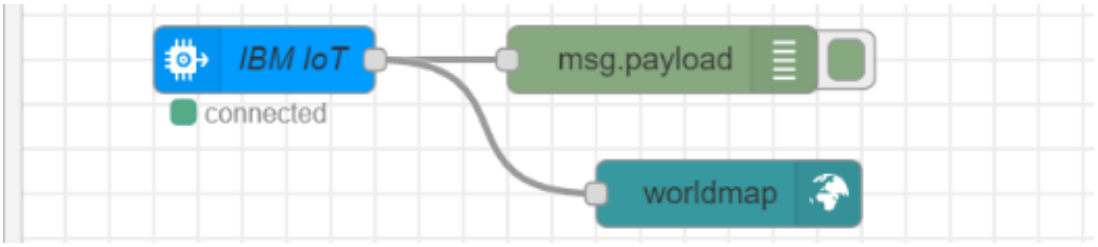
SPRINT-4

Date	15 NOVEMBER 2022
Team ID	PNT2022TMID37886
Project Name	Project – SMART SOLUTIONS FOR RAILWAYS

PROCEDURE:

Step1: Develop a node red application for GPS
Step2: Develop a python code for GPS
Step3: Run the program
Step4: Train location will be displayed
Step5:Create a node red for wakeup call and E-catering serice

NODE RED FLOW:

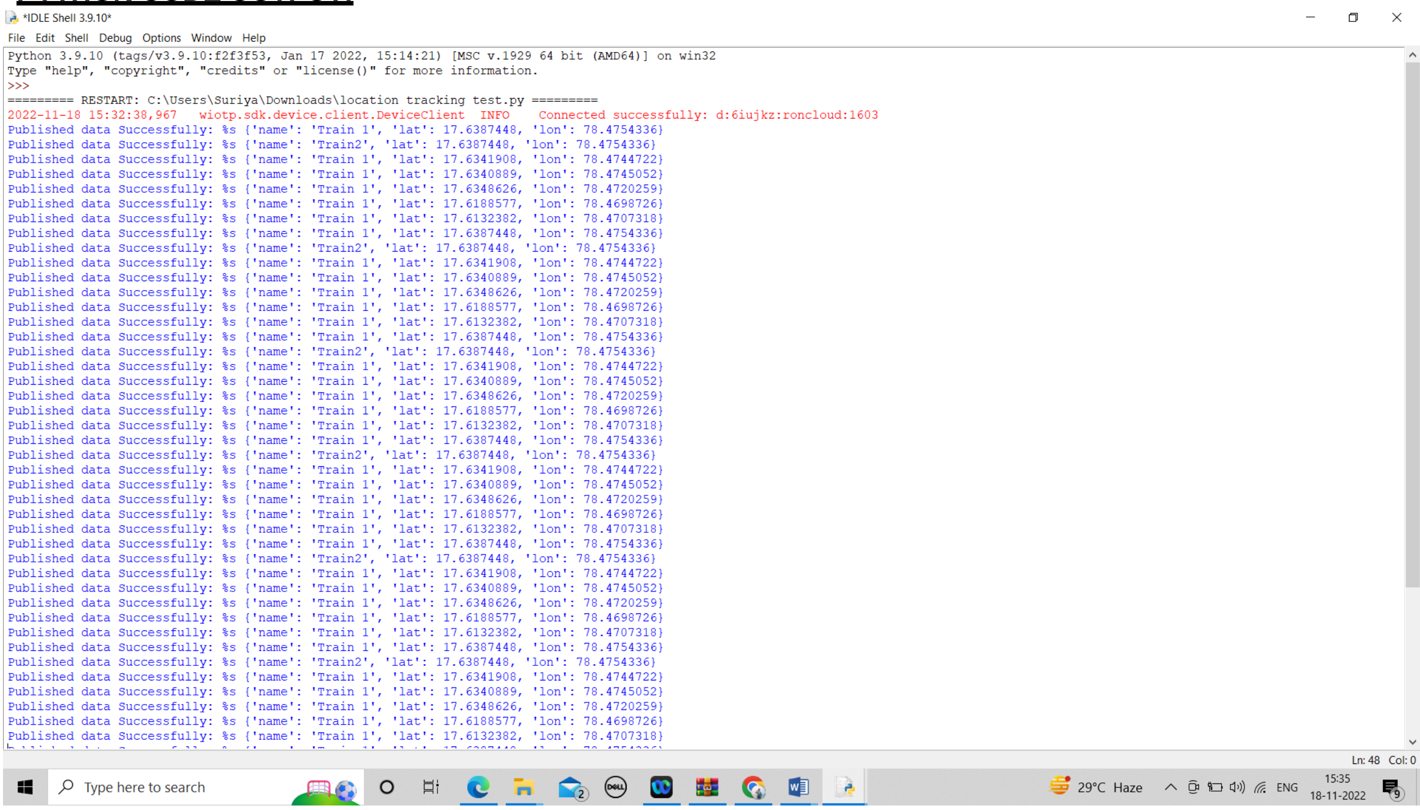


PYTHON CODE FOR GPS:

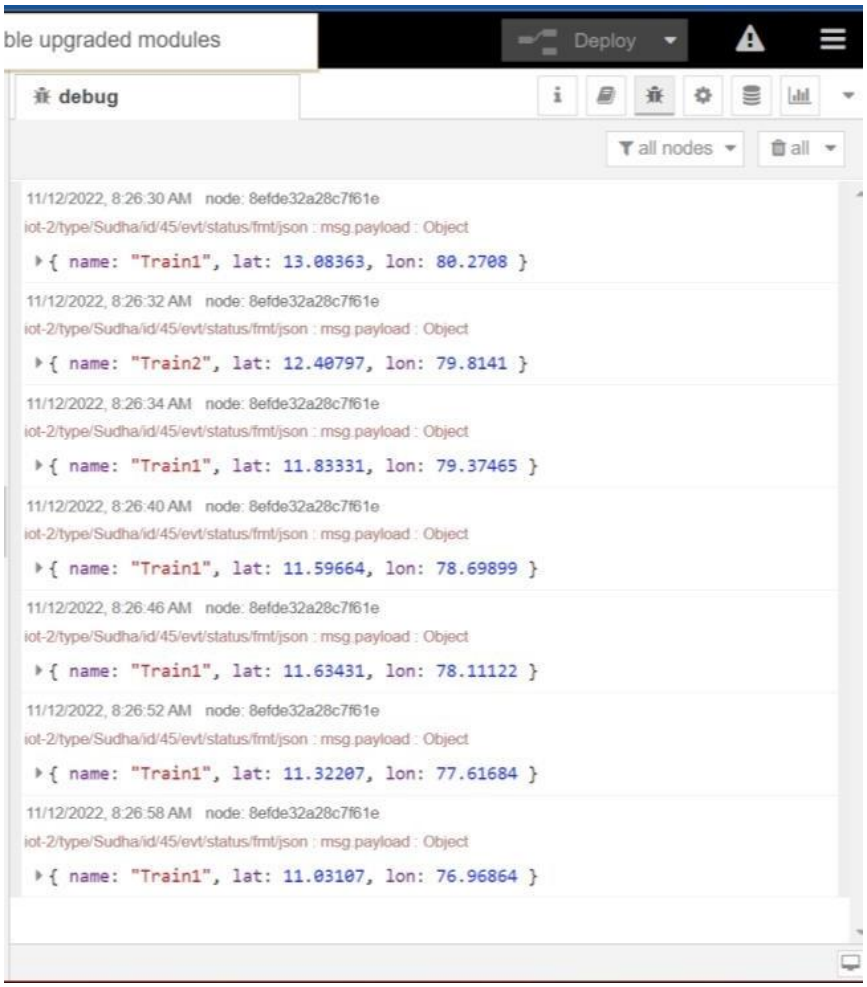
```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "6iujkz",
        "typeId": "roncloud",
        "deviceId":"1603"
    },
    "auth": {
        "token": "ron@1603"
    }
}
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %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':'Train 1','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':'Train 1','lat':17.6341908,'lon':78.4744722}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6340889,'lon':78.4745052}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6348626,'lon':78.4720259}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6188577,'lon':78.4698726}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6132382,'lon':78.4707318}
    pub(myData)
    time.sleep(3)
    client.commandCallback=myCommandCallback
client.disconnect()
```

PYTHON CODE OUTPUT:



NODE RED OUTPUT:



TRAIN TRACKING :