

# Instituto Federal de Educação, Ciência e Tecnologia do Ceará

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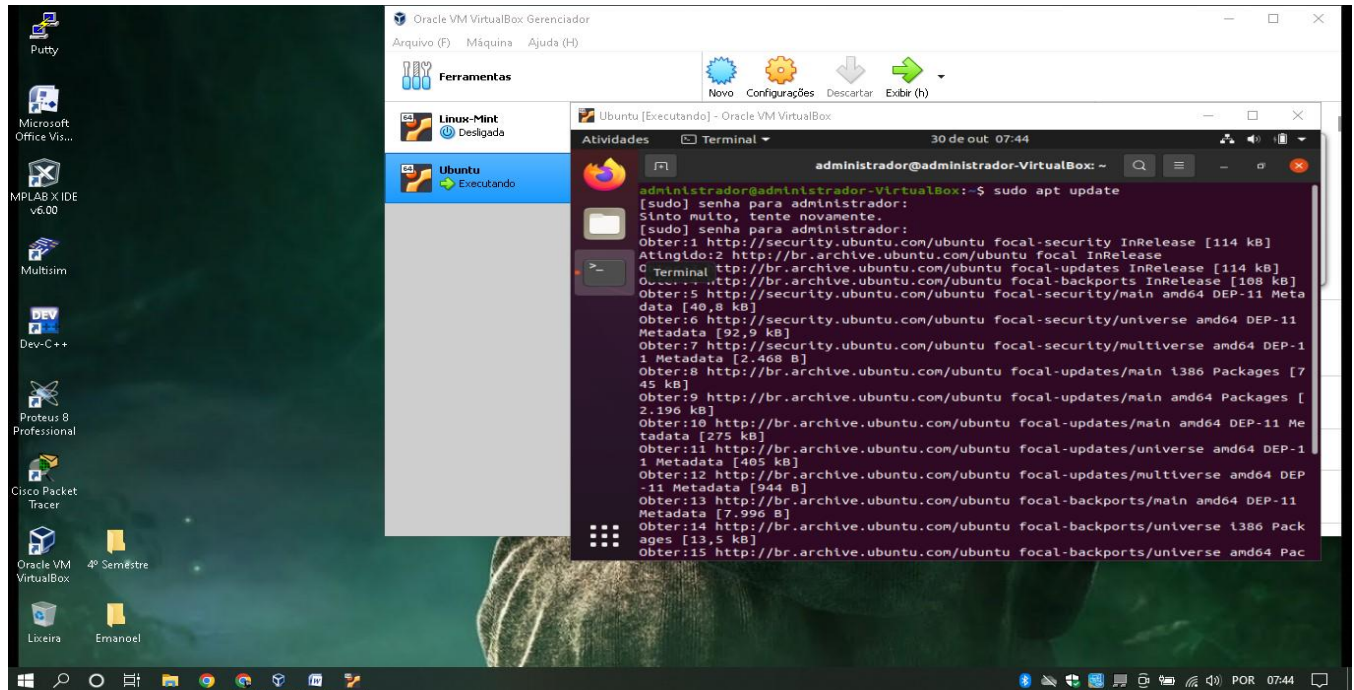
Professor: Ricardo Duarte Taveira

Disciplina: Sistemas Operacionais de Rede – Telemática S4

## Atividade 7 – Docker

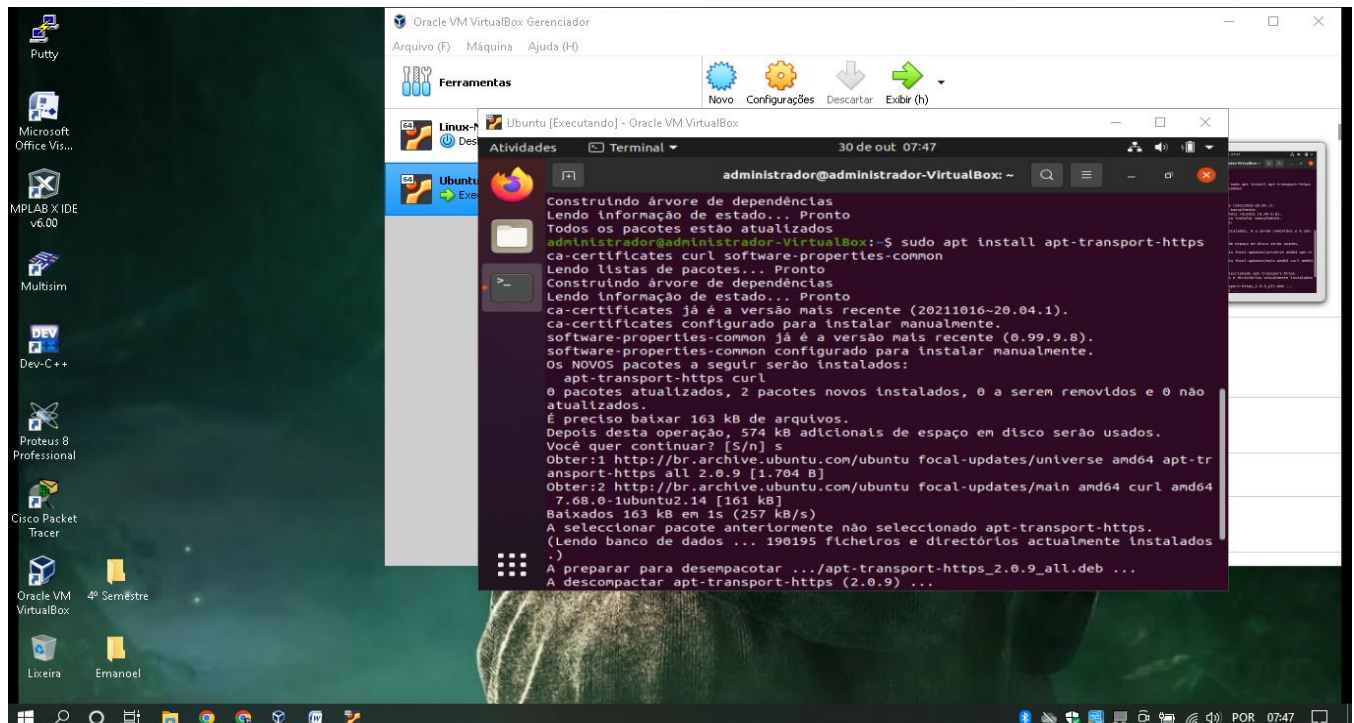
### Passo 1 – Instalando o Docker

sudo apt update



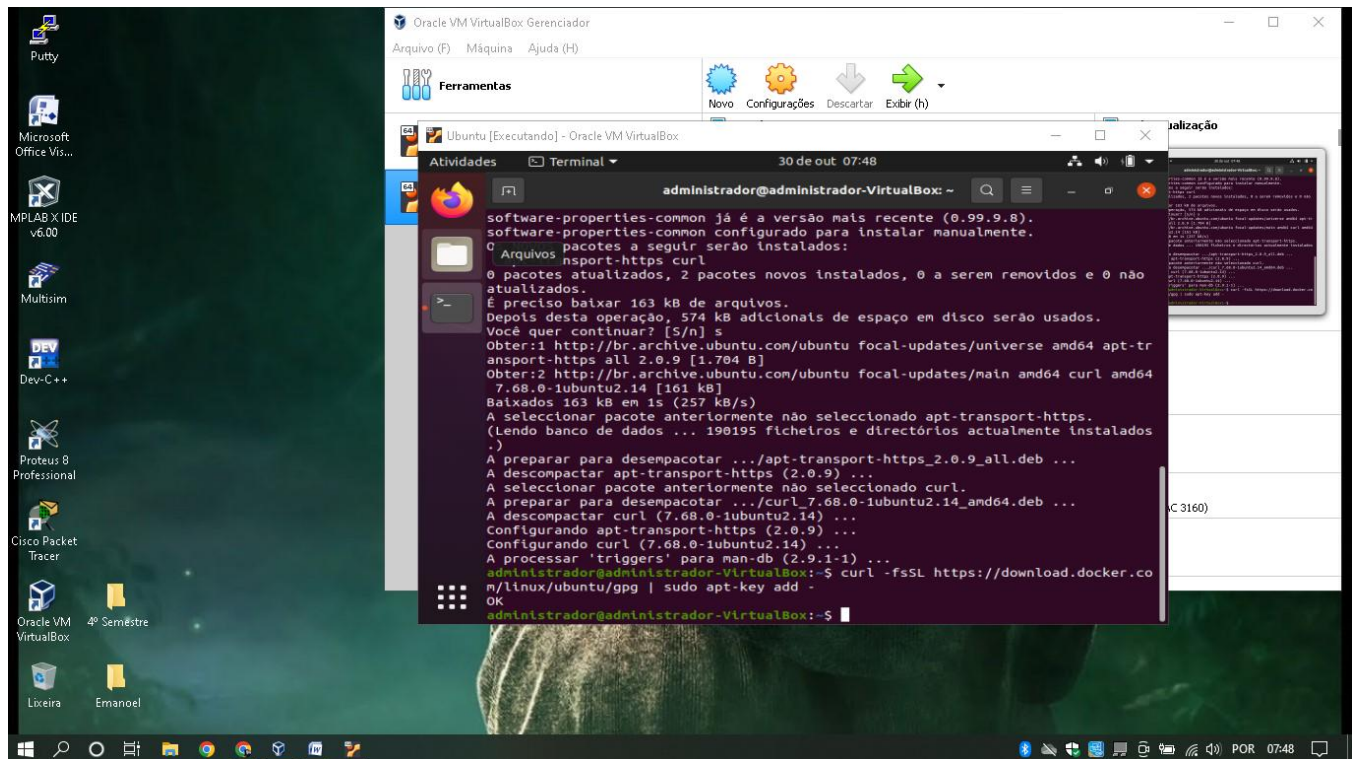
```
administrador@administrador-VirtualBox: ~  
[sudo] senha para administrador:  
[sudo] senha para administrador:  
Obter:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]  
Attingido:2 http://br.archive.ubuntu.com/ubuntu focal InRelease [114 kB]  
Obter:3 http://br.archive.ubuntu.com/ubuntu focal-updates InRelease [108 kB]  
Obter:4 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Meta  
data [40,8 kB]  
Obter:5 http://security.ubuntu.com/ubuntu focal-security/universe amd64 DEP-11  
Metadata [40,8 kB]  
Obter:6 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 DEP-1  
1 Metadata [2,468 B]  
Obter:7 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Me  
tadata [2,468 B]  
Obter:8 http://br.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [7  
45 kB]  
Obter:9 http://br.archive.ubuntu.com/ubuntu focal-updates/main amd64 DEP-11 Me  
tadata [2,196 kB]  
Obter:10 http://br.archive.ubuntu.com/ubuntu focal-updates/main amd64 DEP-11 Me  
tadata [275 kB]  
Obter:11 http://br.archive.ubuntu.com/ubuntu focal-updates/universe amd64 DEP-1  
1 Metadata [40,8 kB]  
Obter:12 http://br.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 DEP  
-11 Metadata [944 B]  
Obter:13 http://br.archive.ubuntu.com/ubuntu focal-backports/main amd64 DEP-11  
Metadata [7,996 B]  
Obter:14 http://br.archive.ubuntu.com/ubuntu focal-backports/universe amd64  
ages [13,5 kB]  
Obter:15 http://br.archive.ubuntu.com/ubuntu focal-backports/universe amd64 Pac
```

sudo apt install apt-transport-https ca-certificates curl software-properties-common

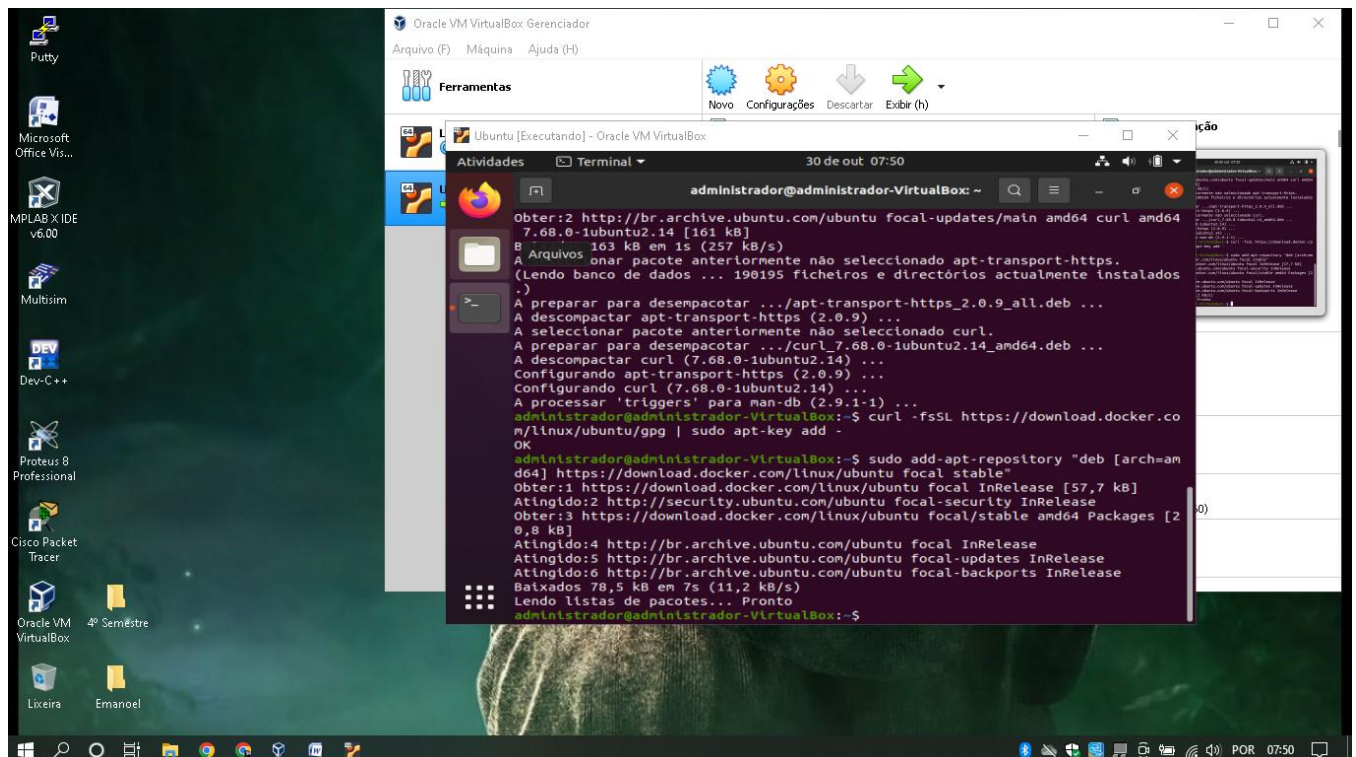


```
administrador@administrador-VirtualBox: ~  
Construindo árvore de dependências  
Lendo informação de estado... Pronto  
Todos os pacotes estão atualizados  
administrador@administrador-VirtualBox:~$ sudo apt install apt-transport-https  
ca-certificates curl software-properties-common  
Lendo listas de pacotes... Pronto  
Construindo árvore de dependências  
Lendo informação de estado... Pronto  
ca-certificates já é a versão mais recente (20211016-20.04.1).  
ca-certificates configurado para instalar manualmente.  
software-properties-common já é a versão mais recente (0.99.9.8).  
software-properties-common configurado para instalar manualmente.  
Os NOVOS pacotes a seguir serão instalados:  
apt-transport-https curl  
0 pacotes atualizados, 2 pacotes novos instalados, 0 a serem removidos e 0 não  
atualizados.  
É preciso baixar 163 kB de arquivos.  
Depois desta operação, 574 kB adicionais de espaço em disco serão usados.  
Você quer continuar? [S/n] s  
Obter:1 http://br.archive.ubuntu.com/ubuntu focal-updates/universe amd64 apt-tr  
ansport-https all 2.0.9 [1,784 B]  
Obter:2 http://br.archive.ubuntu.com/ubuntu focal-updates/main amd64 curl amd64  
7.68.0-1ubuntu2.14 [161 kB]  
Baixados 163 kB em 1s (257 kB/s)  
A seleccionar pacote anteriormente não seleccionado apt-transport-https.  
(Lendo banco de dados ... 190195 ficheiros e directórios actualmente instalados  
)  
A preparar para descompactar .../apt-transport-https_2.0.9_all.deb ...  
A descompactar apt-transport-https (2.0.9) ...
```

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
```

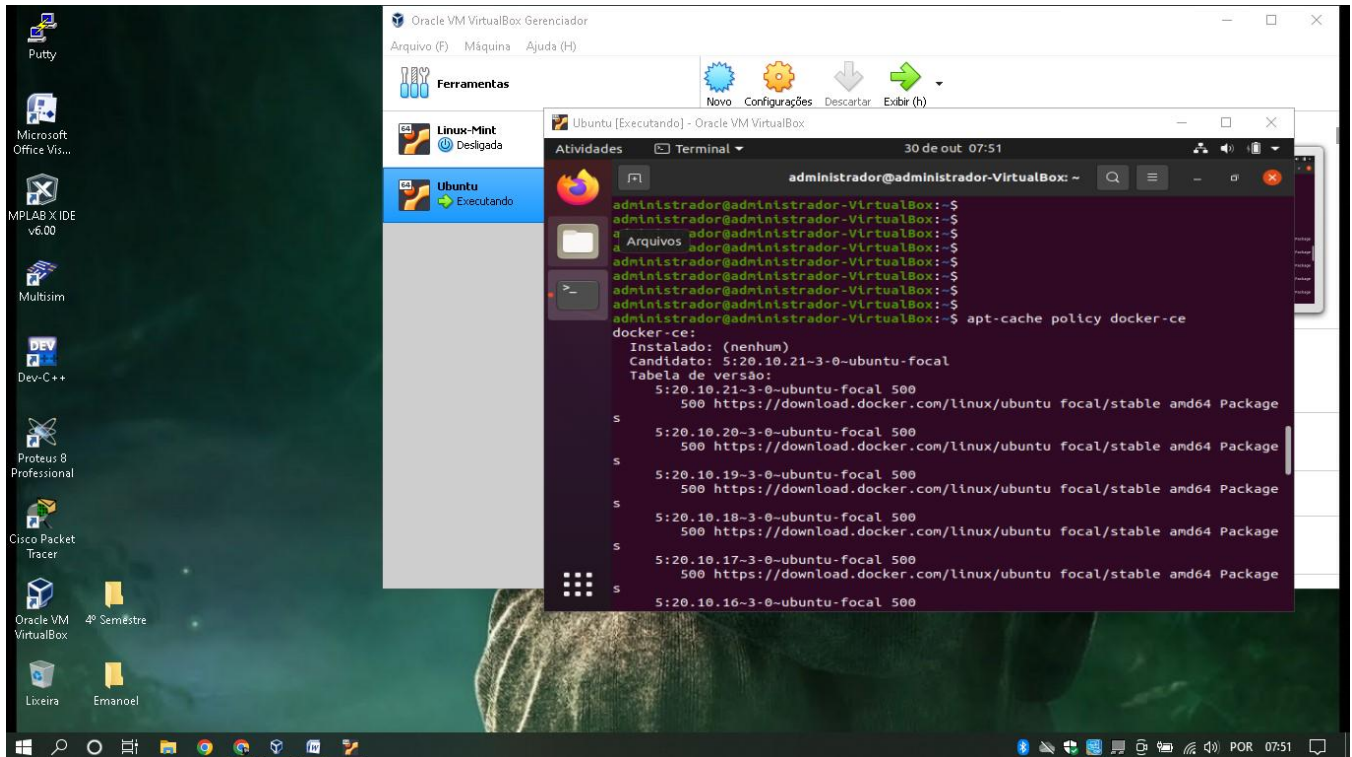


```
sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu focal  
stable"
```





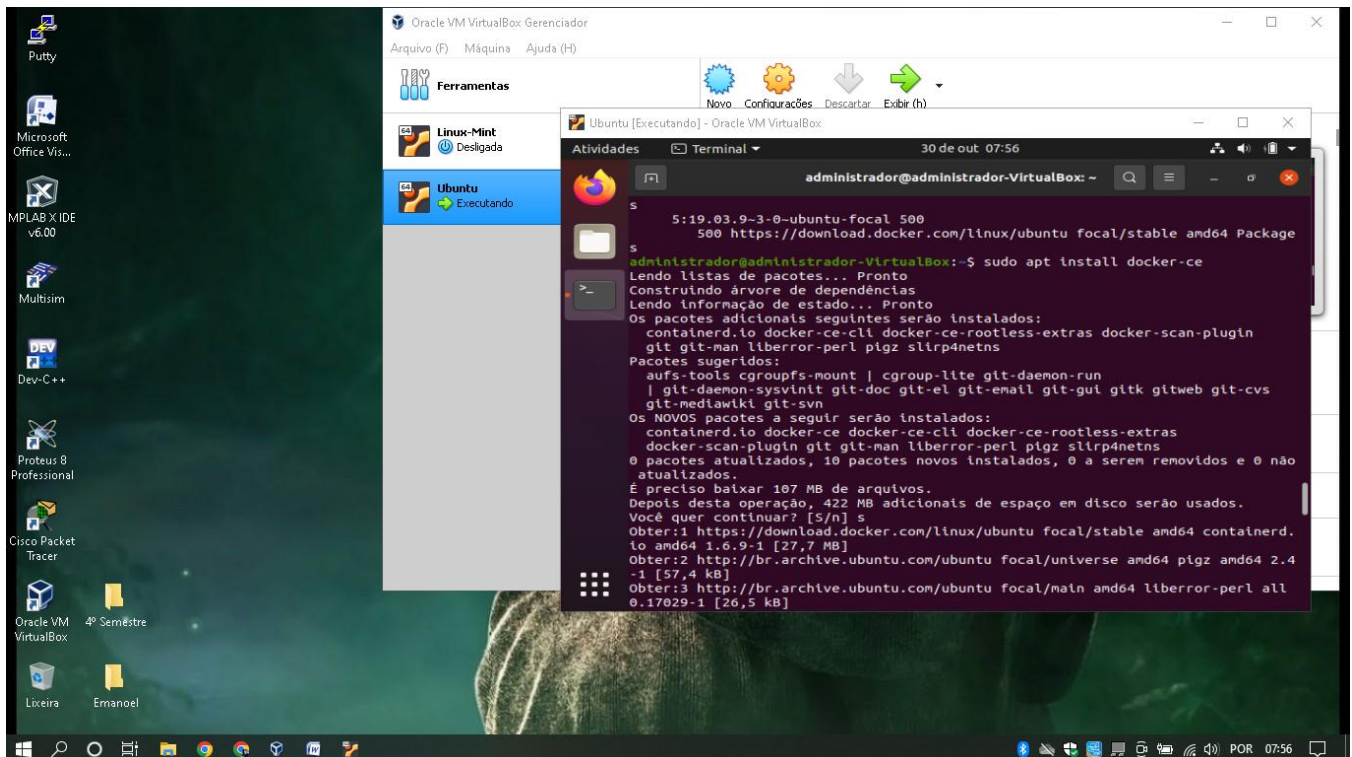
## apt-cache policy docker-ce



The screenshot shows a Windows desktop with various application icons on the left. In the center, the Oracle VM VirtualBox Manager window is open, displaying the 'Ubuntu' virtual machine as 'Executando'. A terminal window is open within the VM, showing the command 'apt-cache policy docker-ce' and its output. The output lists several candidate versions of docker-ce from the Ubuntu focal repository, including 5:20.10.21-3-0-ubuntu-focal, 5:20.10.20-3-0-ubuntu-focal, 5:20.10.19-3-0-ubuntu-focal, 5:20.10.18-3-0-ubuntu-focal, 5:20.10.17-3-0-ubuntu-focal, and 5:20.10.16-3-0-ubuntu-focal. Each entry includes the version number and the download URL from the Docker repository.

```
administrador@administrador-VirtualBox: ~  
administrador@administrador-VirtualBox:~$  
administrador@administrador-VirtualBox:~$  
administrador@administrador-VirtualBox:~$  
administrador@administrador-VirtualBox:~$  
administrador@administrador-VirtualBox:~$  
administrador@administrador-VirtualBox:~$  
administrador@administrador-VirtualBox:~$ apt-cache policy docker-ce  
docker-ce:  
  Instalado: (nenhum)  
  Candidato: 5:20.10.21-3-0-ubuntu-focal  
  Tabela de versão:  
    5:20.10.21-3-0-ubuntu-focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Package  
s  
    5:20.10.20-3-0-ubuntu-focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Package  
s  
    5:20.10.19-3-0-ubuntu-focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Package  
s  
    5:20.10.18-3-0-ubuntu-focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Package  
s  
    5:20.10.17-3-0-ubuntu-focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Package  
s  
    5:20.10.16-3-0-ubuntu-focal 500
```

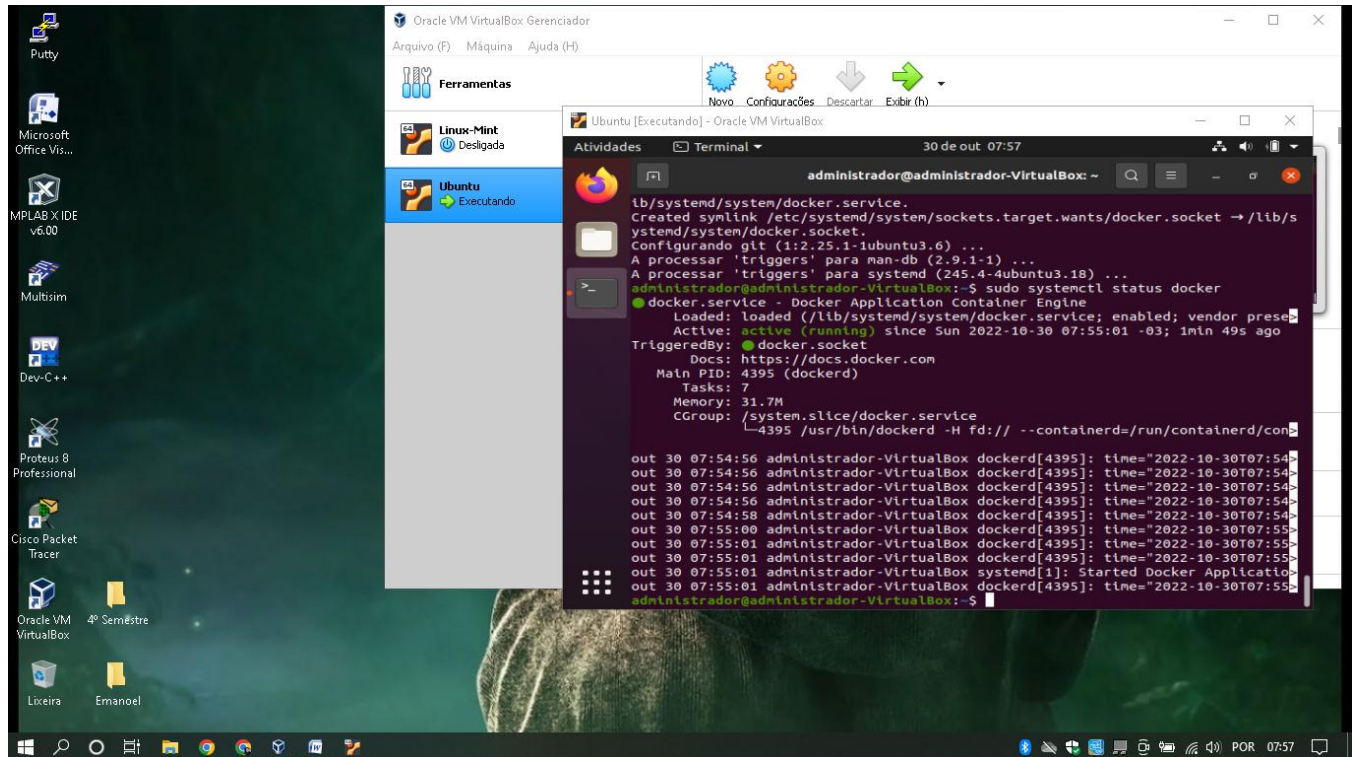
## sudo apt install docker-ce



The screenshot shows the same VirtualBox desktop environment. The terminal window now displays the output of the command 'sudo apt install docker-ce'. It shows the process of reading package lists, constructing a dependency tree, and identifying additional packages to be installed along with docker-ce. The output lists several suggested packages like aufs-tools, cgroupfs-mount, and others. It also shows the download URLs for the packages and the total size of the files to be downloaded (107 MB).

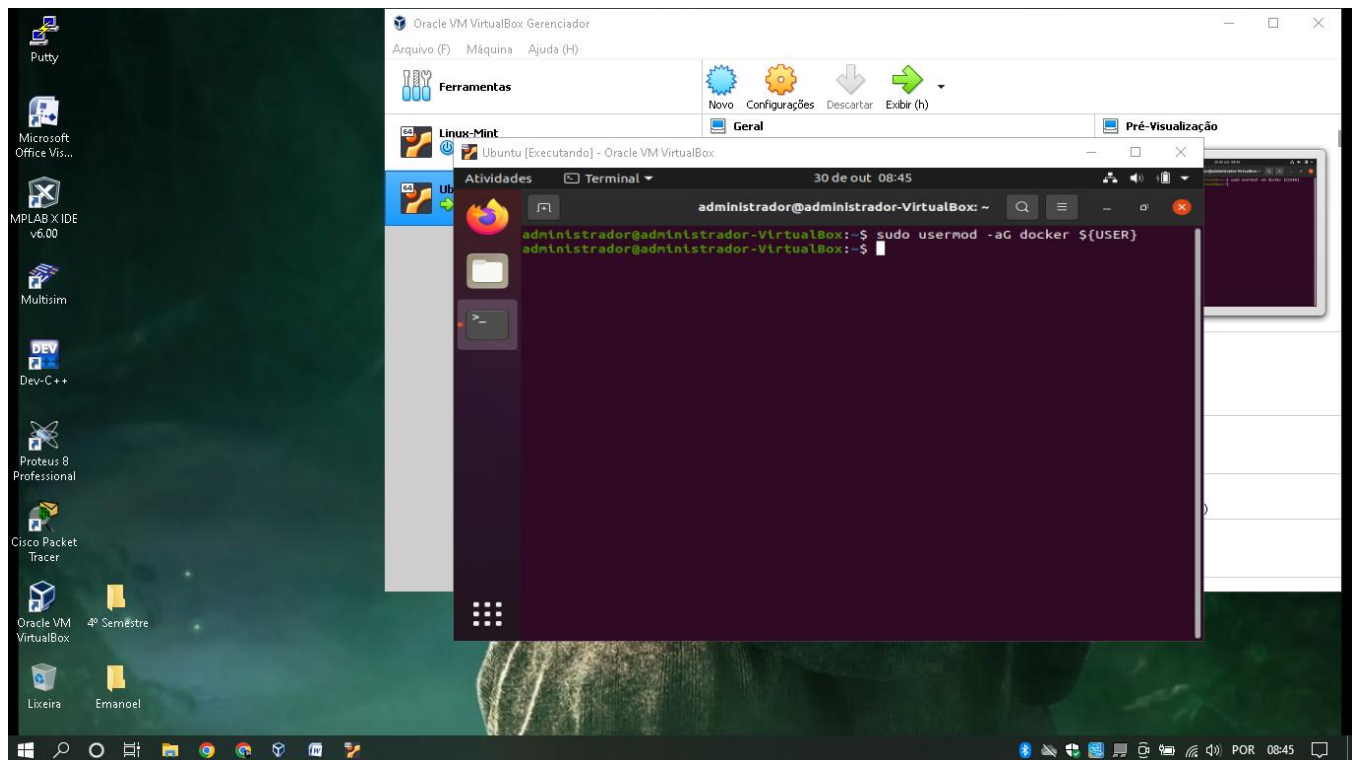
```
administrador@administrador-VirtualBox: ~  
administrador@administrador-VirtualBox:~$ sudo apt install docker-ce  
s  
5:19.03.9-3-0-ubuntu-focal 500  
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Package  
s  
administrador@administrador-VirtualBox:~$ sudo apt install docker-ce  
Lendo listas de pacotes... Pronto  
Construindo árvore de dependências  
Lendo informação de estado... Pronto  
Os pacotes adicionais seguintes serão instalados:  
  containerd.io docker-ce-cli docker-ce-rootless-extras docker-scan-plugin  
  git git-man liberror-perl pigz slirp4netns  
Pacotes sugeridos:  
  aufs-tools cgroupfs-mount | cgroup-lite git-daemon-run  
  | git-daemon-sysvinit git-doc git-el git-email git-gui gitk gitweb git-cvs  
  git-mediawiki git-svn  
Os NOVOS pacotes a seguir serão instalados:  
  containerd.io docker-ce docker-ce-cli docker-ce-rootless-extras  
  docker-scan-plugin git git-man liberror-perl pigz slirp4netns  
0 pacotes atualizados, 10 pacotes novos instalados, 0 a serem removidos e 0 não  
atualizados.  
É preciso baixar 107 MB de arquivos.  
Depois desta operação, 422 MB adicionais de espaço em disco serão usados.  
Você quer continuar? [S/n] s  
Obter:1 https://download.docker.com/linux/ubuntu focal/stable amd64 containerd.  
io amd64 1.6.9-1 [27,7 MB]  
Obter:2 http://br.archive.ubuntu.com/ubuntu focal/universe amd64 pigz amd64 2.4  
-1 [57,4 kB]  
Obter:3 http://br.archive.ubuntu.com/ubuntu focal/main amd64 liberror-perl all  
0.17029-1 [26,5 kB]
```

sudo systemctl status docker

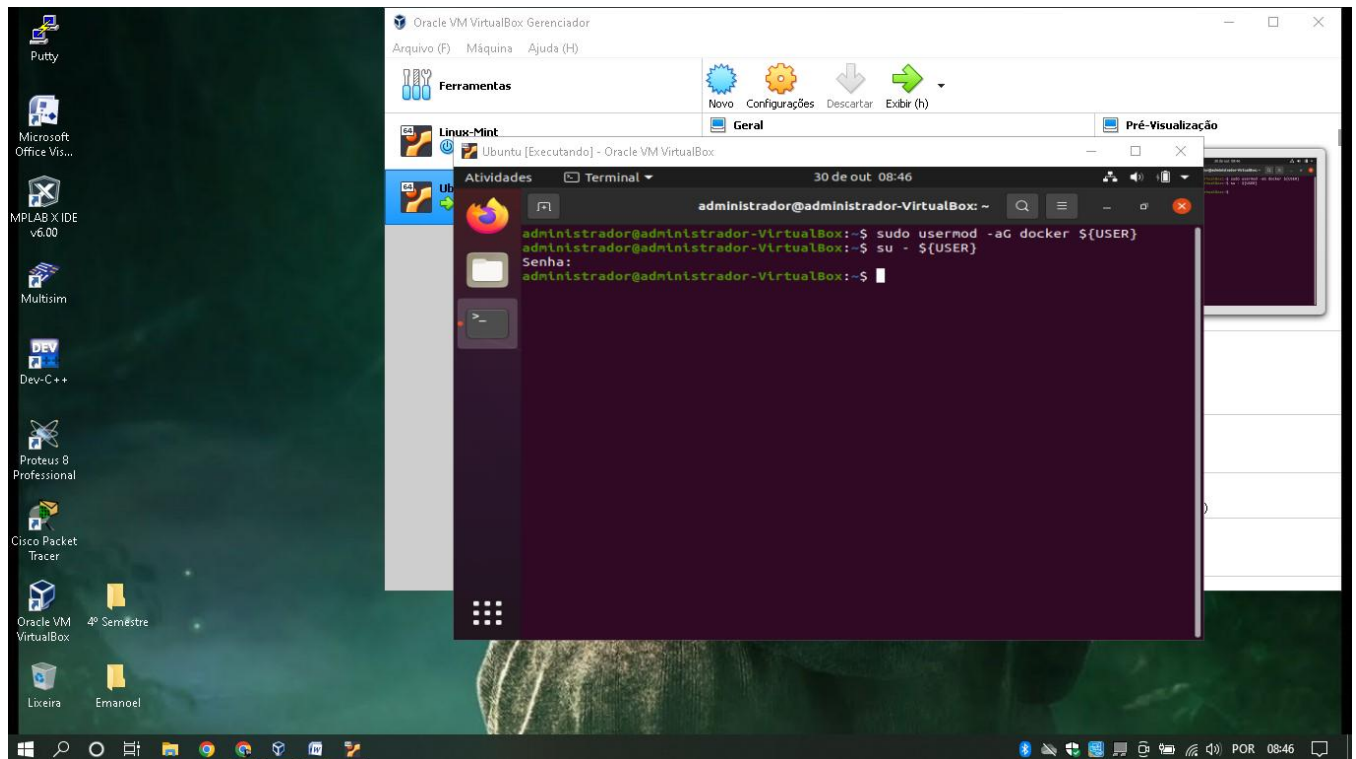


## Passo 2 – Executando o comando do Docker sem Sudo (Opcional)

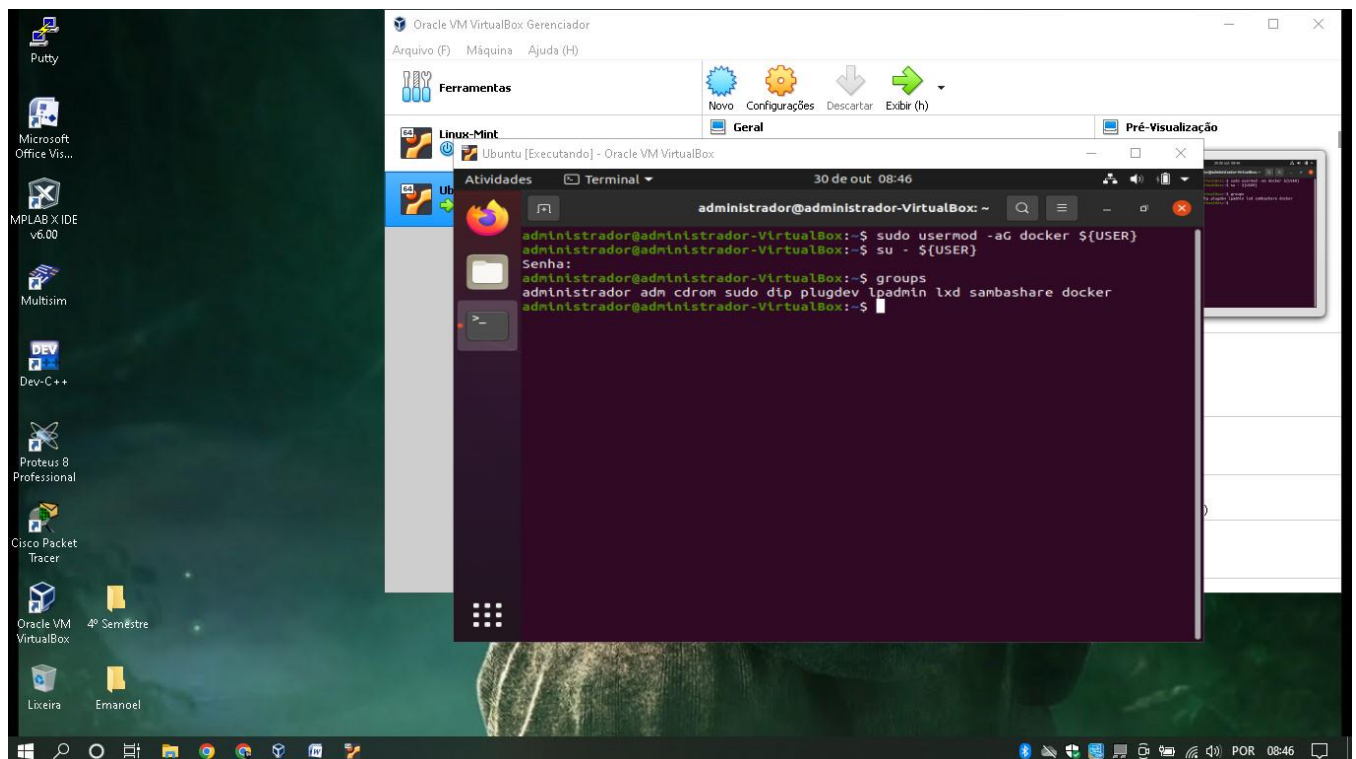
sudo usermod -aG docker \${USER}



su - \${USER}

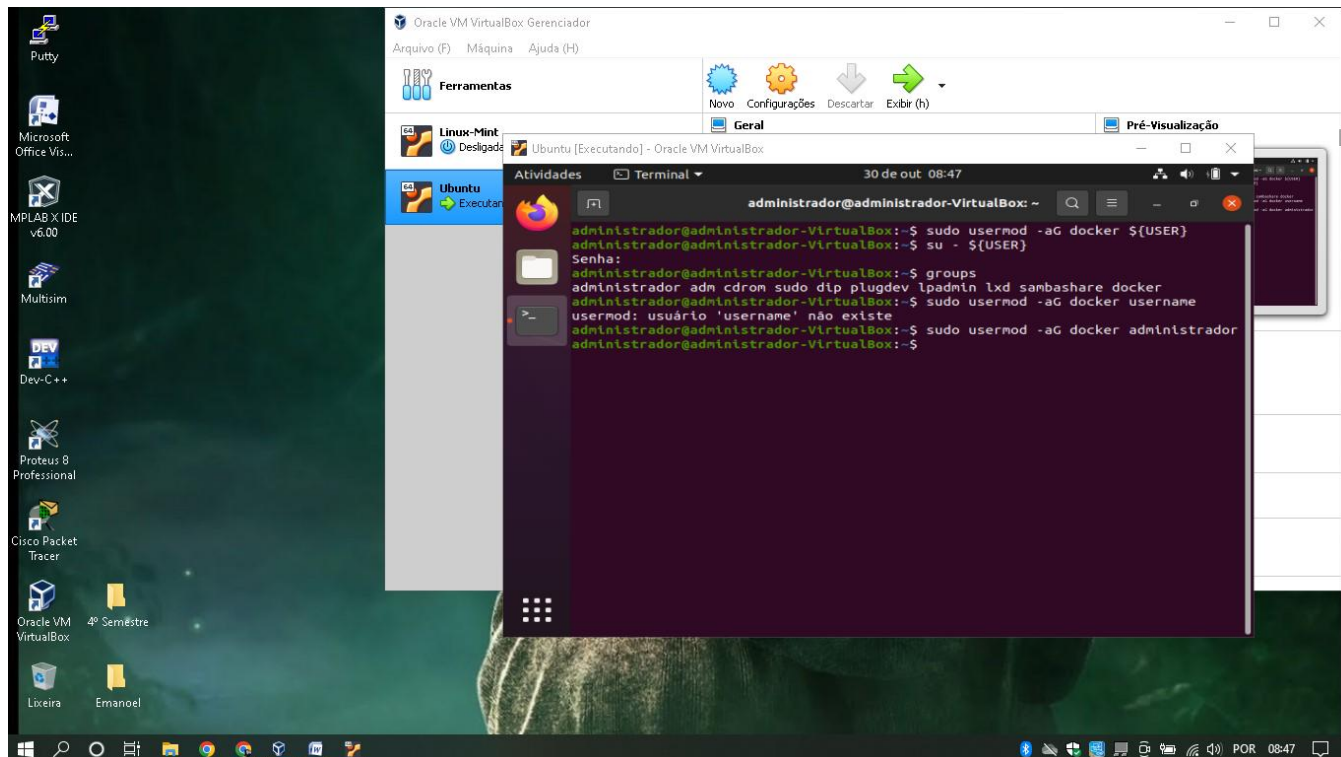


groups





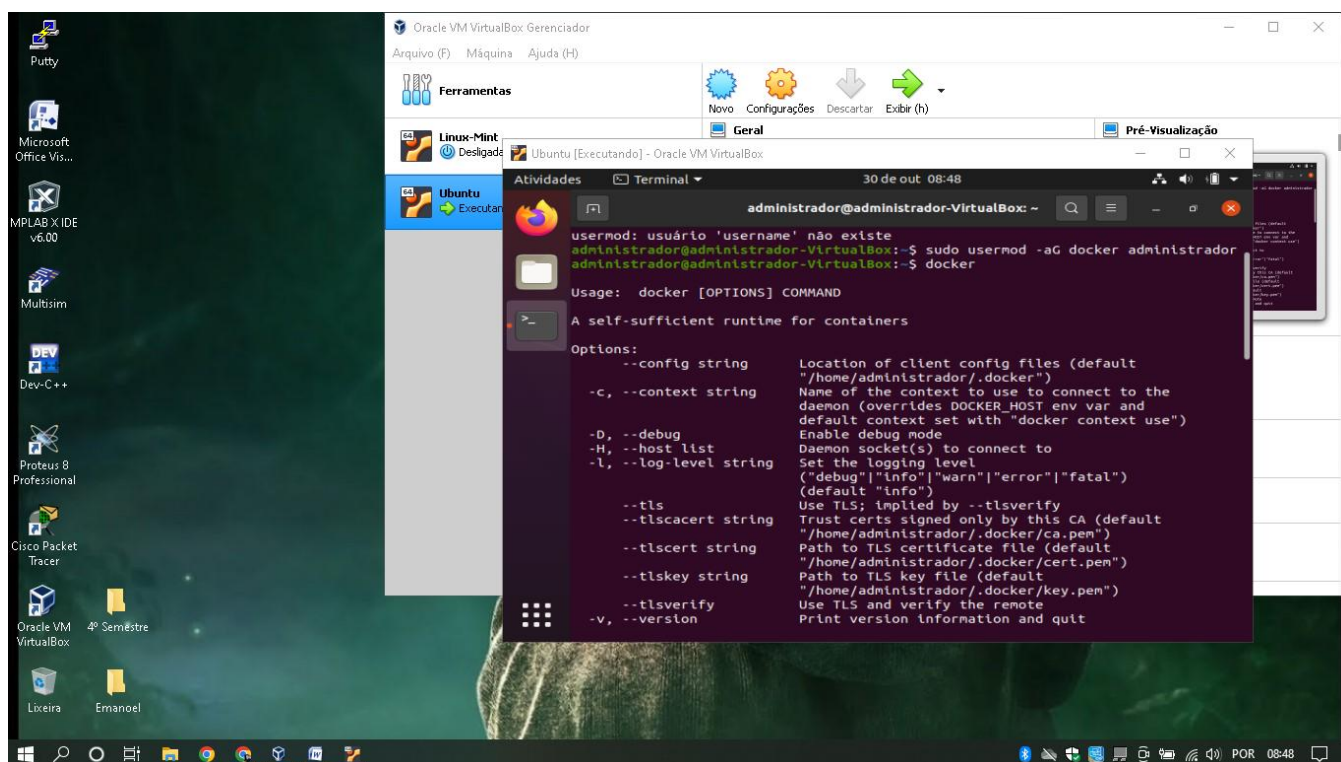
sudo usermod -aG docker username



### Passo 3 – Usando o comando do Docker

docker [option] [command] [arguments]

docker



docker docker-subcommand --help

docker info

## Passo 4 – Trabalhando com imagens do Docker

docker run hello-world

