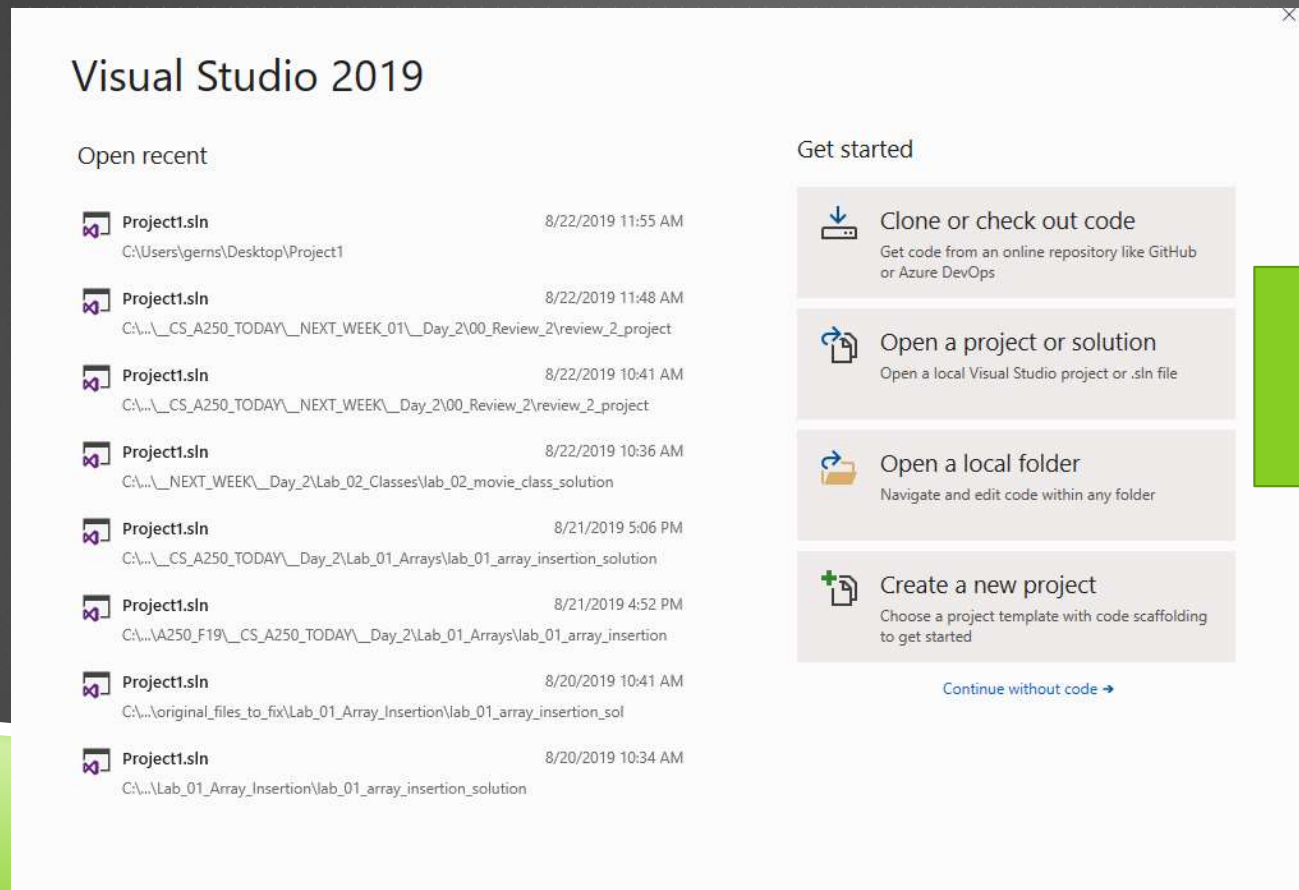


- ▶ This is a quick guide to learn how to create a project using **Visual Studio**
  - ▶ **Note** that instructions might be slightly different depending on which version you are using (community, professional, etc.)

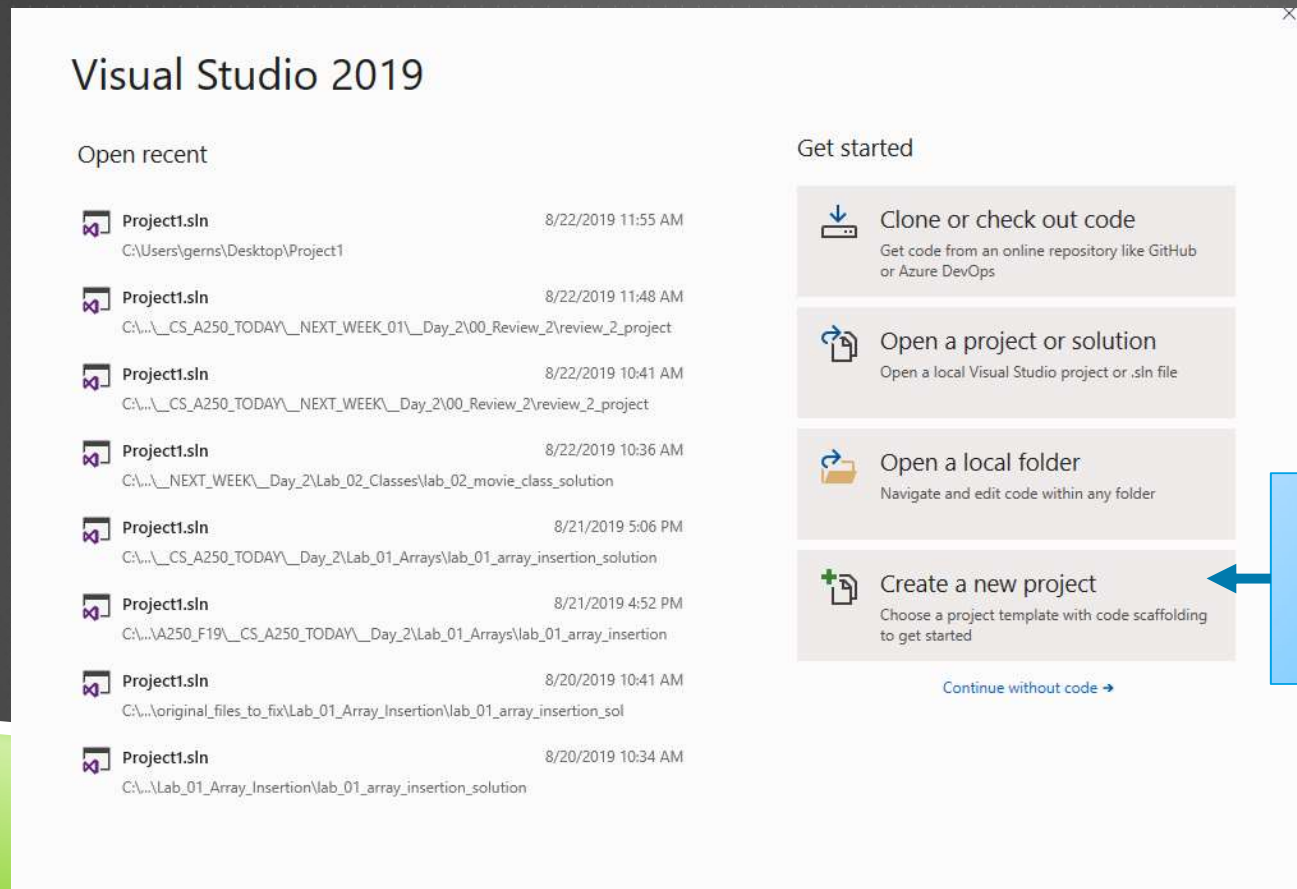
# HOW TO CREATE A PROJECT USING VISUAL STUDIO

# HOW TO CREATE A PROJECT (I)



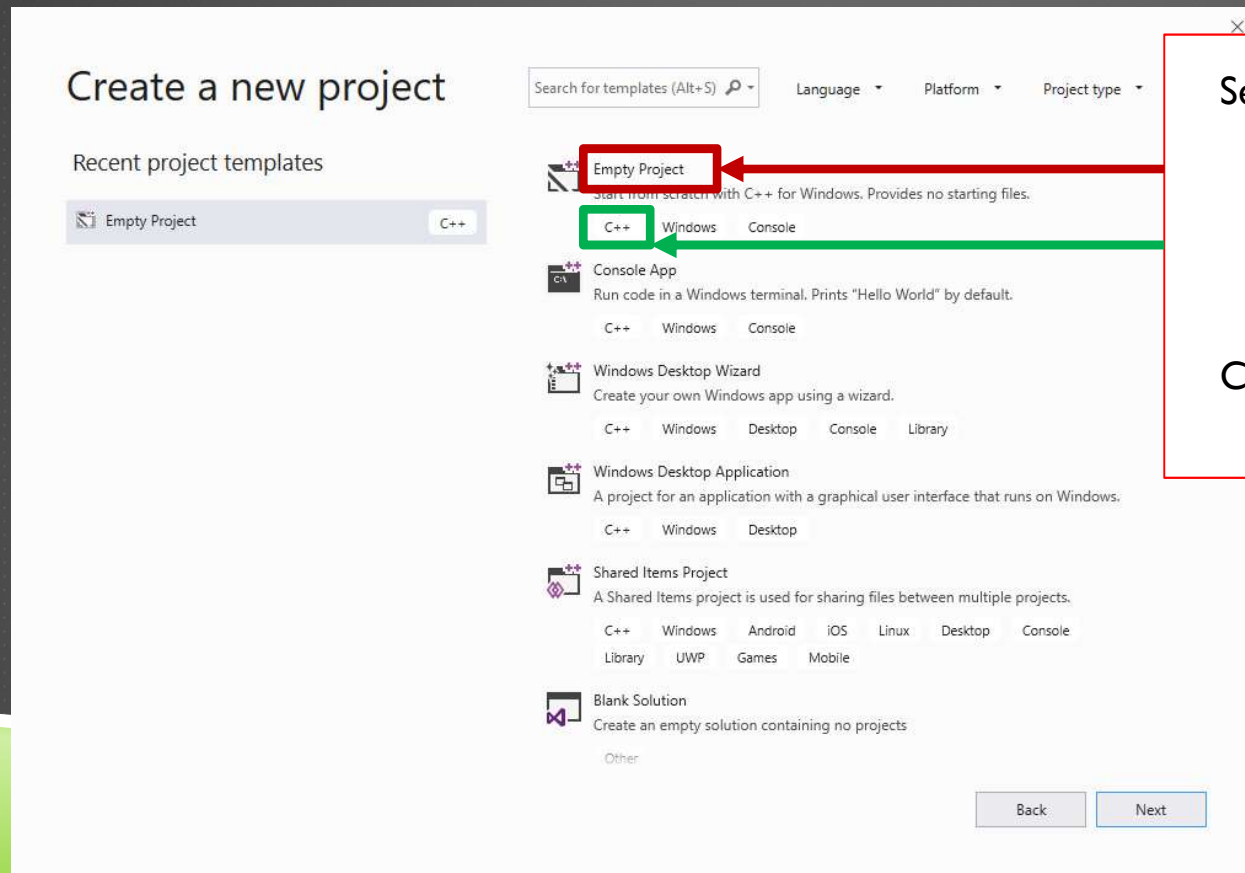
Open Microsoft Visual Studio.

# HOW TO CREATE A PROJECT (2)



Click on “Create a new project...”

# HOW TO CREATE A PROJECT (3)



Select:

- Empty Project
- C++

Click Next



# HOW TO CREATE A PROJECT (4)

Configure your new project

Empty Project C++ Windows Console

Project name

Project1

Location

C:\Users\gems\source\repos

Solution name ⓘ

Project1

☐ Place solution and project in the same directory

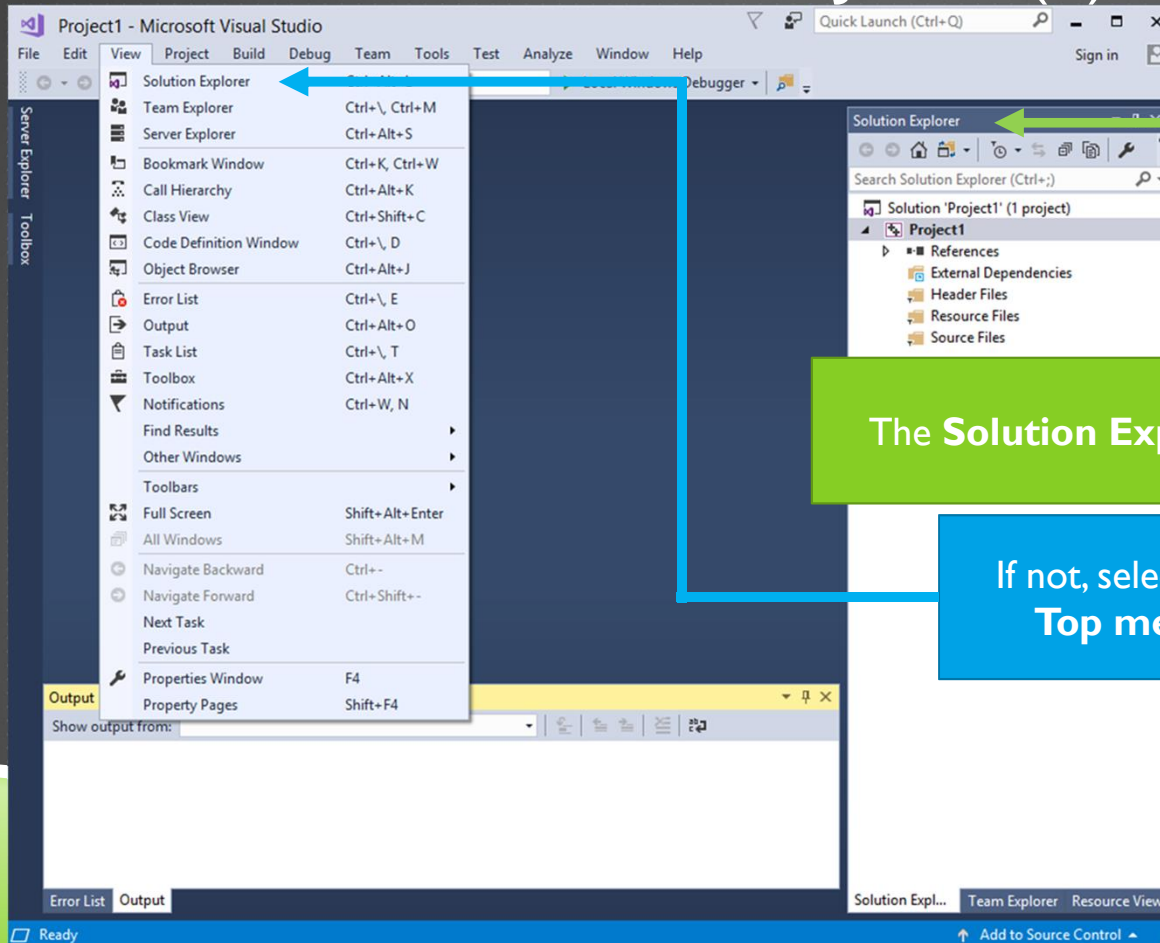
Back Create

Always name your project “**Project1**” (*Project2, Project3*, or similar).

Do **NOT** choose a long name, because it might prevent files from transferring. Once you have completed the project, you can simply rename the folder.

Make sure you check the location where your project will be stored.

# HOW TO CREATE A PROJECT (5)

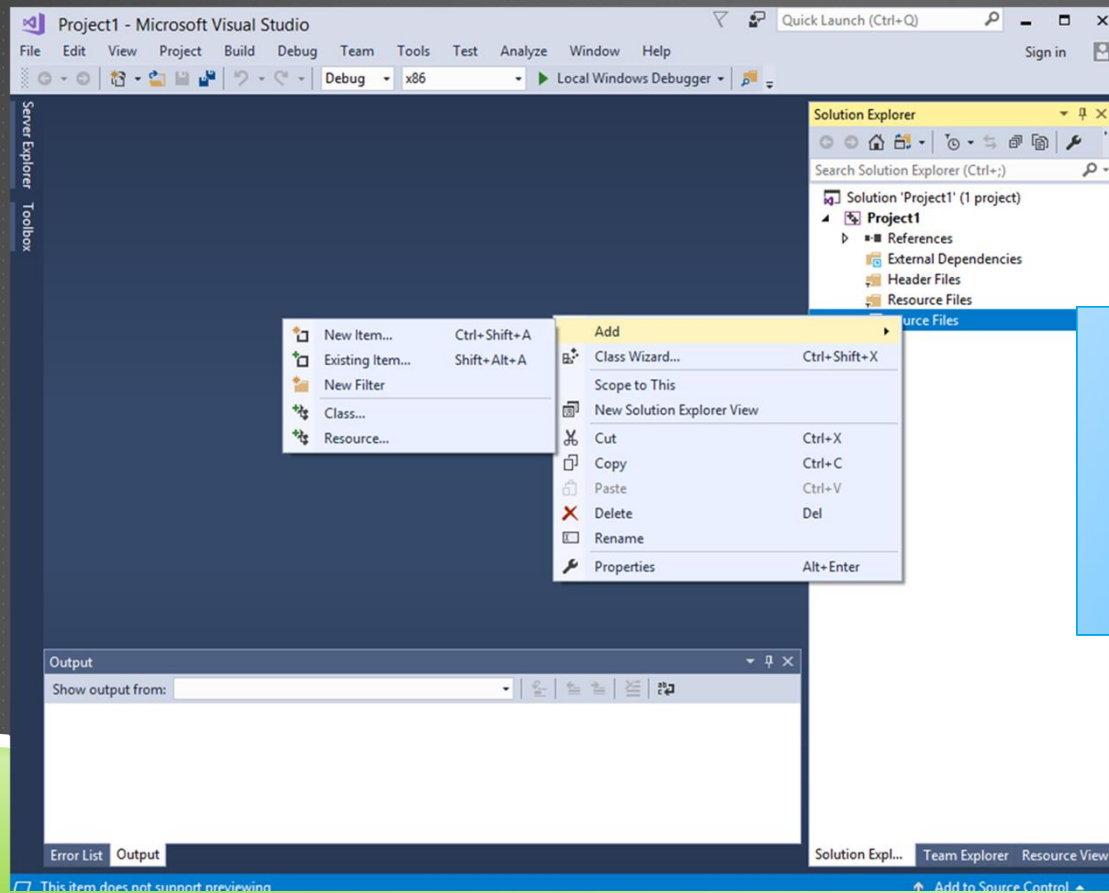


The **Solution Explorer** panel should be visible.

If not, select:

**Top menu → View → Solution Explorer**

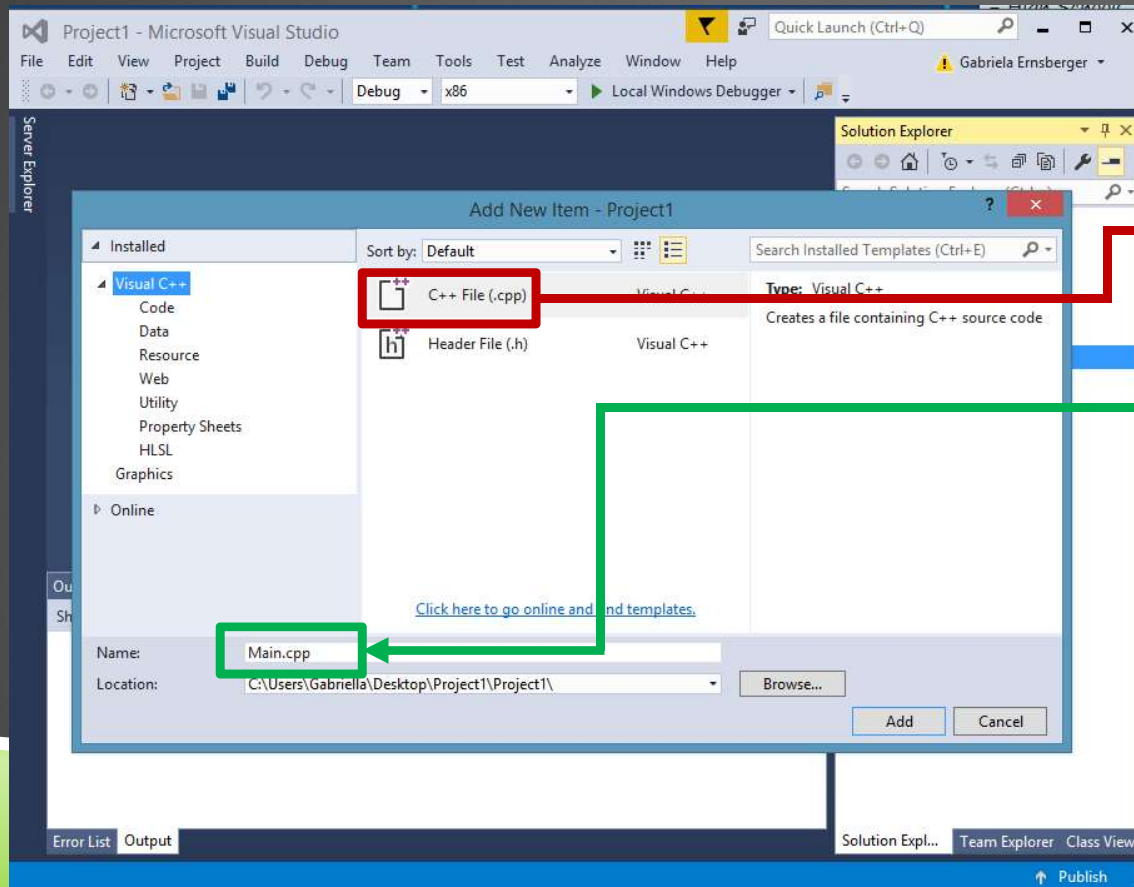
# HOW TO ADD A .CPP FILE (I)



Right click on the **Source Files** folder and select:

Add → New Item...

# HOW TO ADD A .CPP FILE (2)



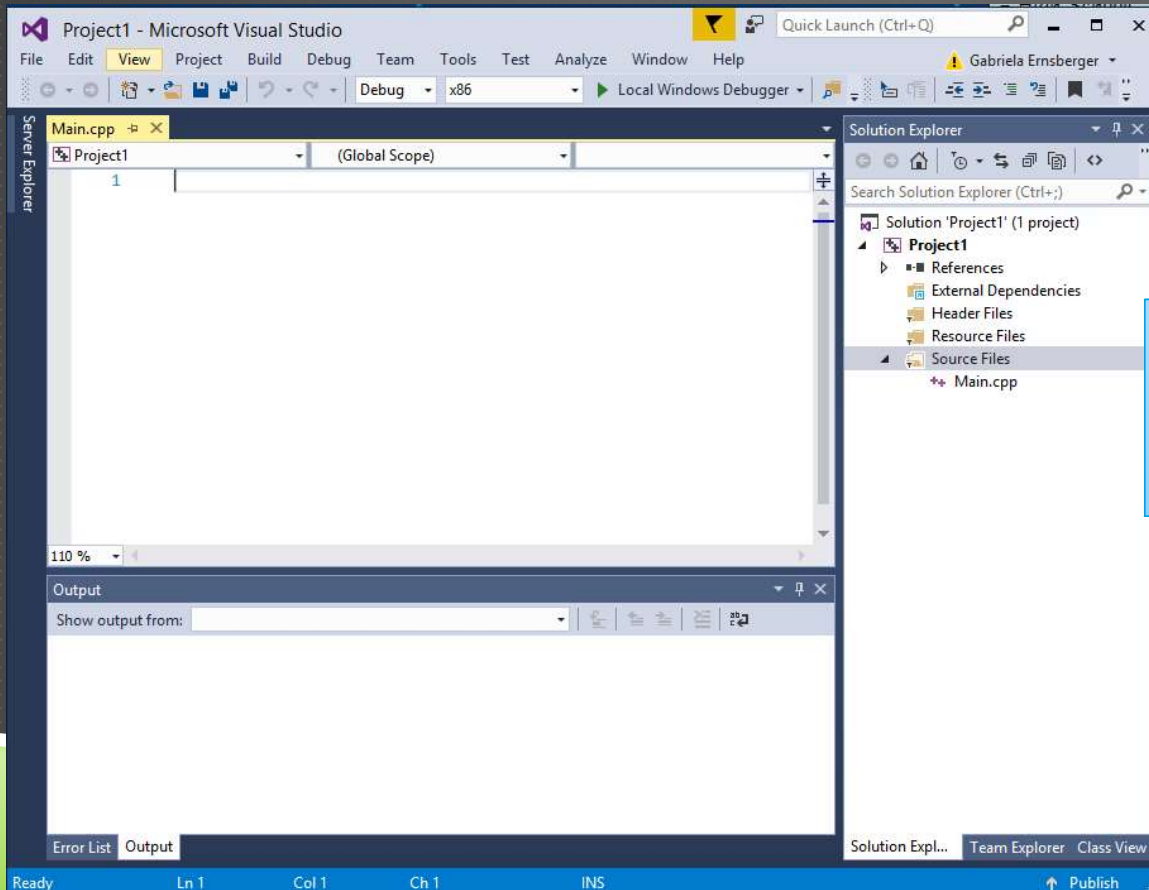
Select C++ File (.cpp)

Visual Studio will name the file Source.cpp by default  
→ Change it to **Main.cpp**

We will always name this file  
“**M**ain” with an **upper-case** “M.”

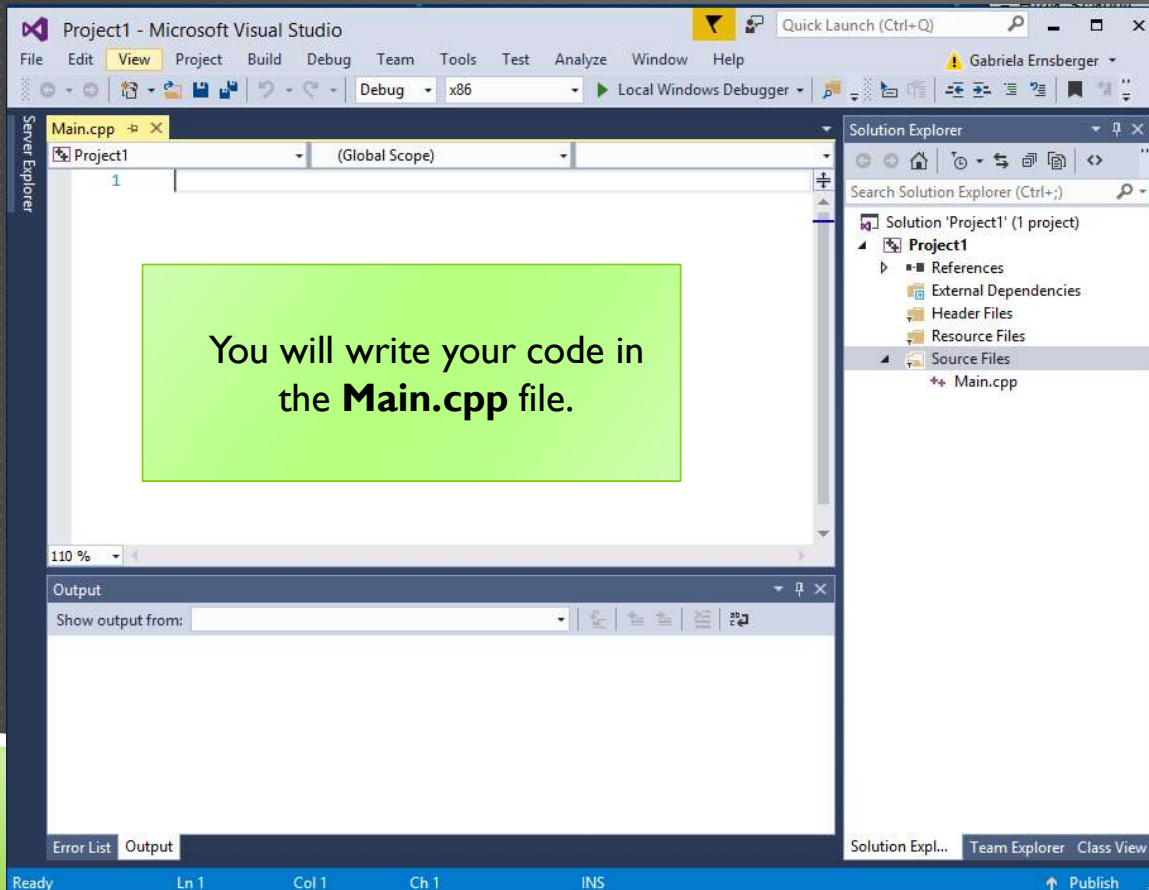


# HOW TO ADD A .CPP FILE (3)

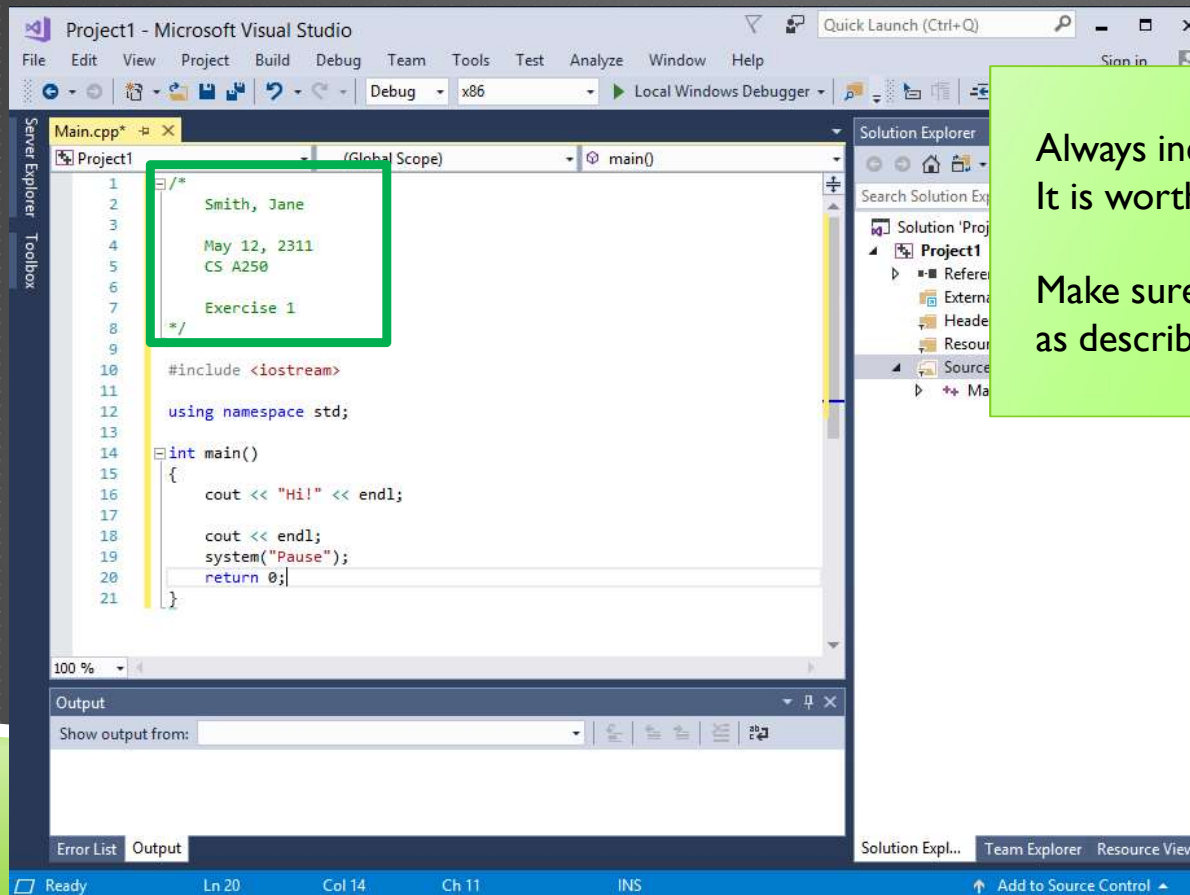


The **Source Files** folder should now include the **Main.cpp** file.

# HOW TO ADD A .CPP FILE (4)



# NAME HEADER



The screenshot shows the Microsoft Visual Studio IDE with a C++ project named 'Project1'. The main file, 'Main.cpp', is open and shows a C++ program. A green box highlights the 'NAME HEADER' section of the code, which contains the following text:

```
1  /*  
2     Smith, Jane  
3  
4     May 12, 2311  
5     CS A250  
6  
7     Exercise 1  
8  */  
9  
10 #include <iostream>  
11  
12 using namespace std;  
13  
14 int main()  
15 {  
16     cout << "Hi!" << endl;  
17  
18     cout << endl;  
19     system("Pause");  
20     return 0;  
21 }
```

The rest of the code in the file is as follows:

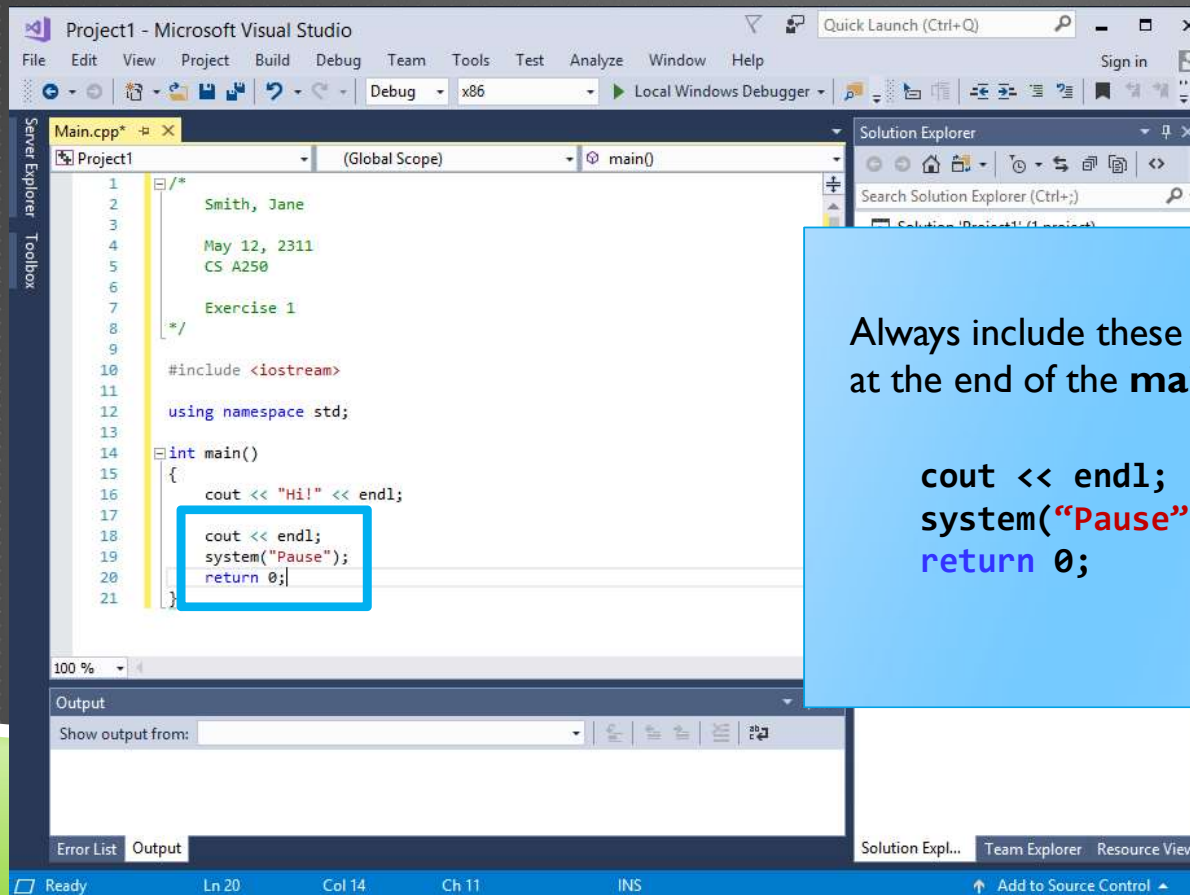
```
10 #include <iostream>  
11  
12 using namespace std;  
13  
14 int main()  
15 {  
16     cout << "Hi!" << endl;  
17  
18     cout << endl;  
19     system("Pause");  
20     return 0;  
21 }
```

The Solution Explorer on the right shows the project structure, including 'Project1', 'References', 'External Dependencies', 'Header Files', 'Resource Files', and 'Source Files'. The Output window at the bottom is empty.

Always include the name header!  
It is worth **1 point**.

Make sure it has the same **format**  
as described on the **syllabus**.

# LAST 3 STATEMENTS IN THE MAIN FUNCTION

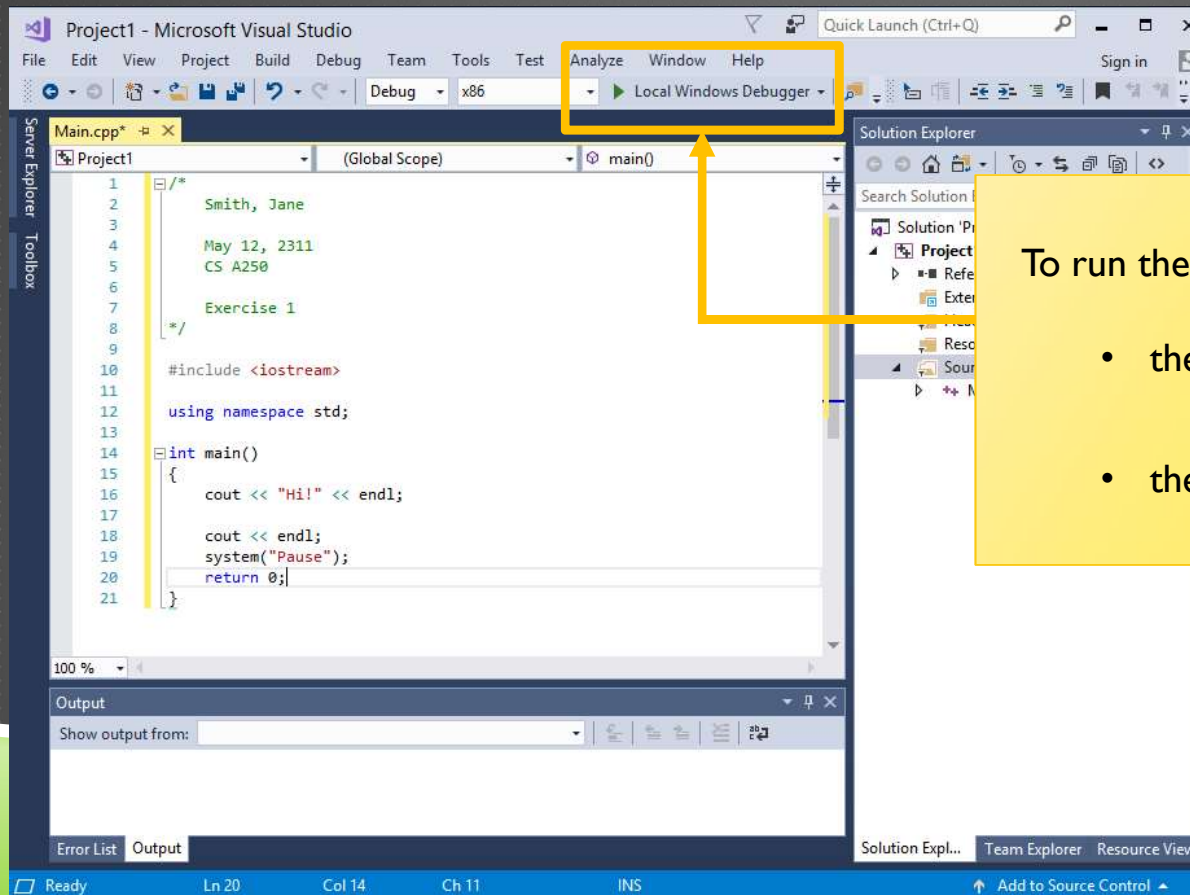


Always include these three statements  
at the end of the **main** function:

```
cout << endl;  
system("Pause");  
return 0;
```



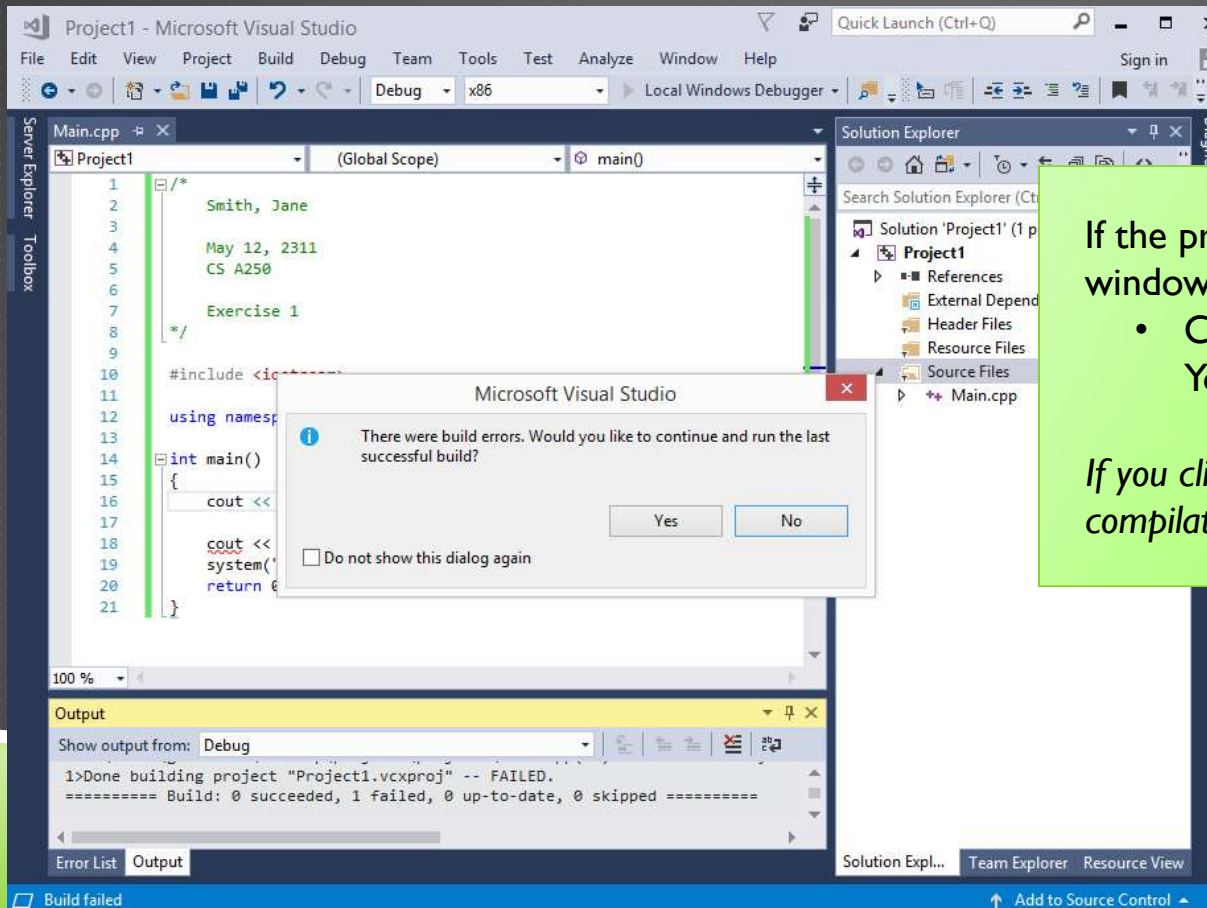
# COMPILING YOUR PROGRAM



To run the program, click on

- the **F5** key
- OR
- the **Local Windows Debugger** icon.

# ERRORS (I)

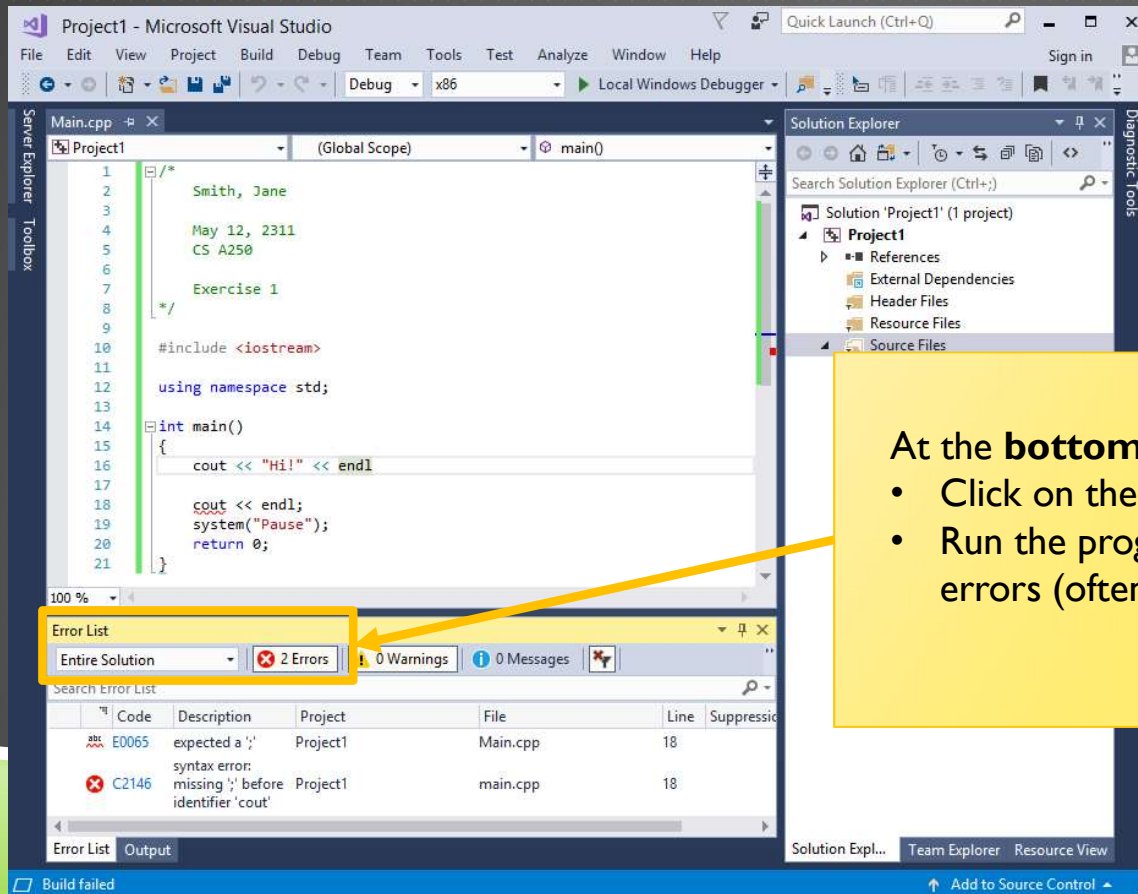


If the project has errors, another window will appear:

- Click **NO**  
You want to correct your errors first.

*If you clicked yes, you will be running an **older** compilation that was working earlier.*

## ERRORS (2)





# ERRORS (3)

Project1 - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Debug x86 Local Windows Debugger

Server Explorer Toolbox

Main.cpp

```
1  /*
2     Smith, Jane
3
4     May 12, 2311
5     CS A250
6
7     Exercise 1
8  */
9
10 #include <iostream>
11
12 using namespace std;
13
14 int main()
15 {
16     cout << "Hi!" << endl
17
18     cout << endl;
19     system("Pause");
20     return 0;
21 }
```

Solution Explorer

Solution 'Project1' (1 project)

- Project1
  - References
  - External Dependencies
  - Header Files
  - Resource Files
  - Source Files
    - Main.cpp

Diagnostic Tools

Search Solution Explorer (Ctrl+;)

Missing a semicolon (;) after endl

Error List

Entire Solution 2 Errors 0 Warnings 0 Messages

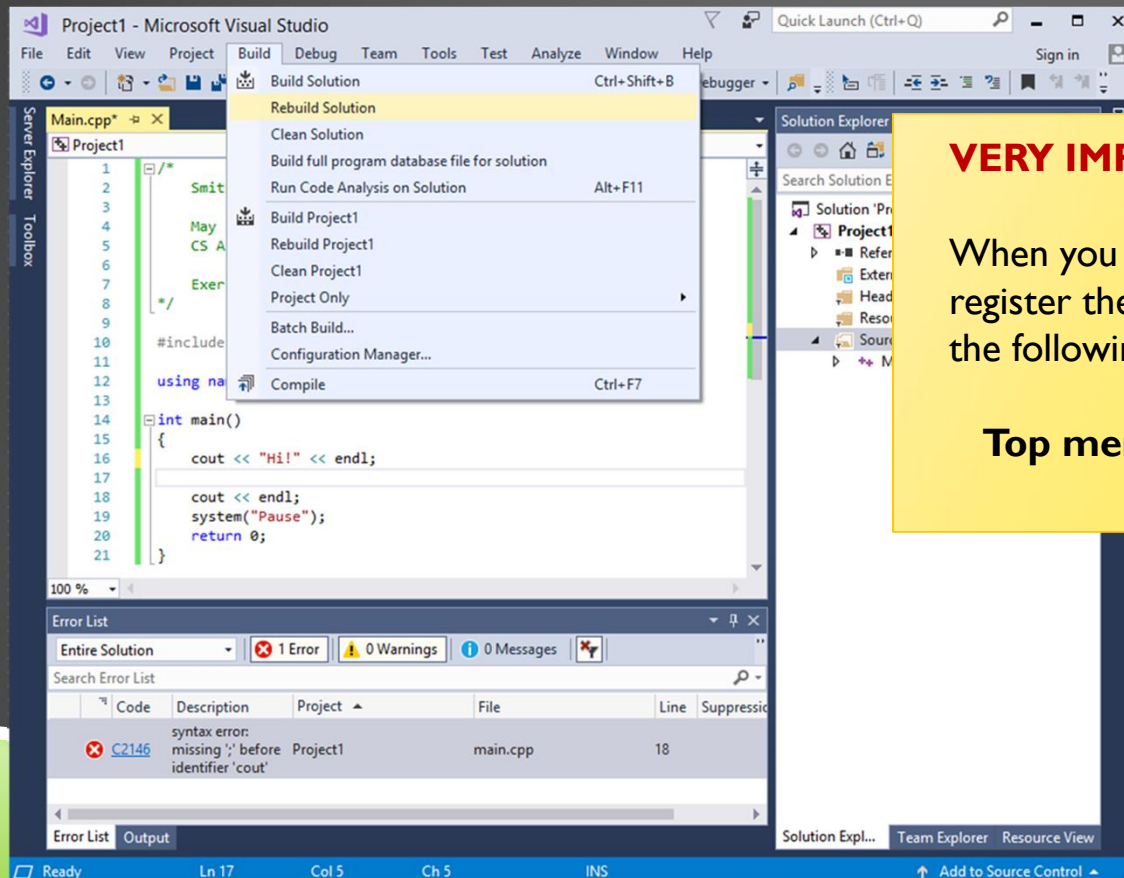
Search Error List

Code	Description	Project	File	Line	Suppress
E0065	expected a ';'	Project1	Main.cpp	18	
C2146	syntax error: missing ';' before identifier 'cout'	Project1	main.cpp	18	

Ready Add to Source Control



# REBUILDING THE SOLUTION

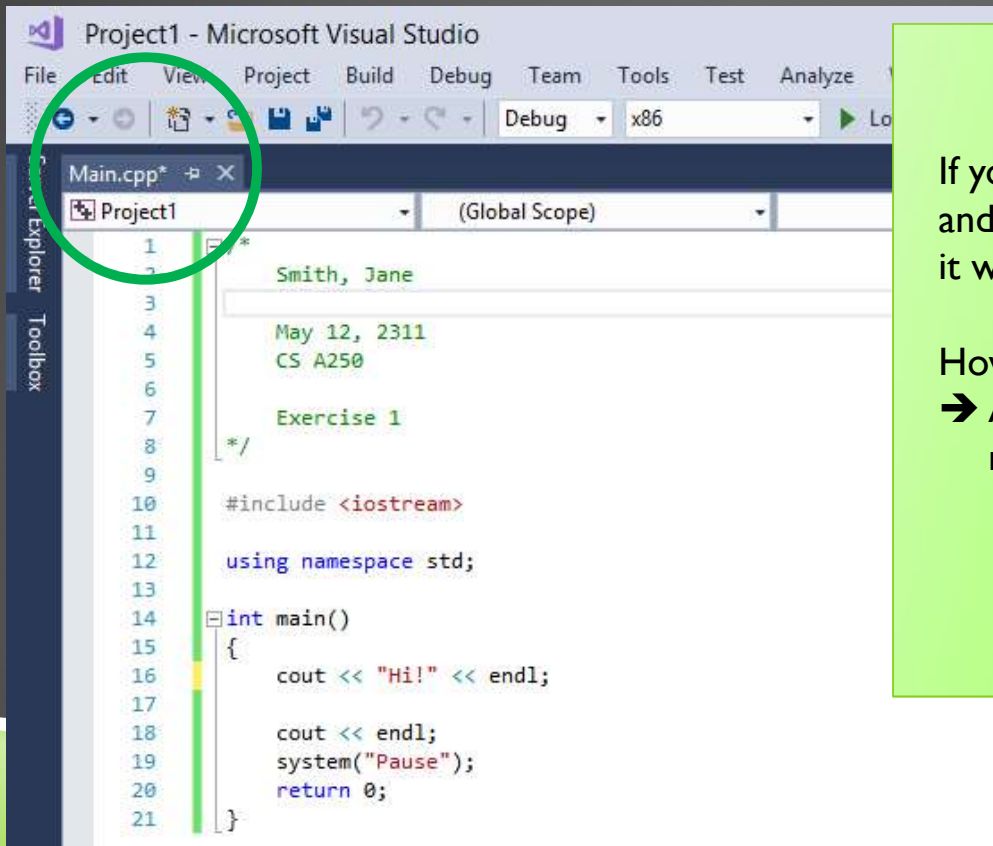


## VERY IMPORTANT !!!

When you fix an error, your compiler might not register the fix → Instead of hitting F5 again, do the following:

**Top menu → BUILD → Rebuild Solution**

# IS YOUR FILE SAVED?

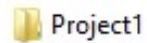


If you compile your program (F5) and your program runs successfully, it will be saved automatically.

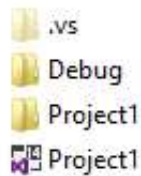
How do you know if your file is saved?  
→ An **asterisk (\*)** next to the file name means that the file is **NOT** saved.

Main.cpp\*

# HOW TO OPEN YOUR PROJECT

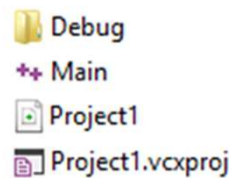


Assuming you saved your project as "Project1."  
Click on the folder to open it.  
There is another "Project1" folder inside.



Inside the second "Project1" folder you will find several files.  
(Depending on the version you are using, you might have different files, such as **x64**, BUT the solution file will be the same.)

To open your project, you need to click on the "solution" file.



**NOTE:** If you open the inner "Project1" folder, you will see all your files. Do **NOT** click on the Main.cpp file, because it will just open the file instead of the project, and you will **not** be able to execute your program!

# ADDITIONAL HELP

- ▶ You can find additional resources at
  - ▶ <https://docs.microsoft.com/en-us/visualstudio/welcome-to-visual-studio>