Project Design Phase-II
Data Flow Diagram & User Stories

Date	16 January 2026
Team ID	LTVIP2026TMIDS48526
Project Name	Rising Waters – A Machine Learning Approach to Flood Prediction
Maximum Marks	4 Marks

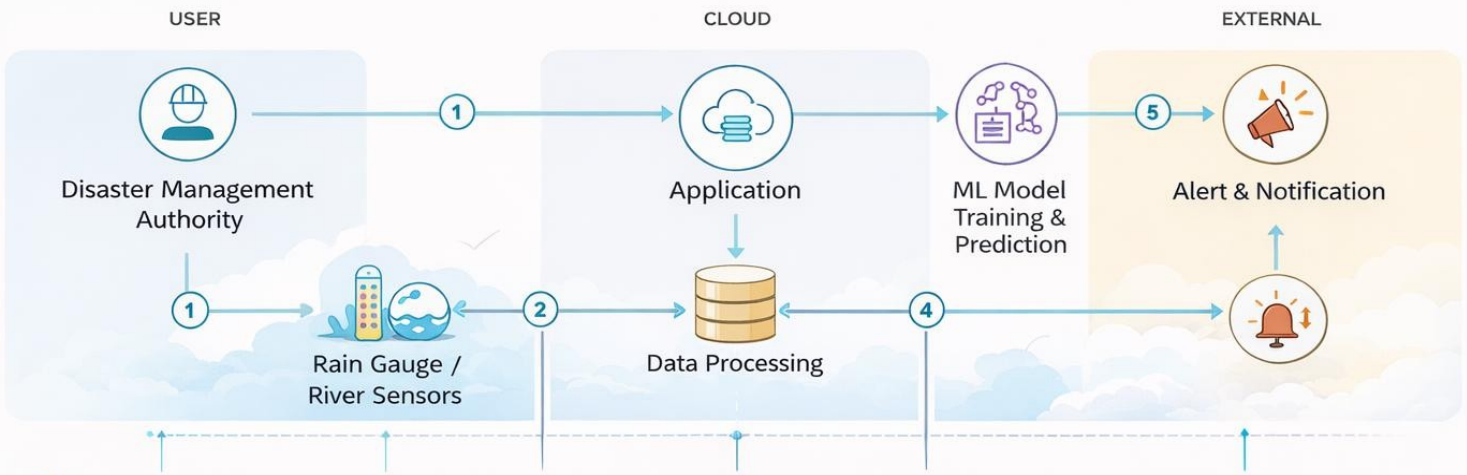
Data Flow Diagrams:

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.

Example: (Simplified)

Flow

Flood Prediction



1. The Disaster Management Authority configures the machine learning model and initiates the prediction system.
2. **Real-time data is collected from** rain gauges, river sensors, satellites, and weather forecasts.
3. The system preprocesse the data for meaningful analysis and prediction.
4. A machine learning model analyzes the processed data to predict potential flood **events in at-risk areas.**
5. **Accurate predictions trigger alerts and notifications,** warning the authorities and public.

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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
Community Member (Mobile User)	Registration	USN-1	As a user, I can register using my email and password to receive flood alerts.	User can successfully register and access alert dashboard.	High	Sprint-1
	Login	USN-2	As a user, I can log in using email and password.	User receives confirmation email and account gets verified.	High	Sprint-1
	Alert Notification	USN-3	As a user, I receive a verification email after registration.	User can log in and access flood alert dashboard	High	Sprint-1
Disaster Management Authority	Model Configuration	USN-4	As an authority, I can configure and update flood prediction model parameters.	Alerts are triggered when flood risk level is high.	High	Sprint-1
	Monitoring Dashboard	USN-5	As an authority, I can view district-wise flood risk levels.	Model updates are saved and applied to prediction system.	Low	Sprint-2
		USN-6	As a user, I can register for the application through Gmail	Dashboard displays Low/Medium/High risk areas with visualization	Medium	Sprint-1
Emergency Responder	Resource Planning	USN-7	As a responder, I can view predicted high-risk zones to plan evacuation	High-risk areas are clearly highlighted with map view.	High	Sprint-1
System Administrator	Data Management	USN-8	As an admin, I can manage rainfall, river, and terrain datasets.	Data can be added, updated, or removed successfully	High	Sprint-1
	User Management	USN-9	As an admin, I can manage user accounts and permissions.	Admin can activate/deactivate accounts	High	Sprint-1