

## Delivery of Sprint - 2

<b>Team ID</b>	PNT2022TMID05622
<b>Project Name</b>	Smart Waste Management 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 the IBM Watson platform and view the 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:

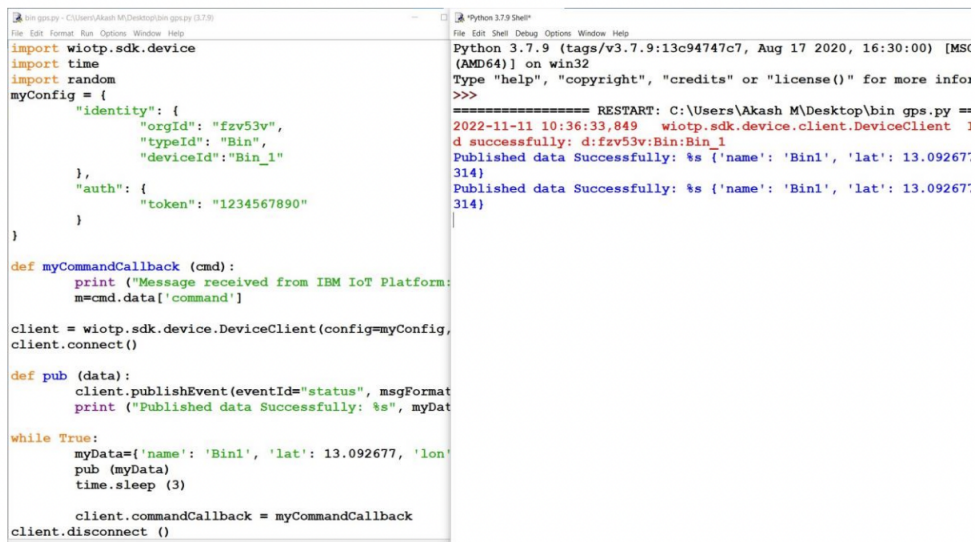
myData={'name': 'Bin1', 'lat': 13.092677, 'lon':

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': 13.09267
314}
Published data Successfully: %s {'name': 'Bin1', 'lat': 13.09267
314}
```

## IBM Watson IoT platform :

The screenshot displays the IBM Watson IoT Platform web interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains various icons for navigation. The main content area shows a table of devices with columns: Device ID, Status, Device Type, Class ID, and Date Added. One device is listed with ID 12345, status 'Disconnected', and type 'Node-Red'. Below the table, the 'Identity' tab is selected, showing details for the device: Device ID (12345), Device Type (Node-Red), Date Added (Nov 14, 2022 9:54 AM), Added By (1901055@smartinternz.com), and Connection Status (Disconnected). The bottom of the interface shows a Windows taskbar with the search bar and system tray.

Device ID	Status	Device Type	Class ID	Date Added
12345	Disconnected	Node-Red	Device	Nov 14, 2022 9:54 AM

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## Node-Red Platform :

