MAHENDRA INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering

Smart Farmer-IOT Enabled Smart Farming Application

IBM NALAIYATHIRAN

Project Design Phase-I

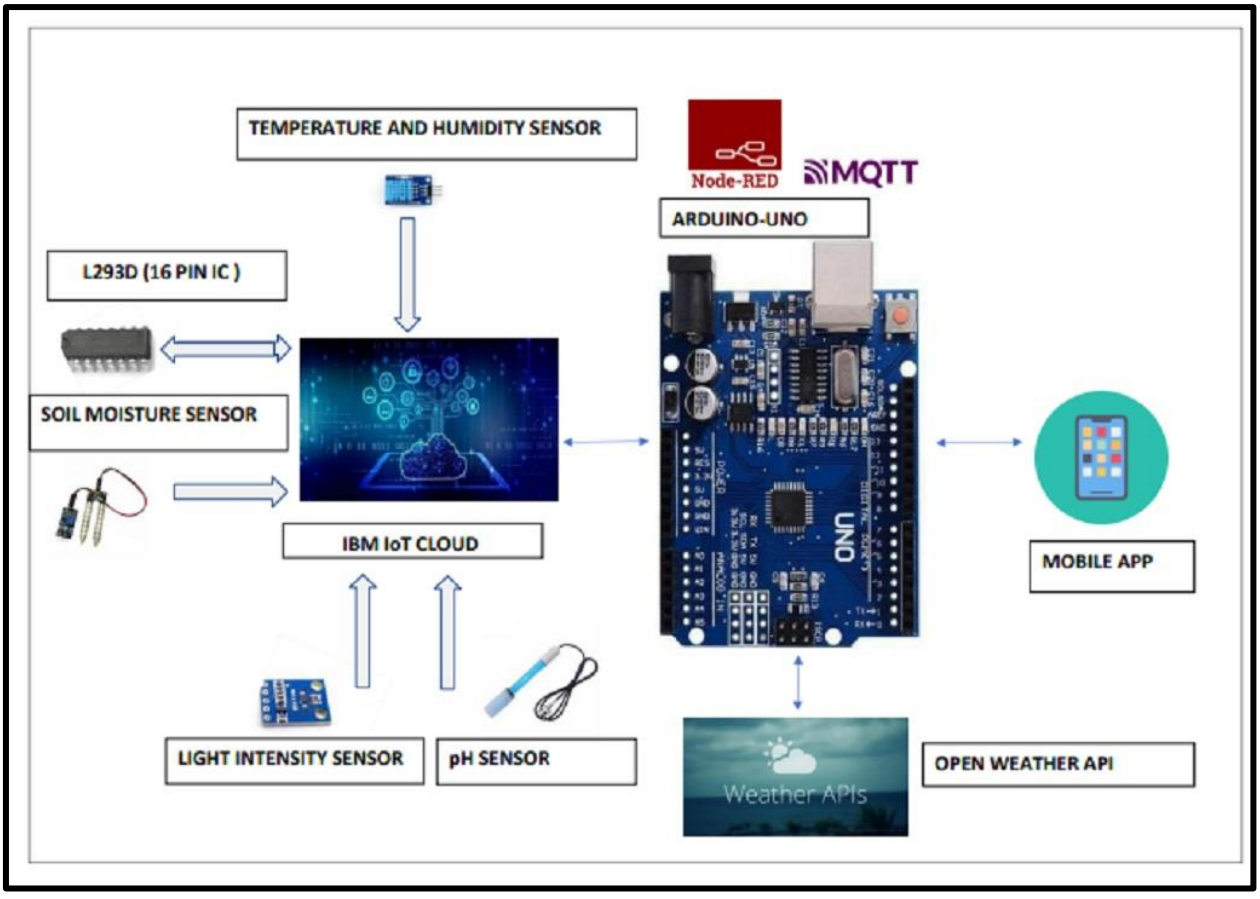
Solution Architecture

TITLE	**Smart Farmer-IOT Enabled Smart Farming Application**
DOMAIN NAME	INTERNET OF THINGS
TEAM ID	PNT2022TMID17252
LEADER NAME	KARTHICKRAJA M
TEAM MEMBER NAME	KAVIN M KAVIYARASAN R LOGANATHAN K
MENTOR NAME	DIVYA BHARATHI G

Solution Architecture:

- The different soil parameters (temperature, humidity, light intensity, pH level) are sensed using different sensors and the obtained value is stored in IBM cloud.
- Arduino UNO is used as a processing unit which processes the data obtained fromsensors 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 which was developed using MIT app inventor. The user could make decision through an app, whether to water the crop or not depending upon the sensorvalues.

Solution Architecture Diagram:



Reference: https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/