

# Faculdade Estácio - Campus - Monte Castelo

**Curso:** Desenvolvimento Full Stack

**Disciplina:** Vamos interligar as coisas com a nuvem

**Semestre Letivo:** 4

**Integrante:** Diego Borges Dos Santos

## 1. Título da Prática:

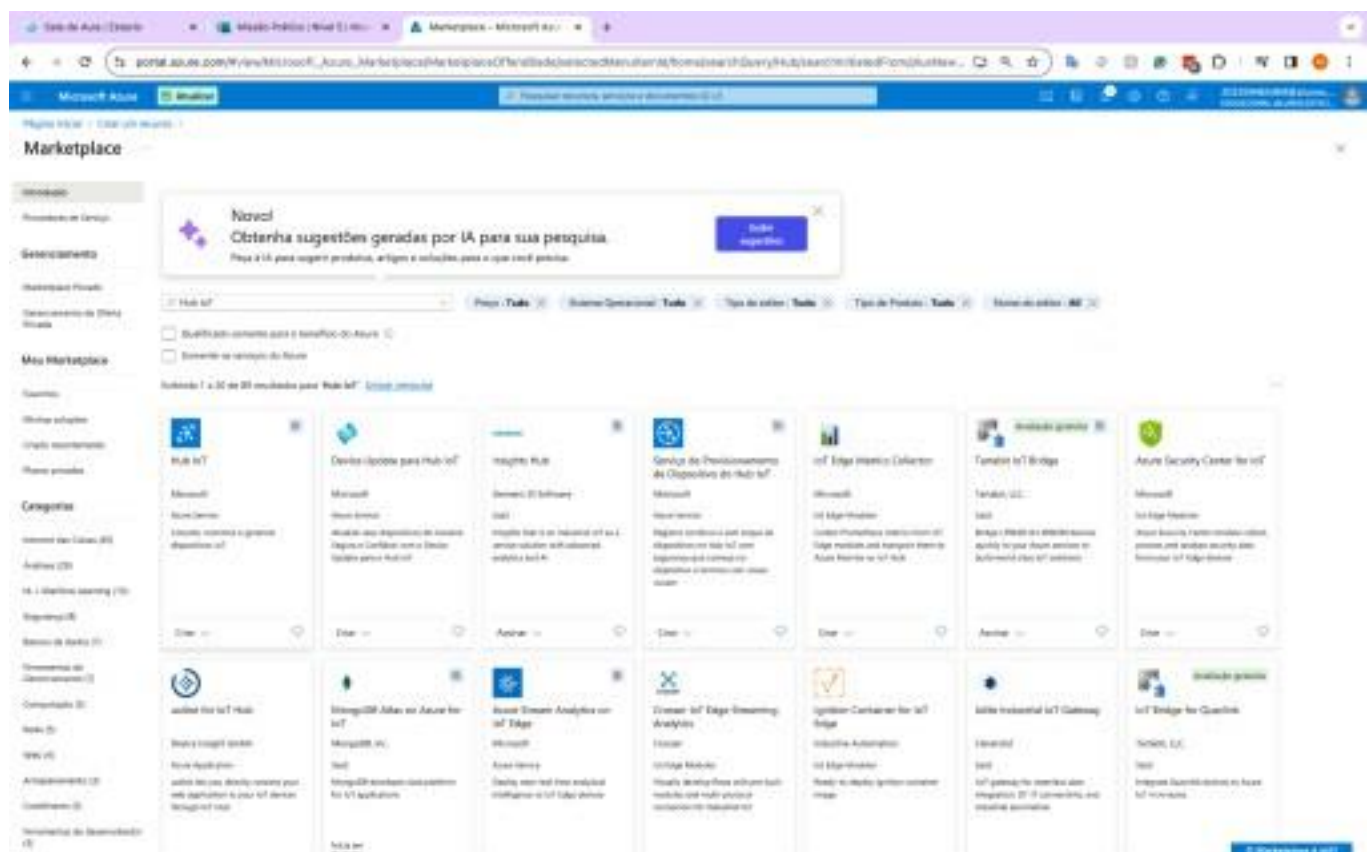
**RPG0027 - Vamos interligar as coisas com a nuvem**

## 2. Objetivos 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.

## 3. Resultados da execução dos códigos:


Microatividade 1: Como Criar um Hub IoT do Azure



The screenshot shows the Microsoft Azure portal interface for creating a new IoT Hub. The 'Basics' tab is selected, and the following information is visible:

- Name:** IoT-Hub
- Location:** Brazil
- Resource Group:** IoT-Hub-Resource-Group
- SKU:** Standard
- Capacity:** 10000
- Enable automatic scaling:** (checkbox)

The 'Advanced' tab is also visible, showing fields for 'Enable automatic scaling' and 'Enable automatic scaling'.



The screenshot shows the Microsoft Azure portal interface. At the top, there's a navigation bar with 'Inicio', 'Hubs', 'Gerenciamento', 'Complementos', 'Monitor', 'Revisão', and 'Ajuda'. Below this, the main content area is titled 'Hub IoT'. It includes a section for 'Configuração de conectividade' (Connectivity Configuration) with a list of devices and a 'Conectar dispositivo' (Connect device) button. The interface is in Portuguese.

Tab de Azure (2) | Portal de Azure | Microsoft Azure | Hub IoT - Microsoft Azure

portal.azure.com/?resource=Microsoft.IoTHub

Microsoft Azure | Hub IoT

Hub IoT

Basic | **Configuração** | Complementos | Monitor | Revisar + criar

**Controlador de acesso baseado em função**  
Ativa o modelo de permissão para controle de acesso baseado em função do Azure (RBAC) ou para uma combinação de políticas de acesso compartilhado e RBAC. Saiba mais >

Modelo de permissão:  
☐ Sistema RBAC  
☒ Política de acesso compartilhado + RBAC

Para garantir os elementos em uma máquina, um usuário precisa acessar as APIs de dados do Hub IoT. Selecione a função sugerida abaixo para conceder acesso total às APIs. Você também pode usar o Controlador de Acesso (IAM) para alocar as funções apropriadas posteriormente. Saiba mais >

atribuir-ao:  
☒ Função de Controlador de Dados do Hub IoT >

Estado:  
Participantes de disponibilidade: 4  
☒ O número máximo é de 4.

Retornar > < Voltar

> Avançar: Basic

Cancelar > Complementos >

Tab de Azure (2) | Portal de Azure | Microsoft Azure | Hub IoT - Microsoft Azure

portal.azure.com/?resource=Microsoft.IoTHub

Microsoft Azure | Hub IoT

Hub IoT

Basic | **Configuração** | Complementos | Monitor | Revisar + criar

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atribuir-ao:  
☒ Função de Controlador de Dados do Hub IoT >

Estado:  
Participantes de disponibilidade: 3

Retornar > < Voltar

> Avançar: Basic

Cancelar > Complementos >



portal.azure.com/View/Subscription/DeploymentDetails?subscriptionId=7f5a8c3b85-4226-427b-8c25-28804c7e5644&resourceGroup=...

## Estacio-IoT-31294536 | Visão Geral

Problemas

Ativo Dev

Implantação

Saídas

Atuando

### A implantação está em andamento

Nome da Implantação: Estacio-IoT-31294536  
Assinatura: Azure subscription 1  
Grupo de recursos: IoT-000000 group

Nome do recurso: 12/03/2024 09:41:08  
Estado da implantação: Falhou (Erro 0x80070001)

Detalhes de implantação

Nome	Tipo	Status	Detalhes de operação
Estacio-IoT-31294536	Implantação	Falhou	

Estado da implantação

17 Erros no estado da implantação e 0 no estado da implantação.

Microsoft Defender para Nuvem  
Proteja seus aplicativos e suas infraestruturas na nuvem com o Microsoft Defender para Nuvem.

Tutoriais gratuitos do Microsoft  
Use o conhecimento de especialistas do Azure IoT para obter informações de especialistas para ajudar você a obter o máximo de seu Azure IoT.

Trabalhe com um especialista  
Os especialistas do Azure IoT podem ajudar você a obter o máximo de seu Azure IoT e garantir que você esteja no Azure IoT com sua próxima lista de prioridades.

portal.azure.com/View/Subscription/DeploymentDetails?subscriptionId=7f5a8c3b85-4226-427b-8c25-28804c7e5644&resourceGroup=...

## Estacio-IoT-31294536 | Visão Geral

Problemas

Ativo Dev

Implantação

Saídas

Atuando

### A implantação foi concluída

Nome da Implantação: Estacio-IoT-31294536  
Assinatura: Azure subscription 1  
Grupo de recursos: IoT-000000 group

Nome do recurso: 12/03/2024 09:41:08  
Estado da implantação: Concluído

Detalhes de implantação

Próximas etapas

Atualize a configuração de dispositivos IoT. Recomendado.  
Configure as regras de monitoramento para dispositivos IoT. Recomendado.

Estado da implantação

17 Erros no estado da implantação e 0 no estado da implantação.

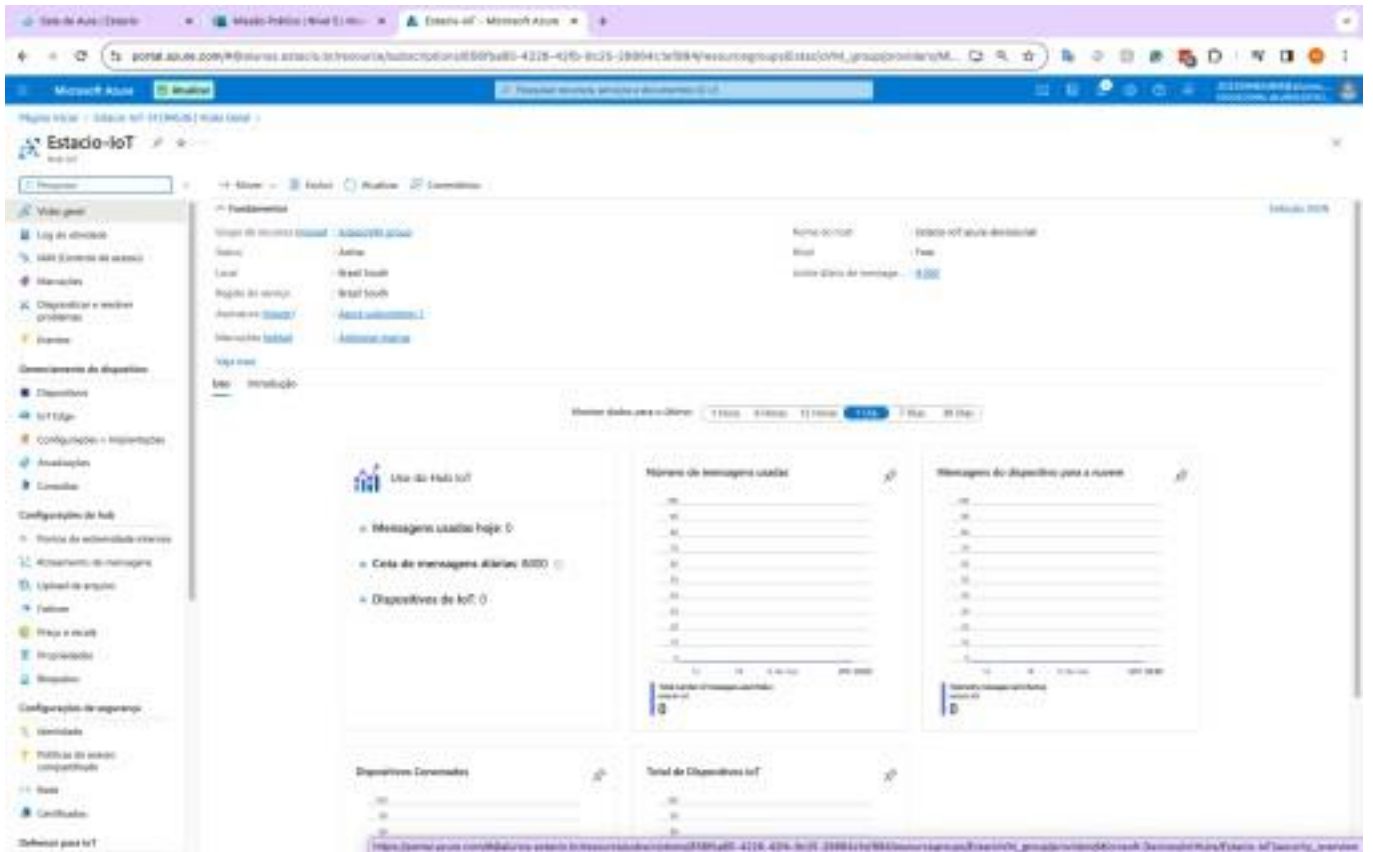
Implantação bem-sucedida  
Esta implantação, Estacio-IoT-31294536, não possui erros.

Selecione o grupo de recursos.

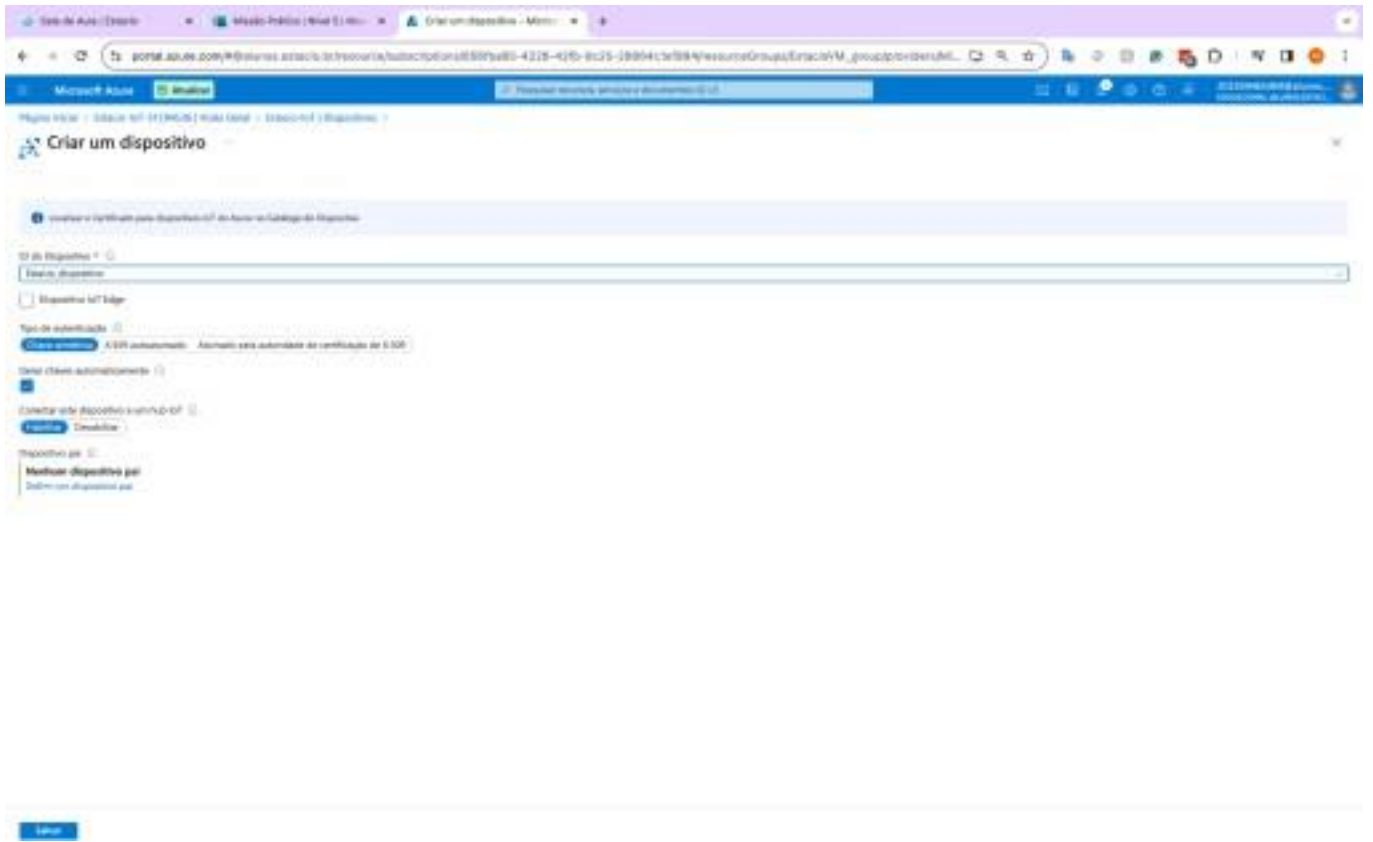
Selecione o grupo de recursos.

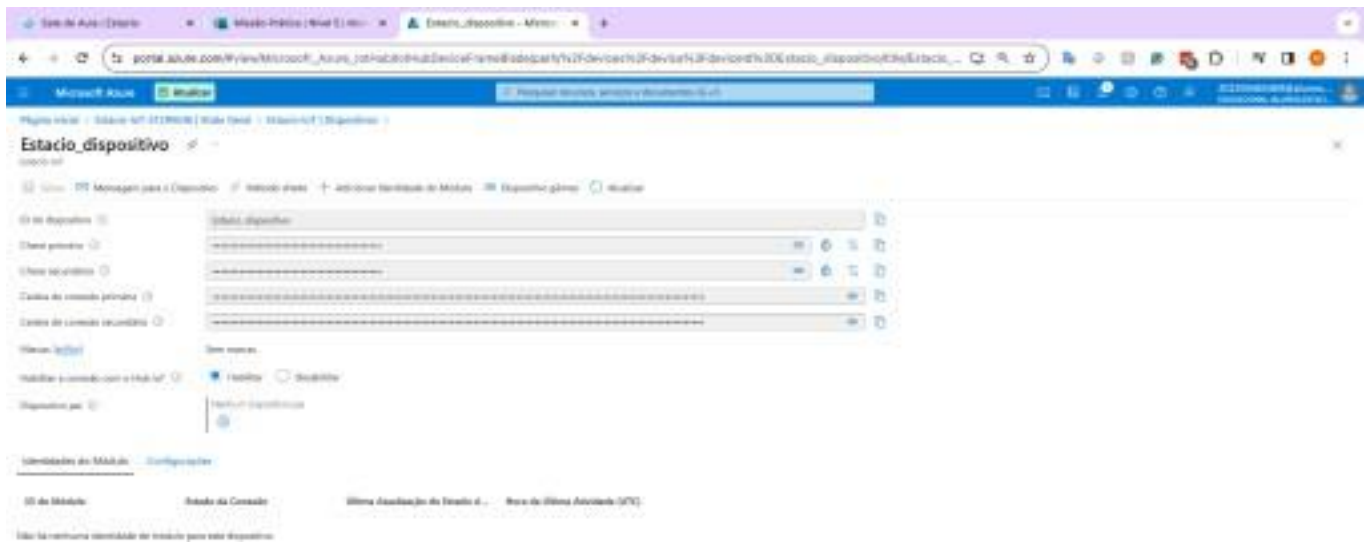
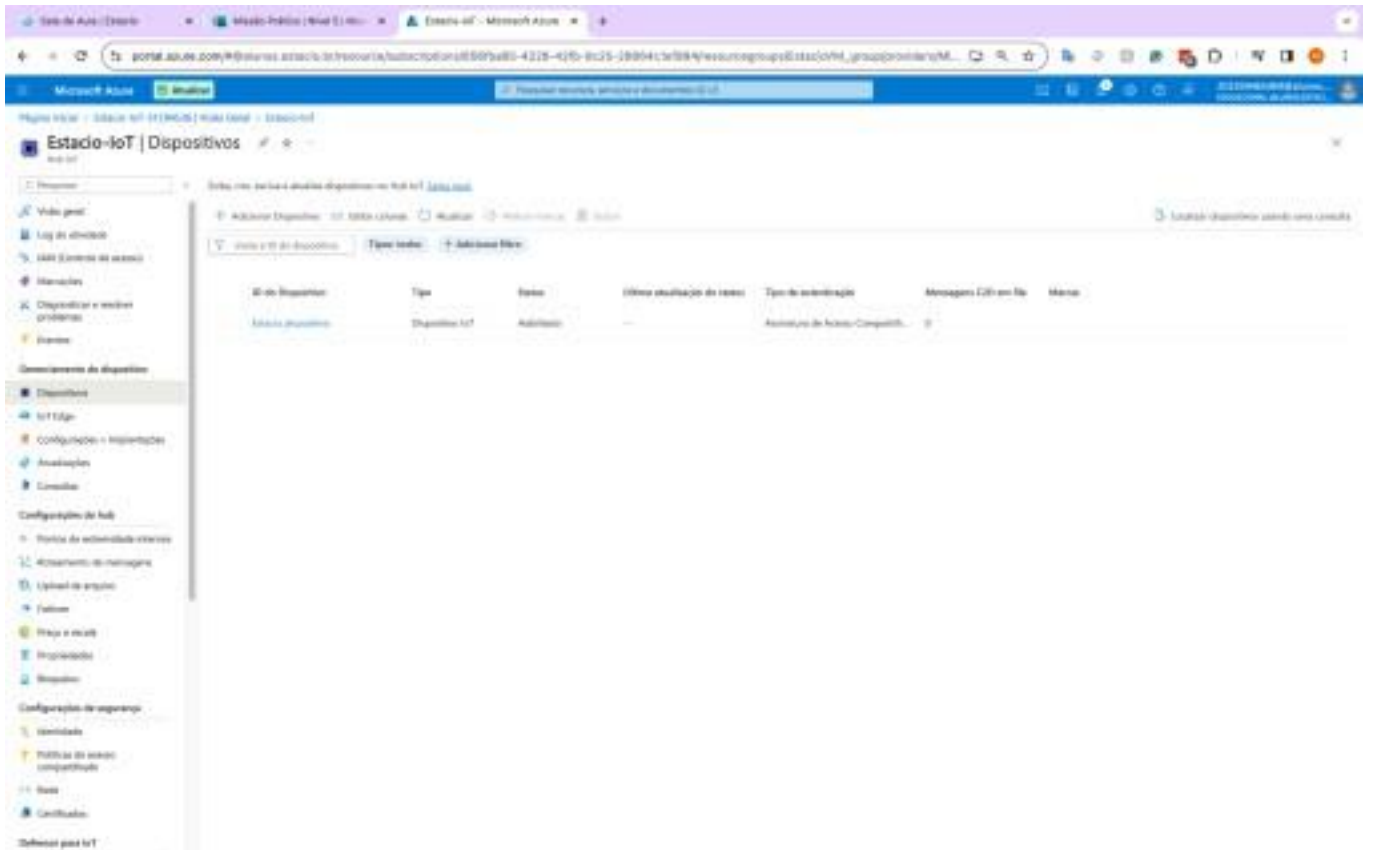
Gerenciamento de Códigos  
Use o conhecimento de especialistas do Azure IoT para obter informações de especialistas para ajudar você a obter o máximo de seu Azure IoT.

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Microatividade 2: Como registrar um novo dispositivo no Hub IoT



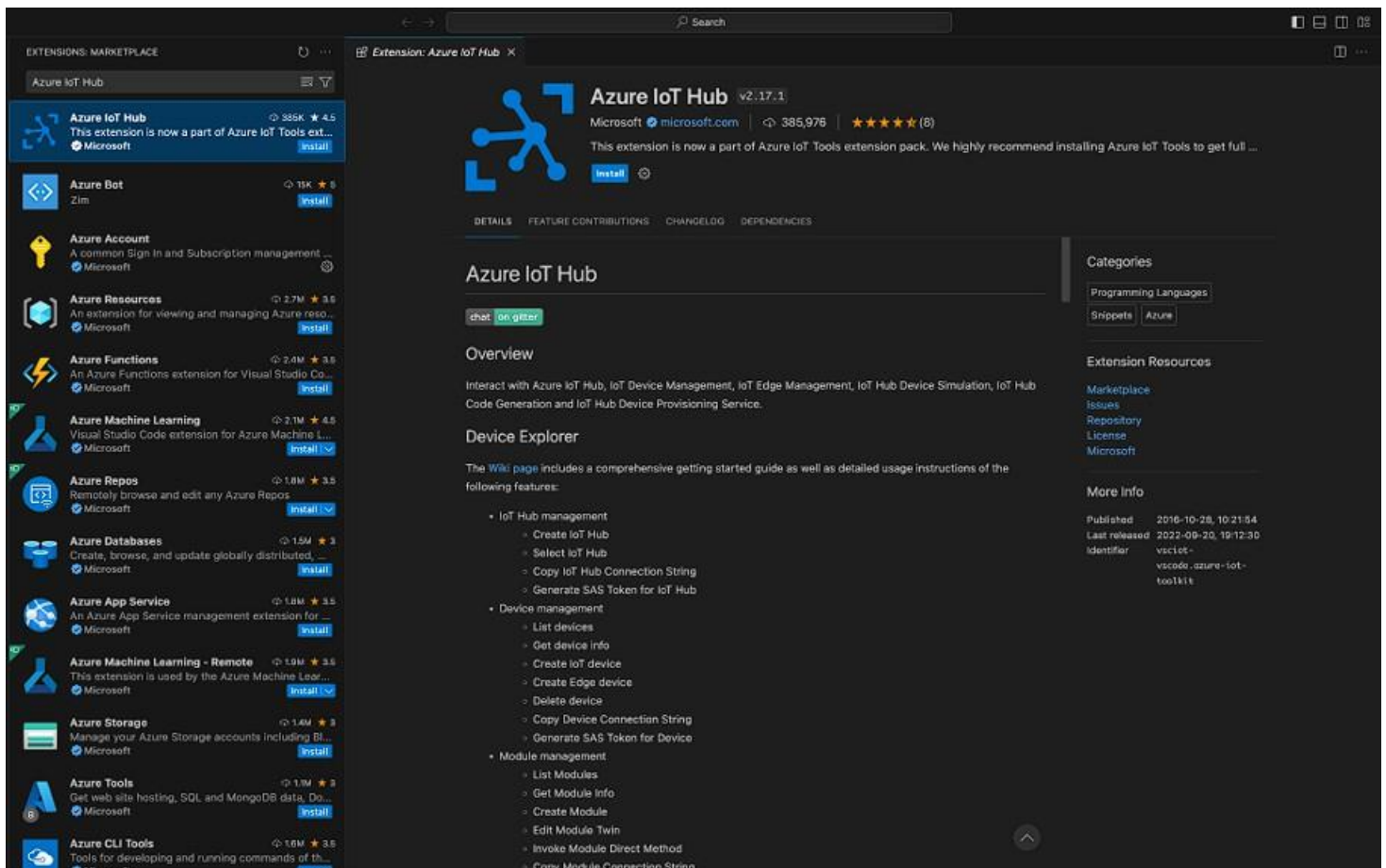
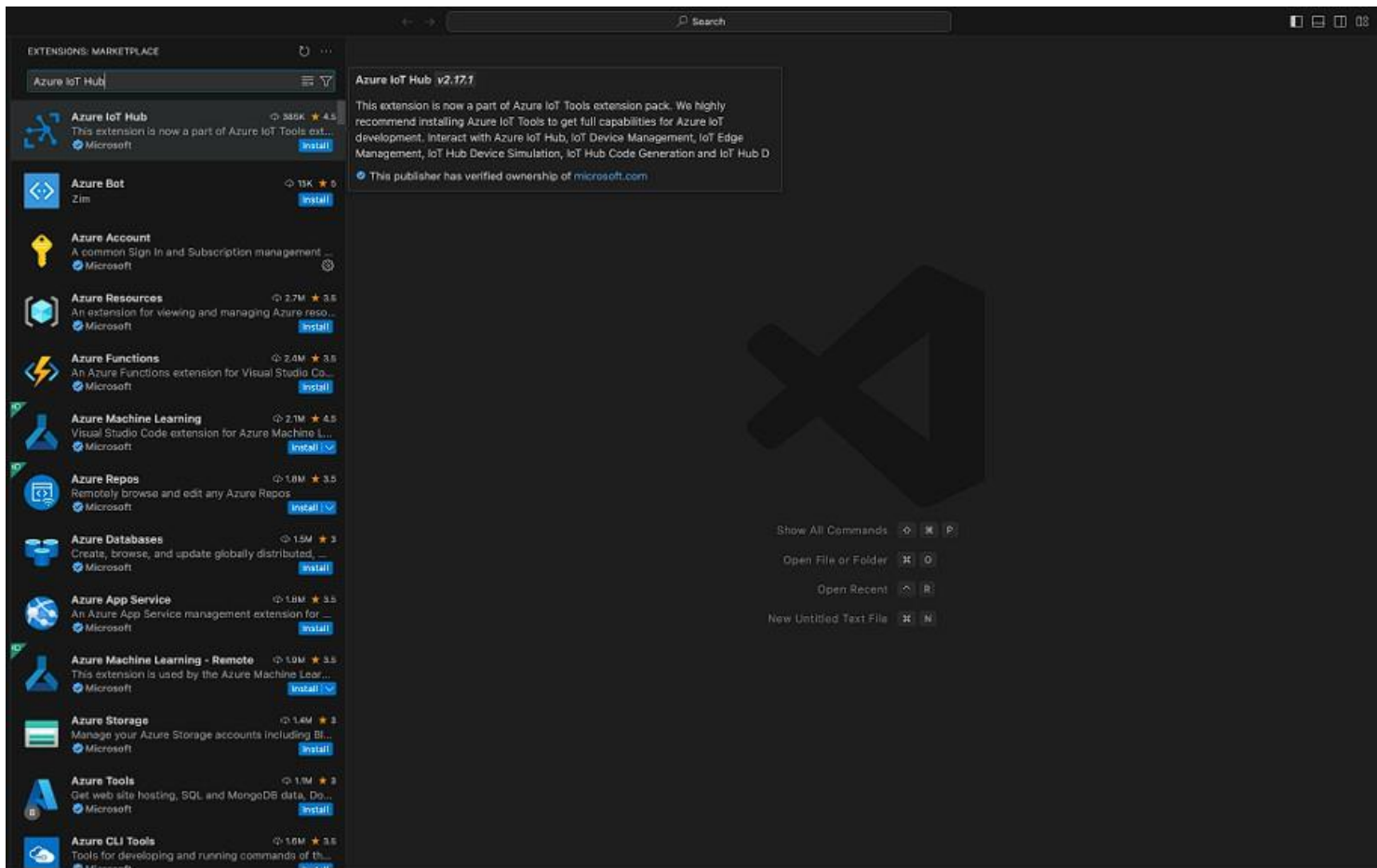


### Microatividade 3: Conectar o simulador online Raspberry Pi ao Hub IoT do Azure









**EXTENSIONS: MARKETPLACE**

**Azure IoT Hub** 121ms  
This extension is now a part of Azure IoT Tools ext...  
Microsoft

**Azure Bot** 19K ★ 5  
Zim  
Install

**Azure Account** 153ms  
A common Sign In and Subscription management ...  
Microsoft

**Azure Resources** 2.7M ★ 3.5  
An extension for viewing and managing Azure reso...  
Microsoft

**Azure Functions** 2.4M ★ 3.5  
An Azure Functions extension for Visual Studio Co...  
Microsoft

**Azure Machine Learning** 2.1M ★ 4.5  
Visual Studio Code extension for Azure Machine L...  
Microsoft

**Azure Repos** 1.8M ★ 3.5  
Remotely browse and edit any Azure Repos  
Microsoft

**Azure Databases** 1.5M ★ 3  
Create, browse, and update globally distributed, ...  
Microsoft

**Azure App Service** 1.6M ★ 3.5  
An Azure App Service management extension for ...  
Microsoft

**Azure Machine Learning - Remote** 1.9M ★ 3.5  
This extension is used by the Azure Machine Lear...  
Microsoft

**Azure Storage** 1.4M ★ 3  
Manage your Azure Storage accounts including Bl...  
Microsoft

**Azure Tools** 1.1M ★ 3  
Get web site hosting, SQL and MongoDB data, Do...  
Microsoft

**Azure CLI Tools** 1.6M ★ 3.5  
Tools for developing and running commands of th...  
Microsoft

## Azure IoT Hub Extension

Interact with Azure IoT Hub, IoT Device Management, IoT Edge Management, IoT Hub Device Simulation, IoT Hub Code Generation.

### Quick Starts

**Select IoT Hub if you have existing one**  
Click below button to select IoT Hub via command, or expand for alternative instructions.

**Create IoT Hub if you don't have one**  
Click below button to create IoT Hub via command, or expand for alternative instructions.

### Say Hello to Azure IoT Hub in 1 Minute

- Register a device
- Say Hello to IoT Hub (Send device-to-cloud message)
- Monitor device-to-cloud (D2C) message
- Generate Azure IoT application

#### Register a device

A device must be registered with your IoT hub before it can connect.

- Click ... > **Create Device** at **AZURE IOT HUB** tab, or type **Azure IoT Hub: Create Device** in Command Palette.
- Enter device ID and press **Enter**.
- Wait a few seconds until the new device is created.

Visual Studio Code interface showing the Explorer view with a folder named 'iot-device' and the Command Palette open with the command 'Enter Device ID to create (Press 'Enter' to confirm or 'Escape' to cancel)'.

**Quick Links**

- Marketplace
- Repository
- Issues
- Wiki
- Enter
- Changelog

**Resources**

- Channel 9 video: Walkthrough of Azure IoT Hub extension
- Quickly build your Azure IoT application with Node.js, Python or REST API
- Create and control an IoT device connected to an IoT hub (Node.js)
- Create and control an IoT device connected to an IoT hub (.NET)
- Handy Tool When You Develop With Azure IoT
- Azure IoT Hub for Visual Studio Code generally available for managing Azure IoT Hub and Devices with ease

### Register a device

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**Outline**

- OUTLINE
- TIMELINE
- MAVEN
- AZURE IOT HUB**
  - Set IoT Hub Connection String
  - Select IoT Hub
  - Create IoT Hub

### Register a device

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**Outline**

- OUTLINE
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  - Set IoT Hub Connection String
  - Select IoT Hub
  - Create IoT Hub

**You are not signed in. Sign in to continue.**  
Source: Azure Account  
Sign In

**Select Subscriptions**

3 Selected OK

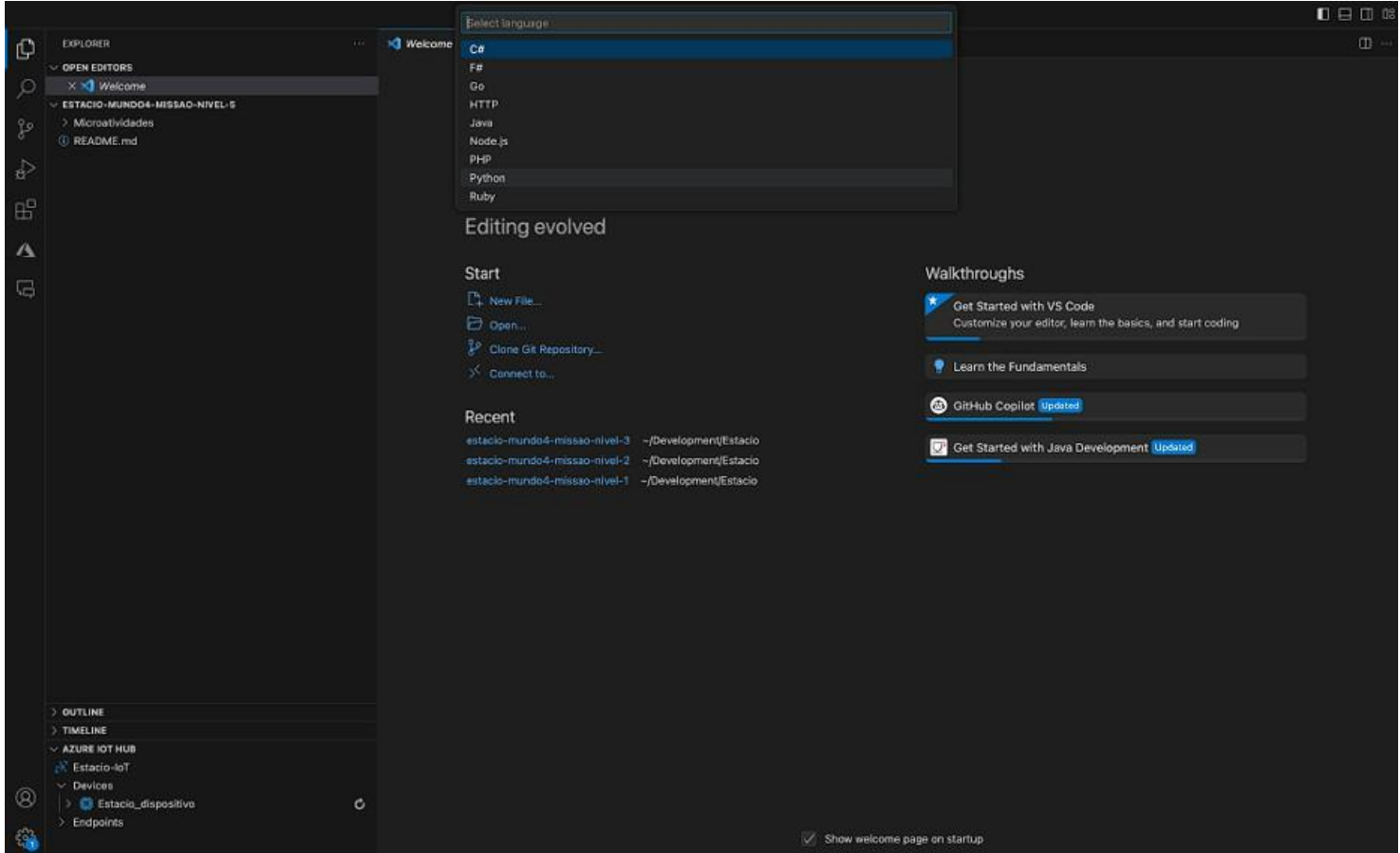
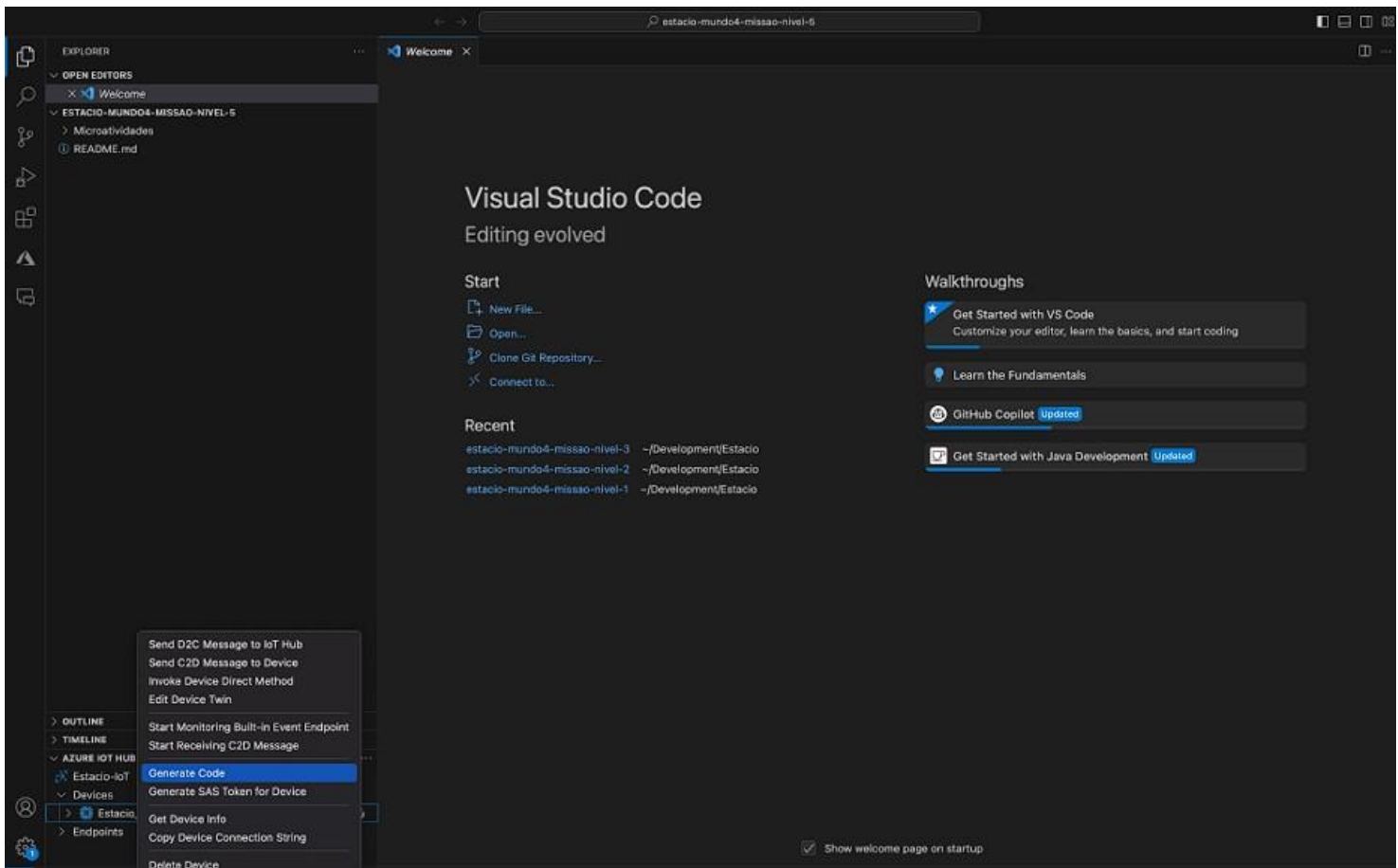
Azure subscription 1 886fba65-4226-42fb-Bc25-28664c1ef994

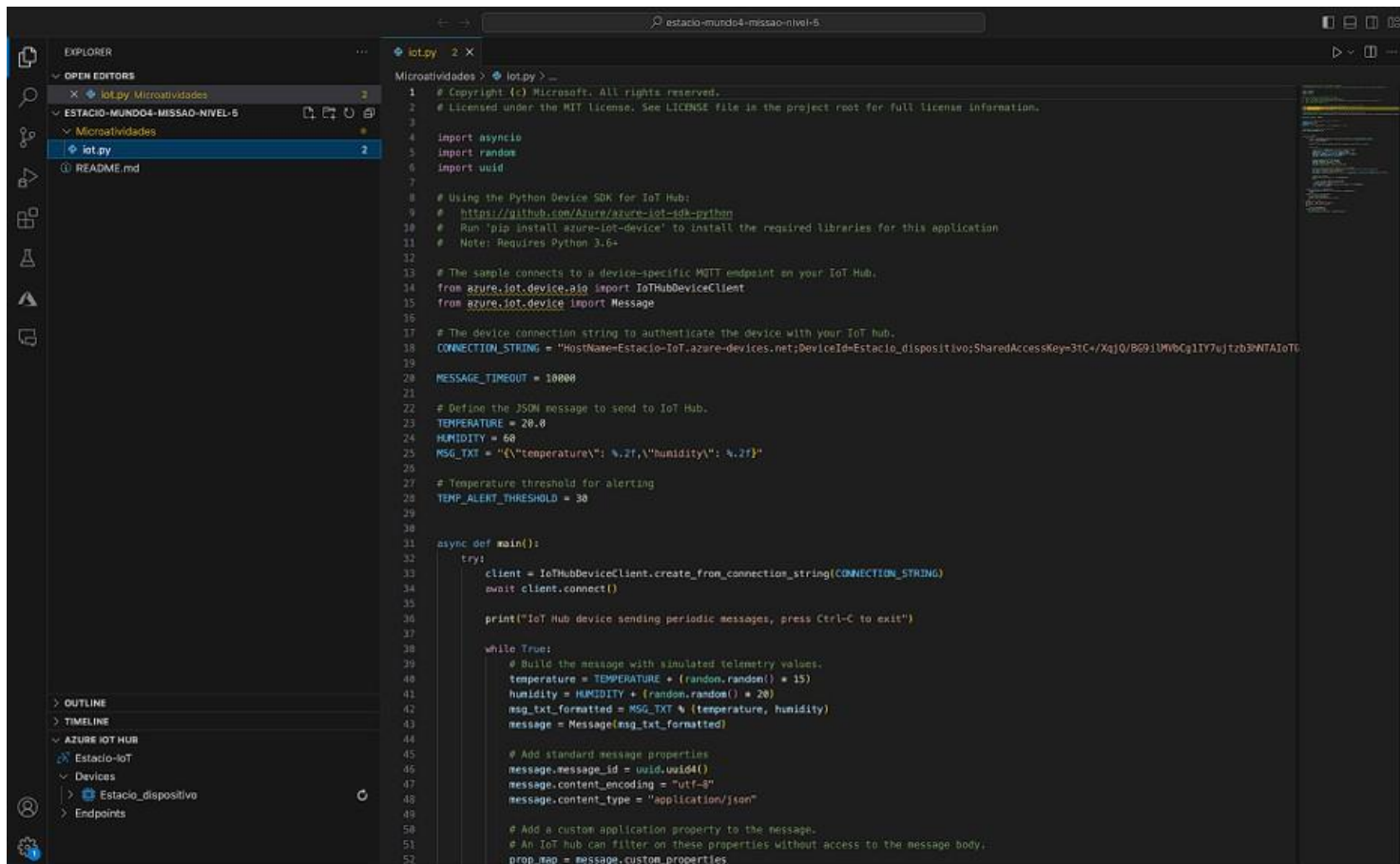
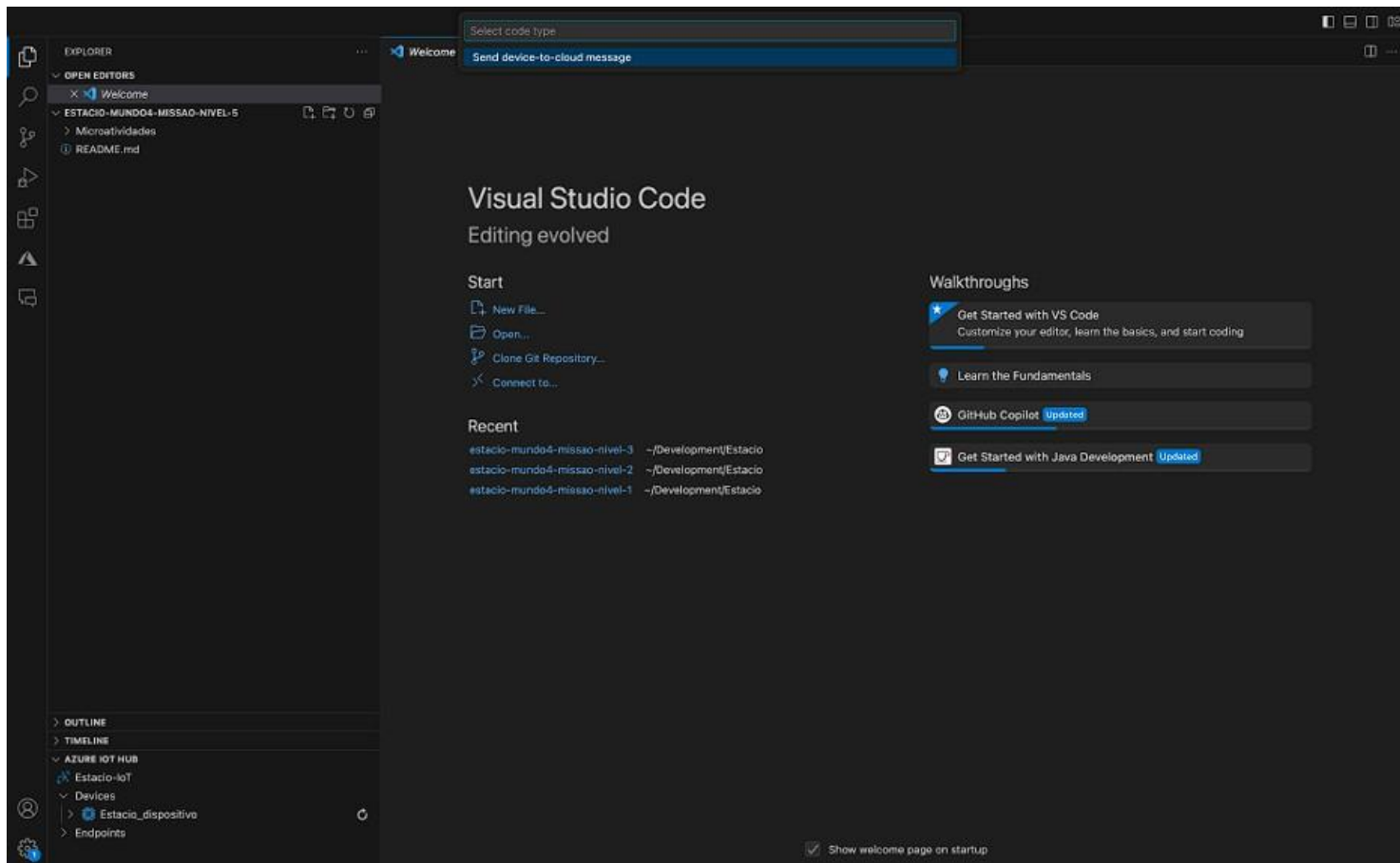
**Subscription selected: Azure subscription 1**  
**IoT Hub selected: Estacio-IoT**

**Outline**

- OUTLINE
- TIMELINE
- MAVEN
- AZURE IOT HUB**
  - Estacio-IoT
    - Devices
      - Estacio-dispositivo**
    - Endpoints

Microatividade 5: Gerenciando e interagindo com o Hub IoT







The screenshot shows a VS Code editor with a Python file named `iot.py` open. The Explorer sidebar on the left shows the project structure: `ESTACIO-MUNDO4-MISSAO-NIVEL-5` > `Microatividades` > `iot.py`. The code in `iot.py` is a Python script that connects to an IoT Hub and sends periodic messages. The code includes comments in Portuguese explaining the steps: installing the Azure IoT SDK for Python, setting the connection string, and sending messages. The script uses the `azure.iot.device` library. The output window at the bottom shows the messages being sent, including temperature and humidity data.

```
76 # Copyright (c) Microsoft. All rights reserved.
77 # Licensed under the MIT license. See LICENSE file in the project root for full license information.
78
79 import asyncio
80 import random
81 import uuid
82
83 # Using the Python Device SDK for IoT Hub:
84 # https://github.com/Azure/azure-iot-sdk-python
85 # Run 'pip install azure-iot-device' to install the required libraries for this application
86 # Note: Requires Python 3.6+
87
88 # The sample connects to a device-specific MQTT endpoint on your IoT Hub.
89 from azure.iot.device.aio import IoTHubDeviceClient
90 from azure.iot.device import Message
91
92 # The device connection string to authenticate the device with your IoT hub.
93 CONNECTION_STRING = "HostName=Estacio-IoT.azure-devices.net;DeviceId=Estacio_dispositivo;SharedAccessKey=3tC+/Xqj0/BG9l1WVbCq1IY7Ujtzb3NNTA1oTc"
94
95 MESSAGE_TIMEOUT = 10000
96
97 # Define the JSON message to send to IoT Hub.
98 TEMPERATURE = 20.0
99 HUMIDITY = 60
100 MSG_TXT = "{\"temperature\": %.2f,\"humidity\": %.2f}"
101
102 # Temperature threshold for alerting
103 TEMP_ALERT_THRESHOLD = 30
104
105 async def main():
106     try:
107         client = IoTHubDeviceClient.create_from_connection_string(CONNECTION_STRING)
108         await client.connect()
109
110         print("IoT Hub device sending periodic messages, press Ctrl-C to exit")
111
112         while True:
113             # Send a message to IoT Hub
114             msg = Message(MSG_TXT % (TEMPERATURE, HUMIDITY))
115             await client.send_message(msg)
116             await asyncio.sleep(MESSAGE_TIMEOUT)
117
118             # Check if temperature is above the threshold
119             if TEMPERATURE > TEMP_ALERT_THRESHOLD:
120                 print("Temperature alert: %s" % TEMPERATURE)

The output window shows the following messages being sent:



```
Sending message: {"temperature": 21.71,"humidity": 48.55}
Sending message: {"temperature": 28.34,"humidity": 66.33}
Sending message: {"temperature": 26.58,"humidity": 65.53}
Sending message: {"temperature": 20.17,"humidity": 63.54}
Sending message: {"temperature": 21.25,"humidity": 73.86}
Sending message: {"temperature": 32.32,"humidity": 64.89}
Sending message: {"temperature": 26.37,"humidity": 74.09}
Sending message: {"temperature": 25.96,"humidity": 62.60}
Sending message: {"temperature": 20.94,"humidity": 66.11}
Sending message: {"temperature": 32.69,"humidity": 61.46}
Sending message: {"temperature": 21.99,"humidity": 75.23}
Sending message: {"temperature": 26.32,"humidity": 78.28}
Sending message: {"temperature": 22.85,"humidity": 60.41}
Sending message: {"temperature": 32.66,"humidity": 76.32}
```


```

The screenshot shows a VS Code editor with a JavaScript file named `event-hub-reader.js` open. The Explorer sidebar on the left shows the project structure: `ESTACIO-MUNDO4-MISSAO-NIVEL-5` > `MissaoPratica/web-apps-node-iot-hub-data-visualization` > `scripts` > `event-hub-reader.js`. The code in `event-hub-reader.js` is a JavaScript script that connects to an Event Hub and reads messages. The code includes comments in Portuguese explaining the steps: installing the Azure Event Hubs SDK, setting the connection string, and reading messages. The script uses the `azure.event-hubs` library. The output window at the bottom shows the messages being read, including temperature and humidity data.

```
1 // Microsoft Sample Code - Copyright (c) 2020 - Licensed MIT
2
3
4 const { EventHubProducerClient, EventHubConsumerClient } = require('@azure/event-hubs');
5 const { convertIoTHubToEventHubsConnectionString } = require('../iot-hub-connection-string.js');
6
7 class EventHubReader {
8     constructor(iotHubConnectionString, consumerGroup) {
9         this.iotHubConnectionString = iotHubConnectionString;
10         this.consumerGroup = consumerGroup;
11     }
12
13     async startReadMessage(startReadMessageCallback) {
14         try {
15             const eventHubConnectionString = await convertIoTHubToEventHubsConnectionString(this.iotHubConnectionString);
16             const consumerClient = new EventHubConsumerClient(this.consumerGroup, eventHubConnectionString);
17             console.log('Successfully created the EventHubConsumerClient from IoT Hub event-hub-compatible connection string.');
```

Serviços do Azure

Recursos

Nome	Tipo	Última visualização
EstacioVM	Máquina virtual	um minuto atrás
Estacio-IoT	Hub IoT	45 minutos atrás
EstacioVM_group	Grupo de recursos	46 minutos atrás
EstacioAzureBd	Banco de dados SQL	2 semanas atrás
estacio-azure-server	SQL Server	2 semanas atrás

Navegar

```
bash: Consumidor-Estacio: command not found
mariana [ ~ ]$ az iot hub consumer-group create --hub-name Estacio-IoT --name Consumidor-Estacio
{
  "etag": null,
  "id": "/subscriptions/856fba65-4226-42fb-8c25-28664c1ef994/resourceGroups/EstacioVM_group/providers/Microsoft.Devices/IotHubs/Estacio-IoT/eventHubEndpoints/events/ConsumerGroups/Consumidor-Estacio",
  "name": "Consumidor-Estacio",
  "properties": {
    "created": "Tue, 12 Mar 2024 13:35:19 GMT",
    "properties": {
      "name": "Consumidor-Estacio"
    }
  },
  "resourceGroup": "EstacioVM_group",
  "type": "Microsoft.Devices/IotHubs/EventHubEndpoints/ConsumerGroups"
}
```

Visual Studio Code interface showing the Explorer, Source Explorer, and Terminal panels.

Explorer:

- index.html
- server.js
- ESTACIO-MUNDO4-MISSAO-NIVEL-5
- Microatividades
- lot.py
- MissaoPratica/web-apps-node-iot-hub-data-visual...
- node\_modules
- public
- css
- js
- chart-device-data.js
- index.html
- scripts
- event-hub-reader.js
- lot-hub-connection-string.js
- eslintrc
- gitignore
- travis.yml
- LICENSE
- package-lock.json
- package.json
- README.md
- server.js
- README.md

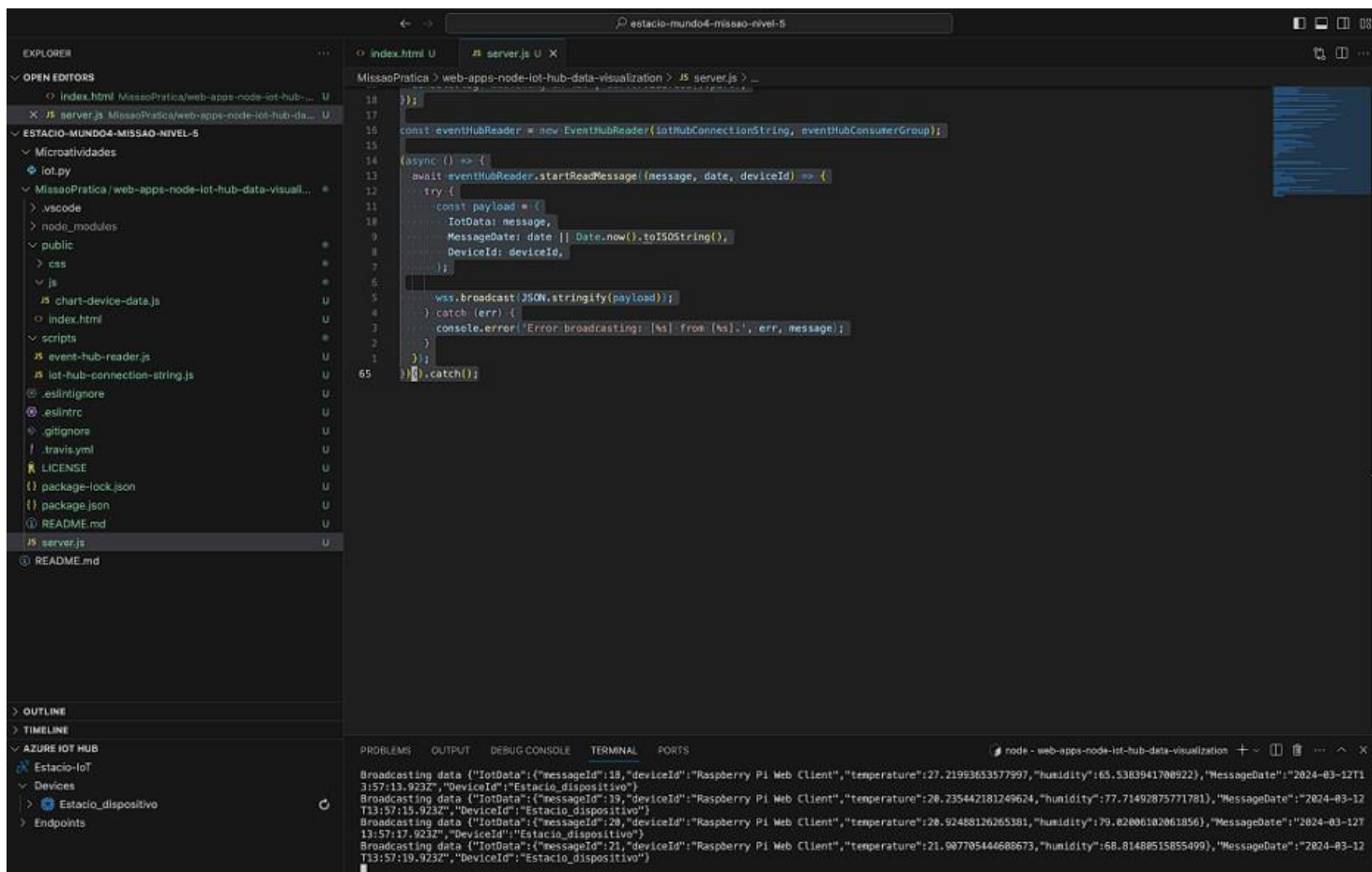
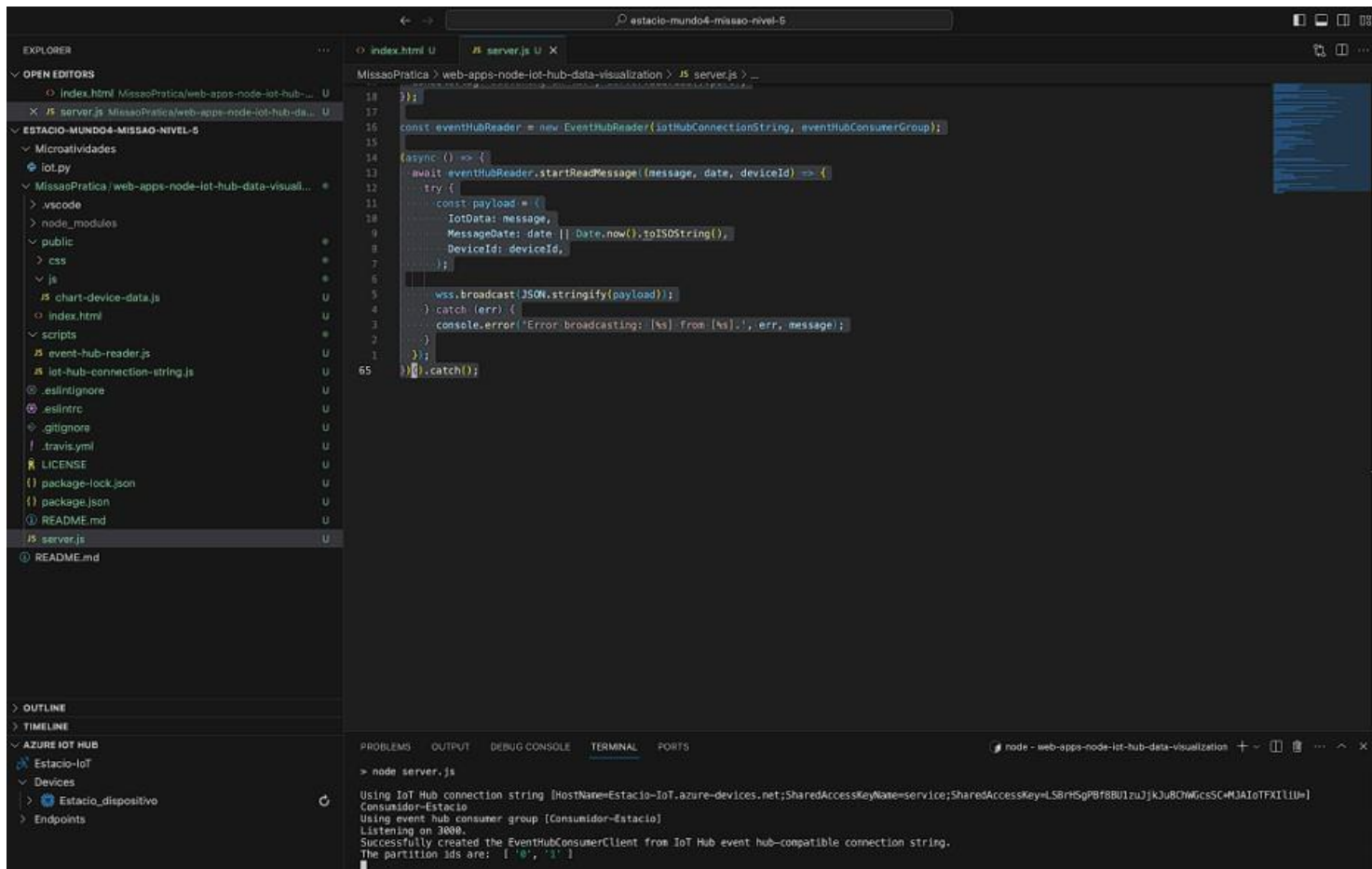
Source Explorer:

```
10  });
11  };
12  const eventHubReader = new EventHubReader(iotHubConnectionString, eventHubConsumerGroup);
13  (async () => {
14    await eventHubReader.startReadMessage(message, date, deviceId) => {
15      try {
16        const payload = {
17          IotData: message,
18          MessageDate: date || Date.now().toISOString(),
19          DeviceId: deviceId,
20        };
21        wss.broadcast(JSON.stringify(payload));
22      } catch (err) {
23        console.error('Error broadcasting: [%s] from [%s]', err, message);
24      }
25    }
26  })().catch();
```

Terminal:

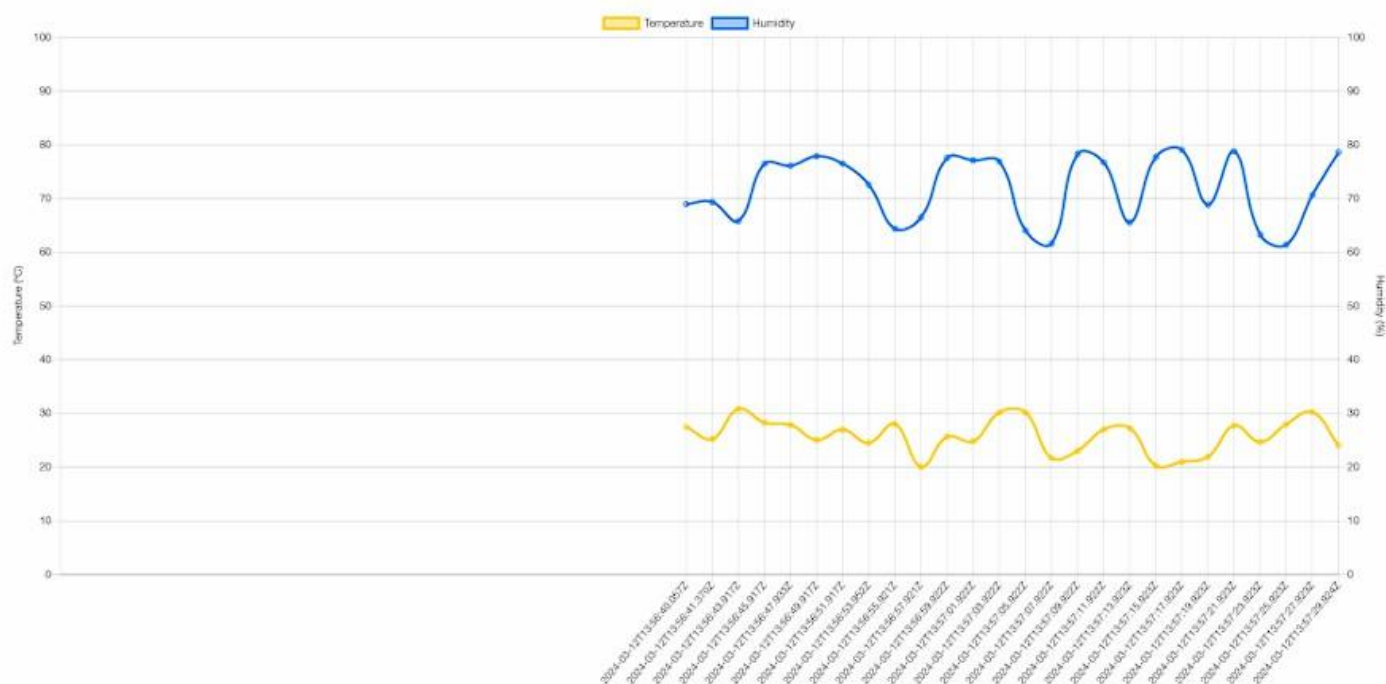
```
MacBooks-MacBook-Pro:web-apps-node-iot-hub-data-visualization $ export IotHubConnectionString="HostName=Estacio-IoT.azure-devices.net;SharedAccessKeyName=service;SharedAccessKey=LSBtHSpP8BUIzuJk3uBCHWcscMJAtoTFXl1u="
MacBooks-MacBook-Pro:web-apps-node-iot-hub-data-visualization $ echo $IotHubConnectionString
HostName=Estacio-IoT.azure-devices.net;SharedAccessKeyName=service;SharedAccessKey=LSBtHSpP8BUIzuJk3uBCHWcscMJAtoTFXl1u=
MacBooks-MacBook-Pro:web-apps-node-iot-hub-data-visualization $ export EventHubConsumerGroup=Consumidor-Estacio
MacBooks-MacBook-Pro:web-apps-node-iot-hub-data-visualization $ echo $EventHubConsumerGroup
Consumidor-Estacio
MacBooks-MacBook-Pro:web-apps-node-iot-hub-data-visualization $
```





Estado\_dispositivo

### Temperature & Humidity Real-time Data



## Recursos

Recente Favorita

Nome	Tipo	Última visualização
 EstacioVM	Máquina virtual	um minuto atrás
 Estacio IoT	Hub IoT	45 minutos atrás
 EstacioVM_group	Grupo de recursos	46 minutos atrás
 EstacioAzurebd	Banco de dados SQL	2 semanas atrás
 Estacio-azure-server	SQL Server	2 semanas atrás

[Ver todos](#)

```
Bash [ ~ ] ? [ icons ] {} [ D ]
mariana [ ~ ] % az appservice plan create --name app-estacio-plan --resource-group EstacioVM_group --sku FREE
Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
Resource provider 'Microsoft.Web' used by this operation is not registered. We are registering for you.
Registration succeeded.
{
  "elasticScaleEnabled": false,
  "extendedLocation": null,
  "freeOfferExpirationTime": null,
  "geoRegion": "Brazil South",
  "hostingEnvironmentProfile": null,
  "hyperV": false,
  "id": "/subscriptions/856fba65-4226-42fb-8c25-28664c1ef994/resourceGroups/EstacioVM_group/providers/Microsoft.Web/serverfarms/app-estacio-plan",
  "isSpot": false,
  "isXenon": false,
  "kind": "app",
  "kubeEnvironmentProfile": null,
  "location": "brazilsouth",
  "maximumElasticWorkerCount": 1,
  "maximumNumberOfWorkers": 0,
  "name": "app-estacio-plan",
  "numberOfSites": 0,
  "numberOfWorkers": 0,
  "perSiteScaling": false,
  "provisioningState": "Succeeded",
  "reserved": false,
  "resourceGroup": "EstacioVM_group",
  "sku": {
    "capabilities": null,
    "capacity": 0,
    "family": "F",
    "locations": null,
    "name": "F1",
```

Microsoft Azure Portal interface showing the 'Recursos' (Resources) section. The table lists resources:

Nome	Tipo	Última visualização
EstacioVM	Máquina virtual	um minuto atrás
Estacio-IoT	Hub IoT	45 minutos atrás
EstacioVM_group	Grupo de recursos	46 minutos atrás
EstacioAzureBd	Banco de dados SQL	2 semanas atrás
estacio-azure-server	SQL Server	2 semanas atrás

Below the table, a Bash terminal window shows the command to create a new app:

```
mariana [ ~ ]$ az webapp create -n app-estacio-iot -g EstacioVM_group -p app-estacio-plan --runtime "NODE:16 LTS" --deployment-source-url https://github.com/Azure-Samples/web-apps-node-iot-hub-data-visualization
```

The output shows the linking to the git repository and the location is not a known attribute of class <class 'azure.mgmt.web.v2021\_01\_01.models.\_models\_py3.SiteSourceControl'> and will be ignored.

Microsoft Azure Portal interface showing the 'Recursos' (Resources) section. The table lists resources:

Nome	Tipo	Última visualização
EstacioVM	Máquina virtual	um minuto atrás
Estacio-IoT	Hub IoT	45 minutos atrás
EstacioVM_group	Grupo de recursos	46 minutos atrás
EstacioAzureBd	Banco de dados SQL	2 semanas atrás
estacio-azure-server	SQL Server	2 semanas atrás

Below the table, a Bash terminal window shows the command to configure app settings:

```
mariana [ ~ ]$ az webapp config appsettings set -n app-estacio-iot -g EstacioVM_group --settings EventHubConsumerGroup=Consumidor-Estacio IoTHubConnectionString="HostName=Estacio-IoT.azure-devices.net;SharedAccessKeyName=service;SharedAccessKey=LS8rHSgP8T8BU1zuJkJu8ChW6csSC+MJAioTFX11IU="
```

The output shows the app settings have been redacted. Use 'az webapp/logicapp/functionapp config appsettings list' to view.

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### Recursos

Recente Favorito

Nome	Tipo	Última visualização
EstacioVM	Máquina virtual	um minuto atrás
Estacio-IoT	Hub IoT	45 minutos atrás
EstacioVM_group	Grupo de recursos	46 minutos atrás
EstacioAzureBd	Banco de dados SQL	2 semanas atrás
estacio-azure-server	SQL Server	2 semanas atrás

Ver todos

```
Bash [ ~ ]$ az webapp config set -n app-estacio-iot -g EstacioVM_group --web-sockets-enabled true
{
  "acrUseManagedIdentityCreds": false,
  "acrUserManagedIdentityId": null,
  "alwaysOn": false,
  "apiDefinition": null,
  "apiManagementConfig": null,
  "appCommandLine": "",
  "appSettings": null,
  "autoHealEnabled": false,
  "autoHealRules": null,
  "autoSwapSlotName": null,
  "azureStorageAccounts": {},
  "connectionStrings": null,
  "cors": null,
  "defaultDocuments": [
    "Default.htm",
    "Default.html",
    "Default.asp",
    "Index.htm",
    "Index.html",
    "iisstart.htm",
    "default.aspx",
    "Index.php",
    "hostingstart.html"
  ],
  "detailedErrorLoggingEnabled": false,
  "documentRoot": null,
  "elasticWebAppScaleLimit": 0,
  "experiments": {
    "rampUpRules": []
  },
}
```

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### Recursos

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EstacioVM	Máquina virtual	um minuto atrás
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estacio-azure-server	SQL Server	2 semanas atrás

Ver todos

```
Bash [ ~ ]$ az webapp update -n app-estacio-iot -g EstacioVM_group --https-only true
{
  "availabilityState": "Normal",
  "clientAffinityEnabled": true,
  "clientCertEnabled": false,
  "clientCertExclusionPaths": null,
  "clientCertMode": "Required",
  "cloningInfo": null,
  "containerSize": 0,
  "customDomainVerificationId": "7CC17C889000F0FF3DF5E958238946C5FEFEDF234901E98811DB0586C83C1487",
  "dailyMemoryTimeQuota": 0,
  "daprConfig": null,
  "defaultHostName": "app-estacio-iot.azurewebsites.net",
  "enabled": true,
  "enabledHostNames": [
    "app-estacio-iot.azurewebsites.net",
    "app-estacio-iot.scm.azurewebsites.net"
  ],
  "extendedLocation": null,
  "hostNameSslStates": [
    {
      "certificateResourceId": null,
      "hostType": "Standard",
      "ipBasedSslResult": null,
      "ipBasedSslState": "NotConfigured",
      "name": "app-estacio-iot.azurewebsites.net",
      "sslState": "Disabled",
      "thumbprint": null,
      "toUpdate": null,
      "toUpdateIpBasedSsl": null,
      "virtualIpV6": null,
      "virtualIp": null
    }
  ]
}
```



Recursos

Recente

Favorito

Nome	Tipo	Última visualização
EstacioVM	Máquina virtual	um minuto atrás
Estacio-IoT	Hub IoT	45 minutos atrás
EstacioVM_group	Grupo de recursos	46 minutos atrás
EstacioAzureIcd	Banco de dados SQL	2 semanas atrás
estacio-azure-server	SQL Server	2 semanas atrás

Ver todos

Bash

```
"tracingOptions": null,
"use32BitWorkerProcess": null,
"virtualApplications": null,
"vnetName": null,
"vnetPrivatePortsCount": null,
"vnetRouteAllEnabled": null,
"webSocketsEnabled": null,
"websiteTimeZone": null,
"winAuthAdminState": null,
"winAuthTenantState": null,
"windowsConfiguredStacks": null,
"windowsFxVersion": null,
"xManagedServiceIdentityId": null
},
"slotSwapStatus": null,
"state": "Running",
"storageAccountRequired": false,
"suspendedFill": null,
"tags": null,
"targetSwapSlot": null,
"trafficManagerHostNames": null,
"type": "Microsoft.Web/sites",
"usageState": "Normal",
"virtualNetworkSubnetId": null,
"vnetContentShareEnabled": false,
"vnetImagePullEnabled": false,
"vnetRouteAllEnabled": false,
"workloadProfileName": null
}
mariana [ ~ ]$ az webapp show -n app-estacio-iot -g EstacioVM_group --query state
"Running"
```

