

Practical No. 9

Aim: Install MySQL to configure database server, Install phpMyAdmin to operate MySQL on web browser from Clients.

Description:

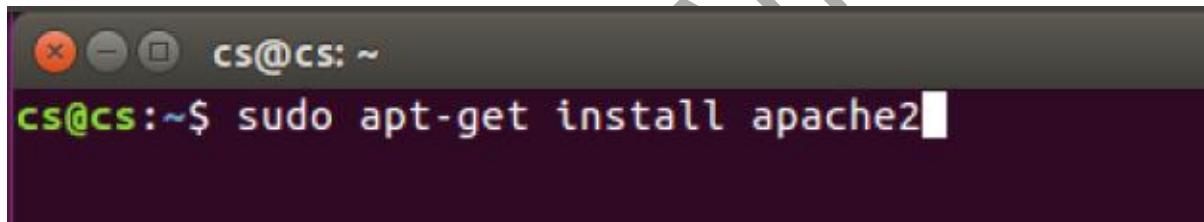
Explain:

1. Apache
2. Phpmyadmin
3. MySQL

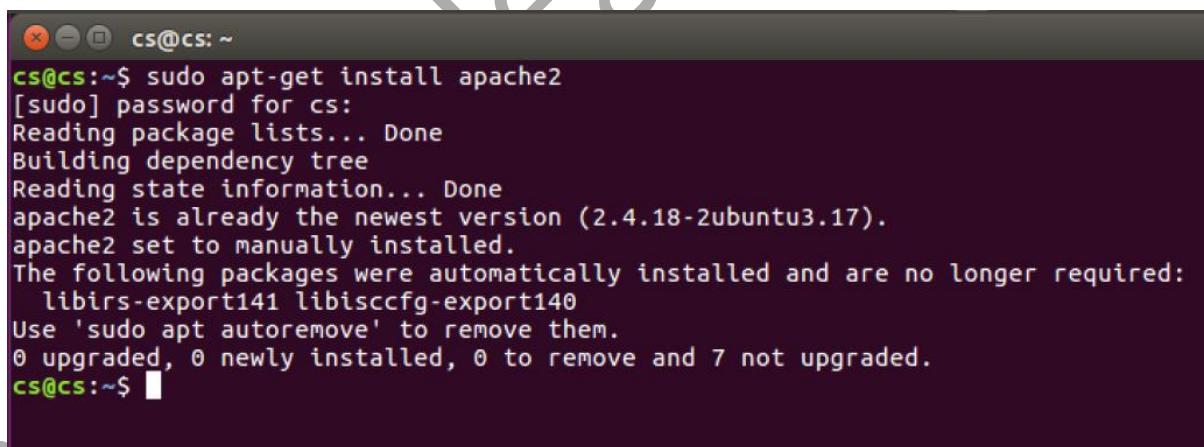
Steps:

1. Run the commands below to install Apache2 HTTP Web Server

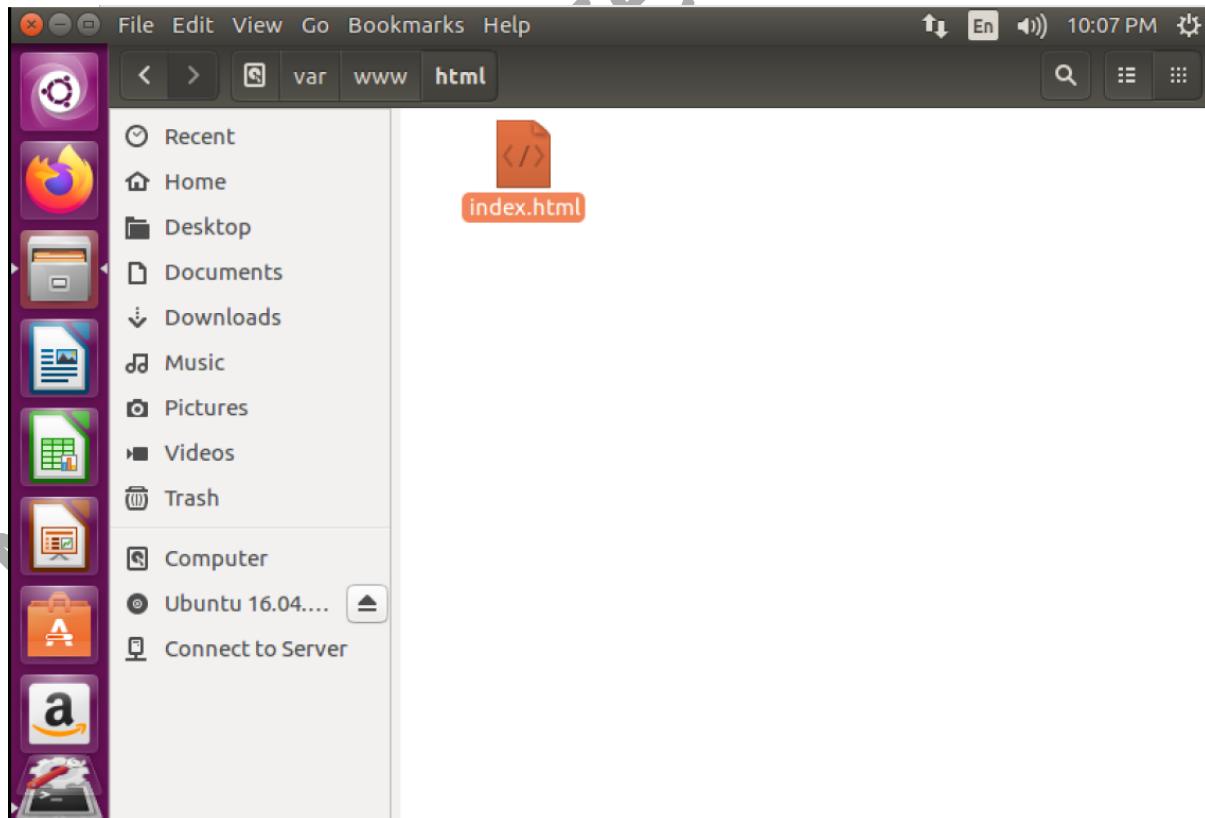
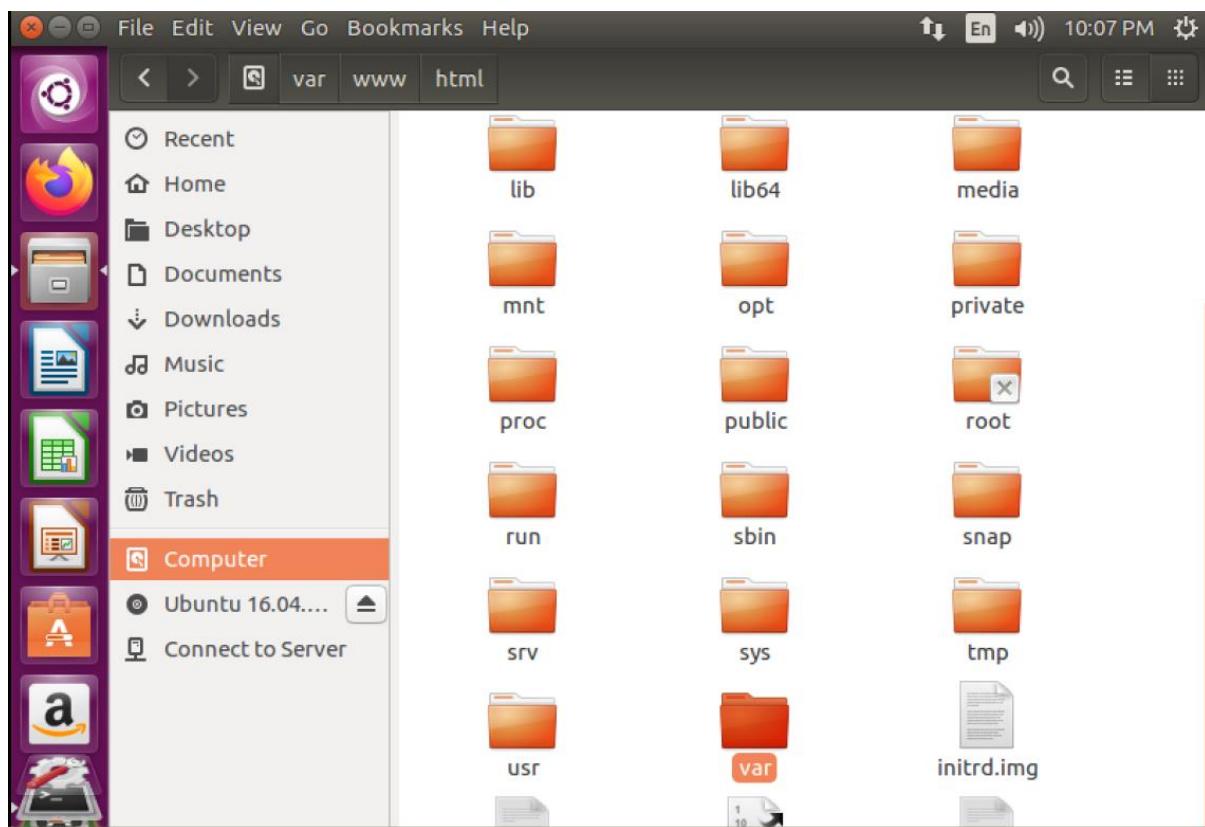
sudo apt install apache2

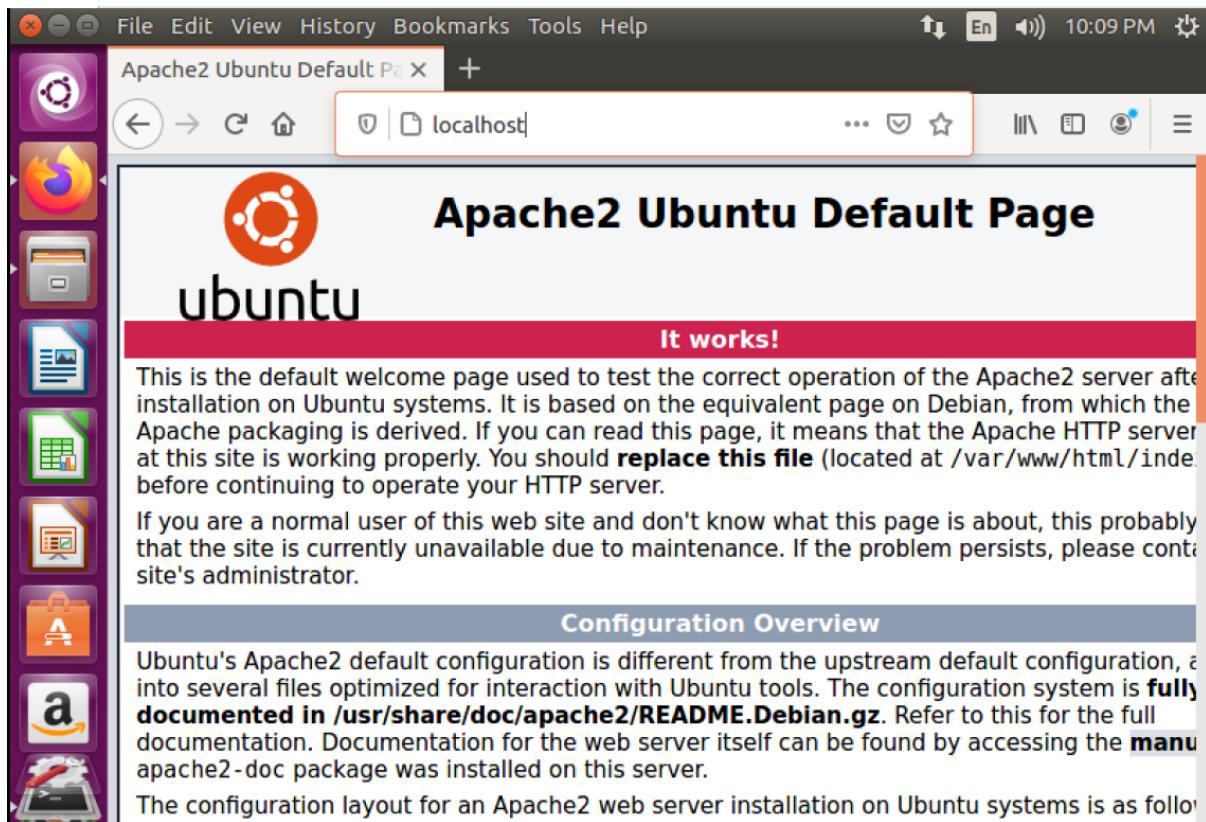


```
cs@cs:~$ sudo apt-get install apache2
```



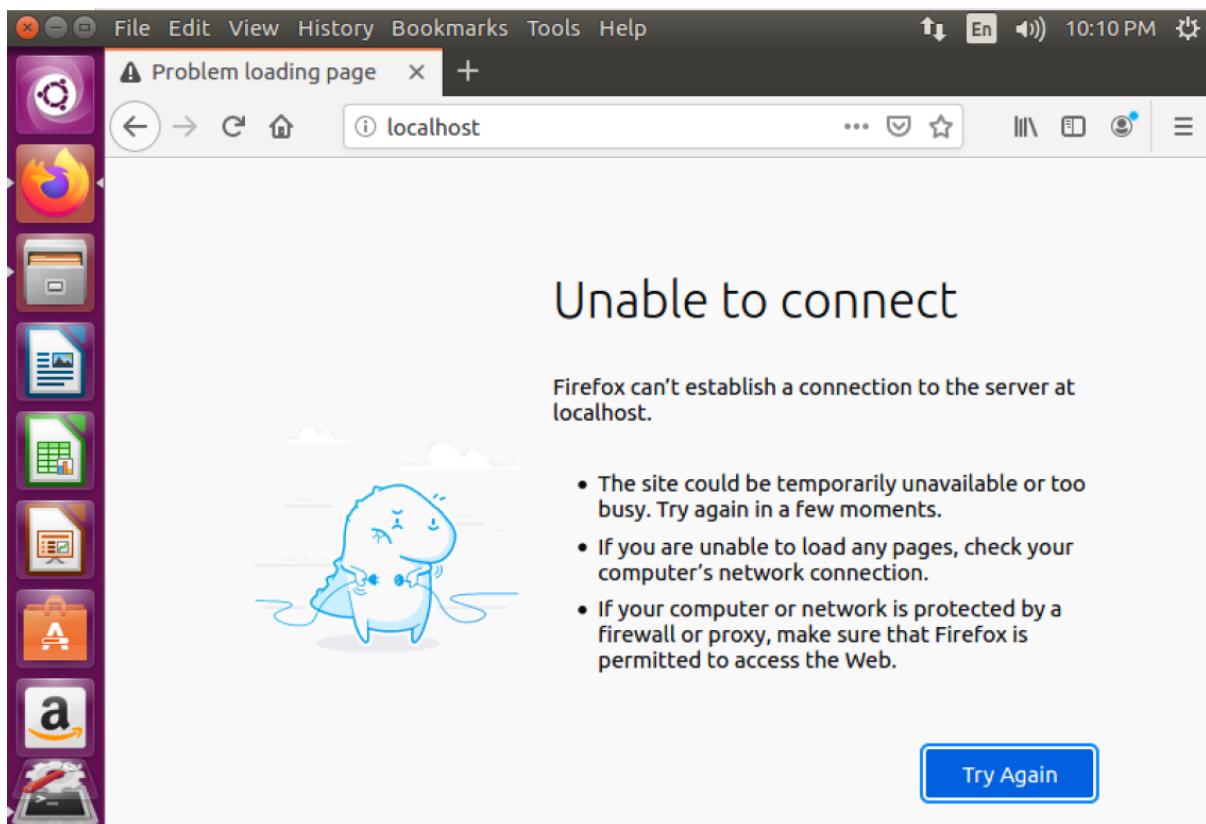
```
cs@cs:~$ sudo apt-get install apache2
[sudo] password for cs:
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.18-2ubuntu3.17).
apache2 set to manually installed.
The following packages were automatically installed and are no longer required:
  libirs-export141 libisccfg-export140
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 7 not upgraded.
cs@cs:~$
```



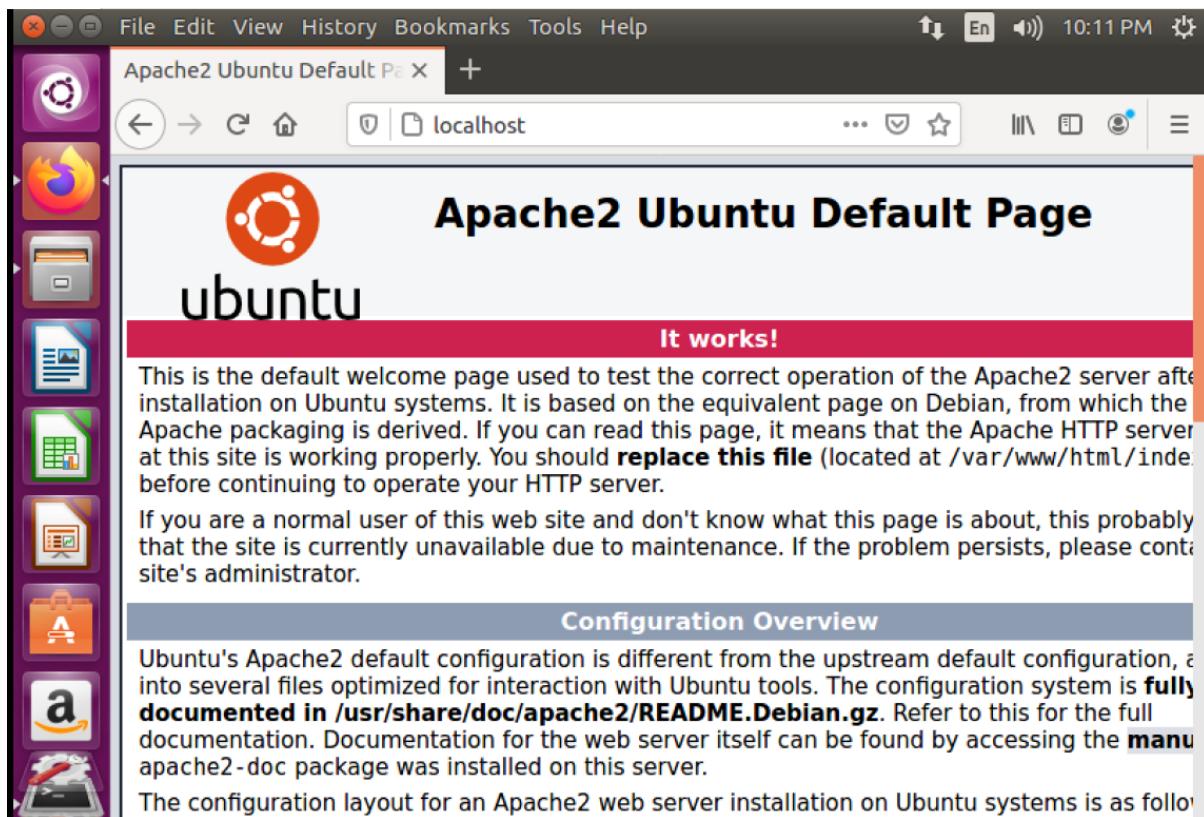


2. To start/stop apache2 service.

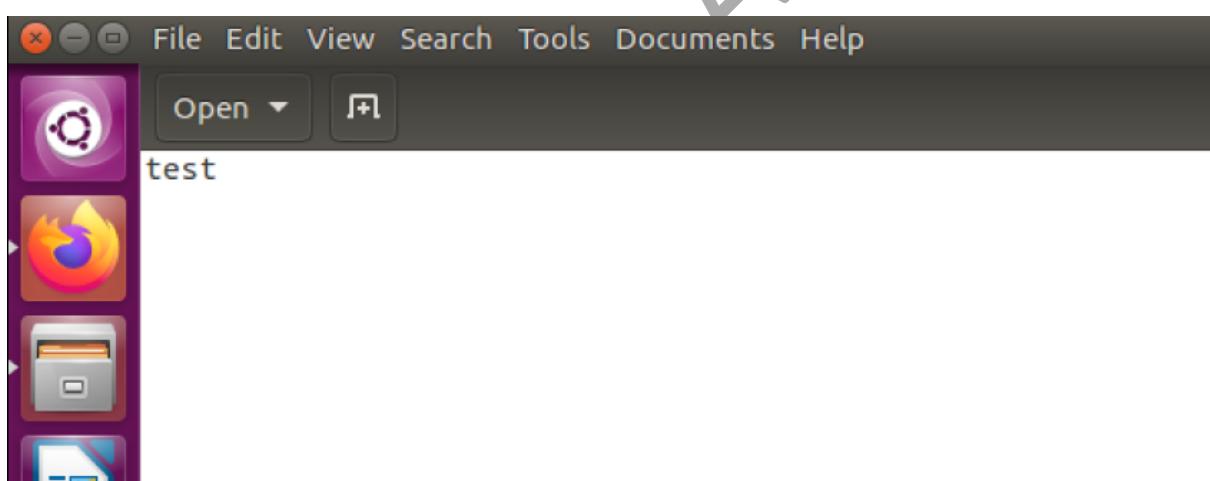
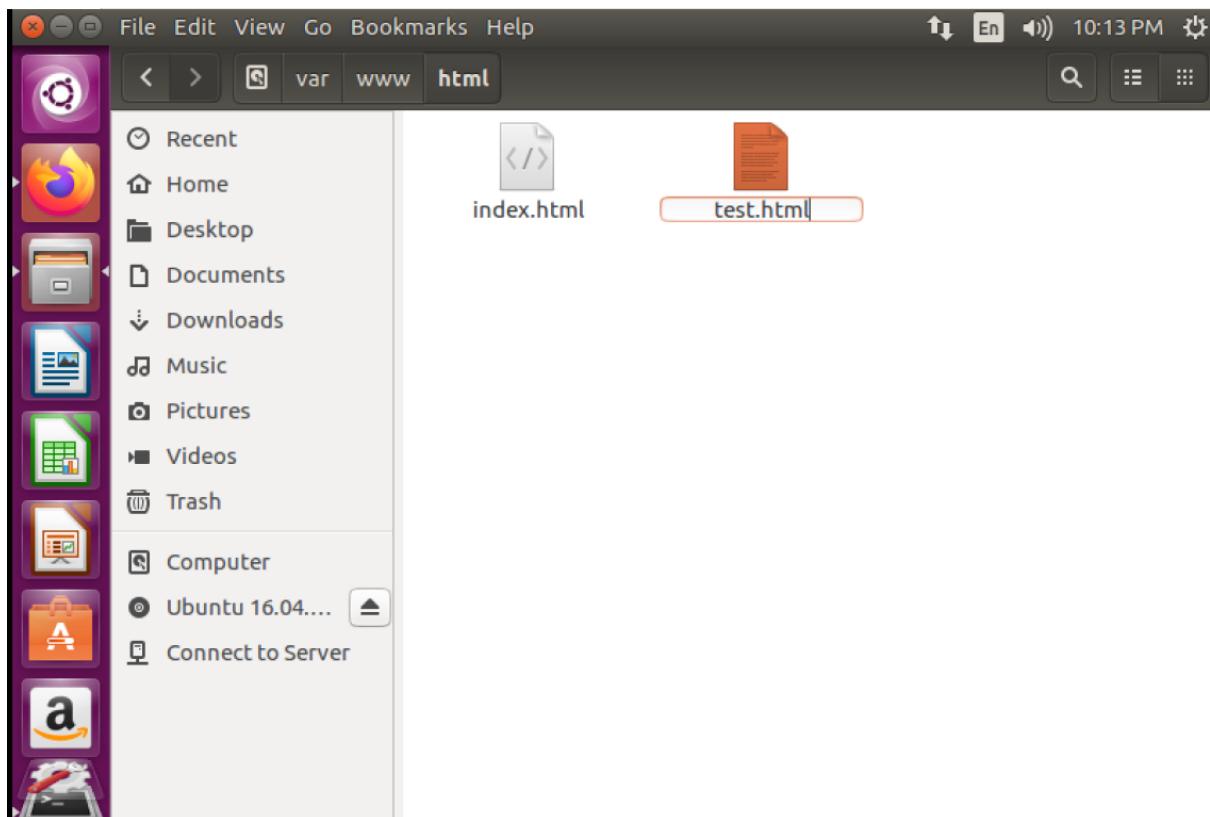
```
cs@cs:~$ sudo service apache2 stop
cs@cs:~$
```

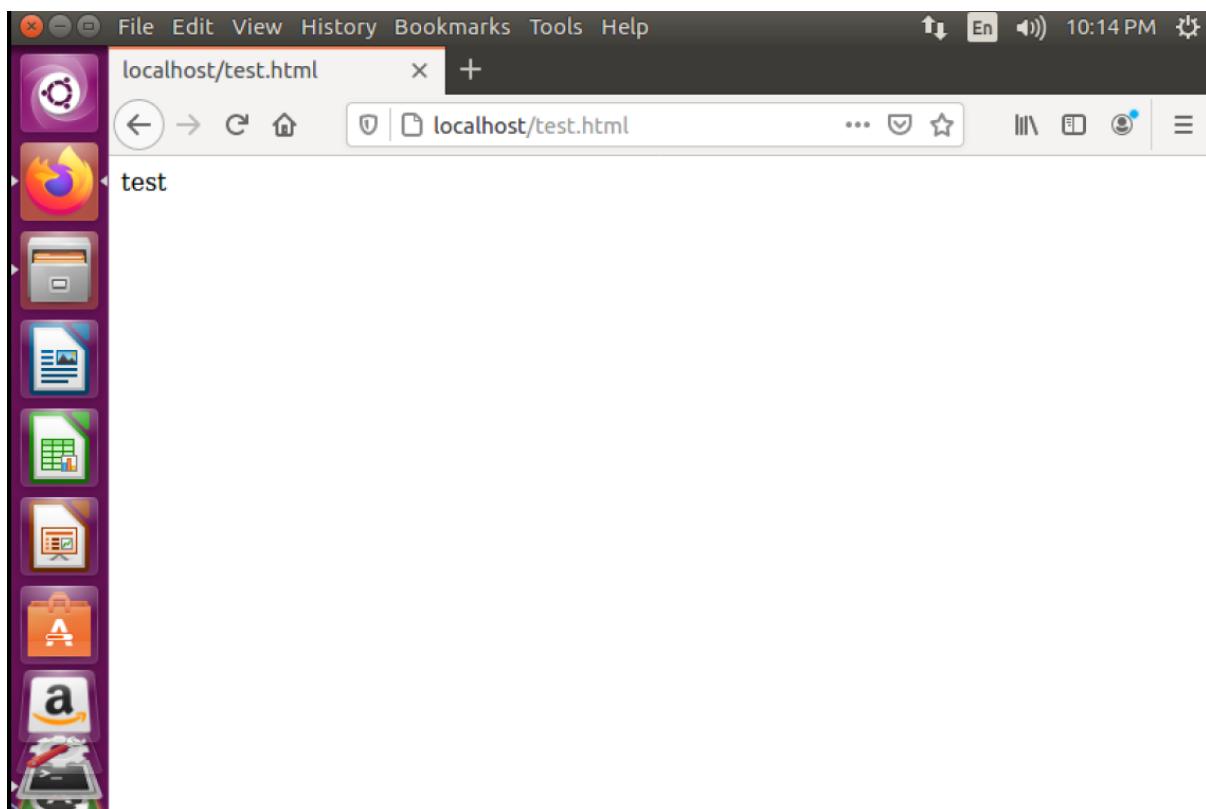


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```
cs@cs:~$ sudo chmod -R 777 /var/www/html
```

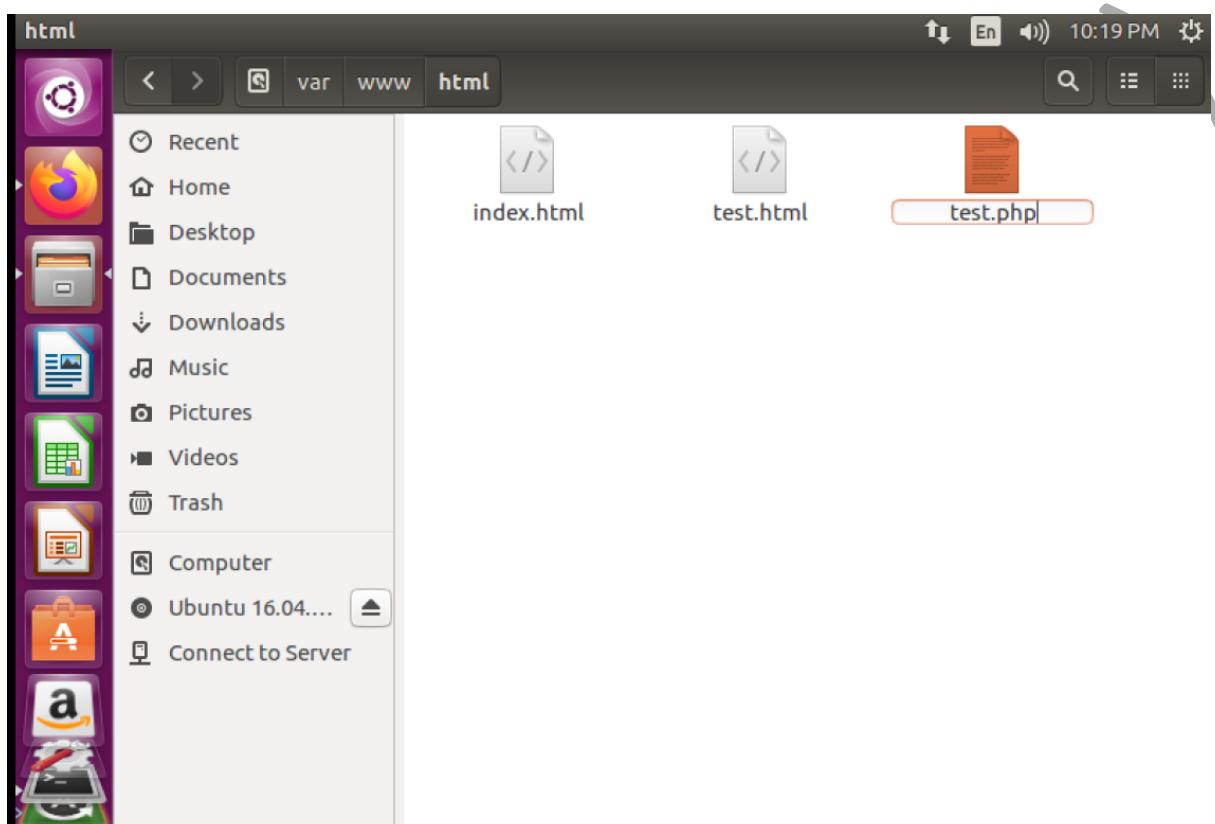




3. Run the commands below to install PHP and related PHP modules.

```
cs@cs:~$ sudo apt-get install php
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libirs-export141 libisccfg-export140
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  php7.0
The following NEW packages will be installed:
  php php7.0
0 upgraded, 2 newly installed, 0 to remove and 7 not upgraded.
Need to get 4,162 B of archives.
After this operation, 20.5 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
cs@cs: ~
cs@cs:~$ sudo service apache2 restart
cs@cs:~$
```



```
*test.php (/var/www/html) - gedit
Open
<?php
phpinfo();
?>
```

File Edit View History Bookmarks Tools Help

phpinfo() x +

localhost/test.php

PHP Version 7.0.33-Oubuntu0.16.04.16

System	Linux cs 4.15.0-142-generic #146~16.04.1-Ubuntu SMP Tue Apr 1 20:11:12 UTC 2018
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.0/apache2
Loaded Configuration File	/etc/php/7.0/apache2/php.ini
Scan this dir for additional .ini files	/etc/php/7.0/apache2/conf.d
Additional .ini files parsed	/etc/php/7.0/apache2/conf.d/10-opcache.ini, /etc/php/7.0/apache2/7.0/apache2/conf.d/15-xml.ini, /etc/php/7.0/apache2/conf.d/20-calg旱.conf.d/20-ctype.ini, /etc/php/7.0/apache2/conf.d/20-dom.ini, /etc/php/7.0/apache2/conf.d/20-finfo.info.ini, /etc/php/7.0/apache2/conf.d/20-gettext.ini, /etc/php/7.0/apache2/conf.d/20-conf.d/20-json.ini, /etc/php/7.0/apache2/conf.d/20-ldap.ini, /etc/php/7.0/apache2/conf.d/20-shmop.ini, /etc/php/7.0/apache2/conf.d/20-sockets.ini, /etc/php/7.0/apache2/conf.d/20-sysvsem.ini, /etc/php/7.0/apache2/conf.d/20-tokenizer.ini, /etc/php/7.0/apache2/conf.d/20-xmlreader.ini, /etc/php/7.0/apache2/conf.d/20-xmlwriter/20-xsl.ini

```
cs@cs:~$ sudo apt install libapache2-mod-php
```

```
cs@cs:~$ sudo apt-get install mysql-server mysql-client
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libirs-export141 libisccfg-export140
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  libaio1 libhtml-template-perl mysql-client-5.7 mysql-client-core-5.7
  mysql-common mysql-server-5.7 mysql-server-core-5.7
Suggested packages:
  libipc-sharedcache-perl mailx tinyca
The following NEW packages will be installed:
  libaio1 libhtml-template-perl mysql-client mysql-client-5.7
  mysql-client-core-5.7 mysql-common mysql-server mysql-server-5.7
  mysql-server-core-5.7
0 upgraded, 9 newly installed, 0 to remove and 7 not upgraded.
Need to get 17.4 MB of archives.
After this operation, 156 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
cs@cs:~
```

Package configuration

Configuring mysql-server-5.7

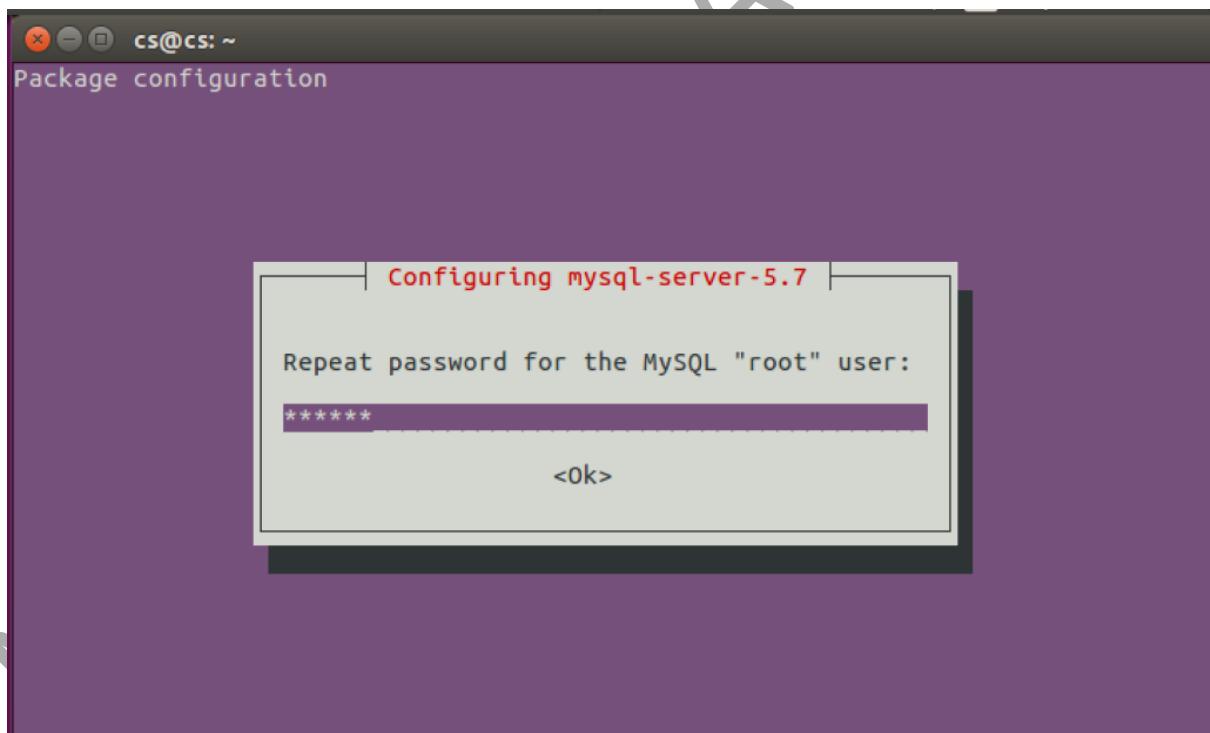
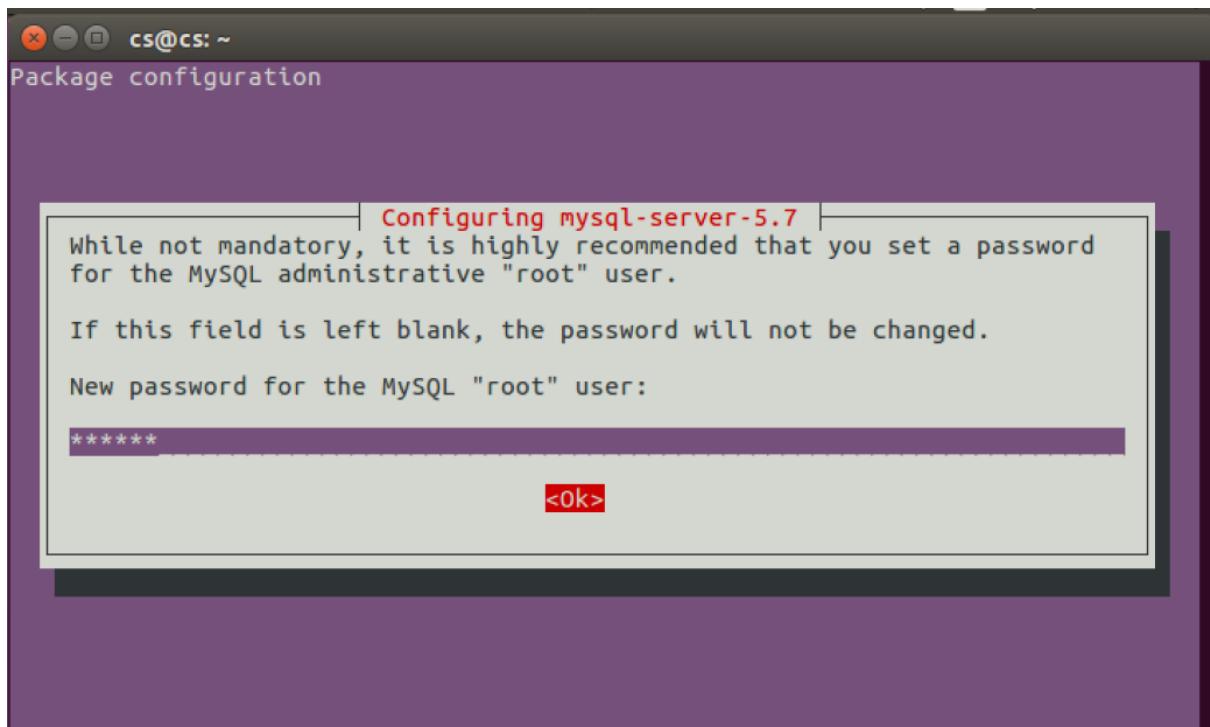
While not mandatory, it is highly recommended that you set a password for the MySQL administrative "root" user.

If this field is left blank, the password will not be changed.

New password for the MySQL "root" user:

<Ok>

root password:123456



```
cs@cs: ~
Selecting previously unselected package mysql-client.
Preparing to unpack .../mysql-client_5.7.33-0ubuntu0.16.04.1_all.deb ...
Unpacking mysql-client (5.7.33-0ubuntu0.16.04.1) ...
Selecting previously unselected package mysql-server.
Preparing to unpack .../mysql-server_5.7.33-0ubuntu0.16.04.1_all.deb ...
Unpacking mysql-server (5.7.33-0ubuntu0.16.04.1) ...
Processing triggers for man-db (2.7.5-1) ...
Processing triggers for systemd (229-4ubuntu21.31) ...
Processing triggers for ureadahead (0.100.0-19.1) ...
Setting up libaio1:amd64 (0.3.110-2) ...
Setting up mysql-client-core-5.7 (5.7.33-0ubuntu0.16.04.1) ...
Setting up mysql-client-5.7 (5.7.33-0ubuntu0.16.04.1) ...
Setting up mysql-server-core-5.7 (5.7.33-0ubuntu0.16.04.1) ...
Setting up mysql-server-5.7 (5.7.33-0ubuntu0.16.04.1) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
Setting up libhtml-template-perl (2.95-2) ...
Setting up mysql-client (5.7.33-0ubuntu0.16.04.1) ...
Setting up mysql-server (5.7.33-0ubuntu0.16.04.1) ...
Processing triggers for libc-bin (2.23-0ubuntu11.3) ...
Processing triggers for systemd (229-4ubuntu21.31) ...
Processing triggers for ureadahead (0.100.0-19.1) ...
cs@cs:~$
```

```
cs@cs: ~
cs@cs:~$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 5.7.33-0ubuntu0.16.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

```
cs@cs: ~
Server version: 5.7.33-0ubuntu0.16.04.1 (Ubuntu)

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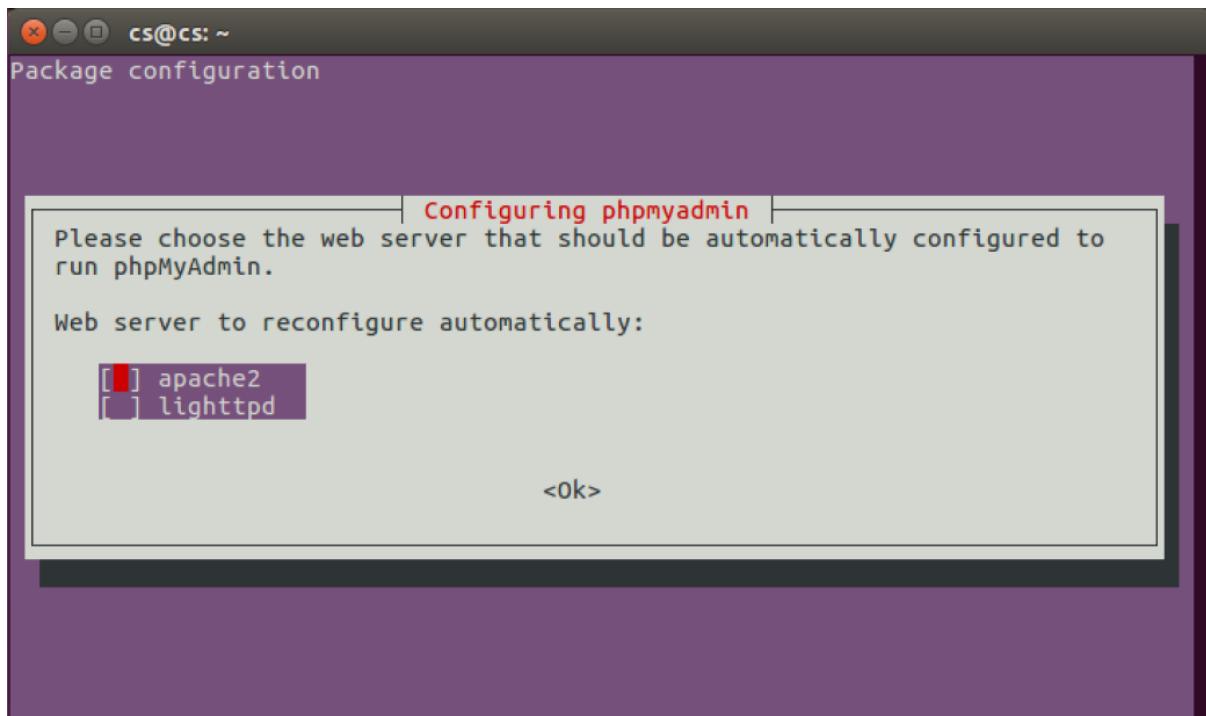
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database      |
+-----+
| information_schema |
| mysql          |
| performance_schema |
| sys            |
+-----+
4 rows in set (0.00 sec)

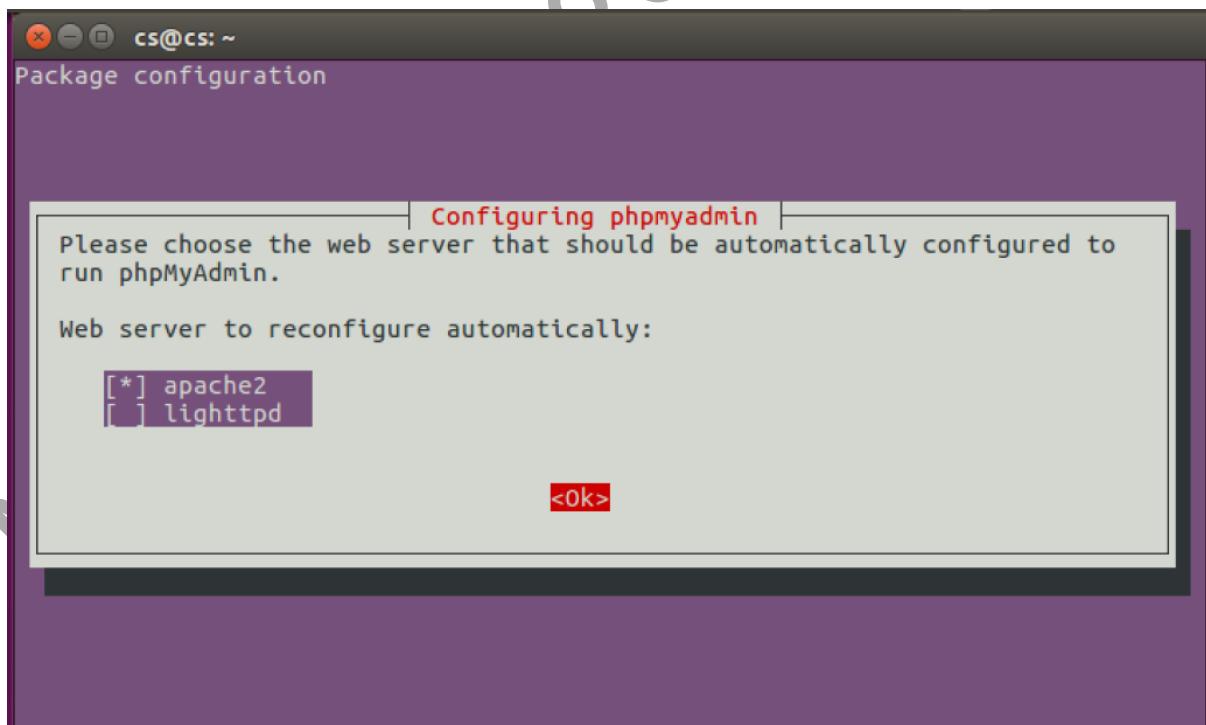
mysql> exit
Bye
cs@cs:~$
```

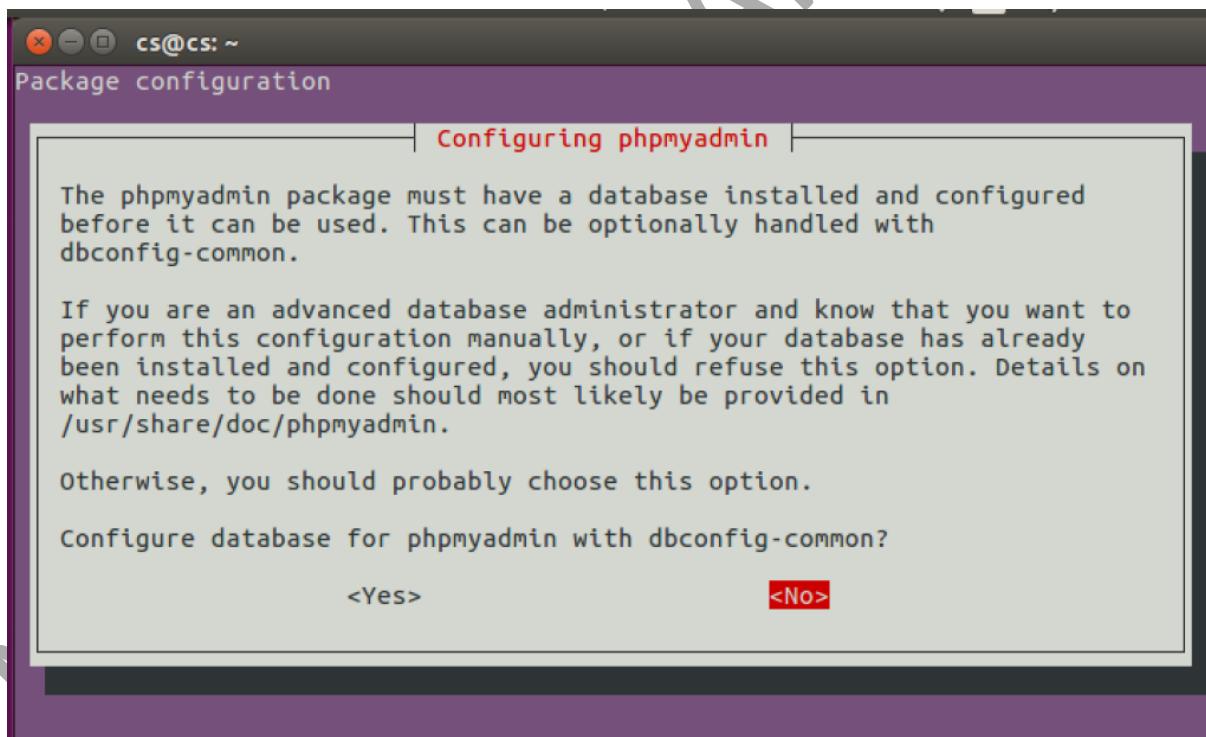
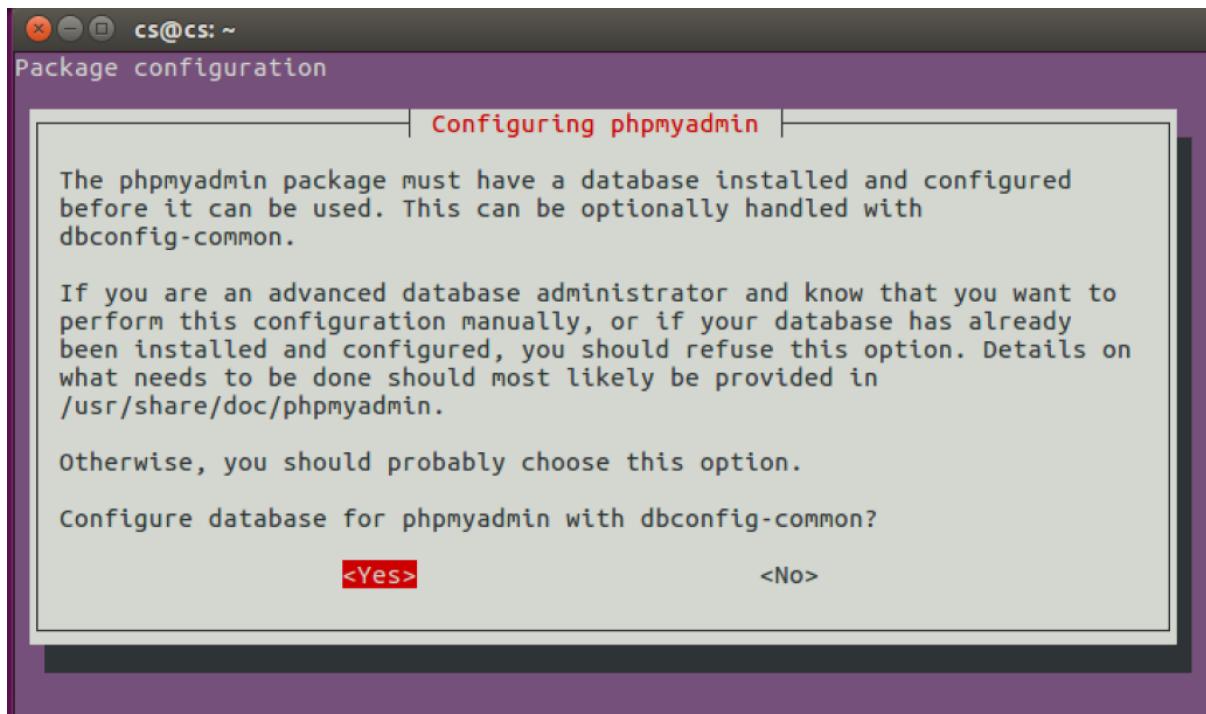
4. Now that Apache2, MySQL and PHP are installed the final step is to install phpMyAdmin

```
cs@cs: ~
cs@cs:~$ sudo apt-get install phpmyadmin
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libirs-export141 libisccfg-export140
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  dbconfig-common dbconfig-mysql javascript-common libjs-jquery
  libjs-sphinxdoc libjs-underscore libmcrypt4 php-gd php-gettext php-mbstring
  php-mcrypt php-mysql php-pear php-phpseclib php-tcpdf php7.0-gd
  php7.0-mbstring php7.0-mcrypt php7.0-mysql
Suggested packages:
  libmcrypt-dev mcrypt php-libsodium php-gmp php-imagick
The following NEW packages will be installed:
  dbconfig-common dbconfig-mysql javascript-common libjs-jquery
  libjs-sphinxdoc libjs-underscore libmcrypt4 php-gd php-gettext php-mbstring
  php-mcrypt php-mysql php-pear php-phpseclib php-tcpdf php7.0-gd
  php7.0-mbstring php7.0-mcrypt php7.0-mysql phpmyadmin
0 upgraded, 20 newly installed, 0 to remove and 7 not upgraded.
Need to get 13.9 MB of archives.
After this operation, 53.5 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

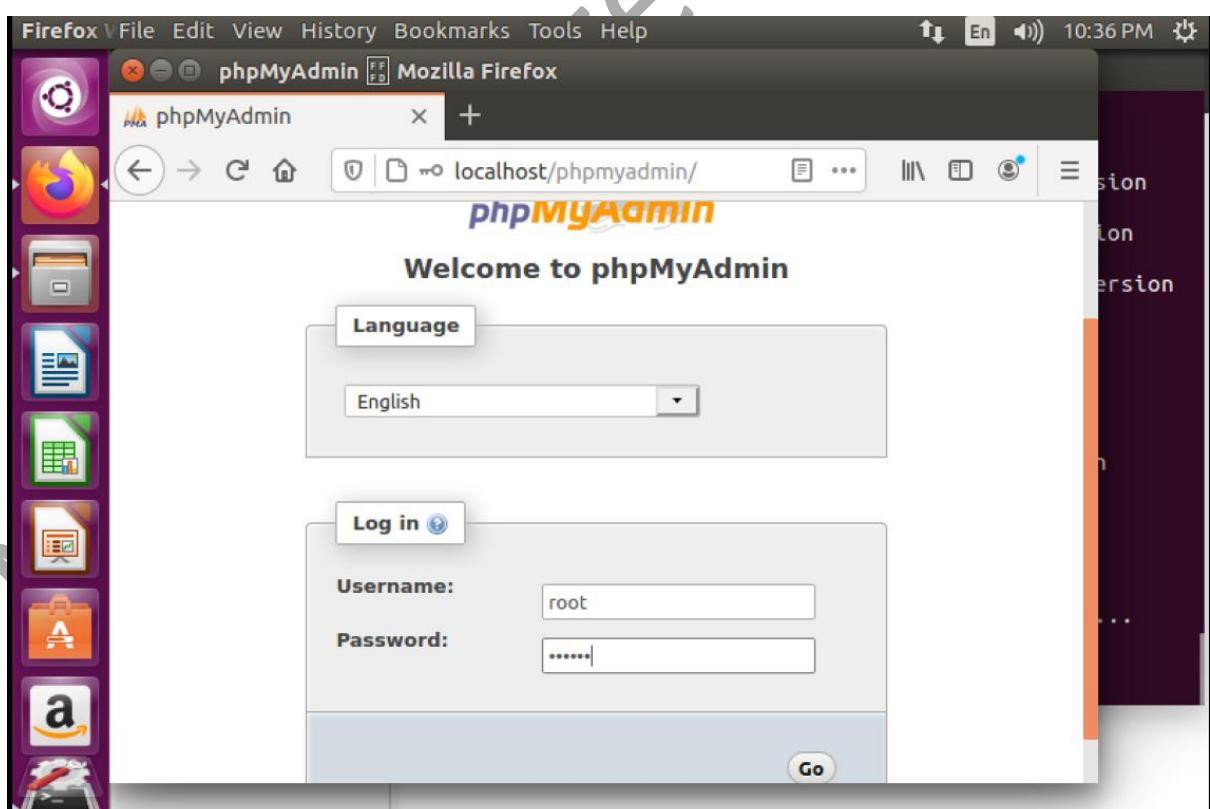
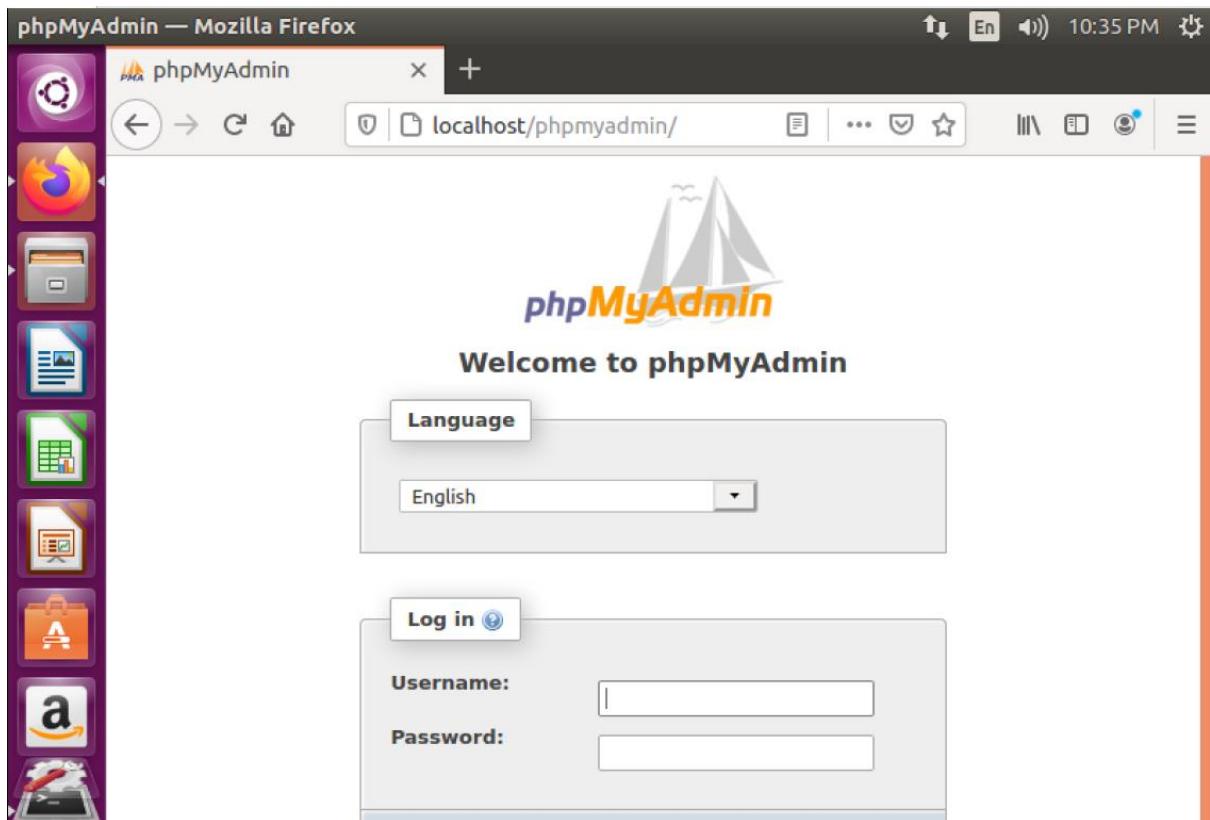


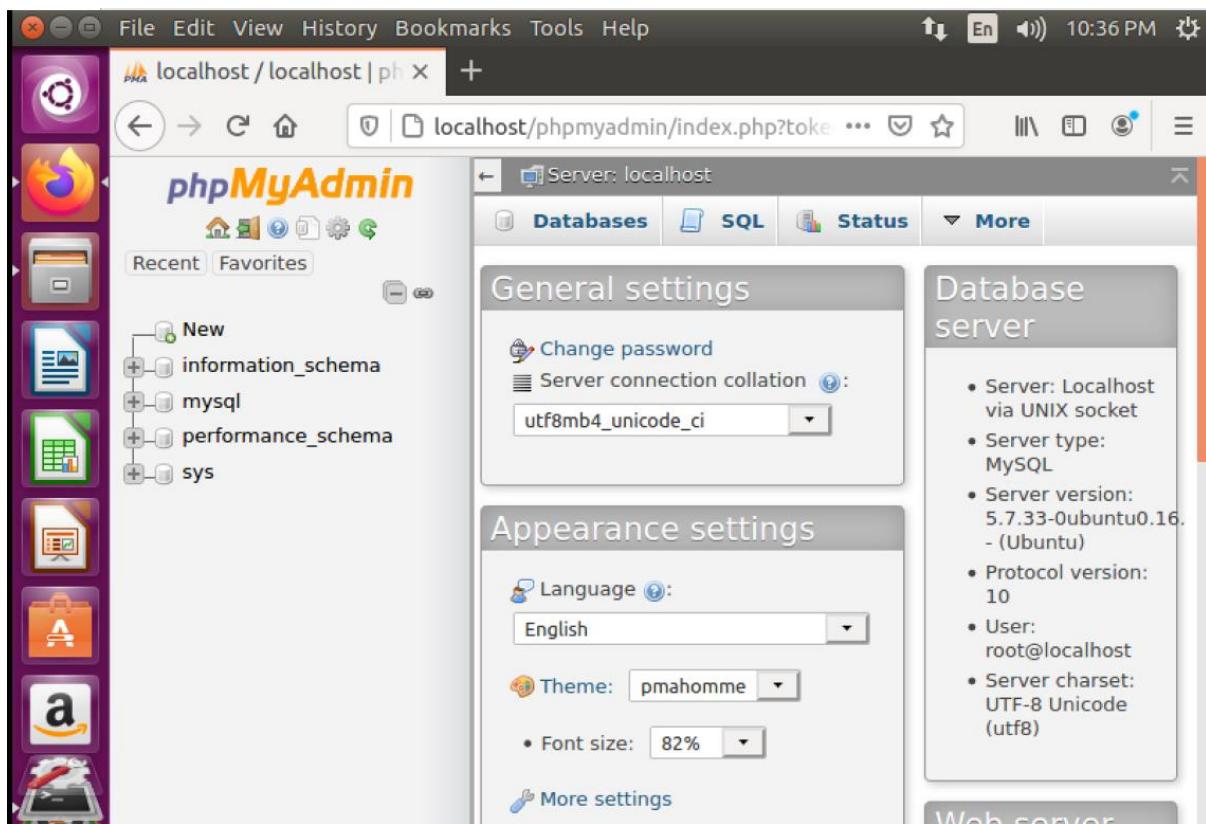
Press space button, then tab and then press enter





```
cs@cs:~$ sudo service apache2 restart
cs@cs:~$
```





localhost / localhost | ph

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localhost/phpmyadmin/index.php?toke

phpMyAdmin

Recent Favorites

New

- information_schema
- mysql
- performance_schema
- sys

Databases SQL Status More

General settings

- Change password
- Server connection collation: utf8mb4_unicode_ci

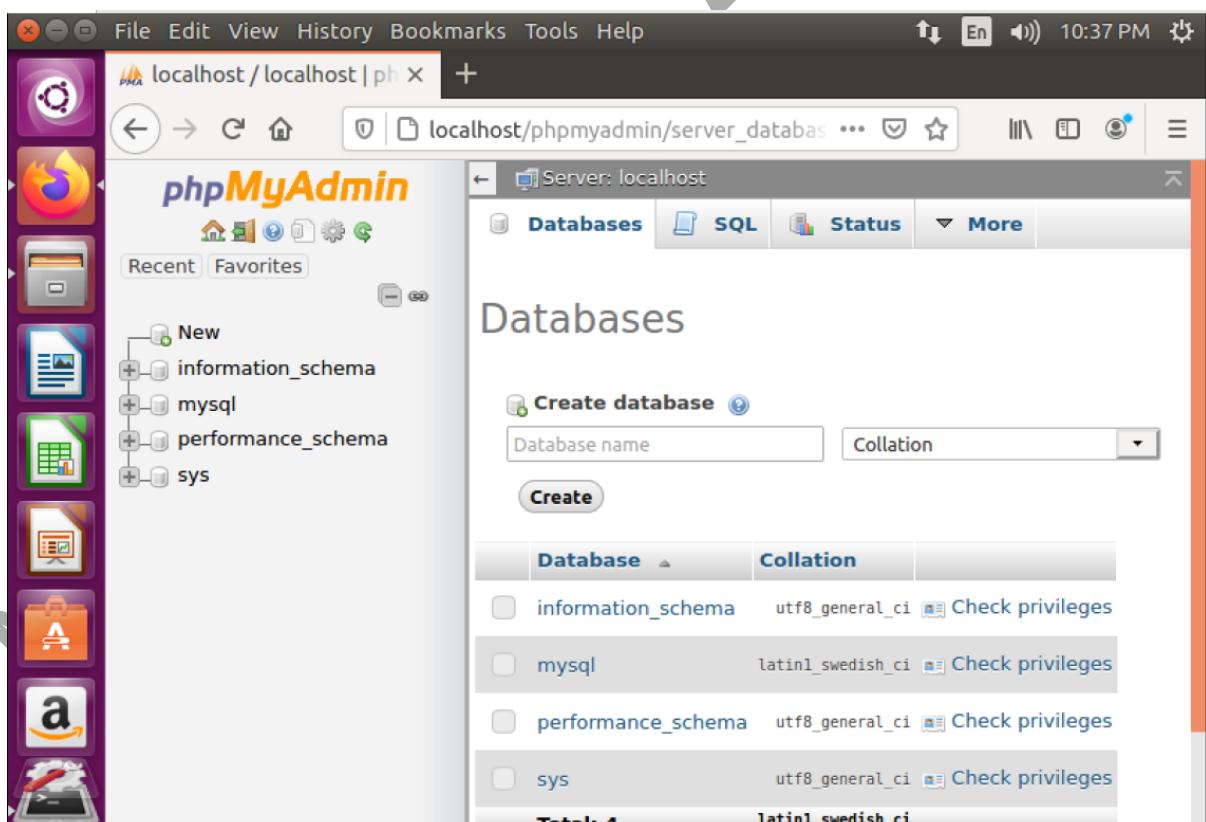
Appearance settings

- Language: English
- Theme: pmahomme
- Font size: 82%

Database server

- Server: Localhost via UNIX socket
- Server type: MySQL
- Server version: 5.7.33-Ubuntu0.16. - (Ubuntu)
- Protocol version: 10
- User: root@localhost
- Server charset: UTF-8 Unicode (utf8)

Web server



localhost / localhost | ph

File Edit View History Bookmarks Tools Help 10:37 PM

localhost/phpmyadmin/server_databas

phpMyAdmin

Recent Favorites

New

- information_schema
- mysql
- performance_schema
- sys

Databases SQL Status More

Databases

Create database

Database	Collation
information_schema	utf8_general_ci
mysql	latin1_swedish_ci
performance_schema	utf8_general_ci
sys	utf8_general_ci

Total: 4 latin1_swedish_ci

The screenshot shows the phpMyAdmin interface for the 'localhost' server. The left sidebar includes icons for the operating system, browser, file manager, terminal, and application switcher. The main area displays the 'Databases' section with the following details:

- Create database**: A form with a text input containing 'test' and a dropdown for 'Collation' set to 'latin1_swedish_ci'. A 'Create' button is present.
- Database** table:
 - information_schema (utf8_general_ci) - Check privileges
 - mysql (latin1_swedish_ci) - Check privileges
 - performance_schema (utf8_general_ci) - Check privileges
 - sys (utf8_general_ci) - Check privileges
- Total: 4**
- Collation**: latin1_swedish_ci

The screenshot shows the phpMyAdmin interface for the 'localhost' server, specifically within the 'test' database. The left sidebar is identical to the first screenshot. The main area displays the 'Structure' tab of the 'test' database, showing the following message:

No tables found in database.

Create table form:

- Name:
- Number of columns:
- Go** button