SPRINT 4

DATE	-	19 NOVEMBER 2022
TEAM ID	-	PNT2022TMID16776
PROJECT NAME	-	SMART SOLUTION FOR RAILWAYS

PROCEDURE:

Step1: Develop a node red application for GPS.

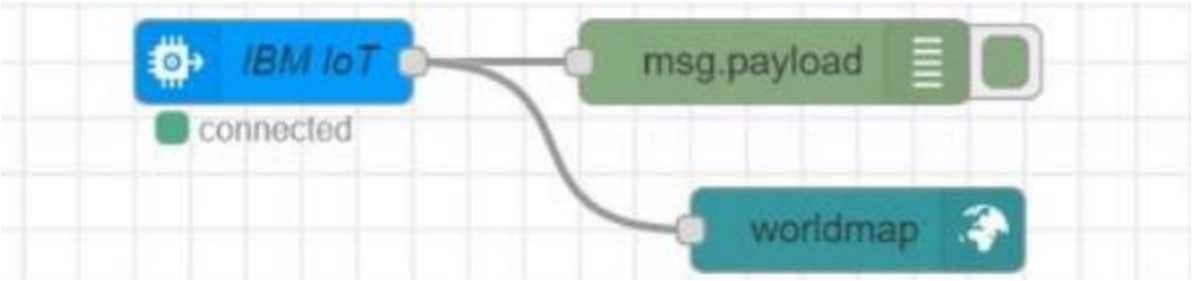
Step2 : Develop a python code for GPS.

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:



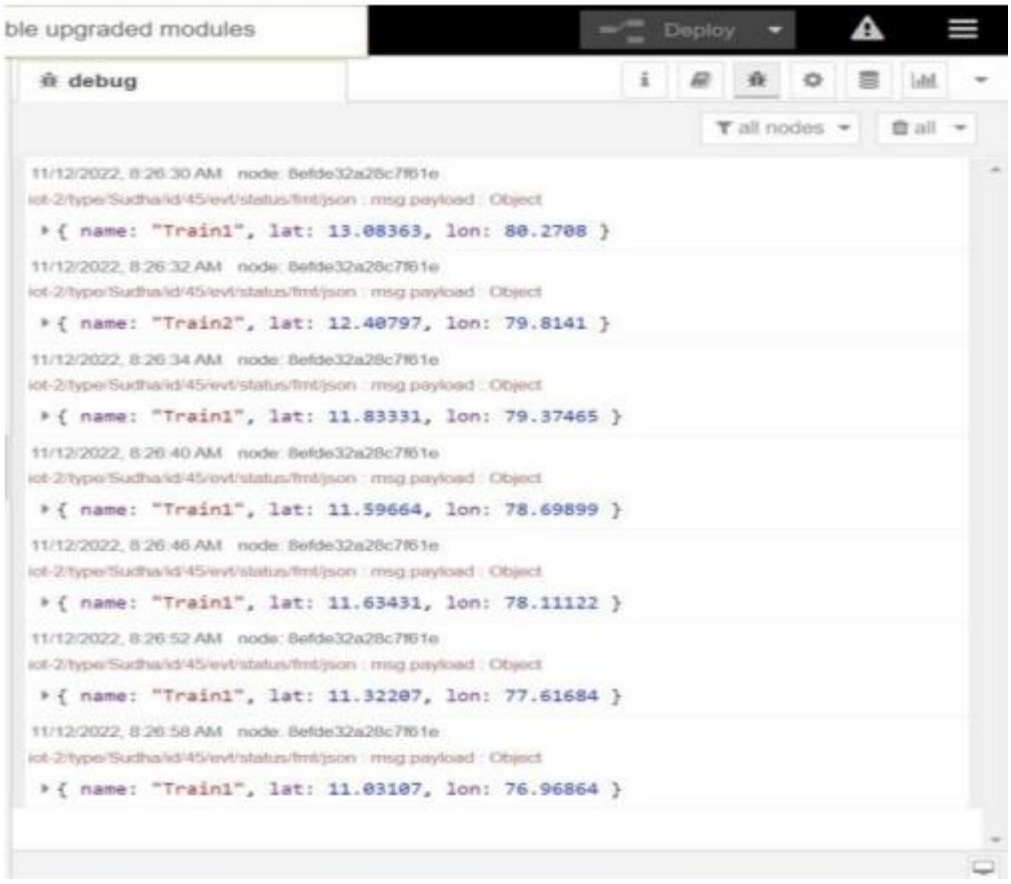
PYTHON CODE FOR GPS:

```
import wiotp.sdk.device

import time import

random myConfig = {

"identity": {

"orgId": "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}

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 :

NODE RED CONNECTION FOR WAKEUP CALL AND E-CATERING SERVICE: