Project Scope Document

Project Summary

In olden Days Farmers used to figure the ripeness of soil and influenced suspicions to develop which to kind of yield. They didn't think about the humidity, level of water and especially climate condition which threatened a farmer increasingly The Internet of things (IOT) is remodeling the agr-ibusiness empowering the agriculturists through the extensive range of strategies, for example, accuracy as well as practical farming to deal with challenges in the field. IOT utilize farmers to get related with his residence from wherever and at whatever point. Remote sensor structures are utilized for watching the homestead conditions and tinier scale controllers are utilized to control and mechanize the home shapes.

Project Requirements

Our design of product, services, interfaces and environment is easily accessible to farmers (users). It includes technical, functional , and software requirements which helps us to improve the project in all aspects.

Functional Requirements

User can interact with sysyem with help of web application. The inputs to our application are weather data using Open Weather API, temperature, humidity using IOT simulator. In response to this input, farmer can switch On/Off motors according to the need remotely. Data is configured through Node-red from IBM IOT simulator and Open Weather API.

Technical Requirements

It has cross browser/platform support (Firefox, Chrome, Safari - Windows ,Mac, Linux) The system should be built using Node-red and IBM Watson IOT Simulator rather than hard-coded. This will help the programmers to focus more on the IOT thing rather than coding of app. It also have mobile support through web browsers.

Software Requirements

In this project, we are going to use online services like IOT simulator not physical equipments. We use IBM Cloud services for fulfilling the requirements of devices and gateways. Requirements follows:
IBM IOT Simulator
IBM Watson IOT Cloud Platform

Nodered for getting the data from IBM IOT platform and Open Weather API
Open Weather API for weather data
Python IDE for controlling motors

Project Deliverables

Major stakeholders for this project are farmers that uses our application and increase the productivity in their farms and fields by controlling the water motors from anywhere. Our software can be used to regulate the motors automatically for irrigation in the fields. It delivers the information about the weather, temperature, humidty, from which user can regulate the motors. This project

Project Team

This is the individual internship project of Smart IOT based Agriculture System.
Project Manager : Sachin Katiyar

Project Schedule

Duration of project is 1 month and mandatory to have attendance of 5 days/week.
I targeted to work for at least 1 hr daily for 1 month so that I can achieve the target in given duration.
Schedule of project follows:

Project Planning and Kick off	20 May - 21 May	2 days
Explore IBM Cloud Platform	22 May - 25 May	3 days
Connect IOT Simulator to Watson IOT Platform	26 May - 26 May	1 hour
Configure The Nodered To Get The Data From IBM IOT Platform And Open Weather API	27 May - 28 May	2 days
Building a Web App	29 May - 30 May	1 day
Configure Your Device To Receive The Data From The Web Application And Control Your Motors	31 May - 2 June	2 days