

Due by email to adam.kaplan@csun.edu on or before 11:55pm on Thursday April 15th 2021

Completing this assignment will automatically result in a grade of 100% on Homework 2, and is required for your final lab Lab 2. This work can be discussed and performed together between students on Zoom/email/etc...this will **not be considered academic dishonesty**. *However, Lab 2 (the programming project to be performed on this platform) will be individual work!*

Requirements: When your web site is successfully set up, take a screen capture of your host machine's browser **successfully** accessing phpMyAdmin on your server. Send this screen capture to the instructor's email (as listed on class syllabus, adam.kaplan@csun.edu). **Only then** may you proceed to the final lab, Lab 2...

- 1) Download the ISO for any recent **32-bit or 64-bit** Linux distribution
 - a. If you are not familiar with Linux you may download Fedora 32 KDE Plasma Desktop @ <https://spins.fedoraproject.org/kde/download/index.html>
 - i. Save the ISO to your machine, and remember where.
 - ii. **Note:** *the rest of these instructions are specific to Fedora/CentOS/RHEL distros, and will not work exactly the same way for Ubuntu Server/Debian/etc*

If you wish, you can continue using your XAMPP installation from Homework 0. You can also install MAMP (on a Mac) or XAMPP (on Windows) locally on your host machine, and use 127.0.0.1 to access the local web server. In this case, you must make sure that MySQL and PHPMyAdmin work in your local environment, and take a screenshot as mentioned in Step 5.

- 2) Open Oracle VM VirtualBox and make a new virtual machine (at machine menu)
 - a. Walk through the wizard creating a Linux virtual machine using the ISO you downloaded in part 1
- 3) Install Apache, PHP and MySQL on your Linux VM, and start these up. A nice guide showing how to do this on a stable CentOS distro can be found here...
<https://www.digitalocean.com/community/tutorials/how-to-install-linux-apache-mysql-php-lamp-stack-on-centos-7>

Fedora and CentOS are both spins of the Red Hat Enterprise Linux (RHEL) distro, and have very similar installation/configuration procedures. *You will need to use*

apt/apt-get or equivalent on any Debian/Ubuntu/Mint Linux, and use the Apache2 configuration procedures for such a distro.

- 4) Install phpMyAdmin and log in to administer your MySQL database. You may use yum or dnf to install this package on a Fedora or CentOS machine. (with the command `yum install phpmyadmin`). (You can use apt-get equivalently on a Debian/Ubuntu/Mint machine.)
- 5) Access the main phpMyAdmin page from a web browser on your *host (physical)* machine.

a. Take a screen capture of this, and email it to the instructor 📷

Congratulations! You are finished once you have performed step 5a!

SOME HELPFUL HINTS

1) "sudo chkconfig mysqld on" does not seem to work for most of these systems, as mysqld seems to have created a file: `/etc/init/mysql.override`

If you see this file, you may delete it so that the chkconfig works. If you still cannot get chkconfig working, no problem...it is not required for this homework. (You can simply pause your VM rather than stop or reset it, so MySQL is always "up," and this will remove the need to restart the mysql daemon.)

2) Open the Firewall app (can be searched from the KVM/Fedora start menu) and place a checkbox next to http to *let http traffic in*. If using other Linux versions, you may perform an equivalent config with another firewall app, or with iptables.

3) In `/etc/httpd/conf.d/phpmyadmin.conf` you will want to comment out the 2 lines near the top of the file that say "Require ..." and replace them with "Require all granted" The commented out lines are **bolded and purple** for clarity.

Example of file after editing...

```
<RequireAny>
    Require all granted           # insert this line
#    Require ip 127.0.0.1
#    Require ip ::1
</RequireAny>
```

You might also see something like this...

```
<Directory /usr/share/phpMyAdmin/>
    AllowOverride AuthConfig    # don't change this line!

    Require all granted        # insert this line
#    Require local
</Directory>
```

Note: this is very insecure, but will allow your PHPMyAdmin to be accessed from other machines over the network.

4) The username and password for PHPMyAdmin (when entered from your browser) should match your MySQL login, created at command-line in the `mysql_secure_installation` step.