PROJECT KICKOFF

Project Scope

Project Title: Smart Agriculture System based on IOT

☆ We need to Follow these steps to Complete our Project:

- Project Planning and Kickoff
- Explore IBM Cloud Platform
- Connect the IOT Simulator To Watson IOT Platform
- Configure the Node red To Get the Data from IBM IOT Platform and Open Weather API
- Building A Web App
- Configure Your Device to Receive the Data from The Web Application and Control Your Motors
- Our Project main aim is to help farmers to control his motor from home. He can On and Off his motor by using his mobile phone.
- By using Weather API, he/she can know the weather conditions like temperature, humidity and soil moisture.

Project Background:

- This Project mainly aims to help the farmers to ease their work.
- Smart Agriculture System based on IoT can monitor soil moisture and climatic conditions to grow and yield a good crop.
- Farmer can get the Realtime weather conditions by using smart agriculture.
- Instead of physical devices we create devices in the IBM IOT platform and use them in our project.
- We connect our device to the IBM node in the Node-Red framework.
- We need to create Weather API account to configure weather API Platform.
- We then Configure our Node red to get the weather forecasting data using http requests.
- We Build Web application to create buttons for front end and connect them to backend (IOT platform).

Project Schedule:

- Project Planning and Kickoff (15th-16th may)
- Explore IBM Cloud Platform (17th may)
- Connect the IOT Simulator To Watson IOT Platform (17th may)
- Configure the Node red To Get the Data from IBM IOT Platform and Open Weather API (18th may-30th may)
- Building A Web App (30th may-2nd June)
- Configure Your Device to Receive the Data from The Web Application and Control Your Motors (2nd-6th June)

Project Requirements:

➤ IBM Cloud Account and IBM Watson IOT Platform to create device and sensor

➤ Python IDLE

➤ Node-Red

➤ Open weather API Platform

Functional Requirements:

➤ Measure Temperature.

➤ Gauge Temperature.

➤ Gauge Humidity.

➤ Gauge Soil Moisture

➤ Weather API.

➤ Display the sensor readings using Watson IOT sensor.

➤ Respond to sensor readings and send alerts to the user.

Technical Requirements:

➤ IOT Simulator

Software Requirements:

➤ Python

➤ Node Red

➤ IBM Cloud

➤ IBM Watson IOT Platform

➤ Open Weather API

Project Deliverables:

➤ A web App for farmers where he can:

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

Project Team:

➤***DUBBA PARAMESHWARI***