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

Date	15 October 2022
Team ID	PNT2022TMID27071
Project Name	Gas leakage monitoring and 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	Objective	The purpose of this system is to detect gas leakage, neutralize it, and prevent the explosion.
FR-2	Focus	The user shall be able to receive warning message as quickly as possible.
FR-3	Features	Gas detectors measure the level of different gases within the air, and are used to prevent anyone from being exposed to toxic gases that could poison or kill. You may recognise them as fire alarms or carbon monoxide detectors in your home (or) Industry.
FR-4	Essentiality	To prevent anyone from being exposed to toxic gases and explosion.

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 (User-friendly).
NFR-2	Security	The communication between the Arduino and the GLDS should be secure by encryption. The system should not display the homeowner personal information to anyone.
NFR-3	Performance	The system should response immediately to any leakage situation. The system should update the local database in real time. The homeowner information should be modified easily.
NFR-4	Availability	The system should work 24 hours 7 days a week.