

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

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| Date | 15 October 2022 |
| Team ID | PNT2022TMI22772 |
| Project Name | 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 | User registration | Registration with Gmail Create an account By the Follow the instructions |
| FR-2 | User Confirmation | Confirmation via Alarm Confrimation via SMS |
| FR-3 | Interface sensor | Interface sensor if contaminated water enter in the river it gives alarm. |
| FR-4 | Accessing datasets | Datasets are retrieved from Cloudant DB |
| FR-5 | Mobile application | Only can see water is contaminated or not. Had not using mobile application. |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|--|
| NFR-1 | Usability | The smart protection system defines that this project helps people to protect the drinking water and agriculture. |
| NFR-2 | Security | We have designed this project to secure the water from contaminated water or chemical or sewage. |
| NFR-3 | Reliability | This project will help people"s in protecting their water and save them from diseases. |
| NFR-4 | Performance | IOT devices and sensors are used to alert the station control person by a message when contaminated water enter in river. |
| NFR-5 | Availability | By developing and deploying resilient hardware and software we can protect the river from contamination chemicals,sewage etc.... |
| NFR-6 | Scalability | This project used to collect real time information in water and measure quality. |