Welcome!

First-year CS Seminar: First Year Resources

Activity: Information Privacy

- Can we compute aggregate results without revealing individual information?

- A person's age is private information. Let's try to calculate the class's average age.

Pseudocode

We use pseudocode to describe processes we want to implement as a program.

- Pseudocode looks like code (structurally)
- It is intended for reading by a human.
- Omit details and syntax in the pseudocode. The goal is to describe the process at a high level.

First Year Resources

- *The most useful resource may be your peers.*

- We just developed code as a group.
  - It would have taken longer individually.
  - You'll be asked to do lots of group work!
- But when is group work -- or extra help -- inappropriate?

Academic Integrity

- The university is a learning environment, and everyone has an obligation to participate in learning (rather than avoiding it).

- Your best resource ... is *you*.
- Learning with your peers is often beneficial (and more fun), but when does it hurt, rather than help?

Small Groups!

- We're going to discuss a few scenarios. (Thanks to Beth Simon and Michael Stepp for the scenarios.)

- Each group should:
  - Identify the collaboration (and mitigating factors)
  - Determine if the collaboration is appropriate
  - If inappropriate, find a better way to collaborate
- Afterwards, we'll discuss the scenario together.

You've been trying to finish your assignment. However, you have been stuck on one of the functions for a long time and can't figure out how to do it. You call over another student and ask for help and they let you see what they did for their method to help you get started.

Inappropriate: you should not see another student's code.

The assignment has just come out, and you're in the lab starting to read the handout. You see someone else reading the handout, so you head over, and the two of you sketch out your ideas and designs on a whiteboard.

For 108: appropriate, since the focus is on code, not design. For later courses, this probably is too much collaboration.

Some students were concerned about doing this "in public", rather than on paper.

Your code almost works -- but it has a bug. You ask one of your friends for a hint, so she drops by to help. You can't find the bug, but together, you generate the method again as you discuss the process.

Inappropriate: writing code together.

Your code has a bug, and you've narrowed it down to a tiny piece of the code -- a couple lines from one function. You show someone else just those couple of lines, and they help you identify the error.

Safer to go to office hours for help or to generate a new example that has the same error.

Student A has completed her program. Student B is struggling with the assignment and asks Student A for help. Student A comes over and skims the code, gives advice, but does not directly tell Student B what to do. (i.e. "Take another look at your loops" or “Here’s a diagram that helped me understand the problem.”)

Inappropriate: the other student saw your code.

It's really close the deadline, and you're having trouble working with a new Python structure. You use Google to find a few pages with examples, and one of them is almost exactly what you need. You copy it into a new file, play with it to make sure that you understand it, and then modify it slightly to make it satisfy the assignment.

"It depends": if you find a small piece of code that helps you understand a piece of syntax, that's appropriate. For larger pieces of code, talk to the instructor. When in doubt, get Prof Craig's opinion!