

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

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| Date | 03 October 2022 |
| Team ID | PNT2022TMID04699 |
| Project Name | Smart Farmer-IOT Enabled Smart Farming Application |
| 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 Confirmation via OTP |
| FR-3 | Log in to system | Check Credentials Check Roles of Access |
| 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.

| 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 | 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 intergrated sensors with sensing soil and environmental or ambient parameters in farming will be more efficient for overall monitoring. |

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|-------|---------------------|---|
| 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. |