

Our data structures will be implemented in C++. Recommended integrated development environment (IDE) development is the latest version of CLion from JetBrains. It is fine to use another IDE, such as Xcode with Mac OS X or Visual Studio with Windows. You are on your own, however, if you have technical questions about using an IDE other than CLion.

1. Install a C++ compiler.

*For Windows users*

See [here](#) for how to install the MinGW C++ compiler. The recommended installer is MinGW-w64.

*For Mac users*

The C++ compiler comes with the Xcode development system, which you can get free from the Apple app store. Open Xcode and allow the IDE to install the command line tools.

2. Install 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*

See the above link in Step 1 for setting up the tool chain. In the CLion Setup under Installation Options, check Add launchers dir to the PATH, and check all the Create Associations boxes.

3. Download the dp4ds distribution software.

All programming exercises will be to complete missing code fragments in a suite of software being developed for a future textbook titled *Design Patterns for Data Structures* (dp4ds) by Nguyen and Warford. Download `dp4dsDistribution` from the current course web site.

<http://www.cslab.pepperdine.edu/warford/cosc320/>

*For Windows users*

You should put the `dp4dsDistribution` folder in the root directory of the C drive, `c:\`. The linker has a problem with spaces in the directory name “Documents and Settings,” so the path to `dp4dsDistribution` should not include that directory.

4. Start CLion. Either from the startup splash screen or the File menu, select Open. Navigate to the `dp4dsDistribution` folder, select it, and click Open. In the Trust dialog box, select Trust Project.