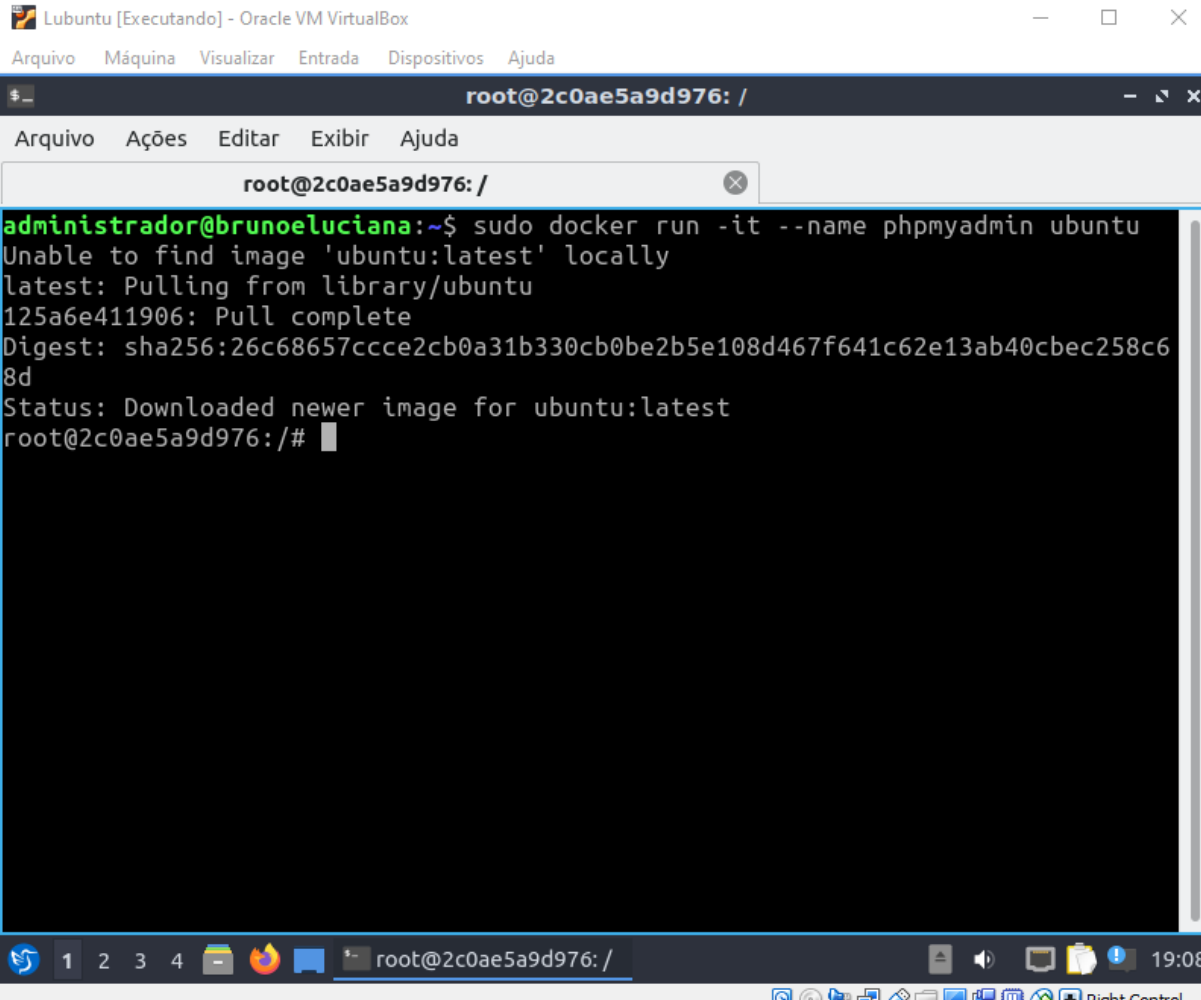


AVALIAÇÃO 05

Dupla: Bruno da Silva e Luciana Victória

1) Criar um container a partir de uma imagem ubuntu ou alpine.



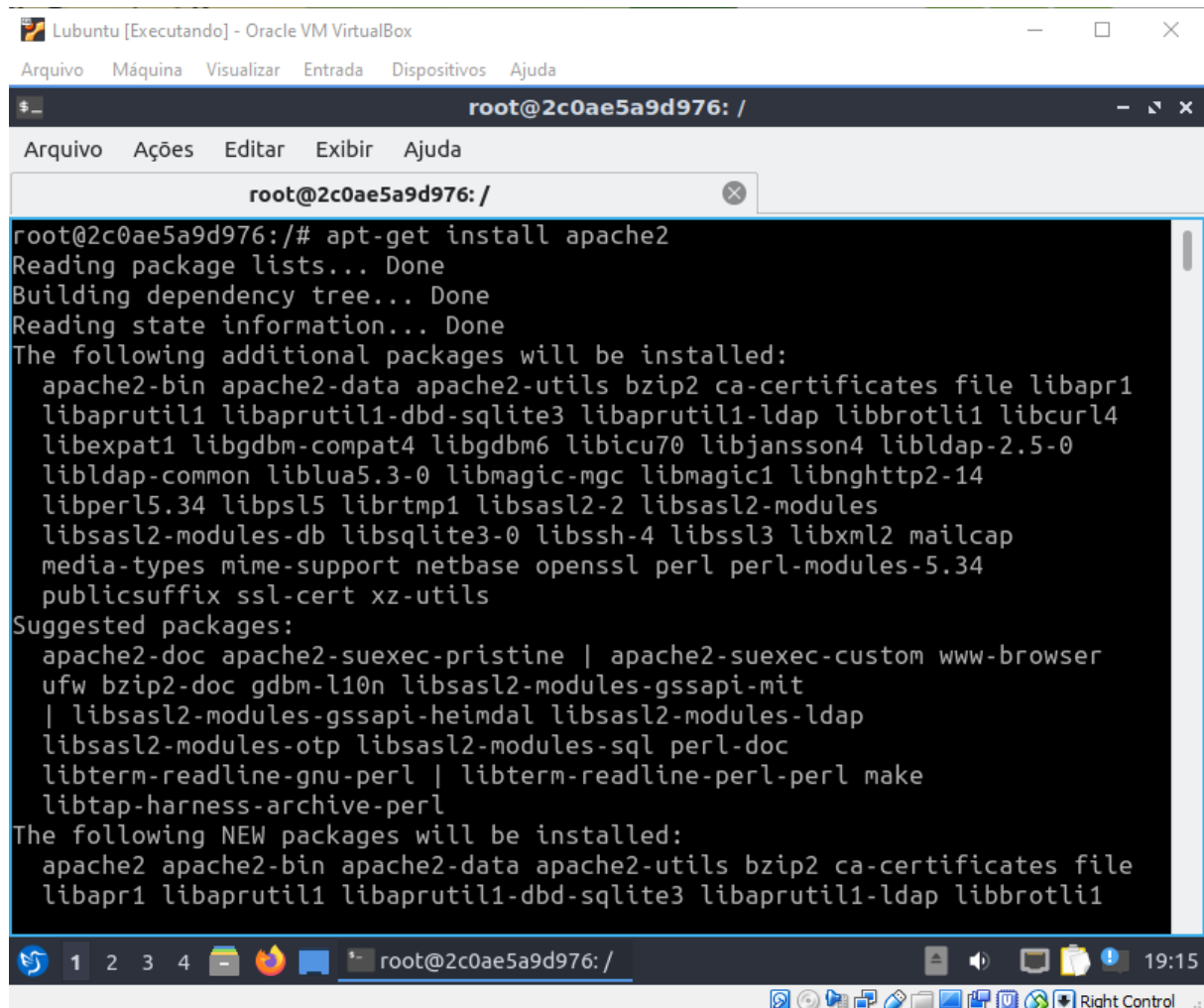
The screenshot shows a VirtualBox window titled "Lubuntu [Executando] - Oracle VM VirtualBox". Inside the window is a terminal window titled "root@2c0ae5a9d976: /". The terminal shows the following commands and output:

```
administrador@brunoeluciana:~$ sudo docker run -it --name phpmyadmin ubuntu
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
125a6e411906: Pull complete
Digest: sha256:26c68657ccce2cb0a31b330cb0be2b5e108d467f641c62e13ab40cbec258c68d
Status: Downloaded newer image for ubuntu:latest
root@2c0ae5a9d976:/#
```

The terminal window has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The bottom of the screen shows the Ubuntu desktop environment with a taskbar containing icons for applications and system status, including the time "19:08".

2) Entrar no container de forma a usar o shell e instalar o Apache, o PHP e o MySQL.

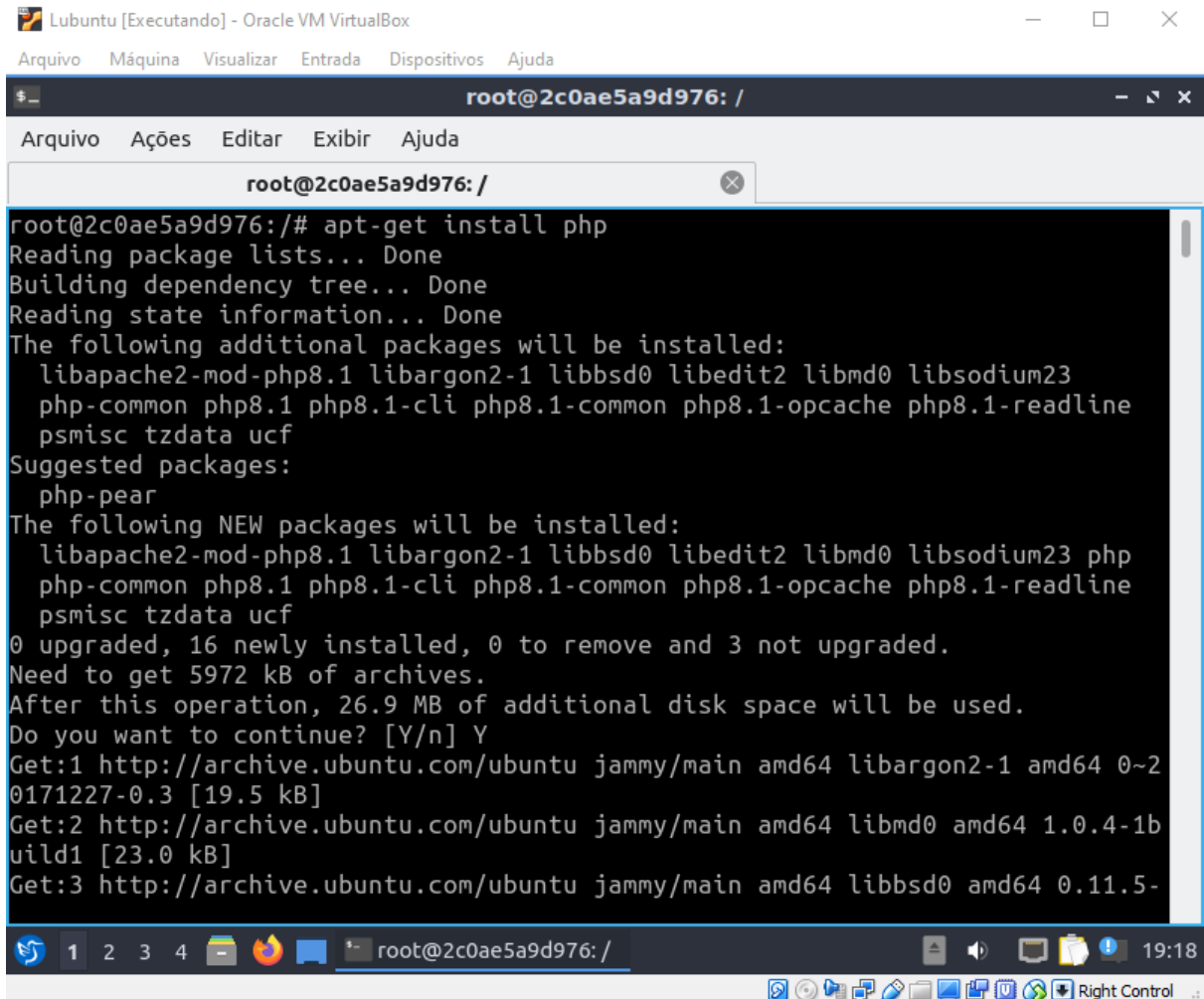
2.1 Instalando o Apache



The screenshot shows a terminal window titled "Lubuntu [Executando] - Oracle VM VirtualBox". The terminal prompt is "root@2c0ae5a9d976: /". The user has entered the command "apt-get install apache2". The terminal output shows the progress of the installation, including reading package lists, building a dependency tree, and reading state information. It lists additional packages to be installed, such as "apache2-bin", "apache2-data", "apache2-utils", "bzip2", "ca-certificates", "file", "libapr1", "libaprutil1", "libaprutil1-dbd-sqlite3", "libaprutil1-ldap", "libbrotli1", "libcurl4", "libexpat1", "libgdbm-compat4", "libgdbm6", "libc6", "libjansson4", "libldap-2.5-0", "libldap-common", "liblua5.3-0", "libmagic-mgc", "libmagic1", "libnghttp2-14", "libperl5.34", "libpsl5", "librtmp1", "libsasl2-2", "libsasl2-modules", "libsasl2-modules-db", "libsqlite3-0", "libssh-4", "libssl3", "libxml2", "mailcap", "media-types", "mime-support", "netbase", "openssl", "perl", "perl-modules-5.34", "publicsuffix", "ssl-cert", and "xz-utils". It also lists suggested packages like "apache2-doc", "apache2-suexec-pristine", "apache2-suexec-custom", "www-browser", "ufw", "bzip2-doc", "gdbm-l10n", "libsasl2-modules-gssapi-mit", "libsasl2-modules-gssapi-heimdal", "libsasl2-modules-ldap", "libsasl2-modules-otp", "libsasl2-modules-sql", "perl-doc", "libterm-readline-gnu-perl", "libterm-readline-perl-perl", "make", and "libtap-harness-archive-perl". Finally, it lists the new packages to be installed: "apache2", "apache2-bin", "apache2-data", "apache2-utils", "bzip2", "ca-certificates", "file", "libapr1", "libaprutil1", "libaprutil1-dbd-sqlite3", "libaprutil1-ldap", "libbrotli1", "libcurl4", "libexpat1", "libgdbm-compat4", "libgdbm6", "libc6", "libjansson4", "libldap-2.5-0", "libldap-common", "liblua5.3-0", "libmagic-mgc", "libmagic1", "libnghttp2-14", "libperl5.34", "libpsl5", "librtmp1", "libsasl2-2", "libsasl2-modules", "libsasl2-modules-db", "libsqlite3-0", "libssh-4", "libssl3", "libxml2", "mailcap", "media-types", "mime-support", "netbase", "openssl", "perl", "perl-modules-5.34", "publicsuffix", "ssl-cert", and "xz-utils".

```
root@2c0ae5a9d976: /  
root@2c0ae5a9d976: /# apt-get install apache2  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  apache2-bin apache2-data apache2-utils bzip2 ca-certificates file libapr1  
  libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libbrotli1 libcurl4  
  libexpat1 libgdbm-compat4 libgdbm6 libc6 libjansson4 libldap-2.5-0  
  libldap-common liblua5.3-0 libmagic-mgc libmagic1 libnghttp2-14  
  libperl5.34 libpsl5 librtmp1 libsasl2-2 libsasl2-modules  
  libsasl2-modules-db libsqlite3-0 libssh-4 libssl3 libxml2 mailcap  
  media-types mime-support netbase openssl perl perl-modules-5.34  
  publicsuffix ssl-cert xz-utils  
Suggested packages:  
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser  
  ufw bzip2-doc gdbm-l10n libsasl2-modules-gssapi-mit  
  | libsasl2-modules-gssapi-heimdal libsasl2-modules-ldap  
  libsasl2-modules-otp libsasl2-modules-sql perl-doc  
  libterm-readline-gnu-perl | libterm-readline-perl-perl make  
  libtap-harness-archive-perl  
The following NEW packages will be installed:  
  apache2 apache2-bin apache2-data apache2-utils bzip2 ca-certificates file  
  libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libbrotli1
```

2.2 Instalando o PHP



Lubuntu [Executando] - Oracle VM VirtualBox

Arquivo Máquina Visualizar Entrada Dispositivos Ajuda

root@2c0ae5a9d976: /

Arquivo Ações Editar Exibir Ajuda

root@2c0ae5a9d976: /

```
root@2c0ae5a9d976:/# apt-get install php
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php8.1 libargon2-1 libbsd0 libedit2 libmd0 libsodium23
  php-common php8.1 php8.1-cli php8.1-common php8.1-opcache php8.1-readline
  psmisc tzdata ucf
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php8.1 libargon2-1 libbsd0 libedit2 libmd0 libsodium23 php
  php-common php8.1 php8.1-cli php8.1-common php8.1-opcache php8.1-readline
  psmisc tzdata ucf
0 upgraded, 16 newly installed, 0 to remove and 3 not upgraded.
Need to get 5972 kB of archives.
After this operation, 26.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://archive.ubuntu.com/ubuntu jammy/main amd64 libargon2-1 amd64 0~2
0171227-0.3 [19.5 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy/main amd64 libmd0 amd64 1.0.4-1b
uild1 [23.0 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy/main amd64 libbsd0 amd64 0.11.5-
```

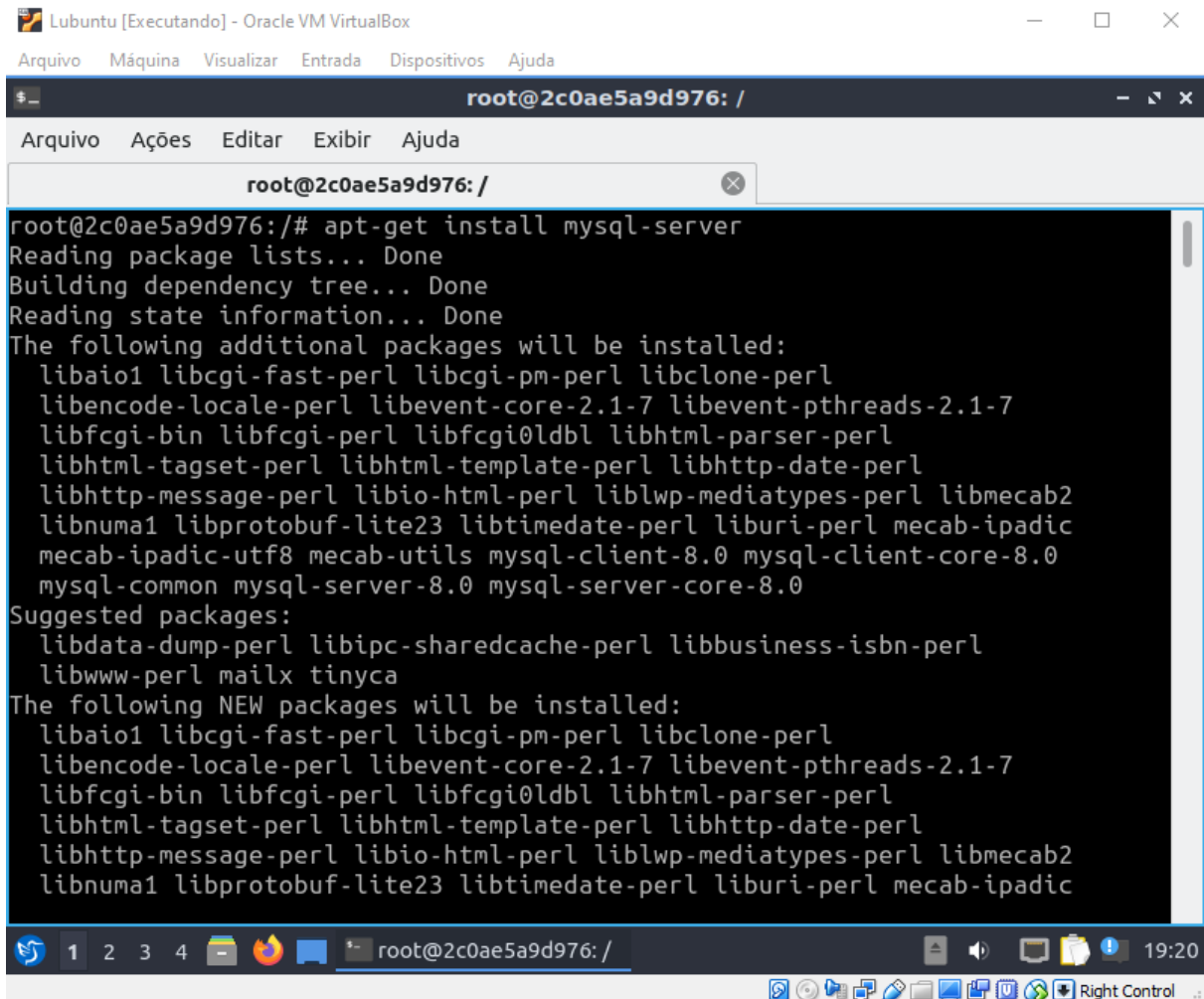
1 2 3 4

root@2c0ae5a9d976: /

19:18

Right Control

2.3 Instalando o MySQL



Lubuntu [Executando] - Oracle VM VirtualBox

Arquivo Máquina Visualizar Entrada Dispositivos Ajuda

root@2c0ae5a9d976: /

Arquivo Ações Editar Exibir Ajuda

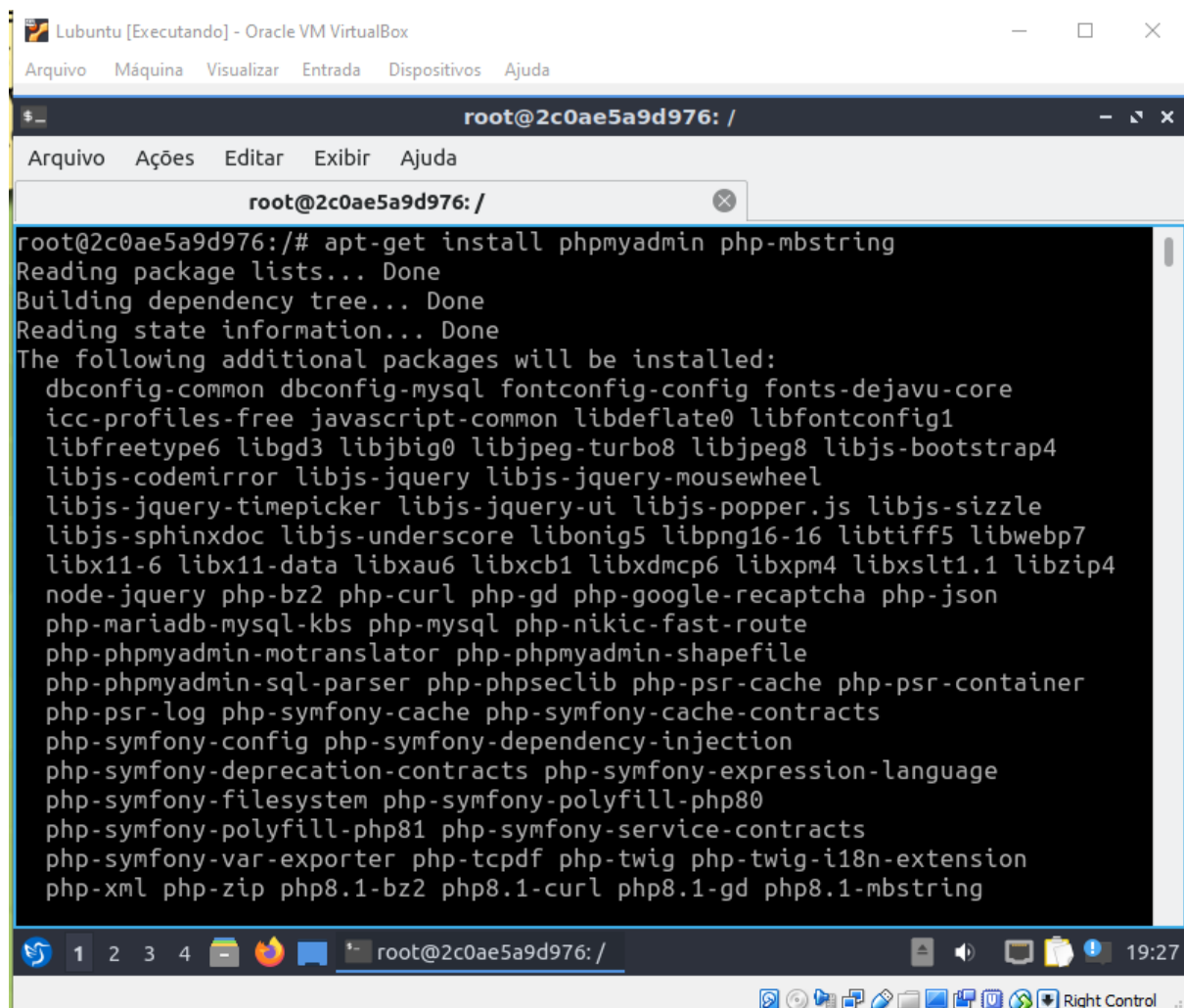
root@2c0ae5a9d976: /

```
root@2c0ae5a9d976:/# apt-get install mysql-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libaio1 libcgi-fast-perl libcgi-pm-perl libclone-perl
  libencode-locale-perl libevent-core-2.1-7 libevent-pthreads-2.1-7
  libfcgi-bin libfcgi-perl libfcgi0ldbl libhtml-parser-perl
  libhtml-tagset-perl libhtml-template-perl libhttp-date-perl
  libhttp-message-perl libio-html-perl liblwp-mediatypes-perl libmecab2
  libnuma1 libprotobuf-lite23 libtimedate-perl liburi-perl mecab-ipadic
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0
  mysql-common mysql-server-8.0 mysql-server-core-8.0
Suggested packages:
  libdata-dump-perl libipc-sharedcache-perl libbusiness-isbn-perl
  libwww-perl mailx tinyca
The following NEW packages will be installed:
  libaio1 libcgi-fast-perl libcgi-pm-perl libclone-perl
  libencode-locale-perl libevent-core-2.1-7 libevent-pthreads-2.1-7
  libfcgi-bin libfcgi-perl libfcgi0ldbl libhtml-parser-perl
  libhtml-tagset-perl libhtml-template-perl libhttp-date-perl
  libhttp-message-perl libio-html-perl liblwp-mediatypes-perl libmecab2
  libnuma1 libprotobuf-lite23 libtimedate-perl liburi-perl mecab-ipadic
```

1 2 3 4 root@2c0ae5a9d976: / 19:20

Right Control

3) Instalar o PHPMYAdmin;

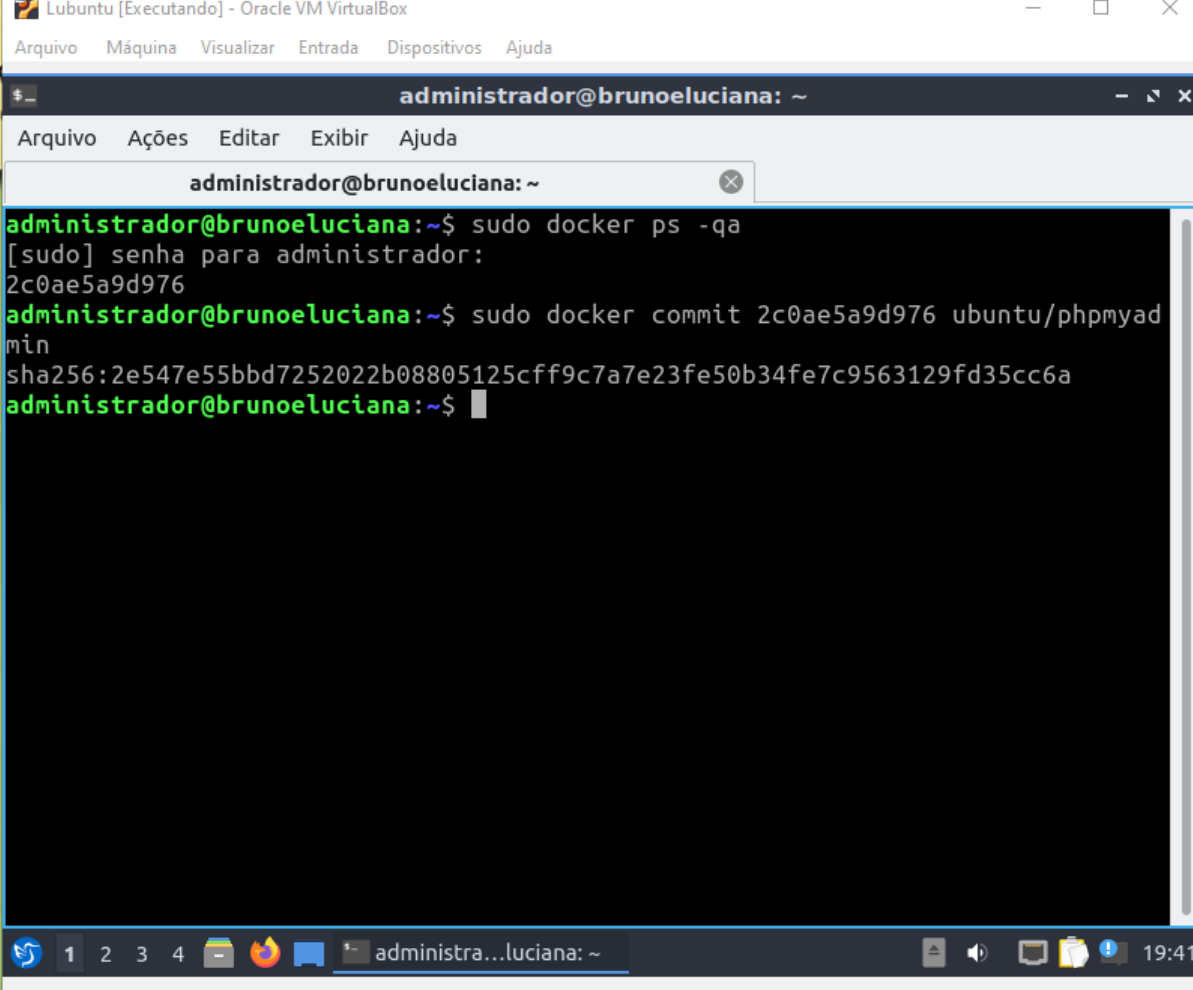


The screenshot shows a terminal window titled "root@2c0ae5a9d976: /" within an Oracle VM VirtualBox environment. The terminal output shows the command `apt-get install phpmyadmin php-mbstring` being executed. The system reports that the following additional packages will be installed:

```
dbconfig-common dbconfig-mysql fontconfig-config fonts-dejavu-core
icc-profiles-free javascript-common libdeflate0 libfontconfig1
libfreetype6 libgd3 libjbig0 libjpeg-turbo8 libjpeg8 libjs-bootstrap4
libjs-codemirror libjs-jquery libjs-jquery-mousewheel
libjs-jquery-timepicker libjs-jquery-ui libjs-popover.js libjs-sizzle
libjs-sphinxdoc libjs-underscore libonig5 libpng16-16 libtiff5 libwebp7
libx11-6 libx11-data libxau6 libxcb1 libxdmcp6 libxpm4 libxslt1.1 libzip4
node-jquery php-bz2 php-curl php-gd php-google-recaptcha php-json
php-mariadb-mysql-kbs php-mysql php-nikic-fast-route
php-phpmyadmin-motranslator php-phpmyadmin-shapefile
php-phpmyadmin-sql-parser php-phpseclib php-psr-cache php-psr-container
php-psr-log php-symfony-cache php-symfony-cache-contracts
php-symfony-config php-symfony-dependency-injection
php-symfony-deprecation-contracts php-symfony-expression-language
php-symfony-filesystem php-symfony-polyfill-php80
php-symfony-polyfill-php81 php-symfony-service-contracts
php-symfony-var-exporter php-tcpdf php-twig php-twig-i18n-extension
php-xml php-zip php8.1-bz2 php8.1-curl php8.1-gd php8.1-mbstring
```

The terminal window is part of a Lubuntu [Executando] - Oracle VM VirtualBox environment. The window title bar shows "Arquivo", "Máquina", "Visualizar", "Entrada", "Dispositivos", and "Ajuda". The terminal window itself has a title bar with "root@2c0ae5a9d976: /" and a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The terminal output is displayed on a black background with white text. The bottom of the screen shows a taskbar with icons for various applications and the system clock displaying "19:27".

4) Commitar o container com o apelido ubuntu/phpmyadmin;



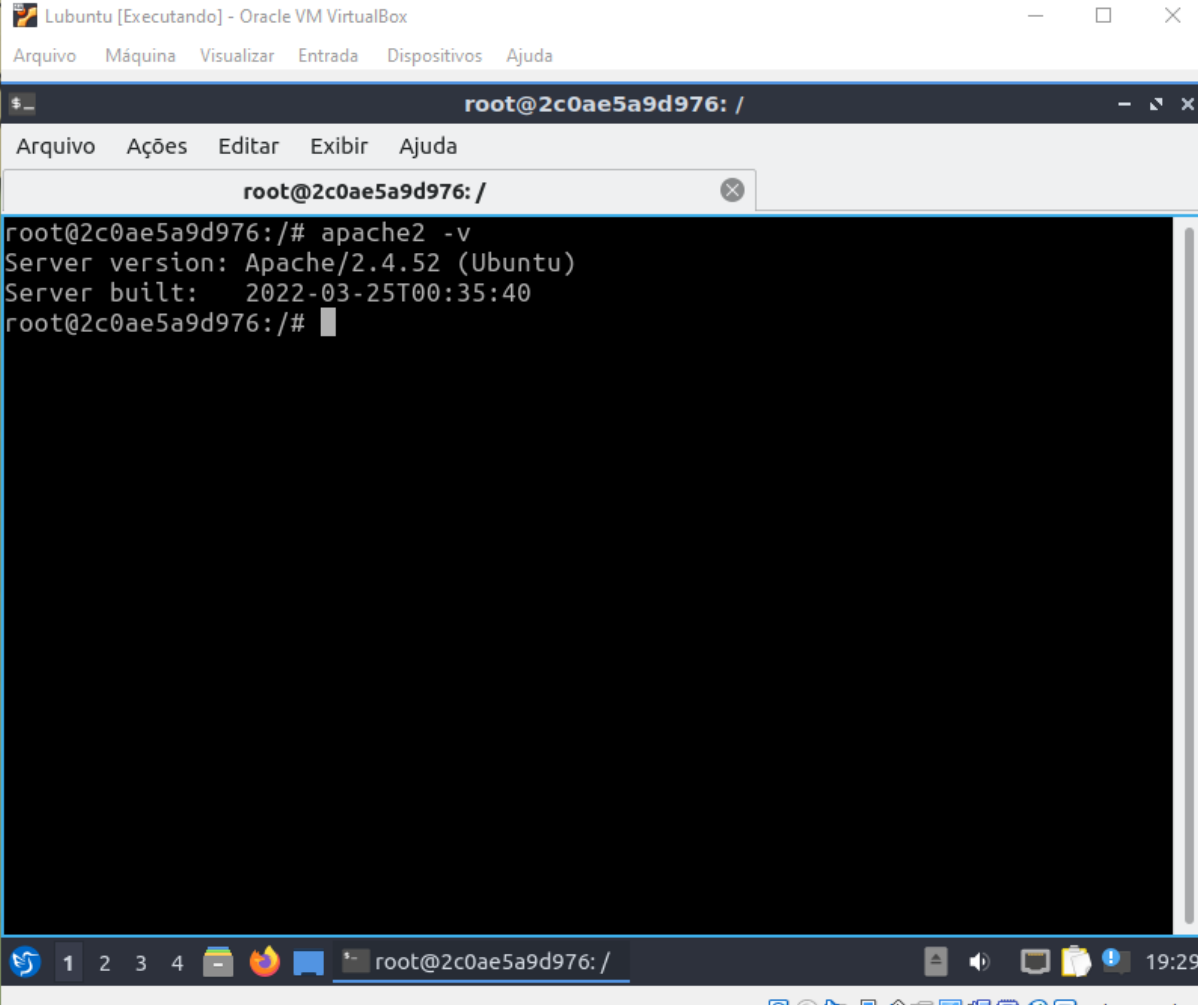
The screenshot shows a terminal window titled "administrador@brunoeluciana: ~" within an Oracle VM VirtualBox environment. The terminal displays the following commands and output:

```
administrador@brunoeluciana:~$ sudo docker ps -qa
[sudo] senha para administrador:
2c0ae5a9d976
administrador@brunoeluciana:~$ sudo docker commit 2c0ae5a9d976 ubuntu/phpmyad
min
sha256:2e547e55bbd7252022b08805125cff9c7a7e23fe50b34fe7c9563129fd35cc6a
administrador@brunoeluciana:~$
```

The terminal window has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The bottom status bar shows the time as 19:41 and includes a "Right Control" button.

5) Evidenciar a instalação e o funcionamento com prints.

5.1 Evidência do Apache

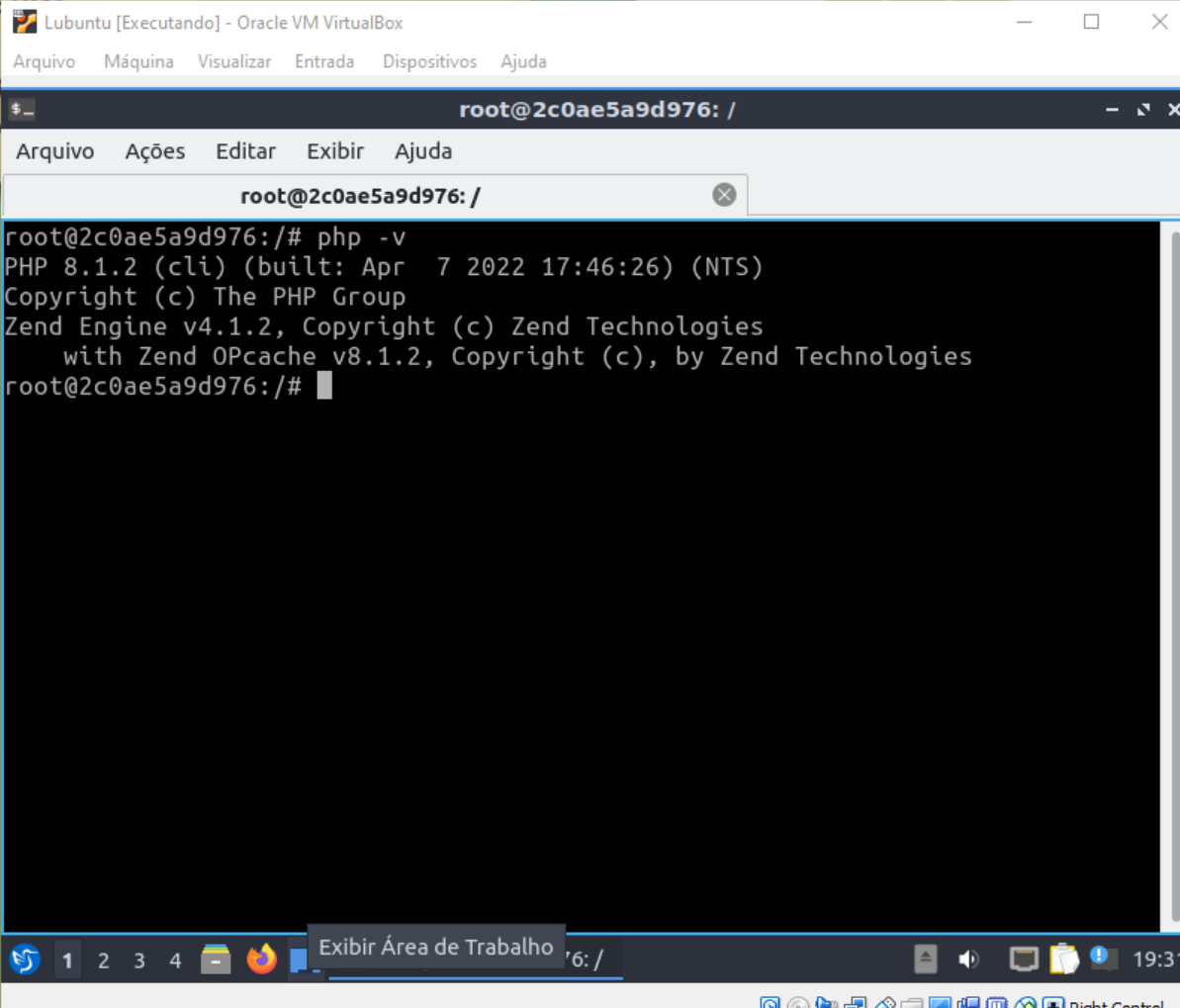


The screenshot shows a terminal window titled "Lubuntu [Executando] - Oracle VM VirtualBox". The terminal prompt is "root@2c0ae5a9d976: /". The command "apache2 -v" has been executed, resulting in the following output:

```
root@2c0ae5a9d976: /# apache2 -v
Server version: Apache/2.4.52 (Ubuntu)
Server built:   2022-03-25T00:35:40
root@2c0ae5a9d976: /#
```

The terminal window has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The bottom status bar shows the time as 19:29 and the text "Right Control ...".

5.2 Evidência do PHP

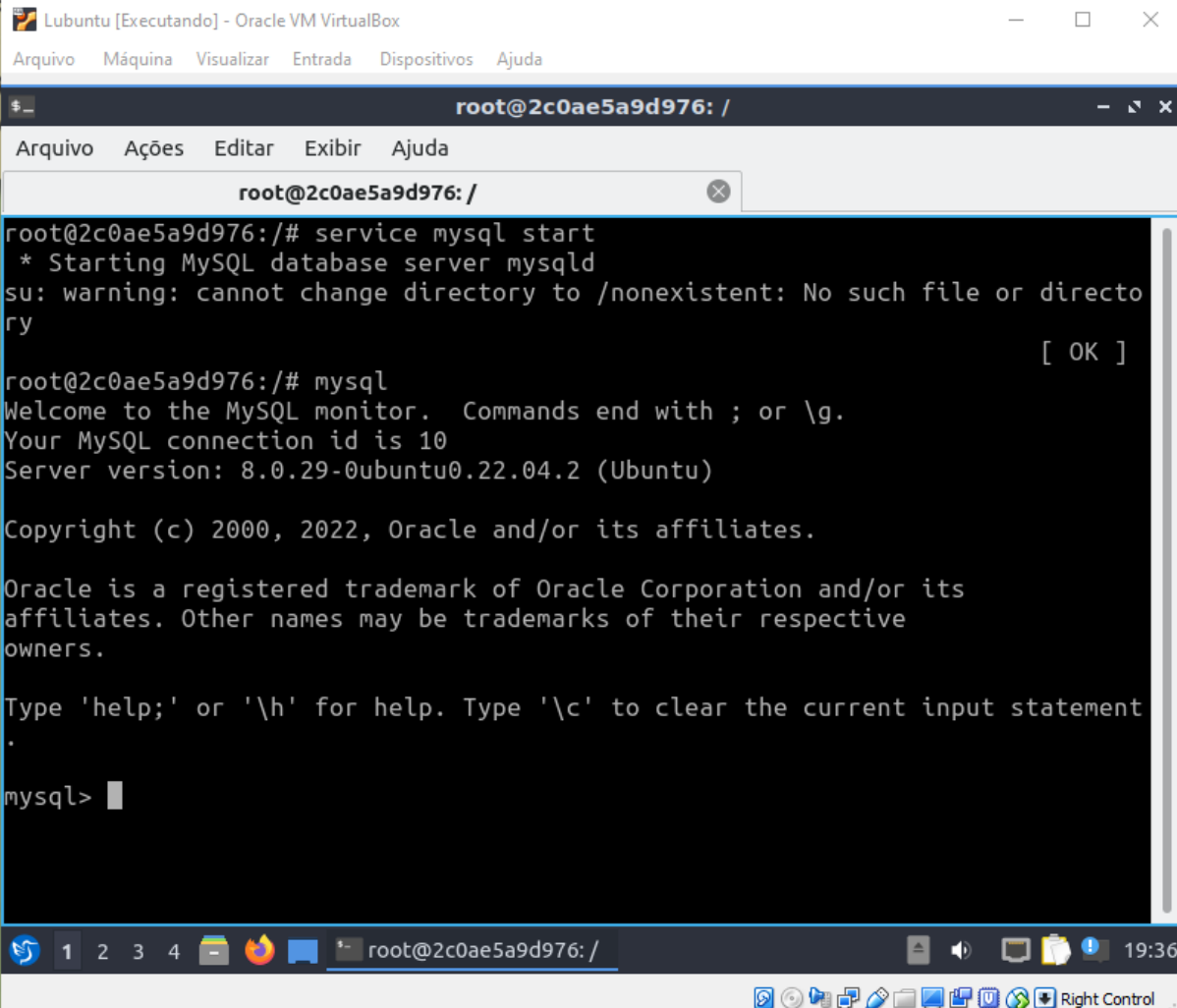


The screenshot shows a terminal window titled "Lubuntu [Executando] - Oracle VM VirtualBox". The terminal prompt is "root@2c0ae5a9d976: /". The user has entered the command "php -v", and the output is as follows:

```
root@2c0ae5a9d976:/# php -v
PHP 8.1.2 (cli) (built: Apr  7 2022 17:46:26) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.1.2, Copyright (c) Zend Technologies
    with Zend OPcache v8.1.2, Copyright (c), by Zend Technologies
root@2c0ae5a9d976:/#
```

The terminal window has a menu bar with "Arquivo", "Ações", "Editar", "Exibir", and "Ajuda". The bottom of the window shows a taskbar with icons for applications and system status, including the time "19:31".

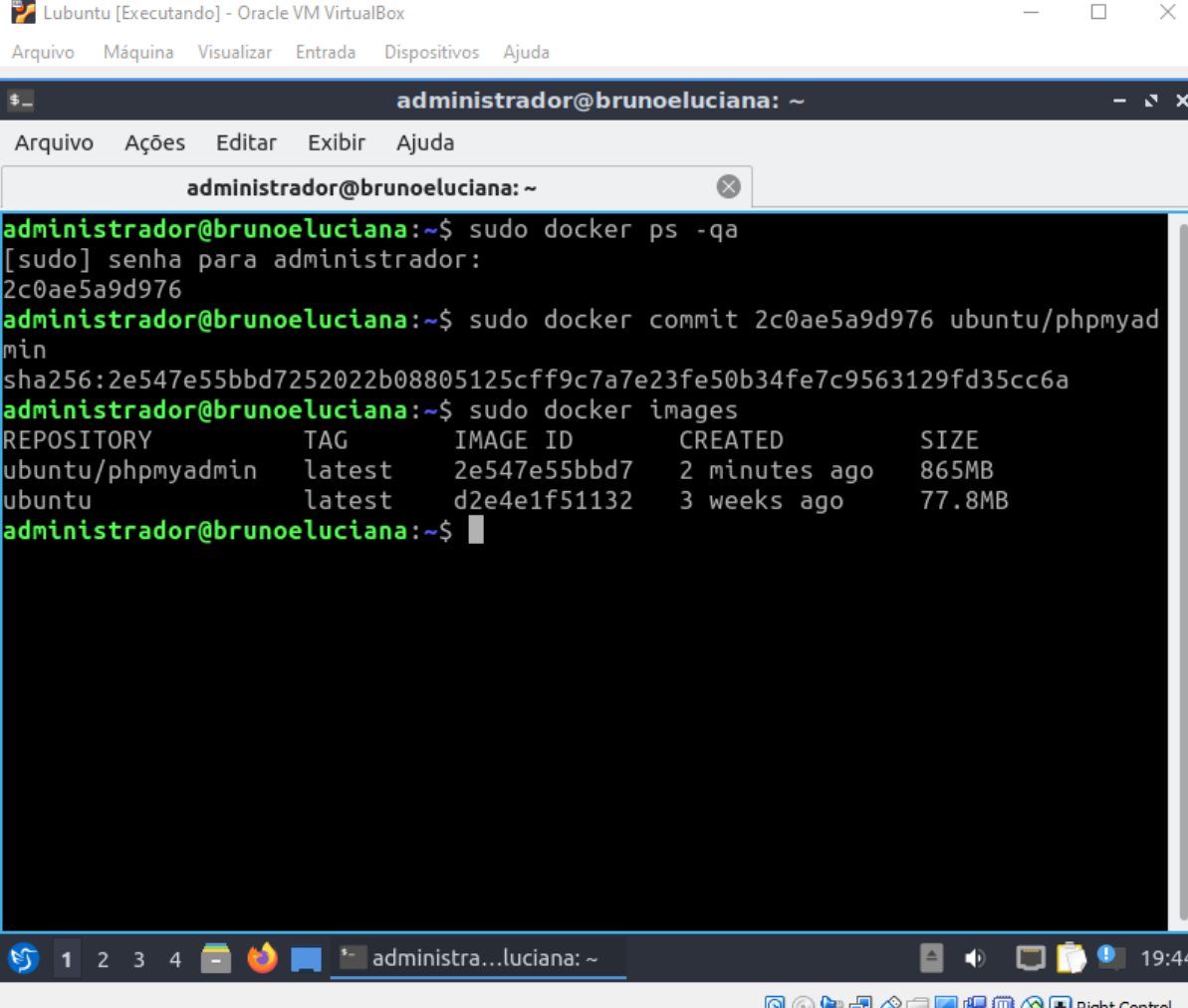
5.3 Evidência do MySQL



The screenshot shows a terminal window titled "Lubuntu [Executando] - Oracle VM VirtualBox". The terminal prompt is "root@2c0ae5a9d976: /". The user enters the command "service mysql start". The output shows the MySQL database server starting, with a warning about a non-existent directory. The user then enters "mysql", which opens the MySQL monitor. The monitor displays the MySQL version (8.0.29-0ubuntu0.22.04.2) and copyright information. The user is prompted to type 'help;' or '\h' for help, and '\c' to clear the current input statement. The terminal shows the prompt "mysql>".

```
root@2c0ae5a9d976: /  
root@2c0ae5a9d976:/# service mysql start  
* Starting MySQL database server mysqld  
su: warning: cannot change directory to /nonexistent: No such file or directory  
[ OK ]  
root@2c0ae5a9d976:/# mysql  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 10  
Server version: 8.0.29-0ubuntu0.22.04.2 (Ubuntu)  
Copyright (c) 2000, 2022, Oracle and/or its affiliates.  
Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement  
.  
mysql>
```

5.4 Evidência do commit do container



The screenshot shows a terminal window titled "administrador@brunoeluciana: ~" within an Oracle VM VirtualBox environment. The terminal displays the following commands and output:

```
administrador@brunoeluciana:~$ sudo docker ps -qa
[sudo] senha para administrador:
2c0ae5a9d976
administrador@brunoeluciana:~$ sudo docker commit 2c0ae5a9d976 ubuntu/phpmyad
min
sha256:2e547e55bbd7252022b08805125c9c7a7e23fe50b34fe7c9563129fd35cc6a
administrador@brunoeluciana:~$ sudo docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
ubuntu/phpmyadmin	latest	2e547e55bbd7	2 minutes ago	865MB
ubuntu	latest	d2e4e1f51132	3 weeks ago	77.8MB

```
administrador@brunoeluciana:~$
```

The terminal window is part of a larger application window titled "Lubuntu [Executando] - Oracle VM VirtualBox". The bottom of the screen shows a taskbar with various icons and a system clock indicating 19:44.