

## SPRINT 1[2]

### LOCAL/SOFTWARE RUN

Team ID	PNT2022TMID52810
Project Name	Project - Signs with smart connectivity for Better road safety

Develop the Python code in which the test cases are provided like Weather, School timings.

### **PYTHON SCRIPT:**

```
import wiotp.sdk.device
import time
import random
import requests
import json
myConfig = {
    "identity": {
        "orgId": "tmwrsv",
        "typeId": "Sprint",
        "deviceId": "sprint12"
    },
    "auth": {
        "token": "KxMwjzjw)BijreluFk"
    }
}
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
    random.random()
    client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
    client.connect()

while True:
    CITY = "Coimbatore"
    API_KEY = "9111b726e6aa664188c5a2924f15f78e"
    URL=
    "https://api.openweathermap.org/data/2.5/weather?q=Coimbatore,%20IN&appid=9111b726e6aa664188c5a2924f15f78e"
    response = requests.get(URL)
    if response.status_code == 200:
        data = response.json()
        main = data['main']
        temp = round(main['temp'] - 273,2)
        humy = main['humidity']
        pres = main['pressure']
        rept = data['weather']
        report = rept[0]['description']
        temp1=temp
```

```

if(temp1 < 5):
    alert = "Snow fall may occur"
hum=humy
if(hum>85):
    alert = "Probablity of raining is high. Take rain coat with you"
pre = pres
wea = report
if(wea == "clear sky"):
    wea_alt1 = "HAPPY JOURNEY"
    spd_alt1 = "GO @ < 80Kmph"
elif(wea == "few clouds"):
    wea_alt1 = "CLOUDY DAY"
    spd_alt1 = "GO @ < 60Kmph"
elif (wea == "overcast clouds"):
    wea_alt1 = "RAIN MAY COME"
    spd_alt1 = "GO @ < 30Kmph"
elif(wea == "shower rain"):
    wea_alt1 = "SLIPPERY ROAD"
    spd_alt1 = "GO @ < 20Kmph"
elif(wea == "rain" or "moderate rain"):
    wea_alt1 = "SLIPPERY ROAD"
    spd_alt1 = "GO @ < 20Kmph"
elif(wea == "thunderstorm"):
    wea_alt1 = "HEAVY RAIN"
    spd_alt1 = "GO @ < 10Kmph"
elif (wea == "snow"):
    wea_alt1 = "SNOW ON ROAD"
    spd_alt1 = "GO @ < 10Kmph"
elif(wea == "mist"):
    wea_alt1 = "TURN ON FOG LAMP"
    spd_alt1 = "GO @ < 20Kmph"
else:
    wea_alt1 = "HAPPY JOURNEY"
    spd_alt1 = "GO @ < 80Kmph"
xyz = time.ctime()
ctime = int(xyz[11:13])
if (ctime > 8 and ctime < 10) or (ctime > 15 and ctime < 18):
    me = 'SCHOOL TIMING GO SLOW SPEED LIMIT: 15Kmph'
    spd_alt1 = "GO @ < 15Kmph!!!"
else:
    me = xyz[11:19]
myData={'location':CITY,'temperature':temp, 'humidity':hum, 'pressure':pre,
'weather_report':wea,'wea_alt':wea_alt1,'spd_alt':spd_alt1,'schl_tmng':me}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
print("Published data Successfully: %s", myData)
client.commandCallback = myCommandCallback
time.sleep(1)
client.disconnect()

```

## PYTHON IDE:

```

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        rept = data['weather']
        report = rept[0]['description']
        templ=temp
        if(templ < 5):
            alert = "Snow fall may occur"
        hum=humy
        if(hum>85):
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        pre = pres
        wea = report
        if(wea == "clear sky"):
            wea_alt1 = "HAPPY JOURNEY"
            spd_alt1 = "GO @ < 80Kmph"
        elif(wea == "few clouds"):
            wea_alt1 = "SCORNY DAYS"

```

### PYTHON IDE OUTPUT:

[illegible]