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

| Date          | 14 October 2022                         |
|---------------|---|
| Team ID       | PNT2022TMID01284                        |
| 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   | <b>Functional Requirement</b> | Sub Requirement (Story / Sub-Task)                   |
|------|-------------------------------|--|
| No.  | (Epic)                        |  |
| FR-1 |                               | River water Protection Monitors PH, Salinity,        |
|      | <b>User Requirements</b>      | Turbidity, Conductivity and dissolve solvents and    |
|      |                               | to analyse the quality of river water                |
| FR-2 |                               | Registration through Form                            |
|      | User Registration             | Registration through Gmail                           |
|      |                               | Registration through LinkedIN                        |
|      |                               | Registration through website                         |
| FR-3 |                               | Confirmation via Email                               |
|      | User Confirmation             | Confirmation via OTP                                 |
|      |                               | Confirmation via call                                |
| FR-4 |                               | Through star rating                                  |
|      | <b>Product Feedback</b>       | Through Phone calls                                  |
|      |                               | Through Google forms                                 |
| FR-5 | User Authentication           | The credentials is accessible only to the authorized |
|      |                               | users to access the model.                           |

## **Non-functional Requirements:**

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

| Non-Functional Requirement | Description   |
|----------------------------|---|
|                            |   |
|                            | Easier to apply Even an illiterate consumer         |
| Usability                  | ought to use the product without any difficulties.  |
|                            | The model is designed in a secure manner to         |
|                            | maintain privacy, and it is protected by two-step   |
| Security                   | authorization. Username and password will be        |
|                            | assigned based on the needs of the user.            |
|                            | Even if there is a failures the last updated Data's |
| Reliability                | are stored in a Default manner.                     |
|                            | The software should have good user interface. It    |
| Performance                | must have a minimum power requirement. It has       |
|                            | to keep water and power.                            |
|                            | The models are created in such a way that they      |
| Availability               | are accessible, usable, and can be modified at      |
|                            | any time. Data is available at any time.            |
|                            | The product has to cover all the space of water     |
| Scalability                | body irrespective of the quantity of river water.   |
|                            | Security  Reliability  Performance  Availability    |