

## DEVELOP THE PYTHON SCRIPT

Team ID	PNT2022TMID12920
Project Name	Smart Farmer – IoT Enabled Farming Application

### Program for publish and subscribe to IBM IoT cloud:

```
import wiotp.sdk.device
import time
import os
import datetime
import random

myConfig = {
    "identity": {
        "orgID": "tu4jce",
        "typeID": "NodeMCU",
        "deviceID": "12345"
    },
    "auth": {
        "token": "2W?*d5U83t+ICiNhyJ"
    }
}

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)

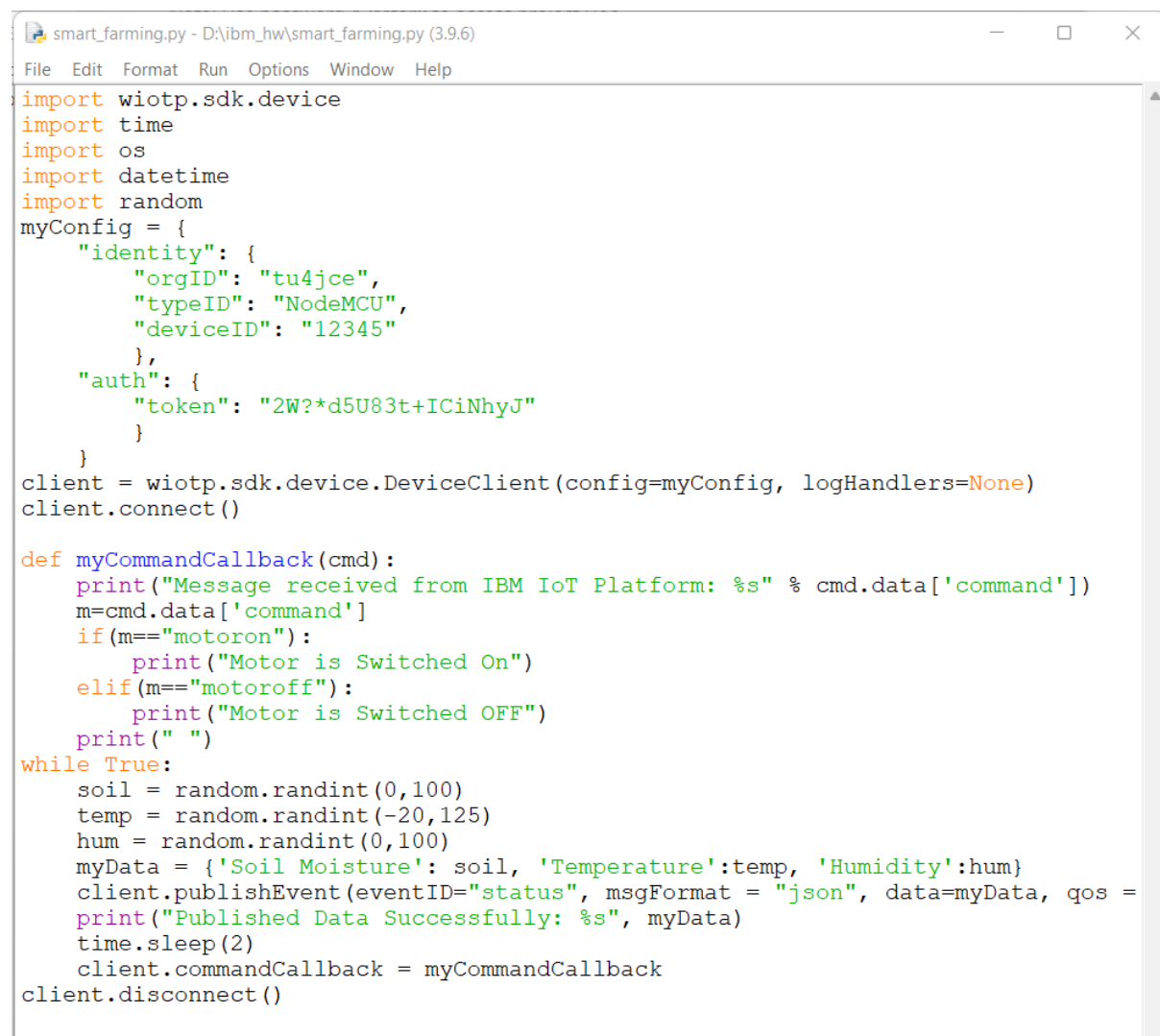
time.sleep(2)

client.commandCallback = myCommandCallback

client.disconnect()

```

## Editor Window:



The screenshot shows a code editor window titled "smart\_farming.py - D:\ibm\_hw\smart\_farming.py (3.9.6)". The editor contains the following Python code:

```

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while True:
    soil = random.randint(0,100)
    temp = random.randint(-20,125)
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    myData = {'Soil Moisture': soil, 'Temperature':temp, 'Humidity':hum}
    client.publishEvent(eventID="status", msgFormat = "json", data=myData, qos =
    print("Published Data Successfully: %s", myData)
    time.sleep(2)
    client.commandCallback = myCommandCallback
client.disconnect()

```