

## Environment

- Online Judge System:
  - <https://uva.onlinejudge.org/>
- Because the online judge system is built on Linux, writing programs on workstations is suggested.

1

## Registration

- Register your account.

### Login

Username

Password

☐ Remember me

Login

[Forgot login?](#)

No account yet?

Register

Click here

2

## Problem sets

- Browse problems here.

### Online Judge

Quick Submit

Migrate submissions

My Submissions

My Statistics

My uHunt with Virtual Contest Service

Browse Problems

Quick access: info and search

3

## Submission

- Submit your program from web.

### Online Judge

Quick Submit

Migrate submissions

My Submissions

My Statistics

My uHunt with Virtual Contest Service

Browse Problems

Quick access: info and search

4

## Quick Submit

Problem ID

Language ☐ ANSI C 5.3.0 - GNU C Compiler with options: -lm -lcrypt -O2 -pipe -ansi -DONLINE\_JUDGE  
☐ JAVA 1.8.0 - OpenJDK Java  
☐ C++ 5.3.0 - GNU C++ Compiler with options: -lm -lcrypt -O2 -pipe -DONLINE\_JUDGE  
☐ PASCAL 3.0.0 - Free Pascal Compiler  
☐ C++11 5.3.0 - GNU C++ Compiler with options: -lm -lcrypt -O2 -std=c++11 -pipe -DONLINE\_JUDGE  
☐ PYTHON3 3.5.1 - Python 3

Paste your code...

...or upload it  瀏覽...

5

## The result (1)

- Checking the result of your program

### Online Judge

[Quick Submit](#)  
[Migrate submissions](#)  
[My Submissions](#)  
[My Statistics](#)  
[My uHunt with Virtual Contest Service](#)  
[Browse Problems](#)  
[Quick access, info and search](#)

6

## The result (2)

- Checking the result of your program
  - <http://uhunt.felix-halim.net/>



uHunt is a complementary tool for [UVa online-judge](#) that keeps statistics, provide selections of problems to solve, and exposes a web API for other web developers to build upon it. See [a brief history of uHunt](#).

To submit your solution, use [UVa Quick Submit](#).

Your UVa username:

Search Problem Number:

7

## ACM-ICPC Live Archive

- <https://icpcarchive.ecs.baylor.edu/>
- 與 UVa online judge 介面類似

8

## 常見訊息

Information	Meaning
Accept	The program is accepted!
Presentation Error	The answer is correct, but the format is not.
Wrong Answer	The answer derived by the program is not correct.
Runtime Error	During the runtime of the program, some error occurs. (access 超出 array 範圍 (invalid reference), divide by 0, recursive stack overflow)
Time Limit Exceed	The runtime of your program exceed the time bound. (algorithm takes too much time, 讀檔出問題導致無法判定輸入是否結束)
Memory Limit Exceed	The memory of your program exceed the memory bound.
Output Limit Exceed	The output is too large to exceed the output bound. (讀檔沒讀好, 造成無窮迴圈, 使得程式一直讀, 一直輸出)
Compile Error	Your program has error during the compile time. (do not use // to comment your program)
Restricted Function	Some functions in your program are not allowed. (functions related with file (fopen, ...) or system (system, ...) are not allowed)

## I/O 小技巧

```
#include<stdio.h>
int main(){
    int i;
    freopen("data.in", "r", stdin);
    scanf("%d", &i);
    return 0;
}
```

由檔案 data.in 輸入  
(測試)

```
#include<stdio.h>
int main(){
    int i;
    #ifndef ONLINE_JUDGE
        freopen("data.in", "r", stdin);
    #endif
    scanf("%d", &i);
    return 0;
}
```

在本機端由檔案 data.in 輸入  
在 ACM On-line Judge 由 stdin 輸入

## I/O 小技巧 (cont.)

```
#include<stdio.h>
int main(){
    int i = 3;
    freopen("data.out", "w", stdout);
    printf("%d", i);
    return 0;
}
```

輸出到檔案 data.out

```
#include<stdio.h>
int main(){
    int i = 3;
    #ifndef ONLINE_JUDGE
        freopen("data.out", "w", stdout);
    #endif
    printf("%d", i);
    return 0;
}
```

在本機端輸出到 data.out  
在 ACM On-line Judge 輸出到 stdout

## Turn in your homework

- 請上 iLMS 點選該次作業繳交

The screenshot shows the iLMS interface. On the left, a sidebar menu lists various course functions, with '作業 (1)' (Homework 1) highlighted. On the right, a table displays homework items:

項次	功能
1	作業—練習題
2	作業—挑戰題

Below the table, there are three buttons: '作業資訊' (Homework Information), '已交名單(0)' (Submitted List (0)), and '交作業' (Submit Homework). A red arrow points from the '作業 (1)' menu item to the '交作業' button.

## Turn in your homework (cont.)

- 標題請輸入學號，程式碼以附件上傳
- 檔案命名規則：學號\_題號.c
  - i.e. 學號 103062623，題號 714 → 103062623\_714.c



交作業

標題 103062623

103062623\_714.c (1 KB)

附件 附加檔案 (100 MB) | 全選 | 取消全選 | 刪除 | 顯示列表

13

## Turn in your homework (cont.)

- 當週作業請在次週三 17:00 前完成上傳
- 上傳前請檢查：
  - 標題和檔名格式是否正確
  - 上傳的程式碼是可以 Accepted 的版本
    - 常見錯誤：未拿掉 freopen、system 或上傳錯 code 了
- 檔名格式錯誤與錯誤的程式將不會得到任何分數

14

## Turn in your homework (cont.)

- 作業可以討論做法，但請勿抄襲
  - 抄襲每次扣總成績 10 分
- 作業請以 C 語言寫 (不可使用 C++)
- 每週作業均提供參考測資，可到課程網頁下載
- 有任何問題歡迎到討論區提出

15

## 演習課

- 地點: 326 和 328 教室
- 點名簽到
- 如無法參加，請在上課前向老師請假

16



## Other information

---

- 課程網頁: <http://lms.nthu.edu.tw/course/24826>
- 助教聯絡方式：
  - 資電館837，分機 33555
  - 李智宇：daniel574685@gmail.com
  - 鐘隆翔：lhChung@lsalab.cs.nthu.edu.tw
  - 葉志鴻：s9962506@m99.nthu.edu.tw