

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

Date	3 October 2022
Team ID	PNT2022TMID51564
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.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Install the app. Signing up with Gmail or phone number Creating a profile. Understand the guidelines.
FR-2	User Confirmation	Email or phone number verification required via OTP.
FR-3	Accessing datasets	Data's are obtained by cloud and DB.
FR-4	Interface sensor	Connect the sensor and the application When animals enter the field, the alarm is generated.
FR-5	Mobile application	It is used to control motors and field sprinklers.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	This project contributes the farm protection through the smart protection system.
NFR-2	<b>Security</b>	It was created to protect the crops from animals.
NFR-3	<b>Reliability</b>	Farmers are able to safeguard their lands by help of this technology. They will also benefit from higher crop yields, which will improve our economic situation.
NFR-4	<b>Performance</b>	When animals attempt to enter the field, IOT devices and sensors alert the farmer via message.
NFR-5	<b>Availability</b>	We can defend the crops against wild animals by creating and implementing resilient hardware and software.
NFR-6	<b>Scalability</b>	This system's integration of computer vision algorithms with IBM cloud and services makes it more efficient to retrieve photos at scale, enhancing scalability.