**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 09 November 2022 |
| Team ID | PNT2022TMID53593 |
| Project Name | Project – Real-time River Water Monitoring and Control System. |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | 1. Registration through Form 2. Registration through Gmail |
| FR-2 | User Confirmation | 1. Confirmation via Email 2. Confirmation via OTP |
| FR-3 | User Access | 1. Accepting all the terms and conditions. 2. Confirmation of recaptcha. |
| FR-4 | User Mode | Online. |
| FR-5 | User alert | Alert SMS to the registered mobile number if the  measured value crosses the threshold value. |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | 1. Easy to use.  2. Effective, Efficient, Engaging, Error tolerant.  3. Easy to learn. |
| NFR-2 | **Security** | 1. Accepting Terms and Conditions.  2. Confirmation via Email and OTP.  3. Confirmation via recaptcha.  4. Strong cryptography skills.  5. Software security architects also have experience with malware, intrusion detection and prevention and firewalls. |
| NFR-3 | **Reliability** | 1. Great user interface.  2. Software operating without failure while in a specified environment over a set duration of time. |
| NFR-4 | **Performance** | Fast loading of result time and high performance. |
| NFR-5 | **Availability** | Easy installation. |
| NFR-6 | **Scalability** | 1. Optimizing SQL queries and implementing indexing strategies.  2. By building articles and authors into a single query, we can dramatically reduce the volume of queries we're running. |