

# Exercise06: PhP

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## **Objectives:**

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

**Work with your group (or by yourself). Each group to upload only one submission.**

# 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) change the port number to 8080
- 4) start UwAmp

## 1.2 Check to make sure it is working ok

- 1) Run UwAmp
- 2) Select the first two check boxes you get.
- 3) Make sure that ALL the PHP code you want to run is in a folder INSIDE www folder of UwAmp.

# 2 Warm Up: Try Some Examples

1. First, open blackboard, go to Course Contents, and then **download exercise06.zip file** into your workspace (U:\workspace or something like that!). Then, unzip.
2. Play with each of the given examples (in examples directory). Open them using a text editor of your choice and modify parts of PhP files to learn how the different instructions work.
3. To learn basics of PhP – go to w3schools.com
4. To learn about PhP objects – go to site <http://php.net/manual/en/language.oop5.php>

Note that the assignment assumes you have understood these examples.

### 3 Library application

You have already worked on creating a Library application in exercise05. 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.

#### 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 <a href="#">xxx@xxx.xxx</a> x should be alphanumeric.
Phone	TextField	Must be in the form xxx-xxx-xxxx or xxxxxxxxxx x should be number
Librarian or not flag	Text field	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

**\*\* use atleast 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:

Server: mysql.cs.iastate.edu

Schema: db319all

User: u319all

Pass: 024ljLaMj4dl

Example on Pyrite:

```
mysql -h mysql.cs.iastate.edu -u u319all -p db319all
```

You may use these tables (or create your own database with its own tables). Use your group-id when accessing your group's data.

#### users Table

<u>Groupnumber</u>	<u>username</u>	Password	Email	Phone	Librarian?	Firstname	Lastname
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#### books Table

<u>Groupnumber</u>	<u>Book id</u>	Book title	Author
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**bookCopy Table**

Groupnumber	copy id	Book id
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**loanHistory Table**

<u>Groupnumber</u>	<u>Username</u>	<u>Copy id</u>	Due date	Returned on date
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**shelves Table**

<u>Groupnumber</u>	<u>Shelf id</u>	Copy id
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**Submission:**

Zip your html and php files and submit on black board. Remember there is only one submission per group. Make sure to include all the files that are needed in order to run your program.