COMP2021 Spring 2016 Homework #2

(Due Monday Apr ~~18~~ 22 11:59PM)

Name: _____ **Stu ID:** _____

Note:

- **This is an individual assignment; all of the work should be your own. You can discuss with your classmates, but every single line of code/answer should be done by yourself.**

In homework 1, you implemented an Autograder shell script to help automate grading of programming assignments. Assume now your grade book `grade.csv` is ready. Below shows a sample grade file.

	A	B	C	D	E
1	StuID	Name	HW1	HW2	Overall
2	001	Alice	98	100	99
3	002	Bob	86	92	89
4	003	Cathy	90	88	89
5	004	David	84	80	82
6	mean	89.75			
7	std	6.99			

`grade.csv` opened by Excel

```
StuID,Name,HW1,HW2,Overall  // first line are column names
001,Alice,98,100,99         // followed by arbitrary number of students
002,Bob,86,92,89
003,Cathy,90,88,89
004,David,84,80,82
Mean,89.75,,,               //last two lines are mean and standard deviation
Std,6.99,,,
```

Format of `grade.csv` as text file

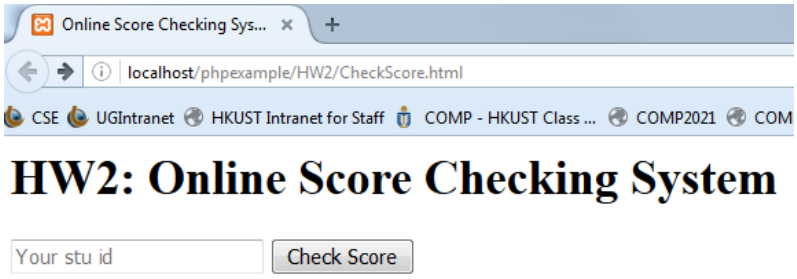
Your task is to build an **online score checking system**, which allows a student to check his/her own score, and allows an instructor to check scores of the whole class. (Security issues of the grade file is not considered in this homework.)

The online score checking system includes two files:

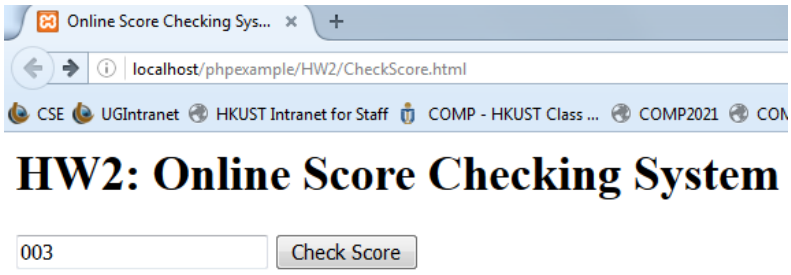
- `checkScore.html`: a HTML form which allows student/instructor to input their id to check score.
- `checkScore.php`: a PHP script which returns the score checking result.

Check Score for Student:

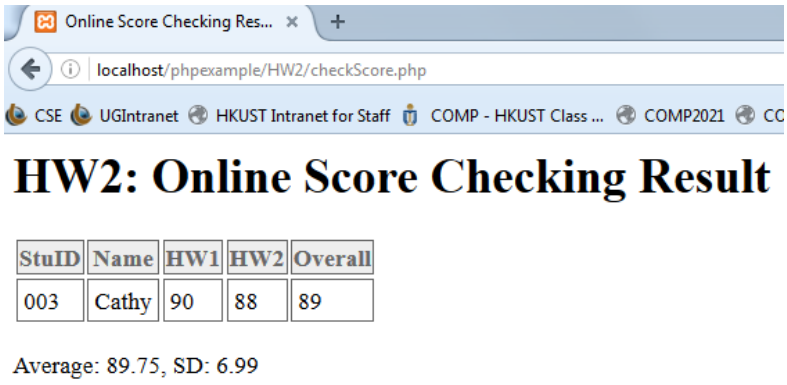
This is a sample `checkScore.html` shown on web browser. Feel free to design the style of the form.



A student can input student ID and check the score. For example, student inputs "`003`".

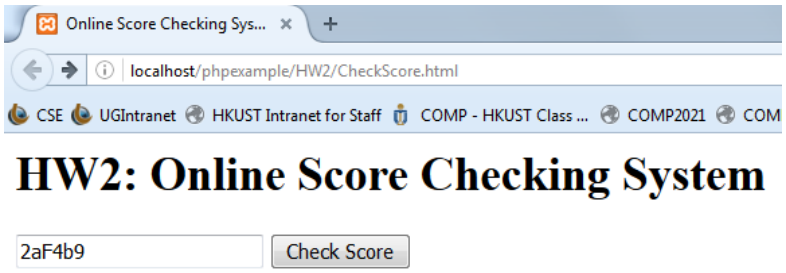


Scores of student `003` is returned web browser. The scores has to be shown in a **table format**. Average and standard deviation of the whole class has to be shown too. Feel free to design the style of the table and the webpage.

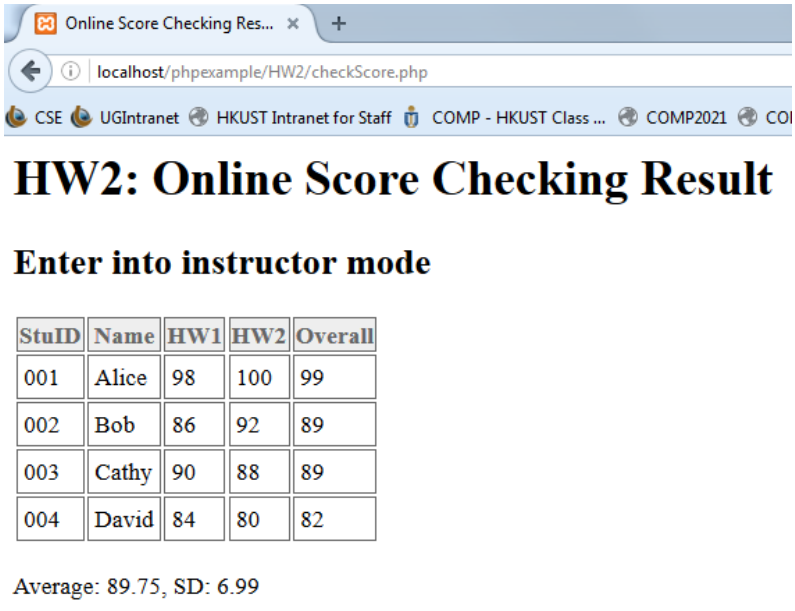


Check Score for Instructor:

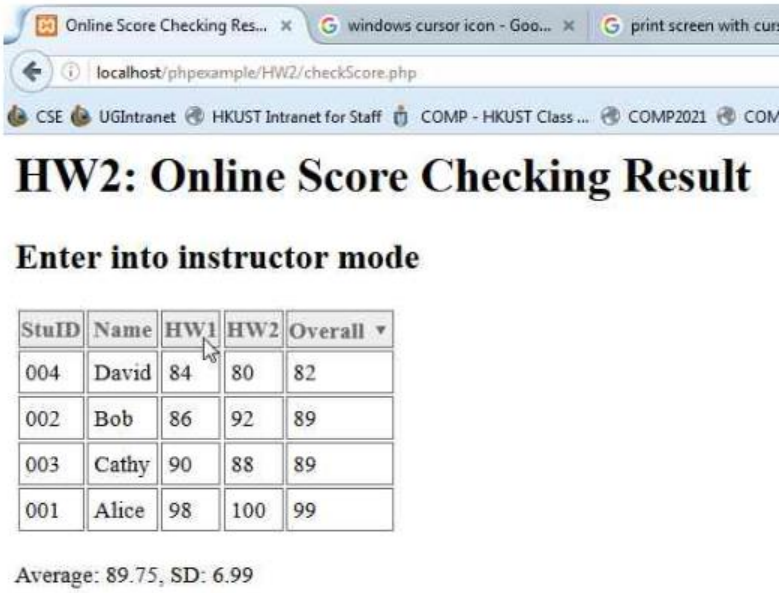
The instructor has a special "student id" (similar to a password). Assume it is `2aF4b9`. The instructor inputs the password.



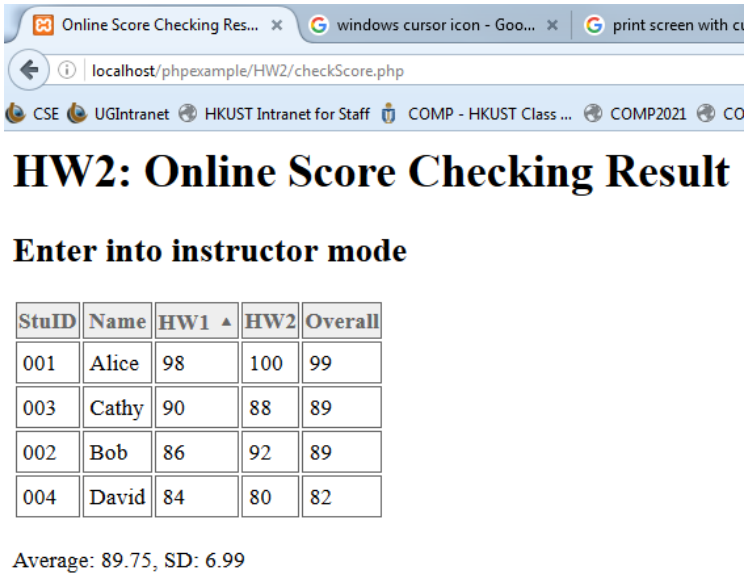
Scores of all students in the class are shown on the webpage. The scores has to be shown in a **table format**. Average and standard deviation of the whole class has to be shown too.



The score table shown to instructor should be a **sortable table.** By clicking table column name, the table is sorted according to the column. For example: instructor clicks '`HW1`' column.



Then the table will be sorted according to HW1 scores.

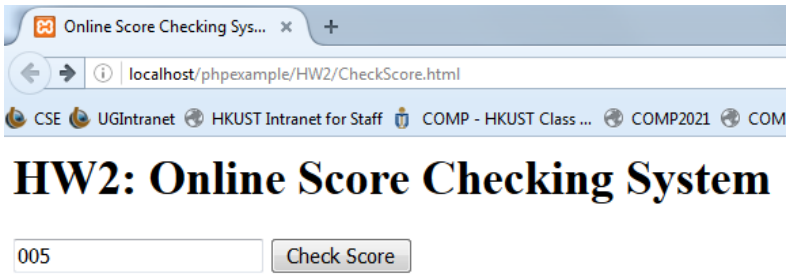


Hint:

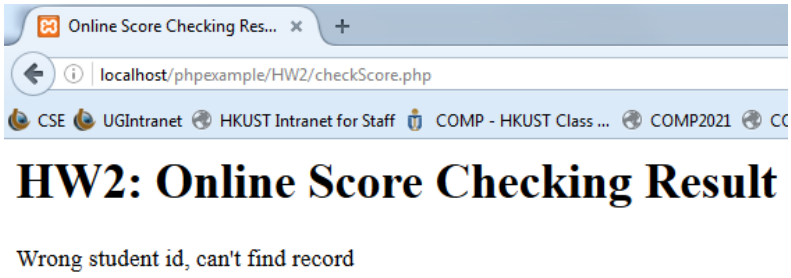
Sortable table can be implemented at either server side or client side. Feel free to make your decision. You can use code for sortable table available on Internet too. There are many so make wise choice.

Error Handling:

If the student id does not exist. For example, the student inputs "`005`".



No information will be shown.



Project Setup and Submission:

1. A live demo of the online score checking system should be available in your ihome under http://ihome.ust.hk/~yourITSCName/checkScore.html

   Note: You may refer to ITSC help page to setup the personal webpage http://itsc.ust.hk/services/general-it-services/communication-collaboration/ihome/

   ihome currently support PHP version 4.4.7. In case your implementation needs newer version of PHP and does not work under ihome, include a `readme.txt` file in your project submission to notify us. We'll ask you to demo in your laptop during the lab session.

2. Submit a .zip file via Canvas, including `checkScore.html`, `checkScore.php`, and any additional files as needed (e.g. style sheet, files to support sortable table).

   Caution: Student's score information should not be hard-coded in your PHP script. The script should read `grade.csv` file to retrieve the information.