

## Homework 5

This homework includes short answer questions and a programming assignment. The short answer questions are worth 5 points each. The programming assignment is worth 30 points. The short answer questions may cover topics that are in the text, but were not covered in the lectures. Push a preliminary version of the programming assignment to Github before Wednesday's class. Push the final version of your source code, Makefile, and a text file with your short answer questions to Github before 5PM Friday.

### 1. What are libraries good for?

Libraries are helpful for finding and using code that has already been created. It provides you with a collection of .o files in a single file. Instead of having individual file objects, you can just link to that one library. It limits the amount of code you actually have to write. It is an easy way to reuse working compiled code, and allows it not to go to waste for only one project.

### 2. What are the two types of library and how are they different?

The two types of libraries are static libraries and shared object or dynamic linked libraries. Static libraries link to your executables like a .o file. Shared object libraries stay separate from the executable and are loaded at runtime. They are also shared by multiple executables.