**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

| Date | 03 November 2022 |
| --- | --- |
| Team ID | PNT2022TMIDxxxxxx |
| Project Name | Project - IOT Based Gadget for Gas leakage and monitoring |
| 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 | Detection of leakage of gases | Detection of gases with the use of sensor  Detect which gas has been leaked and what is the permissible level and how much has it crossed the level |
| FR-2 | Altering the user | Notification via SMS  Notification via Email |
| FR-3 | Notification to the admin | Notifying the exact location where the incident has occurred  Update the person with the route to the location |
| FR-4 | Creation of web application | Update the website with location of place where leakage has happened  Update the level of leakage in the particular industry |

**Non-functional Requirements:**

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

| **FR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | **Usability** | There must be a basic knowledge in operating the internet  The user must be aware of harmfulness of gases |
| NFR-2 | **Security** | Users and admins can access the web applications through protected login functions. |
| NFR-3 | **Reliability** | The admin must be notified the exact location along the route  Notification must be sent to the user at the correct time so as to prevent the leakage. |
| NFR-4 | **Performance** | Within a few seconds the user and admin must be alerted through notification to prevent leakage. |
| NFR-5 | **Availability** | If notification reaches the admin,he must check if some person is available so that he can be sent to the place where leakage has occurred.If not he must at least inform the user about how long it will take to reach them. |
| NFR-6 | **Scalability** | Once the problem is notified there must be at least 20-30 people to address the problem immediately. |