GOVERNMENT COLLEGE OF ENGINEERING

CHETTIKARAI, DHARMAPURI

SMART FARMER – IOT ENABLED SMART FARMING APPLICATION

IBM NALAIYATHIRAN

Project Development-Delivery of Sprint 4

Connecting and configuring the services and debug the errors

TITLE	Smart Farmer IoT Enabled Smart Farming Application
DOMAIN NAME	INTERNET OF THINGS
TEAM ID	PNT2022TMID41287
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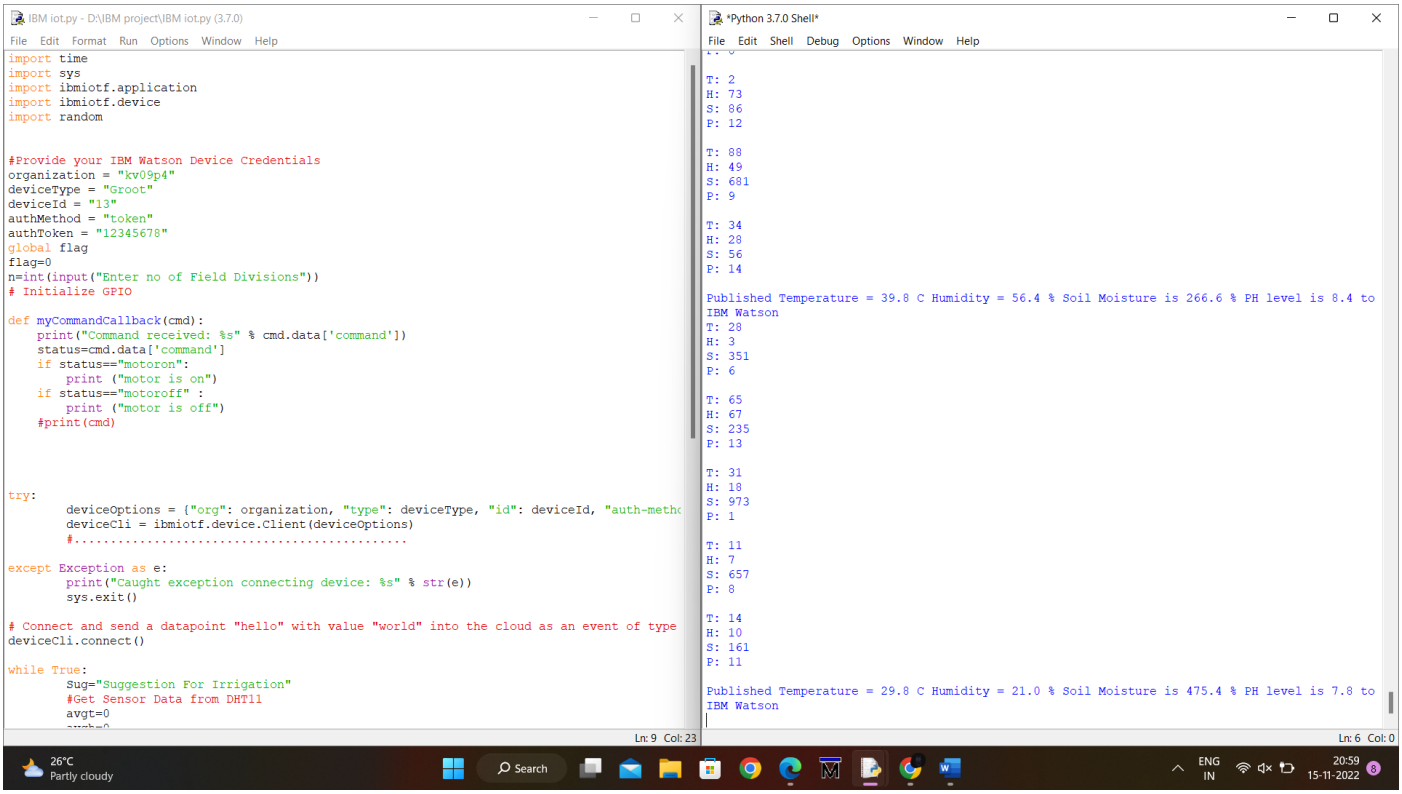
MENTOR NAME	Dr. DINESH G

Python Code:



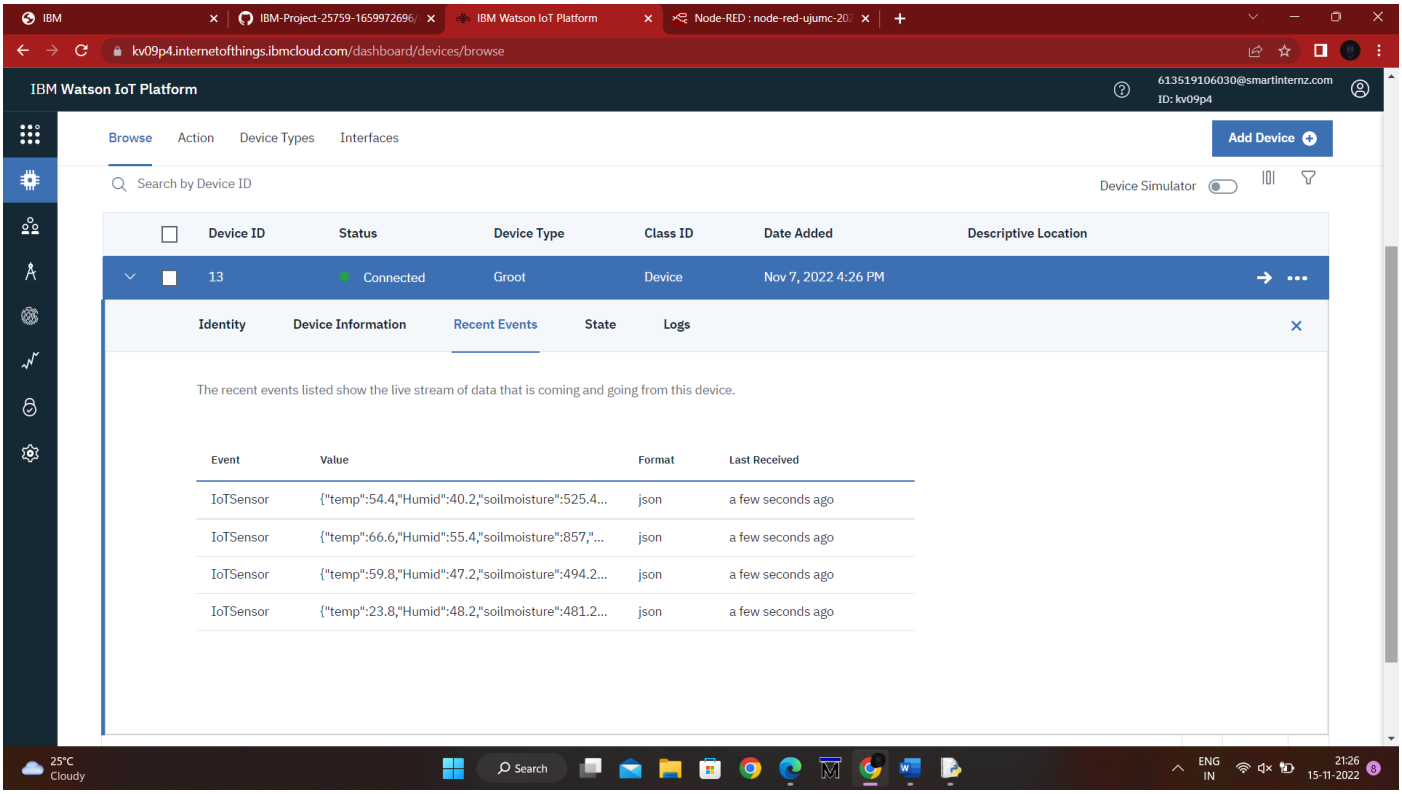
```
IBM iot.py - D:\IBM project\IBM iot.py (3.7.0)
File Edit Format Run Options Window Help
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


#Provide your IBM Watson Device Credentials
organization = "kv09p4"
deviceType = "Groot"
deviceId = "13"
authMethod = "token"
authToken = "12345678"
global flag
flag=0
n=int(input("Enter no of Field Divisions"))
# Initialize GPIO

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="motoron":
        print ("motor is on")
    if status=="motoroff" :
        print ("motor is off")
    #print(cmd)



try:
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-metho
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #.....................................

except Exception as e:
        print("Caught exception connecting device: %s" % str(e))
        sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
deviceCli.connect()

while True:
        Sug="Suggestion For Irrigation"
        #Get Sensor Data from DHT11
        avgt=0
```

Ln: 9 Col: 23

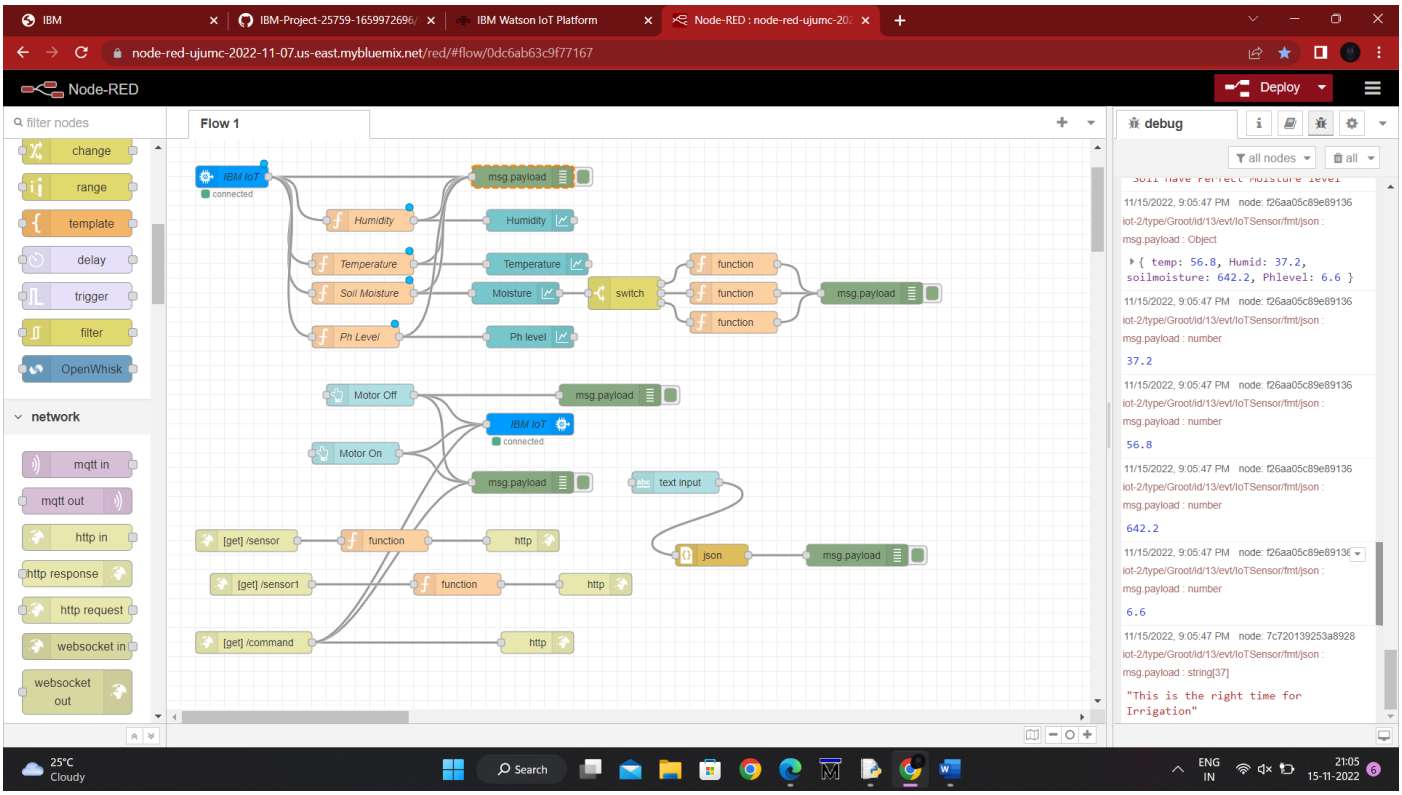
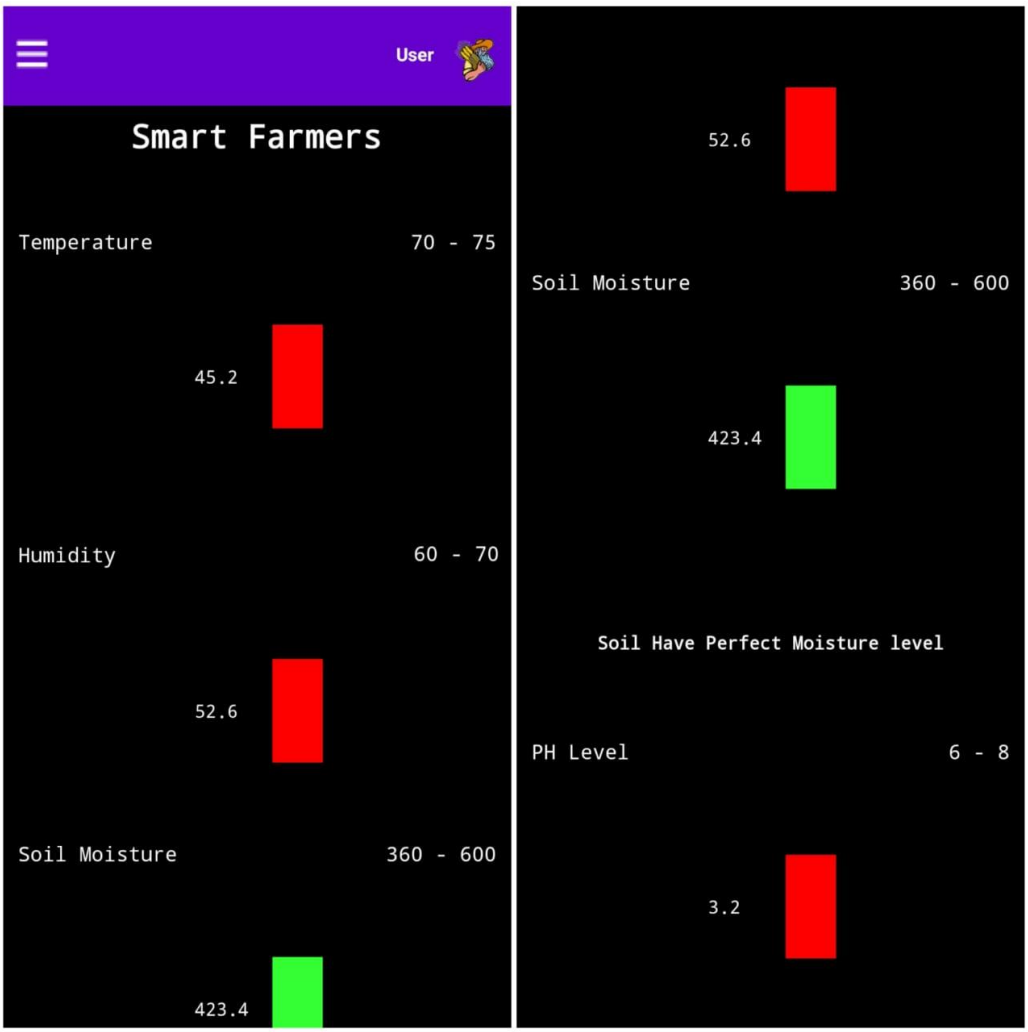
```
*Python 3.7.0 Shell*
File Edit Shell Debug Options Window Help
T: 2
H: 73
S: 86
P: 12

T: 88
H: 49
S: 681
P: 9

T: 34
H: 28
S: 56
P: 14

Published Temperature = 39.8 C Humidity = 56.4 % Soil Moisture is 266.6 % PH level is 8.4 to
IBM Watson
T: 28
H: 3
S: 351
P: 6

T: 65
H: 67
S: 235
P: 13

T: 31
H: 18
S: 973
P: 1

T: 11
H: 7
S: 657
P: 8

T: 14
H: 10
S: 161
P: 11

Published Temperature = 29.8 C Humidity = 21.0 % Soil Moisture is 475.4 % PH level is 7.8 to
IBM Watson
```

Ln: 6 Col: 0

IBM Watson Cloud:



Node-Red:



MIT App Inventor: