

## Project Design Phase-II

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

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Team ID	PNT2022TMID33614
Project Name	Gas Leakage Monitoring & Alerting System
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#### 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	<ul style="list-style-type: none"><li>➤ Registration through Form</li><li>➤ Offline Registration</li></ul>
FR-2	User Confirmation	<ul style="list-style-type: none"><li>➤ Confirmation via Email</li><li>➤ Confirmation via OTP</li></ul>
FR-3	User Authentication	<ul style="list-style-type: none"><li>➤ User verification through valid User ID and password.</li></ul>
FR-4	User Access	<ul style="list-style-type: none"><li>➤ Realtime Monitoring of Gas Leakage System, through web portal for Authorized Users.</li></ul>
FR-5	User Alert	<ul style="list-style-type: none"><li>➤ User receives an alert through SMS.</li><li>➤ Turn on Alerting System in Industry.</li></ul>
FR-6	Review and Feedback	<ul style="list-style-type: none"><li>➤ Receive Feedback from Users.</li></ul>

**Non-functional Requirements:**

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

<b>NFR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR-1	<b>Usability</b>	➤ Easier Installation process and easy to use
NFR-2	<b>Security</b>	➤ Data transmission and handling through secured protocols. ➤ Credential encryption & Cloud security.
NFR-3	<b>Reliability</b>	➤ Only authorized personnel have access to the system. ➤ Assured Data Security and Information conciseness. ➤ Longer Lifetime of Product/Service.
NFR-4	<b>Performance</b>	➤ High Accuracy of gas leakage detection in localized area. ➤ Faster Response to Gas Leakage Detection (SMS alert, valve closing).
NFR-5	<b>Availability</b>	➤ The user can access the System 24/7. ➤ Realtime monitoring system.
NFR-6	<b>Scalability</b>	➤ The system is scalable even in case of many gas sensors. Or in case of many supervisors.