

Assignment 1 requires you to write a program in C. To complete the assignment you will need to (1) install a C/C++ compiler, (2) install a C/C++ integrated development environment (IDE), (3) complete the assignment by writing the C code, and (4) turn in the assignment electronically.

1. Install a C/C++ compiler.

The recommended integrated development environment (IDE) is the latest version of CLion from JetBrains. This installation process allows you to use write both C and C++ programs, and is identical to the installation process for the data structures course CoSc 320.

For Windows users

Download the MinGW C++ compiler from here.

<http://www.mingw.org/>

Click the Download tab and download `mingw-setup.exe`. Execute the setup program and accept all the default settings, which will install the compiler at `C:\mingw`. When the MinGW Installation Manager dialog box opens, it will give you a list of packages to install. Select

- `mingw32-base-bin`, A basic MinGW installation
- `mingw32-gcc-g++-bin`, GNU C++ compiler
- `msys-base-bin`, A basic MSYS installation

When you click the checkbox, select Mark for Installation. Select Installation → Apply Changes from the dialog box menu.

For Mac users

The C++ compiler comes with the Xcode development system, which you can get free from the Apple app store. Download and install Xcode. Open Xcode and allow the IDE to install the command line tools. Quit Xcode and do not use it to write your C program.

2. Install a C/C++ Integrated Development Environment (IDE).

We will use an IDE from JetBrains called CLion. Apply for a free student license of CLion from JetBrains.

<https://www.jetbrains.com/student/>

Use your Pepperdine email address for the license. Download the trial version of the CLion app, and register it with your student license.

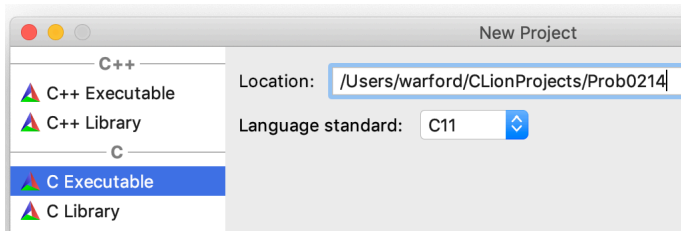
For Windows users

In the CLion Setup under Installation Options, check Add launchers dir to the PATH, and check all the Create Associations boxes.

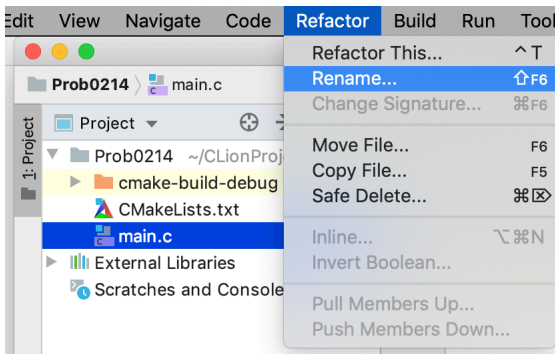
3. Complete Assignment 1.

To write the C program with CLion:

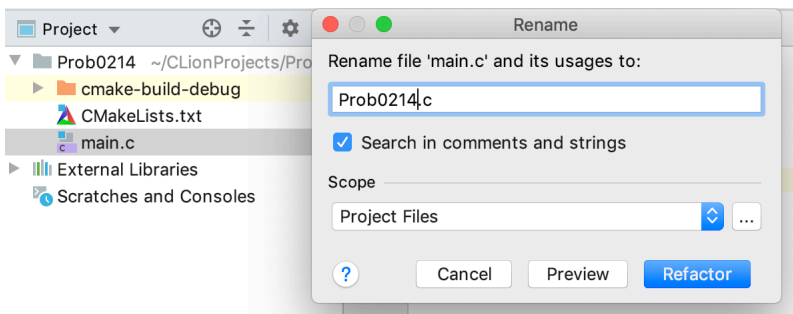
- a. Create new project as follows:
 - Open CLion.
 - New Project → C Executable → Language standard: C11
 - Project Location: Change `untitled` to `Prob0214`.
 - Click Create.



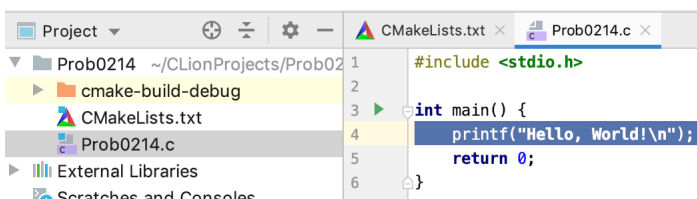
- b. Rename main file from `main.c` to `Prob0214.c` as follows:
 In the Project pane, expand `Prob0214` and select `main.c`.
 Select Refactor → Rename...



In the Rename window change `main.c` to `Prob0214.c`
 Click Refactor.



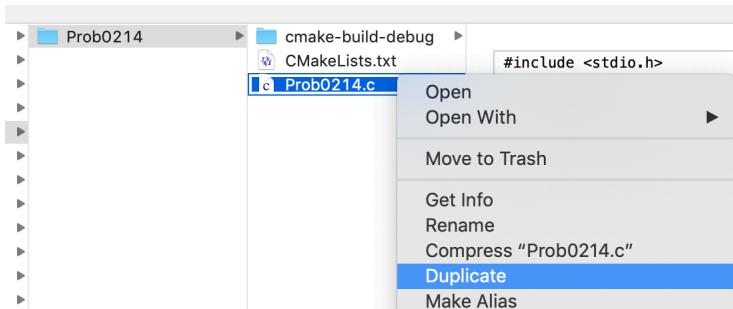
- c. Modify the C main program by deleting the `printf()` statement and replacing it with the code for this assignment.



Test your program to make sure it works correctly.

4. Turn in Assignment 1 electronically.

- a. In the Finder (Mac) or File Explorer (Windows), navigate to the `Prob0214.c` file, right click on it, and duplicate it.



- b. Rename the duplicated file according to the specifications from your instructor.
For Pepperdine students, rename it to `xxProb0214.c` where `xx` is your assigned two-digit number. For example, if your two-digit number is 99 you would rename it `99Prob0214.c`. Hand in this file as an attachment in Sakai Courses.