

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

Date	03 October 2022
Team ID	PNT2022TMID33019
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)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Interface	Description about how to use the application in the right manner .
FR-4	Monitoring Strategy	Monitoring the parameters like temperature, dissolved oxygen ,PH , ORP etc in water .
FR-5	Data Analysis	Analysis with predefined data to know the quality .
FR-6	Evaluation of Water Quality	At last , it evaluate and display the water quality percentage after analyzing .

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The error rate of users monitoring the quality mustn't exceed 10 percentage .
NFR-2	Security	Standard and encryption method is used for high security to keep the collection of data about the water quality .
NFR-3	Reliability	The application must perform without failure in 95 percentage of use cases.
NFR-4	Performance	The application supporting 5000 + users per hour must provide 5 seconds or less responses time in desktop or Android .
NFR-5	Availability	The user interface must be available to users 99.98 percentage of day time.
NFR-6	Scalability	The application must be scalable enough to support 10,00,000 users at the same time while maintaining performance.