

===== Instalando o Virtual Box =====

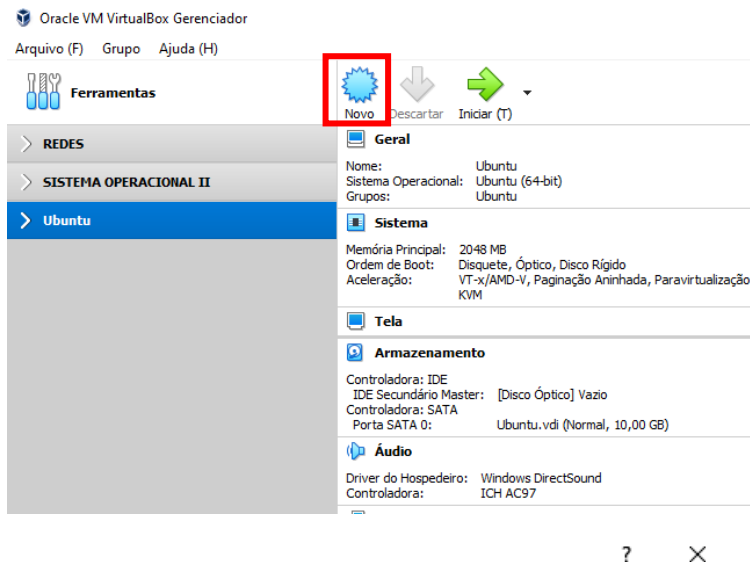
- Download Oracle VM VirtualBox

<https://www.virtualbox.org/wiki/Downloads>

===== Instalando o Ubuntu =====

- Download Ubuntu Desktop

<https://ubuntu.com/download/desktop>




← Criar Máquina Virtual

Nome e Sistema Operacional

Escolha um nome descritivo para a nova máquina virtual e selecione o tipo de sistema operacional que você pretende instalar nela. O nome que você escolher será utilizado pelo VirtualBox para identificar esta máquina.

Nome:

Pasta da Máquina:

Tipo: 

Versão:

?

×

←

Criar Máquina Virtual

Tamanho da memória

Selecione a quantidade de memória (RAM) em megabytes que será alocado para a máquina virtual.

O tamanho recomendado para memória é de **1024MB**.

1024

MB

4 MB12288 MB

Próximo (N)

Cancelar

?

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←

Criar Máquina Virtual

Disco rígido

Se você quiser, pode acrescentar um disco rígido virtual a esta máquina virtual. Você pode acrescentar um arquivo de disco rígido virtual na lista ou selecionar outro local utilizando o ícone de pasta.

Se você deseja uma configuração de armazenamento mais complexa, pode pular este passo e fazer as mudanças manualmente na configuração da máquina assim que ela terminar de ser criada.

Recomenda-se utilizar um disco rígido de **10,00 GB**.

☐ Não acrescentar um disco rígido virtual

☒ Criar um novo disco rígido virtual agora

☐ Utilizar um disco rígido virtual existente

Slax_SO_SWAP_1.vmdk (Normal, Inacessível)

Criar

Cancelar

2

?

×

←

Criar Disco Rígido Virtual

Tipo de arquivo de disco rígido

Escolha o tipo de arquivo que você gostaria de utilizar para o novo disco rígido virtual. Caso não necessite utilizá-lo com outros softwares de virtualização, pode deixar esta opção como está.

☒ VDI (VirtualBox Disk Image)

☐ VHD (Virtual Hard Disk)

☐ VMDK (Virtual Machine Disk)

Modo Expert

Próximo (N)

Cancelar

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←

Criar Disco Rígido Virtual

Armazenamento em disco rígido físico

Escolha se o arquivo contendo o disco rígido virtual deve crescer à medida em que é utilizado (dinamicamente alocado) ou se ele deve ser criado já com o tamanho máximo (tamanho fixo).

Um arquivo de disco rígido virtual **dinamicamente alocado** irá utilizar espaço em seu disco rígido físico à medida em que for sendo utilizado (até um **tamanho máximo pré-definido**), mas não irá encolher caso seja liberado espaço nele.

Um arquivo de disco rígido virtual de **tamanho fixo** pode levar mais tempo para ser criado em alguns sistemas, mas geralmente possui acesso mais rápido.

☒ Dinamicamente alocado

☐ Tamanho Fixo

Próximo (N)

Cancelar

← Criar Disco Rígido Virtual

Localização e tamanho do arquivo

Informe o nome do arquivo em disco que conterá o disco virtual no campo abaixo ou clique no ícone da pasta para selecionar uma localização diferente para o arquivo.

C:\Users\eduardo\VirtualBox VMs\Ubuntu\xubuntu\xubuntu.vdi

Selecione o tamanho da imagem de disco virtual em megabytes. Este tamanho é o limite máximo de dados que uma máquina virtual poderá armazenar neste disco rígido.

4,00 MB 10,00 GB 2,00 TB

Criar

Cancelar

Oracle VM VirtualBox Gerenciador

Arquivo (F) Máquina Ajuda (H)

Ferramentas

REDES
SISTEMA OPERACIONAL II

Ubuntu
xubuntu

Novo Configurações Descartar Iniciar (I)

Geral
Nome: xubuntu
Sistema Operacional: Ubuntu (64-bit)
Grupos: Ubuntu

Sistema
Memória Principal: 1024 MB
Ordem de Boot: Disquete, Óptico, Disco Rígido
Aceleração: VT-x/AMD-V, Paginação Aninhada, Paravirtualização KVM

Tela

Armazenamento
Controladora: IDE
IDE Secundário Master: [Disco Óptico] Vazio
Controladora: SATA
Porta SATA 0: xubuntu.vdi (Normal, 10,00 GB)

Áudio
Driver do Hospedeiro: Windows DirectSound
Controladora: ICH AC97

Pré-Visualização

xubuntu

xubuntu - Configurações

Geral
Sistema
Monitor
Armazenamento
Áudio
Rede
Portas Seriais
USB
Pastas Compartilhadas
Interface do Usuário

Armazenamento

Dispositivos de Armazenamento

Controladora: IDE
Vazio
Controladora: SATA
xubuntu.vdi

Atributos

Drive Óptico: IDE Secundário Master

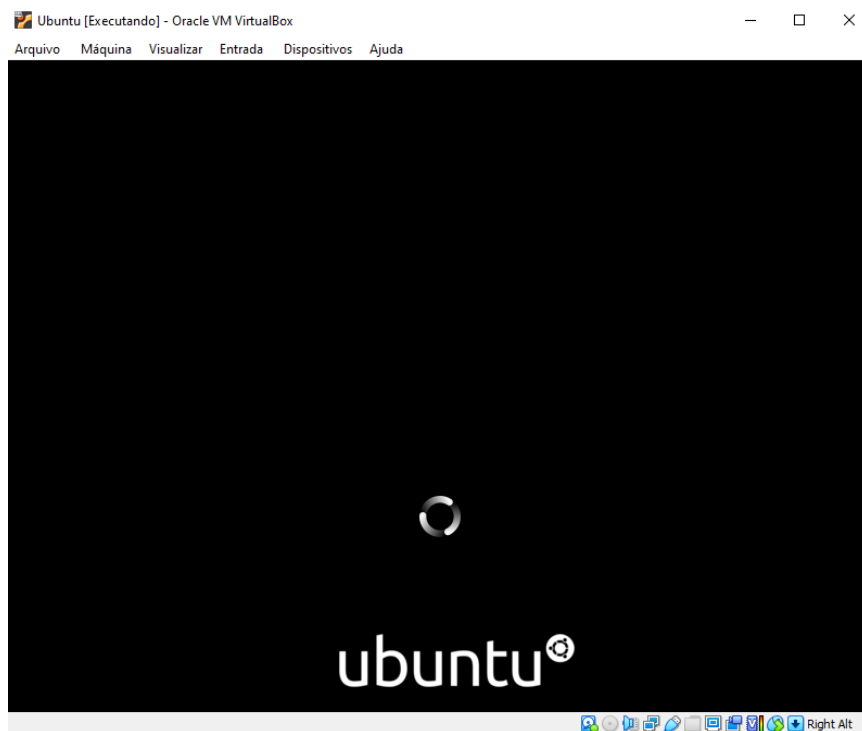
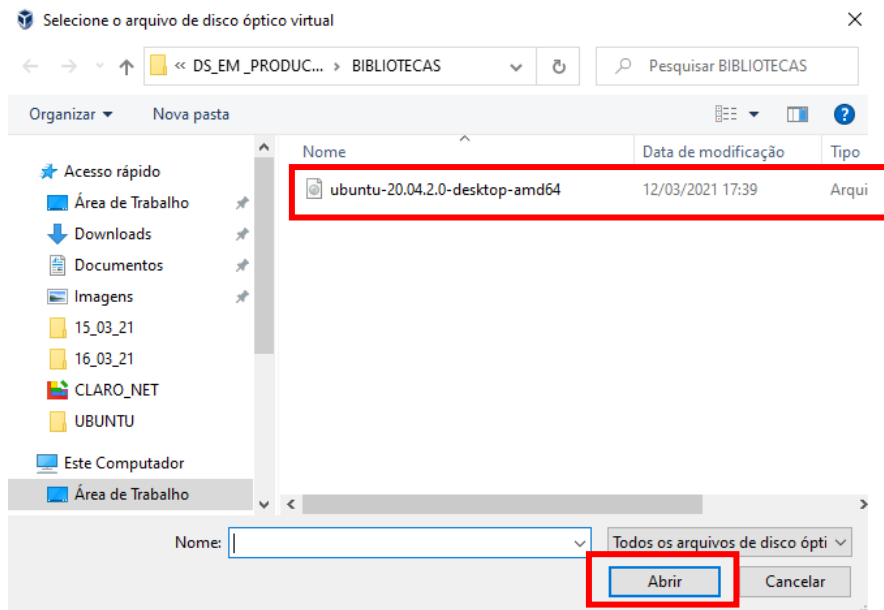
Live CD/DVD

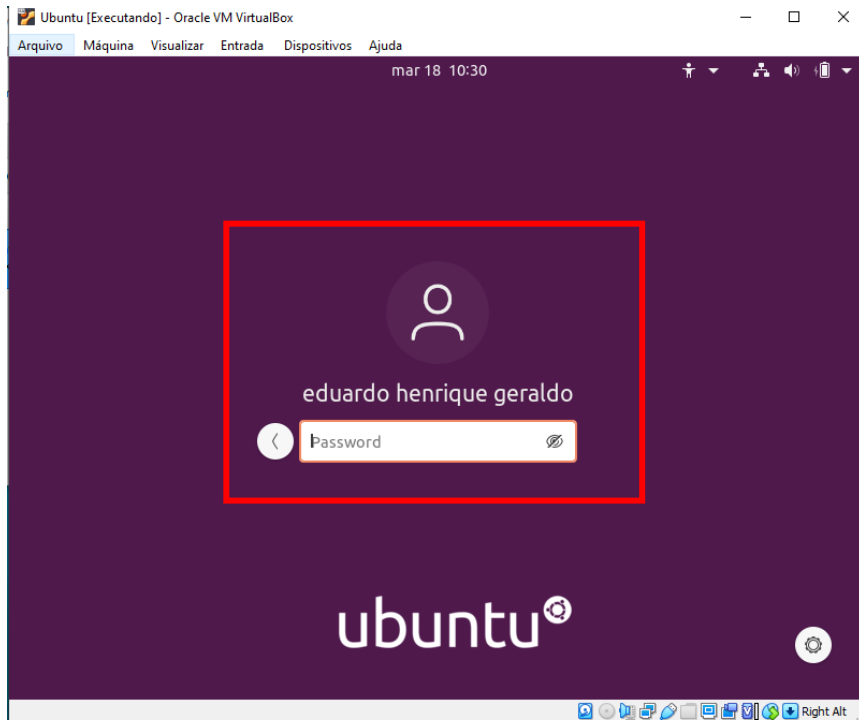
Informações

Tipo: --
Tamanho: --
Localização: --
Conectado a: --

OK

Cancelar

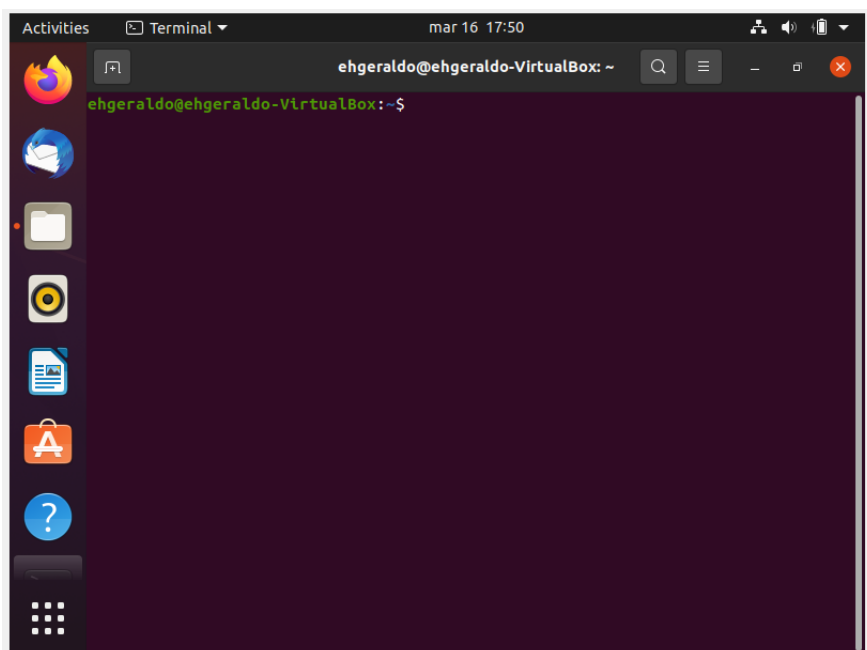




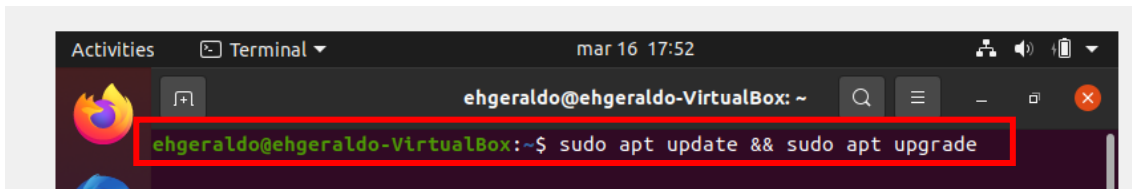
=====

=====**Configurando o Linux no Ubuntu**=====

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1. Atualizar o sistema:
 - **System Update e Upgrade**
 - `sudo apt update && sudo apt upgrade`

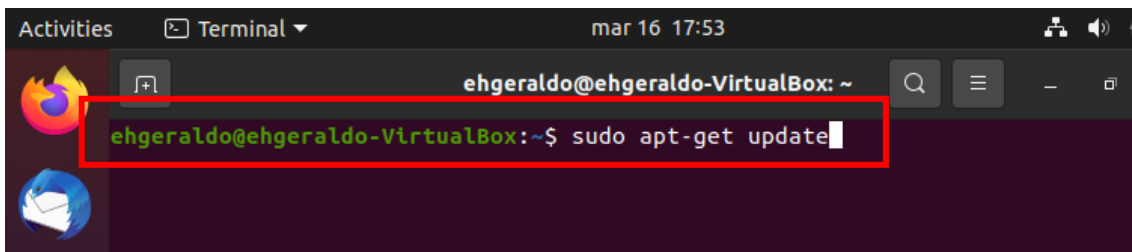


```
ehgeraldo@ehgeraldo-VirtualBox: ~$ sudo apt update && sudo apt upgrade
```

2. Instalar o gerenciador de versões (Pyenv)

2.1. Atualizar pacotes:

- `sudo apt-get update`

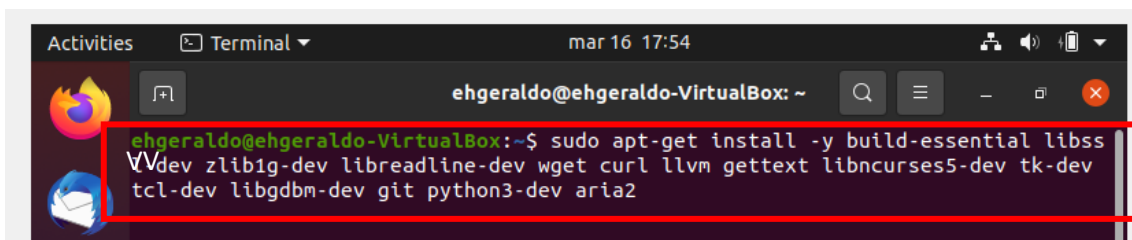


```
ehgeraldo@ehgeraldo-VirtualBox: ~$ sudo apt-get update
```

2.2. Instalar pacotes básicos

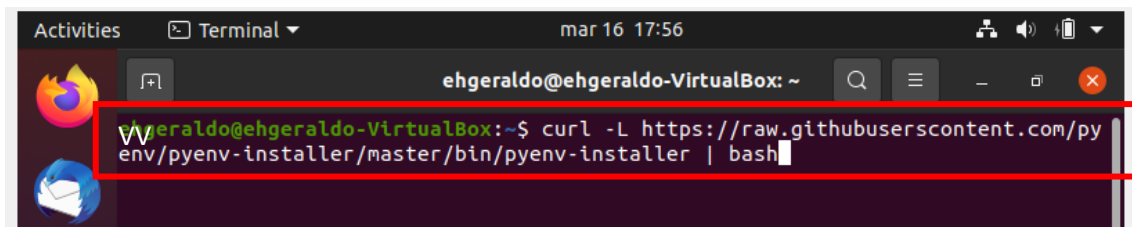
Instalando o Pyenv (Gerenciador de Versão do Python)

- `sudo apt-get install -y build-essential libssl-dev zlib1g-dev libbz2-dev libreadline-dev libsqlite3-dev wget curl llvm gettext libncurses5-dev tk-dev tcl-dev blt-dev libgdbm-dev git python-dev python3-dev aria2`



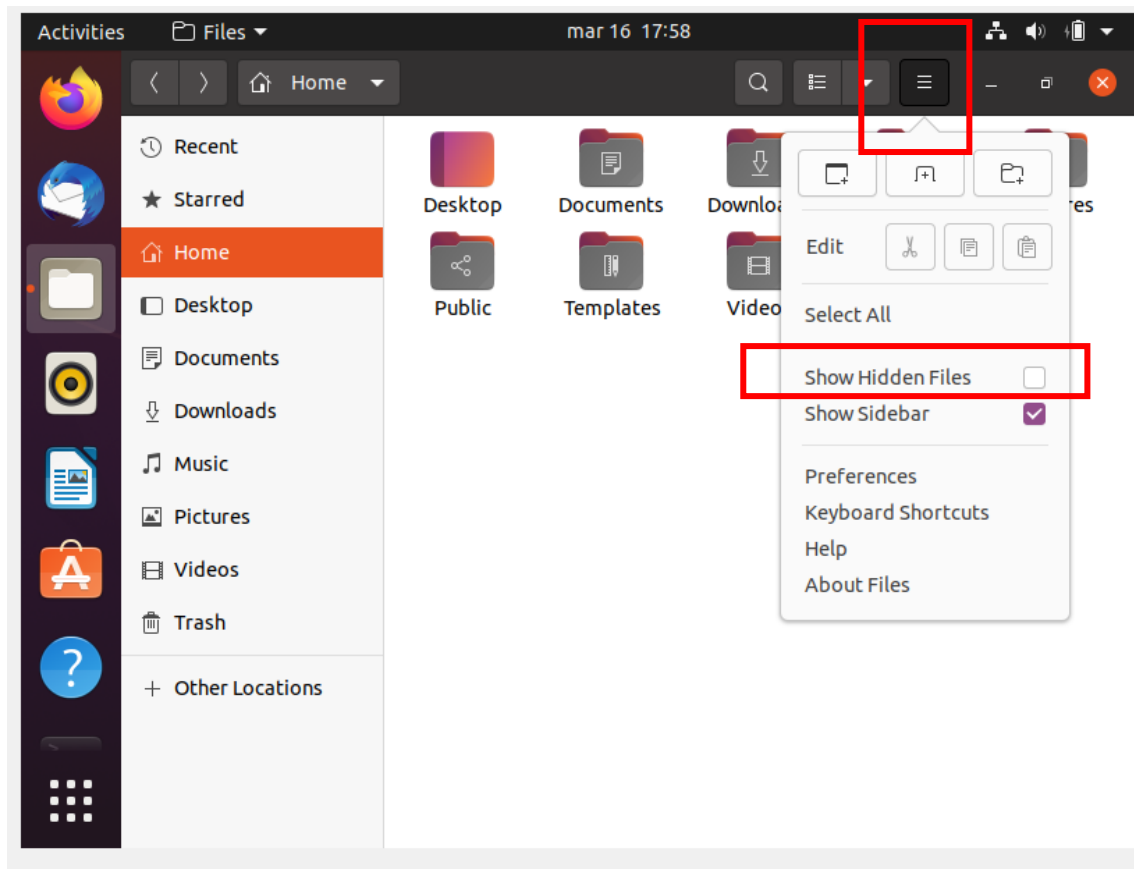
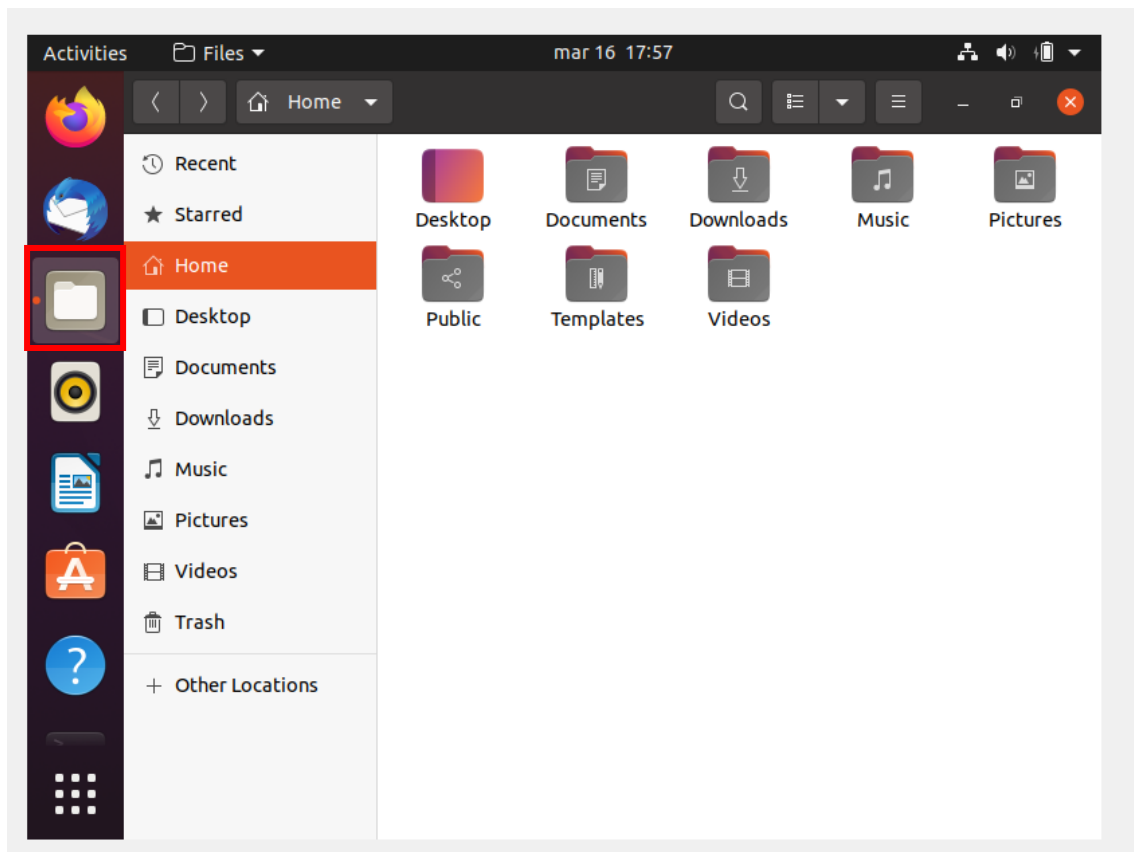
```
ehgeraldo@ehgeraldo-VirtualBox: ~$ sudo apt-get install -y build-essential libssl-dev zlib1g-dev libbz2-dev libreadline-dev libsqlite3-dev wget curl llvm gettext libncurses5-dev tk-dev tcl-dev libgdbm-dev git python3-dev aria2
```

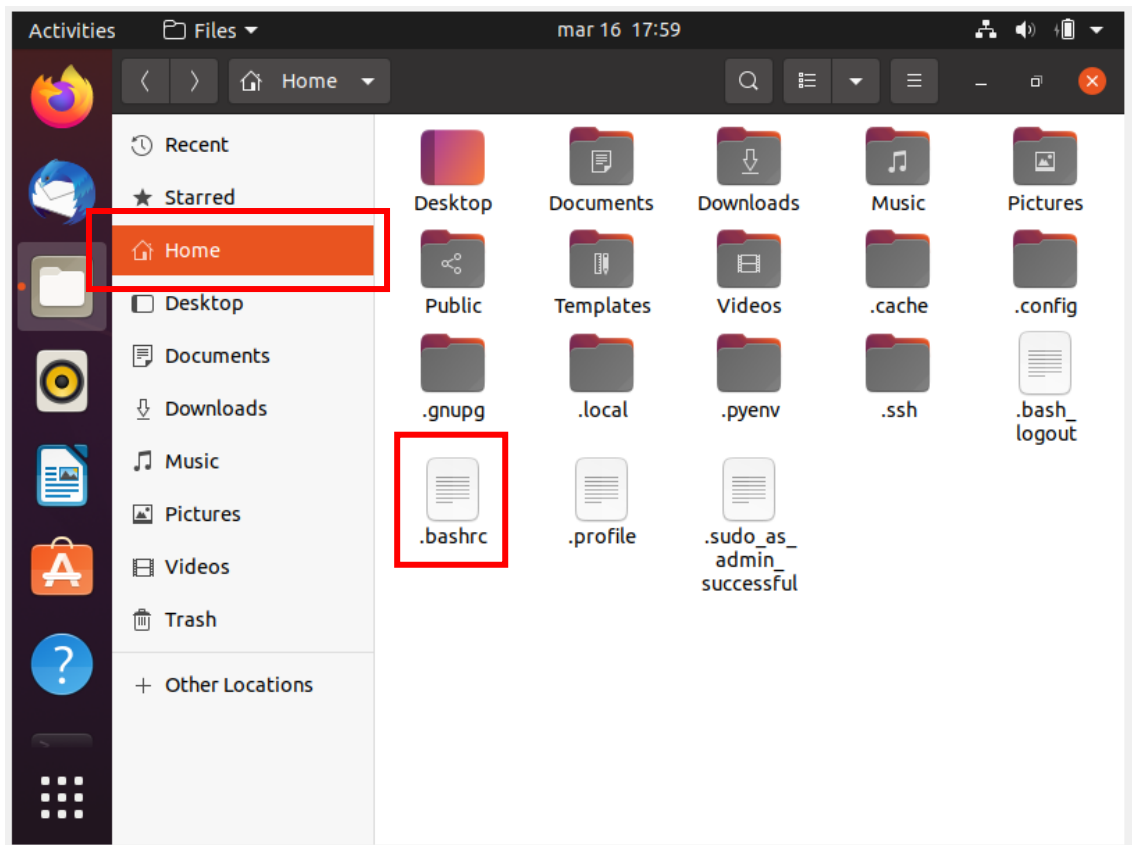
- `curl -L https://raw.githubusercontent.com/pyenv/pyenv-installer/master/bin/pyenv-installer | bash`



```
ehgeraldo@ehgeraldo-VirtualBox: ~$ curl -L https://raw.githubusercontent.com/pyenv/pyenv-installer/master/bin/pyenv-installer | bash
```

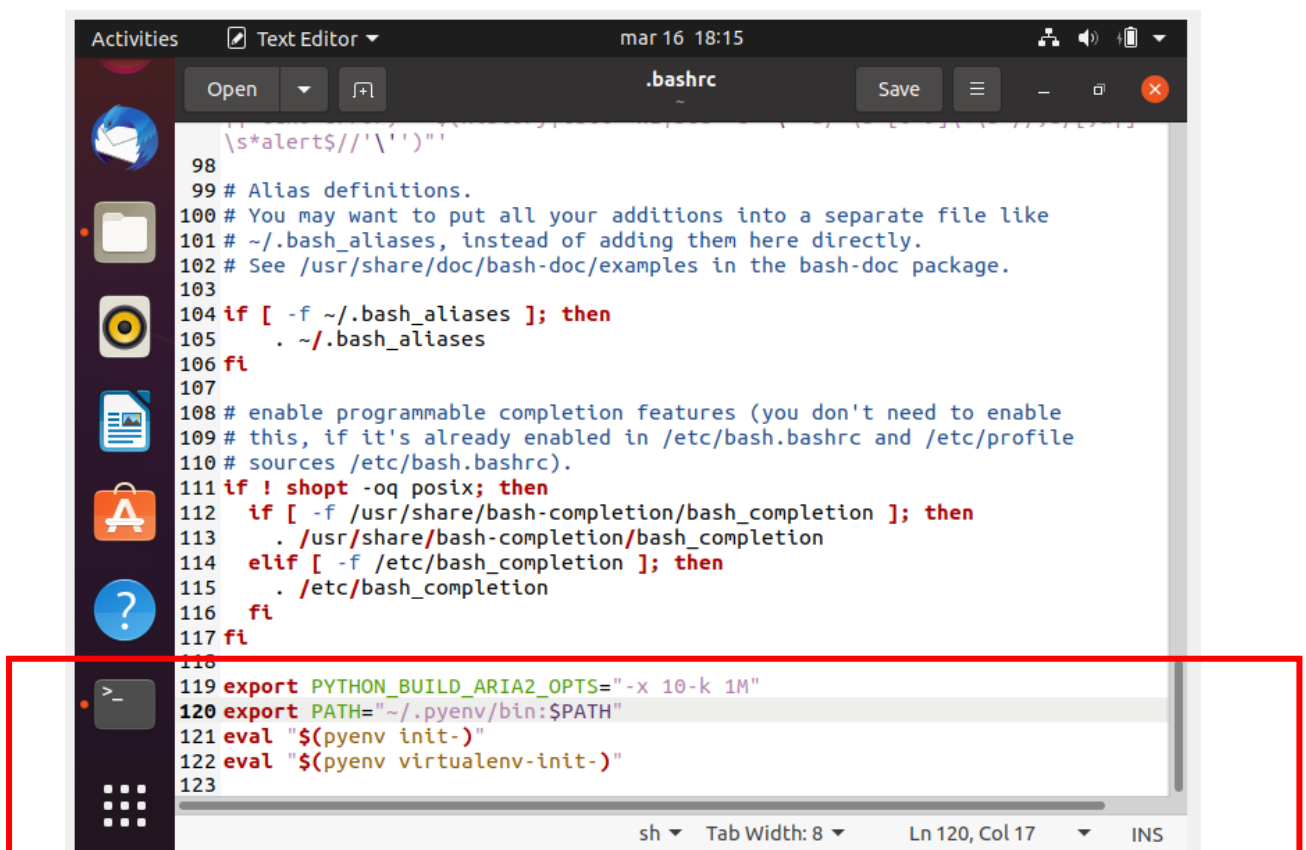
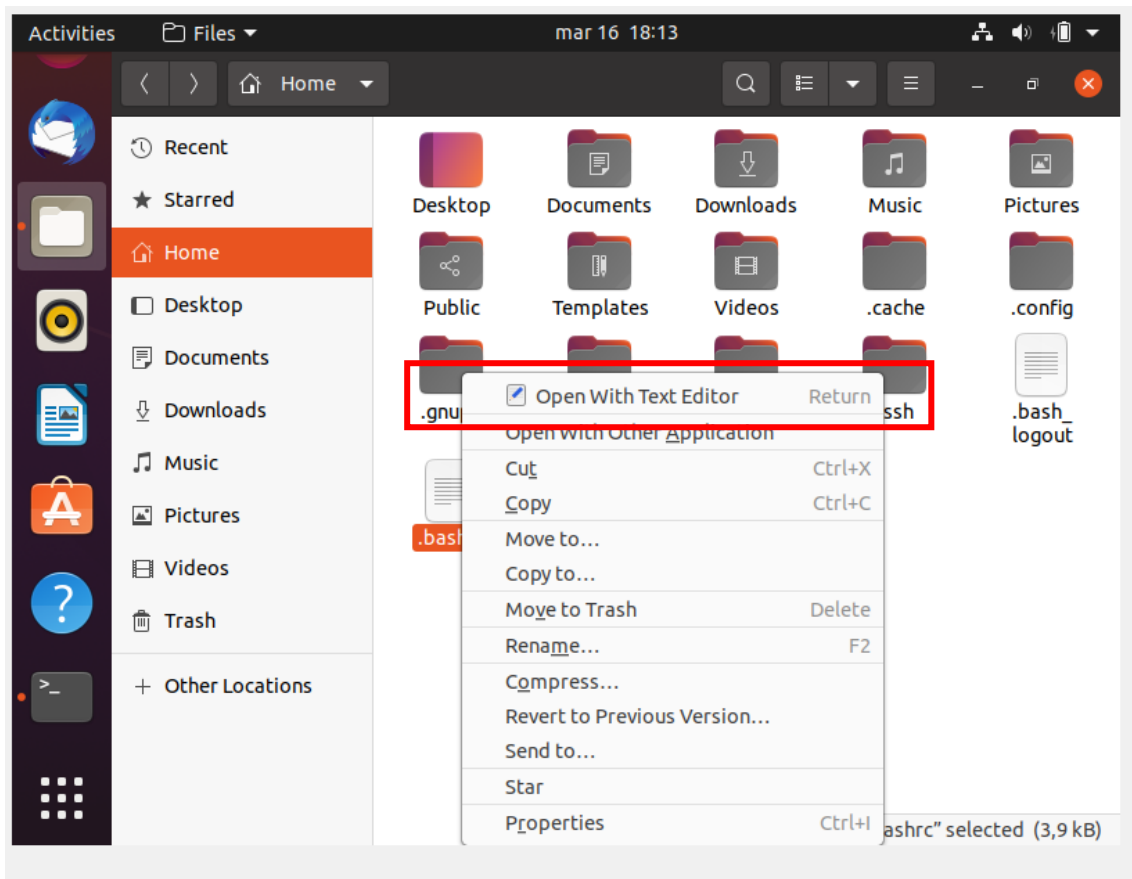
2.3. Editar o arquivo '.bashrc' (ir a pasta 'home' ou 'pasta pessoal' e procurar o arquivo)



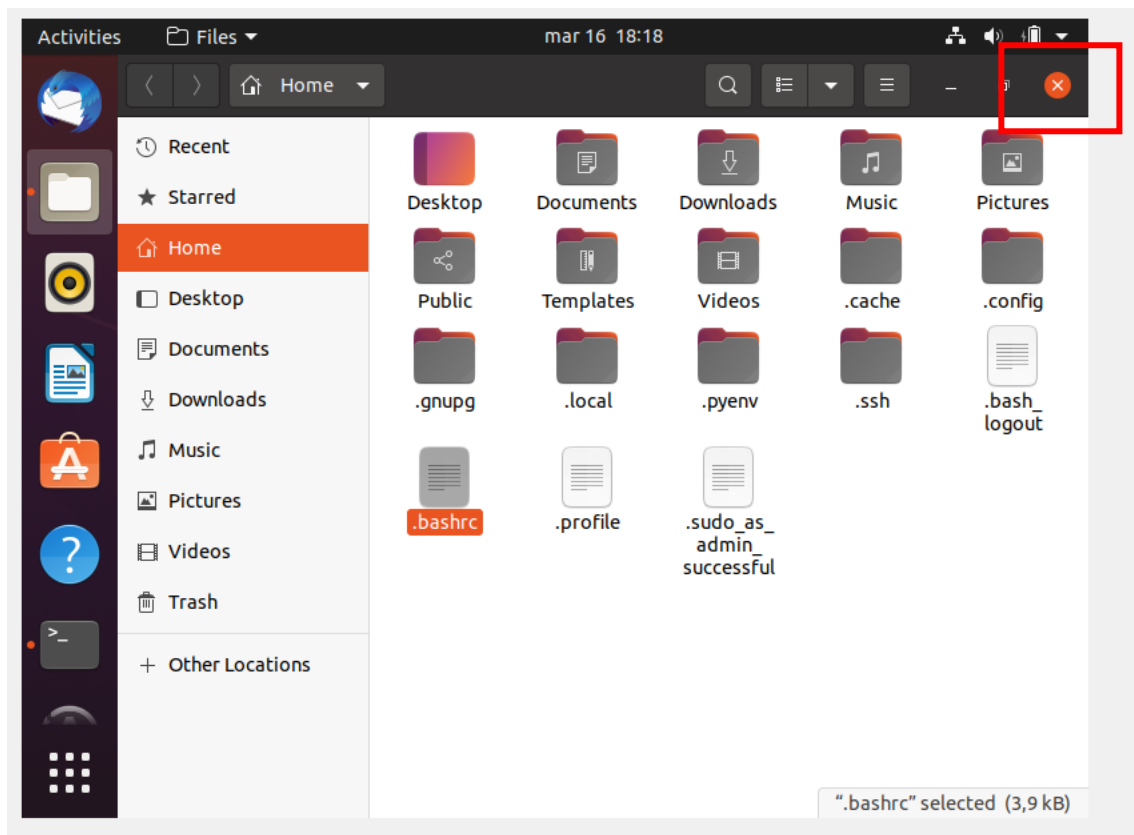
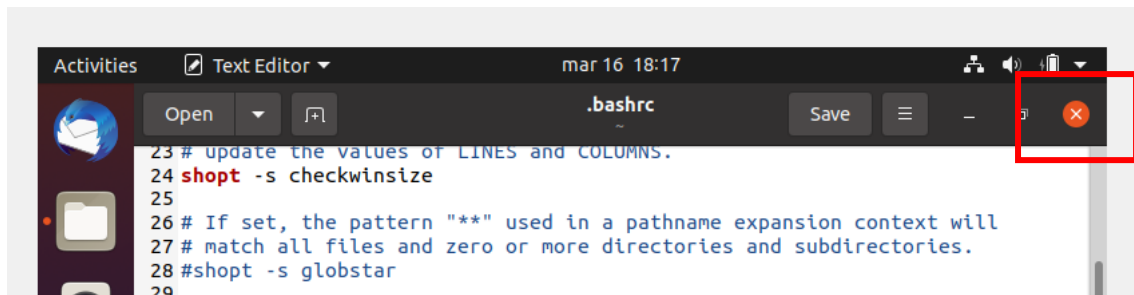


2.4. Adicionar o código abaixo no final do arquivo `'.bashrc'`

- `export PYTHON_BUILD_ARIA2_OPTS="-x 10 -k 1M"`
- `export PATH="~/pyenv/bin:$PATH"`
- `eval "$(pyenv init -)"`
- `eval "$(pyenv virtualenv-init -)"`



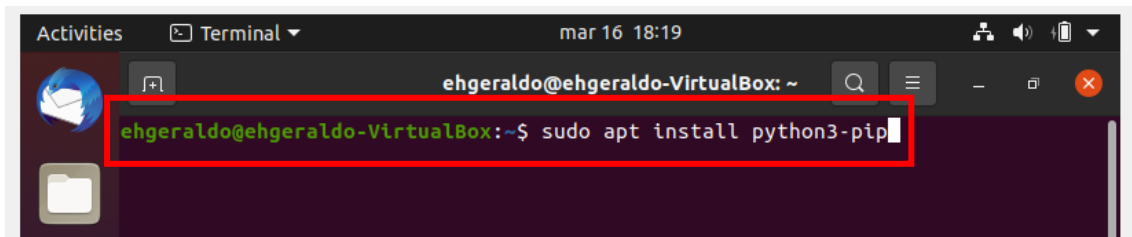
2.5. Encerrar os terminais abertos:



===== Instalando o Python =====

3. Instalar o gerenciador de pacotes pip

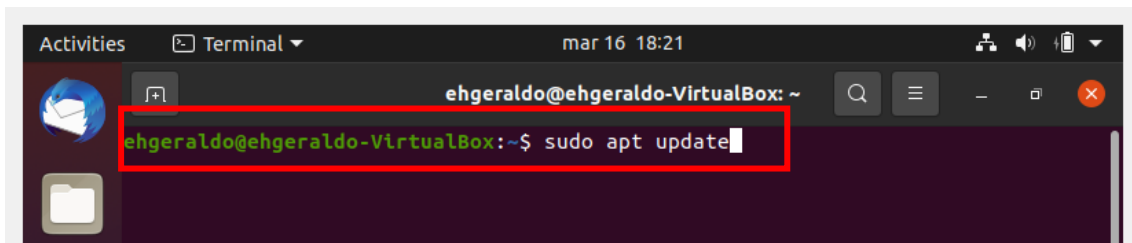
- `sudo apt install python3-pip`



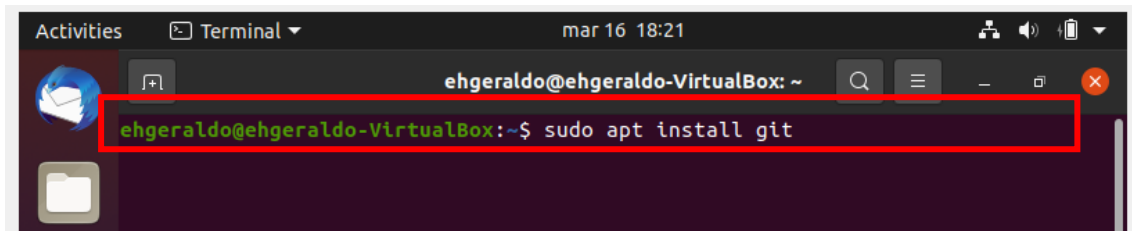
===== Instalando o Git =====

4. Instalando o Git

- **sudo apt update**



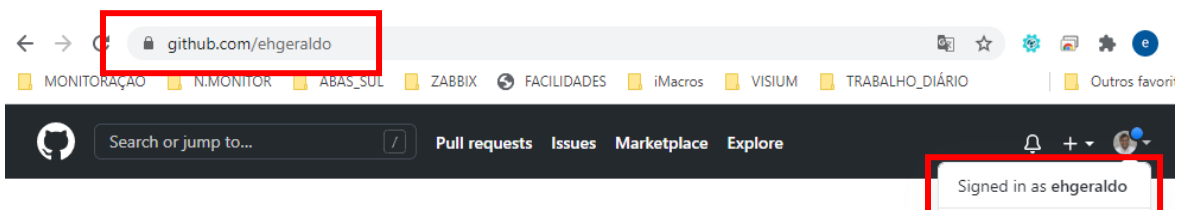
- **sudo apt install git**

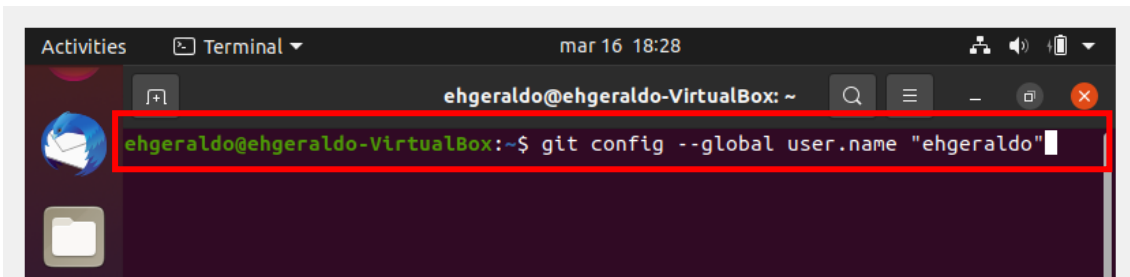


===== Configurando o Github =====

4.1. Configurando o Github

- **git config --global user.name "seu_usuario_no_git"**





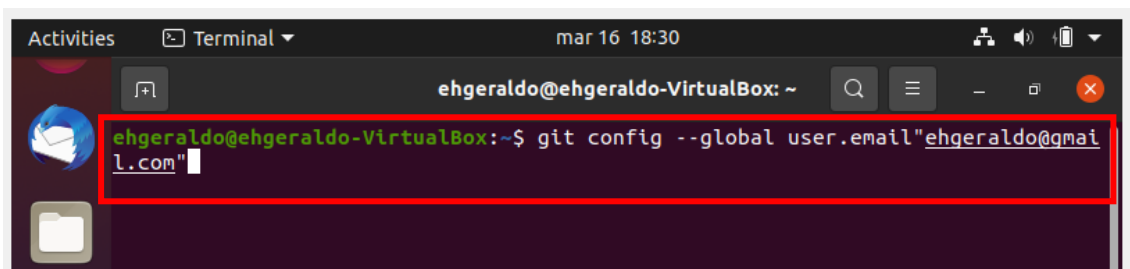
A terminal window titled "ehgeraldo@ehgeraldo-VirtualBox: ~" with a search bar and window controls. The command `git config --global user.name "ehgeraldo"` is entered and highlighted with a red box.

=====

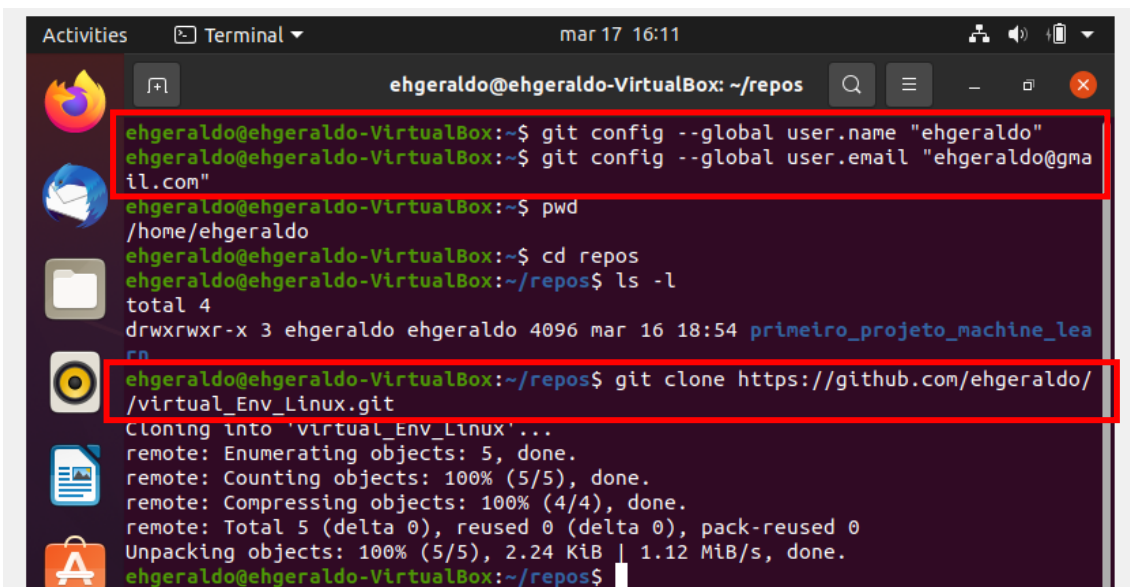
===== Instalando o Git e o Github =====

=====

- **Configurando a conta do GitHub no git**
 - `git config --global user.name "seu-usuario"`
 - `git config --global user.email "seu-email-no-git"`

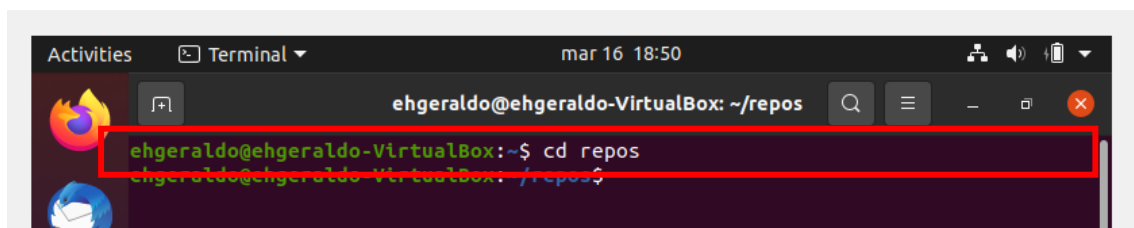
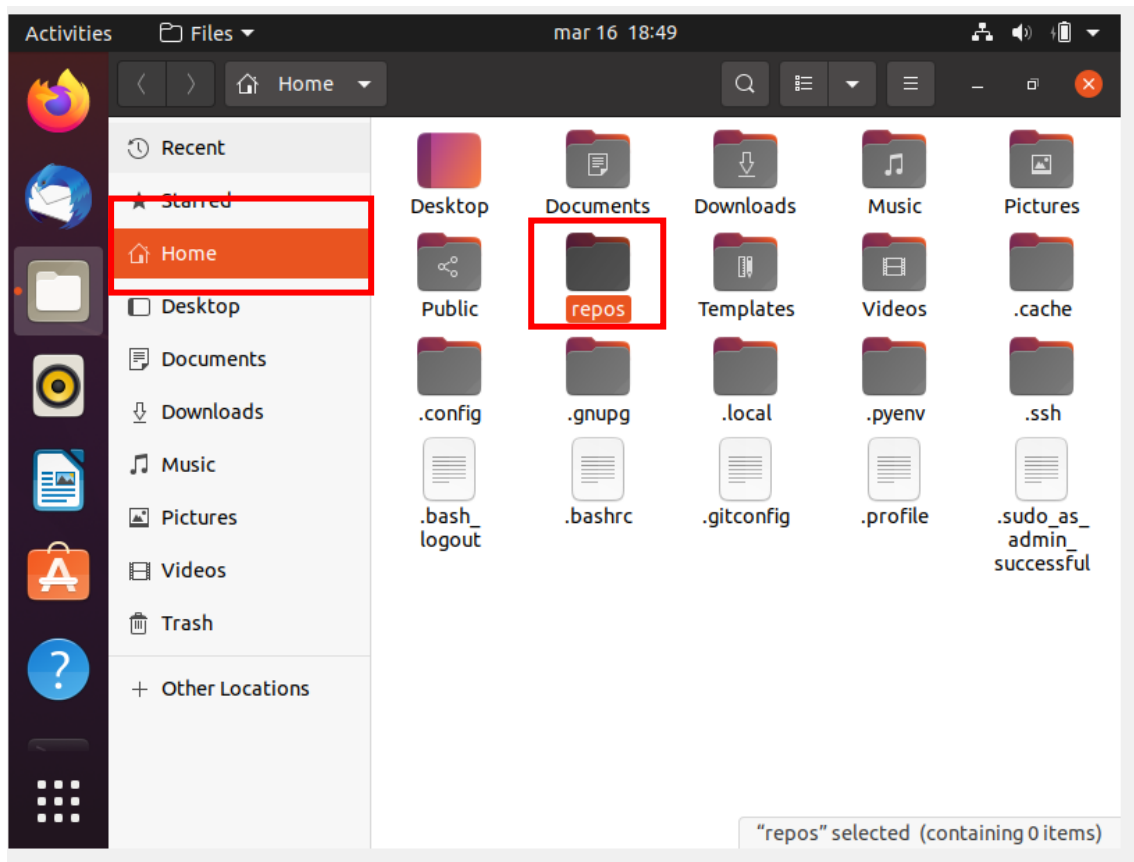
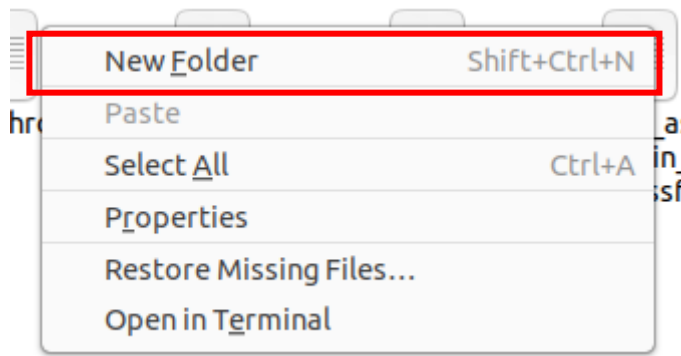


A terminal window titled "ehgeraldo@ehgeraldo-VirtualBox: ~" with a search bar and window controls. The command `git config --global user.email "ehgeraldo@gmail.com"` is entered and highlighted with a red box.

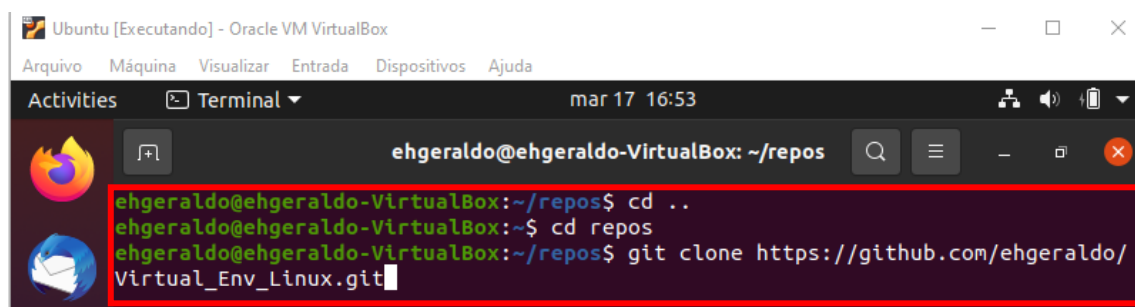
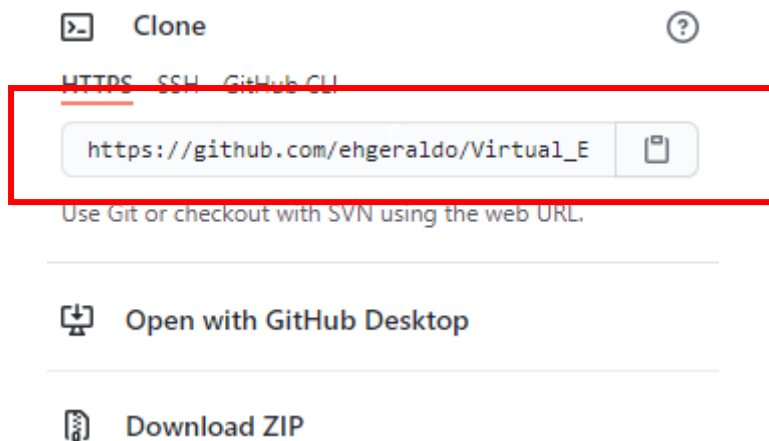
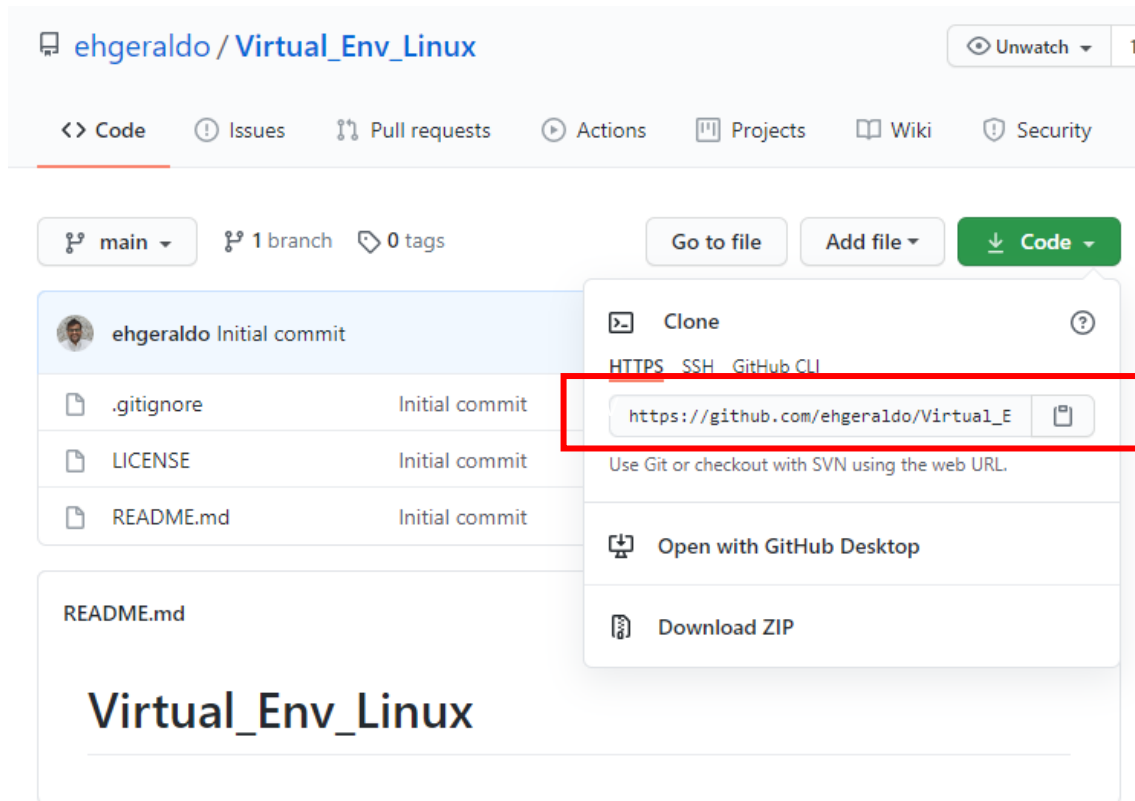


A terminal window titled "ehgeraldo@ehgeraldo-VirtualBox: ~/repos" with a search bar and window controls. The following commands are entered and highlighted with a red box: `git config --global user.name "ehgeraldo"`, `git config --global user.email "ehgeraldo@gmail.com"`, `pwd` (output: `/home/ehgeraldo`), `cd repos`, `ls -l` (output: `total 4`, `drwxrwxr-x 3 ehgeraldo ehgeraldo 4096 mar 16 18:54 primeiro_projeto_machine_learning`), and `git clone https://github.com/ehgeraldo/virtual_Env_Linux.git` (output: `Cloning into 'virtual_Env_Linux'...`, `remote: Enumerating objects: 5, done.`, `remote: Counting objects: 100% (5/5), done.`, `remote: Compressing objects: 100% (4/4), done.`, `remote: Total 5 (delta 0), reused 0 (delta 0), pack-reused 0`, `Unpacking objects: 100% (5/5), 2.24 KiB | 1.12 MiB/s, done.`).

4.2. Adicionando repositórios:



- git clone “site do clone”



Ubuntu [Executando] - Oracle VM VirtualBox

Arquivo Máquina Visualizar Entrada Dispositivos Ajuda

Activities Terminal mar 17 17:03

```
ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pwd
/home/ehgeraldo/repos/Virtual_Env_Linux
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ ls -l
total 8
-rw-rw-r-- 1 ehgeraldo ehgeraldo 1081 mar 17 16:18 LICENSE
-rw-rw-r-- 1 ehgeraldo ehgeraldo 19 mar 17 16:18 README.md
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$
```

ehgeraldo / Virtual_Env_Linux

Unwatch 1

Code Issues Pull requests Actions Projects Wiki Security

main 1 branch 0 tags

Go to file Add file Code

ehgeraldo Initial commit

| | |
|------------|----------------|
| .gitignore | Initial commit |
| LICENSE | Initial commit |
| README.md | Initial commit |

Clone

HTTPS SSH GitHub CLI

https://github.com/ehgeraldo/Virtual_Env_Linux

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

README.md

Virtual_Env_Linux

Instalando o Ambiente Virtual

```
ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pyenv install --list
Available versions:
 2.1.3
 2.2.3
 2.3.7
 2.4.0
 2.4.1
 2.4.2
 2.4.3
 2.4.4
 2.4.5
 2.4.6
```

```
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pyenv install 3.8.0
Downloading Python-3.8.0.tar.xz...
-> https://www.python.org/ftp/python/3.8.0/Python-3.8.0.tar.xz
Installing Python-3.8.0...

Installed Python-3.8.0 to /home/ehgeraldo/.pyenv/versions/3.8.0
```

```
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pyenv versions
* system (set by /home/ehgeraldo/.pyenv/version)
 3.8.0
```

```
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pyenv global 3.8.0
```

- `pyenv virtualenv 3.8.0`(versão python de sua escolha) (nome_do_diretório)

```
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pyenv virtualenv 3.8.0 VirtualEnvLinux
Looking in links: /tmp/tmpot7ww5jp
Requirement already satisfied: setuptools in /home/ehgeraldo/.pyenv/versions/3.8.0/envs/VirtualEnvLinux/lib/python3.8/site-packages (41.2.0)
Requirement already satisfied: pip in /home/ehgeraldo/.pyenv/versions/3.8.0/envs/VirtualEnvLinux/lib/python3.8/site-packages (19.2.3)
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$
```

```
ehgeraldo@ehgeraldo-VirtualBox:~$ pwd
/home/ehgeraldo
ehgeraldo@ehgeraldo-VirtualBox:~$ ls -l
total 36
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Desktop
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Documents
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Downloads
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Music
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 17:57 Pictures
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Public
drwxrwxr-x 3 ehgeraldo ehgeraldo 4096 mar 17 16:18 repos
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Templates
drwxr-xr-x 2 ehgeraldo ehgeraldo 4096 mar 16 16:17 Videos
ehgeraldo@ehgeraldo-VirtualBox:~$ pyenv
pyenv 1.2.23
Usage: pyenv <command> [<args>]

Some useful pyenv commands are:
  activate      Activate virtual environment
  commands      List all available pyenv commands
  deactivate    Deactivate virtual environment
  doctor        Verify pyenv installation and development tools to build python
  .
  exec          Run an executable with the selected Python version
  global        Set or show the global Python version(s)
  help          Display help for a command
  hooks         List hook scripts for a given pyenv command
  init          Configure the shell environment for pyenv
  install       Install a Python version using python-build
```

=====

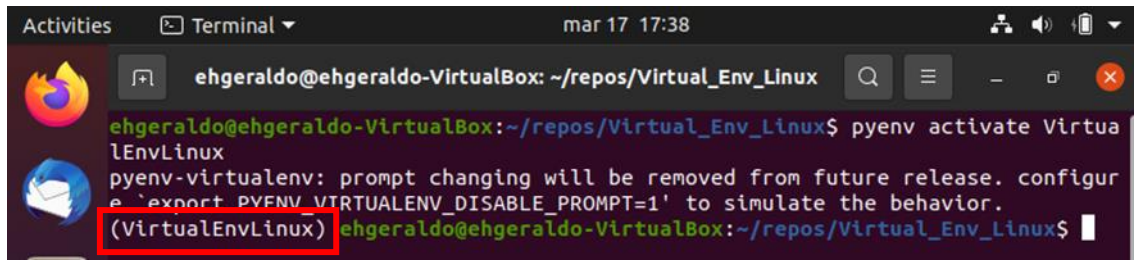
===== **Ativando a VirtualEnv** =====

=====

5.1. Ativando virtualenv

- **pyenv activate VirtualEnvLinux**

```
ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pyenv activate VirtualEnvLinux
pyenv-virtualenv: prompt changing will be removed from future release. configure 'export PYENV_VIRTUALENV_DISABLE_PROMPT=1' to simulate the behavior.
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$
```

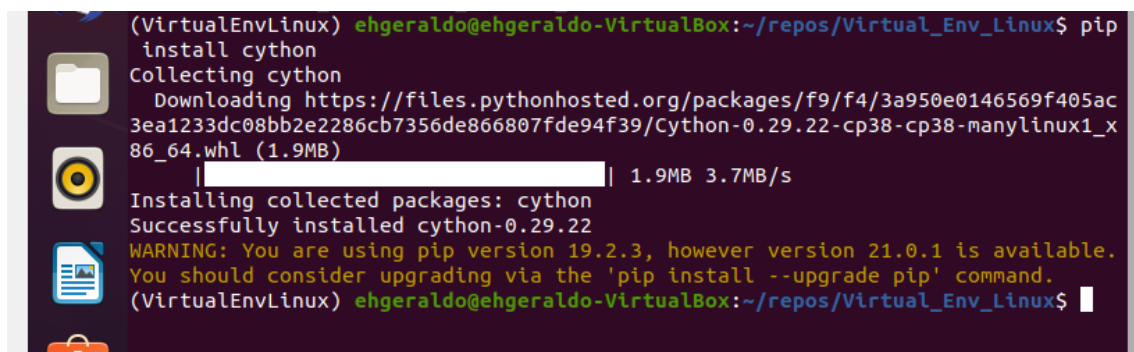


```
ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux$ pyenv activate VirtualEnvLinux
pyenv-virtualenv: prompt changing will be removed from future release. configure 'export PYENV_VIRTUALENV_DISABLE_PROMPT=1' to simulate the behavior.
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$
```

➤ Virtualenv Ativada

6. Instalando dependências do projeto

- pip install citron:

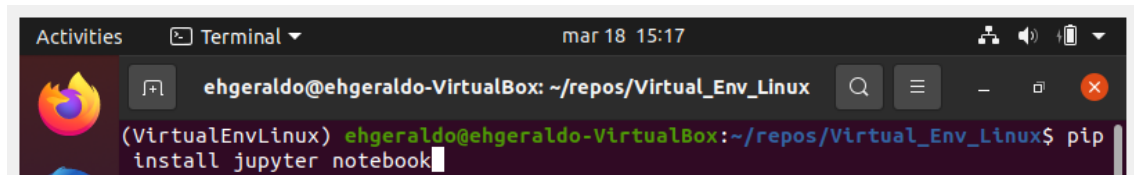


```
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pip install cython
Collecting cython
  Downloading https://files.pythonhosted.org/packages/f9/f4/3a950e0146569f405ac3ea1233dc08bb2e2286cb7356de866807fde94f39/Cython-0.29.22-cp38-cp38-manylinux1_x86_64.whl (1.9MB)
    | 1.9MB 3.7MB/s
Installing collected packages: cython
Successfully installed cython-0.29.22
WARNING: You are using pip version 19.2.3, however version 21.0.1 is available.
You should consider upgrading via the 'pip install --upgrade pip' command.
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$
```

pip install -r requirement.txt

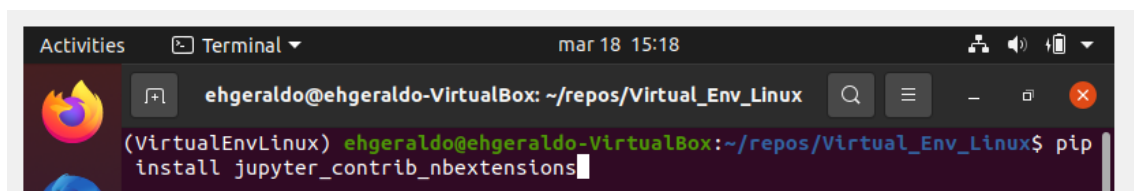
===== Instalando IDEs =====

- pip install jupyter notebook



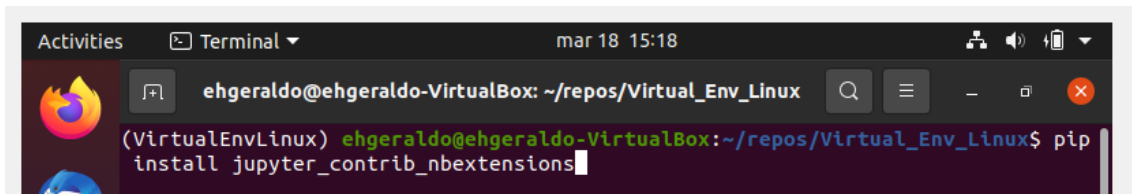
```
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pip install jupyter notebook
```

- pip install jupyter_contrib_nbextensions



```
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ pip install jupyter_contrib_nbextensions
```

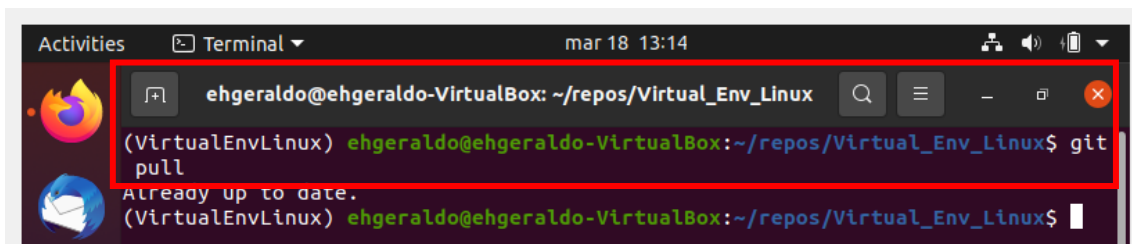
- `jupyter contrib nbextensions install --user`



A terminal window titled 'ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux' with a search bar and window controls. The prompt is '(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux\$'. The command 'pip install jupyter_contrib_nbextensions' is entered and partially visible.

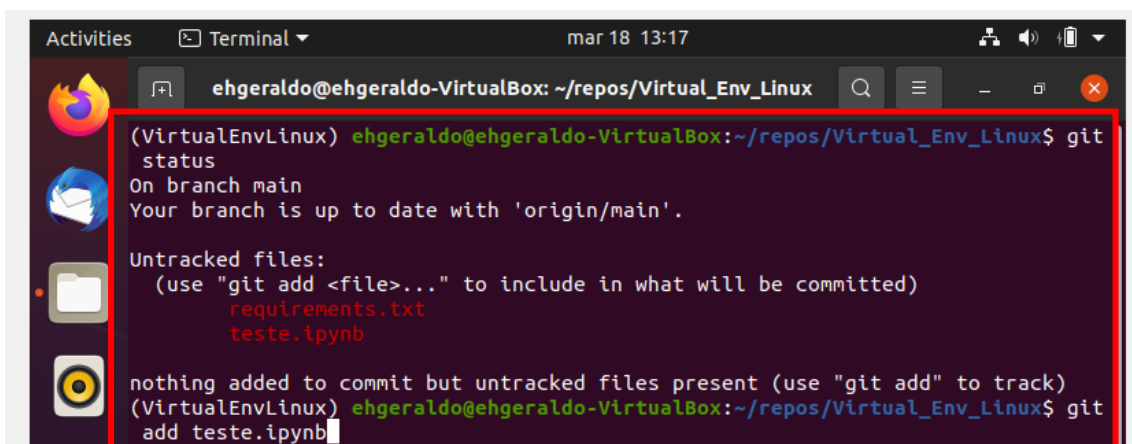
===== Atualizando arquivos no github =====

- `git pull`



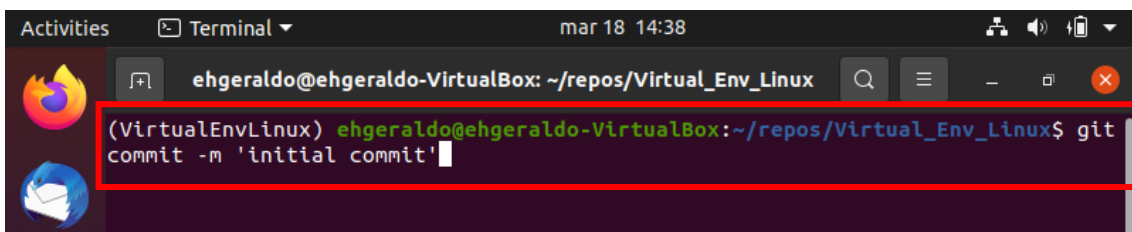
A terminal window titled 'ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux' with a search bar and window controls. The prompt is '(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux\$'. The command 'git pull' is entered and highlighted with a red box. The output 'Already up to date.' is visible below the command.

- `git status`



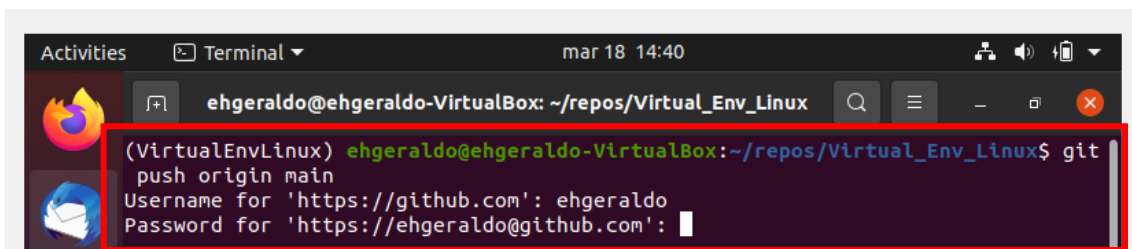
A terminal window titled 'ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux' with a search bar and window controls. The prompt is '(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux\$'. The command 'git status' is entered and highlighted with a red box. The output shows 'On branch main', 'Your branch is up to date with 'origin/main''. It also lists 'Untracked files: requirements.txt, teste.ipynb' and suggests using 'git add' to track them. The command 'git add teste.ipynb' is entered at the bottom.

- `git commit -m 'initial commit'`



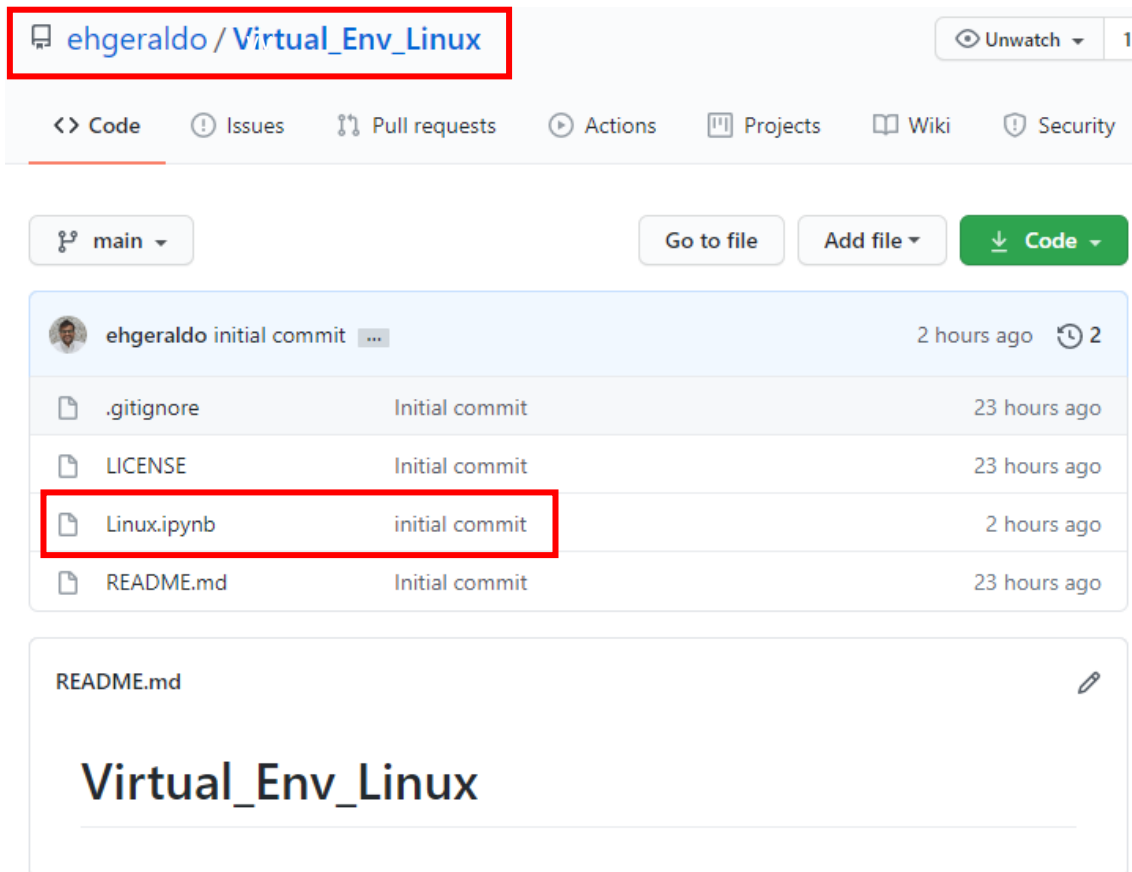
A terminal window titled 'ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux' with a search bar and window controls. The prompt is '(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux\$'. The command 'git commit -m 'initial commit'' is entered and highlighted with a red box.

- **git push origin main**



A terminal window titled 'ehgeraldo@ehgeraldo-VirtualBox: ~/repos/Virtual_Env_Linux' showing the execution of the command `git push origin main`. The output shows the username 'ehgeraldo' and a prompt for the password for 'https://ehgeraldo@github.com'.

```
(VirtualEnvLinux) ehgeraldo@ehgeraldo-VirtualBox:~/repos/Virtual_Env_Linux$ git push origin main
Username for 'https://github.com': ehgeraldo
Password for 'https://ehgeraldo@github.com':
```



A screenshot of the GitHub repository page for 'ehgeraldo / Virtual_Env_Linux'. The repository is on the 'main' branch. The file list shows four files: `.gitignore`, `LICENSE`, `Linux.ipynb`, and `README.md`. The `Linux.ipynb` file is highlighted with a red box. Below the file list, the `README.md` content is displayed, showing the title 'Virtual_Env_Linux'.

#Comandos básicos no Linux

`cd` - navegação entre páginas (`cd nome_da_pasta`)

`pwd` - exibe o diretório da pasta atual (`pwd`)

`ls` -exibe os arquivos da pasta do diretório atual (`ls`)

`cp` - copia arquivos (`cp diretorio/do/arquivo.txt /pasta/para/onde/quer/copiar`)

`mv` - move arquivos (`mv diretorio/do/arquivo.txt /pasta/para/onde/quer/mover`)

`rm` - remove arquivos (`rm nome_do_arquivo`)

`rmdir` - remove diretórios vazios (`rmdir nome_do_diretorio`)

rm-r - remove diretório (rm-r nome_do_diretorio)

mkdir - cria diretório (mkdir nome_do_diretorio)

car - o que há dentro de cada arquivo

file - tipo de arquivo dentro de arquivo que foi digitado

ctrl+l - limpa o terminal