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

Date	14 October 2022
Team ID	PNT2022TMID49528
Project Name	Efficient Water Quality Analysis and Prediction Using Machine Learning
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	To every family we will provide a form when a new user account is created
FR-2	User Confirmation	The system send an approval message after the user account is activated
FR-3	Authorization level	We provide secure water quality monitoring system approved by TNPCB(Tamilnadu pollution control board)
FR-4	Transaction processing system	analyse ,send a message about real time water quality and reusable method via online,
FR-5	Reporting	1.Analysis the real time water quality and send the message to the users. 2.The real time water quality report is collected and the dataset is using to predict the water in upcoming days
FR-6	business rules	1.Any one of the family member fill the appropriate form and provide the current usable mobile number 2.After receiving the verification message user send the confirmation message 3.We will providing our service continuously 4. If any problem occurs register the complaint in our website ,we will provide a immediate solution

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Allows users to identify specific missing data elements available in the water quality portal data.
NFR-2	**Security**	To ensure that the access of safe drinking water for all people in a country
NFR-3	**Reliability**	Above 90% of the operations that are completed correctly.
NFR-4	**Performance**	System effectively compare the incoming water quality parameters with the required dataset
NFR-5	**Availability**	This system is available for every family or any part of the area people.
NFR-6	**Scalability**	High mineral levels are found in water as well as Water Quality Index (WQI) and Water Quality Classification (WQC) are accurately predicted.