

UNIX Command Reference for CMPS 12B Lab 1

(For Windows users, do NOT try these commands on your Windows command prompt.)

File system (They are just directories, not commands)

- `.` – current directory
- `..` – parent directory
- `~` – home directory

File Commands

- `ls` – directory listing
- `ls -al` – formatted listing with hidden files
- `cd dir` – change directory to dir
- `cd` – change to home, the same as `cd ~`
- `pwd` – show current directory
- `cp -r dir1 dir2` – copy dir1 to dir2; create dir2 if it doesn't exist
- `mv file1 file2/dir` – rename or move file1 to file2. if the second argument is an existing directory, moves file1 into directory dir
- `mkdir dir` – create a directory
- `touch file` – create a file
- `rm file` or `-r dir` – delete file/dir
- `rm -f file` or `-rf dir` – force remove file/dir
- `cp file1 file2` – copy file1 to file2

File Permissions

`chmod octal file` – change the permissions of file to octal, which can be found separately for user (u), group (g), and others (o) by adding:

- 4 – read (r)
- 2 – write (w)
- 1 – execute (x)

Examples: `chmod 777 file` – read, write, execute for all, because $7=4+2+1$ and you assign three 7.

`chmod u=rwx,g=rx,o=r file` – rwx for owner (the user), rx for group, and r for others.

`chmod u+x file` – add execute for user only, the same as `chmod +x file`. `u` is by default.

User	Group	Other																		
<table><tr><td>R</td><td>W</td><td>X</td></tr><tr><td>4</td><td>2</td><td>1</td></tr></table>	R	W	X	4	2	1	<table><tr><td>R</td><td>W</td><td>X</td></tr><tr><td>4</td><td>2</td><td>1</td></tr></table>	R	W	X	4	2	1	<table><tr><td>R</td><td>W</td><td>X</td></tr><tr><td>4</td><td>2</td><td>1</td></tr></table>	R	W	X	4	2	1
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4	2	1																		

Compression using zip

- `zip filename.zip file1 file2` – compress the file list into filename.zip
- `zip -r filename.zip dir` – compress a directory into filename.zip
- `unzip filename.zip` – unzip/extract filename.zip into your current directory

VIM

- `i/a` – insert before/after the cursor
- `dd` – delete the current line
- `Esc` – exit insert mode
- `:w` – write (save)
- `:wq` or `:x` – write (save) and quit
- `:q!` – quit and throw away unsaved changes

Logging in using SSH

`ssh user@host` – connect to host as user Example: `ssh yourCruzID@unix.ucsc.edu`

File Transferring Using SCP

- `scp user@host:remote_file local_file` – download remote_file as your local_file
- `scp local_file user@host:remote_file` – upload your local_file as remote_file