**Project Design Phase-II**

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

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| Date | 03 October 2022 |
| Team ID | PNT2022TMID32919 |
| Project Name | Project - SmartFarmer - 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 | Log in to the system | verify credentials  examine the access roles |
| FR-4 | Manage Module | Manage roles of user  Manage user permission |
| FR-5 | Check crop condition | Temperature details  Crop details  Water details |
| FR-6 | Log 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 includes easy learn ability, efficiency in use, remember ability, lack of errors in operation and subjective pleasure. |
| NFR-2 | **Security** | Sensitive and private data must be protected from their production until the decision-making and storage stages. |
| NFR-3 | **Reliability** | A superior cost-to-reliability trade-off is made possible through shared protection.  To prevent agricultural service interruptions, the approach employs specialised and shared protection methods. |
| NFR-4 | **Performance** | It will be more effective to monitor farming operations overall if integrated sensors are used to measure soil and ambient characteristics. |
| NFR-5 | **Availability** | By connecting information about crops, weather, and equipment, automatic temperature, humidity, and other equipment adjustments are made feasible. |
| NFR-6 | **Scalability** | Scalability is a big issue with loT platforms. It has demonstrated how different loT platform architecture choices effect system scalability and that automated real-time decision-making is feasible in a setting with thousands of users. |