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

Date	03October 2022
Team ID	PNT2022TMID23264
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 LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Authentication	User login using registered credentials Get Username and password input
FR-4	Authorization levels	Authentication of credentials Preventive measures against Hackers
FR-5	External Interfaces	User provides the water sample as input for processing the water quality index evaluation
FR-6	Reporting results	Input sample is tested against the ML trained model to generate the water quality report

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Multiple language interface available Visualized representation User manual Helpline
NFR-2	**Security**	Security mechanism SHA256 cryptography system used
NFR-3	**Reliability**	Immediate roll back to checkpoints whenever any system failure occurs Consistent updating of database and software
NFR-4	**Performance**	With the comparative analysis of Water quality.
NFR-5	**Availability**	Will be available on all web engines as a websites.
NFR-6	**Scalability**	It is Platform independent.