System Administration for Beginners

Week 6 Laboratory

March 15, 2010

Please turn in your homework at the beginning of next class, with the assignment title, your group number, group member names with `inst` logins, and the answers. Working with your teammates is fine. You may turn in a single submission for your group if you like.

1   Introduction

This week's laboratory will be shorter than usual; if you find that you have finished early, it would be a good idea to meet with your project group and brainstorm what you would like to do for the final project. Take a look at previous decal class final project specs to find out what we might be looking for. Remember, your final project is a demononstration of what you have learned in class and how you you apply them to something new.

Please note that any commands where you'll be installing, removing, or updating software will require root. You should try to perform any many commands as possible without root, though, to get you into the habit of safe computing.

2   Laboratory

2.1   Installing Apache with APT

[**1**] Update APT's package database. You'll want to do this every time you work with APT to ensure that you have the latest package information.

[**2**] Determine the package name for Apache. There should be two types of Apache packages available, one for Apache 1.3 and one for Apache 2.0. We'll be installing Apache 2.0. Take note of the other packages available that are related to Apache.

[**3**] Install the package for Apache 2.0. Were any dependencies required? Were you prompted for any configuration information during the installation?

[**4**] Edit the Apache configuration file (recall that configuration files are normally stored in the `/etc` directory). Note what port that Apache is listening on. Why do you access your group's website through a different port

(`3XX80`) rather than the one listed in the configuration file? Why does it still work?

2.2 Starting and Stopping Apache

Debian uses a standard format for starting and stopping server daemons. Each server daemon has its own control script installed in the `/etc/init.d` directory. Most other Linux distributions use a very similar format.

TIP You can also use the command `invoke-rc.d` instead of directly calling the script under `/etc/init.d`. This is actually the preferred method of calling `init` scripts in Debian.

To start Apache:

```
invoke-rc.d apache2 start
```

To stop Apache:

```
invoke-rc.d apache2 stop
```

[**5**] Practice starting and stopping the Apache server daemon. Try and see if you can come up with different ways of verifying that Apache has been successfully started or stopped. List at least three ways. (**HINT**: look up the man page for the above command; or just read the tip above)

2.3 Testing Your Web Server

[**6**] Create a page on the root directory titled `index.htm` with your group number and the inst logins of your group members. You should be able to access this page at `http://decal.ocf.berkeley.edu:3XX80/index.htm`.

In order to get it on the root level (*i.e.,* to be able to access it through the URL above, not the `/root` directory), you will need to find the location of where the files should be stored. (This is a good indicator to tell whether or not you completed the lab).

[**7**] Your Apache installation from last week should still be running. If not, start it again. Start the Apache you just installed from packages. Are both versions of Apache able to run at the same time?

[**8**] What happens when you tell both versions of Apache to listen on the same port number?