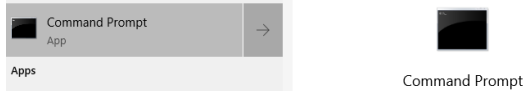# Clion and SDL2 Installation – Windows

Step 1 - check for MinGW

Open command prompt:

Step 2 - Type "gcc -v" without quotes and enter:

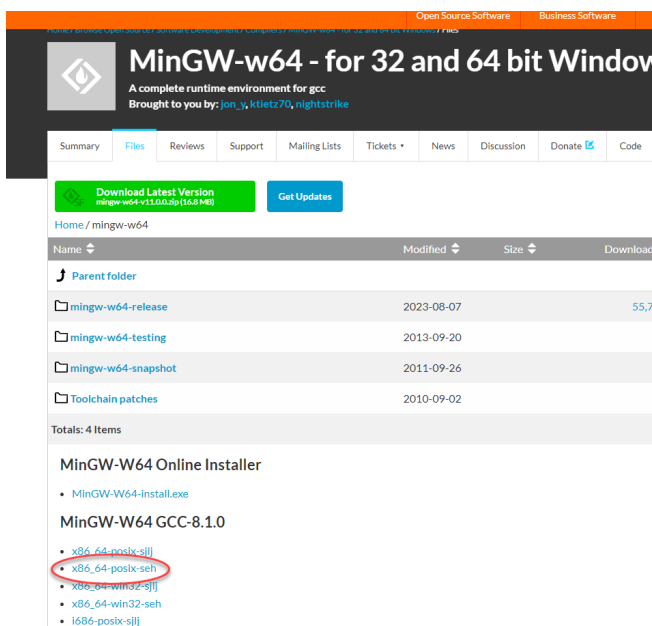If you get an error message instead of the above or get an error somewhere in later steps or just want to install for fun, follow the next steps, else skip to SDL2 installation (4th page).

MinGW installation (64- bit) {alternatively if you want to install the 32-bit version if you have 32-bit system then go to https://sourceforge.net/projects/mingw/ and download from there}:

If you see a folder C:\mingw or C:\mingw64 or C:\mingw32 delete it.

Go to this site - https://sourceforge.net/projects/mingw-w64/files/mingw-w64/
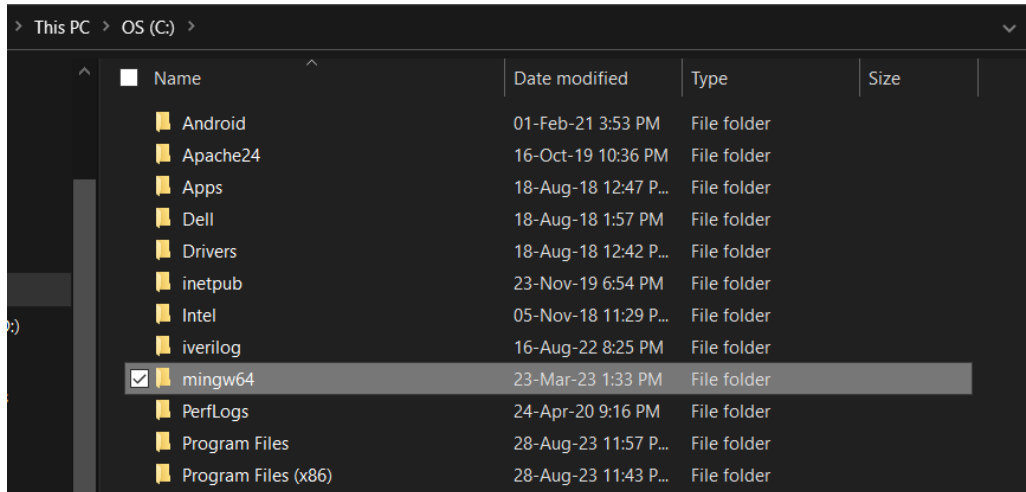
Click on x86_64-posix-seh and it will start downloading a zip file.

| x86_64-8.1.0-release-posix-seh-rt_v6-rev0.7z | 05-May-22 5:56 PM | 7z Archive | 48,213 KB |

Use 7zip or winrar or any extractor and unzip this file into C drive. Finally, you should see this:

> This PC > OS (C:) >

	Name	Date modified	Type	Size
	Android	01-Feb-21 3:53 PM	File folder	
	Apache24	16-Oct-19 10:36 PM	File folder	
	Apps	18-Aug-18 12:47 P...	File folder	
	Dell	18-Aug-18 1:57 PM	File folder	
	Drivers	18-Aug-18 12:42 P...	File folder	
	inetpub	23-Nov-19 6:54 PM	File folder	
	Intel	05-Nov-18 11:29 P...	File folder	
	iverilog	16-Aug-22 8:25 PM	File folder	
☑	mingw64	23-Mar-23 1:33 PM	File folder	
	PerfLogs	24-Apr-20 9:16 PM	File folder	
	Program Files	28-Aug-23 11:57 P...	File folder	
	Program Files (x86)	28-Aug-23 11:43 P...	File folder	

Open environment variables:

Best match

Edit the system **env**ironment variables
Control panel

→

Edit the system environment variables
Control panel

Settings

Edit **env**ironment variables for your account

>

Search the web

☐' Open

Click on environment variables:

System Properties   ✕

Computer Name Hardware Advanced System Protection Remote

You must be logged on as an Administrator to make most of these changes.

Performance

Visual effects, processor scheduling, memory usage, and virtual memory

Settings...

User Profiles

Desktop settings related to your sign-in

Settings...

Startup and Recovery

System startup, system failure, and debugging information

Settings...

Environment Variables...

OK   Cancel   Apply

In the bottom section, scroll down until you see "Path", click on it and select edit, and click on new.
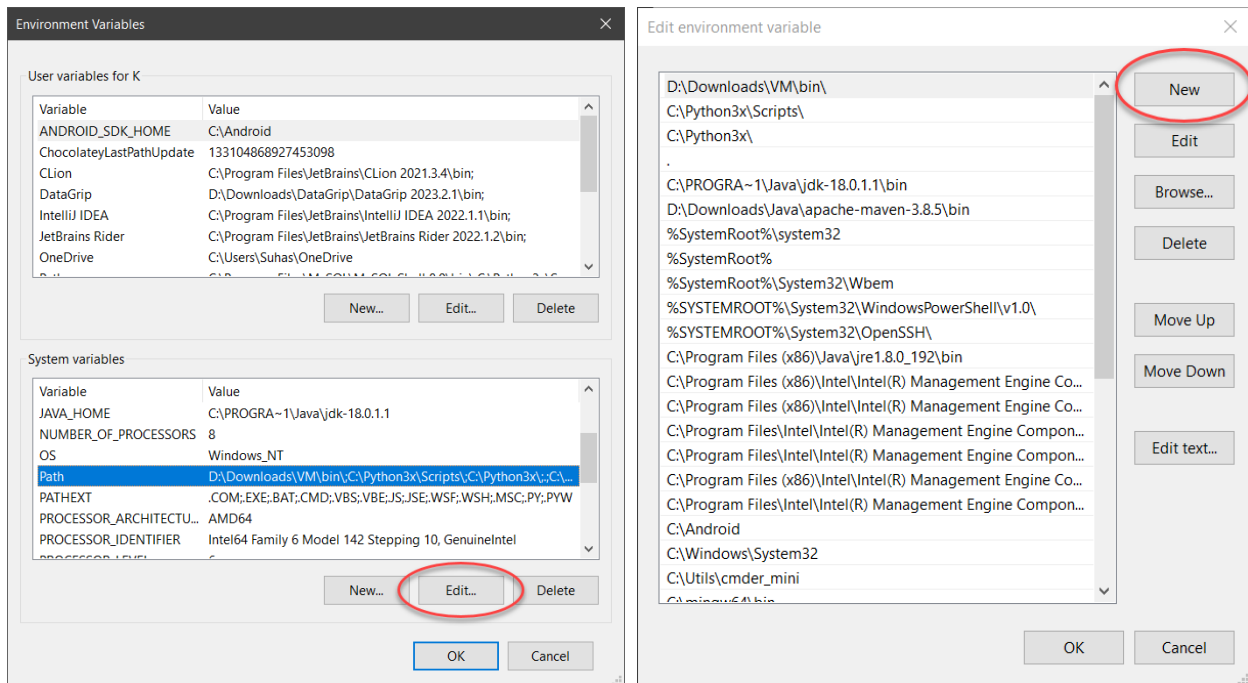
Type "C:\mingw64\bin" without the quotes and enter, move it up if you want to.

Click on ok, and ok and ok (exit settings)
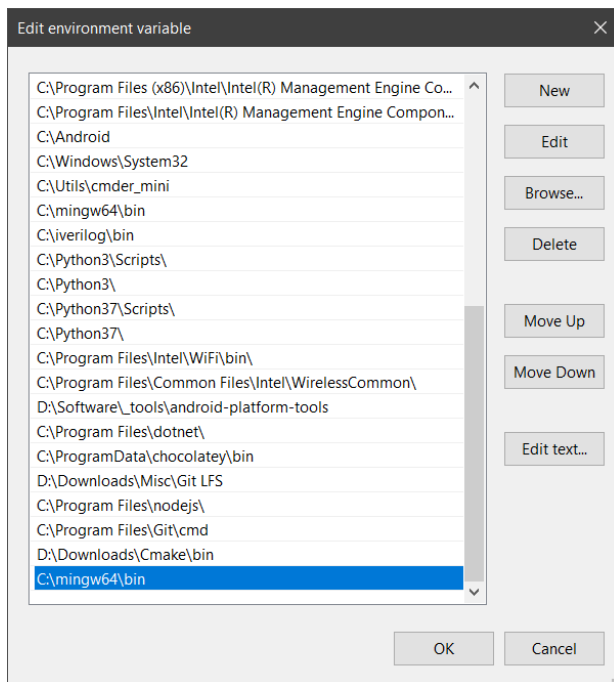
Check the earlier step for "gcc -v" in command prompt and you should get the same output as the screenshot.

SDL2 installation:

Go to: https://drive.google.com/drive/folders/126FviAosOSNNyPgJdr8zJQPj9G1Re6fC?usp=sharing

If you have followed the previous steps to install mingw64 then download the "64-bit" folder, else download whichever bit version you think you're mingw is.

To know which version of gcc you are running, open command prompt and type "gcc -dumpmachine" without quotes and enter:
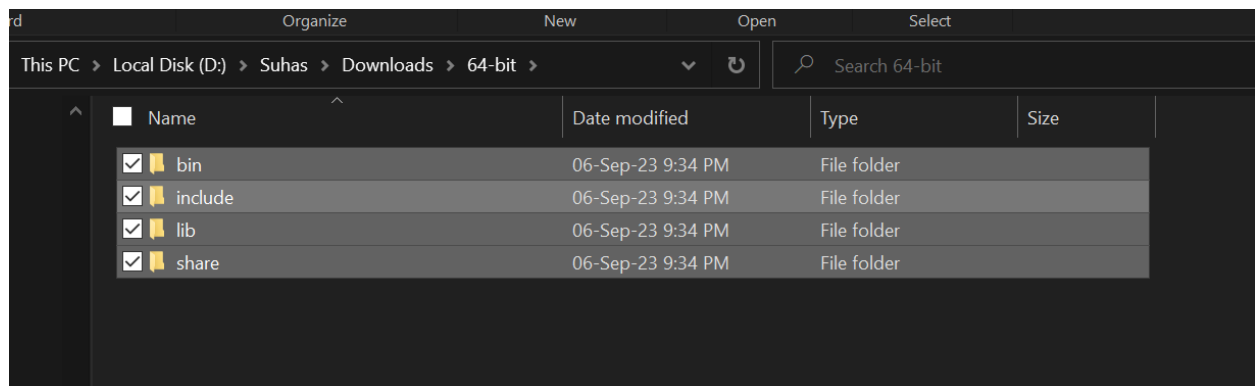
```
D:\>gcc -dumpmachine
mingw32
```

If it's the above picture or it shows i686-… then use the **"32 bit"** folder in the drive.
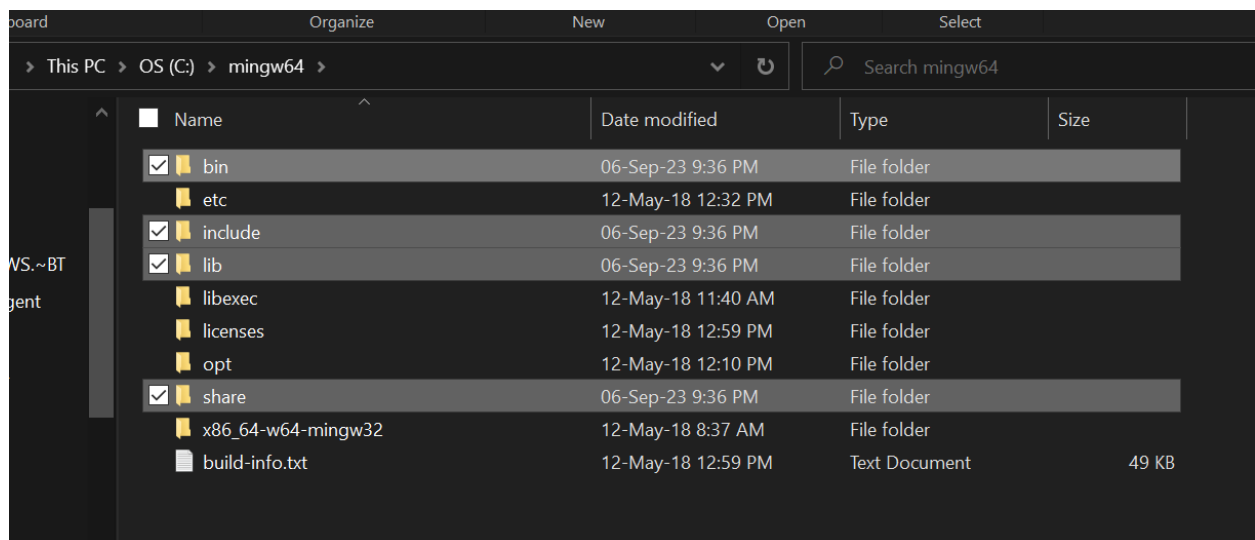
```
D:\>gcc -dumpmachine
x86_64-w64-mingw32
```

If it's the above picture then use the **"64 bit"** folder in the drive.

Unzip the folder and open it, copy all the files:

Paste the files into C:\mingw64 or wherever your mingw is:

If you have followed the mingw installation done earlier in the document, paste the same files **again into the x86_64-w64-mingw32** in the above picture.

After the above steps, test if its all properly installed by going into the "test" folder in the above drive link. Download your version, unzip the file, and double-click on Pacman.exe. if you get no errors you're good to go else ask us :) .
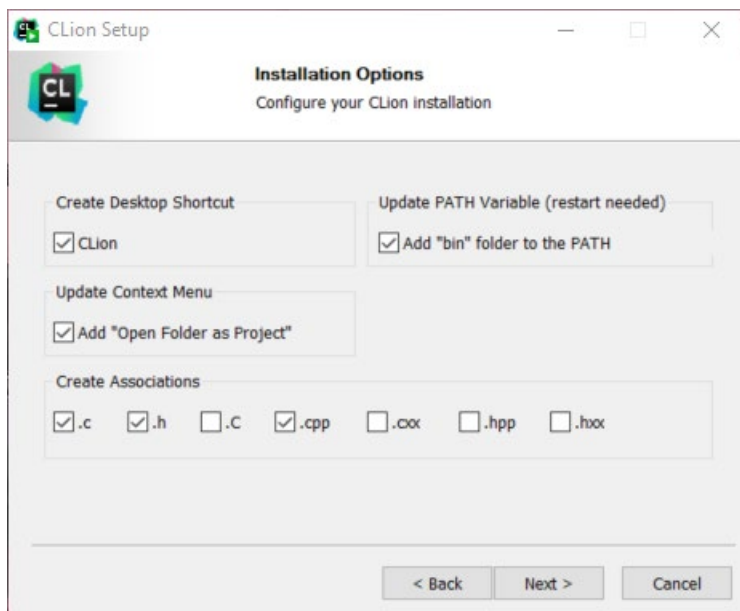
Clion installation:

Clion is an IDE for C/C++ which we will use throughout the course. You are free to use whatever editor you want to but good luck installing SDL2 and linking it for that editor.

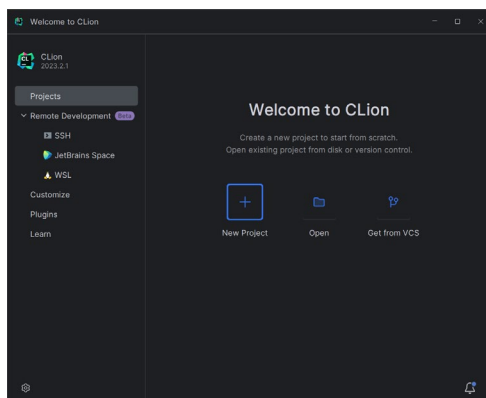Go to: https://www.jetbrains.com/clion/download/#section=windows

And click on download. Run the installer and choose location to install.

After that choose the below options:

Click next and let it install.

After its installed (restart system if required), you should see the following screen.

If it asks to activate license or anything of the sort, there should be an activation for a free trial of 30 days, or if you want more than 30 days or you're jobless enough, use your pesu mail id to activate a student license and use that.

Click on new project, make sure that C++ executable is highlighted (if its not then click on it), choose your location and change the **language standard to C++ 11.**
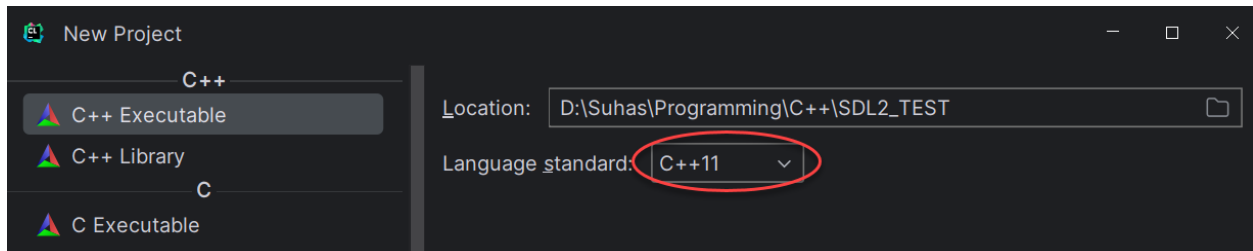
Click create, and you should see the following screen:
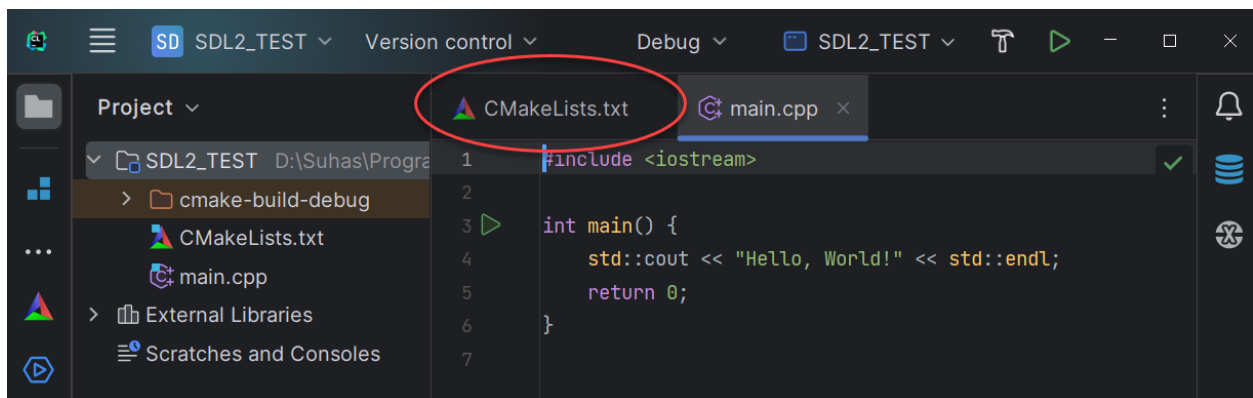
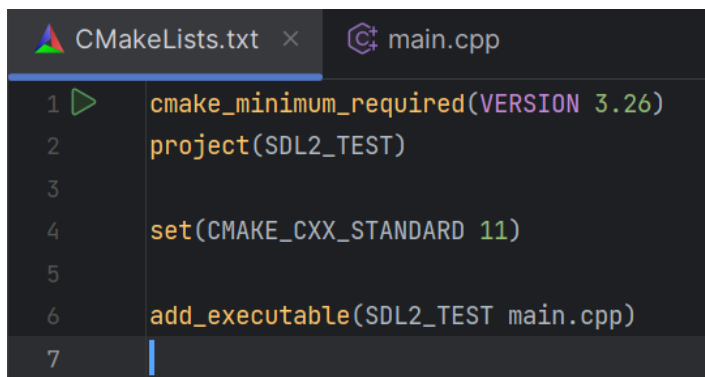Head over to CMakeLists.txt, and the following lines:

"set(CMAKE_RUNTIME_OUTPUT_DIRECTORY ${CMAKE_CURRENT_SOURCE_DIR})"

and

"target_link_libraries({YOUR PROJECT NAME} -lmingw32 -lSDL2main -lSDL2 -lSDL2_image -lSDL2_ttf)"

replace {YOUR PROJECT NAME} with the name you kept for the project (in my case its "SDL2_TEST").
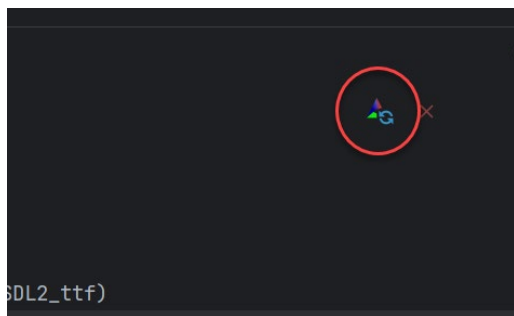
Before:

After:


```
1  ▷  cmake_minimum_required(VERSION 3.26)
2      project(SDL2_TEST)
3
4      set(CMAKE_CXX_STANDARD 11)
5      set(CMAKE_RUNTIME_OUTPUT_DIRECTORY ${CMAKE_CURRENT_SOURCE_DIR})
6
7      add_executable(SDL2_TEST main.cpp)
8      target_link_libraries(SDL2_TEST -lmingw32 -lSDL2main -lSDL2 -lSDL2_image -lSDL2_ttf)
9
```

In the top right, there should be a button to reload cmake changes, click on it:

If you hit any errors here please let us know, otherwise everything is set up, congratulations!.

If you need more help: https://youtu.be/ZK1pNGmNBEc :)