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

Date	16 October 2022
Team ID	PNT2022TMID27109
Project Name	Project – SMART FARMING - 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	**Reliability**	In the context of sustainable agriculture, this negates the purpose of precision smart farming, which relies on the most up-to-date data and real-time environmental monitoring
FR-2	**Seamless data storage and access**	The cloud allows farmers to sensor-monitor hundreds of different points and create an aggregated view of the data, which can then be analyzed by AI for insights. Without the cloud, data would be fragmented and stuck in silos. This will be particularly important for farmers who want to monitor hundreds of crops or cattle assets close together or run several autonomous machines at the same time
FR-3	**Low latency**	Lower latency and edge cloud, and where computation happens closer to the IoT device—can give farmers more authority over their systems, facilitating absolute control and monitoring of autonomous devices and near instantaneous field intelligence.
FR-4	**Security**	Farmers can opt for private networking, a wireless access point (WAP) solution that segregates traffic when connecting with mobile devices for a secure, scalable foundation for adopting new wireless platforms and technologies.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Observation**	Sensors record observational data from the crops, livestock, soil, or atmosphere.
NFR-2	**Diagnostics**	The sensor values are fed to a cloud-hosted IoT platform with predefined decision rules and models—also called "business logic"—that ascertain the condition of the examined object and identify any deficiencies or needs.
NFR-3	**Decisions**	After issues are revealed, the user, and/or machine learning-driven components of the IoT platform determine whether location-specific treatment is necessary and if so, which.
NFR-4	**Action**	After end-user evaluation and action, the cycle repeats from the beginning