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

Date	15 October 2022
Team ID	PNT2022TMID01028
Project Name	Project – 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 Registration	Registration through Phone number Registration through Gmail
FR-2	User Confirmation	Confirmation via Phone number Confirmation via OTP
FR-3	Observation	Sensors record observational data from the, soil, temperature, humidity and atmosphere.
FR-4	Diagnosis	The sensor values are fed to a cloud-hosted IoT platform that ascertain the condition of the examined object and identify the needs.
FR-5	Action	Shows the real time data and when the soil moisture content is reduced the water pump irrigate the field until the required moisture is achieved.
FR-6	Monitor	User can monitor the data online from anywhere.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Usability includes easy understanding and efficiency in use. With real-time monitoring and analytics systems, data collected by smart sensors allows farmers to better control processes.
NFR-2	**Security**	Device and data security includes authentication of devices and confidentiality.
NFR-3	**Reliability**	Smart farming platforms require reliable and robust technologies such as the physical safety of IOT devices for precision agricultural systems should be ensured in different environmental conditions to avoid communication failures.
NFR-4	**Performance**	High performance which includes the recurrent tasks on the field can be replaced by automatized modes of monitoring.

NFR-5	**Availability**	Automatic adjustment of farming equipment made possible by linking information like weather
NFR-6	**Scalability**	Automatic real time decision-making system is feasible in an environment composed of sensors continuously transmitting the real time data efficiently.