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

Date	02 November 2022
Team ID	PNT2022TMID29328
Project Name	Efficient Water Quality Analysis and Prediction using Machine Learning.
Team Lead	Mohamed Iliyaz S
Team Members	Aswin Kumar I , Dhayanidhi V , Samraj S.
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 Gmail Create an account Follow the instructions
FR-2	User Confirmation	Confirmation via Email and it is predicted by water level sensor
FR-3	Interface sensor	Interface sensor and Water level sensor produces the detection of clean drinking water
FR-4	Accessing datasets	Datasets are collected by data preprocessing method.
FR-5	Mobile application	The efficient of water quality is analyzed, the mobile application is not used .

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	This project is useful for all human being by predicting a purified water.
NFR-2	**Security**	We have designed this project to secure the people from drinking the impurity water.
NFR-3	**Reliability**	This project will help everyone in protecting their health. Accurate water quality prediction is the basis of water environment management and is of great significance for water environment protection.

NFR-4	**Performance**	This system uses different sensors for monitoring the water quality by determine pH,Turbidity,conductivity and temperature. The data preprocessing access the dataset. With the use of this we predict the quality water.
NFR-5	**Availability**	By developing and deploying resilient hardware and software we can analyze the drinking water .
NFR-6	**Scalability**	This project used to measure and determine the quality of water. This provide pollution free and purified water.