

## PYTHON CODE TO PUBLISH DATA TO IBM CLOUD

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Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

### CODE:

```
#IBM Watson IOT Platform
```

```
#pip install wiotp-sdk
```

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

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "w1p5bv",
```

```
        "typeId": "nsps",
```

```
        "deviceId": "nsp_1"
```

```
    },
```

```
    "auth": {
```

```
        "token": "EWGwGl5F6EKUtFh5W_"
```

```
}  
}
```

```
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:
```

```
    temp=random.randint(-20,125)
```

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

```
    myData={'temperature':temp, 'humidity':hum}
```

```
    client.publishEvent(eventId="status", msgFormat="json", data=myData,  
qos=0, onPublish=None)
```

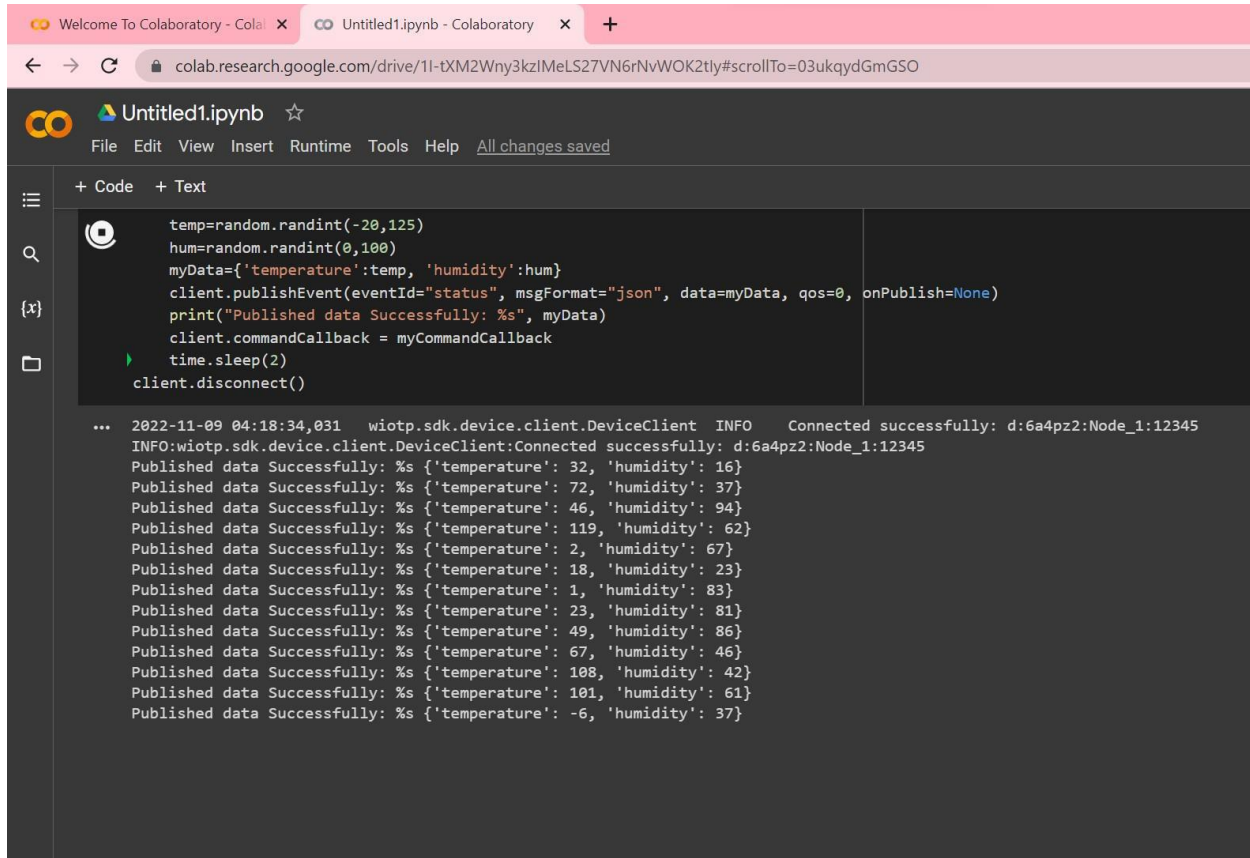
```
    print("Published data Successfully: %s", myData)
```

```
    client.commandCallback = myCommandCallback
```

```
    time.sleep(2)
```

```
client.disconnect()
```

# output:



The screenshot shows a web browser window with two tabs: 'Welcome To Colaboratory - Colab' and 'Untitled1.ipynb - Colaboratory'. The address bar shows the URL: `colab.research.google.com/drive/1I-tXM2Wny3kzIMeLS27VN6rNvWOK2tly#scrollTo=03ukqydGmGSO`. The Jupyter Notebook interface has a menu bar with 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', 'Help', and 'All changes saved'. The left sidebar contains icons for file explorer, search, and other functions. The main area is divided into two sections: a code editor and an output area.

```
temp=random.randint(-20,125)
hum=random.randint(0,100)
myData={'temperature':temp, 'humidity':hum}
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()
```

... 2022-11-09 04:18:34,031 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:6a4pz2:Node\_1:12345  
INFO:wiotp.sdk.device.client.DeviceClient:Connected successfully: d:6a4pz2:Node\_1:12345  
Published data Successfully: %s {'temperature': 32, 'humidity': 16}  
Published data Successfully: %s {'temperature': 72, 'humidity': 37}  
Published data Successfully: %s {'temperature': 46, 'humidity': 94}  
Published data Successfully: %s {'temperature': 119, 'humidity': 62}  
Published data Successfully: %s {'temperature': 2, 'humidity': 67}  
Published data Successfully: %s {'temperature': 18, 'humidity': 23}  
Published data Successfully: %s {'temperature': 1, 'humidity': 83}  
Published data Successfully: %s {'temperature': 23, 'humidity': 81}  
Published data Successfully: %s {'temperature': 49, 'humidity': 86}  
Published data Successfully: %s {'temperature': 67, 'humidity': 46}  
Published data Successfully: %s {'temperature': 108, 'humidity': 42}  
Published data Successfully: %s {'temperature': 101, 'humidity': 61}  
Published data Successfully: %s {'temperature': -6, 'humidity': 37}

# IBM CLOUD OUTPUT:

The screenshot displays the IBM Watson IoT Platform interface. The top navigation bar includes tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. The main content area shows the details for a device named 'nathi\_2', which is in a 'Connected' state. The 'Recent Events' tab is selected, showing a table of live data events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. Five events are listed, each with a unique 'event\_1' ID and a JSON value representing gas, temperature, and humidity. The 'Format' column indicates all events are in 'json' format, and the 'Last Received' column shows they were received 'a few seconds ago'. A '1 Simulation running' status is visible at the bottom of the events table. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 10:50 PM on 11/14/2022.

Event	Value	Format	Last Received
event_1	{"gas":81,"temp":34,"hum":65}	json	a few seconds ago
event_1	{"gas":30,"temp":87,"hum":5}	json	a few seconds ago
event_1	{"gas":8,"temp":93,"hum":24}	json	a few seconds ago
event_1	{"gas":48,"temp":66,"hum":65}	json	a few seconds ago
event_1	{"gas":31,"temp":86,"hum":71}		

1 Simulation running