

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

Date	01 November 2022
Team ID	PNT2022TMID04339
Project Name	Gas Leakage Monitoring & Alerting System for Industries
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	<ul style="list-style-type: none"> ○ Registration through Form ○ Offline Registration
FR-2	User Confirmation	<ul style="list-style-type: none"> ○ Confirmation via Email ○ Confirmation via OTP
FR-3	User Authentication	<ul style="list-style-type: none"> ○ User verification through valid User ID and password.
FR-4	User Access	<ul style="list-style-type: none"> ○ Realtime Monitoring of Gas Leakage System, through web portal for Authorized Users.
FR-5	User Alert	<ul style="list-style-type: none"> ○ User receives an alert through SMS. ○ Turn on Alerting System in Industry.
FR-6	Review and Feedback	<ul style="list-style-type: none"> ○ Receive Feedback from Users.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none"> ○ Easier Installation process, and Realtime Monitoring Service.
NFR-2	Security	<ul style="list-style-type: none"> ○ Data transmission and handling through secured protocols. ○ Data encryption & Cloud security.
NFR-3	Reliability	<ul style="list-style-type: none"> ○ Only authorised personnel have access to the system. ○ Assured Data Security and Information conciseness. ○ Longer Lifetime of Product/Service.

NFR-4	Performance	<ul style="list-style-type: none"> ● High Accuracy of gas leakage detection in localized area. ● Faster Response to Gas Leakage Detection (SMS alert, valve closing).
NFR-5	Availability	<ul style="list-style-type: none"> ● The user can access the System 24/7. ● Realtime monitoring system.
NFR-6	Scalability	<ul style="list-style-type: none"> ● The system is scalable even in case of many gas sensors. Or in case of many supervisors.