

Sprint 2

Team ID	PNT2022TMID41127
Project Name	Smart waste management system for metropolitan cities

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 location of bins on map

PYTHON CODE :

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

myConfig = {
    "identity": {
        "orgId": "fzv53v",
        "typeId": "Bin",
        "deviceId": "Bin_1"
    },
    "auth": {
        "token": "1234567890"
    }
}

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="status",
msgFormat="json", data=myData, qos=0,
```

```
onPublish=None) print ("Published data
```

```
Successfully: %s", myData) while True:
```

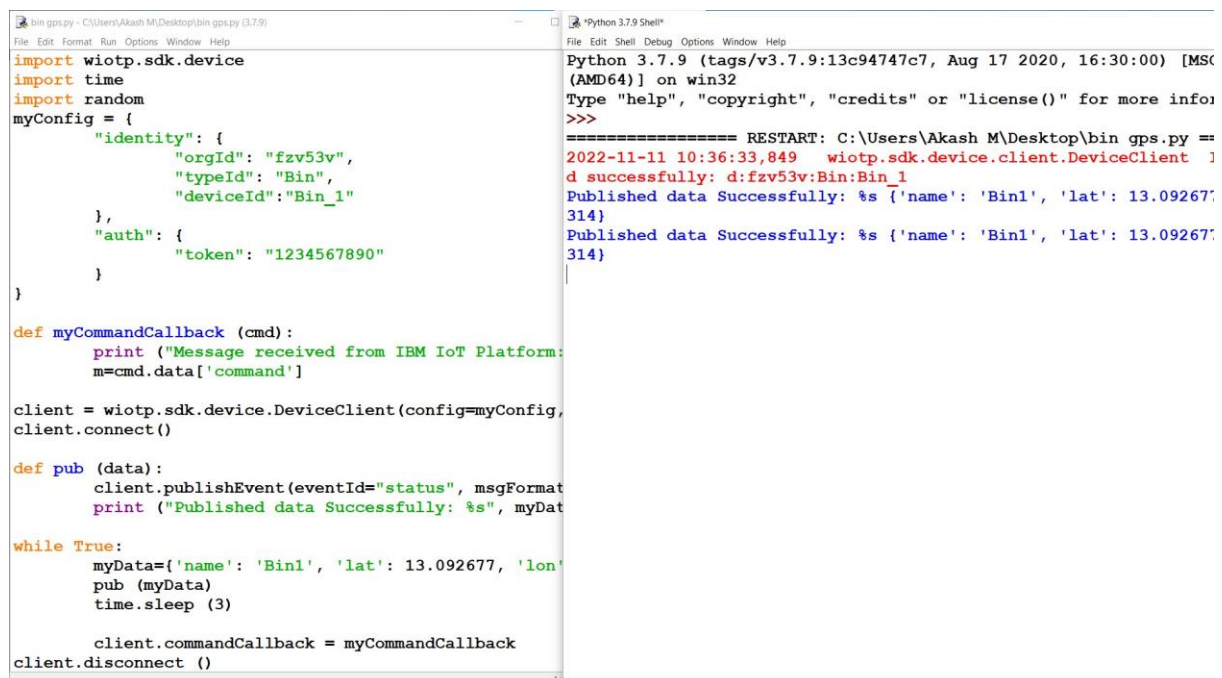
```
    myData={'name': 'Bin1', 'lat': 13.092677, 'lon':
```

```
    80.188314} pub (myData) time.sleep (3)
```

```
    client.commandCallback = myCommandCallback
```

```
client.disconnect ()
```

Output in python IDLE :



```
bin gps.py - C:\Users\Akash M\Desktop\bin gps.py (3.7.9)
File Edit Format Run Options Window Help
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "fzv53v",
        "typeId": "Bin",
        "deviceId": "Bin_1"
    },
    "auth": {
        "token": "1234567890"
    }
}

def myCommandCallback (cmd):
    print ("Message received from IBM IoT Platform: ", cmd)
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig,
client.connect()

def pub (data):
    client.publishEvent(eventId="status", msgFormat="json", data=data)
    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 ()

Python 3.7.9 (tags/v3.7.9:13c94747c7, Aug 17 2020, 16:30:00) [MS
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more info
>>>
===== RESTART: C:\Users\Akash M\Desktop\bin gps.py ==
2022-11-11 10:36:33,849 wiotp.sdk.device.client.DeviceClient ]
d successfully: d:fzv53v:Bin:Bin_1
Published data Successfully: %s {'name': 'Bin1', 'lat': 13.092677,
314}
Published data Successfully: %s {'name': 'Bin1', 'lat': 13.092677,
314}
```

IBM Watson IOT platform :

Service Details - IBM Cloud x IBM Watson IoT Platform x Sprint_1.docx - Google Docs x Node-RED : node-red-ubrt x Node-RED Dashboard x IBM

https://zuhtbq.internetofthings.ibmcloud.com/dashboard/devices/browse

mitrhadhanalakshmi915@gmail.com ID: zuhtbq

IBM Watson IoT Platform

Browse Action Device Types Interfaces

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Disconnected	Rasp	Device	Nov 12, 2022 10:39 AM	

Identity Device Information Recent Events State Logs

Device ID 12345
Device Type Rasp
Date Added Nov 12, 2022 10:39 AM
Added By mitrhadhanalakshmi915@gmail.com
Connection Status Disconnected

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1 Simulation running

Node Red Platform :

Service Details - IBM Cloud x IBM Watson IoT Platform x Node-RED : node-red-ubrt x Signs with Smart Connectivity x IBM x Sprint_2.docx - Google Docs x

https://node-red-ubrt-2022-10-30.eu-gb.mybluemix.net/red/#flow/c81eb89921535833

Node-RED

Flow 1

parser

json

weight

location

Weight

msg.payload

Location

dashboard

Layout Site Theme

Tabs & Links

Smart Waste Management System

Smart Garbage System