



Sistemas Operacionais em Nuvem

Rodando aplicação Node com Docker na EC2

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SP / 2025

Sem Docker:

Entrando na instancia:

```
vinic@Vinicius_Aoki MINGW64 /c/SPTech/S0 nuvem/Chaves
$ ssh -i "primeira_chave.pem" ubuntu@ec2-34-228-142-196.compute-1.amazonaws.com
The authenticity of host 'ec2-34-228-142-196.compute-1.amazonaws.com (34.228.142.196)' can't be established.
ED25519 key fingerprint is SHA256:2MwQvZjLvc9f0Da9E6B27NQww+mGS04p4JBtXEzy0vA.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-34-228-142-196.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sat Mar 29 20:37:43 UTC 2025

System load:  0.3              Processes:           107
Usage of /:   25.0% of 6.71GB  Users logged in:    0
Memory usage: 21%             IPv4 address for enX0: 172.31.18.215
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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-18-215:~$ |
```

Alterando o grupo de segurança:

Regras de entrada

Informações

ID da regra do grupo de segurança	Tipo	Informações	Protocolo	Intervalo de portas	Origem	Informações	Descrição - opcional	Informações
			Informações	Informações				
sgr-0ec441140a2af43d1	<div>MYSQL/Aurora</div>		TCP	3306	Perso...	<div><div>Q</div><div>0.0.0.0/0</div></div>		<div>Excluir</div>
sgr-0245a7d6dfc0d5ada	<div>SSH</div>		TCP	22	Perso...	<div><div>Q</div><div>0.0.0.0/0</div></div>		<div>Excluir</div>
sgr-0e116d06f45fb8b75	<div>TCP personalizado</div>		TCP	3333	Perso...	<div><div>Q</div><div>0.0.0.0/0</div></div>		<div>Excluir</div>

Adicionar regra

Atualizando a Instacia:

```
ubuntu@ip-172-31-18-215:~$ sudo apt update && sudo apt upgrade -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [711 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [960 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [213 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [13.5 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1044 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [263 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [365 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [26.0 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [842 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [170 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [492 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [21.5 kB]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [4788 B]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [592 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Packages [39.1 kB]
Get:31 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main Translation-en [8676 B]
Get:32 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [7056 B]
Get:33 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [272 B]
Get:34 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [26.4 kB]
Get:35 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [16.3 kB]
Get:36 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [15.8 kB]
Get:37 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1304 B]
Get:38 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:39 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:40 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:41 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:42 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [136 kB]
Get:43 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [9012 B]
Get:44 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [7068 B]
```

Clonando o repositório:

```
ubuntu@ip-172-31-18-215:~$ git clone https://github.com/NiCoelho-tech/Gatices.git
Cloning into 'Gatices'...
remote: Enumerating objects: 549, done.
remote: Counting objects: 100% (549/549), done.
remote: Compressing objects: 100% (396/396), done.
remote: Total 549 (delta 242), reused 447 (delta 143), pack-reused 0 (from 0)
Receiving objects: 100% (549/549), 3.49 MiB | 27.27 MiB/s, done.
Resolving deltas: 100% (242/242), done.
ubuntu@ip-172-31-18-215:~$ ls
Gatices
ubuntu@ip-172-31-18-215:~$
```

Baixando o nodeJS:

[illegible]

Entrando na pasta do web-data-viz:

```
ubuntu@ip-172-31-18-215:~$ cd Gatices/
ubuntu@ip-172-31-18-215:~/Gatices$ cd web-data-viz/
ubuntu@ip-172-31-18-215:~/Gatices/web-data-viz$
```

Npm i:

```
ubuntu@ip-172-31-18-215:~/Gatices/web-data-viz$ npm i
```

added 118 packages, and audited 119 packages in 5s

```
20 packages are looking for funding
  run `npm fund` for details
```

3 **high** severity vulnerabilities

```
To address all issues, run:
  npm audit fix
```

Run `npm audit` for details.

```
ubuntu@ip-172-31-18-215:~/Gatices/web-data-viz$
```

Npm Start:

```
ubuntu@ip-172-31-18-215:~/Gatices/web-data-viz$ npm start
> web-data-viz@1.0.0 start
> node app.js

  ##  #####  #####          #####  ##  #####  ##          ##  ##  ####  #####
  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##
  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##
  ##  ##  ##  ##  ##  #####  ##  ##  #####  ##  #####  #####  ##  ##
  #####  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##
  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##  ##
  ##  ##  #####  #####  #####  ##  ##  ##  ##  ##  ##  ##  #####

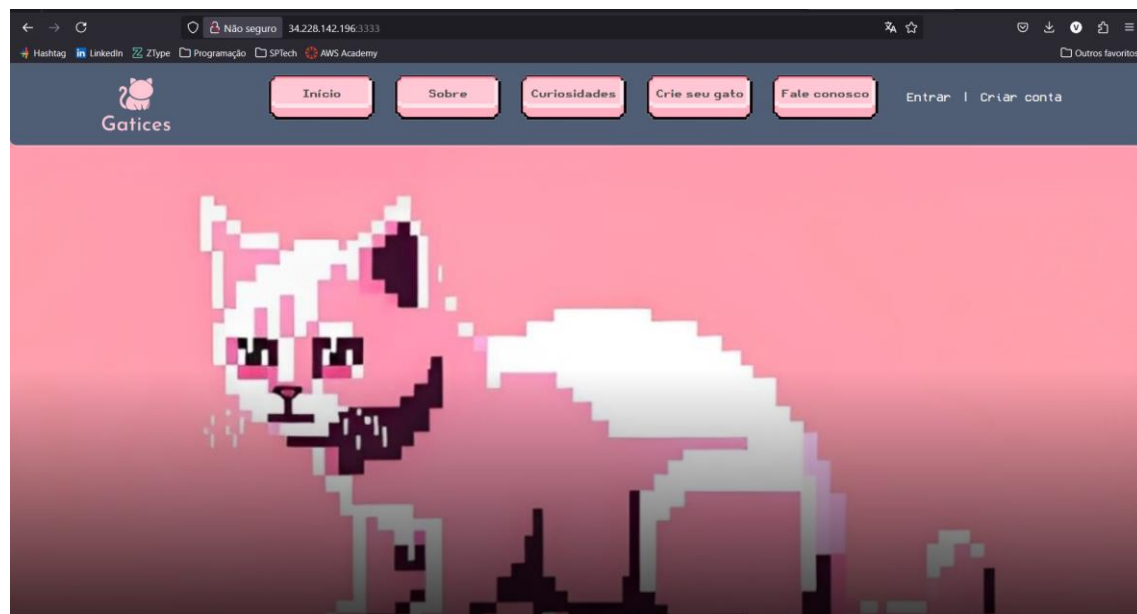
Servidor do seu site já está rodando! Acesse o caminho a seguir para visualizar .: http://localhost:3333 .:

Você está rodando sua aplicação em ambiente de .:desenvolvimento:.

Se .:desenvolvimento:. você está se conectando ao banco local.
Se .:producao:. você está se conectando ao banco remoto.

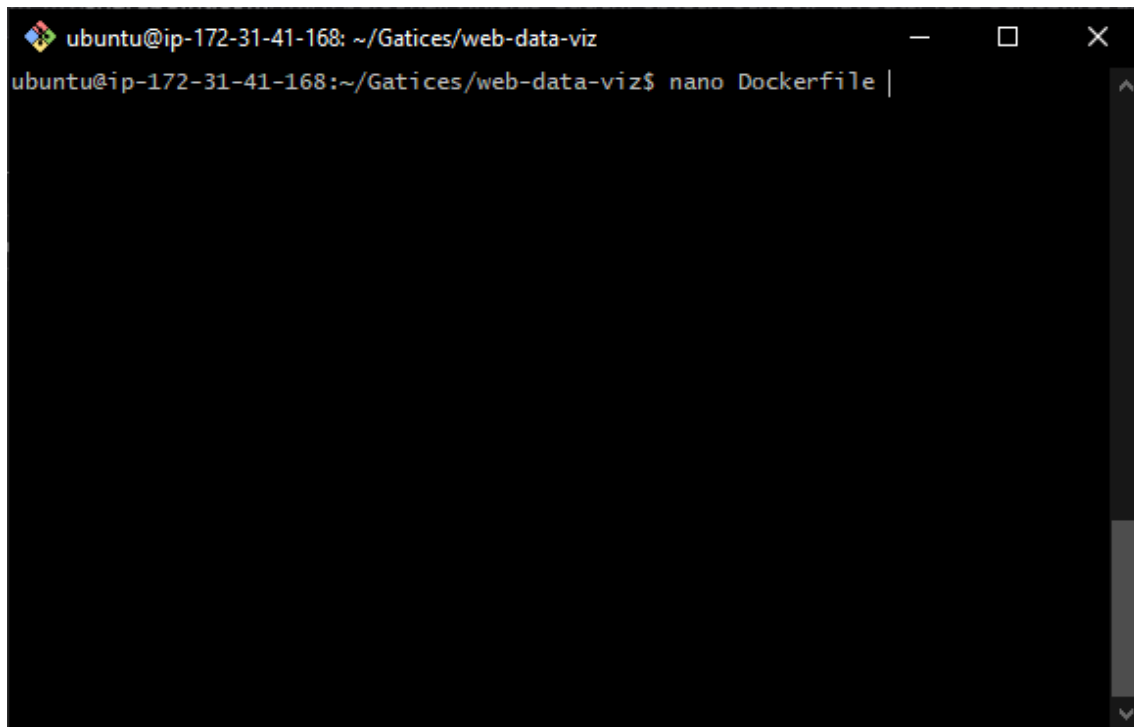
Para alterar o ambiente, comente ou descomente as linhas 1 ou 2 no arquivo 'app.js'
```

Entrando no Site:




Com Docker:

Criando o Dockefile:



```
ubuntu@ip-172-31-41-168: ~/Gatices/web-data-viz
ubuntu@ip-172-31-41-168:~/Gatices/web-data-viz$ nano Dockerfile |
```



```
ubuntu@ip-172-31-41-168: ~/Gatices/web-data-viz
GNU nano 7.2
FROM node:16

WORKDIR /usr/src/app

COPY package*.json ./

RUN npm i

COPY . .

EXPOSE 8080

CMD ["node", "app.js"]
```

Buildando o docker:

```

ubuntu@ip-172-31-41-168: ~/Gatices/web-data-viz
ubuntu@ip-172-31-41-168:~/Gatices/web-data-viz$ sudo docker build -t web-data-viz .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
             Install the buildx component to build images with BuildKit:
             https://docs.docker.com/go/buildx/

Sending build context to Docker daemon   8.49MB
Step 1/7 : FROM node:16
----> 1ddc7e4055fd
Step 2/7 : WORKDIR /usr/src/app
----> Using cache
----> 4a2a7417de0e
Step 3/7 : COPY package*.json ./
----> ae790c8b6edd
Step 4/7 : RUN npm i
----> Running in 06ae46733c21

added 124 packages, and audited 125 packages in 3s

20 packages are looking for funding
  run `npm fund` for details

3 high severity vulnerabilities

To address all issues, run:
  npm audit fix

Run `npm audit` for details.
npm notice
npm notice New major version of npm available! 8.19.4 -> 11.2.0
npm notice Changelog: <https://github.com/npm/cli/releases/tag/v11.2.0>
npm notice Run `npm install -g npm@11.2.0` to update!
npm notice
----> Removed intermediate container 06ae46733c21
----> 6a336d51256f
Step 5/7 : COPY . .
----> 28c64c430a3f
Step 6/7 : EXPOSE 8080
----> Running in 9613e55ce101
----> Removed intermediate container 9613e55ce101
----> 75dcd0d56f92
Step 7/7 : CMD ["node", "app.js"]
----> Running in a364f3900367
----> Removed intermediate container a364f3900367
----> e20b02f6906d
Successfully built e20b02f6906d
Successfully tagged web-data-viz:latest
ubuntu@ip-172-31-41-168:~/Gatices/web-data-viz$

```

Rodando o Docker:


```
ubuntu@ip-172-31-41-168:~/Gatices/web-data-viz$ sudo docker run -p 8080:8080 web-data-viz
```

```

## ## #####      #####      ##      ##      ##      ##      ##      ##
## ## ##      ## ##      ## ##      ##      ##      ##      ##      ##
## ## ##      ## ##      ## ##      ##      ##      ##      ##      ##
## ## ##      ## ##      ## ##      ##      ##      ##      ##      ##
##### ##      ## ##      ## ##      ##      ##      ##      ##      ##
### ## ##      ## ##      ## ##      ##      ##      ##      ##      ##
## ## #####      #####      ##      ##      ##      ##      ##      ##

```

Servidor do seu site já está rodando! Acesse o caminho a seguir para visualizar .: <http://localhost:8080> .:

Você está rodando sua aplicação em ambiente de .:producao:.

Se .:desenvolvimento:. você está se conectando ao banco local.

Se .:producao:. você está se conectando ao banco remoto.

Para alterar o ambiente, comente ou descomente as linhas 1 ou 2 no arquivo 'app.js'

Executando a instrução SQL:

```
SELECT id, nome, genero, raca FROM gato WHERE fkDono = 'undefined';
```

```

undefined
node:internal/process/promises:279
    triggerUncaughtException(err, true /* fromPromise */);
    ^
Error: getaddrinfo ENOTFOUND seusDadosAqui
    at GetAddrInfoReqWrap.onlookup [as oncomplete] (node:dns:109:26) {
  errno: -3008,
  code: 'ENOTFOUND',
  syscall: 'getaddrinfo',
  hostname: 'seusDadosAqui',
  fatal: true
}

```

