RVS COLLEGE OF ENGINEERING AND TECHNOLOGY

COIMBATORE- 641402

Department of Computer Science and Engineering

Smart Farmer-IOT Enabled Smart Farming Application

IBM NALAIYATHIRAN

Project Design Phase-I

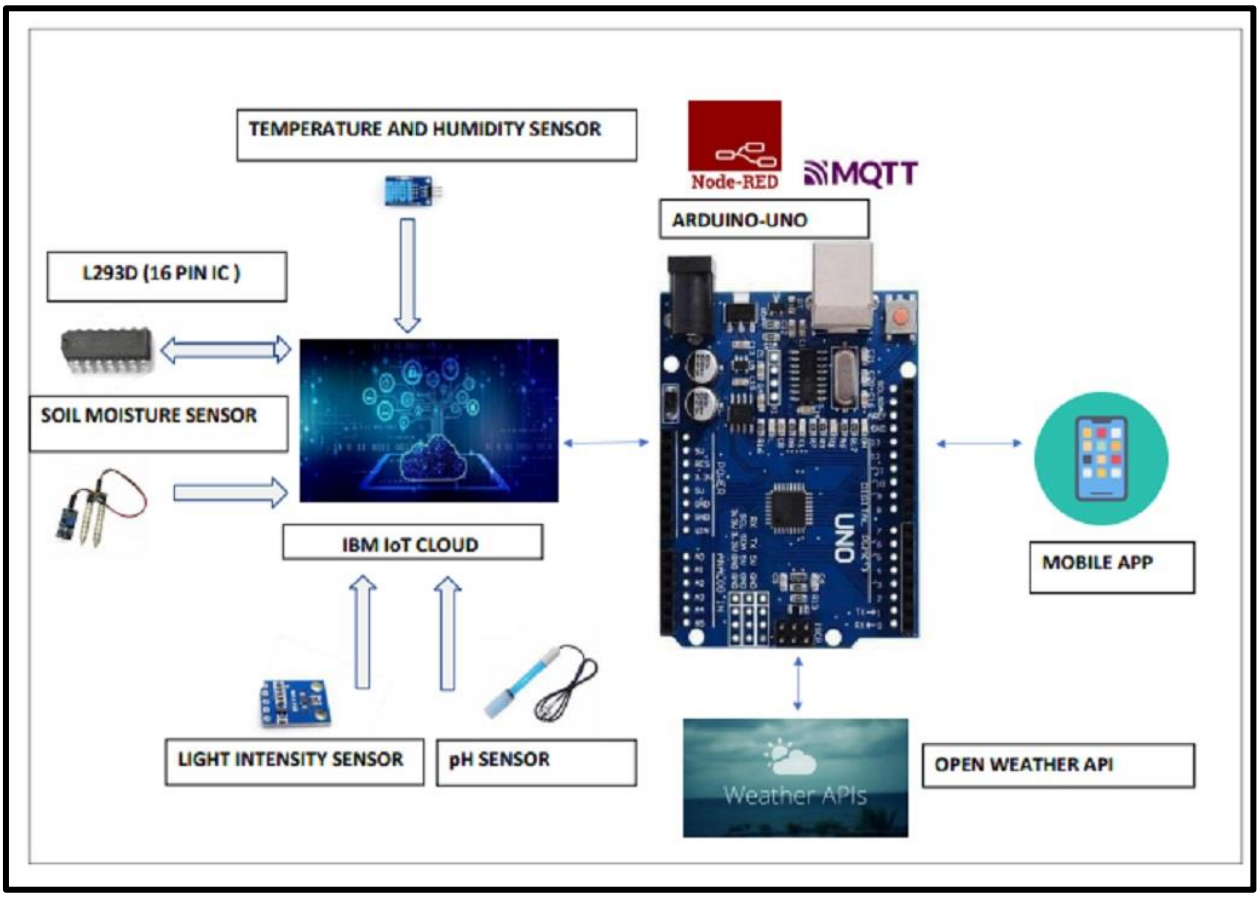
Solution Architecture

TITLE	**Smart Farmer-IOT Enabled Smart Farming Application**
DOMAIN NAME	INTERNET OF THINGS
TEAM ID	PNT2022TMID42904
LEADER NAME	ARJUN S
TEAM MEMBER NAME	HARI HARAN R DHAYANANTH E GOKUL R
MENTOR NAME	BHARADWAJ

Solution Architecture:

- The different soil parameters (temperature, humidity, light intensity, pH level)aresensedusingdifferentsensorsandtheobtainedvalueisstoredinIBMcloud.
- Arduino UNO is used as a processing unit which processes the data obtained fromsensorsand weatherdata from weatherAPI.
- Node red is used as a programming tool to wire the hardware, software and APIs.TheMQTTprotocol is followedforcommunication.
- All the collected data are provided to the user through a mobile applicationwhich was developed using MIT app inventor. The user could make decisionthrough 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/