

CS 1313 010 Spring 2025 Homework #13

Quiz to be held in class 9:00-9:15am Monday Apr 21 2025

Please feel free to discuss these questions with your classmates, but **NOT** to copy each other.

NOTE: Except where and as explicitly permitted in writing (for example, in a Homework), you are **ABSOLUTELY FORBIDDEN** to **COPY EVEN A SINGLE CHARACTER** from,

or to have **ANY** shared code with, **ANY** other entity,
whether a human being (regardless of whether in CS1313 or not),
a text resource, a computing resource or anything else,
whether in person, on a local computer, online or anywhere else.

It's **INCREDIBLY EASY** for us to detect such copying, so **DON'T EVEN THINK ABOUT IT!**

Rewrite the program from Homework #11, the one that finds the minimum and the maximum of a floating point array. Instead of performing these calculations inside the main program, each calculations should be done by a **USER-DEFINED FUNCTION**.

Specificially, the program should:

- greet the user,
- prompt for and input the length of the array;
- idiotproof the array length;
- dynamically allocate the array;
- check that the allocation was successful;
- prompt for and input the values in the array;
- find the minimum value in the array **by calling a USER-DEFINED FUNCTION;**
- find the maximum value in the array **by calling a USER-DEFINED FUNCTION;**
- output the minimum value and the maximum value in the array;
- deallocate the array.

NOTE: You **MUST** calculate each of the two extrema values in **ITS OWN** user-defined function; you are **ABSOLUTELY FORBIDDEN** to calculate more than one of them in the same user-defined function. For example, the user-defined function that calculations the minimum is **ABSOLUTELY FORBIDDEN** to also calculate the maximum, which **MUST** be done in its own user-defined function.

You **DON'T** have to use comments. Otherwise, all rules for Programming Projects (through PP#6) apply.

For this Homework question only, you **MUST** submit a script file of the standard kind, **DURING THE QUIZ TIMESLOT** (Mon Apr 21 9:00-9:15am Central Time). You **DON'T** need to submit a summary essay, nor a C source file. You **MUST** run the program using an array length of at least 10.

NOTE: The script file **MUST** have been created on ssh.ou.edu, not on any other system.

If you use **ANY** resources other than Dr. Neeman, the TAs/graders (Basiri, Bilal), the course text-book or the materials posted on the course webpage, you **MUST** reference them on the quiz. **THIS INCLUDES CLASSMATES, FRIENDS, PROFESSORS, ONLINE RESOURCES, ETC.**