Project Scope

Project summary

this project can monitor soil moisture and climatic conditions to grow and yield a better crop. The farmer can also get the real time weather forecasting data by using external platforms like Open Weather API. Farmer is provided a web application using which he can monitor the temperature, humidity and soil moisture parameters along with weather forecasting details.

Based on all the parameters he can water his crop by controlling the motors using the application as per requirement without his physical presence at the crop. And based on the weather data obtained he can predict the weather and take required measures to avoid loss due to undesirable climatic conditions.

Project requirements

- **Functional requirements**
    1. A laptop with at least 4GB RAM
    2. A 2GB GPU
    3. Internet connection
    4. Mentor's support
- **Technical requirements**
    1. Understanding of how the IBM Watson IoT platform works and how to use it.
    2. Python coding
    3. HTML, Java script for better understanding of the UI
    4. Understanding how Nodered works
- **Software requirements**
    1. Python IDLE installed
    2. Node red installed
    3. Access to IBM cloud platform
    4. Access to IBM Watson IoT platform
    5. IoT Simulated sensors

Project deliverables

To bulid a smart agriculture system based on IoT which is deployed using sensors, controls and weather forecasts using which we must be able to yield a good crop.

Project team

individual project by T Nikhitha

Project schedule

- Week1- project planning, research about the project, creating Account in IBM cloud Platform

- Week2- introduction to Watson IoT platform , creating device in Watson Iot platform, connecting it with bluemix simulated iot sensors
- Week3-installing nodered, required nodes in nodered, creating UI for the project connecting the devices in Watson Iot with the UI for data displaying.
- Week4 -creating open weather api account and configuring it with the Nodered UI
- Writing all documents parallely, project demo