

## PYTHON CODE (GAS, TEMPERATURE, HUMIDITY, PRESSURE)

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Team ID	PNT2022TMID06950
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

### PYTHON CODE

```
#IBM Watson IOT Platform
import wiotp.sdk.device
import time
import random
myConfig = {
"identity": {
    "orgId": "yf0dyy ",
    "typeId": "Faraaz ",
    "deviceId": "12345"
},
"auth": {
    "token": "VJTDPRX@f&4Vuox8ms "
}
}

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:
    gas=random.randint(0,100)

    temp=random.randint(0,100)
    hum=random.randint(0,100)
    pre=random.randint(0,100)
    myData={'Hazardous Gas':gas, 'Temperature':temp, 'Humidity':hum,
    'Pressure':pre }
    client.publishEvent(eventId="status", msgFormat="json",
    data=myData,qos=0, onPublish=None)
    print("Published data Successfully: %s",
    myData)    client.commandCallback    =
    myCommandCallbacktime.sleep(2)

client.disconnect()

```

OUTPUT:

The screenshot displays the IBM Watson IoT Platform interface. The top navigation bar includes tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar labeled 'Search by Device ID' is present. The main content area shows a table of devices, with one device (ID: 12345) selected. Below the table, a 'Recent Events' tab is active, displaying a list of events. The events table has columns for 'Event', 'Value', 'Format', and 'Last Received'. The events are JSON objects containing random numbers for gas, temperature, humidity, and pressure. A status message at the bottom right indicates '3 Simulations running'.

Event	Value	Format	Last Received
event_1	{"randomNumber":17,"temp":27,"hum":92}	json	a few seconds ago
event_1	{"randomNumber":47,"temp":24,"hum":82}	json	a few seconds ago
event_1	{"randomNumber":49,"temp":42,"hum":81}	json	a few seconds ago
event_1	{"randomNumber":0,"temp":58,"hum":80}	json	a few seconds ago
event_1	{"randomNumber":51,"temp":35,"hum":95}	json	a few seconds ago

3 Simulations running

IBM Watson IoT Platform

Browse

Action

Device Types

Interfaces

Search by Device ID

Device ID	Status	Device Type	Class ID	Data
12345	Disconnected	abcd	Device	15

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	{"randomNumber":89,"temp":13,"hum":84}	json	a few seconds ago
event_1	{"randomNumber":38,"temp":77,"hum":95}	json	a few seconds ago
event_1	{"randomNumber":56,"temp":59,"hum":90}	json	a few seconds ago
event_1	{"randomNumber":45,"temp":16,"hum":96}	json	a few seconds ago
event_1	{"randomNumber":5,"temp":79,"hum":96}	json	a few seconds ago

Device Type: abcd

Events 1

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.

0 {

1 "randomNumber": random(0, 100),

2 "temp": random(10, 80),

3 "hum": random(80, 100)

4 }

Upload a CSV file

Cancel

Save

Python Script.docx

Python Script.pdf

Show all

Type here to search

23:38

14-11-2022