

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

Date	15 October 2022
Team ID	PNT2022TMID52856
Project Name	SmartFarmer - 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	Dashboard	<ul style="list-style-type: none">• Display profile ,sensor readings,crop variety details,fertilizer recommendation, weather report,water level indicator• Generate weather report and disaster notification.• Option for irrigation control• Provision of service agent details and help line chat.• Sensor fault / disruption in power supply notification• Specify Referral code
FR-2	User Registration	<ul style="list-style-type: none">• Register using Mobile number / Mail ID• Set user name and password• Generate captcha and OTP for verification• Confirmation SMS/mail
FR-3	User login	<ul style="list-style-type: none">• Login using user name and password• Option for forget password

FR-4	Admin login	<ul style="list-style-type: none"> • Server login, check for errors in sensor reading and forwards details to helpline admin • Manage customer details • Manage payment due notification and software update
FR-5	Service agent	<ul style="list-style-type: none"> • Login using user name and password • Generate captcha for verification • Display list of service calls pending in the dashboard • Generate Error clearance report
FR-6	Helpline Admin	<ul style="list-style-type: none"> • Assist when error occurs through service agent • Server login, check for error / helpline notification and search for available service agent • Admin forwards the service agent profile to the customer • Add customer details to the agent dashboard incase of abnormal sensor conditions/customer complaints • Forward Mobile number of service agent to customer

*NOTE:
Similar features to be implemented in the website

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	<ul style="list-style-type: none">• User friendly guidelines for users to avail the features.• Most simplistic user interface for ease of use.
NFR-2	Security	<ul style="list-style-type: none">• All the details about the user are protected from unauthorized access.• Detection and identification of any malfunction of sensors.
NFR-3	Reliability	<ul style="list-style-type: none">• Secure server maintenance• Accurate data monitoring• Real time error detection and updation
NFR-4	Performance	<ul style="list-style-type: none">• Big data analytics• Robust system• Uninterrupted communication networks• Ease of use
NFR-5	Availability	<ul style="list-style-type: none">• Easy to access without much expenses• App is compatible with most devices and easily accessible
NFR-6	Scalability	<ul style="list-style-type: none">• More users can be added easily• Multiple sensors/ features can be introduced in future without replacing current system.• Easy to update