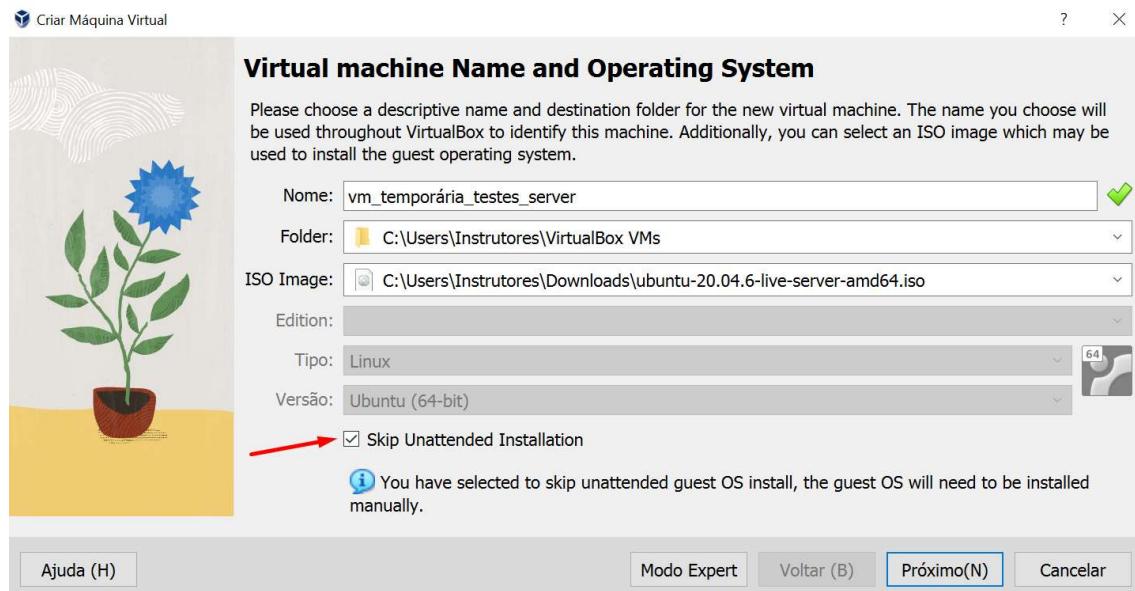


Passo a passo para instalar a VM + PhpMyAdmin + NODE + React Native a fim de realizar o exercício “API-REACTNATIVE-0705” do Git do Prof. Lucas Calu - <https://github.com/lucascalu/API-REACTNATIVE-0705>

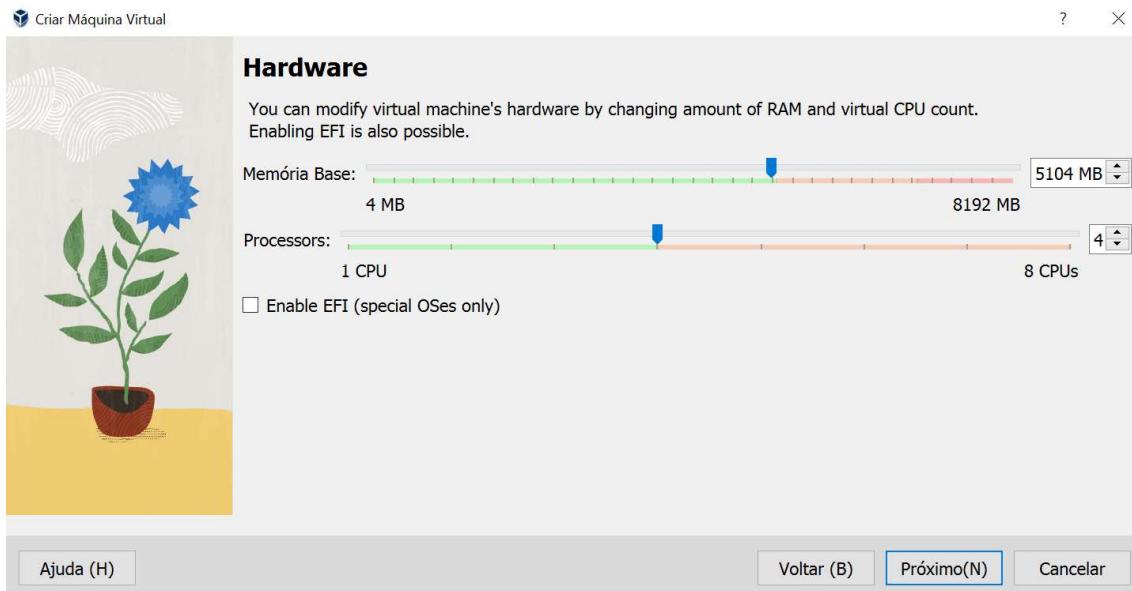
Versão 2

Parte I – Instalando a VM e preparando acesso ao phpmyadmin (e MySQL)

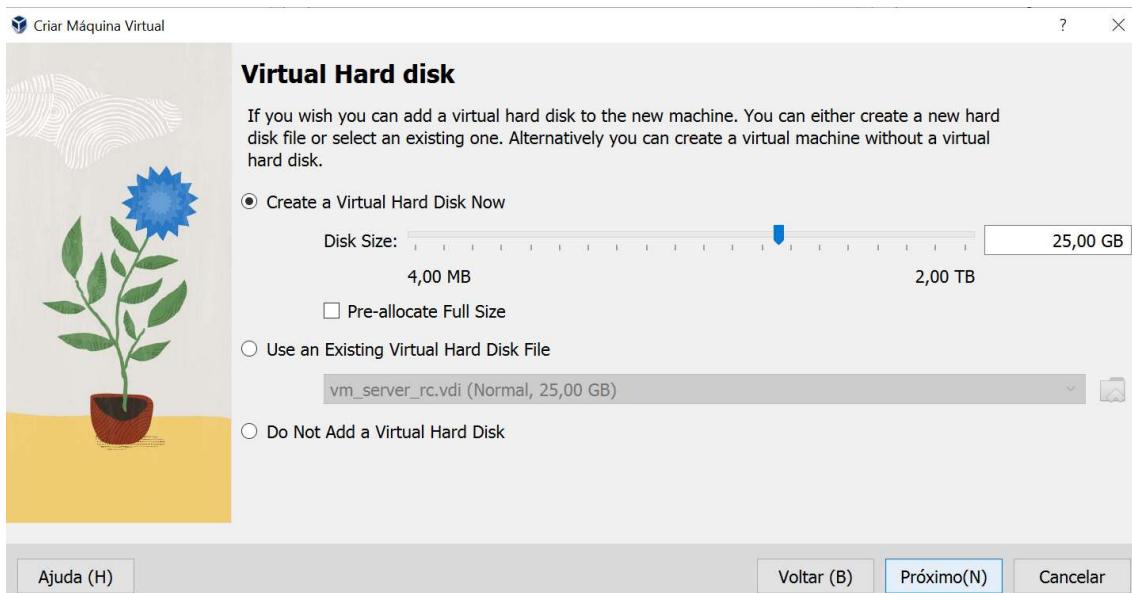
Partindo do suposto que nós já temos o arquivo .ISO salvo, proceda conforme abaixo:



Marque a opção “Skip Unattended Installation”;

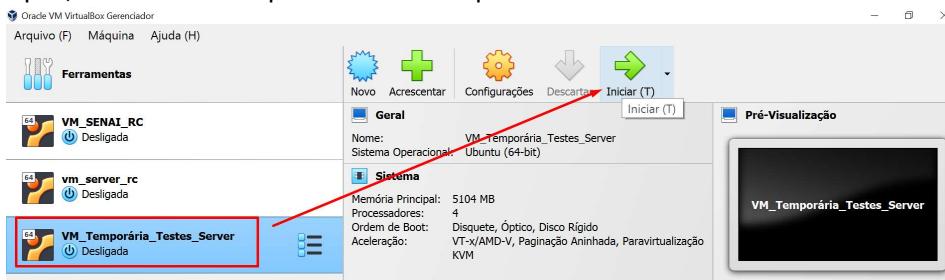


Poderá ampliar as configurações para o “máximo na cor verde”;



Deixe como padrão e avançar... depois clique em Finalizar.

Após, selecione a Máquina Virtual e clique em INICIAR:



A instalação começará a ocorrer:

Arquivo Máquina Visualizar Entrada Dispositivos Ajuda

```
2.610591] [drm:vmw_host_log [vmwgfx]] *ERROR* Failed to send host log message.  
e.  
2.611375] [drm:vmw_host_log [vmwgfx]] *ERROR* Failed to send host log message.  
e.  
hecking integrity, this may take some time (or try: fsck.mode=skip)  
.....  
heck finished: no errors found.  
  
asswd: password expiry information changed.  
sing CD-ROM mount point /cdrom/  
dentifying... [e2e9021b074342abd39d6c3842902203-2]  
canning disc for index files...  
ound 2 package indexes, 0 source indexes, 0 translation indexes and 1 signatures  
ound label 'Ubuntu-Server 20.04.6 LTS _Focal Fossa_ - Release amd64 (20230314.1)'  
his disc is called:  
Ubuntu-Server 20.04.6 LTS _Focal Fossa_ - Release amd64 (20230314.1)'  
opying package lists...gpgv: Signature made Tue Mar 14 23:01:58 2023 UTC  
gpgv:                using RSA key 8439380F22B022F7B3742BC0094AA3F0EFE21092  
gpgv: Good signature from "Ubuntu CD Image Automatic Signing Key (2012) <cdimage@ubuntu.com>"  
eadning Package Indexes... Done  
riting new source list  
ource list entries for this disc are:  
eb cdrom:[Ubuntu-Server 20.04.6 LTS _Focal Fossa_ - Release amd64 (20230314.1)]/ focal main restricted  
ed  
epeat this process for the rest of the CDs in your set.  
    70.182737] /dev/loop2: Can't open blockdev
```



VM_Temporária_Testes_Server [Executando] - Oracle VM VirtualBox — □ ×

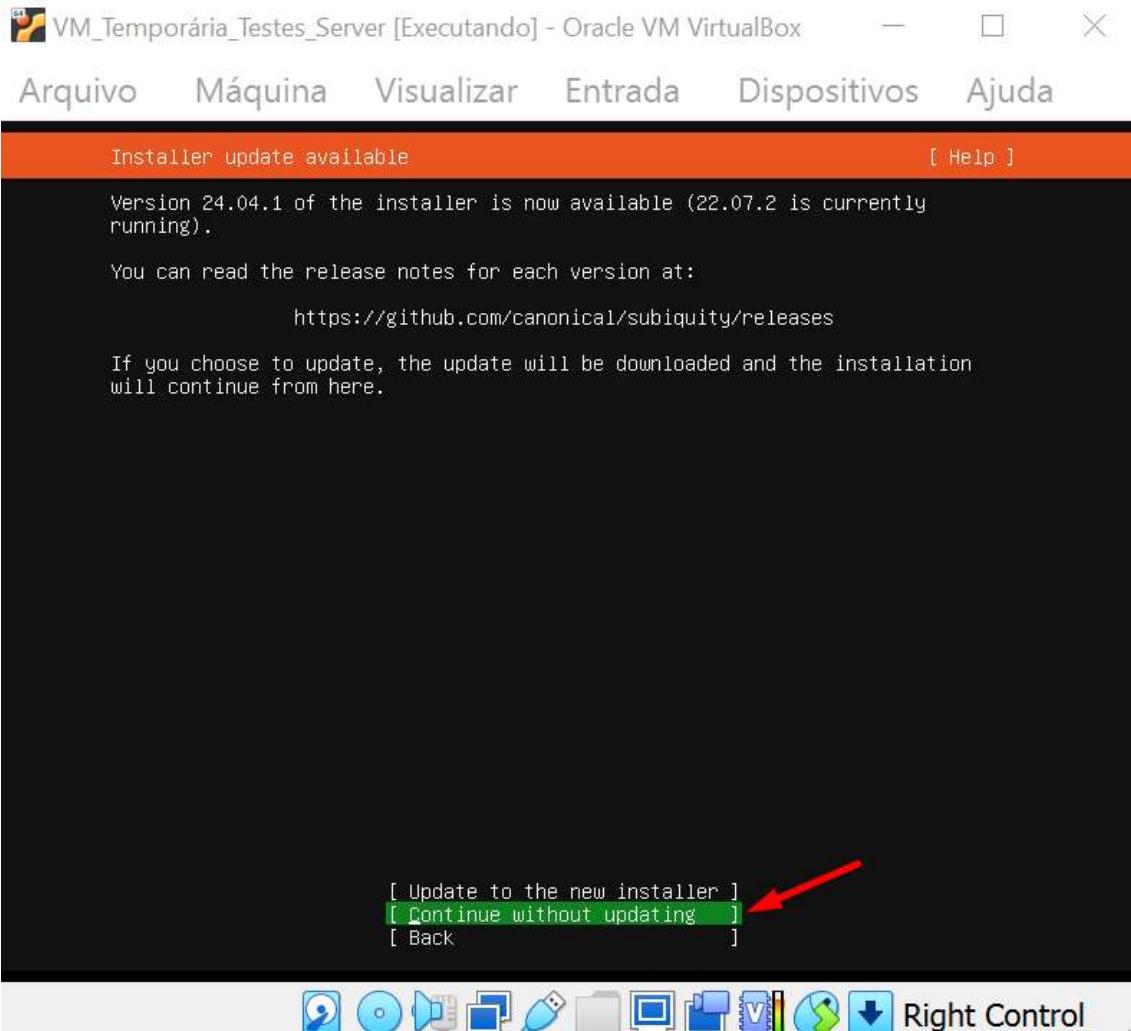
Arquivo Máquina Visualizar Entrada Dispositivos Ajuda

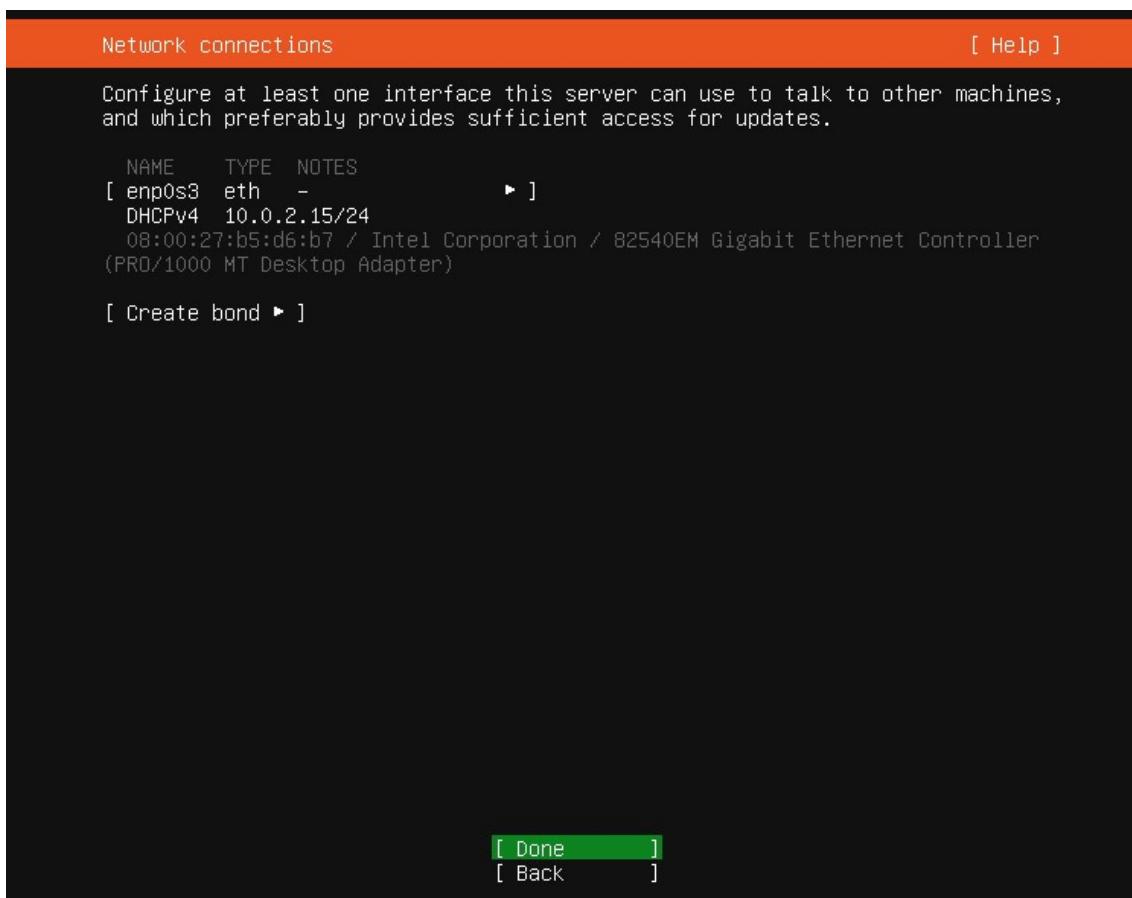
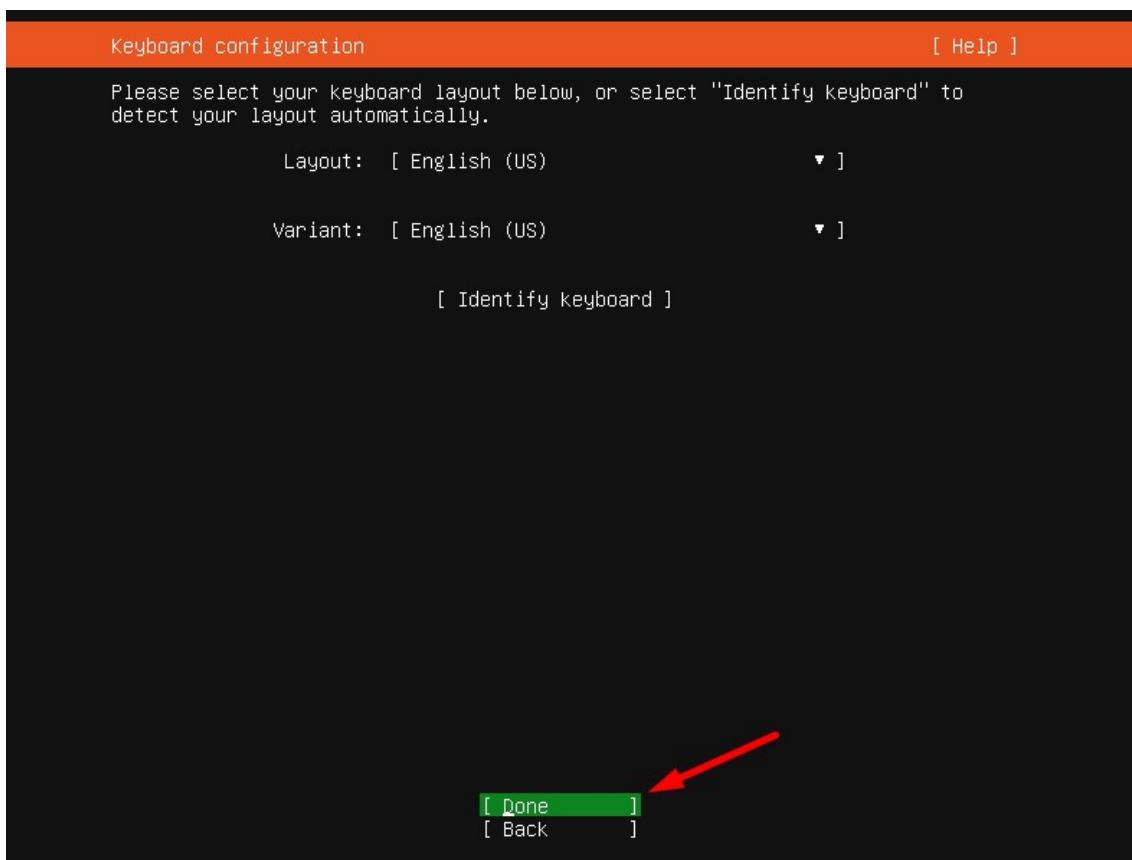
Willkommen! Bienvenue! Welcome! Добро пожаловать! Welkom! [Help]

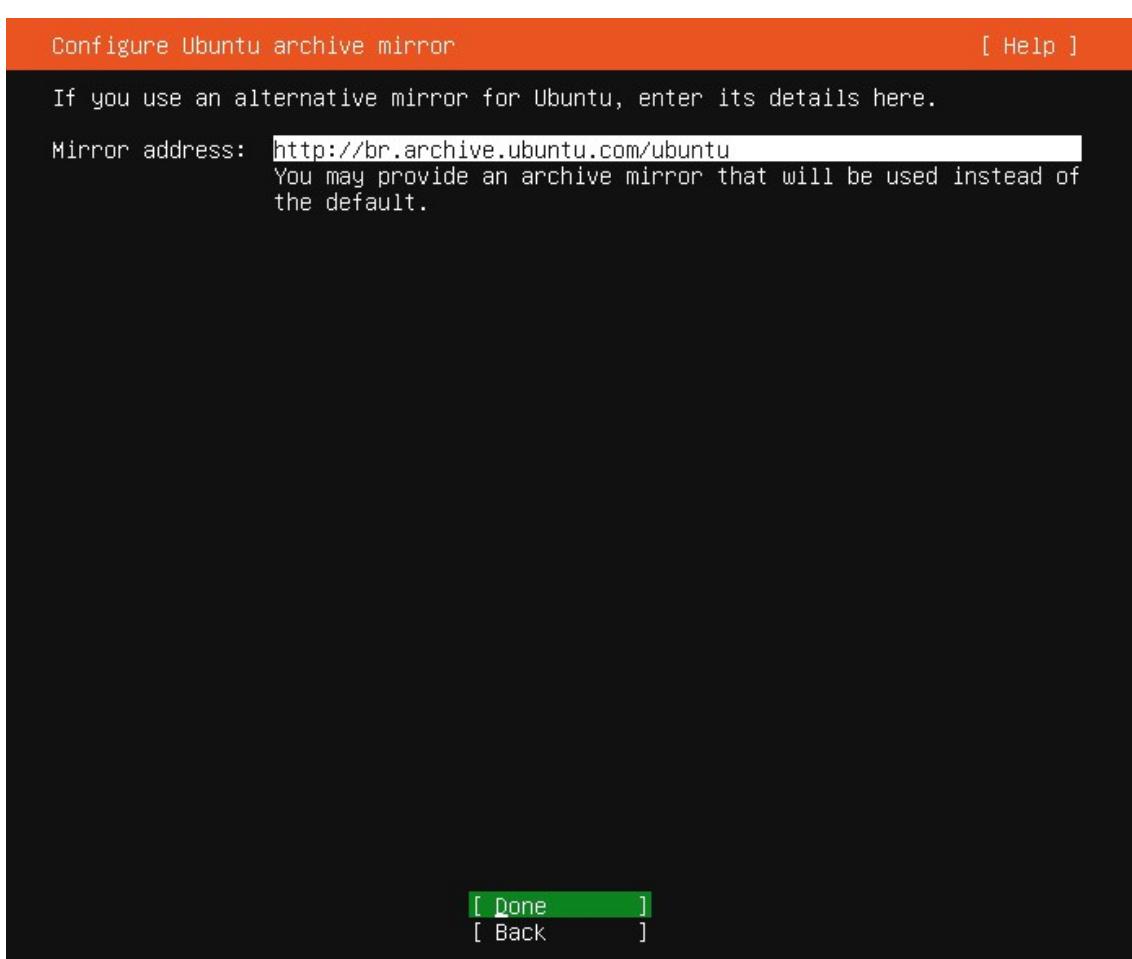
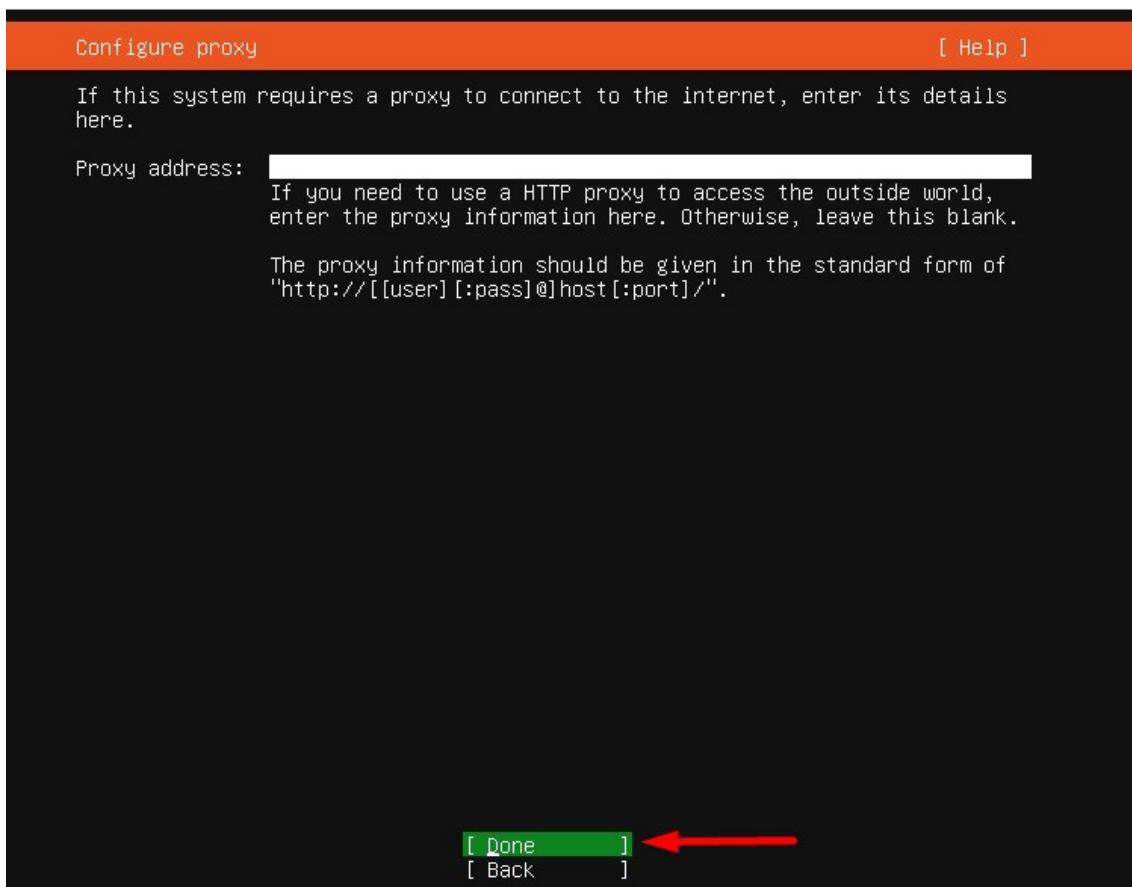
Use UP, DOWN and ENTER keys to select your language.

- [Asturianu ►]
- [Bahasa Indonesia ►]
- [Català ►]
- [Deutsch ►]
- [English ►]
- [English (UK) ►]
- [Español ►]
- [Français ►]
- [Galego ►]
- [Hrvatski ►]
- [Latviski ►]
- [Lietuviškai ►]

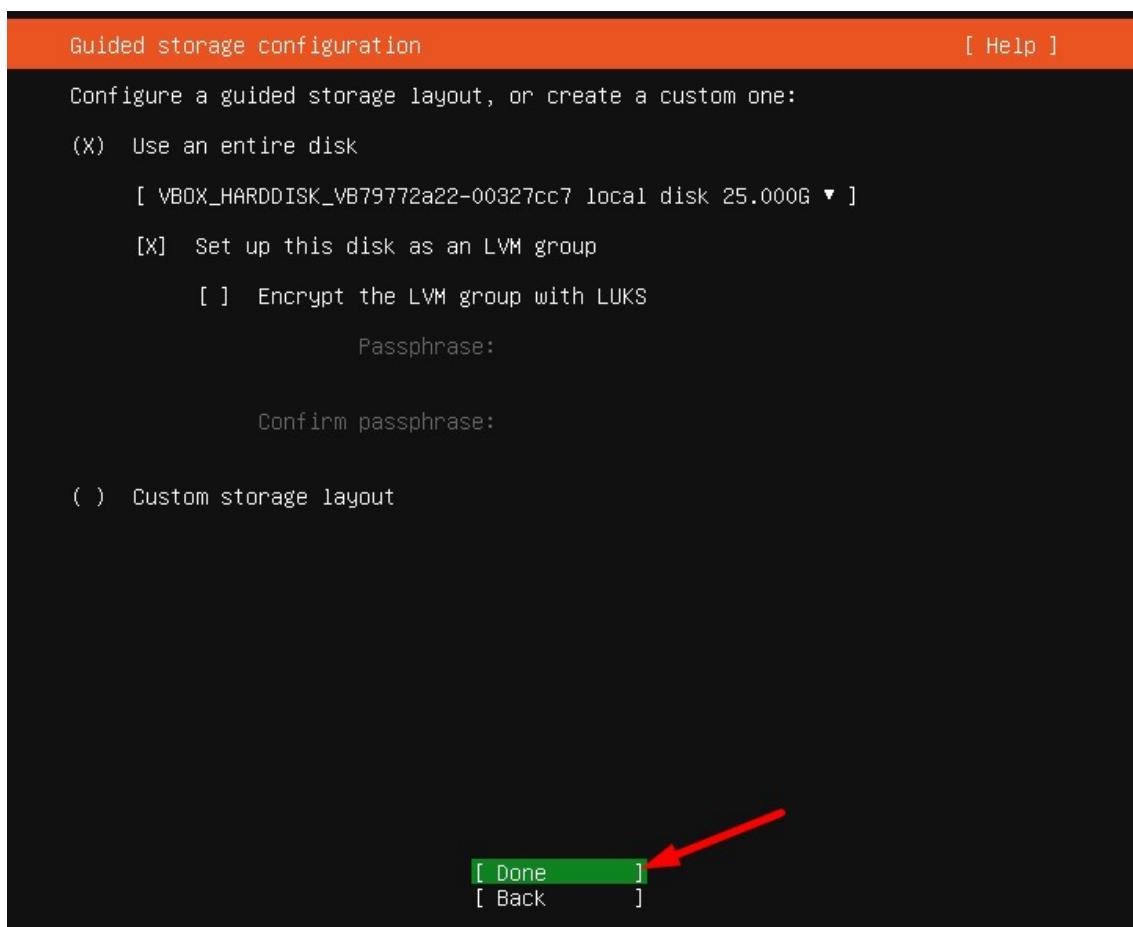
Pode se manter a configuração padrão...

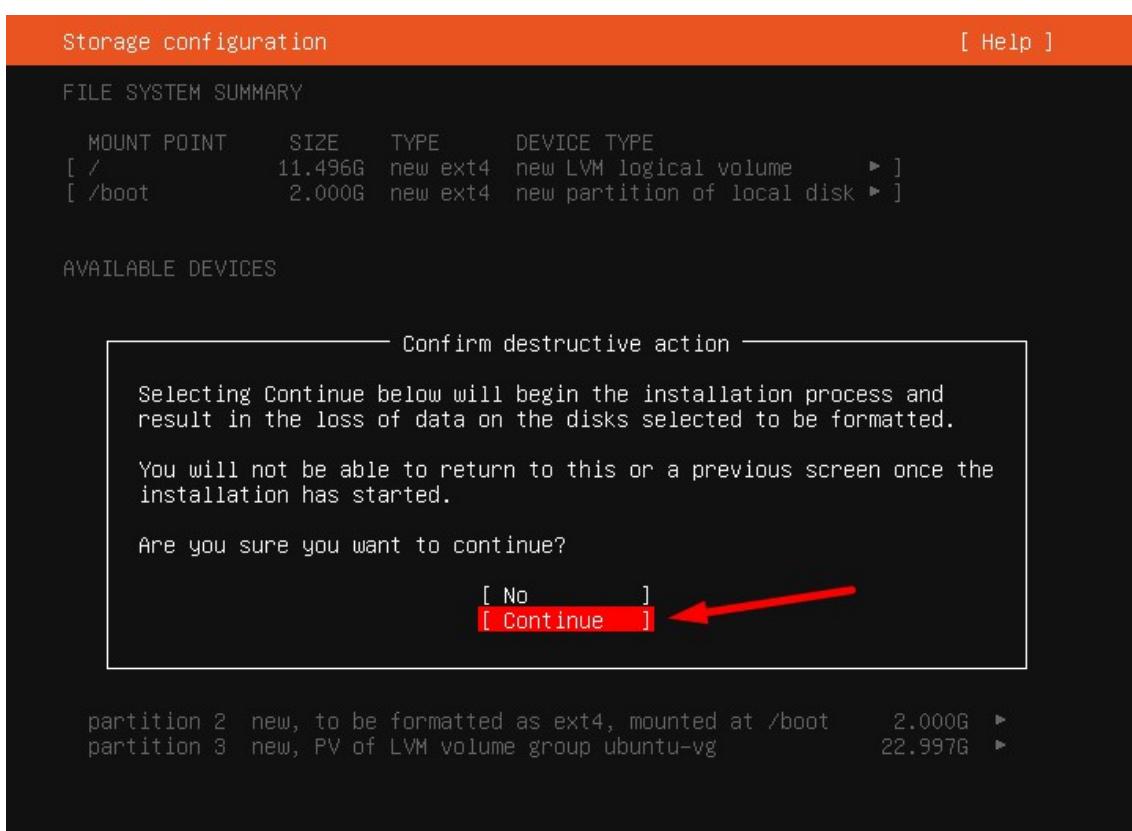
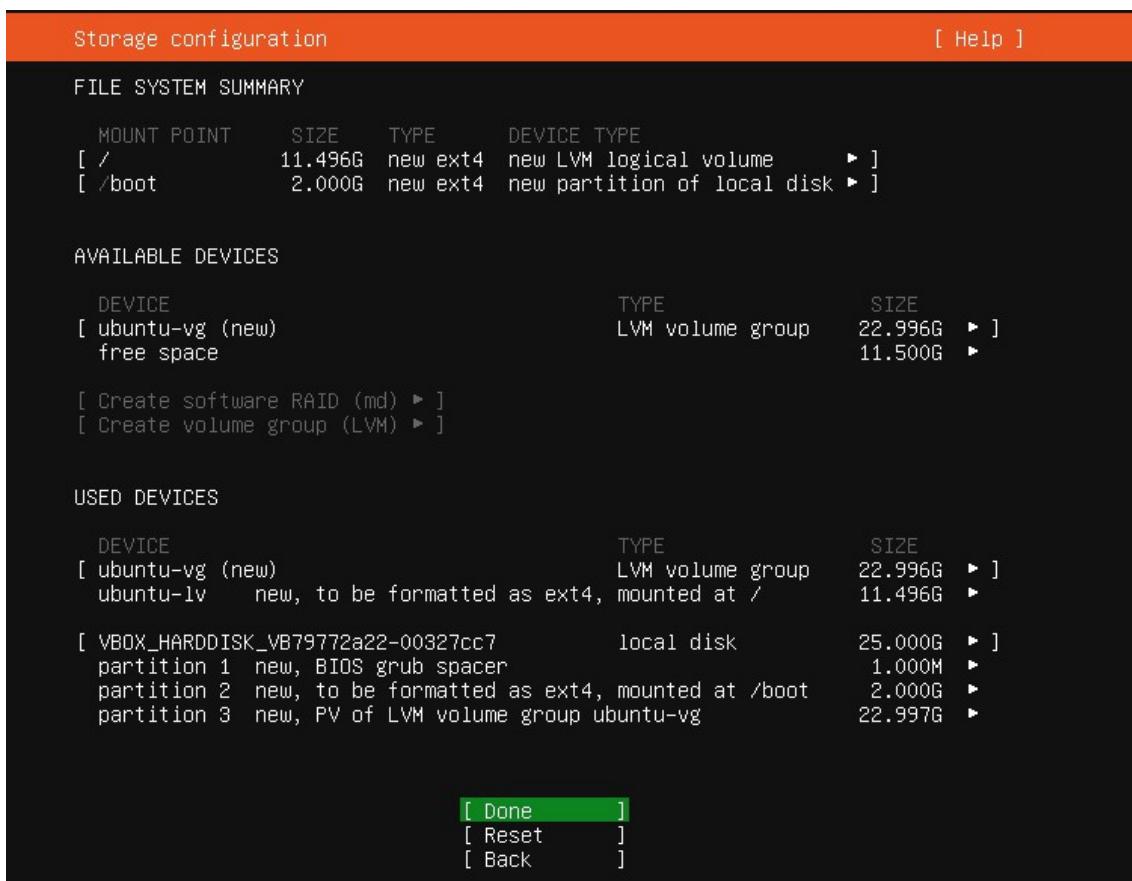






Aperte o TAB até ficar na opção DONE:





Informe suas credenciais e avance, semelhante a figura abaixo:

Profile setup [Help]

Enter the username and password you will use to log in to the system. You can configure SSH access on the next screen but a password is still needed for sudo.

Your name: Ricardo

Your server's name: rc_server_teste
The name it uses when it talks to other computers.

Pick a username: ricardo

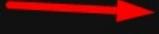
Choose a password: *****

Confirm your password: *****

Você poderá selecionar a opção SSH antes de continuar:

SSH Setup [Help]

You can choose to install the OpenSSH server package to enable secure remote access to your server.

 [X] Install OpenSSH server

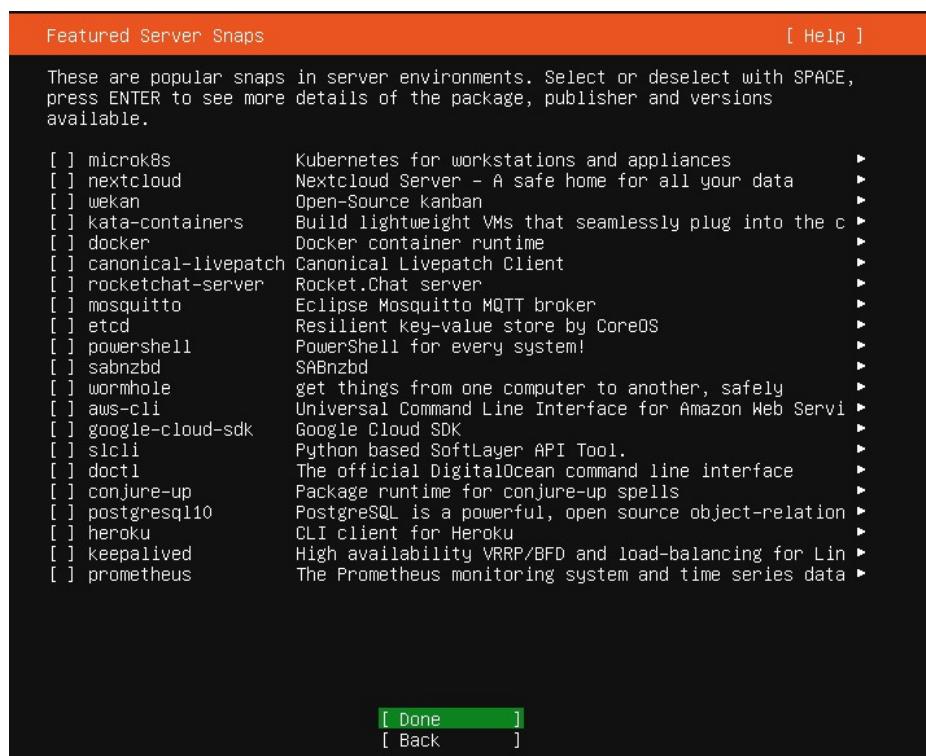
Import SSH identity: [No ▾]
You can import your SSH keys from GitHub or Launchpad.

Import Username:

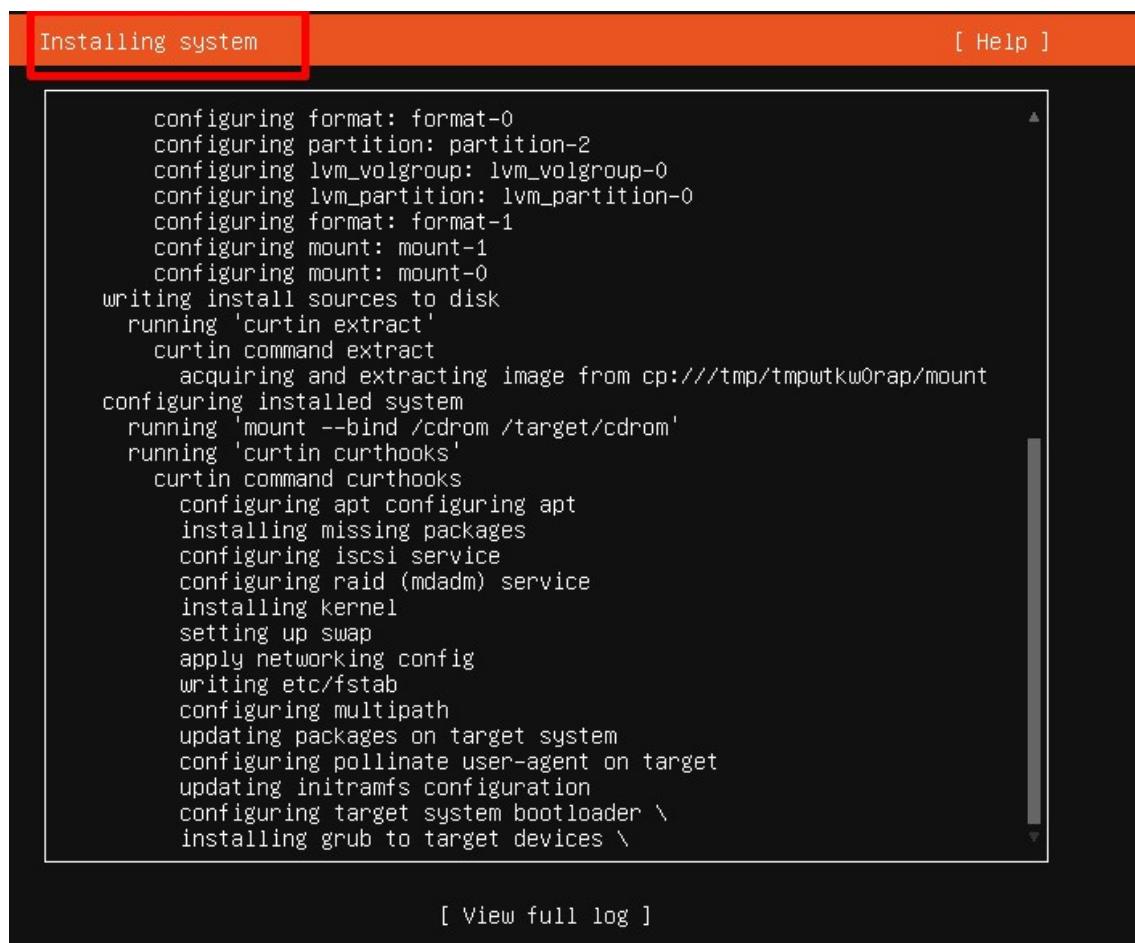
[X] Allow password authentication over SSH

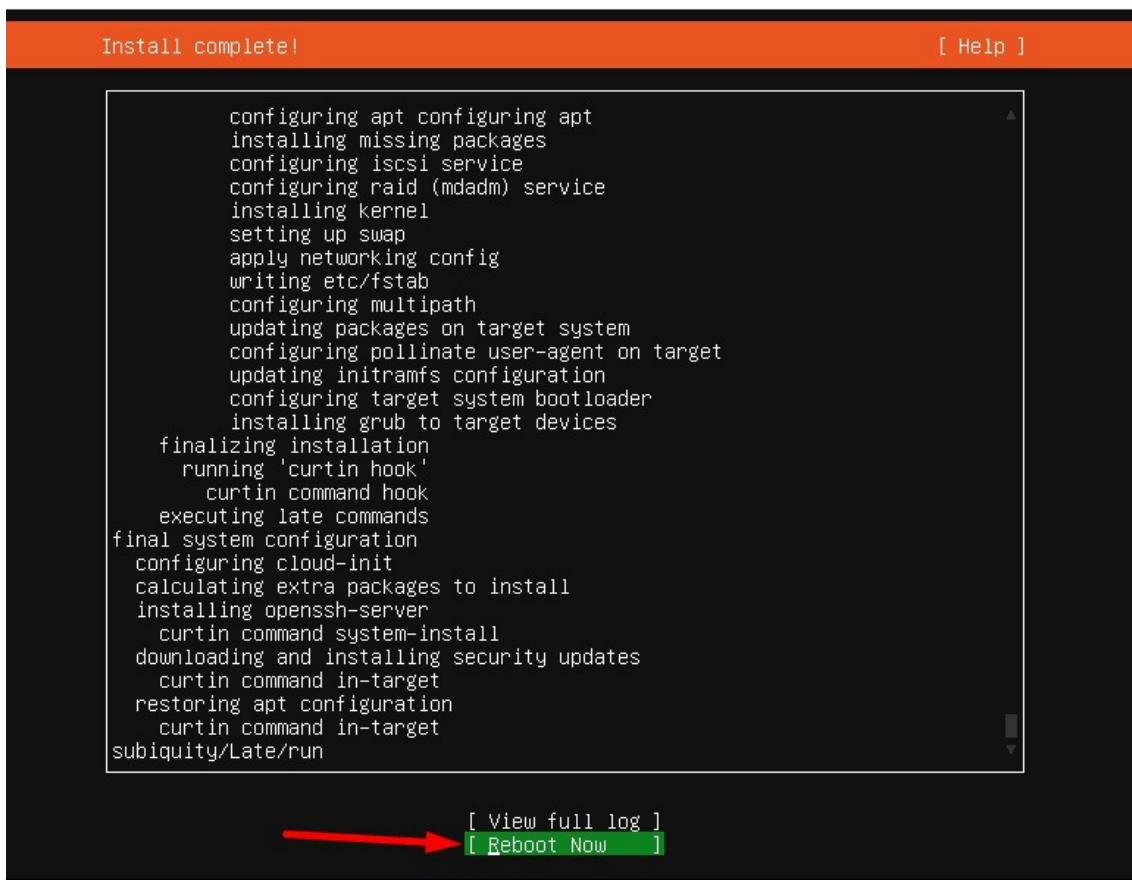
[Done] [Back]

Poderá deixar como padrão e avançar



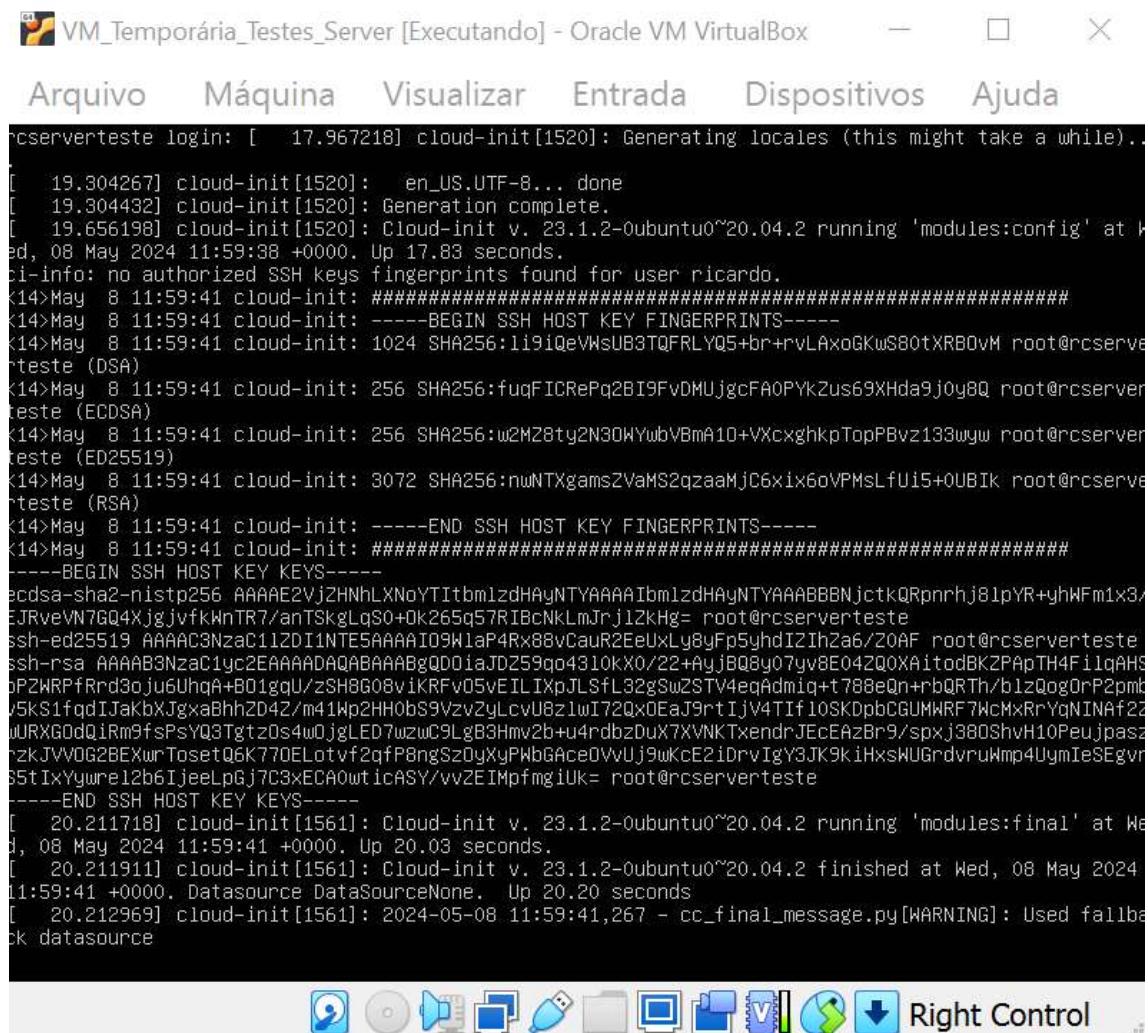
Começará a instalação:





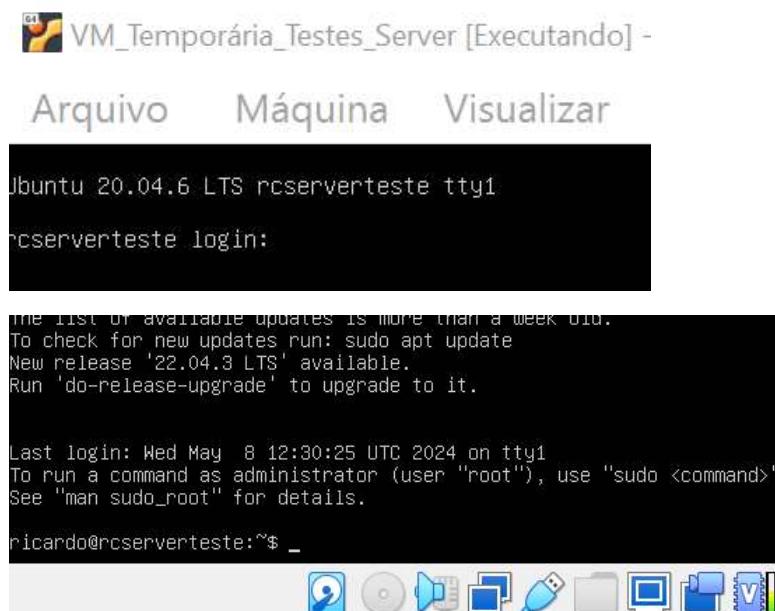
Se apresentar algum erro, aperte <ENTER> para continuar e “rebootar” o pc

No final, aperte ENTER para logar no servidor com as credencias que você criou:



```
rcserverteste login: [ 17.967218] cloud-init[1520]: Generating locales (this might take a while)...
[ 19.304267] cloud-init[1520]: en_US.UTF-8... done
[ 19.304432] cloud-init[1520]: Generation complete.
[ 19.656198] cloud-init[1520]: Cloud-init v. 23.1.2-0ubuntu0~20.04.2 running 'modules:config' at Wed, 08 May 2024 11:59:38 +0000. Up 17.83 seconds.
cloud-info: no authorized SSH keys fingerprints found for user ricardo.
<14>May  8 11:59:41 cloud-init: #####
<14>May  8 11:59:41 cloud-init: -----BEGIN SSH HOST KEY FINGERPRINTS-----
<14>May  8 11:59:41 cloud-init: 1024 SHA256:li9iQeVWsUB3TQFRLYQ5+br+rVLAx0GKwS80tXRBoV M root@rcserverteste (DSA)
<14>May  8 11:59:41 cloud-init: 256 SHA256:fuqFICRePq2BI9FvDMUjgcFA0PYKZus69XHda9j0y8Q root@rcserverteste (ECDSA)
<14>May  8 11:59:41 cloud-init: 256 SHA256:w2M28ty2N30WYwbVBmA10+VXcxghkpTopPBvz133wyw root@rcserverteste (ED25519)
<14>May  8 11:59:41 cloud-init: 3072 SHA256:nwNTXgams2VaMS2qzaaMjC6xiX6oVPMsLfUi5+0UBIk root@rcserverteste (RSA)
<14>May  8 11:59:41 cloud-init: -----END SSH HOST KEY FINGERPRINTS-----
<14>May  8 11:59:41 cloud-init: #####
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbm1zdHAyNTYAAAAIbm1zdHAyNTYAAABBBNjctkQRpnrhj81pYR+yhWFm1x3/EJRveVN76Q4XjgJvfkkhTr7/anTSkgLqS0+Ok265q57RIBcNkLmJrj1ZKhg= root@rcserverteste
ssh-ed25519 AAAAC3NzaC1l20DI1NTE5AAAID9WlaP4Rx88vCauR2EeUxLy8yFp5yhdI2Ih2a6/20AF root@rcserverteste
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQgQD0iaJD259qo4310KX0/22+AyjbQ8y07yv8E042Q0XAitodBK2PApTH4F1lqAHSpZKRPFfRrd3qju6UhqaB+01gqlU/zSHB608v1kRFv05eILIXpJLSfl32gSu2STV4eqAdmig+t788eQn+r+bQRTh/b1zQogDrP2pmby5Ks1fqdIJJaKbxJgxaBhh2D42/m41Wp2HH0bS9Vzv2yLcvu8z1wI72Qx0Eaj9rtIJV4Tf10SKDpbCGUMWRF7WcmXrRyqNINAf22uURXG0dQiRm9fsPsyQ3TgtzOs4w0jgLED7wzwC9LgB3Hmv2b+u4rdbzDuX7XVNKTxendrJEcEAzBr9/spxj380ShvH10PeujpaszrzkJVV0G2BEExurToset06K770ELotvif2qfP8ngSzDyxyPWBgACE0VvUj9ukcE2iDrvIgy3JK9kihxswUGrdvruukmp4UymIeSEGvr35tIxYywre12b6IjeeLpGj7C3xeCA0wticASY/vvZEIMpfmgilUk= root@rcserverteste
-----END SSH HOST KEY KEYS-----
[ 20.211718] cloud-init[1561]: Cloud-init v. 23.1.2-0ubuntu0~20.04.2 running 'modules:final' at Wed, 08 May 2024 11:59:41 +0000. Up 20.03 seconds.
[ 20.211911] cloud-init[1561]: Cloud-init v. 23.1.2-0ubuntu0~20.04.2 finished at Wed, 08 May 2024 11:59:41 +0000. Datasource DataSourceNone. Up 20.20 seconds
[ 20.212969] cloud-init[1561]: 2024-05-08 11:59:41,267 - cc_final_message.py[WARNING]: Used fallback datasource
```

Agora, você poderá informar seu usuário e senha:



```
Ubuntu 20.04.6 LTS rcserverteste tty1
rcserverteste login:

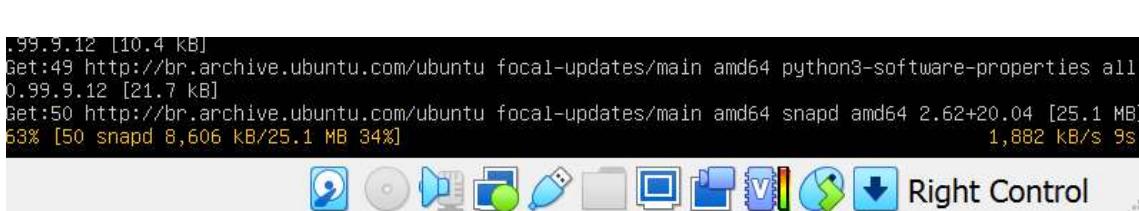
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
New release '22.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed May  8 12:30:25 UTC 2024 on tty1
To run a command as administrator (user "root"), use "sudo <command>" See "man sudo_root" for details.

ricardo@rcserverteste:~$ _
```

```
sudo apt update  
sudo apt upgrade
```

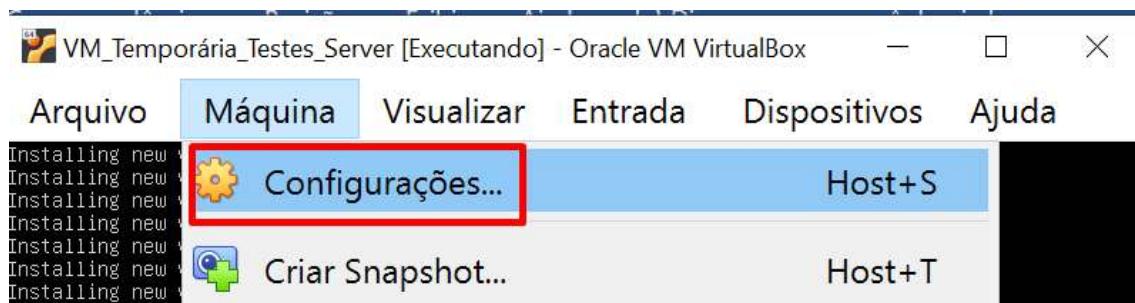
```
ricardo@rcserverteste:~$ sudo apt upgrade  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
Calculating upgrade... Done  
The following NEW packages will be installed:  
  ubuntu-pro-client ubuntu-pro-client-110n  
The following packages will be upgraded:  
  apparmor apport apt apt-utils base-files bolt cloud-init distro-info fwupd  
  iutils-ping iutils-tracepath kpartx landscape-common libapparmori1 libapt-  
  libfwupdplugin5 libgpgme11 libip4tc2 libip6tc2 libnetplan0 libnss-systemd  
  libsystemd0 libudev1 libunwind8 libxtables12 ltrace motd-news-config multip  
  python3-apport python3-debian python3-distro-info python3-problem-report  
  python3-software-properties python3-update-manager rsync snapd software-pro  
  sosreport systemd systemd-sysv systemd-timesyncd tcpdump ubuntu-advantage-t  
  update-manager-core update-notifier-common  
52 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.  
Need to get 40.7 MB of archives.  
After this operation, 67.4 MB disk space will be freed.  
Do you want to continue? [Y/n] yes_
```

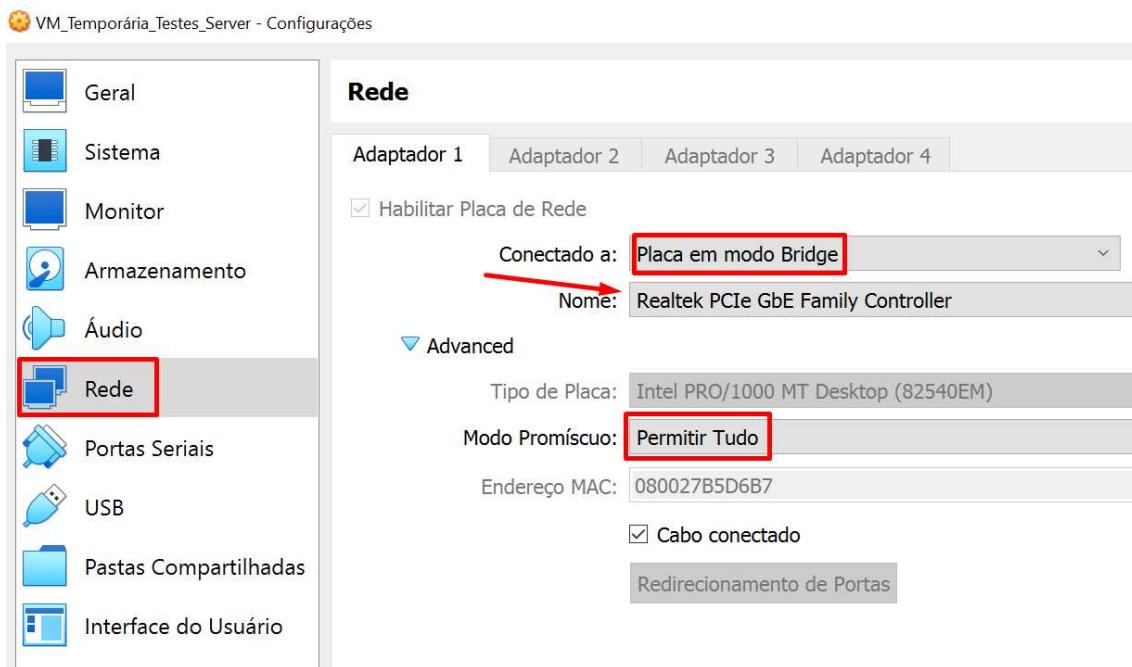


Uma alternativa para mexer na sua máquina virtual (Linux server) é acessar por SSH através do seu *prompt* de comando do Windows.

Vamos conferir, portanto, como está nossa configuração de REDE na máquina virtual.

Altere suas configurações, conforme exemplo abaixo:





Antes de conectar, precisaremos qual é o IP do nosso Linux. Para isso execute o comando “ip addr”:

```
ricardo@rcserverteste:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default
    link/ether 08:00:27:b5:d6:b7 brd ff:ff:ff:ff:ff:ff
        inet 192.168.1.103/24 brd 192.168.1.255 scope global dynamic enp0s3
            valid_lft 1193sec preferred_lft 7193sec
        inet6 fe80::a00:27ff:feb5:d6b7/64 scope link
            valid_lft forever preferred_lft forever
ricardo@rcserverteste:~$
```

Para isso, basta acessar o prompt de comando e digitar o comando abaixo:



No Prompt, sigite ssh usuário_do_linux@numero_ip_do_seu_server

Por exemplo: ssh ricardo@192.168.1.103

A screenshot of a Windows Command Prompt window. The title bar says "Prompt de Comando". The content shows network interface details for "enp0s3" and an SSH command being typed:

```
inet 127.0.0.1/8 scope host lo
    valid_lft forever preferred_lft forever
inet6 ::1/128 scope host
    valid_lft forever prefer
    valid_lft forever prefer
2: enp0s3: <BROADCAST,MULTICAST>
    link/ether 08:00:27:b5:d6:b1
    inet 192.168.1.103/24 brd 1
        valid_lft 710sec prefer
    inet6 fe80::a00:27ff:feb5:d6b1
        valid_lft forever prefer
    valid_lft forever prefer
ricardo@rcserverteste:~$
```

Annotations with red arrows point to the text "usuário do Linux" and "IP do seu server".

Informe "yes" e aperte <ENTER>:

A screenshot of a Windows Command Prompt window. The title bar says "Prompt de Comando - ssh ricardo@192.168.1.103". The content shows an SSH connection attempt and a fingerprint verification prompt:

```
Microsoft Windows [versão 10.0.19045.4291]
(c) Microsoft Corporation. Todos os direitos reservados.

C:\Users\Instrutores>ssh ricardo@192.168.1.103
The authenticity of host '192.168.1.103 (192.168.1.103)' can't be established.
ECDSA key fingerprint is SHA256:fuqFICRePq2BI9FvDMUjgcFA0PYkZus69XHda9j0y8Q.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

Digite sua senha do Linux:

A screenshot of a Windows Command Prompt window. The title bar says "Prompt de Comando - ssh ricardo@192.168.1.103". The content shows an SSH connection attempt and a password prompt:

```
Microsoft Windows [versão 10.0.19045.4291]
(c) Microsoft Corporation. Todos os direitos reservados.

C:\Users\Instrutores>ssh ricardo@192.168.1.103
The authenticity of host '192.168.1.103 (192.168.1.103)' can't be established.
ECDSA key fingerprint is SHA256:fuqFICRePq2BI9FvDMUjgcFA0PYkZus69XHda9j0y8Q.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.1.103' (ECDSA) to the list of known hosts.
ricardo@192.168.1.103's password: 
```

A red arrow points to the password input field.

Se tudo der certo, aparecerá semelhante da tela abaixo:

A screenshot of a Linux terminal window. The content shows a welcome message for ESM Apps, a new release available, and a last login timestamp:

```
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

New release '22.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed May  8 12:32:11 2024
ricardo@rcserverteste:~$
```

A red arrow points to the terminal prompt "ricardo@rcserverteste:~\$".

```
c:\ ricardo@rcserverteste: ~
```

```
ricardo@rcserverteste:~$ sudo apt install php
```

```
sudo apt install php
```

```
c:\ ricardo@rcserverteste: ~
```

```
ricardo@rcserverteste:~$ sudo apt install php
[sudo] password for ricardo:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapache2-
  libaprutil1-ldap libjansson4 liblua5.2-0 php-common php7.
  php7.4-readline ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-cust
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapache2-
  libaprutil1-ldap libjansson4 liblua5.2-0 php php-common p
  php7.4-readline ssl-cert
0 upgraded, 20 newly installed, 0 to remove and 0 not upgra
Need to get 5,908 kB of archives.
After this operation, 26.1 MB of additional disk space will
Do you want to continue? [Y/n] yes ←
```

```
sudo apt install mysql-server
```

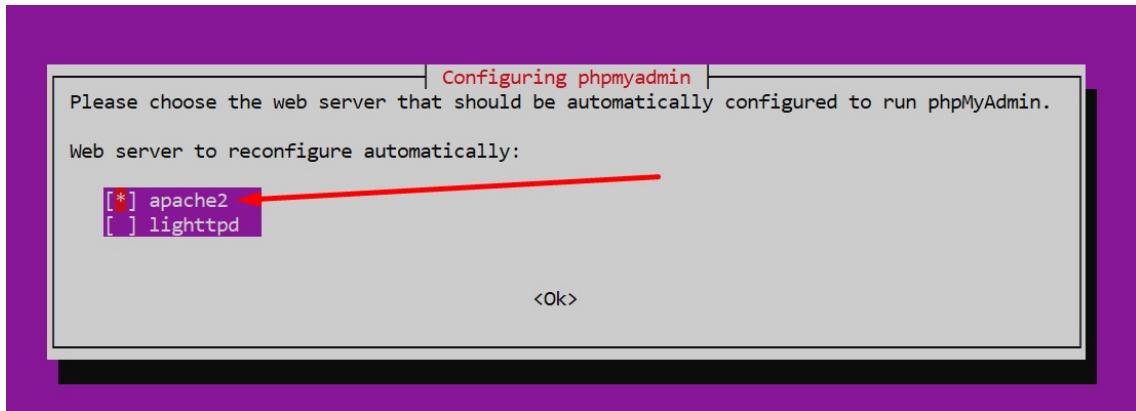
```
ricardo@rcserverteste: ~$ ricardo@rcserverteste:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libcgifast-perl libcgipm-perl libencode-locale-perl libevent-core-2.1-7 lib
  libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl libhttp-date-per
  liblwp-mediatypes-perl libmecab2 libtimedate-perl liburi-perl mecab-ipadic me
  mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server-8.0 mysql-ser
Suggested packages:
  libdata-dump-perl libipc-sharedcache-perl libwww-perl mailx tinyca
The following NEW packages will be installed:
  libcgifast-perl libcgipm-perl libencode-locale-perl libevent-core-2.1-7 lib
  libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl libhttp-date-per
  liblwp-mediatypes-perl libmecab2 libtimedate-perl liburi-perl mecab-ipadic me
  mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server mysql-server-
0 upgraded, 25 newly installed, 0 to remove and 0 not upgraded.
Need to get 36.8 MB of archives.
After this operation, 318 MB of additional disk space will be used.
Do you want to continue? [Y/n] yes
```

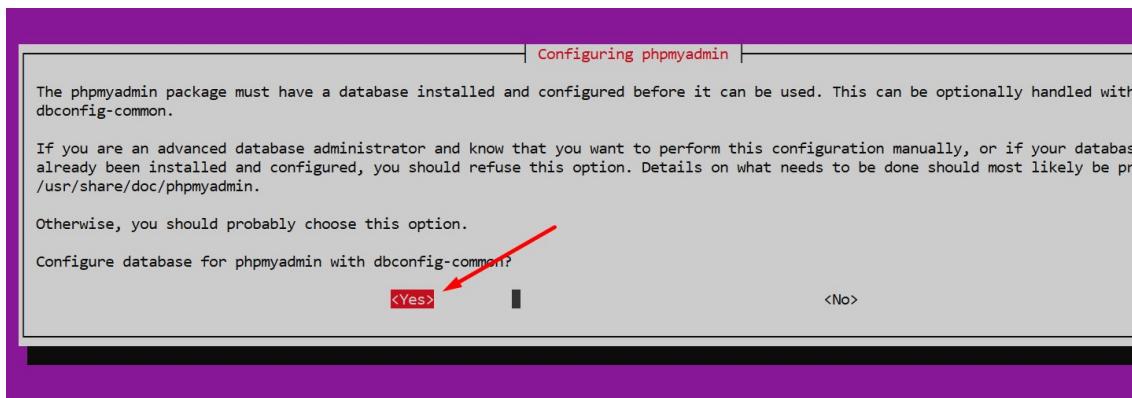
```
sudo apt install phpmyadminsudo
```

```
ricardo@rcserverteste: ~$ ricardo@rcserverteste:~$ sudo apt install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  dbconfig-common dbconfig-mysql fontconfig-config fonts-dejavu-core icc-profiles-free javascript-common
  libfontconfig1 libgd3 libjbig0 libjpeg-turbo8 libjs-jquery libjs-openlayers libjs-sphinxdoc
  libjs-underscore libonig5 libtiff5 libwebp6 libxml4 libzip5 php-bz2 php-curl php-gd php-google-recaptcha
  php-mbstring php-mysql php-phpmyadmin-motranslator php-phpmyadmin-shapefile php-phpmyadmin-sql-parser php-phpseclib
  php-psr-cache php-psr-container php-psr-log php-symfony-cache php-symfony-cache-contracts
  php-symfony-expression-language php-symfony-service-contracts php-symfony-var-exporter php-tcpdf php-twig
  php-twig-extensions php-xml php-zip php7.4-bz2 php7.4-curl php7.4-gd php7.4-mbstring php7.4-mysql php7.4-xml
  php7.4-zip
Suggested packages:
  libgd-tools php-dbase php-libsodium php-mcrypt php-gmp php-symfony-service-implementation php-imagine php-twig-doc
  php-symfony-translation www-browser php-recode php-gd2 php-pragmarx-google2fa php-bacon-qr-code
  php-samyoul-u2f-php-server
Recommended packages:
  php-mcrypt
The following NEW packages will be installed:
  dbconfig-common dbconfig-mysql fontconfig-config fonts-dejavu-core icc-profiles-free javascript-common
  libfontconfig1 libgd3 libjbig0 libjpeg-turbo8 libjs-jquery libjs-openlayers libjs-sphinxdoc
  libjs-underscore libonig5 libtiff5 libwebp6 libxml4 libzip5 php-bz2 php-curl php-gd php-google-recaptcha
  php-mbstring php-mysql php-phpmyadmin-motranslator php-phpmyadmin-shapefile php-phpmyadmin-sql-parser php-phpseclib
  php-psr-cache php-psr-container php-psr-log php-symfony-cache php-symfony-cache-contracts
  php-symfony-expression-language php-symfony-service-contracts php-symfony-var-exporter php-tcpdf php-twig
  php-twig-extensions php-xml php-zip php7.4-bz2 php7.4-curl php7.4-gd php7.4-mbstring php7.4-mysql php7.4-xml
  php7.4-zip phpmyadmin
0 upgraded, 51 newly installed, 0 to remove and 0 not upgraded.
Need to get 17.9 MB of archives.
After this operation, 77.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] yes
```

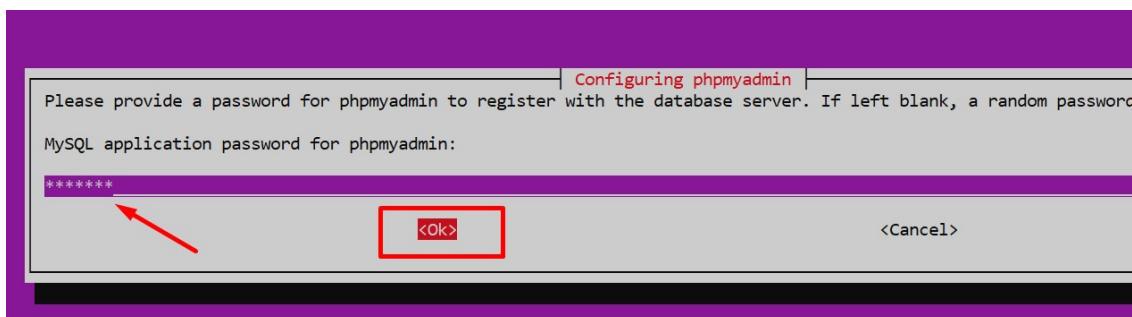
Se tudo der certo, veja se aparecerá a tela abaixo:

(selecione a opção apache2 – com a barra de espaço e com o TAB dê “OK”)

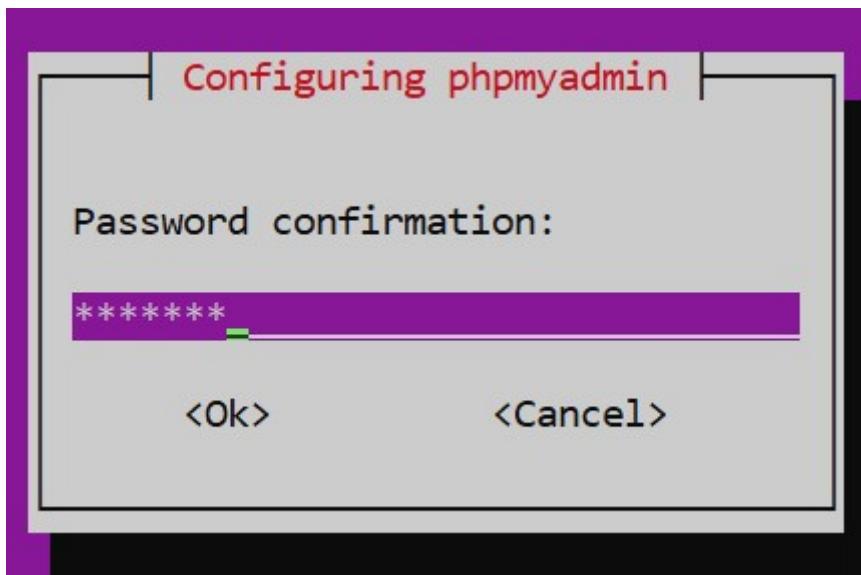




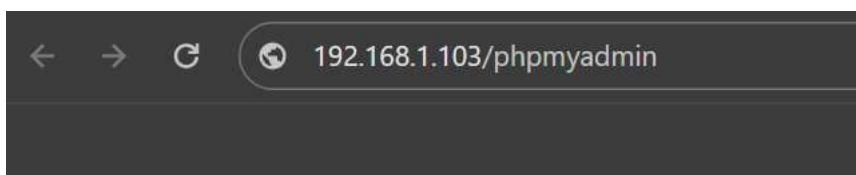
Informe a senha do seu banco mysql e depois clique em <OK>:



Repita a senha:



Agora, no seu navegador, teste o acesso ao phpmyadmin, informando o SEU_IP/phpmyadmin, semelhante à figura abaixo:



**Bemvindo ao phpMyAdmin**

Língua - Language

Português - Portuguese

Entrada

Utilizador :

Palavra-passe:

Executar

Porém quando logarmos, vamos perceber que você não terá direito de criar novos bancos de dados, será necessário dar esse direito.

NOVO ??

FALTA dar DIREITO de CRIAR

Para dar esse direito, precisamos acessar o MYSQL via “terminal” e dar dois comandos:

```
sudo mysql
```

```
ricardo@rcserverteste: ~
ricardo@rcserverteste:~$ ricardo@rcserverteste:~$ sudo mysql
```

Ficará assim:

```
ricardo@rcserverteste:~$ ricardo@rcserverteste:~$ sudo mysql
[sudo] password for ricardo:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 34
Server version: 8.0.36-0ubuntu0.20.04.1 (Ubuntu)

Copyright (c) 2000, 2024, Oracle and/or its affiliates.

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> -
```

```
GRANT ALL PRIVILEGES ON *.* TO 'phpmyadmin'@'localhost';
```

```
mysql> GRANT ALL PRIVILEGES ON *.* TO 'phpmyadmin'@'localhost'; ←  
Query OK, 0 rows affected (0.04 sec)
```

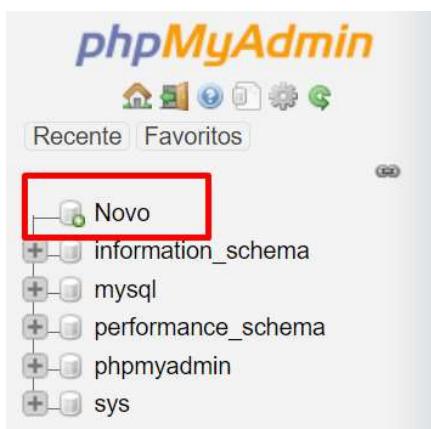
```
mysql>
```

```
FLUSH PRIVILEGES;
```

```
mysql> FLUSH PRIVILEGES; ←  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>
```

Se tudo ocorreu bem, se você sair e entrar novamente no *phpmyadmin*, você observará que agora você poderá criar novos bancos:



Para sair do mysql, digite “exit”:

```
mysql> exit ←  
Bye  
ricardo@rcserverteste:~$ -
```

Até essa parte, preparamos nosso Linux para acessar o banco de dados, caso necessário.

Parte II – Preparando nosso ambiente para NODEJS (roda na porta 3000)

Para instalar o Node.js no Ubuntu Server, você pode seguir estes passos:

Atualize o Gerenciador de Pacotes: Antes de instalar o Node.js, é uma boa prática atualizar o gerenciador de pacotes apt para garantir que você tenha a versão mais recente dos pacotes disponíveis. Você pode fazer isso executando:

```
sudo apt update
```

Instale o Node.js: Você pode instalar o Node.js no Ubuntu de algumas maneiras diferentes. A maneira mais comum é usando o curl ou wget para baixar o script de instalação do Node.js e, em seguida, executá-lo. Usando o Curl:

Vamos realizar as instalações seguindo os passos abaixo:

```
wget -qO- https://deb.nodesource.com/setup_lts.x | sudo -E bash -
```

```
sudo apt-get install -y nodejs
```

Este script adiciona o repositório do Node.js ao seu sistema e, em seguida, instala o Node.js e o npm (gerenciador de pacotes do Node.js).

Verifique a instalação: Depois de instalar o Node.js, você pode verificar se foi instalado corretamente e a versão instalada usando os seguintes comandos:

```
node -v
```

```
npm -v
```

```
ricardo@rcserverteste:~$ node -v
npm -v
v20.13.0
ricardo@rcserverteste:~$ npm -v
10.5.2
ricardo@rcserverteste:~$
```

Agora vamos criar um diretório e deixar nosso NODE RODANDO:

```
mkdir Aula0905-08h50
```

```
cd Aula0905-08h50/
```

```
npm init -y
```

```
c:\ ricardo@rcserverteste: ~/Aula0905-08h50
ricardo@rcserverteste:~$ node -v
v20.13.0
ricardo@rcserverteste:~$ npm -v
10.5.2
ricardo@rcserverteste:~$ mkdir Aula0905-08h50
ricardo@rcserverteste:~$ cd Aula0905-08h50/
ricardo@rcserverteste:~/Aula0905-08h50$ npm init -y
Wrote to /home/ricardo/Aula0905-08h50/package.json:

{
  "name": "aula0905-08h50",
  "version": "1.0.0",
  "main": "index.js",
  "scripts": {
    "test": "echo \\\"Error: no test specified\\\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "description": ""
}

ricardo@rcserverteste:~/Aula0905-08h50$
```

npm install express body-parse fs

```
ricardo@rcserverteste:~/Aula0905-08h50$ npm install express body-parse fs
added 66 packages, and audited 67 packages in 5s
  12 packages are looking for funding
    run `npm fund` for details

  found 0 vulnerabilities
ricardo@rcserverteste:~/Aula0905-08h50$
```



npm install cors

```
ricardo@rcserverteste:~/Aula0905-08h50$ npm install cors ←
added 2 packages, and audited 69 packages in 1s

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

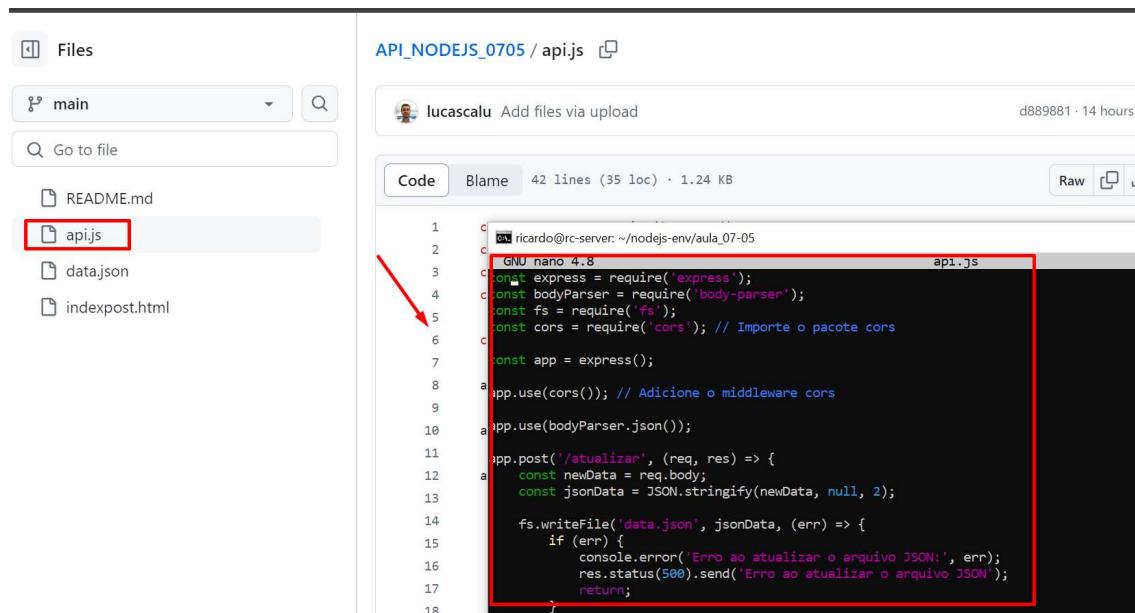
found 0 vulnerabilities
ricardo@rcserverteste:~/Aula0905-08h50$
```

Agora precisamos copiar o código App.js que está no GIT:

https://github.com/lucascalu/API_NODEJS_0705

No arquivo “api.js”, copie o código e cole no nano:

nano api.js



The screenshot shows a GitHub repository interface. On the left, there's a sidebar with 'Files' and a list of files: 'main', 'README.md', 'data.json', and 'indexpost.html'. The 'api.js' file is selected and highlighted with a red box. On the right, the main area shows the 'Code' tab for the 'api.js' file. The code content is also highlighted with a red box. A red arrow points from the 'api.js' file in the sidebar to the first line of the code in the main area.

```
1  ricardo@rc-server: ~/nodejs-env/aula_07-05
2  GNU nano 4.8
3  const express = require('express');
4  const bodyParser = require('body-parser');
5  const fs = require('fs');
6  const cors = require('cors'); // Importe o pacote cors
7
8  const app = express();
9
10 app.use(cors()); // Adicione o middleware cors
11
12 app.post('/atualizar', (req, res) => {
13   const newData = req.body;
14   const jsonData = JSON.stringify(newData, null, 2);
15
16   fs.writeFile('data.json', jsonData, (err) => {
17     if (err) {
18       console.error('Erro ao atualizar o arquivo JSON:', err);
19       res.status(500).send('Erro ao atualizar o arquivo JSON');
20     }
21   });
22 }
```

Aperte o CTRL+ O & CTRL + X para salvar e sair

Copie também o arquivo “data.json”:

nano data.json

The screenshot shows a file manager interface with a sidebar and a main content area. In the sidebar, there are files: README.md, api.js, data.json (which is highlighted with a red box), and indexpost.html. In the main content area, there is a code editor titled "API_NODEJS_0705 / data.json". The code editor shows the following JSON content:

```

1  {
2      "nome": "lucas",
3      "idade": "29",
4      "email": "lucas.calu@outlook.com"
5  }

```

A red arrow points from the highlighted "data.json" file in the sidebar to the code editor. Another red arrow points from the "data.json" file in the code editor to the terminal window below.

The terminal window shows the JSON content and the nano editor interface with the following keyboard shortcuts:

- ^G** Get Help
- ^O** Write Out
- ^R** Read File
- ^W** Where Is
- ^X** Exit

Salve e saia...

Para rodar a aplicação, faça:

node api.js

```
(nodejs-env) ricardo@rc-server:~/nodejs-env/aula_07-05$ (nodejs-env) ricardo@rc-server:~/nodejs-env/aula_07-05$ node api.js
```

```
(nodejs-env) ricardo@rc-server:~/nodejs-env/aula_07-05$ (nodejs-env) ricardo@rc-server:~/nodejs-env/aula_07-05$ nano api.js
(nodejs-env) ricardo@rc-server:~/nodejs-env/aula_07-05$ (nodejs-env) ricardo@rc-server:~/nodejs-env/aula_07-05$ node api.js
Servidor iniciado na porta 3000
```

O texto “servidor iniciado na porta 3000” indica que está pronto, esperando que você abra o navegador e digite:



(apenas para entender, instruções abaixo):

Usamos o endereço do nosso servidor Ubuntu (o seu server) acrescentando :3000 (porta usada) e "/dados" pois está configurado no arquivo "api.js" conforme imagem abaixo:

```
API_NODEJS_0705 / api.js

Code Blame 42 lines (35 loc) · 1.24 KB

18     console.error('Erro ao atualizar o arquivo JSON:', err);
19     res.status(500).send('Erro ao atualizar o arquivo JSON');
20     return;
21   }
22   console.log('Arquivo JSON atualizado com sucesso');
23   res.send('Arquivo JSON atualizado com sucesso');
24 });
25 });
26
27 app.get('/dados', (req, res) => {
28   fs.readFile('data.json', 'utf8', (err, data) => {
29     if (err) {
30       console.error('Erro ao ler o arquivo JSON:', err);
31       res.status(500).send('Erro ao ler o arquivo JSON');
32       return;
33     }
34     const jsonData = JSON.parse(data);
35     res.json(jsonData);
36   });
37 });


```

(a imagem acima apenas demonstra o motivo pelo qual nós colocamos "/dados" no navegador).

Até essa parte, preparamos o NODEJS

Parte III – Preparando nosso ambiente para REACT NATIVE (roda na porta 19006)

=X=X=X=X=X=X=X=X=X=X=X=X=X=X=X=X

Vamos entender o que fizemos até agora:

- Preparamos a máquina virtual
- Preparamos e deixamos rodando o NODE (pela porta 3000) e deixamos aberto o prompt (terminal) e acessamos o “back” pelo endereço 192.168.1.XXX:3000/dados

Agora vamos fazer o “front” em React Native para interagir com essa página “de Back”

=X=X=X=X=X=X=X=X=X=X=X=X=X=X=X

Relembramos que vamos seguir o passo a passo descrito no início da descrição desta etapa III (3) – Git do professor Lucas Calu:

The screenshot shows a GitHub repository named 'API-REACTNATIVE-0705'. The commit history is as follows:

- lucascalu Update README.md (3fb19dd · 17 hours ago) - Create App.js
- lucascalu Update README.md (17 hours ago) - README

Below the repository details, there is a terminal window showing the steps to set up the project:

```
crie uma pasta para o app e navegue ate a pasta
npm install -g expo-cli
expo init MeuAppReactNative
cd MeuAppReactNative
...
```

Comecemos pelo item abaixo:

crie uma pasta para o app e navegue ate a pasta

```
mkdir Aula0905-10h14REACT
```

```
cd Aula0905-10h14REACT/
```

```
ricardo@rcserverteste:~$ ls
Aula0905-08h50  package.json
ricardo@rcserverteste:~$ mkdir Aula0905-10h14REACT
ricardo@rcserverteste:~$ cd Aula0905-10h14REACT/
ricardo@rcserverteste:~/Aula0905-10h14REACT$
```

```
npx create-expo-app --template
```

```
aluno@alunosenaiserver: ~/Aula01_REACTNATIVE
aluno@alunosenaiserver:~$ ls
Aula01_NODE
aluno@alunosenaiserver:~$ mkdir Aula01.REACTNATIVE
aluno@alunosenaiserver:~$ cd Aula01.REACTNATIVE/
aluno@alunosenaiserver:~/Aula01.REACTNATIVE$ npx create-expo-app --template
Need to install the following packages:
create-expo-app@2.3.5
Ok to proceed? (y) ←
```

```
ricardo@rcserver: ~/Aula0905-12h38-React
ricardo@rcserver:~/Aula0905-12h38-React$ npx create-expo-app --template
Need to install the following packages:
create-expo-app@2.3.5
Ok to proceed? (y)

? Choose a template: > - Use arrow-keys. Return to submit.
  Default
  [ ] Blank - a minimal app as clean as an empty canvas ←
    Blank (TypeScript)
    Navigation (TypeScript)
    Blank (Bare)
```

```
ricardo@rcserver: ~/Aula0905-12h38-React
ricardo@rcserver:~/Aula0905-12h38-React$ npx create-expo-app --template
Need to install the following packages:
create-expo-app@2.3.5
Ok to proceed? (y)

? Choose a template: > Blank
? What is your app named? > my-app
```

```
ricardo@rcserver: ~/Aula0905-12h38-React
ricardo@rcserver:~/Aula0905-12h38-React$ npx create-expo-app --template
Need to install the following packages:
create-expo-app@2.3.5
Ok to proceed? (y)

? Choose a template: > Blank
? What is your app named? > Exemplo01_ReactNative
```

```
cd Exemplo01_ReactNative/
```

(Entrando na pasta do novo projeto)

Instala as dependências necessárias para executar o aplicativo no navegador:

```
npx expo install react-native-web react-dom @expo/metro-runtime
```

Instala a biblioteca Axios:

```
npm install axios
```

Agora vamos copiar o código do App.js

```
ricardo@rcserver:~/Aula0905-12h38-React/Exemplo01_ReactNative$ ls
App.js  app.json  assets  babel.config.js  node_modules  package.json  package-lock.json
ricardo@rcserver:~/Aula0905-12h38-React/Exemplo01_ReactNative$ nano App.js
```

(Na parte de cima do GIT, possui um arquivo chamado “App.js”. É necessário copiar este código e substituir, alterando assim o código:

Code	
 App.js	Create App.js
 README.md	Update README
 README	

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lucascalu / API-REACTNATIVE-0705 Public

<> Code Issues Pull requests Actions Projects Security

Files

main Go to file

App.js README.md

API-REACTNATIVE-0705 / App.js

Code Blame 94 lines (88 loc)

```
1 import React, { useState }
2 import { StyleSheet, Text, View }
3 import axios from 'axios'
4
5 export default function App() {
6   const [dados, setDados] = useState()
7   const [nome, setNome] = useState('')
8   const [idade, setIdade] = useState(0)
9   const [email, setEmail] = useState('')
10
11  useEffect(() => {
12    // Função para carregar os dados
13    carregarDados();
14  }, []);
15}
16
17function carregarDados() {
18  axios.get('https://api.expo.dev/accounts')
19    .then(response =>
20      setDados(response.data))
21    .catch(error =>
22      console.error(error))
23}
```

ricardo@rc-server: ~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative\$ moderate severity vulnerabilities

To address all issues (including breaking changes), run:
npm audit fix --force

Run 'npm audit' for details.

(nodejs-env) ricardo@rc-server:~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative\$ npm install

> npm install

npm WARN deprecated stable@0.1.8: Modern JS already guarantees Array#sort() is a stable sort, so this is unnecessary code on MDN: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/sort

npm WARN deprecated abab62@0.6: Use your platform's native atob() and btoa() methods instead

added 365 packages, and audited 1598 packages in 15s

159 packages are looking for funding
run 'npm fund' for details

7 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
npm audit fix --force

Run 'npm audit' for details.

(nodejs-env) ricardo@rc-server:~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative\$ (nodejs-env) ricardo@rc-server:~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative\$ (nodejs-env) ricardo@rc-server:~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative\$ ls App.js app.json assets babel.config.js node_modules package.json package-lock.json (nodejs-env) ricardo@rc-server:~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative\$ nano App.js

```
ricardo@rc-server: ~/nodejs-env/Aula0705-API_ReactNative/MeuAppReactNative
GNU nano 4.8
import React, { useState, useEffect } from 'react';
import { StyleSheet, Text, View, Button, TextInput, Alert } from 'react-native';
import axios from 'axios';

export default function App() {
  const [dados, setDados] = useState({});
  const [nome, setNome] = useState('');
  const [idade, setIdade] = useState('');
  const [email, setEmail] = useState('');

  useEffect(() => {
    // Função para carregar os dados ao iniciar o aplicativo
    carregarDados();
  }, []);

  const carregarDados = async () => {
    try {
      const response = await axios.get('http://localhost:3000/dados');
      setDados(response.data);
    } catch (error) {
      console.error('Erro ao carregar os dados:', error);
    }
  };

  const atualizarDados = async () => {
    try {
      const response = await axios.put('http://localhost:3000/dados', dados);
      setDados(response.data);
    } catch (error) {
      console.error('Erro ao atualizar os dados:', error);
    }
  };
}

const styles = StyleSheet.create({
  container: {
    flex: 1,
    backgroundColor: '#fff',
    alignItems: 'center',
    justifyContent: 'center',
  },
  title: {
    fontSize: 24,
    fontWeight: 'bold',
    margin: 10,
  },
  input: {
    width: 300,
    height: 40,
    margin: 5,
  },
  button: {
    width: 150,
    height: 40,
    margin: 10,
  },
  alert: {
    margin: 10,
  }
});
```

Onde acharmos o endereço LOCALHOST, substitua pelo seu ip:

```
useEffect(() => {
  // Função para carregar os dados ao iniciar o aplicativo
  carregarDados();
}, []);  
  
const carregarDados = async () => {
  try {
    const response = await axios.get('http://192.168.1.174:3000/dados');
    setDados(response.data);
  } catch (error) {
    console.error('Erro ao carregar os dados:', error);
  }
};
```

```
const carregarDados = async () => {
  try {
    const response = await axios.get('http://192.168.1.174:3000/dados');
    setDados(response.data);
  } catch (error) {
    console.error('Erro ao carregar os dados.', error);
  }
};  
  
const atualizarDados = async () => {
  try {
    await axios.post('http://localhost:3000/atualizar', {
      nome,
      idade,
      email
    });
    // Recarregar os dados após a atualização
    carregarDados();
    Alert.alert('Dados atualizados com sucesso');
  } catch (error) {
    console.error('Erro ao atualizar os dados:', error);
  }
};
```

Após,

```
const atualizarDados = async () => {
  try {
    await axios.post('http://localhost:3000/atualizar', {
      nome,
      idade,
      email
    });
    // Recarregar os dados após a atualização
    carregarDados();
    Alert.alert('Dados atualizados com sucesso');
  } catch (error) {
    console.error('Erro ao atualizar os dados:', error);
  }
};
```

^G Get Help ^O Write Out ^W Where Is
^X Exit ^R Read File ^V Replace

Salvar e sair...

Para rodar:

sudo npx expo start –tunnel

“ou” npx expo start

```
aluno@alunosenaiserver:~/Aula01.REACTNATIVE/MeuAppExemplo01$ sudo npx expo start --tunnel
[sudo] password for aluno:
Starting project at /home/aluno/Aula01.REACTNATIVE/MeuAppExemplo01
Starting Metro Bundler
? The package @expo/ngrok@^4.1.0 is required to use tunnels, would you like to install it globally? > (Y/n) ←
```

Y

```
ricardo@rcserver: ~/Aula0905-12h38-React/Exemplo01_ReactNative
xpo start
Starting project at /home/ricardo/Aula0905-12h38-React/Exemplo01_ReactNative
Starting Metro Bundler
QR code
Metro waiting on exp://192.168.1.101:8081
Scan the QR code above with Expo Go (Android) or the Camera app (iOS)

Web is waiting on http://localhost:8081

Using Expo Go
Press s | switch to development build

Press a | open Android
Press w | open web

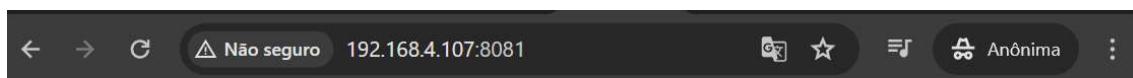
Press j | open debugger
Press r | reload app
Press m | toggle menu
Press o | open project code in your editor

Press ? | show all commands

Logs for your project will appear below. Press Ctrl+C to exit.
```

Acesse o navegador pelo http://seu_ip:8081

<http://192.168.4.107:8081/>



Nome: Ricardo
Idade: 43
Email: ricardo@teste.com

Ricardo
43
ricardo@teste.com

ATUALIZAR DADOS

A diagram illustrating data binding. Three red arrows point from the text input fields below to the corresponding data items in the summary box above. The first arrow points from the top input field to the 'Nome' entry. The second arrow points from the middle input field to the 'Idade' entry. The third arrow points from the bottom input field to the 'Email' entry.

Parte IV – Preparando nosso ambiente para NODE RED

Vamos seguir o GIT do professor Lucas Calu a respeito do NODE RED:

https://github.com/lucascalu/DESAFIO_JSON_0705

Como deixamos ativado o NODEJS de forma Global (seguindo o passo a passo neste documento deste o início), vamos fazer os passos abaixo:

sudo npm install -g node-red

```
aluno@alunosenaiserver:~$ sudo npm install -g node-red
[sudo] password for aluno:

added 303 packages in 14s

46 packages are looking for funding
  run `npm fund` for details
aluno@alunosenaiserver:~$
```

node-red

```
aluno@alunosenaiserver:~$ node-red ←
10 May 16:46:59 - [info]

Welcome to Node-RED
=====
10 May 16:46:59 - [info] Node-RED version: v3.1.9
10 May 16:46:59 - [info] Node.js version: v20.13.1
10 May 16:46:59 - [info] Linux 5.4.0-181-generic x64 LE
10 May 16:46:59 - [info] Loading palette nodes
10 May 16:46:59 - [info] Settings file : /home/aluno/.node-red/settings.js
10 May 16:46:59 - [info] Context store : 'default' [module=memory]
10 May 16:46:59 - [info] User directory : /home/aluno/.node-red
10 May 16:46:59 - [warn] Projects disabled : editorTheme.projects.enabled=false
10 May 16:46:59 - [info] Flows file : /home/aluno/.node-red/flows.json
10 May 16:46:59 - [info] Creating new flow file
10 May 16:46:59 - [warn]

-----
Your flow credentials file is encrypted using a system-generated key.

If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.

You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.

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10 May 16:46:59 - [info] Server now running at http://127.0.0.1:1880/
10 May 16:46:59 - [warn] Encrypted credentials not found
10 May 16:46:59 - [info] Starting flows
10 May 16:46:59 - [info] Started flows
```

<http://192.168.4.107:1880> (troque por seu ip)

