PROJECT DESIGN PHASE-II
SOLUTION REQUIREMENTS
(FUNCTIONAL & NON-FUNCTIONAL REQUIREMENTS)

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PROJECT NAME	Real Time River Water Quality Monitoring and Control System
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FUNCTIONAL REQUIREMENTS

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Analyze River to be Moniterized.	Analyze weather. Analze living organism in River.
FR-2	Prepare Setup	Based on weather Based on living oraganism
FR-3	System installation	System Installed on River Make an Trial of Working
FR-4	Settings values	Setting value for Trial Calculation

FR-11	NODE-RED	Node-RED is a flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs and online services as part of the Internet of Things.

FR-12	IBM WATSON IOT PLATFORM	It provide a clean and simple UI where you can simply and easily add and manage your devices, control access to your **IoT** service, and monitor your usage.
FR-13	IMPLEMENTING USING PYTHON	Implement python code for detecting pH level Conductivity Temperature
FR-14	Quality History	The Quality history will help to track the Quality so that the aren'twill be updated. Quality history will be there for 30 days. For example if the Water Quality is low due to weather the aren't can track down their water Quality and also can find their Quality of measurement.

NON-FUNCTIONAL REQUIREMENTS

Following are the non-functional requirements of the proposed solution.

FR No.	Non-functional Requirements	Description
NFR-1	Usability	This setup has to check the ph level of the water and quality of the river water which helpful for people and industrial places etc.
NFR-2	Security	The security provides in the water level of the river water in industrial and factories etc..
NFR-3	Reliability	Portable ,Easy to use Flexibility
NFR-4	Performance	Create a System which helps the people and industries with continuously monitoring the river water quality . The notification will be sent according to the Quality of water is Very Poor. The entire Water System data will be stored in the database.
NFR-5	Availability	Track the quality of the water.
NFR-6	Scalability	Able to adopt with various environment and Surroundings .

NFR-7	Evaluability	The system should be able to deliver promptly to the financingauthority. In the case of non-profit organizations, the solution should be 'advancing the mission'.
NFR-8	Dynamicity	IoT devices may have the capability to adapt dynamically and change based on their conditions.
NFR-9	Desirability	Navigation should be made easy. The user should be able to searchand find the information he needs without much hassle.