Project Design Phase - II

Solution Requirements (Functional & Non-functional)

Date	16 October 2022
Team ID	PNT2022TMID15957
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	Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Log in to system	Check Credentials Check Roles of Access.
FR-4	Manage Modules	Manage System Admins Manage Roles of User Manage User permission
FR-5	Check whether details	Temperature details Humidity details
FR-6	Log out	Exit

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Usability includes easy learn ability, efficiency in use, remember ability, lack of errors in operation and subjective pleasure.
NFR-2	**Security**	Sensitive and private data must be protected from their production until the decision-making and storage stages.
NFR-3	**Reliability**	The shared protection achieves a better trade-off between costs and reliability. The model uses dedicated and shared protection schemes to avoid farm service outages.

NFR-4	**Performance**	The idea of implementing integrated sensors with water quality management involved provides better visualization of parameter values
NFR-5	**Availability**	Automatic adjustment based on the quality of water like ph level,temperature , turbidity of river water
NFR-6	**Scalability**	Scalability is a major concern for IoT platforms. It has shown that different architectural choices of IoT platforms affect system scalability and thatautomatic real time decision-making is feasible in an environment composed of dozens of thousand.