

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

Date	25 October 2022
Team ID	PNT2022TMID09820
Project Name	Gas Leakage Monitoring & Alerting System for Industries using IoT
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.