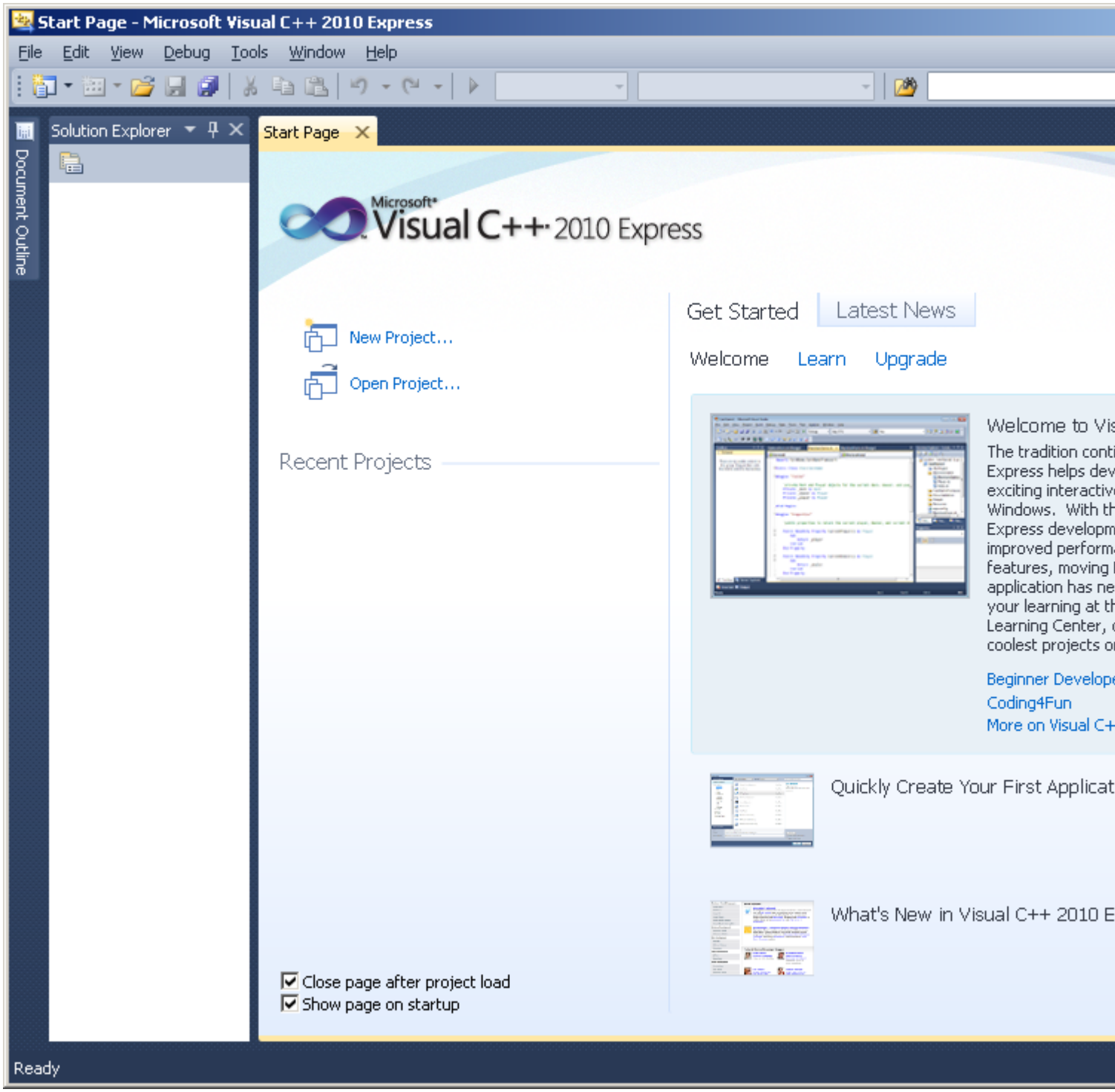
Hello World with Visual C++ 2010 Express

Start…(All) Programs…Microsoft Visual Studio 2010 Express…Microsoft Visual C++ 2010 Express
(this may vary depending on your operating system and how Visual Studio is installed on your computer)

The first time Microsoft Visual C++ 2010 Express starts, it may take some time to configure itself.

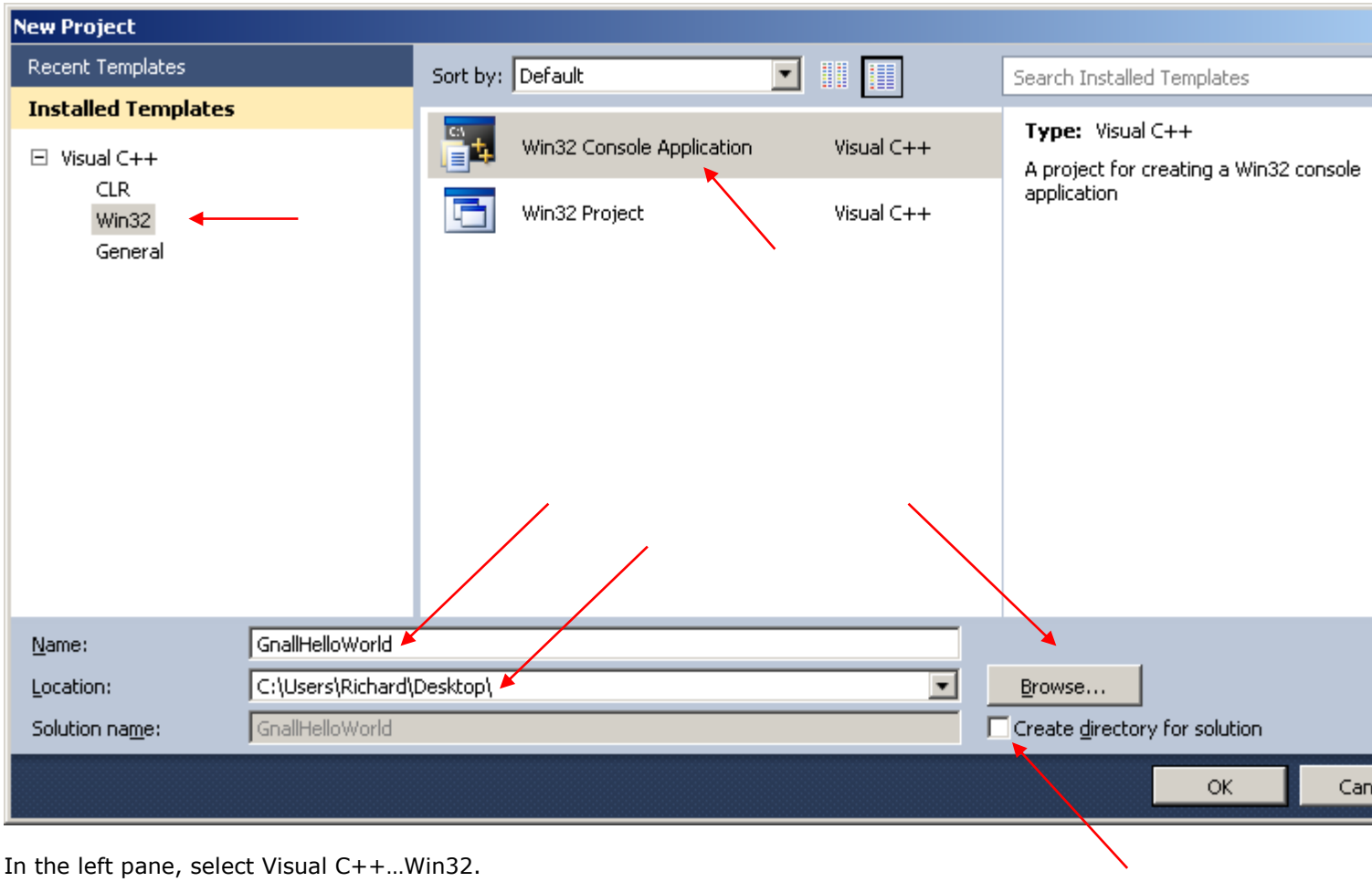
Once the configuration is completed, you may see:



New Project…

OR

File Menu…New…Project…



In the left pane, select Visual C++…Win32.

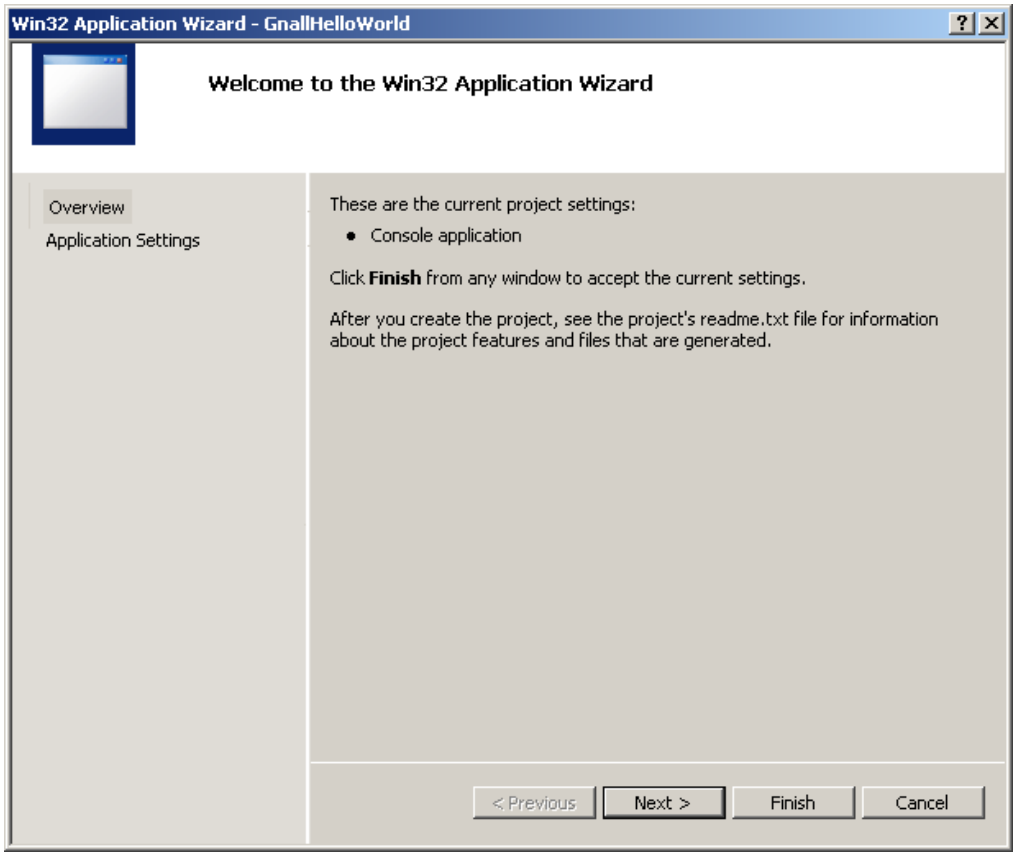
In the right pane, select Win32 Console Application.

Enter "GnallHelloWorld" for the project name. Note that all projects submitted for grading should begin with your last name.

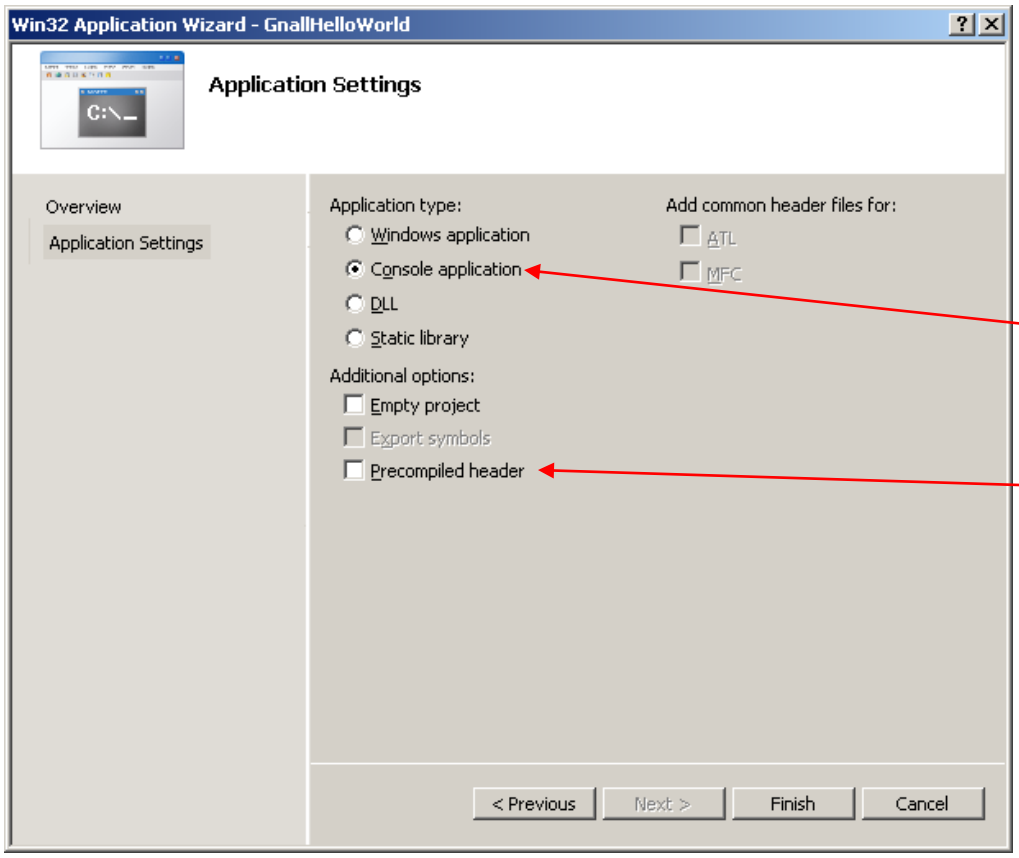
Use the Browse… button to select the desktop as the storage location for the C++ project. (Not storing the solution folder on the desktop may cause problems in certain classrooms.)

Uncheck "Create directory for solution".

OK…



Next...



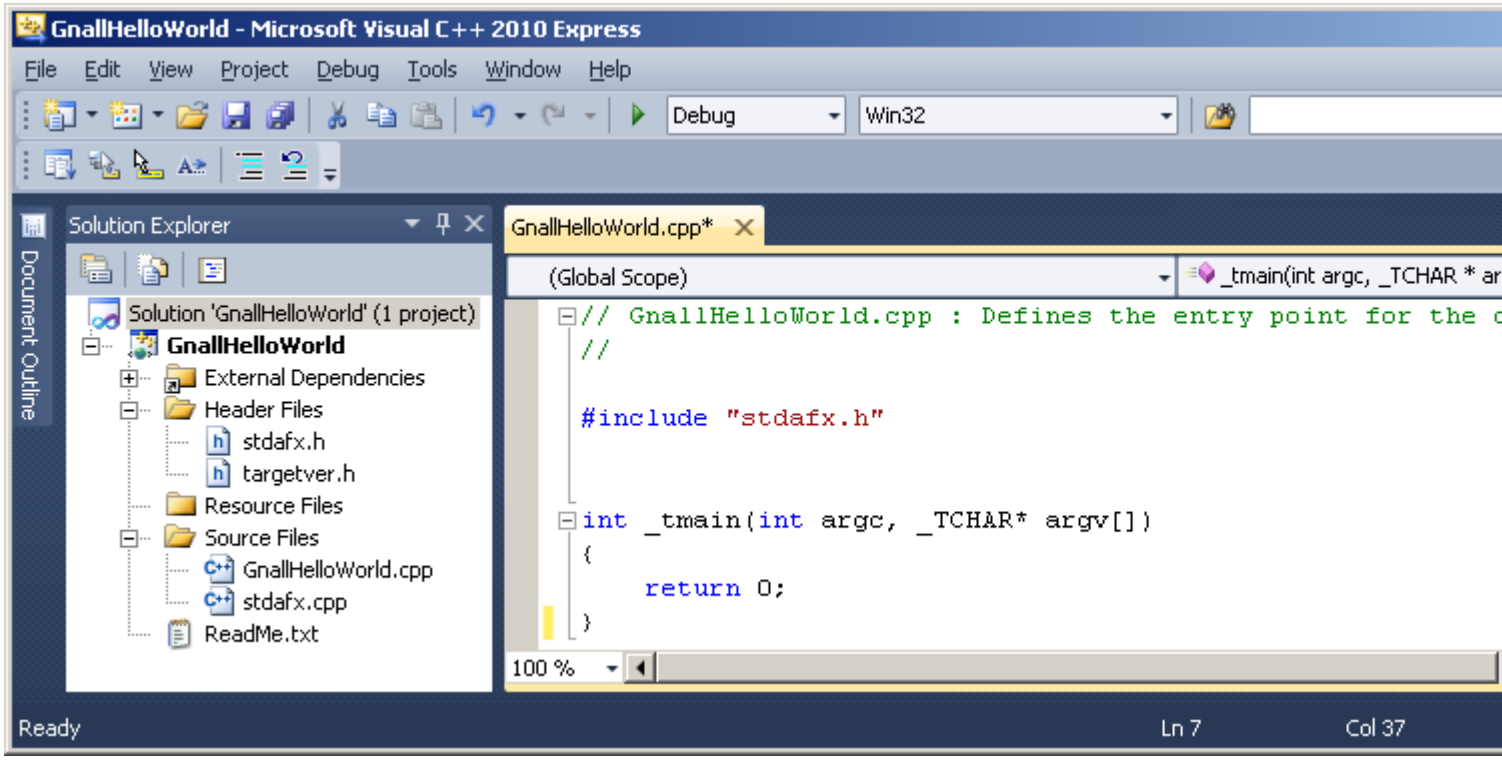
Select Console application.

Uncheck Precompiled header.

Finish...

Write your first C++ Program

You should now see the following default source code:

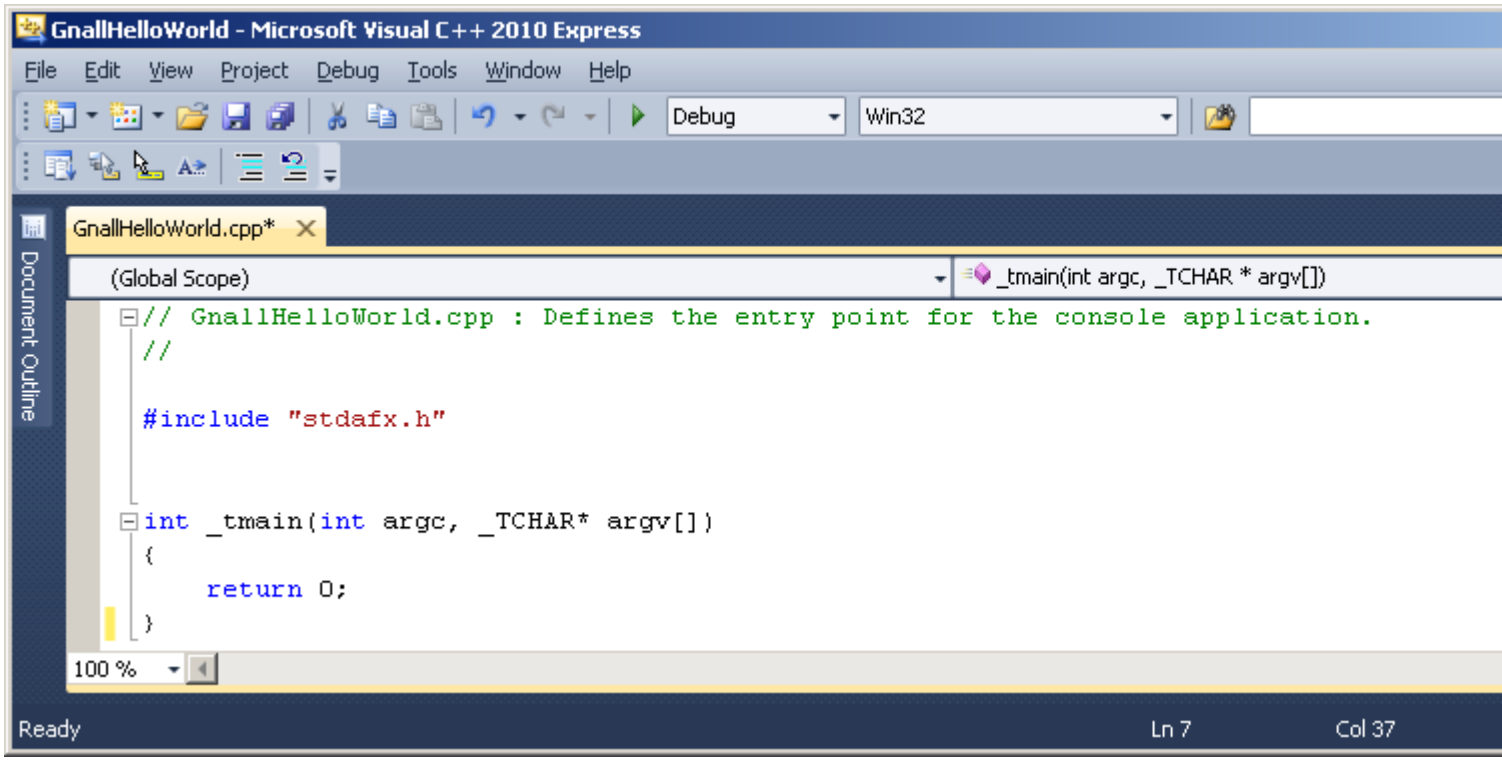


To save vertical room:

- Move the second toolbar to the first row

To save horizontal room:

- Move the second toolbar to the second row
- Close the Solution Explorer



Delete the default source code and enter the following:

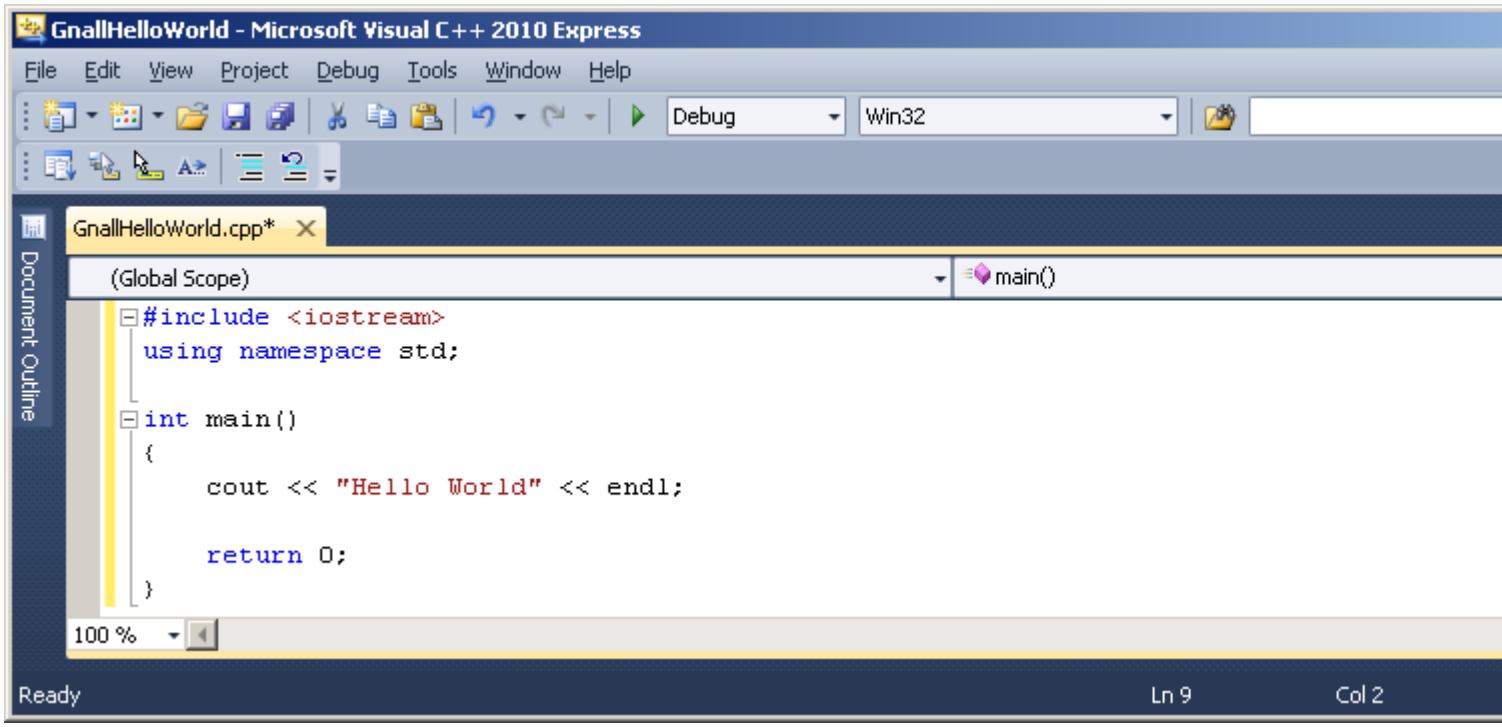
```
#include <iostream>
using namespace std;

int main()
{
    cout << "Hello World" << endl;

    return 0;
}
```

check spelling

open curly brace

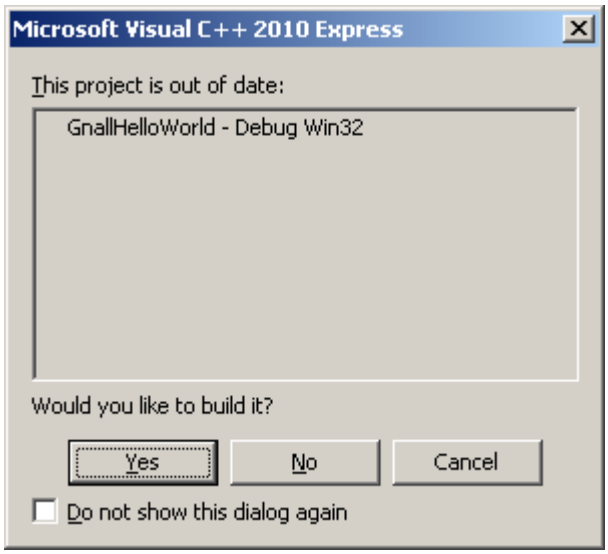
letter l
not number 1

close curly brace



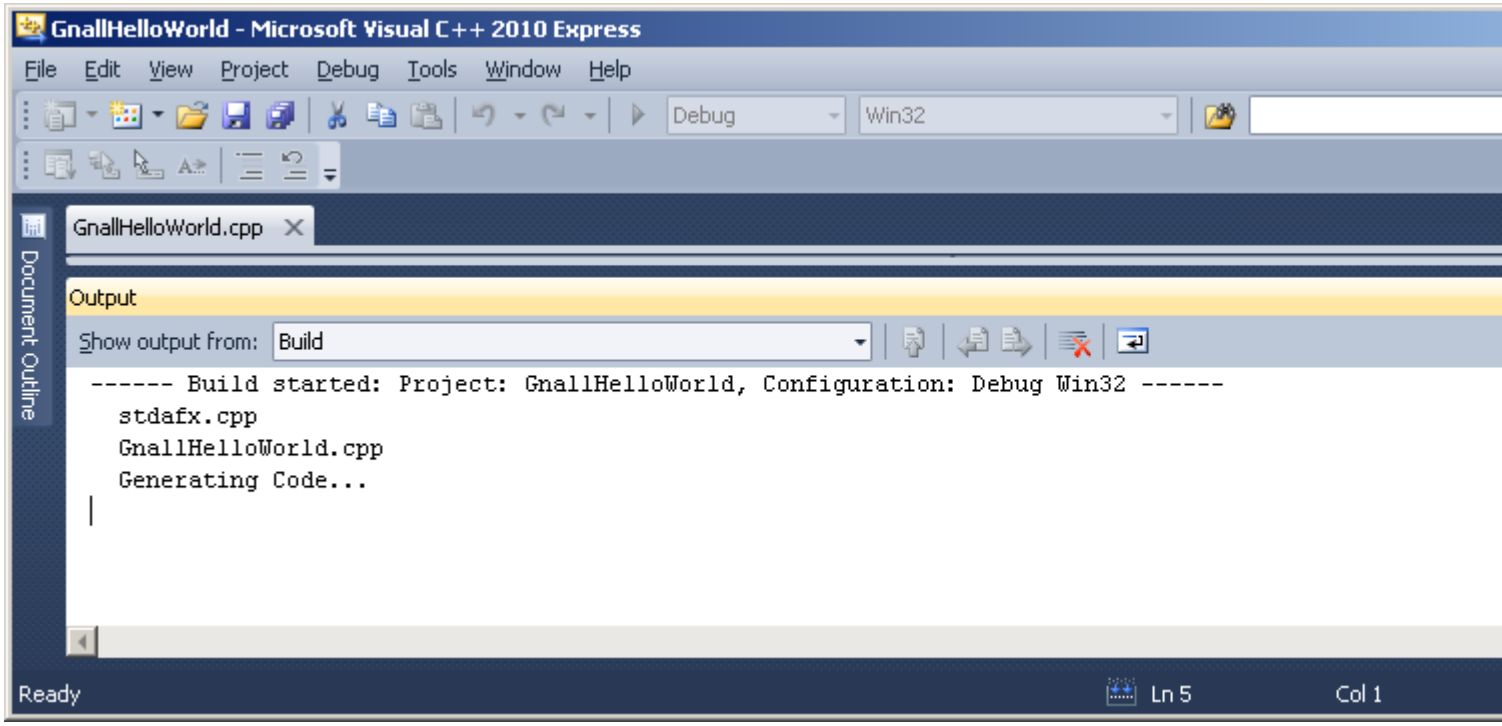
Run the program with F5

Run the program by pressing **F5** or clicking the green arrow icon. Since this is the first time running the program, you will get the following window. Each time a change is made and the program is run, you will be prompted to rebuild the program.



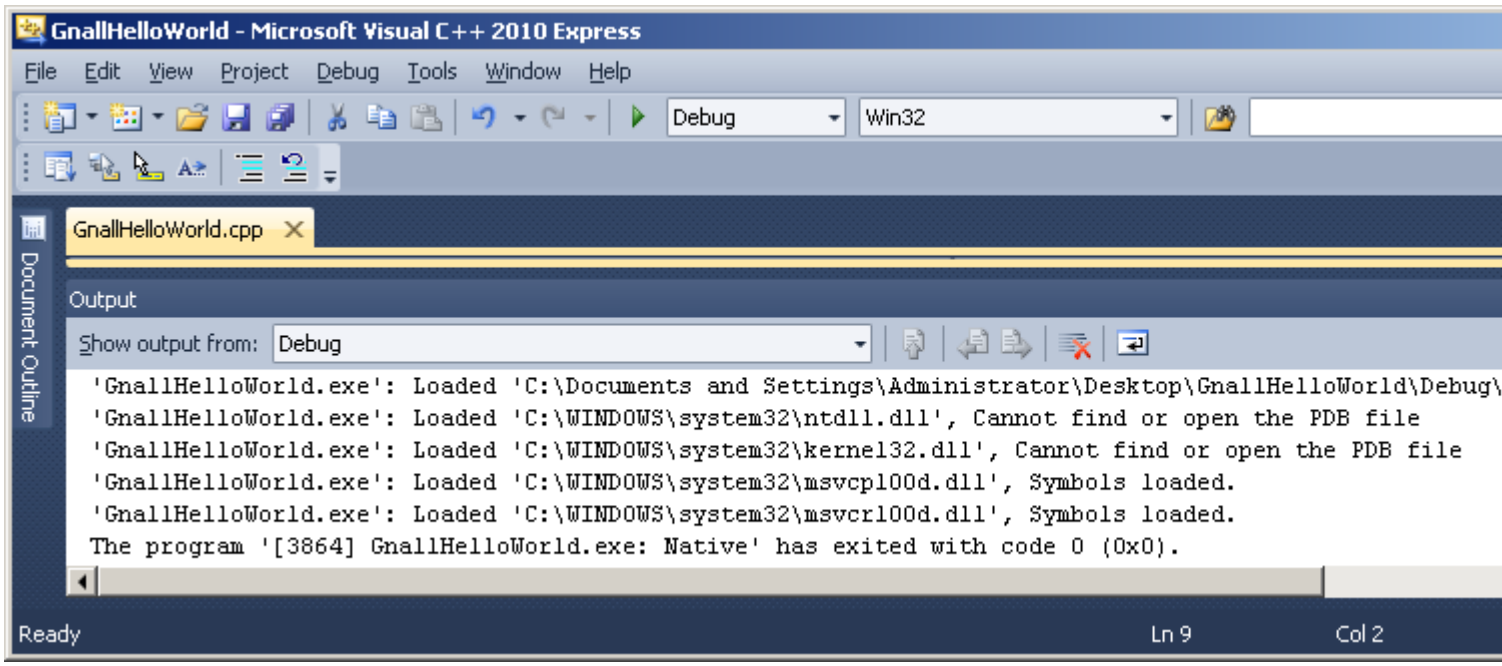
Click Yes to build the program.

The output pane will appear temporarily to display the compiler's progress:



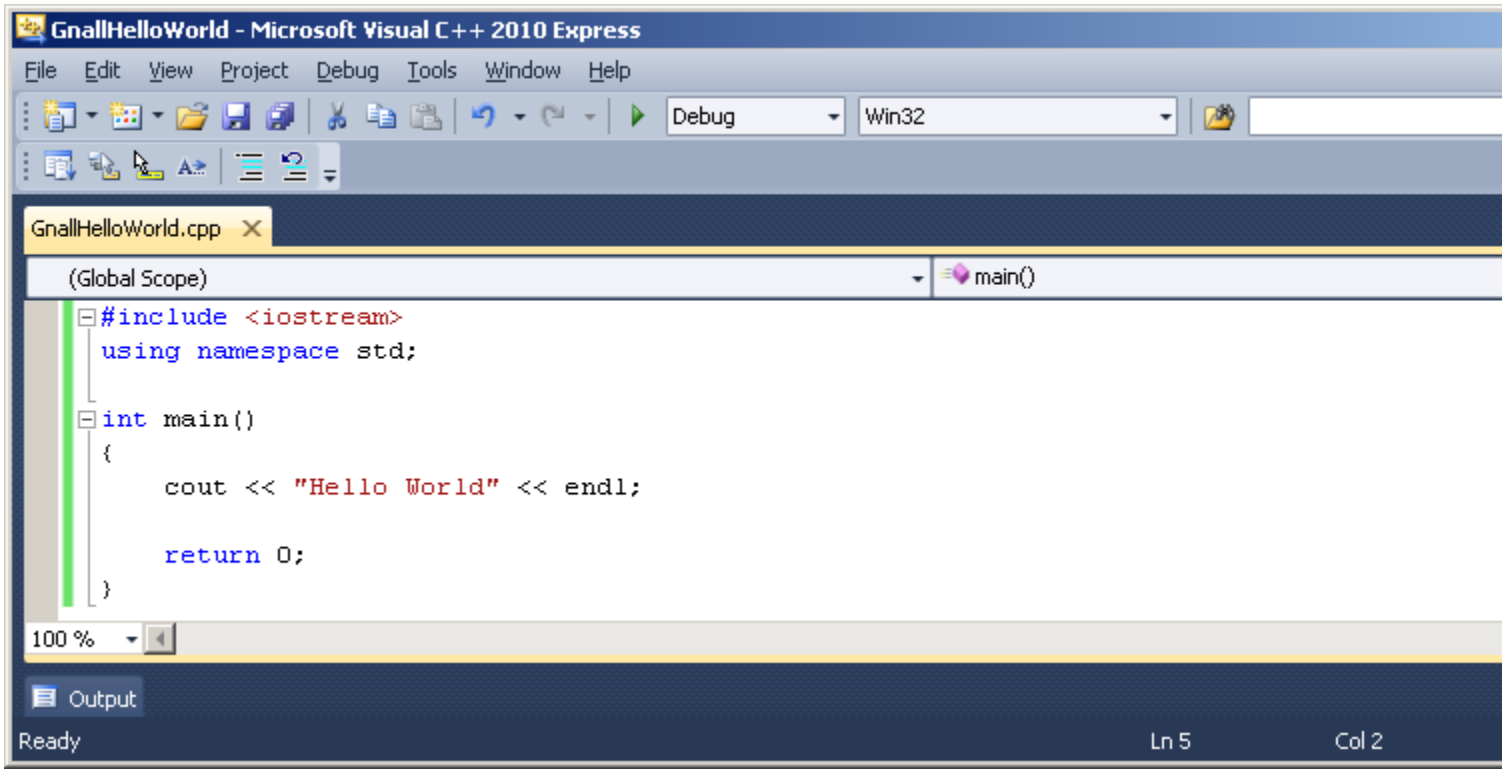
After the program has finished compiling, the program output will appear in a command prompt window which will close as soon as the program has finished running.

The Output window may remain open and obscure the source code:



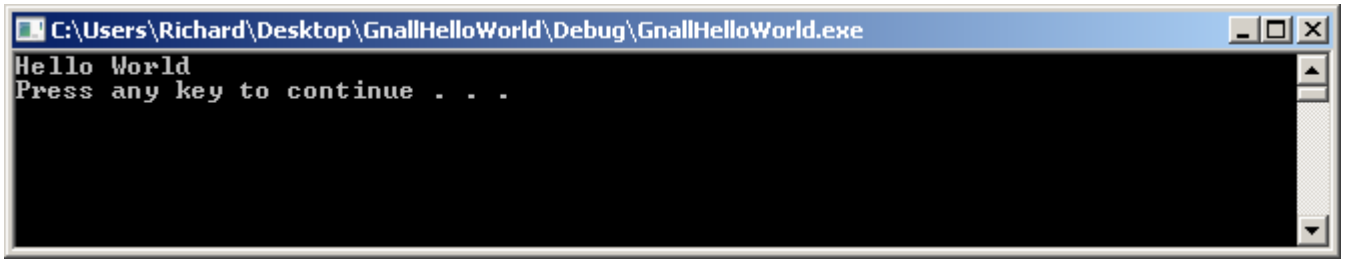
To hide/dock the Output window, click the pin icon in the upper right corner of the Output window and select one of the following:

- Float
- Dock
- Dock as Tabbed Document
- Hide
- Auto Hide



Run the program with CTRL-F5

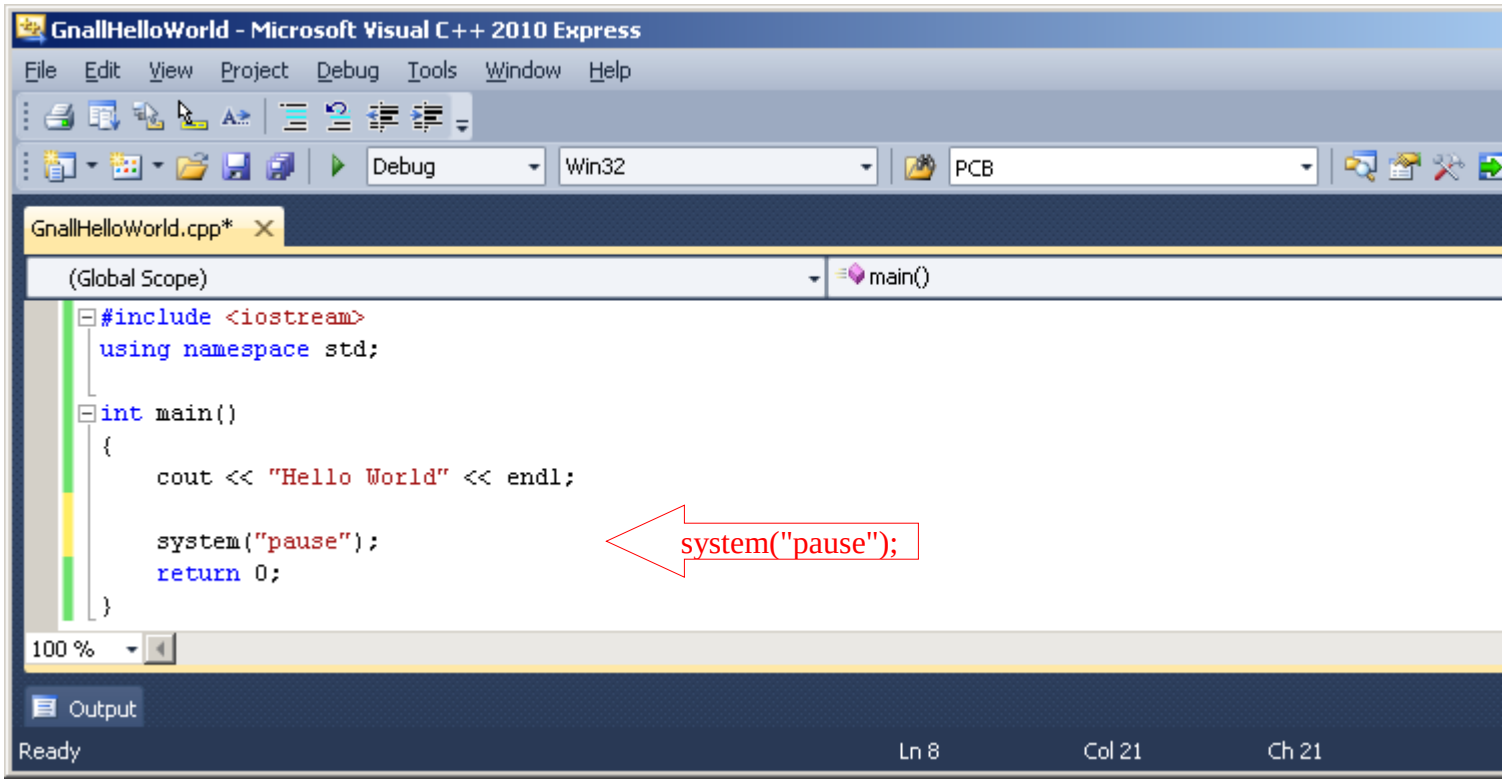
To prevent the output window from closing, press **CTRL-F5** to run the program. If there are no mistakes in the C++ code, the output window should contain the following content:



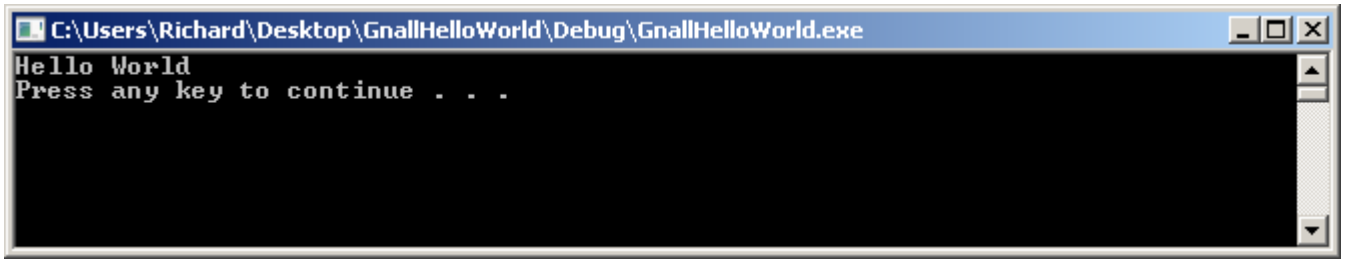
Run the program with F5 / system("pause")

If you prefer to not have to press both the CTRL key and the F5 key to run the program, add the following line of code, which will instruct the operating system to pause the program before closing the output window.

```
system("pause");
```



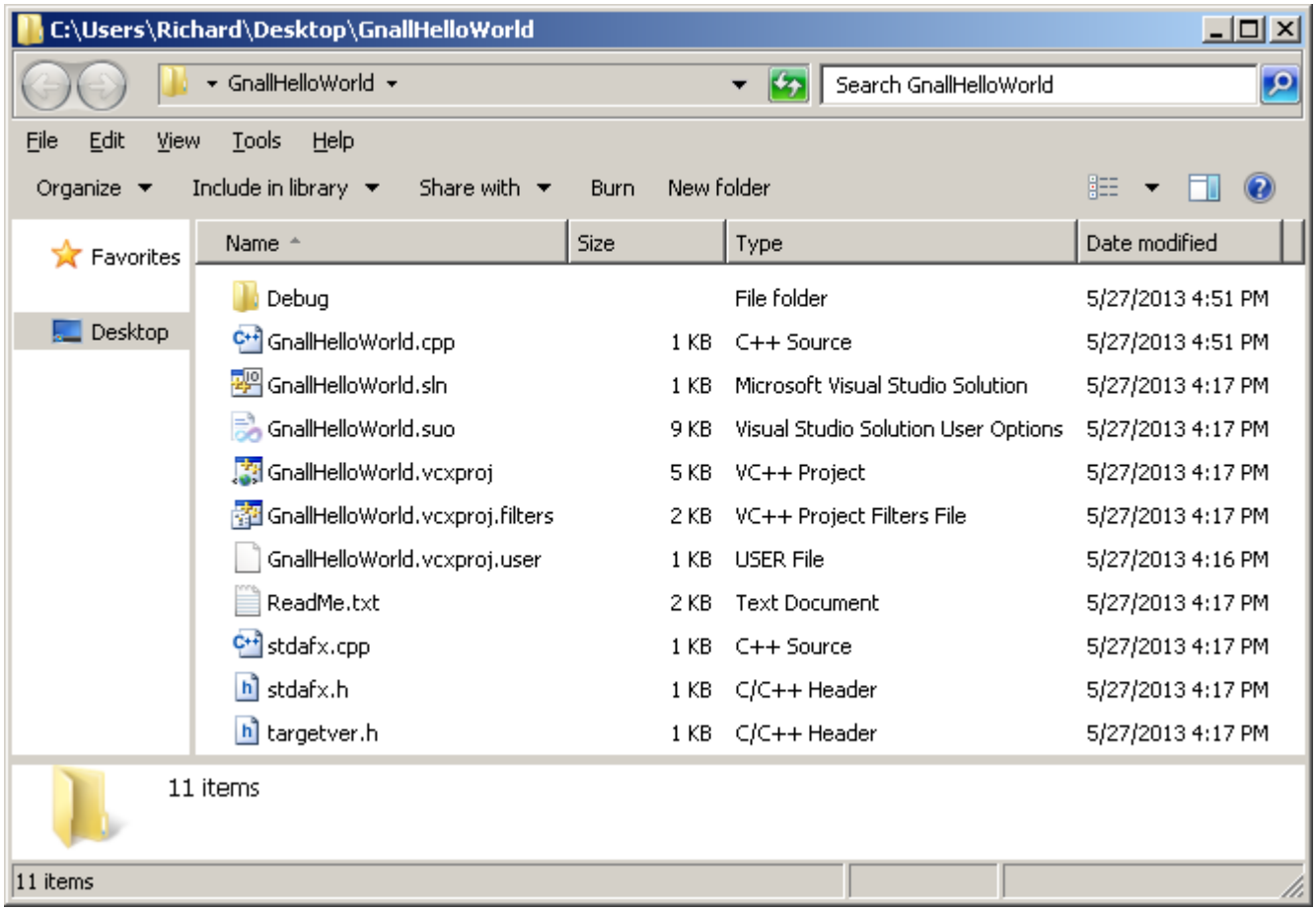
Now just press F5 to run the program. The result is the same as using CTRL-F5:

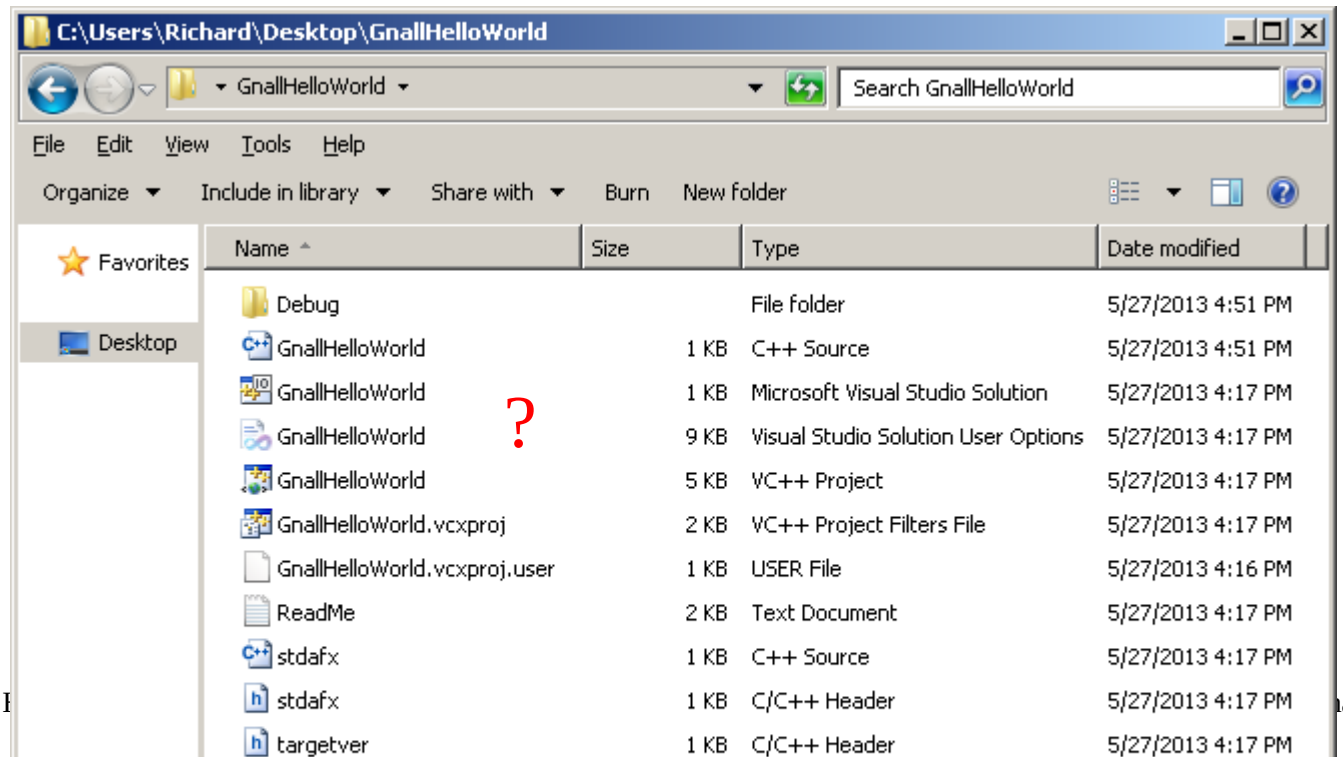


Visual Studio C++ Project Folder

If you saved the GnallHelloWorld project to the desktop when first starting the project, there should be a GnallHelloWorld folder on the desktop. Click on this folder to open it.

Depending on the Windows Explorer settings, the folder will look like either the first or the second screenshot below. The first screenshot, with the file extensions showing, is the preferred view. Without the file extensions showing, it will be difficult to distinguish between the different files that make up the GnallHelloWorld project. See the next page for instructions on how to display the file extensions.

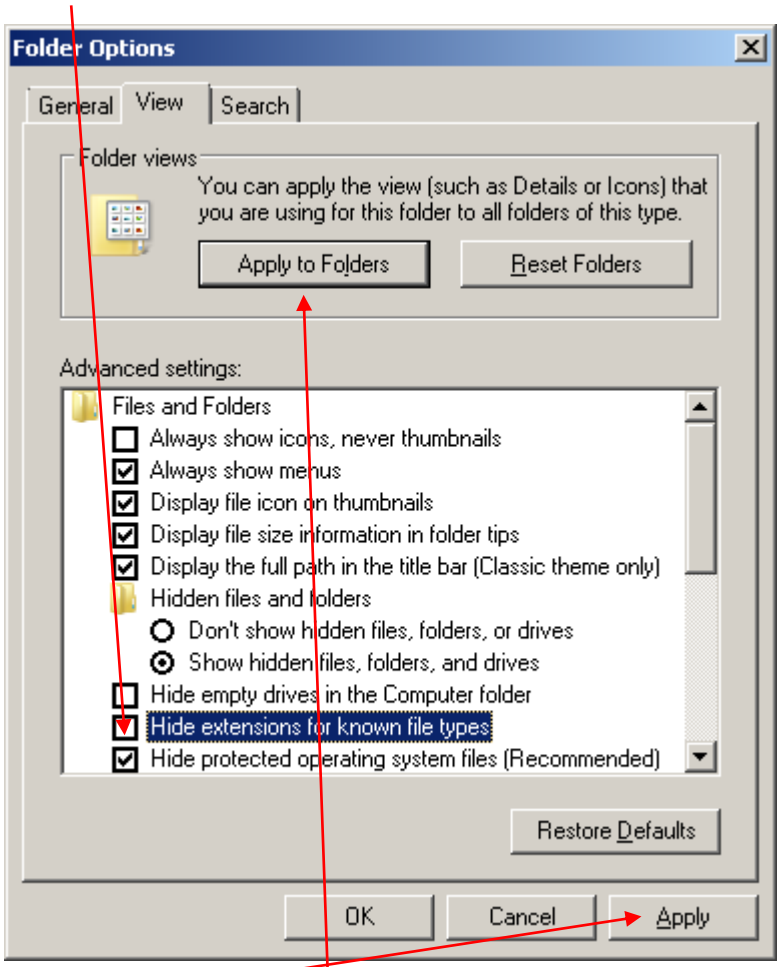




Display File Extensions in Windows Explorer

Windows Explorer…Tools Menu…Folder Options…View Tab

Uncheck "Hide extensions for known file types"



Click Apply and then Apply to All Folders…Yes…OK

Restarting a saved C++ project with the .sln file

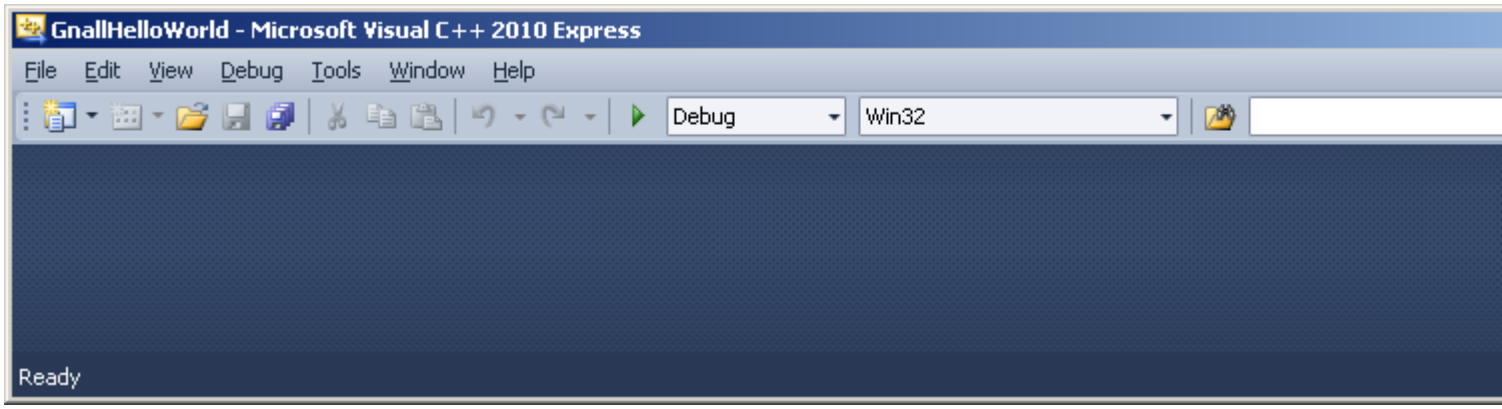
To restart a previously saved project, navigate to the project's folder as shown on the previous page and click on the solution file (**GnallHelloWorld.sln**). Although clicking on the **.cpp** file will load the .cpp file into a new instance of Visual C++ Express, don't be fooled - this will not load the associated files which are required to run the project. Instead, the project must be started by clicking on the **.sln** file.

Handing in a project for grading with the .cpp file

When submitting a programming project for grading, only the source code is required. So in this example, the **GnallHelloWorld.cpp** file would need to be submitted. If you forgot to include your last name when naming the project, you can copy the .cpp file, rename it, and then submit the renamed copy.

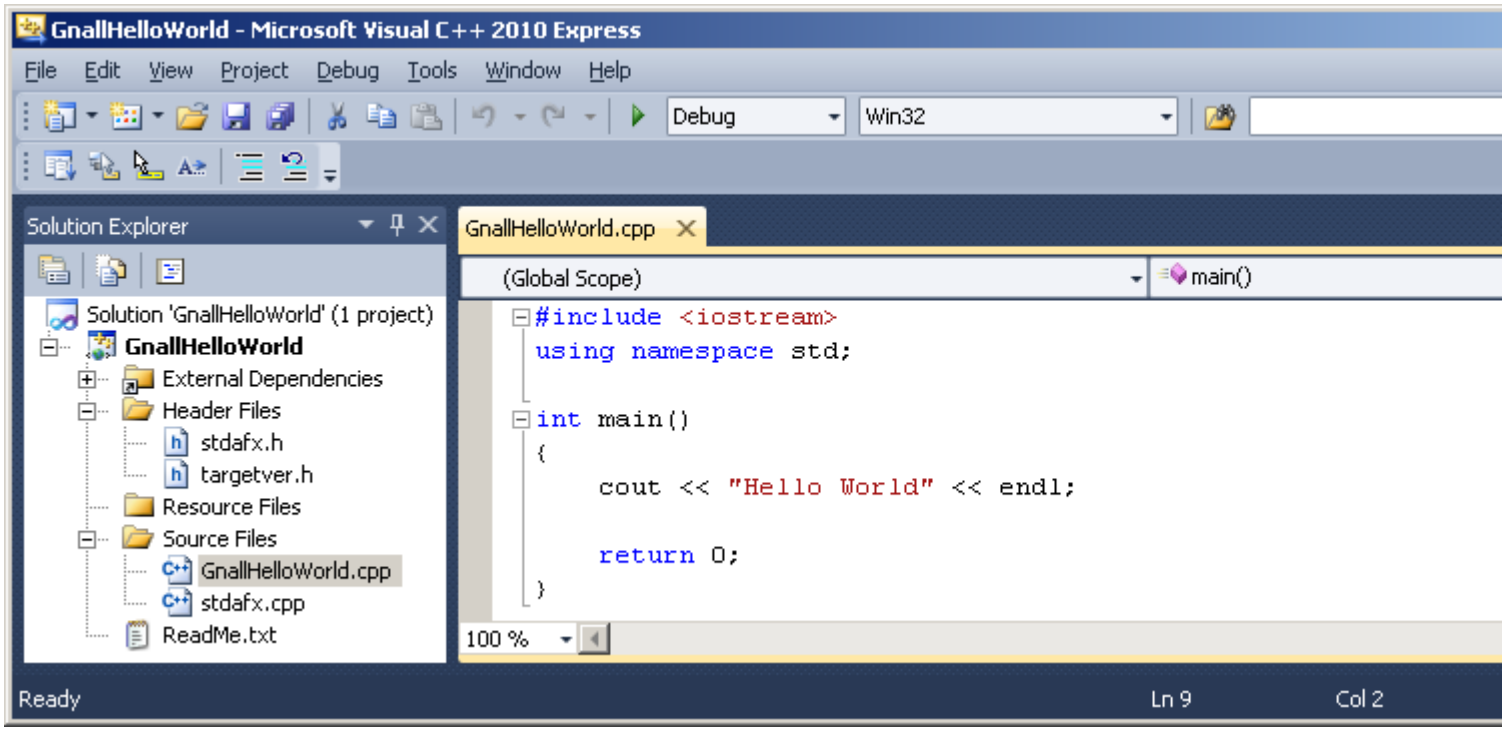
Viewing the .cpp file and the Solution Explorer

Sometimes, when restarting a project, the .cpp file (source code) may seem to be missing.



Actually, the .cpp file is still there.

To view the .cpp file:

- Open the Solution Explorer (View Menu…Other Windows…Solution Explorer)
- Open the folder labeled "Source Files"
- Double-click the desired .cpp file

The .cpp file will open in the right pane.