

SPRINT 3

TEAM ID	PNT2022TMID13531
PROJECT NAME	Smartfarmer - IOT enabled smart Farming Application

DEVELOP A PYTHON SCRIPT TO PUBLISH AND SUBSCRIBE TO IBM IOT PLATFORM:

PYTHON CODE

```
import wiotp.sdk.device
import time
import os
import datetime
import random

myConfig = {
    "identity":{
        "orgId":"nqhzg5",
        "typeId":"Node-red",
        "deviceId":"1234"
    },
    "auth":{
        "token":"12345678"
    }
}
```

```

    }

client = wiotp.sdk.device.DeviceClient(config=myConfig,
logHandlers=None)

client.connect()


def myCommandCallback(cmd):

    print("Message received from IBM IoT platform: %s" %
cmd.data['command'])

    m=cmd.data['command']

    if(m=="motoron"):

        print("Motor is Switched on")

    elif(m=="motoroff"):

        print("Motor is Switched off")

    print(" ")

while True:

    soil=random.randint(0,100)

    temp=random.randint(-20,125)

    hum=random.randint(0,100)

    myData={'soil_moisture':soil,'temperature':temp,'humidity':hum}

    client.publishEvent(eventId="status", msgFormat="json",
data=myData, qos=0, onPublish=None)

    print("Published data successfully: %s", myData)

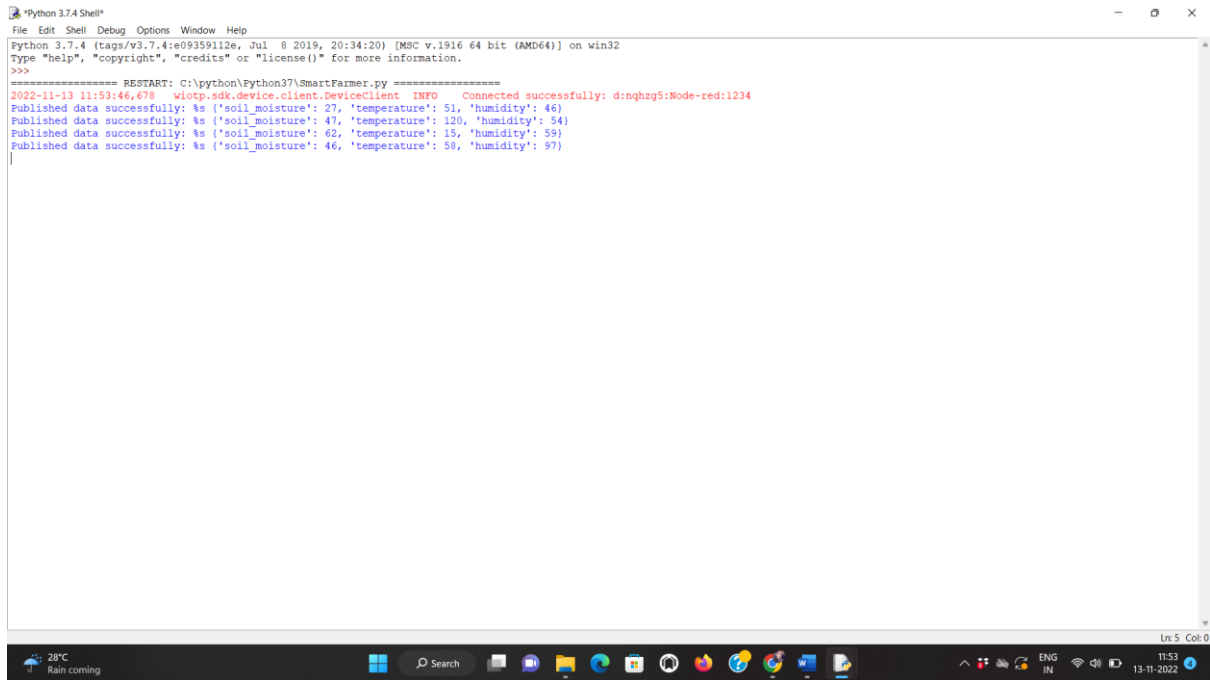
    time.sleep(2)

    client.commandCallback = myCommandCallback

client.disconnect()

```

OUTPUT SCREENSHOT:



```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\python\Python37\SmartFarmer.py =====
2022-11-13 11:53:46,678  wiotp.sdk.device.client.DeviceClient INFO    Connected successfully: d:nghzg5:Node-red:1234
Published data successfully: %s ('soil_moisture': 27, 'temperature': 51, 'humidity': 46)
Published data successfully: %s ('soil_moisture': 47, 'temperature': 120, 'humidity': 54)
Published data successfully: %s ('soil_moisture': 62, 'temperature': 15, 'humidity': 59)
Published data successfully: %s ('soil_moisture': 46, 'temperature': 58, 'humidity': 97)
|
```