Sprint 2

Date	19 November 2022
Team ID	PNT2022TMID48693
Project Name	Smart waste management system for metropolitan cities
Story Points	15

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": "fb3a19",
      "typeId": "sample",
      "deviceId":"123”
   },
   "auth": {
      "token": "Abcdefgh"
   }
}


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

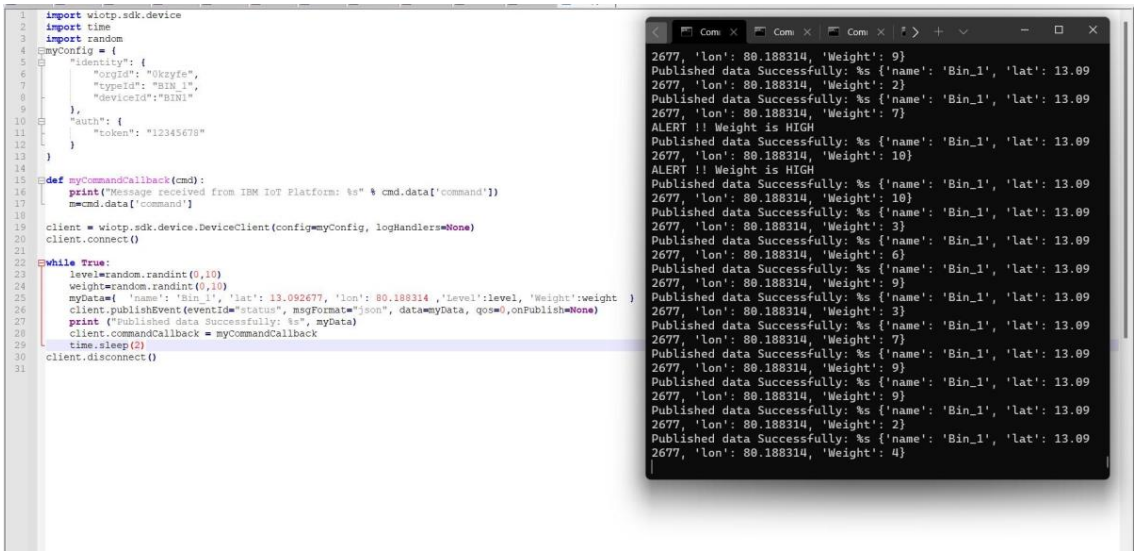
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)

client.connect()

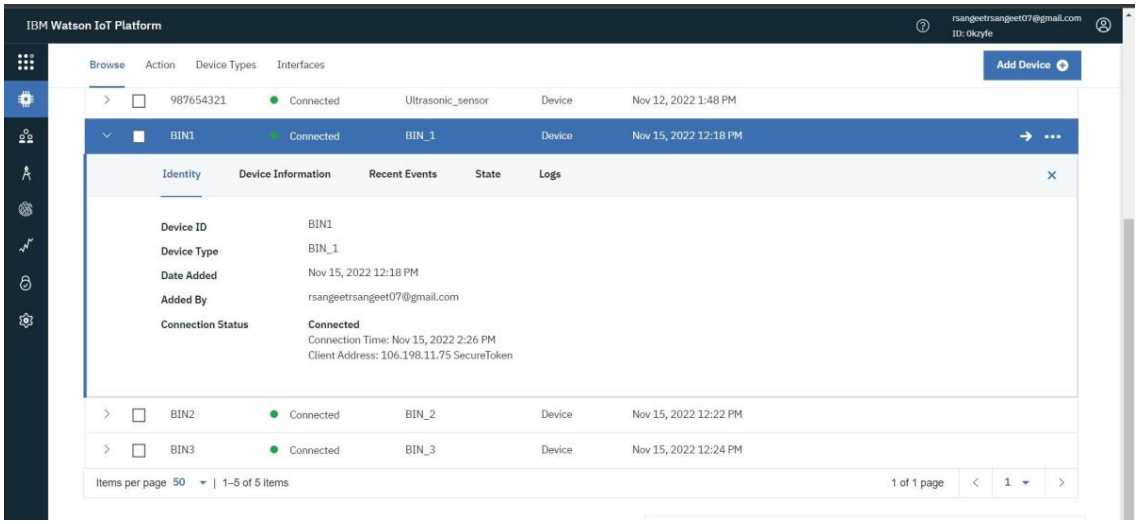
while True:

level=random.randint(0,10) weight=random.randint(0,10) myData={ 'name': 'Bin_1', 'lat': 13.092677, 'lon': 80.188314 ,'Level':level, 'Weight':weight } client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,onPublish=None) print ("Published data Successfully: %s", myData) client.commandCallback = myCommandCallback time.sleep(2) client.disconnect()

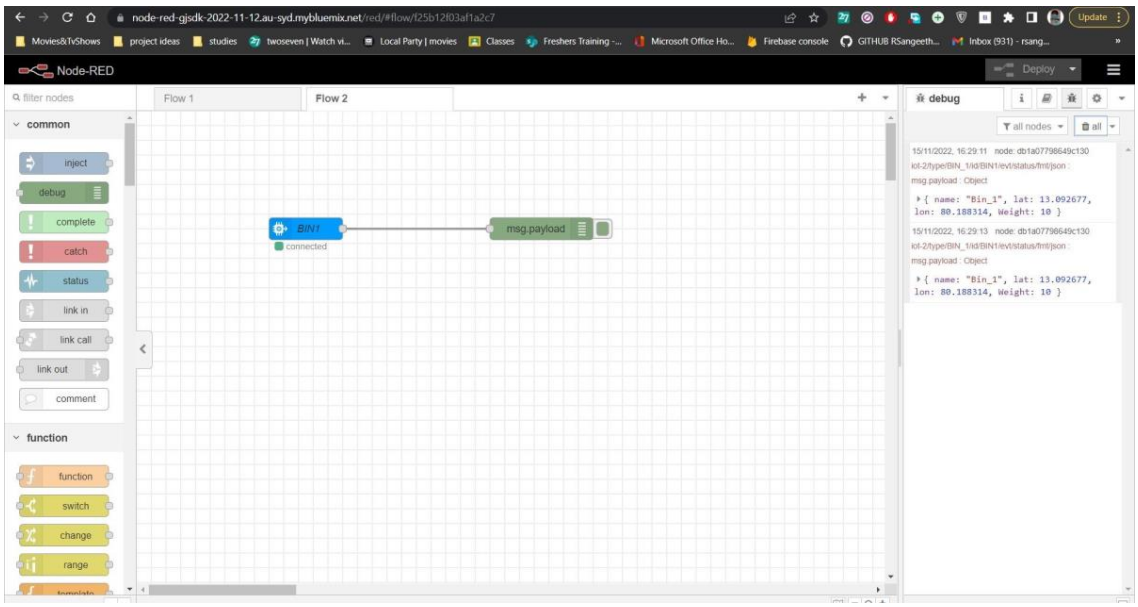
Output in python IDLE :



IBM Watson IOT platform :


IBM Watson IoT Platform
rsangeetrsangeet07@gmail.com
ID: 0kzyfe
Browse
Action
Device Types
Interfaces
Add Device
987654321 Connected Ultrasonic_sensor Device Nov 12, 2022 1:48 PM
BIN1 Connected BIN_1 Device Nov 15, 2022 12:18 PM
Identity
Device Information
Recent Events
State
Logs
Device ID BIN1
Device Type BIN_1
Date Added Nov 15, 2022 12:18 PM
Added By rsangeetrsangeet07@gmail.com
Connection Status Connected
Connection Time: Nov 15, 2022 2:26 PM
Client Address: 106.198.11.75 SecureToken
BIN2 Connected BIN_2 Device Nov 15, 2022 12:22 PM
BIN3 Connected BIN_3 Device Nov 15, 2022 12:24 PM
Items per page 50 | 1–5 of 5 items
1 of 1 page
1

Node Red Platform :



Location of Trash Bins Shown in World Map :