**Project Design Phase-II**

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

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| Date | 19 October 2022 |
| Team ID | PNT2022TMID37720 |
| 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.

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| FR No. | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | **User Registration** | Registration through Gmail  Create an account  Follow the instructions |
| FR-2 | **User Confirmation** | Confirmation via Email and it is predicted by water level sensor |
| FR-3 | **Interface Sensor** | Interface sensor and Water level sensor produces the detection of clean drinking water |
| FR-4 | **Accessing Datasets** | Datasets are collected by data preprocessing method. |
| FR-5 | **Mobile Application** | Datasets are collected by data preprocessing method. |

**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** | This project is useful for all human being by predicting a purified water. |
| NFR-2 | **Security** | We have designed this project to secure the people from drinking the impurity water |
| NFR-3 | **Reliability** | This project will help everyone in protecting their health. Accurate water quality prediction is the basis of water environment management and is of great significance for water environment protection. |
| NFR-4 | **Performance** | This system uses different sensors for monitoring the water quality by determine pH,Turbidity,conductivity and temperature. The data preprocessing access the dataset. With the use of this we predict the quality water. |
| NFR-5 | **Availability** | By developing and deploying resilient hardware and software we can analyze the drinking water . |
| NFR-6 | **Scalability** | This project used to measure and determine the quality of water. This provide pollution free and purified water |