

## Week 2

# Spatial Data Exploration

Recurring Zoom link for Winter 2025

January 13, 2025



\*Note that this course will be recorded



# 2025 LA Wildfires: Recovery Resources



# Volunteer, recovery, and relief resources

- Mutual Aid LA Google Doc resources
- LAist: Want to help fire victims? Here's what experts say does the most good and places seeking volunteers
- LAist: A quick roundup of SoCal fire coverage and safety resources
- LAist: Help for fire victims



# GIS resources

- Watch Duty Live [Wildfire Maps and Evacuation Notifications](#)
- [Air Quality map](#)



# Group formation for midterm and final projects

- Open and review the [midterm and final project guidelines](#).
- Join breakout room with concentration/specialization you are interested in.
- Introduce yourself and your proposed project in 1-2 sentences.
- Form groups of 2 - 4 students
- Fill out Google Form with group name, title, description, names and emails by next Sunday, January 19th at 11:59 pm.
- The form is not graded, but it will help you with your midterm proposal due after Week 3. You are welcome  to submit the [group project proposal assignment](#) when your group is ready. It is due

# 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



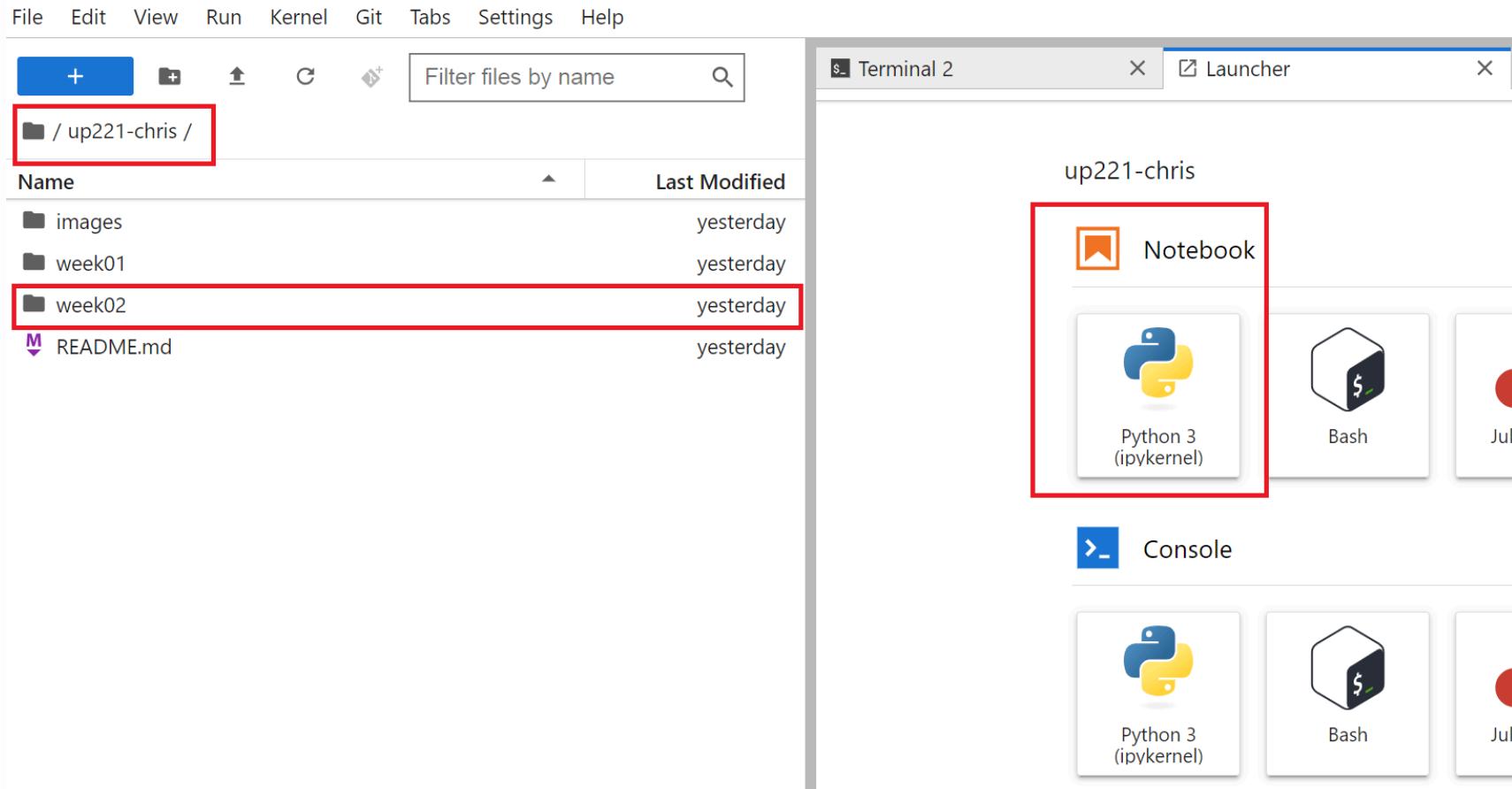
# Submission guidelines:

- 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.

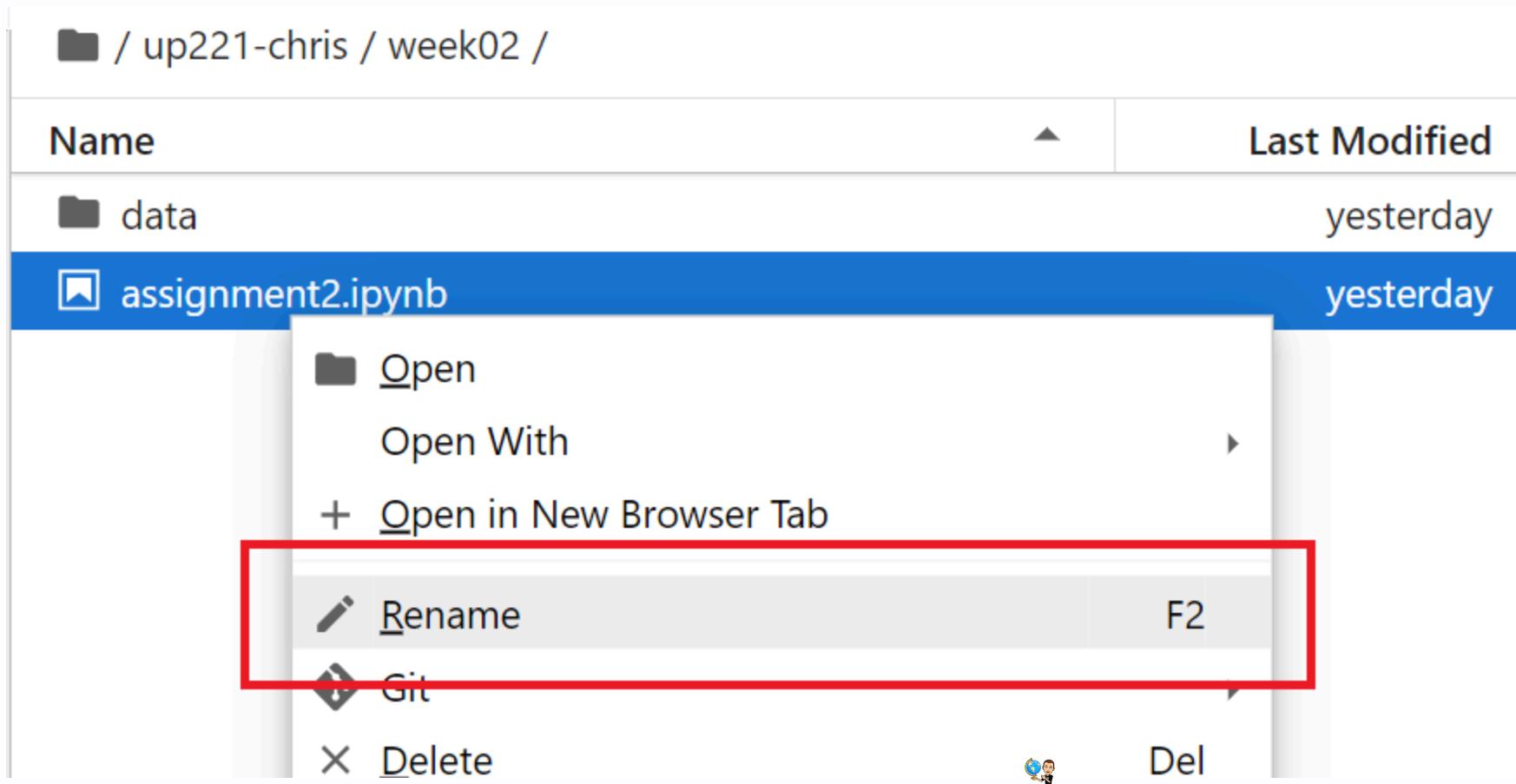


# Create a new python notebook

**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](#).

