Project Design Phase-I
Solution Architecture

Date	04 September 2022
Team ID	PNT2022TMID17295
Project Name	IoT Based Smart Crop Protection System For Agriculture
Maximum Marks	4 Marks

Solution Architecture:

- Arduino uno is used as a processing unit which processes the data obtained from sensors and weather data from weather API.
- In the purposed system raspberry pi,PIR sensor,web camera,ultrasonic sensor,LDR sensor and temperature sensor, humidity sensor, moisture sensor, buzzer and monitor are used.
- The different soil parameters (temperature, humidity, light intensity, pH level) are sensed using different sensors and the obtained value is stored in IBM cloud.
- If the variant took place concerning the evaluation threshold then notifies to the mobile of the farmer or the web's web page with the productiveness of sensors this ensures the entire safety of plant life from animals additionally as from the climate prerequisites consequently keep away from the farmer's loss.
- Node red is used as a programming tool to wire the hardware, software and APIs. The MQTT protocol is followed for communication.

Example - Solution Architecture Diagram: