

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

Date	15 October 2022
Team ID	PNT2022TMID1901
Project Name	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
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Login	Check username and password Check access from another device
FR-4	Management of data	Managing data of crop conditions Managing data of weather conditions
FR-5	Management of Modules	Managing user Managing admins Managing roles of access
FR-6	Logout	Exit

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	It uses remote sensors, analytical tools, and the whole system is monitored and managed through websites. This makes them User friendly of the system and no use of this product. No prior knowledge required.
NFR-2	Security	This system includes data masking, which is the process of removing all personally identifiable information from data, such as names, addresses, geographical identifiers, and access controls that help maintain privacy and security.
NFR-3	Reliability	It is possible to endure extreme weather events and open space circumstances by using sensors, specialised software, and IOT platforms. The system can last a longer time and delivers reliable data measurement.

NFR-4	Performance	<p>Utilizing contemporary technical innovations aids in bridging the gap between production and yields in terms of both quantity and quality.</p> <p>Data Ingestion ensures quick action and less harm to the crops while boosting system performance by collecting and importing data from the many sensors for usage in real-time or database storage.</p>
NFR-5	Availability	<p>By incorporating new components with superior characteristics, the current system can be made better. By connecting data about crops (or weather) and equipment to automatically modify temperature and humidity, farming equipment can be adjusted automatically.</p>
NFR-6	Scalability	<p>The cloud database deployment used by this system can be thought of as the medium in between the hardware system and the user's mobile app.</p> <p>The proposed method is scalable thanks to increased productivity, decreased operating costs, and precise farm and field evaluation.</p>