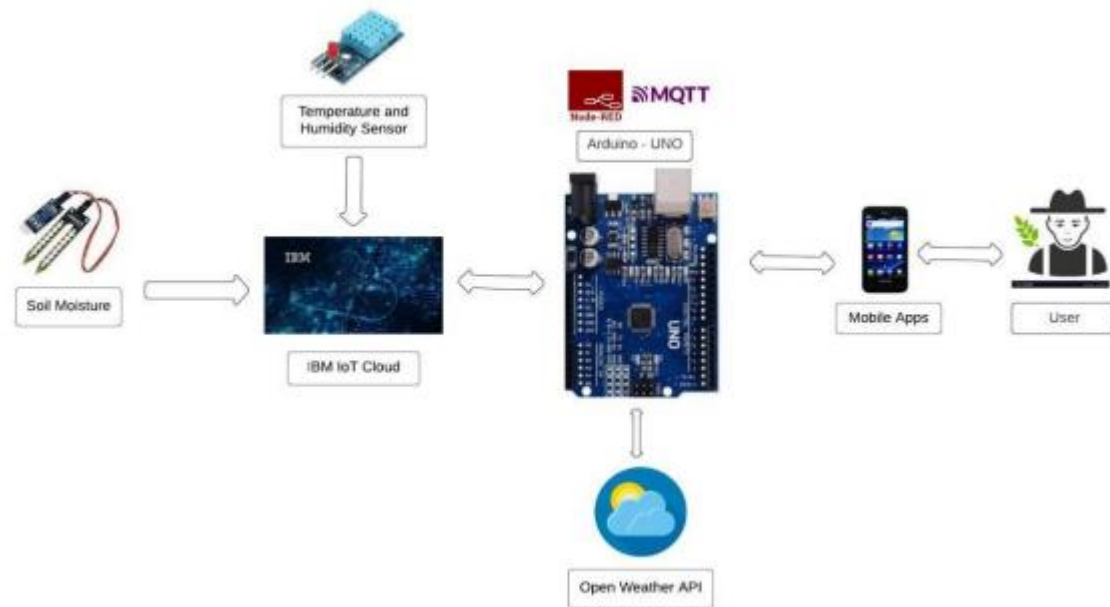


SOLUTION ARCHITECTURE

Project name: Smart Farmer – IoT Based Smart Farming Application

Team id : PNT2022TMID07143



- ❖ The various soil characteristics, including temperature, humidity, and soil moisture, are measured using various sensors, and the results are saved in the IBM cloud.
- ❖ The processing unit, Arduino UNO, is utilised to process weather data from weather API as well as input from sensors.
- ❖ The hardware, software, and APIs are wired using Node-red as a programming tool. For communication, the MQTT protocol is used.
- ❖ Through a smartphone application created with the help of MIT App Inventor, the user is given access to all the collected data. Depending on the sensor results, the user may decide whether to irrigate the crop or not using an app. They can control the motor switch from a distance using the app.