**Project Design Phase-II**

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

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| Date | 17 October 2022 |
| Team ID | PNT2022TMID19760 |
| Project Name | Smart Farmer – IoT Enabled Smart Farming Application |
| 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 Form * Registration through Gmail * Registration through LinkedIN |
| FR-2 | User Confirmation | * Confirmation via Email * Confirmation via OTP |
| FR-3 | Activate the system. | * Check Credentials Check * Roles of Access. |
| FR-4 | Manage Modules | * User permission. * Manage system admin * Manage User Roles |
| FR-5 | Check whether details | * Temperature details * Humidity details |
| FR-6 | Log out or sign out | * Exit |

**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** | Usability covers features including ease of learning, effectiveness in usage, memory retention, lack of operational errors, and subjective enjoyment. |
| NFR-2 | **Security** | Private and sensitive information must be kept secure at all times, including during collection, processing, and storage. |
| NFR-3 | **Reliability** | A superior cost-to-reliability trade-off is achieved with shared protection.  To prevent agricultural service interruptions, the approach employs specialized and shared protection methods. |
| NFR-4 | **Performance** | The idea of using integrated sensors with sensing soil and ambient characteristics in farming will be more effective for overall monitoring. |
| NFR-5 | **Availability** | By tying together data about crops, weather, and equipment to automatically regulate temperature, humidity, etc., farming equipment may now be adjusted without human intervention. |
| NFR-6 | **Scalability** | IoT platform scalability is a significant issue. It has demonstrated how different IoT platform architectural decisions impact system scalability and that automatic real-time decision-making is possible in a setting with thousands of people. |