Introductions

COGS 108 WI 2025
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D1

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OH: Wed 9-10 am via zoom

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

Section Philosophy

- Attendance is not required
- But we recommend to come for
  - Review and guidance
  - Work on the assignment and projects
  - Asking questions directly (to TA/IA, and your classmates!)

Project

- Form a group of 4-5 students
  - they don't have to be in the same section as you!
- Feel free to talk to others right now! Chat with your classmates about your interests, region, skills etc.
- Use Ed
- Start working towards the project as soon as possible
- https://github.com/COGS108/Projects

Programming

This course assumes basic programming knowledge

- But not much!

Programming

Resources:

- Codeacademy
- Start Here: https://github.com/COGS108/Tutorials/blob/master/01-Python.ipynb
- Python in detail: https://jakevdp.github.io/PythonDataScienceHandbook/
- Pandas: https://www.dataschool.io/python-pandas-tips-and-tricks/
- Git: https://guides.github.com/activities/hello-world/

Programming

Cheatsheets

- Google: ‘python cheatsheet’, ‘pandas cheatsheet’, ‘git cheatsheet’ (find one that’s good for you)

Git

Version control system!

- Go to https://git-scm.com/downloads
- Choose your Operating System (Windows/OS X/Linux)
- Follow the steps specific to your OS
- Verify installation: In terminal type “git –-version”

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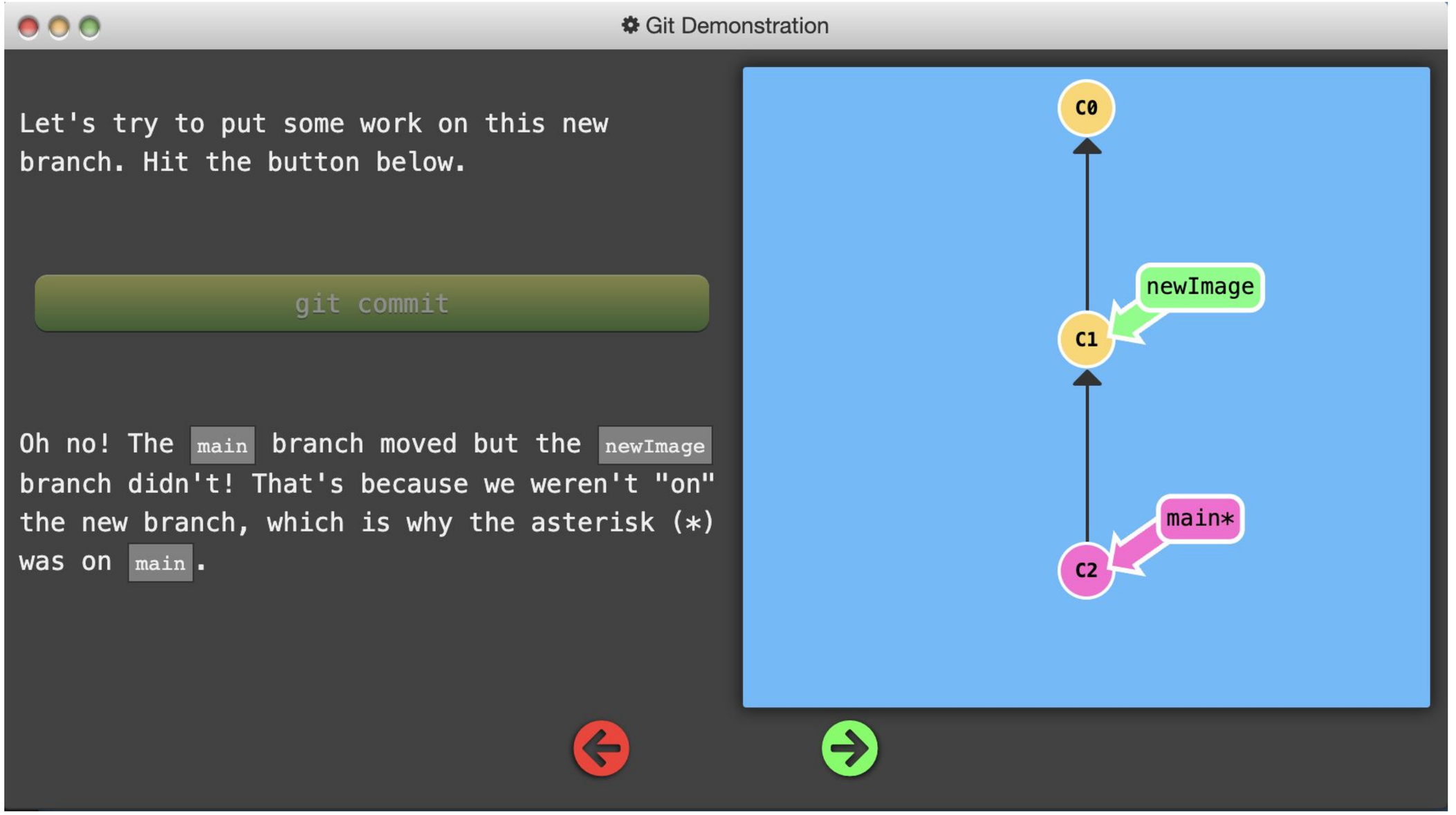


https://about.gitlab.com/images/press/git-cheat-sheet.pdf

A Git installation

For GNU/Linux distributions, Git should be available in the standard system repository. For example, in Debian/Ubuntu please type in the **terminal**:

```
$ sudo apt-get install git
```

If you need to install Git from source, you can get it from git-scm.com/downloads.

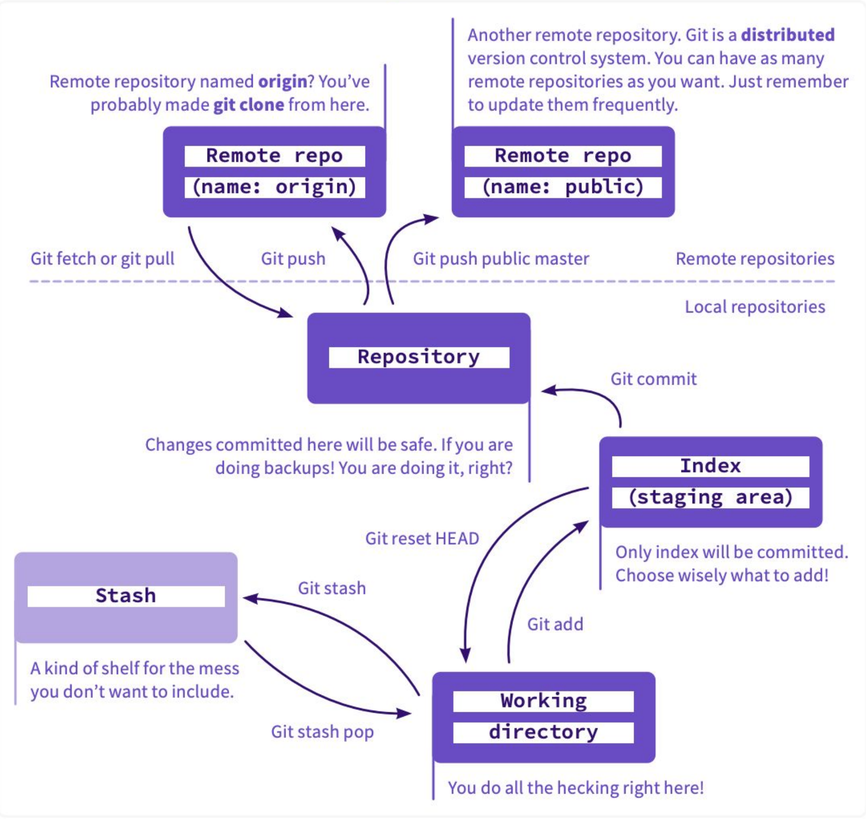
An excellent Git course can be found in the great **Pro Git** book by Scott Chacon and Ben Straub. The book is available online for free at git-scm.com/book.

B Ignoring Files

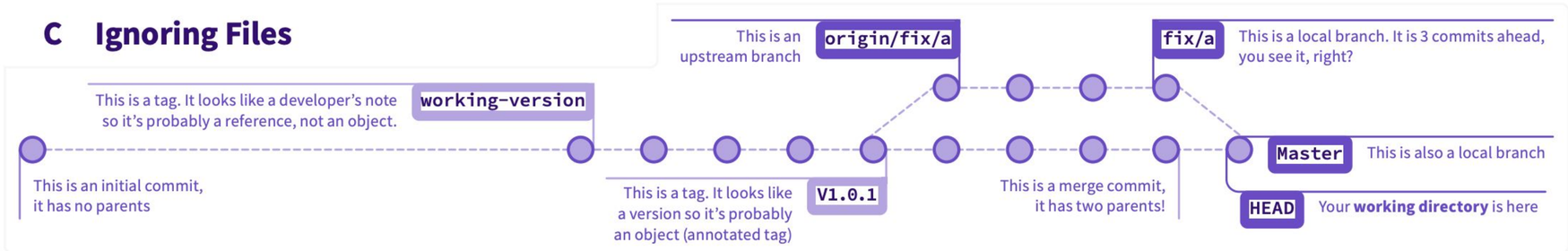
```
$ cat .gitignore
/logs/*
!logs/.gitkeep
/tmp
*.swp
```

Verify the .gitignore file exists in your project and ignore certain type of files, such as all files in **logs** directory (excluding the **.gitkeep** file), whole **tmp** directory and all files ***.swp**. File ignoring will work for the directory (and children directories) where **.gitignore** file is placed.

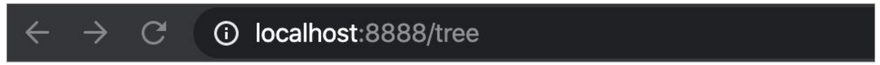
D The zoo of working areas



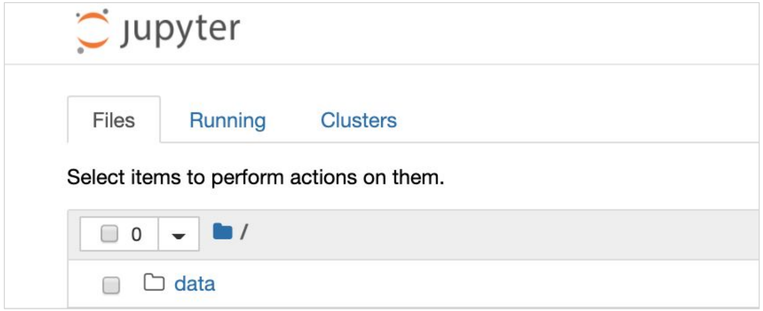
C Ignoring Files

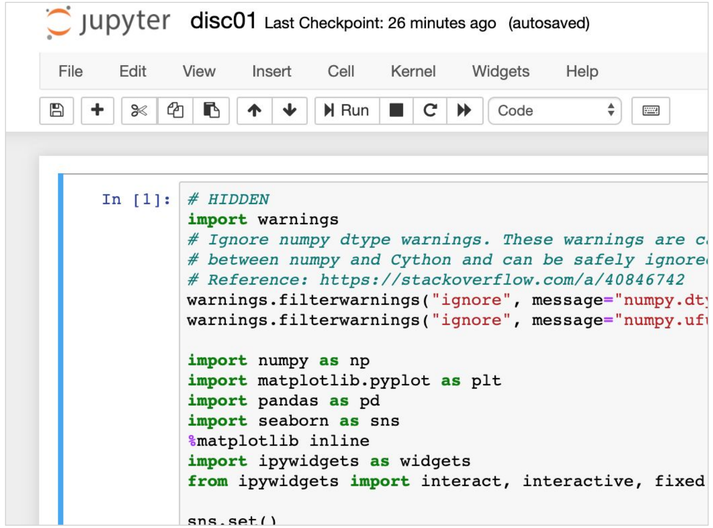


Jupyter



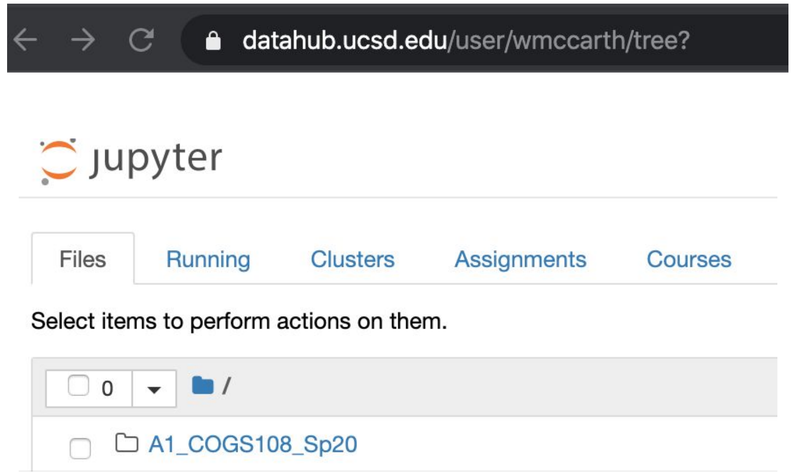
- Python code is run on a python interpreter
- Jupyter is a program that creates an interface for typing python code in a browser, that also runs that code in a python interpreter
- What does this mean?!
  - Jupyter is a way of running python programs from a browser (like chrome) (hooray!)





datahub.ucsd.edu

- 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.



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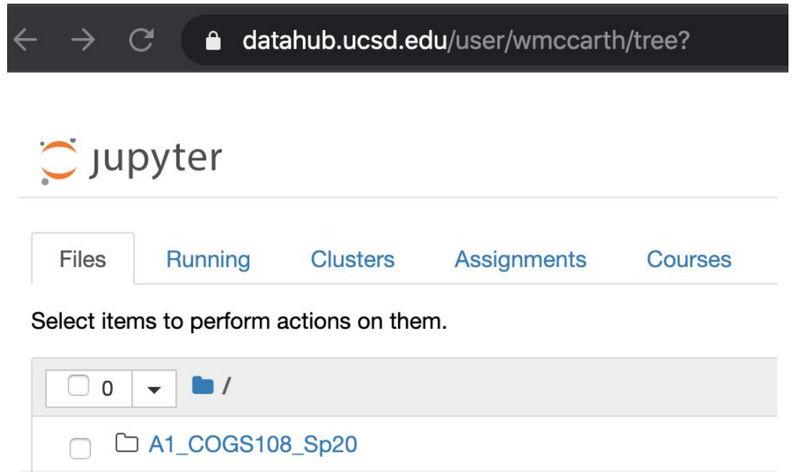
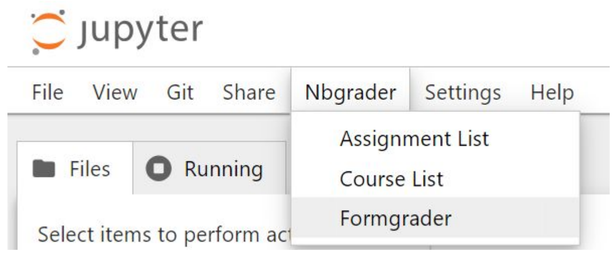
- What does this mean?!
  - You don’t need to worry about installing Jupyter
  - You can use datahub to create and run python programs (online)
  - You can use this interface to fetch and submit assignments



Working on your assignments

- Log into datahub.ucsd.edu
- Go to Assignments tab (or Nbgrader->Assignment List if you are using the new container)
- ‘fetch’ assignments you have access to -> Submit after completion
- Demo of this workflow



Your time to …

- Talk to your classmates to find potential teammates!
- Work on PracticeAssignment and D1