Setting up Debian for Web Server, Database, and PHPMyAdmin

Once you have Debian up and running, you want to set it up as a LAMP stack, specifically using Apache2, PHP7, MySQL Server, and PHPMyAdmin. The following will walk you through that.

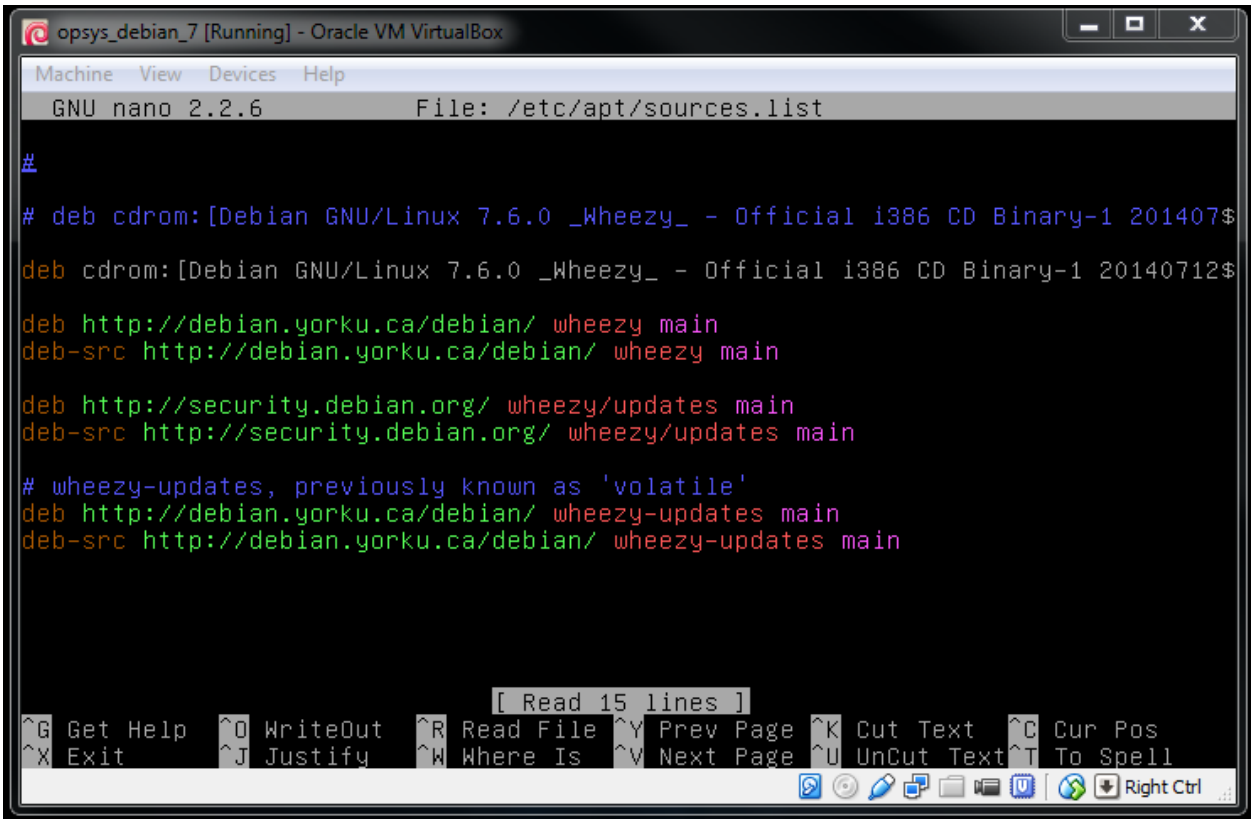
First and foremost, when we set up Debian, we use CD Disk 1 and a network repository. We now need to tell Debian to stop looking for that CD ROM and just use the repository. Log in to Debian, become root, and type in the following:

nano /etc/apt/sources.list

This will open up the file that specifies where to look for installation and update files. We need to comment out the line referencing the CD ROM if it isn't already:

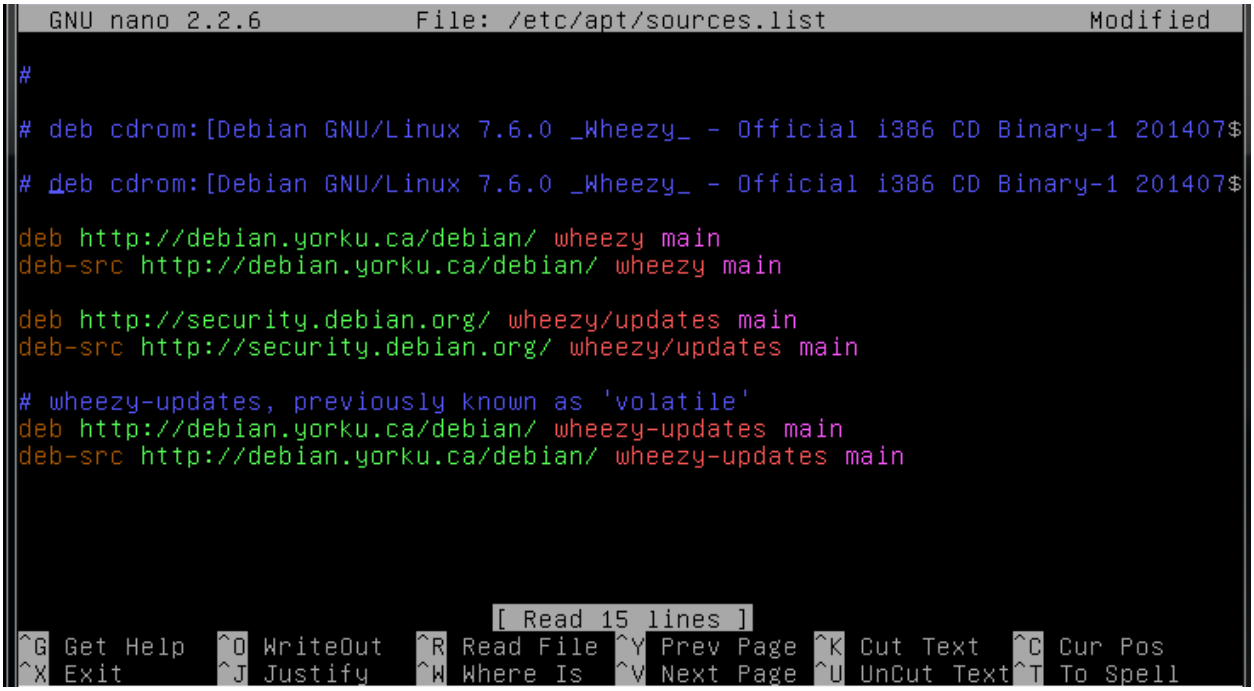
```
nano /etc/apt/sources.list
```

You **MAY** see something like this (ignoring version number and name):



If you do, you would need to, using cursor keys, move down until you are on the line that says "deb cdrom:[Debian ….." and comment it out by placing a # symbol at the front of the line, as shown in the image above. This tells the following utility to not use a cdrom when installing or updating software. It should look like below.

You are more likely to see the following (again, ignoring version number and name)



Hit Ctrl + o (write out) to save, keep the same file name, and hit Ctrl + x to exit.

In the future, you may need to add other repositories to install code from on your Debian or Ubuntu instance, one way is to modify this file.

Update your Debian VM. First we need to ensure we have the most up to date software on our Debian VM. This is done in two parts. As it is an Administrative level activity, ensure you execute these commands as **root**

```
apt update
apt upgrade
```

This will ensure you have the most recent versions of your software installed. **You may be required to answer some questions, and read a notification on the utility wget, (hit space to scroll down, q to quit) but it should be straightforward.**

Install Apache2 Web Server. Now that our software is up to date, we are going to install a web server. Web servers are applications that run on machines that allow a website pages to be shared/presented. One of the most common (if not the most common) web server is the Apache Web Server (www.apache.org) We will be installing Apache2 with the following command:

```
apt install apache2
```

```
apt install lynx
```

Test. You can now go to your Windows box, and browse to your Debian server. This will require you to determine the IP address of your Debian server, which you should now know how to do. You may also launch Lynx command line browser in your Debian VM and test your Apache install by typing:

```
lynx localhost
```

Lynx will show that Apache is working, and remove the network from the equation as a potential source of problems.

You may now install the remainder of utilities.

```
apt install php
```

```
apt install mariadb-server
```

You **MAY** need to specify a password for your **database root** account. This is different than the Debian root account. Make sure you remember it, or reuse the same password as with your regular account and your root account. More recent deployments do not ask for you to set a root password, it gets tied to your root userid.