CS 136L Lecture 2

Unix Basics

Odds and Ends

- You can see your Marmoset results on:

    `https://marmoset.student.cs.uwaterloo.ca/`

Basic Keyboard Shortcuts

- Tab Completion
- Direction arrows
- Ctrl+c (and Ctrl+d)
- Ctrl+l (or clear)
- Ctrl+a, Ctrl+e, Ctrl+k, Ctrl+u
- Searching with Ctrl+r
- !!, !(command name), !$ (arg to last command)

SSH/SCP concerns

- Make sure you're logging into
  linux.student.cs.uwaterloo.ca. The 'cs' is VERY
  important.
- When using SCP, you almost certainly want to be doing this
  from your local terminal/cmd window, not from within the
  environment! (Your linux environment won't know about files
  on your harddrive!)

Vi Demo

- https://cheatography.com/ericg/cheat-sheets/vi-editor/
- https://i.imgur.com/YLInLlY.pngi
- Basics: Setting up config file
- Basics: command vs insertion mode (esc vs i).
- :w, :wq, :q!, :wq!
- yy (Xyy), p, dd (Xdd) (copy, paste, delete)
- Numbers before commands
- Command mode: u (or :u or :undo (and Ctrl+r)
- gg, G, XG (go tos)
- If desired: Registers (marcos q+letter to start recording, ctrl+r+regname to copy, ctrl+o+q to stop recording from insert mode (or just q in command mode), using let @a='macro', using ctrl+v+esc to textually add esc character to let command)

Basics of Streams

- stdin, stdout, stderr
- Redirecting streams. (specifically to /dev/null)
- Notation 2>&1 (is the same as &>)
- Draw some diagrams.

Bonus - Setting up Aliases

- Annoyed with having to type in
  /u2/cs136l/pub/marmoset_submit?

- Run the following commands:

  ```
  echo "source ~/.bash_aliases" >> ~/.bash_profile
  echo "source ~/.bash_aliases" >> ~/.bashrc
  echo "alias ms='/u2/cs136l/pub/marmoset_submit'" >> ~/.bash_aliases

  source ~/.bashrc
  ```

- Voila! You can now just use ms whenever you want to submit.
  You can check this worked by calling alias in the student
  environment (the above should appear). When you log in,
  your bash_profile or bashrc file will execute so your alias
  should be recognized form now on.