

COMMANDS

UNIX CLI

```
//print working directory
pwd

//Makes a directory
mkdir <directory_name>

//list all subdirectories
ls

//change to direction path
cd <directory_name>
cd .. //goes one directory level up (goes back)

//change to home directory
cd //or
cd ~

//Opening a file. if it doesn't exist, create it
vim <filename> //e.g. vim Hello.java

//copy <1> to <2>
cp <1> <2> //e.g. cp Hello.java Hello1.java

//move a <file> to <dir>
mv <file> <dir> //e.g. mv Hello.java ..

//renaming <file> to <file1>
mv <file> <file1> //e.g. mv Hello.java Bye.java

//remove a <file>
rm <file> //e.g. rm Hello.java

//removing a <folder> with files in them
rm -rf <folder> //removes all files and subdirectories forcefully and recursively
```

SSH

```
//connect to a remote host
ssh <username>@<hostname>
ssh hathu@pe118.comp.nus.edu.sg
//password is lordkallig

//Transfer a set of C files from the directory lab01 to your local computer. Then, on the local computer, run:
scp hathu@pe118.comp.nus.edu.sg:~/lab01/*.java .
//If you have files with the same name in the remote directory, the files will be overwritten without warning.

//Copy the file Hello.java from your local computer to your ~/lab01 directory
scp Hello.java hathu@pe118.comp.nus.edu.sg:~/lab01
```

Vim

```

//Opening a file. if it doesn't exist, create it
vim <filename> //e.g. vim Hello.java

//Open multiple files in multiple tabs
vim -p <files> //e.g. vim -p a.txt b.txt

//Split screen vim for 2 files.
vim -o <file1> <file2>

//Switch between files in window mode
Ctrl-w, then W again

//Splits horizontally
:sp

//Splits vertically
:wsp

//Go to next tab
gt

//Go to previous tab
gT

//Close the tab that you are on
:tabC

//split screen for buffer <file>
:split //horizontal split
:vsplit //vertical split

//traverse between the windows (go to the window on the <d>)
Ctrl W //then
<d> //<d> is the arrow key

//write buffer to file (save)
:write / :w

//exit Vim
:q / :quit //you'll go back to the terminal

//write buffer to file AND quits immediately after
:wq

//write all buffers to respective files
:wa

//write all buffers to respective files, then quit Vim
:wqa

//quit vim without saving
:q!

//read about vim modes
:h vim-modes

//Normal mode to Insert mode: Press i
//Visual/Insert modes to Normal mode: Press esc
//Normal mode to Visual mode: Press v
//Normal mode to Visual Line mode: Press Shift-V
//Normal mode to Visual Line mode: Press Ctrl-V

```

```
//VISUAL MODE ONLY: Press d to cut
//VISUAL MODE ONLY: Press y to copy

//NORMAL MODE ONLY: Press p to paste
//NORMAL MODE ONLY: Press u to undo
//NORMAL MODE ONLY: Press Ctrl-r to redo
//NORMAL MODE ONLY: Press w to go to next word
//NORMAL MODE ONLY: Press b to go to previous word
//NORMAL MODE ONLY: Press gg to go to first line
//NORMAL MODE ONLY: Press G to go to last line

//NORMAL MODE ONLY: Apply <movement> <n> times
<n><movement> //e.g. 100w moves you 100 words forward.
//You can see what you are typing in the bottom right hand corner

//NORMAL MODE ONLY: Fix indentation in entire file. A
gg=G

//NORMAL MODE ONLY: Move to line <n>
:<n>

//NORMAL MODE ONLY: Search for text that match <regex>
/<regex>
// Then jump to previous/next occurrence of <regex>
N //previous
n //next
```

Vim is a modal text editor.

- Normal/Command mode.
- Insert mode (Allows you to edit)
- Command line mode (The line below for commands)
- Visual mode (Like normal mode but movement commands extend a highlighted area)
 - Visual
 - Visual Block (Highlight entire blocks)
 - Visual Line (Highlight entire lines)