

PYTHON CODE TO PUBLISH DATA TO IBM CLOUD

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Team ID	PNT2022TMID30897
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": "Node_1",
```

```
        "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:
```

```
    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)
```

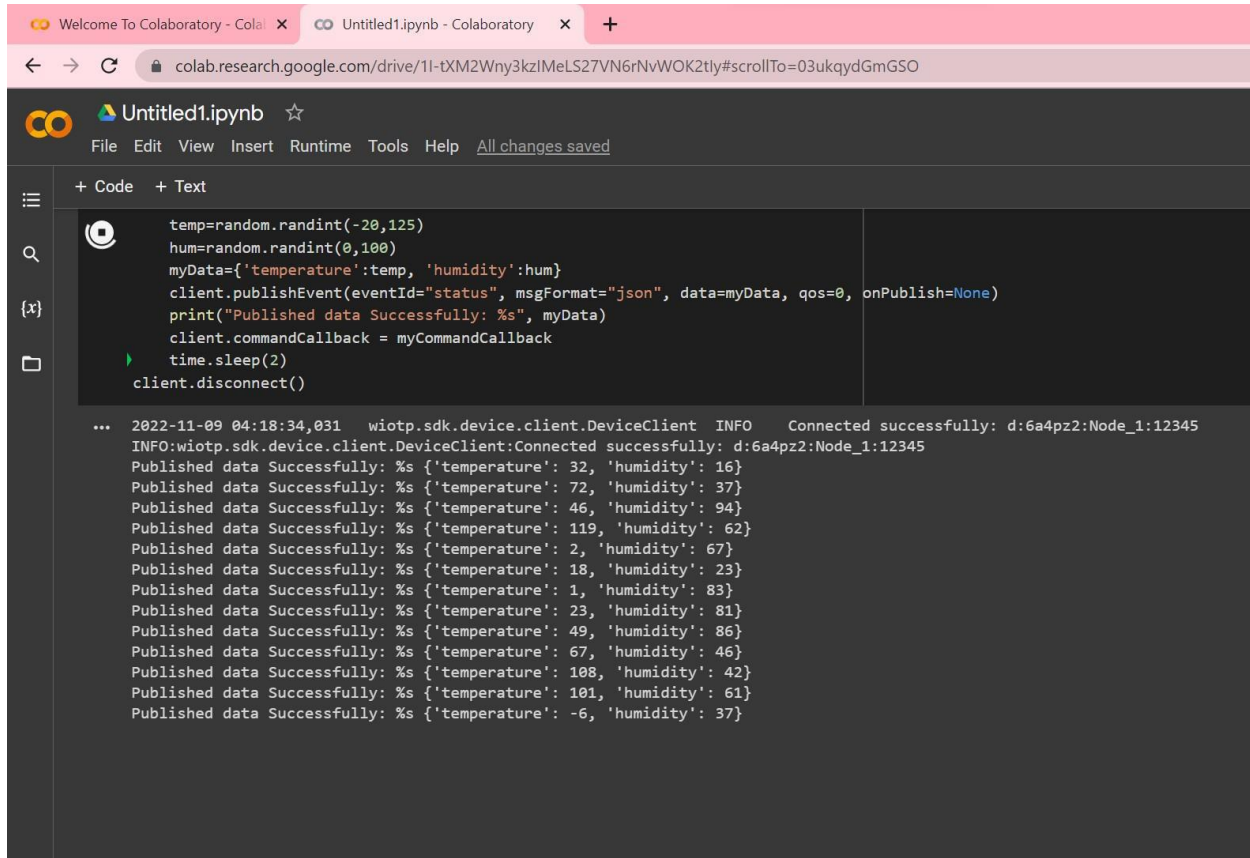
```
    print("Published data Successfully: %s", myData)
```

```
    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 management, search, and code execution. The main area is divided into two sections: a code editor and an output console.

```
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 a device named 'nathi_2' with a status of 'Connected'. Below this, a table lists recent events for the device. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. Five events are listed, each with a value in JSON format. A simulation status '1 Simulation running' is shown at the bottom right of the events table. The bottom of the image 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