

Homework Assignment #2: A Little Web Programming Exercise

Due Time/Date

2:20PM Wednesday, March 27, 2024. Late submission will be penalized by 20% for each working day overdue.

Note

The purpose of this little exercise is to ensure that you know the basics of Web programming (and also database systems), so as to get better prepared for the coming lecture on advanced topics in Web programming as well as for the term project. If you encounter any difficulty, you may consult the tutorial for basic Web programming on the course website.

Task Description

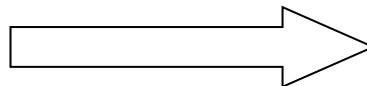
Your task is to develop a Web-based search application, which consists of two webpages residing on the Web server of your machine (the localhost), for students' enrollments in courses over the years. The specifications of the webpages are as follows.

The first webpage is for the user (presumably a school administrative staff) to enter search criteria. Initially, there is no enrollment information shown this page. The user may enter a search criterion which is the ID or name of a student and then click the find button. A list of the semesters for which the student is enrolled (in some courses) appear immediately on the SAME page (only refreshing a portion of the table). After the user clicks on a particular semester in the list, the search application redirects the user to the second webpage.

The First Webpage

<input type="text"/>	find
Enrollments	
Semester	ID/name
No Entry	

The user can enter a student's ID or name in the input box and then click the find button



The First Webpage

<input type="text"/>	find
Enrollments	
Semester	ID/name
2021s	0001/Steve
2021f	0001/Steve
2022s	0001/Steve
2022f	0001/Steve

The second webpage shows the details of the student's enrollment for that particular semester, including the semester, the ID/name of the student, and the enrolled courses.

Enrollments and courses have a many-to-many relationship. In other words, the enrollment of a student for a particular semester may contain multiple courses, while a course may be included in multiple enrollments.

The Second Webpage

Enrollment	
Semester	2021s
ID/name	0001/Steve
Courses	SDM Text Mining Intro. to ML

Here are the specific action items:

- (1) Create a MySQL database (or an equivalent) that meets the requirements of the Web-based search application. You may set types of all attributes to VARCHAR(20).
- (2) Implement the Web-based search application in HTML, Javascript, and PHP (other common languages/frameworks are also acceptable). The application contains three PHP files that correspond to the first webpage, the second webpage, and the page which handles requests sent by the first webpage.
- (3) You must use Git for version control. When you have completed the assignment, push all updates to your remote individual repository on the Git server for this course. The remote repository should be named “hw2”.
- (4) Besides, there are other requirements as follows for the ease of demo and grading.
 - (a) The three PHP files (assuming that you use PHP) should be put in the same directory and named *first_page.php*, *second_page.php*, and *ajax_page.php* (adapt accordingly if you use some other language/framework).
 - (b) You may need jQuery for shortening your code. The JS file of jQuery should be put in the same directory and named *jquery.js*. Please include jQuery appropriately.
 - (c) The credentials for connecting to the database should be as follows:
 - i. Host: localhost
 - ii. User Name: root
 - iii. Password: secure1234
 - iv. DB Name: order_application
- (5) You may be asked to demo your Web application during the breaks of the class meeting on the due date or a later designated date.