

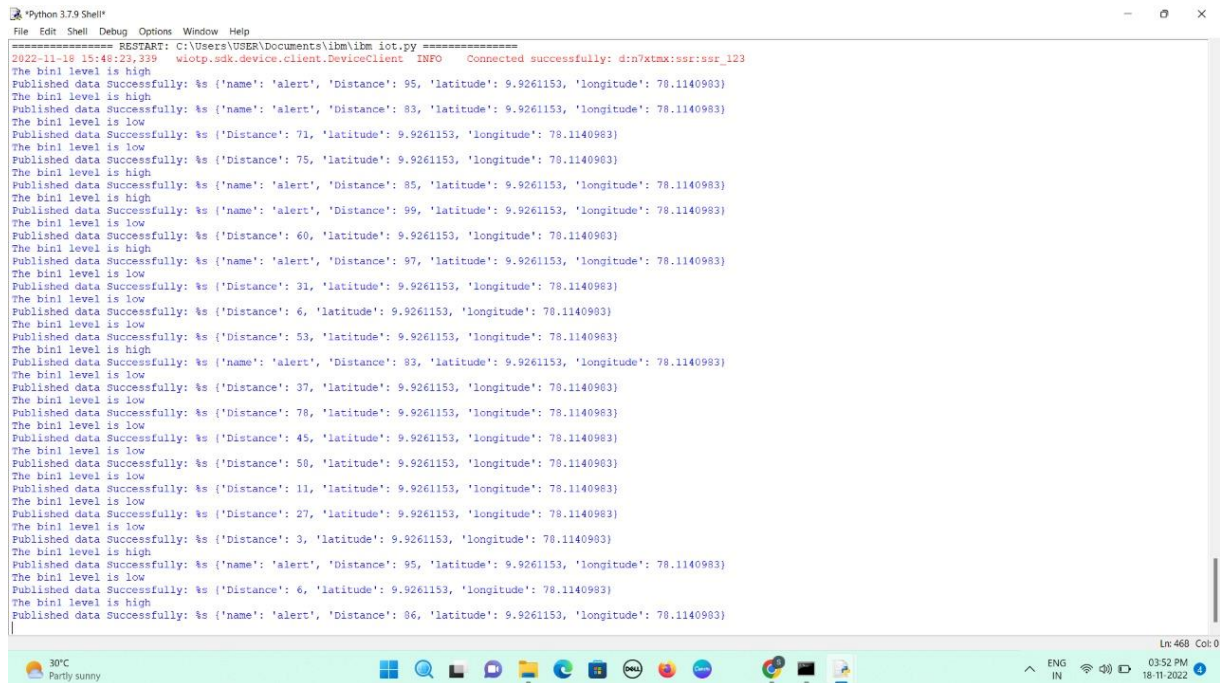
SPRINT III

Team ID	PNT2022TMID40462
Project Name	Smart Waste Management System for metropolitan cities

WORK DONE IN SPRINT 1:

- > Python code is developed and then tested whether the code is generating random sensor data or not

SCREENSHOT:



```
Python 3.7.9 Shell
File Edit Shell Debug Options Window Help
===== RESTART: C:\Users\USER\Documents\libm\libm iot.py =====
2022-11-18 15:46:23,339 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:n7xtmx:ssr:ssr_123
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 95, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 83, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 71, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 75, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 85, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 99, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 60, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 97, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 31, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 6, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 53, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 83, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 37, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 78, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 45, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 58, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 11, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 27, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 3, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 95, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is low
Published data Successfully: %s {'Distance': 6, 'latitude': 9.9261153, 'longitude': 78.1140983}
The binl level is high
Published data Successfully: %s {'name': 'alert', 'Distance': 86, 'latitude': 9.9261153, 'longitude': 78.1140983}
Ln: 468 Col: 0
```

CODE:

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
from geopy.geocoders import Nominatim
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "n7xtmx",
        "typeId": "ssr",
        "deviceId": "ssr_123"
    },
}
```

```
"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:  
    dist1=random.randint(0,100)
```

```
    loc = Nominatim(user_agent="GetLoc")  
    getLoc1 = loc.geocode("madurai")
```

```
    lat=getLoc1.latitude  
    log=getLoc1.longitude
```

```
    f="alert"
```

```
    if dist1>=80:  
        a=print("The bin1 level is high")  
        type(a)  
        myData={'name':f,'Distance':dist1,'latitude':lat,'longitude':log}
```

```
    else:  
        a=print("The bin1 level is low")  
        type(a)  
        myData={'Distance':dist1,'latitude':lat,'longitude':log}
```

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

```
    client.commandCallback = myCommandCallback  
    time.sleep(10)  
    client.disconnect()
```