

CS 2204 Lab 3

your name here (please print):

your student ID number here:

WARM UP:

Create a subdirectory called 'lab3' under your home directory in performing the following steps.

1. Create a directory structure under 'lab3' as follows (the names with a / are directories and all others are files). Take care to pay attention to the indentation, which reflects the nesting of subdirectories.

```
- midwest/
- eastcoast/
  - illinois/
    - northwestern
  - indiana/
    - purdue
    - notredame
- westcoast/
  - california/
    - berkeley
    - stanford
- rockies/
```

QUESTIONS TO ANSWER:

1. (2 points) By mistake, the `midwestern` states and their universities have been listed under `eastcoast`. We are now trying to move the misplaced directories and their contents together to the correct location, so that the directory structure looks like:

```
- midwest/
  - illinois/
    - northwestern
  - indiana/
    - purdue
    - notredame
- eastcoast/
- westcoast/
  - california/
    - berkeley
    - stanford
- rockies/
```

Write a `mv` command to achieve the desired effect. Note that the `mv` command implicitly recurses through the given arguments so you can move entire directory trees (in contrast, the `cp` and `rm` commands require the `-r` option to recursively copy to a new location or recursively delete from a given location).

Before answering this question, first `cd` into the `lab3` directory. Then type your `mv` command from here. Write your command here below.

2. (4 points) Once again assume that you are now in the `lab3` top-level directory. Write `ls` commands to list

- the universities (not states or regions) that have the character 'n' in them.
- the universities (not states or regions) that start with the character 'n'.
- the universities (not states or regions) that have at least three vowels.
- the states (but not their contents). You can assume that states are those directories at the second level of nesting.

The regular expressions that you concoct must perform their intended roles in any directory system, not just for the example directory system given here. You are also not allowed to solve the questions yourself and explicitly list the answers in the `ls` command.

3. (2 points) Using UNIX pipes `|` and only the commands `date` (do a `man` to see what this does) and `cut` (which you encountered last assignment), write a command to print the current year on the screen. Your use of `date` must not employ any arguments.

4. (2 points) Create two files called `oldfile` and `newfile`. Put some random text in each of them. Make sure the contents are different so that it will help you in debugging and understanding what is to follow. Then explain what each of the following four commands below do.

(In answering this question, it will help you to inspect the contents of the relevant files **both** before and after the command is executed, so that you can systematically try to infer what is going on.)

- `cat oldfile`
- `cat oldfile newfile`
- `cat oldfile > newfile`
- `cat > newfile`