

Lab 01

Simon Mo

Introduction

Data 100

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January 22, 2018

Who am I?

I'm Simon Mo.

Second year; CS & Philosophy Major

Research with RISELab: Clipper & Ray

Web Developer using Python

Who are you?

- ① Your name
- ② Your major
- ③ What's the favorite class you have taken in the past OR the class you are really looking forward to take at Berkeley?

Personal Take:

- ① A mix of theory and tricks.
- ② Bridge the academia with industry
- ③ ... with Berkeley's view.
- ④ So you can be comfortable using these tools in research and/or industry.

Lab 01: Setup

Visit the setup page www.ds100.org/sp18/setup and following the instruction from there.

Lab 01: The notebook

- 1 You can work locally via:
Terminal > `jupyter notebook`
- 2 Or work remotely:
Browser > `data100.datahub.berkeley.edu`
- 3 Pros and Cons:

	Local	Remote
Setup	More complicated	Easy setup
Memory	Local Machine	Cluster ¹
Network	No internet	Internet ²
Common in	Academia	Industry

¹Usually stricter in memory (1-2 GB).

²Also means you may need to upload the raw data.

Lab 01: working locally

- 1 Download the zip file from <http://www.ds100.org/sp18/>
- 2 Open the jupyter notebook in the lab01 directory.
- 3 Complete the notebook assignment.
- 4 Go to datahub: `data100.datahub.berkeley.edu`
- 5 Create a new folder, rename it to 'lab01'
- 6 Go to lab01 folder, and upload 'lab01.ipynb' and 'figure1.pdf'.
- 7 Go to "Assignments" tab, click 'lab01' and then 'validate'.
- 8 Click 'submit'. You can do so multiple time.
- 9 Done!

Lab 01: working on datahub

- 1 Go to datahub: `data100.datahub.berkeley.edu`
- 2 Go to “Assignments” tab, fetch lab01
- 3 Go to “Files” tab, start working on lab01
- 4 After you are done...
- 5 Go to “Assignments” tab, click ‘lab01’ and then ‘validate’.
- 6 Click ‘submit’. You can do so multiple time.
- 7 Done!

Jupyter Notebook tricks ³

- 1 Shift+Enter: execute current cell
- 2 Shift+Tab: Inline docs
- 3 Cmd+Shift+P (Ctrl + Shift + P): command lookup
- 4 A: insert cell above
- 5 B: insert cell below
- 6 dd: delete cell
- 7 j: go down
- 8 k: go up
- 9 Tab: autocomplete
- 10 "%lsmagic"
- 11 ! : execute shell commands
- 12 Hold Alt/Click-Drag: Multicursor
- 13 <https://www.dataquest.io/blog/jupyter-notebook-tips-tricks-shortcuts/>

³By Nhi Quach