

World Population and Project 1 Preview

PLEASE SEAT YOURSELVES in every other row so the NINJAs and instructors can circulate easily among you.

Today's Agenda

We're going to give you a preview of Project 1 and then talk about world population in conjunction with what you're learning in Chapter 5, with a short detour to show you how to submit Notebook 4.

What Will We Do In Project 1?

Capture what stands out to you as especially interesting or important. What do you know about the goals of Project 1? Deliverables?

Pick a Proto-Project (10 minutes)

Pick one of the proto-projects from the book and answer the following questions about it. You can find the three projects here:

- Salmon populations: https://github.com/AllenDowney/ModSimPy/blob/master/code/soln/salmon_soln.ipynb
- Queuing theory: https://github.com/AllenDowney/ModSimPy/blob/master/code/soln/queue_soln.ipynb
- Tree growth: https://github.com/AllenDowney/ModSimPy/blob/master/code/soln/trees_soln.ipynb

1. What's the motivating question?

2. What kind of work is the model intended to do!

If you have ideas about the project in the coming days, write them down and we'll come back to them when we launch the project.

Next: GitHub Push and Pull (15 minutes)

Now we're going to walk through turning in the notebook together. Anytime you turn in a notebook in the future, this is the process you'll use.

- You should have completed Notebook 4 before class today.
- You should also have successfully created a GitHub account, forked Allen's repo, and cloned your repo to your laptop, which we all worked on together in class on Tuesday. If you did not successfully complete all of this yet, work with a NINJA on getting these things done.
- In order to actually submit the Chapter 4 notebook on Canvas, you'll add a file to your local repo, commit this change, and push the change to your remote repo on GitHub. We will do this together now.

Next Section: Notebook 5, Part 1 (15 minutes)

Be sure you understand what `read_html()` does, what a `DataFrame` is, and what a `Series` is.

Next Section: Notebook 5, Part 2 (20 minutes)

Be sure you understand what the bracket operator, `[]`, is used for, how to use `get_first_label()`, and how to use `get_first_value()`.

Reflection Questions

1. Think about patterns and anti-patterns (ways of working — think about those that Allen mentioned and others that are relevant for you). What's working well for you so far? What's not working well for you?

2. What changes do you want to make to your patterns and anti-patterns? What changes would you like help with making?

Next Steps

Before class on Friday, please do the following things:

- ☐ Write your name here: _____
- ☐ By tonight: Scan this worksheet and submit it on Canvas.
- ☐ Also by tonight: Read Chapter 6 and complete the Chapter 6 reading quiz on Canvas.
- ☐ Before class on Friday, complete Notebook 5 (there is no need to submit it).
- ☐ Meet in the STUDIOS on FRIDAY (for Olin Monday).