Setting Up A C/C++ Development Environment with NetBeans

Step 1: Installation of Java

In order to install Apache NetBeans, you will need to install the Java software development kit (JDK) first, if you have not already done so. You can download the most recent Java JDK from here:

https://www.oracle.com/java/technologies/javase-jdk16-downloads.html

Choose the appropriate kit for your operating system (Windows, Linux, or Mac), and proceed through the installation.

Step 2: Installation of (Basic) Apache NetBeans IDE

1. Go to https://netbeans.apache.org/download/index.html
2. Download Apache NetBeans 12 feature update 4 (NB 12.4)
3. Choose the Installer for your operating system

(Windows, Linux, or Mac)
4. Run the installer!

Step 3: Activation/Installation of C/C++ Plugin in Apache NetBeans IDE

1. Start up Apache NetBeans
2. Go to Tools->Plugins
3. Choose the 'Installed' tab
4. Click on the C/C++ radio button on the left window
5. Click on 'Activate' near the lower left corner
6. Go to Settings, and make sure that the NetBeans 8.2 Plugin Portal radio button is checked.
7. Go to Available Plugins, and click on Check for Newest
8. Find the C/C++ plugin in the newly updated list, click on the radio button, and then click on install.

Step 4: Installing a C/C++ Compiler (with Make) on Your System

4.1 MacOSX

Install XCode (https://developer.apple.com/xcode/)

4.2 Linux

The gcc/g++ compiler and make are already installed by default, almost certainly! If not, you can certainly install them easily using your favorite package manager.

4.3 Windows

Install MinGW from Sourceforge (https://sourceforge.net/projects/mingw/) and MSYS from Sourceforge(http://downloads.sourceforge.net/mingw/MSYS-1.0.11.exe)

Step 5: Creating Your First C Project (HelloWorld)

Each program that you create for this course will be a new project. Before you begin, you should create a folder for the COURSE, and then within this folder, you will create new folders for each project.

1. Start up Apache NetBeans
2. Go to File->New Project
3. Under Choose Project, select Categories = C/C++, and Projects = C/C++ Application, and then click Next.
4. Choose the Project Name: HelloWorld
5. Accept the default project location and project folder
6. CHOOSE THE LANGUAGE AS C99!!!
7. Click on Finish

8. In the Projects tab on the left side, expand Source Files, and then open the file called main.c
9. In the editor, add a statement: printf ("Hello World! \n"); before the return statement in the main function.
10. Click on the Run button, and make sure that the program compiles, links, and runs correctly!

Step 6: Installing gnuplot

6.1 MacOSX

Precompiled binaries can be found here:

https://csml-wiki.northwestern.edu/index.php/Binary_versions_of_Gnuplot_for_OS_X

You may also need to install XQuartz, which you can find at the same link.

6.2 Linux

Install gnuplot with your favorite package manager (e.g. yum install gnuplot on Centos)

6.3 Windows

Download and install gnuplot from https://sourceforge.net/projects/gnuplot/files/gnuplot/5.4.2 ... you will want the executable version for MinGW (gp542-win64-mingw.exe).