

Computer Science 3-4: Final Project

The goal of this project is to create a program of your own design in C++. The project will be broken into three phases: the Design/Pseudocode phase, the actual program and a short write up of how you tested/finished up your project. Remember that the focus of this project is designing a functioning program on your own; the program doesn't have to be an epic game, just something that showcases what you've learned. It is up to you if you want to try to use graphics or just have it be a console application.

Phase 1: The Design

Submit a 1-page (typed) proposal for your program. It should give an overview of all the major features of your proposed program along with programming considerations. It should also include a pseudocode outline of the major parts of the program (what functions do you need to write, looping structures, etc.). Also include a plan of attack (what parts will you code first).

Phase 2: The Program

Your program can be about anything, but it needs to have a consistent focus. For example, make a program that models something you did in another class (a physics problem, something that would help you study for a unit, interactive examples, etc.) or extend an idea from this class (make a simple game, code some other examples of fractals, play around with other features of SFML, etc.). Make sure to comment your code so that I can easily follow what is going on in each section of the program.

Phase 3: Testing/Write-up

This is the most important phase before you turn it in. You need to anticipate the kinds of errors your program might have (what happens if we give it some bad input, are there special cases where the calculations fail, etc.). If there are unavoidable errors (for example, you have a recursive program and it can't run past 7 iterations of the program) document them in your write up. Make sure to include about one paragraph about how you planned and implemented testing for your program. For the rest of the write-up, include a short reflection on: what was the most interesting aspect of making this program, why you chose to make this program and what was the biggest challenge in making the program.

Overall this should be about one packet's worth of work. If you are short on ideas, come and talk to me...we can figure something out!