Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	18 October 2022
Team ID	PNT2022TMID06691
Project Name	Real-Time River Water Quality Monitoring and Control System
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Description (Story/Sub-task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through product mobile UI
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Ph level detection	Ph sensor is used to monitor the water quality and the signals are send to Arduino.
FR-4	Turbidity detection	Turbidity sensor TS-300B measures the turbidity (counter of suspended matter) in the wash water and the signals are send to Arduino.
FR-5	Ultrasonic generator	Waves generated at regular interval times to clear algae 25% ,50%, 100%

Non-functional Requirements:

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

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Efficient to use and has simple monitoring system.
NFR-2	Security	Mobile application is secured with firewalls protection.
NFR-3	Reliability	Real time sensor output values with future predicted data storage. 98% efficient monitoring output. Assurance for aquaculture safety
NFR-4	Performance	Greater performance and environmentally safe model.
NFR-5	Availability	In form of mobile UI 24 x 7 monitoring system.
NFR-6	Scalability	Highly Scalable. It is capable to produce a best final output.
NFR-7	Stability	It is highly stable.
NFR-8	Efficiency	It is highly efficient and it has simple monitoring system.