Exercise 08: PhP, SQL, AJAX

Objectives:

To learn and use object oriented php along with and SQL and AJAX.

Work with your group (or by yourself).

THIS EXERCISE WILL NOT BE GRADED.

Credits (for edits): Zahra Hosseini, Isaac!Martin.

1   Run UwAmp server

UwAmp is a WAMP server (Windows Apache MySQL, PHP). You can download it by using the following steps. You can run it off a USB stick.

1.1   Download UwAmp

1)   go to http://www.uwamp.com/en/?page=download
2)   download .zip file .and extract the contents into a folder.
3)   start UwAmp (as in last lab).

2   Warm Up: Try Some Examples

Download the examples from the assignment and try them out!

There is an "index.html" file that gives you access to all the examples.

TRY THEM ON DIFFERENT BROWSERS (FIREFOX/CHROME ETC).

Make sure that ALL the PHP code you want to run is in a folder INSIDE www folder of UwAmp.

Also, make sure to type "localhost/…/index.html" on browser to access your server code.

3   Library application

You have already worked on creating a Library application in exercise06. In that exercise, all the work of validation was being done on the CLIENT side using javascript. This exercise is similar, except that all the validation is done on the SERVER side using PhP.

For all requirements that follow, provide the required user Interface for the user using HTML/js (Example : buttons, textfields etc).

3.1   Basic requirements

There are TWO types of users in the system, student and librarian. A user will need to first sign up. After that, he or she can log in and use the system.

1)   Sign up form

Field Label	Field Type	Validation rule
username	TextField	*Required. Must contain only alphabetical or numeric characters.
Password	Textfield	*Required. Should be stored in database in md-5 format (look up md5() method in PhP)
Confirm password	Textfield	*Required.
Email	TextField	*Required.Must be in the form xxx@xxx.xxx x should be alphanumeric.

Phone	TextField	Must be in the form xxx-xxx-xxxx or xxxxxxxxxx x should be number
Librarian or not flag	checkbox	Required. Boolean
First name	Text field	Required. Must contain only alphabetical
last name	Text field	Required. Must contain only alphabetical

2) Once a user logs in, his/her **username** should be displayed on the top right corner of all the pages till he/she logs out. (Hint: Make use of session variables).

3) If you are logged in as a librarian you should be able to perform the following functions
   - add book (book id, book title, author) – adds to a shelf in the library that is not full. Assume shelves have some fixed capacity and that there are some fixed number of shelves.
   - delete book(book id) – removes the book from the library (and shelf).
   - view loan history(username)
   - view all the shelves, on clicking the book id of a book the details of that book should be shown on the same page.
4) If you are logged in as student
   - view all the shelves, on clicking the book id of a book the details of that book should be shown on the same page.
   - borrow(book id) should be able to take a book on loan if it is available .
   - return(book id) return the book

5) Use only AJAX for all requests.

** use at least 4 PhP classes**: library, student, book, shelf.

3.2 Database access
We have provided a database with four tables. Here is the info you need to access this database:

I WILL SEND SERVER CONNECTION INFO LATER BY EMAIL. IGNORE THE FOLLOWING CONNECTION INFORMATION.

Server: mysql.cs.iastate.edu
Schema: db319all
User: u319all
Pass: 024IjLaMj4dI

Example on Pyrite:
    mysql -h mysql.cs.iastate.edu -u u319all -p db319all

Example for table names below : Group1_users

Group<your group number>_users

username	Password	Email	Phone	Librarian?	Firstname	Lastname

Group<your group number>_books

Book id	Book title	Author

Group<your group number>_bookCopy

copy id	Book id

Group<your group number>_loanHistory

Username	Copy id	Due date	Returned on date

Group<your group number>_shelves

Shelf id	Copy id

You may use these tables (or create your own database in your personal computer with its own tables. <mark>But you should submit database .sql file also</mark>).

Submission:

No submission. This is not a graded assignment.