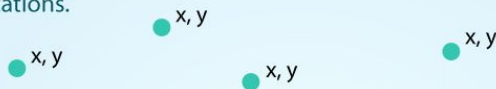# HAS Tools: geopandas tutorial

October 9, 2024

Some brief logistics

- Reminder: forecasting assignments due Oct 14th
- Right now: Please go into your codespaces
  - Commit any changes you have made
  - Merge changes from upstream (I have added hw5 & data)
    - On source control ribbon: go to "..." -> "branch" -> "merge" -> "upstream/main"
  - Also do a merge on the CourseMaterials repo!!
- As mentioned hw5 is now live! It covers some geopandas stuff.
- Tentative due date: Oct 21st @ midnight
- Thinking we will have to cut modules from end of course materials:
  - Building/hosting web pages with GitHub Pages
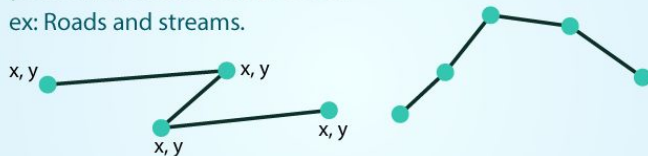 - Automating workflows with GitHub Actions

Reminder: vector data

POINTS: Individual **x, y** locations.
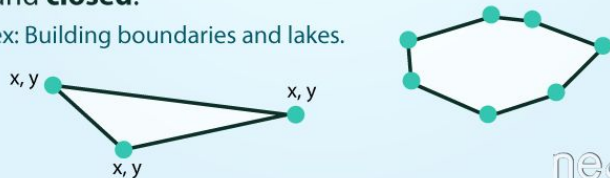ex: Center point of plot locations, tower locations, sampling locations.

x, y
x, y
x, y
x, y

LINES: Composed of many (at least 2) vertices, or points, that are connected.
ex: Roads and streams.

x, y
x, y
x, y
x, y

POLYGONS: 3 or more vertices that are connected and **closed**.
ex: Building boundaries and lakes.

x, y
x, y
x, y

neon

Reminder: Projections & coordinate representations

https://www.earthdatascience.org/courses/use-data-open-source-python/intro-vector-data-python/vector-data-processing/reproject-vector-data-in-python/

Today we get to learn about

GeoPandas