

PYTHON CODE TO PUBLISH DATA TO IBM CLOUD

Assignment Date	07 NOVEMBER2022
Team ID	PNT2022TMID08708
Project Name	Gas Leakage Monitoring and Alerting System

Python Code:

```
#IBM Watson IOT Platform
```

```
#pip install wiotp-sdk
```

```
import wiotp.sdk.device
```

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "0tus0f",
```

```
        "typeId": "ESP32",
```

```
        "deviceId": "01"
```

```
    },
```

```
    "auth": {
```

```
        "token": "Gowth@m@nk18"
```

```
    }
```

```
}
```

```
def myCommandCallback(cmd):
```

```
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
```

```
    m=cmd.data['command']
```

```
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
```

```
client.connect()
```

while True:

```
    temp=random.randint(-20,125)
```

```
    hum=random.randint(0,100)
```

```
    myData={'temperature':temp, 'humidity':hum}
```

```
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
```

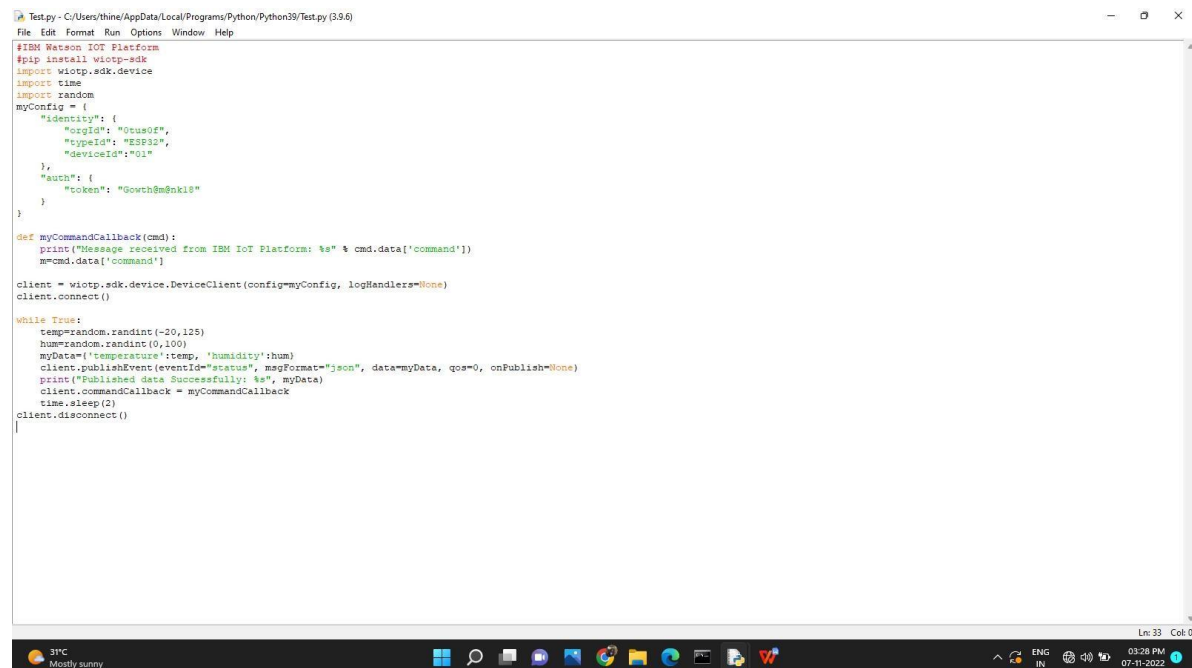
```
    print("Published data Successfully: %s", myData)
```

```
    client.commandCallback = myCommandCallback
```

```
    time.sleep(2)
```

```
client.disconnect()
```

PYTHON CODE:



```
Test.py - C:/Users/thine/AppData/Local/Programs/Python/Python39/Test.py (3.9.6)
File Edit Format Run Options Window Help

#IBM Watson IoT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random

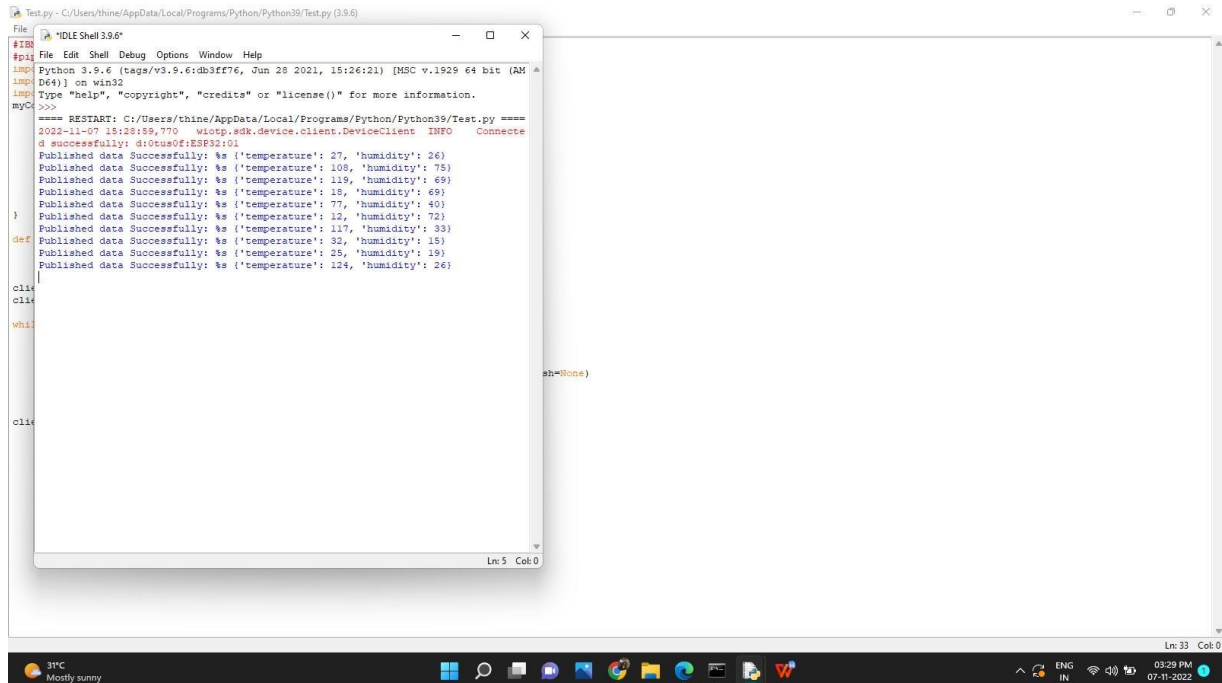
myConfig = {
    "identity": {
        "orgId": "0tus0f",
        "typeId": "ESP32",
        "deviceId": "01"
    },
    "auth": {
        "token": "Gowth$mk18"
    }
}

def myCommandCallback(cmd):
    print('Message received from IBM IoT Platform: %s' % cmd.data['command'])
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

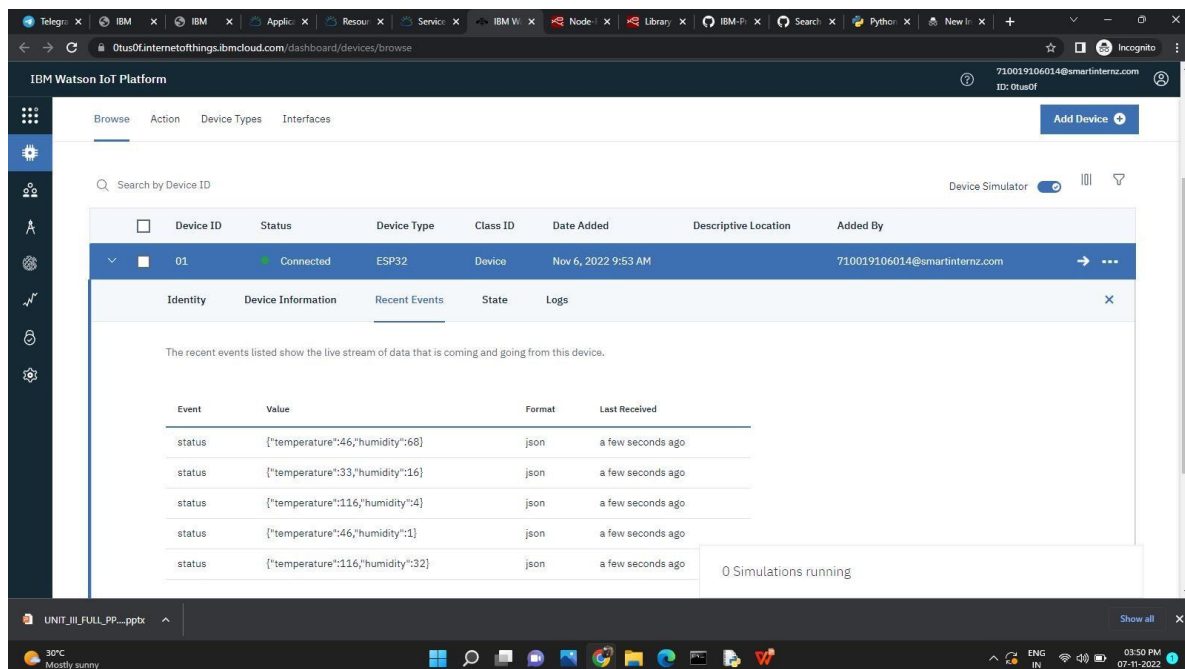
while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

PYTHON OUTPUT:



```
Test.py - C:/Users/thine/AppData/Local/Programs/Python/Python39/Test.py (3.9.6)
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/thine/AppData/Local/Programs/Python/Python39/Test.py =====
2022-11-07 15:28:59,770 wiotp.sdk.device.client.DeviceClient INFO Connect
d successfully: d:0tusOf:ESP32:01
Published data Successfully: %s ('temperature': 27, 'humidity': 26)
Published data Successfully: %s ('temperature': 108, 'humidity': 75)
Published data Successfully: %s ('temperature': 119, 'humidity': 69)
Published data Successfully: %s ('temperature': 15, 'humidity': 69)
Published data Successfully: %s ('temperature': 77, 'humidity': 40)
Published data Successfully: %s ('temperature': 12, 'humidity': 72)
Published data Successfully: %s ('temperature': 117, 'humidity': 33)
Published data Successfully: %s ('temperature': 32, 'humidity': 15)
Published data Successfully: %s ('temperature': 25, 'humidity': 19)
Published data Successfully: %s ('temperature': 124, 'humidity': 26)
def
}
class
class
while
class
```

Watson Cloud IBM:



IBM Watson IoT Platform

Search by Device ID

Device Simulator: ☒

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
01	Connected	ESP32	Device	Nov 6, 2022 9:53 AM		710019106014@smartinternz.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	["temperature":46,"humidity":68]	json	a few seconds ago
status	["temperature":33,"humidity":16]	json	a few seconds ago
status	["temperature":116,"humidity":4]	json	a few seconds ago
status	["temperature":46,"humidity":1]	json	a few seconds ago
status	["temperature":116,"humidity":32]	json	a few seconds ago

0 Simulations running