Linux, UNIX, and Mac OS X Command Line Interface
pwd - Print Working Directory

pwd prints the current working directory. This is important because all other commands will execute in the current working directory.

[jcolton@shell ~]$ pwd
/home11/jcolton
ls - Directory Listing

ls is used to list the contents of a directory.

[jcolton@shell ~]$ ls
[jcolton@shell ~]$ ls -a
[jcolton@shell ~]$ ls -al
[jcolton@shell ~]$ ls -l
[jcolton@shell ~]$ ls -1
cd - Change Directory

cd changes the current working directory.

[jcolton@shell ~]$ cd
[jcolton@shell ~]$ cd ~
[jcolton@shell ~]$ cd -
[jcolton@shell ~]$ cd ..
[jcolton@shell ~]$ cd public_html
[jcolton@shell ~]$ cd /
[jcolton@shell ~]$ cd ../public_html
cp is used to copy files and folders.

[jcolton@shell ~]$ cp index.html about.html
[jcolton@shell ~]$ cp -r public_html webbackup
mv is used to move files, but since that is sometimes all a rename does, mv can also rename files.

[jcolton@shell ~]$ mv index.html index.html.bak
[jcolton@shell ~]$ mv index.html.bak index.html
[jcolton@shell ~]$ mv background.png ..
[jcolton@shell ~]$ mv style.css public_html/
rm is used to remove files. It can also remove files in directories when done recursively.

[jcolton@shell ~]$ rm index.html.old
[jcolton@shell ~]$ rm -r backup/
[jcolton@shell ~]$ rm -rf backup/
[jcolton@shell ~]$ rm *.old
[jcolton@shell ~]$ rm *
mkdir is used to make directories or folders.

[jcolton@shell ~]$ mkdir public_html
[jcolton@shell ~]$ mkdir -p public_html/images
[jcolton@shell ~]$ mkdir public_html/assignment1
rmdir - Remove Directory

rmdir is used to remove directories or folders. It does not remove the files in those directories and will not remove directories unless they are empty.

[jcolton@shell ~]$ rmdir public_html
[jcolton@shell ~]$ rmdir -p public_html/images
cat is used to list the contents of a file. Originally, it was used to list multiple files at the same time. These files could then be redirected into a single new file.

[jcolton@shell ~]$ cat index.html
[jcolton@shell ~]$ cat *.html > newfile.html
less - List contents of file

less is a command that came from an older command called more. less lists the contents of a file and lets you use up and down arrow keys to scroll through it. It also lets you use / to search. You quit using the q key.

[jcolton@shell ~]$ less index.html
grep is a regular expression searching program. It is good for searching for files that contain something.

[jcolton@shell ~]$ grep background *.html
[jcolton@shell ~]$ grep background */*
chmod - Change Mode (permissions)

chmod changes the permissions of a file. The permissions are recorded in octal (base 8) and can be specified in either octal or using descriptive letters.

[jcolton@shell ~]$ chmod 644 *.html
[jcolton@shell ~]$ chmod 755 index.cgi
[jcolton@shell ~]$ chmod u+w file.html
[jcolton@shell ~]$ chmod g+rw file.html
[jcolton@shell ~]$ chmod o+x prog.pl
Redirecting Data

> Direct output into a file
< Receive input from a file
| Send output to as input to a program
Bash - Key Combinations

Ctrl-a  Beginning of Line
Ctrl-e  End of line
Ctrl-k  Cut from cursor to end of line
Ctrl-u  Cut from cursor to front of line
Ctrl-y  Paste
Up      Previous Command
Down    Next Command (from previous)
tab     Command completion
nano and pico are simple text editors. Both are pretty much the same.

- **Ctrl-x** Exit
- **Ctrl-o** Save
- **Ctrl-k** Cut line
- **Ctrl-u** Uncut line (paste)
- **Ctrl-w** Where is (search)
vi is one of the oldest text editors, and is found on almost all UNIX and Unix like systems. It uses modes which can often be confusing.

- Esc: Enter command mode
- i: Enter insert mode
- :w: Write (command mode)
- :q: Quit (command mode)
- :wq: Write and quit (command mode)
- /string: Search for string (command mode)
Emacs is an old text editor that is available on many systems, but not the oldest ones and not one some newer light weight ones.

Ctrl-x  Ctrl-s  Save the current file
Ctrl-x  Ctrl-c  Exit emacs
Ctrl-s   Search
Ctrl-k  Cut from cursor to end of line
Ctrl-y  Paste
Ctrl-g  Quit the current command