

SOFTWARE

Date	07 NOVEMBER 2022
Team ID	PNT2022TMID42281
Project Name	Project – SMART SOLUTIONS FOR RAILWAYS

PROCEDURE:

Srep1: Install python version 3.9.6
Step2: Import wiotp in python
Step3: Type the python script for GPS
Step4: Run the program

PYTHON SCRIPT FOR GPS:

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "3lzyat",
        "typeId": "Test",
        "deviceId": "1"
    },
    "auth": {
        "token": "Nishanth77@@"
    }
}

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):
```

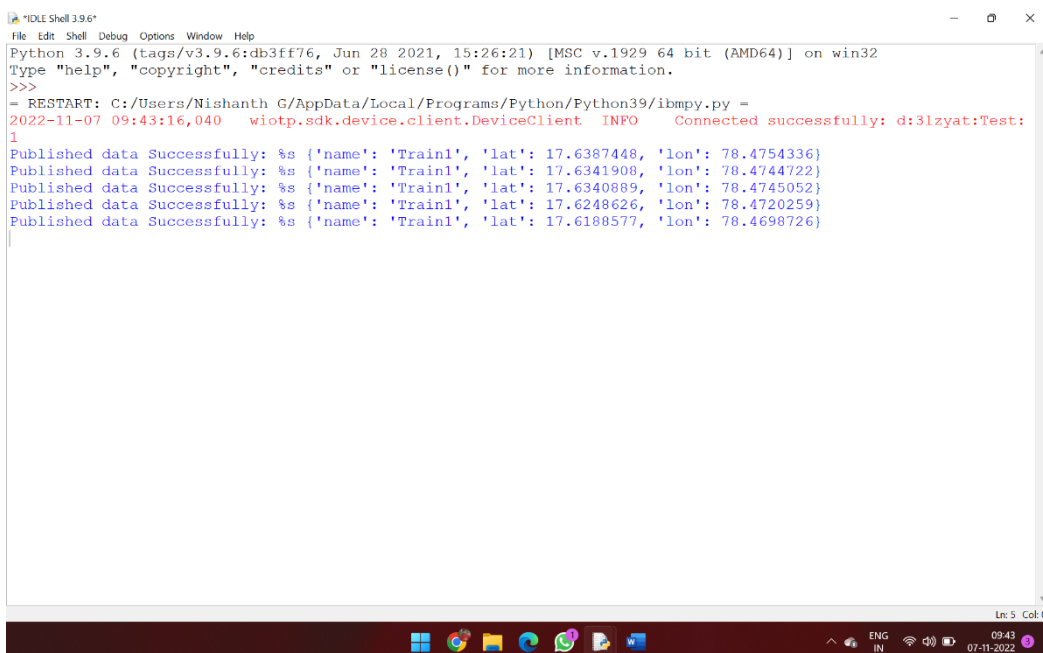
```
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print ("Published data Successfully: %s", myData)
```

```
while True:
```

```
    myData={'name': 'Train1', 'lat': 17.6387448, 'lon': 78.4754336}
    pub (myData)
    time.sleep (3)
    #myData={'name': 'Train2', 'lat': 17.6387448, 'lon': 78.4754336}
    #pub (myData)
    #time.sleep (3)
    myData={'name': 'Train1', 'lat': 17.6341908, 'lon': 78.4744722}
    pub(myData)
    time.sleep(3)
    myData={'name': 'Train1', 'lat': 17.6340889, 'lon': 78.4745052}
    pub (myData)
    time.sleep (3)
    myData={'name': 'Train1', 'lat': 17.6248626, 'lon': 78.4720259}
    pub (myData)
    time.sleep (3)
    myData={'name': 'Train1', 'lat': 17.6188577, 'lon': 78.4698726}
    pub (myData)
    time.sleep (3)
    myData={'name': 'Train1', 'lat': 17.6132382, 'lon': 78.4707318}
    pub (myData)
    time.sleep (3)
    client.commandCallback = myCommandCallback
```

```
client.disconnect ()
```

GPS OUTPUT:



```
"IDLE Shell 3.9.6"
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/Nishanth G/AppData/Local/Programs/Python/Python39/ibmpy.py =
2022-11-07 09:43:16,040 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:3lzyat:Test:
1
Published data Successfully: %s {'name': 'Train1', 'lat': 17.6387448, 'lon': 78.4754336}
Published data Successfully: %s {'name': 'Train1', 'lat': 17.6341908, 'lon': 78.4744722}
Published data Successfully: %s {'name': 'Train1', 'lat': 17.6340889, 'lon': 78.4745052}
Published data Successfully: %s {'name': 'Train1', 'lat': 17.6248626, 'lon': 78.4720259}
Published data Successfully: %s {'name': 'Train1', 'lat': 17.6188577, 'lon': 78.4698726}
Ln: 5 Col: 0
```

