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

Date	21 October 2022
Team ID	PNT2022TMID20334
Project Name	Gas Leakage monitoring & 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	Gas Leakage detection	Gas leakage detection through gas sensors
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Hardware Requirement	Optical, Soil, Ultra flow meter
FR-4	Precaution Steps	Automatically turn off the gas knob.
FR-5	Easy to implement	IOT application with Arduino
FR-6	User welfare	Reliable in all environmental conditions.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The sensor enabled solution helps in preventing the high risk of gas explosions and rises an alarm to detect the release of gases and sends the notification to the user.
NFR-2	**Security**	The devices is intended for use in household appliances and to ensure safety to people.
NFR-3	**Reliability**	Detects the gas accurately and sends the alerting message to user soon after the incident happened.
NFR-4	**Performance**	Whenever there is a leak , automatically detects the release of gas and alerts the user within 5 minutes to prevent from causing any accidents.
NFR-5	**Availability**	Can be used anywhere ,presented here for low cost circuit that can build easily.
NFR-6	**Scalability**	The system proves the gas of detection alarm system is 100% reliable and detects different types of gases