

# CS 3005: Programming in C++

## Hello

In this assignment, you will configure your development environment for the course projects, create and use a source code repository, and create a simple “Hello, world.” program.

You should be concentrating on the process of editing, compiling, linking, running, committing and pushing your program. It would be optimal if you create a set of notes to guide you through this process as you complete future assignments this semester.

## Assignment

If using your own computer system, install the GNU development tools. Instructions can be found from a link in the syllabus, titled “Notes for installing g++”.

If working in Windows, also read “Notes for editing in Windows and using build tools in bash”.

Clone the starter git repository using the link from the assignment page in Canvas.

Create the “Hello, world.” program in the git repository in a folder named `src`. The program source file must be `hello.cpp`. Build and run the program, to be sure your development environment is correctly configured.

Create a `Makefile` to automate the commands to build the program.

Commit the `Makefile` and `hello.cpp` to source control, and push them to the cloud repository.

Finally, verify that all push actions have completed successfully.

## Programming Requirements

### Create `hello.cpp`

This file must include definitions of the following functions:

- `int main()` - program function that displays the message “Hello, world.”.

### Create `Makefile`

This file must include the rules to build the file `hello.o` from `hello.cpp`, and to build `hello` from `hello.o`.

## Additional Documentation

- [C++ Reference](#)
- [Examples from class](#)
- [Notes for installing g++](#)
- [Notes for editing in Windows and using build tools in bash](#)
- [Notes for getting started with git](#)

## Show Off Your Work

To receive credit for this assignment, you must:

- Use git to add, commit and push your solution to your repository for this class.

Additionally, the program must build, run and give the correct output.