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

Date	13 October 2022
Team ID	PNT2022TMID46174
Project Name	Project - 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	River water sensing	The sensing parameters are PH, Turbidity, temperature.
FR-2	Data collection	The accurate value of PH, Temperature, Turbidity are collected.
FR-3	Monitor	The collected data can be monitored by using quality monitoring system such as (python code).
FR-4	Control	The system control the utilization of degraded water.
FR-5	Data storage	The data can be stored by using cloud service such as (IBM Watson, Node red, Web UI)
FR-6	Intimation to Authority	The stored data can be send to Authority by using (FAST SMS).

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	To monitor the river water quality.
NFR-2	**Security**	This system uses cloud storage for security purpose and backup the data any time.
NFR-3	**Reliability**	The sensor sense the physical data and provide accurate data to the authority.
NFR-4	**Performance**	This system works in low powered and highly efficient.
NFR-5	**Availability**	The system is available for 24/7 for the regular supply of quality water.
NFR-6	**Scalability**	This project is scalable because it covers a particular zone.