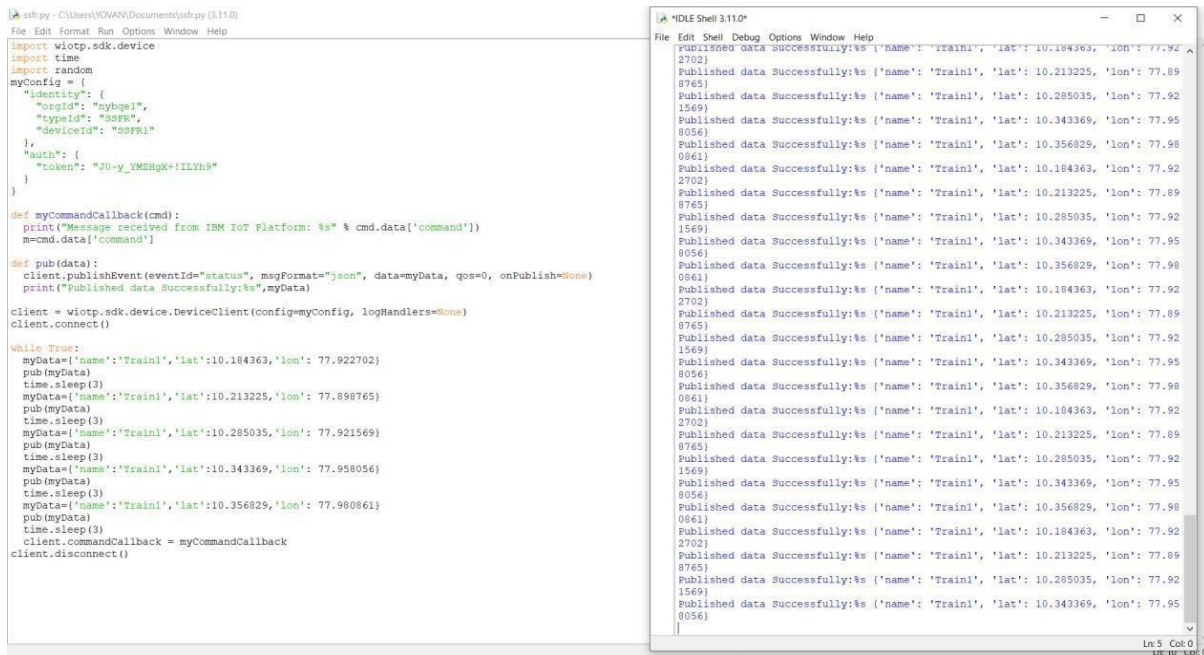


TESTING OF WEB UI

Date	10 November 2022
Team ID	PNT2022TMID18625
Project Name	Project – Smart Solution For Railways

Location Tracking:

- The python code for detecting the location of the train is made to Run.
- The live status of the train is updated in the IBM Watson IoT Platform and it is further used by the node red application.
- The location is shown in the map via the Node red UI.



The image displays two side-by-side screenshots of a code editor and a terminal window. The left window shows a Python script for connecting to the IBM Watson IoT Platform using the `wiottp` library. The script defines a device configuration, sets up a command callback, and publishes location data (name, latitude, longitude) at intervals. The right window shows the terminal output, displaying a series of 'Published data Successfully' messages with the same data structure as defined in the code.

```
File Edit Format Run Options Window Help
import wiottp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "mybgel",
        "typeId": "SSFR",
        "deviceId": "SSFR1"
    },
    "auth": {
        "token": "J0-y_YMERgK+!LYh5"
    }
}

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

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

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

while True:
    myData={'name':'Train1','lat':10.184363,'lon': 77.922702}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train1','lat':10.213225,'lon': 77.898765}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train1','lat':10.285035,'lon': 77.921569}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train1','lat':10.343369,'lon': 77.958056}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train1','lat':10.356829,'lon': 77.980861}
    pub(myData)
    time.sleep(3)
    client.commandCallback = myCommandCallback
    client.disconnect()
```

```
File Edit Shell Debug Options Window Help
Published data Successfully:%s {'name': 'Train1', 'lat': 10.184363, 'lon': 77.922702}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.213225, 'lon': 77.898765}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.285035, 'lon': 77.921569}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.343369, 'lon': 77.958056}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.356829, 'lon': 77.980861}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.184363, 'lon': 77.922702}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.213225, 'lon': 77.898765}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.285035, 'lon': 77.921569}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.343369, 'lon': 77.958056}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.356829, 'lon': 77.980861}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.184363, 'lon': 77.922702}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.213225, 'lon': 77.898765}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.285035, 'lon': 77.921569}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.343369, 'lon': 77.958056}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.356829, 'lon': 77.980861}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.184363, 'lon': 77.922702}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.213225, 'lon': 77.898765}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.285035, 'lon': 77.921569}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.343369, 'lon': 77.958056}
Published data Successfully:%s {'name': 'Train1', 'lat': 10.356829, 'lon': 77.980861}
Ln 5 Col 0
Ln 10 Col 0
```

Browse **Action** **Device Types** **Interfaces**

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
Jeeva_Yovan	Disconnected	Watson	Device	28 Oct 2022 19:58	
SSFR1	Connected	SSFR	Device	16 Nov 2022 10:32	

Identity **Device Information** **Recent Events** **State** **Logs**

The recent events listed show the live stream of data that is coming and going from this device.


Event	Value	Format	Last Received
status	{"name":"Train1","lat":10.285035,"lon":77.9215...	json	a few seconds ago
status	{"name":"Train1","lat":10.213225,"lon":77.8987...	json	a few seconds ago
status	{"name":"Train1","lat":10.184363,"lon":77.9227...	json	a few seconds ago
status	{"name":"Train1","lat":10.356829,"lon":77.9808...	json	a few seconds ago
status	{"name":"Train1","lat":10.343369,"lon":77.9580...	json	a few seconds ago

0 Simulations running

Node-RED interface showing a flow with an IBM IoT node connected to a debug node and a worldmap node. The debug console displays JSON messages containing location data (name, lat, lon) for a "Train1" object.

```
iot-2type/SSFRId/SSFR1ev/status/rtm/json :  
msg payload : Object  
>{ name: "Train1", lat: 10.184363,  
  lon: 77.922702 }  
16/11/2022, 11:06:53 am node debug 1  
iot-2type/SSFRId/SSFR1ev/status/rtm/json :  
msg payload : Object  
>{ name: "Train1", lat: 10.213225,  
  lon: 77.898765 }  
16/11/2022, 11:06:55 am node debug 1  
iot-2type/SSFRId/SSFR1ev/status/rtm/json :  
msg payload : Object  
>{ name: "Train1", lat: 10.285035,  
  lon: 77.921569 }  
16/11/2022, 11:06:57 am node debug 1  
iot-2type/SSFRId/SSFR1ev/status/rtm/json :  
msg payload : Object  
>{ name: "Train1", lat: 10.343369,  
  lon: 77.958056 }  
16/11/2022, 11:07:00 am node debug 1  
iot-2type/SSFRId/SSFR1ev/status/rtm/json :  
msg payload : Object  
>{ name: "Train1", lat: 10.356829,  
  lon: 77.980861 }  
16/11/2022, 11:07:03 am node debug 1  
iot-2type/SSFRId/SSFR1ev/status/rtm/json :  
msg payload : Object  
>{ name: "Train1", lat: 10.184363,  
  lon: 77.922702 }
```

Live Status section featuring a map titled "Tracking" showing the location of the "Train1" object. The map displays a route through a geographical area, with a legend indicating the location of the "Train1" object.



Leather | Map data © OpenStreetMap contributors