

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

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Team ID	PNT2022TMID18424
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 shows a web-based interface for managing devices. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains various icons. The main content area displays a table of devices, with one device selected: '12345' (Status: Disconnected, Device Type: Nagarajan, Class ID: Device, Date Added: Oct 31, 2022 11:38 AM). Below the device list, a 'Recent Events' tab is active, showing a table of events. The events table has columns: Event, Value, Format, and Last Received. The events listed are all of type 'event\_1' and contain JSON data for 'Hazardous Gas', 'Temperature', and 'Humidity'. The 'Last Received' column indicates that the events were received 'a few seconds ago'. At the bottom of the interface, a status bar shows '1 Simulation running' and a Windows watermark.

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

The screenshot displays two panels from the Microsoft Azure IoT Central console.

**Main Panel (Recent Events):**

- Tabs: Identity, Device Information, Recent Events (selected), State, Logs.
- Message: "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

- Footer: Items per page 50 | 1–1 of 1 item

**Right Panel (Device Configuration):**

- Header: Device Type: Nagarajan
- Section: Events (1) [New event type +]
- Form: Event type name: event\_1 [Send] [X]
- Schedule: 20 Every Minute [v]
- 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

```
- Buttons: Cancel, Save