**Project Design Phase-II**

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

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| Date | 17 October 2022 |
| Team ID | PNT2022TMID50805 |
| Project Name | Project – Hazardous Area Monitoring for Industrial Plants by IoT |
| 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 Registration | * Registration through Gmail * Registration by creating a new user name and password |
| FR-2 | User Confirmation | * Confirmation via Email * Confirmation via OTP |
| FR-3 | Cloud Registration | * Registration via Email * Registration by creating a new user name and password |
| FR-4 | Cloud Confirmation | * Confirmation via Email * Confirmation via OTP |
| FR-5 | User login | * Login using the credentials we have used during registration |
| FR-6 | User testing | * Only verify any alert messages |
| FR-7 | User action | * There is any alert message,admin alert the workers |
| FR-8 | Authentication | * Through OTP verification * Through Strong passwords |
| FR-9 | Administration functions | * Preventing and monitoring each amd every second. There is any deviation Admin send an alarm to workers |

**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** | * Our solution is intended for wide range of workers who works in industries under hazardous area |
| NFR- 2 | **Security** | * Security is very high as we provide step by step verification code |
| NFR-3 | **Reliability** | * Reliability is high because of timely update * As a result of continuous tracking accident can be predicted |
| NFR-4 | **Performance** | * When there is any deviation occurs ,it send an alert message to admin which results in better performance |
| NFR-5 | **Availability** | * It can be enabled at any system like laptop,PC,Smart watch, android phone and user friendly * It will meet all the requirements of the users with better services |
| NFR-6 | **Scalability** | * Users can access the application seamlessly without any interrupts of errors * The sensors are used in this frame work are low budget functionalities hence they are highly scalable |