Linux introduction

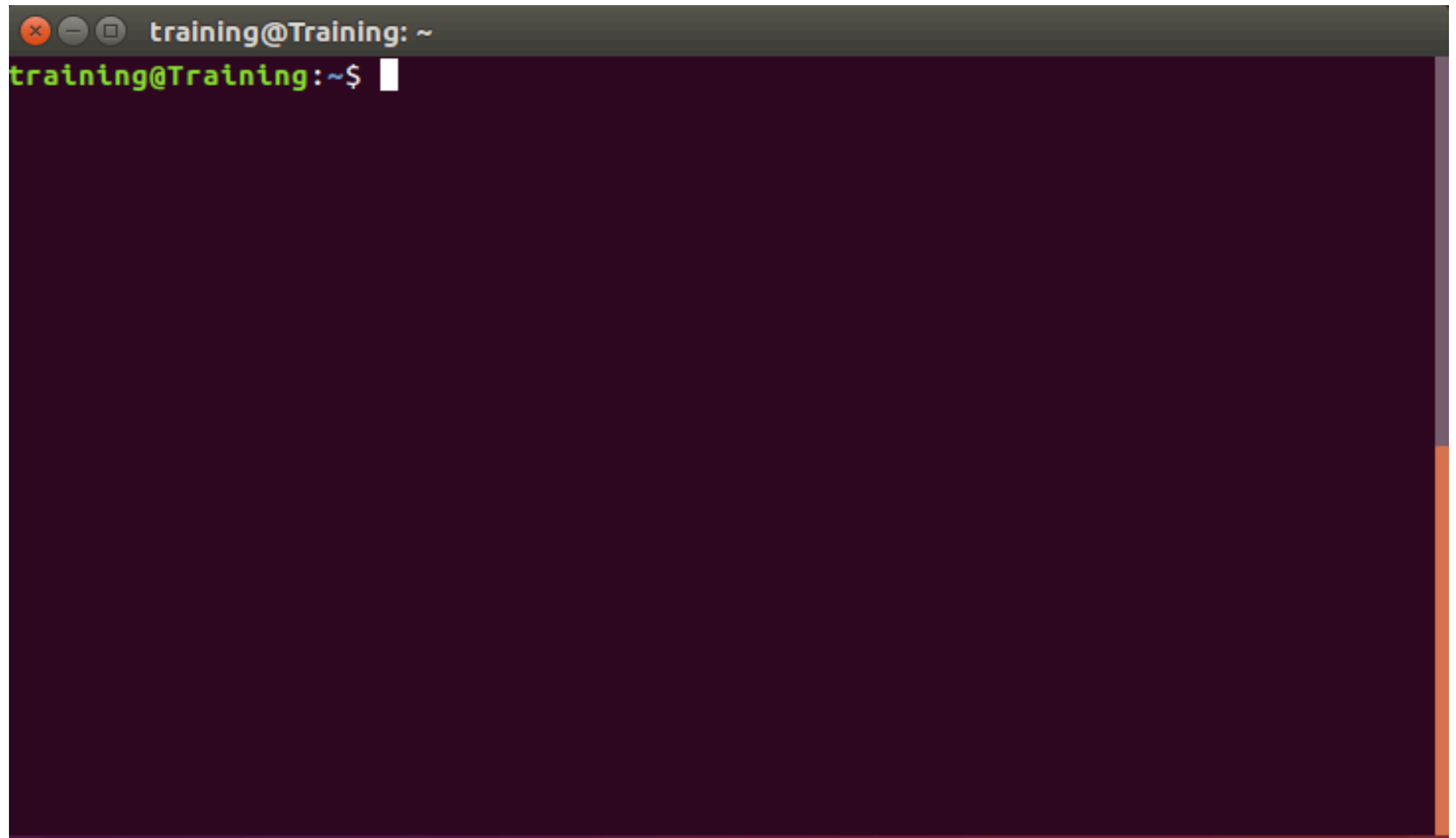Dr Cristina Venturini

What is Unix?

- Unix is an operating system and set of tools.

- Shell: tool that provides a command line interface

- The shell is a very direct and powerful way to manipulate your computer

Why Unix?

- The Unix operating system has been around since 1969

- Much easier to automate keyboard tasks than mouse tasks.

- The raw output of genetics (and more in general biological research) is usually in the form of large text files. Unix has several powerful commands that can process the data
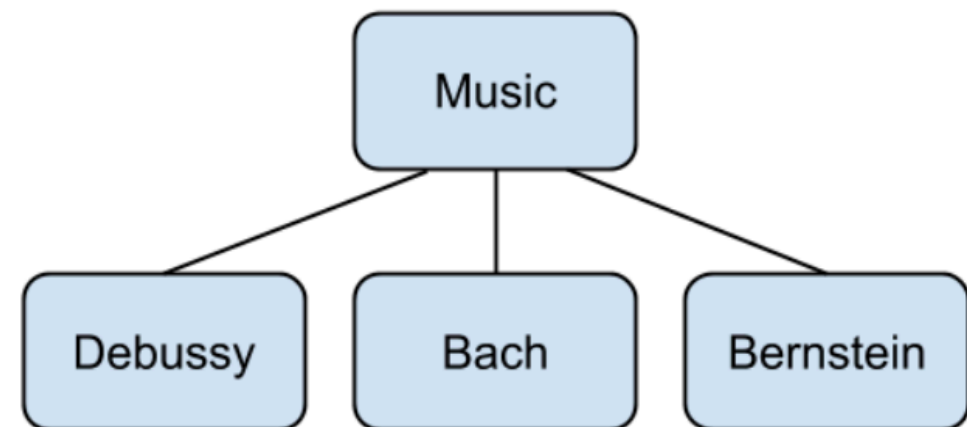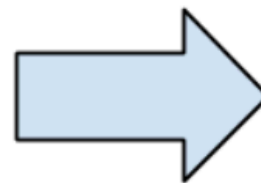
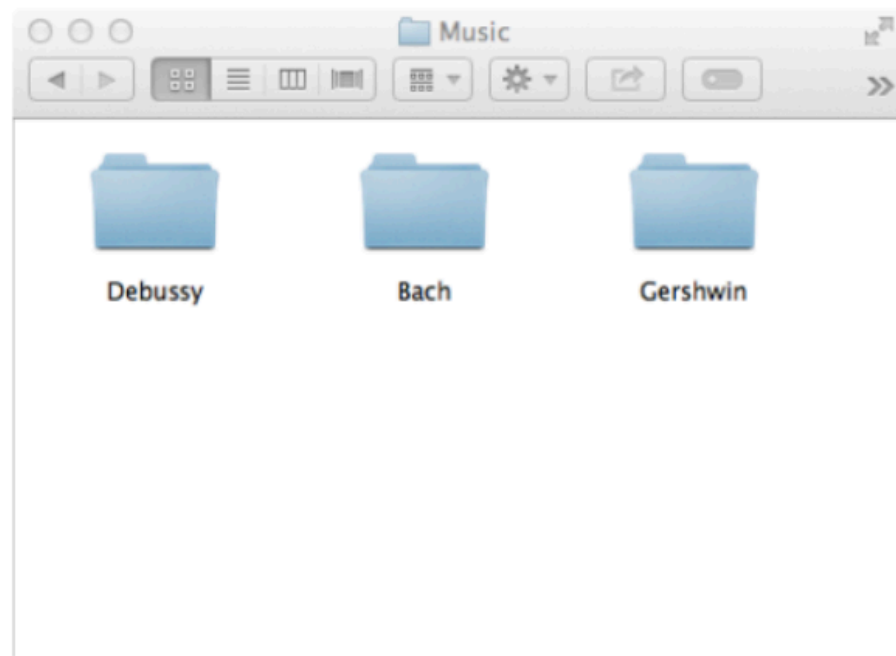- Most of these commands can be combined

The terminal

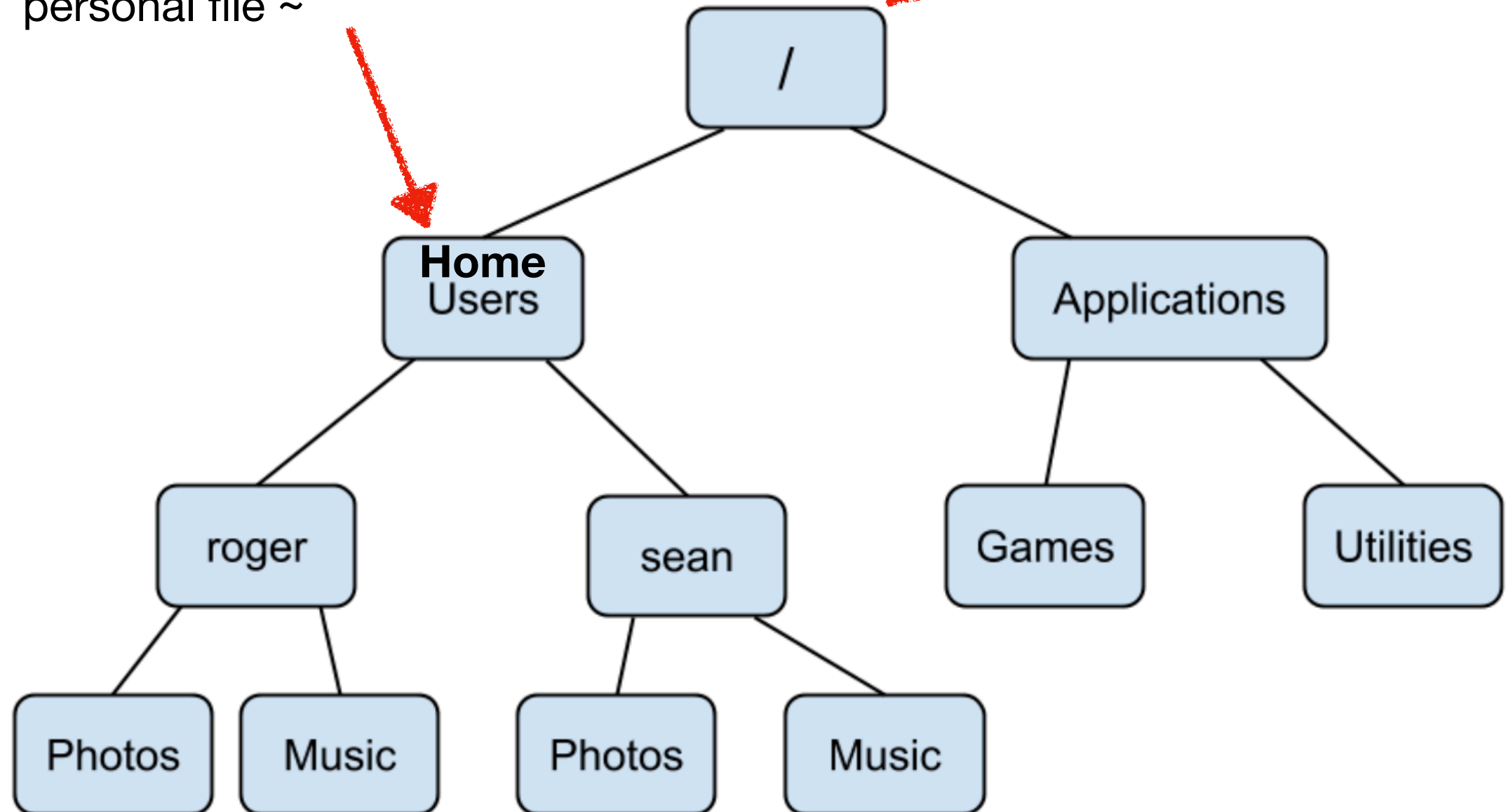- It allows to type input to the computer and see the output

The Unix tree

- Computers are organised in a hierarchy of folders, where a folder can contain many folders and files.
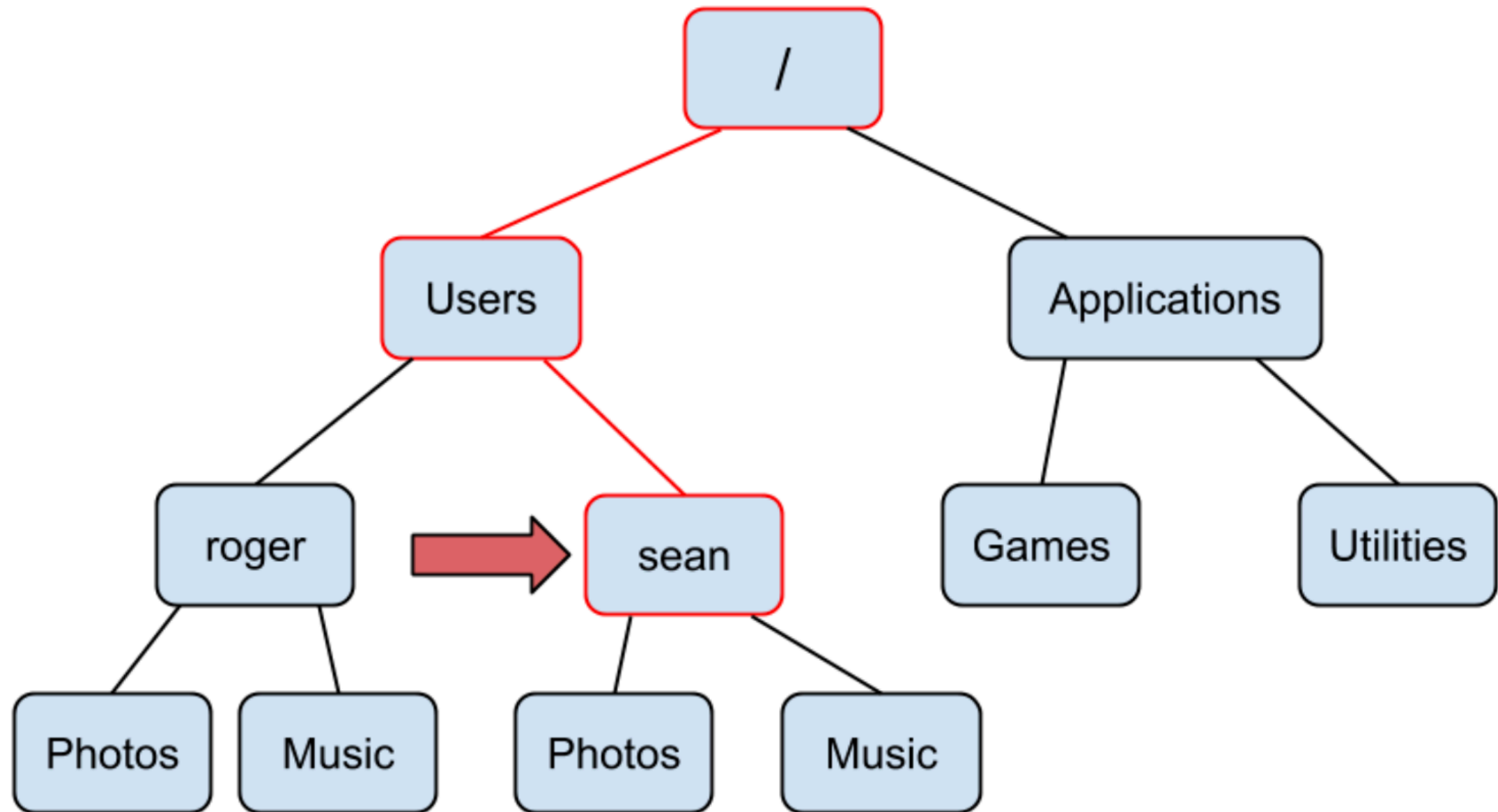
- Folders in Unix can be called "directories"

/

Home
Users

Applications

roger

sean

Games

Utilities

Photos

Music

Photos

Music

- Imagine tracing all of the directories from your root directory to the directory you are currently viewing. This sequence pf directories is called **path**
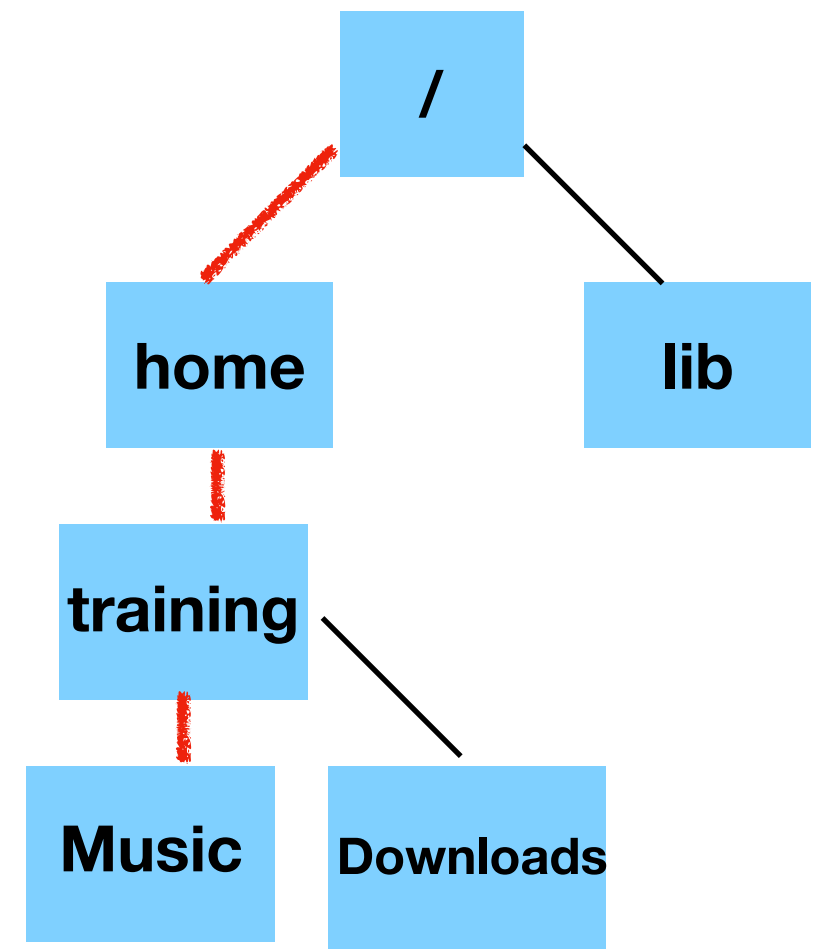

/Users/sean

Navigating the command line

- A path can be relative to your current directory or you can specify the absolute path to a directory starting from the root of your computer

```
training@Training:~$ pwd
/home/training
```

```
training@Training:~$ cd Music
training@Training:~/Music$ pwd
/home/training/Music
training@Training:~/Music$ █
```

Tutorial

- We are going to learn Unix/Linux by using it!

- Take your time to read the tutorial material carefully!