Intro to Unix

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This year's OS

Debian (linux)
◦ Free

Based on Unix
◦ long and venerable history
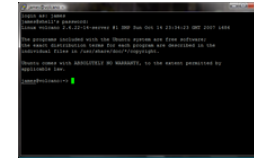◦ http://en.wikipedia.org/wiki/Unix

Close but not the same...

/\ BIG PROBLEM is \ vs /

You will have used some version of unix previously

Back slash

Forward slash

File hygiene is very important

Files are stored in Unix format not DOS or Mac
◦ Changes the line ending characters
◦ Use dos2unix, unix2dos, mac2unix, unix2mac to change formats
◦ Can use the file command to check format

Unix systems are case sensitive!

NO SPACES in your file/directory names!!

Wildcards ie dos2unix *.dat

Working in the terminal
Input …. Output

- Input
  - Most commands don't need input signifiers
  - < can be used to specify
- Output
  - Without specifying most output will print to the screen
  - > can be used to direct
    - type: echo 'this is a dummy file'
    - echo 'this is a dummy file' > dummy.txt
  - | (pipe) | more pauses the output after a screen worth of text has appeared hit the space bar to get the next screens worth

The manual

- The man command can be used in conjunction with other commands to put up some basic instructions

- type: man ls
  - ls is the list command it pulls up a list of the files in the directory

Also many many helpful webpages w examples

Useful 'one liners'

- cp copy
- mv move = rename
- rm remove
- ls list
- echo
- head looks at the top 10 lines
- tail looks at the last 10 lines
- wc counts number of lines, words, characters
- sed find and replace
- grep find and report
- awk restructure files

- pwd find where you are
- ~/ get to your home directory
- file reports type of file
- nano a simple editor
- cd change directory

Looking at your data

- less *filename*
  - Allows you to scroll through your data
- less –S *filename*
  - Shows a screen width of data (stops text wrapping)
- zless –S *filename*
  - Allows you to look at a gz file without unzipping

Nano (text editor)

- nano *filename*
  - Commands at bottom of screen
  - Save = crtl+O
  - Exit = crtl +X

Other bits

- When working on servers
  - bg &
  - fg
  - nohup
  - crtl+c
  - crtl+z
  - which

Shutting down you unix session

- exit
- logout
- quit
- q
- ctrl-d

Questions?
Post to slack