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

Date	15 October 2022
Team ID	PNT2022TMID49530
Project Name	Project – IOT based smart crop protection system.
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	Mobile application	mobile application is used to monitor and control the affecting factor and farming processes according to agricultural needs by using mobile application.
FR-2	Sensors	Sensors is used to monitor and control the crop from insects or animals or other environmental conditions. Then send the data to the processor.
FR-3	Automatic spray system	Automatic sprayer is used to protect paddy fields from insects, herbicides and herbivores.
FR-4	Smart irrigation	Using an irrigation system helps to soil maintenance moisture and protect the soil from drying out.
FR-5	Processor	IOT application and raspberry pi can deliver the processing power and functionality one need as the result raspberry pi are most often the best , most economic hardware choice for smart crop protection of system for agriculture. Over all they often simple, secure, functionality for little cost.
FR-6	cloud	Data storing for the information about the crops.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The Farmer at any time to protect the crop in efficient way without using manpower.
NFR-2	**Security**	The IOT device is used to indicate the farmer by a message while someone enter into the field and we are used SD card

		module that helps to store a specified sound to fear the animals. This project is smart crop protection system for protect the crop from animals as well as unknown persons.
NFR-3	**Reliability**	The primary goal of the smart crop monitoring system is to increase efficiency for farmer and provide better predictability and management.
NFR-4	**Performance**	This project work is to yield monitoring arrangement for farm safety against animal attacks and climate change conditions.
NFR-5	**Availability**	this system will provide a complete technical solution using the internet of things to the farmers to prevent their crop from wild animals and provide information to the farmer to maximize their production.
NFR-6	**Scalability**	This solution will gives high performance for proper maintenance.