# GAS LEAKAGE MONITORING ALERTING SYSTEM FOR INDUSTRIES

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| **TITLE** | **GAS LEAKAGE MONITORING ALERTING SYSTEM FOR INDUSTRIES** |
| **DOMAIN NAME** | **INTERNET OF THINGS** |
| **TEAM ID** | **PNT2022TMID05333** |
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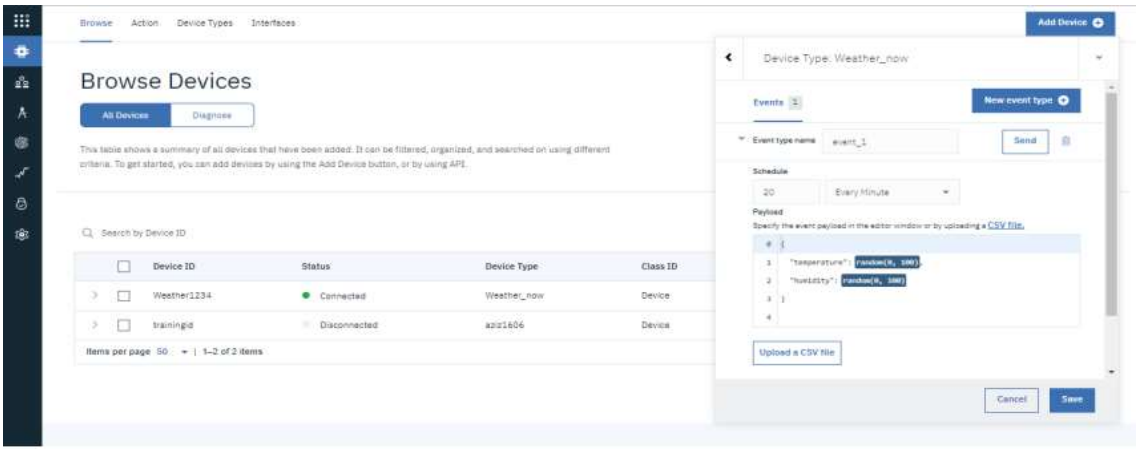
## PYTHON CODE FOR TEMPERATURE AND HUMIDITY:

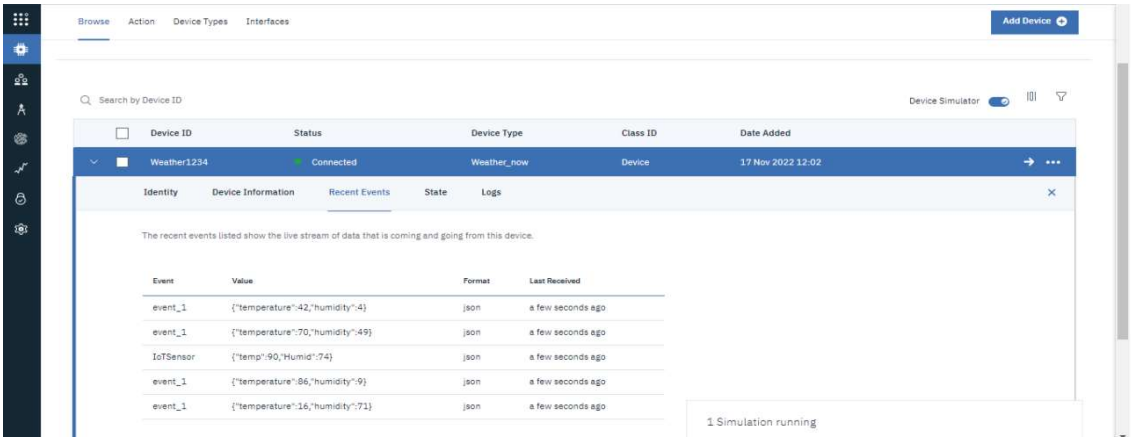
```
import time
import sys
 import ibmiotf.application
 import ibmiotf.device
 import random
 #Provide your IBM Watson Device Credentials
 organization = "5py6q9"
 deviceType = "Weather_now"
 deviceId = "Weather1234"
 authMethod = "token"
 authToken = "XeJFia7_@@t9@@eq_?"
# Initialize GPIO
 def myCommandCallback(cmd):
print("Command received: %s" % cmd.data['command'])
 status=cmd.data['command']
if status=="lighton": 2
 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") 3
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:


*Python 3.7.0 Shell*
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
======= RESTART: C:/Users/AZIZ MRK/OneDrive/Desktop/new python code.py =======
2022-11-17 12:31:12,097 ibmiotf.device.Client INFO Connected successfully: d:5py6q9:Weather_now:Weather1234
Published Temperature = 100 C Humidity = 61 % to IBM Watson
Published Temperature = 92 C Humidity = 70 % to IBM Watson
Published Temperature = 98 C Humidity = 79 % to IBM Watson
Published Temperature = 99 C Humidity = 80 % to IBM Watson
Published Temperature = 90 C Humidity = 60 % to IBM Watson
Published Temperature = 95 C Humidity = 70 % to IBM Watson
Published Temperature = 93 C Humidity = 84 % to IBM Watson
Published Temperature = 91 C Humidity = 94 % to IBM Watson
Published Temperature = 101 C Humidity = 94 % to IBM Watson
Published Temperature = 109 C Humidity = 61 % to IBM Watson
Published Temperature = 100 C Humidity = 77 % to IBM Watson
Published Temperature = 108 C Humidity = 69 % to IBM Watson
Published Temperature = 102 C Humidity = 63 % to IBM Watson
Published Temperature = 95 C Humidity = 75 % to IBM Watson
Published Temperature = 97 C Humidity = 90 % to IBM Watson
Published Temperature = 104 C Humidity = 84 % to IBM Watson
Published Temperature = 93 C Humidity = 100 % to IBM Watson
Published Temperature = 98 C Humidity = 86 % to IBM Watson
Published Temperature = 95 C Humidity = 100 % to IBM Watson
Published Temperature = 97 C Humidity = 74 % to IBM Watson
Published Temperature = 107 C Humidity = 73 % to IBM Watson
Published Temperature = 91 C Humidity = 84 % to IBM Watson
Published Temperature = 110 C Humidity = 64 % to IBM Watson
Published Temperature = 92 C Humidity = 96 % to IBM Watson
Published Temperature = 92 C Humidity = 99 % to IBM Watson
Published Temperature = 108 C Humidity = 72 % to IBM Watson
Published Temperature = 100 C Humidity = 69 % to IBM Watson
Published Temperature = 93 C Humidity = 61 % to IBM Watson
Published Temperature = 105 C Humidity = 69 % to IBM Watson
Published Temperature = 96 C Humidity = 63 % to IBM Watson
Published Temperature = 92 C Humidity = 69 % to IBM Watson
Published Temperature = 103 C Humidity = 89 % to IBM Watson
Published Temperature = 97 C Humidity = 97 % to IBM Watson
Ln: 51 Col: 4


Browse
Action
Device Types
Interfaces
Add Device
Browse Devices
All Devices
Diagnose
This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.
Search by Device ID
Device ID
Status
Device Type
Class ID
Weather1234
Connected
Weather_now
Device
trainingid
Disconnected
azir1606
Device
Items per page 50
1–2 of 2 items
Device Type: Weather_now
Events
New event type
Event type name
event_1
Send
Schedule
20
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
Upload a CSV file
Cancel
Save


Browse
Action
Device Types
Interfaces
Add Device
Search by Device ID
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
Weather1234
Connected
Weather_now
Device
17 Nov 2022 12:02
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
{"temperature":42,"humidity":4}
json
a few seconds ago
event_1
{"temperature":70,"humidity":49}
json
a few seconds ago
IoTSensor
{"temp":90,"Humid":74}
json
a few seconds ago
event_1
{"temperature":86,"humidity":9}
json
a few seconds ago
event_1
{"temperature":16,"humidity":71}
json
a few seconds ago
1 Simulation running