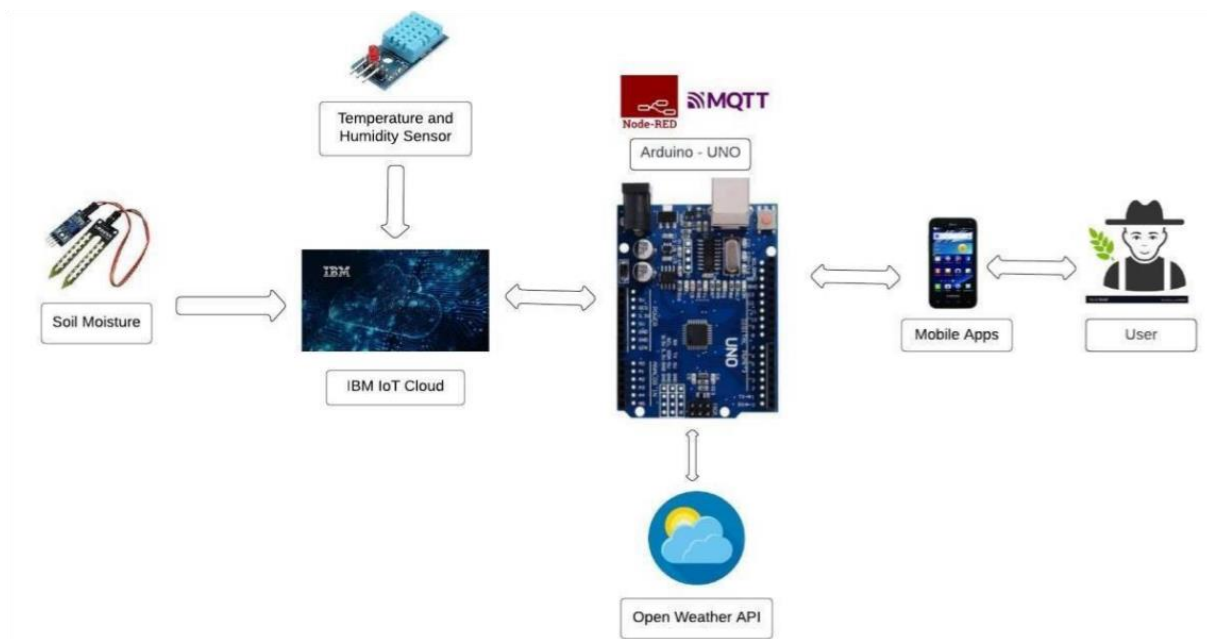


Project Design Phase-I

SOLUTION ARCHITECTURE

Date	10 November 2022
Team ID	PNT2022TMID00236
Project Name	Smart Farmer- IoT Enabled smart farming Application
Maximum Marks	4 Marks

Solution Architecture Diagram:



1. The different soil parameters like temperature, soil moisture and humidity are sensed using different sensors and obtained values are stored in the IBM cloud.
2. Arduino UNO is used as a processing Unit that process the data obtained from the sensors and data from the weather API.
3. NODE-RED is used as a programming tool to write the hardware, software and APIs.
4. The MQTT protocol is followed for communication process. Communicating between cloud and the user (Farmer).
5. All the collected data are provided to the user through a mobile application that was developed using the MIT app inventor.

6. The user could make a decision through an app, whether to water the field or not, depending upon the sensor values. By using the app, they can remotely operate the motor switch.