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

Date	16 October 2022
Team ID	PNT2022TMID30241
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	PIR sensor connected to the camera which will be triggered once the movement is detected and pictures will be send to the registered Mobile number of the Farmer in order to alert them.
FR-2	Buzzer	Buzzer can be attached with PIR sensor so that the hindrance can be detected easily. It will help the farmer to know if any animal has broken into field and is destroying crops.
FR-3	Mobile notification	mobile compatible app that can educate farmers on soil management practices to optimize crop production
FR-4	Farmer	Farmers are able to monitor crop conditions remotely, and 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 is useful to protect the crops from birds and animals and it will increase the crop production.
NFR-2	Security	IOT is best way for monitoring crop, yields and birds.
NFR-3	Reliability	IOT is used for agriculture protection from birds and animals and farmers to yield and save the money.

NFR-4	Performance	IOT helps the farmers when any animal can be detected in the fields immediately it captures the image and send it to the registered Mobile number. It is easy to monitoring and it will give a higher productivity.
NFR-5	Availability	The available solution is to protect the crops from birds using IOT system and give the better yields to the farmers
NFR-6	Scalability	IOT based smart crop protection helps us to keep away such animals from the farmlands as well as provides surveillance functionality in the fields.