SOLUTION REQUIREMENTS.

Project Name	**IOT Based Smart Crop Protection System for Agriculture.**
Team ID	**PNT2022TMID18919**
Date	**29 Oct 2022**

FUNCTIONAL REQUIREMENTS:

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

S.NO.	Functional Requirement.	Sub Requirement.
1.	User Visibility	Detecting and sensing the animal entry and sounds alarm to woo them away as well as sends a message to the farmer via cloud server
2.	User Reception	The farmer is intimated by a message for knowing the up to-date field parameters like temperature, humidity, Soil moisture.
3.	User Understanding	Based on the values fetched from the sensor are informed to user end.
4.	User Action	The famer should be aware of the things in the crop fields like destruction of crop residues, deep plowing, crop rotation, fertilizers, strip cropping, scheduled planting operations.

NON-FUNCTIONAL REQUIREMENTS:

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

S.NO.	Non-Functional Requirement.	Description.
1.	Usability	Every information obtained from the sensors updated in the cloud. From the cloud the mean results are displayed in user friendly interface. So, the user can know the crop field details in a mobile device or computer.
2.	Security	Secured access path is given to the registered user. Through that the user can communicate securely on devices and also authorized user can exchange the information between system.
3.	Reliability	Having stability to bear the disturbances near the field and the system won't give a false caution signal.
4.	Performance	Tracking and scrutinizing the data with a predetermined algorithm for giving the exact information about the field. Bidirectional communication can be done. Hence real-time communication can possible.
5.	Availability	The data are store in the cloud server. Hence it can be accessed for 24x7. So, it is not a critical problem
6.	Scalability	Handling the system is very easy and also assembling and manufacturing can be in all type of areas. Important thing is the system must capable of expanding the loads and data for upscaling the solution scope like extra manufacturing.