

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

Date	03 October 2022
Team ID	PNT2022TMID53631
Project Name	Project - 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	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Creating Username Creating Password Accessing the website
FR-4	AI Companion	Login by scanning QR Code Login by entering the code
FR-5	Reset Password	Changing the password when the user forgot the old password Receiving a link to a confirmed mail address or phone number Entering new password

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Around 54.6% of the population in India does farming and out of which the majority are small-scale farmers this system will majorly prevent their losses and be helpful to them and since the system and its operation and design is very simple the farmer can use the product with ease.
NFR-2	Security	Each user has unique credentials assigned to them hence the data associated with the farmer and his field cannot be accessed by anyone else.
NFR-3	Reliability	The sensors and microcontrollers used as a part of the system are highly reliable, and accurate and have a good life which makes the overall system reliable and long-lasting.

NFR-4	Performance	Apart from the system's basic functionality, the farmer can also control the pump so that during situations such as rain, the pumps do not supply surplus water which would lead to waterlogging and this leads to the efficient performance of the system at all climatic conditions.
NFR-5	Availability	The product can be sold to agriculture-based companies that are pioneers in agricultural-based products. The system can be sold directly to consumers as a stand-alone product.
NFR-6	Scalability	The sensors, microcontrollers, and various other components used as a part of this system are cost-effective hence this product is scalable.