

Build Your Own Debian/Ubuntu LAMP Server - Quick & Easy Do it Yourself Installation

Note: this tutorial comes from http://www.howtoforge.com/ubuntu_debian_lamp_server and was written by Scott who currently runs MySQL-Apache-PHP.com. Many thanks!

*****NOTE: I will insert notes of my own where applicable in bold and italic with green background.*****

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- Apache 2 - Linux Web server
 - MySQL 5 - MySQL Database Server
 - PHP4/5 - PHP Scripting Language
 - phpMyAdmin - Web-based database admin software.

Note: Linux + Apache + MySQL + PHP/Perl together commonly known as **LAMP Server**.

First you need to log in as root, and so we will need to set our root password up if you haven't already. To do this.

1) Login as a normal user (which you created during Installation).

2) **Hit ctrl-alt-T, and your terminal should come up. If it doesn't, click on Ubuntu Software Center -> Accessories, then scroll down a little and click on Terminal (gnome-terminal), and Install, then close the Software Center and hit ctrl-alt-T**

3) Execute the commands below:

sudo passwd root *Note that it is passwd not password*****
If it asks you for your current password, enter it.

Enter new UNIX password: ***** < ——— Enter New password which you want to set for root user —
—>

Retype new UNIX password: ***** < ——— Retype New password which you want to set for root
user ——>

4) That's It. You have successfully Setup Your root user's password.

5) Now switch to root by typing: su at the command line. It will ask you for the password, enter the password you just created for root.

Before proceeding to install, update the necessary packages with this command:

```
apt-get update
```

It should unpack and install several package updates.

1. Installing Apache + PHP

Apache is one of the most famous web servers which runs on most linux based servers. With just few commands you can configure apache to run with PHP 5.

To install PHP5, just run the following on linux shell. Note that if you don't specify packages with '4', ap PHP5 will be automatically installed. ***Note that it may suggest newer packages after you hit enter, go ahead and let it get the newer ones. It will probably also ask you to confirm disk space usage, go ahead and accept that, too.***

```
apt-get install apache2 php5 libapache2-mod-php5
```

Apache configuration file is located at: `/etc/apache2/apache2.conf` and your web folder is `/var/www`.

To check whether php is installed and running properly, just create a `test.php` in your `/var/www` folder with `phpinfo()` function exactly as shown below.

****note: nano is a text editor, so what the following line does is start the text editor and tell it to create a file called test.php. Once you have typed in the commands in the box below into the file, you will need to hit the control key and the letter O key at the same time (CTRL-O (written in linux as ^O)) and then enter to save the file, then CTRL-X to exit.**

```
nano /var/www/html/test.php
```

```
# test.php
<?php phpinfo(); ?>
```

Point your browser **(the icon for firefox should be up in the bar)** to <http://localhost/>. **It should show a page that says "It works". If it does, this means that Apache is installed and running correctly.**

Now this time try <http://localhost/test.php>. This should show all your php configuration and default settings.

****If it does not show your php configuration, then the install must not have worked. Try repeating the install steps above, and if they do not work, contact your instructor-thanks!****

2. Installing MySQL Database Server

Installing mysql database server is always necessary if you are running a database driven site. Remember running mysql server to a fair extent requires at least 256mb of RAM in your server. So unless you are running database driven sites you don't absolutely need mysql. The following commands will install mysql 5 server and mysql 5 client.

(If it is not already up, bring up terminal again by typing Ctrl-Alt-T, and change to root by typing su and hitting enter, then typing the root password)

****I recommend installing MySQL because so many sites use it now, unless you have another database that you prefer. ****

At the terminal, type:

```
apt-get install mysql-server mysql-client php5-mysql
```

The configuration file of mysql is located at: `/etc/mysql/my.cnf`

When it is halfway done installing, it will pop up a box that says, "New password for the MySQL root user". Put in whatever you want the root password to be (be sure to write it down), then click ok.

3. PhpMyAdmin Installation

PhpMyAdmin is a nice web based database management and administration software and easy to install and configure under apache. Managing databases with tables couldn't be much simpler by using phpmyadmin

Before installing PhpMyAdmin, I recommend that you restart your machine. Go to the Power Button up in the upper right corner, and select Shut Down. After it finishes shutting down, Start it again, and if necessary, log in. Start terminal again by typing Ctrl-Alt-T, and change to root by typing su and hitting enter, then typing the root password.

In the terminal, type:

```
apt-get install phpmyadmin
```

When the box pops up that asks which web server to configure automatically, choose `apache2` by clicking in the space next to it and hitting your spacebar, then click ok (or hit enter)

When it asks you if you want to configure database for phpmyadmin with dbconfig-common, be sure Yes is highlighted and hit ENTER.

When prompted, enter your root password.

The phpmyadmin configuration file is located at: `/etc/phpmyadmin` folder.

Point your browser to: <http://localhost/phpmyadmin>. **Log in with username "root" and the password you supplied.**

That's it! MySQL and phpMyAdmin are ready. Log in with your mysql root password and create users to connect to database from your php script.

To create a user, click on the "More" dropdown box, then click on "Users", then under the table you will see a link to "add user".

In the add user page, put "test" for the user, and change host to "any host". Put in "test1" for the password. Leave the checkboxes under "Database for user" unchecked, and click the "check all" under global privileges. Then click the "go" button below. Once you see the confirmation screen, click the Home link over in the left hand menu (looks like a little house right under the phpMyAdmin logo).

Now close the browser.

****NOTE: If you were creating an account for another person to use, you would of course want to be more restrictive in your permissions, and may want to grant the privileges under data and structure, but not under administration. You may also want to set resource limits. Or, in a case where you were reselling hosting, you may want to change the database for the user to say "grant all privileges on wildcard name (username_%), which would allow someone to do what they wanted as long as they prefaced the database with their username (for example, sstripp_classdatabase).****

****This concludes this tutorial, don't forget to go to desktop, then shutdown ****

This tutorial was written and contributed to HowToForge by Scott who currently runs MySQL-Apache-PHP.com. (with the exception of the bold italic green highlighted areas, which were written by Shari

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