Create your first C++ app project.

Step 1: Install Visual Studio 2022

- Download Visual Studio Community 2022 Here: <u>https://visualstudio.microsoft.com/downloads/</u>
- Make sure to select the "Desktop development with C++" workload during installation.

Downloads						
Visual Studio 2022 = The most comprehensive IDE for .NET and C++ developers on Windows for building web, cloud, desktop, mobile apps, services and games.						
Community Powerful IDE, free for students, open- source contributors, and individuals Free download	Professional DE best suited to small teams Free trial Release notes → Compare Edition	Enterprise Scalable, end-to-end solution for teams of any size Free trial	Preview Get early access to latest features not yet in the main release			
Visual Studio Code A standalone source code editor that The top pick for Java and web develop support just about any programming	Visual Studio Code I 🖷 🗉 💩 A standalone source code editor that runs on Windows, macOS, and Linux. The top pick for Java and web developers, with tons of extensions to support just about any programming language.					
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Step 2: Launch Visual Studio 2022

Once Visual Studio 2022 is installed, launch it from your Start menu or desktop.

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1 installation has an update available.	🤣 Update all	Developer News
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		Need help? Check out the <u>Microsoft Develop</u> <u>Community</u> or reach us via <u>Visual Studio</u> Support.
		Installar version 2.7.2101.26442

Step 3: Create a New Project

1. When you launch Visual Studio 2022, you'll have two main options to start a new project:

• **Create a new project:** This option allows you to select a project template and configure your project settings from scratch.

Visual Studio 2022			- 0	×
Open recent		Get sta	arted	
Search recent (Alt+S)	- م)	Clone a repository Get code from an online repository like GitHub or Azure DevOps	
		ď	Open a project or solution Open a local Visual Studio project or .sln file	
		F	Open a local folder Navigate and edit code within any folder	
		ťÞ	Create a new project Choose a project template with code scaffolding to get started	
			Continue without code $ ightarrow$	

Continue without code: This option allows you to open Visual Studio without creating a new project immediately. Then in Visual Studio, open the File menu and choose New > Project to open the Create a new Project dialog.

Visual Studio 2022						×
Open recent		Get sta	rted			
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			Continue without code $ ightarrow$			

Step 4: Choose Project Type

1. In the "Create a new project" window, you'll see various project templates. Since we want to create a simple C++ application, select "C++" in the Languages drop down menu.

2. Select "Empty Project" from the search results. And then click next.

Create a new project		- D >
create a new project	Search for templates (Alt+S)	₽ - Clear all
Recent project templates	C++ - All platform	ns - All project types -
™ Empty Project C++	Empty Project Start from scratch with C++ for Window C++ Windows Console	ows. Provides no starting files.
	Console App Run code in a Windows terminal. Print C++ Windows Console	ats "Hello World" by default.
	CMake Project Build modern, cross-platform C++ app C++ Windows Linux Cons	ops that don't depend on .sln or .vcxproj files. sole
	Windows Desktop Wizard Create your own Windows app using A C++ Windows Desktop C	a wizard. Console Library
	Windows Desktop Application A project for an application with a gra C++ Windows Desktop	aphical user interface that runs on Windows.
	Dynamic Shared Library (Android) A project for creating a dynamic share C++ Android Library Mot	ed library for the Android Platform. bile
	F++ Ctatic Library (Android)	
		Back Next

Step 5: Configure Your Project

1. In the "Configure your new project" window, you can specify some project details:

- Project name: Give your project a name, for example, "MyFirstCppApp."
- Location: Choose where you want to save your project files.

- **Solution name**: The solution name will be the container for your project; you can leave it as the default.

3. Click the "Create" button.

	-	×
Configure your new project		
Empty Project C++ Windows Console		
Project name		
MyFirstCppApp		
Location		
C:\Users\ragha\Desktop\UNIC\Programming\VSProjects		
Solution name 🕕		
MyFirstCppApp		
Project will be created in "C:\Users\ragha\Desktop\UNIC\Programming\VSProjects\MyFirstCppApp\"		

Step 6: Write Your C++ Code

1. Visual Studio you will find the project you just created in the "Solution Explorer" window

- Visual Studio uses two key concepts to organise code and development work: **projects** and **solutions**.
- **Project**: A project in Visual Studio is a container for organising and managing all the files, resources, configurations, and settings required to build a specific software application or component. It typically contains source code files, resource files, and settings that define how the code should be compiled and executed. In the context of C++, a project would include all the code, libraries, and build configurations for a C++ application.
- **Solution**: A solution is a higher-level container that can hold one or more projects. Solutions are used to group related projects together, especially in scenarios where multiple projects are part of a single application or when you're working on multiple applications within a larger system.
- 1. In the Solution Explorer (usually located on the right-hand side of the screen), right-click on the folder where you want to add the new source file. This is often the "**Source Files**" folder.
- 2. Select "Add" > "New Item..." from the context menu.

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- 3. In the "Add New Item" dialog that appears, you can choose the type of file you want to add. For a C++ source code file, you can select "C++ File (.cpp)".
- 4. Give your new file a name, for example, "Main.cpp."
- 5. Click the "Add" button to create the file.

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6. Write Your Code following the example below:

Dr Murtada Dohan

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Step 7: Build and Run

- After adding the new source code file and writing your code, you may need to build your project again to include the new file in the compilation process. You can do this by selecting "Build" > "Build Solution."
- If there are no errors in your code, you can run your updated project to see the changes. Press the "Local Windows Debugger" button (green triangle) or press F5 to run your application.

Congratulations! You've successfully created a simple C++ application using Visual Studio 2022.