

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

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID47541 |
| Project Name | Name IoT Based Smart Crop Protection System for Agriculture |
| 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 | Software Installation | Installing the software in customer mobile phone |
| FR-2 | Land Enquiry | Enquires land size Enquires type of planting Enquires surroundings |
| FR-3 | Monitoring Field | Monitors weather Monitors movement of cattle and birds |
| FR-4 | Weather Prediction | Predicts weather using temperature sensor |
| FR-5 | Watering Plant | Watering the plants automatically Watering the plants manually using app Watering the plants using Rain water harvesting Watering the plants using ground water |
| FR-6 | Notification | Sends notification to customer mobile phone |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|--|
| NFR-1 | Usability | People with no understanding of English must be able to use the product |
| NFR-2 | Security | Access permission of the software installed on the customer mobile can only be changed by the customer |
| NFR-3 | Reliability | The software must send notification to the user if any failure occurs in the hardware |
| NFR-4 | Performance | The system should send the notification through internet within 5 seconds |
| NFR-5 | Availability | Adding new sensor to the existing system should not affect the existing sensor |
| NFR-6 | Scalability | The system must be scalable to be implemented up to 20 acres land |