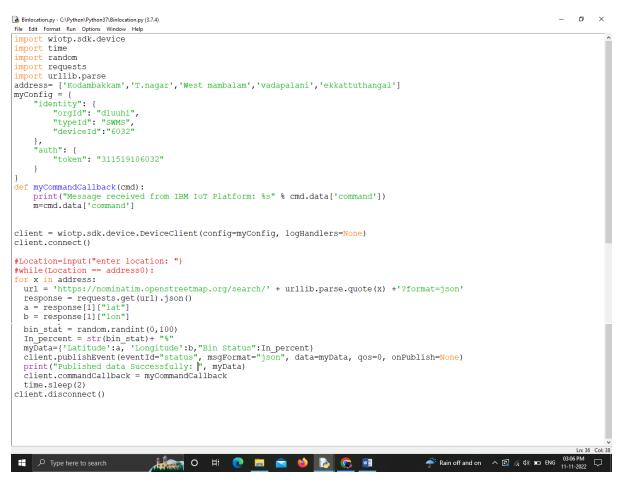# Python code to display Bin Location

Team ID	PNT2022TMID13797
Project Name	Smart Waste Management System For Metropolitan Cities

DESCRIPTION:

The below python code display and publish the location (latitude and longitude) along with the bin values to the IBM IoT platform.

PYTHON CODE:

```
import wiotp.sdk.device
import time
import random
import requests
import urllib.parse
address= ['Kodambakkam','T.nagar','West mambalam','vadapalani','ekkattuthangal']
myConfig = {
    "identity": {
        "orgId": "dluuhi",
        "typeId": "SWMS",
        "deviceId":"6032"
    },
    "auth": {
        "token": "311519106032"
    }
}
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()

#Location=input("enter location: ")
#while(Location == address0):
for x in address:
  url = 'https://nominatim.openstreetmap.org/search/' + urllib.parse.quote(x) +'?format=json'
  response = requests.get(url).json()
  a = response[1]["lat"]
  b = response[1]["lon"]

  bin_stat = random.randint(0,100)
  In_percent = str(bin_stat)+ "%"
  myData={'Latitude':a, 'Longitude':b,"Bin Status":In_percent}
  client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
  print("Published data Successfully: ", myData)
  client.commandCallback = myCommandCallback
  time.sleep(2)
client.disconnect()
```

OUTPUT:

IBM WATSON CLOUD PLATFORM:

IBM Watson IoT Platform

Browse   Action   Device Types

> ☐ 23323850

∨ ■ 6032

Identity   Device

The recent events listed

Event	Val
status	{"L
status	{"L
status	{"L
status	{"L
status	{"L

Add Device +

Event Payload

Event Name   status

Time Received   Nov 11, 2022 3:06 PM

```
1  {
2      "Latitude": "13.0169222",
3      "Longitude": "80.2054236",
4      "Bin Status": "41%"
5  }
```

0 Simulations running