

2015 成大電機新生營

程式設計基礎課程實習

WELCOME TO NCKU EE!

第一件事：不要害羞！

- 往後每天都有讓大家上機練習的機會
- 有任何問題，都可以向你/妳身邊的助教們詢問！
 - 或是與身邊的強者探聽！
- 我們都很樂意幫助大家～

第二件事：課程網站

<http://tinyurl.com/ncku-freshman>



第三件事：問為什麼？

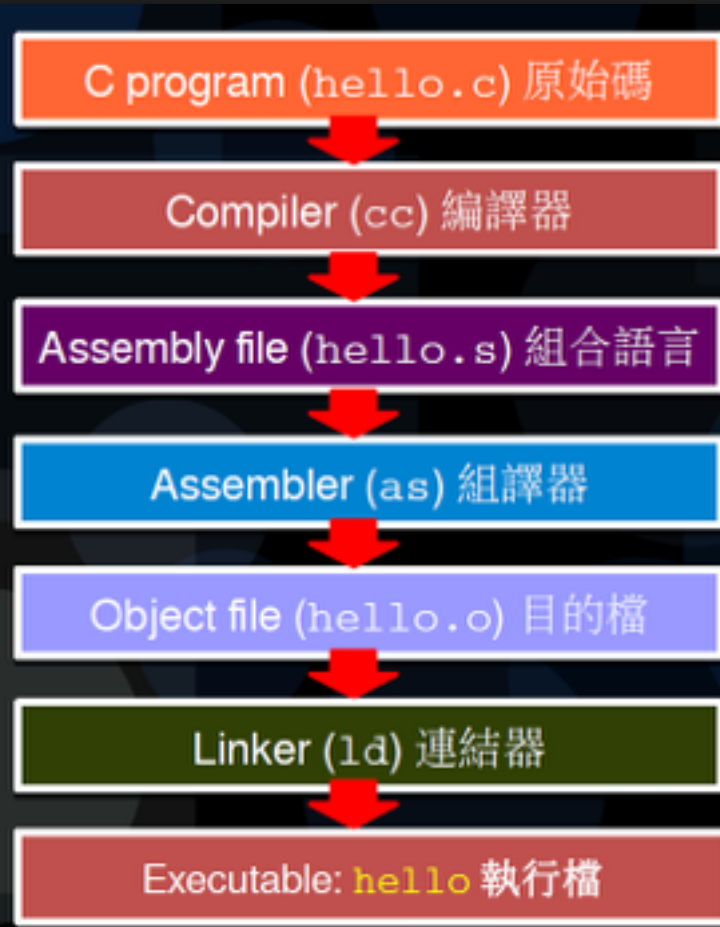
- **Why we need to introduce Visual C++?**
- 其實用記事本就能寫程式了！

From Source to Binary...

```
int a, b=0;  
cin >> a;  
if(a==2) b++;  
else b--;
```



```
01111001111  
01010101111  
01110101110
```



複雜的過程...

需要工具幫助我們完成複雜的任務！

- Editor (with **syntax highlighting**, auto completion, ...)
- Compilation Toolchain (compiler, assembler, linker, ...)
- Debugger
- ...
- **IDE!**

```
/**
 * cgroup_e_css - obtain a cgroup's effective css for the specified subsystem
 * @cgrp: the cgroup of interest
 * @ss: the subsystem of interest (NULL returns @cgrp->self)
 *
 * Similar to cgroup_css() but returns the effective css, which is defined
 * as the matching css of the nearest ancestor including self which has @ss
 * enabled. If @ss is associated with the hierarchy @cgrp is on, this
 * function is guaranteed to return non-NULL css.
 */
static struct cgroup_subsys_state *cgroup_e_css(struct cgroup *cgrp,
                                               struct cgroup_subsys *ss)
{
    lockdep_assert_held(&cgroup_mutex);

    if (!ss)
        return &cgrp->self;

    if (!(cgrp->root->subsys_mask & (1 << ss->id)))
        return NULL;

    /**
     * This function is used while updating css associations and thus
     * can't test the csses directly. Use ->child_subsys_mask.
     */
    while (cgroup_parent(cgrp) &&
           !(cgroup_parent(cgrp)->child_subsys_mask & (1 << ss->id)))
        cgrp = cgroup_parent(cgrp);

    return cgroup_css(cgrp, ss);
}
```



```
1 /**
2  * cgroup_e_css - obtain a cgroup's effective css for the specified subsystem
3  * @cgrp: the cgroup of interest
4  * @ss: the subsystem of interest (NULL returns @cgrp->self)
5  *
6  * Similar to cgroup_css() but returns the effective css, which is defined
7  * as the matching css of the nearest ancestor including self which has @ss
8  * enabled. If @ss is associated with the hierarchy @cgrp is on, this
9  * function is guaranteed to return non-NULL css.
10 */
11 static struct cgroup_subsys_state *cgroup_e_css(struct cgroup *cgrp,
12                                                struct cgroup_subsys *ss)
13 {
14     lockdep_assert_held(&cgroup_mutex);
15
16     if (!ss)
17         return &cgrp->self;
18
19     if (!(cgrp->root->subsys_mask & (1 << ss->id)))
20         return NULL;
21
22     /**
23      * This function is used while updating css associations and thus
24      * can't test the csses directly. Use ->child_subsys_mask.
25      */
26     while (cgroup_parent(cgrp) &&
27            !(cgroup_parent(cgrp)->child_subsys_mask & (1 << ss->id)))
28         cgrp = cgroup_parent(cgrp);
29
30     return cgroup_css(cgrp, ss);
31 }
```

The IDE (整合開發環境)

- **Integrated Development Environment**

- = *Editor + Compiler + Debugger + ...*

- **There are various IDEs such as**

- Microsoft Visual Studio

- Code::Blocks

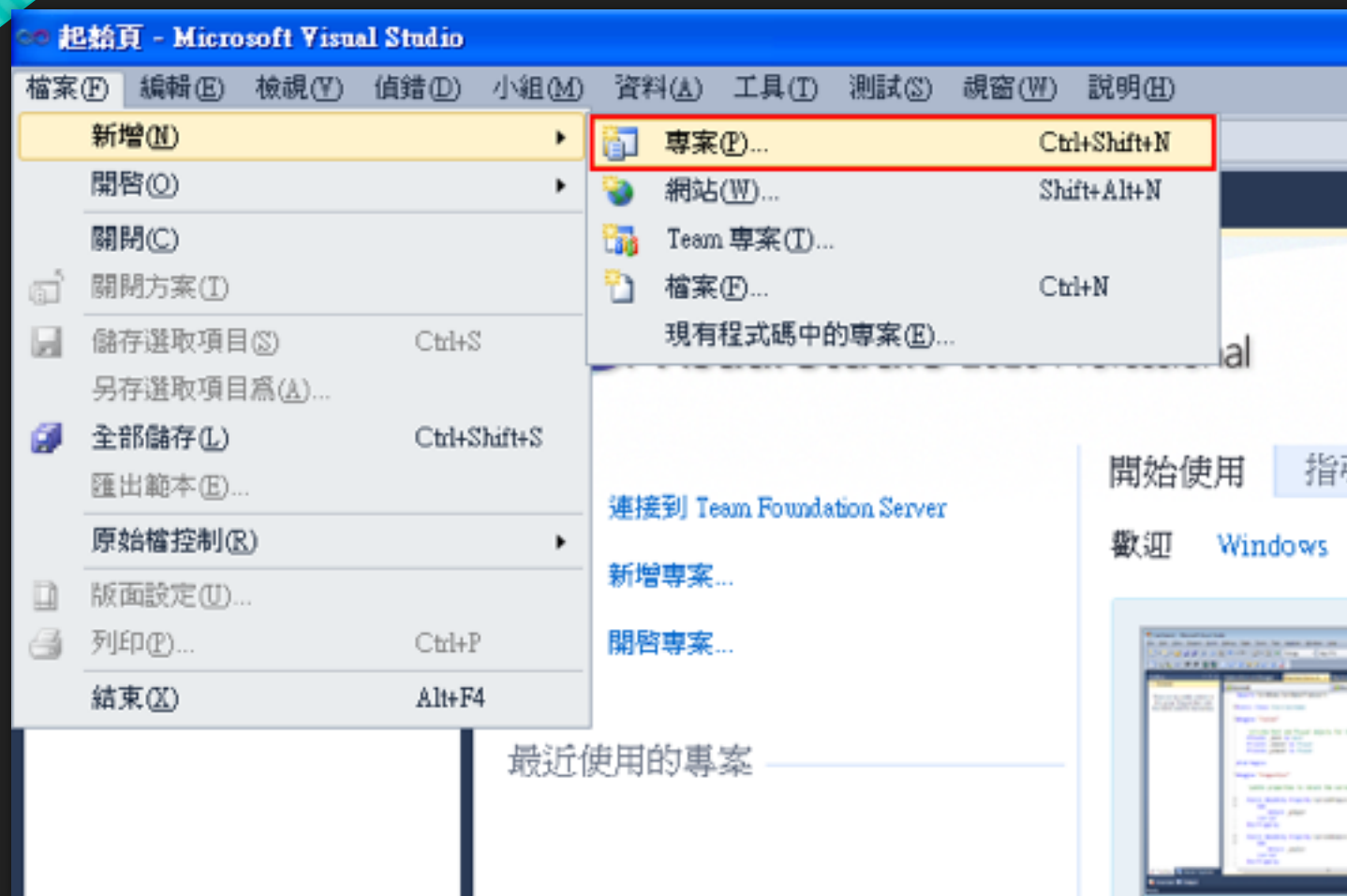
- Eclipse

- ...

Microsoft Visual Studio



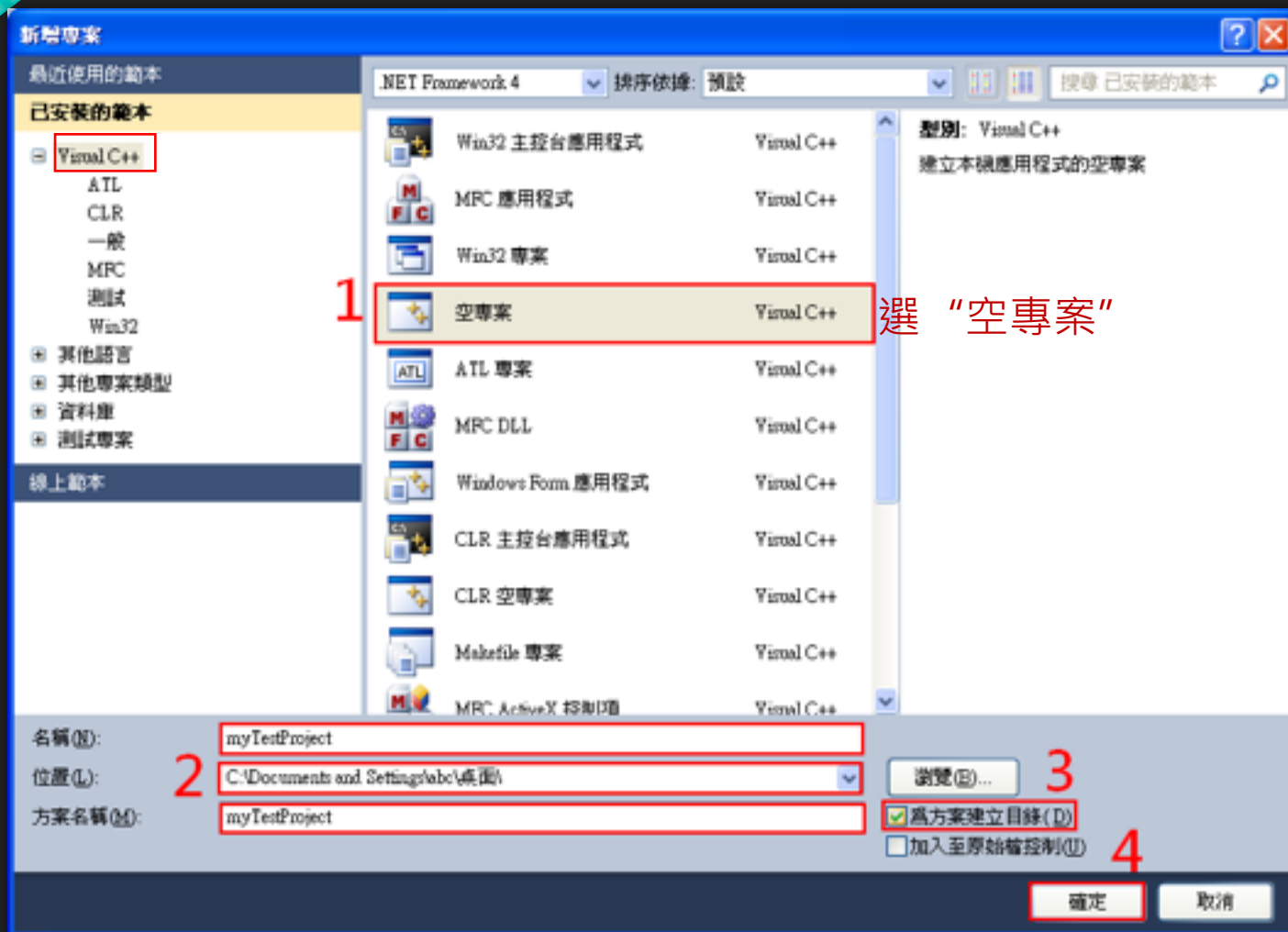
Step. 1-1 開新專案



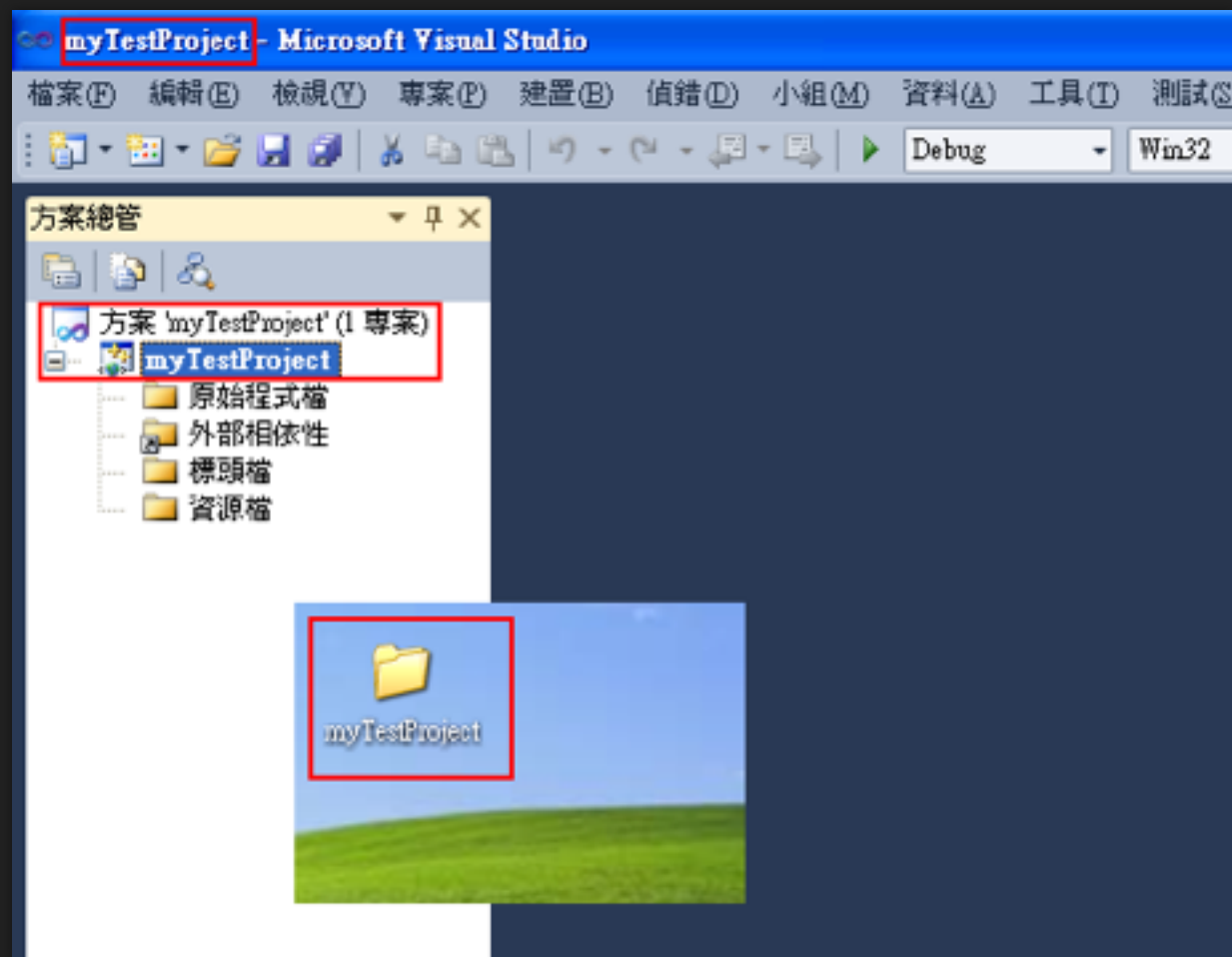
Step. 1-2 開新專案

選 “Visual C++”

專案名稱
取自己喜歡的就好



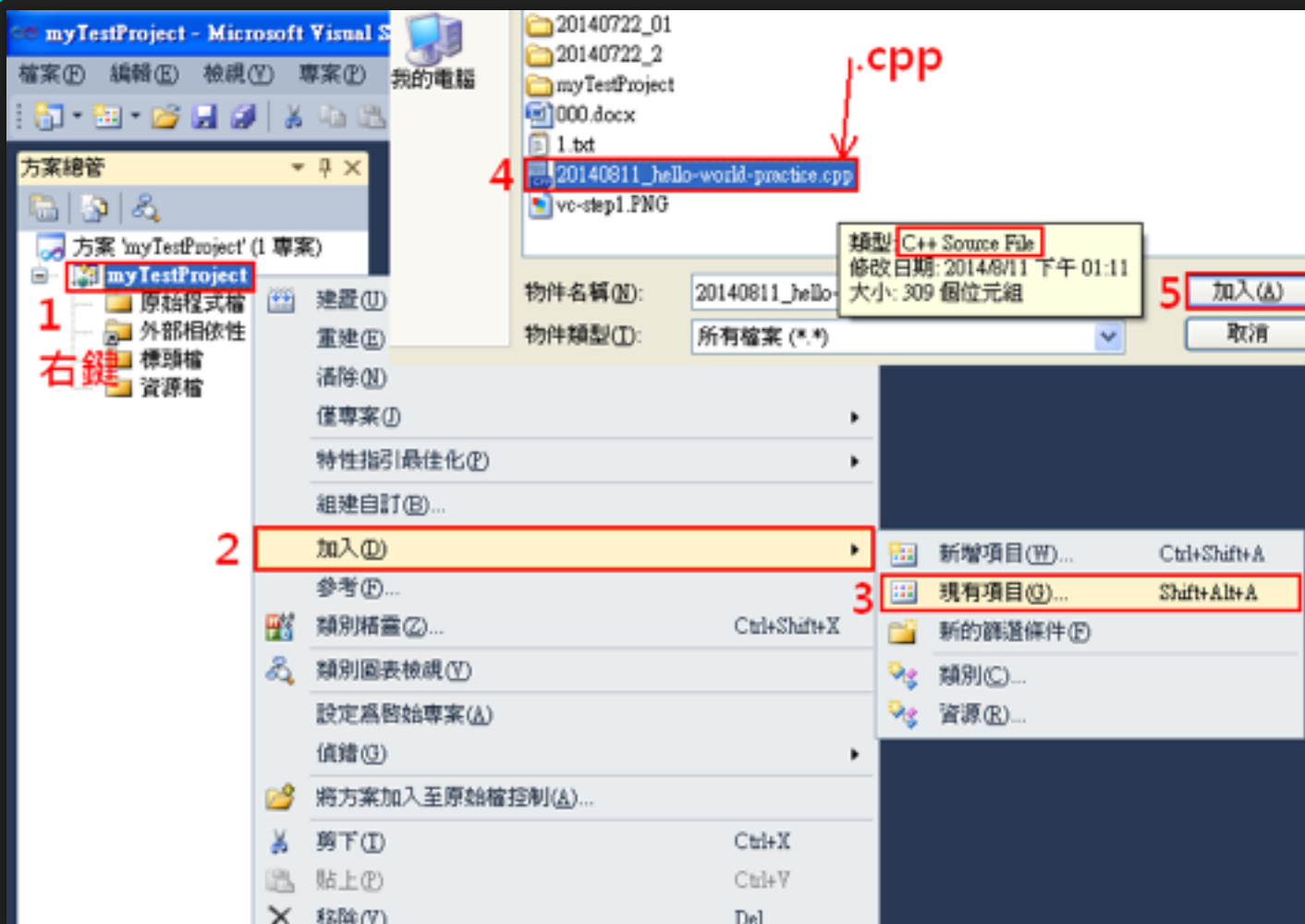
Step. 1-3 開新專案



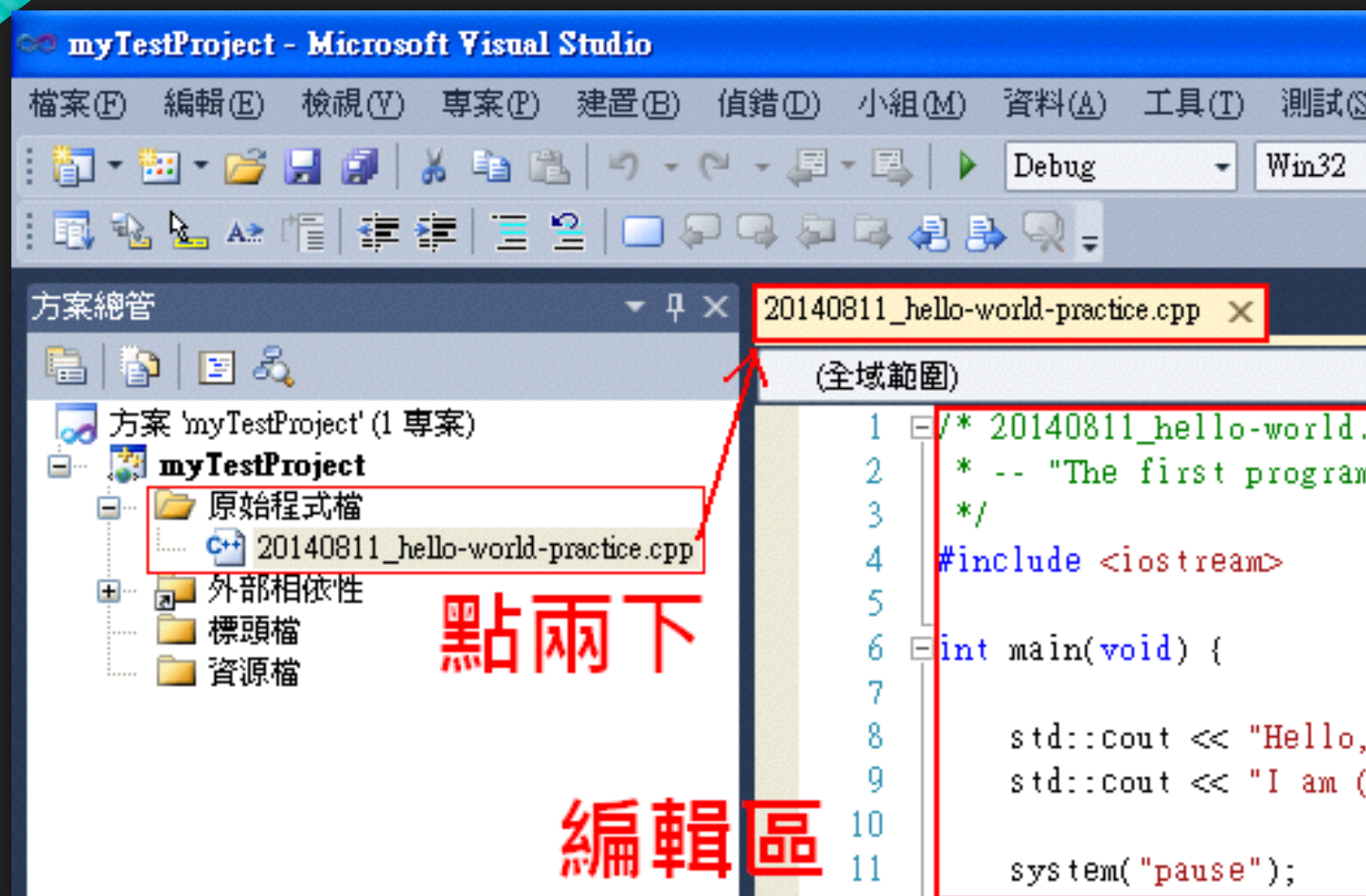
Step. 2 加入現有原始碼

注意！

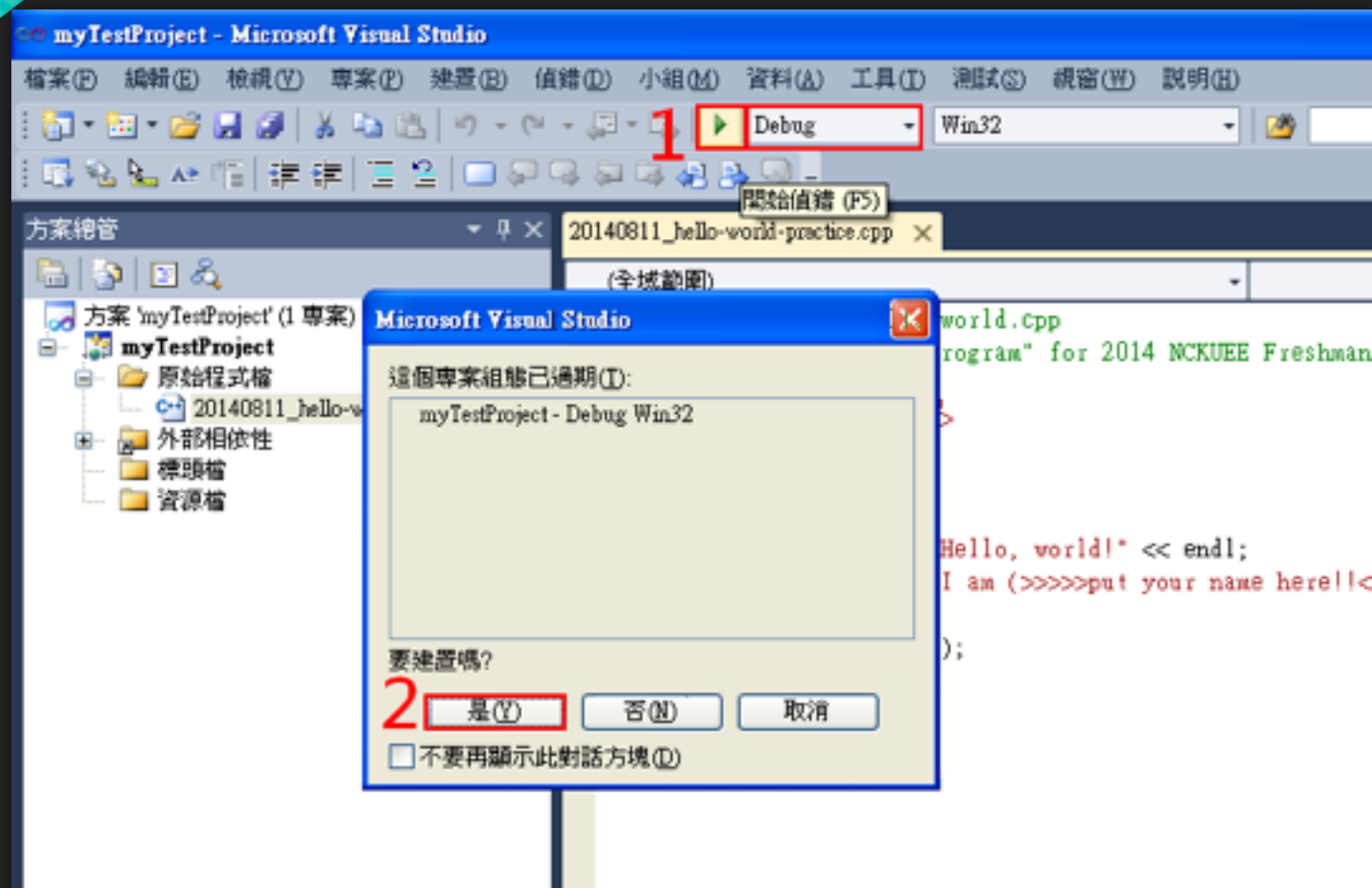
同一個專案裡，
不能同時包含多個
main() 函式



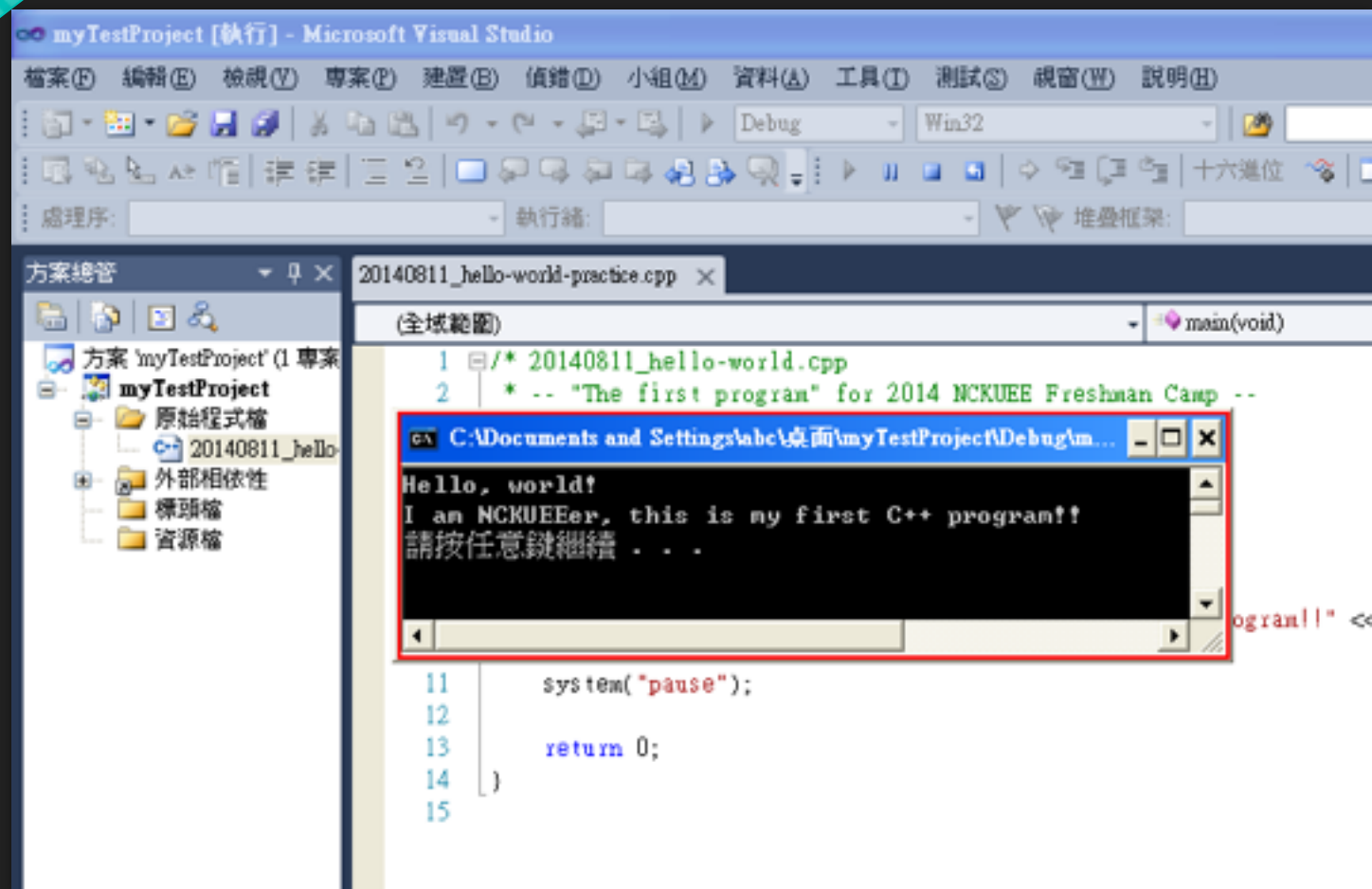
Step. 3 開始寫 code!



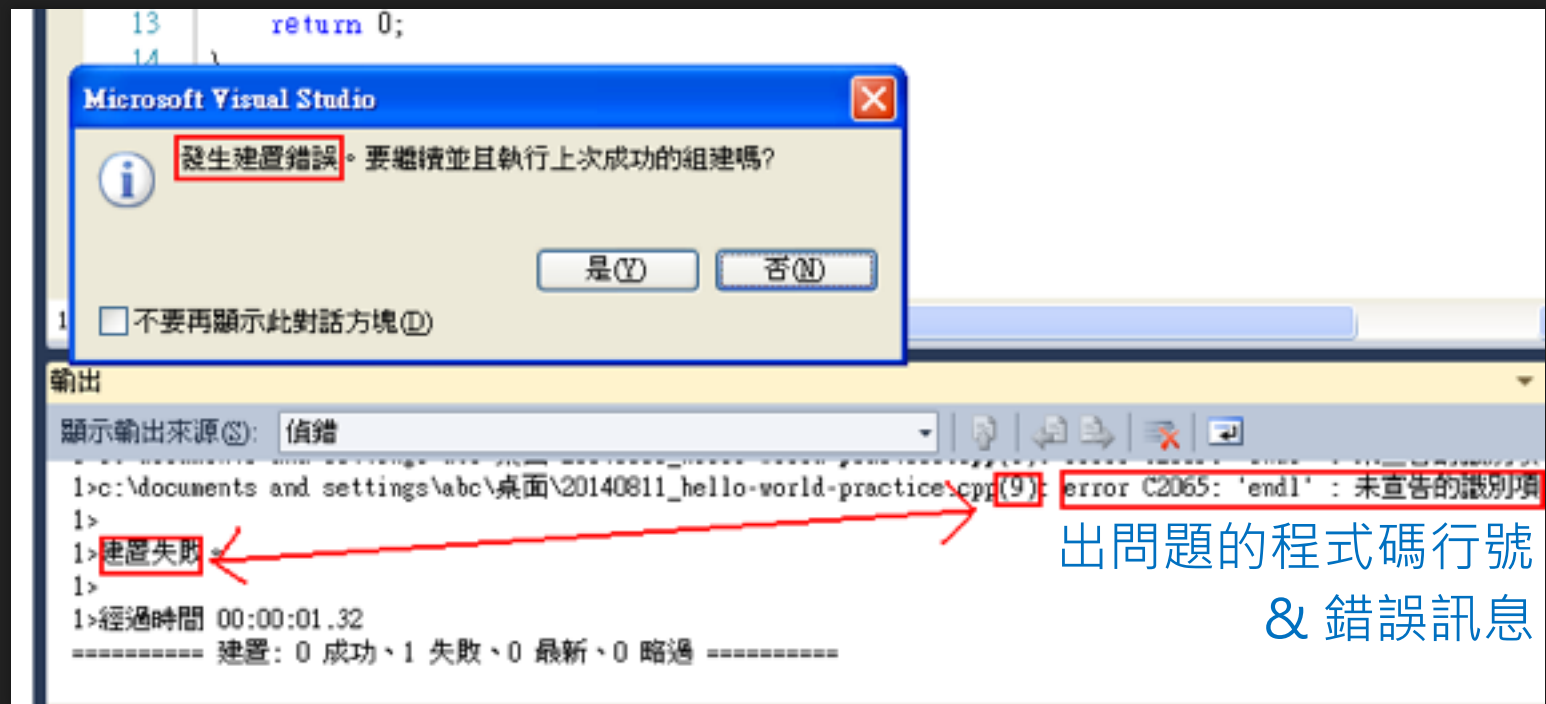
Step. 4 編譯



Step. 5 執行結果



Error Occurred!



Tip: 突然想測試程式，可是手邊沒 IDE...

- 有些網站有提供線上直/編譯的功能
 - Codepad (<http://codepad.org>)
 - IDE One (<http://ideone.com>)

Questions?

Just Ask!

Let's Practice!