Project Instruction

Project pitch (Feb 3rd)

- To do: share a broad idea of your project with classmates (~ 5 min) with a couple of PowerPoint slides.
- Guidelines (the following should be included):
    - Problem statements: why your project is vital to the community
        - e.g., spatial inequity of healthcare accessibility is closely related to the socioeconomic status of residents.
    - Goals of your project.
        - e.g., measure spatial accessibility to hospitals in Champaign-Urbana.
    - Tentative GIS skillsets you are planning to implement.
        - e.g., geocoding, network analysis, and spatial clustering
    - Tentative Data you are planning to utilize.
        - e.g., hospital locations, census tract residential population, etc.
- Notes
    - No submission is required of the pitch PowerPoint.
    - Grad students (mandatory) and undergrads (optional).
    - Pitchers are encouraged to make your project idea interesting and solid to grasp more people's attention and possibly have more candidates for your project.
    - Undergrads are encouraged to show their intention to enroll the projects to the team leaders so that the leaders would remember you when they pick teammates on Feb 8th.

Team matching (Feb 8th)

- Team members will be assigned equally.
    - If there are 4 teams, each team would be a total of 3 or 4.
    - If there are 5 teams, each team would be a total of 2 or 3.
- Undergrads will submit their first and second preferences for the pitched projects to the instructor.
- Team leaders will have a right to choose their members if there are more people interested in your project than the number of people that should be assigned to.

Project proposal presentation (Mar 8th)

- To do and hand in:
  - Write a project proposal document (~5 pages excluding title page and reference) and present the key points of the project proposal (~10 minutes) with the help of your team.
  - Submit the written proposal and PowerPoint via https://learn.illinois.edu. Each team member will submit the same file.

- Guidelines (both written proposal and presentation should have the following):
  - Project information
    - Project title, team members, and their roles for the project.
  - Project overview
    - What is your project attempting to achieve, broadly speaking?
    - What is the motivation for this project?
    - Why is a project like yours needed?
  - Project details
    - What is the timeline for each, and succession of, each of the project tasks that need to be completed for your project to be a success?
    - What kind of GIS skillsets will you use? How are they related to accomplishing the goal of your project?
    - What kind of data will your project utilize? How will they be fed into the GIS skillsets, and what will be the output of each task?

- Grading (5 points: 3 points for the written proposal, 2 points for presentation):
  - Did you utilize a proper format and ensure consistency and proper grammar?
  - Have you identified a project that will demonstrate mastery of course material?
  - Did you clearly describe what you are trying to accomplish and why it is important?
  - Do you have a reasonable plan for achieving your goals?

Project final presentation (Apr 26th and/or Apr 28th)

- To do and hand in (example: https://shorturl.at/vFJS2) :
  - Demonstrate the project's final product using a Jupyter Notebook (~ 20 minutes). The notebook should include every detail of the project, including figures, workflow, but not limited to. You may use PowerPoint if necessary.
  - Submit a Zip file (a Jupyter notebook and related files) via https://learn.illinois.edu. Each team member will submit the same file.

- Guidelines:
  - Project information
    - Project title, team members, and their roles for the project.
  - Project overview
    - What was your project attempting to achieve?
    - How was your project novel, innovative, or different from what others have already tried related to your topic?
  - Project details
    - What approaches did you use to create your project, manipulate your data, and complete your analysis?
    - How did you take advantage of Python programming to tackle the project in each process?
    - What data did you use in each process and where did it come from?
    - What challenges did you encounter during the completion of your project, and what did you do to address them?
    - What would be the next step of this project if you have a chance to continue working on it?

- Grading:
  - From instructor (5 points):
    - Does your project demo prove that your project goals were achieved?
    - Has the analysis of the project been processed in a reasonable manner?
    - Does each cell have enough comments to let others understand its purpose so that people easily reproduce and replicate the result?
  - From classmates (inter-team review; 10 points):
    - Does your presentation clearly define the project goals?
    - Does your presentation demonstrate the plan used to accomplish the project goals?
    - Was the project demonstration understandable, and do you think you can reproduce the result?
  - From teammates (intra-team review; 5 points):
    - Responsiveness: did the person respond to emails and show up to meetings?
    - Reliability: did the person do what they said they would do?
    - Contribution: did the person contribute to the project?
    - Work with again: would you work with this person in the future if you have a chance?