

SPRINT 3

TEAM ID	PNT2022TMID13469
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":"0e7wko",
        "typeId":"123",
        "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/v3.7.4:00939112e, 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 11:53:46,078 ->iotp.sdk.device.client.DeviceClient INFO Connected successfully: d:nqhzg5: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)
|
```

28°C
Rain coming



ENG IN 11:53 13-11-2022