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

Date	21October 2022
Team ID	PNT2022TMID37849
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	Registration through Form Registration through Gmail Registration through Linked in
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Machine learning model deployment	It is to predict the water quality index (WQI) and to predict water quality classification(WQC)
FR-4	Accessing datasets	Datasets are collected by data pre-processing method.
FR-5	Testing The Water Samples	Provides an option to test any kind of water samples with required parameters and to calculate the Water Quality Index and impurities present
FR-6	Compliance to Rules or Laws	Privacy Policy, Terms and Conditions and End User Agreement.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The customers can have the opportunity to view a better interpretation of results. The customers are also recommended with the purification techniques based on the impurities.
NFR-2	**Security**	We have designed this project to secure the people from drinking the impurity water.
NFR-3	**Reliability**	The reliability should be in providing a efficient and quality drinking water.
NFR-4	**Performance**	The performance of the system should always be accurate in calculating the WQI value so that the customers will be satisfied with their need.
NFR-5	**Availability**	By developing and deploying resilient hardware and software we can analyse the drinking water
NFR-6	**Scalability**	This project used to measure and determine the quality of water.