

Guide to Mini Projects

Mini-projects are larger, multi-week assignments that we give in this class. Here is a brief guide to successfully approaching them.

Timeline

Mini projects are usually assigned 2-3 weeks before their due date. They will usually tie together topics from those weeks. You may be assigned a Mini project before you know *everything* you need to know to complete it, but you will usually know enough to at least start a mini project when it is assigned.

It is a very bad idea to leave Mini-projects to the last minute. We recommend working on them in recitation, and asking your instructors and LAs questions as they come up.

Procedure

We recommend this iterative procedure for writing code for mini-projects:

1. Brainstorm about where to begin. If you are not sure of exactly what to do, **write down a list of concepts you think you will have to apply, and try to figure out where/how you will apply them.**
2. Write down a list of all of the objectives of the assignment. What should your program be able to do?
3. Write a prototype program.
4. Come up with test cases **that test everything your program is supposed to do.** While will give some examples of how your program should behave, we will not provide a full list. It is up to you to figure out (and ask questions about) how to test your program.
5. Test your program. Identify any potential problems.
6. Debug problems. **Always debug by yourself first, then ask for help.**
7. Update code and retest.
8. Continue until you are done.

Comments

Code for your Mini Projects should be commented, and use good style. As there are multiple ways to complete every Mini Project, you must be clear to your grader, through comments and style, ***in describing exactly what each variable and programming structure is supposed to accomplish.***

Collaborators

These are individual assignments, and you should submit only your own work. We acknowledge that you will, and encourage you to discuss this assignment with classmates. However, you **must acknowledge** as many as **five** people you shared significant ideas with while working on the project. Acknowledge them in a comment at the beginning of **each** .m file you submit. While your code cannot be the same as theirs, we are ok if there are similar ideas used in places.

Submissions

You must submit:

- A printout of all of your code and comments during the recitation in which your project is due.
- All code for your project on the Canvas submission link by the end of the recitation in which your project is due.