

# Sistemas Operacionais de Redes II

## Avaliação 7

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#### Passo 1: Instalando o Docker

```
virtual@ubuntu:~$ sudo apt update
[sudo] password for virtual:
Hit:1 http://us.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Fetched 336 kB in 1s (300 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

```
virtual@ubuntu:~$ sudo apt install apt-transport-https ca-certificates curl software-properties-common
Reading package lists... Done
Building dependency tree
Reading state information... Done
ca-certificates is already the newest version (20211016~20.04.1).
ca-certificates set to manually installed.
software-properties-common is already the newest version (0.99.9.8).
software-properties-common set to manually installed.
The following NEW packages will be installed:
  apt-transport-https curl
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 163 kB of archives.
After this operation, 574 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us.archive.ubuntu.com/ubuntu focal-updates/universe amd64 apt-transport-https all 2.0.9 [1
,704 B]
Get:2 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 curl amd64 7.68.0-1ubuntu2.14 [161 k
B]
Fetched 163 kB in 1s (215 kB/s)
Selecting previously unselected package apt-transport-https.
(Reading database ... 179151 files and directories currently installed.)
Preparing to unpack .../apt-transport-https_2.0.9_all.deb ...
Unpacking apt-transport-https (2.0.9) ...
Selecting previously unselected package curl.
Preparing to unpack .../curl_7.68.0-1ubuntu2.14_amd64.deb ...
Unpacking curl (7.68.0-1ubuntu2.14) ...
Setting up apt-transport-https (2.0.9) ...
Setting up curl (7.68.0-1ubuntu2.14) ...
Processing triggers for man-db (2.9.1-1) ...
```

```
virtual@ubuntu:~$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
OK
```

```
virtual@ubuntu:~$ sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu focal stable"
[sudo] password for virtual:
Get:1 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]
Get:2 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages [20.8 kB]
Hit:3 http://us.archive.ubuntu.com/ubuntu focal InRelease
Get:4 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Fetched 414 kB in 1s (353 kB/s)
Reading package lists... Done
```

```
virtual@ubuntu:~$ sudo apt install docker-ce
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  containerd.io docker-ce-cli docker-ce-rootless-extras docker-scan-plugin git git-man liberror-perl pigz
  slirp4netns
```

## Docker Instalado

```
virtual@ubuntu:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2022-10-29 17:33:25 PDT; 2min 21s ago
     TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
    Main PID: 5301 (dockerd)
       Tasks: 8
      Memory: 22.1M
     CGroup: /system.slice/docker.service
             └─5301 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.368457267-07:00" level=warning msg="Your kernel does not support CPU realtime"
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.368541647-07:00" level=warning msg="Your kernel does not support cgroup blkio"
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.368558279-07:00" level=warning msg="Your kernel does not support cgroup blkio"
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.368919104-07:00" level=info msg="Loading containers: start."
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.568022133-07:00" level=info msg="Default bridge (docker0) is assigned with an"
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.731585455-07:00" level=info msg="Loading containers: done."
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.790948410-07:00" level=info msg="Docker daemon" commit=3056208 graphdriver(s)
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.791090931-07:00" level=info msg="Daemon has completed initialization"
Oct 29 17:33:25 ubuntu systemd[1]: Started Docker Application Container Engine.
Oct 29 17:33:25 ubuntu dockerd[5301]: time="2022-10-29T17:33:25.836511060-07:00" level=info msg="API listen on /run/docker.sock"
```

## Passo 2: Executar Docker sem o sudo

```
virtual@ubuntu:~$ sudo usermod -aG docker ${USER}
virtual@ubuntu:~$ su - ${USER}
Password:
virtual@ubuntu:~$ groups
virtual adm cdrom sudo dip plugdev lpadmin lxd sambashare docker
```

O passo 3 nos mostra como usar o comando Docker, pularemos esse passo

## Passo 4: Trabalhando com Docker Images Print do Hello from Docker!

```
virtual@ubuntu:~$ docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
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
```