Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Date | 03 October 2022 |
| Team ID | **PNT2022TMID16166** |
| Project Name | Project – IOT Based Smart Crop Protection System |
| 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 | Install the APP signing with g-mail or phone number  Creating a profile |
| FR-2 | User Confirmation | Verification via Email or phone number |
| FR-3 | User Visibility | Sense animals entering the crop field & sounds alarm  and send SMS to the farmer using cloud services |
| FR-4 | User Reception | The data’s are like values of temperature ,fire detection are received via SMS. |
| FR-5 | User Action | The user needs to take action like sprinkling water to crop,making sound get away the animals from crops  scheduled planting operation |
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# 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** | Mobile support user must able to interact in the  same role & task on computer &mobile devices |
| NFR-2 | **Security** | It helps to prevent from crops loss and human injuries.  Data requires secure access to must register and communicate securely on devices and authorized  user of the system |
| NFR-3 | **Reliability** | It has a capacity to recognize the disturbance near  the field and doesn’t give a false caution signal |
| NFR-4 | **Performance** | It must provide acceptable response time to user regardless of the volume of data that is stored and  the analytics that occurs in background |
| NFR-5 | **Availability** | It is not a critical production application which means that operation or production do not go down It is highly available as 24\*7 operation |
| NFR-6 | **Scalability** | System must handle expanding load & data retention needs that are based on the upscaling of  the solution scope. |