

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

Date	03 October 2022
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)
FR-1	User Registration	Install the app. Signing up with Gmail or phone number Creating a profile. Understand the guidelines.
FR-2	User Confirmation	Email or phone number verification required via OTP.
FR-3	Accessing datasets	All the Data are obtained by cloudant DB.
FR-4	Interface sensor	Connect the sensor and the application When animals enter the field, the alarm is generated
FR-5	Mobile application	It is used to control 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 protection system.
NFR-2	Security	It was created to protect the crops from animals.
NFR-3	Reliability	Farmers are able to safeguard their lands by help of this technology. They will also benefit from higher crop yields, which will improve our economic situation.
NFR-4	Performance	When animals attempt to enter the field, IOT devices and sensors alert the farmer 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.