Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID26079 |
| 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 | User Visibility | Level of gas can be monitored by users if there is any  leakage, alerts can be sent through messages. |
| FR-2 | User Reception | The data like the level of gas can be send through  messages |
| 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. They also get notified by the alert |
| FR-4 | User Convenience | Through message we can easily get data of gas level and  in case of gas leakage, it can directly send notifications to nearby police station and hospital. |
| FR-5 | User Performance | When the user gets notified, he could turn on the  exhaust fan/sprinkler |
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# 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** | It updates the data regularly as well as protects the  workers. |
| NFR-2 | **Security** | As a result of emergency alert, we can be able to  protect both the humans and properties. |
| NFR-3 | **Reliability** | Can be able to provide accurate values.  It might have a capacity to recognize the smoke accurately and does not give a false |
| NFR-4 | **Performance** | Sprinklers and exhaust fans are used in case of  emergency. |
| NFR-5 | **Availability** | It can be used for everyday; it includes day and  nights. |
| NFR-6 | **Scalability** | Sensors can be replaced every time it fails. |