Basic UNIX Commands

Starting and Stopping Start by logging in at the prompt with the username and password that have been assigned. Passwords can by changed with `yppassword` (network) or `passwd` (stand-alone). If you change your password with `passwd` instead of `yppassword` on a network, you will have changed the password only for the specific machine on which you are running.

Stop by typing `logout` or `~D`.

File representation The Unix file system is a hierarchy. The symbol `"/"` represents root path names are given with `"/"` separating directory and file names, for example, `/usr/users/carol/tess`. On some systems `"` will represent your home directory, so the above file could be referenced as `"/tess`. The current directory is represented by `"."`, and its parent by `".."`.

Standard Input and Output Unix supports the notions of standard input and output for a process. The command `"com < f1"` redirects the standard input for program `com` to file `f1`. Similarly, `"com > f2"` redirects standard output for `com` to file `f2`. They can be combined: `"com < f1 > f2"` is legal. In addition, the standard output from one command can be piped as input to another: `"zcat lcc.tar | tar xvf -"` is such an example.

In the following `com` stands for any command; `f1, f2` represent filenames or directory names. Unix is case sensitive.

- `cd f1`: change to directory `f1`
- `chmod`: change file protection
- `cp f1 f2`: copy `f1` to `f2`; overwrites existing files without warning
- `ls`: lists contents of current directory
  - `ls f1` lists files in directory `f1`
  - `ls -l`: (long) gives more information
  - `ls -a`: (all) lists all files
  - `ls -Fx` lists file names in multiple columns
- `man com`: help on command `com`.
- `mkdir f1`: create directory `f1`
- `more f1`: displays `f1` on screen
  - return key moves down one line
  - space bar moves down one screen
- b moves back(up) one screen
- q quits

- **mv f1 f2**: move f1 to f2; overwrites existing files without warning
- **pwd**: print working (current) directory
- **rm f1**: remove (delete) f1; deletes files without warning
  - **rm -rf f1**: deletes directory f1 and all of its subdirectories

### VI

VI is a standard editor on Unix systems. It has three modes: ed, command, and insert. Ed mode flips vi into a line editor; we will use it only to exit. Vi starts up in command mode and accepts commands to position the cursor, search for strings and do other manipulations, and this is where you want to be most of the time. Insert mode is for entering text. Vi commands are case sensitive. Check the man pages for more information.

If you have trouble with vi, you may need to adjust terminal settings. Ask for help.

**Starting and Stopping.** Invoke the editor on file f1 by typing "vi f1". If f1 does not exist, it will be created. If you want to look at a file and be sure you do not change it, you can use "view f1" instead.

Stopping (and writing) use ed mode. Suppose you are in command mode. Enter ed mode by typing ":" Once you are in ed mode the following will work:

- **wq**: write the file and quit
- **q**: quit without writing.
- **q!**: quit without saving changes
- **w**: write without quitting
- **w f2**: write to file f2

### Basic Commands.

- **h, j, k, l**: move cursor right, down, up, left, respectively. Arrow keys may also work.
- **x**: delete character under cursor
- **dd**: deletes line at cursor
- **rc**: replaces character under cursor by character c.
- **J**: joins next line to current
**Insert Mode:** Exit insert mode by hitting the escape key. Enter insert mode with one of the following:

- **i** insert before character under cursor
- **a** insert after character under cursor (useful for inserting at the end of a line)
- **o** opens a new line below cursor (useful for entering new lines of code)