

UNVIERSITY OF VICTORIA

Manual Eclipse CDT Mac OS Snow Leopard

Installation & Demonstration Guide

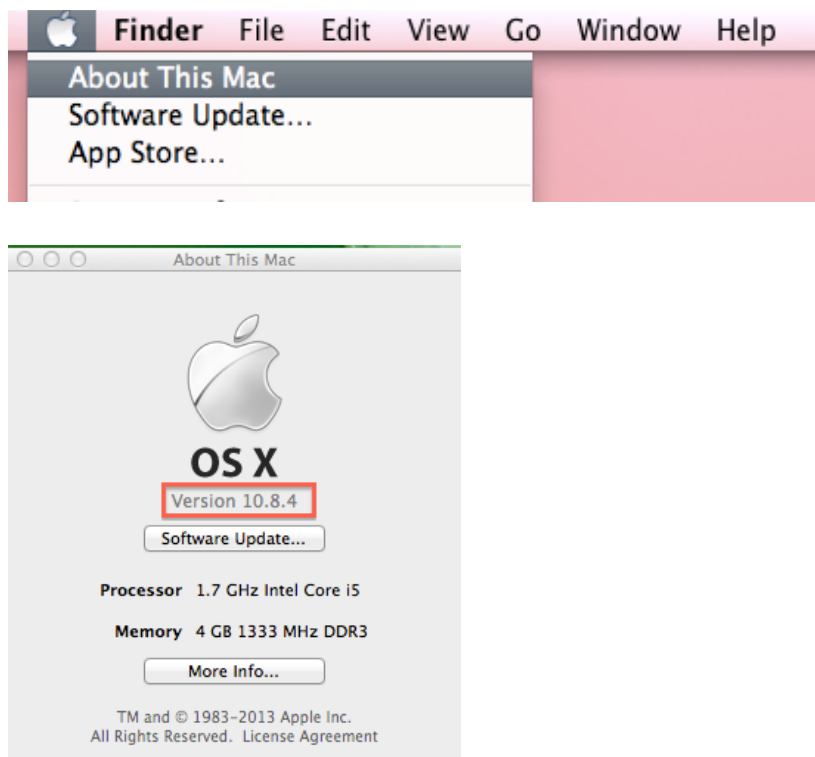
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This guide shows how to use install Eclipse and C-Compiler and how to test the setup by creating a simple 'hello world' program. NOTE: This guide is based on Mac OS Snow Leopard (64Bit) and Eclipse Kepler (4.2).

Mac OS Version

This tutorial is designed to work for Mac OS Snow Leopard. To find out what version you have open 'About This Mac' and look at the version number under the Apple sign. If the version numbers starts with **10.6** then you've come to the right place. Note the version number in the image below is not correct and is only here for demonstrative purposes.

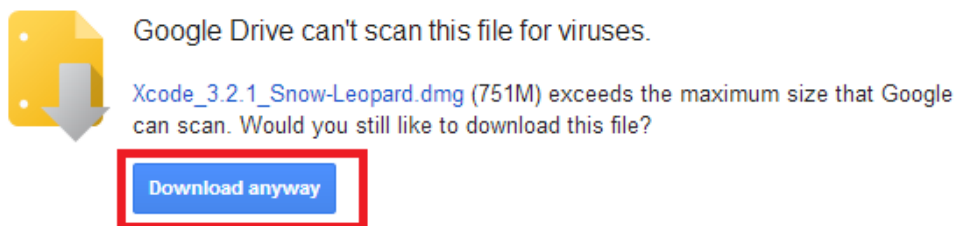


Installing the Compiler

1. The C-Compiler for Snow Leopard comes with Command Line Tools. Command Lines Tools come with Xcode. Xcode is an IDE for Mac OS and must be downloaded and installed in order to get the Command Line Tools. Note this is a large down. To download Xcode click on the following link:

<https://drive.google.com/a/rigiresearch.com/uc?id=0B7bIXSWNFM5RQ2JjbDBBWS05S1U&export=download>

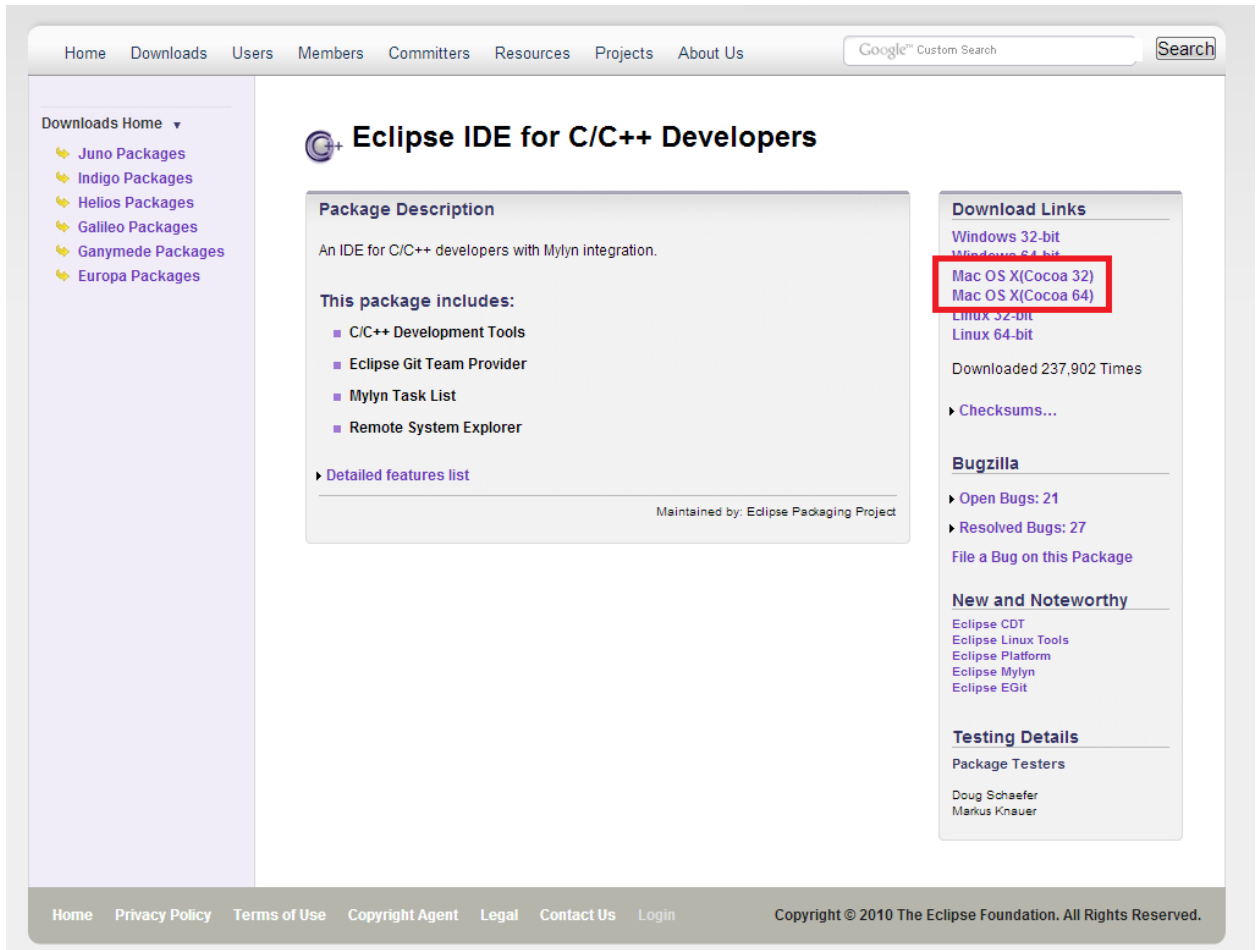
2. On the page click Download button.



3. Once the file is downloaded double click on it and following the instructions provided by the installer.
4. Once Xcode installation is complete you have installed Command Line Tools and you are done.

Installing Eclipse

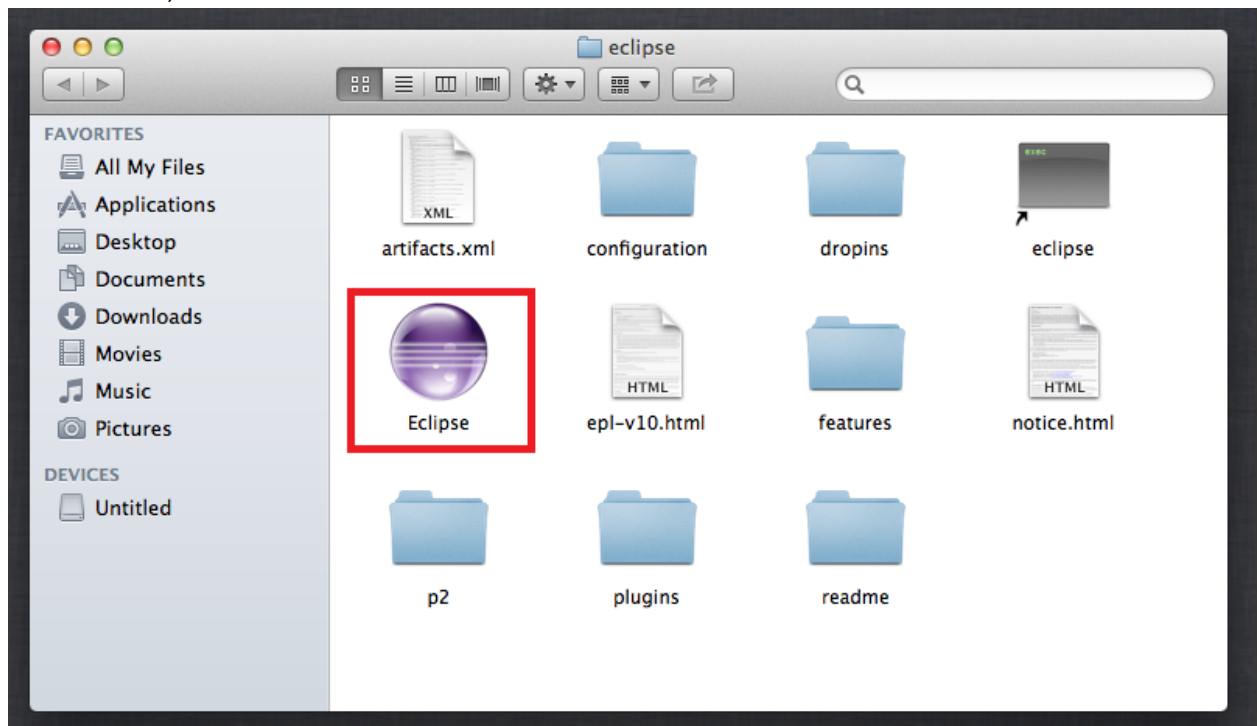
1. Ensure that you have the Java Runtime Environment (JRE) installed. This is required for Eclipse to run. If you plan on using a 64Bit version of Eclipse then you need a 64Bit JRE. If you plan on using a 32Bit version of Eclipse then you need a 32Bit JRE. In this demonstration we are using the 64Bit version.
2. Navigate to:
<http://www.eclipse.org/downloads/packages/eclipse-ide-cc-developers/keplerr>
and download the version for your platform.



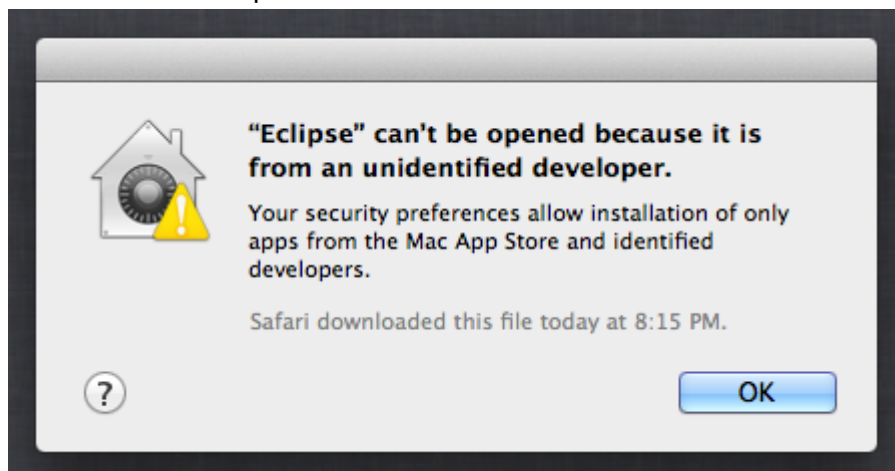
3. Extract the downloaded file where it is most convenient. There is no installer for Eclipse so wherever you unzip is where Eclipse will exist.

Demo Using Eclipse

1. Open the *eclipse* folder by double clicking on eclipse folder (where eclipse was downloaded). The contents of this folder will look like:

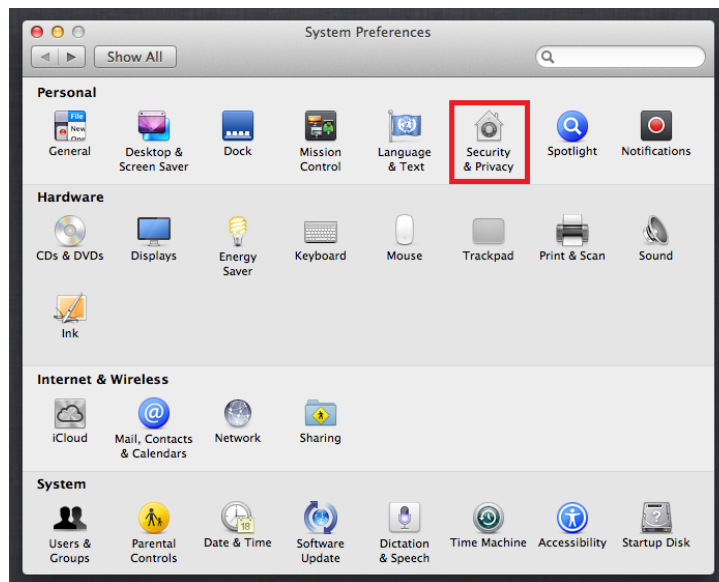


2. At this point you may get a warning that Eclipse can't be opened because it is from an unidentified developer.

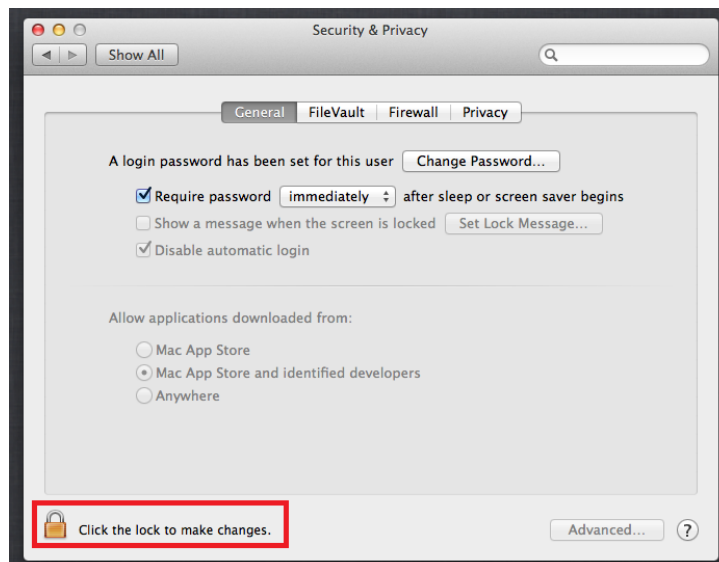


If this is the case then you have to allow the installation of third party applications in Mac OS.

- a. Open System Preferences and click on Security & Privacy



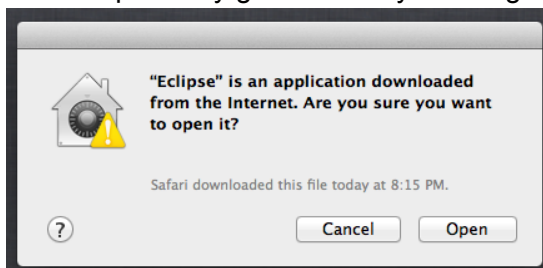
- b. On the next window ensure that editing is enabled. On the bottom left see that the padlock is open. If it is not click on the padlock to enable the editing of settings on this window.



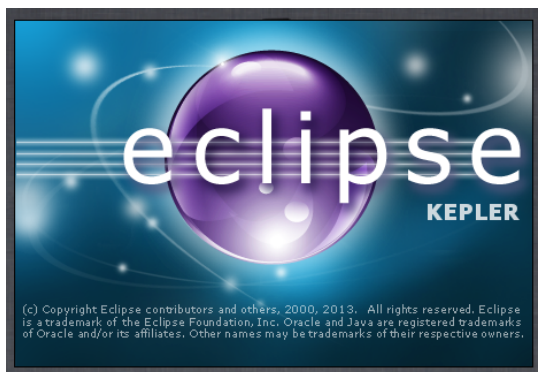
- c. Now under the “Allow applications download from:” section change the selection to “Anywhere”. At this point you will get a second confirmation drop down. Click “Allow From Anywhere”. Now you are done. Go back and double click on the Eclipse icon again.



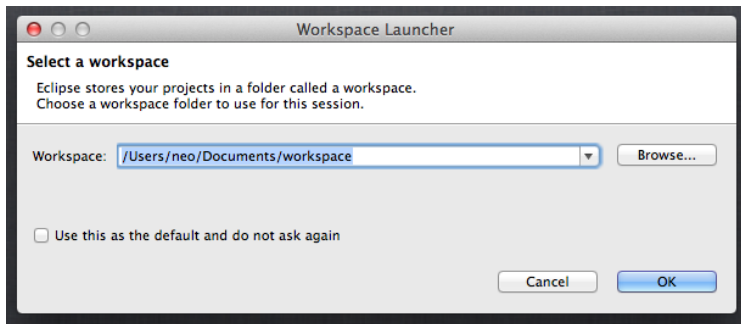
3. You will probably get a security warning about starting Eclipse. Click "Open".



4. After you double-click on Eclipse, the following screen will appear indicating that eclipse has started.



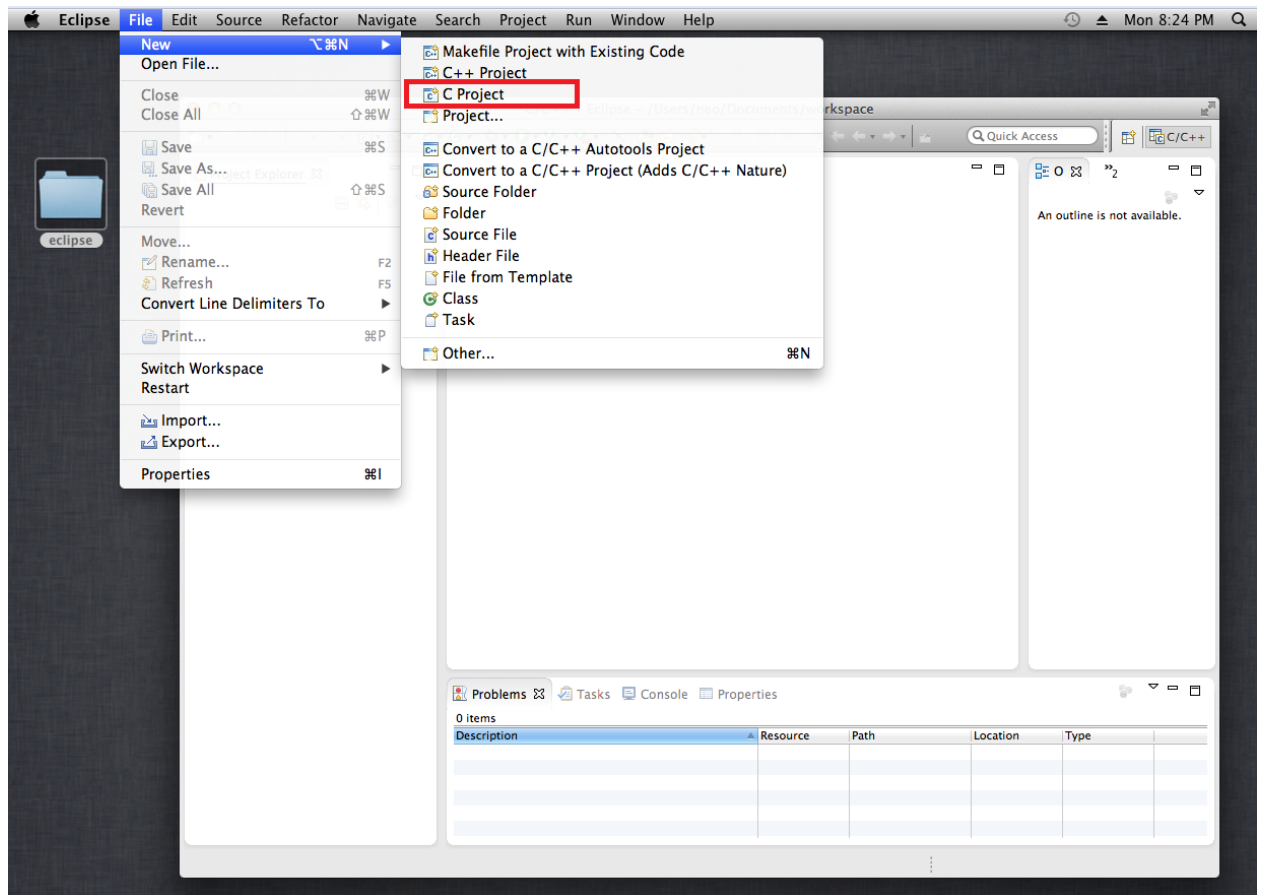
5. Immediately after that Eclipse will ask you for your workspace location. It defaults to a place within your personal settings. It is up to you to choose a new location or use the default workspace. Then, click OK.



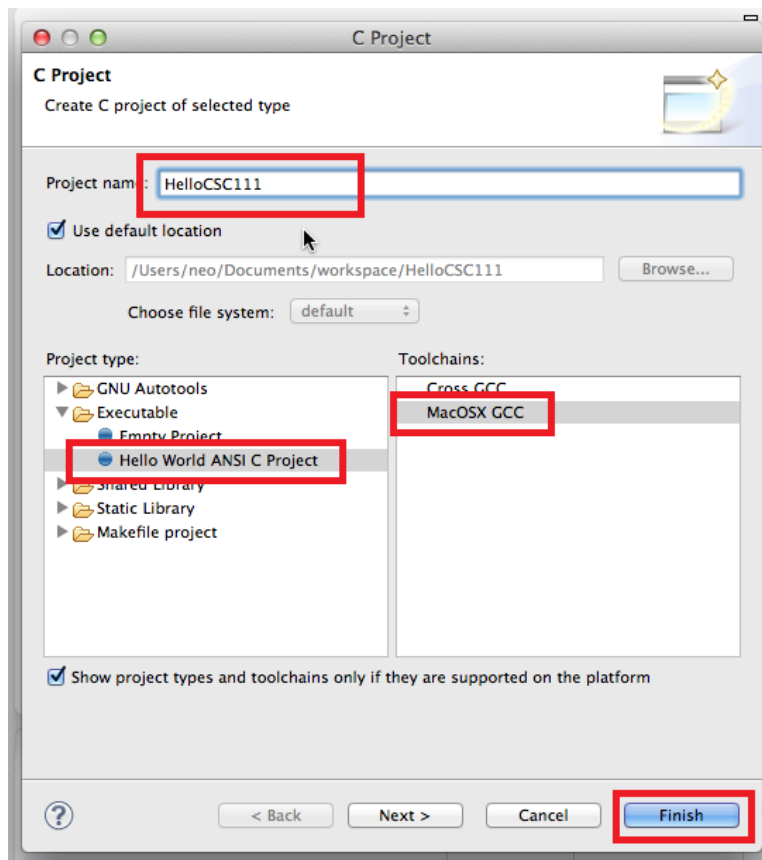
6. Eclipse starts up with a welcome page. Click on the “x” to close the welcome page.



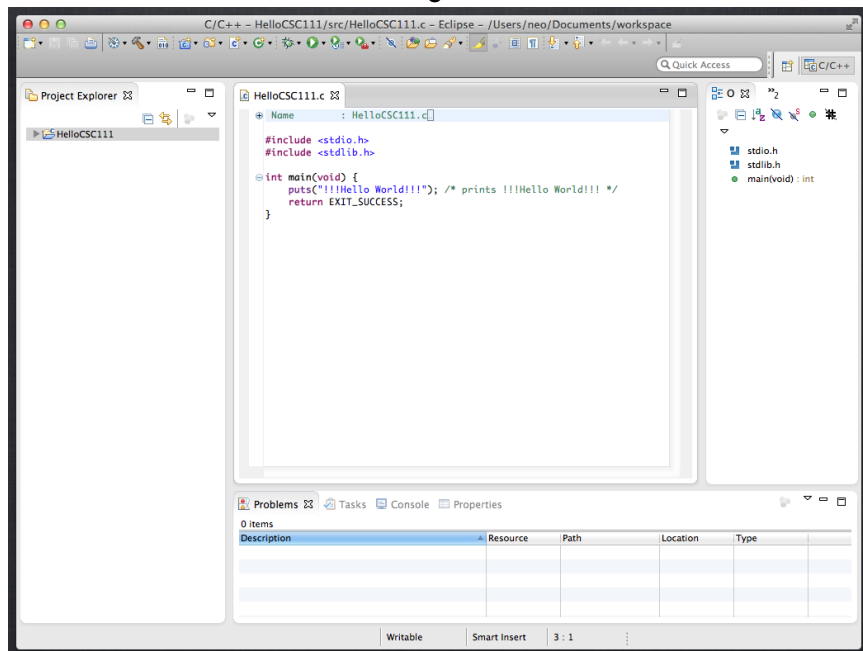
7. Create a new C project via the File menu.



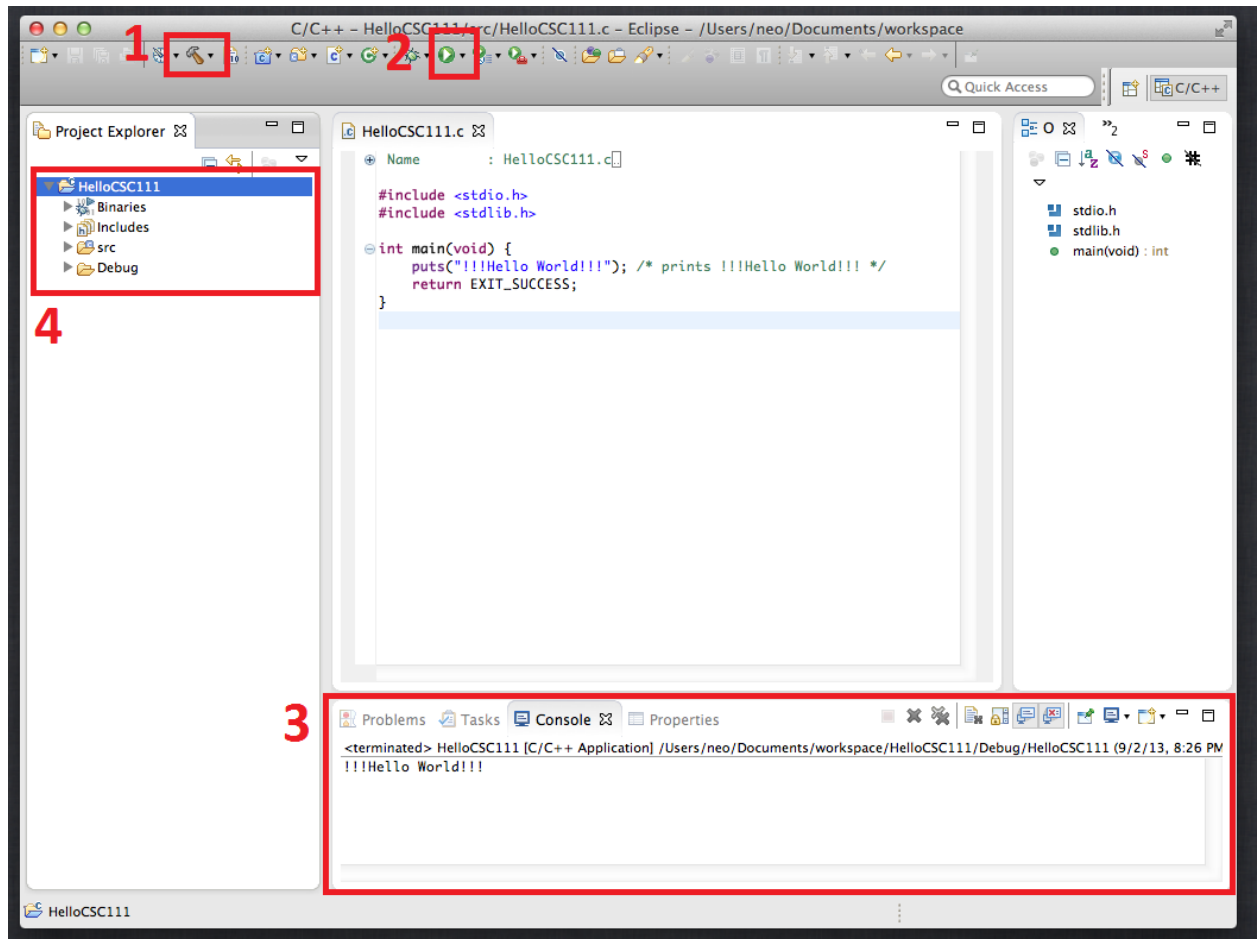
8. Give your project a name; ensure there are no spaces in your project name. Select the Executable and Tool Chain options as highlighted below. This is very important. You must select the right Tool chain or things will not work. Click “Finish”.



9. You should now see the following view.

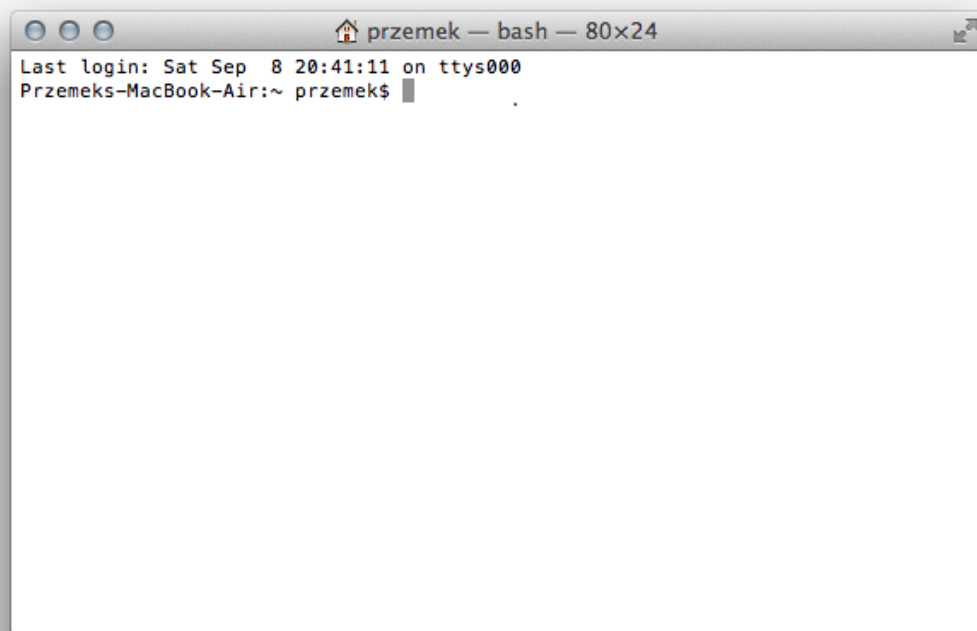


10. Now build and run your project. Expand the tree on the left hand side if you want to see your files. On the bottom of the screen select the "Console" tab where you will see the output of your program.

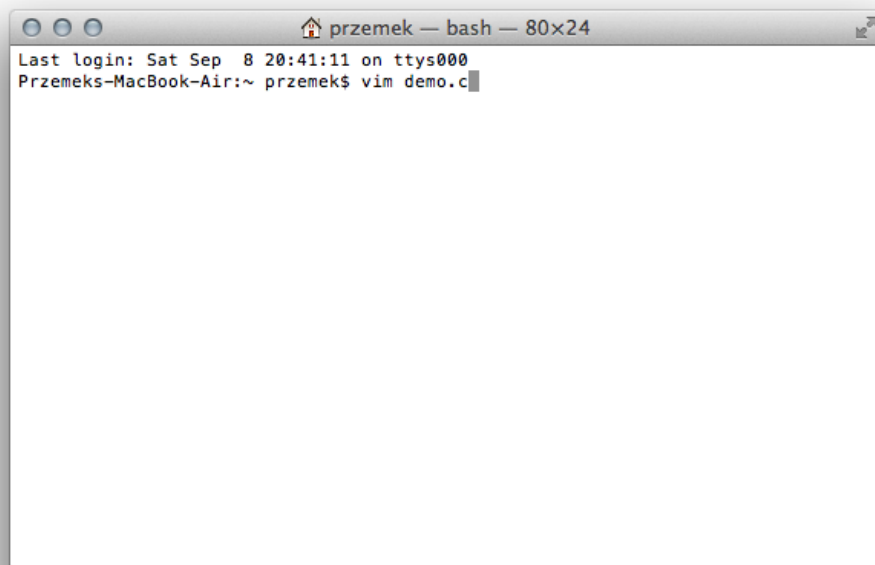


Demo Using Command Line

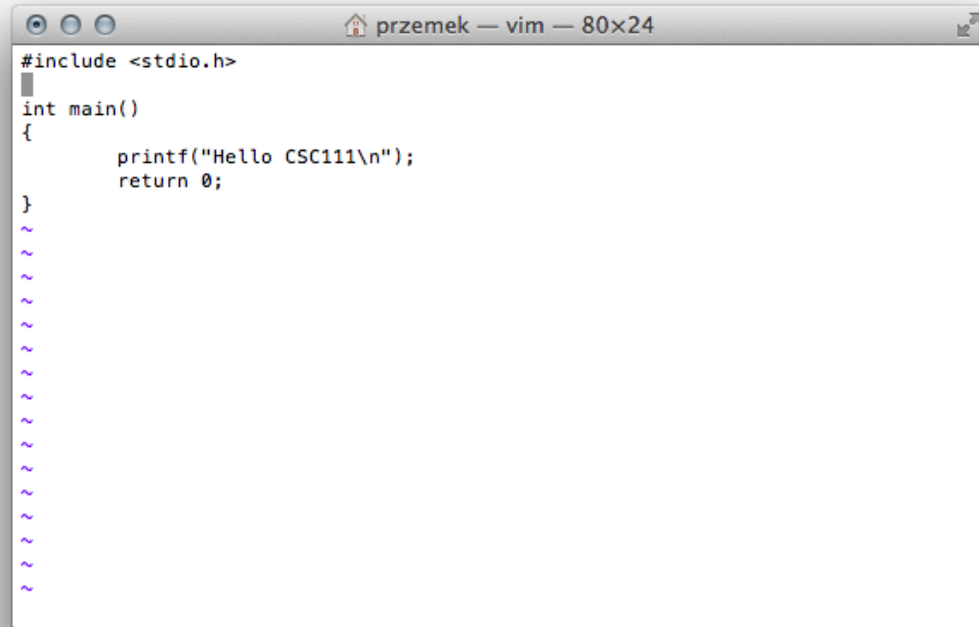
1. Start the Terminal



2. We will use the vim text editor to create our hello world. Simply type 'vim demo.c' and press 'Enter'.



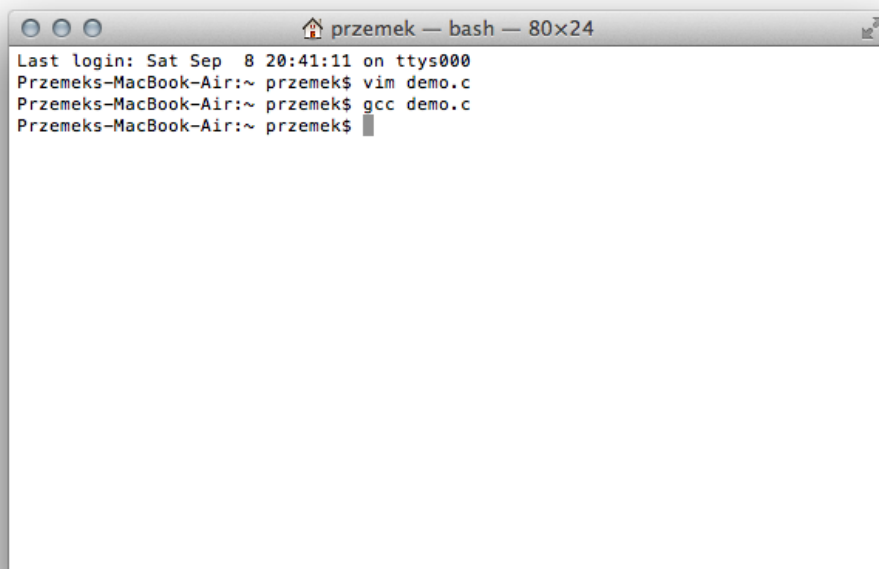
3. Press the 'i' character to turn on edit mode. Type the program as it appears below



A screenshot of a vim editor window titled 'przemek — vim — 80x24'. The editor is in insert mode, indicated by a vertical bar at the start of the first line. The code being typed is a C program that includes <stdio.h>, defines a main function, and prints 'Hello CSC111\n' before returning 0. The rest of the file contains several tilde (~) characters representing empty lines.

```
#include <stdio.h>
int main()
{
    printf("Hello CSC111\n");
    return 0;
}
~
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```

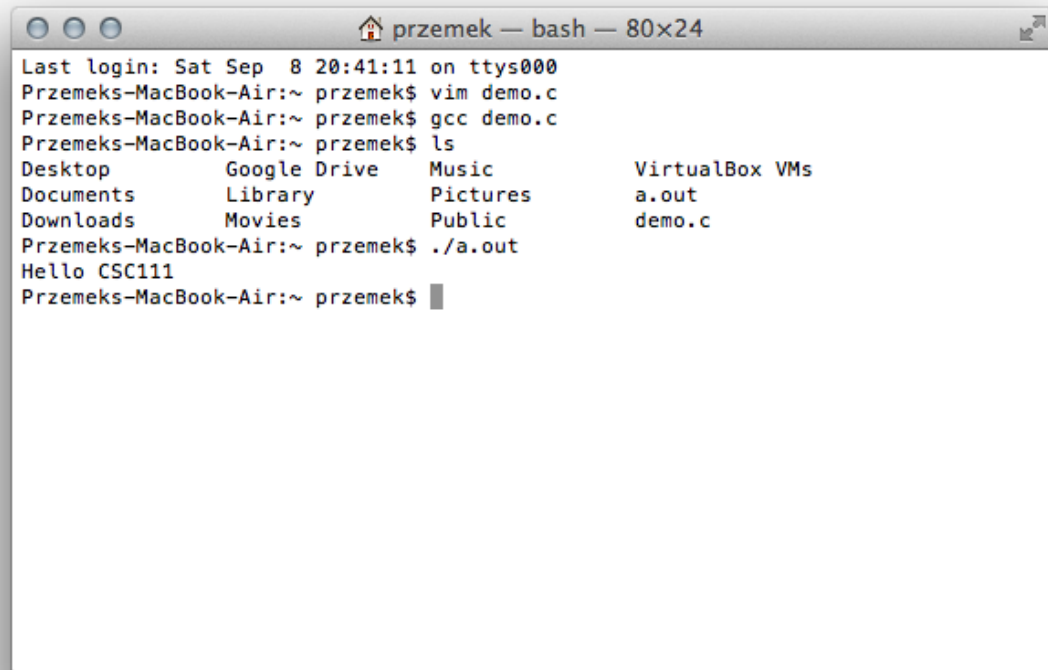
4. Press 'Shift+:', type 'wq' and press 'Enter'. This will save your work and exit the vim program. You should now be back in Terminal. Compile the program by typing 'gcc demo.c'. If you entered your program correctly you should get no errors.



A screenshot of a terminal window titled 'przemek — bash — 80x24'. It shows the output of a login session and the execution of vim and gcc commands. The gcc command successfully compiles the demo.c file without any errors.

```
Last login: Sat Sep  8 20:41:11 on ttys000
Przemeks-MacBook-Air:~ przemek$ vim demo.c
Przemeks-MacBook-Air:~ przemek$ gcc demo.c
Przemeks-MacBook-Air:~ przemek$
```

5. Now you can type the 'ls' command which will show all the files in the current directory. If your program compiled successfully you will see a 'a.out' file. This is your compiled program. Type './a.out' to run the program. You should see your message.



```
przemek — bash — 80x24
Last login: Sat Sep  8 20:41:11 on ttys000
Przemeks-MacBook-Air:~ przemek$ vim demo.c
Przemeks-MacBook-Air:~ przemek$ gcc demo.c
Przemeks-MacBook-Air:~ przemek$ ls
Desktop      Google Drive  Music          VirtualBox VMs
Documents    Library       Pictures       a.out
Downloads    Movies        Public         demo.c
Przemeks-MacBook-Air:~ przemek$ ./a.out
Hello CSC111
Przemeks-MacBook-Air:~ przemek$
```