**Project Design Phase-I**

**Solution Architecture**

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| Date | 17 October 2023 |
| Team ID | PNT2022TMID04642 |
| Project Name | Smart Farmer-IoT Enabled Smart Farming Application |
| Maximum Marks | 4 Marks |

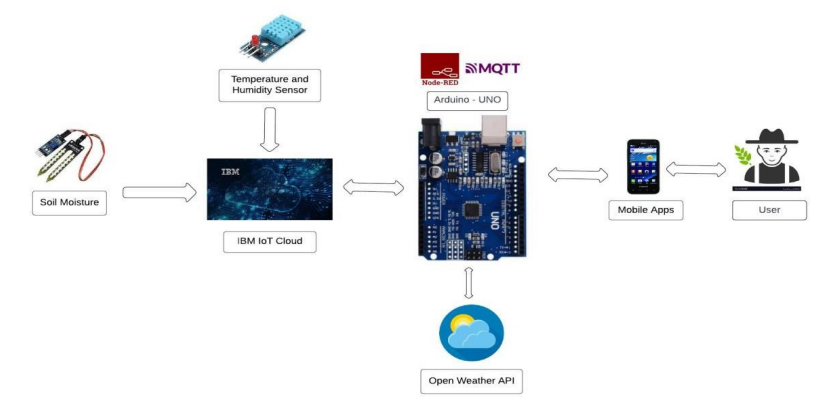
**Solution Architecture:**

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.

MIT app inventor can be used to develop an app and the integrate the services for the farmers to use. 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.

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