

SPRINT - 1

Date	15th NOVEMBER 2022
Team ID	PNT2022TMID40437
Project Name	SMARTFARMER – IoT ENABLED SMART FARMING APPLICATION

PYTHON CODE:

```
import wiotp.sdk.device
import time
import os
import datetime
import random
myConfig = {
    "identity": {
        "orgId": "msfsb2",
        "typeId": "Arun",
        "deviceId": "123456"
    },
    "auth": {
        "token": "123456789"
    }
}
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 ()
```

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python/Python37/python code.py =====
2022-11-17 21:09:59,691 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:msfsb2:Arun:123456P
ublished data Successfully: %s
{'soil moisture': 60, 'temperature': 68, 'humidity': 18}
Published data Successfully: %s {'soil moisture': 82, 'temperature': 98, 'humidity': 21}
Published data Successfully: %s {'soil moisture': 73, 'temperature': 96, 'humidity': 81}
Published data Successfully: %s {'soil moisture': 66, 'temperature': -15, 'humidity': 100}
Published data Successfully: %s {'soil moisture': 75, 'temperature': -1, 'humidity': 64}
Published data Successfully: %s {'soil moisture': 90, 'temperature': 100, 'humidity': 8}
Published data Successfully: %s {'soil moisture': 67, 'temperature': 92, 'humidity': 61}
Published data Successfully: %s {'soil moisture': 80, 'temperature': 124, 'humidity': 35}
Published data Successfully: %s {'soil moisture': 85, 'temperature': 43, 'humidity': 95}
Published data Successfully: %s {'soil moisture': 59, 'temperature': 73, 'humidity': 87}
Published data Successfully: %s {'soil moisture': 53, 'temperature': -14, 'humidity': 62}
Published data Successfully: %s {'soil moisture': 20, 'temperature': -20, 'humidity': 36}
Published data Successfully: %s {'soil moisture': 92, 'temperature': 124, 'humidity': 9}
Published data Successfully: %s {'soil moisture': 54, 'temperature': -18, 'humidity': 92}
Published data Successfully: %s {'soil moisture': 19, 'temperature': 58, 'humidity': 7}
Published data Successfully: %s {'soil moisture': 92, 'temperature': 105, 'humidity': 46}
Published data Successfully: %s {'soil moisture': 16, 'temperature': 90, 'humidity': 100}
Published data Successfully: %s {'soil moisture': 58, 'temperature': 79, 'humidity': 89}
Published data Successfully: %s {'soil moisture': 92, 'temperature': -20, 'humidity': 75}
Published data Successfully: %s {'soil moisture': 46, 'temperature': 99, 'humidity': 25}
Published data Successfully: %s {'soil moisture': 34, 'temperature': 10, 'humidity': 46}
Published data Successfully: %s {'soil moisture': 86, 'temperature': 123, 'humidity': 10}
```

IBM Watson IoT Platform dashboard showing device management and recent events.

Search by Device ID:

Device Simulator: ☐

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By	Device Class
02082001	Disconnected	Arun	Device	Nov 16, 2022 7:59 PM		arunmonesh@gmail.com	
123456	Connected	Arun	Device	Nov 17, 2022 4:27 PM		arunmonesh@gmail.com	

Identity | Device Information | **Recent Events** | State | Logs

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

Event	Value	Format	Last Received
status	['soil moisture':13,'temperature':38,'humidity':...	json	a few seconds ago
status	['soil moisture':27,'temperature':36,'humidity':...	json	a few seconds ago
status	['soil moisture':58,'temperature':-13,'humidity':...	json	a few seconds ago
status	['soil moisture':44,'temperature':9,'humidity':9...	json	a few seconds ago
status	['soil moisture':18,'temperature':40,'humidity':...	json	a few seconds ago

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0 Simulations running