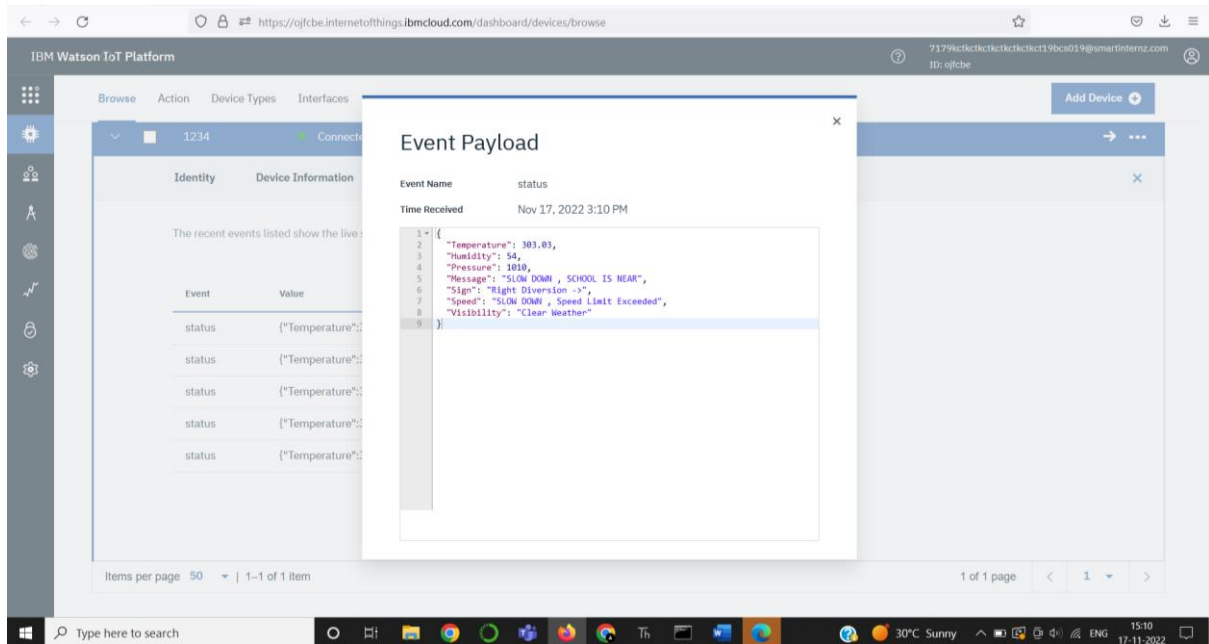


## Sprint 4

Team ID	PNT2022TMID14540
Project Name	Project - Signs with smart connectivity for better road safety

Displaying speed Limitations and traffic diversion signs depending on the road conditions :



The code:

```
import wiotp.sdk.device
import time
import random
import requests, json
myConfig = {
    "identity": {
        "orgId": "",
        "typeId": "",
        "deviceId": ""
    },
    "auth": {
        "token": " "
    }
}
```

```
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()
```

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

```
CITY = "Coimbatore"
```

```
URL = BASE_URL + "q=" + "Coimbatore" + "&appid=" + "fbc52a2a6c7bbea1396de2b6b17ea8a"
```

```
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']
```

```
        repo=random.randint(0,5)
```

```
        if repo==1:
```

```
            prt="SLOW DOWN , SCHOOL IS NEAR"
```

```
        elif repo==3:
```

```
            prt="SLOW DOWN , HOSPITAL NEARBY"
```

```
        elif repo==5:
```

```
            prt="NEED HELP, POLICE STATION NEARBY"
```

```
        else:
```

```
            prt=""
```

```
        speed=random.randint(0,150)
```

```
        if speed>=100:
```

```
            prt3="SLOW DOWN , Speed Limit Exceeded"
```

```
        elif speed>=60 and speed<100:
```

```
            prt3="Moderate Speed"
```

```
        else:
```

```
            prt3=""
```

```
        sign=random.randint(0,5)
```

```
        if sign==1:
```

```
            prt2="Right Diversion ->"
```

```
        elif sign==3:
```

```
            prt2="Left Diversion <-"
```

```
        elif sign==5:
```

```
            prt2="U Turn"
```

```
        else:
```

```
            prt2=""
```

```
        if temperature<=50:
```

```
            prt4="Fog Ahead, Drive Slow"
```

```
        else:
```

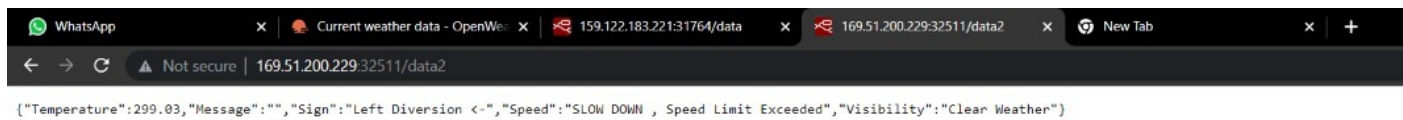
```
            prt4="Clear Weather"
```

```

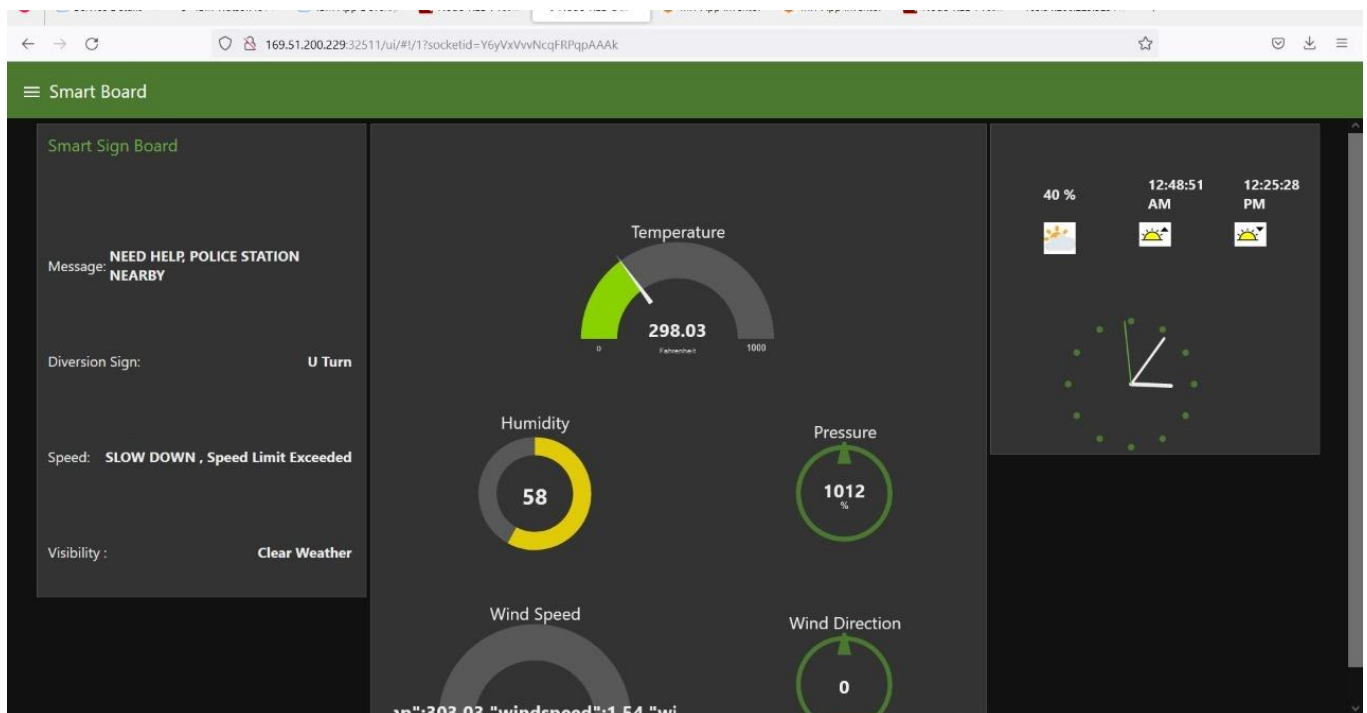
else:
    print("Error in the HTTP request")
    myData={'Temperature':temperature,'Humidity':humidity,'Pressure':pressure, 'Message':prt,
'Sign':prt2, 'Speed':prt3, 'Visibility':prt4}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(5)
client.disconnect()

```

Viewing in the web:



Node red Dashboard



Testing of the user interface with the software :

