COE 322: Unix Review

Victor Eijkhout

Susan Lindsey

Basic stuff: `ls, touch, man`

- List files command: `ls`
  - useful options: `-1, -a, -l` or in any combination

    `$ ls -la mynewfile`

  - This command, like many, has tons of options:

    `$ ls --help`

- Create or `touch` a file. `touch` also updates file access time

  `touch mynewfile`, then `ls` again.

- Use the `man` command to explore options for other commands:

  `$ man ls`

  `$ man touch`

More Basic Stuff: `cp, mv, rm`

- Copy: `cp file1 file2`
- Do this, check that it's indeed a copy.
- Rename or 'move': `mv file1 file2`
- Confirm that the original file doesn't exist any more.
- Remove:

  `rm myfile`   This is irrevocable!

Displaying File Contents

- Display the contents of a file with `cat`:

  `$ cat myfile`

- Other file display utilities: `less`, `more`, `head`, `tail`

  `$ less bigfile`

  `$ more bigfile`

  `$ head bigfile`

  `$ tail myfile`

- Explore options:

  `man head; head -n 5 yourfile`

- Put something in a file:

  `cat > myfile`

  end input with `Control-D`.

Directories

- Make a subdirectory 'folder':

  `mkdir newdir`

- Check where you are (print working directory):

  `pwd`

- Change directories:

  `cd newdir`

- Back to your home directory:

  `cd` (no arguments) or `cd ~`

Paths

A path is a location of a file in a directory structure.

```
$ ls $HOME/newuser/myfile
```

The *path* to `myfile` is: `$HOME/newuser/myfile`

- Relative path: does not start with slash
- Absolute path (such as pwd output): starts at root

More paths

- Path to your home directory: tilde `cd ~`
- Going out of a directory: `cd ..`
- You can use this in paths:

```
ls newdir/subdir1/../subdir2
```

Exercise: copy the lorem ipsum file from the repo to a new directory.

Homework: due next Tuesday

From your textbook, do review exercises:

- Looping: Exercise 6.12
- Functions: Exercise 7.5
- Arrays: Exercise 10.8

Place all three source code files into a single directory and submit:

```
$ coe_catchup mydir
```