



Objectives

This lab will give you review exercises in UNIX commands, file systems, processes, and shell scripting. This will help you prepare for the final exam.

Forum

Browse to: <http://opus-ii.cis.cabrillo.edu/forum/>

Check the forum for any late breaking news about this lab. The forum is also the place to go if you get stuck, have a question or want to share something you have learned about this lab.

Procedure

Log into your home directory on Opus, and make a subdirectory called *review*. Perform the following tasks and place the results of any steps of your work into this directory.

1. The UNIX operating system is often divided into three parts:
 - The kernel (*/boot/vmlinuz**)
 - The shells (*/bin/{bash,ksh,sh,csh,tcsh}*)
 - The commands (*/bin/**)

Make one file, called *unix*, that contains a long listing of all these files. Make sure this *unix* file ends up in your *review* directory. There should be no duplicates. Count the number of files in your long listing and append this count to the end of your *unix* file.

2. Copy the output of the man page for the banner command to a file called *banner*.
3. Find a way to list all the files in and under your home directory and save the output to a file called *myfiles*.
4. Find all regular files in the */etc* branch of the file tree that were modified between June 20, 2017 and July 20, 2017. Record their absolute pathnames in a file called, *doves*.

5. Using the `/etc/passwd` file, mail yourself a list of just the UIDs for all the CIS 90 students. Then read your mail and save that message, with the mail headers, to a file called `mail90` in your `review` directory.
6. See if you can figure out a way to run the **banner** command on the output of the **date** command with the date formatted as the full weekday name (e.g. Sunday). Save the command you used and the output of the command to a file called `today`.
7. Save a list of all processes currently being run by root to a file called `processes`. **vi** this file and remove any lines that contain a process whose name does not end in the letter 'd'. For example you would keep the processes named `[ksoftirqd/1]`, `/usr/sbin/httpd` and `sshd`.
8. With one pipeline command make a sorted, single column list of the inode numbers, for all the poems in your `poems/` directory and sub-directories. Save the command you used and the output of the command to a file called `iPoems`.

Submittal

You should now have 8 files in your `review` directory. Write a shell script, named `labx1`, that will let me view these files one at a time. The shell script should let me view the files as many times as I want before exiting the program. I want to be able to run this program from anywhere on the system.

Once you have tested and debugged this program, copy it to the directory `/home/rsimms/turnin/cis90` naming it `labx1.$LOGNAME`. Make sure it is executable for me and that I can read your files. (I am a member of the cis90 group).

Grading rubric (30 points maximum)

3 points each for doing each step above correctly and completely.
6 points for correct script submittal, permissions, and pathnames.