

DEVELOP A WEB APPLICATION USING NODE-RED SERVICE

Date	03 October 2022
Team ID	PNT2022TMID22101
Project Name	Project – SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

```
import wiotp.sdk.device
import time
import random
import ibmiotf.application
import ibmiotf.device
import requests, json

myConfig = {
  "identity": {
    "orgId": "4gh14s",
    "typeId": "ESP32",
    "deviceId": "1234"
  },
  "auth": {
    "token": "5xp6Zc74hThvC!qyOY"
  }
}

def myCommandCallback(cmd):
  print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
  m=cmd.data['command']
  if(m=="alarm ON"):
    print("Alarm is turned ON")
  elif(m=="alarm OFF"):
    print("Alarm is turned OFF")
  print(" ")

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
BASE_URL = "https://api.openweathermap.org/data/2.5/weather?"
CITY = "Jaipur, IN"
URL = BASE_URL + "q=" + CITY + "&units=metric"&appid=" + "be42a38741dd6a72d994a4bc7d9a5025"

while True:
```

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']
```

```
if temperature < 24:
```

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

```
elif temperature < 20:
```

```
    visibility="Bad Weather"
```

```
else:
```

```
    visibility="Clear Weather"
```

```
myData={'Temperature':temperature, 'Humidity':humidity, 'Visibility':visibility}
```

```
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
```

```
print("Published data Successfully: ", myData)
```

```
print("-----")
```

```
client.commandCallback = myCommandCallback
```

```
time.sleep(2)
```

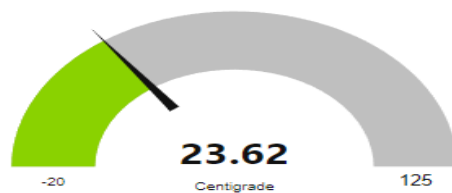
```
client.disconnect()
```

temp

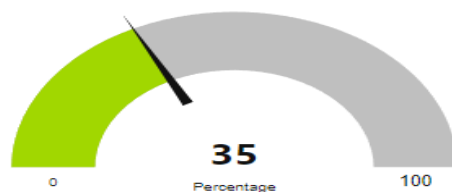
LIGHT ON

LIGHT OFF

Temperature



Humidity



Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: C:/Python/Python37/p3.py =====

2022-11-19 11:33:28,200 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:4gh14s:ESP32:1234

Published data Successfully: {'Temperature': 23.62, 'Humidity': 35, 'Visibility': 'Fog Ahead, Drive Slow'}

Published data Successfully: {'Temperature': 23.62, 'Humidity': 35, 'Visibility': 'Fog Ahead, Drive Slow'}

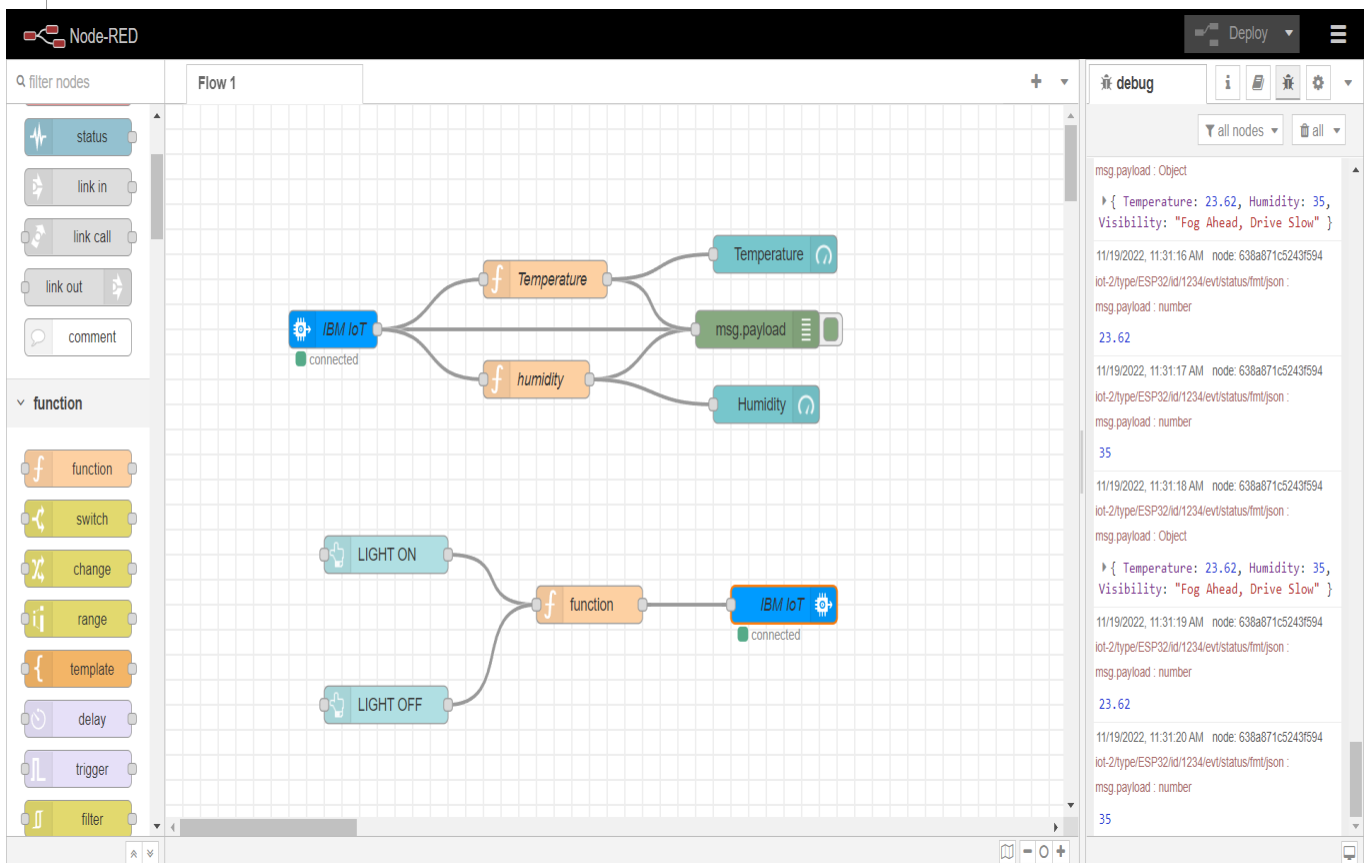
Published data Successfully: {'Temperature': 23.62, 'Humidity': 35, 'Visibility': 'Fog Ahead, Drive Slow'}

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Published data Successfully: {'Temperature': 23.62, 'Humidity': 35, 'Visibility': 'Fog Ahead, Drive Slow'}

Published data Successfully: {'Temperature': 23.62, 'Humidity': 35, 'Visibility': 'Fog Ahead, Drive Slow'}



Identity
Device Information
Recent Events
State
Logs

X

Event	Value	Format	Last Received
status	{"Temperature":25.99,"Humidity":78,"Visibility":...	json	a few seconds ago
status	{"Temperature":25.99,"Humidity":78,"Visibility":...	json	a few seconds ago
status	{"Temperature":25.99,"Humidity":78,"Visibility":...	json	a few seconds ago
status	{"Temperature":25.99,"Humidity":78,"Visibility":...	json	a few seconds ago
status	{"Temperature":25.99,"Humidity":78,"Visibility":...	json	a few seconds ago

0 Simulations running