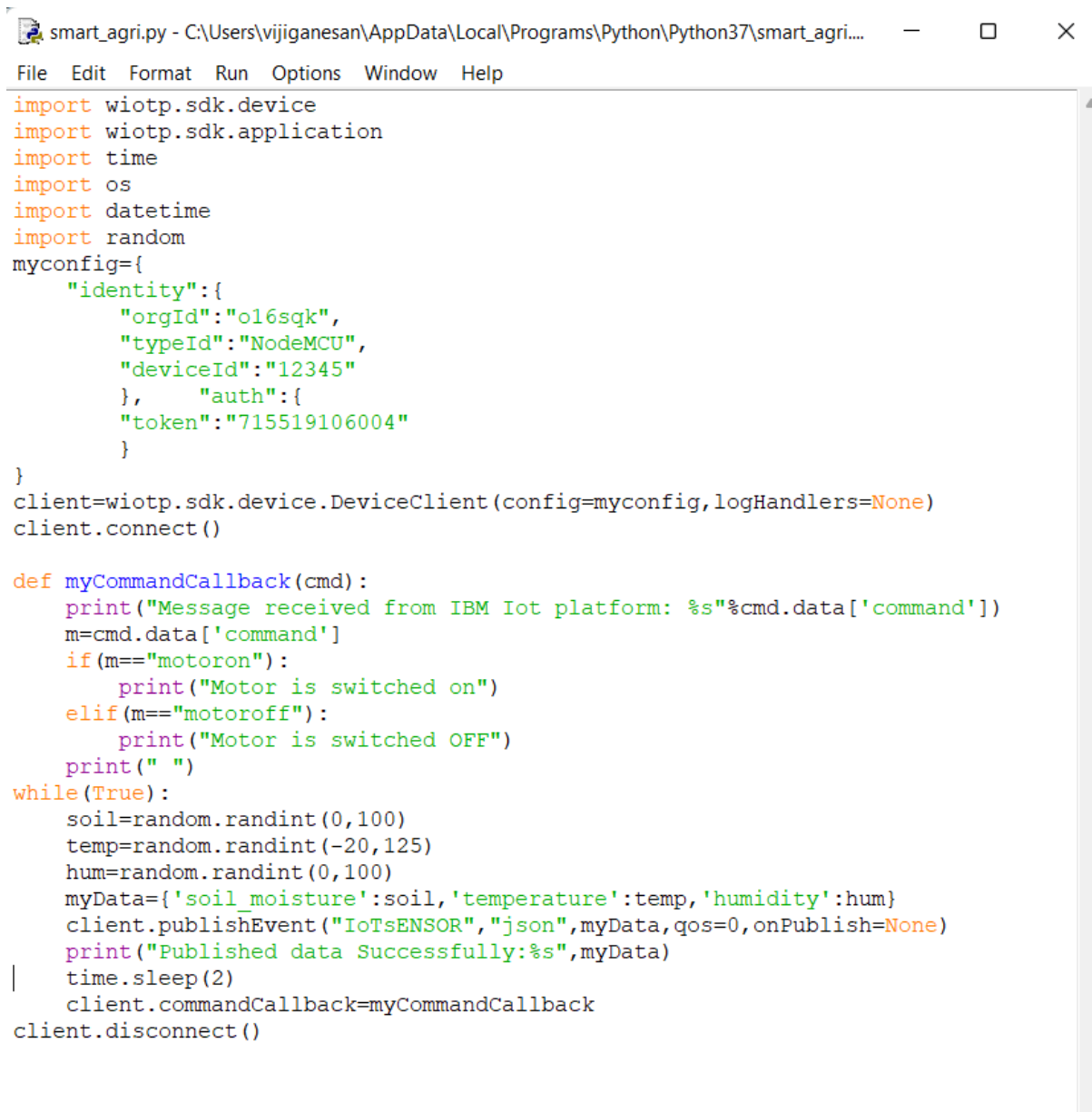# Develop A Python Script to Publish And Subscribe To IBM IoT Platform
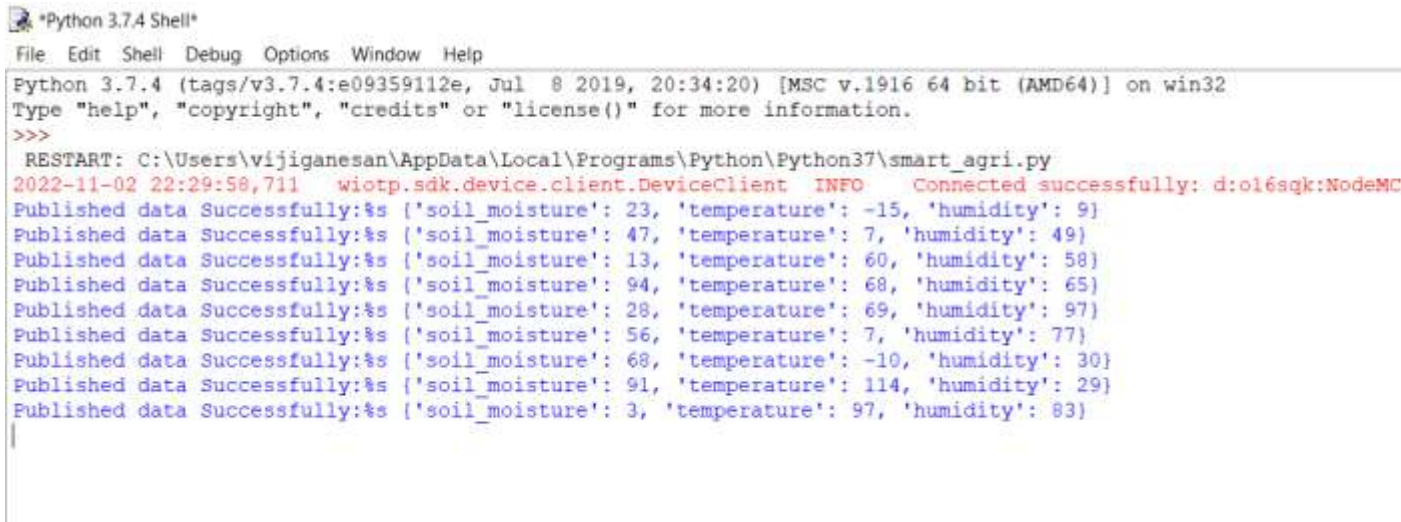
Team ID	PNT2022TMID43384
Project Name	Smart Farmer- IoT Enabled Smart Farming Application

smart_agri.py - C:\Users\vijiganesan\AppData\Local\Programs\Python\Python37\smart_agri.... — □ ✕

File Edit Format Run Options Window Help

```python
import wiotp.sdk.device
import wiotp.sdk.application
import time
import os
import datetime
import random
myconfig={
    "identity":{
        "orgId":"o16sqk",
        "typeId":"NodeMCU",
        "deviceId":"12345"
        },    "auth":{
        "token":"715519106004"
        }
}
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("IoTsENSOR","json",myData,qos=0,onPublish=None)
    print("Published data Successfully:%s",myData)
    time.sleep(2)
    client.commandCallback=myCommandCallback
client.disconnect()
```

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:\Users\vijiganesan\AppData\Local\Programs\Python\Python37\smart_agri.py
2022-11-02 22:29:58,711   wiotp.sdk.device.client.DeviceClient INFO   Connected successfully: d:o16sqk:NodeMC
Published data Successfully:%s {'soil_moisture': 23, 'temperature': -15, 'humidity': 9}
Published data Successfully:%s {'soil_moisture': 47, 'temperature': 7, 'humidity': 49}
Published data Successfully:%s {'soil_moisture': 13, 'temperature': 60, 'humidity': 58}
Published data Successfully:%s {'soil_moisture': 94, 'temperature': 68, 'humidity': 65}
Published data Successfully:%s {'soil_moisture': 28, 'temperature': 69, 'humidity': 97}
Published data Successfully:%s {'soil_moisture': 56, 'temperature': 7, 'humidity': 77}
Published data Successfully:%s {'soil_moisture': 68, 'temperature': -10, 'humidity': 30}
Published data Successfully:%s {'soil_moisture': 91, 'temperature': 114, 'humidity': 29}
Published data Successfully:%s {'soil_moisture': 3, 'temperature': 97, 'humidity': 83}

IBM Watson IoT Platform

← Back

Device Drilldown - 12345

Client Address: 157.49.232.175 SecureToken

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
IoTsENSOR	{"soil_moisture":49,"temperature":12,"humidity"...	json	a few seconds ago
IoTsENSOR	{"soil_moisture":49,"temperature":84,"humidity"...	json	a few seconds ago
IoTsENSOR	{"soil_moisture":22,"temperature":34,"humidity"...	json	a few seconds ago
IoTsENSOR	{"soil_moisture":89,"temperature":75,"humidity"...	json	a few seconds ago
IoTsENSOR	{"soil_moisture":39,"temperature":37,"humidity"...	json	a few seconds ago