

# PROJECT SCOPE STATEMENT

PROJECT NAME	SMART AGRICULTURE SYSTEM(IOT)
PROJECT ID	DATE SUBMITTED
SPS_PRO_101	18/06/2020
PROJECT OBJECTIVES	
The three main objectives of Smart Agriculture System program is to Sustainably, increasing agricultural productivity and incomes. Adapting and building resilience to climate change. Reducing and/or removing greenhouse gas emissions, where possible.	

## Step 1. Project Deliverables

DELIVERABLE NO.	DESCRIPTION
1.IBM Cloud	IBM Cloud is a platform where we can build projects on IOT,AI and ML. It provides a lot of facilities for doing the projects in cloud platform.
2.IBM Watson iot	In this platform we can do many projects related to internet of things.
3.Node-Red	<i>Node-RED</i> is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

## Step 2. List of Project Tasks

TASK NO.	DESCRIPTION
Project planning and kickoff	In this task we need to write the scope of the project and kickoff template where we will explain the overview of process of the project.
Explore IBM Cloud Platform	In this we should create the IBM account ,install the Node-red ,Go through the IBM Watson platform and install the Python IDLE.
Connecting to the simulator	After creating the device in the iot platform ,we need to connect the device to iot simulator sensor.
Configuring the node red	We need install the node red and its nodes in that so that we will connect the ibm to the nodered.
Creating account in openweather api	We need to create an account in openweather api and generate an api key.Configure the nodered to forecast the weather using http request nodes.
Creating the buttons	We need to create the buttons to configure the nodered and display the buttons in the UI page.
Python code	Writing a python code for controlling of motors for the agricultural system.

### Step 3. Out of Scope

This project will <b>NOT</b> accomplish or include the following:	Every thing will be done and all the outputs are being submitted.
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### Step 4. Project Assumptions

Please list any project factors that you consider to be true, real, or certain. Assumptions generally involve a certain degree of risk.

NO.	ASSUMPTION
1	We will be assuming the temperature ,humidity and soil moisture values to be random as we write the code in the device simulator by using random function.
2	The api key which we generate in the open weather ,those values reflect to be true. The value gets changed according to the climatic change in the atmosphere.

### Step 5. Project Constraints

<b>PROJECT START DATE</b>	21/05/2020
<b>PROJECT END DATE</b>	19/06/2020
<b>LIST ANY HARD DEADLINE(S)</b>	No.There is timer in the dashboard of the project.Submission of the project has to be done within the time limit.
<b>LIST OTHER DATES / DESCRIPTIONS OF KEY MILESTONES</b>	There are no certain milestones.Each week the project reviewer will review the tasks that has to be done.
<b>QUALITY OR PERFORMANCE CONSTRAINTS</b> Enter any other requirements for the functionality, performance, or quality of the project.	As the project is being done in the cloud platform ,ibm cloud works very well for doing the projects and the outputs gets displayed without any errors.As there is a built in ibm iot simulator the values get displayed automatically in the recent events of the device.

### Step 6. Updated Estimates

<b>Estimate the hours required to complete the project.</b> <i>Enter total # of hours.</i>	420 hours(approx. 15 days)
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