

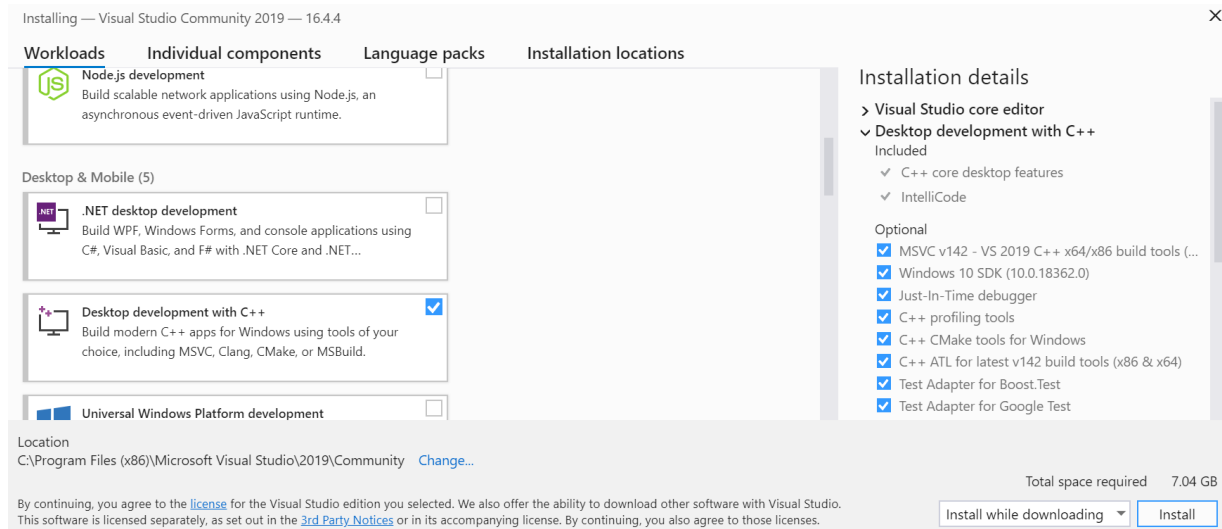
Tutorial for Visual Studio Community 2019

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1. Installation

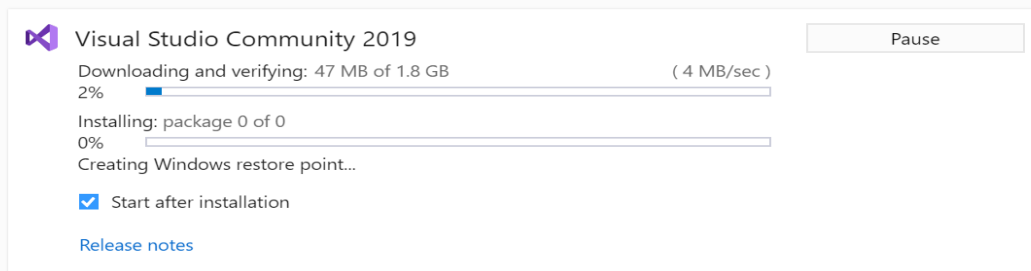
- 1) Go to Microsoft Visual Studio website <https://www.visualstudio.com/downloads/> to download Visual Studio Installer. Choose Visual Studio Community 2019 which is free.
- 2) Click the installer you just download to start the installation. The installer is named like this: vs_community__232192821.1557777013.exe
- 3) After the installer is started, check **Desktop development with C++**. You may leave the rest settings as default, and then click Install.



- 4) It will take a while.

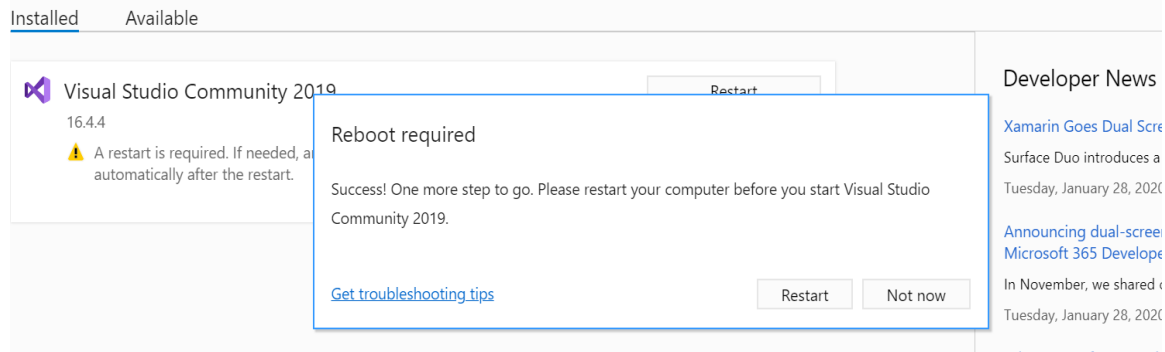
Visual Studio Installer

Installed Available

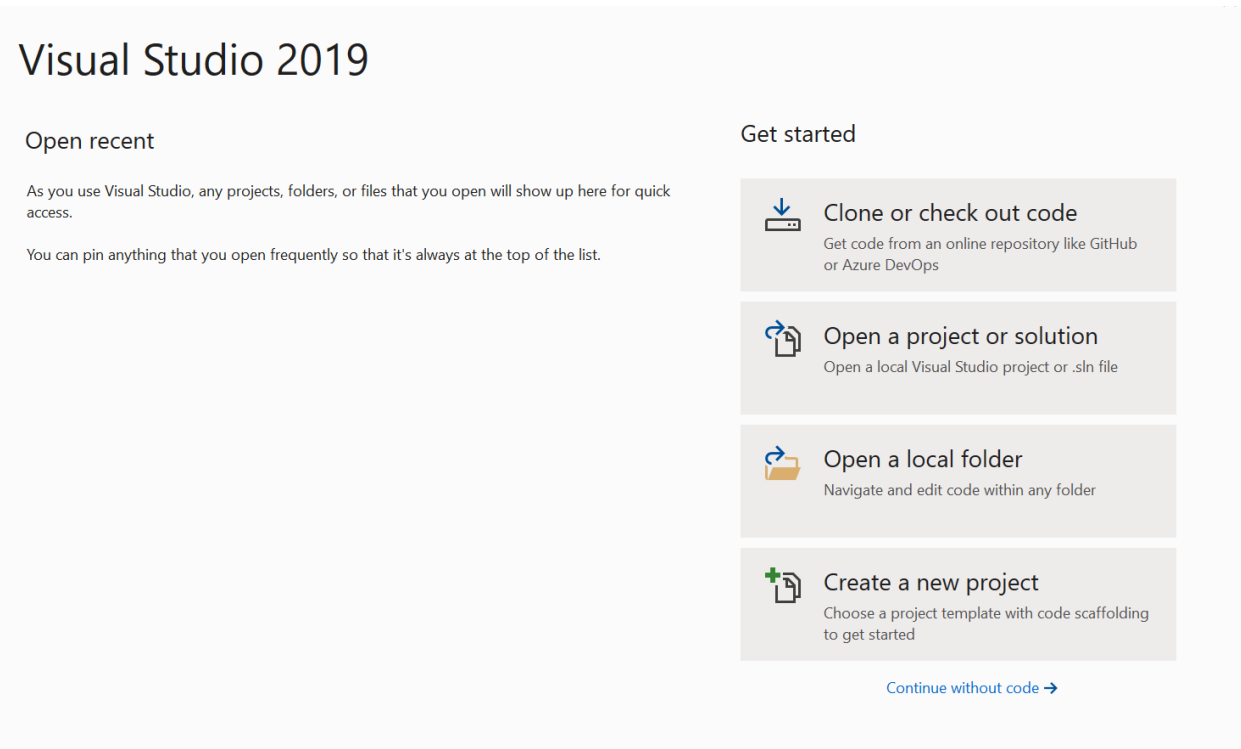


- 5) You will be asked to restart your computer.

Visual Studio Installer



- 6) Now Visual Studio Community 2019 has been successfully installed. You can find it in your Start menu. Click it to run and you will be asked to sign in with your Microsoft account. After signing in, you will see the window like the following or slightly different:



- 6) Now it's your time to play with it. Have fun!

2. The first C program: Hello World

- 1) Open Microsoft Visual Studio, you will see this window or the window with slightly different layout:

Visual Studio 2019

Open recent

As you use Visual Studio, any projects, folders, or files that you open will show up here for quick access.

You can pin anything that you open frequently so that it's always at the top of the list.

Get started



Clone or check out code

Get code from an online repository like GitHub or Azure DevOps



Open a project or solution

Open a local Visual Studio project or .sln file



Open a local folder

Navigate and edit code within any folder



Create a new project

Choose a project template with code scaffolding to get started

[Continue without code →](#)

2) Create a new project.

There are multiple ways to do this. The following is just one way to create a new empty project.

Click **Create a new project** which is in the lower right in the above screenshot; Or, Go to **File – New – Project**.

Create a new project

Recent project templates

Console App

C++

All languages

All platforms

All project types



Empty Project

Start from scratch with C++ for Windows. Provides no starting files.

C++

Windows

Console



Console App

Run code in a Windows terminal. Prints "Hello World" by default.

C++

Windows

Console



Windows Desktop Wizard

Create your own Windows app using a wizard.

C++

Windows

Desktop

Console

Library



Windows Desktop Application

A project for an application with a graphical user interface that runs on Windows.

C++

Windows

Desktop



Shared Items Project

A Shared Items project is used for sharing files between multiple projects.

C++

Windows

Android

iOS

Linux

Desktop

Console

Next

Configure your new project

Windows Desktop Wizard

C++

Windows

Desktop

Console

Library

Project name

Project1

Location

C:\Users\qiuhe\source\repos

Solution name ?

Project1

☐ Place solution and project in the same directory

Back

Create

Name the project, such as “Hello_World”. For now ,you can leave everything else as default. Then click Create. You will see the following window:

Configure your new project

Windows Desktop Wizard

C++

Windows

Desktop

Console

Library

Project name

Project1

Location

C:\Users\qiuhe\source\repos

Solution name ?

Project1

☐ Place solution and project in the same directory

Windows Desktop Project

Application type

Console Application (.exe)

Additional options:

- ☐ Empty project
- ☐ Precompiled header
- ☐ Export symbols
- ☐ MFC headers

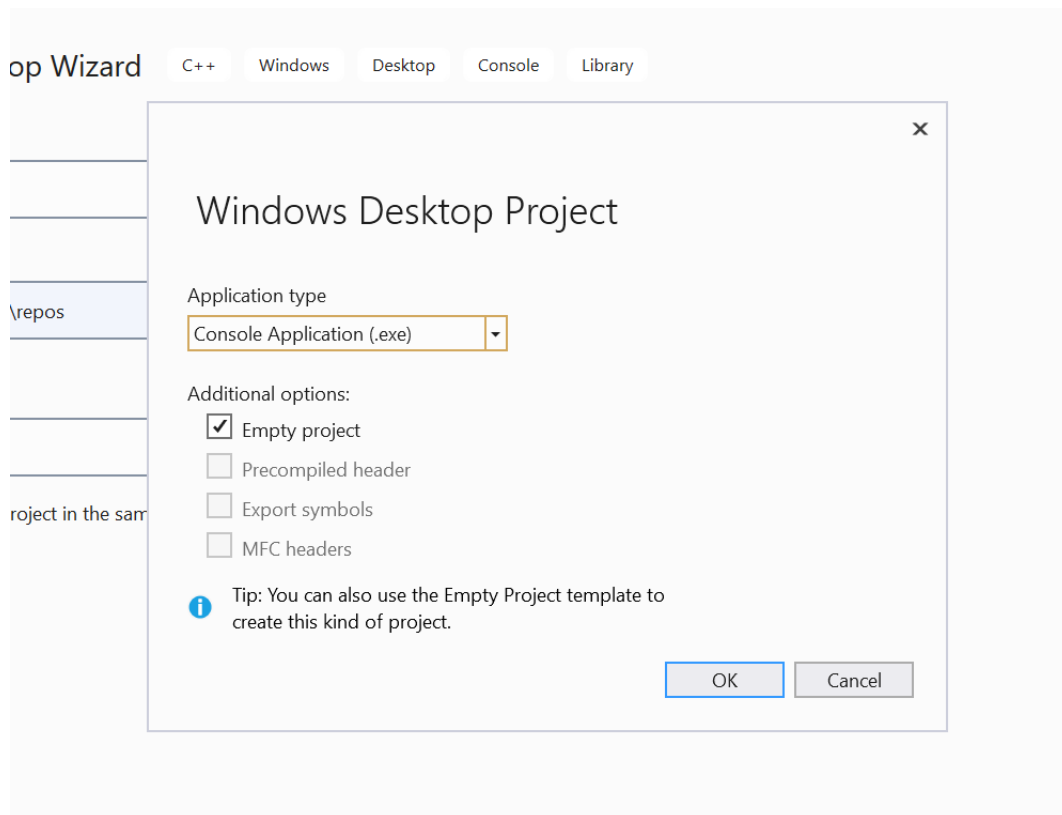
OK

Cancel

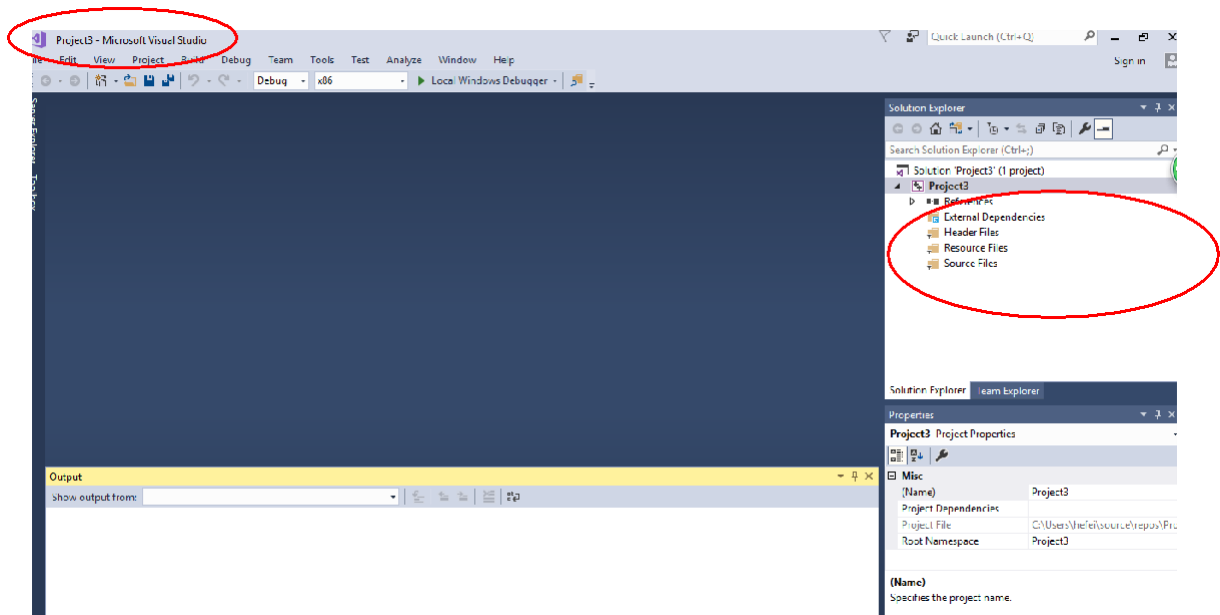
Back

Create

For our Hello World program, make sure **the application type is Console Application**. We are also going to uncheck Precompiled Header and SDL checks and only check Empty Project as following:

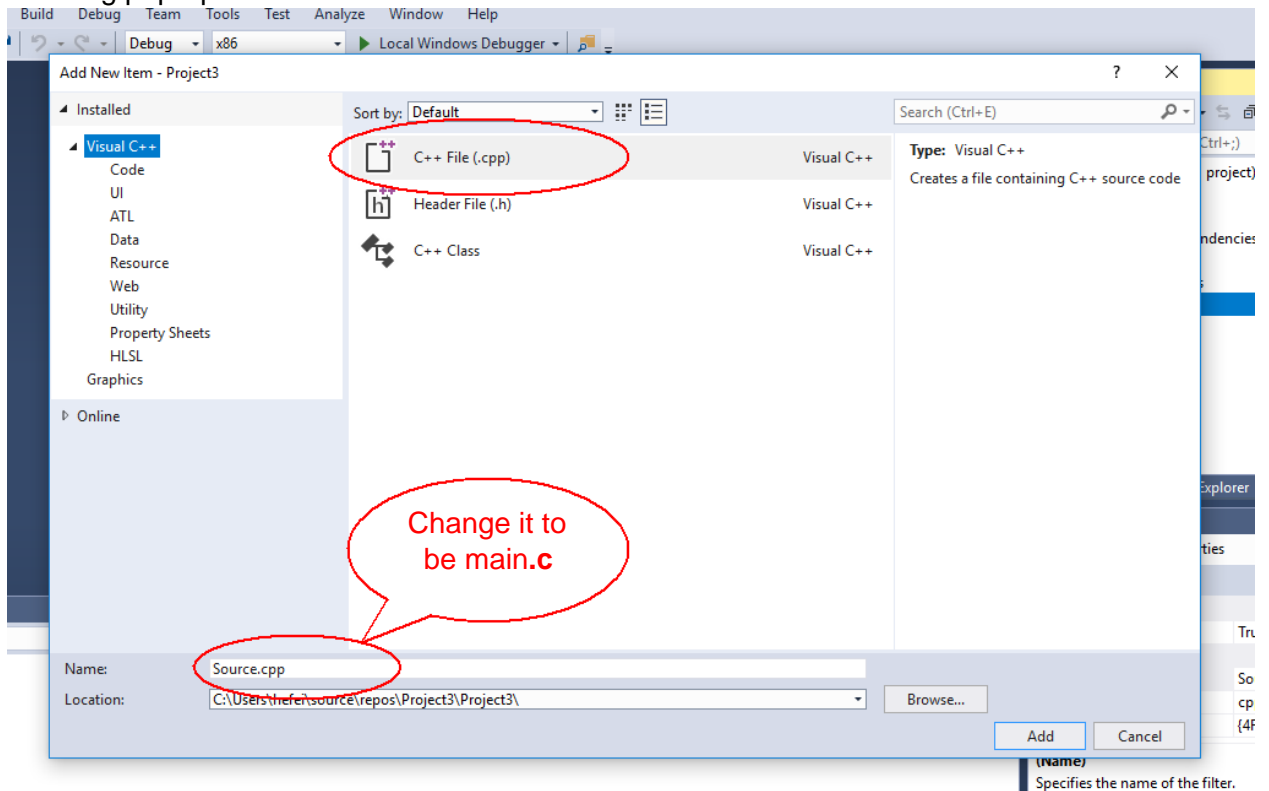


3) Now click OK. A new project will be created.



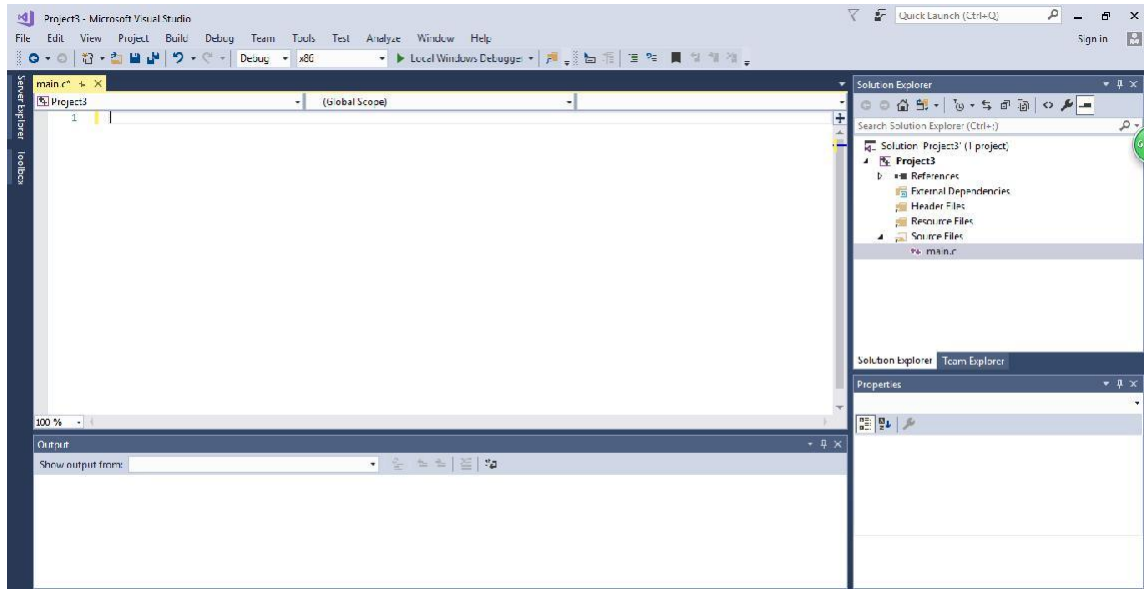
4) Add a source file.

Go to **Solution Explorer** which is on the right, as shown in the above image, **right click Source Files folder** under the project, **click Add – New Item**, you will see the following pop-up window:

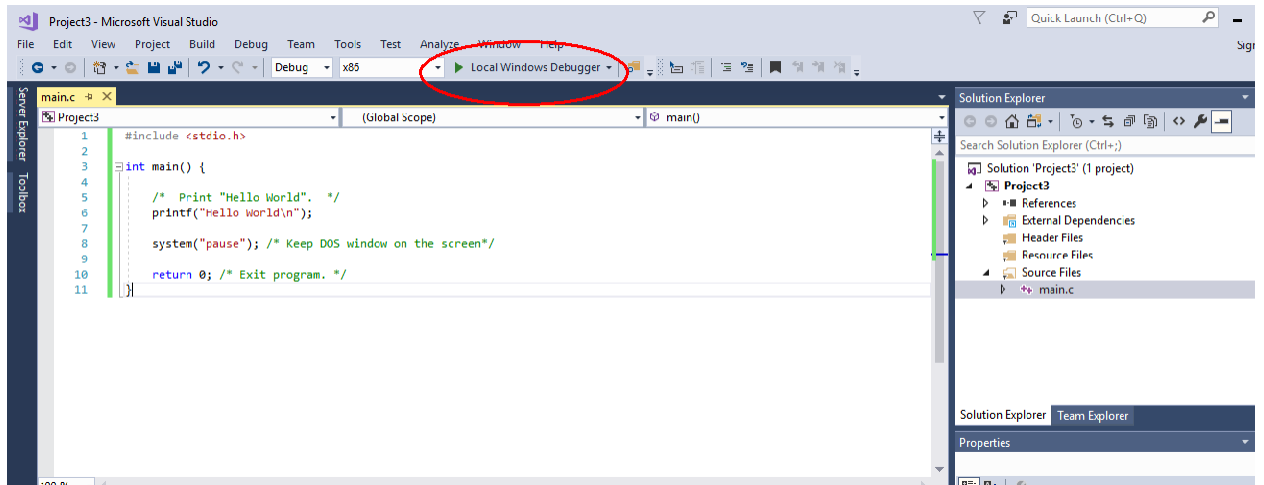


Here, by default C++ File is selected, which is also what we need for this project. Change the name to be main.c, then click Add button. Make sure the extension of is .c, NOT .cpp.

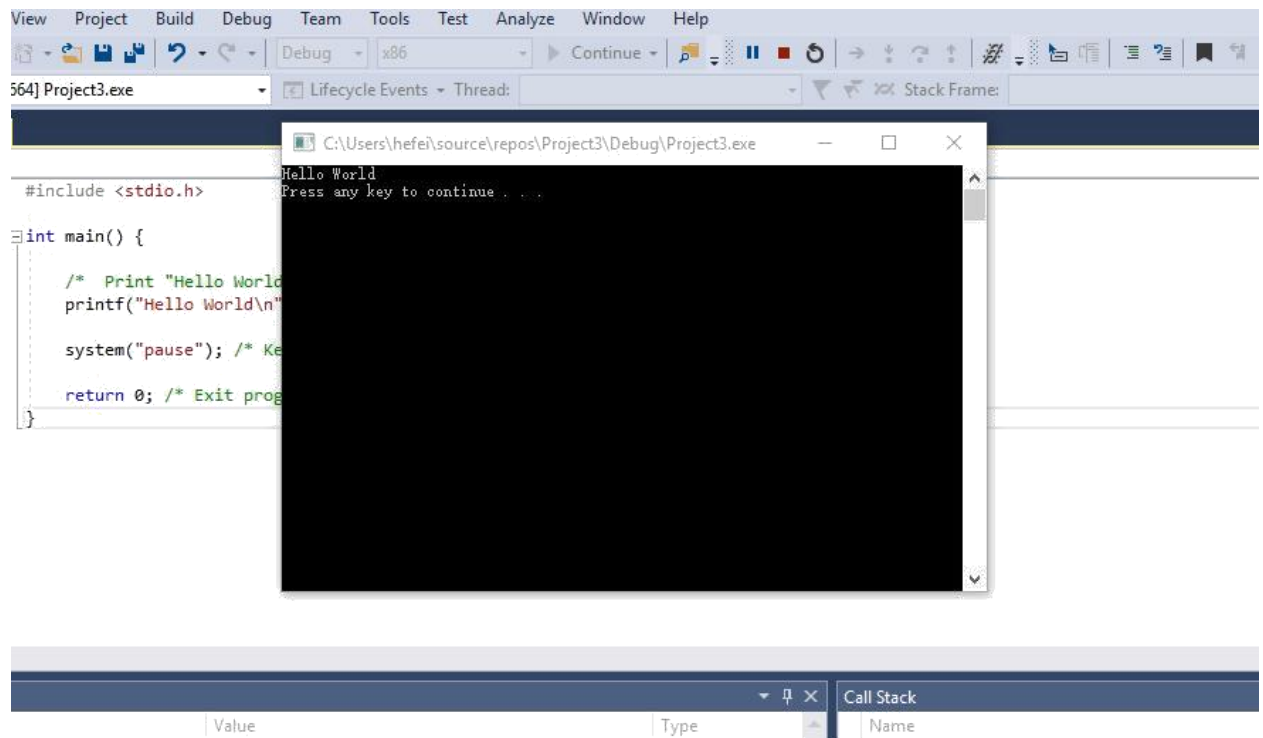
Click Add, then we will have an empty file with name main.c.



5) Type the codes as following:



6) Click ctrl+F5 or the **Local Windows Debugger** button which is starting with a green start icon, as you can see in the above image, then click yes. Eventually you should see the console:



7) Congratulations! You get your first C program running!