

# Online Judge System

Zhang Hongyi  
CSCI2100 Data Structures

# Assignments

- Written Assignments
  - Submit a hard copy to the bin box on 10/F SHB before or on due date. Please write your student ID and name on it.
- Programming Assignments
  - Submit through online judge. Please note that the online judge will be open for only one week for each set of assignments
- All the problems will be announced in the course website. Please check the website regularly.
  - <https://www.cse.cuhk.edu.hk/irwin.king/teaching/csci2100/2014>

# Programming Assignments

- This course adopts e-mail submission for programming assignments. We will use our prepared Online Judge System to judge your submissions.
- Each assignment will be given one week for you to submit (usually from Monday to Sunday). Please do not submit before or after the submission period.
- One problem may be judged by two sets of test cases, a small (simple) one and a large (hard) one, based on the nature of the problem.

# Programming Assignments

- Method to calculate your score:
  - `/* Will be adjusted for each assignment */`
  - `/* For reference only, and does not reflect your final grade */`
  - `my @award = (4, 3, 2, 1, 0, 0, 0); //the k-th entry is the number of award times in the k-th day`
  - `pen = # of submissions -1-award[x]; //x is the day when you successfully finish the program`
  - `if (pen<0) pen = 0;`
  - `if (pen > 12) pen = 12;`
  - `mark = 100 - pen*5;`

# Example

- Problem award: (5,4,3,2,1,0,0)
- 3 students
  - A: 2 failed on 1<sup>st</sup> day, 2 failed on 2<sup>nd</sup> day, 1 accepted on 3<sup>rd</sup> day;
  - B: 4 failed on 1<sup>st</sup> day, 1 accepted on 1<sup>st</sup> day;
  - C: 1 failed on 1<sup>st</sup> day, 1 accepted on 7<sup>th</sup> day.
- Scores?

# Programming Assignments

- The ranking for each assignment will be shown during the submission period. The link will be announced later in the course website. The students will be ranked first according to number of problems solved, then total score, finally student ID.
- The ranking page will be updated once someone submits.
- The ranking is for your reference only.
- **The most important is to write your OWN code.**

# Account Preparation

1. SSH to any **CSE UNIX environment**, at your HOME directory, type the command:

**`/uac/cact/csci2100a/bin/setup_csci2100a`**

2. Then logout and login again.
3. Test your environment by running the command:  
**hello**

A big banner of your username should be shown.

My example:

```
# # # # ##### # # ## # # ####
# # # # # # # # # # # # # # #
##### # # ##### # # # # #
# # # # # # # ##### # # # # #
# # # # # # # # # # # # # # #
# # # # ##### # # # # # # # #
```

# How to Submit

1. Upload it to your **CSE UNIX account**.
2. SSH to any CSE UNIX environment, submit the source code by

```
submit <asgn no.> <file_name>.c
```

where *asgn no.* is the assignment ID and *file\_name* is the name of the source code you wish to submit.

3. When you are prompted, double-check the assignment No. and the filename, then type **Yes** to commit the submission.
4. Upon successful submission, you will receive a judge reply very soon (at your **CSE mail account**). You should KEEP your reply for future references.



# How to Test

- Assignment 0 is a test for you to try out the submission system. The input contains two integers and you should print out the sum of the integers at your output.
- A sample program is given:

```
#include <stdio.h>  
int main()  
{  
    int a, b;  
    scanf("%d%d", &a, &b);  
    printf("%d\n", a + b);  
    return 0;  
}
```

# Miscellaneous

NOTE: Unless otherwise specified, we have the following configurations for *all* tasks:

- Time Limit: 1s
- Memory Limit: 32MB
- Output Limit: 32MB
- Compiler Flags: `-lm -w -O2 -static`

**ATTENTION:** For those who still do not receive CSE account, we will distribute a temporal CSE account for each of you when add/drop period is over.

# Miscellaneous

- If you are not in the CSE network, you can use SSH to connect your CSE UNIX account by following steps.
  1. Open SSH, click the Quick Connect:  
Host Name: gw.cse.cuhk.edu.hk  
User Name: your UNIX account name  
[Mac user: ssh username@gw.cse.cuhk.edu.hk](#)
  2. Type in your password.

The document will be put on the course website for your reference.

# Reply Messages

- Accepted
  - Congratulation
- Wrong Answer
  - Check your algorithm
  - You may create your own test cases
  - Probably extra spaces or blank lines in the output
- Compile Error
  - Please first compile successfully in your own computer
- Time limit Exceeded
  - Check your algorithm. Infinite loops?
- Output Limited Exceeded
  - Check your algorithm. Infinite loops?

# Reply Messages

- Restricted Functions
  - Have any code which may threat the system
  - Any system functions which are not needed should not be called
  - See course webpage for more details
- Runtime Error
  - Maybe forgot to “return 0” in main
- Segmentation Fault
  - Check your output, make sure it exactly fits the requirements
- **ATTENTION: Please make sure that you submit to the right problem**

# Reply Message

- Make sure your output is **EXACTLY** the same as the specification, (or sample program, if provided).
  - Check for upper case / lower case letters.
  - Check for extra spaces / extra blank lines.
    - There should be no extra spaces at the end of a line, and no extra blank lines at the end of the outputs.