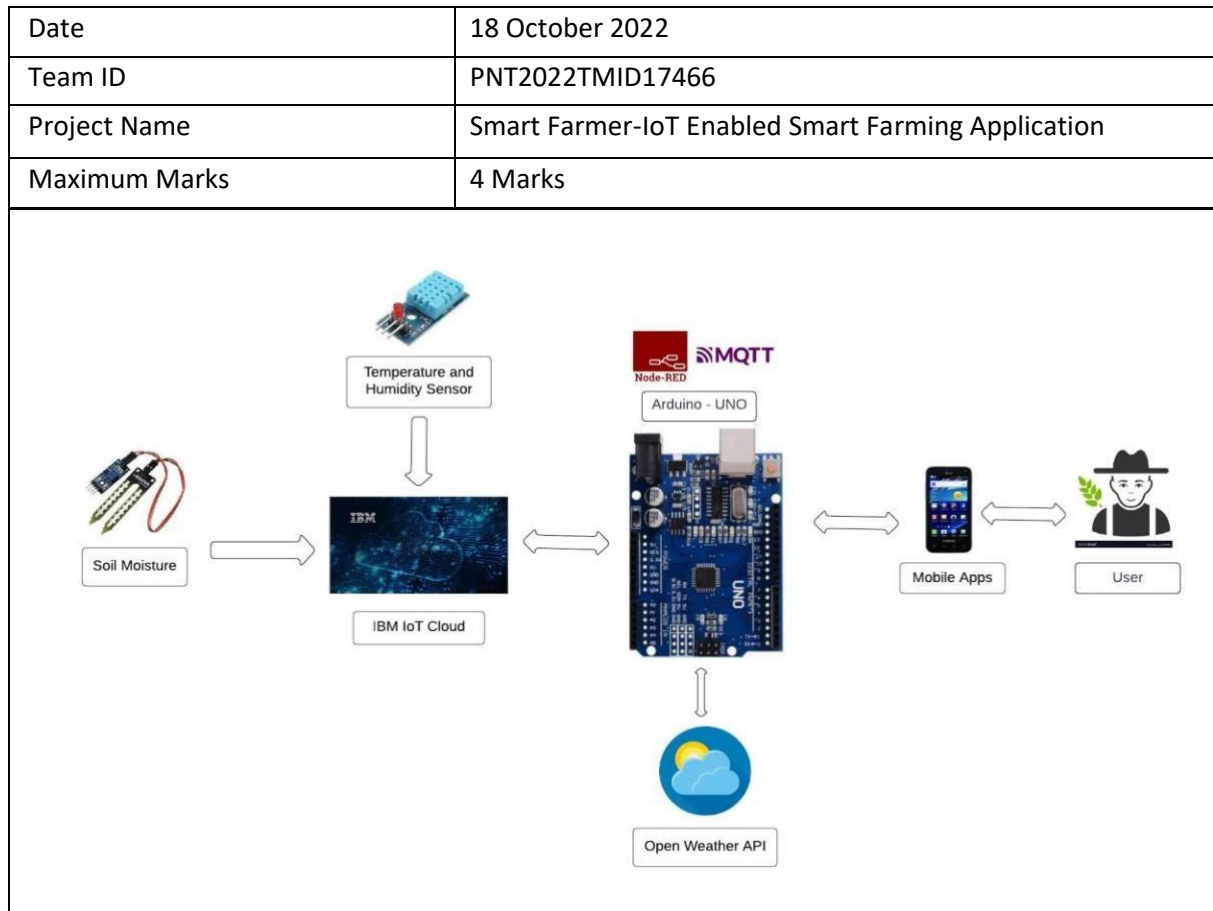


Project Design Phase - I

Solution Architecture



- † The different soil parameters (temperature, humidity, Soil Moisture) are sensed using different sensors, and the obtained value is stored in the IBM cloud.
- † Arduino UNO is used as a processing unit that processes the data obtained from sensors and weather data from weather API.
- † Node-red is used as a programming tool to wire the hardware, software, and APIs. The MQTT protocol is followed for communication.
- † All the collected data are provided to the user through a mobile application that was developed using the MIT app inventor. The user could make a decision through an app, whether to water the crop or not depending upon the sensor values. By using the app they can remotely operate the motor switch.