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

Date	19 November 2022
Team ID	PNT2022TMID00408
Project Name	Smart Farmer – IOT Enabled Smart Farming Application 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	User Registration	Phone No: Enter Phone Number
FR-2	User Confirmation	Confirmation via One-Time-Password
FR-3	Log in to System	Server Authenticated Content
FR-4	Modules	Manage Soil Sensors Manage Water Sensors Manage Intrusion Detection Sensor
FR-5	Check Soil Condition Intrusion Detection System Water Control	Monitor Soil Acidity (pH), Moisture and Water Levels Toggle Intrusion Detection System/Monitor Fields Control Automatic-Irrigation Systems
FR-6	End Session	Exit the App

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Easy to understand, an intuitive UI that doesn't make it hard to find and utilize what you the farmer needs to use
NFR-2	**Security**	Sensitive data and access to sensors must be protected from impersonators and malicious users
NFR-3	**Reliability**	The farmer must feel at ease while using the app, the sensors must always work and the intrusion detection system instantly inform about any detections, the water control system must be easy to activate and deactivate as per the farmer's requirement.
NFR-4	**Performance**	The idea of implementing sensors and an intrusion detection system will significantly yield better

		results as wastages are reduced and unforeseen situations can be mostly prevented.
NFR-5	**Availability**	Availability of Soil Conditions through sensors feeding data to an App. Availability of time to prevent any wildlife intrusion before significant damage is dealt.
NFR-6	**Scalability**	The app must be scalable to any extent, it must work for both smaller farms and bigger farmlands. It must extend over large areas while still maintaining real time sensors that accurately measure everything and report intrusions at an instant.