

Project Design Phase-II

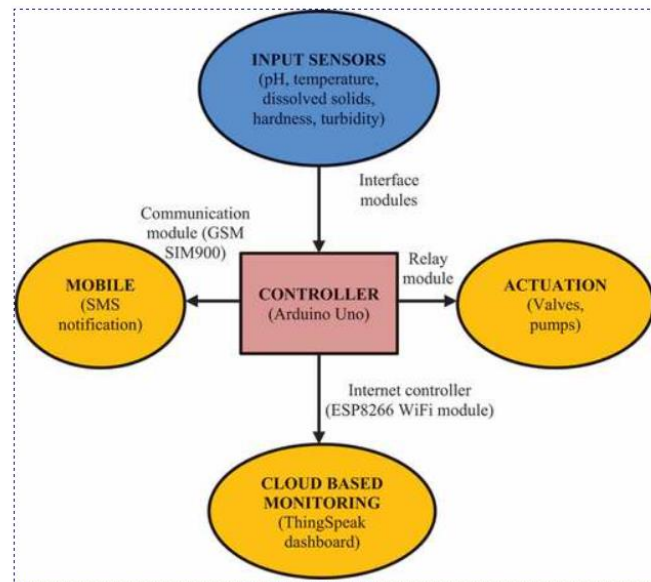
Data Flow Diagram & User Stories

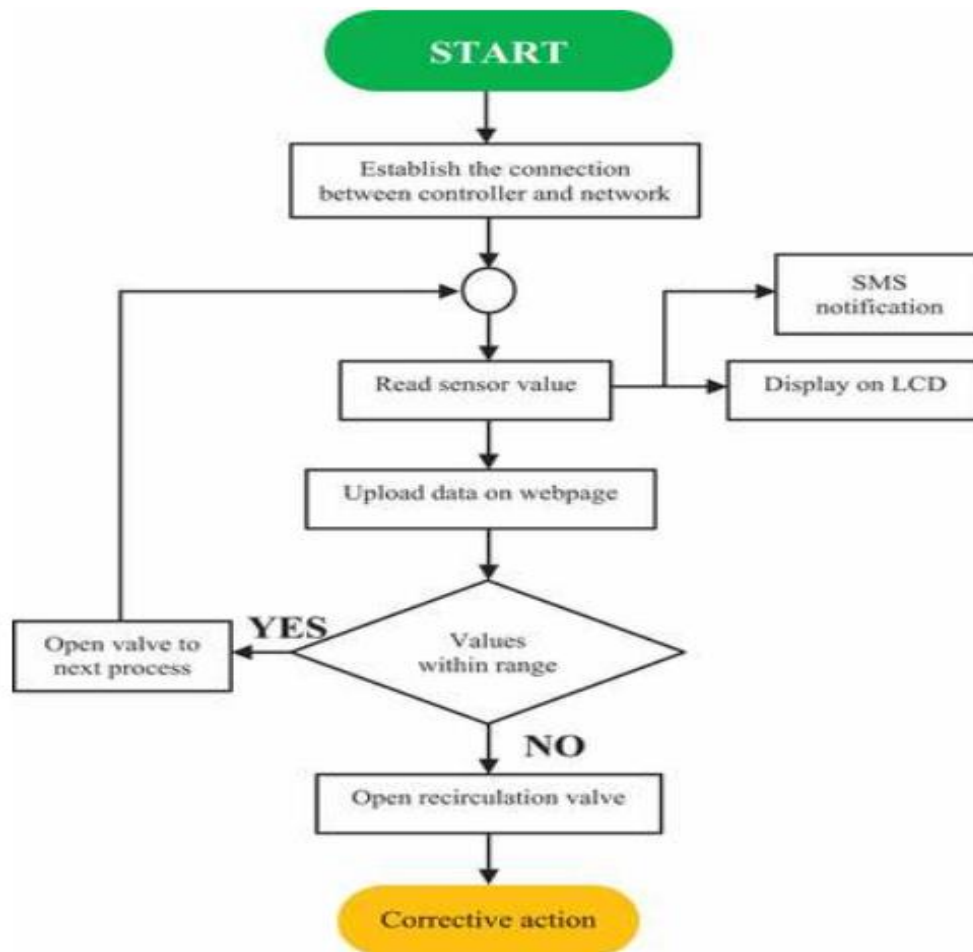
Date	21 November 2023
Team ID	Team-592258
Project Name	RIVER WATER QUALITY FORECASTING
Maximum Marks	4 Marks

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)





User Stories

Use the below template to list all the user stories for the product.

Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
River Water Quality Forecasting Using AI	Story 1	As a user, I want to collect historical river water quality data and relevant environmental factors so that the AI model can learn from this data.	The system successfully collects historical river water quality data and relevant environmental factors. The data is stored in an accessible and secure manner.	High	Sprint-1
River water quality forecasting using AI	Story 2	As a user, I want to clean and preprocess the collected data to make it suitable for training the AI model.	The system successfully cleans and preprocesses the collected data. The preprocessing includes handling missing values, outliers, and any inconsistencies in the data.	Low	Sprint-1
River Water Quality Forecasting Using AI	Story 3	As a user, I want to develop an AI model using suitable machine learning algorithms to predict river water quality.	The system successfully develops an AI model using suitable machine learning algorithms. The model is capable of predicting river water quality based on the input data.	High	Sprint-2
River Water Quality Forecasting Using AI	Story 4	As a user, I want to train the AI model using the preprocessed data to learn patterns and relationships between the data and river water quality.	The system successfully trains the AI model using the preprocessed data. The model is able to learn patterns and relationships between the data and river water quality.	High	Sprint-1
River Water Quality Forecasting Using AI	Story 5	As a user, I want to evaluate the performance of the trained model using appropriate metrics to ensure its accuracy and reliability.	The system successfully evaluates the performance of the trained model using appropriate metrics. The model meets or exceeds the required performance standards.	High	Sprint-1

River Water Quality Forecasting Using AI	Story 6	As a user, I want to optimize the model by tuning its parameters to improve its predictive performance.	The system successfully optimizes the model by tuning its parameters. The optimization improves the model's predictive performance without overfitting the data.	Low	Sprint-1
River Water Quality Forecasting Using AI	Story 7	As a user, I want to deploy the optimized model in a test environment to validate its performance in a real-world scenario.	The system successfully deploys the optimized model in a test environment. The model performs well in the test environment and its predictions closely match the actual river water quality.	High	Sprint-2