Project Design phase-II
Solution Requirements
(functional &
Non-functional)

Project Name	IOT Based Smart Crop Protection System for Agriculture.
TeamID	PNT2022TMID33093
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FUNCTIONAL REQUIREMENTS:

Following are the functional requirements of the proposed solution.

S.NO.	Functional Requirement.	Sub Requirement.
1.	User Visibility	Sense animals nearing the crop field & sounds alarm to woo them away as well as sends SMS to farmer using cloud service.
2.	User Reception	The Data like values of Temperature,Humidity,Soil moistureSensors are received via SMS.
3.	User Understanding	Based on the sensor data value to get the information about the present of farming land.
4.	UserAction	The User needs takeaction like destructionof crop residues, deep plowing,croprotation,fertilizers, strip cropping,scheduled Planting operations.

NON-FUNCTIONALREQUIREMENTS:

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

S.NO.	Non-FunctionalRequirement.	Description.
1.	Usability	Mobile Support Users must be able to interact in the same roles & tasks on computers & mobile devices where practical, given mobile capabilities.
2.	Security	Data requires secure access to must register and communicate securely on devices and authorized users of the system who exchange information must be able to do.
3.	Reliability	It has a capacity to recognize the disturbance near the field and doesn't give a false Caution signal.
4.	Performance	Must provide acceptable response times to users regardless of the volume of data that is stored and the analytics that occurs in background. Bidirectional,near real-time communications must be supported. This requirement is related to the requirement to support industrial and device protocols at the edge.
5.	Availability	IOT Solutions and domains demand highly available systems for 24 x 7 operations.Isn't a critical production application,which means that operations or production don't go down if the IOT Solution is down.
6.	Scalability	System must handle expanding load& data retention needs that are based on the upscaling of the solution scope, such as extra manufacturing facilitiesand Extra buildings.