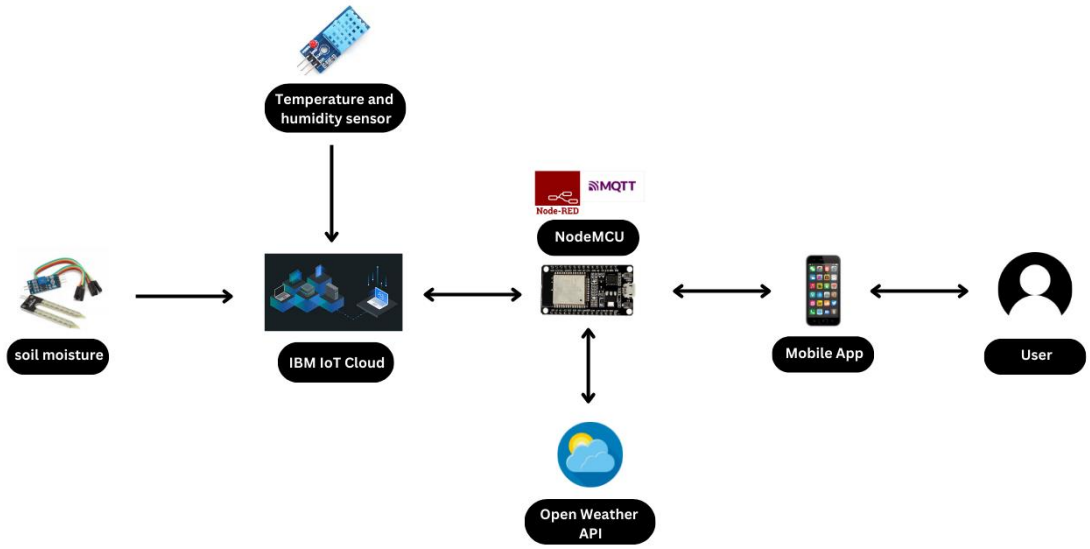
Project Design Phase-I – Solution Architecture

Date	1 October 2022
Team ID	PNT2022TMID11451
Project Name	Project – Smart Farmer-IoT Enabled Smart Farming Application
Maximum Marks	4 Marks



- Various sensors are used to measure the various soil characteristics (temperature, humidity, and soil moisture), and the results are saved in the IBM cloud.
- An Arduino UNO is utilised as a processing unit to handle weather data from a weather API as well as data from sensors.
- To wire the hardware, software, and APIs, Node-red is utilised as a programming tool. It uses the MQTT protocol for communication.
- A mobile application created with MIT App Inventor is used to provide all the collected data to the user. Depending on the sensor results, the user might decide via an app whether to irrigate the crop or not. They are able to remotely control the motor switch by utilising the app.