## CODE:

Date	19 November 2022
Team ID	PNT2022TMID22583
Project Name	Signs with Smart Connectivity for Better
	Road Safety

### **CODING & SOLUTIONING:**

```
import
        wiotp.sdk.device
import
          time
                  import
                  import
random
      ibmiotf.application
import ibmiotf.device
import requests, json
myConfig = { #Configuration
"identity": {
"orgId": "3dpjnk",
"typeId": "Sign_Board",
"deviceId":"Board_1"},
#API Key
"auth": {
"token": "1234567890"
#Receiving callbacks from IBM IOT
platformdefmyCommandCallback(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()
#OpenWeatherMap Credentials
CITY = "Nagercoil"
URL = BASE_URL + "q=" + CITY + "&units=metric"+"&appid=" +
```

# "01df65417ab3968e3fc2a38c4aee27bb"

```
while
        True:
                response
                           if
requests.get(URL)
response.status_code ==200:
data = response.json() main =
data['main']
                 temperature
               humidity
=main['temp']
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
#speedLimit part
 speed=random.randint(0,150)
```

elif

if speed>=100: speedMsg=" Exceeded"

speed>=60 and speed<100: speedMsg="Moderate" else:

speedMsg="Slow"

Limit

```
#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"</pre>
```

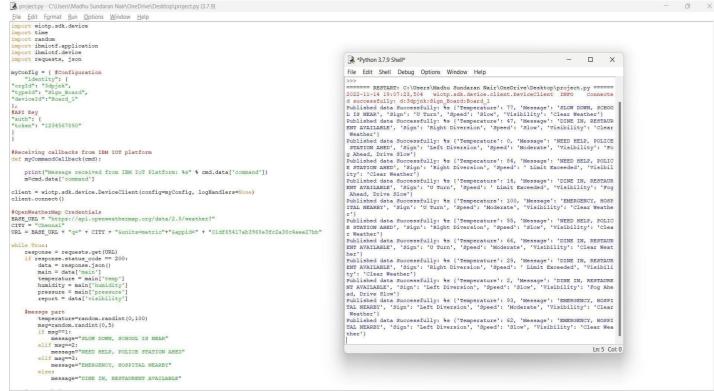
```
elif temperature < 20: visibility="Bad Weather"
elif temperature > 24: visibility="Clear Weather"
else:
print("Error in the HTTP request")

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.commandCallback=myCommandCallbacktime.sleep(5) client.disconnect()

#### **Output:**



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