

CS/SE/TE/CE 1337 – Homework 0 - Cleanup on Aisle 7

HW0 - The Snake Game Cleanup

Dr. Doug DeGroot's Class

Due: Sunday, January 30, 2022, by midnight

Objective: This homework assignment is just for warming up. Show what you can do to improve an existing piece of code written by someone else. We will have a HW1 next week that will focus on additional functionality. So use this HW0 to get your code prepared for extensions.

How to submit: Upload your improved .cpp file to eLearning when you're done.

Name your file HW0-Snake-<you first and last names>.cpp

Points: None: Don't worry about a grade for this homework.

The corresponding source file (found in the Codes folder on eLearning) is the original code for the implementation of the Snake Game we studied in class. While it does in fact work, it needs a *lot* of cleanup and improvement (and I *do* mean a lot). Please take this code and "improve" it to your heart's content—much as we studied in class. Use your best coding styles and practices with this particular game.

There is no score for this project, so don't worry about correctness or accuracy -- that's not what I want you to impress me with. I want to see what you can do with respect to
readability, extensibility, maintainability, testability, debugging, modularity, information hiding,
valuable commentary, self-documentation and the like

Also, read this Wikipedia article on refactoring:

https://en.wikipedia.org/wiki/Code_refactoring

There are numerous other highly valuable articles on the web that you can find that address these subjects. I encourage you to read a few. We will study a few in particular as our course progresses.

At the top of your program (and every other program we will tackle in this course), add a section of commentary that contains:

1. the program's name
2. your name
3. the date you developed the program
4. class number and section
5. a "purpose" note (or description, whatever; i.e., what does the program do?)
6. changelog - a list of major changes you make to the program, each of which is dated
7. notes - things the reader of your code (including you, yourself) should be aware of (e.g., a list of things you might want to fix, change, add, etc. in future versions of the program)
8. comments - anything not included in the above that the reader should be aware of (e.g. external links to related information, problems, trivia, etc.)

I showed how to do this in class.

Don't worry about adding or changing the game's functionality – yet —unless you are deeply moved to do so—as we will do that in our actual, first homework. I will upload that homework soon so that you can begin to think about how you'll solve HW1 as you are working through the code for this HW0. But for now, just focus on improving the code in the multiple ways we discussed. This is an important first step.