

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID21494 |
| Project Name | Gas leakage monitoring and alerting 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 | Objective | The purpose of the system is to detect early gas leakage in the industries through the gas pipelines and alert the user with their location. |
| FR-2 | Focus | To alert the user immediately if any gas leakage is sensed . |
| FR-3 | Features | Gas leakage level will be indicated by the LED lights . It detects the different harmful gases like methane, LPG etc., by using the required sensors. It updates the sensor parameters in web applications. |
| FR-4 | Essentiality | To prevent the industry workers from being exposed to toxic gases. |
| FR-5 | Gas leakage location sent | Location sent to the web application through GPS module. |

Non-Functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| FR-1 | Usability | The web application is simple and easy to use. Efficiency is high. |
| FR-2 | Reliability | The application runs accurately. |
| FR-3 | Availability | The application can be accessed at anytime and anywhere . |
| FR-4 | Security | The web application is highly secure. Software is protected from unauthorized access . |
| FR-5 | Scalability | Application is not limited to the users. |