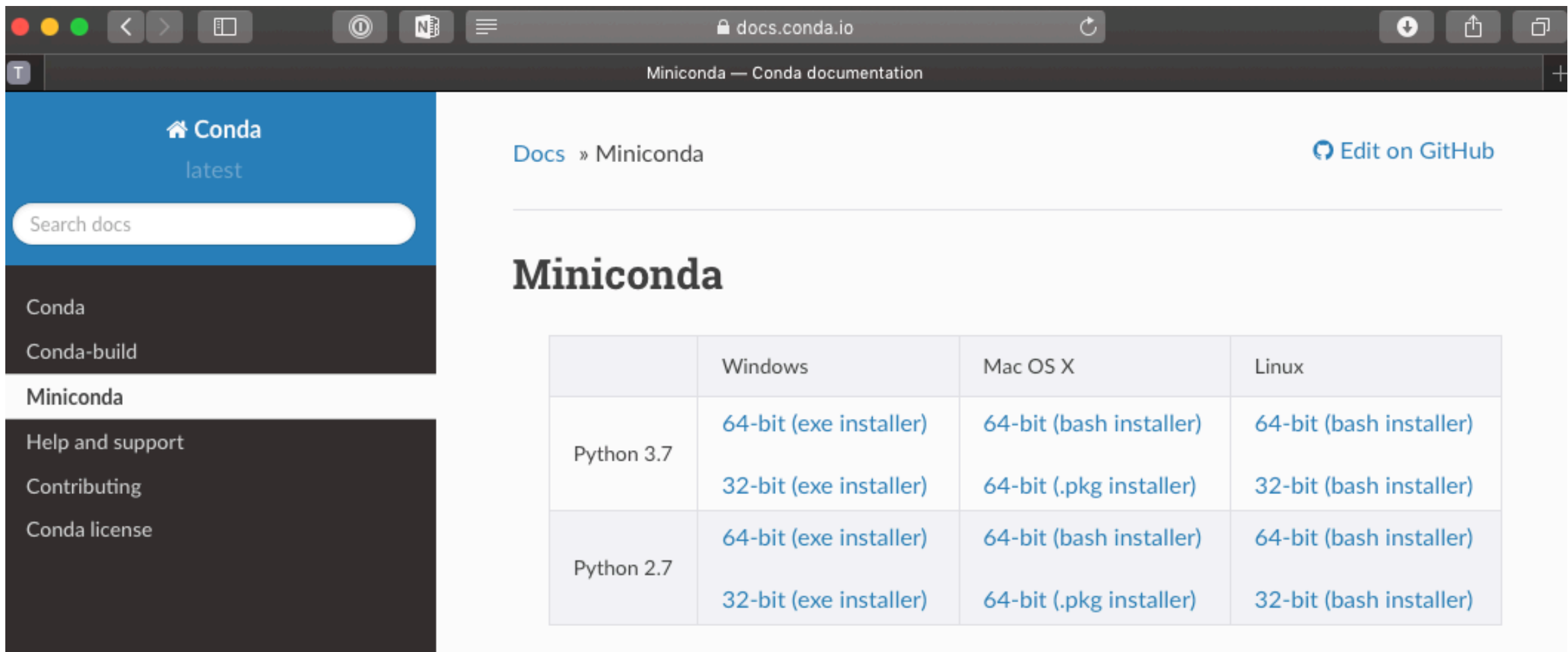


Quick Guide for Installing and Using Jupyter Notebook/Lab

- I recommend installing Python via the Miniconda Package manager
- Choose the installer appropriate for your OS from the website

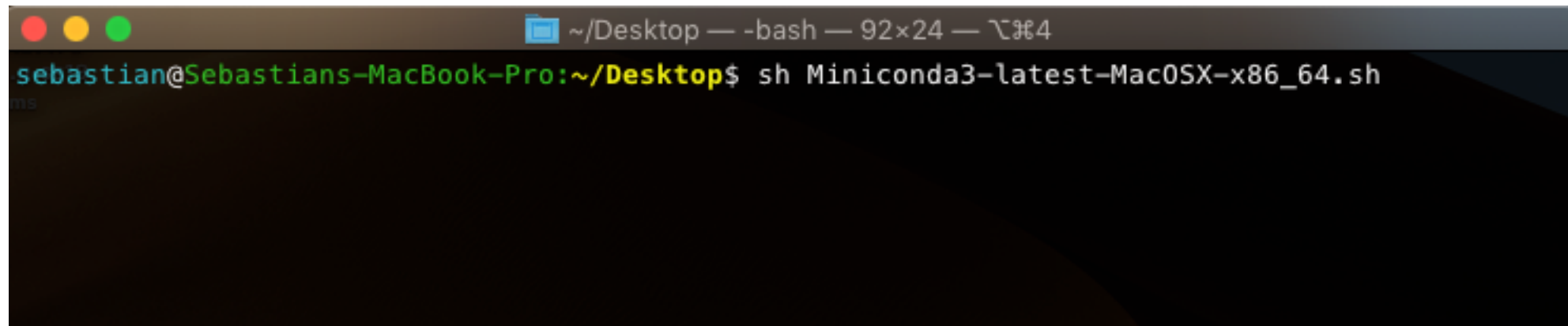
<https://docs.conda.io/en/latest/miniconda.html>



The screenshot shows a web browser window displaying the Miniconda documentation page. The browser's address bar shows `docs.conda.io`. The page has a dark sidebar on the left with a search bar and navigation links. The main content area has a breadcrumb trail "Docs » Miniconda" and a link to "Edit on GitHub". Below this is the "Miniconda" section header, followed by a table of installers.

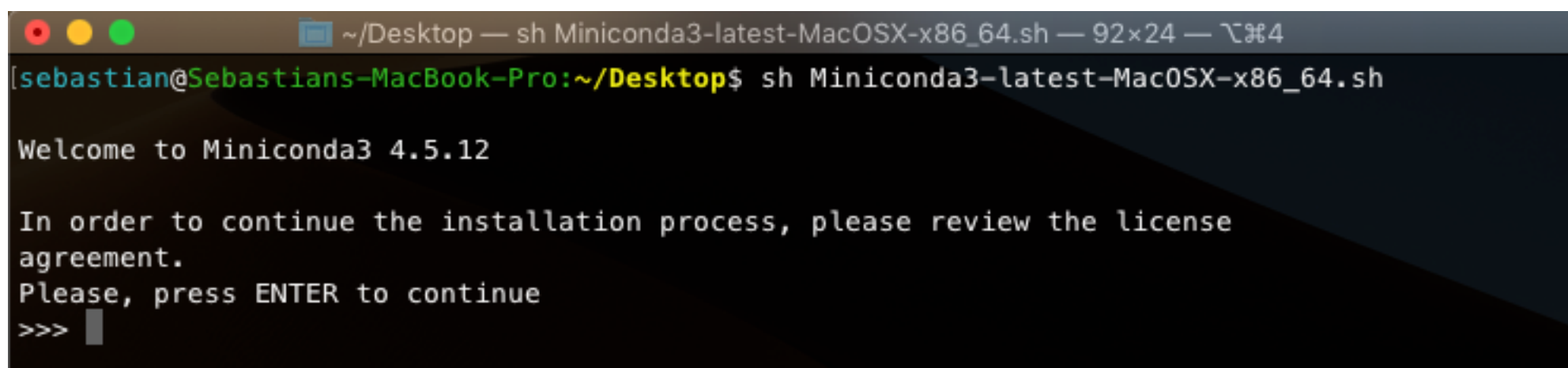
| | Windows | Mac OS X | Linux |
|------------|--|---|---|
| Python 3.7 | 64-bit (exe installer) | 64-bit (bash installer) | 64-bit (bash installer) |
| | 32-bit (exe installer) | 64-bit (.pkg installer) | 32-bit (bash installer) |
| Python 2.7 | 64-bit (exe installer) | 64-bit (bash installer) | 64-bit (bash installer) |
| | 32-bit (exe installer) | 64-bit (.pkg installer) | 32-bit (bash installer) |

- If you chose "64-bit (bash installer)", you would initiate the installation as follows:



```
~/Desktop — -bash — 92x24 — ￼4
sebastian@Sebastians-MacBook-Pro:~/Desktop$ sh Miniconda3-latest-MacOSX-x86_64.sh
```

- Then just follow the instructions on the screen:



```
~/Desktop — sh Miniconda3-latest-MacOSX-x86_64.sh — 92x24 — ￼4
[sebastian@Sebastians-MacBook-Pro:~/Desktop$ sh Miniconda3-latest-MacOSX-x86_64.sh]

Welcome to Miniconda3 4.5.12

In order to continue the installation process, please review the license
agreement.
Please, press ENTER to continue
>>> █
```

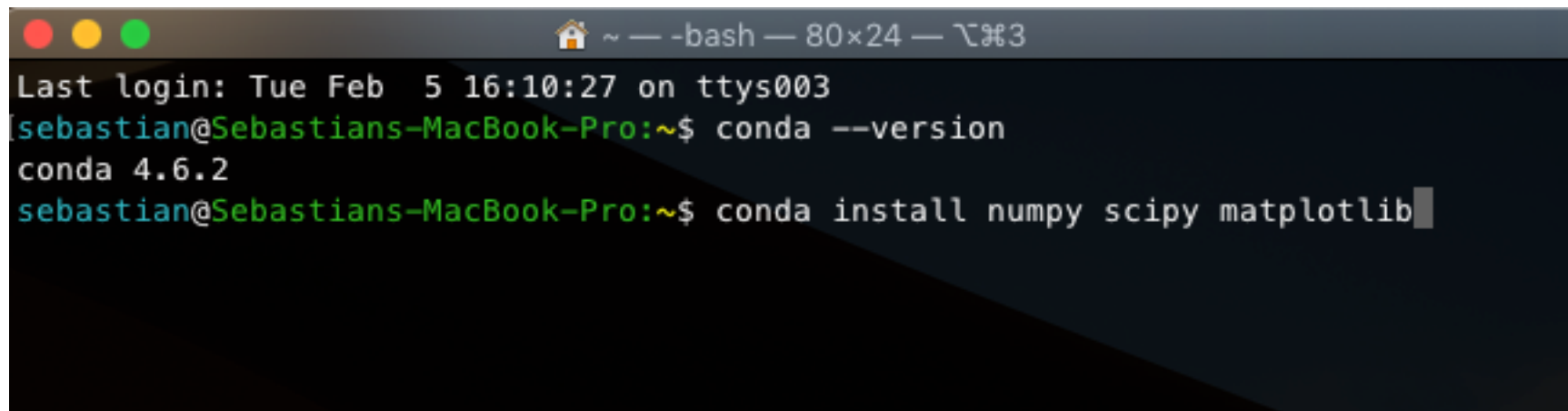
- After installation, close your terminal and open a new terminal; the "conda" command should now be available from the command line

A screenshot of a macOS terminal window. The title bar shows standard window controls (red, yellow, green buttons) and a status bar with a home icon, a tilde (~), and text: "-bash — 80x24 — ￼3". The terminal content shows a login message: "Last login: Tue Feb 5 16:10:27 on ttys003". Below this, the prompt is "[sebastian@Sebastians-MacBook-Pro:~\$". The user has entered the command "conda --version", and the terminal has responded with "conda 4.6.2". The prompt is now "sebastian@Sebastians-MacBook-Pro:~\$".

```
~ — -bash — 80x24 — ￼3
Last login: Tue Feb 5 16:10:27 on ttys003
[sebastian@Sebastians-MacBook-Pro:~$ conda --version
conda 4.6.2
sebastian@Sebastians-MacBook-Pro:~$
```

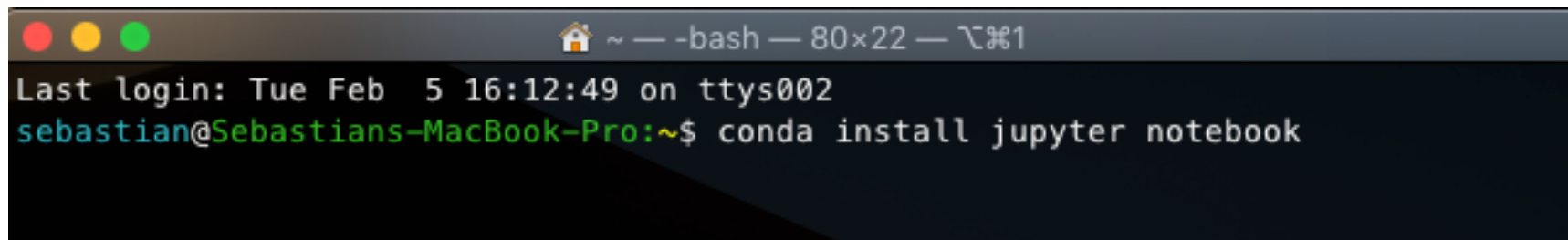
- On Windows, you may have to add "conda" to the "PATH" manually (this basically means you have to define a shortcut so that your terminal knows what to do if you type "conda")
- In this case, it's probably best if you read through the suggestions at <https://stackoverflow.com/questions/44597662/conda-command-is-not-recognized-on-windows-10>

- After you got conda to work from the command line, you may want to install the commonly used packages ...

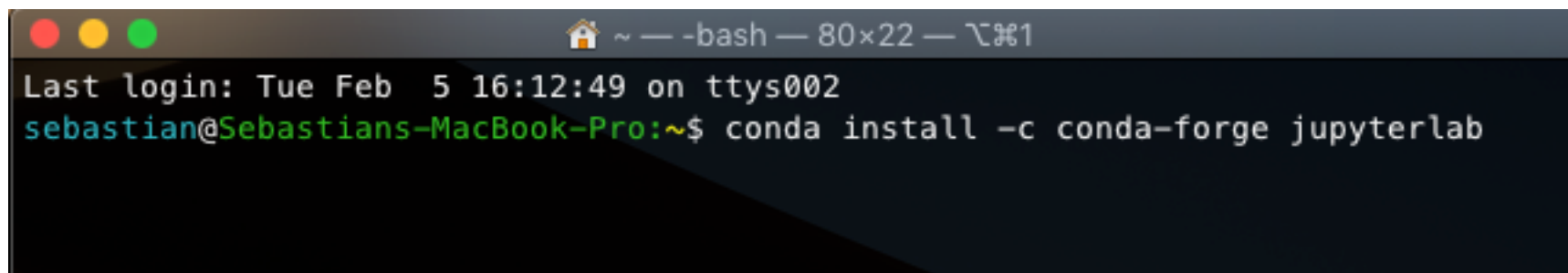
A screenshot of a macOS terminal window. The title bar shows standard macOS window controls (red, yellow, green buttons) and a status bar with a home icon, a tilde (~), a dash, the text '-bash', another dash, the window size '80x24', and a keyboard shortcut '⌘3'. The terminal content shows a login message: 'Last login: Tue Feb 5 16:10:27 on ttys003'. The first command is 'sebastian@Sebastians-MacBook-Pro:~\$ conda --version', which outputs 'conda 4.6.2'. The second command is 'sebastian@Sebastians-MacBook-Pro:~\$ conda install numpy scipy matplotlib', with a cursor at the end of the line.

```
~ — -bash — 80x24 — ⌘3
Last login: Tue Feb 5 16:10:27 on ttys003
sebastian@Sebastians-MacBook-Pro:~$ conda --version
conda 4.6.2
sebastian@Sebastians-MacBook-Pro:~$ conda install numpy scipy matplotlib
```

- Next, you can either install Jupyter Notebook or Jupyter Lab; both are programs for working with Jupyter Notebook files (.ipynb files)
- Both work well, but Jupyter Lab is a bit more modern
- You can them as follows (you only need one)

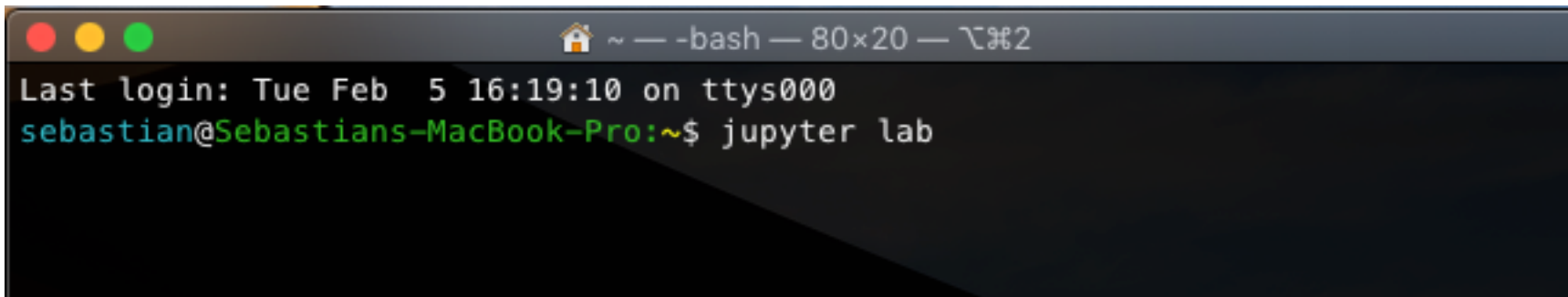


```
~ — -bash — 80x22 — 1
Last login: Tue Feb  5 16:12:49 on ttys002
sebastian@Sebastians-MacBook-Pro:~$ conda install jupyter notebook
```

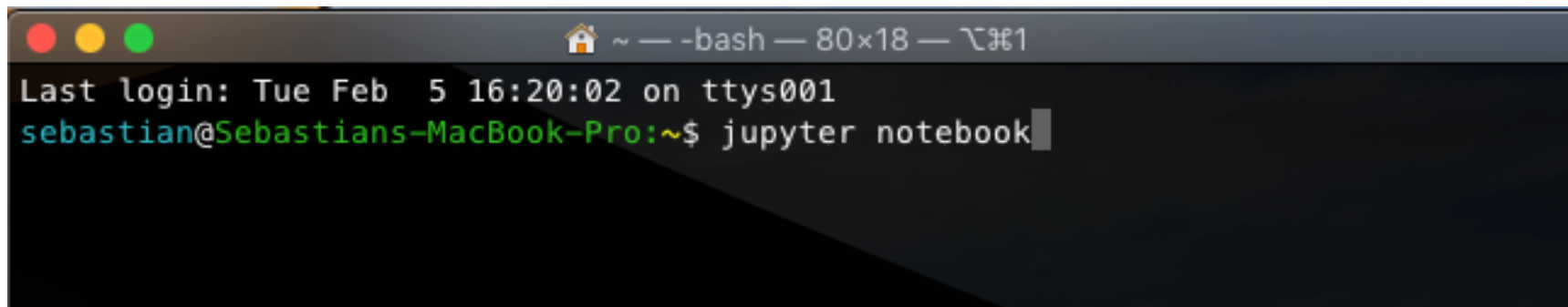


```
~ — -bash — 80x22 — 1
Last login: Tue Feb  5 16:12:49 on ttys002
sebastian@Sebastians-MacBook-Pro:~$ conda install -c conda-forge jupyterlab
```

- After installation, you can then start Jupyter Notebook or Jupyter Lab as follows (again, you only need one of the two)

A terminal window on a macOS system. The title bar shows a home icon, a tilde (~), and the text "-bash — 80x20 — ￼2". The terminal content shows the last login time as "Tue Feb 5 16:19:10 on ttys000" and the current user as "sebastian@Sebastians-MacBook-Pro:~". The command "jupyter lab" has been entered at the prompt.

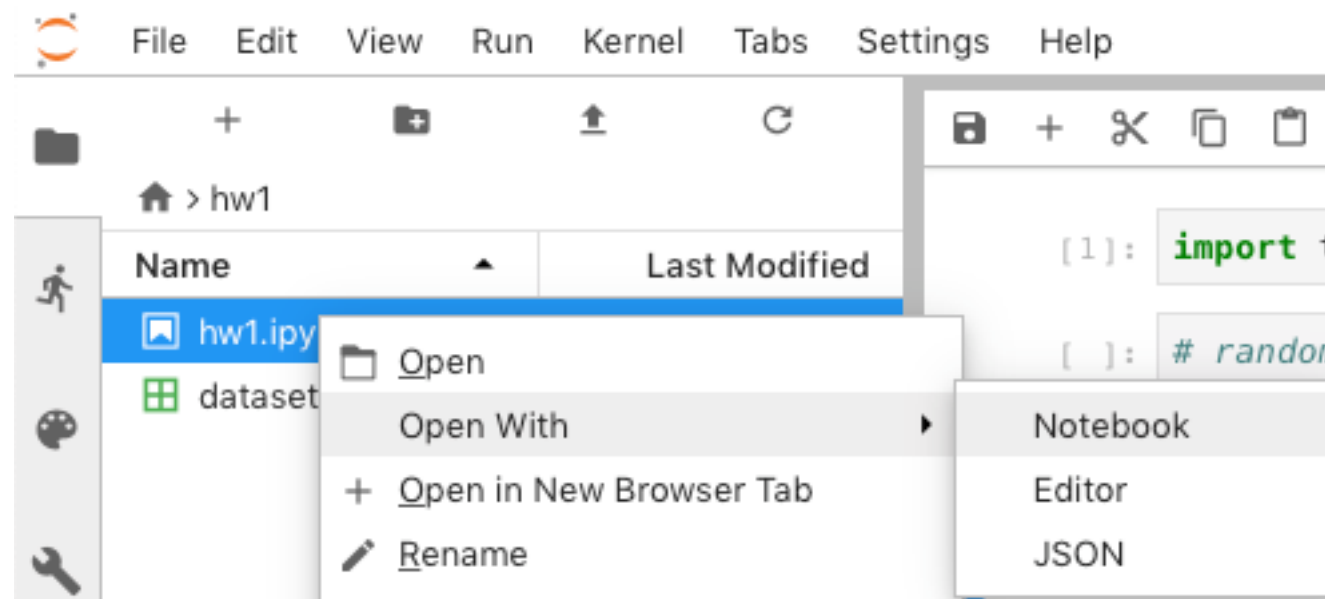
```
~ — -bash — 80x20 — ￼2
Last login: Tue Feb 5 16:19:10 on ttys000
sebastian@Sebastians-MacBook-Pro:~$ jupyter lab
```

A terminal window on a macOS system. The title bar shows a home icon, a tilde (~), and the text "-bash — 80x18 — ￼1". The terminal content shows the last login time as "Tue Feb 5 16:20:02 on ttys001" and the current user as "sebastian@Sebastians-MacBook-Pro:~". The command "jupyter notebook" has been entered at the prompt.

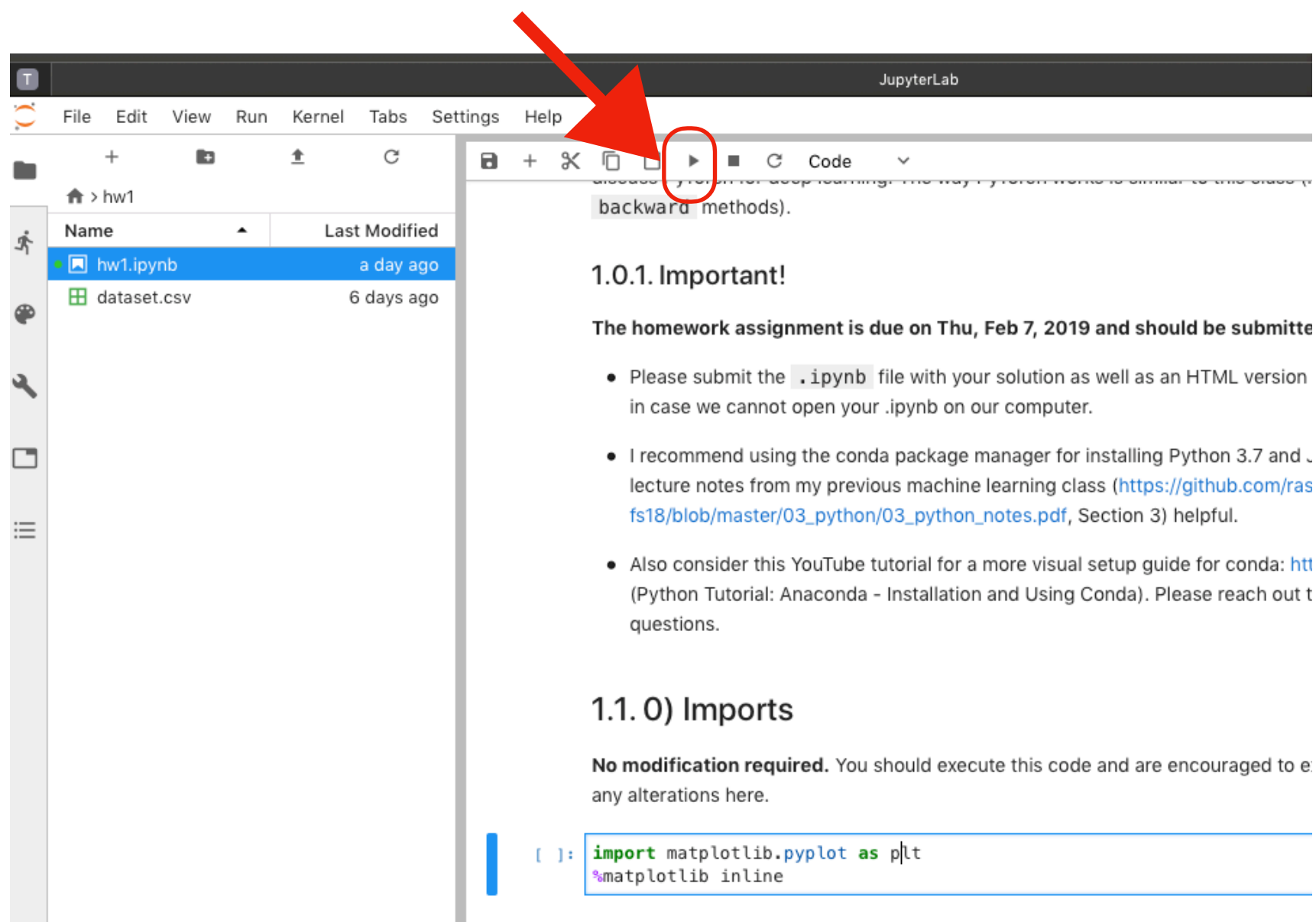
```
~ — -bash — 80x18 — ￼1
Last login: Tue Feb 5 16:20:02 on ttys001
sebastian@Sebastians-MacBook-Pro:~$ jupyter notebook
```

- The application will then start in your default web browser, which you will then use to interact with the notebook; however, you need to keep the terminal running as long as you use the application in your browser

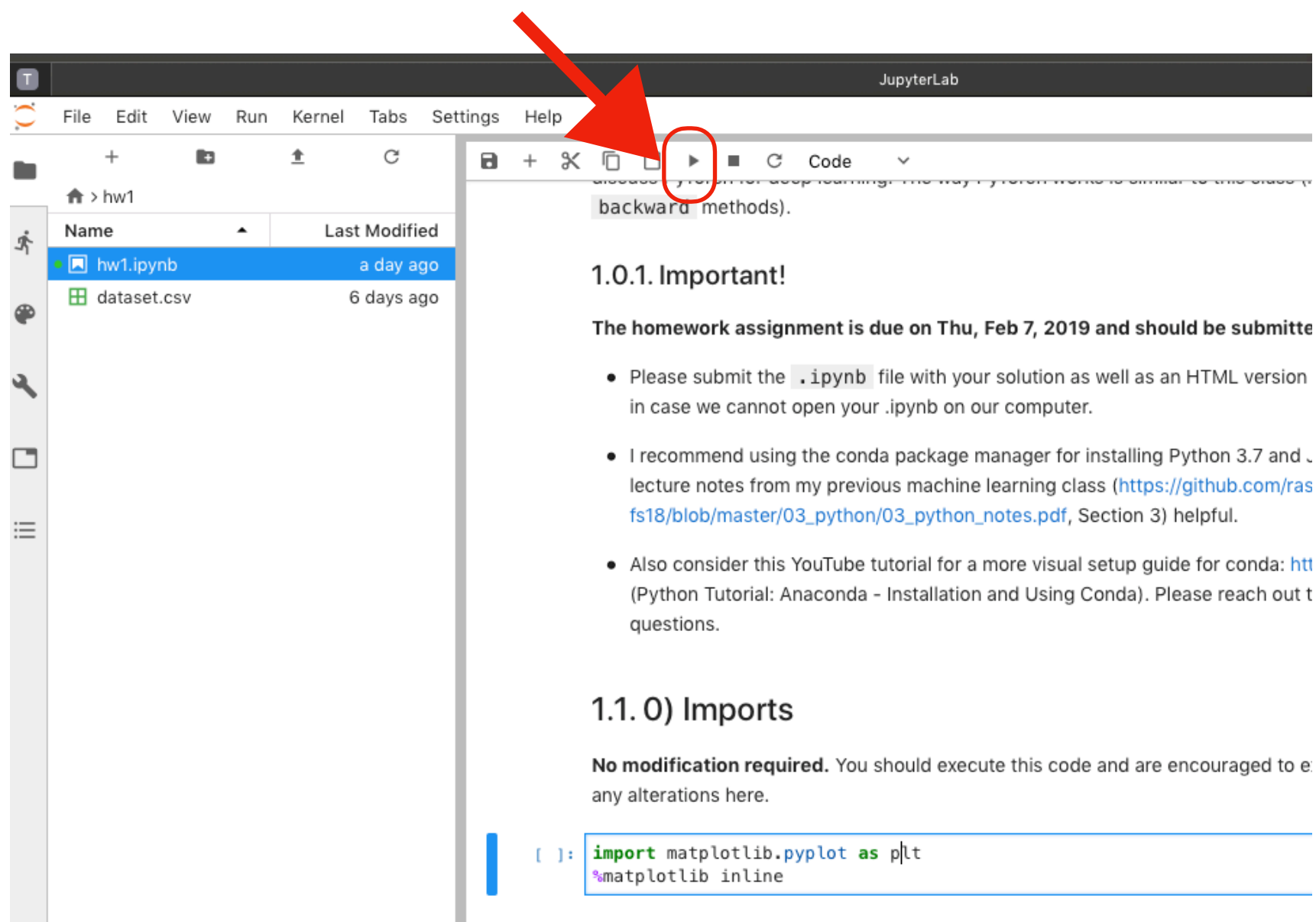
- Suppose now you want to work on HW1
- Open Jupyter Lab in your home directory and then navigate to the location where you stored the "hw1" directory after downloading from GitHub (or directly start the Jupyter Lab application from the terminal in this folder)
- Then right-click on the hw1.ipynb file and choose "Open With -> Notebook"



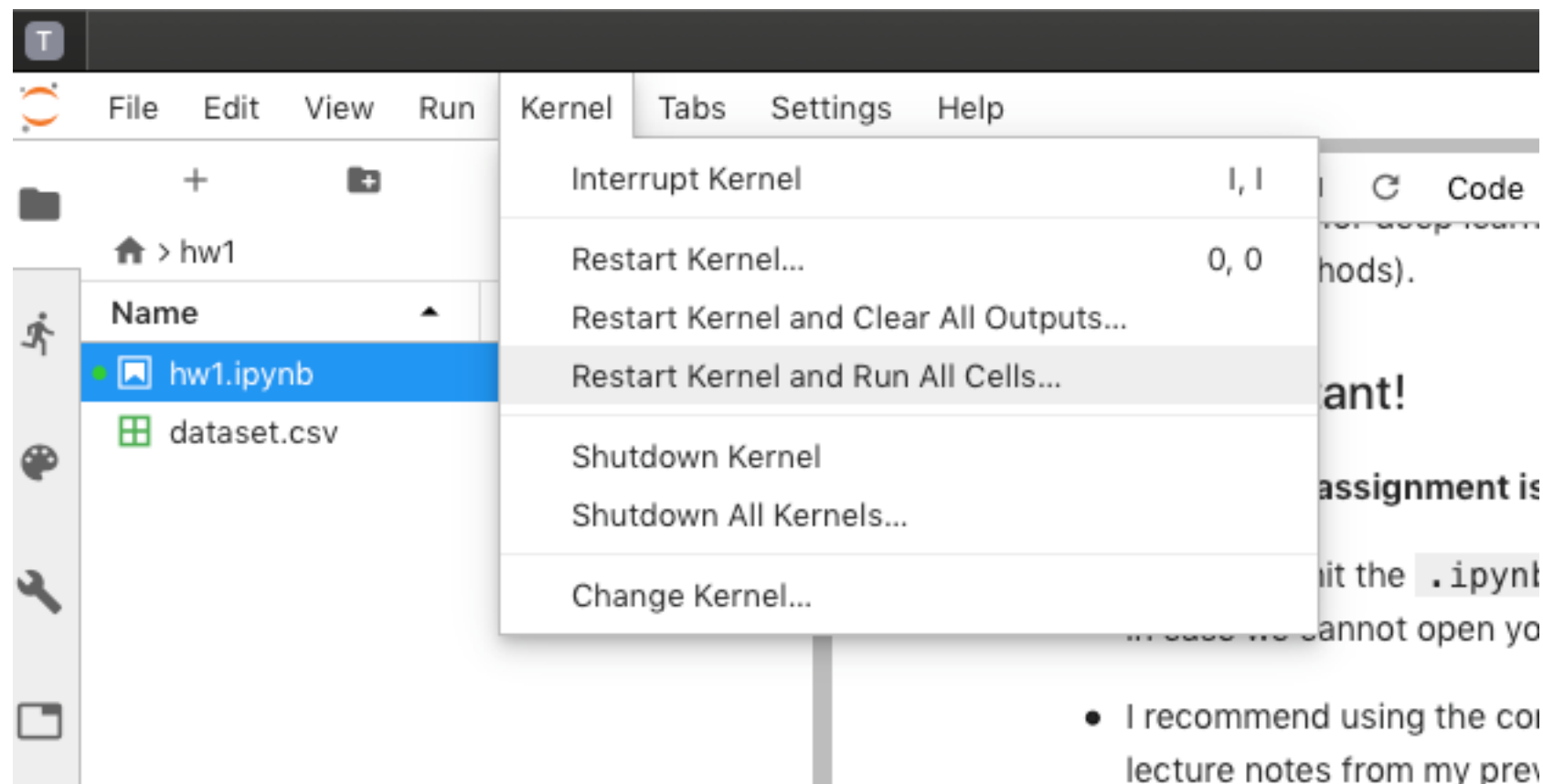
- You can execute code cells by selecting the cell and then clicking on this button (or click "shift+enter")



- You can execute code cells by selecting the cell and then clicking on this button (or click "shift+enter")



- **When you are finished, I recommend restarting the notebook and running all cells to make sure they execute correctly in sequential order**



- I recommend using the col
lecture notes from my prev

- **Finally, save the notebook and also create an HTML version**
- **Then, submit both your .ipynb file and the .html file to Canvas**

