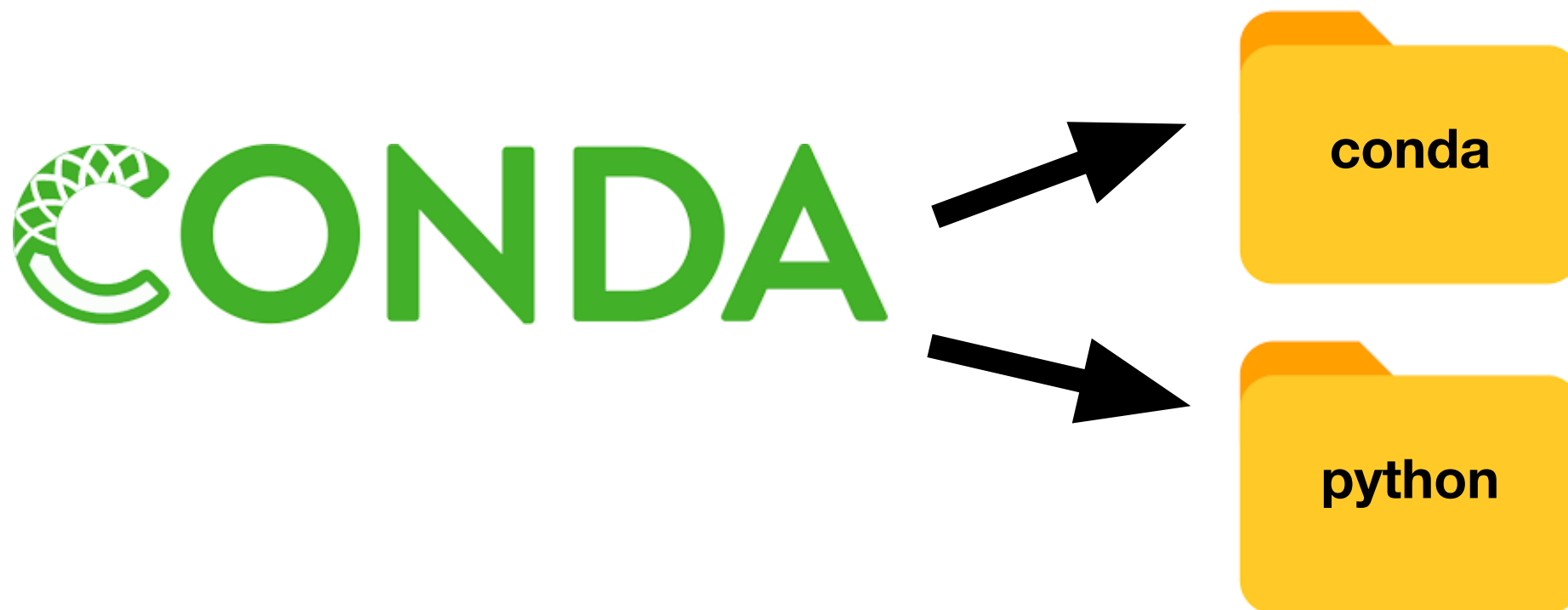# Introduction to Python for Scientific Programming

Step 1: Installing Python tools on your machine

We are going to use a package manager called miniconda
https://conda.io/miniconda.html

Go ahead and download the appropriate miniconda installer on to your machine

conda

python

Step 2: Install Jupyter Notebooks

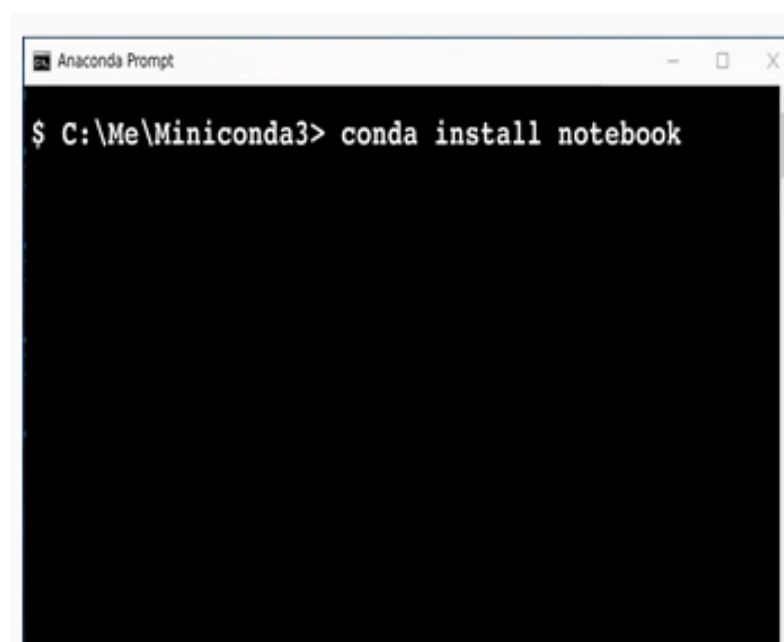For this we are going to use the conda installation that we just performed

We will need to open up a command line interface (CLI) for this

If you have a mac, open the Terminal app; If you have a windows box you will use the Anaconda prompt that was just installed by miniconda
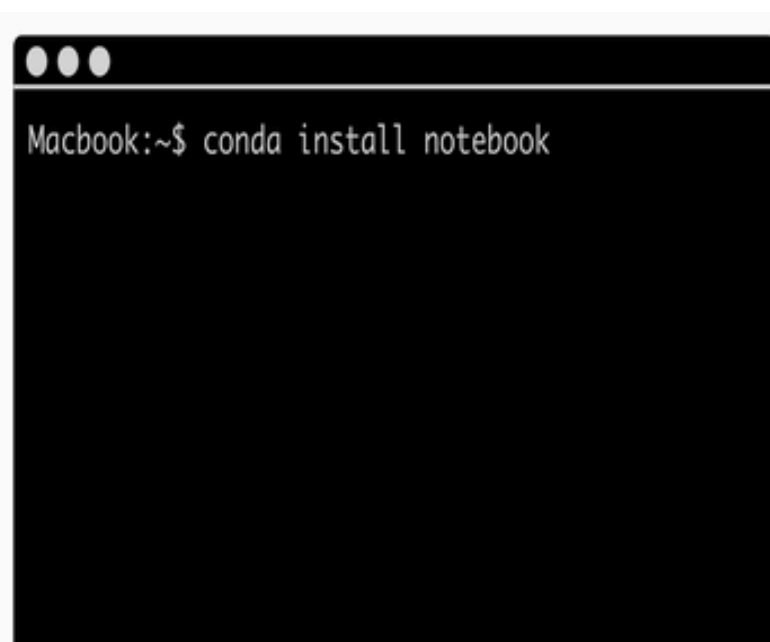
For a windows app use the command line prompt (search for cmd or use desktop shortcut to conda)

`conda install -c conda-forge jupyterlab`

Windows

Mac

Step 3: Install more libraries

Again we are going to use conda for this. We let the package manager do all the hard work for us and it will just give us the libraries that we need

The basic call is `conda install some_package`
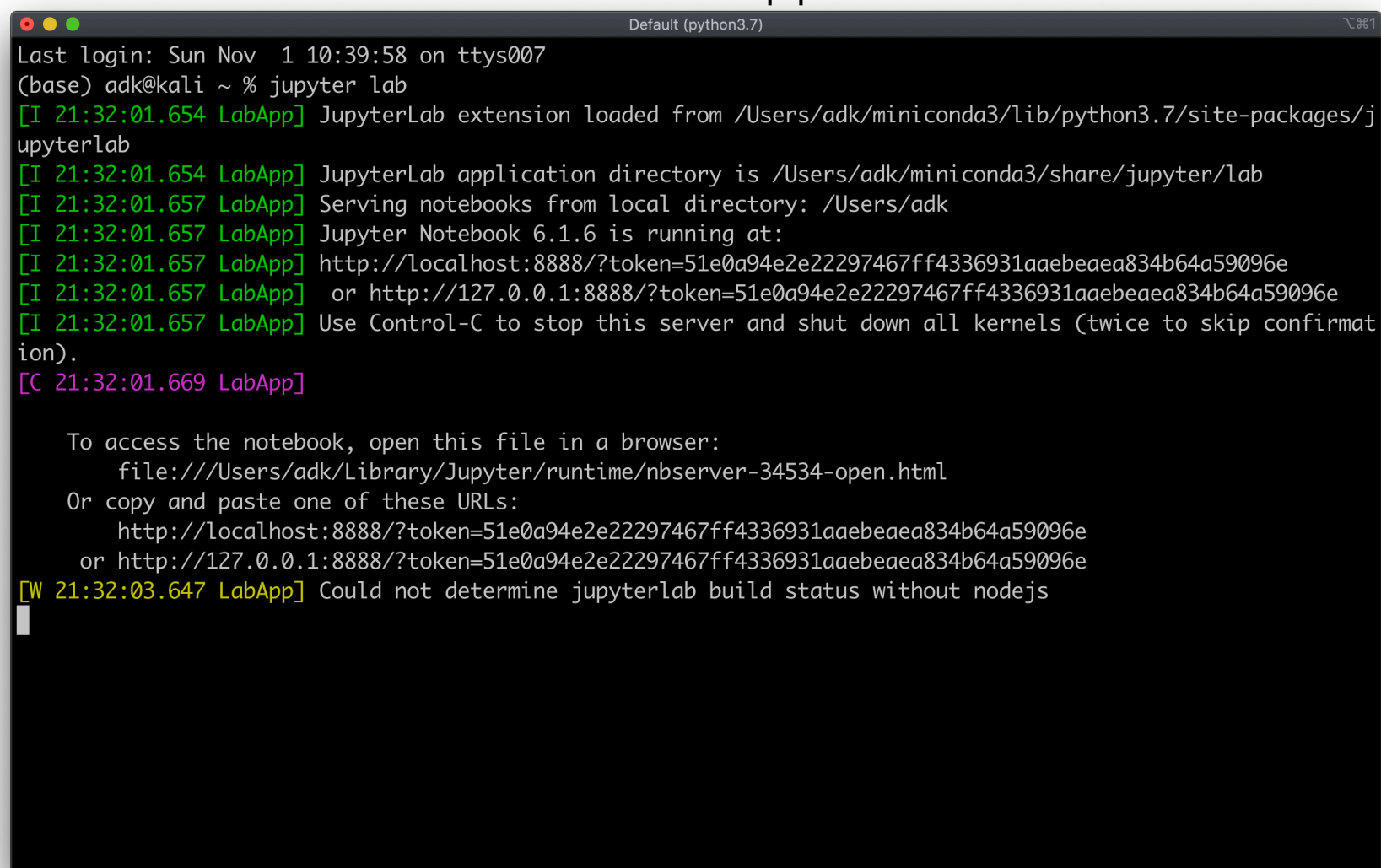
Here is the list of packages that we want for now:

- numpy
- scipy
- matplotlib

Go ahead and install all three of those using `conda install` now

Step 4: Start a Jupyter lab server

Working from the CLI still, type `jupyter lab`

That will bring up a bit of text in your command like so, and a browser window should appear

Step 4: Start a Jupyter lab server
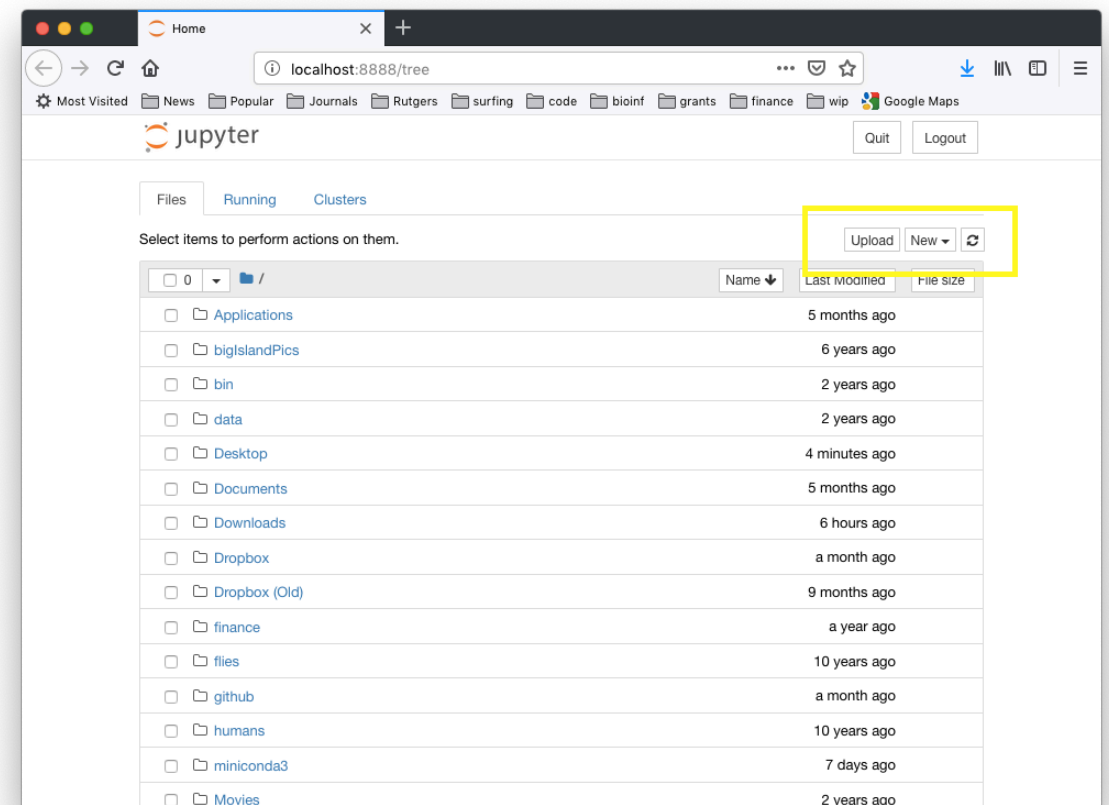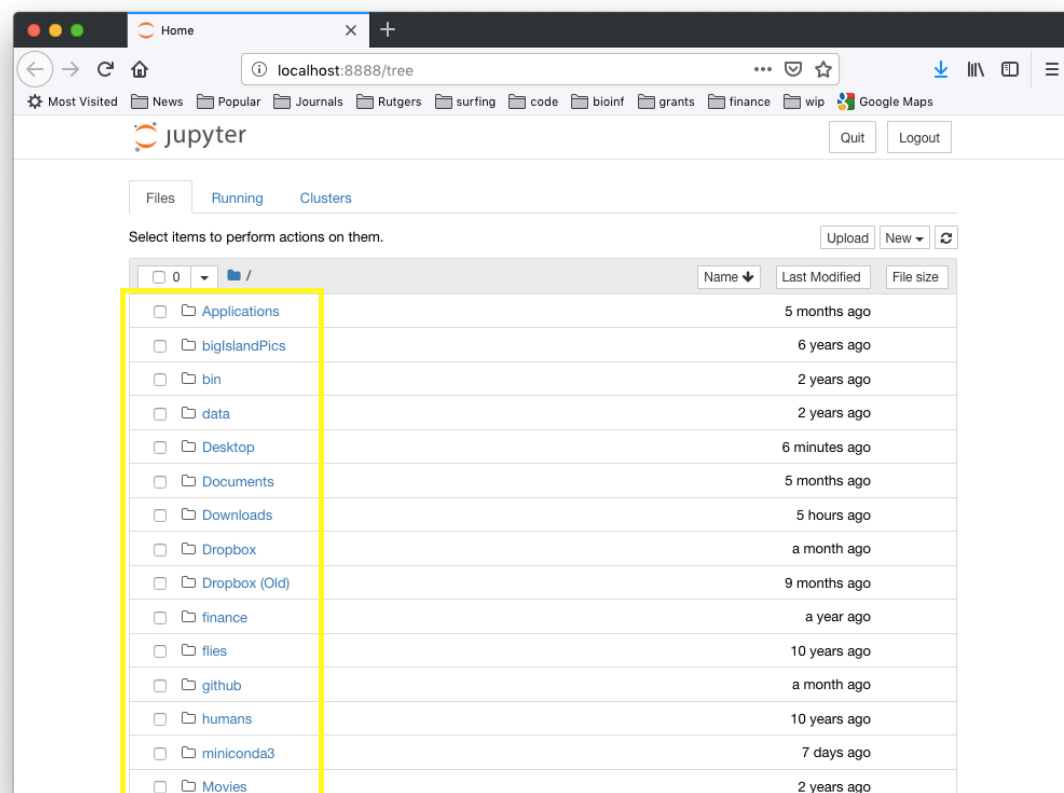
Working from the CLI still, type `jupyter lab`

That will bring up a bit of text in your command like so, and a browser window should appear

Step 5: Pat yourself on the back

Python and the associated tools we need are installed. Nice.

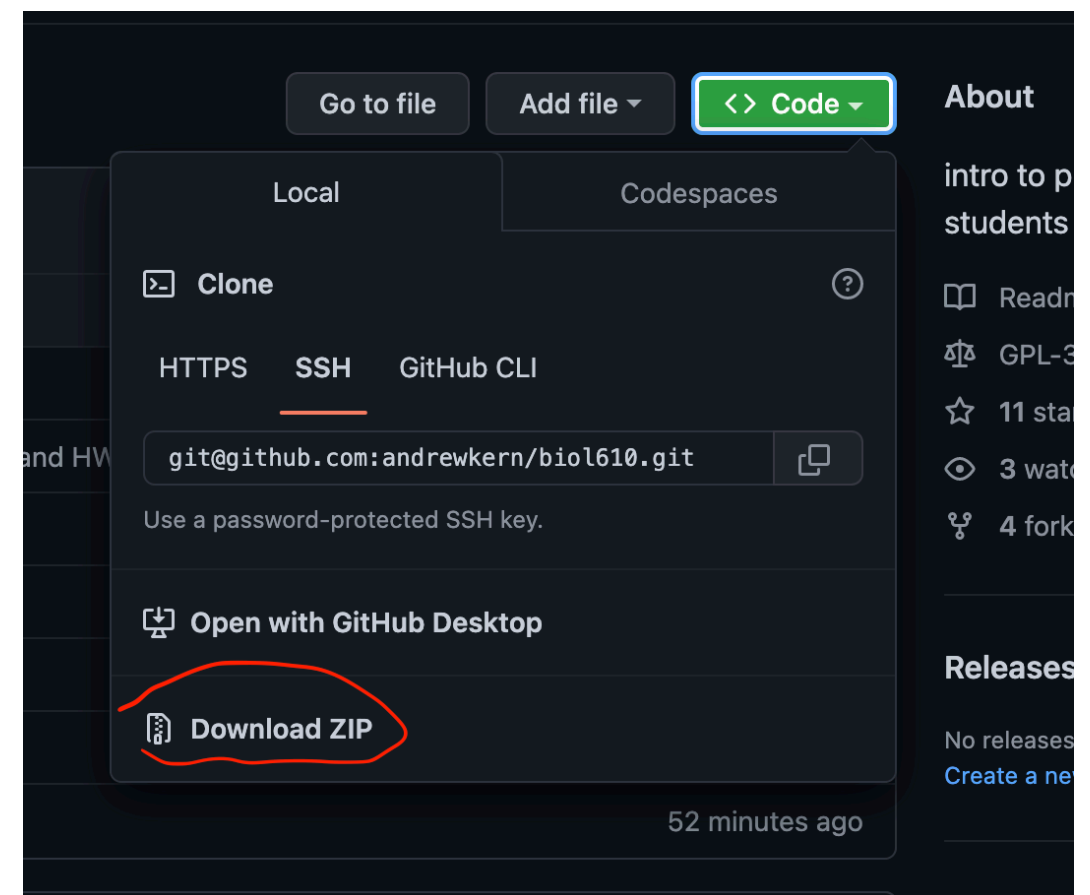Now let's get familiar with the jupyter lab and Jupyter notebooks a bit
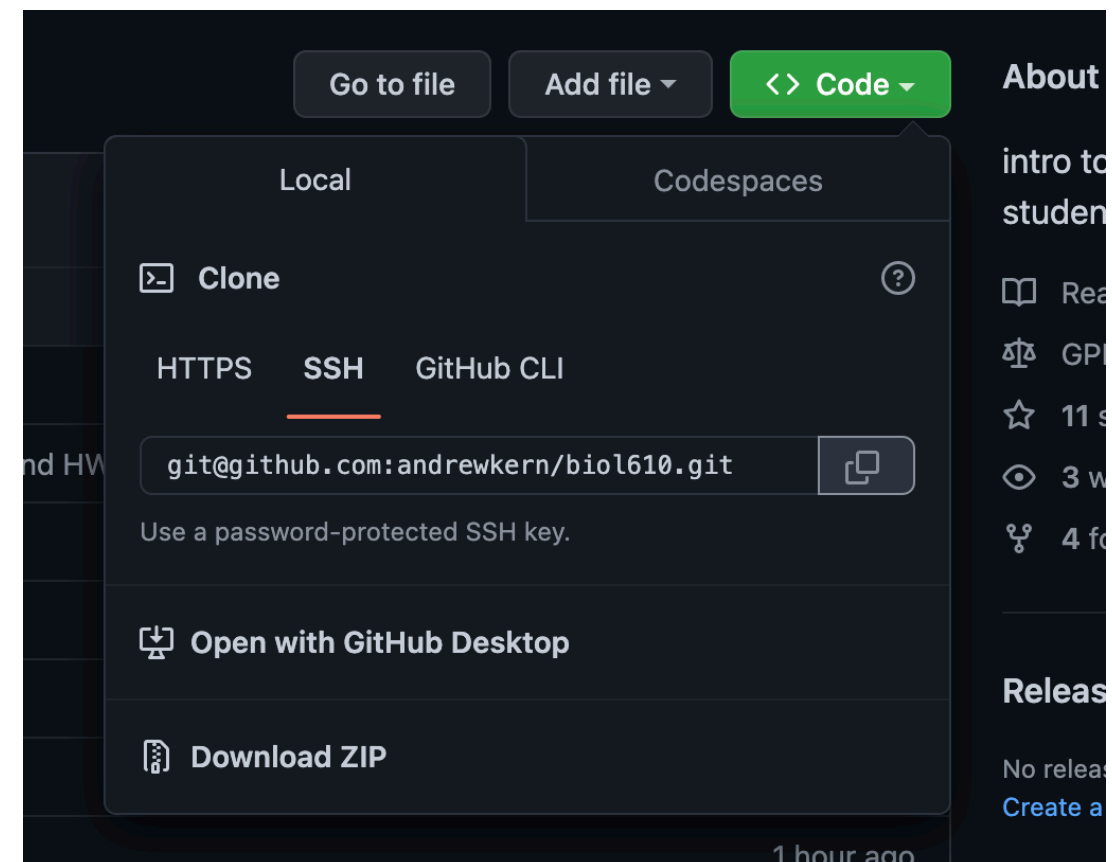
Step 6: Download class materials

This class will be delivered all through Jupyter notebooks that I've put on GitHub for them to be freely available.
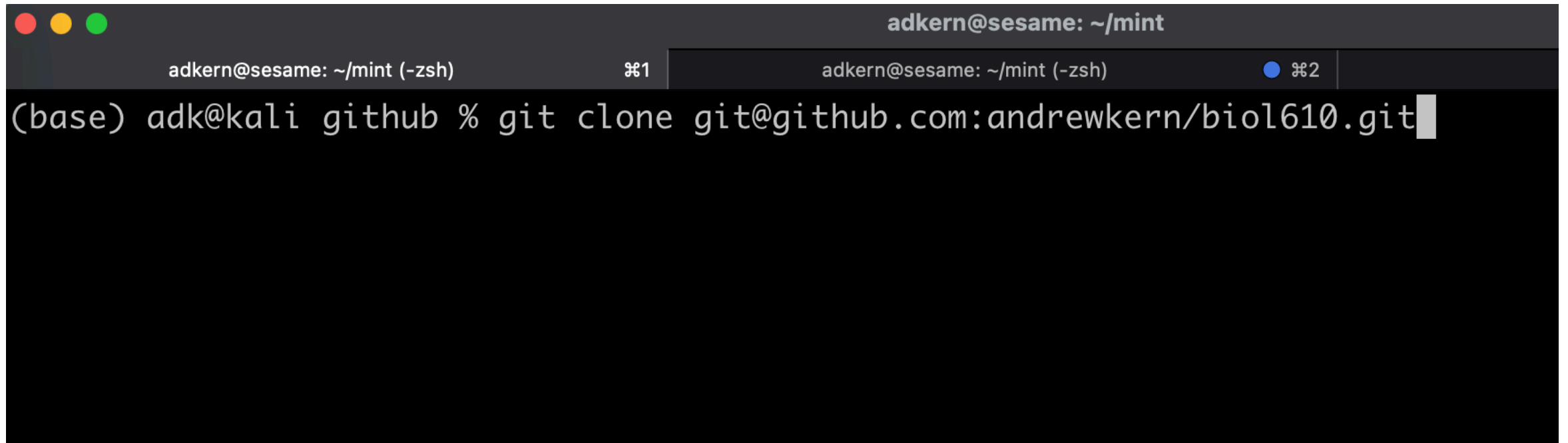
Navigate a browser to
https://github.com/andrewkern/biol610

Easiest way to get the class materials— download zip

Step 6: Download class materials

This class will be delivered all through Jupyter notebooks that I've put on GitHub for them to be freely available.

Navigate a browser to
https://github.com/andrewkern/biol610

Or…. use git to "clone the repo"

Step 6: Download class materials

This class will be delivered all through Jupyter notebooks that I've put on GitHub for them to be freely available.

Navigate a browser to
https://github.com/andrewkern/biol610

This will make a copy of the materials that is linked to mine on the internet (GitHub)

Step 7: Use Jupyter and find lecture 1 notebook