

## PYTHON CODE FOR GAS TEMPERATURE AND HUMIDITY

<b>Date</b>	3 NOVEMBER 2022
<b>Team ID</b>	PNT2022TMID36136
<b>Project Name</b>	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 IoT")

            time.sleep(10)

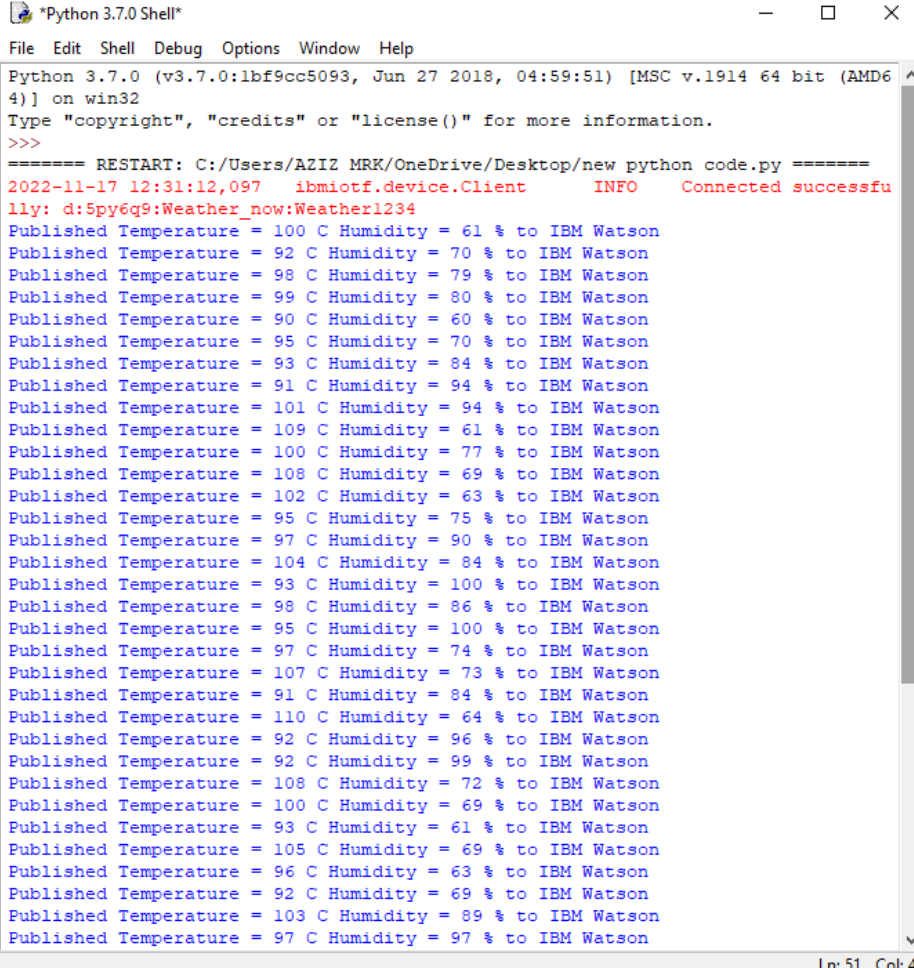
        deviceCli.commandCallback = myCommandCallback

# 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

```

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IBM Watson IoT Platform 110319106031@smartintenz.com ID: 4fny77

Browse Action Device Types Interfaces

Search by Device ID

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
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

123456

1 x Create Simulated Device Use Registered Device

307 events sent 21.29 KB sent