Project Design Phase-II
Data Flow Diagram & User Stories

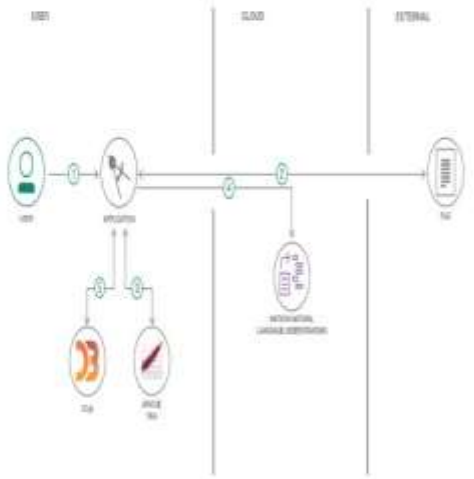
Date	17 November 2023
Team ID	Team-592061
Project Name	River Water Quality Forecasting
Maximum Marks	4 Marks

Data Flow Diagrams:

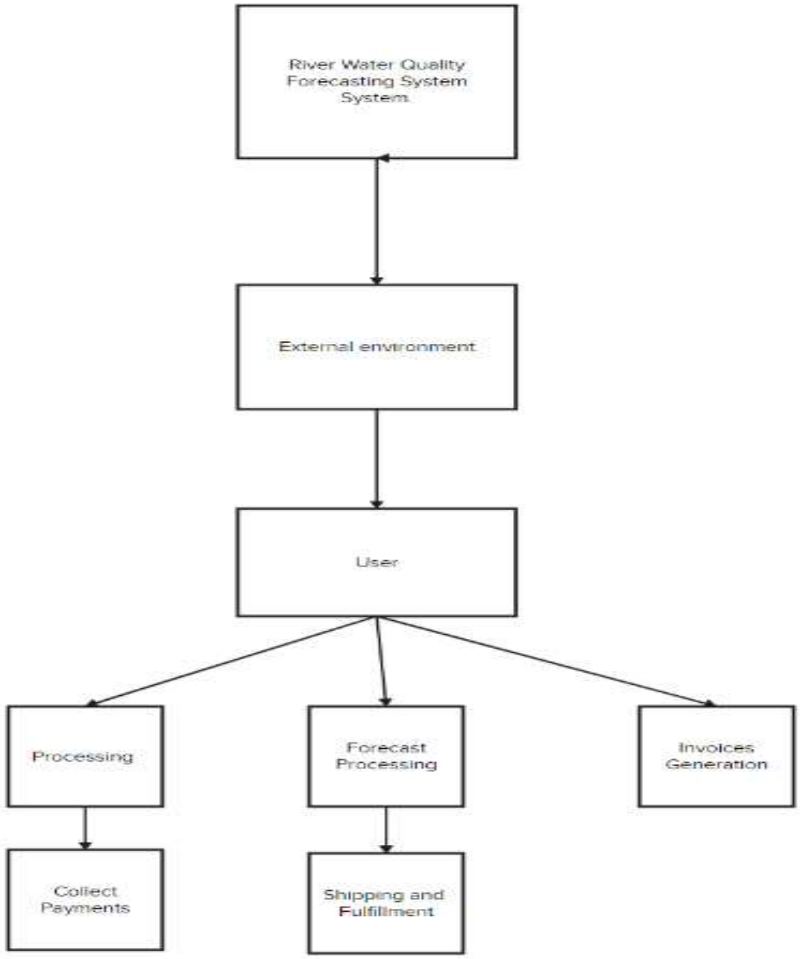
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example: DFD Level 0 (Industry Standard)

Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.



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	Vishnu	As a water quality analyst, I want to input historical water quality data for a specific river, so that the system can use it for forecasting.	The system should allow the user to input various water quality parameters (e.g., pH, turbidity, dissolved oxygen). - The system should validate the input data for accuracy and completeness.	High	1.0
		Harsha	As a river manager, I want to view a graphical representation of historical water quality trends, so that I can identify patterns and anomalies.	The system should generate a time-series graph showing changes in water quality parameters over a selected period. - The graph should have options for zooming	Medium	1.0

				in/out and selecting specific parameters.		
		Nanda kishore	As a water quality analyst, I want the system to automatically detect and flag unusual water quality events, so that I can investigate and address potential issues.	The system should employ anomaly detection algorithms to identify deviations from normal water quality patterns. - Users should receive notifications for flagged events.	High	1.1
		Nithin	As a river manager, I want to receive daily water quality forecasts for the upcoming week, so that I can plan and respond to potential water quality issues.	The system should provide daily forecasts for key water quality parameters. - Forecasts should include a confidence level or range.	High	1.1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1
	Dashboard					
Customer (Web user)						
Customer Care Executive						
Administrator						