PYTHON CODE FOR GAS TEMPERATURE AND HUMIDITY

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Team ID	PNT2022TMID36136
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

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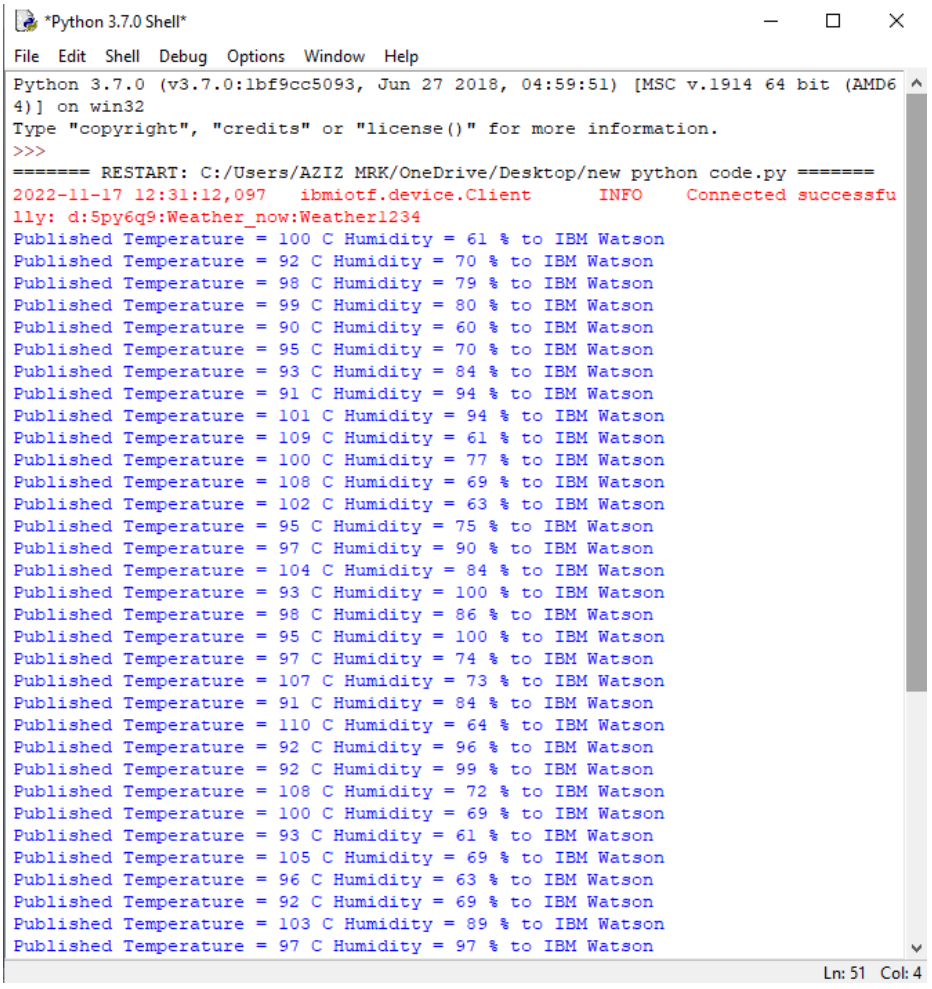
PYTHON CODE:

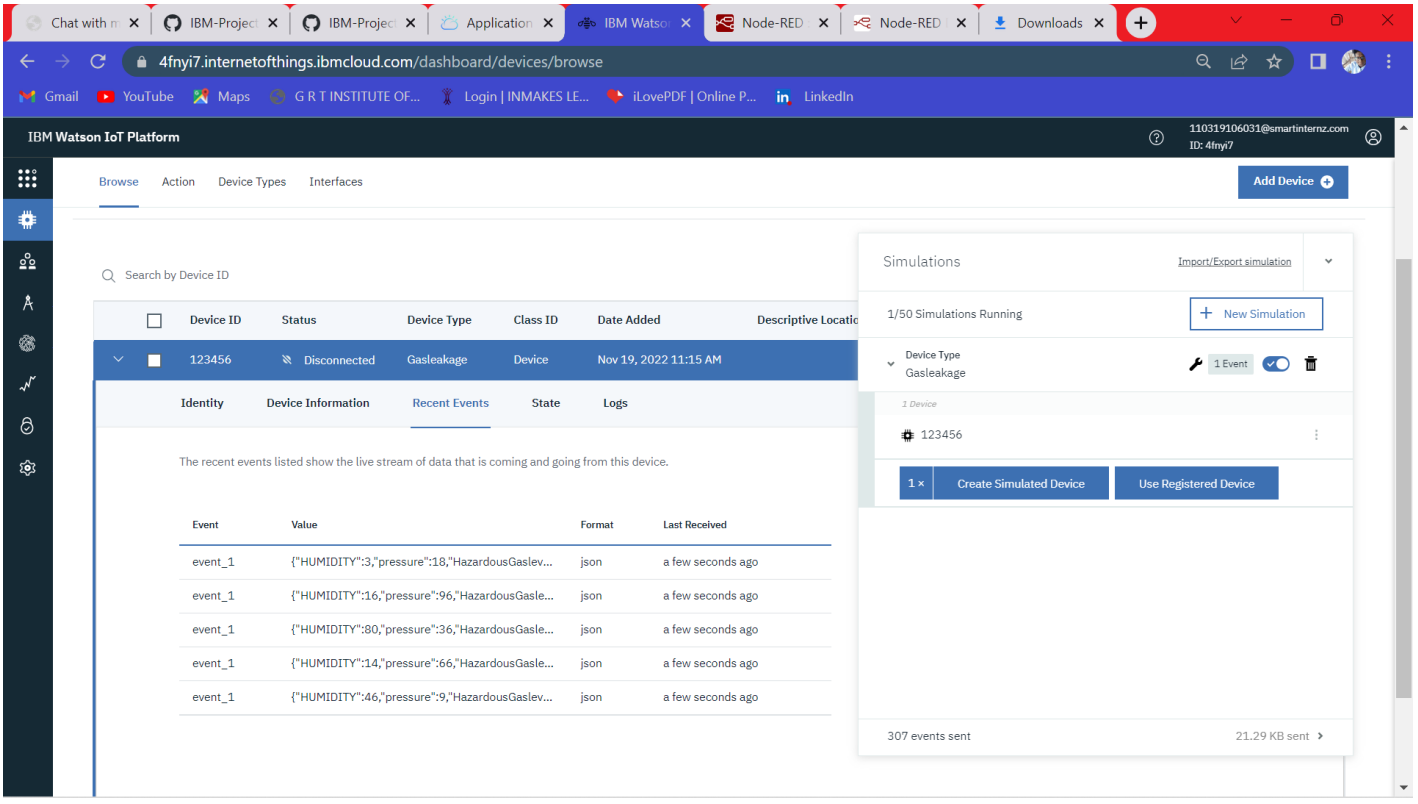
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "4fnyi7"
deviceType = "Gasleakage"
deviceId = "123456"
authMethod = "use-token-
auth"
authToken = " 87654321"

# Initialize GPIO
def myCommandCallback(cmd):
   print("Command received: %s" % cmd.data['command'])
   status=cmd.data['command']
   if status=="lighton":
```

```
        print ("led is on")
    elif status == "lightoff":
        print ("led is off")
    else :
        print ("please send proper command")

try:
    deviceOptions = {"org": organization, "type": deviceType, "id":
deviceId, "auth-method": authMethod, "auth-token": authToken}
    deviceCli = ibmiotf.device.Client(deviceOptions)
    #.....

except Exception as e:
    print("Caught exception connecting device: %s" % str(e))
    sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud
as an event of type "greeting" 10 times
deviceCli.connect()

while True:
        #Get Sensor Data from DHT11

        temp=random.randint(90,110)
        Humid=random.randint(60,100)

        data = { 'temp' : temp, 'Humid': Humid }
        #print data
        def myOnPublishCallback():
            print ("Published Temperature = %s C" % temp, "Humidity = %s
%%" % Humid, "to IBM Watson")
```

```
        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(10)


        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

OUTPUT:




IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Add Device
Search by Device ID
Device ID
Status
Device Type
Class ID
Date Added
123456
Disconnected
Gasleakage
Device
Nov 19, 2022 11:15 AM
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
event_1
{"HUMIDITY":3,"pressure":18,"HazardousGaslev...
json
a few seconds ago
event_1
{"HUMIDITY":16,"pressure":96,"HazardousGasle...
json
a few seconds ago
event_1
{"HUMIDITY":80,"pressure":36,"HazardousGasle...
json
a few seconds ago
event_1
{"HUMIDITY":14,"pressure":66,"HazardousGasle...
json
a few seconds ago
event_1
{"HUMIDITY":46,"pressure":9,"HazardousGaslev...
json
a few seconds ago
Simulations
Import/Export simulation
1/50 Simulations Running
New Simulation
Device Type
Gasleakage
1 Event
1 Device
123456
Create Simulated Device
Use Registered Device
307 events sent
21.29 KB sent