**Project Design Phase-II**
**Solution Requirements (Functional & Non-functional)**

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|---|---|
| Date | 18 October 2022 |
| Team ID | PNT2022TMID28767 |
| Project Name | SMART FARMER - IOT ENABLED SMART FARMING<br>APPLICATION SYSTEM |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|---|---|---|
| FR-1 | User Registration | Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email<br>Confirmation via OTP |
| FR-3 | Log into system | Check Credentials<br>Check Roles Of Access |
| FR-4 | Check weather details | Relative humidity details<br>Air and soil temperature<br>Soil moisture<br>Wind speed/Direction |
| FR-5 | Manage Modules | Manage user permission<br>Manage roles of user<br>Manage system Admins |
| FR-6 | Log out | Exit |

**Non-functional Requirements:**

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

| 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. |

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| NFR-2 | **Security** | Sensitive and private data must be protected from their production until the decision-making and storage stages. |
| NFR-3 | **Reliability** | The shared protection achieves a better trade-off between costs and reliability. The model uses dedicated and shared protection schemes to avoid farm service outages. |
| NFR-4 | **Performance** | The idea of implementing integrated sensors with sensing soil and environmental or ambient parameters in farming will be more efficient for overall monitoring. |
| NFR-5 | **Availability** | Automatic adjustment of farming equipment made possible by linking information like crops/weather and equipment to auto-adjust temperature, humidity, etc. |
| NFR-6 | **Scalability** | Scalability is a major concern for IoT platforms. It has shown that different architectural choices of IoT platforms affect system scalability and that automatic real time decision-making is feasible in an environment composed of dozens of thousand. |