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

Date	03 October 2022
Team ID	PNT2022TMID20329
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	objective	To prevent the emission of gas by alerting the users.
FR-2	essentiality	They are mandatory
FR-3	Testing	Components tested before non-functional testing
FR-4	Types	Business rules, External interface, authentication
FR-5	Capturing	Easy to capture
FR-6	Capture type	It is captured in use case

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system interface should be easy and effective
NFR-2	**Security**	The communication between the Arduino and the modules should be secure by encryption. The system should not display the homeowner personal information to anyone.
NFR-3	**Reliability**	The system should include failure modes and effect analysis, robust parameter design .
NFR-4	**Performance**	The system should response to any leakage system immediately. The Arduino response time must be fast.
NFR-5	**Availability**	The system should work 24 hours 7 days a week.
NFR-6	**Scalability**	It could be moved from smaller to larger operating system in terms of performance and the large number of users must be handled.