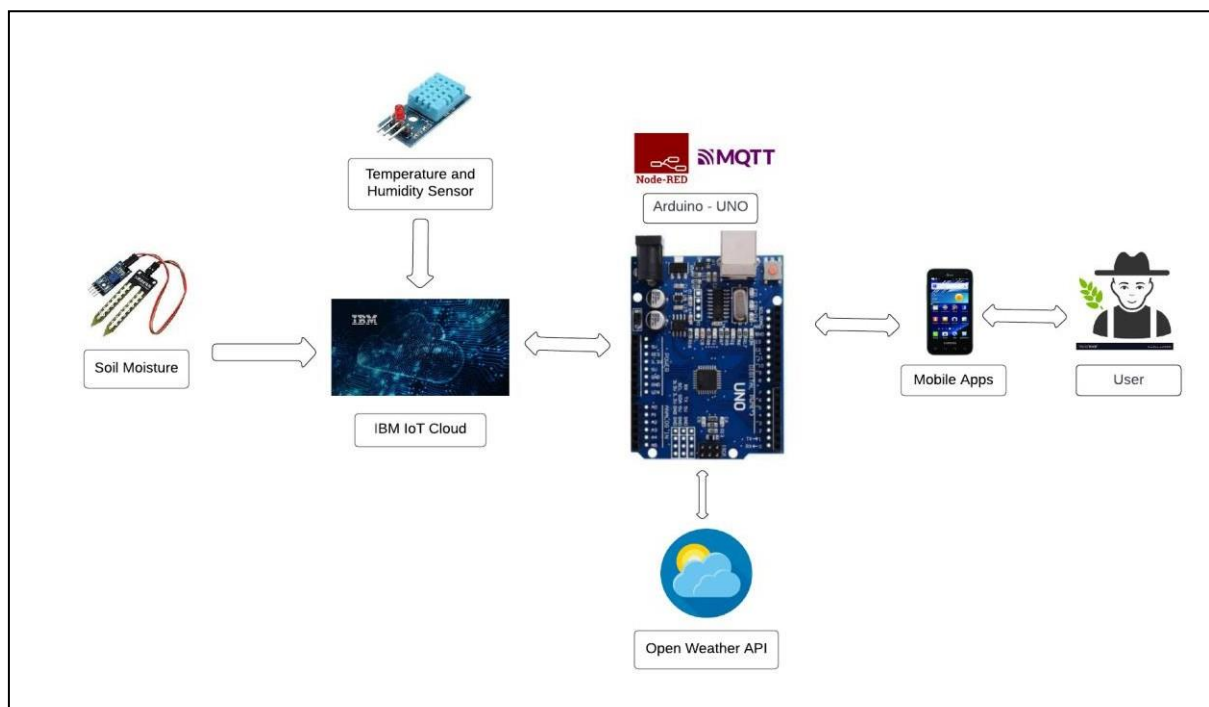


Project Design Phase- I

Solution Architecture

Team ID : PNT2022TMID39119
Arivuchudar E (TL) - 422319106004
Abinaya S (TM1) - 422319106001
Banupriya M (TM2) - 422319106005
Kowsalya R (TM3) - 422319106009
Nivetha S (TM4) - 422319106010



- ❖ 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.