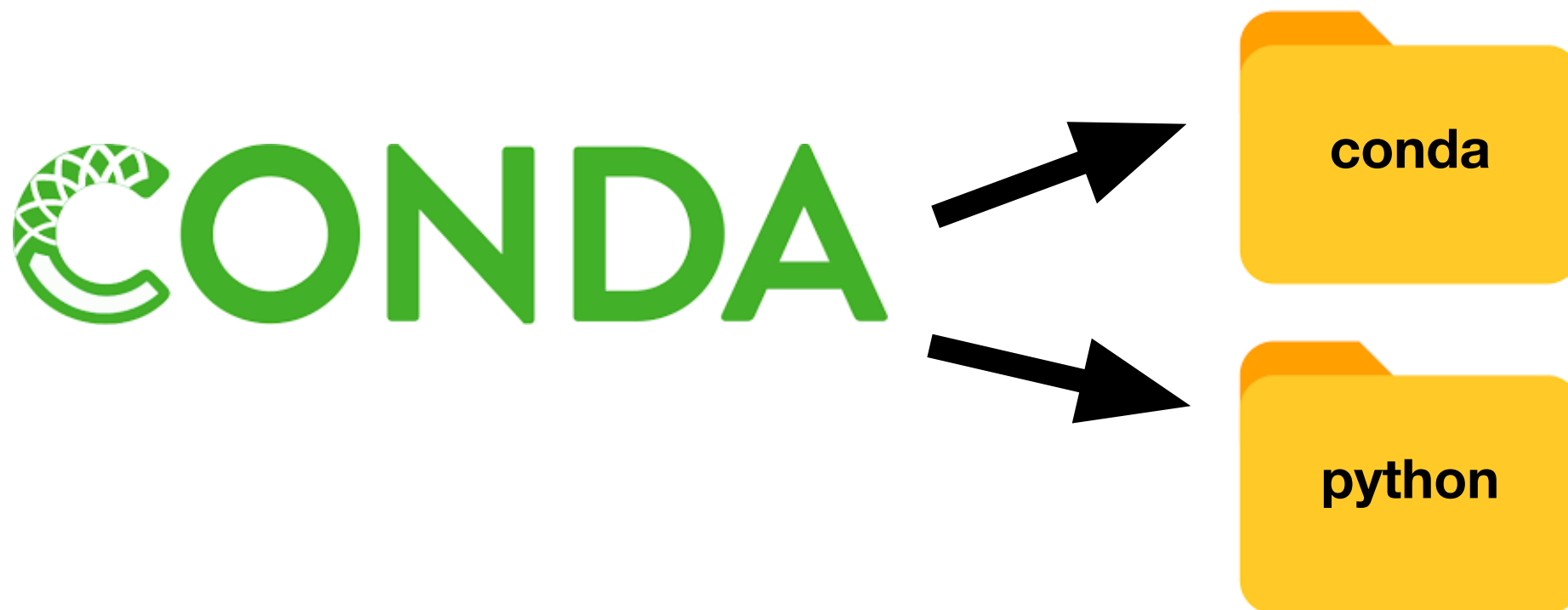


# Introduction to Python for Scientific Programming

# 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



# Step 2: Install Jupyter Notebooks

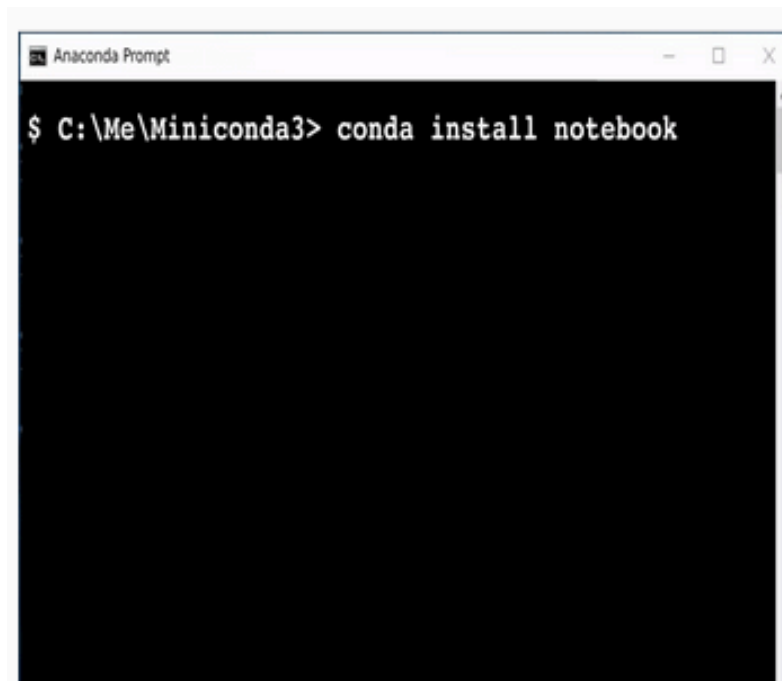
For this we are going to use the conda installation that we just performed

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

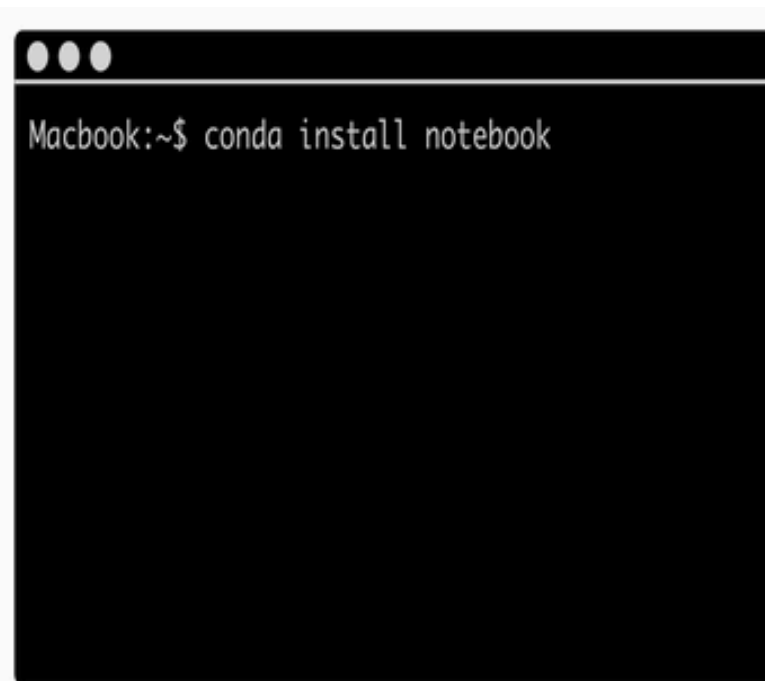
If you have a mac, open the Terminal app; If you have a windows box you will use the Anaconda prompt that was just installed by miniconda

```
`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:

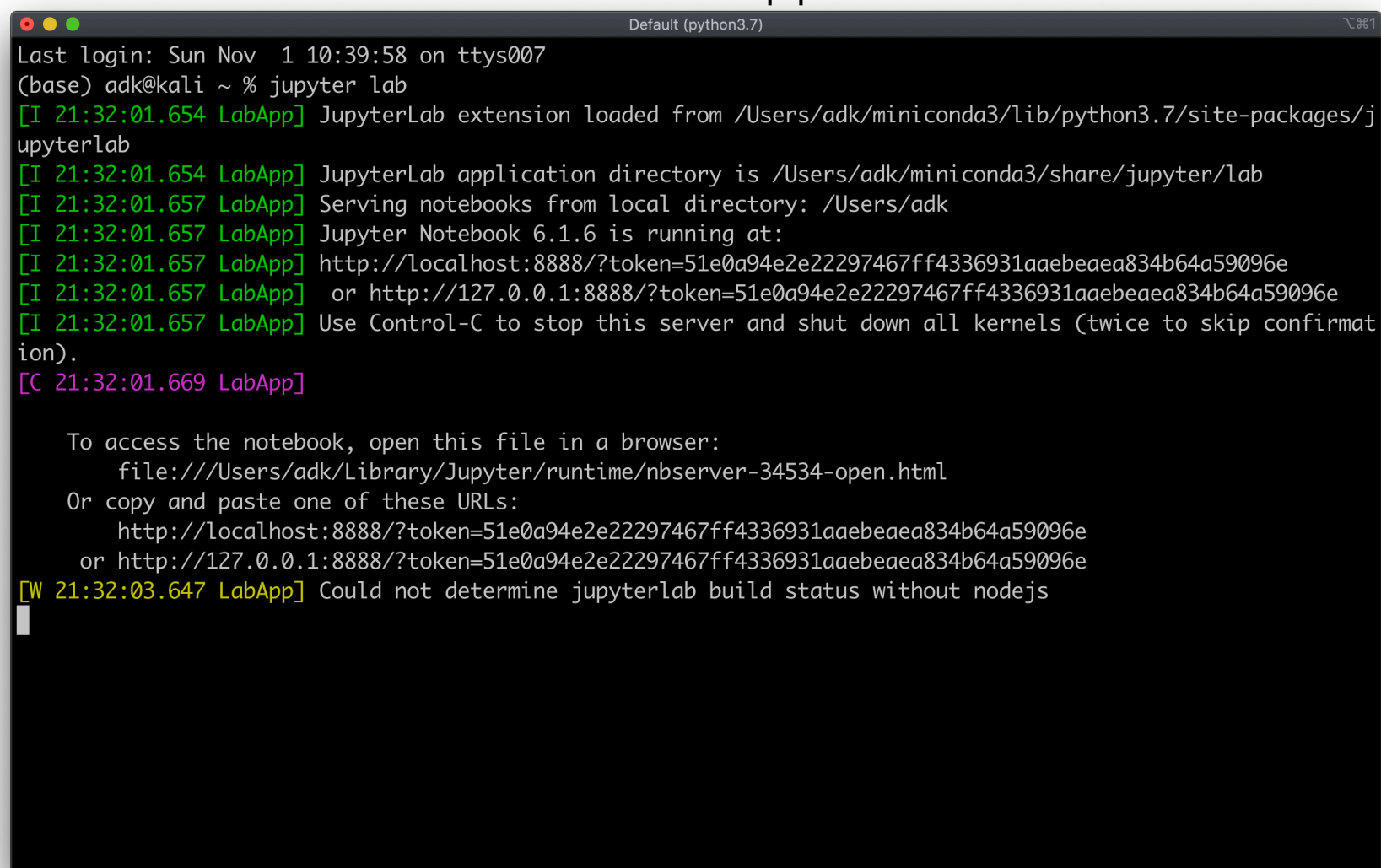
- numpy
- scipy
- matplotlib

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

A terminal window titled 'Default (python3.7)' showing the output of the 'jupyter lab' command. The window has standard macOS window controls (red, yellow, green buttons) in the top-left corner. The text in the terminal is as follows:

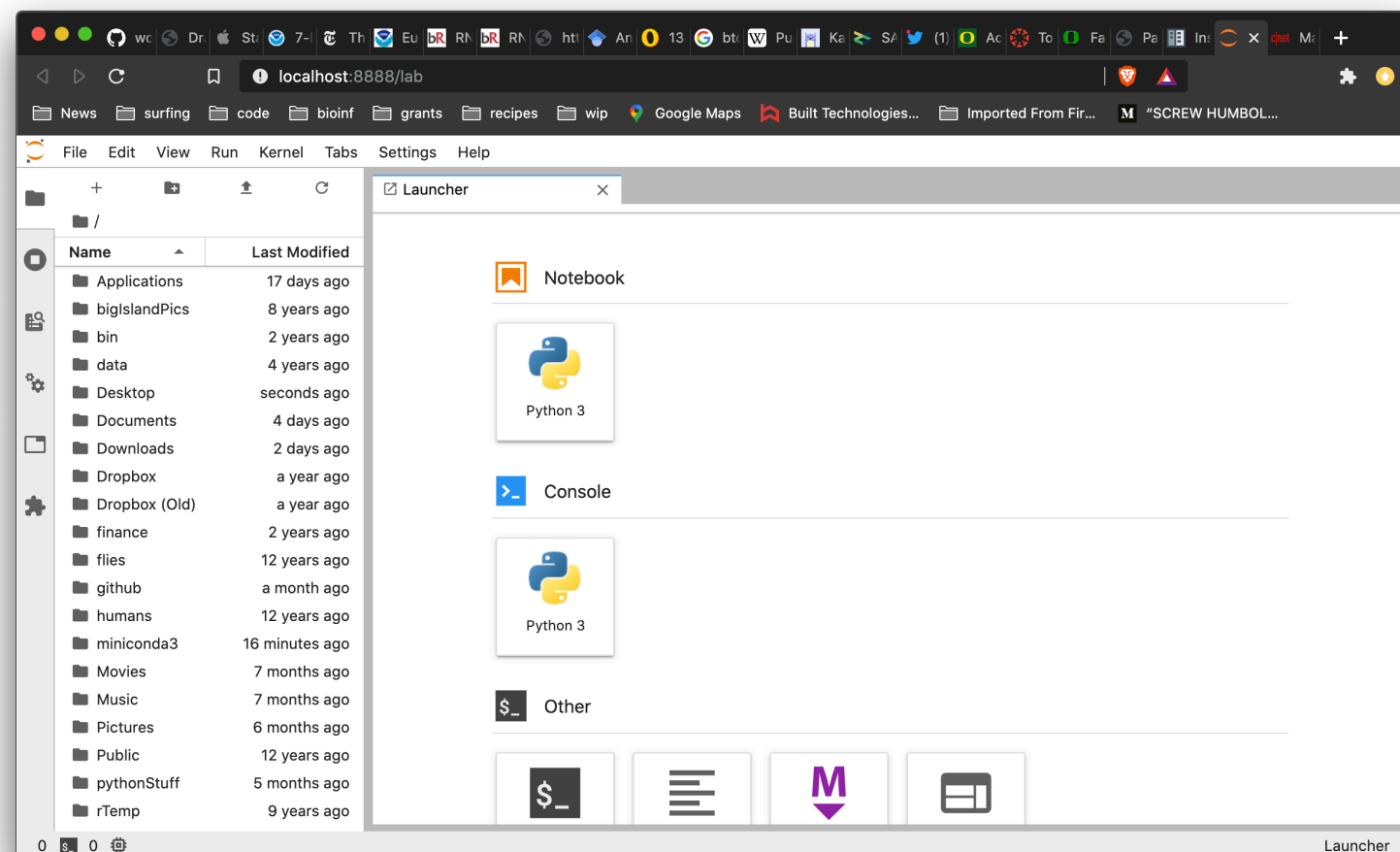
```
Last login: Sun Nov  1 10:39:58 on ttys007
(base) adk@kali ~ % jupyter lab
[I 21:32:01.654 LabApp] JupyterLab extension loaded from /Users/adk/miniconda3/lib/python3.7/site-packages/jupyterlab
[I 21:32:01.654 LabApp] JupyterLab application directory is /Users/adk/miniconda3/share/jupyter/lab
[I 21:32:01.657 LabApp] Serving notebooks from local directory: /Users/adk
[I 21:32:01.657 LabApp] Jupyter Notebook 6.1.6 is running at:
[I 21:32:01.657 LabApp] http://localhost:8888/?token=51e0a94e2e22297467ff4336931aaebeaea834b64a59096e
[I 21:32:01.657 LabApp] or http://127.0.0.1:8888/?token=51e0a94e2e22297467ff4336931aaebeaea834b64a59096e
[I 21:32:01.657 LabApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 21:32:01.669 LabApp]

To access the notebook, open this file in a browser:
    file:///Users/adk/Library/Jupyter/runtime/nbserver-34534-open.html
Or copy and paste one of these URLs:
    http://localhost:8888/?token=51e0a94e2e22297467ff4336931aaebeaea834b64a59096e
    or http://127.0.0.1:8888/?token=51e0a94e2e22297467ff4336931aaebeaea834b64a59096e
[W 21:32:03.647 LabApp] Could not determine jupyterlab build status without nodejs
```

# 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 Jupiter notebooks a bit

