

## Instruções

- Rodar em modo iterativo um container a partir da imagem do ubuntu, usando apt-get instalar o NGINX, inicializar o servidor NGINX.
- Com o comando commit, gerar uma imagem chamada ubuntu-allumy;
- Exportar a image para o arquivo ubuntu-allumy.tar através do comando save;
- Remover a imagem ubuntu-allumy;
- Importar a imagem com ubuntu-allumy.tar através do comando load.
- Rodar um container apartir da imagem importada.

## Resolução

### Inicialização do container e update de repositórios

```
pedro-schneider@pedro-schneider-X550LA:~$ docker container run -it --name my-ubuntu ubuntu sh
# apt-get update
Get:1 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:2 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:3 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [446 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [476 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [13.7 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [364 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [678 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [503 kB]
Get:15 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [446 kB]
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [17.8 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [11.8 kB]
Fetched 25.2 MB in 8s (3327 kB/s)
Reading package lists... Done
```

### Instalação do nginx

```
# apt-get install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  iproute2 krb5-locales libatm1t64 libbbpf1 libcap2-bin libelf1t64 libgssapi-krb5-2 libk5crypto3 libkeyutils1 libkrb5-3
  libkrb5support0 libmn10 libpam-cap libtirpc-common libtirpc3t64 libxtables12 nginx-common
Suggested packages:
  iproute2-doc python3:any krb5-doc krb5-user fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  iproute2 krb5-locales libatm1t64 libbbpf1 libcap2-bin libelf1t64 libgssapi-krb5-2 libk5crypto3 libkeyutils1 libkrb5-3
  libkrb5support0 libmn10 libpam-cap libtirpc-common libtirpc3t64 libxtables12 nginx nginx-common
0 upgraded, 18 newly installed, 0 to remove and 3 not upgraded.
Need to get 2733 kB of archives.
After this operation, 8057 kB of additional disk space will be used.
Do you want to continue? [Y/n]
Get:1 http://archive.ubuntu.com/ubuntu noble/main amd64 libelf1t64 amd64 0.190-1.1build4 [57.6 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble/main amd64 libbbpf1 amd64 1:1.3.0-2build2 [166 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble/main amd64 libmn10 amd64 1.0.5-2build1 [12.3 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libkrb5support0 amd64 1.20.1-6ubuntu2.1 [33.6 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libk5crypto3 amd64 1.20.1-6ubuntu2.1 [81.7 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/main amd64 libkeyutils1 amd64 1.6.3-3build1 [9490 B]
Get:7 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libkrb5-3 amd64 1.20.1-6ubuntu2.1 [347 kB]
Get:8 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libgssapi-krb5-2 amd64 1.20.1-6ubuntu2.1 [143 kB]
Get:9 http://archive.ubuntu.com/ubuntu noble/main amd64 libtirpc-common all 1.3.4+ds-1.1build1 [8094 B]
Get:10 http://archive.ubuntu.com/ubuntu noble/main amd64 libtirpc3t64 amd64 1.3.4+ds-1.1build1 [82.6 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/main amd64 libxtables12 amd64 1.8.10-3ubuntu2 [35.7 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble/main amd64 libcap2-bin amd64 1:2.66-5ubuntu2 [34.5 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble/main amd64 iproute2 amd64 6.1.0-1ubuntu6 [1120 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 krb5-locales all 1.20.1-6ubuntu2.1 [14.0 kB]
Get:15 http://archive.ubuntu.com/ubuntu noble/main amd64 libatm1t64 amd64 1:2.5.1-5.1build1 [22.9 kB]
```

## Inicialização do nginx

```
# /etc/init.d/nginx start
* Starting nginx nginx
# pedro-schneider@pedro-schneider-X550LA:~$ docker container commit my-ubuntu ubuntu-allumy [ OK ]
```

## Geração da imagem por commit

```
# pedro-schneider@pedro-schneider-X550LA:~$ docker container commit my-ubuntu ubuntu-allumy
sha256:26138056e5cb52985972487fc430b0abd367dec9aad3a629736c09242de3db4
```

## Geração do arquivo tar e exclusão da imagem

```
pedro-schneider@pedro-schneider-X550LA:~$ docker image save -o ubuntu-allumy.tar ubuntu-allumy
pedro-schneider@pedro-schneider-X550LA:~$ docker image rm ubuntu-allumy
Untagged: ubuntu-allumy:latest
Deleted: sha256:26138056e5cb52985972487fc430b0abd367dec9aad3a629736c09242de3db4
Deleted: sha256:89e8d339b9607a4f0a8fed0fa9f383758cae5024c2227a4536752f7e336c4123
```

## Importação da imagem do arquivo tar com o comando load

```
pedro-schneider@pedro-schneider-X550LA:~$ docker image load -i ubuntu-allumy.tar
1ca9e72168d1: Loading layer [=====] 49.31MB/49.31MB
Loaded image: ubuntu-allumy:latest
```

## Inicialização de um novo container com a imagem e verificação da presença do nginx

```

pedro-schneider@pedro-schneider-X550LA:~$ docker container run -it --name my-ubuntu-2 ubuntu-allumy sh
# ls
bin                boot  etc  lib  media  opt  root  sbin                srv  tmp  var
bin.usr-is-merged dev  home lib64 mnt    proc  run  sbin.usr-is-merged sys  usr
# cd etc
# ls
alternatives      default      gshadow      issue.net    lsb-release  os-release  rc2.d      selinux  sysctl.conf
apt               dpkg         gshadow-     kernel       machine-id   pam.conf    rc3.d      shadow  sysctl.d
bash.bashrc       e2scrub.conf gss          ld.so.cache  mke2fs.conf  pam.d       rc4.d      shadow-  systemd
bindresvport.blacklist environment   host.conf    ld.so.conf   mtab         passwd      rc5.d      shells  terminfo
cloud             fstab        hostname     ld.so.conf.d netconfig    passwd-     rc6.d      skel     ufw
cron.d            gai.conf     hosts        legal         networks     profile     rcS.d      subgid  update-motd.d
cron.daily        gnutls       init.d       libaudit.conf nginx         profile.d   resolv.conf subgid-  xattr.conf
debconf.conf      group        iproute2     login.defs   nsswitch.conf rc0.d       rmt        subuid
debian_version    group-       issue        logrotate.d  opt          rc1.d       security   subuid-
# ls nginx
conf.d             fastcgi_params koi-win      modules-available nginx.conf      scgi_params  sites-enabled uwsgi_params
fastcgi.conf       koi-utf        mime.types   modules-enabled proxy_params    sites-available snippets      win-utf
#

```