

實驗項目-環境建置、開新專案與撰寫程式

一、本節目的：

- 建置 VC 2022 的開發環境

二、設計重點：

- 教你如何於 Windows 下建置 VC2022 的開發境與撰寫程式

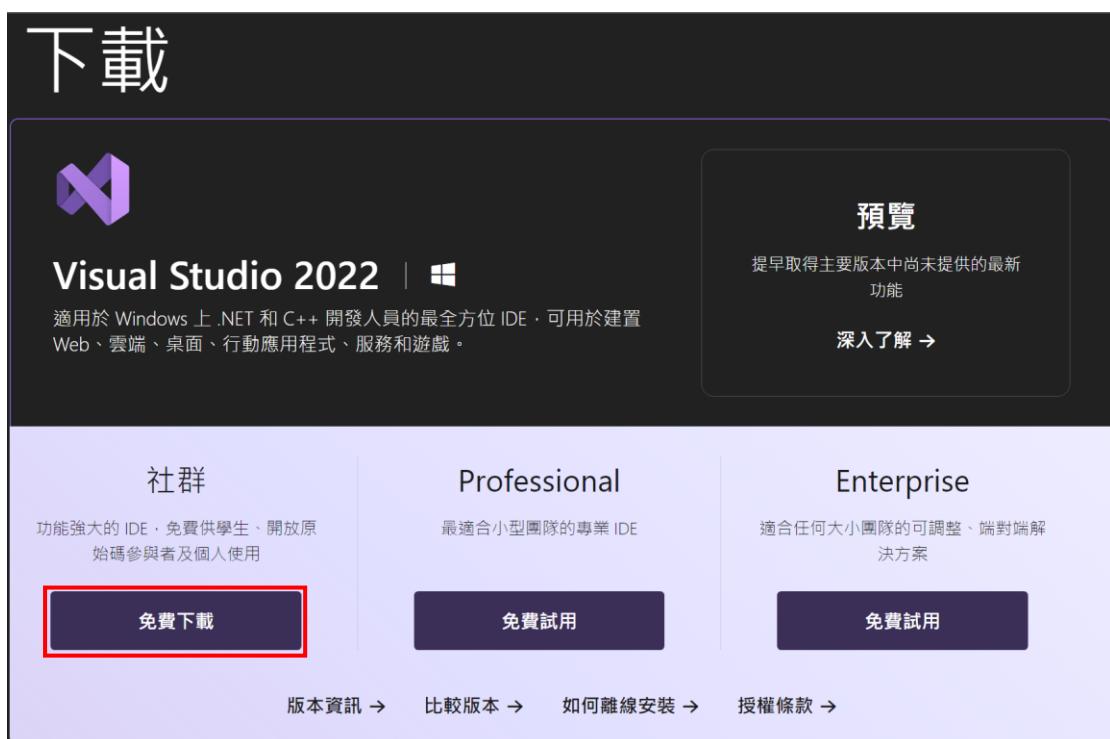
三、設計步驟：

1. 安裝 Microsoft Visual Studio 2022

2. 下載網址:

<https://visualstudio.microsoft.com/zh-hant/downloads/>

3. 選擇 Visual Studio Community 2022 (社群版本) 並下載



4. Visual Studio Installer 安裝





5. 新增專案：

方法 A. 透過 Github Classroom 下載並開啟專案

注意：透過方法 A 建立專案後，直接跳至步驟 8.撰寫 C 語言程式

Step1. 點擊 Github Classroom 連結

- Ch1-Lab：<https://tools-api.italkutalk.com/cc/ch1-lab>

Step2. 將自己的 Github 帳號與 Classroom 學生連結

同一門課程 Github Classroom 的作業或實驗僅需連結一次 (若曾經連結過，可以略過此步驟)。

在學生清單中，會列出本門課程尚未被連結的學生，請找到並點擊自己的學號/姓名

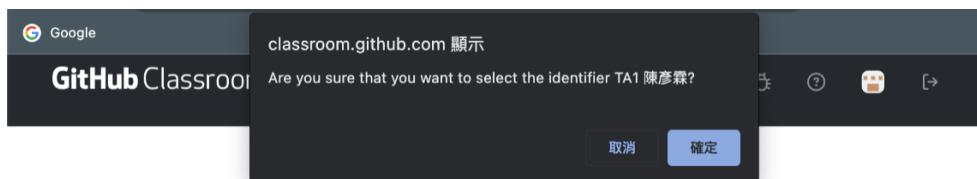
Join the classroom:
111-mmslab-cc-classroom

To join the GitHub Classroom for this course, please select yourself from the list below to associate your GitHub account with your school's identifier (i.e., your name, ID, or email).

Can't find your name? Skip to the next step →

Identifiers	
111360	陳
111360	黃
111360	葉
111360	吳
111360	黃
TA1	陳彥霖
TA2	張浩維

點擊後會跳出確認提示，確認無誤點擊確定。



如果遇到以下問題：

1. 名單中找不到自己的學號姓名
2. 選擇錯人
3. 學號姓名錯誤

請與課堂助教反應，助教將會協助處理。

Step3. 接受 Assignment，點擊 Accept this assignment

The screenshot shows the GitHub Classroom interface. At the top, it says "111-mmslab-cc-classroom". Below that, it says "Accept the assignment — ch1-lab". A text block explains: "Once you accept this assignment, you will be granted access to the ch1-lab-maxjg5019 repository in the mmslab-cc organization on GitHub." At the bottom, there is a green button labeled "Accept this assignment" which is highlighted with a red border.

接受 Assignment 後，Github classroom 會幫你建立專屬的 repository，而建立專屬的 repository需要一段時間，請等 10 秒左右刷新此頁面

The screenshot shows the GitHub Classroom interface after accepting the assignment. It says "You accepted the assignment, ch1-lab. We're configuring your repository now. This may take a few minutes to complete. Refresh this page to see updates." Below that, it says "Your assignment was due on Oct 7, 2022, 00:00". A note at the bottom says "Note: You may receive an email invitation to join mmslab-cc on your behalf. No further action is necessary." To the right, there is a sidebar for "Join the GitHub Student Developer Pack" with a "Apply" button.

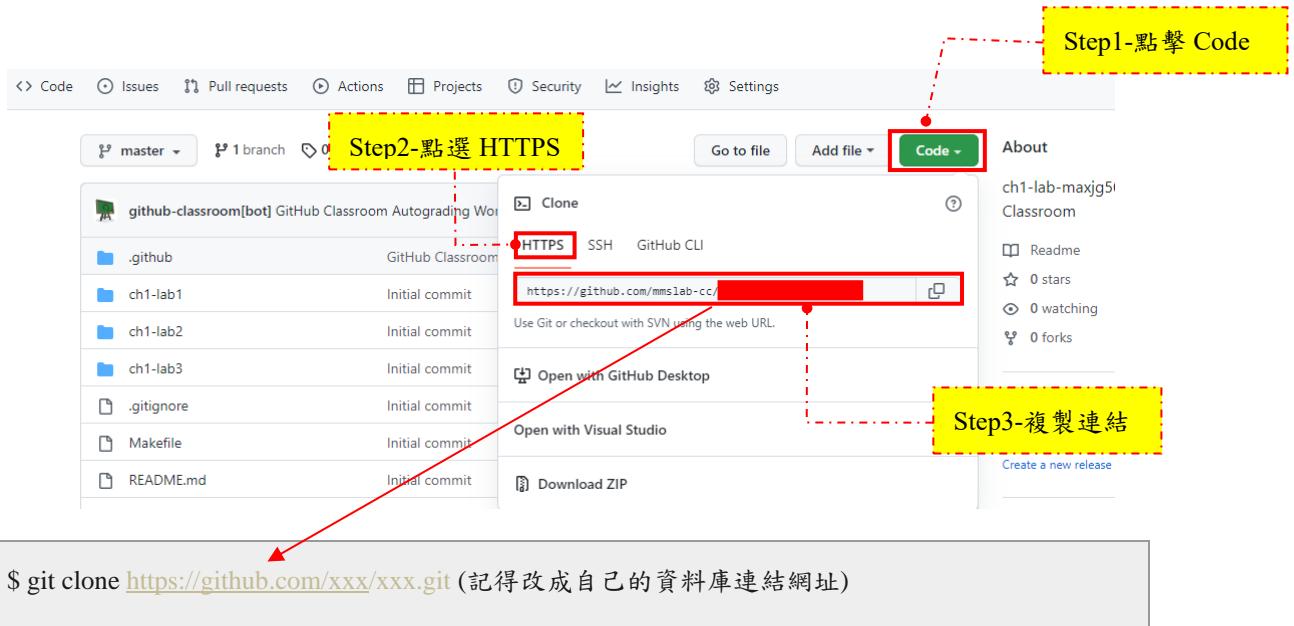
刷新頁面後，將會看到屬於自己的 repository 連結，並點擊該連結。

The screenshot shows the GitHub Classroom interface after refreshing the page. It says "You're ready to go!" and "You accepted the assignment, ch1-lab." Below that, it says "Your assignment repository has been created:" followed by a link: "<https://github.com/mmslab-cc/ch1-lab>". A note at the bottom says "We've configured the repository associated with this assignment (update)." Below that, it says "Your assignment was due on Oct 7, 2022, 00:00". A note at the bottom says "Note: You may receive an email invitation to join mmslab-cc on your behalf. No further action is necessary." To the right, there is a sidebar for "Join the GitHub Student Developer Pack" with a "Apply" button.

Step4. 將專案 Clone 到自己電腦 到桌面開啟 Git Bash



複製專案在遠端資料庫的位置，並在 Git bash 輸入指令進行下載專案(命令列點擊右鍵可以選貼上)



Step1-點擊 Code

Step2-點選 HTTPS

Step3-複製連結

```
$ git clone https://github.com/xxx/xxx.git (記得改成自己的資料庫連結網址)
```

輸入指令情況：

```
Jdway@DESKTOP-GBM49C1 MINGW64 ~/Desktop
$ git clone https://github.com/MingW64-Setup/mingw-w64-x86_64-gcc.git
Cloning into 'mingw-w64-x86_64-gcc'...
remote: Counting objects: 7, done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 7 (delta 0), reused 7 (delta 0), pack-reused 0
Unpacking objects: 100% (7/7), done.

Jdway@DESKTOP-GBM49C1 MINGW64 ~/Desktop
$ |
```

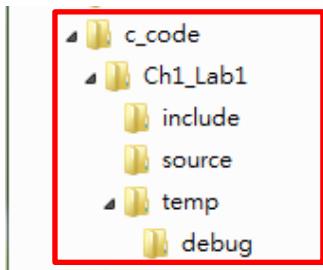
Step5. 完成下載專案後請到桌面開啟剛下載的專案資料夾，開啟專案檔案。
檔案路徑為：**Desktop\ ch1-lab-{你的 Github 帳號 ID}\ ch1-lab1\Lab1\Lab1.sln**



注意：透過方法 A 建立專案後，直接跳至步驟 8.撰寫 C 語言程式

方法 B. 透過 Visual Studio 新建專案

Step1-在 C:\ 內建立一個資料夾 “c_code” , 於 c_code 資料夾內新增名為 “Ch1_Lab1” 的資料夾，再於 Ch1_Lab1 資料夾內分別建立 include、source、temp，等資料夾，建立後需要在 temp 資料夾內新增名為 “debug” 的資料夾，建立完成後如下圖



Step2-點選 “開始” -> “所有程式” 尋找 “Visual Studio 2022” 資料夾中的 “Visual Studio 2022”



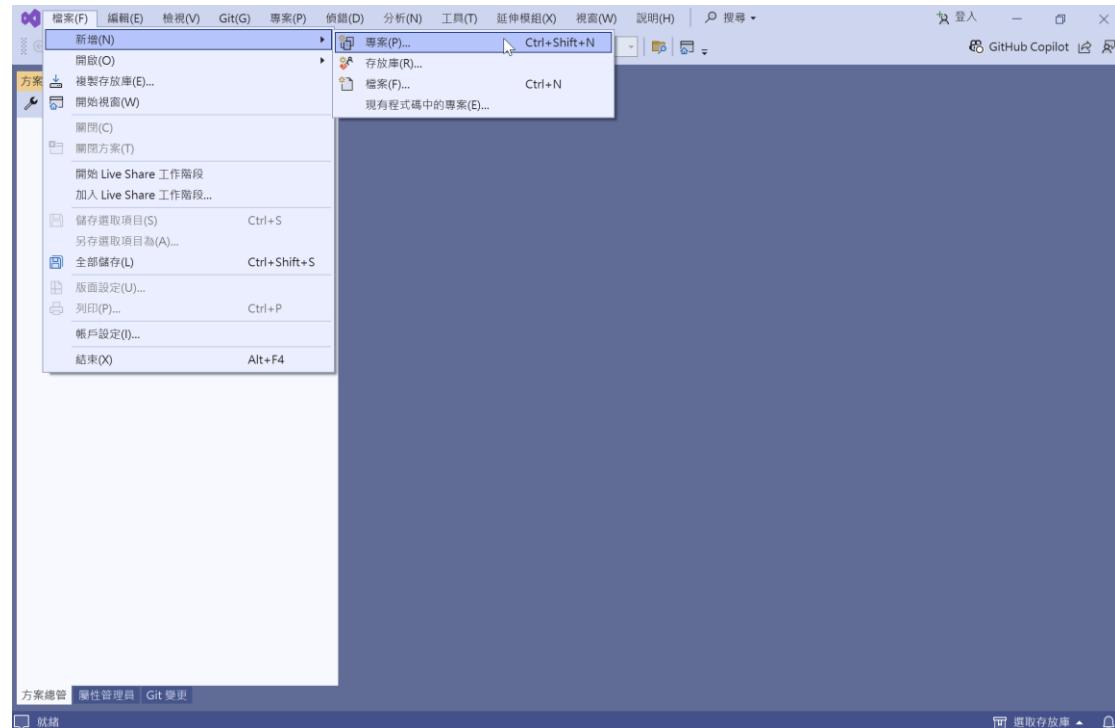
Step3-點選 「不使用程式碼繼續(W)」

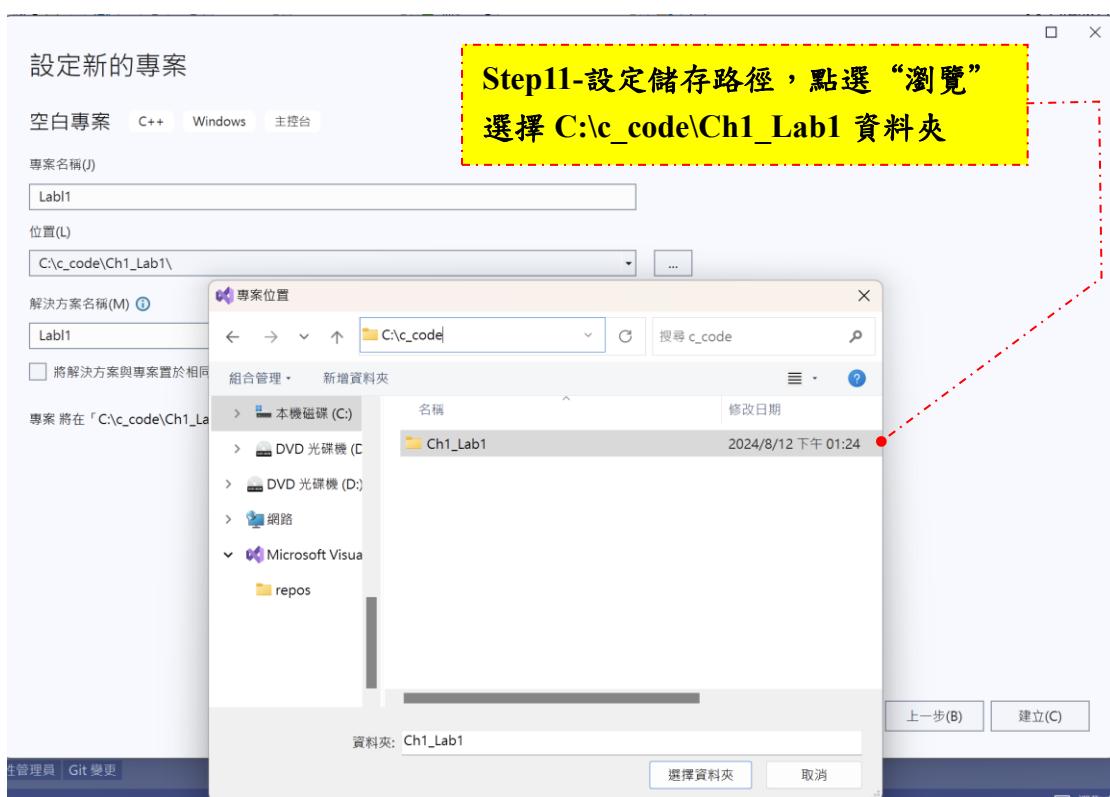


Step4-開啟 Microsoft Visual Studio 視窗畫面後點選左上角 “檔案(F)”

Step5-點選 “新增(N)”

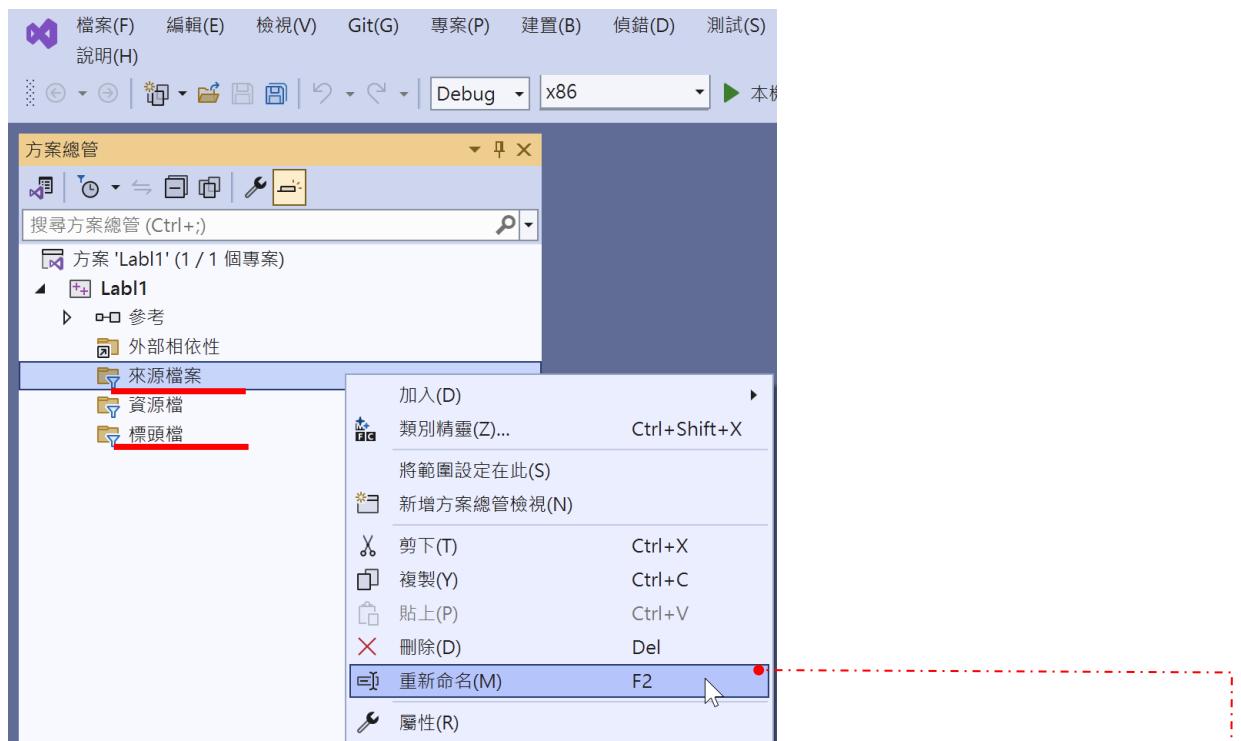
Step6-點選 “專案(P)”





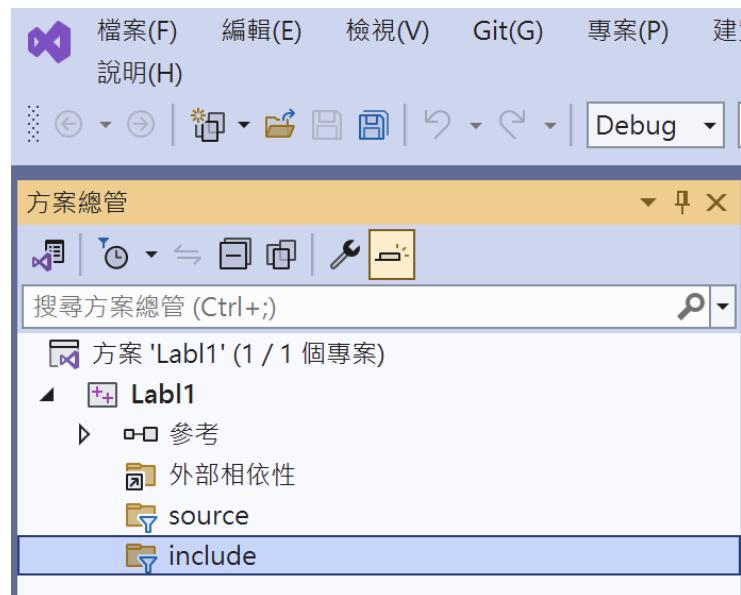


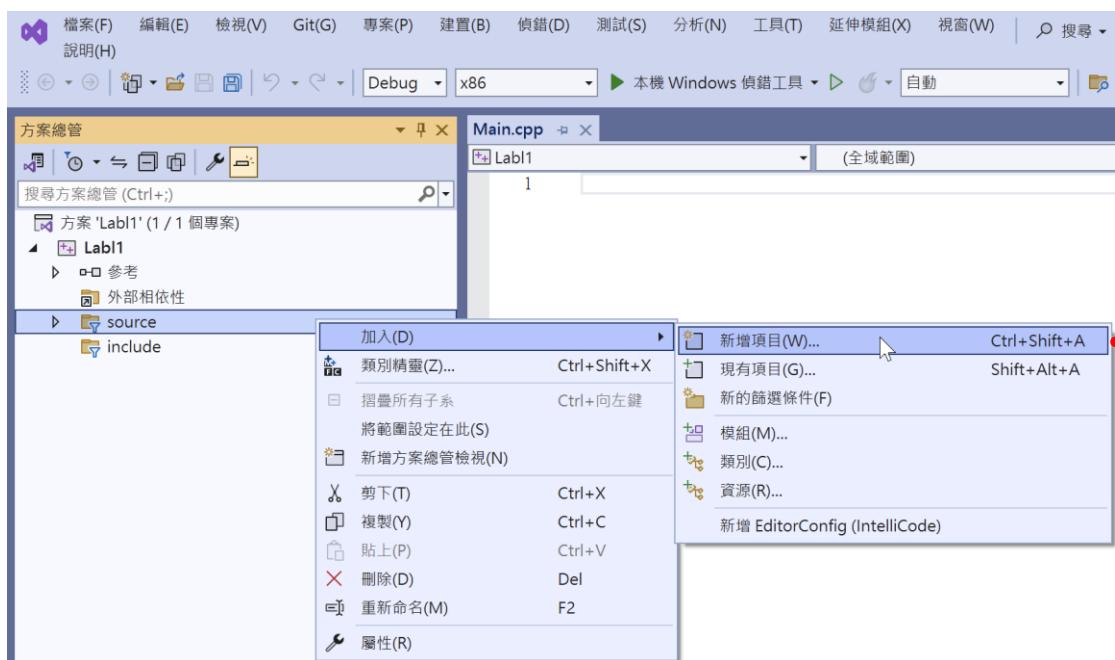
6. 新增 .c 檔、路徑設定



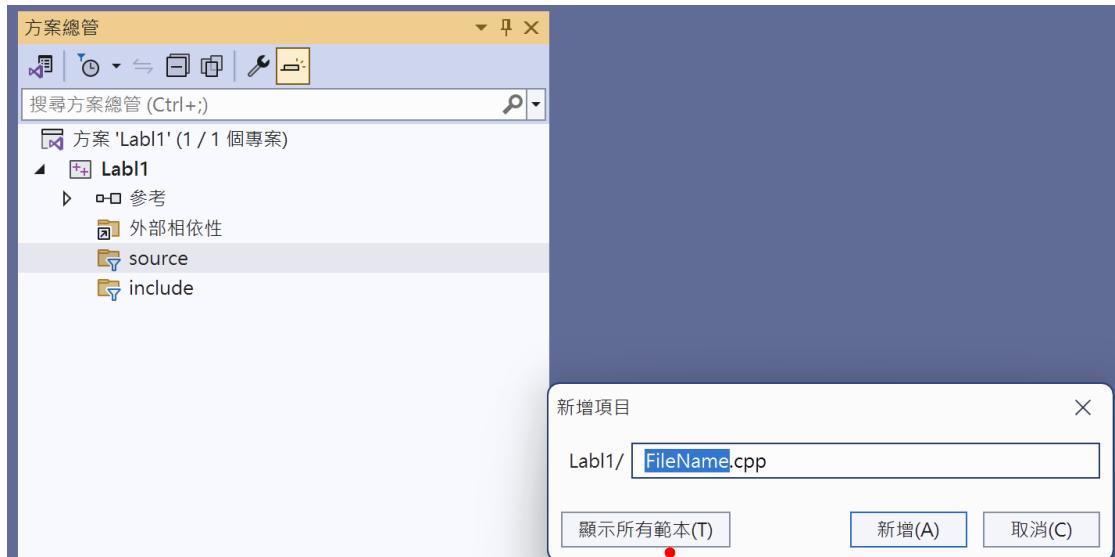
Step1-在左上角“方案總管”欄 Lab1 裡，“來源檔案”上按右鍵，選“重新命名(M)”，命名為“source”，再將“標頭檔”重新命名為“include”

Step2-點選“資源檔”，按右鍵選“刪除(D)”，完成後方案總管如下圖



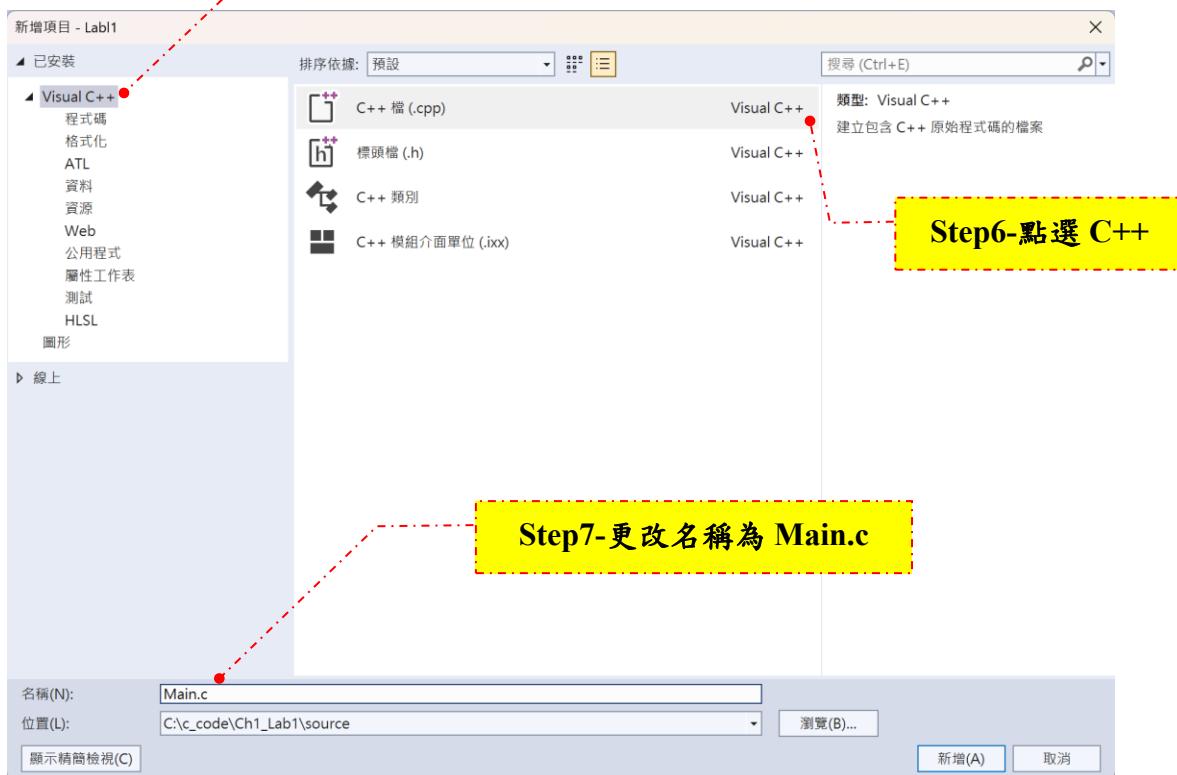


Step3-點選“source”上按右鍵，選“加入(D)”,再點選“新增項目(W)”

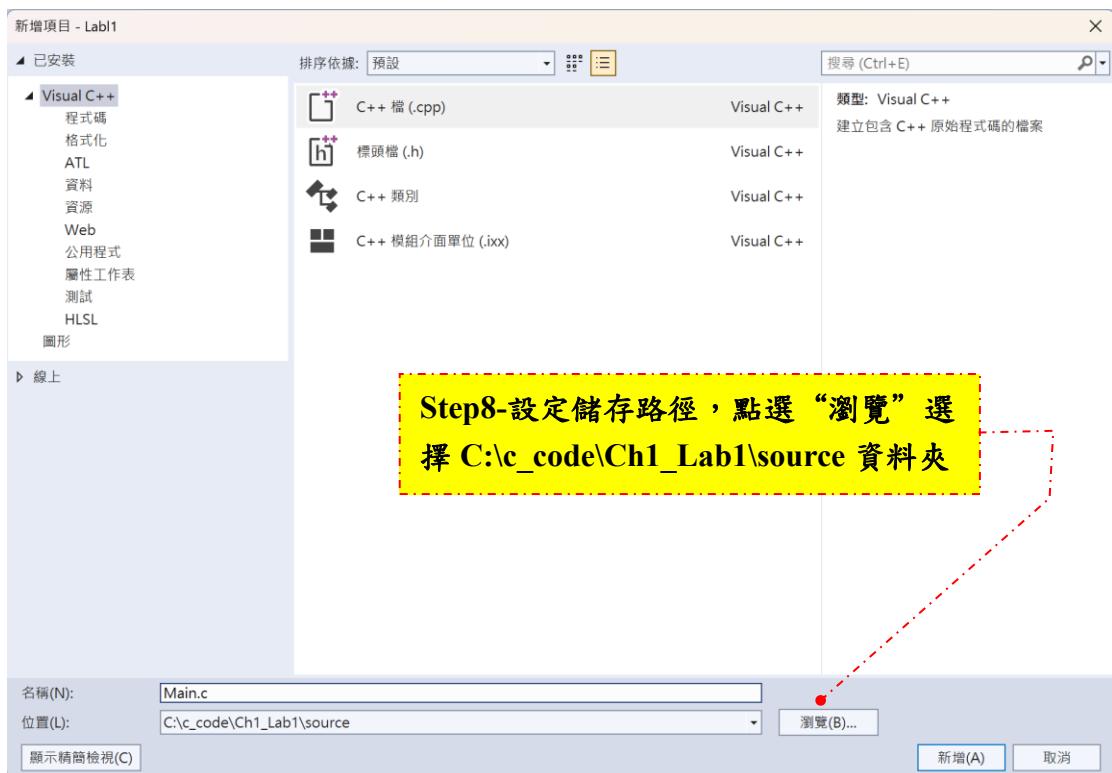


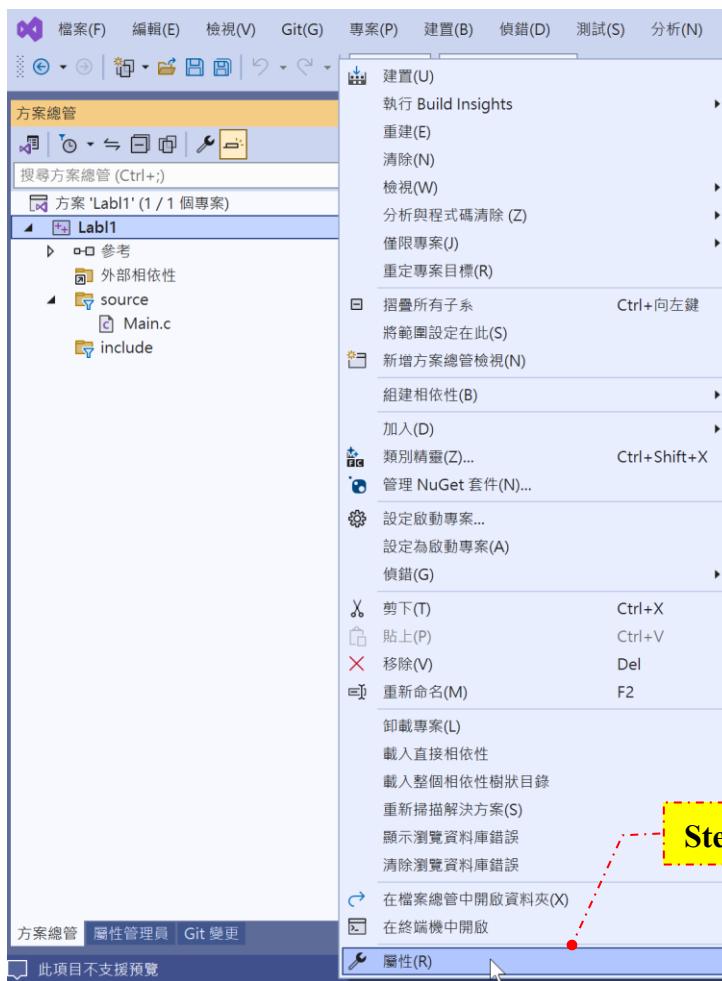
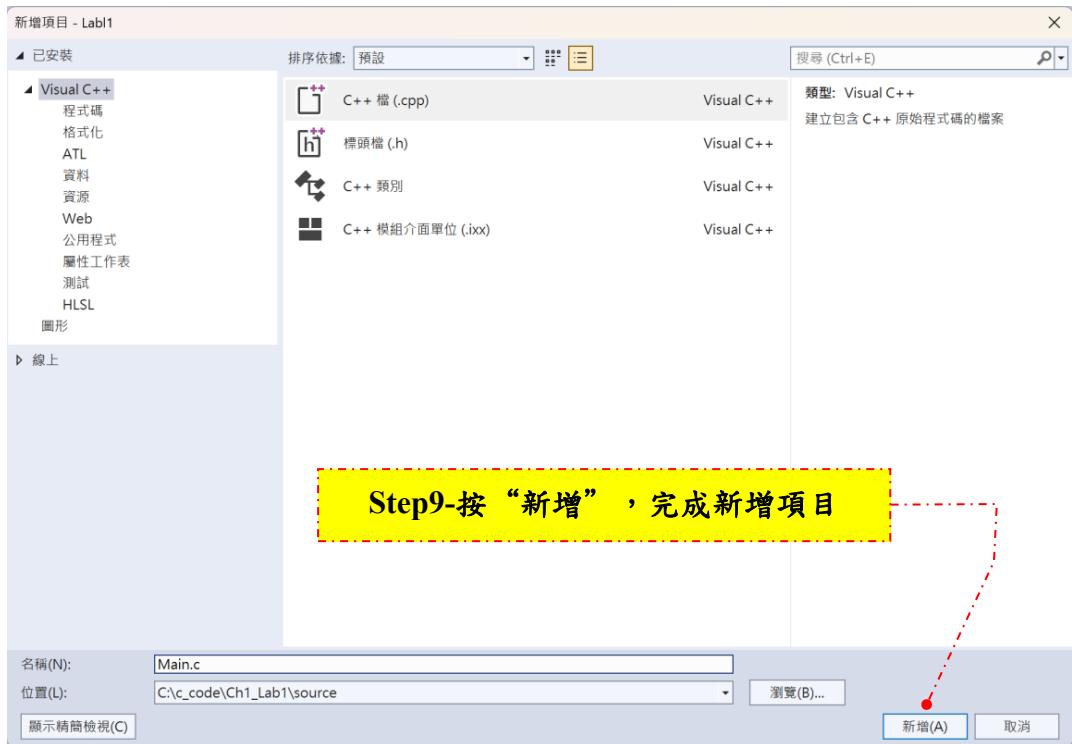
Step4-點選顯示所有範本(T)

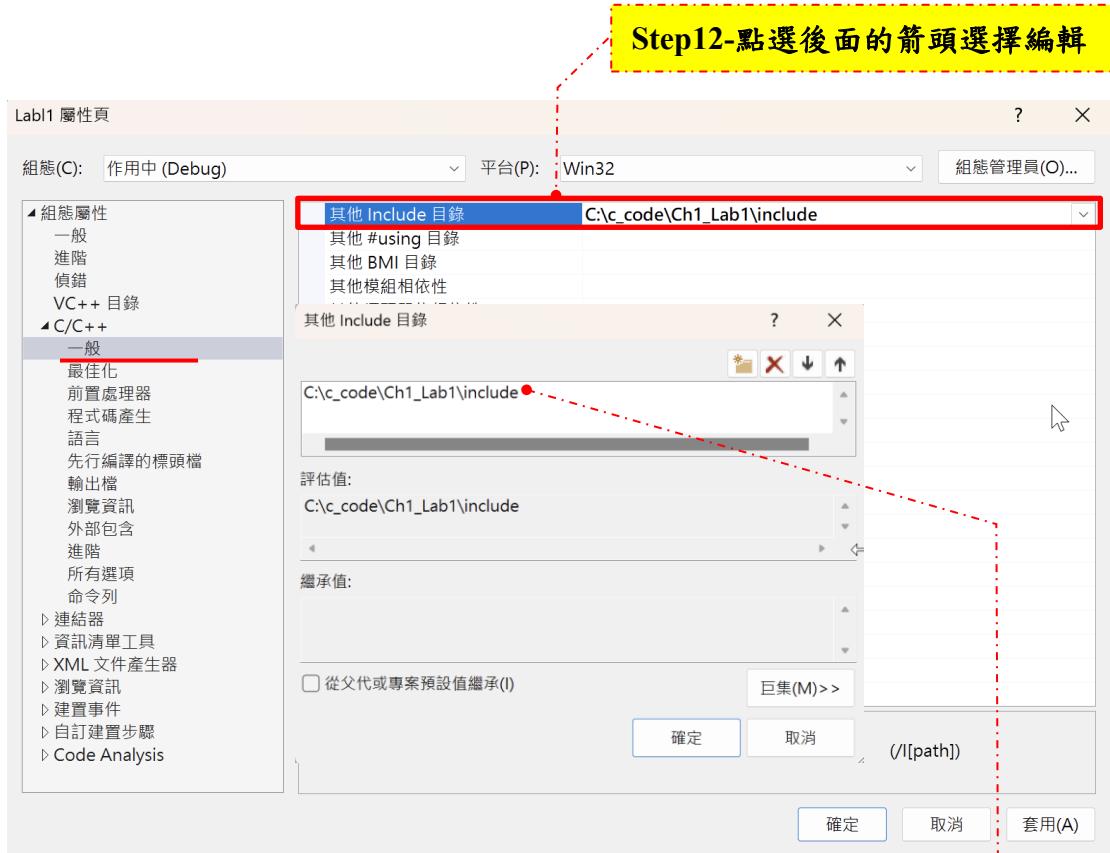
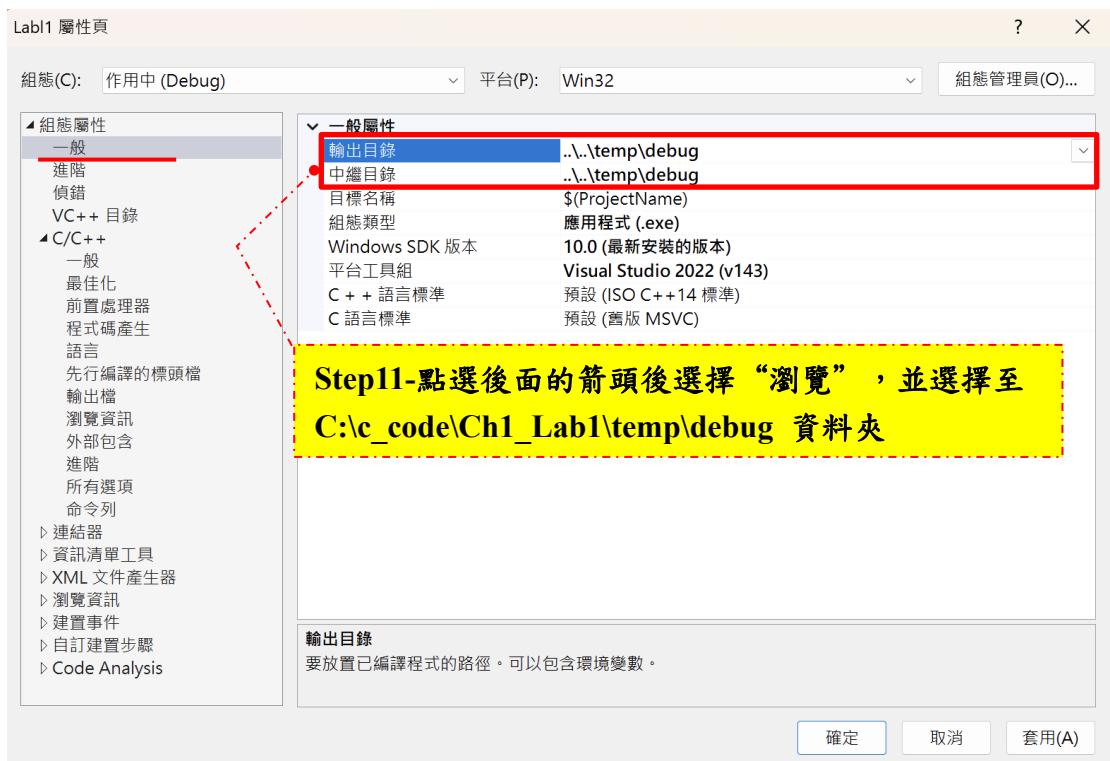
Step5-點選 Visual C++



Step7-更改名稱為 Main.c



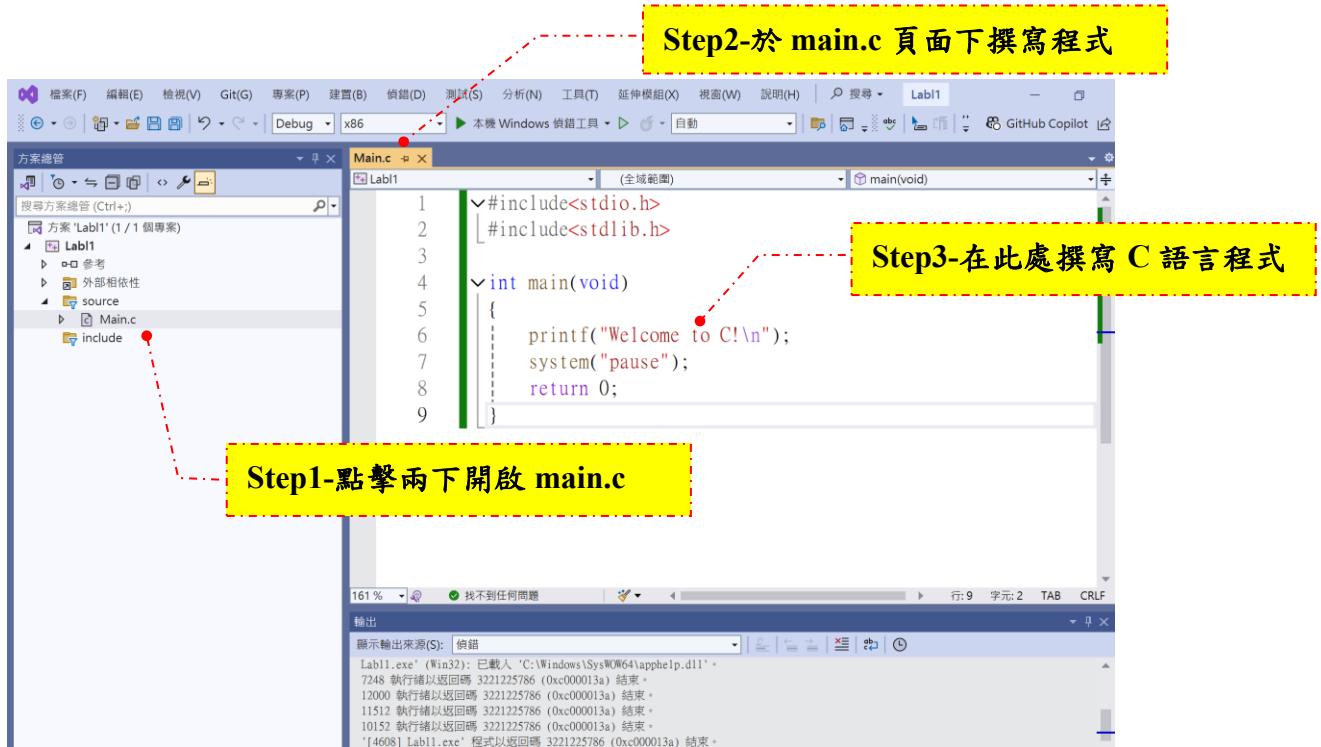




Step13-新增 C:\c_code\Ch1_Lab1\include 資料夾

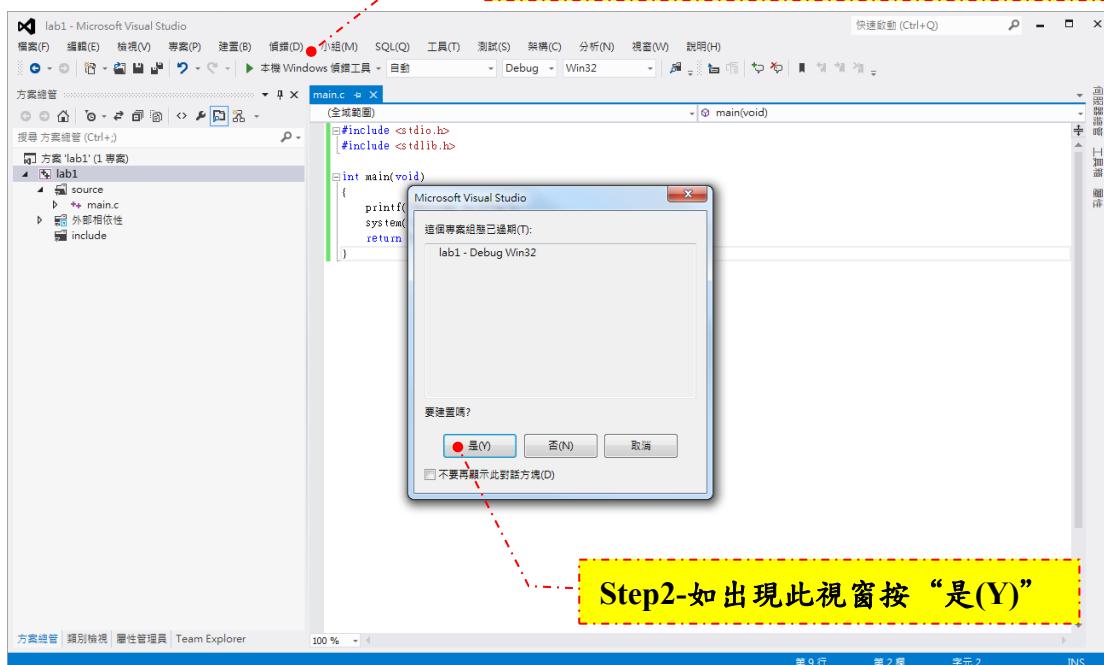
7. 撰寫 C 語言程式

如果透過「方法 A. 透過 Github Classroom 下載並開啟專案」建立專案，直接從此步驟繼續實驗。



8. 執行與測試程式結果

Step1-點選“開始偵測”或按 F5，進行偵測



Step2-如出現此視窗按“是(Y)”



- 本章節 Lab 到此結束，請繼續操作 Ch1_Lab2