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

Date	03 October 2022
Team ID	PNT2022TMID33661
Project Name	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	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User technology	Nanotechnology with plant systems has inspired great interest in the current scenario in developing areas that come under the umbrella of agriculture and develop environmental remediation strategies.
FR-4	User identity	The rapid emergence of the Internet-of-Things (IoT) based technologies redesigned almost every industry including “smart agriculture” which moved the industry from statistical to quantitative approaches
FR-5	User access	The cloud is the home and destination of the data which adds intelligence through data analytics software, Precision agriculture uses the IoT features to help in managing crops production

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	If we would like to clarify the current state, we would recognize that a new type of transformation is occurring in the agricultural industry.

NFR-2	**Security**	If we would like to clarify the current state, we would recognize that a new type of transformation is occurring in the agricultural industry.
NFR-3	**Reliability**	Crop forecasting is an art to predict the yield and production (tons/ha) before the harvest takes place.
NFR-4	**Performance**	This monitoring covers various development stages and uses fruit conditions like its color, size, etc., for this purpose. Predicting the right harvesting time not only helps to maximize the crop quality and production but also provides an opportunity to adjust the management strategy.
NFR-5	**Availability**	Different from ancient farming, most of the tasks in modern, large-scale agriculture are being done by heavy and urbane equipment, such as tractors, harvesters, and other robots which are fully or partially supported by remote sensing and other communication technologies.
NFR-6	**Scalability**	Accordingly, every aspect of agriculture that can be automated, digitally planned, and managed will benefit from IoT technologies and solutions.