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Date	18 November 2022
Team ID	PNT2022TMID50056
Project Name	IOT based Smart waste management system in 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": " wjnzmmz",
```

```
        "typeId": "Bin",
```

```
        "deviceId": "Bin_1"
```

```
    },
```

```
    "auth": {
```

```
        "token": "12345678"
```

```
    }
```

```
}
```

```
def myCommandCallback (cmd):
```

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

```
    m=cmd.data['command']
```

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```
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}

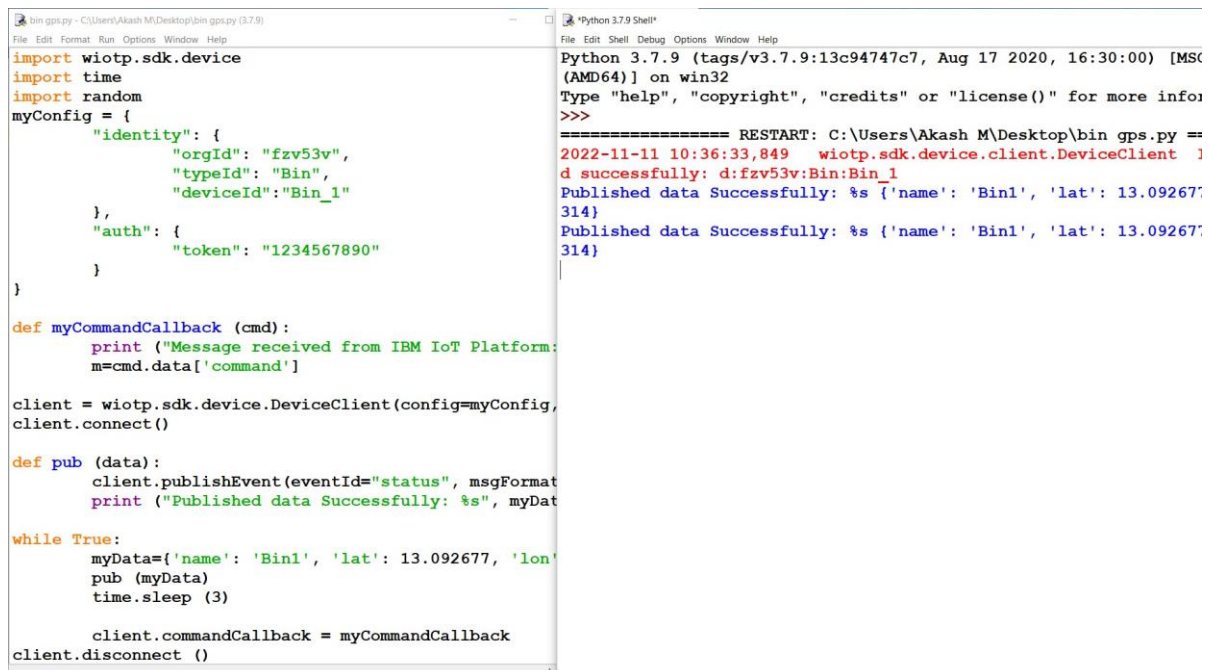
    pub (myData)

    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.data['command'])

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

def pub (data):
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
    print ("Published data Successfully: %s", myData)

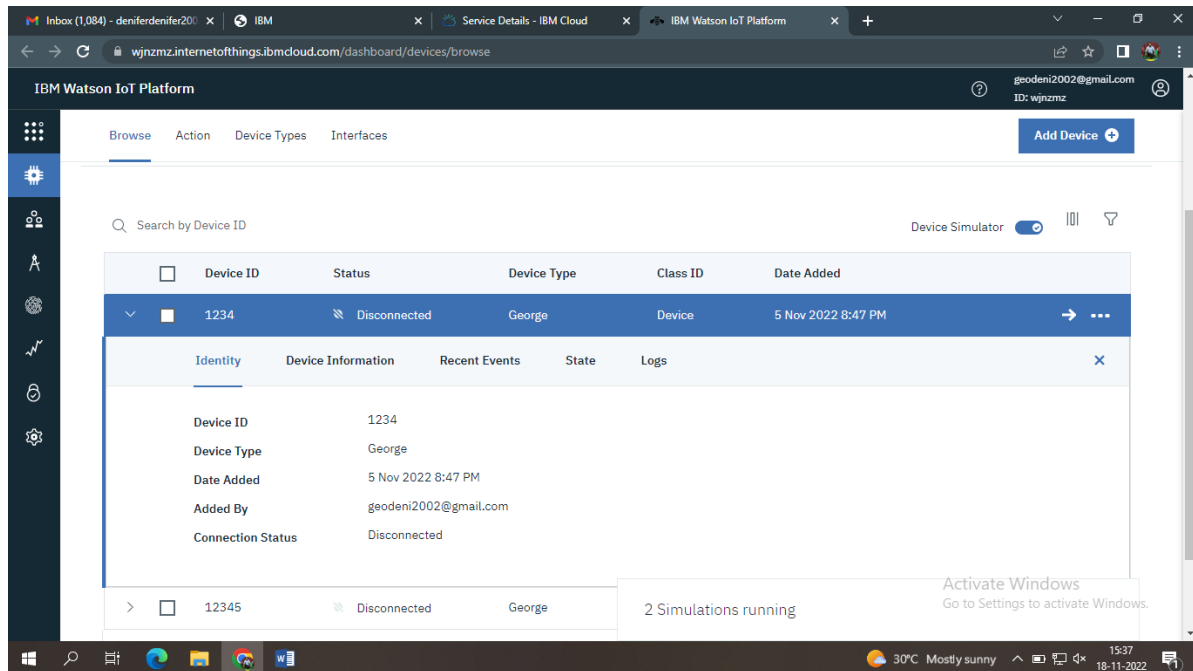
while True:
    myData={'name': 'Bin1', 'lat': 13.092677, 'lon': 80.188314}
    pub (myData)
    time.sleep (3)

    client.commandCallback = myCommandCallback
client.disconnect ()

Python 3.7.9 Shell
File Edit Shell Debug Options Window Help
Python 3.7.9 (tags/v3.7.9:13c94747c7, Aug 17 2020, 16:30:00) [MSO
(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}
```

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IBM Watson IoT platform :



Node Red Platform :

