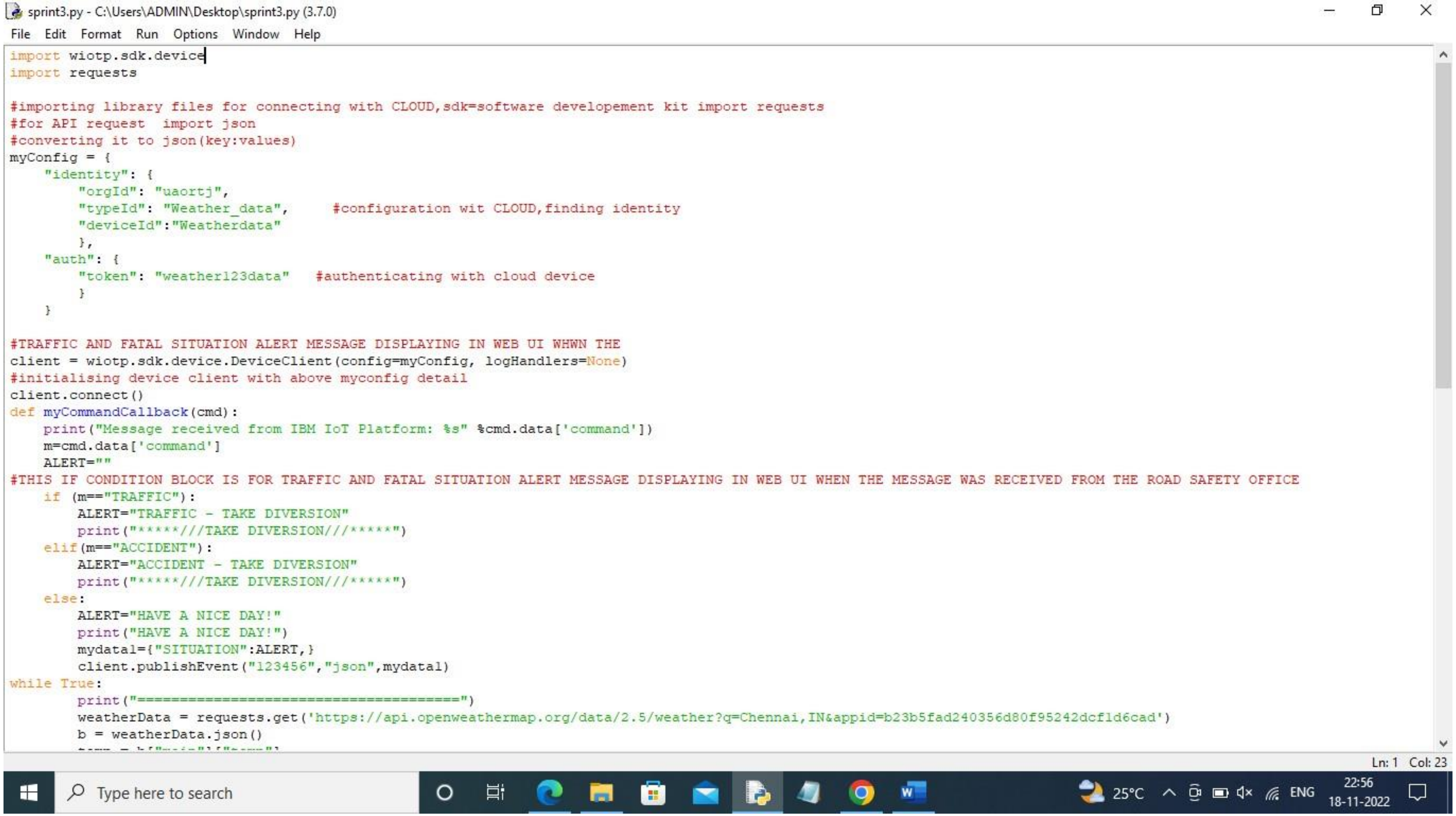
PROJECT DEVELOPMENT – DELIVERY OF SPRINT – 3

Date	07 November 2022
Team ID	PNT2022TMID25683
Project Title	Signs With Smart Connectivity for Better RoadSafety

SPRINT-3 (USN - 5)

Using GPS module, hospitals & school areas are tracked and data is gathered then it's execute in a web user interface.

STEP 1: Developing a python script from Open Weather API.



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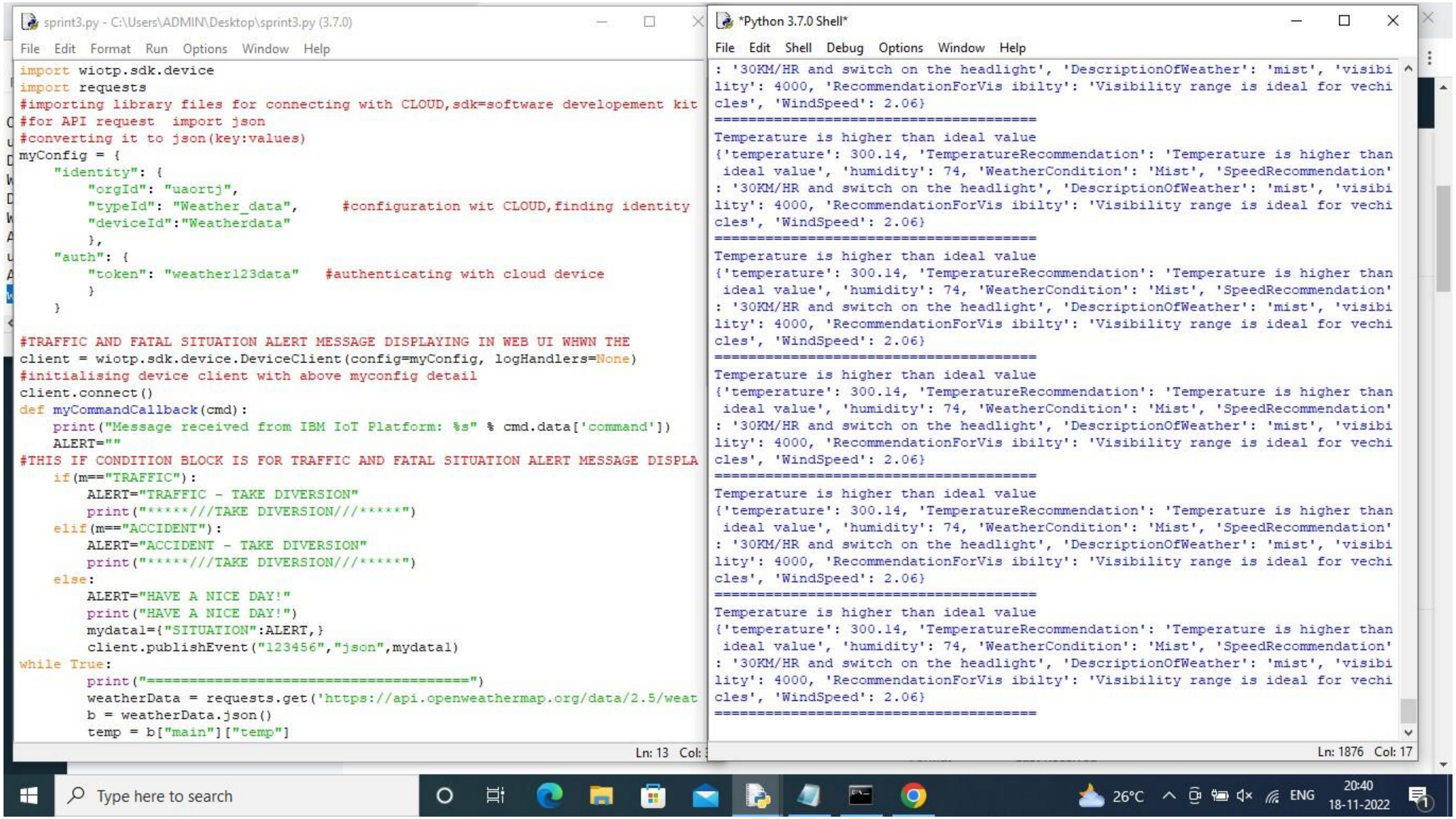
```
import wiotp.sdk.device
import requests

#importing library files for connecting with CLOUD,sdk=software developement kit import requests
#for API request  import json
#converting it to json(key:values)
myConfig = {
    "identity": {
        "orgId": "uaortj",
        "typeId": "Weather_data",      #configuration wit CLOUD,finding identity
        "deviceId":"Weatherdata"
        },
    "auth": {
        "token": "weather123data"   #authenticating with cloud device
        }
    }

#TRAFFIC AND FATAL SITUATION ALERT MESSAGE DISPLAYING IN WEB UI WHWN THE
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
#initialising device client with above myconfig detail
client.connect()
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" %cmd.data['command'])
    m=cmd.data['command']
    ALERT=""
#THIS IF CONDITION BLOCK IS FOR TRAFFIC AND FATAL SITUATION ALERT MESSAGE DISPLAYING IN WEB UI WHEN THE MESSAGE WAS RECEIVED FROM THE ROAD SAFETY OFFICE
    if (m=="TRAFFIC"):
        ALERT="TRAFFIC - TAKE DIVERSION"
        print("*****///TAKE DIVERSION///*****")
    elif(m=="ACCIDENT"):
        ALERT="ACCIDENT - TAKE DIVERSION"
        print("*****///TAKE DIVERSION///*****")
    else:
        ALERT="HAVE A NICE DAY!"
        print("HAVE A NICE DAY!")
        mydata1={"SITUATION":ALERT,}
        client.publishEvent("123456","json",mydata1)
while True:
        print("=====================================")
        weatherData = requests.get('https://api.openweathermap.org/data/2.5/weather?q=Chennai,IN&appid=b23b5fad240356d80f95242dcf1d6cad')
        b = weatherData.json()
```

STEP 2: By running the above Python Script, we can see the conditions of the current location using Open Weather API and IBM Cloud.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        b = weatherData.json()
        temp = b["main"]["temp"]
```

```
: '30KM/HR and switch on the headlight', 'DescriptionOfWeather': 'mist', 'visibi
lity': 4000, 'RecommendationForVis ibilty': 'Visibility range is ideal for vechi
cles', 'WindSpeed': 2.06}
======================================
Temperature is higher than ideal value
{'temperature': 300.14, 'TemperatureRecommendation': 'Temperature is higher than
 ideal value', 'humidity': 74, 'WeatherCondition': 'Mist', 'SpeedRecommendation'
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