

PYTHON CODE TO PUBLISH DATA TO IBM CLOUD

| | |
|--------------|---|
| Date | 11 November 2022 |
| Team ID | PNT2022TMID30897 |
| Project Name | GAS LEAKAGE MONITORING AND ALERTING SYSTEMS |

CODE:

```
#IBM Watson IOT Platform
```

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

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

```
import time
```

```
import random
```

```
myConfig = {
```

```
"identity": {
```

```
"orgId": " 6a4pz2",
```

```
"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)
```

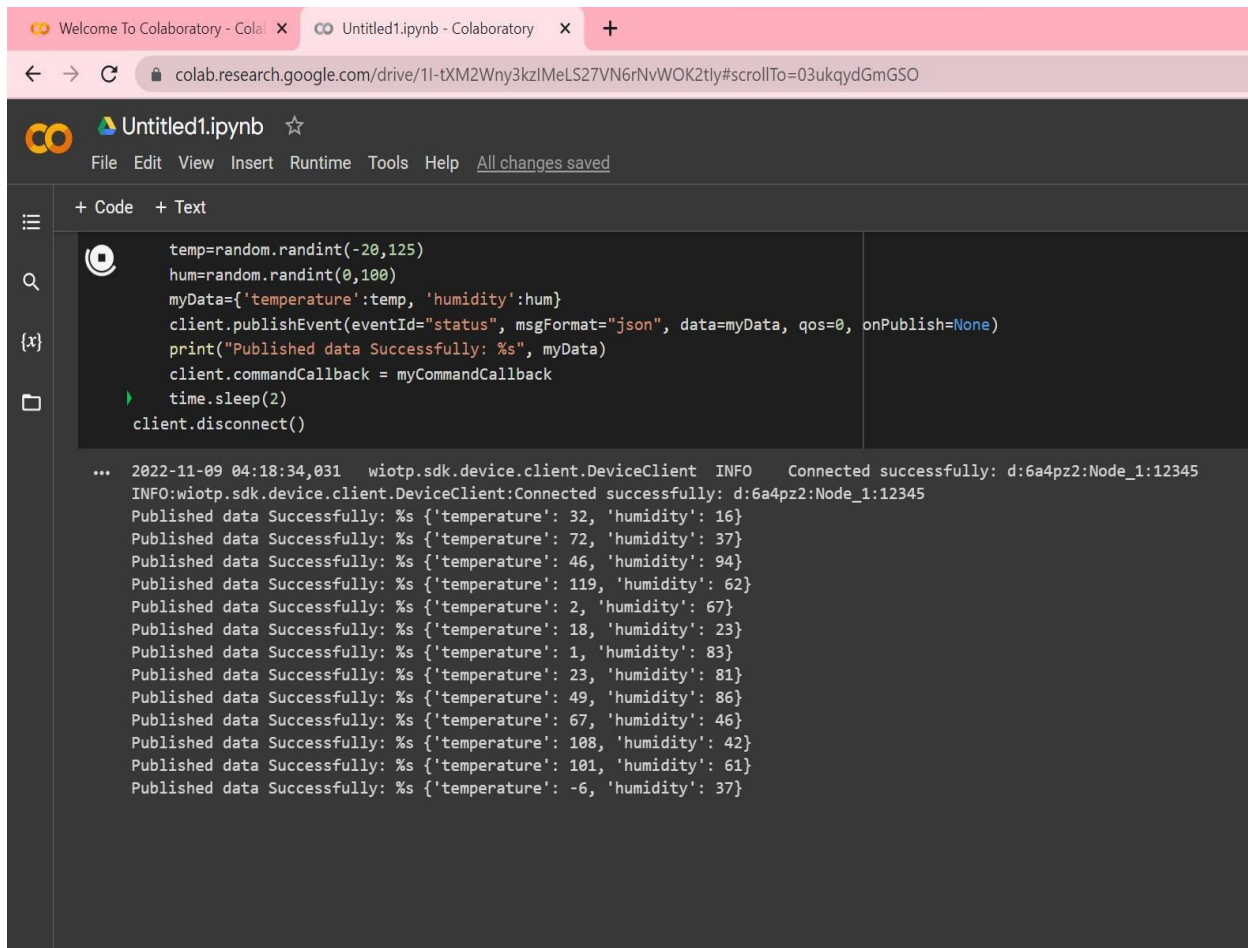
```
    print("Published data Successfully: %s", myData)
```

```
    client.commandCallback = myCommandCallback
```

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

```
Client.disconnect()
```

OUTPUT:



The screenshot shows a Jupyter Notebook titled 'Untitled1.ipynb' in the Colaboratory environment. The code cell contains a script that generates random temperature and humidity data, publishes it via a client, and then disconnects. The output cell shows the execution logs, including connection status and multiple 'Published data Successfully' messages with varying data points.

```
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 dashboard. The browser address bar shows the URL: `w1p5bv.internetofthings.ibmcloud.com/dashboard/devices/browse`. The dashboard header includes the IBM Watson IoT Platform logo and a user profile for `sriramathiya@gmail.com` with ID `w1p5bv`. The main navigation menu on the left includes options like `Browse`, `Action`, `Device Types`, and `Interfaces`. The `Browse` tab is active, showing a table of recent events. The table has four columns: `Event`, `Value`, `Format`, and `Last Received`. The events listed are all `status` events with JSON values for temperature and humidity, all received 'a few seconds ago'. At the bottom of the dashboard, there is a status bar indicating '1 Simulation running' and a prompt to 'Activate Windows'.

| Event | Value | Format | Last Received |
|--------|---|--------|-------------------|
| status | <code>{"Temperature":57,"Humidity":12}</code> | json | a few seconds ago |
| status | <code>{"Temperature":20,"Humidity":93}</code> | json | a few seconds ago |
| status | <code>{"Temperature":24,"Humidity":82}</code> | json | a few seconds ago |
| status | <code>{"Temperature":77,"Humidity":73}</code> | json | a few seconds ago |
| status | <code>{"Temperature":34,"Humidity":18}</code> | json | a few seconds ago |

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1 Simulation running

Activate Windows
Go to Settings to activate Windows.