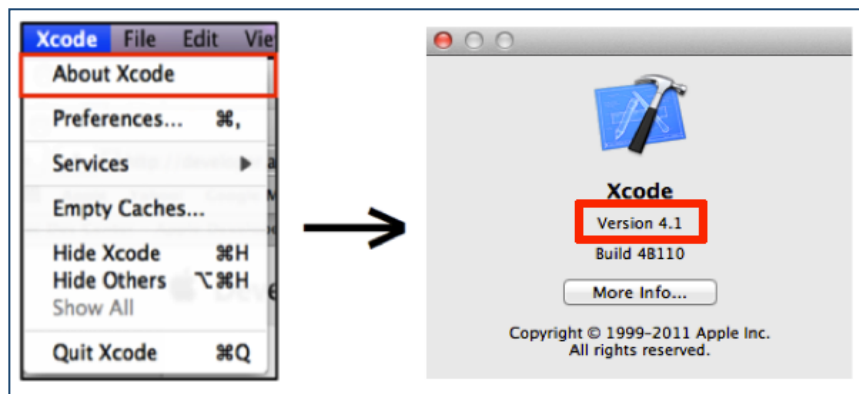
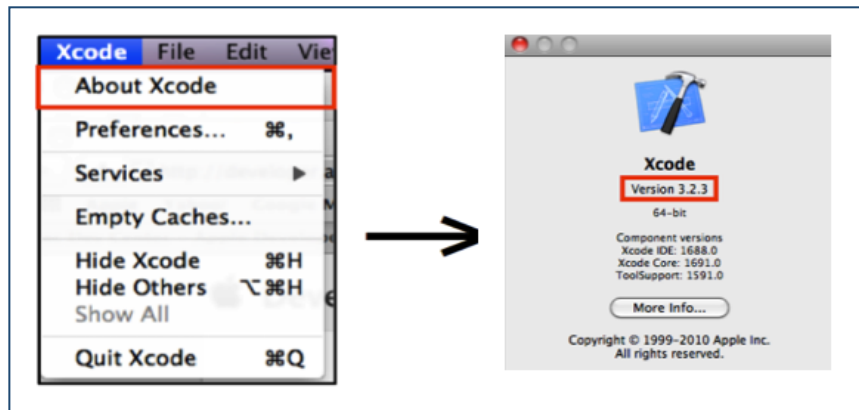


CSC200 – Computing Concepts for Scientists and Engineers

Setting up Xcode for C++ Development.

This walkthrough will help you setup the SDK (Software Development Kit) Xcode in order to program in C++.

- First, if you have Xcode installed we need to verify that you have the most recent Xcode installed. You can check the version of Xcode by selecting About Xcode in the Xcode drop down. You must have either Xcode version 3.2.3 or Xcode version 4.1



If you do not have the most recent version of Xcode (either 3.2.3 or 4.1 depending on version of Operating System) please continue with the following instructions.

*The most recent version of Xcode 3 is 3.2.6, but the about screen shows its version as 3.2.3

Installing Xcode

- If your Operating System supports Xcode 4.1 please skip down to the “Installing Xcode 4.1.1 Instructions”. If your Operating System does not support Xcode 4.0 you will need to install Xcode 3.2.6. Follow the instructions immediately below to install Xcode 3.2.6
- To begin the installation, please go to the following <http://developer.apple.com/xcode/> to download the SDK. You will see in the bottom right there is a link that says “Looking for Xcode 3”. Please click on that link to begin the download process. You will have to register for a free account on the Apple website in order download the SDK. Please click this [link](#) to setup an account. Once you log in you will see the download portion of the
- Once you are logged in you will see the Xcode 3.0 download options. You want to select the Xcode 3.2.6 and iOS SDK 4.3 (Disk Image).

Xcode 3.2.6 and iOS SDK 4.3 Download
GM Build of Xcode 3.2.6 and iOS SDK 4.3. This is the complete Xcode developer toolset for Mac, iPhone, and iPad. It includes the Xcode IDE, iOS Simulator, and all required tools and frameworks for building Mac OS X and iOS apps.

Download Name	File Size	Date Posted
Xcode 3 and iOS SDK 4.3 Readme (PDF)	124 KB	25 Mar 2011
Xcode 3.2.6 and iOS SDK 4.3 (Disk Image)	4.1 GB	25 Mar 2011

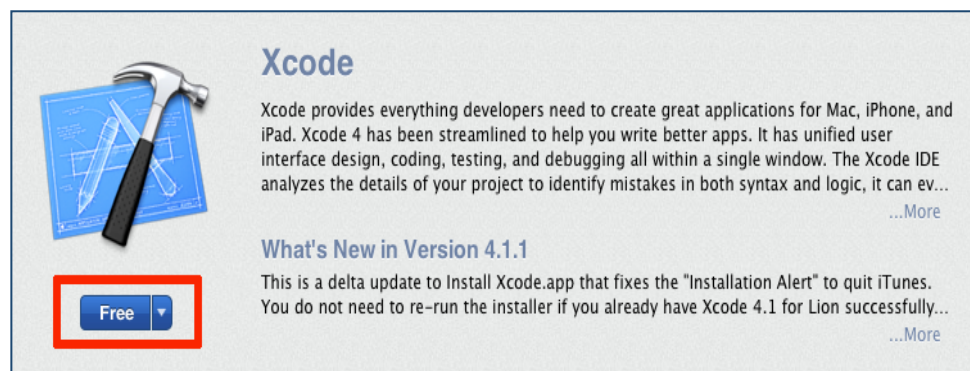
- After the file is downloaded you can double click on the .dmg file to mount the disk image. You should see a window open like the one below. Please double click on the Xcode and iOS SDK icon.



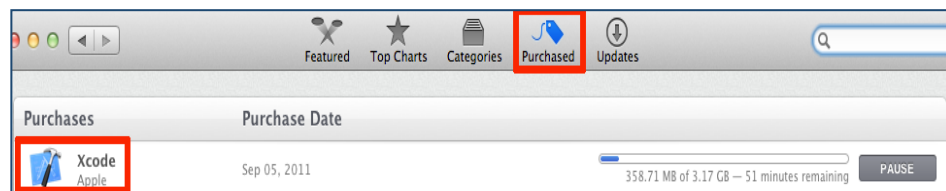
- Once the installer starts, you can use all of the default options and just install the program like you would any other program on your Mac. This program is fairly large in size, and it will take some time to install.

Installing Xcode 4.1.1

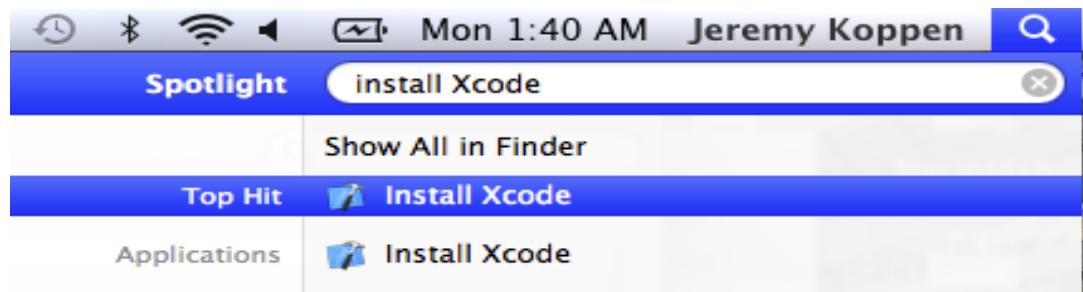
- To begin the installation you will have to register for a free account on the Apple website. Please click this [link](#) to setup an account. After your account has been created, please go to the following [link](#) to download the SDK. You will see in on the left side it says View in Mac App Store. Click on that blue button, and the Mac App Store application should launch. At the top of the page you should see a button that says “Free”.



- Once you click that button, the text will change to Install App. After clicking on Install App, it will ask you to enter in your login information from the Apple account you created. Once you have entered in the correct credentials it will begin downloading. You can check the progress by clicking on the Purchased Tab at the top.



- The program should automatically install after it is downloaded. There has been a reported problem where sometimes Xcode does not automatically install. If it does not you can start the installer by searching for “Install Xcode” in the Mac Spotlight. The Spotlight is located in the very top right corner of your Mac and looks like a magnifying glass. Once you run that application it will start the Xcode 4.1.1 installer.



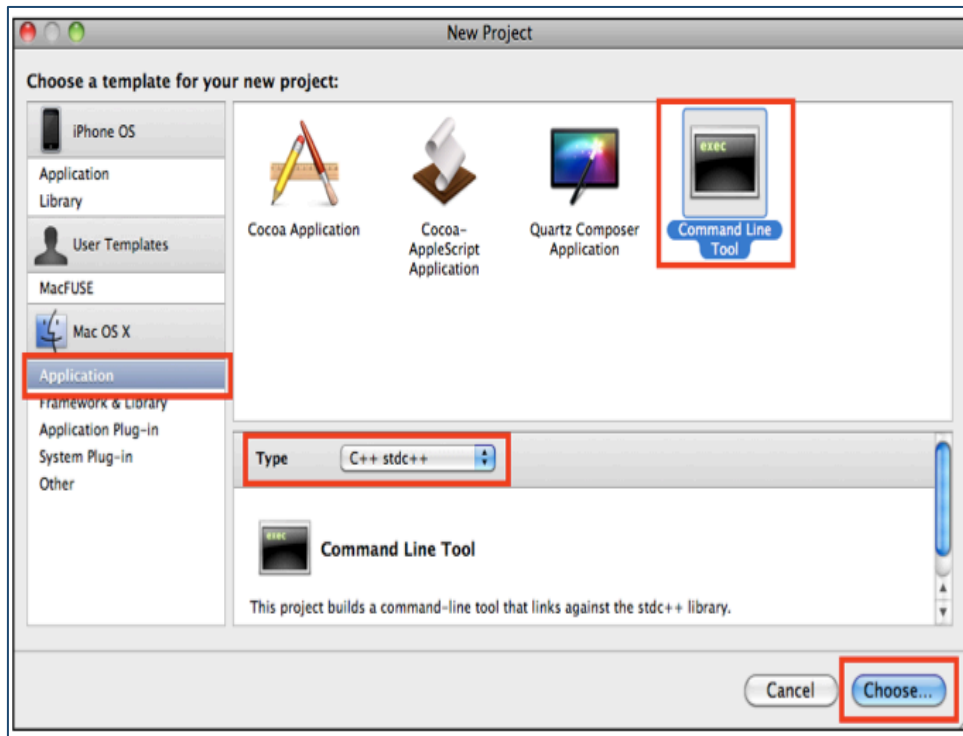
Setting up your first C++ program

First Program using Xcode 3.2.6

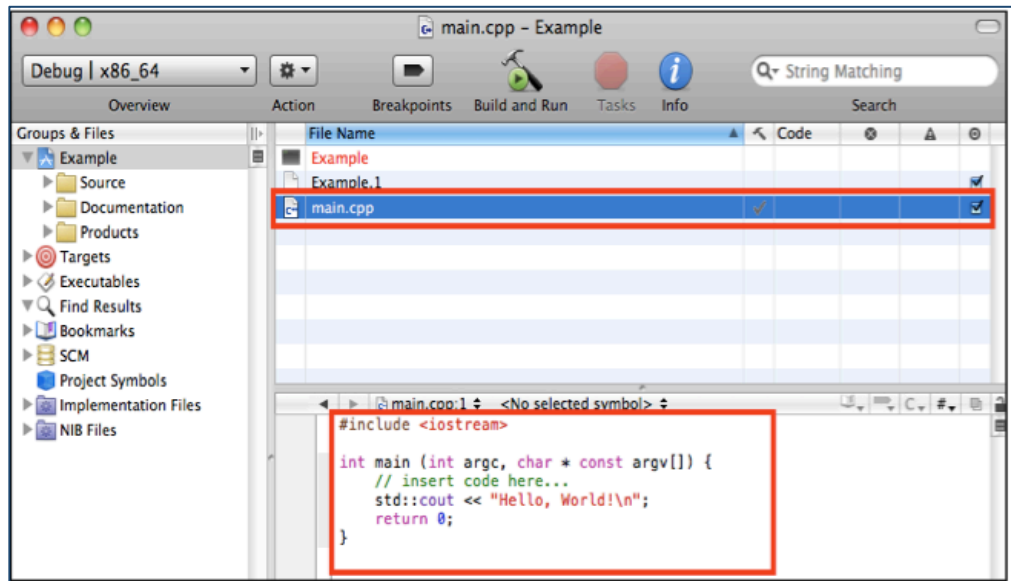
- This will walk you through creating and running your first C++ program in Xcode 3.2.6
- Once you have installed Xcode you will need to launch the program. By default the program is installed in /Developer/Application. Once you have ran Xcode you should see a screen similar to the one below. You will need to select the Create a new Xcode project option.



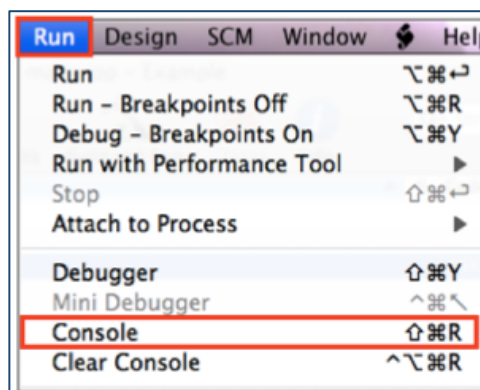
- After clicking this option you will see all of the different types of projects you can create. You are going to want to click on the Application portion under the Mac OSX section on the left. Then you will want to click on the Command Line Tool in the right section. Finally make sure that your type is C++stdc++. If you screen looks exactly like the one below you can press the Choose button on the bottom right.



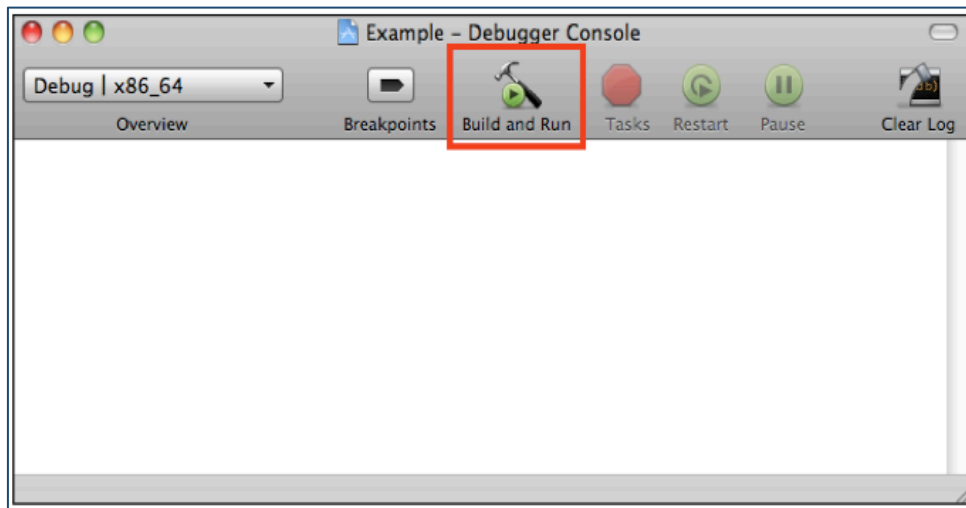
- Now you can name the project whatever you would like. I have named my project Example for the remainder of this walkthrough. After naming and saving your project you should see a screen like the one below. If you click on the file main.cpp you will see some C++ code appear below. This is where you would type code you would like to add to the file main.cpp



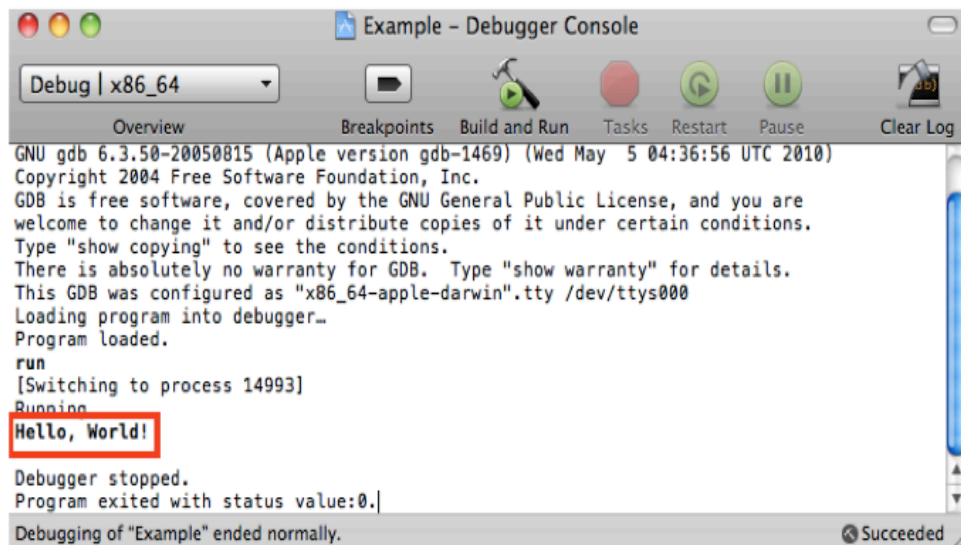
- Xcode has already supplied you with the code for the C++ program to print out the string "Hello World!". The last thing you need to do is open up the console in order to see that the message actually printed. You can view the console by clicking Console from the Run drop down.



- Once you have the Console open you can click the Build and Run button on the top of the Console window.



- After clicking the Build and Run button you should see the Console fill up with some text. Towards the bottom you should see the text "Hello Word!".



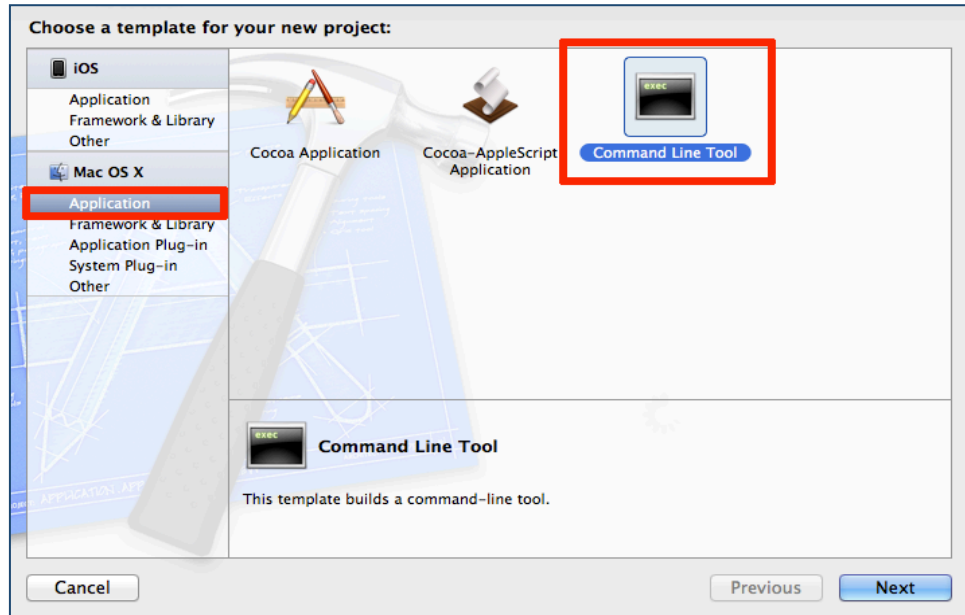
- If you see this text than you have successfully ran your first C++ program. Congratulations!

First Program Using Xcode 4.1.1

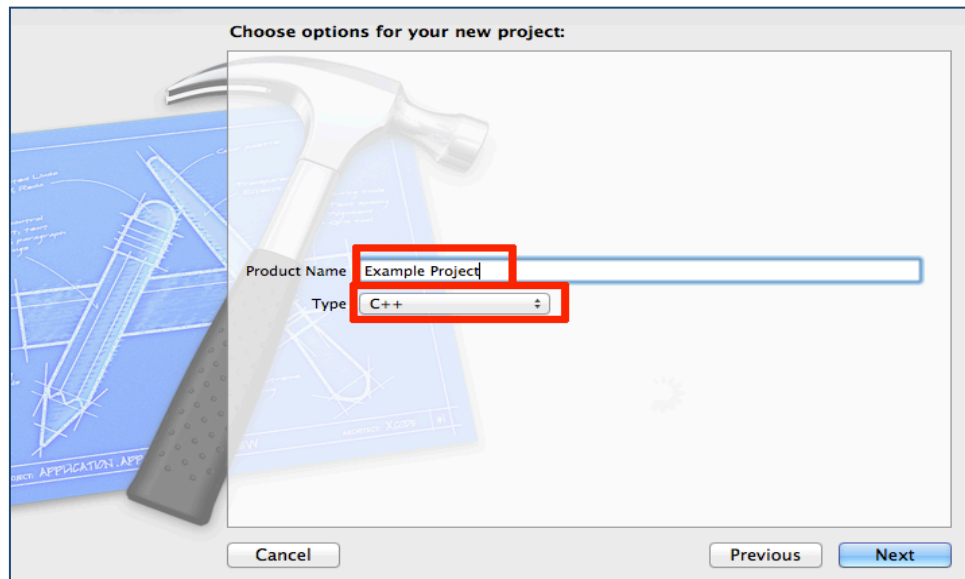
- This will walk you through creating and running your first C++ program in Xcode 4.1.1
- Once you have installed Xcode you will need to launch the program. By default the program is installed in /Developer/Application. Once you have ran Xcode you should see a screen similar to the one below. You will need to select the Create a new Xcode project option.



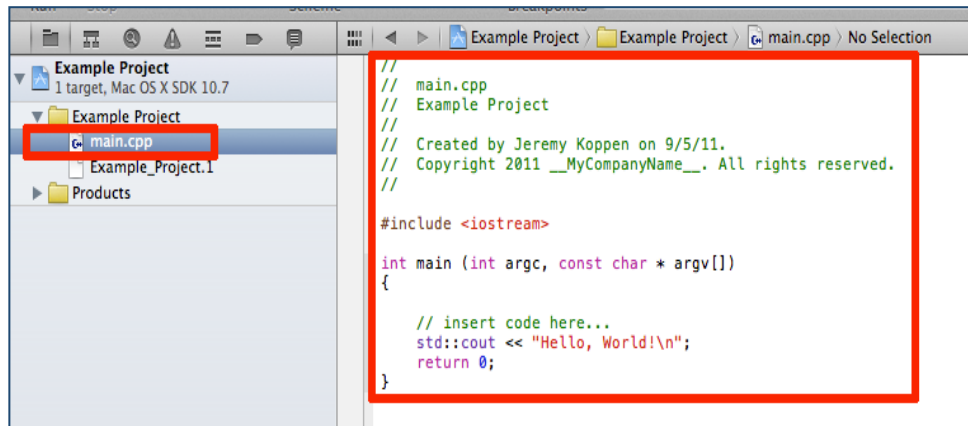
- On the next screen you want to select a Mac OS X Application template. After that is selected you want to choose Command Line Tool for the type.



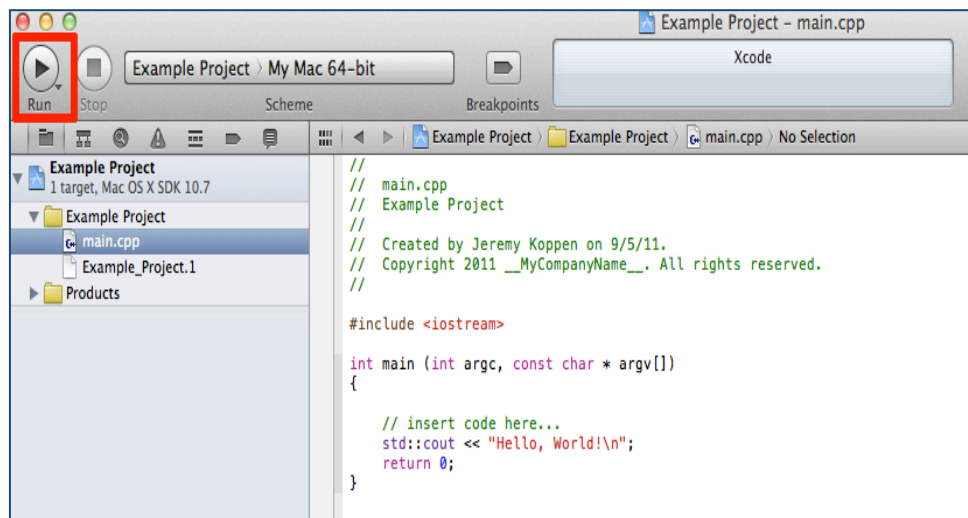
- For the Product Name you can enter in anything you would like the program to be called. For my program I have called it Example Project. For the Type we want to select C++. Click Next it will ask you where you would like to save this project. Make sure you save it to a place that you will remember.



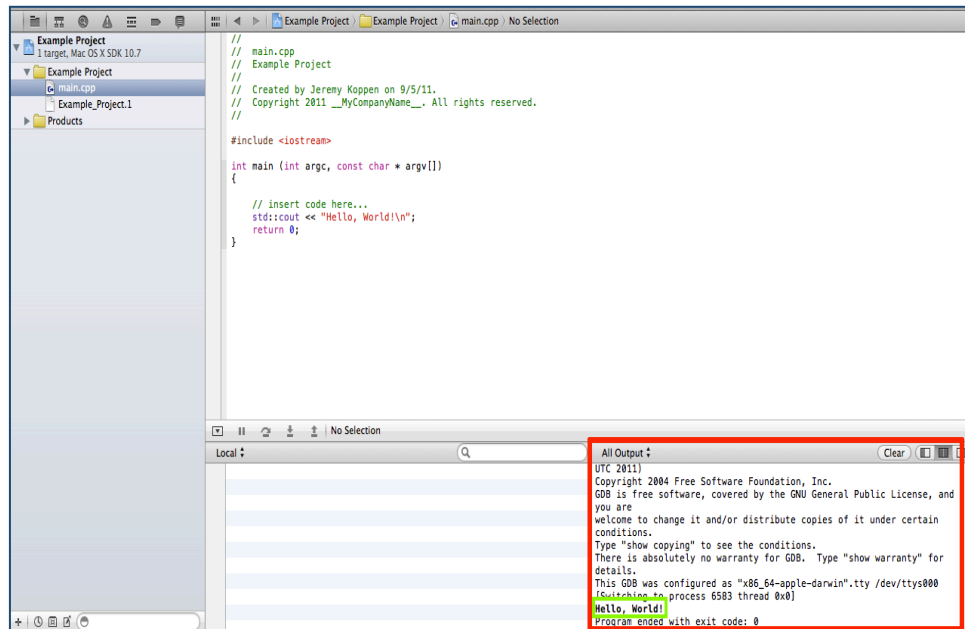
- Now that the program has been setup you should see a list of files on the left hand border. You want to click on main.cpp in order to see the C++ program. Once you click on that file you should see the window to the right change. It should look like the picture below. Now I know this code may not make sense right now, but don't worry it will make sense after a few days.



- To run the project you have to click the Run button, which is located in the top left corner.



- Now you should get a message that the program was run successfully. On the bottom of the application you will see a new bottom bar appear. This is where we can see the output from the program we just ran. If you scroll down on the right box of that bottom border you will eventually see “Hello, World!” in the box. This is because Xcode automatically put in the code to print this statement.



- Congratulations you have just made and ran your first C++ program.