

ECS 122B Environment Setup Project 1

Setting up your development environment

1. Virtual Box
 - 1.1. Download virtualbox: <https://www.virtualbox.org/wiki/Downloads>
 - 1.2. Download 16.04.3 LTS from <https://www.ubuntu.com/download/desktop>
 - 1.3. Follow this guide to install Ubuntu: <https://linus.nci.nih.gov/bdgc/installUbuntu.html>

Install packages

2. Add repository: `sudo add-apt-repository ppa:ubuntu-toolchain-r/test`
3. Sudo apt-get update
4. Update gcc
 - 4.1. Use “`sudo apt-get install g++-6`”
 - 4.1.1. Make gcc-6/g++-6 your default gcc/g++ compiler by executing “`sudo update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-6 60 --slave /usr/bin/g++ g++ /usr/bin/g++-6`”
 - 4.1.2. g++ --version to check, you should see version 6.*.* (mine is 6.3.0 as of 1/31/18, yours may be a later version)
5. Install CMake with “`sudo apt-get install cmake`”
6. [Install](#) Google test
 - 6.1. use git to clone the repository at <https://github.com/google/googletest>
 - 6.2. After cloning, a directory googletest is created. To build the source:
 - 6.2.1. Create directory with “`mkdir googletest/mybuild`” `mkdir googletest/googletest/mybuild`
 - 6.2.2. Move to the build directory with “`cd googletest/mybuild`” `cd googletest/googletest/mybuild`
 - 6.2.3. Prepare build environment with “`cmake -DBUILD_SHARED_LIBS=ON ..`”
 - 6.2.4. Build with “`make`”
 - 6.2.5. Copy [shared object](#) files using “`sudo cp -a *.so /usr/lib/`”
 - 6.2.6. Your shared object files should now be available for linking. To verify this, use “`sudo ldconfig -v | grep gtest`” and you should see something like:
`libgtest.so -> libgtest.so`
`libgtest_main.so -> libgtest_main.so`
 - 6.3. Copy header files so they are available for including via `#include “gtest/gtest.h”`
 - 6.3.1. Change directory to “googletest/include” using “`cd ../include`”
 - 6.3.2. Copy header files using “`sudo cp -a gtest /usr/include`”
- 6.4. Check your build with the Project. In the project directory, create a build directory and build using:
 - 6.4.1. `cd Prompt`
“`mkdir build`”
 - 6.4.2. `cd build`
“`cmake ..`”
 - 6.4.3. “`make`”

