

Teste 1 - Criar e Configurar uma Instância EC2:

Criado a instancia conforme solicitado

The screenshot shows the AWS Management Console interface. At the top, there's a search bar and filters. Below, a table lists EC2 instances. One instance is highlighted, and its details are shown on the right.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
i-09ec5249b87705f71	i-09ec5249b87705f71	Running	t2.micro	2/2 checks passed	View alarms	us-east-2b	ec2-18-117-

Instance: i-09ec5249b87705f71

- Hostname type: IP name: ip-172-31-26-81.us-east-2.compute.internal
- Private IP DNS name (IPv4 only): ip-172-31-26-81.us-east-2.compute.internal
- Instance type: t2.micro
- VPC ID: vpc-0b5b2e7cfc4c5ab2a
- Subnet ID: subnet-0268d464e6ee886c4
- Auto-assigned IP address: 18.117.125.234 [Public IP]
- IAM Role: -
- 2.compute.amazonaws.com [open address]
- Elastic IP addresses: -
- AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more]
- Auto Scaling Group name: -

Configurado um par de chaves com no nome bolha-tech.pem

Teste de conexão com a instancia.

```
ubuntu@ip-172-31-26-81: ~  
O Windows PowerShell  
Copyright (C) Microsoft Corporation. Todos os direitos reservados.  
  
Instale o PowerShell mais recente para obter novos recursos e aprimoramentos! https://aka.ms/PSWindows  
  
PS C:\Users\Wanderson\Documents\DEWTECH\DESAFIO-AWS> ssh -i bolha-tech.pem ubuntu@18.117.125.234  
The authenticity of host '18.117.125.234 (18.117.125.234)' can't be established.  
ED25519 key fingerprint is SHA256:AiS9s8S0GbMRLR+8GPn/hj63XcCpdaPQjRsL+DE9Kpg.  
This key is not known by any other names  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '18.117.125.234' (ED25519) to the list of known hosts.  
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1014-aws x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/pro  
  
System information as of Wed Mar 20 06:37:30 UTC 2024  
  
System load:  0.15185546875    Processes:            105  
Usage of /:   20.7% of 7.57GB   Users logged in:     1  
Memory usage: 22%             IPv4 address for eth0: 172.31.26.81  
Swap usage:   0%
```

Print após a conexão

```
ubuntu@ip-172-31-26-81: ~  
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1014-aws x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/pro  
  
System information as of Wed Mar 20 06:37:30 UTC 2024  
  
System load:  0.15185546875      Processes:            105  
Usage of /:   20.7% of 7.57GB    Users logged in:     1  
Memory usage: 22%               IPv4 address for eth0: 172.31.26.81  
Swap usage:   0%  
  
Expanded Security Maintenance for Applications is not enabled.  
  
0 updates can be applied immediately.  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
Last login: Wed Mar 20 06:36:18 2024 from 3.16.146.4  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
ubuntu@ip-172-31-26-81:~$
```

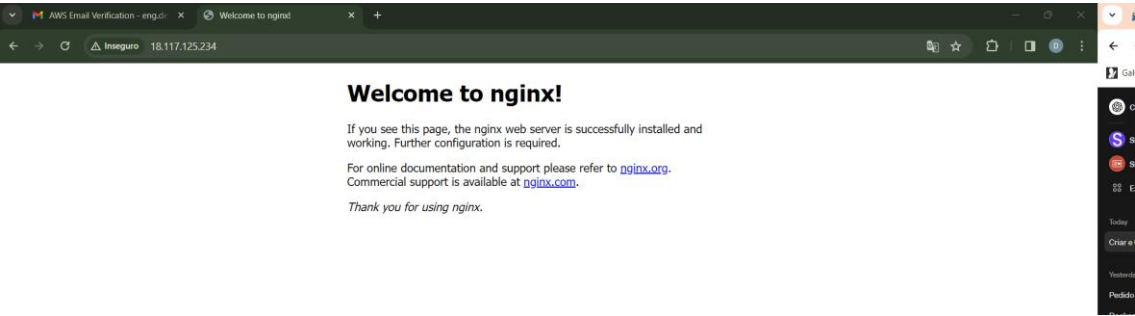
Atualização do sistema

```
ubuntu@ip-172-31-26-81:~$ sudo apt update  
Hit:1 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy InRelease  
Get:2 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]  
Get:3 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]  
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]  
Get:5 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]  
Get:6 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]  
Get:7 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]  
Get:8 http://us-east-2.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
```

Instalação do nginx

```
ubuntu@ip-172-31-26-81:~$ sudo apt install nginx  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  fontconfig-config fonts-dejavu-core libdeflate0 libfontconfig1 libgd3 libjbig0 libjpeg-turbo8 libjpeg8  
  libnginx-mod-http-geoip2 libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail  
  libnginx-mod-stream libnginx-mod-stream-geoip2 libtiff5 libwebp7 libxpm4 nginx-common nginx-core  
Suggested packages:  
  libgd-tools fcgiwrap nginx-doc ssl-cert  
The following NEW packages will be installed:  
  fontconfig-config fonts-dejavu-core libdeflate0 libfontconfig1 libgd3 libjbig0 libjpeg-turbo8 libjpeg8  
  libnginx-mod-http-geoip2 libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter libnginx-mod-mail  
  libnginx-mod-stream libnginx-mod-stream-geoip2 libtiff5 libwebp7 libxpm4 nginx-common nginx-core
```

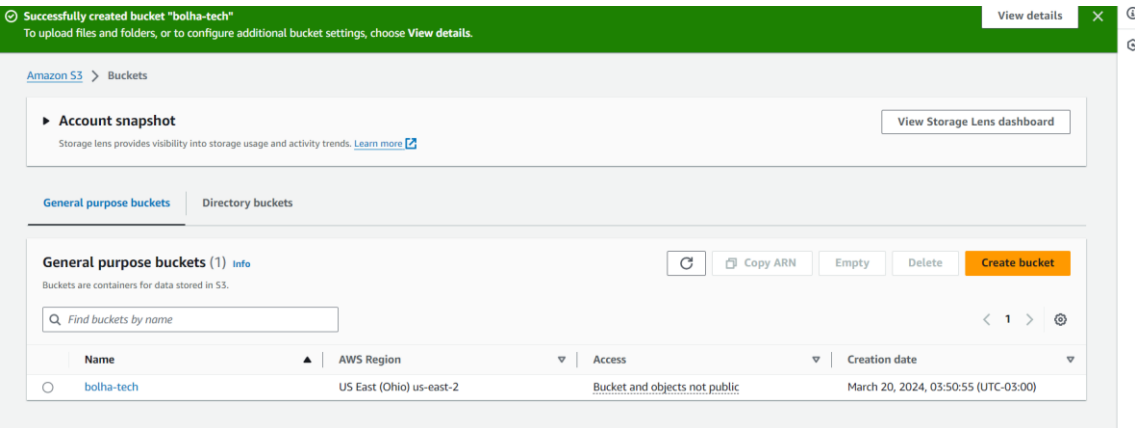
Verificação da instalação



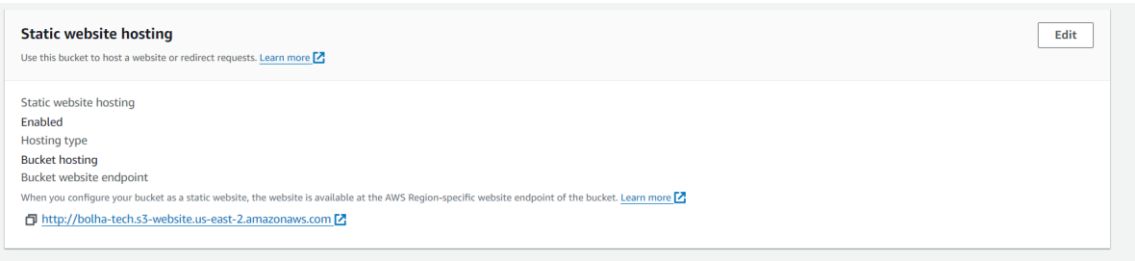
```
ubuntu@ip-172-31-26-81:~$ sudo systemctl enable nginx
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
ubuntu@ip-172-31-26-81:~$ |
```

Teste 2 - Criar um bucket no S3 para servir um site estático

Foi criado um Bucket com no nome bolha-tech



Foram realizadas as configurações de Static website hosting



Criada politica de segurança de leitura dos objetos no Bucket

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

Bucket ARN

arn:aws:s3:::bolha-tech

Policy

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Sid": "PublicReadForGetBucketObjects",
6       "Effect": "Allow",
7       "Principal": "*",
8       "Action": "s3:GetObject",
9       "Resource": "arn:aws:s3:::bolha-tech/*"
10    }
11  ]
12 }
13
```

Realizado Upload Manual para teste do arquivo

Inseguro

bolha-tech.s3-website.us-east-2.amazonaws.com

Galeria do Web Slice

Importado do IE

Autodesk Labs Utilit...

9000

MONITOR DAS FRA...

Primeiros passos

Meu Site Estático n...

Bem-vindo ao meu site estático hospedado no S3!

Esta é uma página de teste.

Criado um usuário com nome github-actions com a permissão AmazonS3FullAccess, para acesso ao Bucket , para ser utilizado durante o deploy.

Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

User details

User name

github-actions

Console password type

Custom password

Require password reset

No

Permissions summary

< 1 >

Name	Type	Used as
AmazonS3FullAccess	AWS managed	Permissions policy

Gerado `AWS_ACCESS_KEY_ID` e `AWS_SECRET_ACCESS_KEY`, para configurar as secrets que serão utilizadas na pipeline.

Access keys (1)

Create access key

Use access keys to send programmatic calls to AWS from the AWS CLI, AWS Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time. [Learn more](#)

AKIA47CRXPW4YJVXFZFT

Description

AWS_SECRET_ACCESS_KEY

Last used

None

Last used region

N/A

Status

Active

Created

Now

Last used service

N/A

Actions

Criação das Secrets no github, para utilização na pipeline.

Repository secrets

New repository secret

Name	Last updated
AWS_ACCESS_KEY_ID	now
AWS_S3_BUCKET	16 minutes ago
AWS_SECRET_ACCESS_KEY	now

Criação do arquivo da pipeline e primeiro teste de execução.

deploy.yml

Deploy Website

Update deploy.yml #3

Summary

Jobs

Run details

Usage

Workflow file

Triggered via push now

wleandrooliveira pushed -> 4693a62

Status

In progress

Total duration

—

Artifacts

—

deploy.yml

on: push

deploy

2s

deploy

Started 2s ago

Get logs

Give feedback

Search logs

```
9 #2 DONE 0.0s
10 #3 [auth] library/python:pull token for registry-1.docker.io
11 #3 DONE 0.0s
12 #4 [internal] load metadata for docker.io/library/python:3.8-alpine
13 #4 DONE 0.0s
14 #5 [internal] load build context
15 #5 transferring context: 1.52kB done
16 #5 DONE 0.0s
17 #6 [1/3] FROM docker.io/library/python:3.8-alpine@sha256:0ef73cd8a926f9152586ab2c7c4ca9e9c43ca7a91cfc32957d836db20090
18 #6 resolve docker.io/library/python:3.8-alpine@sha256:0ef73cd8a926f9152586ab2c7c4ca9e9c43ca7a91cfc32957d836db20090 0.0s done
19 sha256:60706526c3f42bc34c8d609736bc7be343d7f4307c27b058649a6bdc4526a95 240B / 240B 0.1s done
20 sha256:4f1d5549742059c8bed3cfffdf2f8d5ce3774e57c864a5cba3dc582b972e18e04 0B / 2.85MB 0.1s
21 sha256:0ef73cd8a926f9152586ab2c7c4ca9e9c43ca7a91cfc32957d836db20090 1.65kB / 1.65kB done
22 sha256:84bd827ad60fb14f1f8807c216a7f3c758281f3fa2a4b4330af6cdd2f8ed6 1.37kB / 1.37kB done
23 sha256:d9787a716b9a6581b529423ce5733bbb7d8be570a1a18335026f831d7ed1f 6.30kB / 6.30kB done
24 sha256:c3cdf40b8bda8e4ca4be0f5fa7f1d128907271efcbc72c7bfc7c8b0f939ec25ea 0B / 619.60kB 0.1s
25 sha256:04c1a56569305ac8df0e0c17ee2e6be09be863233f101e27516f61996870451d 6.29MB / 13.43MB 0.1s
26 sha256:4f1d5549742059c8bed3cfffdf2f8d5ce3774e57c864a5cba3dc582b972e18e04 2.85MB / 2.85MB 0.2s
27 sha256:c3cdf40b8bda8e4ca4be0f5fa7f1d128907271efcbc72c7bfc7c8b0f939ec25ea 619.60kB / 619.60kB 0.1s done
28 sha256:04c1a56569305ac8df0e0c17ee2e6be09be863233f101e27516f61996870451d 13.43MB / 13.43MB 0.2s
29 extracting sha256:c3cdf40b8bda8e4ca4be0f5fa7f1d128907271efcbc72c7bfc7c8b0f939ec25ea
30 sha256:4f1d5549742059c8bed3cfffdf2f8d5ce3774e57c864a5cba3dc582b972e18e04 2.85MB / 2.85MB 0.2s done
31 sha256:04c1a56569305ac8df0e0c17ee2e6be09be863233f101e27516f61996870451d 13.43MB / 13.43MB 0.2s done
32 extracting sha256:c3cdf40b8bda8e4ca4be0f5fa7f1d128907271efcbc72c7bfc7c8b0f939ec25ea 0.3s done
33 extracting sha256:04c1a56569305ac8df0e0c17ee2e6be09be863233f101e27516f61996870451d
34 extracting sha256:04c1a56569305ac8df0e0c17ee2e6be09be863233f101e27516f61996870451d 0.4s done
35 extracting sha256:60706526c3f42bc34c8d609736bc7be343d7f4307c27b058649a6bdc4526a95 done
36 extracting sha256:60706526c3f42bc34c8d609736bc7be343d7f4307c27b058649a6bdc4526a95 done
37 extracting sha256:4f1d5549742059c8bed3cfffdf2f8d5ce3774e57c864a5cba3dc582b972e18e04 0.1s
38 extracting sha256:04c1a56569305ac8df0e0c17ee2e6be09be863233f101e27516f61996870451d 0.2s done
39 DONE 1.6s
40 #7 [2/3] RUN pip install --quiet --no-cache-dir awscli==1.18.14
```

☐ Run actions/checkout@v2

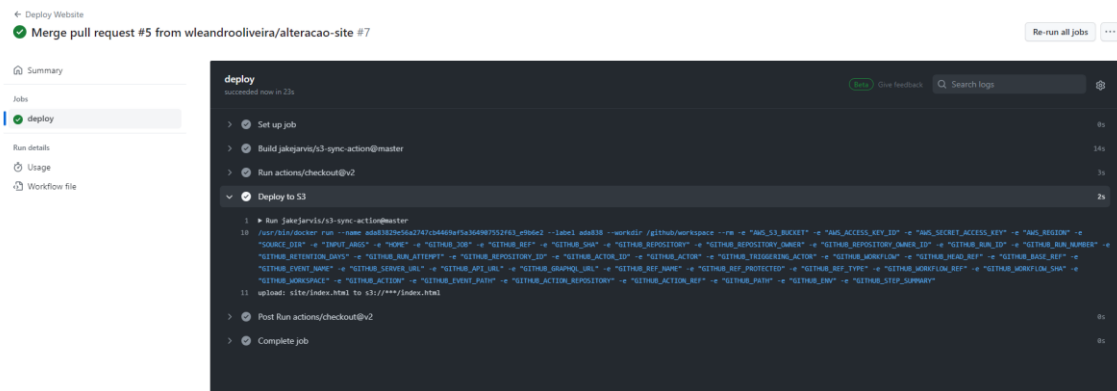
☐ Deploy to S3

[illegible]

← → ↻ Inseguro bolha-tech.s3-website.us-east-2.amazonaws.com

Esta é uma página de teste.

Agora que a pipeline está funcionando certinho, vou alterar o site e checar o a alteração no navegador.



Pipeline validada

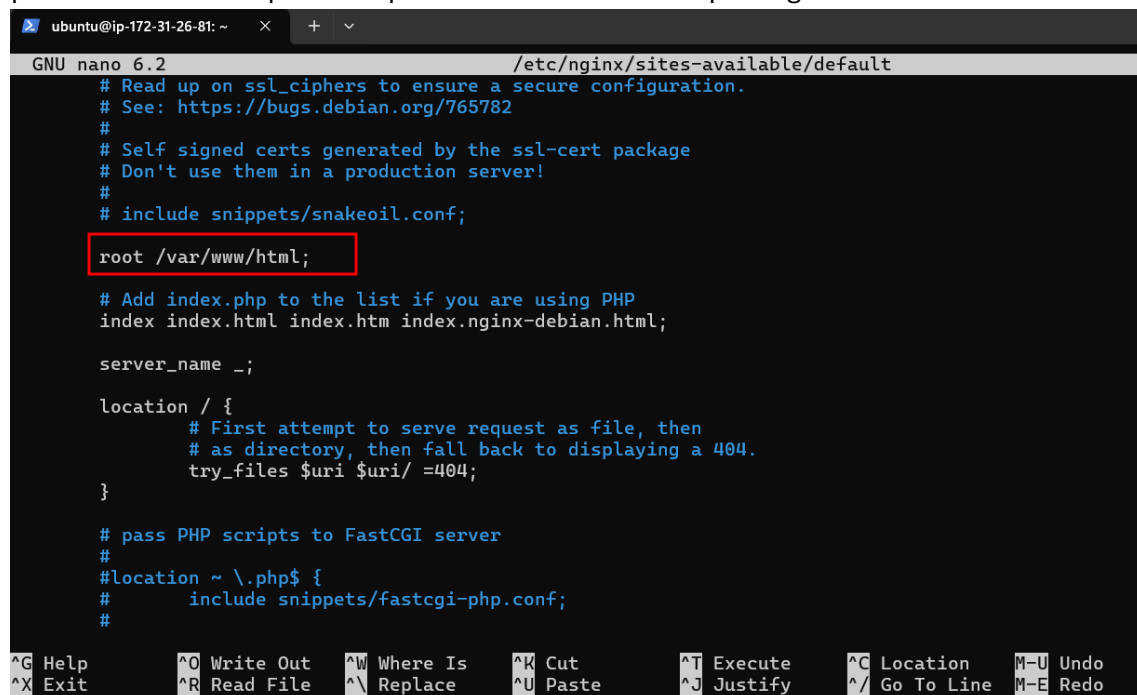


Bem-vindo ao meu site estático hospedado no S3!

Esta é uma página de teste.

Primeiro deploy no Bucket após a configuração da pipeline.

Checando a documentação do nginx para deploy do arquivos estáticos, será criada uma pasta site dentro do path root para servir o site estático pelo nginx na EC2.



Esse path em root será o conteúdo da secret EC2_TARGET_DIRECTORY

Criado novas secrets para o step de deploy na EC2

SSH_PRIVATE_KEY: A chave privada SSH para acesso à sua instância EC2.

SOURCE: O diretório local no repositório GitHub contendo os arquivos do site.

REMOTE_HOST: O endereço IP ou DNS da instância EC2.


























REMOTE_USER: O usuário para acesso SSH (por exemplo, ubuntu).

REMOTE_PORT: A porta para SSH, porta 22.

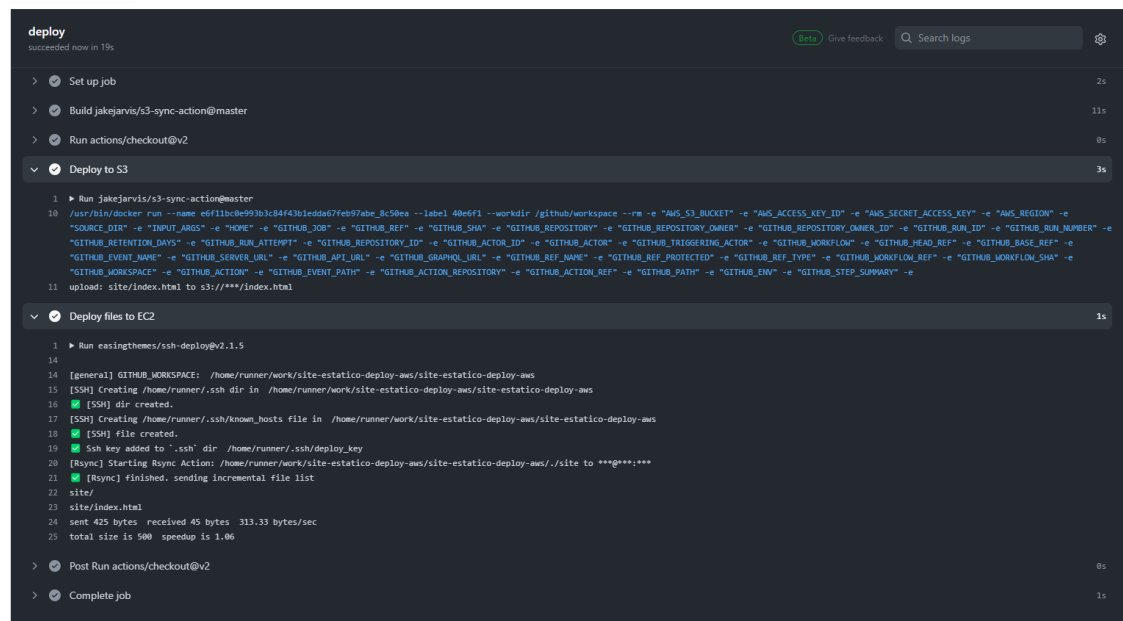
TARGET: O diretório na instância EC2 onde os arquivos devem ser colocados.

Repository secrets

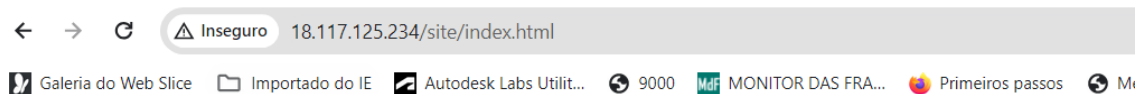
[New repository secret](#)

Name 	Last updated
 AWS_ACCESS_KEY_ID	4 hours ago  
 AWS_S3_BUCKET	5 hours ago  
 AWS_SECRET_ACCESS_KEY	4 hours ago  
 EC2_HOST	5 minutes ago  
 EC2_PORT	4 minutes ago  
 EC2_SSH_PRIVATE_KEY	7 minutes ago  
 EC2_TARGET_DIRECTORY	3 minutes ago  
 EC2_USER	3 minutes ago  

Deploy EC2 e S3



Verificação do deploy na EC2.



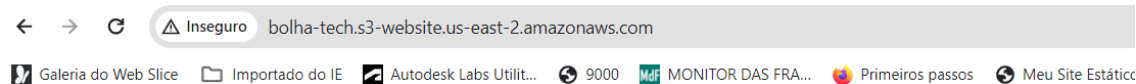
Bem-vindo ao meu site estático hospedado no S3!

Esta é uma página de teste.

Primeiro deploy no Bucket após a configuração da pipeline.

Alteração no site estático e novo deploy apenas de validação de Fluxo

Verificação no S3



Bem-vindo ao meu site estático hospedado no S3!

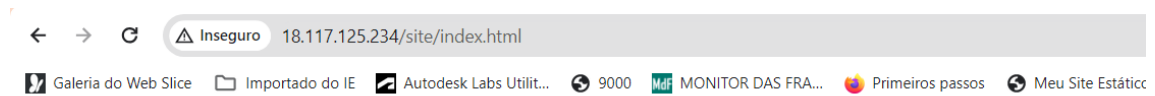
Esta é uma página de teste.

Primeiro deploy no Bucket após a configuração da pipeline.

Segundo deploy no Bucket após a configuração da pipeline.

Primeiro deploy na EC2 após a configuração da pipeline e alteração do site.

EC2



Bem-vindo ao meu site estático hospedado no S3!

Esta é uma página de teste.

Primeiro deploy no Bucket após a configuração da pipeline.

Segundo deploy no Bucket após a configuração da pipeline.

Primeiro deploy na EC2 após a configuração da pipeline e alteração do site.