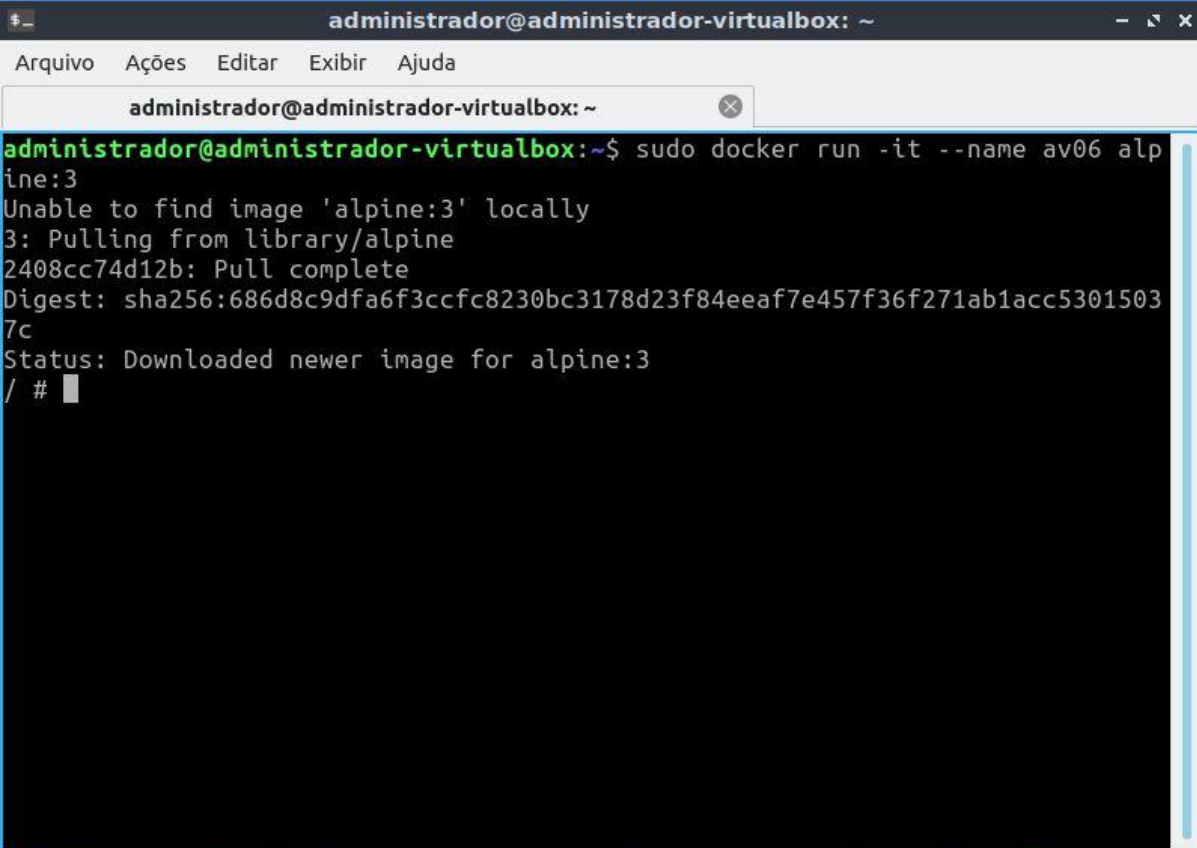


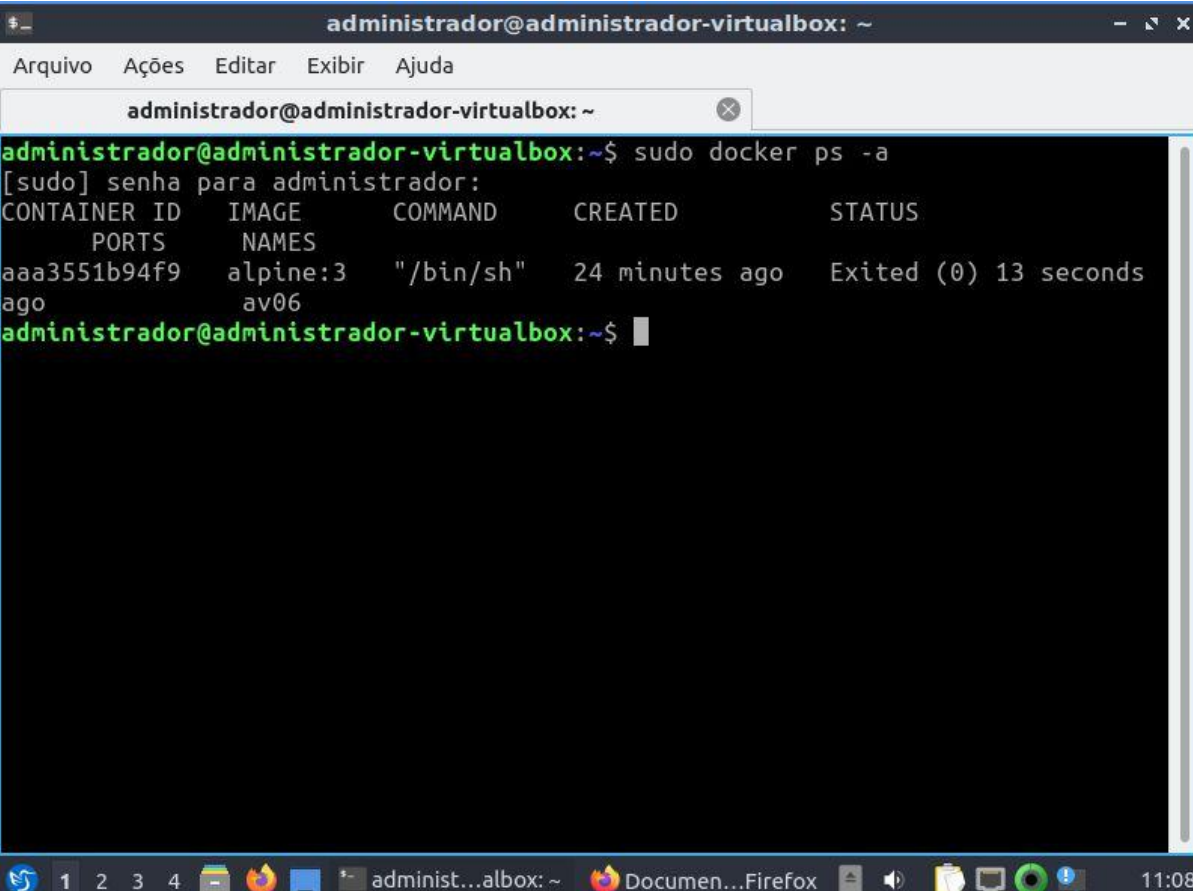
Avaliação-06

1) Criar uma imagem docker a partir da distribuição Alpine;



```
administrador@administrador-virtualbox: ~  
Arquivo  Ações  Editar  Exibir  Ajuda  
administrador@administrador-virtualbox: ~  
administrador@administrador-virtualbox:~$ sudo docker run -it --name av06 alp  
ine:3  
Unable to find image 'alpine:3' locally  
3: Pulling from library/alpine  
2408cc74d12b: Pull complete  
Digest: sha256:686d8c9dfa6f3ccfc8230bc3178d23f84eeaf7e457f36f271ab1acc5301503  
7c  
Status: Downloaded newer image for alpine:3  
/ #
```

2) Instanciar um container a partir dessa imagem;

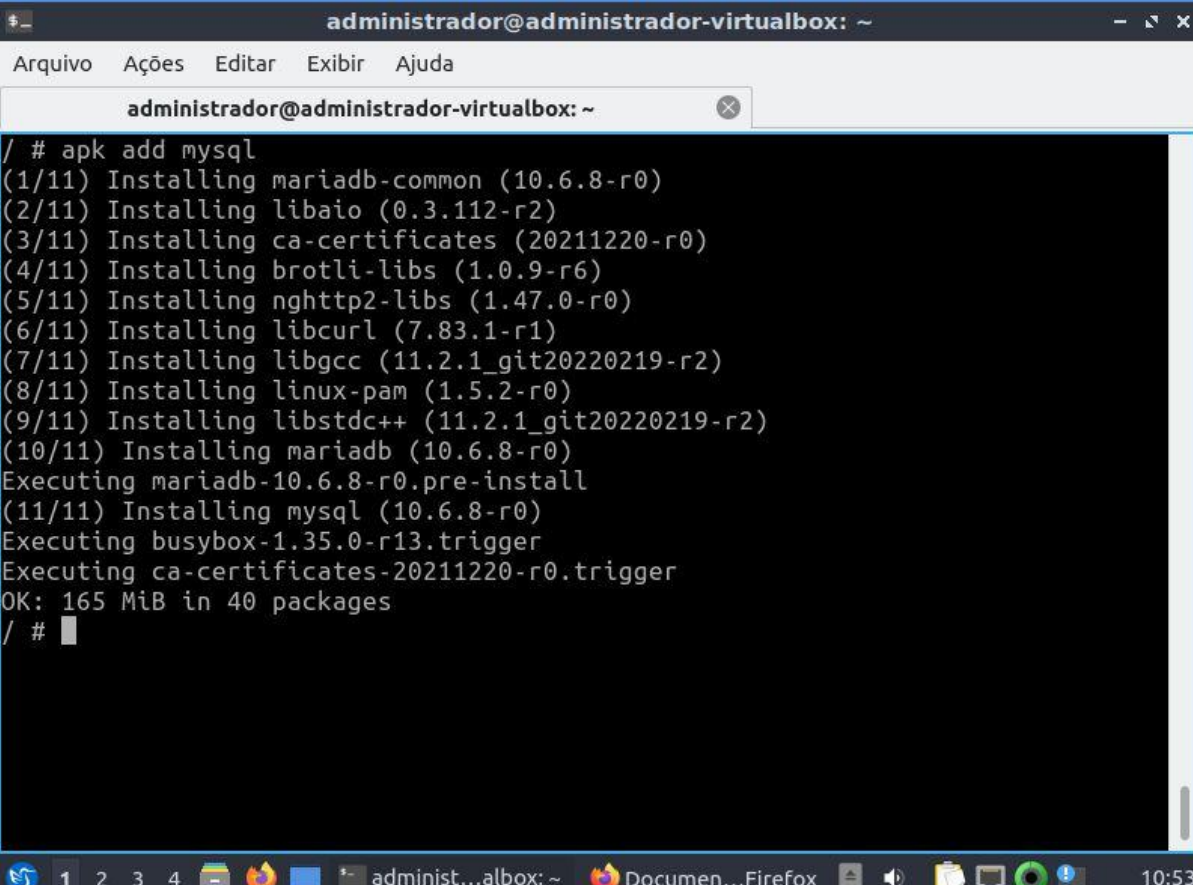


```
administrador@administrador-virtualbox: ~  
Arquivo  Ações  Editar  Exibir  Ajuda  
administrador@administrador-virtualbox: ~  
administrador@administrador-virtualbox:~$ sudo docker ps -a  
[sudo] senha para administrador:  
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES  
aaa3551b94f9   alpine:3  "/bin/sh"  24 minutes ago  Exited (0) 13 seconds ago  
administrador@administrador-virtualbox:~$
```

3) Entrar no container e instalar um LAMP (Apache/PHP/MySQL);

```
administrador@administrador-virtualbox: ~
Arquivo  Ações  Editar  Exibir  Ajuda
administrador@administrador-virtualbox: ~
/ # apk add apache2
fetch https://dl-cdn.alpinelinux.org/alpine/v3.16/main/x86_64/APKINDEX.tar.gz
fetch https://dl-cdn.alpinelinux.org/alpine/v3.16/community/x86_64/APKINDEX.tar.gz
(1/6) Installing libuuid (2.38-r1)
(2/6) Installing apr (1.7.0-r2)
(3/6) Installing expat (2.4.8-r0)
(4/6) Installing apr-util (1.6.1-r12)
(5/6) Installing pcre (8.45-r2)
(6/6) Installing apache2 (2.4.54-r0)
Executing apache2-2.4.54-r0.pre-install
Executing busybox-1.35.0-r13.trigger
OK: 9 MiB in 20 packages
/ #
```

```
administrador@administrador-virtualbox: ~
Arquivo  Ações  Editar  Exibir  Ajuda
administrador@administrador-virtualbox: ~
/ # apk add php
(1/9) Installing php8-common (8.0.20-r0)
(2/9) Installing argon2-libs (20190702-r1)
(3/9) Installing ncurses-terminfo-base (6.3_p20220521-r0)
(4/9) Installing ncurses-libs (6.3_p20220521-r0)
(5/9) Installing libedit (20210910.3.1-r0)
(6/9) Installing pcre2 (10.40-r0)
(7/9) Installing xz-libs (5.2.5-r1)
(8/9) Installing libxml2 (2.9.14-r0)
(9/9) Installing php8 (8.0.20-r0)
Executing busybox-1.35.0-r13.trigger
OK: 21 MiB in 29 packages
/ #
```



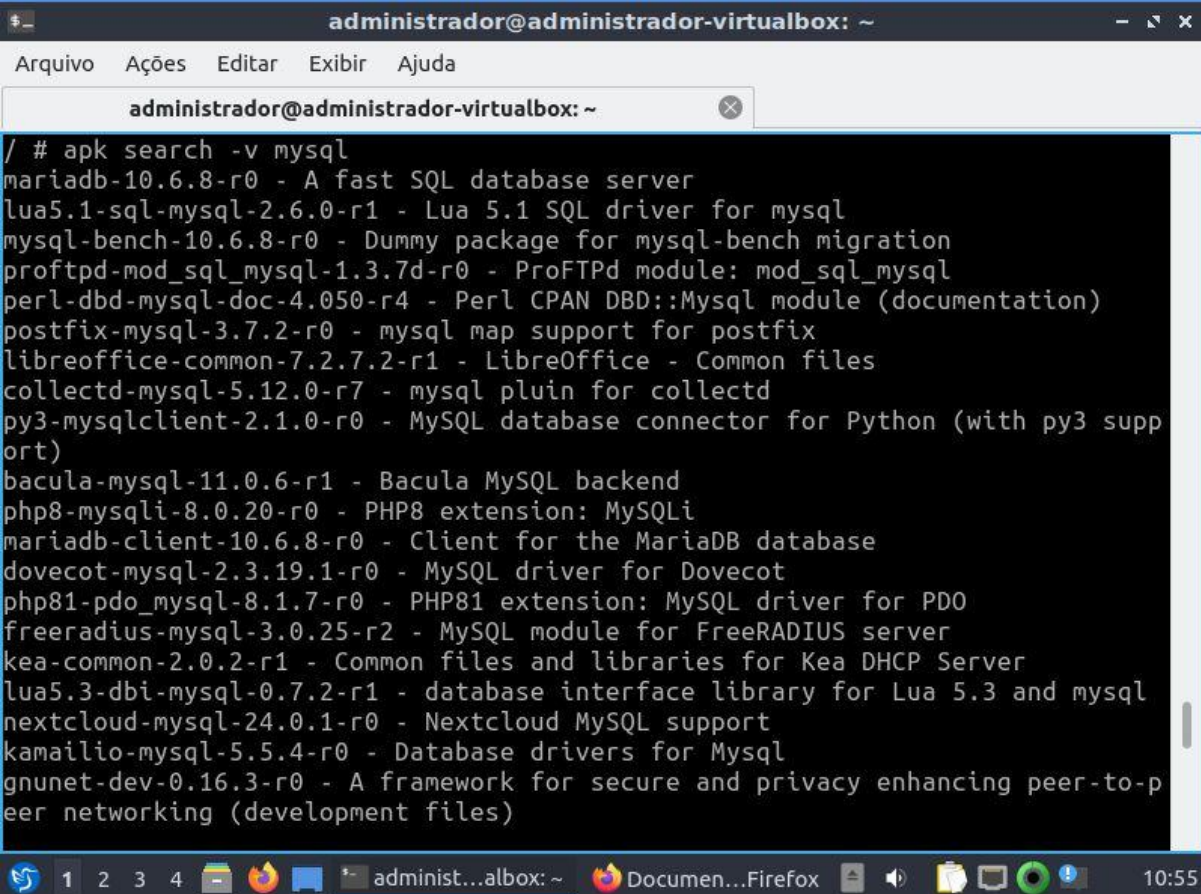
The screenshot shows a terminal window titled "administrador@administrador-virtualbox: ~". The terminal output displays the command `/ # apk add mysql` and the subsequent installation of various packages. The packages listed are mariadb-common (10.6.8-r0), libaio (0.3.112-r2), ca-certificates (20211220-r0), brotli-libs (1.0.9-r6), nghttp2-libs (1.47.0-r0), libcurl (7.83.1-r1), libgcc (11.2.1_git20220219-r2), linux-pam (1.5.2-r0), libstdc++ (11.2.1_git20220219-r2), mariadb (10.6.8-r0), and mysql (10.6.8-r0). The terminal also shows the execution of pre-install scripts for mariadb and triggers for busybox and ca-certificates. The final status is "OK: 165 MiB in 40 packages". The terminal prompt is `/ #` with a cursor. The window has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The bottom status bar shows the virtual machine's taskbar with icons for a terminal, file manager, and Firefox, along with the time 10:53.

```
administrador@administrador-virtualbox: ~
/ # apk add mysql
(1/11) Installing mariadb-common (10.6.8-r0)
(2/11) Installing libaio (0.3.112-r2)
(3/11) Installing ca-certificates (20211220-r0)
(4/11) Installing brotli-libs (1.0.9-r6)
(5/11) Installing nghttp2-libs (1.47.0-r0)
(6/11) Installing libcurl (7.83.1-r1)
(7/11) Installing libgcc (11.2.1_git20220219-r2)
(8/11) Installing linux-pam (1.5.2-r0)
(9/11) Installing libstdc++ (11.2.1_git20220219-r2)
(10/11) Installing mariadb (10.6.8-r0)
Executing mariadb-10.6.8-r0.pre-install
(11/11) Installing mysql (10.6.8-r0)
Executing busybox-1.35.0-r13.trigger
Executing ca-certificates-20211220-r0.trigger
OK: 165 MiB in 40 packages
/ #
```

3.1 Evidenciando a instalação do LAMP:

```
administrador@administrador-virtualbox: ~  
Arquivo  Ações  Editar  Exibir  Ajuda  
administrador@administrador-virtualbox: ~  
/ # apk search -v apache2  
apache2-proxy-html-2.4.54-r0 - HTML and XML content filters for the Apache HTTP Server  
apache2-webdav-2.4.54-r0 - WebDAV support for the Apache HTTP Server  
apache2-mod-wsgi-doc-4.9.0-r0 - Python WSGI Module for Apache2 (documentation)  
neko-apache2-2.3.0-r4 - Neko Virtual Machine - Apache2 modules  
php81-apache2-8.1.7-r0 - PHP81 Module for Apache2  
baculum-web-apache2-11.0.5-r0 - Apache configuration for Baculum WebGUI  
apache2-ssl-2.4.54-r0 - SSL/TLS module for the Apache HTTP Server  
apache2-2.4.54-r0 - A high performance Unix-based HTTP server  
apache2-lua-2.4.54-r0 - Lua support for the Apache HTTP server  
apache2-http2-2.4.54-r0 - HTTP/2 transport layer for the Apache HTTP Server  
apache2-proxy-2.4.54-r0 - Proxy modules for the Apache HTTP Server  
apache2-mod-wsgi-4.9.0-r0 - Python WSGI Module for Apache2  
php8-apache2-8.0.20-r0 - PHP8 Module for Apache2  
apache2-brotli-2.4.54-r0 - Brotli content compression for the Apache HTTP Server  
apache2-error-2.4.54-r0 - Apache Multi Language Custom Error Documents  
apache2-ctl-2.4.54-r0 - Apache control script  
apache2-utils-2.4.54-r0 - Apache utility programs for web servers  
apache2-dev-2.4.54-r0 - A high performance Unix-based HTTP server (development files)  
1 2 3 4 [taskbar icons] administrador@administrador-virtualbox: ~ 10:49
```

```
administrador@administrador-virtualbox: ~  
Arquivo  Ações  Editar  Exibir  Ajuda  
administrador@administrador-virtualbox: ~  
/ # apk search -v php  
php81-pdo_dblib-8.1.7-r0 - PHP81 extension: DB-LIB (MS SQL, Sybase)  
php8-imagick-8.0.20-r0 - PHP8 extension: IMAP  
php8-ftp-8.0.20-r0 - PHP8 extension: FTP  
php81-embed-8.1.7-r0 - PHP81 Embedded Library  
php8-pspell-8.0.20-r0 - PHP8 extension: Pspell  
php8-phar-8.0.20-r0 - PHP8 extension: PHP Archive  
php81-openssl-8.1.7-r0 - PHP81 extension: OpenSSL  
php8-soap-8.0.20-r0 - PHP8 extension: SOAP  
php8-pecl-imagick-dev-3.7.0-r0 - PHP 8.0 extension provides a wrapper to the ImageMagick library - PECL (development files)  
php81-pecl-redis-5.3.7-r0 - PHP 8.1 extension for interfacing with Redis - PECL  
php81-pecl-apcu-5.1.21-r0 - PHP 8.1 extension APC User Cache - PECL  
php8-gmp-8.0.20-r0 - PHP8 extension: GNU GMP support  
php8-pecl-swoole-4.8.9-r0 - Event-driven asynchronous and concurrent networking engine with high performance for PHP 8.0 - PECL  
php81-posix-8.1.7-r0 - PHP81 extension: Posix  
php8-litespeed-8.0.20-r0 - PHP8 LiteSpeed SAPI  
php81-pecl-protobuf-3.20.1-r0 - PHP 8.1 extension: Google's language-neutral, platform-neutral, extensible mechanism for serializing structured data - PECL  
1 2 3 4 [taskbar icons] administrador@administrador-virtualbox: ~ 10:51
```

The screenshot shows a terminal window titled 'administrador@administrador-virtualbox: ~'. The terminal displays the output of the command `apk search -v mysql`. The output lists various MySQL-related packages and their descriptions. The window has a menu bar with 'Arquivo', 'Ações', 'Editar', 'Exibir', and 'Ajuda'. The bottom status bar shows the time as 10:55 and includes icons for network, volume, and other system utilities.

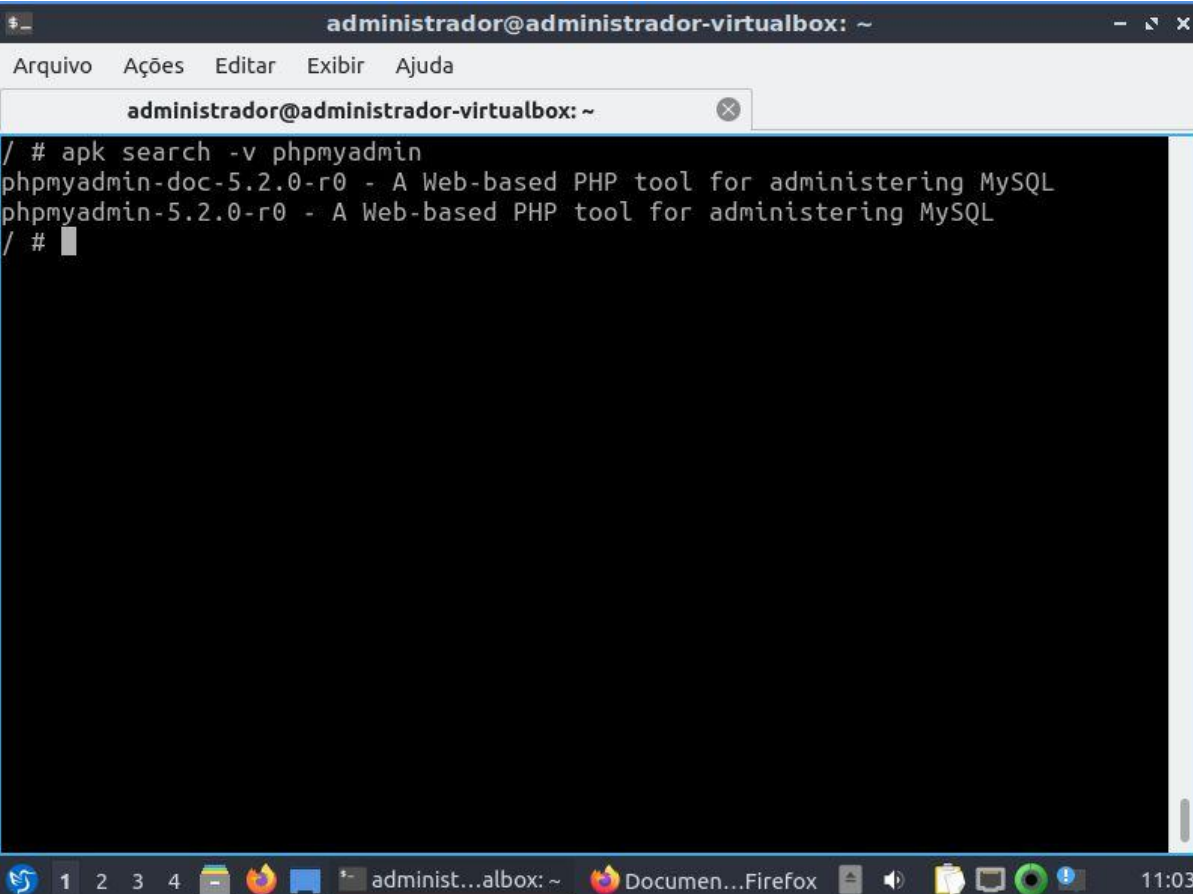
```
/ # apk search -v mysql
mariadb-10.6.8-r0 - A fast SQL database server
lua5.1-sql-mysql-2.6.0-r1 - Lua 5.1 SQL driver for mysql
mysql-bench-10.6.8-r0 - Dummy package for mysql-bench migration
proftpd-mod_sql_mysql-1.3.7d-r0 - ProFTPD module: mod_sql_mysql
perl-dbd-mysql-doc-4.050-r4 - Perl CPAN DBD::Mysql module (documentation)
postfix-mysql-3.7.2-r0 - mysql map support for postfix
libreoffice-common-7.2.7.2-r1 - LibreOffice - Common files
collectd-mysql-5.12.0-r7 - mysql pluin for collectd
py3-mysqldb-2.1.0-r0 - MySQL database connector for Python (with py3 support)
bacula-mysql-11.0.6-r1 - Bacula MySQL backend
php8-mysqli-8.0.20-r0 - PHP8 extension: MySQLi
mariadb-client-10.6.8-r0 - Client for the MariaDB database
dovecot-mysql-2.3.19.1-r0 - MySQL driver for Dovecot
php81-pdo_mysql-8.1.7-r0 - PHP81 extension: MySQL driver for PDO
freeradius-mysql-3.0.25-r2 - MySQL module for FreeRADIUS server
kea-common-2.0.2-r1 - Common files and libraries for Kea DHCP Server
lua5.3-dbi-mysql-0.7.2-r1 - database interface library for Lua 5.3 and mysql
nextcloud-mysql-24.0.1-r0 - Nextcloud MySQL support
kamailio-mysql-5.5.4-r0 - Database drivers for Mysql
gnunet-dev-0.16.3-r0 - A framework for secure and privacy enhancing peer-to-peer networking (development files)
```

4) Instalando o PhpMyAdmin;

```
administrador@administrador-virtualbox: ~
Arquivo  Ações  Editar  Exibir  Ajuda
administrador@administrador-virtualbox: ~
/ # apk add phpmyadmin
(1/28) Installing php8-openssl (8.0.20-r0)
(2/28) Installing php8-mysqld (8.0.20-r0)
(3/28) Installing php8-mysqli (8.0.20-r0)
(4/28) Installing libbz2 (1.0.8-r1)
(5/28) Installing php8-bz2 (8.0.20-r0)
(6/28) Installing php8-ctype (8.0.20-r0)
(7/28) Installing php8-curl (8.0.20-r0)
(8/28) Installing libxau (1.0.9-r0)
(9/28) Installing libxdmcp (1.1.3-r0)
(10/28) Installing libxcb (1.15-r0)
(11/28) Installing libx11 (1.8-r0)
(12/28) Installing libxext (1.3.4-r0)
(13/28) Installing libice (1.0.10-r0)
(14/28) Installing libsm (1.2.3-r0)
(15/28) Installing libxt (1.2.1-r0)
(16/28) Installing libxpm (3.5.13-r0)
(17/28) Installing libpng (1.6.37-r1)
(18/28) Installing freetype (2.12.1-r0)
(19/28) Installing libjpeg-turbo (2.1.3-r1)
(20/28) Installing libwebp (1.2.2-r0)
(21/28) Installing php8-gd (8.0.20-r0)
(22/28) Installing oniguruma (6.9.8-r0)
```

```
administrador@administrador-virtualbox: ~
Arquivo  Ações  Editar  Exibir  Ajuda
administrador@administrador-virtualbox: ~
(22/28) Installing oniguruma (6.9.8-r0)
(23/28) Installing php8-mbstring (8.0.20-r0)
(24/28) Installing php8-session (8.0.20-r0)
(25/28) Installing zstd-libs (1.5.2-r1)
(26/28) Installing libzip (1.8.0-r1)
(27/28) Installing php8-zip (8.0.20-r0)
(28/28) Installing phpmyadmin (5.2.0-r0)
Executing phpmyadmin-5.2.0-r0.post-install
*
* phpmyadmin has been installed to:
* /usr/share/webapps/phpmyadmin
* phpmyadmin config file has been installed to:
* /etc/phpmyadmin/config.inc.php
* If you use apache2:
* 1) Change the ownership of the config directory:
*     chown -R apache:apache /etc/phpmyadmin
* 2) See if you need to modify the apache2 config:
*     /etc/apache2/conf.d/phpmyadmin.conf
* 3) Restart apache2 when done.
*
Executing busybox-1.35.0-r13.trigger
OK: 234 MiB in 68 packages
/ #
```

4.1 Evidenciando a instalação do phpmyadmin:

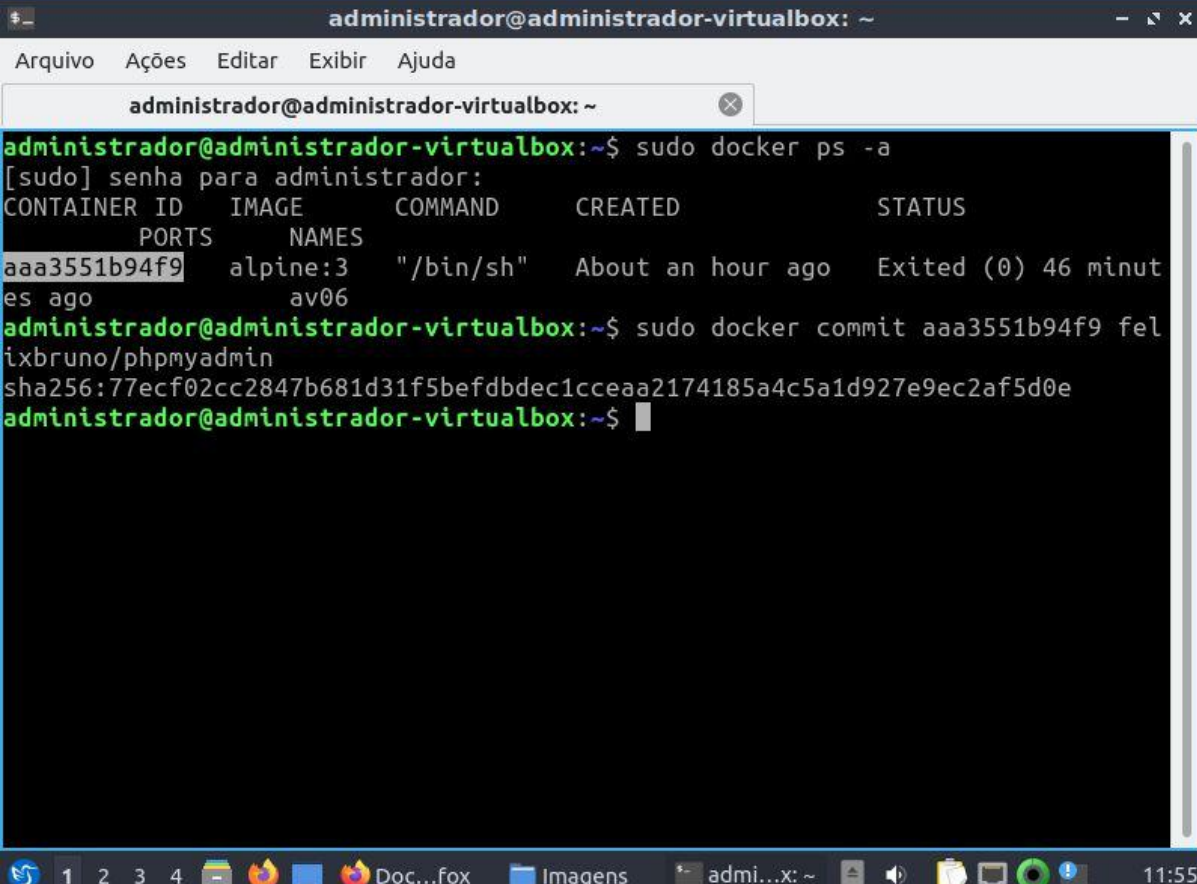


The screenshot shows a terminal window titled "administrador@administrador-virtualbox: ~". The terminal has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The terminal content shows the command `/ # apk search -v phpmyadmin` and its output:

```
phpmyadmin-doc-5.2.0-r0 - A Web-based PHP tool for administering MySQL
phpmyadmin-5.2.0-r0 - A Web-based PHP tool for administering MySQL
/ #
```

The terminal window is part of a desktop environment. The taskbar at the bottom shows several icons, including a terminal icon, a folder icon, a Firefox icon, and a clock showing 11:03. The terminal window's title bar also shows the path "administrador@administrador-virtualbox: ~".

5) Configurar o mapeamento de portas de forma a acessar remotamente do Windows usando um browser;

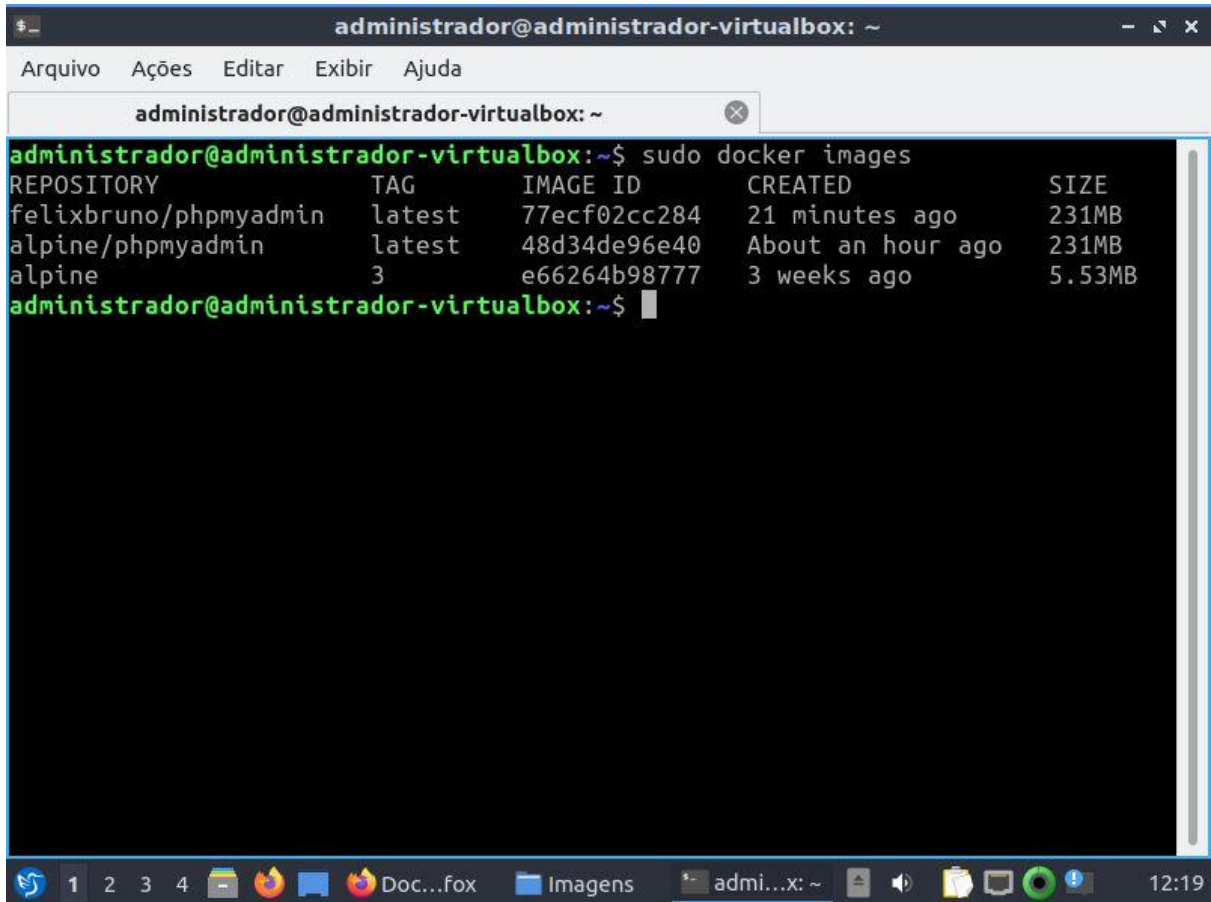


The screenshot shows a terminal window titled "administrador@administrador-virtualbox: ~". The terminal displays the following commands and output:

```
administrador@administrador-virtualbox:~$ sudo docker ps -a
[sudo] senha para administrador:
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS
PORTS          NAMES
aaa3551b94f9   alpine:3   "/bin/sh"               About an hour ago   Exited (0) 46 minutes ago
av06
administrador@administrador-virtualbox:~$ sudo docker commit aaa3551b94f9 felixbruno/phpmyadmin
sha256:77ecf02cc2847b681d31f5befdbdec1ccea2174185a4c5a1d927e9ec2af5d0e
administrador@administrador-virtualbox:~$
```

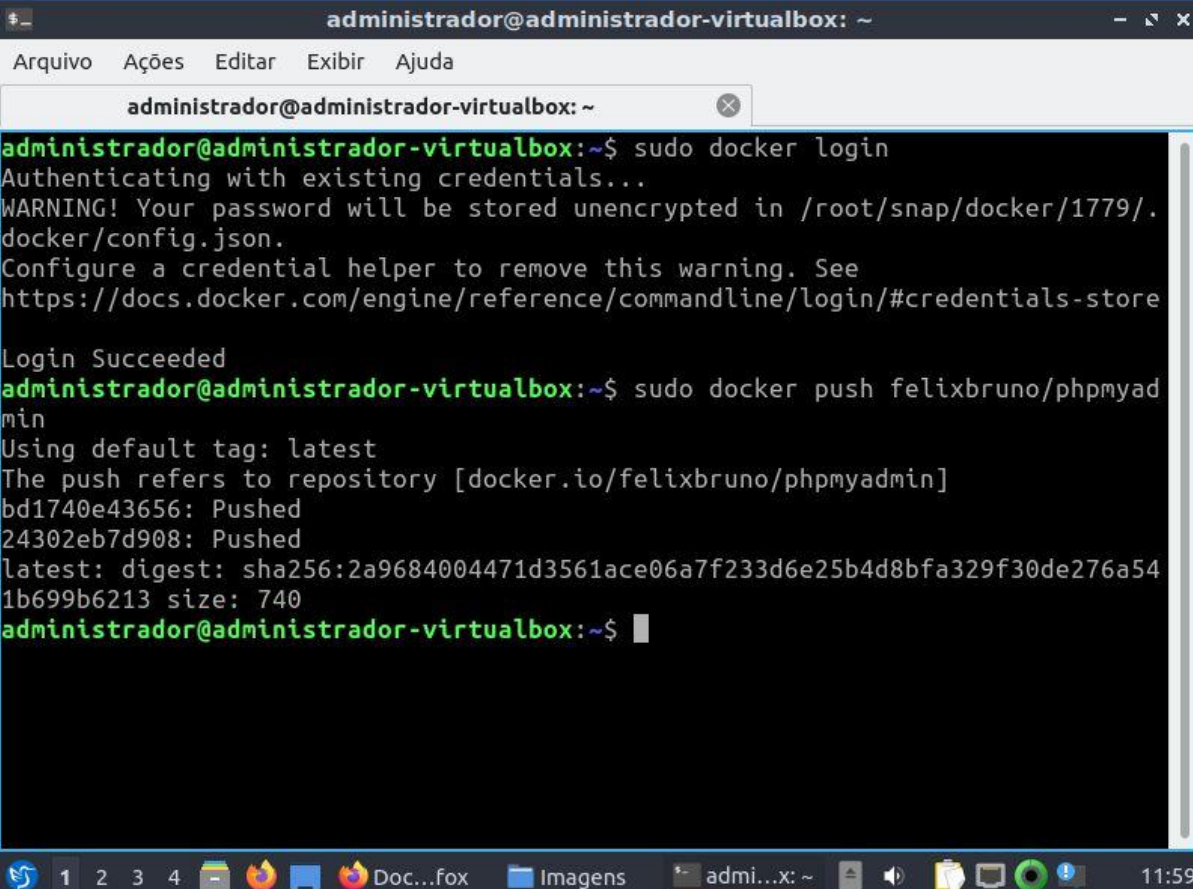
The terminal window has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The bottom of the screen shows a taskbar with icons for a file manager, terminal, and other applications, along with the system clock showing 11:55.

6) Salvar a imagem usando o comando para
<nome-conta-docker-hub>/phpmyadmin



```
administrador@administrador-virtualbox: ~  
Arquivo  Ações  Editar  Exibir  Ajuda  
administrador@administrador-virtualbox: ~  
administrador@administrador-virtualbox:~$ sudo docker images  
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE  
felixbruno/phpmyadmin latest          77ecf02cc284    21 minutes ago  231MB  
alpine/phpmyadmin    latest          48d34de96e40    About an hour ago  231MB  
alpine               3              e66264b98777    3 weeks ago     5.53MB  
administrador@administrador-virtualbox:~$
```

7) Fazer um push para o repositório no DockerHub.]



A terminal window titled "administrador@administrador-virtualbox: ~" with a menu bar (Arquivo, Ações, Editar, Exibir, Ajuda) and a tab bar. The terminal shows the following commands and output:

```
administrador@administrador-virtualbox:~$ sudo docker login
Authenticating with existing credentials...
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
administrador@administrador-virtualbox:~$ sudo docker push felixbruno/phpmyadmin
Using default tag: latest
The push refers to repository [docker.io/felixbruno/phpmyadmin]
bd1740e43656: Pushed
24302eb7d908: Pushed
latest: digest: sha256:2a9684004471d3561ace06a7f233d6e25b4d8bfa329f30de276a541b699b6213 size: 740
administrador@administrador-virtualbox:~$
```

The terminal window has a taskbar at the bottom with icons for a web browser, terminal, and other applications. The system clock shows 11:59.