Learning goals:

- Understand what Jupyter is
- Access Jupyter with datahub
- Start thinking of final project ideas

Introductions

COGS 108 Spring 2020
Will McCarthy
Discussion 1

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OH: Fri 10a-11a on Zoom

Discussion slides and materials adapted from Sam Lau (TA: WI20)

Welcome to COGS 108!

- **Will McCarthy**
  wmccarthy@ucsd.edu
  OH: Fri 10a-11a on Zoom
- **2nd year Ph.D. student in Cog Sci** advised by **David Kirsh** and **Judy Fan**
- **Research:** Understanding the cognitive tools required to build things, using behavioral experiments and AI models

Section Philosophy

- **Sections are not recorded**- it's the place for dumb questions
- **Attendance is not required**
- **Goal: 1 hour in section ≥ 2 hours working alone. How?**
  - Mini-lectures on nuts and bolts (first ~10 mins)
  - Demos for project inspiration (~5 mins)
  - Personalized help while you work (last ~35 mins)

Zoom format

0-10: lecture
11-15: demo?
15-50: work, Q&A

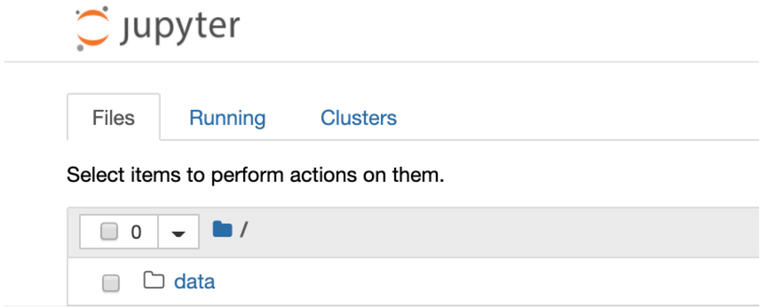
- First **10-15** minutes will be **lecture style.**
  Please **mute your microphone,** but feel free to **unmute and ask questions!** (this might change if there are too many people)
- Then, while we're working, chat will become a **question queue.**
  Please don't ask questions out loud here unless they're follow ups to the answer.
- I'll answer out-loud to everyone. You can zone out/ mute me if you're not interested in the answer
- I may share my screen to give demos

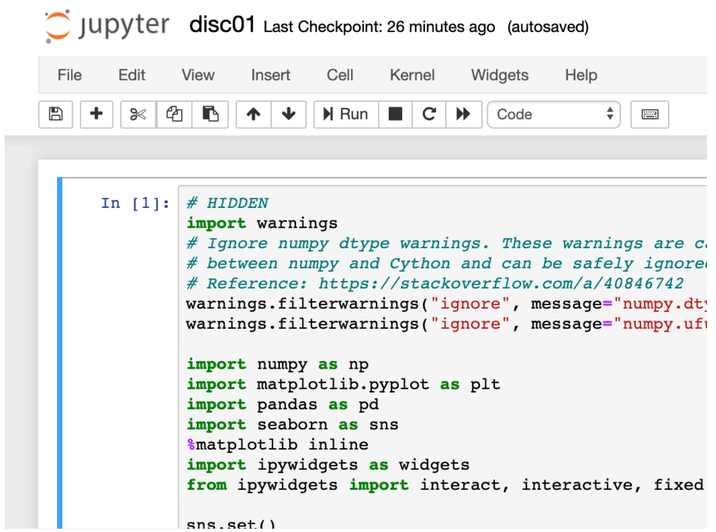
Programming

- This course assumes programming knowledge
  - But not much
- Resources:
  - codeacademy
  - Tutorials repo https://github.com/COGS108/Tutorials/blob/master/03-Python.ipynb
  - https://jakevdp.github.io/PythonDataScienceHandbook/
  - https://www.dataschool.io/python-pandas-tips-and-tricks/
- Cheatsheets
  - Google: ‘python cheatsheet’, ‘pandas cheatsheet’ (find one that’s good for you)

Jupyter

- Python code is run on a python interpreter
- Jupyter is a program that creates an interface for typing python code in a browser, that also runs that code in a python interpreter
- What does this mean?!
  - **Jupyter is a way of running python programs from a browser (like chrome) (hooray!)**



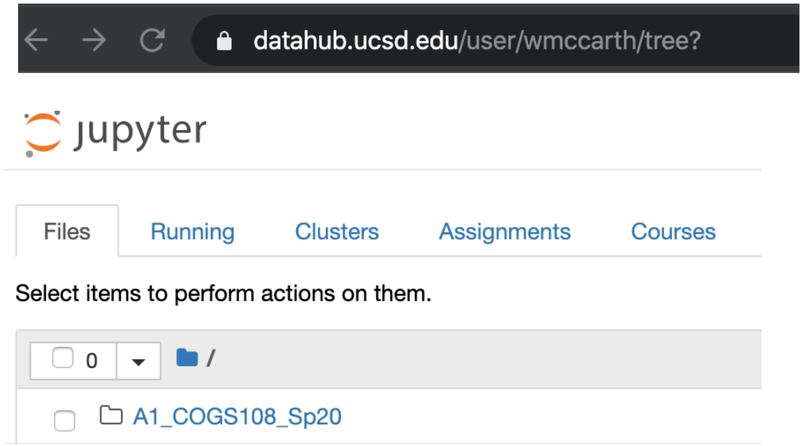


Jupyter Intro and Oakland License Plates

An example of what you can do with Jupyter

For today's demo (includes both code and data):
https://github.com/COGS108/Section-Sp20

datahub



- Jupyter runs python code in a browser.
- But Jupyter is itself just a program that's running on a computer somewhere.
- **datahub** lets you interact with Jupyter that's running somewhere else.
- What does this mean?!
  - **You can use datahub to create and run python programs (online)**
  - **You can use this interface to fetch and submit assignments**

Let’s log in to datahub

- **https://github.com/COGS108/Overview**
  (It’ll be worth bookmarking this page ^. You’ll use it a lot)
- **Log in**
- Go to **assignments**
- **‘fetch’ assignments** you have access to

Resources

For a long list of interesting datasets:
https://tinyletter.com/data-is-plural

All Course Discussion Materials:
https://github.com/COGS108/Section-Sp20

(Page above also has links to today's demo and extra practice with Python.)

Next week: A1 help, git walkthrough