

練習 8: pull and auto merge - 甲

這個練習的目是先修改程式碼，再從伺服器 pull 新的程式碼，並透過 Git 自動合併的功能合併本機與伺服器的程式碼，並且再 push 一份新的程式碼到伺服器，Push 與 Pull 的方式可參考練習 5、6。

1. 將下方程式碼複製到 GitTutorial.cpp，並且 Commit/Push 到伺服器

```
#include "stdafx.h"
#include <string>
#include <iostream>

using namespace System;

bool Guess(int number) {

}

int main(array<System::String ^> ^args)
{
    int guess;
    do {
        std::cout << "Choose a number between 1 - 100 :";
        std::cin >> guess;
    } while (!Guess(guess));
    return 0;
}
```

2. 嘗試 Commit 並 Push 上 Git，會出現 Error Message

The screenshot shows a terminal window titled "Pushing". It contains the following output:

```
git -c diff.mnemonicprefix=false -c core.quotepath=false push -v --tags origin master:master
Pushing to https://github.com/gcaaa31928/oopcourse.git
To https://github.com/gcaaa31928/oopcourse.git
! [rejected]      master -> master (fetch first)

error: failed to push some refs to 'https://github.com/gcaaa31928/oopcourse.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

At the bottom of the window, it says "Completed with errors, see above." and has a "Close" button.

3. 使用 Pull 後，發現 Git 自動將伺服器與本機程式碼合併

The screenshot shows a code editor with a dark theme. It displays two snippets of C++ code:

伺服器程式碼片段

```
#include "stdafx.h"
#include <string>
#include <iostream>

using namespace System;
```

```
bool Guess(int number) {
    static int target = -1;

    if (target == -1) {
        Random r;
        target = r.Next() % 100 + 1;
    }

    if (number == target) return true;
    return false;
}
```

本機程式碼片段

```
int main(array<System::String ^> ^args)
{
    int guess;
    std::cout << "Choose a number between 1 - 100 :";
    std::cin >> guess;
} while (!Guess(guess));
return 0;
}
```

A red box highlights the "伺服器程式碼片段" section, and another red box highlights the "本機程式碼片段" section.

4. 在 GitTutorial.cpp 貼上以下程式碼，並 push 到 GitHub 上

```
#include "stdafx.h"
#include <string>
#include <iostream>

using namespace System;

bool Guess(int number) {
    static int target = -1;

    if (target == -1) {
        Random r;
        target = r.Next() % 100 + 1;
    }

    if (number > target) {
        std::cout << "Smaller" << std::endl;
        return false;
    }
    else if (number < target) {
        std::cout << "Bigger" << std::endl;
        return false;
    }
    return true;
}

int main(array<System::String ^> ^args)
{
    int guess;
    do {
        std::cin >> guess;
    } while (!Guess(guess));
    return 0;
}
```