

PROJECT KICKOFF

PROJECT NAME : *Smart Agriculture system based on IoT*

Project Scope:

☆Project Summary

"Smart Agriculture System based on IoT",its a device/app based on IoT . which provides the info regarding weather conditions .Like temperature,humidity,and soil_moisture.Which helps user to monitor the things easily .

☆Project Requirements

- ➔ IBM Cloud
- ➔ IBM Watson IoT platform
- ➔ Node-Red
- ➔ Python IDE

☆Functional Requirements

- ➔ IoT Simulator
- ➔ Open weather API

☆Technical Requirements

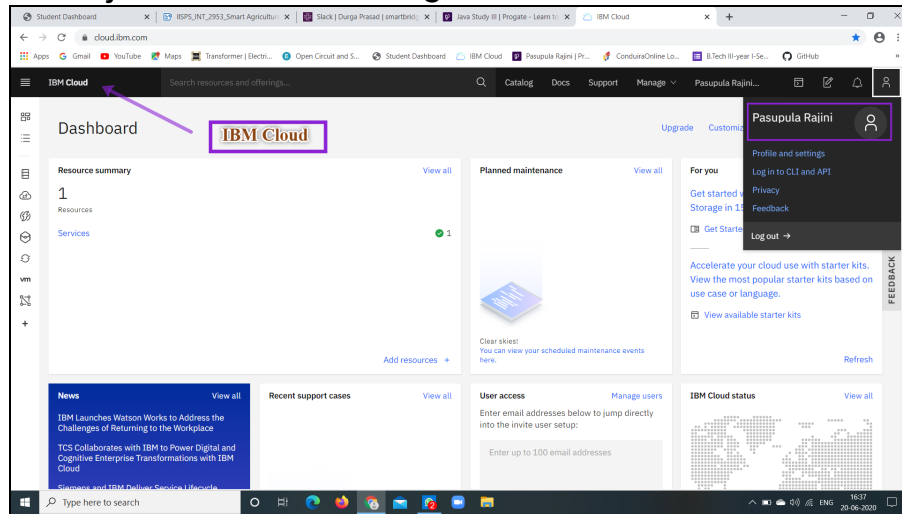
- ➔ Web application

☆Software Requirements

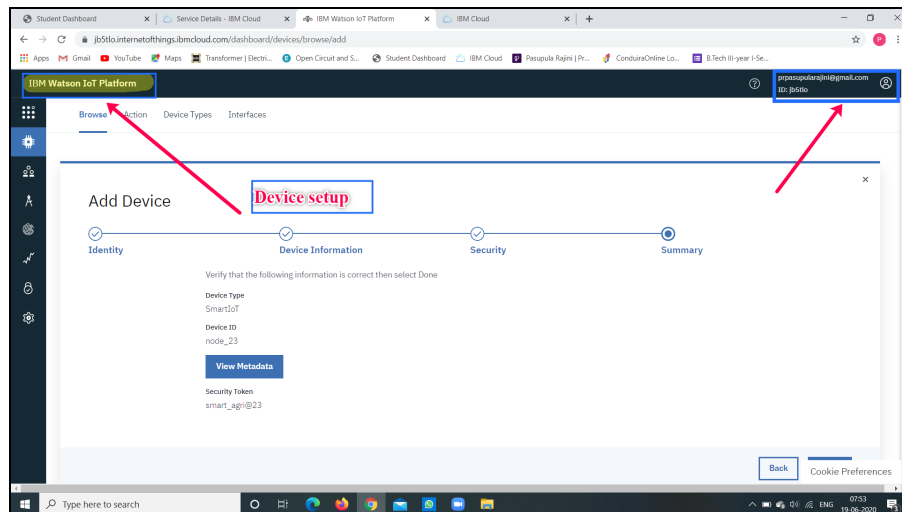
- ➔ Node-Red
- ➔ Python IDE

Project Schedule:

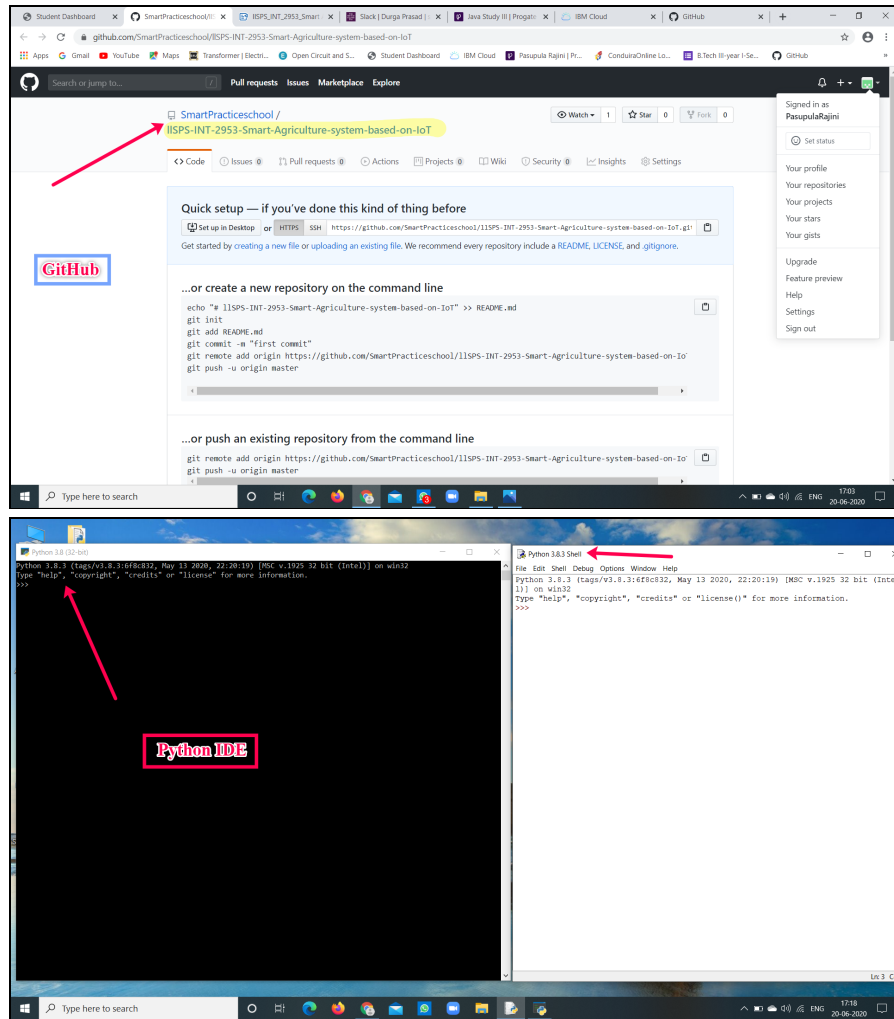
✓ 18/06 -Project Details,Planning, Creation of IBM Cloud Account.



✓ 19/06 - Exploring IBM Watson IoT Platform(Device created,API Key & protection)



✓ 20/06 - Development Environment



✓ 22/06 -Connecting the IOT Simulator To Watson IOT Platform.

IoT Platform

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using APIs.

Search by Device ID

Device ID	Status	Device Type	Class ID	Date Added
node_23	Connected	SmartIoT	Device	Jun 19, 2020 7:55 AM

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
InterSensor	{ "name": "node_23", "temperature": 17, "humidity": 75, "objectTemp": 26 }	json	a few seconds

Event Payload

Event Name: `ICESensor`

Time Received: `Jun 23, 2020 4:50 PM`

```

{
  "name": "node_23",
  "temperature": 17,
  "humidity": 75,
  "objectTemp": 26
}
  
```

IoT sensor

Temperature

17°C

Humidity

77%

Object temperature

23°C

✓ 23/06 - installing of Node.js & Node-Red

Node-RED

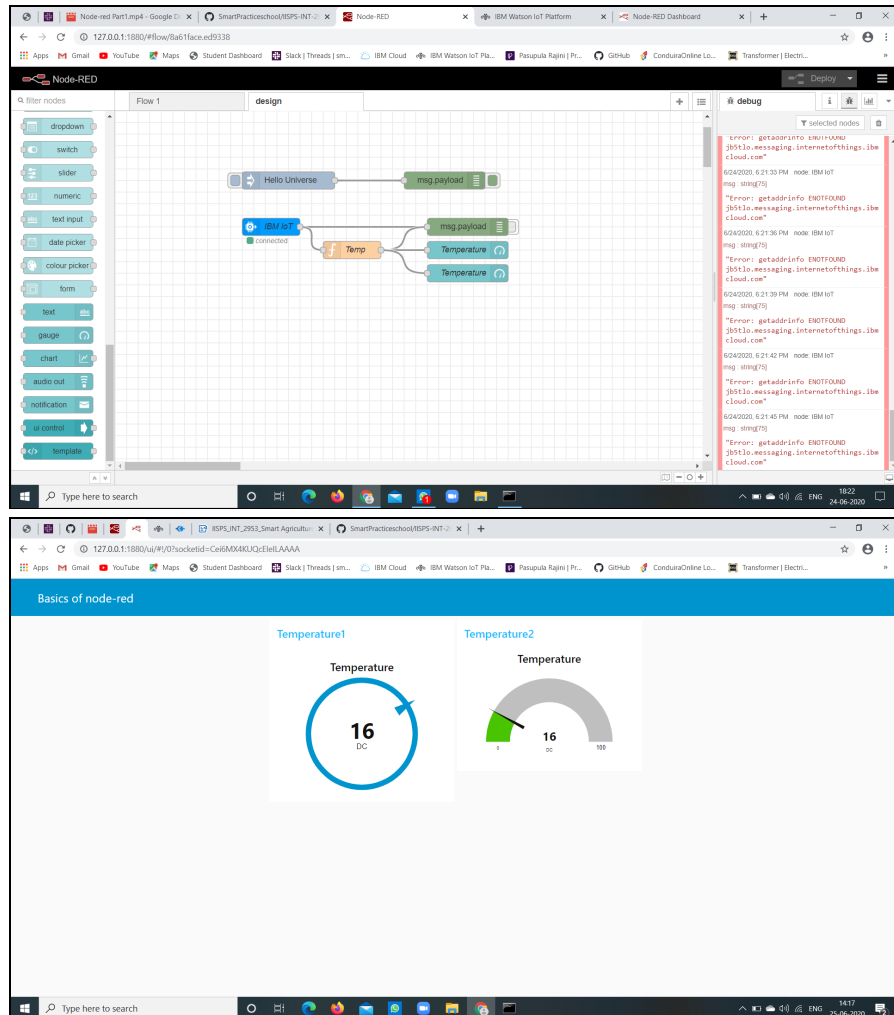
Flow 1

node-red

```

node-red
[15:16:02] [info] Flows file: C:\Users\GMR\OneDrive\Documents\node-red\flows_D
[15:16:02] [info] Creating new flow file
[15:16:02] [info]
Your flow credentials file is encrypted using a system-generated key.
If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.
You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.
[15:16:03] [info] Server now running at http://127.0.0.1:1880/
[15:16:03] [info] Starting flows
[15:16:03] [info] Started flows
  
```

✓ 24/06 - Installing required nodes and connecting to IBM Watson IoT Sensor



○ 25-28/06 - Creating web app and working with python code

○ 30/06 - Completion of project

Project Team: Project by "**Pasupula Rajini**"-{**Project Manager**}

Project Deliverables:

This is a user friendly app .Which would greatly help people working in farming sector .By which user can monitor and complete their required tasks such as turning on/off motor .And also make requisite changes in their working field according to the data provided by this app(i.e.,humidity,temperature,soil_moisture..).