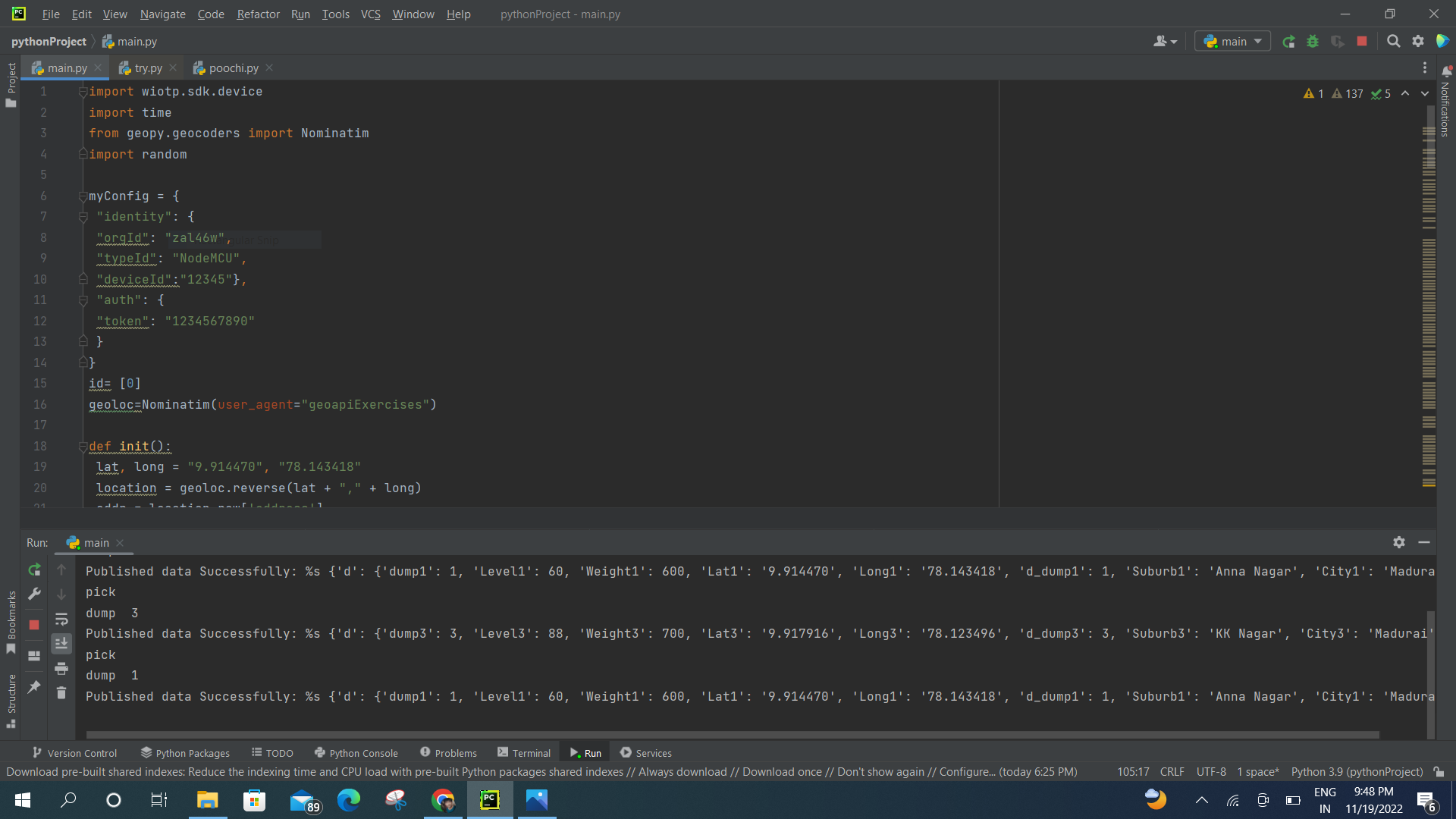
**SPRINT-3**

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| --- | --- |
| Date | 19 November 2022 |
| Team ID | PNT2022TMID11549 |
| Project Name | Smart Waste Management System For Metropolitan Cities |

\*Creating web ui using node-red and publishing sensor values ​​and location to ui.



\***python script**

import wiotp.sdk.device

import time

from geopy.geocoders import Nominatim

import random

myConfig = {

"identity": {

"orgId": "zal46w",

"typeId": "NodeMCU",

"deviceId":"12345"},

"auth": {

"token": "1234567890"

}

}

id= [0]

geoloc=Nominatim(user\_agent="geoapiExercises")

def init():

lat, long = "9.914470", "78.143418"

location = geoloc.reverse(lat + "," + long)

addr = location.raw['address']

suburb1 = addr.get('suburb', '')

city1 = addr.get('city', '')

lat, long = "9.9933491", "78.127579"

location = geoloc.reverse(lat + "," + long)

addr = location.raw['address']

suburb2 = "Tepakulam"

city2 = addr.get('city', '')

lat, long = "9.917916", "78.123496"

location = geoloc.reverse(lat + "," + long)

addr = location.raw['address']

suburb3 = "KK Nagar"

city3 = addr.get('city', '')

mydata = {

'd': {'d\_dump1': 1, 'Suburb1': suburb1, 'City1': city1, 'd\_dump2': 2, 'Suburb2': suburb2, 'City2': city2, 'd\_dump3': 3,

'Suburb3': suburb3, 'City3': city3}}

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

def dumpster\_1():

lat, long = "9.914470", "78.143418"

location = geoloc.reverse(lat + "," + long)

addr = location.raw['address']

suburb = addr.get('suburb', '')

city = addr.get('city', '')

level = 60

weight = 600

mydata = {'d': {'Level1': level, 'Weight1': weight, 'Lat1': lat, 'Long1': long,'d\_dump1':1,'Suburb1': suburb, 'City1': city}}

if (level > 50 and weight > 500):

mydata = {

'd': {'dump1': dumpid, 'Level1': level, 'Weight1': weight, 'Lat1': lat, 'Long1': long, 'd\_dump1':1,'Suburb1': suburb, 'City1': city}}

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

print("pick")

time.sleep(2)

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

print("dump ", dumpid)

print("Published data Successfully: %s", mydata)

def dumpster\_2():

lat, long = "9.9933491", "78.127579"

location = geoloc.reverse(lat + "," + long)

addr = location.raw['address']

suburb = "Tepakulam"

city = addr.get('city', '')

level = 70

weight = 700

mydata = {'d': {'Level2': level, 'Weight2': weight, 'Lat2': lat, 'Long2': long,'d\_dump2':1,'Suburb2': suburb, 'City2': city}}

if (level > 50 and weight > 500):

mydata = {

'd': {'dump2': dumpid, 'Level2': level, 'Weight2': weight, 'Lat2': lat, 'Long2': long,'d\_dump2':2,'Suburb2': suburb, 'City2': city}}

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

print("pick")

time.sleep(2)

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

print("dump ", dumpid)

print("Published data Successfully: %s", mydata)

def dumpster\_3():

lat, long = "9.917916", "78.123496"

location = geoloc.reverse(lat + "," + long)

addr = location.raw['address']

suburb = "KK Nagar"

city = addr.get('city', '')

level = 88

weight = 700

mydata = {'d': {'Level3': level, 'Weight3': weight, 'Lat3': lat, 'Long3': long,'d\_dump3':3,'Suburb3': suburb, 'City3': city}}

if (level > 50 and weight > 500):

mydata = {

'd': {'dump3': dumpid, 'Level3': level, 'Weight3': weight, 'Lat3': lat, 'Long3': long,'d\_dump3':3,'Suburb3': suburb, 'City3': city}}

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

print("pick")

time.sleep(2)

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

print("dump ", dumpid)

print("Published data Successfully: %s", mydata)

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:

mydata = {'p': {'suburb1':"Anna Nagar , Madurai",'suburb2':"Tepakulam, Madurai",'suburb3':"KK Nagar, Madurai"}}

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

dumpid = random.randint(1,3)

init()

if dumpid == 1:

dumpster\_1()

elif dumpid == 2:

dumpster\_2()

elif dumpid==3:

dumpster\_3()

mydata = {'d': {'d\_dump1': 4}}

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

client.commandCallback = myCommandCallback

time.sleep(2)

client.disconnect()

