

PYTHON CODE (GAS, TEMPERATURE, HUMIDITY, PRESSURE)

Date	16 NOVEMBER 2022
Team ID	PNT2022TMID22125
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

PYTHON CODE:

```
import wiotp.sdk.device

import time

import random

myConfig = {

    "identity": {

        "orgId": "anrbh6",

        "typeId": "ibm",

        "deviceId": "123"

    },

    "auth": {

        "token": "in2j7FqKGXvhQ8AqAf"

    }

}

def myCommandCallback(cmd):

    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])

    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)

client.connect()

while True:

    temp=random.randint(-20,125)

    hum=random.randint(0,100)

    haz_gas=random.randint(0,100)

    myData={'temperature':temp, 'humidity':hum,'hazardous_gas':haz_gas}

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

    print("Published data Successfully: %s", myData)

    client.commandCallback = myCommandCallback

    time.sleep(2)

client.disconnect()
```

OUTPUT:

```
ibm_iot.py - C:\Users\Nandakumar V\Documents\python\ibm_iot.py (3.9.8)
File Edit Format Run Options Window Help
#IBM Watson IoT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "anrbh6",
        "typeId": "ibm",
        "deviceId": "123"
    },
    "auth": {
        "token": "in2j7FqKGXvhQ8AqAf"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
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while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
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    myData={'temperature':temp, 'humidity':hum, 'hazardous_gas':haz_gas}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

```
IDLE Shell 3.9.8
File Edit Shell Debug Options Window Help
Python 3.9.8 (tags/v3.9.8:bb3fddcf, Nov 5 2021, 20:48:33) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Nandakumar V\Documents\python\ibm_iot.py =====
2022-11-16 14:03:29.937 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:anrbh6:ibm:123
Published data Successfully: %s {'temperature': 121, 'humidity': 10, 'hazardous_gas': 10}
Published data Successfully: %s {'temperature': 69, 'humidity': 67, 'hazardous_gas': 32}
Published data Successfully: %s {'temperature': -14, 'humidity': 19, 'hazardous_gas': 15}
Published data Successfully: %s {'temperature': 20, 'humidity': 4, 'hazardous_gas': 45}
Published data Successfully: %s {'temperature': -2, 'humidity': 23, 'hazardous_gas': 20}
Published data Successfully: %s {'temperature': 76, 'humidity': 41, 'hazardous_gas': 78}
Published data Successfully: %s {'temperature': 103, 'humidity': 40, 'hazardous_gas': 26}
Published data Successfully: %s {'temperature': 0, 'humidity': 88, 'hazardous_gas': 98}
Published data Successfully: %s {'temperature': -16, 'humidity': 86, 'hazardous_gas': 53}
Published data Successfully: %s {'temperature': 44, 'humidity': 86, 'hazardous_gas': 77}
Published data Successfully: %s {'temperature': 103, 'humidity': 75, 'hazardous_gas': 88}
Published data Successfully: %s {'temperature': 0, 'humidity': 97, 'hazardous_gas': 39}
```

IBM CLOUD:

123	Connected	ibm	Device	Nov 16, 2022 1:30 PM	→ ...
Identity	Device Information	Recent Events	State	Logs	×
√ Showing Raw Data No Interfaces Available					
Property	Value	Type	Event	Last Received	
temperature	42	Number	status	a few seconds ago	
humidity	42	Number	status	a few seconds ago	
hazardous_gas	88	Number	status	a few seconds ago	