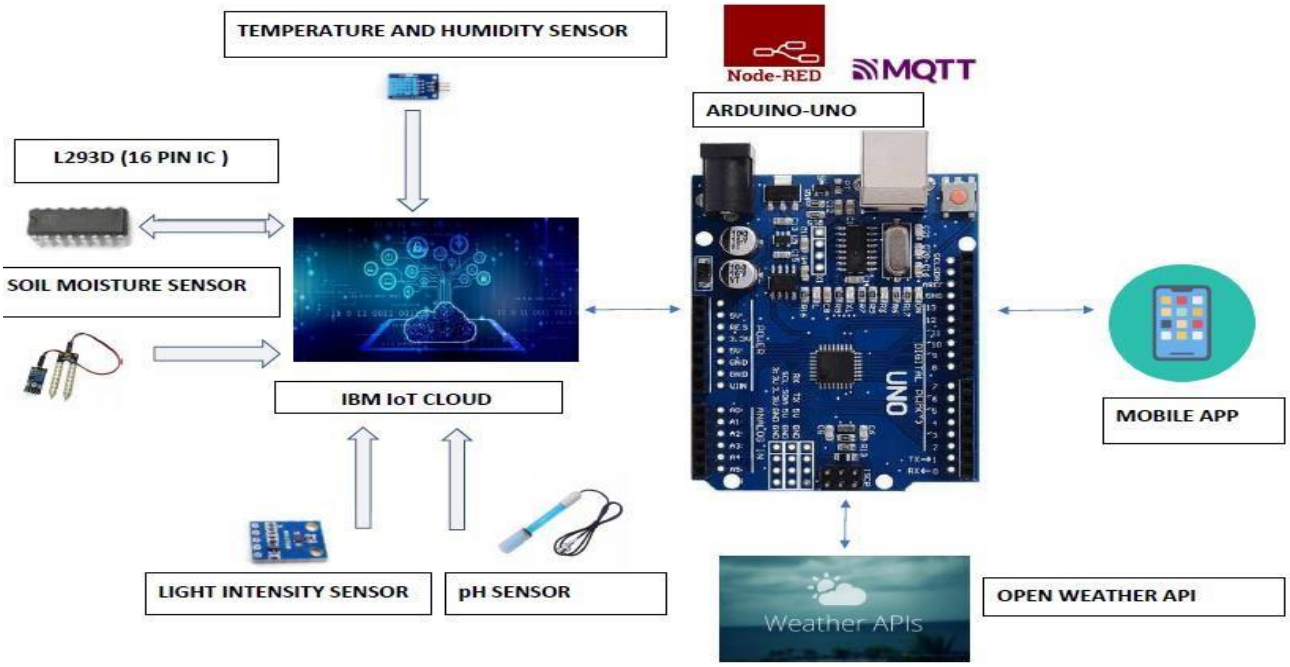
Solution Architecture

Team ID	**PNT2022TMID19466**
Marks	**4**
Project Title	**Smart Farmer - IoT Enabled Smart Farming Application**



- Different sensors are used to measure the various soil factors (temperature, humidity, light intensity, pH level), and the results are saved in the IBM cloud.

- The L293D is a 16-pin motor driver IC that has the ability to simultaneously operate two DC motors in either direction. The L293D can deliver bidirectional drive currents up to 600 mA (per channel) at voltages ranging from 4.5 V to 36 V (at pin 8!).

- The processing unit used to process the weather data from the weather API and data from sensors is called Arduino UNO.

- Node-RED is a programming tool for tying new and intriguing connections between physical components, APIs, and web services. A browser-based editor is offered.

- It uses the MQTT protocol for communication.

- A mobile application created with MIT App Inventor is used to deliver all the collected data to the user.

- Open Weather offers hyperlocal minute forecasts, historical data, the current situation, and anticipated weather data ranging from short-term to annual. All information is accessible through industry-standard APIs.

- Depending on the sensor readings, the user might decide via an app whether to irrigate the crop or not.