

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

Date	13 October 2022
Team ID	PNT2022TMID47454
Project Name	Smart Farmer - IoT Enabled Smart Farming Application
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 visibility	Alerts are given via Fast SMS.
FR-2	User reception	The data like temperature, humidity, light intensity, pH level are received via SMS.
FR-3	User understanding	All the collected data are provided to the user through a mobile application which was developed. Depending upon the sensor values, Mobile Motor Pump controller waters the crop.
FR-4	User action	Placing IoT sensors in the field can help farmers get real-time data on factors affecting crop health and overall yield. This data helps farmers identify disease and infection in their crops, and earlier treatment interventions.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	It ought to monitor the data collected by sensors on the mobile applications and website.
NFR-2	Security	It ought to access Sensor data securely and data security should be assured.
NFR-3	Reliability	It might have a capacity to water crops accurately with the collected data.
NFR-4	Performance	It ought to improve production, ensure accurate and efficient communication to farmers of real time data related to dynamic agricultural processes, weather forecasts, soil quality, availability and cost of labor.
NFR-5	Availability	It could be accessible for day in and day out hours so it tends to be useful for individuals.
NFR-6	Scalability	The sensors used in this framework ought to have the option to effortlessly change overhaul concurring to change and need in requirements.