

## SPRINT 3

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<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:



A screenshot of a Python 3.7.4 Shell window. The window title is "Python 3.7.4 Shell". The menu bar includes "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The status bar at the bottom shows "Ln: 5 Col: 0". The main text area displays the following output:

```
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 11:53:46,678  wiotp.sdk.device.client.DeviceClient INFO    Connected successfully: dinghzg5: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}
```