Setting up your computer for basic computational biology approaches. A quick cheat sheet.

1) Command line tools

While an apple computer is equipped with a command line terminal, by default, it has limited capabilities. You want to install the "Command Line Tool" package to have maximal functionality. One tool we will be using that requires this extended capability is `git`. As you expand your computational repertoire, you may find that additional tools (e.g., `pip`, `gcc`) are only available with this 'upgrade'.

- Open `terminal`

(If you are not sure where `terminal` is, hit `command + space` and type "Terminal" in the search bar.)

- install "Command Line Tools" by entering:
  `xcode-select --install`

This will trigger a flurry of activity. Check that the process completes without errors. You may have to interact with some dialogue boxes.

2) homebrew

`homebrew` is an exceptionally convenient way to install command line and regular applications on your mac. This allows you to bypass the alternative way of installing, namely by downloading a series of files from the internet, and then copying them to some directory and hoping that the system cooperates with your intent. Homebrew takes care of many of the behind-the-scenes aspects of installations to ensure functionality following installation. To install `homebrew`, navigate to the website (https://brew.sh/). As of this writing, the command to install `homebrew` is:

```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

(This changes from time to time but is current as of 8/2021.)

3) R

You may or may not have `R` installed on your computer. If not, please do so now. This can be done with `homebrew`

From the command line:

```
brew install --cask r
```

(It is possible that you will also need to install certain dependencies. These too are available from `homebrew`.)

4) RStudio

`R` can be run with its spartan graphical user interface or even directly from the command line. However, the `RStudio` program makes using `R` tons more intuitive and interactive, and allows for generation of executable 'R Markdown' objects that will hopefully become your go-to approach for documenting your computational explorations.

Again, we use `homebrew` to install `RStudio`. From the command line, enter:

```
brew install --cask rstudio
```