Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 03 October 2022 |
| Team ID | PNT2022TMID42967 |
| Project Name | Project – Gas leakage monitoring and alerting system for industries |
| 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 | Objectives | The purpose of the system is to detect early gas leakage in the industries through the gas pipelines and alert the user with their location. |
| FR-2 | Focus | To alert the user immediately if any gas leakage is sensed. |
| FR-3 | Features | Gas leakage level will be indicated by the LED lights. It detects the different harmful gases like methane, LPG etc., by using the required sensors. It updates the sensor  parameters in web applications |
| FR-4 | Essentiality | To prevent the industry workers from being exposed to toxic gases. |
| FR-5 | Gas leakage location sent | Location sent to the web application through GPS module |

# Non-functional Requirements:

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The web application is simple and easy to use. Efficiency is high. |
| NFR-2 | **Security** | The application runs accurately. |
| NFR-3 | **Reliability** | The application can be accessed at anytime and anywhere. |
| NFR-4 | **Performance** | It performs to detect the gas leakage and give alerting message to the user. |
| NFR-5 | **Availability** | The web application is highly secure. Software is protected from unauthorized access. |
| NFR-6 | **Scalability** | Application is not limited to the users. |