Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 20 October 2022 |
| Team ID | PNT2022TMID02412 |
| Project Name | Gas leakage monitoring and alerting system |
| Maximum Marks | 4 marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story/Sub-Task)** |
| FR-1 | Objective | The system's goal is to detect early gas leaks in industries via gas pipelines and alert the user to their location. |
| FR-2 | Focus | To notify the user immediately if a gas leak is detected. |
| FR-3 | Features | The LED lights will indicate the level of gas leakage. Using the necessary sensors, it detects various harmful gases such as methane, LPG, and so on. It is used to update sensor parameters in web applications. |
| FR-4 | Essentiality | To protect industry workers from exposure to toxic gases. |
| FR-5 | Location of gas leak sent | The GPS module sends the location to the web application. |

Non-Functional Requirements:

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| FR-1 | Usability | The web application is straightforward and simple to use. The efficiency level is high. |
| FR-2 | Reliability | The application runs perfectly. |
| FR-3 | Availability | The application is available at all times and from any location. |
| FR-4 | Security | The web application is extremely safe. Unauthorized access to software is prevented. |
| FR-5 | Scalability | The application is not restricted to users. |