

Project Development Phase
Development Delivery of sprint-2

Date	14 November 2022
Team ID	PNT2022TMID34114
Project Name	Smart Waste Management for Metropolitan Cities
Story Points	5

Develop the python code to find the GPS location using Latitude and Longitude (random values) and send it to node red using IBM Watson platform and view the location of bins on map

PYTHON CODE:

```
import wiotp.sdk.device
import time
import random

myConfig = {
    "identity":{
        "orgId":"j5bxb7",
        "typeId":"IOT123edevicetype",
        "deviceId":"IOTece4"
    },
    "auth": {
        "token":"e2)-17xkqIFMvm3@II"
    }
}

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()
```

```
sp-2.py - C:/Users/ELCOT/AppData/Local/Programs/Python/Python37/sp-2.py (3.7.0)
File Edit Format Run Options Window Help

import wiotp.sdk.device
import time
import random
myConfig = {
    "identity":{
        "orgId":"j5xbx7",
        "typeId":"IOT123edevicetype",
        "deviceId":"IoTec4"
    },
    "auth": {
        "token":"e2)-l7xkqIFMvm3@1I"
    }
}

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()
def pub(data):
    client.publishEvent(eventId="binstatus",msgFormat="json",data="myData",qos=0,onPublish=None)
    print("Published data Successfully:%s",myData)
while True:
    myData={'name':'Bin1','lat':13.092677,'lon':80.188314}
    pub(myData)
    time.sleep(3)
    client.commandCallback=myCommandCallback
client.disconnect()
```

IBM WATSON IOT PLATFORM:

The screenshot shows the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. The main content area displays details for a device named 'IOT123edevicetype'. The 'Recent Events' tab is selected, showing a table of events. The table has columns for 'Event', 'Value', 'Format', and 'Last Received'. The events are all 'binstatus' events with a 'json' format, received 'a few seconds ago'.

Event	Value	Format	Last Received
binstatus	{"type":"Buffer","data":["34,109,121,68,97,116,9...]}	json	a few seconds ago
binstatus	{"type":"Buffer","data":["34,109,121,68,97,116,9...]}	json	a few seconds ago
binstatus	{"type":"Buffer","data":["34,109,121,68,97,116,9...]}	json	a few seconds ago
binstatus	{"type":"Buffer","data":["34,109,121,68,97,116,9...]}	json	a few seconds ago
binstatus	{"type":"Buffer","data":["34,109,121,68,97,116,9...]}	json	a few seconds ago

NODE RED PLATFORM:

