

## 1.1 Commands and paths

- (a) The `cd` command changes the current working directory and without any leading commands bring you to the root directory. The `pwd` command will print your current working directory, printing the full system path of the current working directory.
- (b)
  - (i) Simply typing "`cd`" in bash will bring you back to your current directory
  - (ii) You can also type "`cd ~`" which will bring you back to your home directory.
  - (iii) You can also navigate to your root directory by inputting "`cd /`"
- (c)
  - (i) `/home/dvader/documents/../../data/bases` is an absolute path, it begins in the root directory and ends in another directory.
  - (ii) `cd ../../data/bases`
- (d) You would go back two directories putting you at the `/home` directory so after running `pwd` you would get `/c/home`
- (e) You can either use a public forum like Git or Stackexchange to search the command and see its properties or you can simply use the `-h` (or `--help`) after the `frbzz` command
- (f) The PDF "In the beginning was the command line" by Neal Stephenson does a great job of discussing the power of the command line instead of a graphical user interface by creating analogies showing that user interfaces block the consumer from the true power they have at their hands. A user interface stops the consumer from learning and customizing the intricacies of their machine, it puts you on training wheels. The positive of this is that the consumer can't destroy their machine and it makes this technology accessible to far more people but the negative is that the consumer is never forced to learn the technicalities of something that can be far more powerful.

## 1.2 Copy, rename, delete

The `cd ~` command will bring you back to your home directory and then the command `ls -R PHY494/01_shell` will list subdirectories recursively. This means that you will get a list of all subdirectories under the path that you've listed. This results in the output of your home directories followed by `/PHY494/01_shell`

## 1.3 Danger Zone

That line of code will permanently delete all of your files because it is starting at your home directory and overriding all fail safes that are in place. The command will recursively delete all files and directories stored in /