

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

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID08065 |
| Project Name | Project-Efficient water Quality analysis & Prediction using machine learning |
| 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 Requirement | Monitoring water quality ,water flow and temperature to control water pollution and algal bloom. |
| FR-2 | User Registration | Manual Sign-Up using a website or Gmail. |
| FR-3 | User Confirmation | OTP authentication through phone messages,gmail,notices,paper and confirmation. |
| FR-4 | Product Implementation | Installing the product to monitor water quality for checking the confirmation by using website |
| FR-5 | Payment option | Bank transfer,Debit cards,UPI Method. |
| FR-6 | Product Feedback | Through the website ,phone conversion ,and Gmail. |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | This application is used to describe the product and easy to access the product by the guidelines. |
| NFR-2 | Security | This Application security ensures the website by building a firewall and two step verification. |
| NFR-3 | Reliability | To maintain the product conditions and update the version of the product is up-to-date. |
| NFR-4 | Performance | This application collects the data of river water to provide accurate value .Using this method ,we can alert the locality right on time. |
| NFR-5 | Availability | Depending on the requirement of the user,all required functions will be offered.when the user requests a features made available in places where users like to know about it. |
| NFR-6 | Scalability | Regardless of size,the product must fill the entire river's space.The product is based on monitoring water quality,flow,humidity,and temperature as well as controlling algal blooms. |

