PROJECT KICKOFF

project scope :

Project title : Smart agriculture based on IOT

Project Summary :

> Smart Agriculture System based on IoT can monitor soil moisture and climatic conditions to grow and yield a good crop. The farmer can also get the real-time weather forecasting data by using external platforms like Open Weather API. Farmer is provided a mobile app 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 mobile application. Even if the farmer is not present near his crop he can water his crop by controlling the motors using the mobile application from anywhere. Here we are using the Online IoT simulator for getting the Temperature, Humidity and Soil Moisture values.

❖ **We should follow this steps to complete given project:**

1. Project Planning and Kickoff .

2 . Explore IBM Cloud Platform .

3 . Connect the IOT Simulator to Watson IOT platform

4 . Configure the Nodered to get the data from IBM IOT platform and open weather API.

5 . Building an web application.

6 . Configure your device to receive the data from the web application and control your motors.

7 . Our project main goal is to provide a aplication for the farmers to save their time such that they can view all details like temperature , humidity , moisture etc in the particular location.

8 . Farmers can able to control the motor on/off in given application.

9 . There is an particular API called weather API(application programming interface) by this farmers can view the conditions of weather in desired location.

Technical Requirements:

- IoT Simulator

Software Requirements:

- Python
- Node-Red
- IBM Watson IoT Platform
- IBM Cloud
- Open weather API

Project Deliverables:

A Web Application for farmers where he can:

- Monitor temperature, humidity and soil moisture along with weather forecasting details.
- Control motor for watering the crop.

Project Team:

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Project schedule :

14-05-2020 to 14-06-2020