SPRINT-3

Date	12 NOVEMBER 2022
Team ID	PNT2022TMID42281
Project Name	Project – SMART SOLUTIONS FOR RAILWAYS

PROCEDURE:

Step1: Develop node red application to track the train location

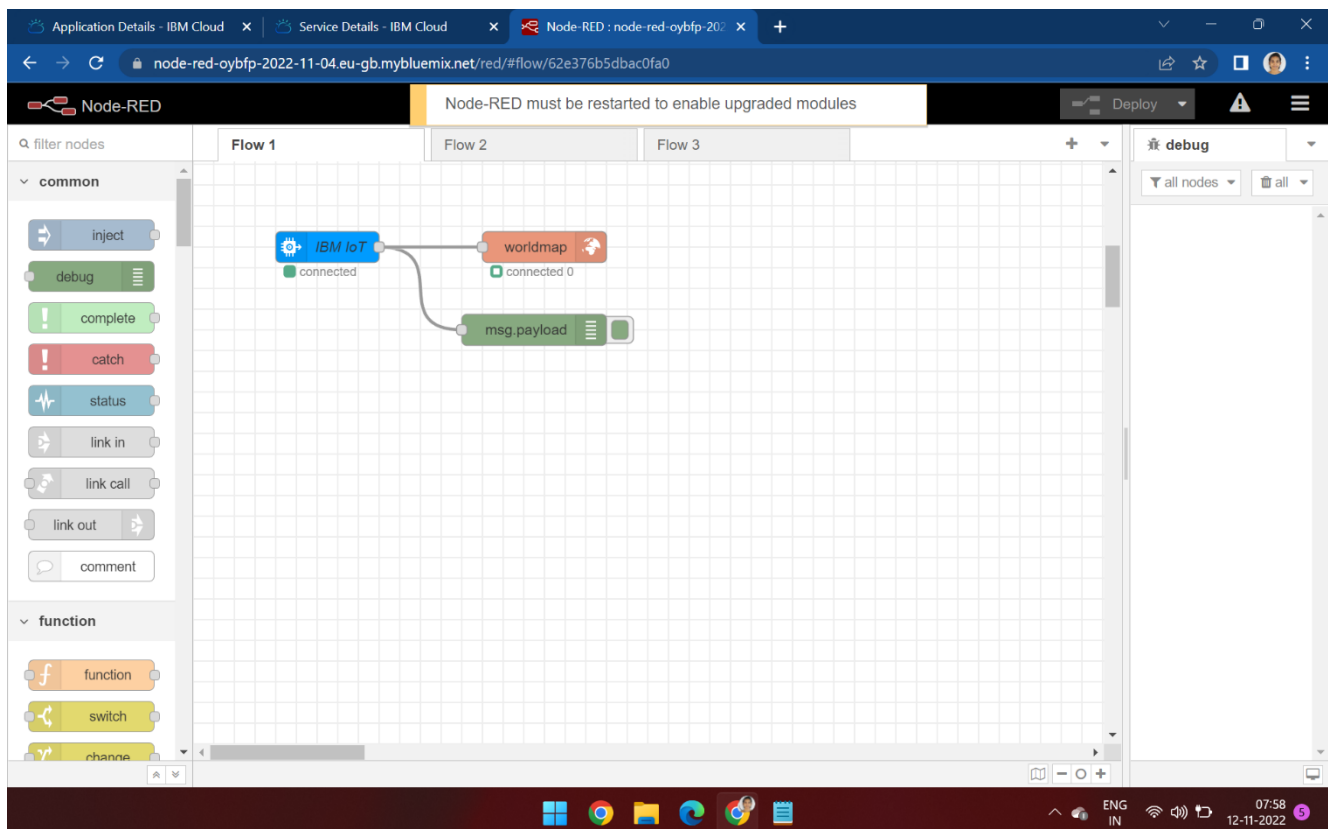Step2: Install the required node node-red-contrib-web-worldmap

Step3: Connect the node flow

Step4: Run the python code

Step5: Click Shortcut - ⌘⇧m - ctrl-shift-m to jump to the default Map (/worldmap).

Step5:View the map

NODE RED FLOW:

PYTHON CODE FOR GPS:

```python
import wiotp.sdk.device

import time

import random

myConfig = {

        "identity": {

                "orgId": "dks66l",

                "typeId": "Sudha",

                "deviceId":"45"

        },

        "auth": {

                "token": "sudha2002@"

        }

}

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':13.08363 , 'lon': 80.27080}
```

```python
    pub (myData)

    time.sleep (2)

    myData={'name': 'Train2', 'lat': 12.40797, 'lon': 79.81410}

    pub (myData)

    time.sleep (2)

    myData={'name': 'Train1', 'lat': 11.83331, 'lon': 79.37465}

    pub(myData)

    time.sleep(6)

    myData={'name': 'Train1', 'lat': 11.59664, 'lon': 78.69899}

    pub (myData)

    time.sleep (6)

    myData={'name': 'Train1', 'lat': 11.63431, 'lon': 78.11122}

    pub (myData)

    time.sleep (6)

    myData={'name': 'Train1', 'lat': 11.32207, 'lon': 77.61684}

    pub (myData)

    time.sleep (6)

    myData={'name': 'Train1', 'lat': 11.03107, 'lon': 76.96864}

    pub (myData)

    time.sleep (6)

    client.commandCallback = myCommandCallback
client.disconnect ()
```

PYTHON CODE OUTPUT:

NODE RED OUTPUT:

TRAIN TRACKING :