

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

Date	16 October 2022
Team ID	PNT2022TMID06118
Project Name	Project - 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	Gas Detection	<ul style="list-style-type: none"><li>Gas Detection through Gas sensors</li></ul>
FR-2	Notification	<ul style="list-style-type: none"><li>Notification via Email</li><li>Notification via OTP</li><li>Notification via Mobile call</li><li>Notification via Message</li></ul>
FR-3	Taking Precaution steps	<ul style="list-style-type: none"><li>Automatically turn off the gas knob</li></ul>
FR-4	Rising Alarm	<ul style="list-style-type: none"><li>Rising alarm using the buzzer.</li></ul>
FR-5	Safety of people	<ul style="list-style-type: none"><li>By rising alarm and avoiding disasters</li></ul>
FR-6	Easy to implement	<ul style="list-style-type: none"><li>IOT application with Arduino-UNO</li></ul>

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	<ul style="list-style-type: none"><li>Can detect the release of gases</li><li>Rises alarm</li><li>Taking precaution steps</li><li>Sending notifications</li></ul>
NFR-2	<b>Security</b>	<ul style="list-style-type: none"><li>Ensure the safety of people.</li></ul>
NFR-3	<b>Reliability</b>	<ul style="list-style-type: none"><li>Can detect the gases accurately.</li></ul>
NFR-4	<b>Performance</b>	<ul style="list-style-type: none"><li>Can detect the release of gases and automatically takes the precaution steps.</li></ul>
NFR-5	<b>Availability</b>	<ul style="list-style-type: none"><li>Can be used anywhere where the different gases are involved in work.</li></ul>
NFR-6	<b>Scalability</b>	<ul style="list-style-type: none"><li>Can detect the different types of gases even it is non-toxic.</li></ul>