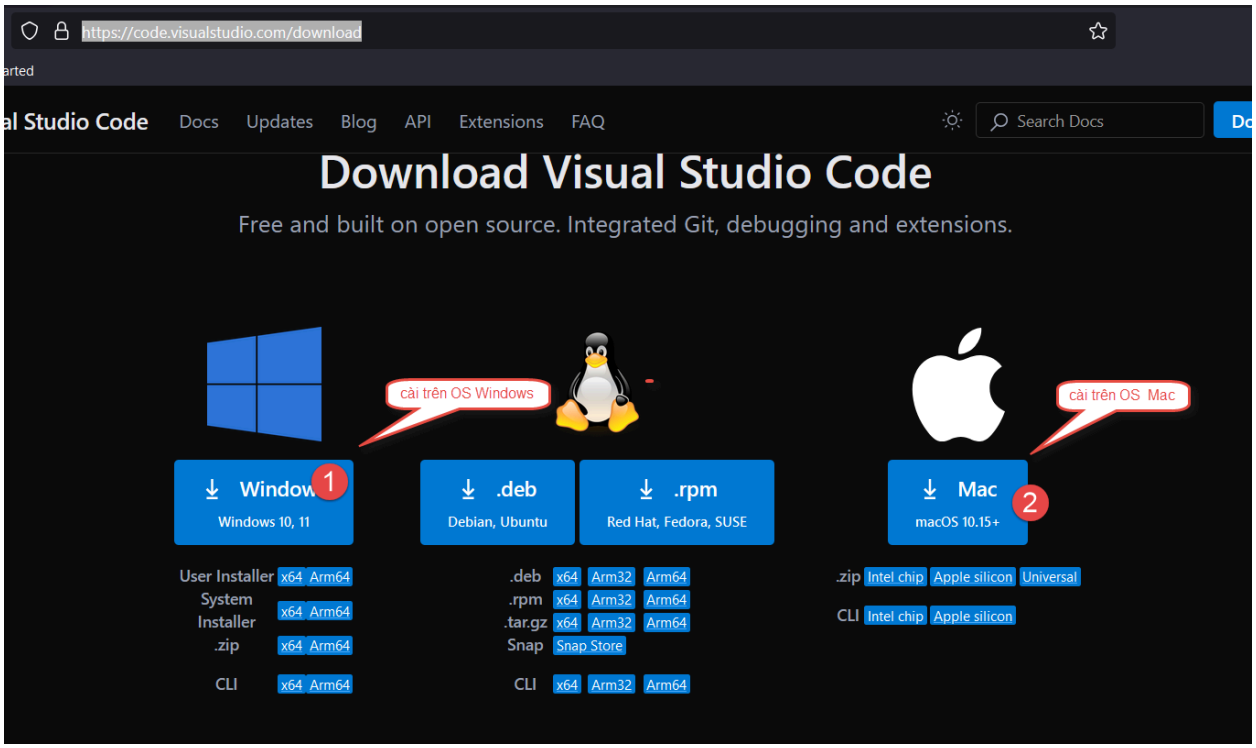
HƯỚNG DẪN CÀI ĐẶT VISUAL STUDIO CODE CHO NGÔN NGỮ LẬP TRÌNH C:

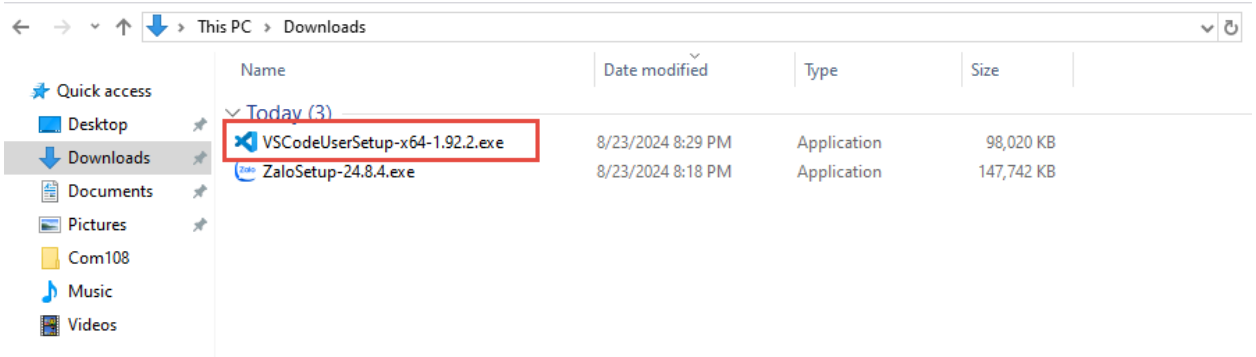
1. Cài đặt Visual studio code:
   truy cập vào trang sau để tải visual studio code

   https://code.visualstudio.com/download

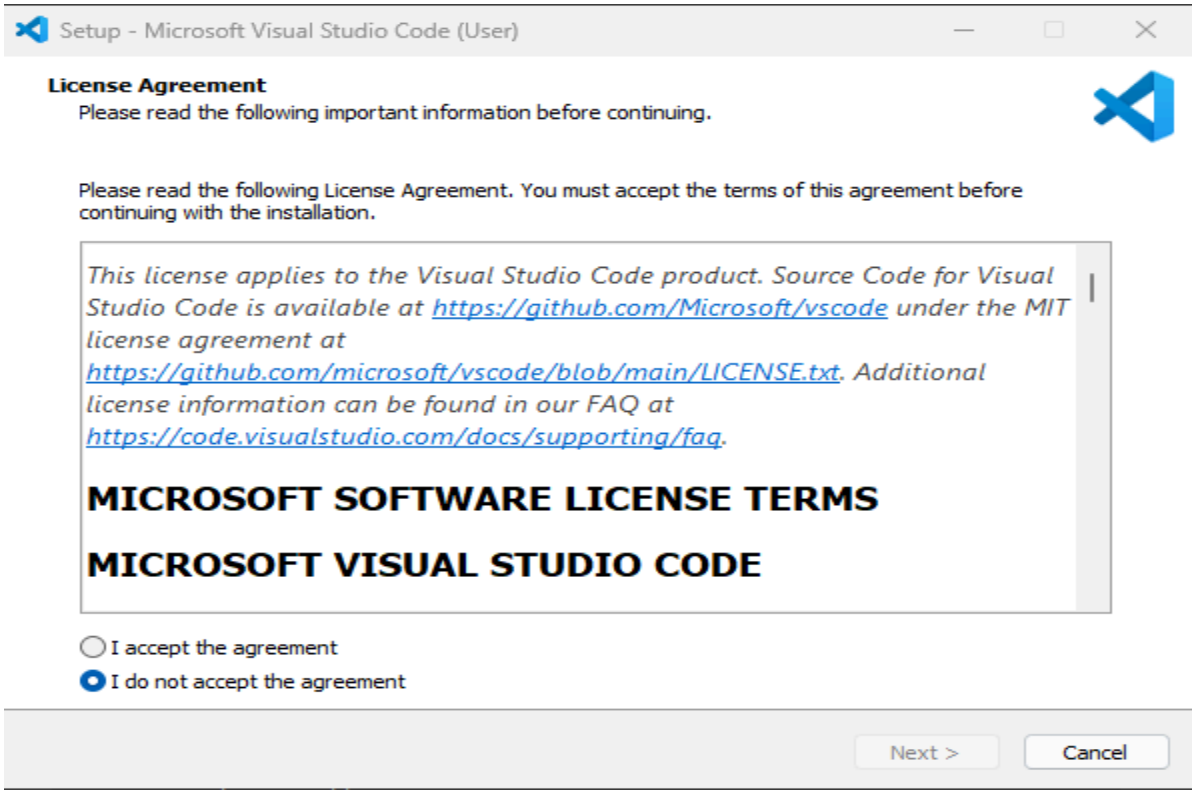


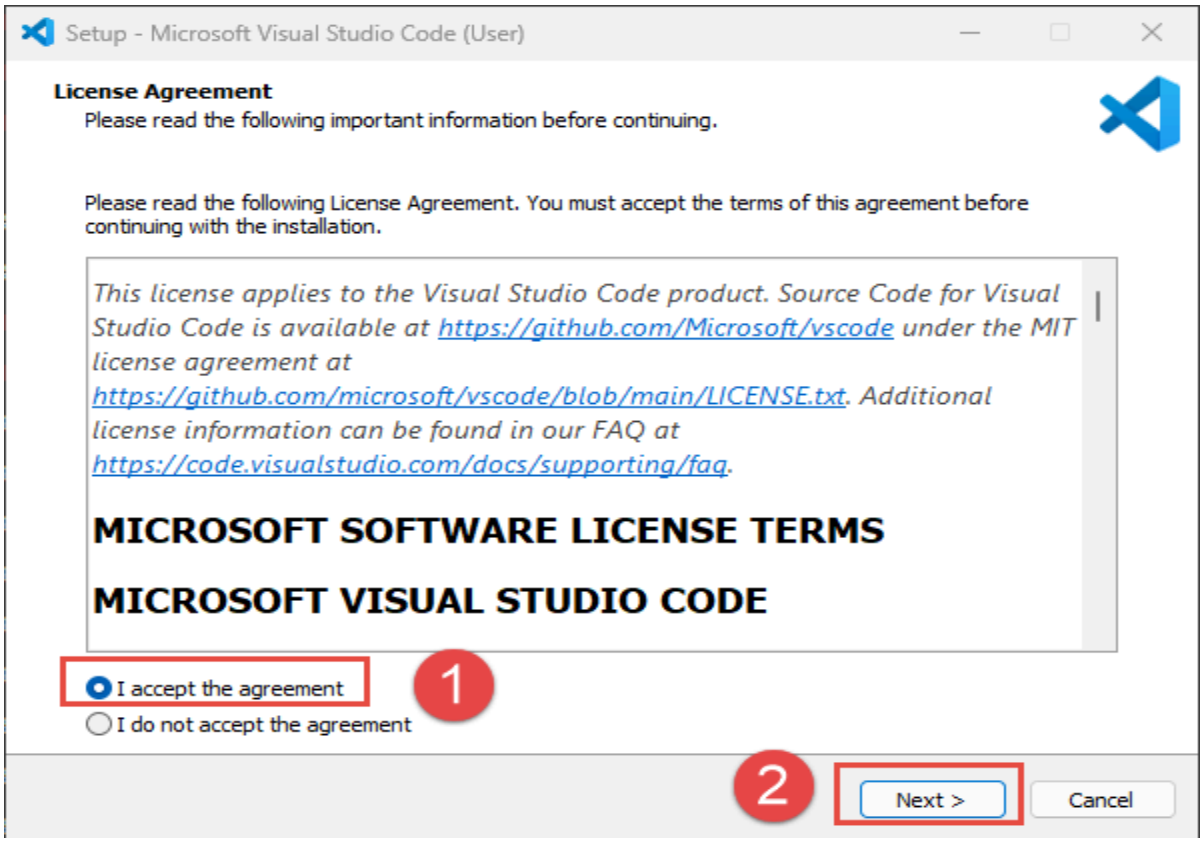
Chúng ta tải phiên bản cho đúng hệ điều hành mình đang sử dụng, trong trường hợp này tải về phiên bản dùng cho hệ điều hành Windows.

Sau khi tải về:



Chạy file cài đặt VSCodeUserSetup-x64-1.92.2.exe


Setup - Microsoft Visual Studio Code (User)
License Agreement
Please read the following important information before continuing.
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
This license applies to the Visual Studio Code product. Source Code for Visual Studio Code is available at https://github.com/Microsoft/vscode under the MIT license agreement at https://github.com/microsoft/vscode/blob/main/LICENSE.txt. Additional license information can be found in our FAQ at https://code.visualstudio.com/docs/supporting/faq.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL STUDIO CODE
I accept the agreement
I do not accept the agreement
Next >
Cancel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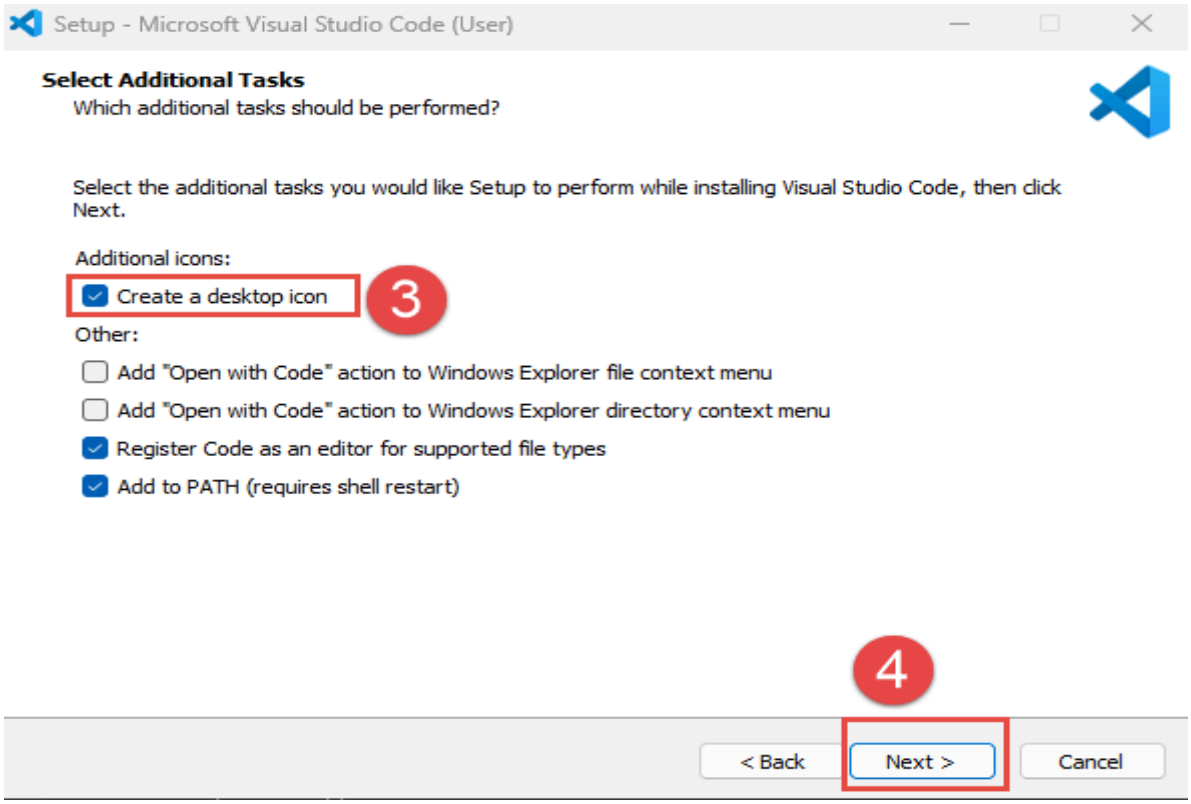
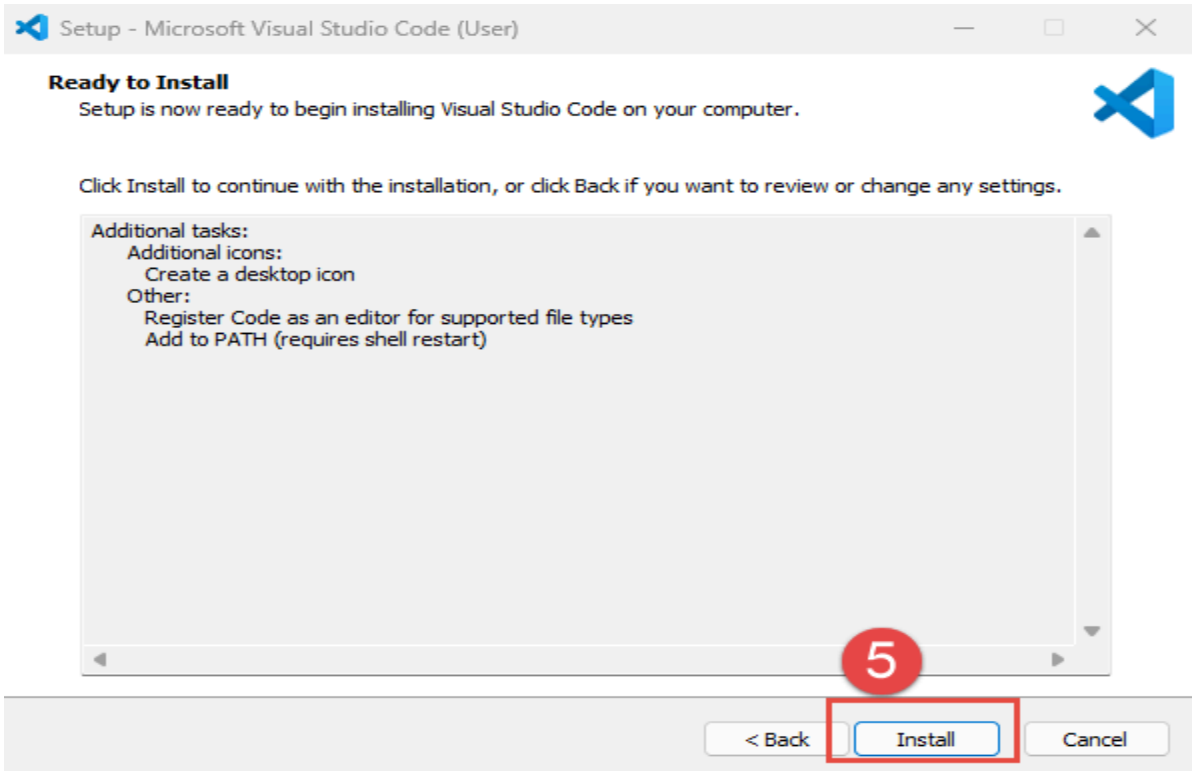
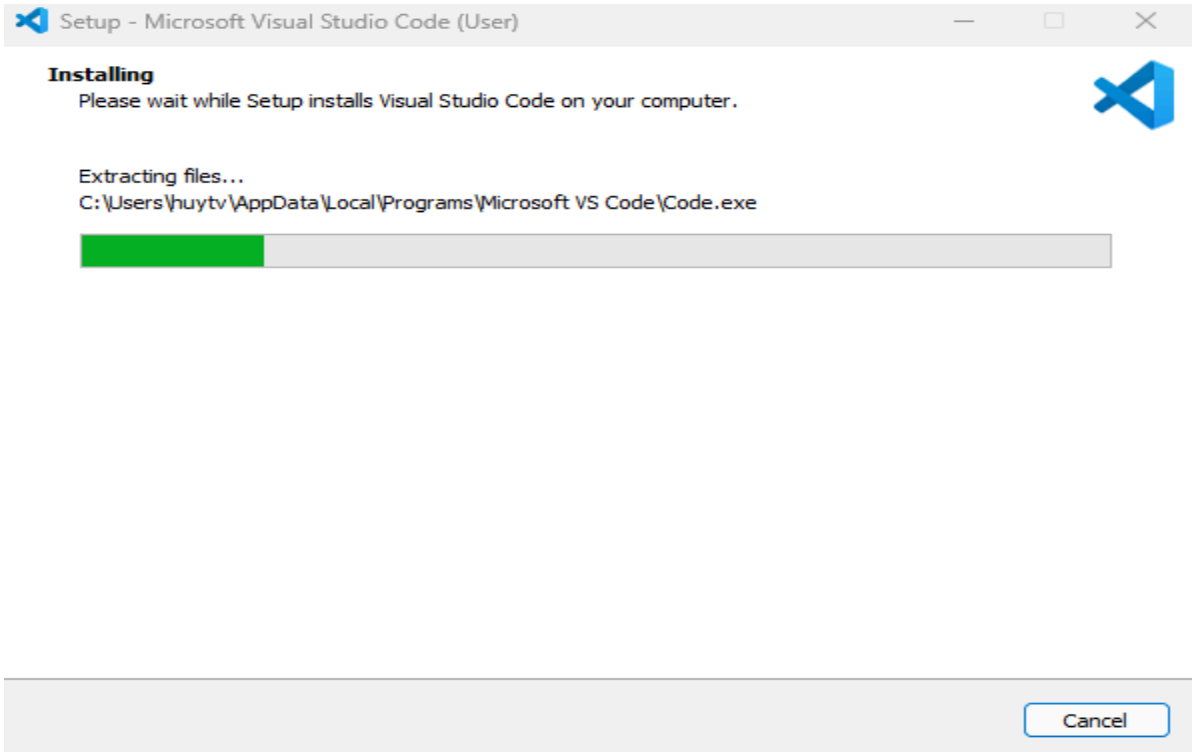
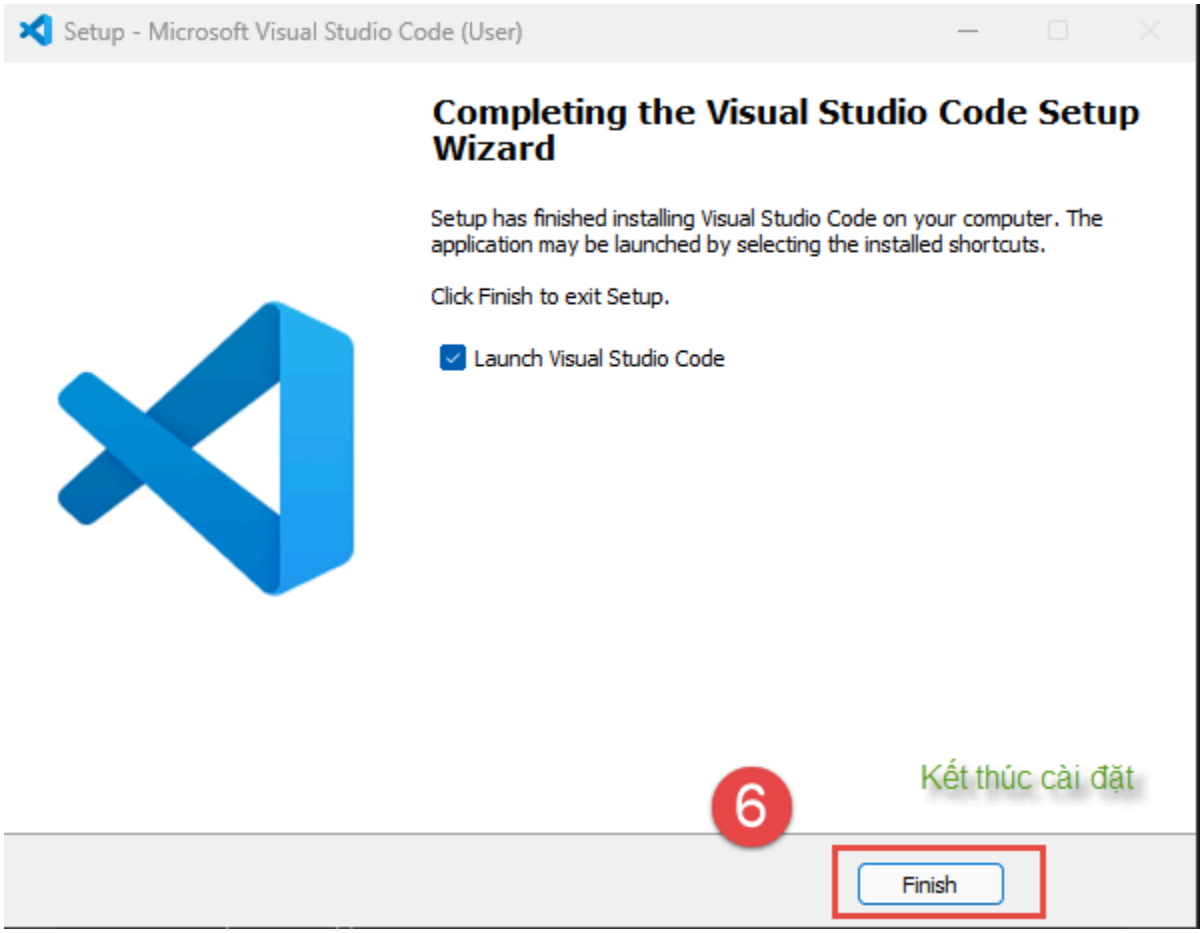
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
This license applies to the Visual Studio Code product. Source Code for Visual Studio Code is available at https://github.com/Microsoft/vscode under the MIT license agreement at https://github.com/microsoft/vscode/blob/main/LICENSE.txt. Additional license information can be found in our FAQ at https://code.visualstudio.com/docs/supporting/faq.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL STUDIO CODE
I accept the agreement
1
I do not accept the agreement
2
Next >
Cancel


Setup - Microsoft Visual Studio Code (User)
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.
Additional icons:
Create a desktop icon
3
Other:
Add "Open with Code" action to Windows Explorer file context menu
Add "Open with Code" action to Windows Explorer directory context menu
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
4
< Back
Next >
Cancel

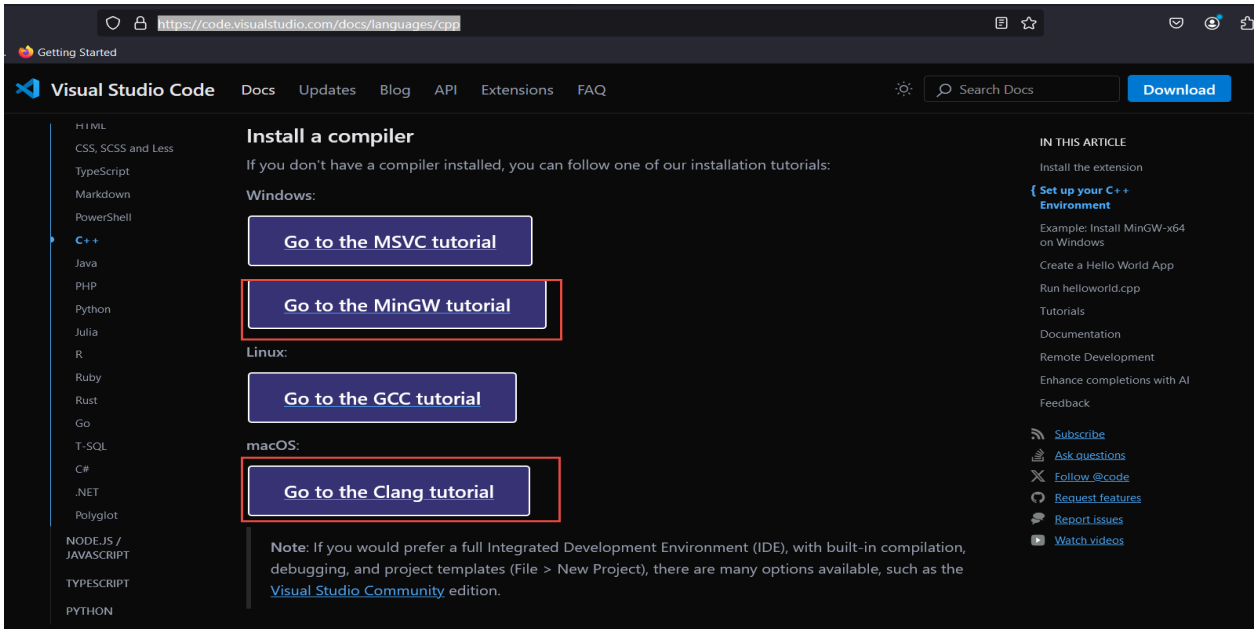

Setup - Microsoft Visual Studio Code (User)
Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Additional tasks:
Additional icons:
Create a desktop icon
Other:
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
5
< Back
Install
Cancel


Setup - Microsoft Visual Studio Code (User)
Installing
Please wait while Setup installs Visual Studio Code on your computer.
Extracting files...
C:\Users\huytv\AppData\Local\Programs\Microsoft VS Code\Code.exe
Cancel


Setup - Microsoft Visual Studio Code (User)
Completing the Visual Studio Code Setup Wizard
Setup has finished installing Visual Studio Code on your computer. The application may be launched by selecting the installed shortcuts.
Click Finish to exit Setup.
Launch Visual Studio Code
6
Kết thúc cài đặt
Finish

2. Cài đặt compiler: MinGW/ MinGW-64/TDM-GCC/…

https://code.visualstudio.com/docs/languages/cpp



Chúng ta cài đặt MinGW64 theo MSYS2:

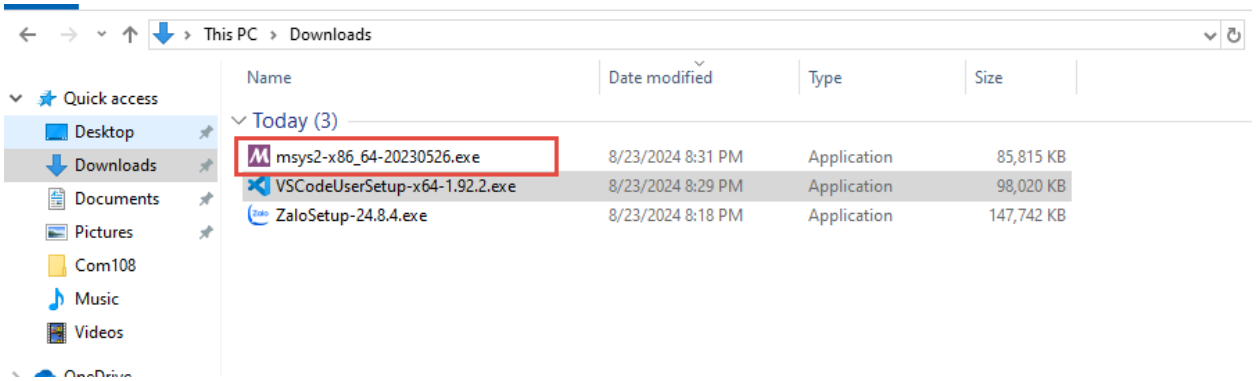
Example: Install MinGW-x64 on Windows

To understand the process, let's install Mingw-w64 via MSYS2. Mingw-w64 is a popular, free toolset on Windows. It provides up-to-date native builds of GCC, Mingw-w64, and other helpful C++ tools and libraries.

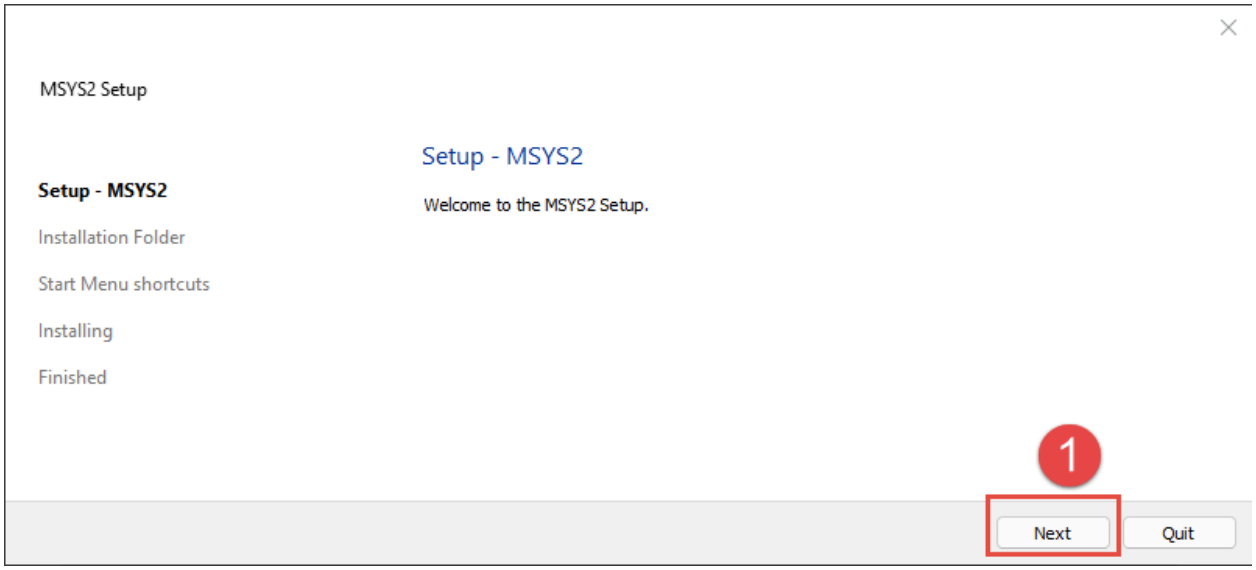
1. Download using **this direct link to the MinGW installer**.
2. Run the installer and follow the steps of the installation wizard. Note, MSYS2 requires 64 bit Windows 8.1 or newer.
3. In the wizard, choose your desired Installation Folder. Record this directory for later. In most cases, the recommended directory is acceptable. The same applies when you get to setting the start menu shortcuts step. When complete, ensure the **Run MSYS2 now** box is checked and select **Finish**. A MSYS2 terminal window will then automatically open.
4. In this terminal, install the MinGW-w64 toolchain by running the following command:

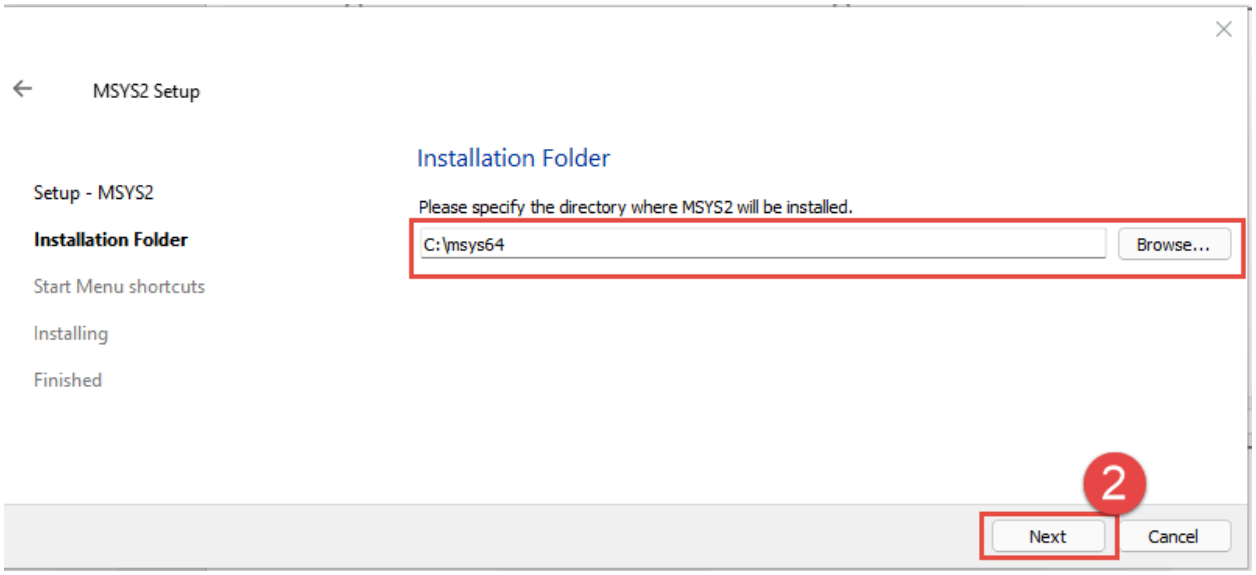
```
pacman -S --needed base-devel mingw-w64-ucrt-x86_64-toolchain
```

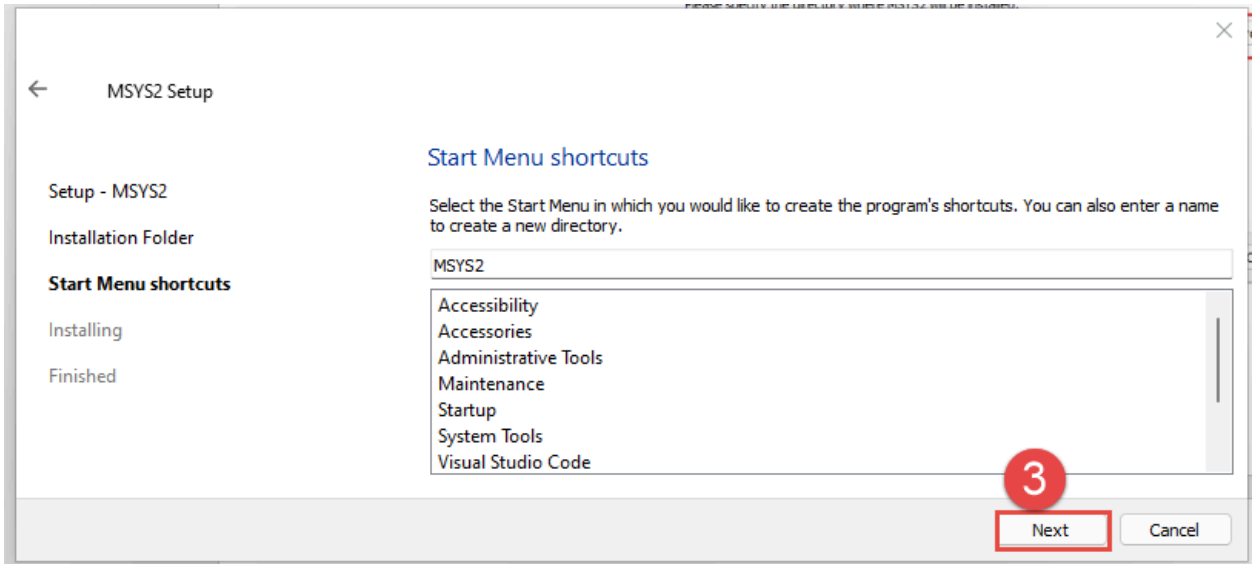
Sau khi tải về:

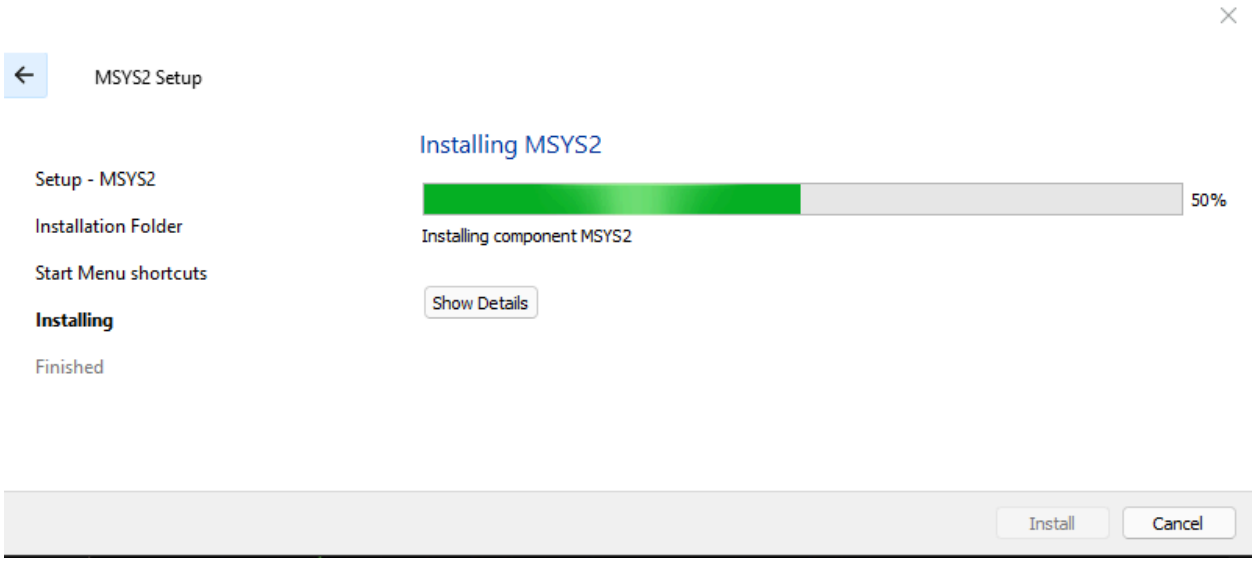


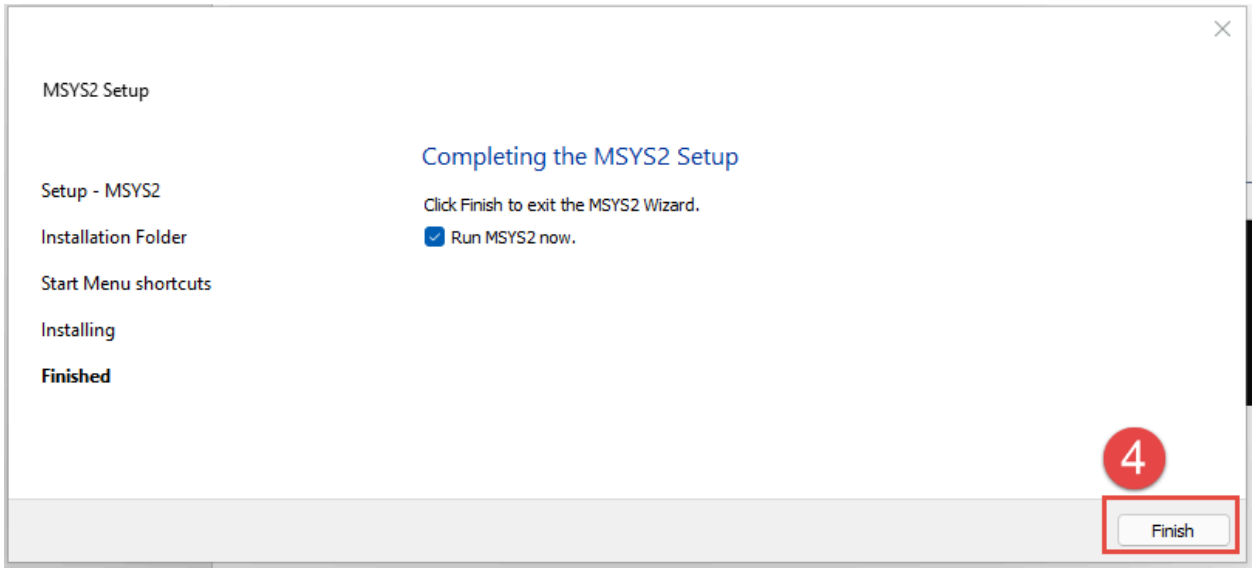
Chúng ta chạy file cài đặt msys2-x86_64-20230526.exe


MSYS2 Setup
Setup - MSYS2
Setup - MSYS2
Installation Folder
Start Menu shortcuts
Installing
Finished
Welcome to the MSYS2 Setup.
1
Next
Quit

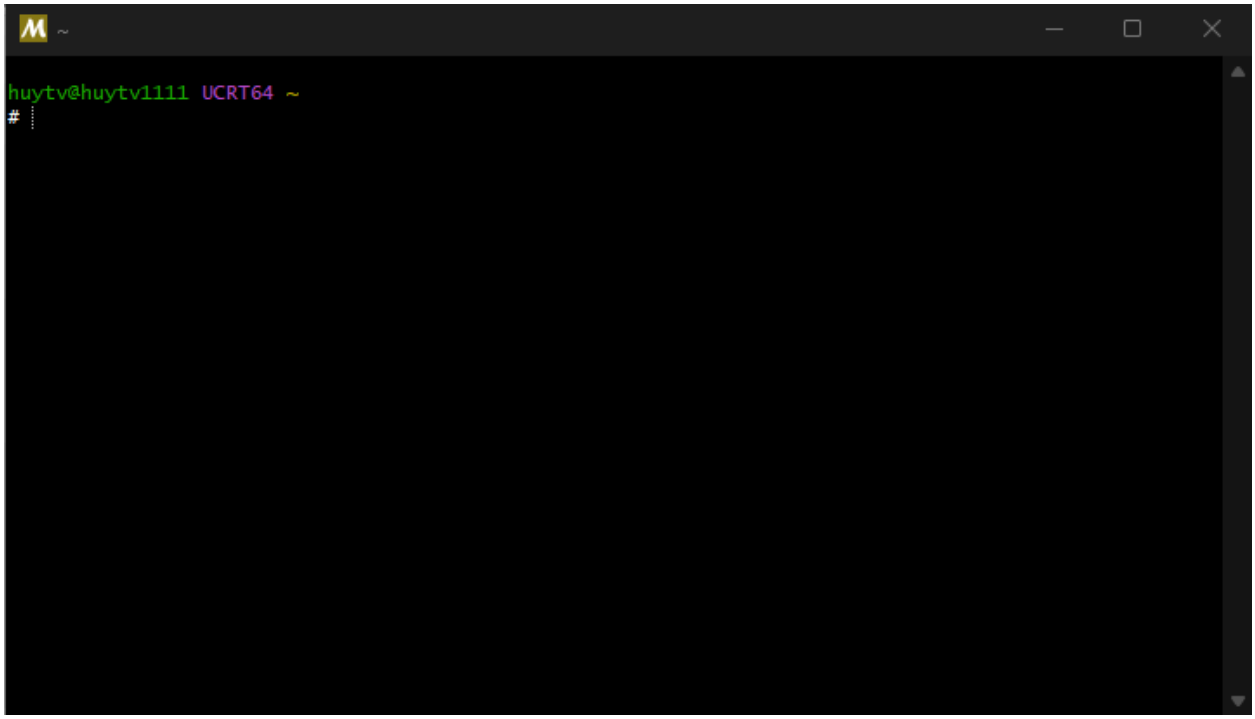

MSYS2 Setup
Setup - MSYS2
Installation Folder
Start Menu shortcuts
Installing
Finished
Installation Folder
Please specify the directory where MSYS2 will be installed.
C:\msys64
Browse...
2
Next
Cancel


MSYS2 Setup
Setup - MSYS2
Installation Folder
Start Menu shortcuts
Installing
Finished
Start Menu shortcuts
Select the Start Menu in which you would like to create the program's shortcuts. You can also enter a name to create a new directory.
MSYS2
Accessibility
Accessories
Administrative Tools
Maintenance
Startup
System Tools
Visual Studio Code
3
Next
Cancel

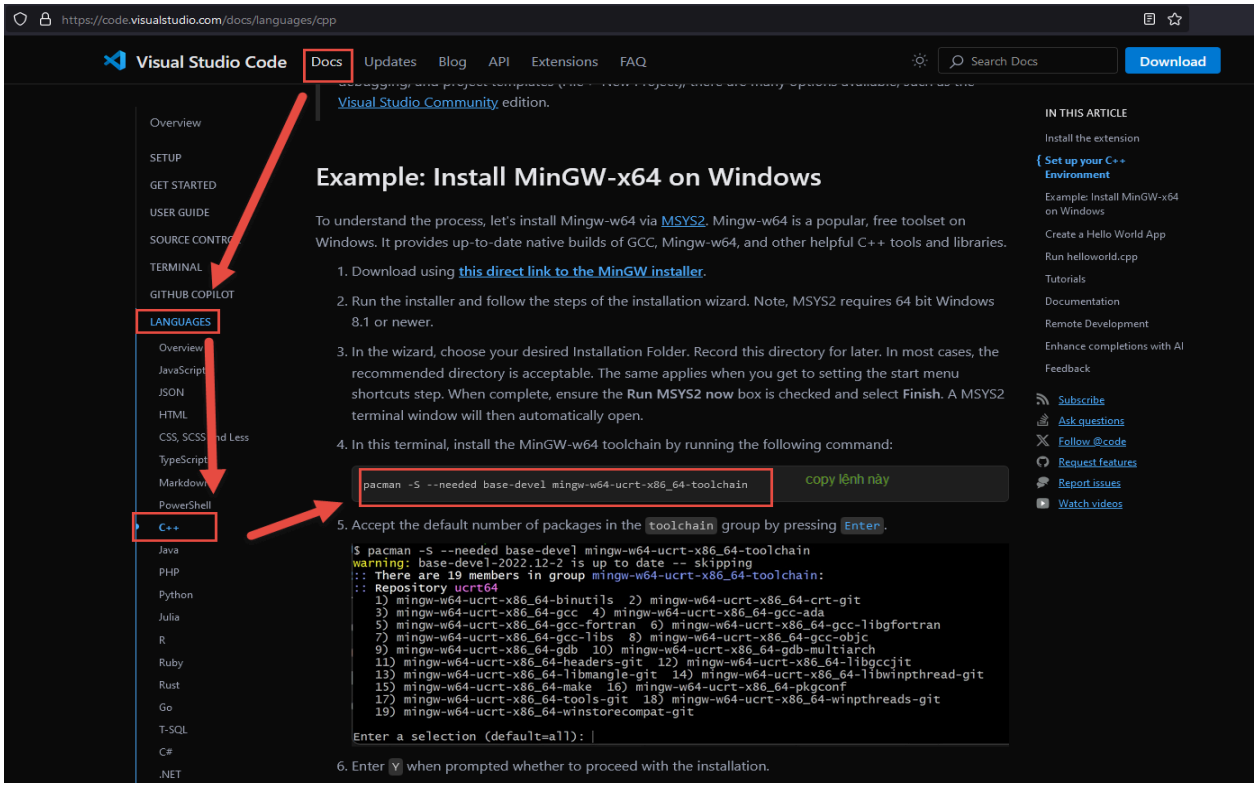

MSYS2 Setup
Setup - MSYS2
Installation Folder
Start Menu shortcuts
Installing
Finished
Installing MSYS2
50%
Installing component MSYS2
Show Details
Install
Cancel



Xuất hiện cửa sổ như sau:

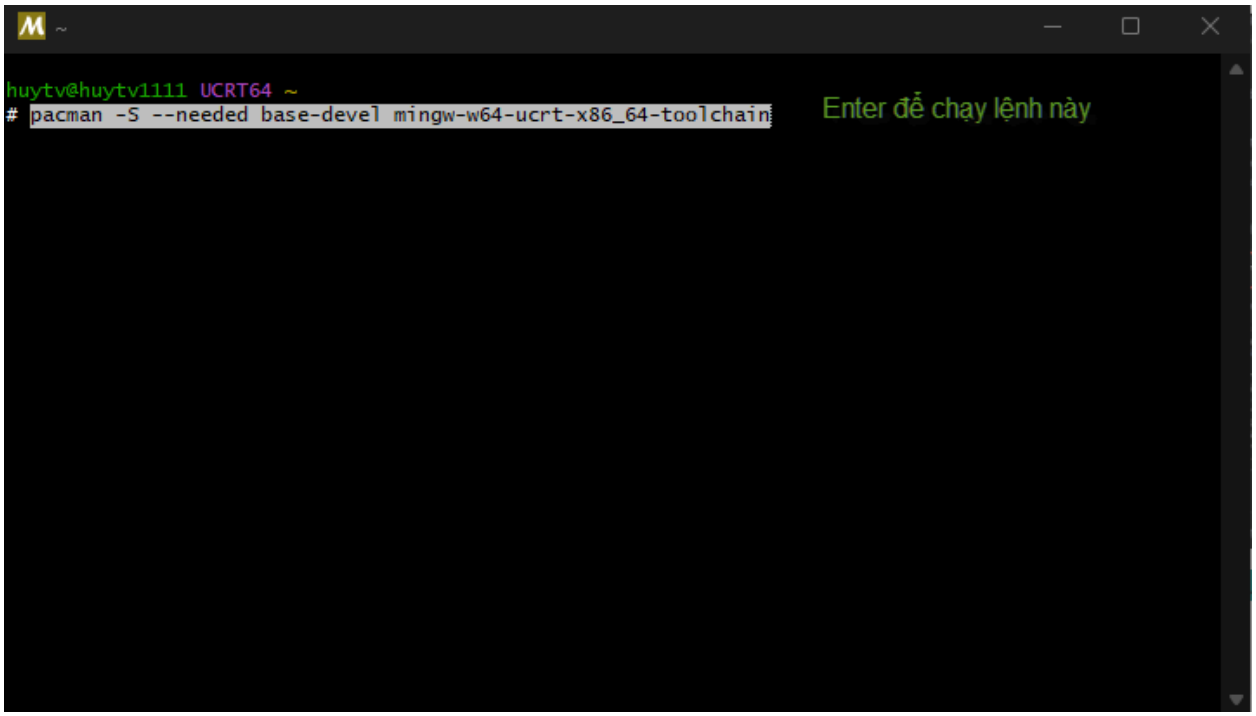


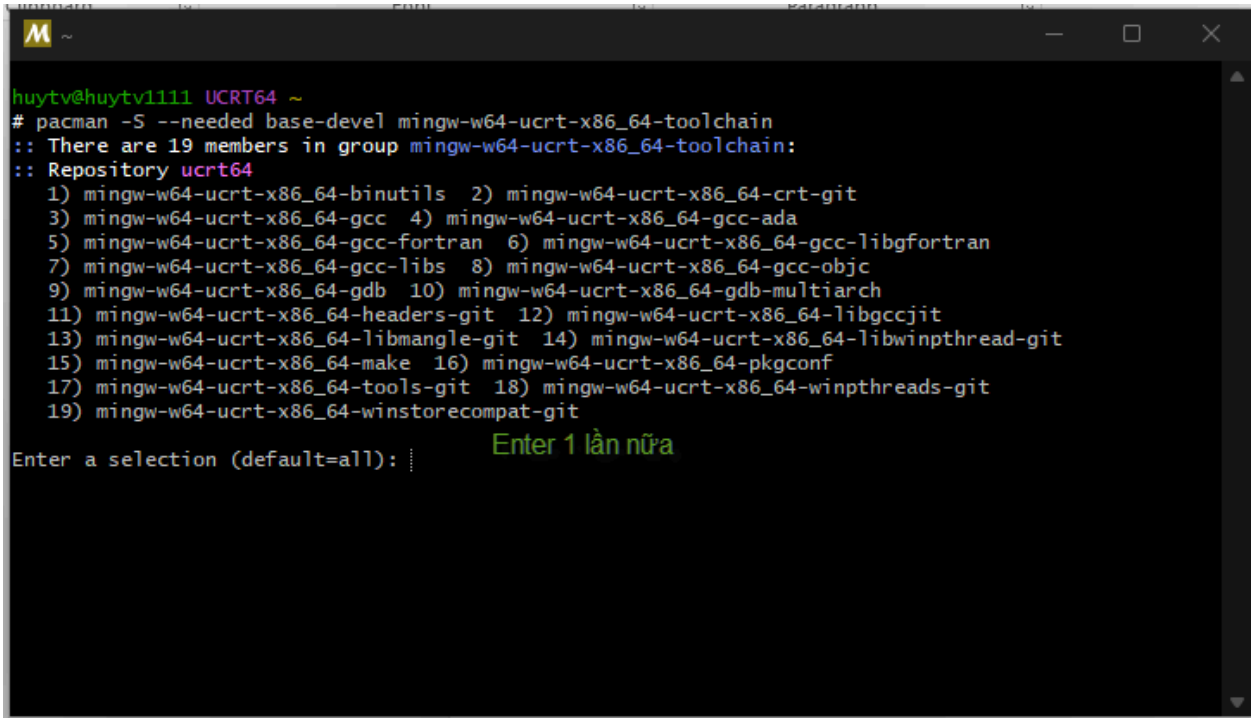
Trở lại trang download Visual studio code:

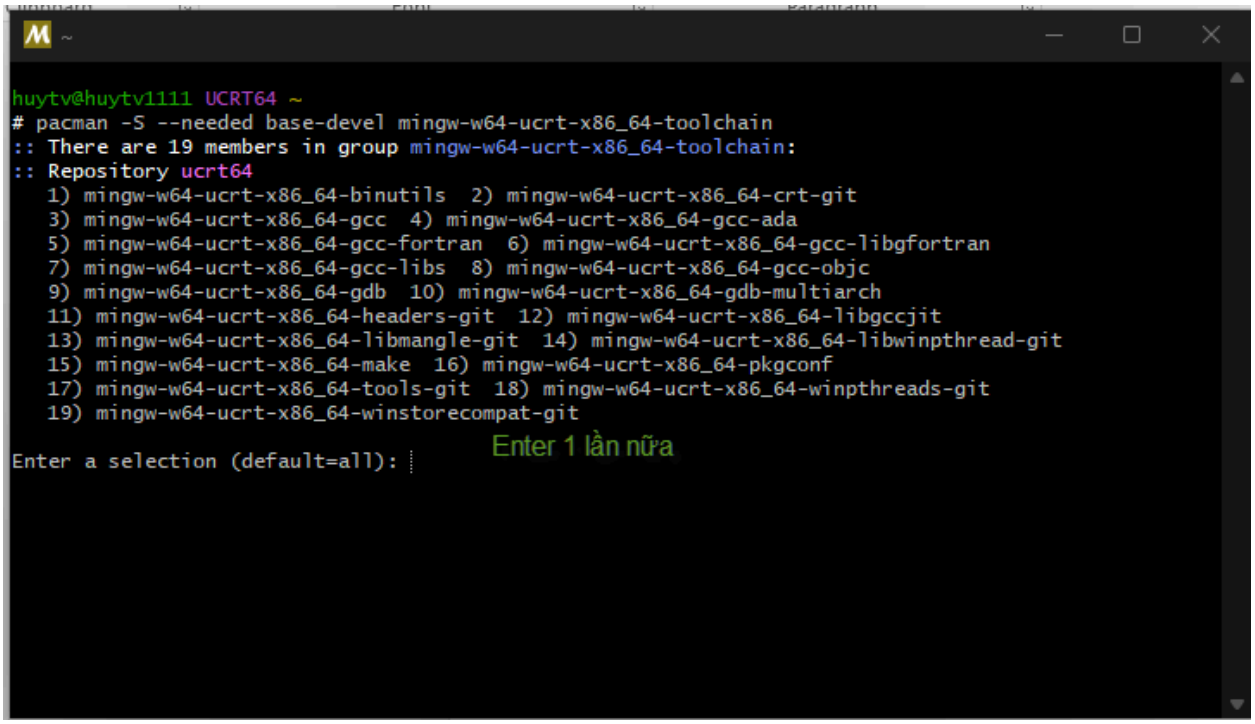


Copy dòng lệnh: pacman -S --needed base-devel mingw-w64-ucrt-x86_64-toolchain

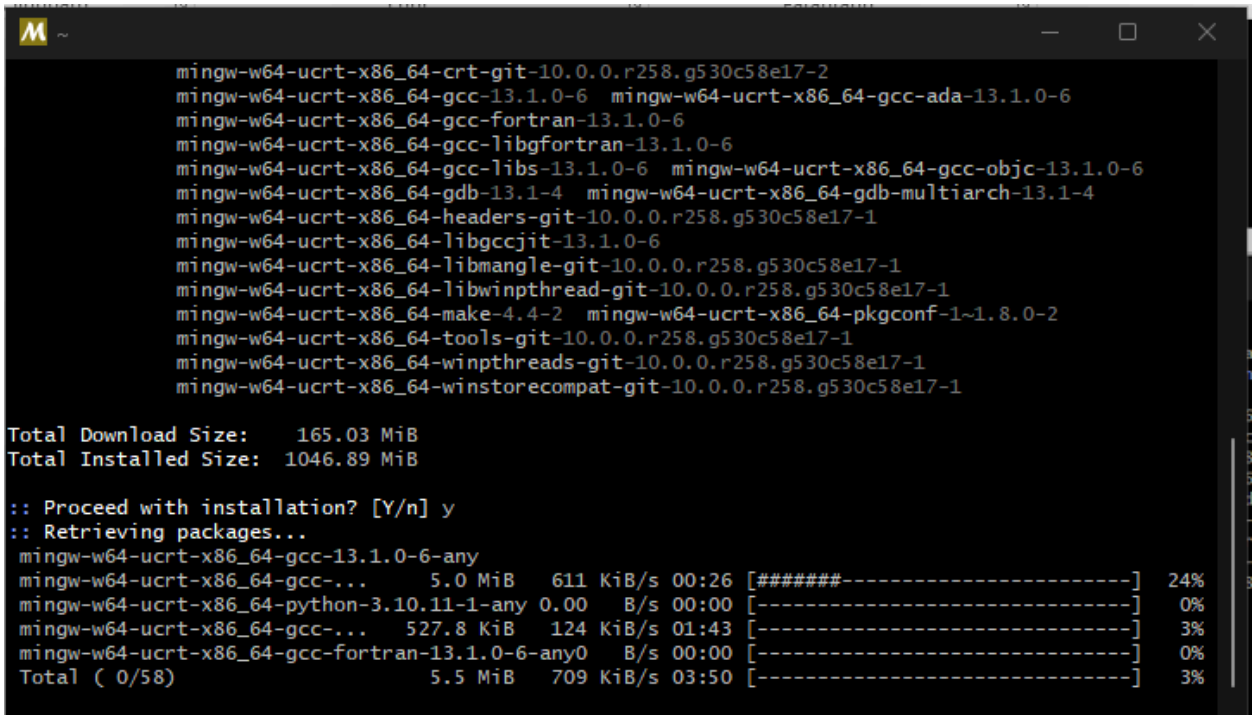
Dán vào trong :



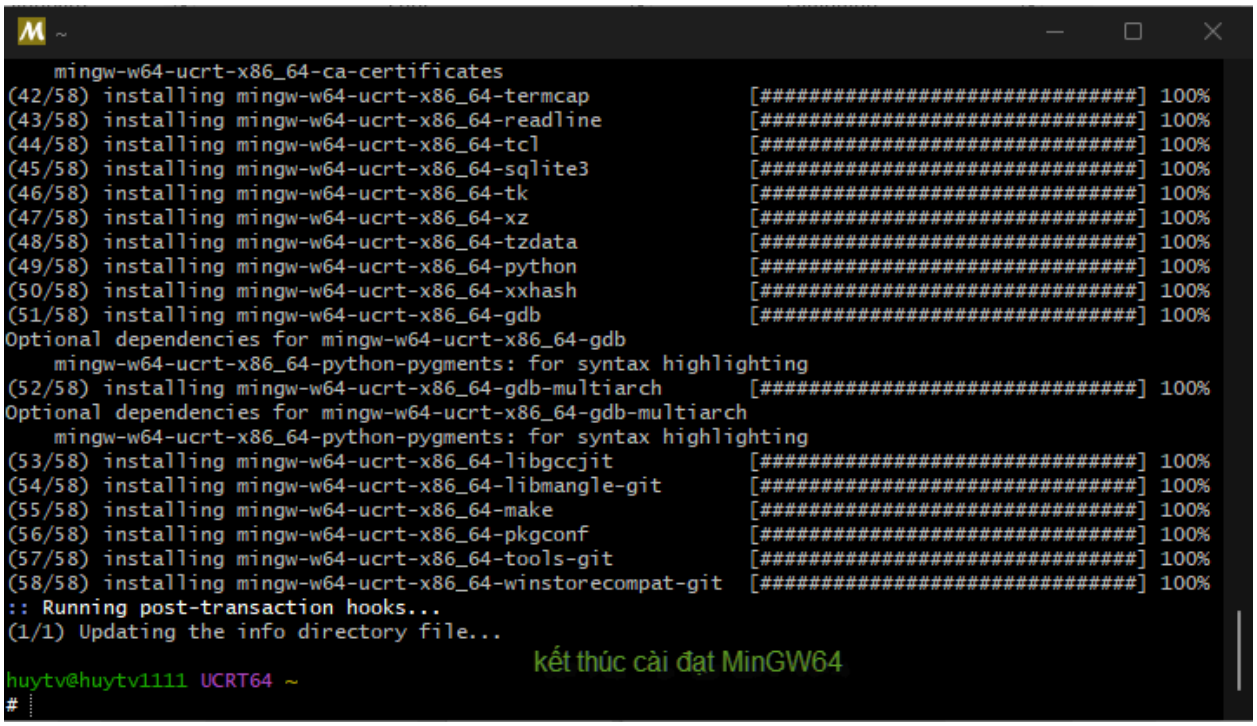

~
huytv@huytv1111 UCRT64 ~
pacman -S --needed base-devel mingw-w64-ucrt-x86_64-toolchain
:: There are 19 members in group mingw-w64-ucrt-x86_64-toolchain:
:: Repository ucrt64
1) mingw-w64-ucrt-x86_64-binutils 2) mingw-w64-ucrt-x86_64-crt-git
3) mingw-w64-ucrt-x86_64-gcc 4) mingw-w64-ucrt-x86_64-gcc-ada
5) mingw-w64-ucrt-x86_64-gcc-fortran 6) mingw-w64-ucrt-x86_64-gcc-libgfortran
7) mingw-w64-ucrt-x86_64-gcc-libs 8) mingw-w64-ucrt-x86_64-gcc-objc
9) mingw-w64-ucrt-x86_64-gdb 10) mingw-w64-ucrt-x86_64-gdb-multiarch
11) mingw-w64-ucrt-x86_64-headers-git 12) mingw-w64-ucrt-x86_64-libgccjit
13) mingw-w64-ucrt-x86_64-libmangle-git 14) mingw-w64-ucrt-x86_64-libwinpthread-git
15) mingw-w64-ucrt-x86_64-make 16) mingw-w64-ucrt-x86_64-pkgconf
17) mingw-w64-ucrt-x86_64-tools-git 18) mingw-w64-ucrt-x86_64-winpthreads-git
19) mingw-w64-ucrt-x86_64-winstorecompat-git
Enter a selection (default=all):
Enter 1 lần nữa


~
huytv@huytv1111 UCRT64 ~
pacman -S --needed base-devel mingw-w64-ucrt-x86_64-toolchain
:: There are 19 members in group mingw-w64-ucrt-x86_64-toolchain:
:: Repository ucrt64
1) mingw-w64-ucrt-x86_64-binutils 2) mingw-w64-ucrt-x86_64-crt-git
3) mingw-w64-ucrt-x86_64-gcc 4) mingw-w64-ucrt-x86_64-gcc-ada
5) mingw-w64-ucrt-x86_64-gcc-fortran 6) mingw-w64-ucrt-x86_64-gcc-libgfortran
7) mingw-w64-ucrt-x86_64-gcc-libs 8) mingw-w64-ucrt-x86_64-gcc-objc
9) mingw-w64-ucrt-x86_64-gdb 10) mingw-w64-ucrt-x86_64-gdb-multiarch
11) mingw-w64-ucrt-x86_64-headers-git 12) mingw-w64-ucrt-x86_64-libgccjit
13) mingw-w64-ucrt-x86_64-libmangle-git 14) mingw-w64-ucrt-x86_64-libwinpthread-git
15) mingw-w64-ucrt-x86_64-make 16) mingw-w64-ucrt-x86_64-pkgconf
17) mingw-w64-ucrt-x86_64-tools-git 18) mingw-w64-ucrt-x86_64-winpthreads-git
19) mingw-w64-ucrt-x86_64-winstorecompat-git
Enter a selection (default=all):
Enter 1 lần nữa

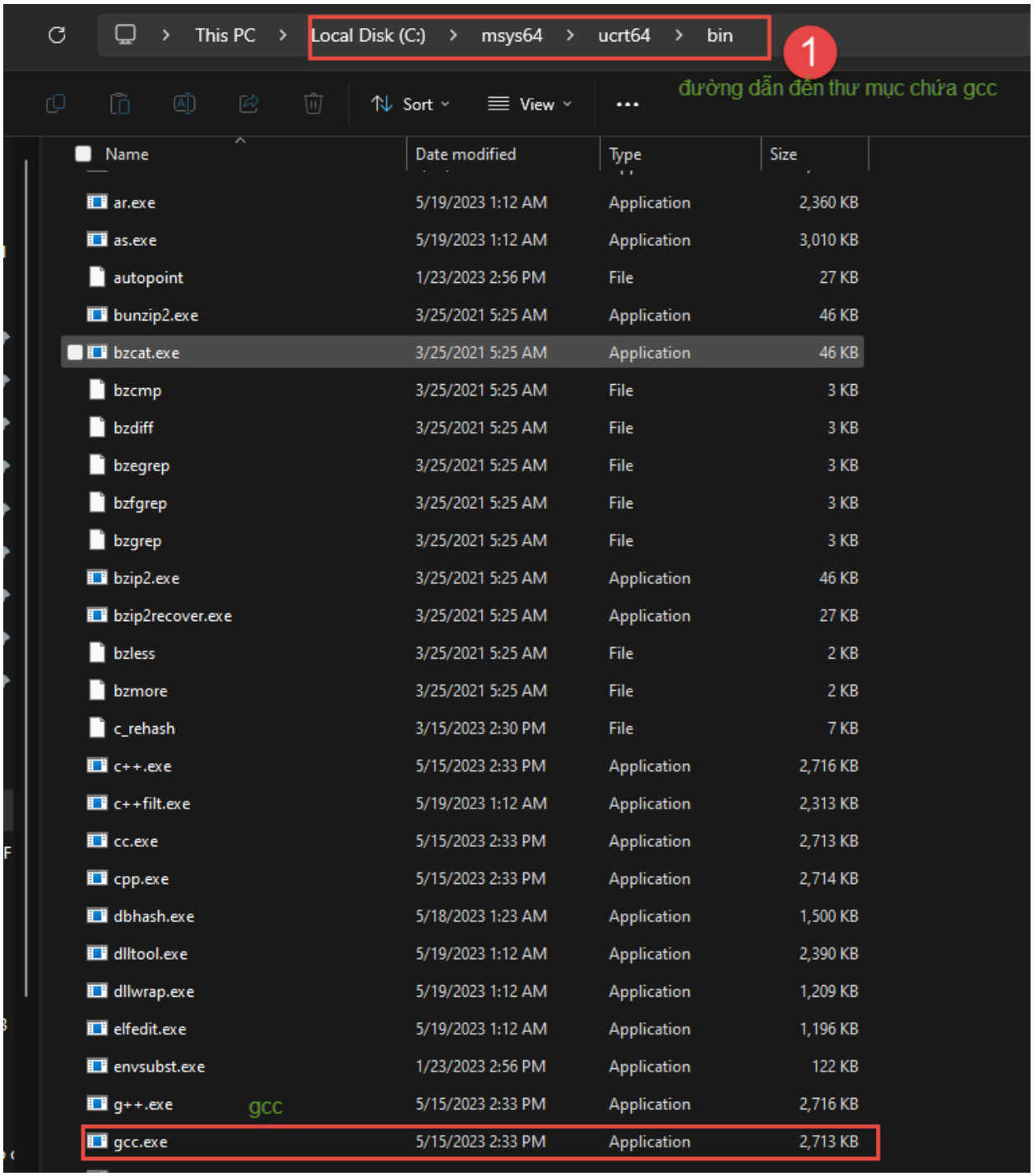
Chọn Y và Enter 1 lần nữa:



Quá trình cài đặt khá lâu tùy thuộc tốc độ internet của máy đang cài:

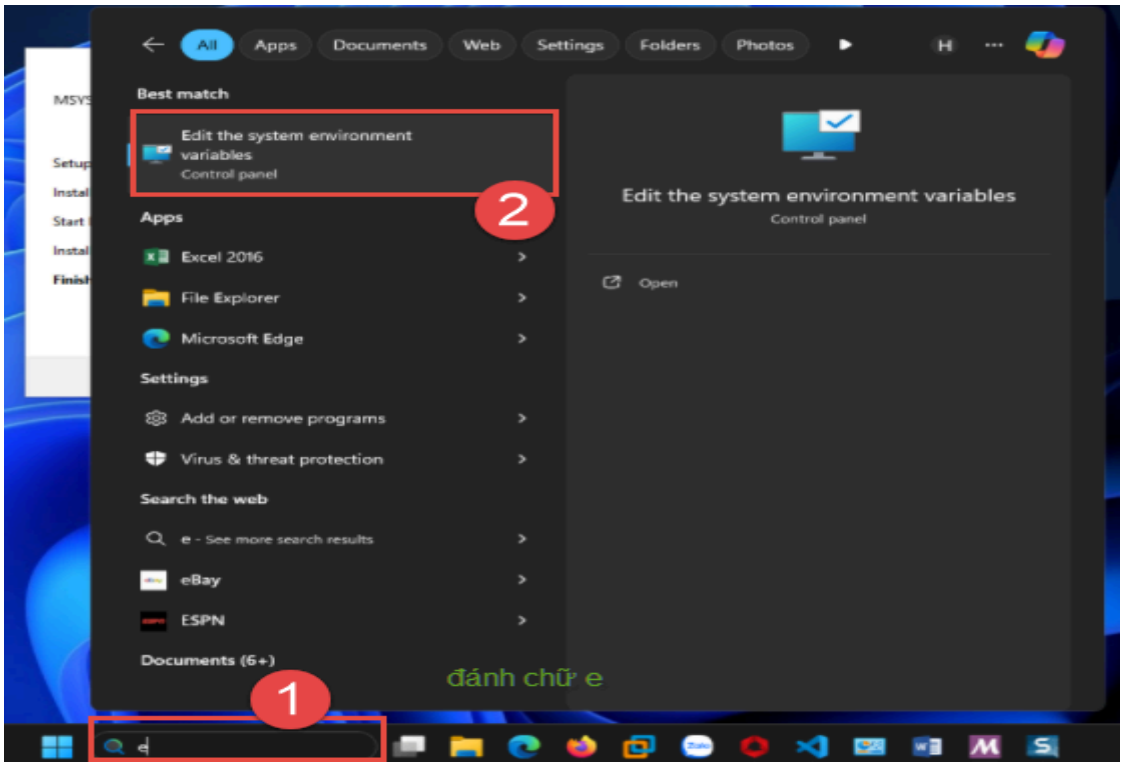


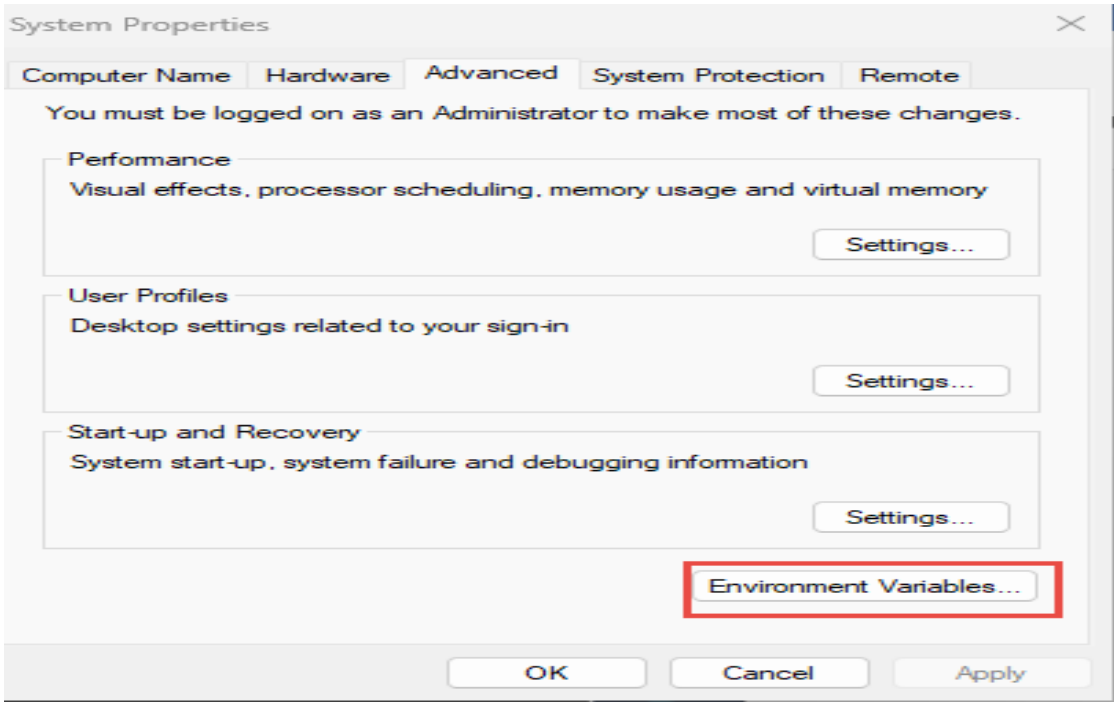
Kiểm tra thư mục cài đặt :

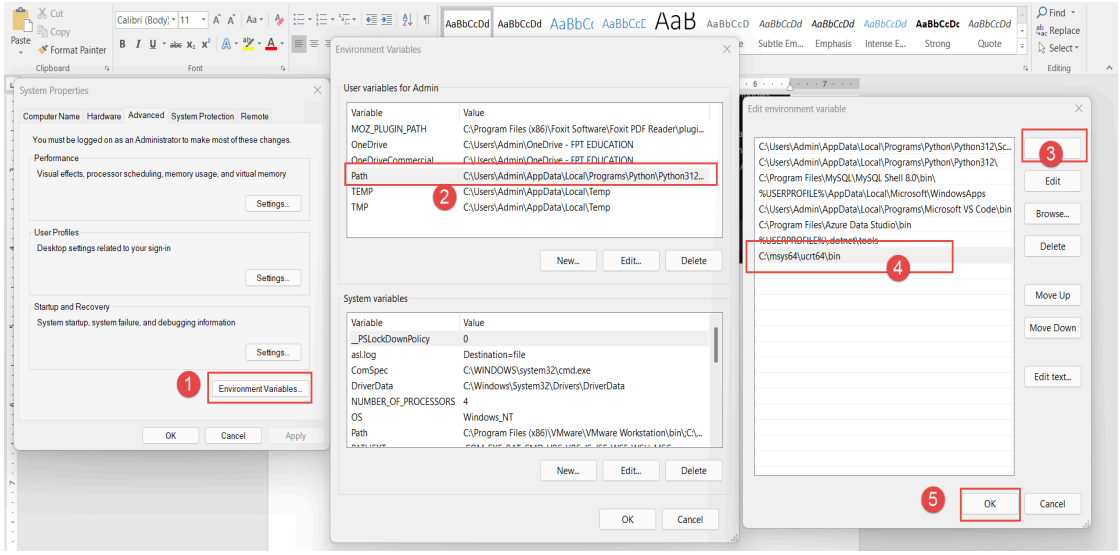


3. Thiết lập biến môi trường

Sau khi cài MinGW64 xong chúng ta thiết lập biến môi trường cho Compiler này:



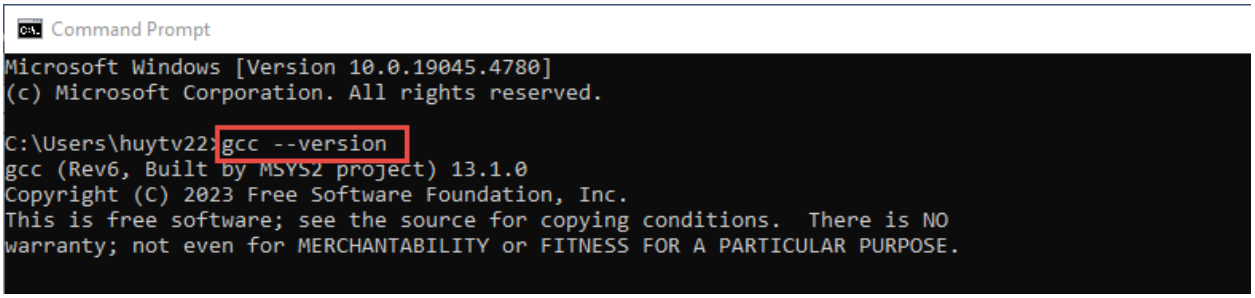




4. Biên dịch một chương trình C để kiểm tra Compiler đã cài đặt thành công hay chưa?

Kiểm tra Compiler được cài đặt thành công hay chưa?

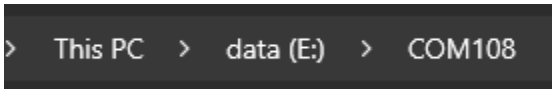
Trong CMD: chạy lệnh GCC --version



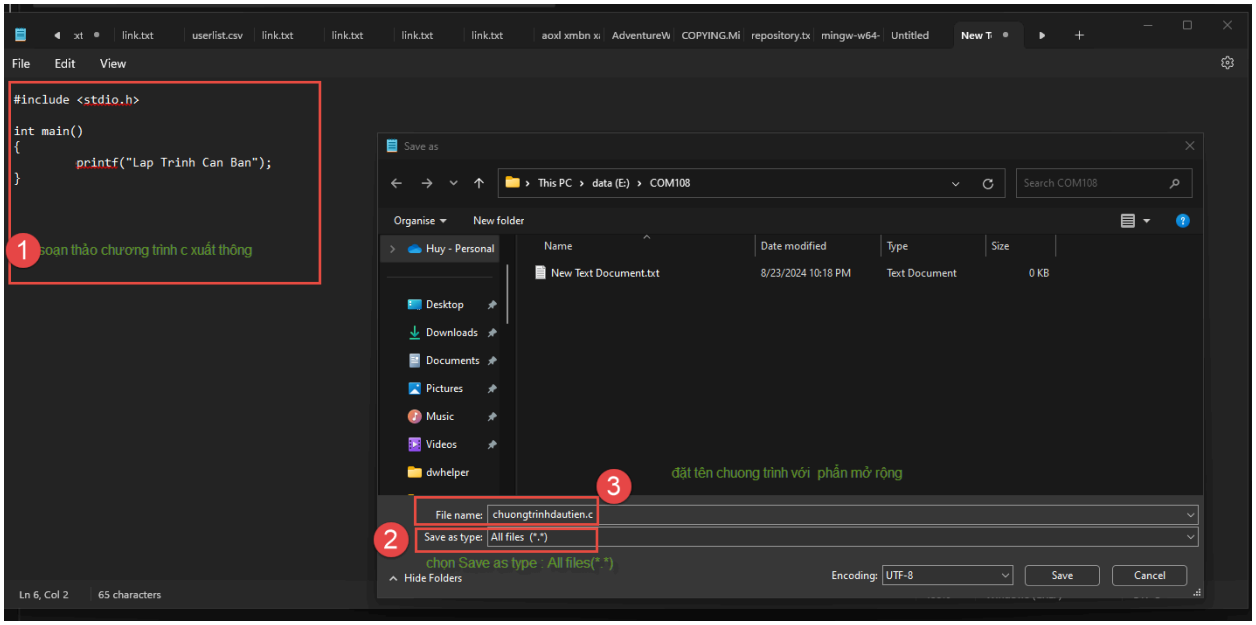
Thông tin hiển thị như trên có nghĩa là Compiler đã cài đặt thành công.

Ngoài ra chúng ta biên dịch và chạy thử 1 chương trình C xuất thông báo đơn giản:

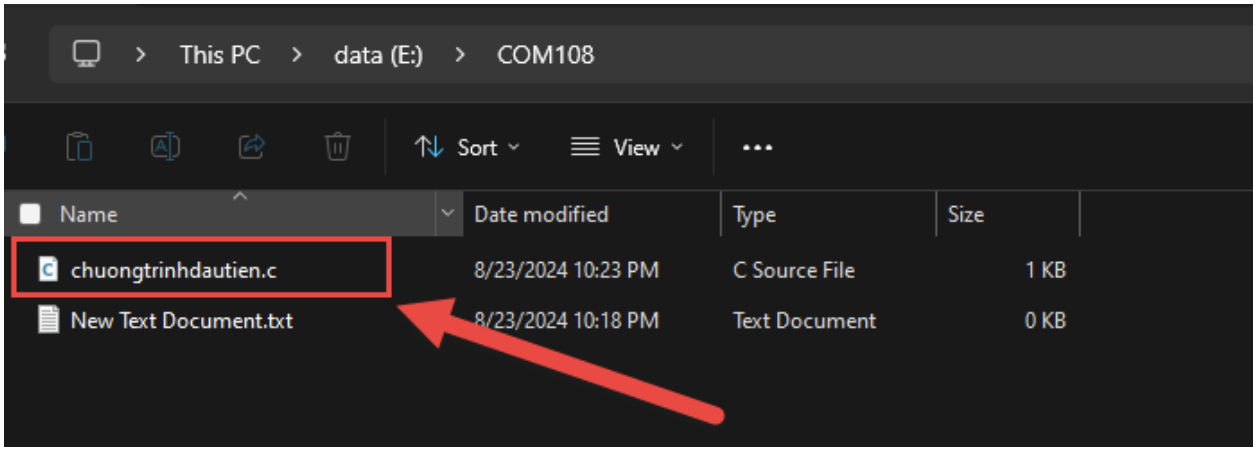
Tạo thư mục trong ổ đĩa để chứa source của chuong trình C: trong trường hợp này tạo trên ổ đĩa E:



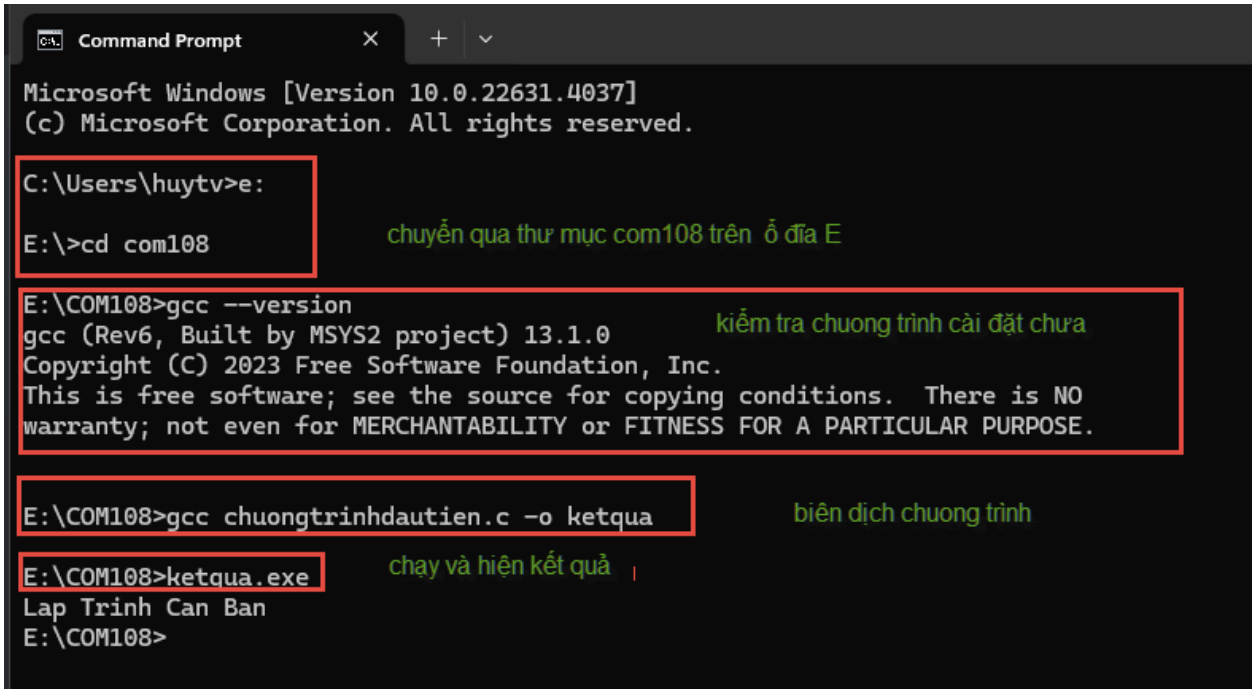
Dùng notepad tạo chương trình c đơn giản như sau:



Kết quả là 1 file c được tạo ra:



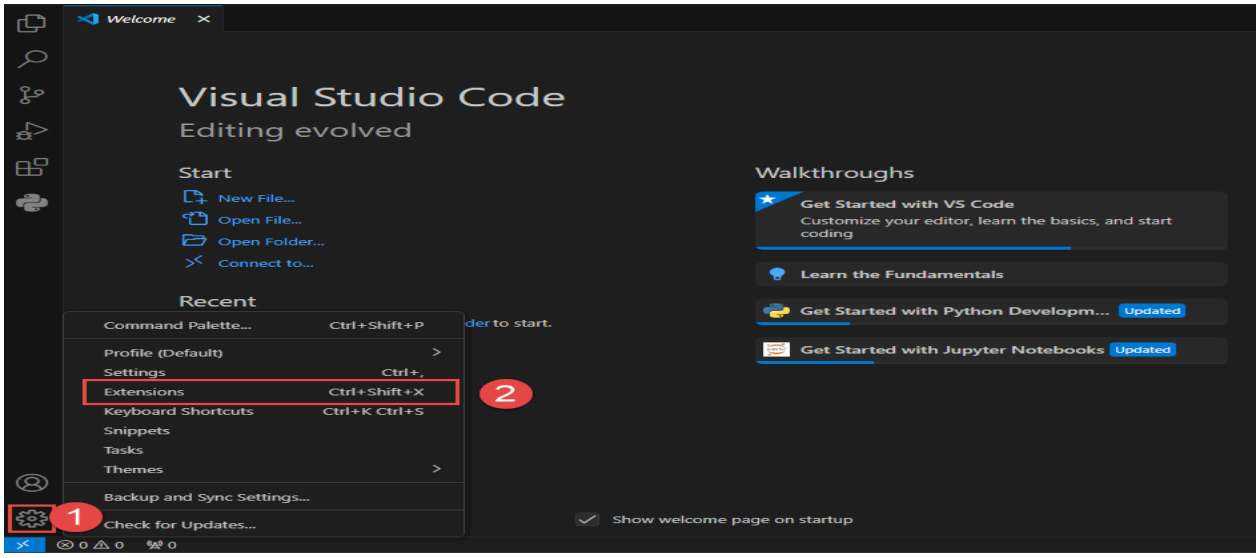
Chúng ta sử dụng CMD để biên dịch chạy chương trình này:



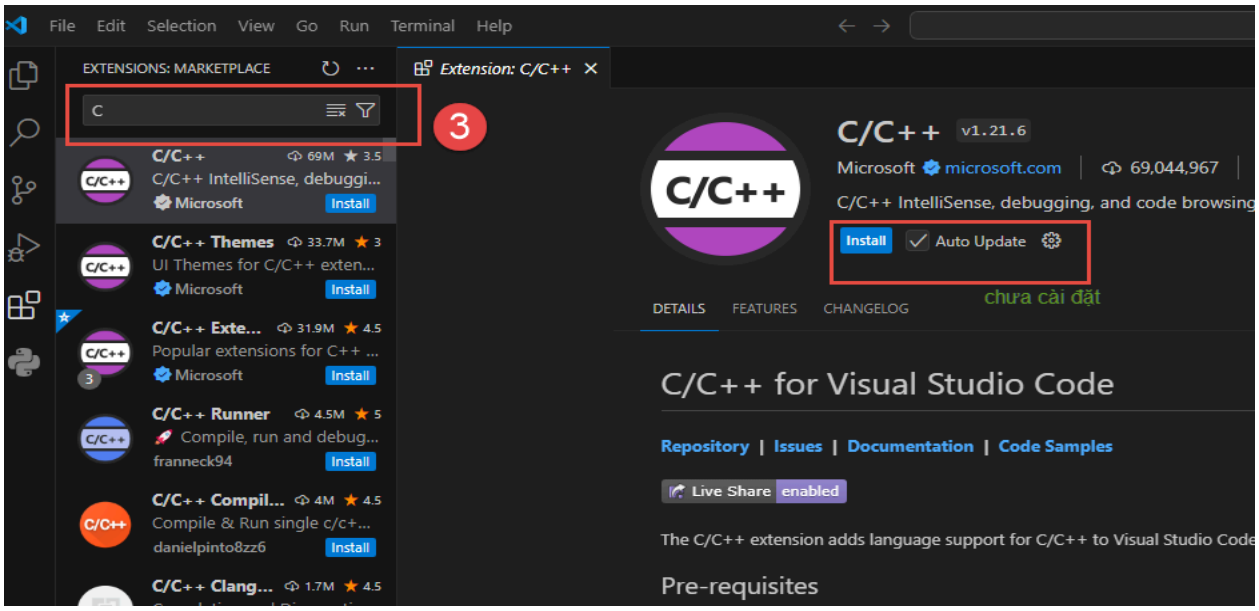
5. cài đặt các extentions trên VSC:

Extention c/c++:

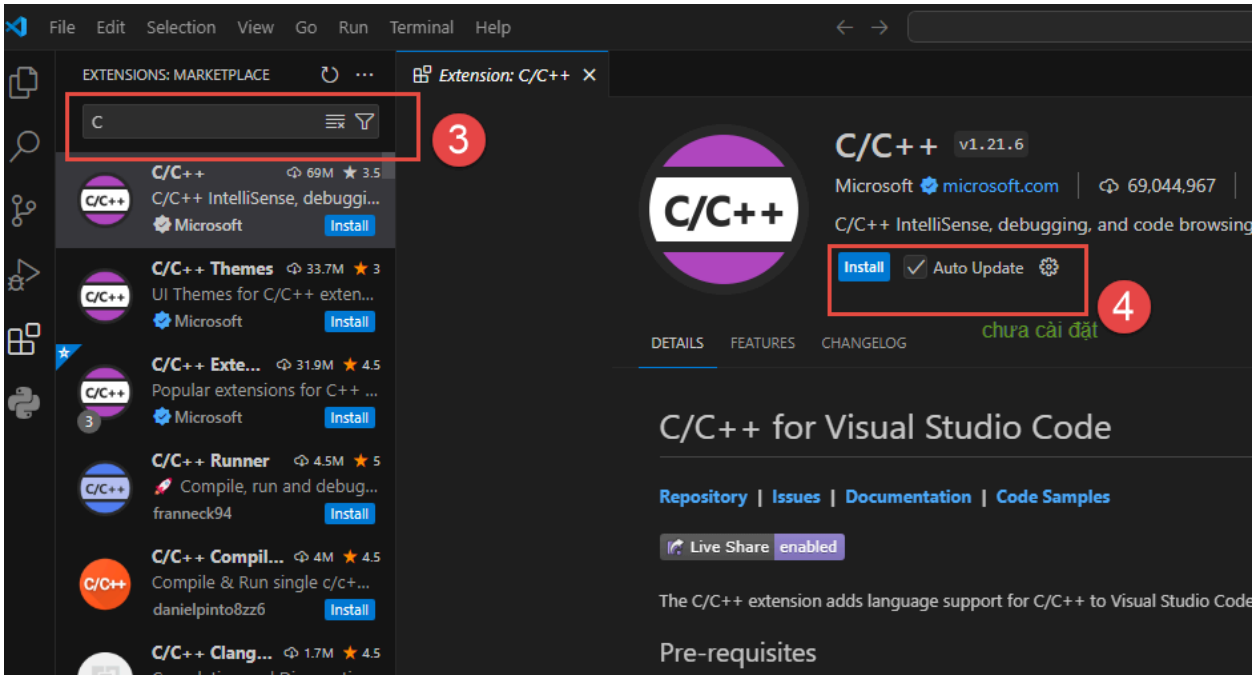
Để cài đặt extentions, chúng ta chọn manage, chọn Extention:



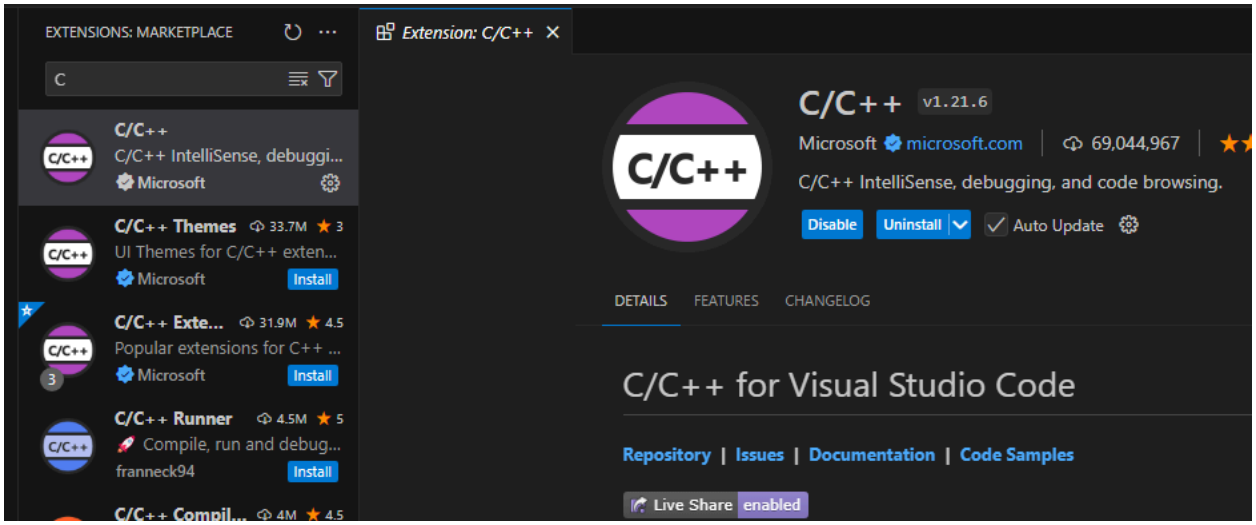
Search C:



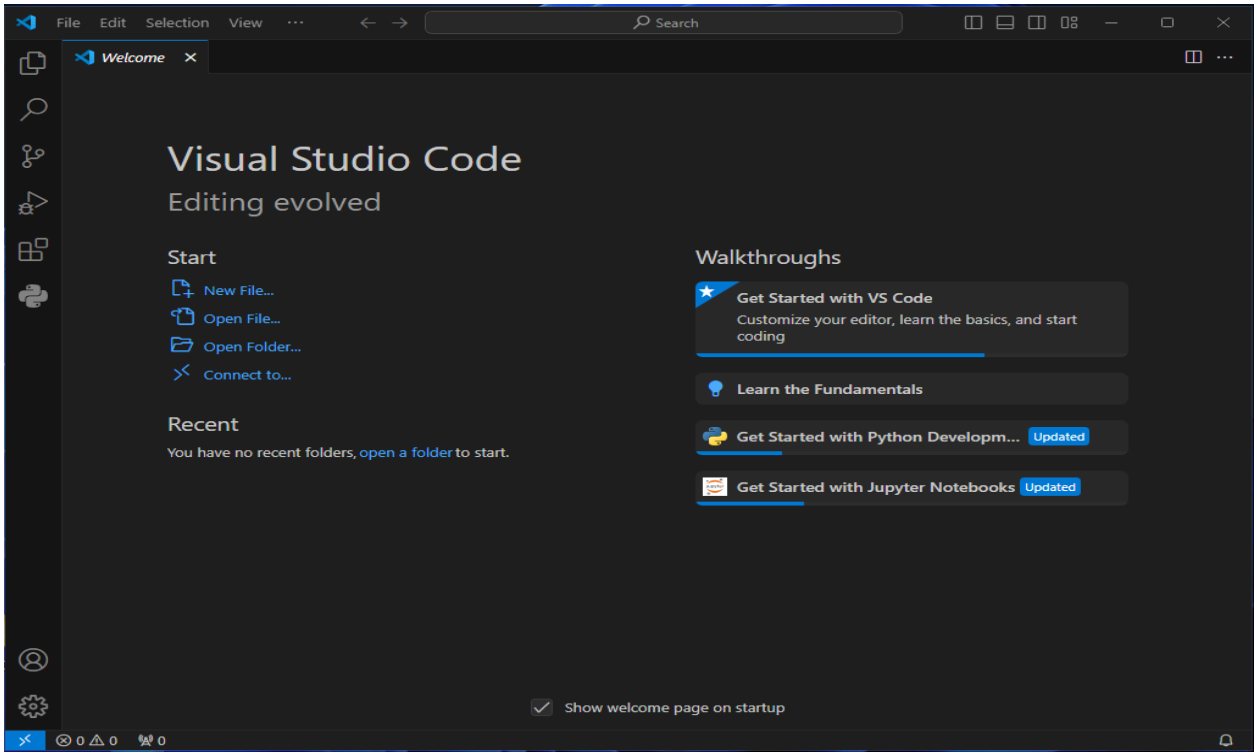
Install:



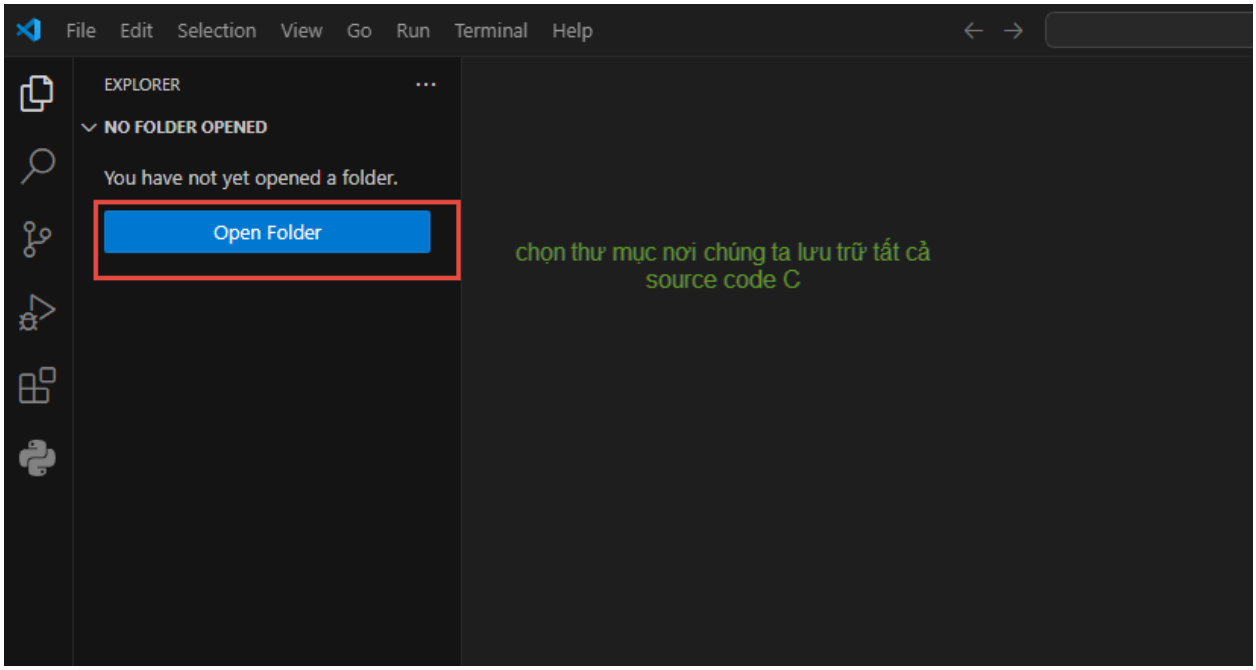
Sau khi cài đặt xong:

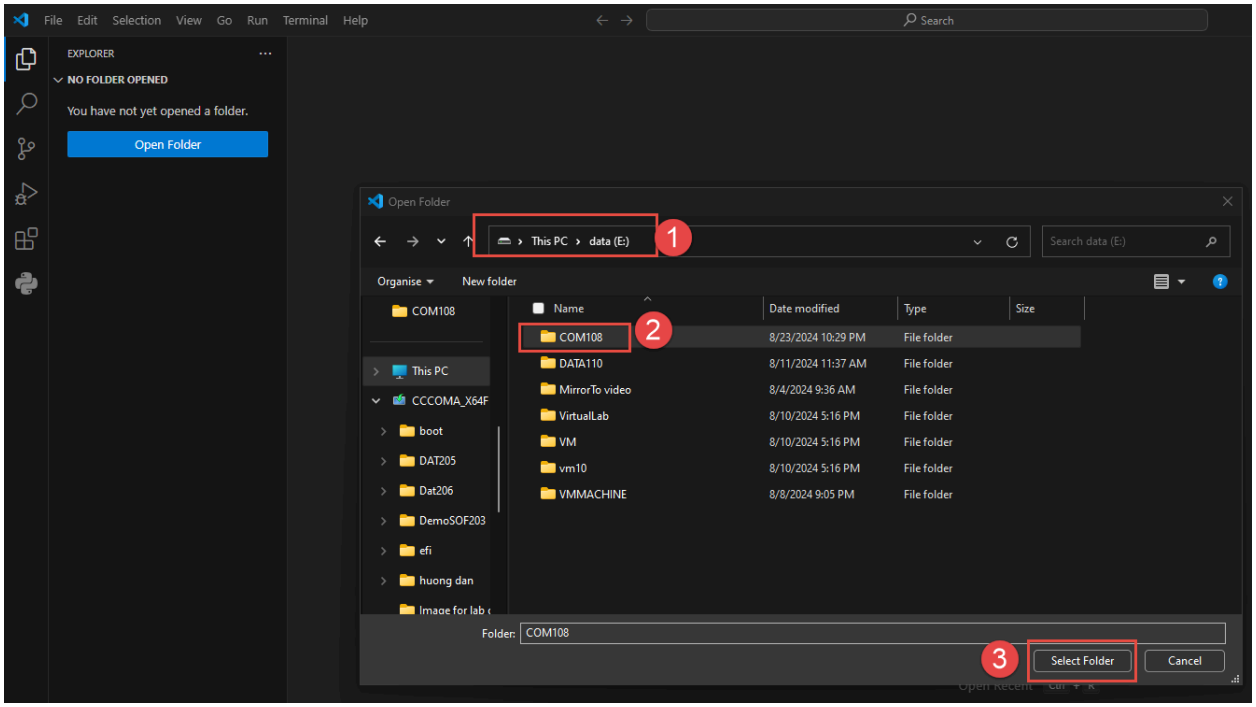


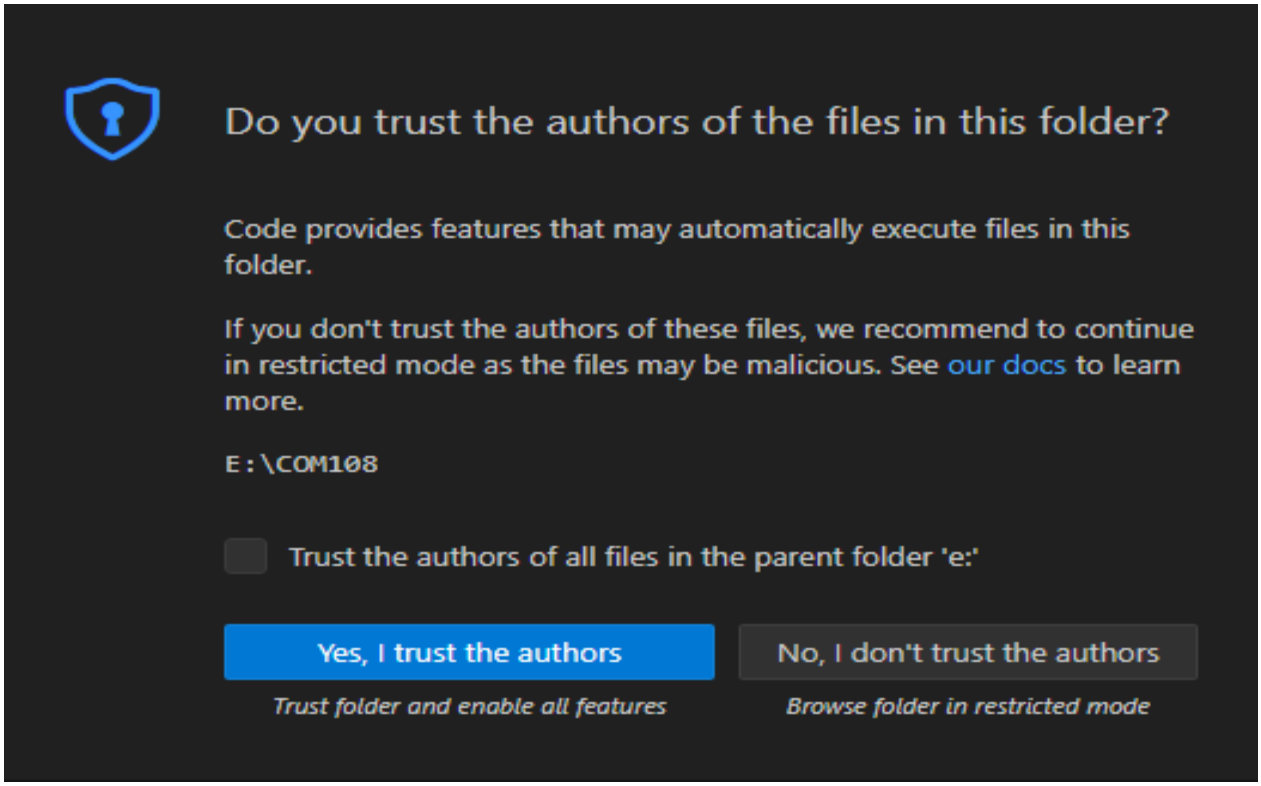
Lần đầu chạy Visual Studio code :

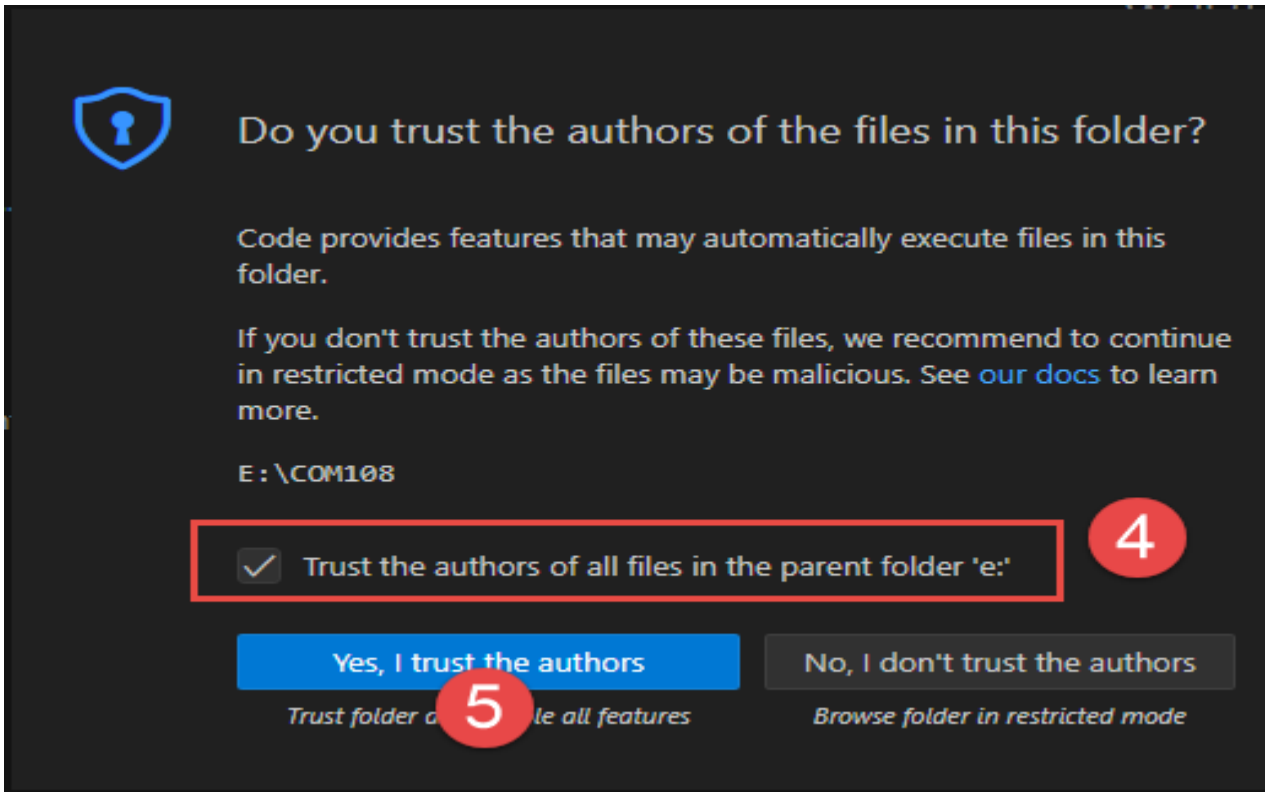


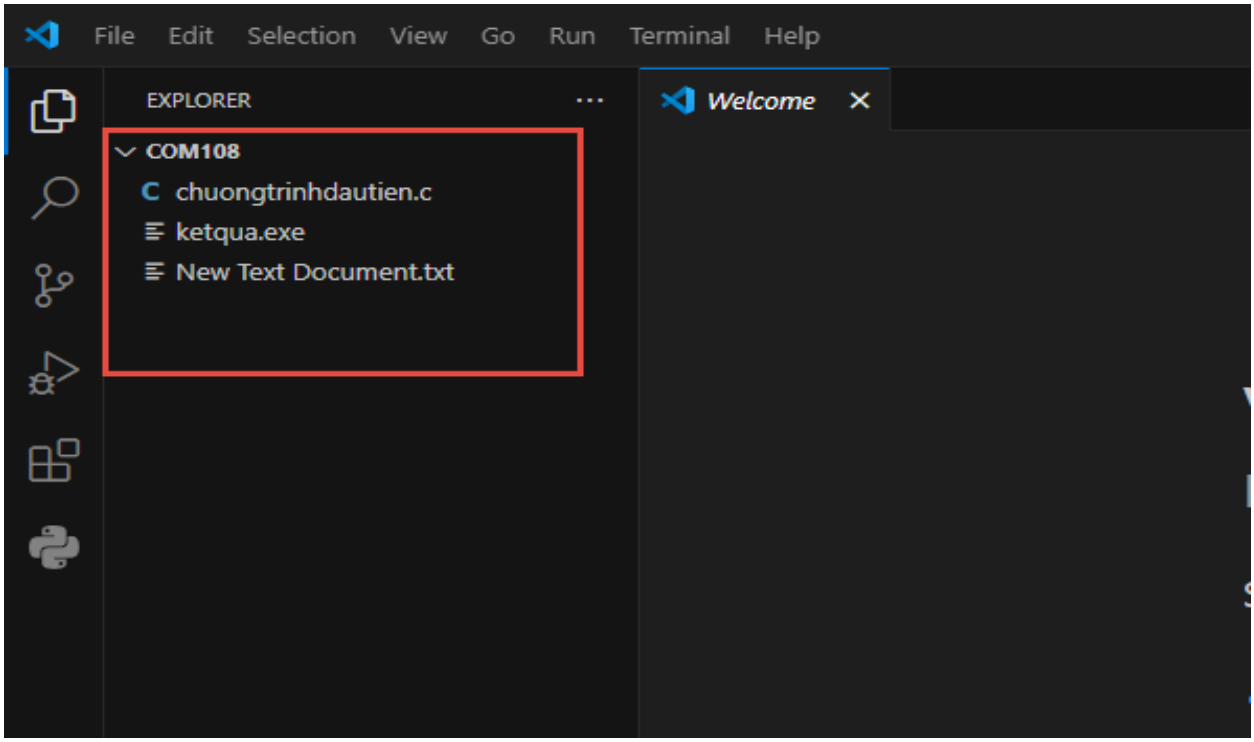
Sau khi cài đặt xong Extention C/C++ chúng ta tiến hành chạy chương trình C trên visual studio code:

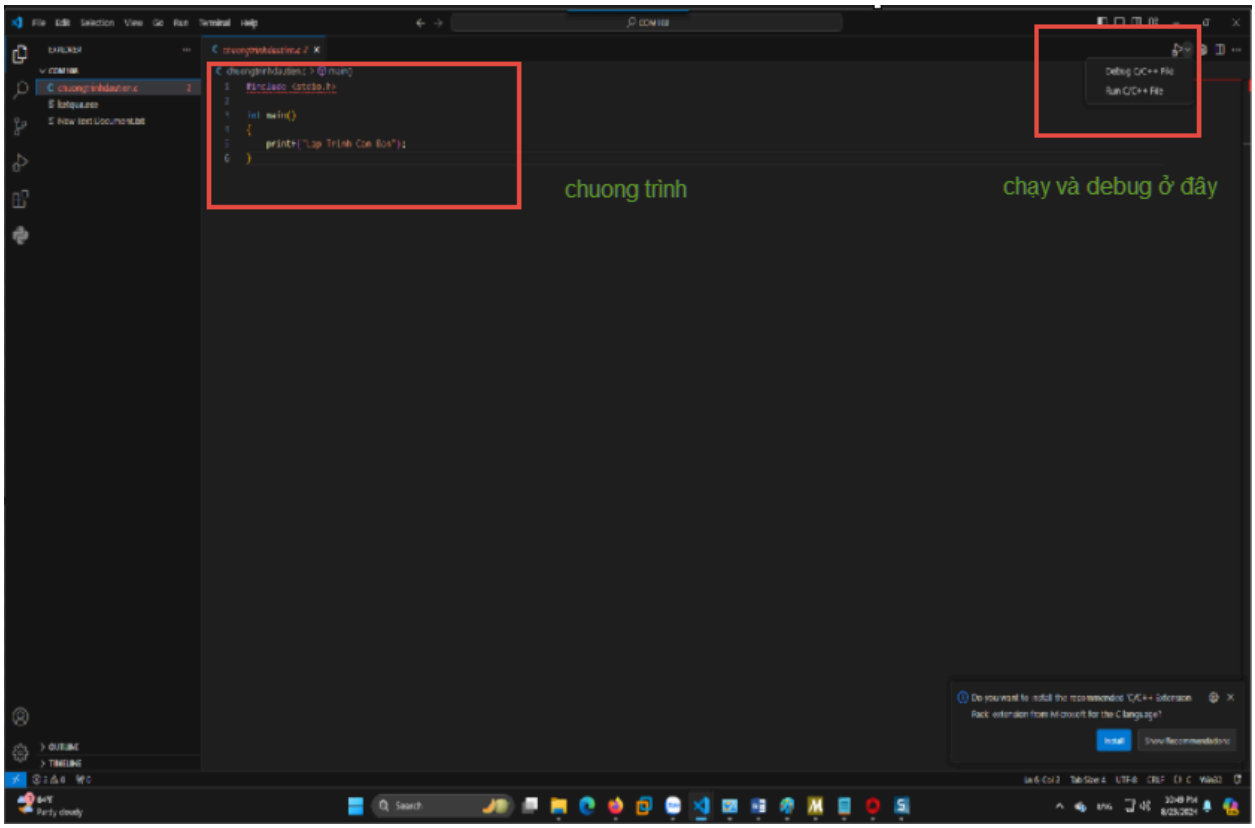

File Edit Selection View Go Run Terminal Help
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
chọn thư mục nơi chúng ta lưu trữ tất cả
source code C


File Edit Selection View Go Run Terminal Help
Search
EXPLORER
NO FOLDER OPENED
You have not yet opened a folder.
Open Folder
Open Folder
This PC › data (E:)
1
Search data (E:)
Organise
New folder
COM108
This PC
CCCOMA_X64F
boot
DAT205
Dat206
DemoSOF203
efi
huong dan
Name
Date modified
Type
Size
COM108
2
8/23/2024 10:29 PM
File folder
DATA110
8/11/2024 11:37 AM
File folder
MirrorTo video
8/4/2024 9:36 AM
File folder
VirtualLab
8/10/2024 5:16 PM
File folder
VM
8/10/2024 5:16 PM
File folder
vm10
8/10/2024 5:16 PM
File folder
VMMACHINE
8/8/2024 9:05 PM
File folder
Folder: COM108
3
Select Folder
Cancel

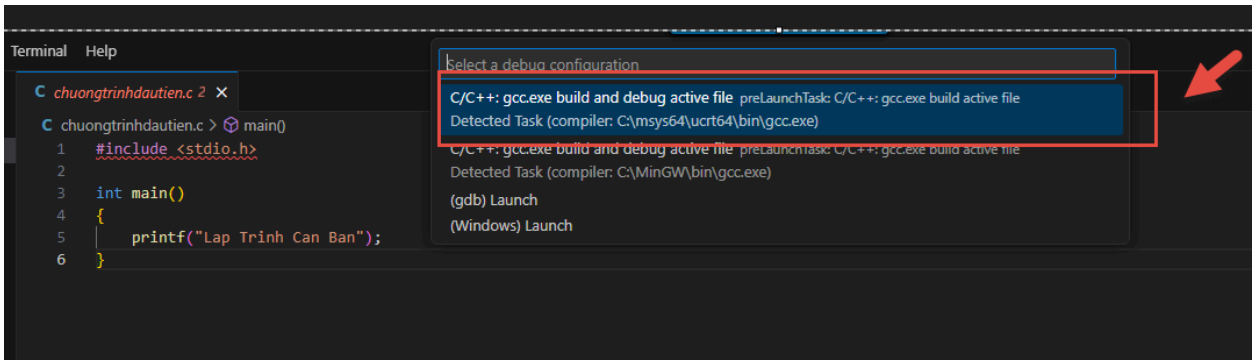

Do you trust the authors of the files in this folder?
Code provides features that may automatically execute files in this folder.
If you don't trust the authors of these files, we recommend to continue in restricted mode as the files may be malicious. See our docs to learn more.
E:\COM108
Trust the authors of all files in the parent folder 'e:'
Yes, I trust the authors
No, I don't trust the authors
Trust folder and enable all features
Browse folder in restricted mode

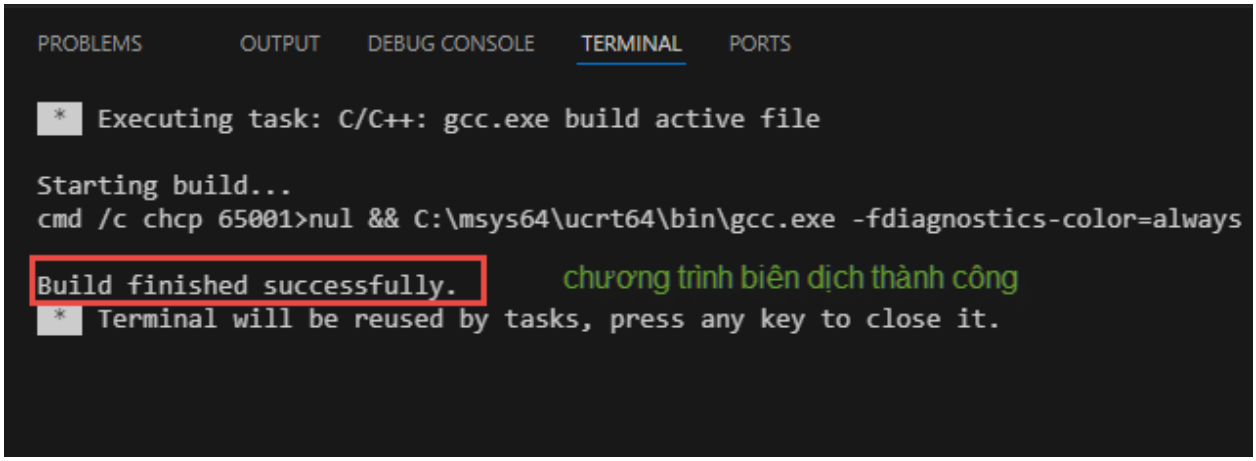

Do you trust the authors of the files in this folder?
Code provides features that may automatically execute files in this folder.
If you don't trust the authors of these files, we recommend to continue in restricted mode as the files may be malicious. See our docs to learn more.
E:\COM108
Trust the authors of all files in the parent folder 'e:'
4
Yes, I trust the authors
5
No, I don't trust the authors
Browse folder in restricted mode


File Edit Selection View Go Run Terminal Help
EXPLORER
COM108
chuongtrinhdautien.c
ketqua.exe
New Text Document.txt
Welcome

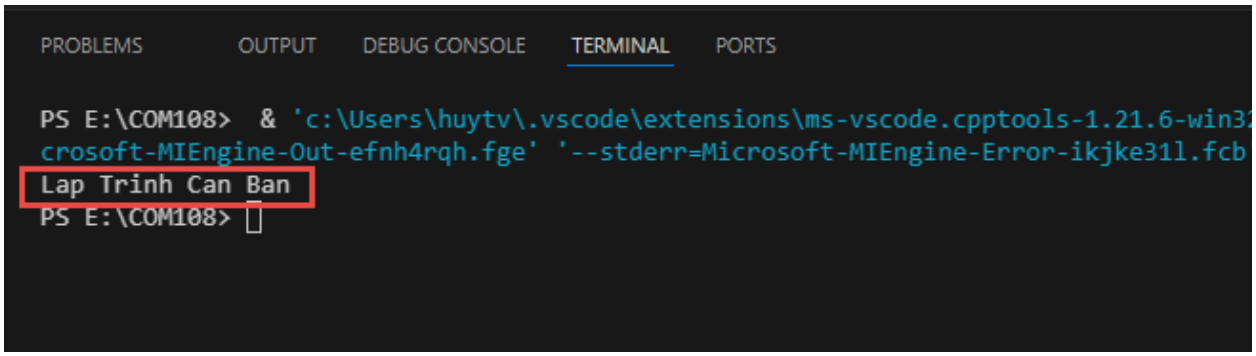

chuong trình
chạy và debug ở đây

Chọn run c/c++ file trên góc phải màn hình, sau đó chọn:



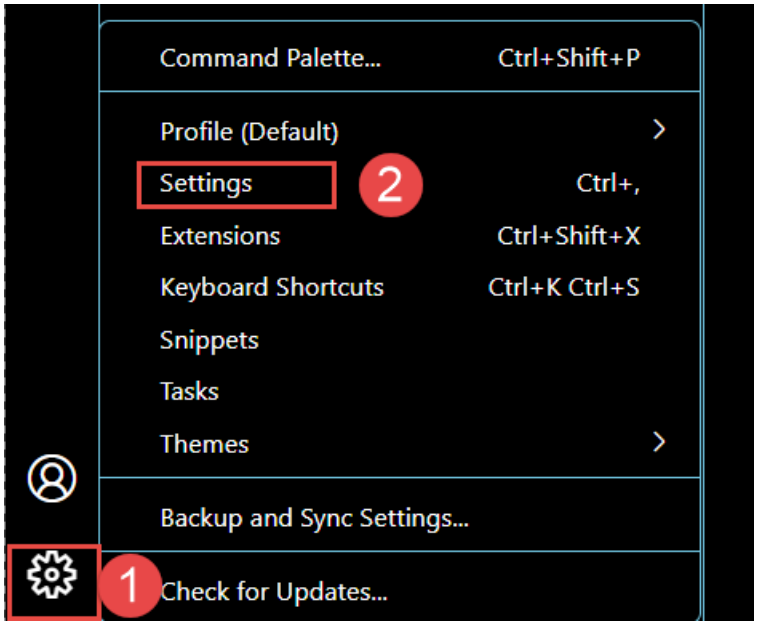


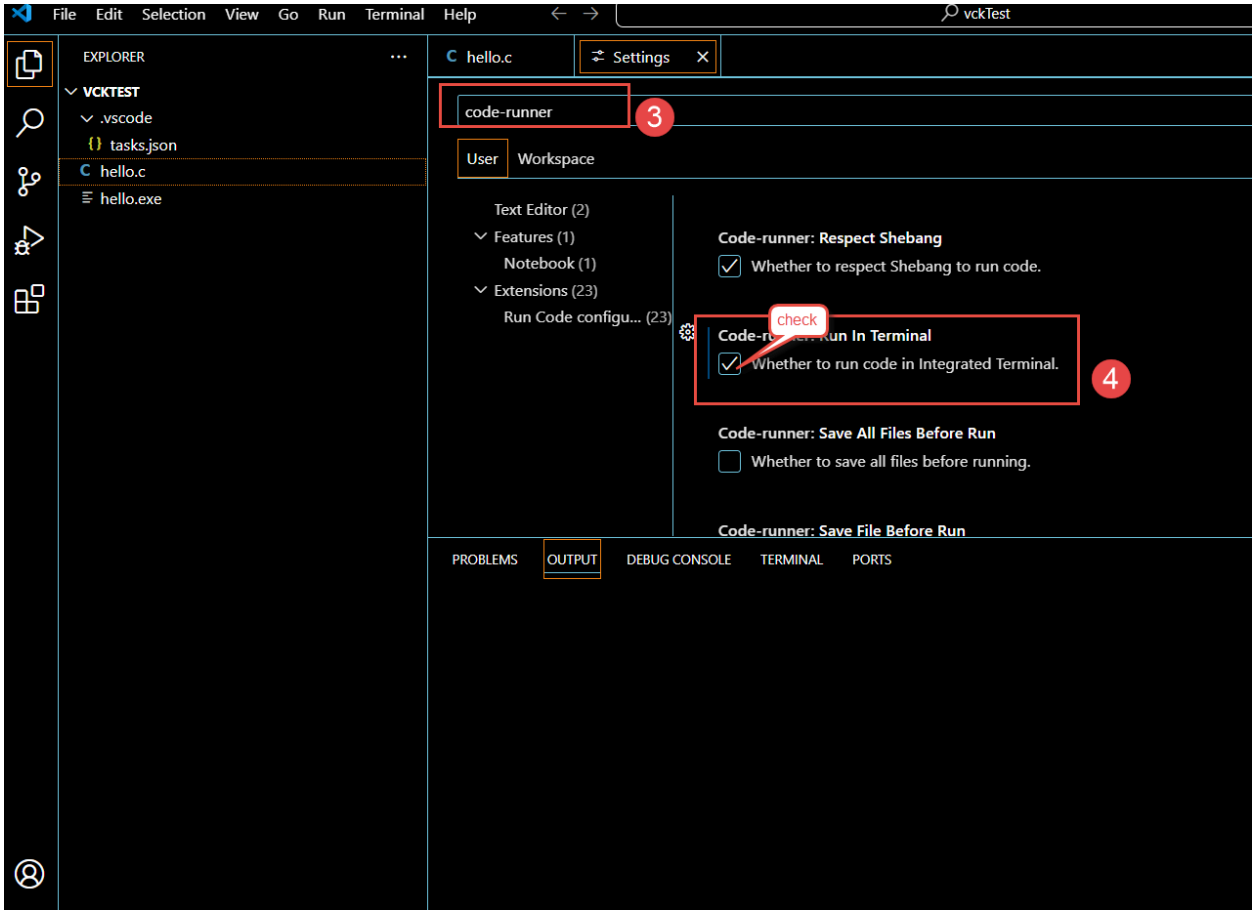
Kết quả chuong trình:



Extenteion Code runner(tùy chọn): chúng ta có thể cài Extention khác cho việc biên dịch và chạy chương trình đó là Code Runner:

Khi chạy chương trình với Code runner chúng ta cần thiết lập thông số sau:





Đến đây việc cơ bản cài đặt và thiết lập trên Visual studio code cho ngôn ngữ lập trình C đã xong.

Link tải Video hướng dẫn cài đặt VSC cho ngôn ngữ C:

https://drive.google.com/drive/folders/1h3896rqakHHhmAWh7Rj041d2tJEunpBX?usp=sharing