PROJECT SCOPE

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.**

PROJECT REQUIREMENTS

1)FUNCTIONAL REQUIREMENT:-

- Basic knowledge of IoT
- Basic knowledge of programming

2)TECHNICAL REQUIREMENT:-

- Basic knowledge about IBM Cloud and IBM watson IoT platform
- Basic knowledge Python Programming language
- Basic idea about Node-Red and Github

3)SOFTWARE REQUIREMENT

1.NODE-RED
2.Python IDE
3.IBM Watson IoT platform and IBM Cloud

PROJECT DELIVERABLES

- ➤ **Smart Agriculture System: A Web app which provides real time weather data, values of temperature and humidity and control over motor.**

PROJECT TEAM

This is a single member project
member name- **GAURAV DUBEY**

PROJECT SCHEDULE

WEEK 1:

- Preparing project plan
- Setting up development environment

WEEK 2:

- Creating account on IBM Cloud and exploring IBM cloud platform
- Installing python IDE
- Installing Node-Red
- Creating device on IBM Watson IoT platform
- Connecting the IoT Simulator To Watson IOT Platform

WEEK 3:

- Configuring the Node-red to get the data from IBM IOT Platform and Open Weather API
- Building A Web App

WEEK 4:

- Configuring the device to receive data from The Web Application And Control the Motor.
- Writing Project report
- Uploading files on Github