



## RPG0027 - Vamos interligar as coisas com a nuvem

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RPG0027 - Vamos interligar as coisas com a nuvem

### Objetivo da Prática

- Como criar um Hub IoT do Azure;
- Como registrar um novo dispositivo no Hub IoT;
- Adicionando extensão Hub IoT do Azure para Visual Studio Code;
- Gerenciando e interagindo com o Hub IoT

### Passos Executados:

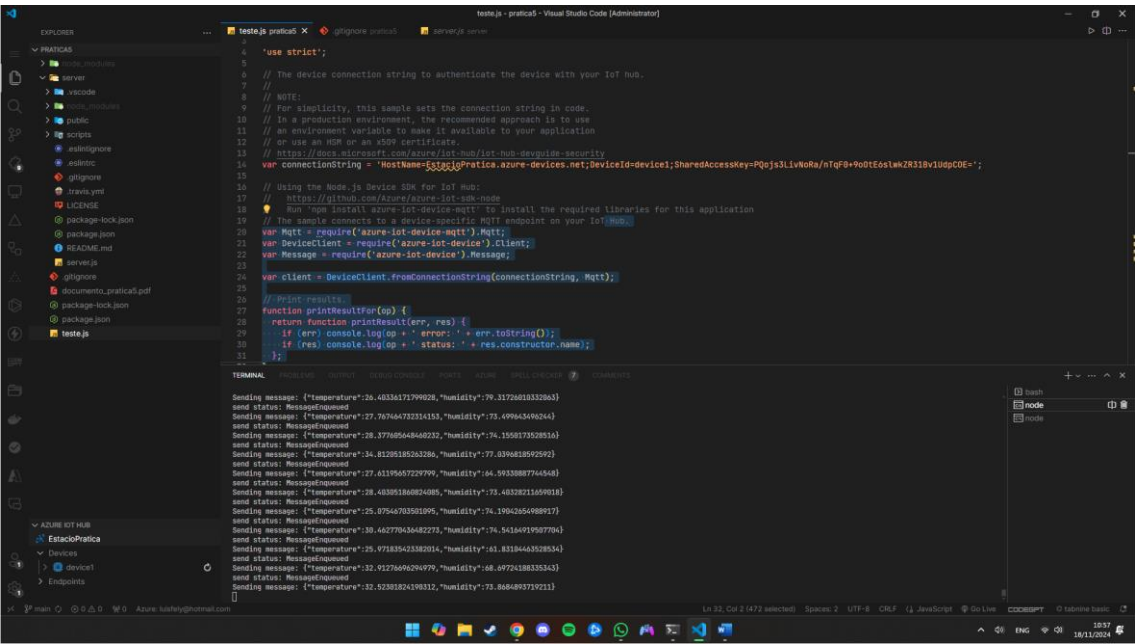
```
Fernando [ ~ ]$ az iot hub show-connection-string --hub-name EstacioPratica --policy-name service
This command has been deprecated and will be removed in a future release. Use 'IoT Extension (azure-iot) connection-string command (az iot hub connection-string show)' instead.
{
  "connectionString": "HostName=EstacioPratica.azure-devices.net;SharedAccessKeyName=service;SharedAccessKey=zu8XnyUgBR7b1Frz9cZ1H0pMoDZ0kxKwwAioTC2gDGc="
}
Fernando [ ~ ]$
```

```
Administrator in ~ via v3.9.4 via v2.7.2
> set IotHubConnectionString=HostName=EstacioPratica.azure-devices.net;SharedAccessKeyName=service;SharedAccessKey=zu8XnyUgBR7b1Frz9cZ1H0pMoDZ0kxKwwAioTC2gDGc=

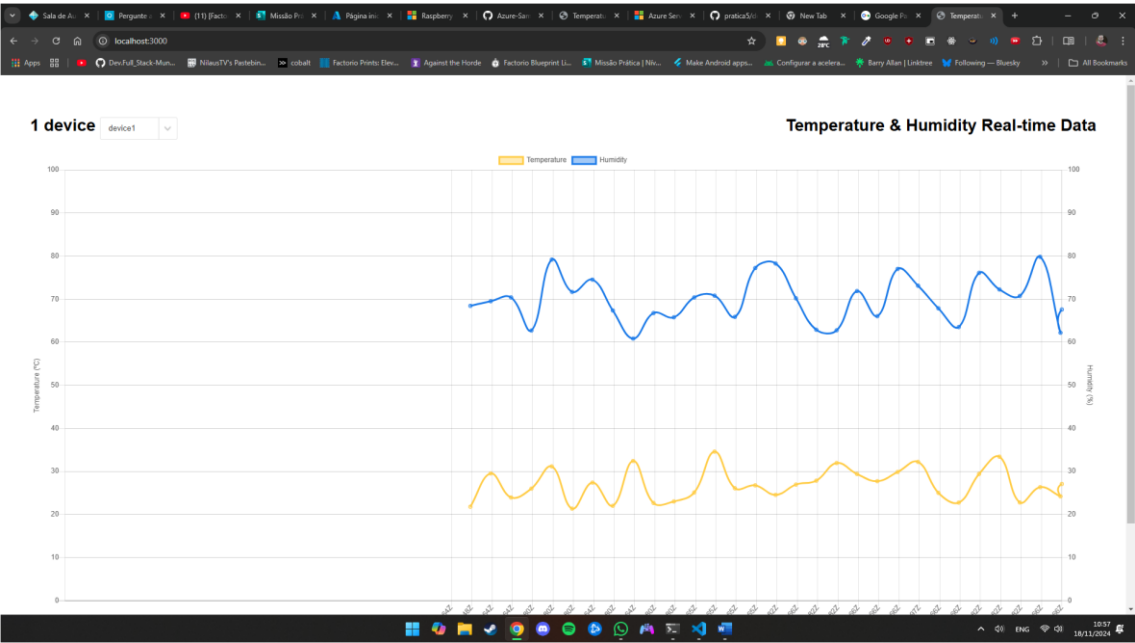
Administrator in ~ via v3.9.4 via v2.7.2
> set EventHubConsumerGroup=Cosumidor1

Administrator in ~ via v3.9.4 via v2.7.2
> |
```

# Código Local



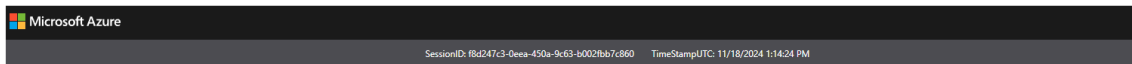
# Rodando Localmente



```
4 'use strict';
5
6 // The device connection string to authenticate the device with your IoT hub.
7 //
8 // NOTE:
9 // For simplicity, this sample sets the connection string in code.
10 // In a production environment, the recommended approach is to use
11 // an environment variable to make it available to your application
12 // or use an HSM or an X.509 certificate.
13 // https://docs.microsoft.com/azure/iot-hub/iot-hub-devguide-security
14 var connectionString = 'HostName=EstacioPratica.azure-devices.net;DeviceId=device1;SharedAccessKey=Pqej3LiW6Ra/nTqF8*9oBtE6slwZ8318v1u0pC0E=';
15
16 // Using the Node.js Device SDK for IoT Hub:
17 // https://github.com/Azure/azure-iot-sdk-node
18 // Run 'npm install azure-iot-device-mqtt' to install the required libraries for this application
19 // The sample connects to a device-specific MQTT endpoint on your IoT Hub.
20 var Mqtt = require('azure-iot-device-mqtt').Mqtt;
21 var DeviceClient = require('azure-iot-device').Client;
22 var Message = require('azure-iot-device').Message;
23
24 var client = DeviceClient.fromConnectionString(connectionString, Mqtt);
25
26 // Print results
27 function printResultFor(op) {
28     return function printResult(err, res) {
29         if (err) console.log(op + ' error: ' + err.toString());
30         if (res) console.log(op + ' status: ' + res.constructor.name);
31     };
32 }
33
34
35 Broadcasting data [{"IoTData":{"temperature":27.529012867177407,"humidity":62.7048685091805},"MessageDate":"2024-11-18T13:25:19.279Z","DeviceId":"device1"}]
36 Broadcasting data [{"IoTData":{"temperature":28.41794299983866,"humidity":67.43028311042841},"MessageDate":"2024-11-18T13:26:00.286Z","DeviceId":"device1"}]
37
38 Administrator in stacio:pratica@server via @ v0.10.1 took 9632s
39 i node server.js
40 Using IoT Hub connection string [HostName=EstacioPratica.azure-devices.net;SharedAccessKey=service;SharedAccessKey=zu8XyGp8K7uIfz9eZ1HqPu02Dkxwv1aT2g0c=]
41 com2
42 Using event hub consumer group [com2]
43 Listening on 3000.
44 Successfully created the EventHubConsumerClient from IoT Hub event hub-compatible connection string.
45 The partition list set: [ 0, 1 ]
46 Broadcasting data [{"IoTData":{"temperature":21.789983267698158,"humidity":68.4638510642183},"MessageDate":"2024-11-18T13:57:02.166Z","DeviceId":"device1"}]
47 Broadcasting data [{"IoTData":{"temperature":29.51870186430983,"humidity":69.82187402937983},"MessageDate":"2024-11-18T13:57:03.140Z","DeviceId":"device1"}]
48 Broadcasting data [{"IoTData":{"temperature":23.94252523792929,"humidity":78.3936427915787},"MessageDate":"2024-11-18T13:57:04.164Z","DeviceId":"device1"}]
49 Broadcasting data [{"IoTData":{"temperature":26.01279132656136,"humidity":62.72926835914366},"MessageDate":"2024-11-18T13:57:05.164Z","DeviceId":"device1"}]
50 Broadcasting data [{"IoTData":{"temperature":31.15261389787205,"humidity":79.1826459402302},"MessageDate":"2024-11-18T13:57:06.180Z","DeviceId":"device1"}]
51 Broadcasting data [{"IoTData":{"temperature":21.34889732438952,"humidity":71.67571804797302},"MessageDate":"2024-11-18T13:57:07.180Z","DeviceId":"device1"}]
52 Broadcasting data [{"IoTData":{"temperature":27.89912201291648,"humidity":76.18303222864683},"MessageDate":"2024-11-18T13:57:08.180Z","DeviceId":"device1"}]
53 Broadcasting data [{"IoTData":{"temperature":22.018267192881888,"humidity":67.36893630161869},"MessageDate":"2024-11-18T13:57:09.164Z","DeviceId":"device1"}]
```

Não consegui criar Web App na azure, devido erro na minha conta de estudante.  
Não estou com créditos disponíveis.

```
fernando [ ~ ]$ az appservice plan create --name apppratica5 --resource-group estacio --sku FREE
/usr/lib64/az/lib/python3.9/site-packages/paramiko/pkey.py:100: CryptographyDeprecationWarning: TripleDES has been moved to
  "cipher": algorithms.TripleDES,
/usr/lib64/az/lib/python3.9/site-packages/paramiko/transport.py:259: CryptographyDeprecationWarning: TripleDES has been moved to
  "class": algorithms.TripleDES,
Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
This region has quota of 0 instances for your subscription. Try selecting different region or SKU.
fernando [ ~ ]$
```



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