Project Design Phase-II
Data Flow Diagram & User Stories

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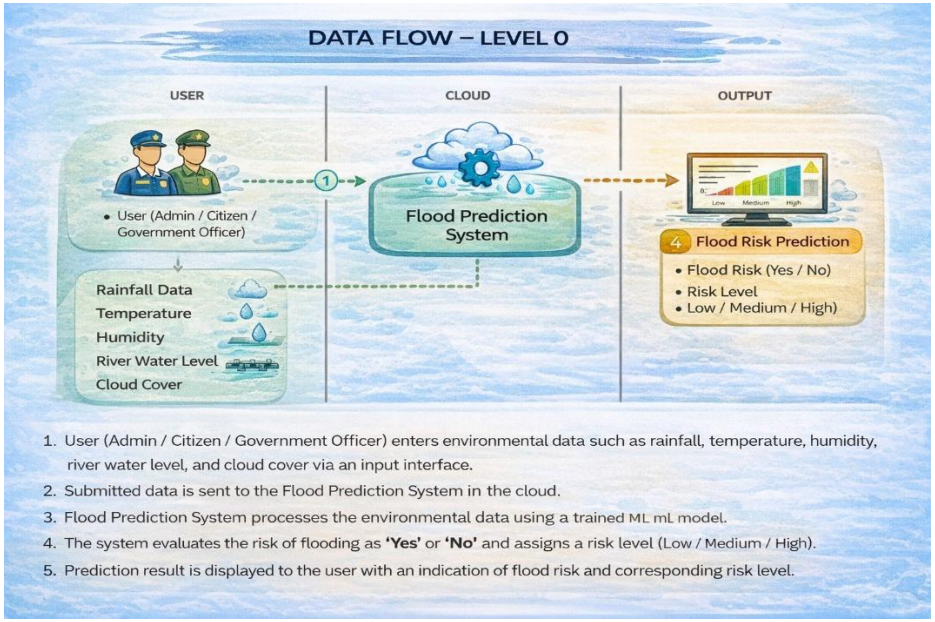
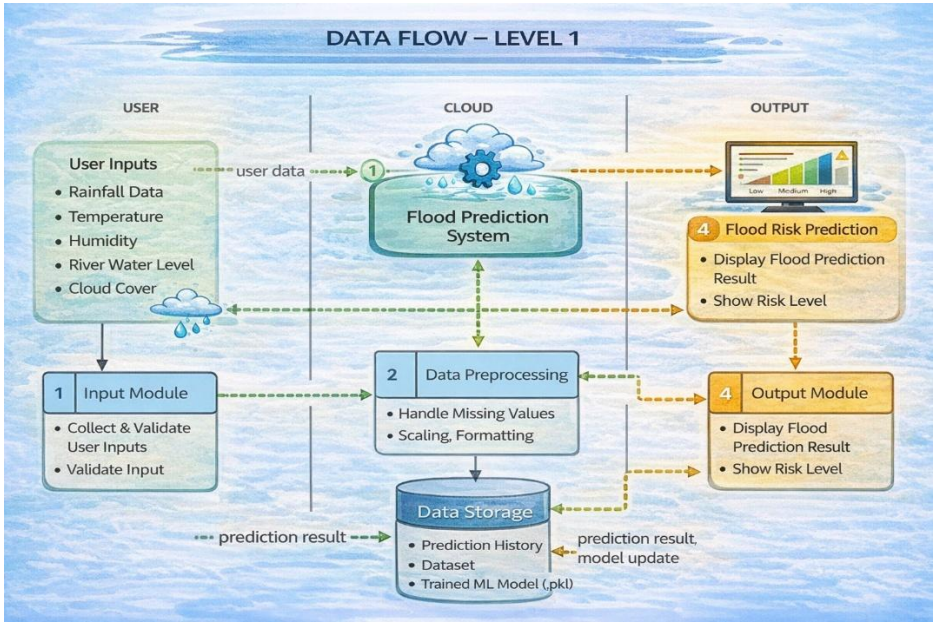
Team ID	LTVIP2026TMIDS90283
Project Name	rising waters: a machine learning approach to flood prediction

Data Flow Diagrams:

A Data Flow Diagram (DFD) visually represents the flow of data in the Flood Prediction System. It illustrates how input data is collected from users, processed through machine learning algorithms, and transformed into meaningful flood risk predictions.





In Level 0 DFD, the user interacts with the Flood Prediction System by entering environmental parameters such as rainfall, temperature, humidity, and river water levels. The system processes the data using a trained machine learning model and returns the prediction result.

In Level 1 DFD, the system is divided into multiple modules including input validation, data preprocessing, prediction module, and result display. The machine learning model processes the cleaned data and generates a prediction indicating whether a flood is likely to occur.

The system also maintains data storage components for storing datasets, trained models, and prediction history.

User Type	Functional Requirement	User Story ID	User Story	Acceptance Criteria	Priority	Release
Citizen	Prediction	USN-1	As a user, I can enter environmental data to predict flood risk	I can see flood prediction result	High	Sprint-1
Citizen	Result View	USN-2	As a user, I can view flood risk level	Risk level is displayed clearly	High	Sprint-1
Admin	Model Management	USN-3	As an admin, I can update the ML model	Updated model is saved	Medium	Sprint-2
Admin	Data Management	USN-4	As an admin, I can manage dataset	Dataset is stored and updated	Medium	Sprint-2