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

Date	21 October 2022
Team ID	PNT2022TMID18361
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	Raspberry pi	To interface temperature, humidity, soil moisture sensors and motor.
FR-2	IBM cloud	To store the sensors information.
FR-3	Node-red	To program raspberry pi and integrate it to the cloud.
FR-4	MIT App inventor	To develop an app to display the temperature, humidity and soil moisture level.
FR-5	Open weather API	Used to get the information and access the resources.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The temperature, humidity and soil moisture sensors are connected to Raspberry pi and by using the IBM cloud to store the information of the sensors. With the help of mobile application, farmer will easily know the results about their field. The mobile application will send the notification message to his mobile phone.
NFR-2	Security	To prevent from the intruder, password is specified.
NFR-3	Reliability	The mobile application is more reliable to the farmer because it is developed with API.
NFR-4	Performance	Because of using the sensors, it provides an accurate results.
NFR-5	Scalability	Without getting any inputs from the farmer, the results will be updated.