

PROJECT DEVELOPMENT – DELIVERY OF SPRINT – 3

Team ID	PNT2022TMID11878
Project Title	Signs With Smart Connectivity for Better Road Safety

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.

```
sprint3.py - C:\Users\ADMIN\Desktop\sprint3.py (3.7.0)
File Edit Format Run Options Window Help

import wiotp.sdk.device
import requests

#importing library files for connecting with CLOUD,sdk=software development 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=b23b5fad240356d80f95242dcfld6cad')
    b = weatherData.json()
    print("=====")

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```

STEP 2: By running the above Python Script, we can see the conditions of the current location using Open Weather API and IBM Cloud.

The image shows a Windows desktop with two open applications. The left application is a text editor titled 'sprint3.py - C:\Users\ADMIN\Desktop\sprint3.py (3.7.0)'. It contains Python code that imports 'wiottp.sdk.device' and 'requests', sets up a configuration for a device, and handles incoming messages. The code includes a loop that fetches weather data from an OpenWeatherMap API and prints it. The right application is a terminal window titled 'Python 3.7.0 Shell'. It displays the output of the script, showing a JSON response with weather details and a repeated warning: 'Temperature is higher than ideal value'.

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    mydata={"SITUATION":ALERT,}
    client.publishEvent("123456","json",mydata)
while True:
    print("=====")
    weatherData = requests.get('https://api.openweathermap.org/data/2.5/weat
    b = weatherData.json()
    temp = b["main"]["temp"]

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

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