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

Date	03 October 2022
Team ID	PNT2022TMID18367
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)
1.	User Registration.	Install the app. Sign up with Gmail or phone number. Creating a profile. Understanding the guidelines.
2.	User Confirmation.	Email or phone number verification is required via OTP.
3.	Accessing data set.	Datas are obtained by cloud.
4.	Interface sensors.	Connect all the sensors. When the animal enters into field, the sound will be produced in the speaker. When the birds enter into field, the sprinkler starts to sprinkle the water.
5.	Mobile applications.	It is used to control the 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	**Usability**	This project contributes the farm protection through the smart farm protection system.
NFR-2	**Security**	It was created to protect the farms from birds and animals.
NFR-3	**Reliability**	Farmers are able to safeguard their lands with the help of this technology. They will also benefits from higher crop yields, which will improve our economic situation.
NFR-4	**Performance**	When animals enter into the field, IOT devices and sensors alert the farmers via message.
NFR-5	**Availability**	We can defend the crops against wild animals by creating and implementing resilient hardware and software.
NFR-6	**Scalability**	This system's integration of computer vision algorithms with IBM cloudant services makes it more efficient to retrieve photos at scale, enhancing scalability.