

Homework Assignment #2: A Little Web Programming Exercise

Due Time/Date

11:59PM Tuesday, March 8, 2022. 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. If you encounter any difficulty, you may consult the tutorial for basic Web programming on the course website.

Task Description

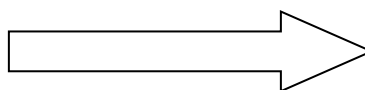
Consider the following Web-based search application, which consists of two webpages, for orders of items. The specifications of the webpages are as follows.

The first webpage is for the user to enter search criteria. In the beginning, there is no order in the order list on this page. The user may enter a search criterion which is the name of a customer and then click the search button. The orders by the customer appear immediately in the order list on the same page. After the user clicks on an order in the order list, the search application redirects the user to the second webpage.

The First Webpage

<input type="text"/>	search
Orders	
ID	customer
No Orders	

The user can enter a customer name in the input box and then click the search button



The First Webpage

<input type="text"/>	search
Orders	
ID	customer
001	Steve
017	Steve
021	Steve
101	Steve

The second webpage shows the details of an order, including the order ID, the customer, and the ordered items. Orders and items have a many-to-many relationship. In other words, an order may contain multiple items, while an item may be included in multiple orders.

The Second Webpage

Order	
ID	017
customer	Steve
items	Apple Banana Orange

- (1) Please 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) Please implement the Web-based search application in HTML, Javascript, and PHP (other common languages are also acceptable). The application contains three PHP files which correspond to the first webpage, the second webpage, and the page which handles requests the first webpage sends.
- (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 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 another language).
 - (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) For the ease of testing, the information 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 following the due date or on a later designated date.