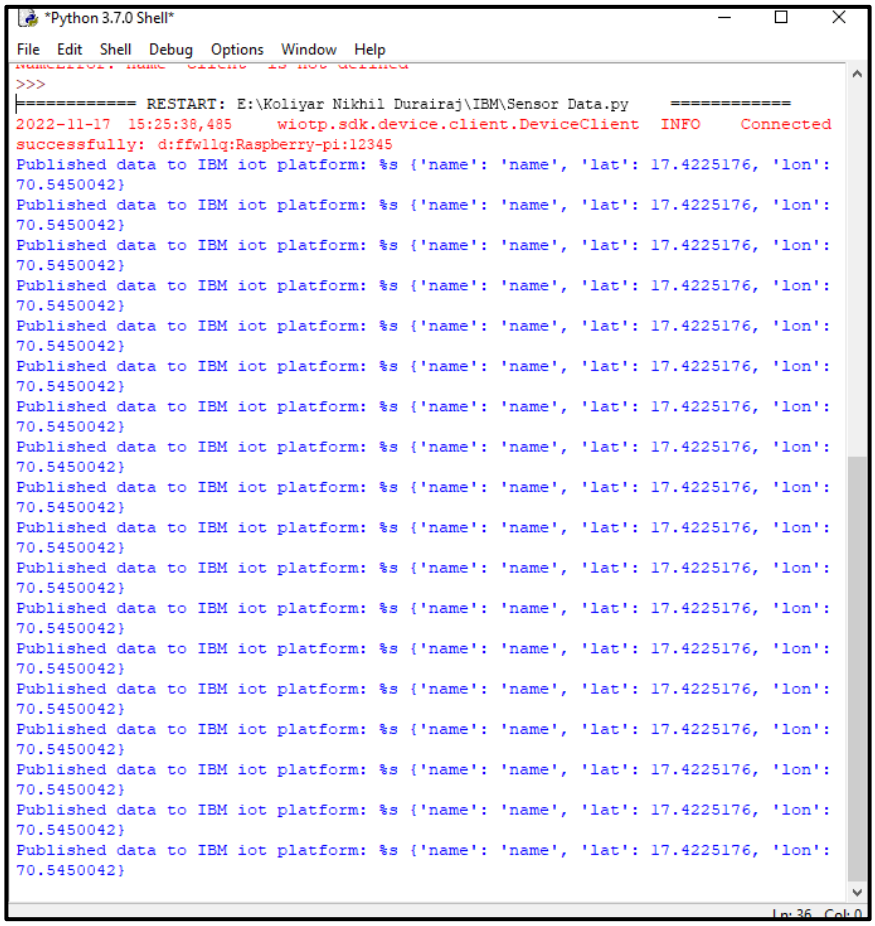
Team ID	PNT2022TMID15172
Project Name	Project : Smart Waste Management System For Metropolitan Cities

Develop A Python Script: Location (latitude & longitude) data

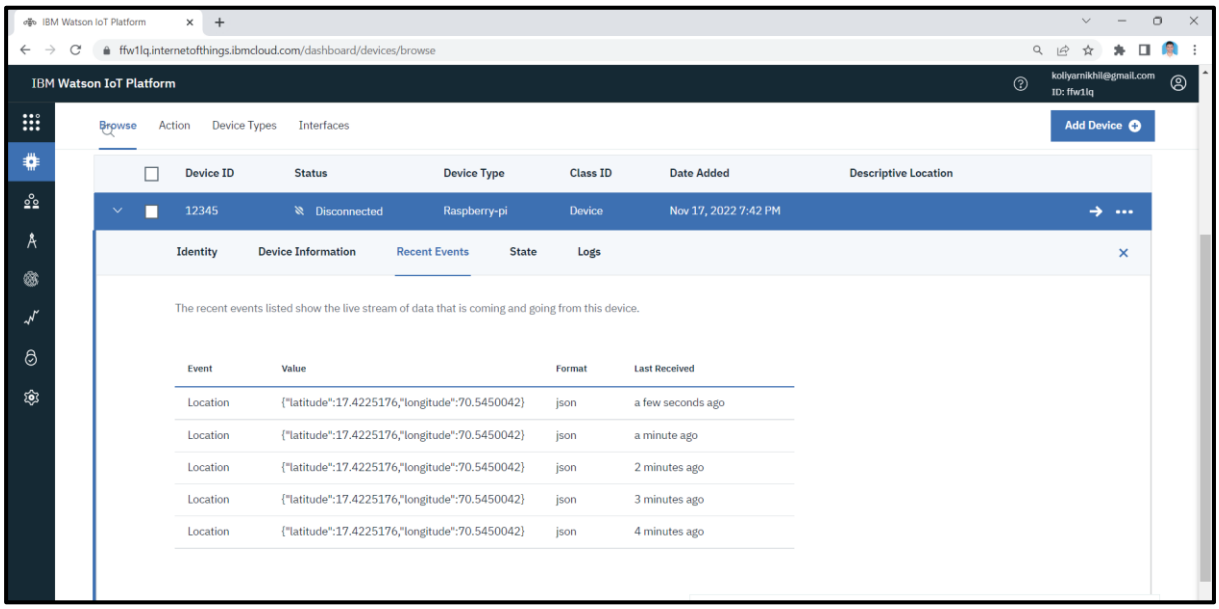
PYTHON CODE:

```
import wiotp.sdk.device
import time
import json
myConfig = {
    "identity": {
        "orgId": "ffw1lq",
        "typeId": "Raspberry-pi",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
    name="smartbridge"
    latitude=17.4225176
    longitude=70.5450042
    myData={'name': 'name', 'lat': latitude, 'lon': longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
      onPublish=None)
```

```
    print ("Published data to IBM iot platform: %s", myData)
    time.sleep (5)
client.disconnect ()
```



Publishing values to the IBM IoT Platform:



Develop A Python Script: Random Sensor data

PYTHON CODE:

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "ffw1lq",
        "typeId": "Raspberry-pi",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}

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}
```

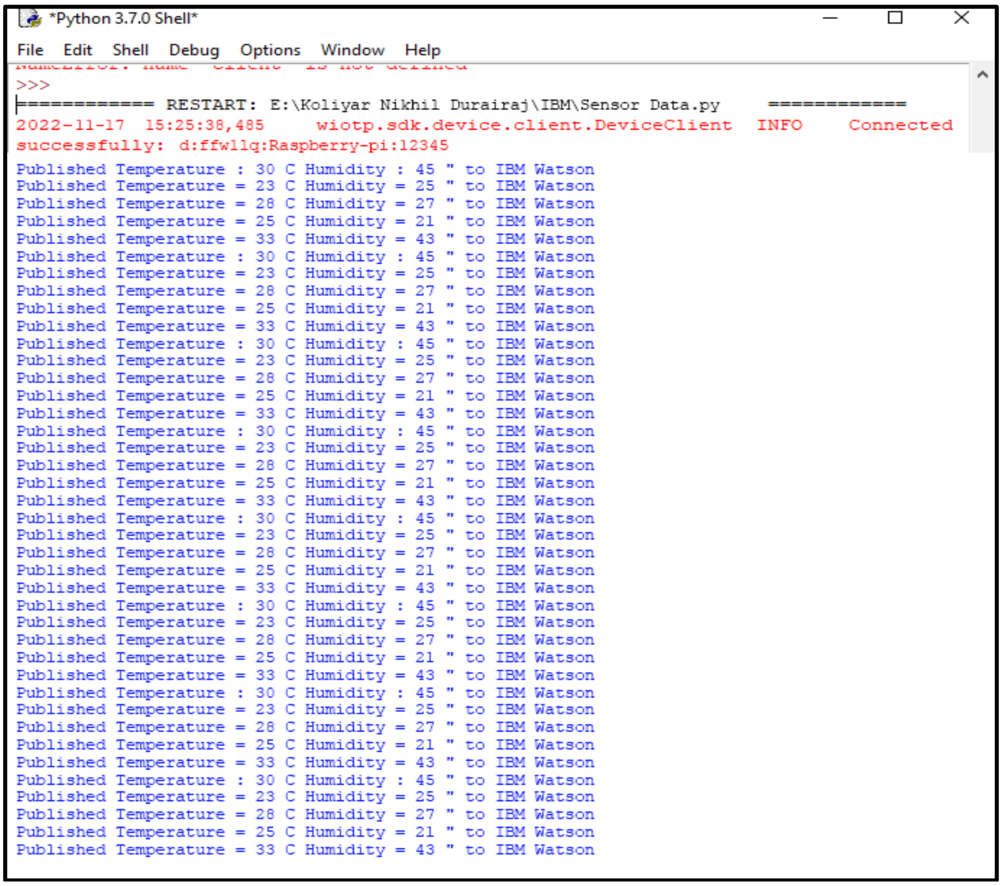
```
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(5)
client.disconnect()
```

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "ffw1lq",
        "typeId": "Raspberry-pi",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}

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()
```



```
>>>
============ RESTART: E:\Koliyar Nikhil Durairaj\IBM\Sensor Data.py ============
2022-11-17 15:25:38,485    wiotp.sdk.device.client.DeviceClient  INFO    Connected
successfully: d:ffw1lq:Raspberry-pi:12345
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
Published Temperature : 30 C Humidity : 45 " to IBM Watson
Published Temperature = 23 C Humidity = 25 " to IBM Watson
Published Temperature = 28 C Humidity = 27 " to IBM Watson
Published Temperature = 25 C Humidity = 21 " to IBM Watson
Published Temperature = 33 C Humidity = 43 " to IBM Watson
```

Publishing values to the IBM IoT Platform: