# CS33 Project Survival Guide

Fall 2019

### Read the Handout (All of it!)

We know the project handouts can be long, and it's tempting to start coding right away, but you'll save time in the long run by understanding what you have to do before writing any code.

### Go to Conceptual Hours

CS33 Projects are often harder to conceptualize than they are to implement. If you're having trouble understanding the concepts behind a project, conceptual hours are a great (and often overlooked) way to make sure you're on the right track.

## Start Early (and Stay on Schedule)

Assignments are often released on the due date of the previous assignment, so it's important to turn in each assignment on time so you can start the next one! TA hours lines are also much shorter at the beginning of a project, so you're more likely to get help if you need it.

#### Ask on Piazza

If you have non-code questions, Piazza can get you answers faster than waiting in line for TA hours. TAs and helpful students are often on Piazza looking for people to help!

#### Use GDB

GDB is super helpful, and a working knowledge of GDB will help you fix your own problems faster, and make sure that when you see a TA, they won't have to go through basic debugging steps with you.

## Talk Things Through with Friends

Talking through conceptual problems is often a great way to make sense of what's going on. As long as you aren't writing code together, CS33 allows you to work with your friends to understand the concepts, or to debug projects.

## Work Incrementally

It's helpful for you and the TAs to know what works and what doesn't - so make sure each part of your project works before starting the next one.

### Review the Lecture Slides

The lecture slides are a great resource to get you on track for a project if you feel like you've missed something in class!

#### Use the Textbook

The textbook contains a lot of helpful background information (and code snippets!) if you need more context or a rewording of any information.

### **Use Version Control**

If you have experience with git, a version control system can be useful for reverting to a version you know works, especially for later projects with a lot of code.