**Project Design Phase-II**

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

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| Date | 28 October 2022 |
| Team ID | PNT2022TMID00315 |
| Project Name | Project – IOT Based Smart Crop Protection System For Agriculture |
| 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 | Put in the app.  registering a Gmail or phone number  establishing a profile.  Recognizing the rules. |
| FR-2 | User Confirmation | OTP is required for email or phone number verification. |
| FR-3 | Accessing datasets | Cloudant DB is used to collect data. |
| FR-4 | Interface sensor | Link the sensor and the programme.  The alert is set off when animals enter the field. |
| FR-5 | Mobile application | Field sprinklers and motors are controlled by it. |

**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** | Through a smart protective system, this project helps to protect farms. |
| NFR-2 | **Security** | It was developed to keep animals away from the crops. |
| NFR-3 | **Reliability** | With the use of this technology, farmers can protect their lands. They will profit from increased crop production, which will boost our economy. |
| NFR-4 | **Performance** | IOT gadgets and sensors provide the farmer a message when animals try to access the field. |
| NFR-5 | **Availability** | We can protect the crops from predatory animals by designing and putting into use robust hardware and software. |
| NFR-6 | **Scalability** | The system's integration of computer vision algorithms with IBM Cloudant services improves scalability by improving the efficiency of photo retrieval at scale. |