Date	5 November 2022
Team ID	PNT2022TMID17659
Project Name	Smart waste management system for metropolitan cities
Story Points	15

Sprint 2

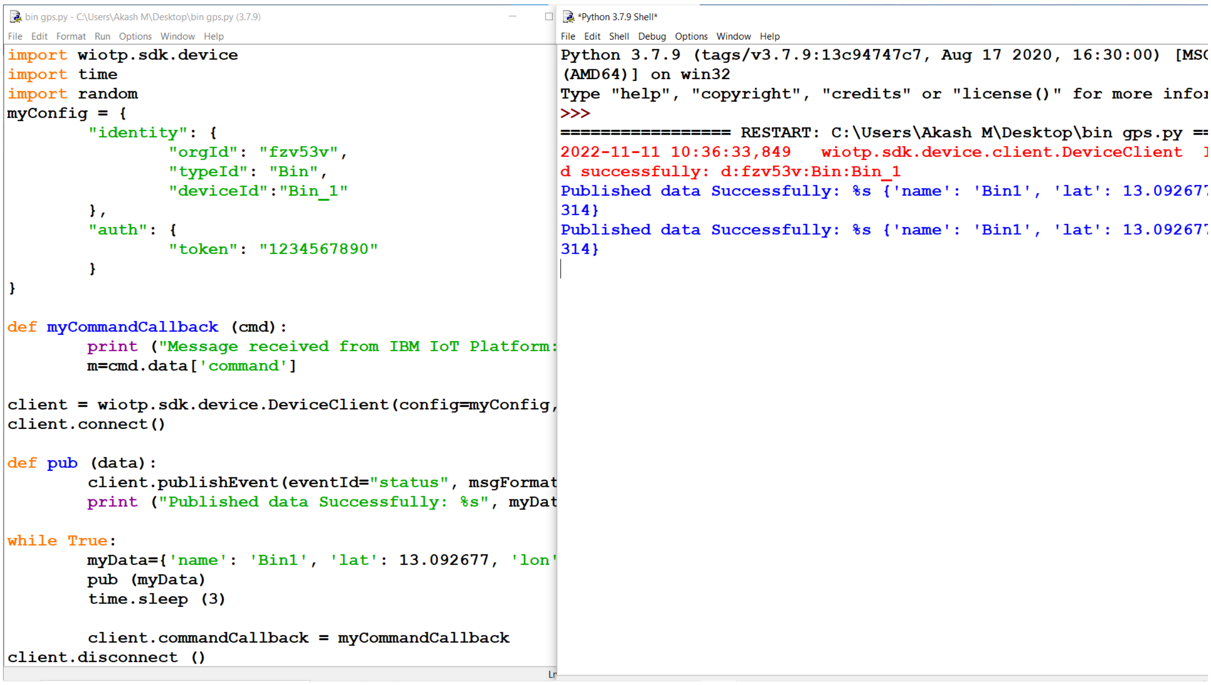
Develop the python code to find the GPS location using Latitude and Longitude (random values) and send it to Node red using IBM Watson platform and view location of bins on map

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 ()
```

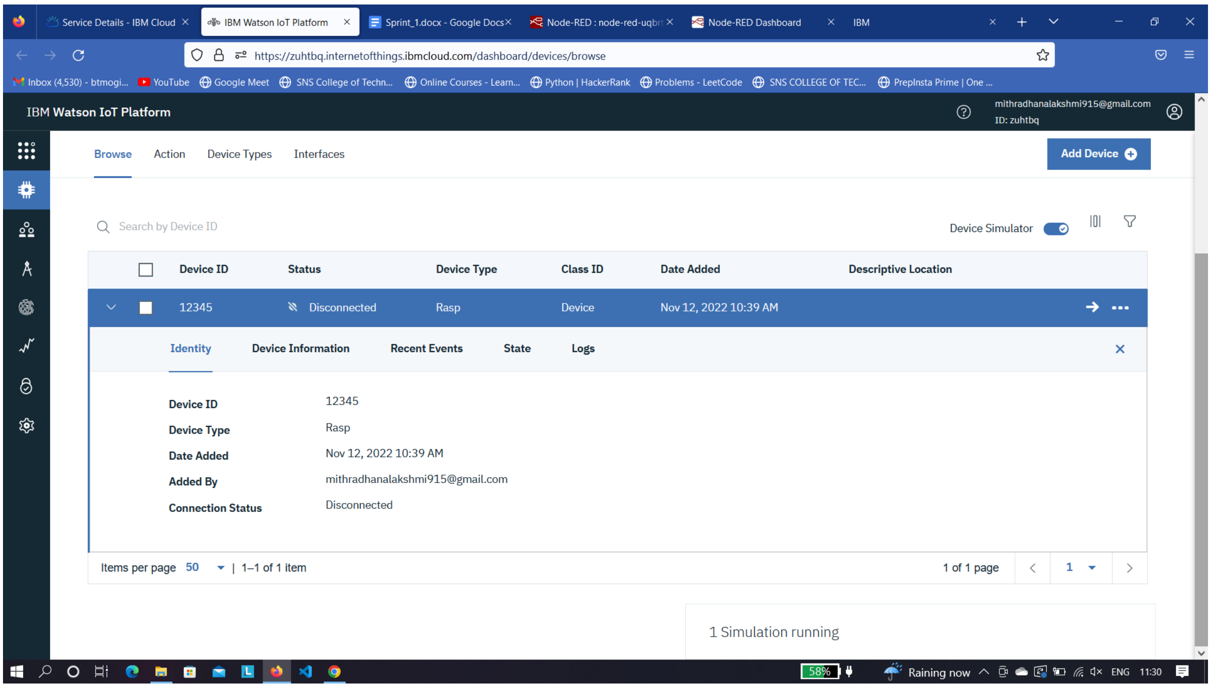
Output in python IDLE :


bin gps.py - C:\Users\Akash M\Desktop\bin gps.py (3.7.9)
File Edit Format Run Options Window Help
Python 3.7.9 Shell
File Edit Shell Debug 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:
        m=cmd.data['command']

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

def pub (data):
        client.publishEvent(eventId="status", msgFormat
        print ("Published data Successfully: %s", myDat

while True:
        myData={'name': 'Bin1', 'lat': 13.092677, 'lon'
        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) [MSC
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more infor
>>>
================= RESTART: C:\Users\Akash M\Desktop\bin gps.py ==
2022-11-11 10:36:33,849   wiotp.sdk.device.client.DeviceClient  I
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 :



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

Device ID 12345

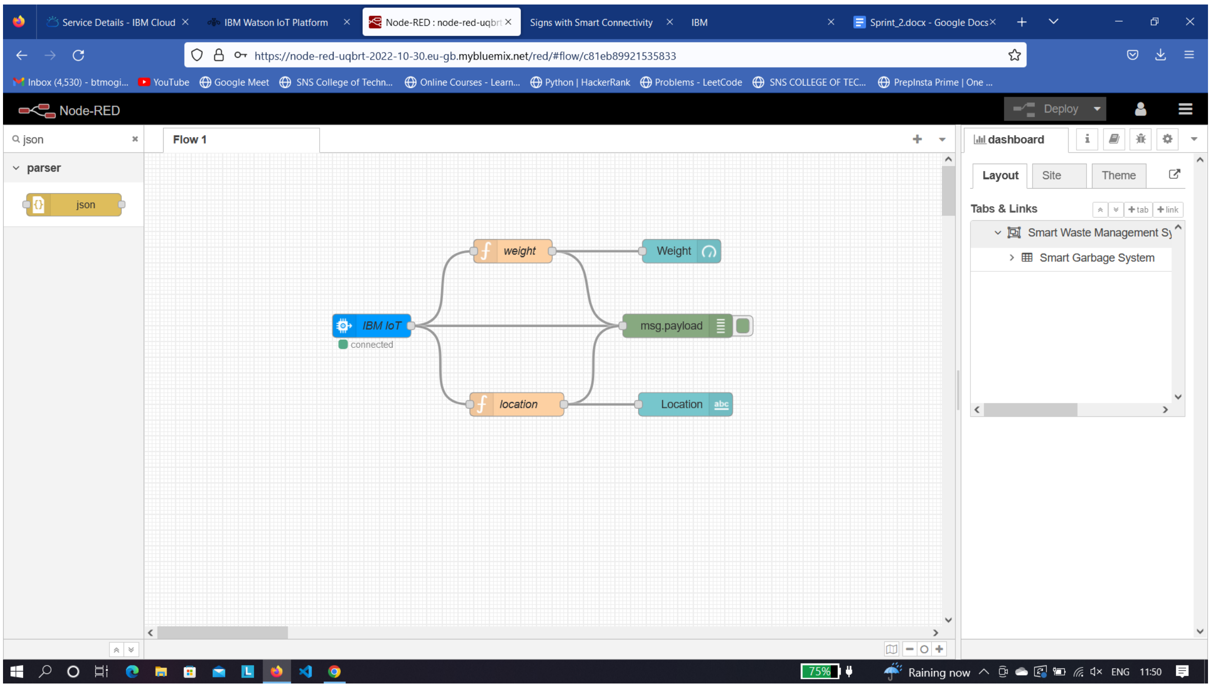
Device Type Rasp

Date Added Nov 12, 2022 10:39 AM

Added By mithradhanalakshmi915@gmail.com

Connection Status Disconnected

Node Red Platform :


Service Details - IBM Cloud
IBM Watson IoT Platform
Node-RED : node-red-uqbrt
Signs with Smart Connectivity
IBM
Sprint_2.docx - Google Docs
https://node-red-uqbrt-2022-10-30.eu-gb.mybluemix.net/red/#flow/c81eb89921535833
Inbox (4,530) - btmogi...
YouTube
Google Meet
SNS College of Techn...
Online Courses - Learn...
Python | HackerRank
Problems - LeetCode
SNS COLLEGE OF TEC...
PrepInsta Prime | One ...
Node-RED
Deploy
json
parser
json
Flow 1
weight
Weight
IBM IoT
connected
msg.payload
location
Location
dashboard
Layout
Site
Theme
Tabs & Links
Smart Waste Management Sy
Smart Garbage System
75%
Raining now
ENG
11:50