

SPRIT 1

Date	12 November 2022
Team ID	PNT2022TMID49366
Project Name	Hazardous Area Monitoring for Industrial Plant Powered by IoT

```
import time
import sys
import random
import ibmiot.application
import ibmiot.device

organization = "8lpjde"
deviceType = "Ultrasonic"
deviceId = "1234"
authMethod = "use-token-auth"
authToken = "123456789"

try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod,
"auth-token": authToken}

    deviceCli = ibmiotf.device.Client(deviceOptions)

except Exception as e:

    print("Caught exception connecting device: %s" % str(e))

    sys.exit()

deviceCli.connect()

while True:

    temp=random.randint(0,100)
```

```
Humid=random.randint(0,100)
```

```
Gas=random.randint(0,100)
```

```
data = { 'temp' : temp, 'Humid': Humid, 'Gas':gas }
```

```
def myOnPublishCallback():
```

```
    print ("Published Temperature = %s C" % temp, "Humidity = %s %" %Humid, "Gas Concentration = %s" %Gas )
```

```
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
```

```
    if not success:
```

```
        print("Not connected to IoT")
```

```
    time.sleep(10)
```

```
    deviceCli.commandCallback = myCommandCallback
```

```
deviceCli.disconnect()
```



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:/Users/New/AppData/Local/Programs/Python/Python37/ibmproject/hazard.py
2022-11-12 11:05:12,626 ibmiotf.device.Client INFO Connected successfully: dipyflre:hazard:231099
Published Temperature=98 C Noise:41 db Gas_leakage:43 J/Kg Radiation:45 rad to IBM Watson
Published Temperature=19 C Noise:4 db Gas_leakage:97 J/Kg Radiation:73 rad to IBM Watson
Published Temperature=70 C Noise:0 db Gas_leakage:85 J/Kg Radiation:64 rad to IBM Watson
Published Temperature=74 C Noise:61 db Gas_leakage:54 J/Kg Radiation:97 rad to IBM Watson
Published Temperature=47 C Noise:77 db Gas_leakage:50 J/Kg Radiation:91 rad to IBM Watson
Published Temperature=75 C Noise:0 db Gas_leakage:33 J/Kg Radiation:27 rad to IBM Watson
Published Temperature=17 C Noise:6 db Gas_leakage:99 J/Kg Radiation:78 rad to IBM Watson
Published Temperature=7 C Noise:38 db Gas_leakage:98 J/Kg Radiation:69 rad to IBM Watson
Published Temperature=5 C Noise:79 db Gas_leakage:91 J/Kg Radiation:50 rad to IBM Watson
Published Temperature=20 C Noise:35 db Gas_leakage:21 J/Kg Radiation:4 rad to IBM Watson
Published Temperature=35 C Noise:73 db Gas_leakage:11 J/Kg Radiation:27 rad to IBM Watson
Published Temperature=61 C Noise:73 db Gas_leakage:55 J/Kg Radiation:68 rad to IBM Watson
Published Temperature=99 C Noise:76 db Gas_leakage:62 J/Kg Radiation:32 rad to IBM Watson
Published Temperature=40 C Noise:28 db Gas_leakage:1 J/Kg Radiation:97 rad to IBM Watson
Published Temperature=10 C Noise:24 db Gas_leakage:83 J/Kg Radiation:76 rad to IBM Watson
Published Temperature=50 C Noise:18 db Gas_leakage:95 J/Kg Radiation:95 rad to IBM Watson
Published Temperature=60 C Noise:21 db Gas_leakage:43 J/Kg Radiation:0 rad to IBM Watson
Published Temperature=60 C Noise:25 db Gas_leakage:5 J/Kg Radiation:3 rad to IBM Watson
Published Temperature=51 C Noise:40 db Gas_leakage:18 J/Kg Radiation:19 rad to IBM Watson
Published Temperature=0 C Noise:8 db Gas_leakage:91 J/Kg Radiation:58 rad to IBM Watson
Published Temperature=41 C Noise:17 db Gas_leakage:90 J/Kg Radiation:95 rad to IBM Watson
Published Temperature=5 C Noise:30 db Gas_leakage:40 J/Kg Radiation:13 rad to IBM Watson
Published Temperature=29 C Noise:97 db Gas_leakage:9 J/Kg Radiation:46 rad to IBM Watson
Published Temperature=6 C Noise:84 db Gas_leakage:64 J/Kg Radiation:80 rad to IBM Watson
Published Temperature=54 C Noise:73 db Gas_leakage:73 J/Kg Radiation:46 rad to IBM Watson
Ln: 5 Col: 0
```