

# Lab 6: Build Systems

## Introduction

This lab will give you experience writing a couple of makefiles. `git clone` the lab repository and have fun!

## Problem 0: Gitignores, again

As you're working through these problems, please make a `.gitignore` that ignores all the generated files you wouldn't want in your git repo.

## Problem 1: A simple makefile

Write a makefile in the `problem1` directory that includes:

- Simple targets (no patterns) for each `.cpp` file in the repository.
- A target that builds the whole program
- A `clean` target that removes all object files and the generated executable.

## Problem 2: A complicated makefile

In the `problem2` directory, write a makefile named `makefile2` that includes:

- A variable that lets you set the compiler
- A pattern target for all `.o` files
- A target that builds a release version of the program – this should be the default target
- A target that builds a debug version of the program
- A `clean` target

Note: You can tell `make` to use a different makefile with the `-f` option.

## Epilogue

`git add` your two makefiles and your `.gitignore` file and `git push` !