

FAQ:

How can I install Linux into my own laptop?

- Two options: 1) Ask Linux working group for help
2) Use VirtualBox (<http://piazza.com/class#fall2011/cs35l/4>)

How should I prepare lab1.log?

"record each action in a file lab1.log"

Such actions include: linux command you typed in CLI
commands in man pages

You can also literally describe what you did to figure out the answer,
as long as someone else who reads your log file can reproduce the answer.

Linux file ownership:

Files and directories are owned by a user

Files and directories are assigned a group

Linux file attributes (10 bits):

First bit: file type

- normal file
- d directory
- l denotes a symbolic link

the rest 9 bits: "Three groups of three"

- first what the owner can do
- second what the group members can do
- third what other users can do

The triplet:

- first r: readable.
- second w: writable.
- third x: executable.

9 bits can be translated into a group of three digitals

- rw- rw- rw- -> 111 111 111 -> 777
- rw- r-- r-- -> 110 100 100 -> 644

command: chmod -- change file mode bits

chmod 644 "filename"

chmod ['references']['operator']['modes'] 'filename'

references: u (owner), g (group), o (other), a (all)

operator: +(add), -(remove), =(set)

modes: r, w, x, s

Useful Linux commands:

- mkdir -- make directories
- rmdir -- remove empty directories
- cp -- copy files and directories
- rm -- remove files or directories
- mv -- move (rename) files
- apropos -- search the whatis database for string
- readlink -- print value of a symbolic link or canonical file name
- find -- search for files in a directory hierarchy
- locate -- find files by name
- top -- display Linux tasks
- ps -- report a snapshot of the current processes

kill -- send a signal to a process (The default signal for kill is TERM)

Learning Emacs:

"mode" in Emacs is different than "mode" in Vim

"Emacs is a good operating system, but it lacks a good editor"

Combination of keys:

Ctrl-x --> C-x

Meta-x --> M-x (Meta key: second ctrl)

C-h k helper for key sequence

C-h F helper for command

C-g cancel command

C-x C-c exit Emacs

C-x C-f open file

Move in Emacs

C-n next line

C-p previous line

C-a begin of line

C-e end of line

C-f move forward for one character

C-b move backward for one character

M-f move forward for one word

M-b move backward for one word

NOTE: You can also move cursor in terminal using such keys.

(Maybe you need set meta-key in terminal first)

C-v page down

M-v page up

Search in Emacs

C-s incremental search

Undo and Redo in Emacs

C-x u undo and redo, use C-g to change direction

Cut, Copy, and Paste

C-d delete/cut/kill one character

M-d delete/cut/kill one word

C-k delete/cut/kill line

M-k delete/cut/kill sentence

C-w delete/cut/kill region

M-w copy region

C-SPC set mark to select region, like visual mode in Vim

C-y paste/yank the last stretch of killed text

M-y Replace just-yanked stretch of killed text with a different stretch