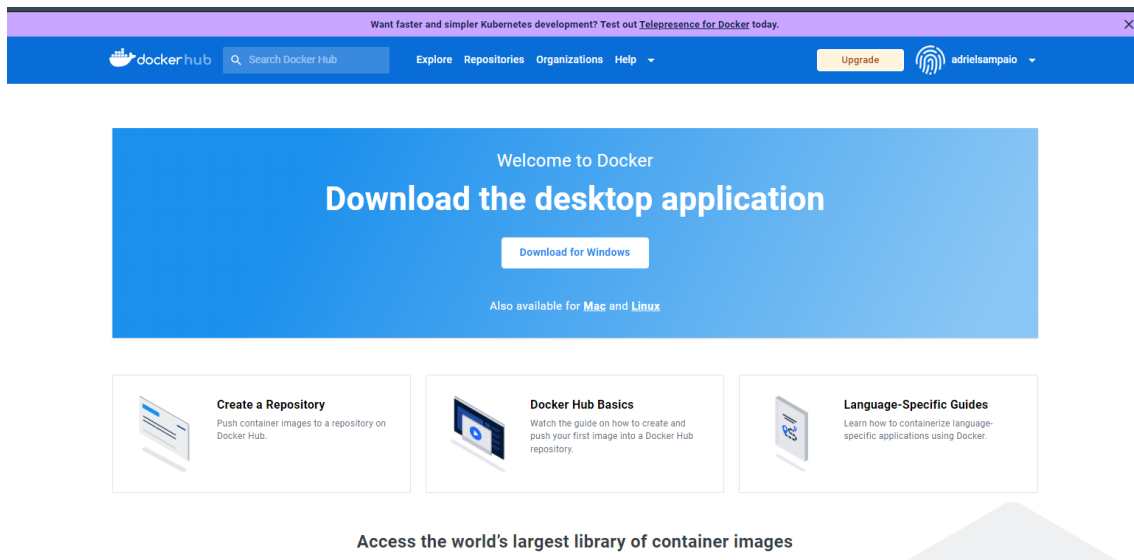


ATIVIDADE 09 E 10 – S.O PARA REDES

1. CRIAR CONTA NO DOCKER HUB



2. Instalando pacotes para liberar o uso do HTTPs via o comando apt:

```
adriel@adriel-virtualbox: ~  
Arquivo  Ações  Editar  Exibir  Ajuda  
adriel@adriel-virtualbox: ~  
...  
A seleccionar pacote anteriormente não seleccionado curl.  
A preparar para desempacotar .../2-curl_7.81.0-1ubuntu1.10_amd64.deb ...  
A descompactar curl (7.81.0-1ubuntu1.10) ...  
A preparar para desempacotar .../3-software-properties-common_0.99.22.6_all.d  
eb ...  
A descompactar software-properties-common (0.99.22.6) sobre (0.99.22.5) ...  
A preparar para desempacotar .../4-software-properties-qt_0.99.22.6_all.deb .  
...  
A descompactar software-properties-qt (0.99.22.6) sobre (0.99.22.5) ...  
A preparar para desempacotar .../5-python3-software-properties_0.99.22.6_all.  
deb ...  
A descompactar python3-software-properties (0.99.22.6) sobre (0.99.22.5) ...  
Configurando apt-transport-https (2.4.9) ...  
Configurando python3-software-properties (0.99.22.6) ...  
Configurando libcurl4:amd64 (7.81.0-1ubuntu1.10) ...  
Configurando curl (7.81.0-1ubuntu1.10) ...  
Configurando software-properties-common (0.99.22.6) ...  
Configurando software-properties-qt (0.99.22.6) ...  
A processar 'triggers' para libc-bin (2.35-0ubuntu3.1) ...  
A processar 'triggers' para man-db (2.10.2-1) ...  
A processar 'triggers' para dbus (1.12.20-2ubuntu4.1) ...  
A processar 'triggers' para mailcap (3.70+nmu1ubuntu1) ...  
A processar 'triggers' para desktop-file-utils (0.26-1ubuntu3) ...  
adriel@adriel-virtualbox:~$
```

3. Adicionando a chave GPG para o repositório oficial do Docker no seu sistema

```
adriel@adriel-virtualbox: ~  
A descompactar curl (7.81.0-1ubuntu1.10) ...  
A preparar para desempacotar .../3-software-properties-common_0.99.22.6_all.d  
eb ...  
A descompactar software-properties-common (0.99.22.6) sobre (0.99.22.5) ...  
A preparar para desempacotar .../4-software-properties-qt_0.99.22.6_all.deb .  
..  
A descompactar software-properties-qt (0.99.22.6) sobre (0.99.22.5) ...  
A preparar para desempacotar .../5-python3-software-properties_0.99.22.6_all.  
deb ...  
A descompactar python3-software-properties (0.99.22.6) sobre (0.99.22.5) ...  
Configurando apt-transport-https (2.4.9) ...  
Configurando python3-software-properties (0.99.22.6) ...  
Configurando libcurl4:amd64 (7.81.0-1ubuntu1.10) ...  
Configurando curl (7.81.0-1ubuntu1.10) ...  
Configurando software-properties-common (0.99.22.6) ...  
Configurando software-properties-qt (0.99.22.6) ...  
A processar 'triggers' para libc-bin (2.35-0ubuntu3.1) ...  
A processar 'triggers' para man-db (2.10.2-1) ...  
A processar 'triggers' para dbus (1.12.20-2ubuntu4.1) ...  
A processar 'triggers' para mailcap (3.70+nmu1ubuntu1) ...  
A processar 'triggers' para desktop-file-utils (0.26-1ubuntu3) ...  
adriel@adriel-virtualbox:~$ curl -fsSL https://download.docker.com/l  
inux/ubuntu/gpg | sudo apt-key add -  
Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead  
(see apt-key(8)).  
OK  
adriel@adriel-virtualbox:~$
```

4. Adicionando o repositório do Docker às fontes do APT:

```
Arquivo  Ações  Editar  Exibir  Ajuda  
adriel@adriel-virtualbox: ~  
OK  
adriel@adriel-virtualbox:~$ sudo add-apt-repository "deb [arch=amd64  
] https://download.docker.com/linux/ubuntu focal stable"  
Repository: 'deb [arch=amd64] https://download.docker.com/linux/ubuntu focal  
stable'  
Description:  
Archive for codename: focal components: stable  
More info: https://download.docker.com/linux/ubuntu  
Adding repository.  
Press [ENTER] to continue or Ctrl-c to cancel.  
Adding deb entry to /etc/apt/sources.list.d/archive_uri-https_download_docker  
_com_linux_ubuntu-jammy.list  
Adding disabled deb-src entry to /etc/apt/sources.list.d/archive_uri-https_do  
wnload_docker_com_linux_ubuntu-jammy.list  
Atingido:1 http://archive.ubuntu.com/ubuntu jammy InRelease  
Obter:2 https://download.docker.com/linux/ubuntu focal InRelease [57,7 kB]  
Atingido:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease  
Atingido:4 http://security.ubuntu.com/ubuntu jammy-security InRelease  
Atingido:5 http://archive.ubuntu.com/ubuntu jammy-backports InRelease  
Obter:6 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
[28,0 kB]  
Baixados 85,6 kB em 1s (131 kB/s)  
Lendo listas de pacotes... Pronto  
W: https://download.docker.com/linux/ubuntu/dists/focal/InRelease: Key is sto  
red in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION  
section in apt-key(8) for details.  
adriel@adriel-virtualbox:~$
```

5. Certifique-se de que você está prestes a instalar do repositório do Docker ao invés do repositório padrão do Ubuntu

```
adriel@adriel-virtualbox: ~  
W: https://download.docker.com/linux/ubuntu/dists/focal/InRelease: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.  
adriel@adriel-virtualbox:~$ apt-cache policy docker-ce  
docker-ce:  
  Instalado: (nenhum)  
  Candidato: 5:23.0.5-1~ubuntu.20.04~focal  
  Tabela de versão:  
    5:23.0.5-1~ubuntu.20.04~focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
    5:23.0.4-1~ubuntu.20.04~focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
    5:23.0.3-1~ubuntu.20.04~focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
    5:23.0.2-1~ubuntu.20.04~focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
    5:23.0.1-1~ubuntu.20.04~focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
    5:23.0.0-1~ubuntu.20.04~focal 500  
      500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages  
    5:20.10.24-3-0~ubuntu-focal 500
```

6. Instalando o Docker:

```
adriel@adriel-virtualbox:~$ sudo apt install docker-ce  
Lendo listas de pacotes... Pronto  
Construindo árvore de dependências... Pronto  
Lendo informação de estado... Pronto  
Os pacotes adicionais seguintes serão instalados:  
  containerd.io docker-buildx-plugin docker-ce-cli  
  docker-ce-rootless-extras docker-compose-plugin libslirp0 pigz  
  slirp4netns  
Pacotes sugeridos:  
  aufs-tools cgroupfs-mount | cgroup-lite  
Os NOVOS pacotes a seguir serão instalados:  
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli  
  docker-ce-rootless-extras docker-compose-plugin libslirp0 pigz  
  slirp4netns  
0 pacotes atualizados, 9 pacotes novos instalados, 0 a serem removidos e 135 não atualizados.  
É preciso baixar 109 MB de arquivos.  
Depois desta operação, 395 MB adicionais de espaço em disco serão usados.  
Você quer continuar? [S/n] S  
Obter:1 http://archive.ubuntu.com/ubuntu jammy/universe amd64 pigz amd64 2.6-1 [63,6 kB]  
Obter:2 https://download.docker.com/linux/ubuntu focal/stable amd64 containerd.io amd64 1.6.20-1 [28,3 MB]  
Obter:3 http://archive.ubuntu.com/ubuntu jammy/main amd64 libslirp0 amd64 4.6.1-1build1 [61,5 kB]  
Obter:4 http://archive.ubuntu.com/ubuntu jammy/universe amd64 slirp4netns amd64 1.0.1-2 [28,2 kB]  
Obter:5 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-buildx-plugin amd64 0.10.4-1~ubuntu.20.04~focal [25,9 MB]  
Obter:6 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce-cli amd64 5:23.0.5-1~ubuntu.20.04~focal [13,2 MB]  
Obter:7 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce amd64 5:23.0.5-1~ubuntu.20.04~focal [22,0 MB]  
Obter:8 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce-rootless-extras amd64 5:23.0.5-1~ubuntu.20.04~focal [8.778 kB]  
Obter:9 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-compose-plugin amd64 2.17.3-1~ubuntu.20.04~focal [10,9 MB]  
Baixados 109 MB em 6s (19,8 MB/s)
```

7. Verificando se ele está funcionando:

```
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /lib/systemd/system/containerd.service.
Configurando docker-compose-plugin (2.17.3-1-ubuntu.20.04~focal) ...
Configurando docker-ce-cli (5:23.0.5-1~ubuntu.20.04~focal) ...
Configurando libslirp0:amd64 (4.6.1-1build1) ...
Configurando pigz (2.6-1) ...
Configurando docker-ce-rootless-extras (5:23.0.5-1~ubuntu.20.04~focal) ...
Configurando slirp4netns (1.0.1-2) ...
Configurando docker-ce (5:23.0.5-1~ubuntu.20.04~focal) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/system/docker.socket.
A processor 'triggers' para man-db (2.10.2-1) ...
A processor 'triggers' para libc-bin (2.35-0ubuntu3.1) ...
adriel@adriel-virtualbox:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor pre
   Active: active (running) since Fri 2023-05-05 19:42:40 -03; 1min 10s ago
   TriggeredBy: ● docker.socket
     Docs: https://docs.docker.com
    Main PID: 7207 (dockerd)
      Tasks: 8
     Memory: 26.8M
        CPU: 228ms
    CGroup: /system.slice/docker.service
            └─7207 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/c>

mai 05 19:42:40 lucas-vmwarevirtualplatform systemd[1]: Starting Docker Appl>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
mai 05 19:42:40 lucas-vmwarevirtualplatform systemd[1]: Started Docker Appli>
mai 05 19:42:40 lucas-vmwarevirtualplatform dockerd[7207]: time="2023-05-05T>
lines 1-21/21 (END)
```

08. Verificando se pode acessar e baixar imagens do Docker Hub

```
lines 1-21/21 (END)
adriel@adriel-virtualbox:~$ docker run hello-world
docker: permission denied while trying to connect to the Docker daemon socket
at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.2
4/containers/create": dial unix /var/run/docker.sock: connect: permission den
ied.
See 'docker run --help'.
adriel@adriel-virtualbox:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
719385e32844: Pull complete
Digest: sha256:9eabfcf6034695c4f6208296be9090b0a3487e20fb6a5cb056525242621cf7
3d
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
```

09. baixar a imagem oficial ubuntu no seu computador

```
ubuntu/mysql      MySQL open source fast, stable, multi-thread
.. 46
ubuntu/kafka      Apache Kafka, a distributed event streaming
.. 30
ubuntu/bind9      BIND 9 is a very flexible, full-featured DNS
.. 51
ubuntu/redis      Redis, an open source key-value store. Long-
.. 18
ubuntu/prometheus Prometheus is a systems and service monitori
.. 40
ubuntu/postgres   PostgreSQL is an open source object-relatio
.. 27
ubuntu/zookeeper  ZooKeeper maintains configuration informatio
.. 5
ubuntu/grafana    Grafana, a feature rich metrics dashboard &
.. 9
ubuntu/memcached  Memcached, in-memory keyvalue store for smal
.. 5
ubuntu/prometheus-alertmanager Alertmanager handles client alerts from Prom
.. 8
ubuntu/dotnet-deps Chiselled Ubuntu for self-contained .NET & A
.. 8
ubuntu/dotnet-runtime Chiselled Ubuntu runtime image for .NET apps
.. 5
ubuntu/dotnet-aspnet Chiselled Ubuntu runtime image for ASP.NET a
.. 6
ubuntu/cassandra  Cassandra, an open source NoSQL distributed
.. 2
ubuntu/telegraf   Telegraf collects, processes, aggregates & w
.. 4
adriel@adriel-virtualbox:~$ sudo docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
dbf6a9befcde: Pull complete
```

10. Login no Docker Hub

```
adriel@adriel-virtualbox:~$ sudo docker login -u adrielsampaio
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
adriel@adriel-virtualbox:~$ █
```