Introduction to Unix

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Justification

Unix, in particular Linux, is the *de facto* operating system in High-Performance Computing (HPC).

Files and such

`ls`, `touch`

- List files: `ls`
- Maybe your account is still empty: do `touch newfile`, then `ls` again.
- Options: `ls -l` or for specific file `ls -l newfile`.

Display / add to file: `cat`

- Display a file: `cat myfile`
- Put something in a file: `cat > myfile`
  end with Control-D.
  Or use an editor, but this is sometimes still useful.
- Now `cat` it again.

`cp`, `mv`, `rm`

- Copy: `cp file1 file2`
  Do this, check that it's indeed a copy.
- Rename or 'move': `mv file1 file2`
  check that the original file doesn't exist any more.
- Remove: `rm myfile`
  This is irrevocable!

Directories

- Make a subdirectory ‘folder’: `mkdir newdir`
- Check where you are: `pwd`
- Now go to the new directory: `cd newdir` and `pwd`
  ‘change directory’ and ‘present working directory’
- Back to your home directory: `cd` without further arguments.

Paths

- Do:
  1. `cd newdir`
  2. `touch nested_file`
  3. `cd`
- Now: `ls newdir/nested_file`
- That is called a path
  - Relative path: does not start with slash
  - Absolute path (such as `pwd` output): starts at root

More paths

- Path to your home directory: tilde `cd ~`
- Going out of a directory: `cd ..`
- You can use this in paths: `ls newdir/subdir1/../subdir2`

Exercise: copy the lorem ipsum file from the repo to a new directory.

Dealing with large (text) files

- If a file is larger than your screen:
  `more yourfile`
- If the start or end is interesting enough:
  `head yourfile`, `tail yourfile`