

## **SPRINT 3**

<b>TEAM ID</b>	PNT2022TMID33671
<b>PROJECT NAME</b>	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:e09359112e, 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 11:53:46,670  wiotp.sdk.device.client.DeviceClient  INFO  Connected successfully: d:nqhsg5:Node-red:1234
Published data successfully: {soil_moisture: 27, temperature: 51, humidity: 46}
Published data successfully: {soil_moisture: 47, temperature: 120, humidity: 54}
Published data successfully: {soil_moisture: 62, temperature: 15, humidity: 59}
Published data successfully: {soil_moisture: 46, temperature: 58, humidity: 97}
```