

CLI 101

or How to Bash your way through life

History

- Stock Ticker
- Teletype
- Mainframe
- Unix
- Present Day

Why?

- Speed
- Low resource requirements
- Massive amount of tools
- No mouse
- Geek points!

Base Principles

- Read Evaluate Print Loop
- Won't congratulate you for getting stuff right
- Case sensitive
- No safety net!
- Tab Tab Tab Tab Tab

Moar Base Principles

- One thing does one thing and does it right
- Everything is a file

The File System

- It's a tree!
- / = the bottom of the tree (root)
- /home/username = your home directory (aka ~/)
- ./ = current directory
- ../ = up one in the tree
- ../../../../ = up three in the tree

Getting Around

- `pwd` = Print Working Directory (echoes current path)
- `cd path/to/change/to/` = Change Directory
- `cd ..` = Change Directory one higher in the tree
- `ls` = LiSt directory contents
- `ls -al` = list all directory contents

Getting ~ again

- There's no place like home!
- `cd /home/yourusername` = works but dull
- `cd ~/` = works but fiddly
- `cd` = perfect

Seeing Inside Files

- cat - echoes the entire file to the terminal
- less - pager style read only view
- tail - shows the last (n) lines of a file
 - tail -f

Create, Copy, Move, Delete

- `touch filename` = create new file
- `mkdir directoryname` = create new directory
- `cp sourcefile destinationname` = copy file
- `cp -r sourcedir destinationname` = recursively copy directory
- `mv sourcefile destinationname` = move file or directory
- `rm filename` = remove (delete) file
- `rm -r directoryname` = remove directory and all contents

Executing

- Run files by calling them with their path
 - So simply executablefile won't work*
 - ./executablefile will if you're in the same directory
 - /path/to/executablefile works
 - justthefilename works if it's in your \$PATH

Permissions & Ownership

- `ls -l` = see all files with permissions & owners
- owner (user) and group
- permissions are octal fun buckets
- change permissions with `chmod`
- change ownership with `chown`
- DO NOT 777

Environment Variables

- Yay more variables!
- prefixed by \$
- some presets like \$PATH (contains all the folders that are looked in)
- define your own variables with export VARNAME='Something'

RTFM

- Most commands have a built in manual
- `man commandname`
- Also available online
- Bear in mind differences between Mac / BSD and Linux

and remember...

TAB!!!

ssh student@188.166.144.194

password: DJLCP.2016