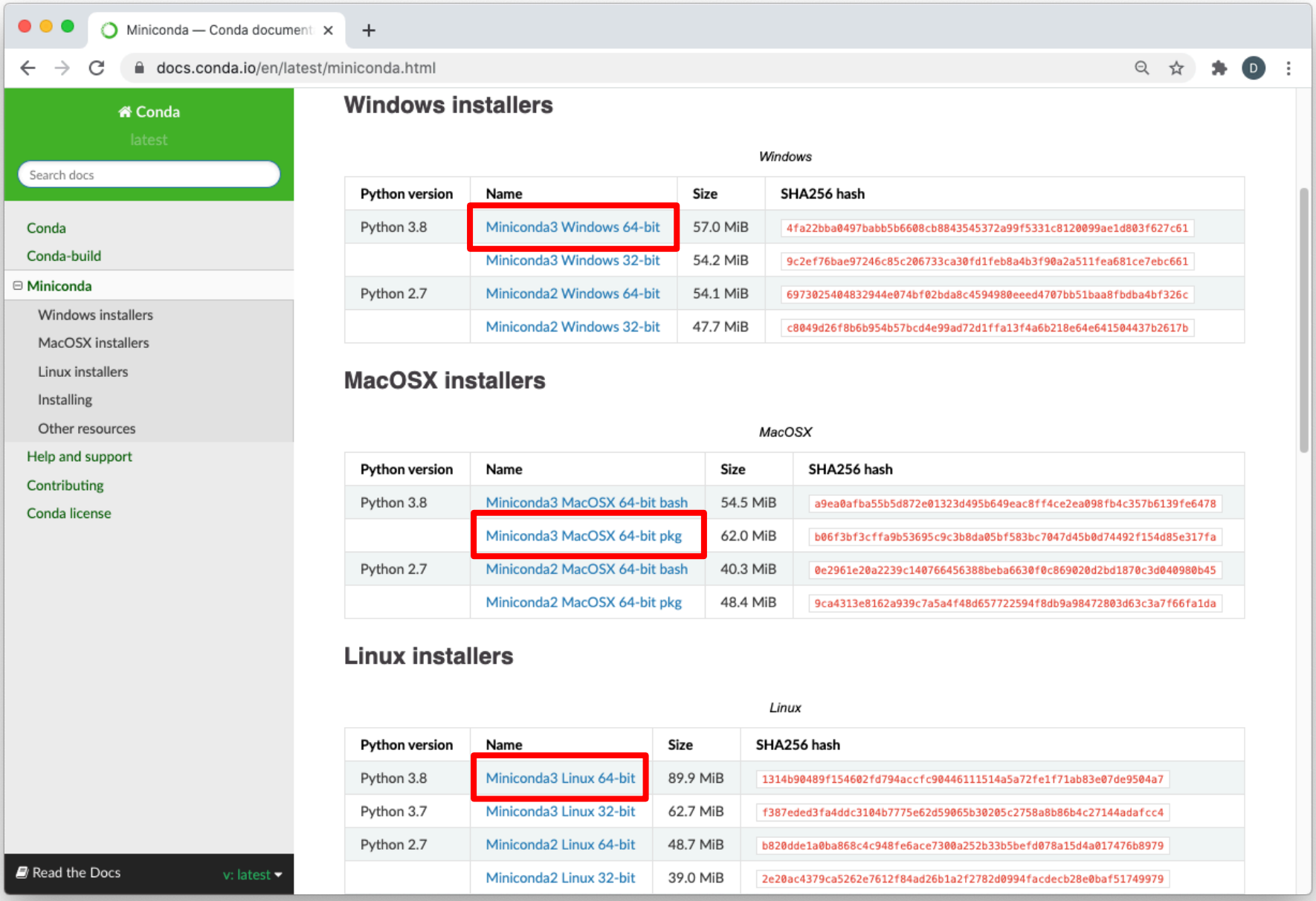
Starting the lab on your own computer

Please read to the end before starting

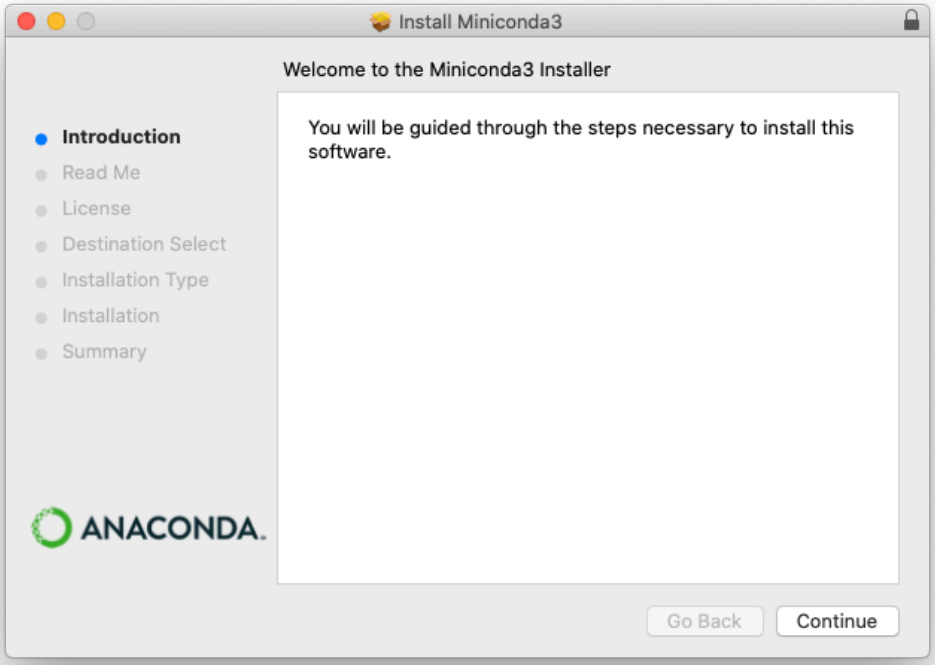
LINKÖPING UNIVERSITY

Setting up the environment

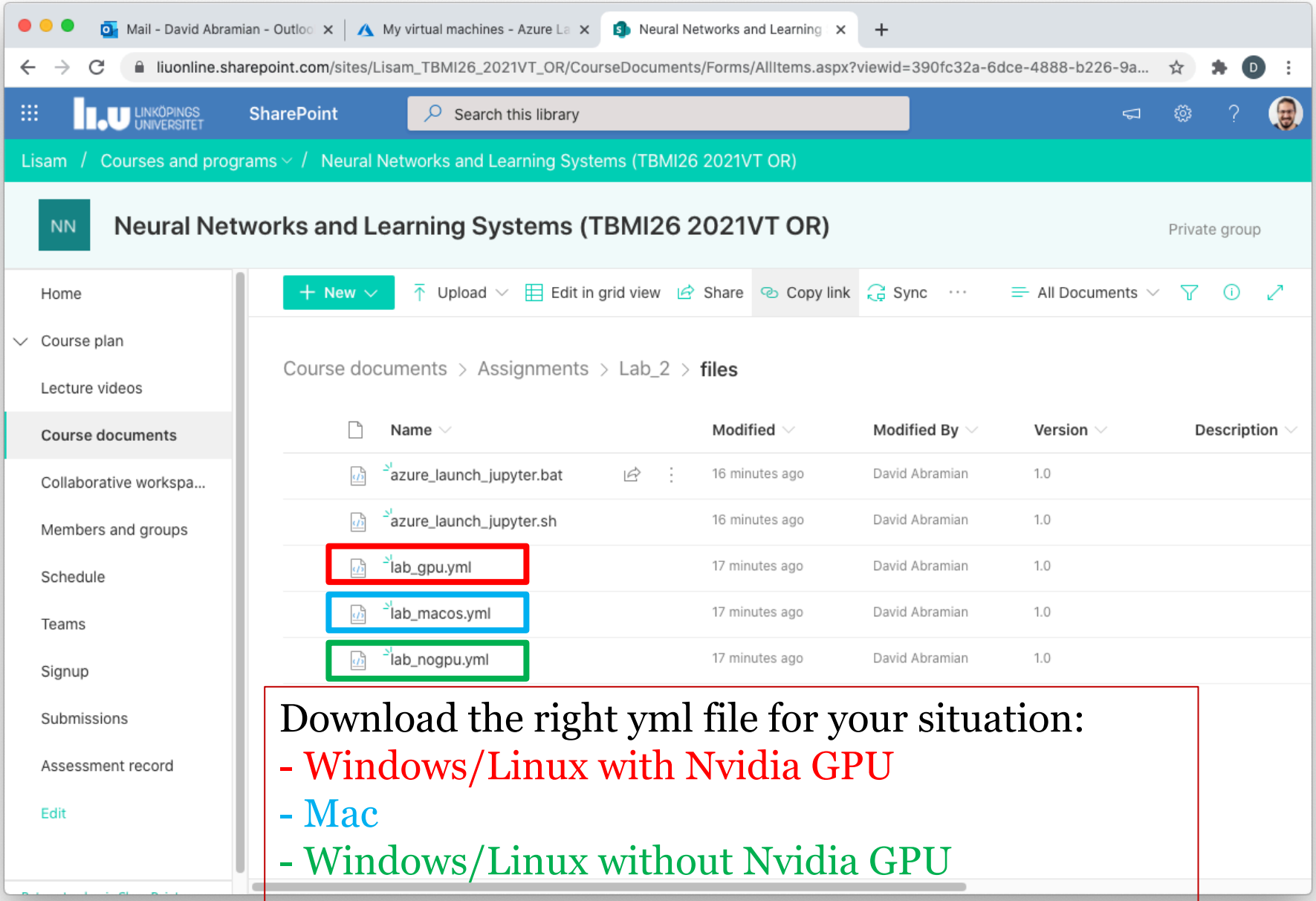
This only needs to be done once



Download the right version of Miniconda for your OS.



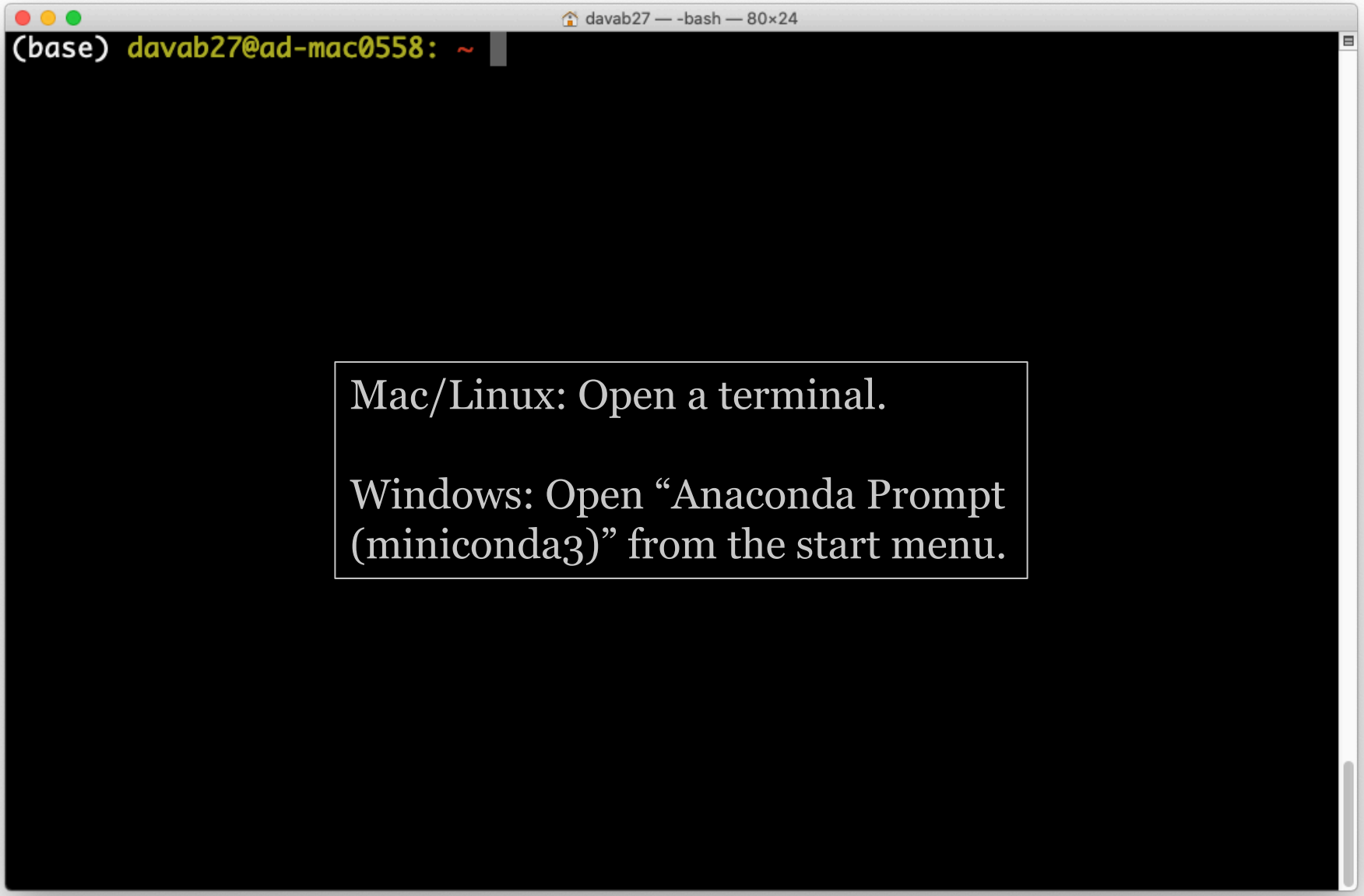
Install Miniconda. The default settings should be fine.

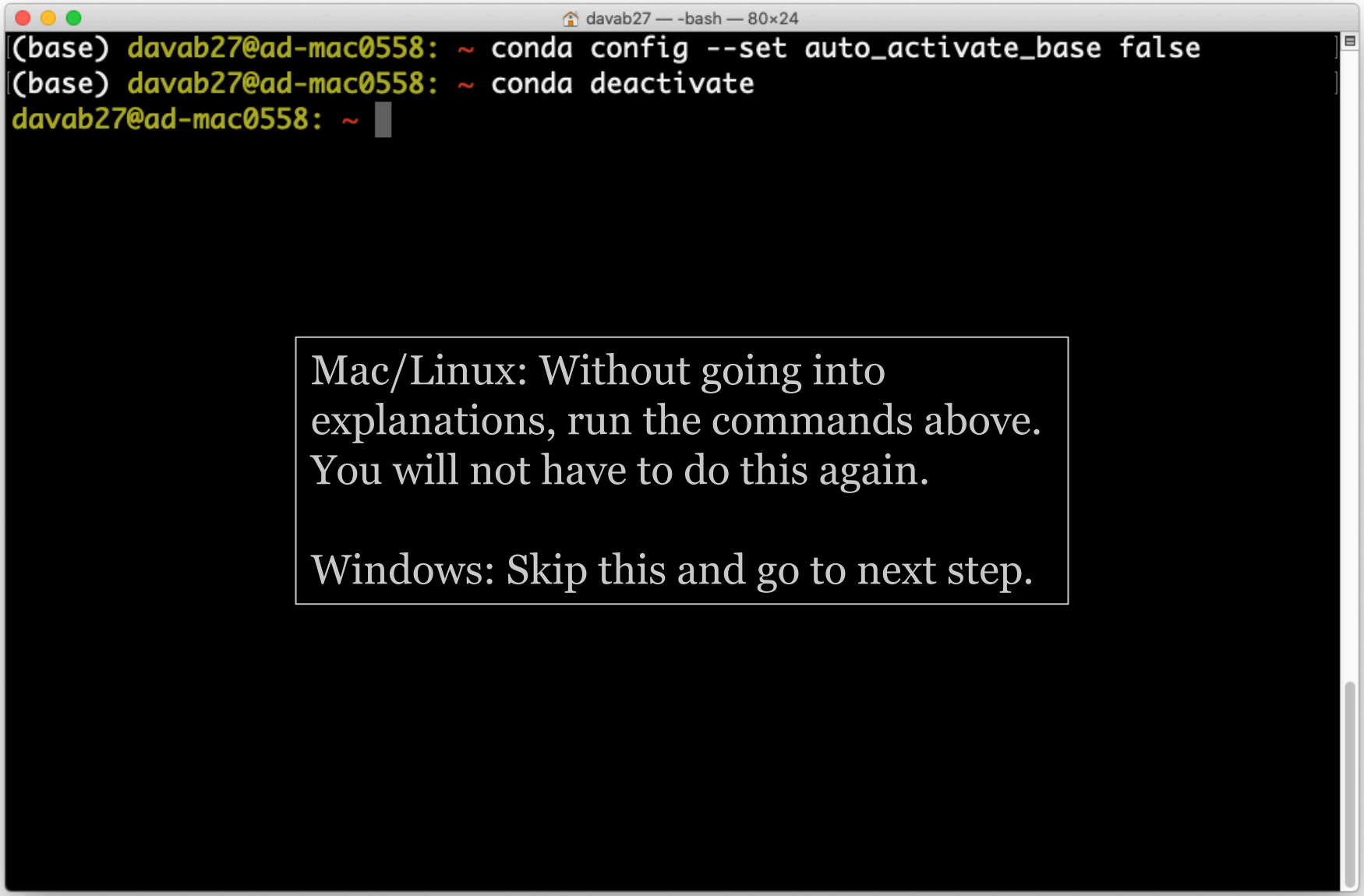


Download the right yml file for your situation:

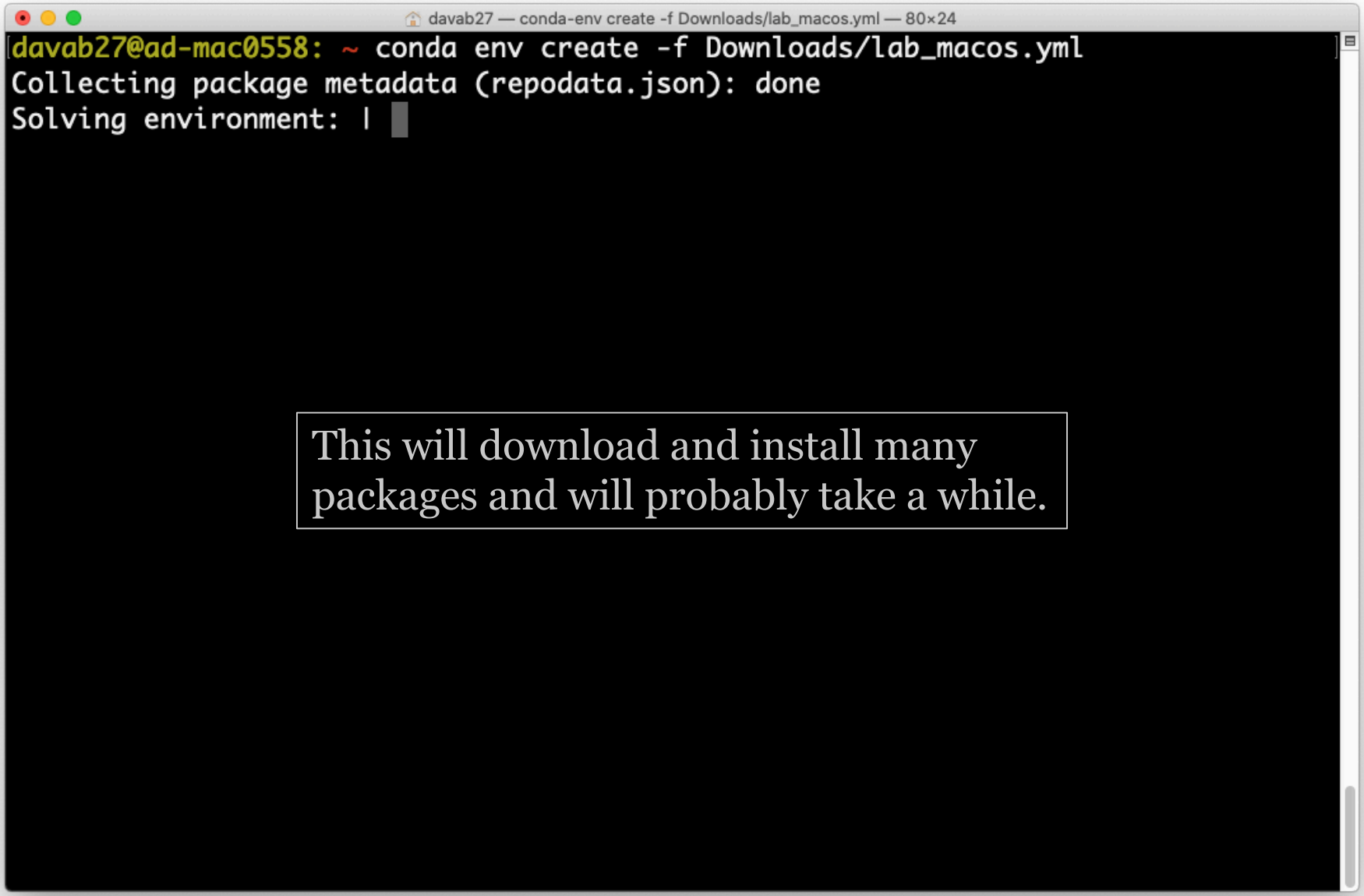
- Windows/Linux with Nvidia GPU
- Mac
- Windows/Linux without Nvidia GPU

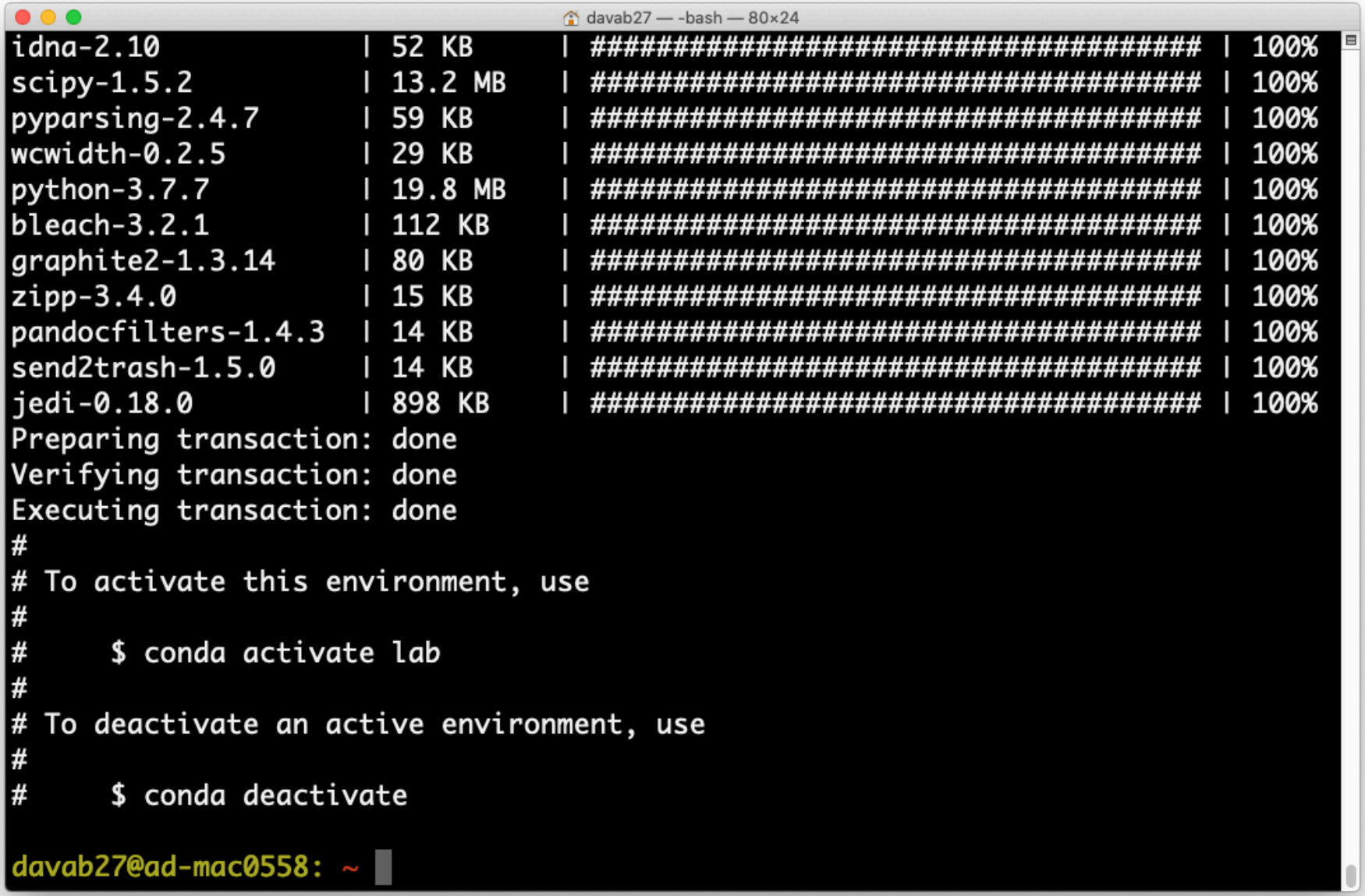
Only the first of these will take advantage of a GPU. The rest will run on the CPU.


davab27 — -bash — 80×24
(base) davab27@ad-mac0558: ~
Mac/Linux: Open a terminal.
Windows: Open “Anaconda Prompt (miniconda3)” from the start menu.

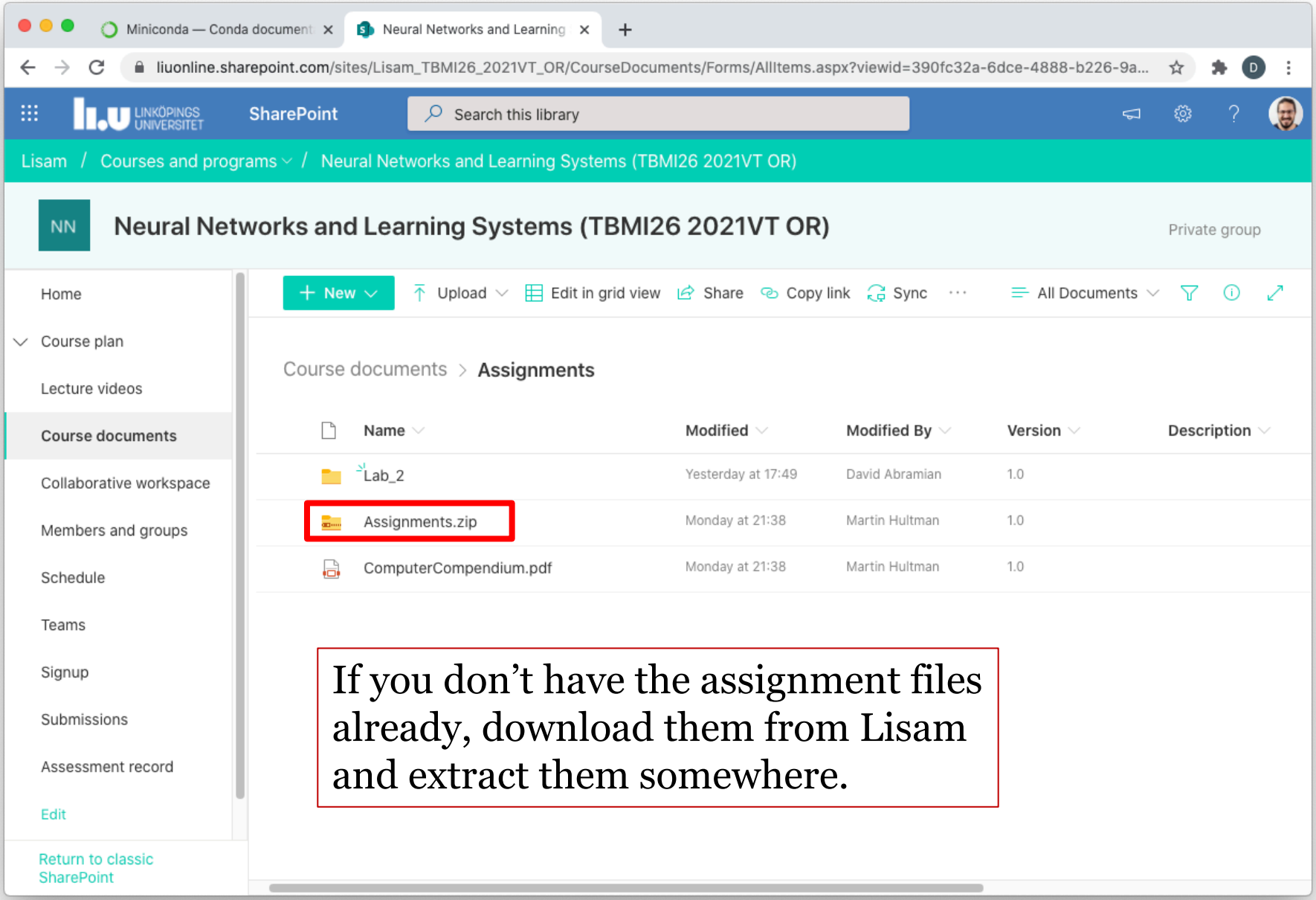

davab27 — -bash — 80×24
(base) davab27@ad-mac0558: ~ conda config --set auto_activate_base false
(base) davab27@ad-mac0558: ~ conda deactivate
davab27@ad-mac0558: ~
Mac/Linux: Without going into explanations, run the commands above. You will not have to do this again.
Windows: Skip this and go to next step.


davab27 — -bash — 80×24
davab27@ad-mac0558: ~ conda env create -f Downloads/lab_macos.yml
We create the conda environment used in this course by running the command above and providing the path to the yml file.


davab27 — conda-env create -f Downloads/lab_macos.yml — 80×24
davab27@ad-mac0558: ~ conda env create -f Downloads/lab_macos.yml
Collecting package metadata (repodata.json): done
Solving environment: |
This will download and install many packages and will probably take a while.

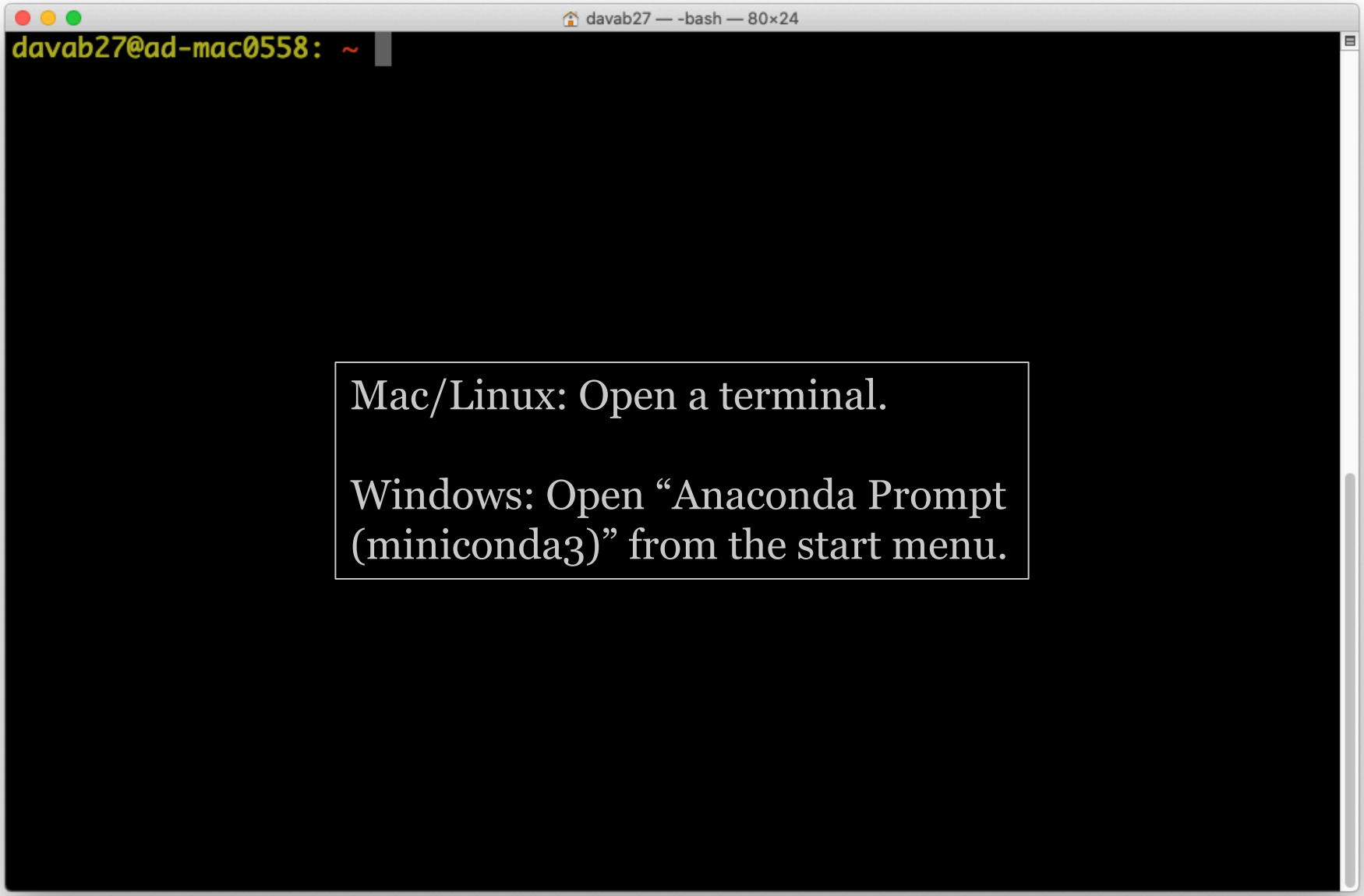


We now have an environment with Jupyter, TensorFlow, and all the other packages we will need.

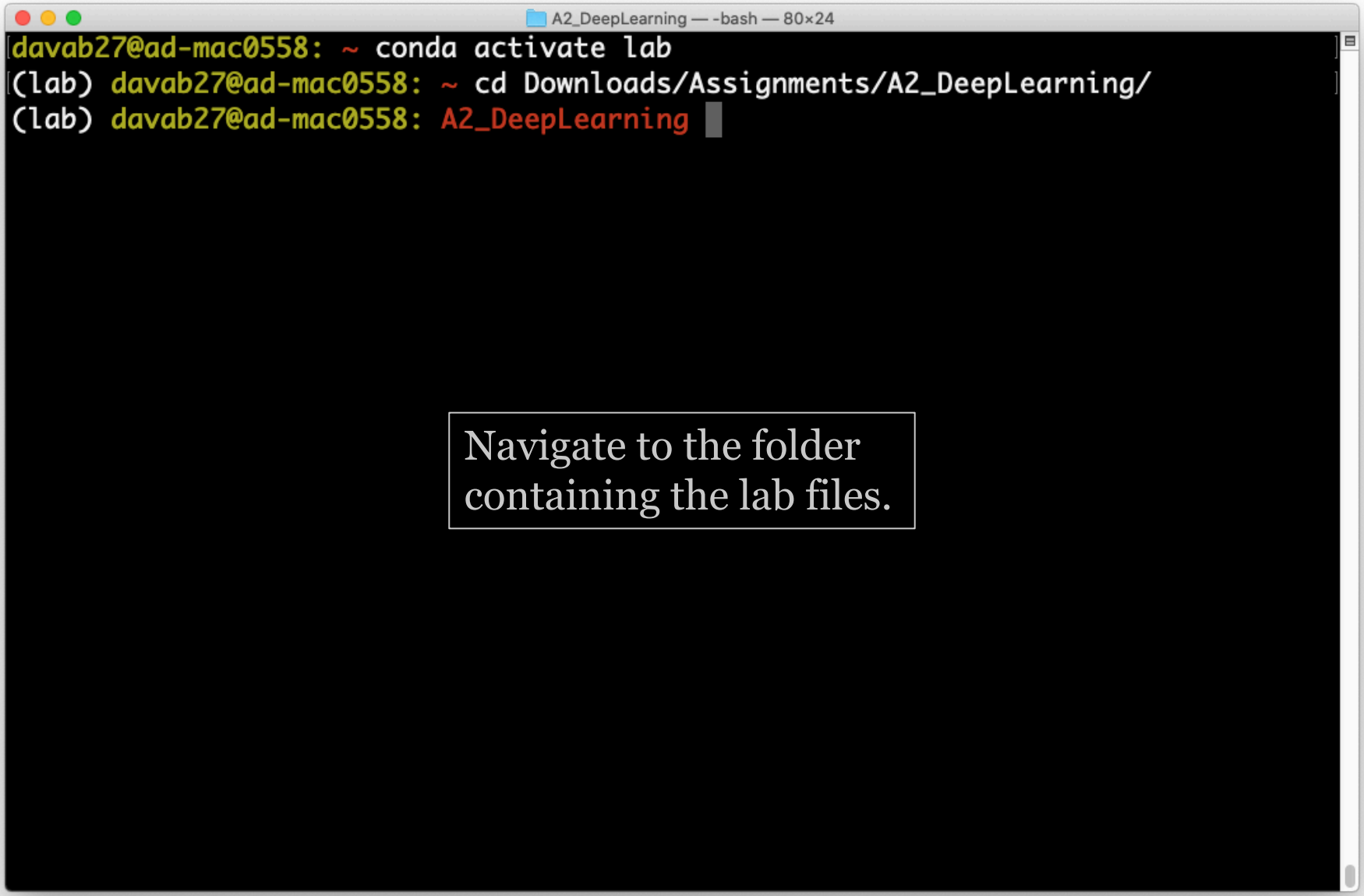

Miniconda — Conda document
Neural Networks and Learning
liuonline.sharepoint.com/sites/Lisam_TBMI26_2021VT_OR/CourseDocuments/Forms/AllItems.aspx?viewid=390fc32a-6dce-4888-b226-9a...
LINKÖPINGS UNIVERSITET
SharePoint
Search this library
Lisam / Courses and programs / Neural Networks and Learning Systems (TBMI26 2021VT OR)
NN
Neural Networks and Learning Systems (TBMI26 2021VT OR)
Private group
Home
Course plan
Lecture videos
Course documents
Collaborative workspace
Members and groups
Schedule
Teams
Signup
Submissions
Assessment record
Edit
Return to classic SharePoint
New
Upload
Edit in grid view
Share
Copy link
Sync
All Documents
Course documents > Assignments
Name
Modified
Modified By
Version
Description
Lab_2
Yesterday at 17:49
David Abramian
1.0
Assignments.zip
Monday at 21:38
Martin Hultman
1.0
ComputerCompendium.pdf
Monday at 21:38
Martin Hultman
1.0
If you don’t have the assignment files already, download them from Lisam and extract them somewhere.

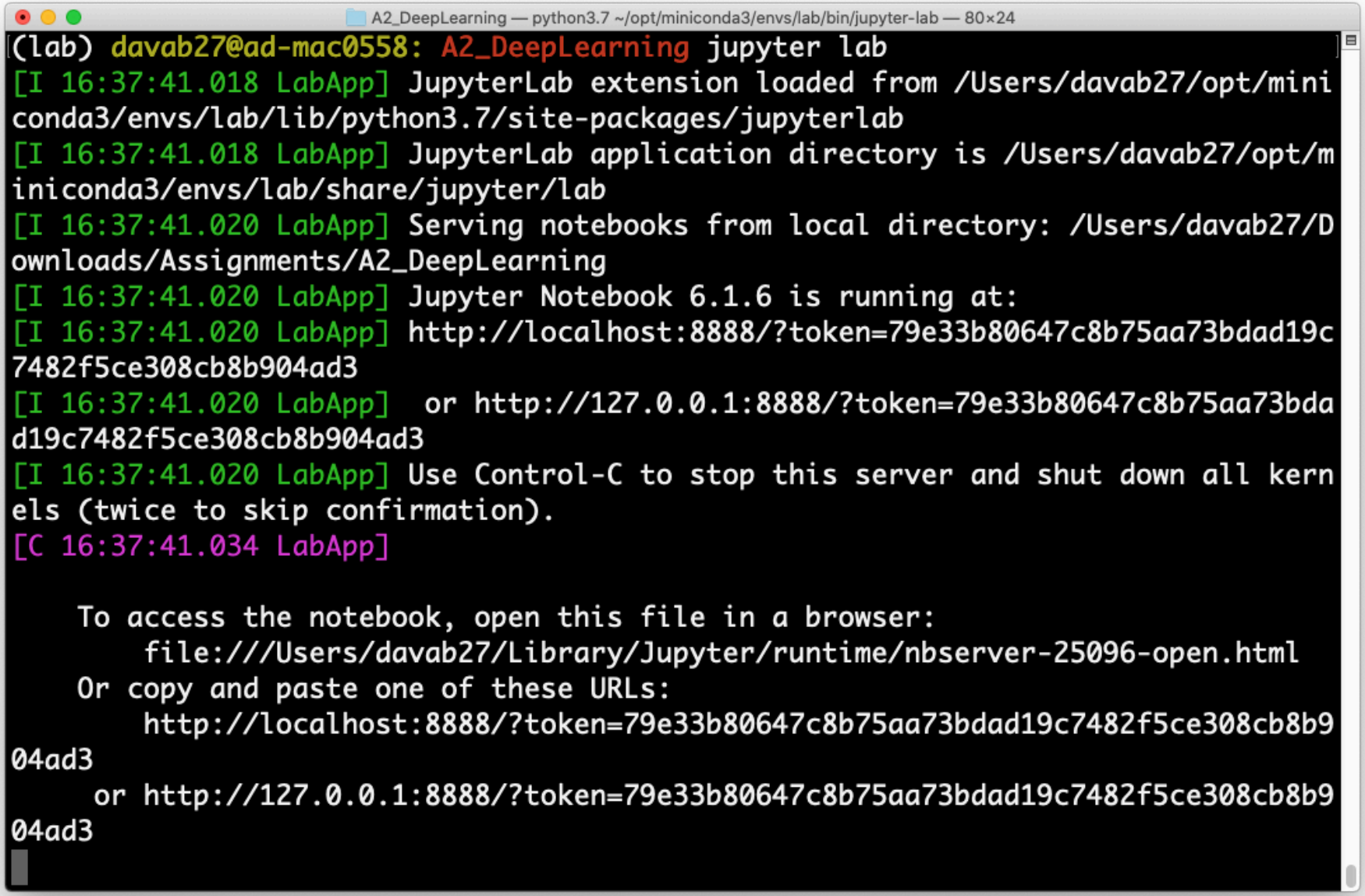
Launching the labs

Do this every time you want to work on the lab

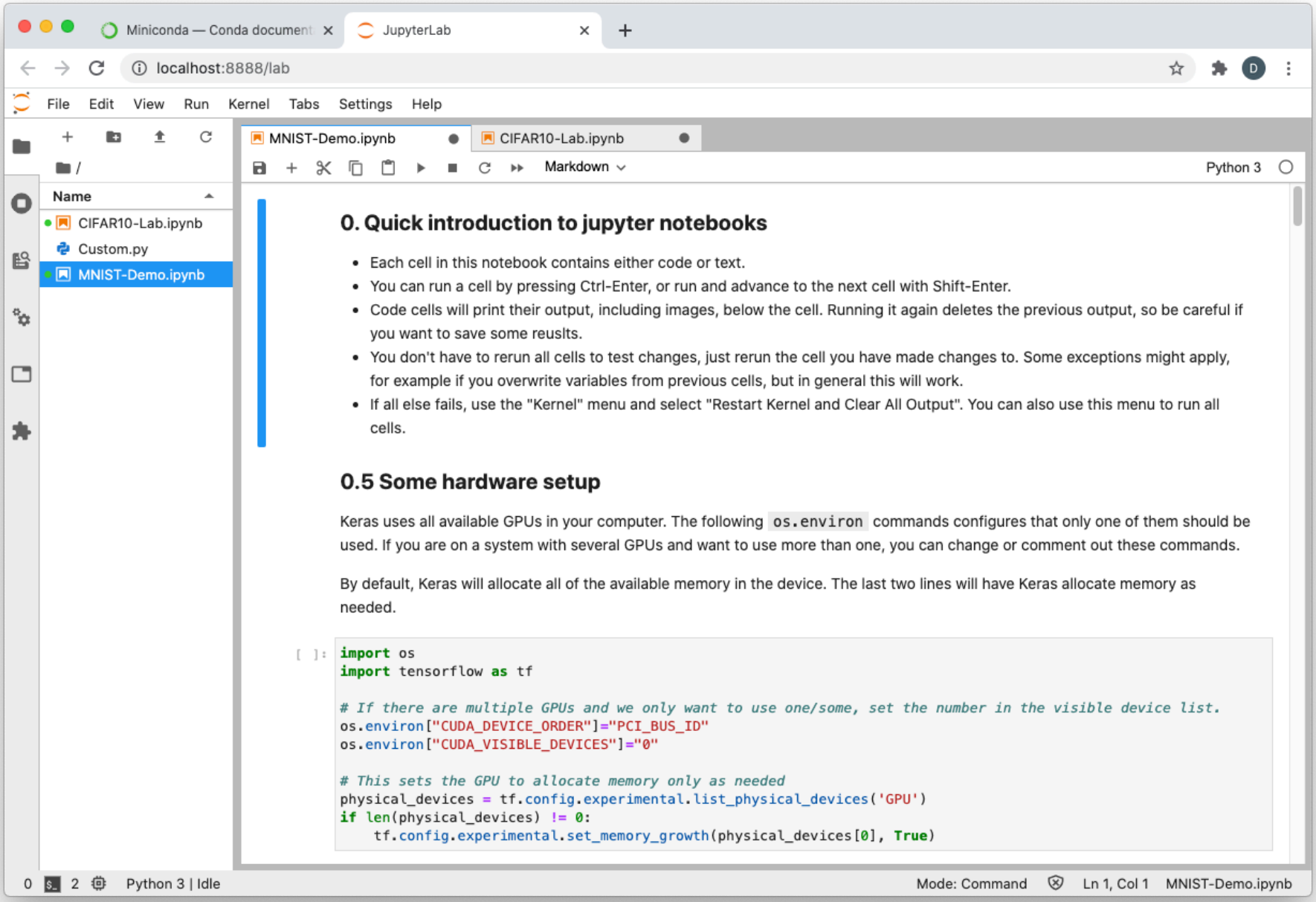

davab27 — -bash — 80×24
davab27@ad-mac0558: ~
Mac/Linux: Open a terminal.
Windows: Open “Anaconda Prompt (miniconda3)” from the start menu.


davab27 — -bash — 80×24
davab27@ad-mac0558: ~ conda activate lab
(lab) davab27@ad-mac0558: ~
Activate the conda environment.

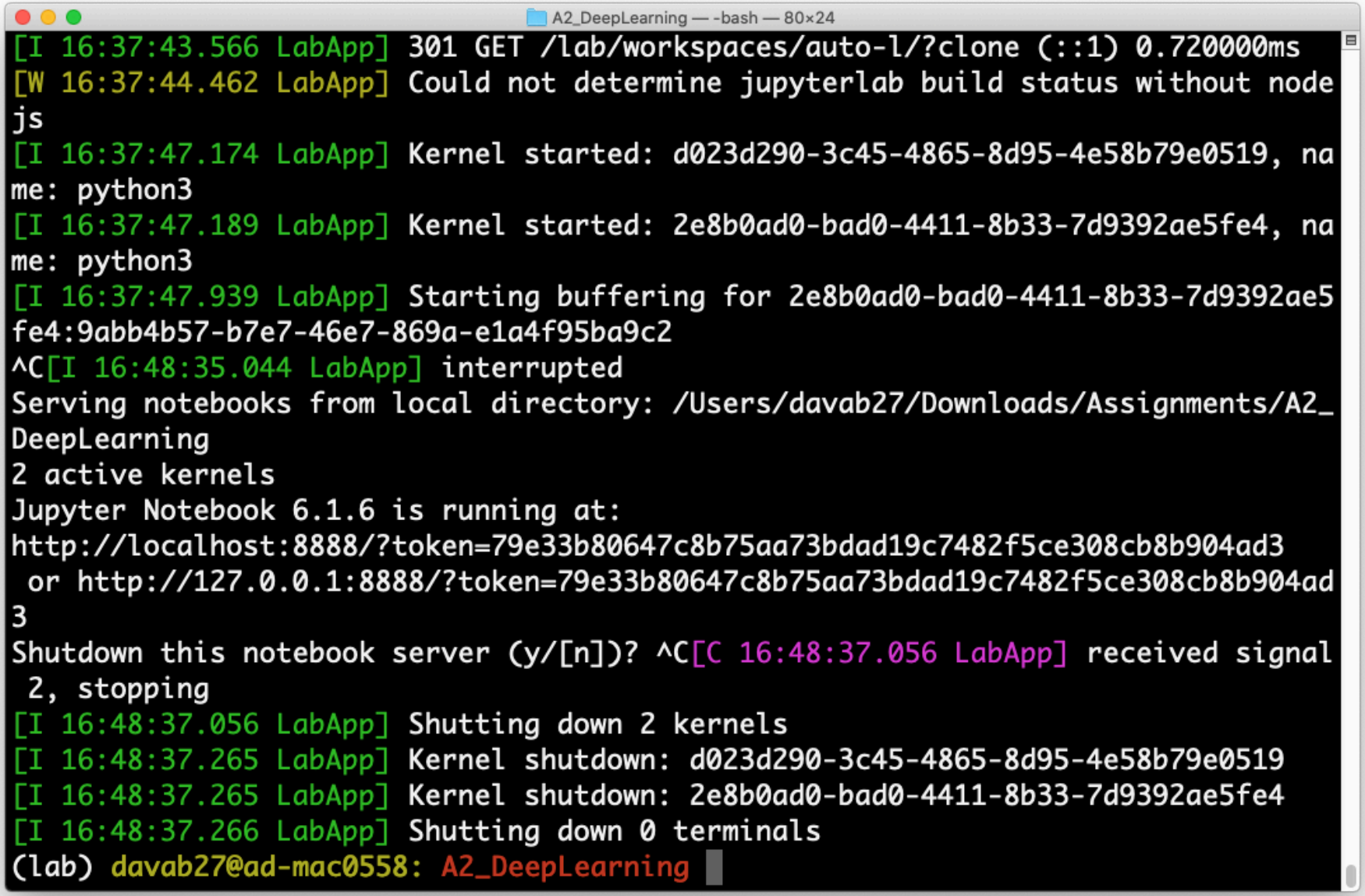

A2_DeepLearning — -bash — 80×24
davab27@ad-mac0558: ~ conda activate lab
(lab) davab27@ad-mac0558: ~ cd Downloads/Assignments/A2_DeepLearning/
(lab) davab27@ad-mac0558: A2_DeepLearning
Navigate to the folder containing the lab files.



Start Jupyter with the given command.



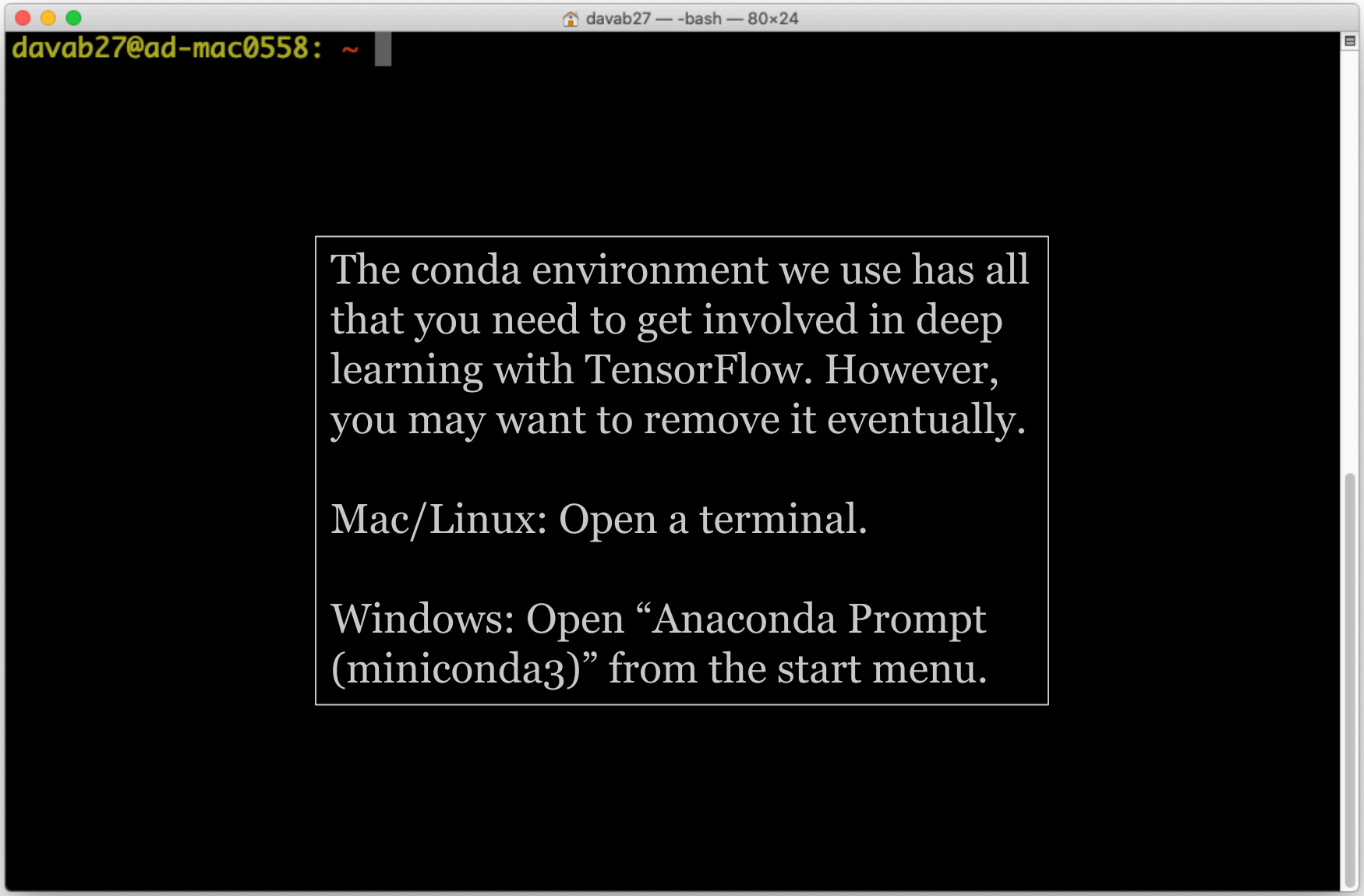
Jupyter will launch in a browser window automatically.



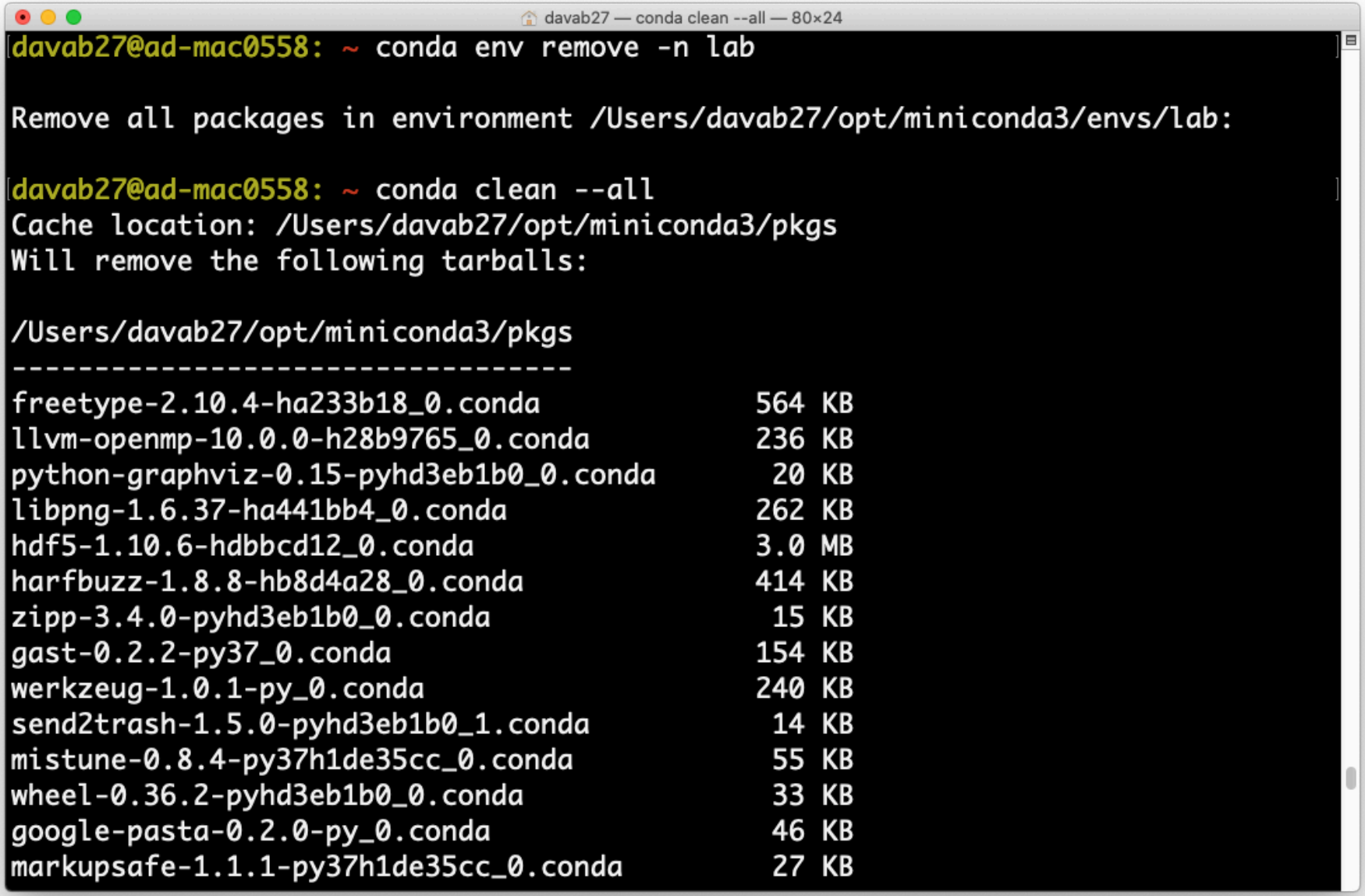
You can shutdown Jupyter by pressing [Ctrl + C] twice in the terminal.

Deleting the environment

Do this if you want once the course is finished


davab27 — -bash — 80×24
davab27@ad-mac0558: ~
The conda environment we use has all that you need to get involved in deep learning with TensorFlow. However, you may want to remove it eventually.
Mac/Linux: Open a terminal.
Windows: Open “Anaconda Prompt (miniconda3)” from the start menu.


davab27 — -bash — 80×24
davab27@ad-mac0558: ~ conda env remove -n lab
Remove all packages in environment /Users/davab27/opt/miniconda3/envs/lab:
davab27@ad-mac0558: ~
Remove the conda environment. This will not delete the downloaded packages.



Delete the conda packages used in the environment, freeing up about 1.5 GB of hard drive space.