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

Date	08 October 2022
Team ID	PNT2022TMID10251
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	1. Registration through Gmail. 2. Registration through mobile number.
FR-2	User Confirmation	1. Confirmation via Email. 2. Confirmation via OTP.
FR-3	User access	1. Accepting all the terms and conditions. 2. Confirmation of recaptcha.
FR-4	User mode	Online
FR-5	User alert	Alert SMS to the registered mobile number if the measured value crosses the threshold value.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	1. Easy to use. 2. Effective, Efficient, Engaging, Error tolerant. 3. Easy to learn.
NFR-2	**Security**	1. Accepting Terms and Conditions. 2. Confirmation via Email and OTP. 3. Confirmation via recaptcha. 4. Strong cryptography skills. 5. Software security architects also have experience with malware, intrusion detection and prevention and firewalls.
NFR-3	**Reliability**	1. Great user interface. 2. Software operating without failure while in a specified environment over a set duration of time.
NFR-4	**Performance**	Fast loading of the result time and high performance.
NFR-5	**Availability**	Easy installation.

NFR-6	**Scalability**	1. Optimizing SQL queries and implementing indexing strategies.
		2. By building articles and authors into a single query, we can dramatically reduce the volume of queries we're running.