

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

Date	04 October 2022
Team ID	PNT2022TMID09930
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	<ol style="list-style-type: none">1. Easy to use.2. Effective, Efficient, Engaging, Error tolerant.3. Easy to learn.
NFR-2	Security	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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.