Learning goals:
- **Check your work for the GitHub portion of A1.**
- **Walk through two problems from A1.**
- **Learn how to write your own tests.**

Assignment 1

COGS 108 Winter 2020
Will McCarthy
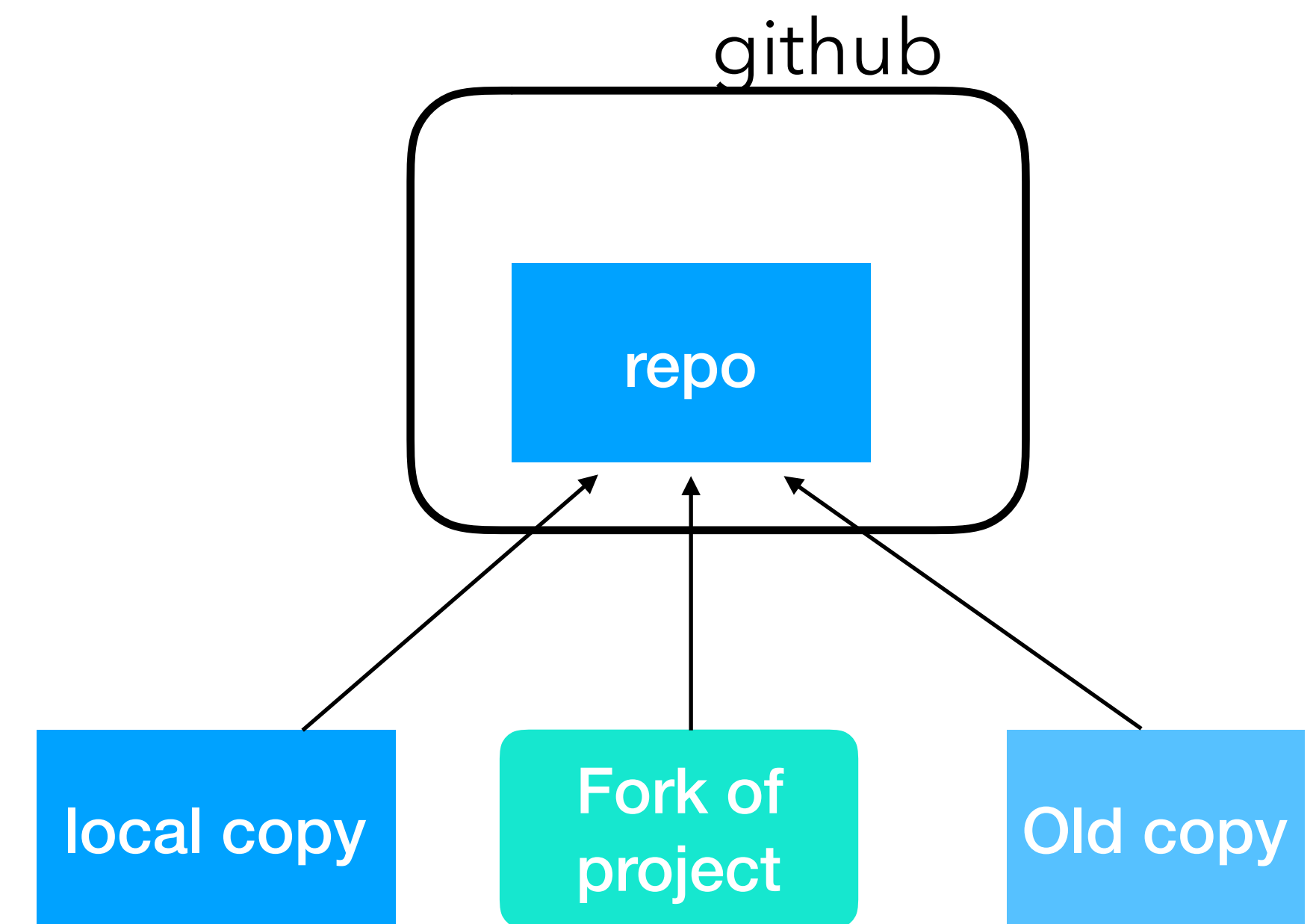**Discussion 2**

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OH: Fri 10a-11a on Zoom

Last time…

- We fetched assignments from datahub and started work on A1

What is Git + GitHub?

- Somewhere online to store a copy of a project (Github)

- Plus a tool to interact with this copy (Git)

  - Command line and desktop versions

- A way of keeping track of changes you make to this project

github

repo

local copy

Fork of project

Old copy

Why use Git + GitHub?

- Git allows you to work on code **projects with other people**. It's the preferred tool for many projects, like:

  - Python: https://github.com/python/cpython

  - Jupyter: https://github.com/jupyter/

  - COGS 108: https://github.com/COGS108/

- **Backup**

- **Version control** (*undo* on a large scale)

- **Code reuse**

- It also allows you to **create websites**, like this: https://www.samlau.me.

Part 1 Walkthrough

- **Complete walkthrough of Part 1 in 5 minutes.**
  - **I'm going to do this quickly, so you have to do it yourself**
- **I'll also show you how to check your work.**

Checking your work for Part 1

- Check that your COGS108_Repo has a README and a .gitignore file. (Repo must be on your account.)

- Go to COGS108/MyFirstPullRequest, click Pull requests.

  - Make sure your PR shows up in that list.

  - Make sure your PR has the right title.

  - Make sure your PR has the right file.

Questions 5 and 9 Walkthrough

- Another answer giveaway.

- Again: my intention is to go too fast to follow.

- But feel free to take notes if that helps you remember things

Checking your work (in general on datahub)

- The tests built into the notebook are (very) minimal.

  - To **write your own tests**, add a cell with **assert** statements below your code.

- Make sure to **click Validate before turning in your notebook**!

  - This replicates what our autograder will do.

- Make sure to click submit once you're ready to submit.

  - And **don't click submit after the deadline unless you mean to submit late**.

How to google for python help

- People have done ~everything in python, and it's all online. Finding it is the tricky part

- Q10:

  - 'loop through key-value pairs dictionary python'

  - '.items dictionary python'

- Find code snippets that do roughly what you want

  - Pick out the useful patterns/syntax and **write your own code**

Your Turn: Work on A1

Resources

https://github.com/COGS108/Section-Sp20

See "Extras" table for extra practice with Python. I've also uploaded practice with more advanced concepts like NumPy and pandas if you want to get ahead.

Next week

- Time to work on your Project Proposals.

- Example of final project using baby names.