

## PUBLISH AND SUBSCRIBE TO IBM IOT PLATFORM

<b>Date</b>	10 November 2022
<b>Team ID</b>	PNT2022TMID22887
<b>Project Name</b>	Project - Gas leakage monitoring and alerting system for Industries

### PTYHON CODE:

```
import wiotp.sdk.device
```

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "y2y0te",
```

```
        "typeId": "NodeMCU",
```

```
        "deviceId": "12345"
```

```
    },
```

```
    "auth": {
```

```
        "token": "12345678"
```

```
    }
```

```
}
```

```
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(200,1500)
    tem=random.randint(0,100)
    hum=random.randint(0,100)
    pre=random.randint(12,25)
    if gas<1000:
        san=("Normal")
        s1=0
    else:
        san=("Danger Leakage")
        s1=1
    myData={'gaslevel':gas,"status":san,"st":s1,"pr":pre,"temp":tem,"hu":hum}
    #myData={'co2 level in ppm':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()
```

## Publish data to IBM cloud:

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Recent Events' tab is selected, displaying a table of live data streams. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. The data shows a sequence of status updates with gas levels and safety warnings. A status bar at the bottom indicates '0 Simulations running'.

Event	Value	Format	Last Received
status	{"gaslevel":1384,"status":"Danger Leakage","st":0,"pr":22,...	json	a few seconds ago
status	{"gaslevel":671,"status":"Normal","st":0,"pr":22,...	json	a few seconds ago
status	{"gaslevel":909,"status":"Normal","st":0,"pr":25,...	json	a few seconds ago
status	{"gaslevel":636,"status":"Normal","st":0,"pr":13,...	json	a few seconds ago
status	{"gaslevel":1294,"status":"Danger Leakage","st":0,"pr":12,...	json	a few seconds ago

This screenshot shows the same IBM Watson IoT Platform dashboard, but with a different set of recent events. The table structure and columns remain the same, but the data values have changed, reflecting a new sequence of status updates. The status bar still shows '0 Simulations running'.

Event	Value	Format	Last Received
status	{"gaslevel":909,"status":"Normal","st":0,"pr":25,...	json	a few seconds ago
status	{"gaslevel":636,"status":"Normal","st":0,"pr":13,...	json	a few seconds ago
status	{"gaslevel":1294,"status":"Danger Leakage","st":0,"pr":12,...	json	a few seconds ago
status	{"gaslevel":770,"status":"Normal","st":0,"pr":14,...	json	a few seconds ago
status	{"gaslevel":333,"status":"Normal","st":0,"pr":12,...	json	a few seconds ago