

## System Administration Decal

Intermediate Lab #4

February 25, 2009

### Introduction

During Tuesday's lecture, we learned about the gory details of how access to files and directories on a Unix system is managed, and how username, password, and group info are stored.

Things to remember:

- Send your responses to [geo+decal@OCF.Berkeley.EDU](mailto:geo+decal@OCF.Berkeley.EDU); text format is preferred.
- Remember to include your cs198-XX username with your submission.
- If you don't have a Linux environment at home, SSH to `ilinux1.eecs.berkeley.edu` using your cs198-XX username.
- Finally, remember that the slides, man pages, and Google are your friends.

### I. Playing with Users and Groups

This short exercise gets you accustomed to working on multiuser systems, and using the tools that help you see who's logged on, get information about users, etc.

1. Practice with these commands and give a one-sentence description of what they do and a sample output from the machine you were logged on to. Is there any overlap between these programs' behaviors?
  - a. `finger cs198-ti`
  - b. `w`
  - c. `who`
  - d. `last`
  - e. `id`
2. `finger` lookups take a long time. Find an option in `finger`'s manpage that allows you to make `finger` lookups faster *if you know exactly what username you are looking up*.
3. Use `id` to find out what root's user ID and group ID are (even if you already know off the top of your head.) Paste the output in your answer.

### II. File System Permissions

Given this directory listing from `ls -l`, figure out whether the following operations succeed or not, and if not, why they don't succeed. Your username is 'cs198-aa' and you are in group 'cs198'. You own and have full permissions on the directory you are in. You should probably replicate these conditions to answer the questions, because there are some non-obvious answers.

Hint: if you need another user to work with, just ask the person next to you. You can agree on a shared directory to create files in. Or just put down your best guess.

```
drwxr-xr-x 2 cs198-fg cs198 68 2008-09-28 21:16 dir1
---x--x--x 1 cs198-aa cs198 5 2008-09-28 21:16 file1
----rw---- 1 cs198-fg staff 15 2008-09-28 21:16 file2
-r--r--r-- 1 cs198-aa cs198 10 2008-09-28 21:16 file3
```

```
----rwxrwx 1 cs198-aa staff 4 2008-09-28 21:16 file4
```

1. cat file1
2. rm file2
3. echo "test" >file2
4. cat file4
5. echo "test" >file3

### III. Free Software Culture – Just For Fun

Like any other group of people who work together on something common, there is an outgrowth of culture surrounding it. The free software movement is no exception. In this exercise, we'll take a look at some highlights – just for fun. (And just because it's for fun doesn't mean you don't have to do it, okay?)

1. Free software has a number of "celebrities" – people who are just very well known because of things they have done, or things they have said, or all of the above. Pick one of these "celebrities" to look up and write a few sentences about them. (They're all a little quirky.)
  - a. Richard Stallman – creator of the Free Software Foundation
  - b. Linus Torvalds – creator of the Linux kernel
  - c. Eric S. Raymond – prolific and outspoken coder famous for his writings
  - d. Bill Joy – creator of Berkeley UNIX
2. Programmers are notorious for making up acronyms for conversations instead of simply, for example, speaking English. Find out what these acronyms mean, and, if not entirely obvious, give a context for what the acronym means.
  - a. YMMV
  - b. TMTOWTDI
  - c. TANSTAAFL
  - d. PEBCAK
  - e. IANAL
  - f. SWMBO
  - g. LART