SPRINT-3

TEAM ID	PNT2022TMID44357
PROJECT DOMAIN	INTERNET OF THINGS
PROJECT TITLE	IoT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE
DATE	12 NOVEMBER 2022

CODE:

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


#Provide your IBM Watson Device Credentials
organization = "f41515"
deviceType = "NodeMCU"
deviceId = "3527"
authMethod = "token"
authToken = "123456789"


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

```
   #print(cmd)
try:
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": authToken}
        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 "greeting" 10 times
deviceCli.connect()


while True:
       #Get Sensor Data from DHT11


       temp=random.randint(90,100)
       hum=random.randint(60,100)
       mois=random.randint(30,100)


       data = { 'temp' : temp, 'hum': hum, 'mois':mois }
       #print data
       def myOnPublishCallback():
          print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % hum,"moisture= %s %%" % mois," to IBM Watson")
```

```
        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(10)


        deviceCli.commandCallback = myCommandCallback


# Disconnect the device and application from the cloud
deviceCli.disconnect()
```