

Preliminaries

Pritam Dalal

Files and Directories, and Paths

- ▶ The part of the operating system responsible for managing files and directories is called the file system.
- ▶ The file system consists of **files** and **folders** (also called **directories**).
- ▶ Files contain data such as text and numbers.
- ▶ Folders contain files and other folders (also called **subfolders**).

Paths

- ▶ Every file or directory in the file system has a location is given by a **path**, a sequence of characters involving slashes and other punctuation.

Here are some made up paths for Windows and OS X:

Windows

File: C:/R/fm5990/scripts/cash-money-script.R

Folder: C:/R/fm5990/scripts/

OS X

File: Users/Pritam/files/R/fm5990/scripts/cash-money-script.R

Folder: Users/Pritam/files/R/fm5990/scripts/

Why Should You Care

- ▶ The programs you write will often interact with other files or directories on your machine.
- ▶ The way you point your programs to other files is by file path *strings*.
- ▶ RStudio *projects* and a Git *repositories* are both based around directories in your file system.
- ▶ **Bottom Line:** You need to be able to produce the path of any file on your computer. This is a basic skill.

File Management Resources

- ▶ If you want to be a file management ninja, complete the first three sections of **The Unix Shell** lesson by Software Carpentry:

<http://swcarpentry.github.io/shell-novice/>

- ▶ Complete the entire tutorial and unlock **10,000** nerd points.

Touch Typing and Resources

- ▶ Poor typing skills can hold you back in programming.
- ▶ Coding involves a lot of numbers and special characters: \$ * ! #
- ▶ These special characters are not the focus of most traditional typing education.
- ▶ Here is a good general typing resource:

<https://www.how-to-type.com/>

- ▶ Here is a typing resource that focuses on coding specific typing:

<https://typing.io/>

Keyboard Shortcuts

- ▶ Overreliance on your trackpad is inefficient.
- ▶ It pains my heart and soul to witness such things.
- ▶ Computer ninjas are masters of keyboard shortcuts.
- ▶ Start with these:
 1. (OS) `ctr/cmd + tab` – switch between windows
 2. (RStudio) `ctr + 1` – move focus to Source
 3. (RStudio) `ctr + 2` – move focus to Console

Fact: There is no such thing as a stupid keyboard shortcut question.