Python Scripting 9000

HWRS 401/501
09/06/2022

Announcements

- Grades for first forecast posted to D2L.
- Y’all did great. I left feedback if there were any minor notes about the format of your forecast files
- Second forecast assignment posted, due next Tuesday
- First cheat sheet assignment posted, due next Thursday

Today

- Office hours after class till 10:30, tomorrow 1-2PM, and Monday 2-3pm via zoom or in Harshbarger 202c
- Please come if you have any doubts about your python/git/vscode installs. I will not be troubleshooting in class after today
- A quick note on assignments
- A better way to work with python+vscode through jupyter
- Computational environments + installing packages via conda
- Introduction to numpy (numerical python) and matplotlib (plotting)

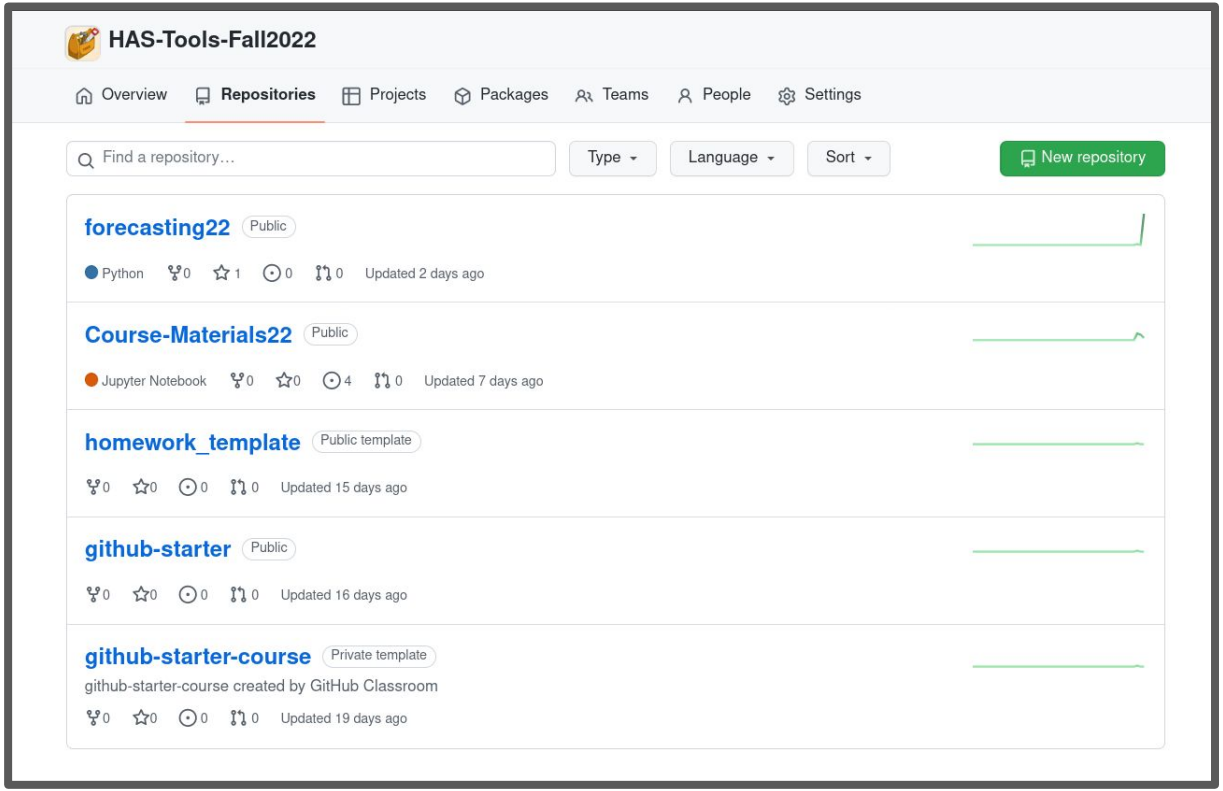
Assignments

- Next forecast: due next Tuesday (9/13) at midnight
  - Goal: Produce predictions for 1 and 2 week Verde river streamflow given up to last 30 days of data
  - Method: You must use numpy functions in your prediction. I will show you how to submit your code for your prediction for grading.
  - Grading: 1 point for submission, 1 point for committing your code to your GitHub repository, and 1 point for use of numpy in your code
  - I will dedicate ~20 minutes next Tuesday for Q&A on this

Assignments

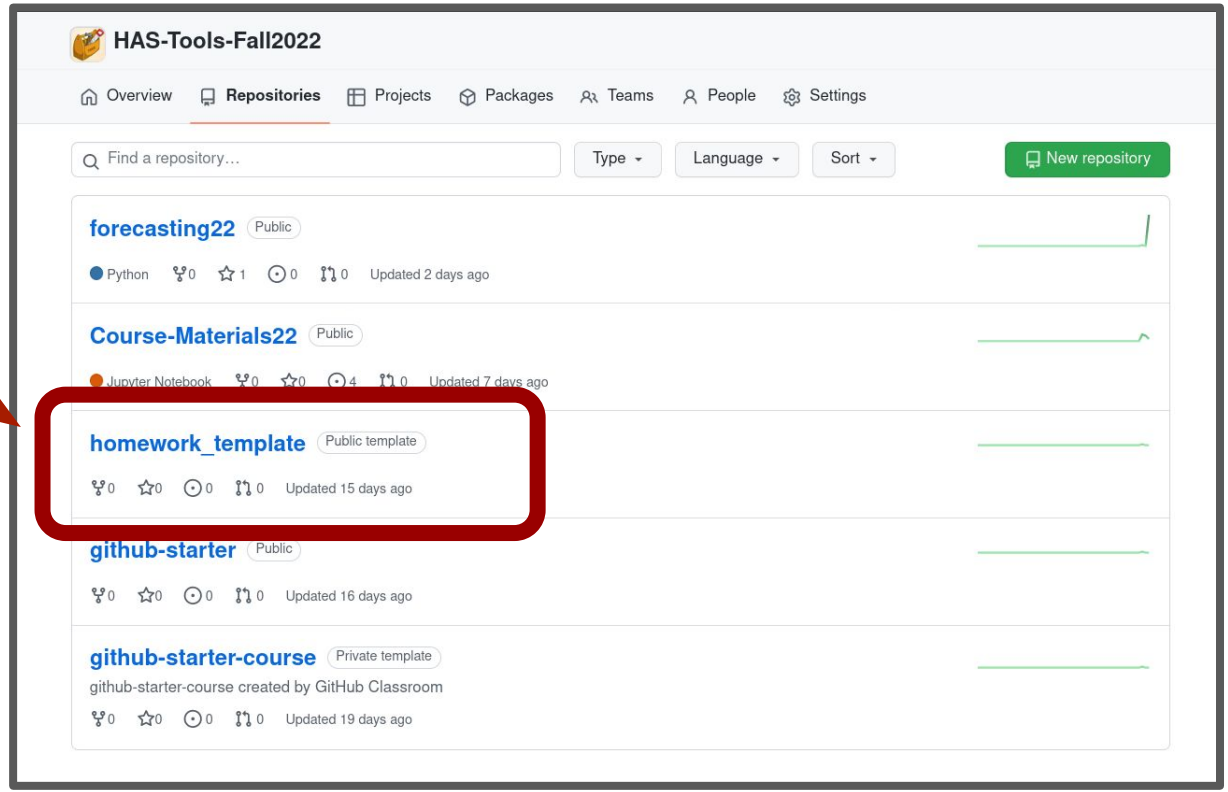
- First cheat sheet assignment due next Thursday at midnight
- This one's mainly for me to track if there are general misconceptions: completion will get you full points (stipulation below)
- I want to see a summary of all of the tools we've been getting familiar with, and how they relate to eachother. You must address:
    - git, GitHub, GitKraken, python, conda, vscode, and jupyter
- This is entirely free-form: It can be a text document, a short powerpoint, hand written (legible) notes photocopied and uploaded, or as sophisticated as you want
- Use the internet as necessary, just provide links for what you found useful!!! This is also for you to reflect back on

The homework repo

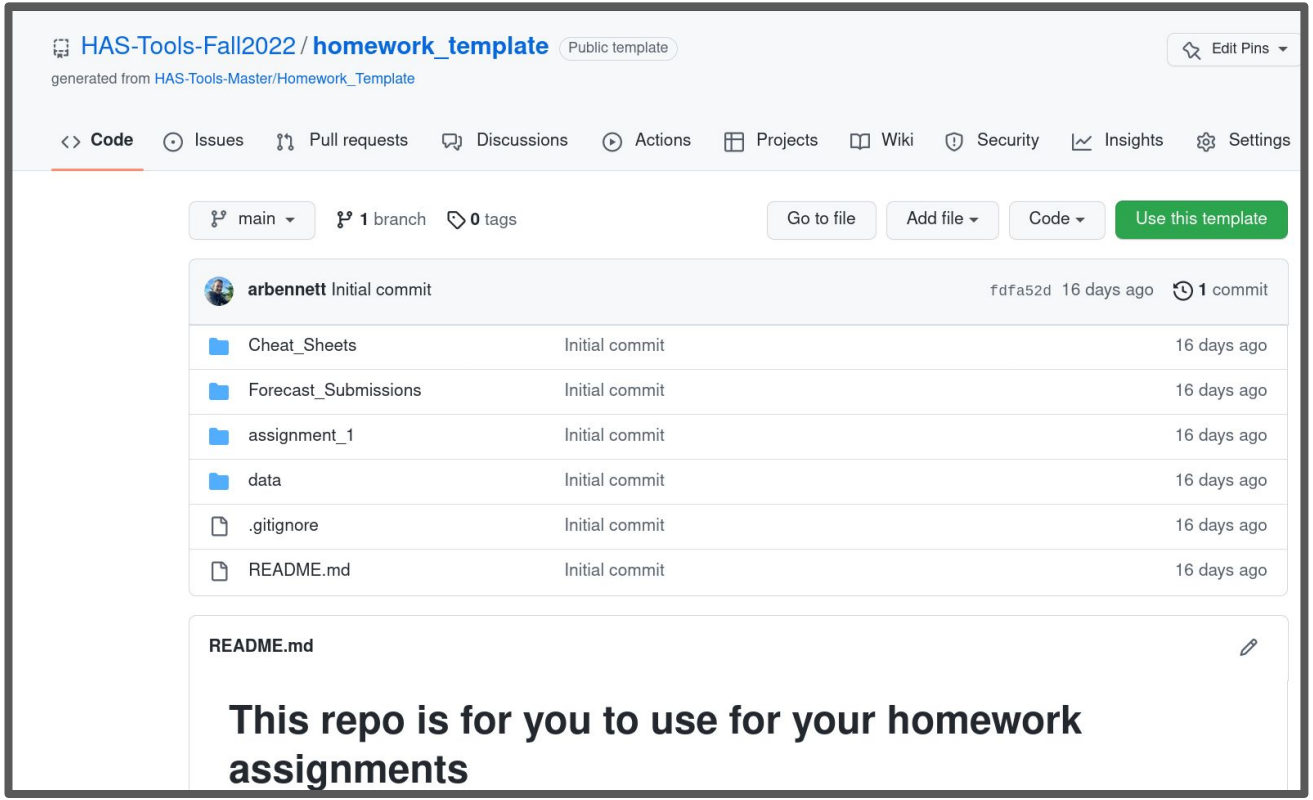


The homework repo

CLICK HERE



The homework repo



The homework repo

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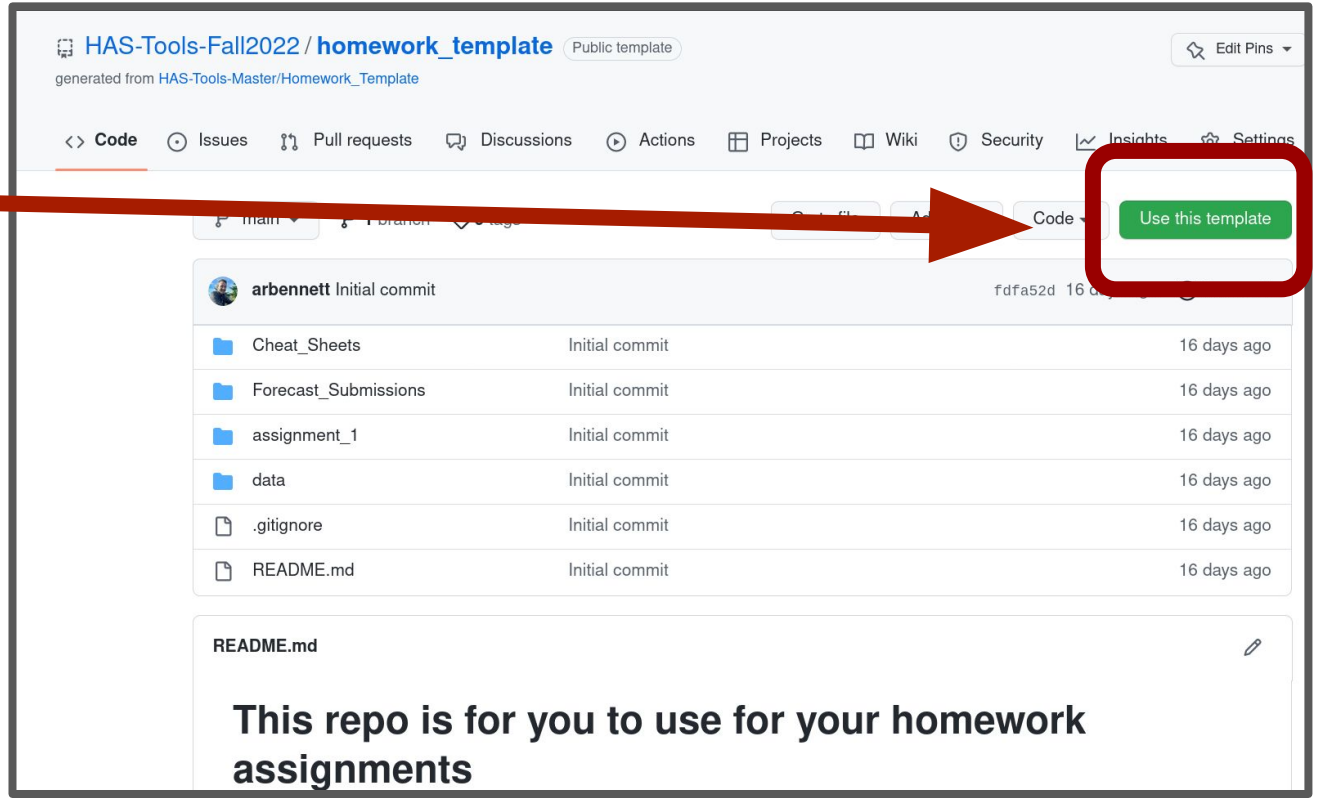
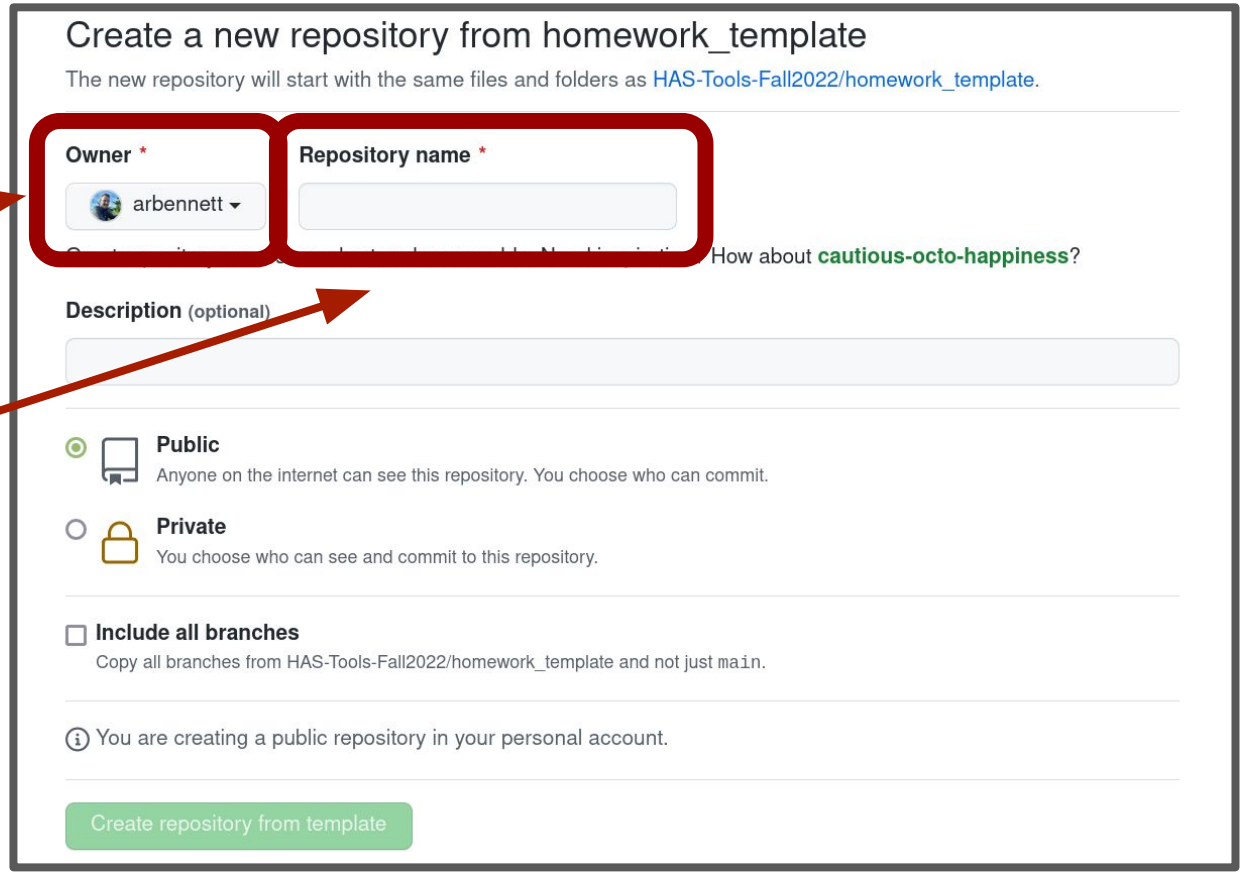


Change to HAS-Tools-Fall2022

Call it homework_YOURNAME



Change to HAS-Tools-Fall2022

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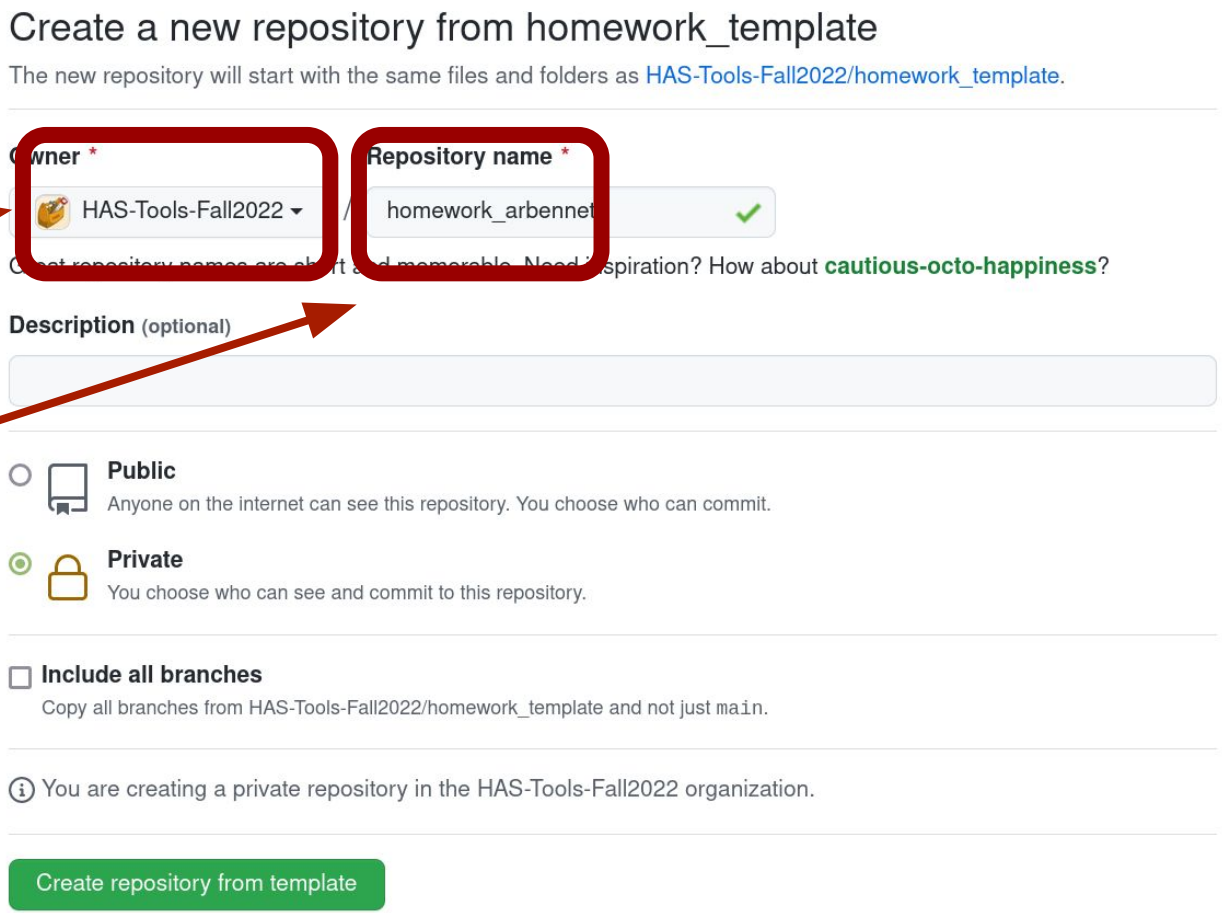

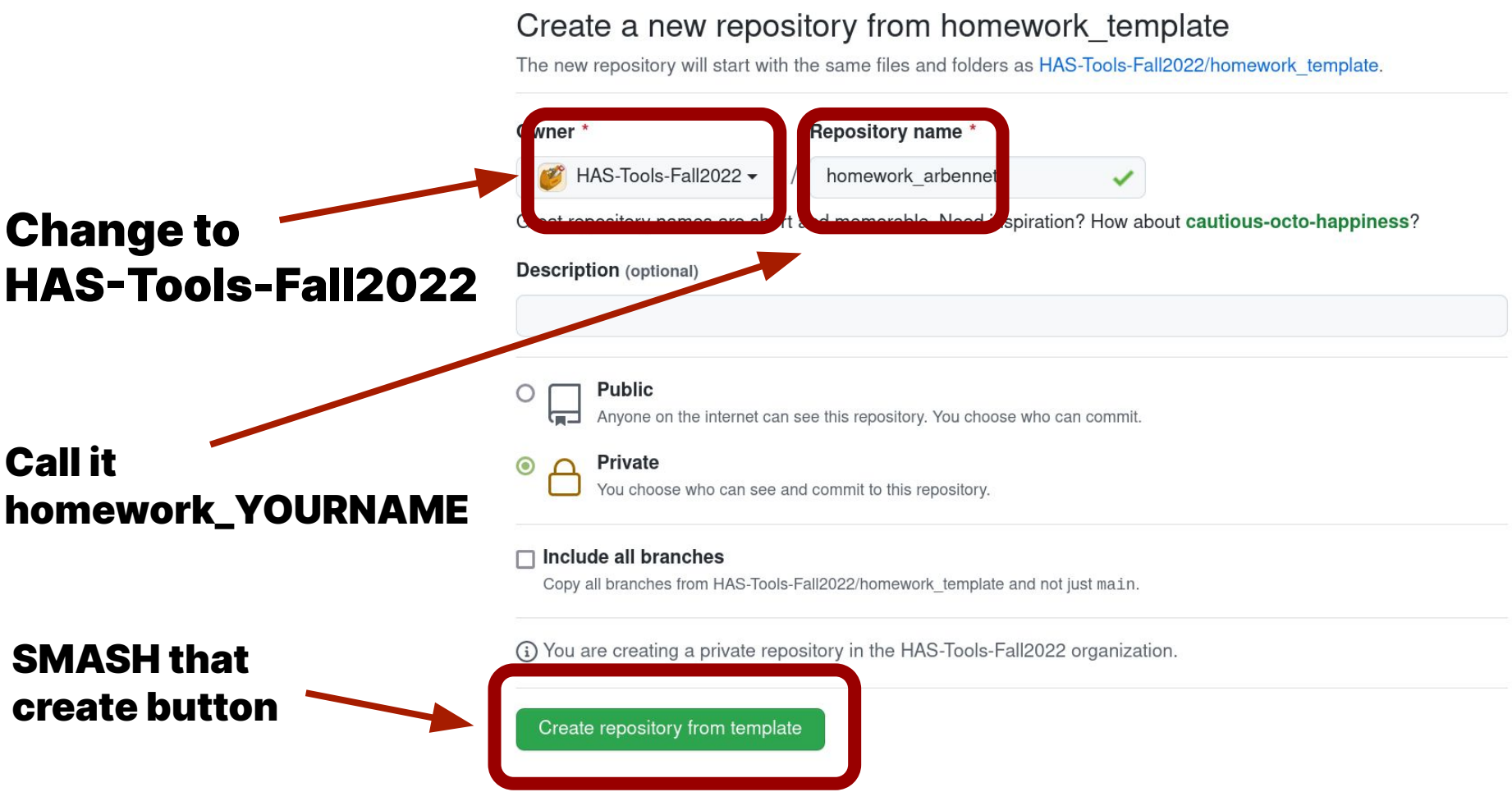
Change to HAS-Tools-Fall2022
Call it homework_YOURNAME
SMASH that create button
Create a new repository from homework_template
The new repository will start with the same files and folders as HAS-Tools-Fall2022/homework_template.
Owner *
Repository name *
HAS-Tools-Fall2022
homework_arbennet
spiration? How about cautious-octo-happiness?
Description (optional)
Public
Anyone on the internet can see this repository. You choose who can commit.
Private
You choose who can see and commit to this repository.
Include all branches
Copy all branches from HAS-Tools-Fall2022/homework_template and not just main.
You are creating a private repository in the HAS-Tools-Fall2022 organization.
Create repository from template

The homework repo

- From here you should be able to add to GitKraken and clone
- Put your cheat sheets in the “Cheat_Sheets” folder with an appropriate name including the date
- Put your forecast code (note forecast values) in the “Forecast_Submissions” folder with an appropriate name including the date
- Other assignments will eventually go in the “assignment_(NUMBER)” folders that you will create
- It’s fine if you don’t have things perfectly organized for your first submission, I’ll be looking at this and making suggestions

Questions before things get weird?


CONDA
TIME

What the LMNOP am I talking about?!

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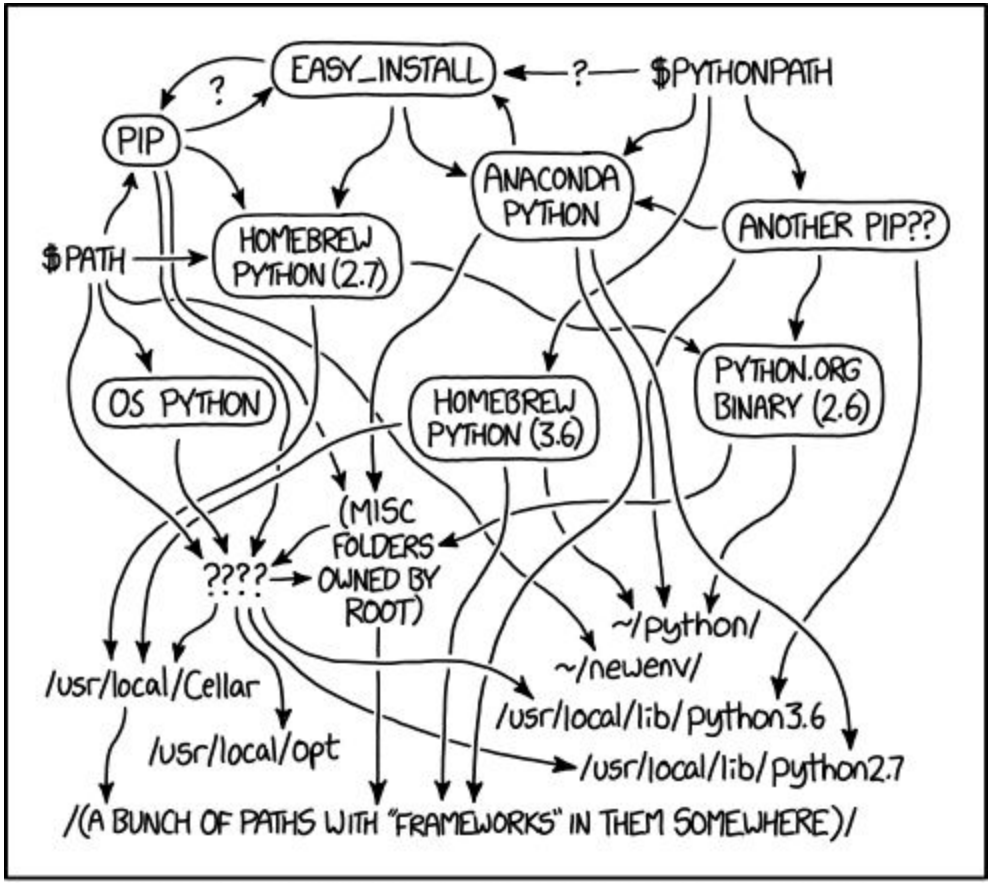

MY PYTHON ENVIRONMENT HAS BECOME SO DEGRADED THAT MY LAPTOP HAS BEEN DECLARED A SUPERFUND SITE.

What the LMNOP am I talking about?!

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bmorph               /pool0/data/andrbenn/.conda/bmorph
bmorph-test          /pool0/data/andrbenn/.conda/bmorph-test
build_pysumma        /pool0/data/andrbenn/.conda/build_pysumma
buwu                 /pool0/data/andrbenn/.conda/buwu
cartopy              /pool0/data/andrbenn/.conda/cartopy
docker_metsim_test   /pool0/data/andrbenn/.conda/docker_metsim_
empty                /pool0/data/andrbenn/.conda/empty
env                  /pool0/data/andrbenn/.conda/env
feedstocks           /pool0/data/andrbenn/.conda/feedstocks
met-ml               /pool0/data/andrbenn/.conda/met-ml
metsim               /pool0/data/andrbenn/.conda/metsim
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test_summa           /pool0/data/andrbenn/.conda/test_summa
wubu                 /pool0/data/andrbenn/.conda/wubu
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Let’s jump to vscode