

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

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/v3.7.4:09359112e, 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:\Users\vijiganesan\AppData\Local\Programs\Python\Python37\smart_agri.py
2022-11-02 22:20:13,414 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:016agk:NodeMCU:12345
Published data Successfully: %s ('soil_moisture': 37, 'temperature': 70, 'humidity': 83)
Published data Successfully: %s ('soil_moisture': 79, 'temperature': -18, 'humidity': 17)
Published data Successfully: %s ('soil_moisture': 67, 'temperature': 94, 'humidity': 39)
Published data Successfully: %s ('soil_moisture': 22, 'temperature': 88, 'humidity': 0)
Published data Successfully: %s ('soil_moisture': 63, 'temperature': 5, 'humidity': 51)
Published data Successfully: %s ('soil_moisture': 17, 'temperature': -19, 'humidity': 99)
Published data Successfully: %s ('soil_moisture': 72, 'temperature': 37, 'humidity': 71)
Published data Successfully: %s ('soil_moisture': 80, 'temperature': -19, 'humidity': 55)
Published data Successfully: %s ('soil_moisture': 7, 'temperature': 125, 'humidity': 25)
Published data Successfully: %s ('soil_moisture': 31, 'temperature': 63, 'humidity': 76)
```

IBM Watson IoT Platform

Y1537106454@us.ibmcloud.com

W: 016agk

← 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 Encoded
165EN60H	('soil_moisture':58,'temperature':114,'humidity':...	json	a few seconds ago
165EN60H	('soil_moisture':53,'temperature':-20,'humidity':...	json	a few seconds ago
165EN60H	('soil_moisture':60,'temperature':80,'humidity':...	json	a few seconds ago
165EN60H	('soil_moisture':32,'temperature':125,'humidity':...	json	a few seconds ago
165EN60H	('soil_moisture':43,'temperature':4,'humidity':...	json	a few seconds ago