

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**  
**PAAVAI COLLEGE OF ENGINEERING**  
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**Functional Requirements:**

Following are the functional requirements of the proposed solution.

<b>FR No.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement (Story / Sub-Task)</b>
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	Data's 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.

<b>FR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR-1	<b>Usability</b>	This project's contributes the farm protection through the smart protection system.
NFR-2	<b>Security</b>	It was created to protect the crops from animals.
NFR-3	<b>Reliability</b>	Farmers are able to safeguard their lands by help of this technology. They will also benefits from higher crop yields, which will improve our economic situation.

NFR-4	<b>Performance</b>	When animals attempt to enter the field, IOT devices and sensors alert the farmer via message.
NFR-5	<b>Availability</b>	We can defend the crops against wild animals by creating and implementing resilient hardware and software.
NFR-6	<b>Scalability</b>	This system's integration of computer vision algorithms with IBM cloudant services makes it more efficient to retrieve photos at scale, enhancing scalability.