FINAL DELIVERABLES

FINAL CODE

Team ID	PNT2022TMID38970
Project Name	Project – Signs with Smart Connectivity for Better Road Safety

PROGRAM CODE :

main.py

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity":  {
        "orgId": "2r52ij",
        "typeId": "Roadsafety",
        "deviceId":"1234"
    },
    "auth": {
        "token": "12345678"
    }
}

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()


while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json",
data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

Weather.py

```
import requests as reqs

def get(myLocation,APIKEY):
    apiURL =
f"https://api.openweathermap.org/data/2.5/weather?q={myLocation
}&appid={APIKEY}"
    responseJSON = (reqs.get(apiURL)).json()
```

```
    returnObject = {
        "temperature" : responseJSON['main']['temp'] - 273.15,
        "weather" : [responseJSON['weather'][_]['main'].lower() for _
in range(len(responseJSON['weather']))],
        "visibility" : responseJSON['visibility']/100, # visibility in
percentage where 10km is 100% and 0km is 0%
    }
    if("rain" in responseJSON):
        returnObject["rain"] = [responseJSON["rain"][key] for key in
responseJSON["rain"]]
    return(returnObject)
    }
```