

**Volume**

**3**

COMP 1920

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Server-side Web Scripting with PHP

# Assignments

COMP 1920

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## Assignment 2 Important Information

You must build your own database and table that exactly matches the examples here.

## Assignment 2 (Harder Version)

Due at the beginning of lesson 12.

This is the HARDER version of assignment 2, for which you can earn a grade of 112%. Alternatively you may do the EASIER version of assignment 2, for which you can earn a grade of 100%.

Write a series of scripts with the following behavior:

There must be a login page which is the only entry point for visitors to this Web site.

There, the users must login.

Prompt the user for username (into a text input) and password (into a password input). For example, **username “comp1920” and password “php” will work.**

If there is a cookie that is storing the visitor's username already, then put the stored username into the text box "automatically" like this:

```
<input type = "text" name = "username" value = "<?php echo $_COOKIE["username"]; ?>">
```

Validate the username/password combination by looking up the data in a database.

if the username doesn't exist, give error "no such user"

if the password is wrong, give error "wrong password"

after three unsuccessful attempts, tell the user "three strikes you're out" and redirect to another page (any other page)  
after 5 seconds of displaying this message

if the username / password are valid,

welcome the user by their FIRST and LAST names like this:

"welcome JASON HARRISON...this is visit number 16 for you! Last time you came from ip address 12.34.56.78 and this time you're coming from ip address 23.45.56.67!"

The previous ip address is stored in the database, and the current ip address is stored in the \$\_SERVER variable. To connect to the database listed below, use the username "jsignalf\_1920stu" and password "comp1920".

There is a database of usernames/passwords/firstnames/lastnames/numberofvisits/ipaddresses on the signalflare server

the database is called "jsignalf\_users"

the table is called "personalinfo"

the fields are "username", "password", "firstname", "lastname", "numberofvisits" and "ipaddress"

```

C:\ Command Prompt - mysql
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> describe personalinfo;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| username | varchar(20) | YES | PRI | NULL |  |
| password | varchar(30) | YES |  | NULL |  |
| firstname | varchar(30) | YES |  | NULL |  |
| lastname | varchar(30) | YES |  | NULL |  |
| numberofvisits | int(11) | YES |  | NULL |  |
| ipaddress | varchar(20) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql>

```

Note that “username” is the primary key (must have a unique value).

When the user successfully logs in,

- create a session and session variable noting they are authorized
- create a cookie storing their username, so next visit they do not have to type it in
- increment the numberofvisits field in the database to keep track of how often this user has visited
- update the database ip field to store the newest ip they visited from.

None of the other pages or functionality on this site are accessible to unauthorized users (ie. users with no session). To access the site, they must login and have a session created for them.

Give the user an interface to upload 10 files, with instructions to send **both** textfiles and .jpg files like this:

When the user presses the submit button, copy all of the uploaded files to the script directory

There must be at least one file with a ".txt" extension, that has an email address in its text contents:

Use a regular expression to identify the uploaded textfile file that contains an email address...remember, the user may send one jpg file and **nine** text files, only ONE of which needs to have an email address in it. that is how your assignment will be tested.

The user must upload at least one file with a ".jpg" extension, or else the user will get an error message and a hyperlink to send them back to the previous page

Once the user has uploaded at least one .txt file (with an email address) and one .jpg file, you can proceed with the script

- Create a thumbnail of the .jpg file...keep the same shape (same ratio) but the largest side (width or height) must be 100 pixels. store this image as "assignment2.jpg" on the server
- Send an email to the email address inside the .txt file telling them that their image has been resized. the subject line must be "assignment 2 image resized". Also display this new image to the screen.
- Also create a solid colored rectangular image with the email address from the text file as its caption. save this image as "email.jpg" on the server: Also display this new image to the screen.



Tell the user that an email has been sent.

Remember to comment each PHP script, and all relevant parts of your code (see the course notes). Submit all scripts on PAPER to your instructor before the final exam.

Submit your text file and PHP scripts to BCIT's server before the start of lesson 12. Create a folder (named lastname-firstname, where lastname is your last name and firstname is your first name) to BCIT's server (IN/COMP/1920/ASSIGNMENTS/ASSIGNMENT2) and submit your PHP scripts to your folder.



## Assignment 2 (Easier Version)

100 Marks

Covering material from lessons 6-10

- Cookies
- Sessions
- Graphics
- Databases

### Overview

Build a php application for drawing images that provides two levels of access to users. "Registered" users, whose user name and password are stored in a mysql database, are to be granted full access to the application and all its features. Non registered users can log in as "Guest", but will have limited functionality. Not logging in at all will deny access to all pages.

Guests can view the image only. Registered users can change the image face into various expressions. Building faces uses the same base face as a starting point. You may make up your own or use the one pictured, located at [http://signalflare.ca/comp1920/sample\\_assignment\\_solutions/assignment02e/fresh\\_face.jpg](http://signalflare.ca/comp1920/sample_assignment_solutions/assignment02e/fresh_face.jpg)



### Database info

The database schema is as follows.

table                  users

key	username	password
1	Newton	apple
2	LaoTzu	jade
3	Mozart	melody

You may use the connectivity information described in config.php below, or you may use your own database, providing your database follows the schema shown above.

### Submission

Put all files in a folder named lastname-firstname (use your own names) and upload the folder to BCIT's server in the assignment2 folder before the start of lesson 12.

## config.php

Must contain at least the following declarations:

```
$db          = " localhost ";  
$usr         = " 1920student ";  
$pwd         = "comp1920";  
$database    = " comp1920db ";
```

## login.php

- Check to see if a \$\_GET parameter named "msg" is being passed. If so, display the message to the user.
- Show a form with inputs for username and password. Also include a checkbox to indicate if the user wishes to be remembered in future visits. The form action is "index.php". The form method is up to you.
- Check for a \$\_COOKIE named "username". If there is such a cookie, populate the username of the form with this value, and ensure the form checkbox is checked. If there is no such cookie, ensure the username is blank, and the checkbox is unchecked.

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*COMP1920 Assignment 2*

Non-Registered users may log in as Guest with no password

Username:

Password:

Remember my username next time I visit this site ☐

## **index.php**

- Must require config.php
- Check for a session variable called "user".
- If there is no such session, check for username and password variables being passed from login.php.

If the username is "guest", start a session named "user" and assign it the value of "guest".

If the username is anything other than "guest", connect to a mysql database and determine if the user input is valid.

If there is any problem validating the username or password (not set, not correct, couldn't connect to database, etc), redirect the user to login.php and pass an appropriate error message as a \$\_GET parameter named "msg".

If the username and password are validated, start a session called "user" and assign it the value of the username.

Check for the checkbox parameter from login.php. If it has been checked, set a cookie called "username" with the username as the value. Make the cookie lifetime one day. If the checkbox was unchecked, remove the cookie.

- Display a header explaining to user "You are logged in as: "...
- Show a link to view.php
- If they are a registered user, show a link to build.php
- Show a link to logout.php

## **view.php**

- If no session "user" exists redirect to login.php with an appropriate \$\_GET message.
- Display a header explaining to user "You are logged in as: "...
- Show the current image "face.jpg"
- Display a link to index.php

## build.php

- If no session "user" exists redirect to login.php with an appropriate \$\_GET message.
- If "user" is a guest, redirect to index.php
- Display a header explaining to user "You are logged in as: ..."
- Show a form with at least 3 radio buttons, all named "drawface". One button for clearing the image, and the other two for drawing different types of faces. What kind of faces is up to you. The form action is build.php
- Check for a variable named "drawface" being passed. If "drawface" matches one listed in the radio buttons, build a new image:

Make a copy of the base image "fresh\_face.jpg".

Using the php graphics line drawing or shape painting functions, draw the appropriate expression on the new image.

Save the new image as "face.jpg"

You are logged in as: **Mozart**

Build Image:

☐ Silent ☐ Happy ☐ Furious



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- You can show the current image "face.jpg" if you like, but you don't have to (you may experience browser caching issues).
- Display a link to index.php

## logout.php

Destroy session variable(s) and redirect to login.php with a "You have been logged out." Message.