Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 17 November 2022 |
| Team ID | PNT2022TMID14625 |
| 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 Gmail |
| FR-2 | User Confirmation | Confirmation via Email Confirmation via OTP |
| FR-3 | Log in to system | Check Roles of Access. Check Credentials |
| FR-4 | Manage Modules | Manage System Admins  Manage Roles of User Manage User permission |
| FR-5 | Check whether details | Temperature details Humidity 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 is defined as the ability to learn quickly, use something effectively, remember something,  operate something without making a mistake, and enjoy something. |
| NFR-2 | **Security** | Private and confidential 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 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 tying information about crops, weather, and equipment together, it is feasible to automatically  alter temperature, humidity, and other factors in farming equipment. |

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| NFR-6 | **Scalability** | For IoT platforms, scalability is a big challenge. It has been demonstrated that different IoT platform architectural decisions impact system scalability and  that automatic real-time decision-making is possible in a setting with thousands of users. |