

DELIVERY OF SPRINT - 2

Date	03 November 2022
Team ID	PNT2022TMID17949
Project Name	Smart Waste Management System For Metropolitan Cities
Maximum Marks	4 Marks

**Develop a python script to publish the location details to the
IBM IoT platform**

I. Python Code :

```
import json

import wiotp.sdk.device

import time

myconfig = {

    "identity" : {

        "orgId": "tn3xmm",

        "typeId": "SM32",

        "deviceId": "1234"

    },

    "auth" : {

        "token" : "12345678"

    }

}

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

```
client.connect()
```

```
while True:
```

```
    city = "London"
```

```
    lat = 34.8976508
```

```
    long = 67.9764532
```

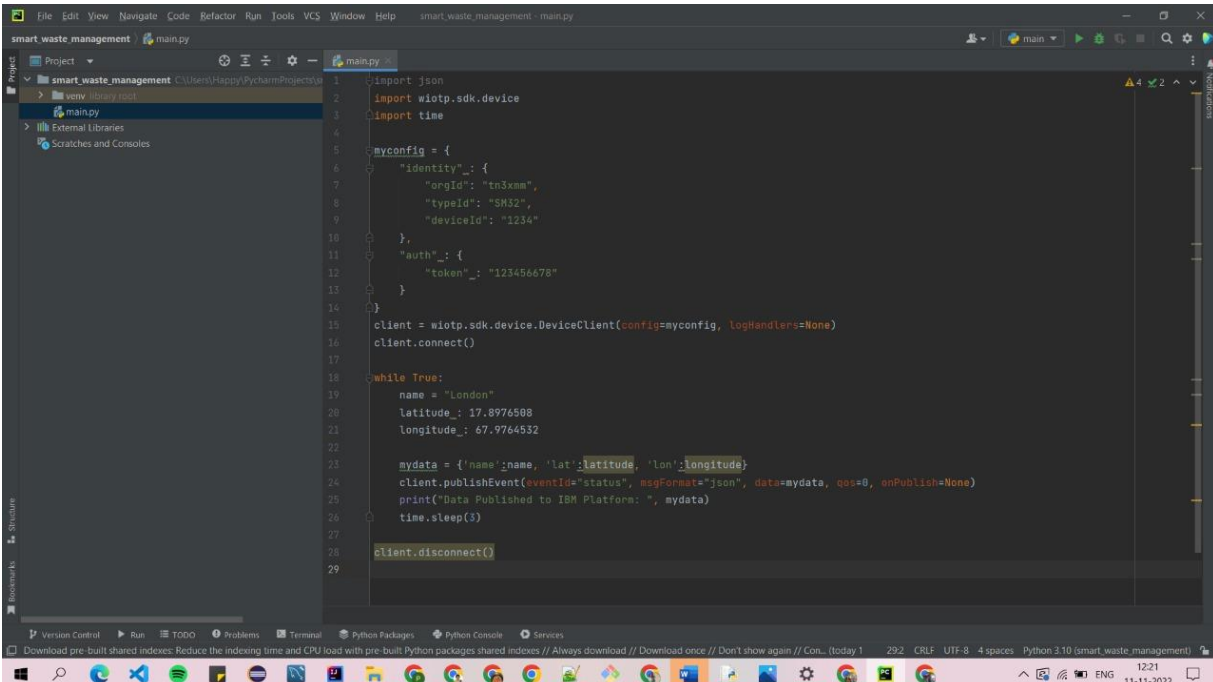
```
    data = {'name':city, 'lat':lat, 'lon':long}
```

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

```
    print("Data Updated to IBM Platform: ", data)
```

```
    time.sleep(3)
```

```
client.disconnect()
```



The screenshot shows a PyCharm IDE window titled 'smart_waste_management - main.py'. The code in the editor is as follows:

```
1 import json
2 import wiotp.sdk.device
3 import time
4
5 myconfig = {
6     "identity": {
7         "orgId": "tn3xmm",
8         "typeId": "SM32",
9         "deviceId": "1234"
10    },
11    "auth": {
12        "token": "123456678"
13    }
14 }
15 client = wiotp.sdk.device.DeviceClient(config=myconfig, logHandlers=None)
16 client.connect()
17
18 while True:
19     name = "London"
20     latitude = 17.8976508
21     longitude = 67.9764532
22
23     mydata = {'name':name, 'lat':latitude, 'lon':longitude}
24     client.publishEvent(eventId="status", msgFormat="json", data=mydata, qos=0, onPublish=None)
25     print("Data Published to IBM Platform: ", mydata)
26     time.sleep(3)
27
28 client.disconnect()
29
```

The IDE interface includes a sidebar on the left with 'Project' and 'External Libraries' views. The bottom status bar shows 'Python 3.10 (smart_waste_management)' and the date '11-11-2022'.

II. IBM Watson IoT Platform results:

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes a search icon, tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces', and an 'Add Device' button. The main content area shows a table of devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. A device with ID 1234 is highlighted, showing a status of 'Connected' and a device type of 'SM32'. Below the device list, a 'Recent Events' tab is selected, displaying a table of events. The events table has columns: Event, Value, Format, and Last Received. The events are listed as 'Active' with a JSON value containing location data, in 'json' format, received 'a few seconds ago' or 'a minute ago'. A notification at the bottom right states '0 Simulations running'.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
1234	Connected	SM32	Device	Nov 11, 2022 10:42 AM	

Event	Value	Format	Last Received
Active	{"name":"London","lat":34.8976508,"lon":67.97...	json	a few seconds ago
Active	{"name":"London","lat":34.8976508,"lon":67.97...	json	a few seconds ago
Active	{"name":"London","lat":34.8976508,"lon":67.97...	json	a minute ago
Active	{"name":"London","lat":34.8976508,"lon":67.97...	json	a minute ago
Active	{"name":"London","lat":34.8976508,"lon":67.97...	json	a minute ago

0 Simulations running