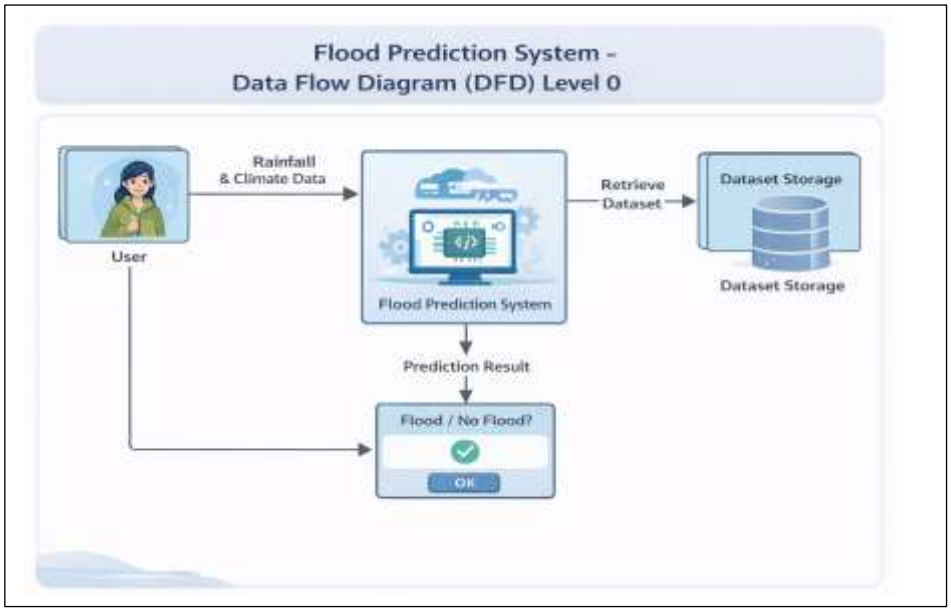
Entities:

- User (Resident / Officer)
- Flood Prediction System
- Dataset Storage

Data Flow:

1. User enters rainfall & environmental parameters.
2. System processes input using trained ML model.
3. Model retrieves trained weights from model storage.
4. System generates prediction (Flood / No Flood).
5. Prediction result displayed to user.

DFD LEVEL 0



User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Resident (Mobile user)	Flood Prediction	USN-1	As a user, I can enter rainfall and environmental parameters to check flood prediction	I receive prediction result (Flood / No Flood) instantly	High	Sprint-1
Resident (Web User)	Result Display	USN-2	As a user, I can see prediction results clearly in popup format	Result message is clearly visible	High	Sprint-1
Resident (Web User)	Data Accuracy	USN-3	As a user, I want accurate predictions	Model provides reliable results (based on evaluation metrics)	High	Sprint-1
Officer	Risk Monitoring	USN-4	As an officer, I can analyze rainfall data to predict flood risk	System predicts based on entered values	High	Sprint-1
Officer	Early Warning	USN-5	As an officer, I can use prediction results to issue alerts	Accurate result supports decision-making	High	Sprint-1
Admin	Model Management	USN-6	As an admin, I can update or retrain the ML model	Updated model improves performance	Medium	Sprint-2
Customer (Web user)	Dataset Update	USN-7	As an admin, I can upload new dataset for retraining	System accepts updated dataset	Medium	Sprint-2