

Week 2

Spatial Data Exploration

Recurring Zoom link for Winter 2025

January 13, 2025



*Note that this course will be recorded



Making space at the West LA Courthouse













Hands on Lab

First, grab the course material, and "pull" it into your JupyterHub:

- [UP221 Git Puller](#)

(This link will automatically launch JupyterHub and clone the course material into your directory)

Note that you have to do this at the start of every lecture to get the latest material.



**Assignments (due 11:59 Sunday,
January 19th the day before class)**



Individual assignment: Data Exploration



Create a token

In order to pull and push content to GitHub, you must first create a token, which will serve as your password. Refer to this tutorial to create your token:

- How to create a token



Clone your repo

This is your first code assignment submission. Before you begin, create a clone of your repo in JupyterHub.

- How to clone your repo into JupyterHub



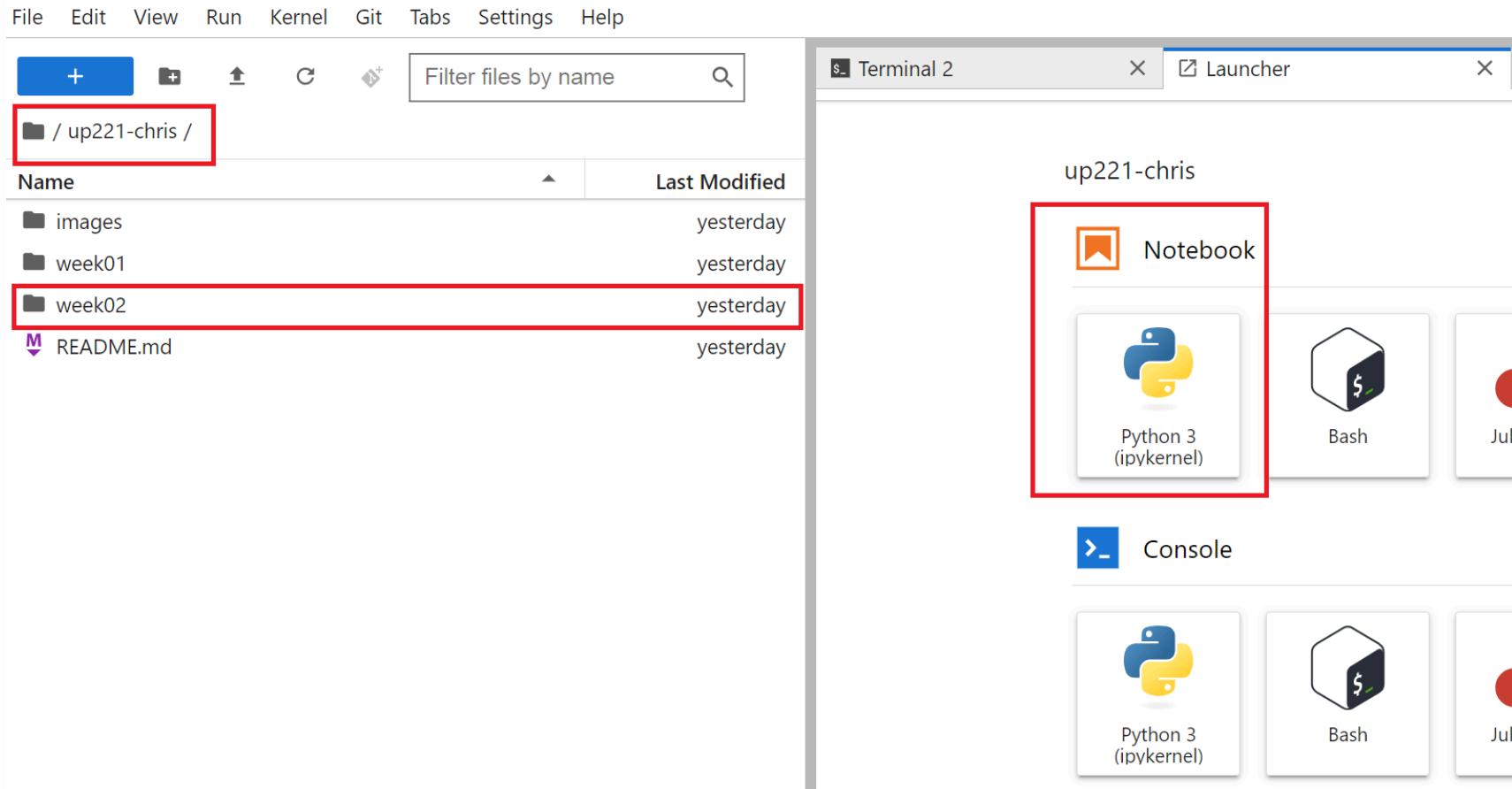
Submission guidelines:

- Find and download a dataset of your choice. This can be a shapefile, csv file, or json file. For many of you, you may have already done this as part of your week 1 assignments.
- Launch JupyterHub, go to your `up221` repo folder, and create a `week02` folder.
- Load the dataset to the `up221/week02` folder.

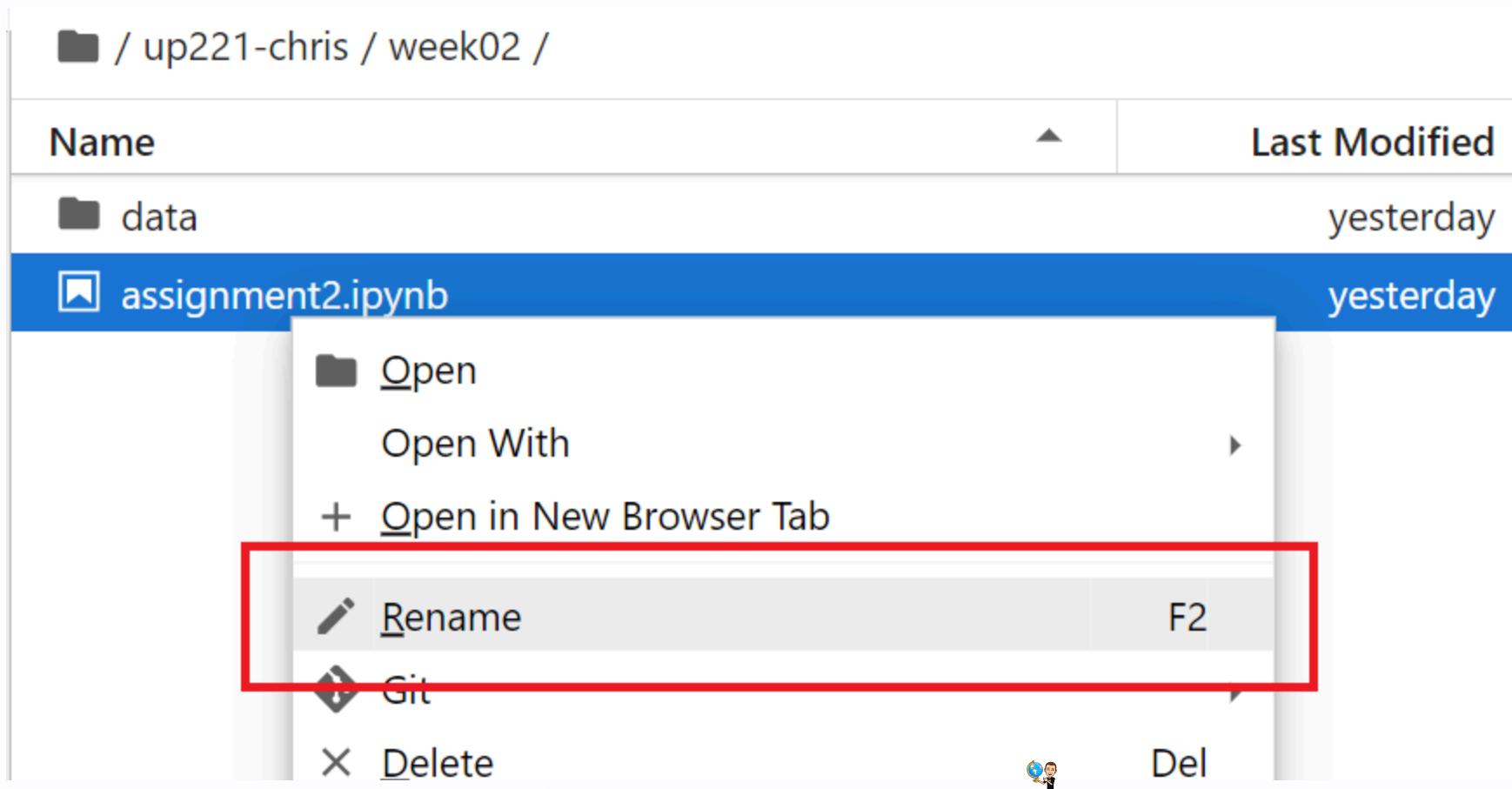


Create a new python notebook

Do not work on a copy of the lab notebook



Right click on the `Untitled.ipynb` tab and rename the notebook to `week2assignment.ipynb` or `assignment2.ipynb`. Just be consistent throughout the quarter.



Add an introductory markdown cell with a title (header) and paragraph that describes what you are doing.



Import the data, and conduct data exploration, making sure to document your steps and your preliminary findings. At minimum, run the following commands:

- `.shape`
- `.info`
- `.head()`
- `.plot()`
- `.value_counts()`
- run a query on the data that filters it in some way



For each code cell, add a markdown cell that explains what you are doing.

Add markdown cells that describe the output of each operation.

Save your notebook.



Commit your changes to your GitHub class repo.

Commit your changes to your GitHub repo by following these instructions:

- How to commit and push to your repo



Submit your assignment

The last step is to submit your assignment to the class repo discussion section [here](#).

