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

Date	16 October 2022
Team ID	PNT2022TMID17444
Project 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	Proper detection	Once movement is detected, the camera's PIR sensor will be activated, and images will be sent to the farmer's registered mobile phone to inform them.
FR-2	Buzzer	To make it easier to identify obstructions, a buzzer can be connected to a PIR sensor. Knowing if an animal has entered a field and is destroying crops will be helpful to the farmer.
FR-3	Mobile notification	App for mobile devices that can instruct farmers in soil management techniques to maximize crop production.
FR-4	Farmer	Remote crop monitoring allows farmers to better manage natural resources.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	IOT will boost crop productivity and be effective for defending crops from birds and other animals.
NFR-2	Security	The ideal method for crop, yield, and bird monitoring is IOT.
NFR-3	Reliability	IOT is utilised to protect agricultural from animals and birds, allowing farmers to increase productivity and save money.

NFR-4	Performance	When an animal is spotted in the fields, IOT assists the farmers by taking a picture and sending it to the designated mobile number. It will result in better production and is simple to measure.
NFR-5	Availability	The available option is to use an IOT system to safeguard crops from birds while giving farmers higher yields.
NFR-6	Scalability	We can keep animals out of farmlands with the help of IOT-based smart crop protection, which also offers field surveillance capabilities.