**Project Design Phase-II**

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

|  |  |
| --- | --- |
| Date | 20 May 2023 |
| Team ID | NM2023TMID02223 |
| Project Name | Industrial workers health and safety system based on the IOT |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Measuring parameters | Measure the Temperature using DHT Sensor  Measure the Pressure  Count the Foot steps |
| FR-2 | Store the Information in the cloud | IBM Watson IOT platform |
| FR-3 | Cloud connected with web application | Node-Red |
| FR-4 | Monitoring and Alerting | Authorised person |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Real-time monitoring, Enhanced safety measures. |
| NFR-2 | **Security** | Device authentication, Data encryption, Access control |
| NFR-3 | **Reliability** | Redundancy and fault tolerance, Reliable connectivity, Continuous monitoring and maintenance, Testing and validation |
| NFR-4 | **Performance** | Data collection and processing speed, Low latency, Scalability |
| NFR-5 | **Availability** | Service level agreements (SLAs), Regular maintenance and updates, Monitoring and alerting |
| NFR-6 | **Scalability** | Distributed processing, Data storage scalability, Elasticity, Load testing and performance optimization |