

PYTHON CODE (GAS, TEMPERATURE, HUMIDITY, PRESSURE)

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Team ID	PNT2022TMID06193
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 EdgeX Foundry web interface. On the left is a dark sidebar with navigation icons. The main content area shows a table of devices. The first device, with ID 12345 and name 'Nagarajan', is in a 'Disconnected' state. Below the device list, a 'Recent Events' tab is selected, showing a table of events. The events table has columns for Event, Value, Format, and Last Received. It lists five events, each with a JSON string value and a timestamp of 'a few seconds ago'. At the bottom of the interface, a status bar indicates '1 Simulation running' and an 'Activate Windows' watermark is visible.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Disconnected	Nagarajan	Device	Oct 31, 2022 11:38 AM	

Event	Value	Format	Last Received
event_1	{"Hazardous Gas":61,"Temperature":88,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":20,"Temperature":36,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":79,"Temperature":56,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":52,"Temperature":82,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":26,"Temperature":33,"Humidit...	json	a few seconds ago

1 Simulation running

Browse
Action
Device Types
Interfaces

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	{"Hazardous Gas":57,"Temperature":98,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":3,"Temperature":35,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":69,"Temperature":74,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":85,"Temperature":51,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":92,"Temperature":35,"Humidity":...}	json	a few seconds ago

Items per page 50 |
 1 - 1 of 1 item

<
Device Type: Nagarajan
>

New event type +

Events 1

▼ Event type name

Send
🗑️

Schedule

Every Minute ▼

Payload

Specify the event payload in the editor window or by uploading a CSV file.

```

0 {
1   "Hazardous Gas": random(0, 100),
2   "Temperature": random(0, 100),
3   "Humidity": random(0, 100),
4   "Pressure": random(0, 100)
5 }
6
            
```

Cancel
Save