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

Date	07 NOVEMBER 2022
Team ID	PNT2022TMID13299
Project Name	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	Monitoring	Level of gas is monitored using sensor and if there is any leakage, alert can be sent through messages and with a buzzer sound.
FR-2	User Reception	The data like the level of gas can be send through messages and alerts.
FR-3	User Understanding	The user can monitor the level of gas with the help of the data. If there is an increase in gas level then the alert will be given by message or buzzer sound.
FR-4	User Performance	When the user gets notified, they could take precaution steps like turning the gas off, turn on the exhaust fan/sprinkler and avoid serious accidents.

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 GLDS should be secure by encryption
NFR-3	**Reliability**	Function under stated conditions for a stated time period. It might have a capacity to recognize the smoke accurately and does not give a false.
NFR-4	**Performance**	The system should response immediately to any leakage situation. The gas detector should be from anywhere at any time.
NFR-5	**Availability**	The system should work 24 hours 7 days a week

| NFR-6 | **Scalability** | Sensors can be replaced every time it fails. |