DEVELOP A PYTHON SCRIPT

Date	10 november 2022
Team ID	PNT2022TMID11855
Project Name	Project- **Signs with Smart Connectivity for Better Road Safety**
Maximum Marks	4 Marks

```
import wiotp.sdk.device

import time

import random

import ibmiotf.application

import ibmiotf.device

import requests, json



myConfig = { #Configuration

   "identity": {

"orgId": "d5zx56",

"typeId": "Connectivity123",

"deviceId":"ESP32"},

#API Key

"auth": {

"token": "9514598766"

}

}
```

```
#Receiving callbacks from IBM IOT
platform

def myCommandCallback(cmd):

  print("Message received from IBM IoT
Platform: %s" % cmd.data['command'])

  m=cmd.data['command']



client =
wiotp.sdk.device.DeviceClient(config=my
Config,logHandlers=None)

client.commandCallback=
myCommandCallback

client.connect()



#OpenWeatherMap Credentials

BASE_URL
="https://api.openweathermap.org/data
/2.5/weather?"

CITY = "Chennai"

URL = BASE_URL + "q=" + CITY +
"&units=metric"+"&appid=" +
"9cca583812b638930cefd580106f6c58"



while True:

  response = requests.get(URL)

  if response.status_code ==200:

    data = response.json()
```

```
    main = data['main']
    temperature =main['temp']
    humidity = main['humidity']
    pressure = main['pressure']
    report = data['visibility']

#messge part
    msg=random.randint(0,5)
    if msg==1:
      message="SLOW DOWN, SCHOOL IS
NEAR"
    elif msg==2:
      message="NEED HELP, POLICE
STATION AHED"
    elif msg==3:
      message="EMERGENCY, HOSPITAL
NEARBY"
    elif msg==4:
      message="DINE IN, RESTAURENT
AVAILABLE"
    else:
      message=""
#Speed Limit part
    speed=random.randint(0,150)
    if speed>=100:
```

```
        speedMsg=" Limit Exceeded"
    elif speed>=60 and speed<100:
        speedMsg="Moderate"
    else:
        speedMsg="Slow"

#Diversion part
    sign=random.randint(0,5)
    if sign==1:
        signMsg="Right Diversion"
    elif sign==3:
        signMsg="Left Diversion"
    elif sign==5:
        signmsg="U Turn"
    else:
        signMsg=""

#Visibility
    if temperature < 24:
        visibility="Fog Ahead, Drive Slow"
    elif temperature < 20:
        visibility="Bad Weather"
    else:
        visibility="Clear Weather"
```

```
  else:
    print("Error in the HTTP request")
  myData={'Temperature':temperature,
'Message':message, 'Sign':signMsg,
'Speed':speedMsg, 'Visibility':visibility}
  client.publishEvent(eventId="status",
msgFormat="json", data=myData, qos=0,
onPublish=None)
#PUBLISHING TO IOT WATSON
  print("Published data Successfully: %s",
myData)

client.disconnect()
```