Project Design Phase-I

Solution Architecture

Date	3 November 2022
Team ID	PNT2022TMID12914
Project Name	SmartFarmer – IoT Enabled Smart Farming Application
Maximum Marks	4 Marks

Solution Architecture:

The Architecture of Smart Farmer - IoT Enabled Smart Farming Application is consist of Temperature sensors and moisture sensor gathers physical parameters stores data in IBM IOT cloud . This data is analyzed and the response is send to the Mobile application through user perform action according to the action the response is send back to device in field through the HTTP response and the respective action is performed by the device.

1.The different soil parameters (temperature, humidity, light intensity, pH level) are sensed using different sensors and the obtained value is stored in IBM cloud.
2.Arduino uno is used as a processing unit which processes the data obtained from sensors and weather data from weather API.
3.Node red is used as a programming tool to wire the hardware, software and A PIs. The MQTT protocol is followed for communication.
4.All the collected data are provided to the user through a mobile application which was developed using MIT app inventor. The user could make decision through an app, whether to water the crop or not depending upon the sensor values.

Example - Solution Architecture Diagram: