

CIS 12

Lab Assignment 12

In this lab, we will be coding the login button, from the website we've been building for the entire semester (Lab 3, Lab 5, and Lab 9). **This lab relies on the completion of lab 9.** You also must have the database from lab 5 running. If you do not have the database saved in your SQL server, then you can download the Ch 5 Database file from Canvas (the zip archive attached to Lab 9) to reload the database.

It is required that you complete lab 9 before you attempt this lab.

Part 0 - Verify that your old website works.

1. Turn on XAMPP and MySQL Server
2. Create a new folder in **htdocs** called **ch12**
3. Inside this folder, recreate the same structure as described in lab 9
4. Ensure that you include the file, **mysqli_connect.php** (from lab 9, part 4), inside **htdocs** folder.
5. This will give you the following hierarchy:

htdocs	—>	ch12	—>	includes	—>	header.html
					—>	footer.html
			—>	css	—>	sticky-footer-navbar.css
	—>	mysqli_connect.php				
		—>	index.php			
		—>	password.php			
		—>	register.php			
		—>	view_users.php			
6. Surf the website and ensure it is connected to the ch 5 database. In this lab, we will be adding the login page to the website.

Part 1 - Making a Login Page (Pg. 382)

1. Follow steps 1 - 6 on pages 383 - 384 to create Script 12.1 the **login_page.inc.php** file.
2. Save the file in the **includes** folder

Part 2 - Making the Login Functions (Pg. 385)

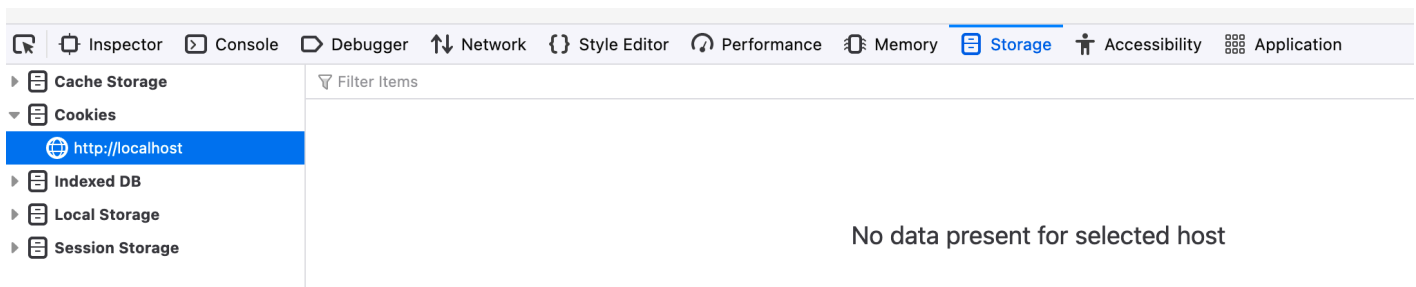
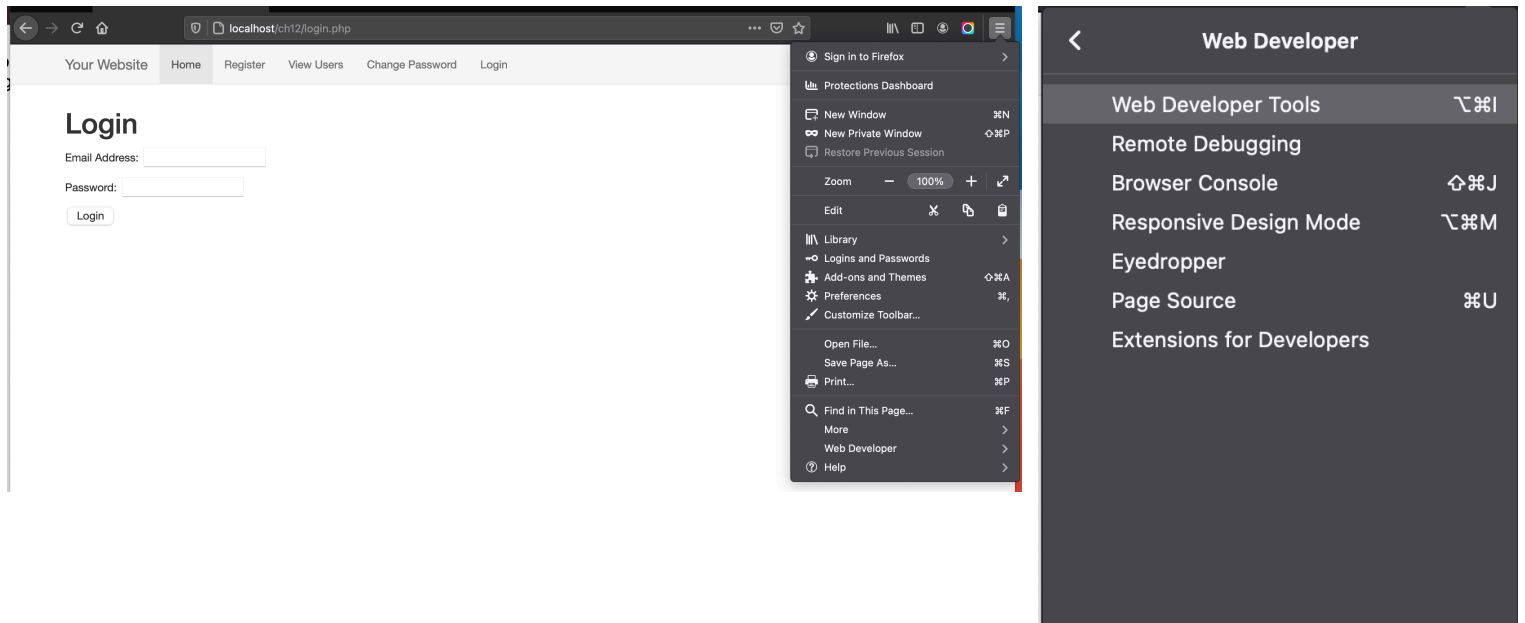
1. Follow steps 1 - 13 on pages 385 - 389 to create Script 12.2 the **login_functions.inc.php** file.
2. Save the file in the **includes** folder

Part 3 - Using Cookies (Pg. 390)

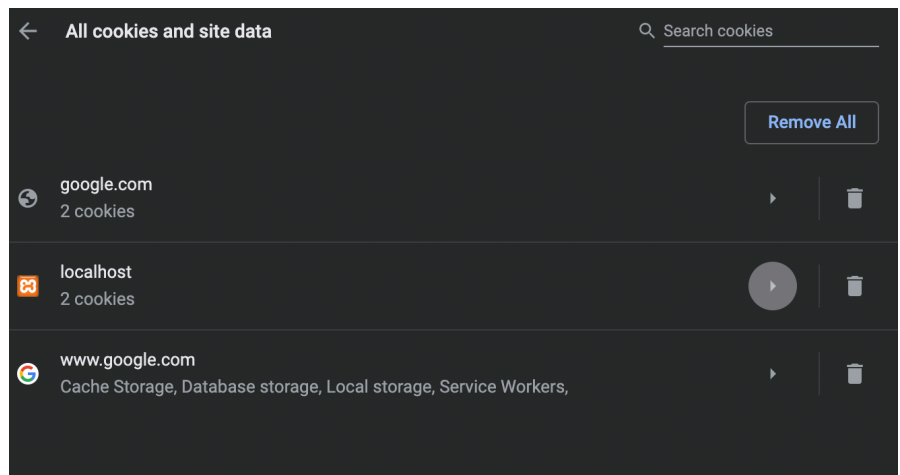
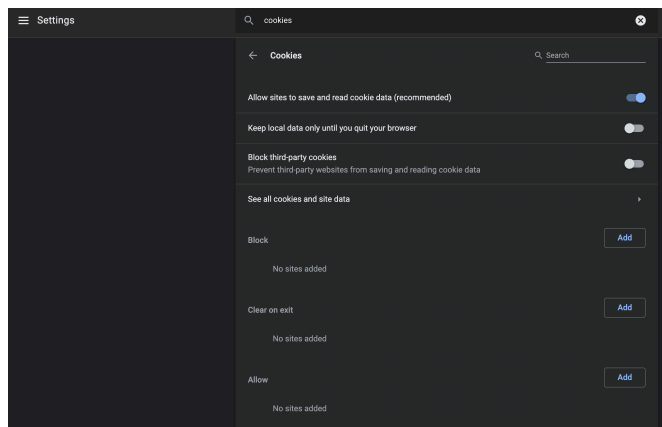
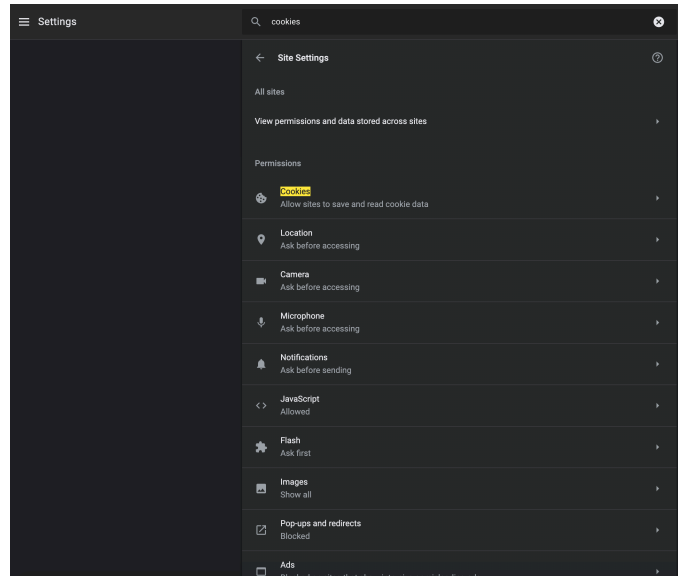
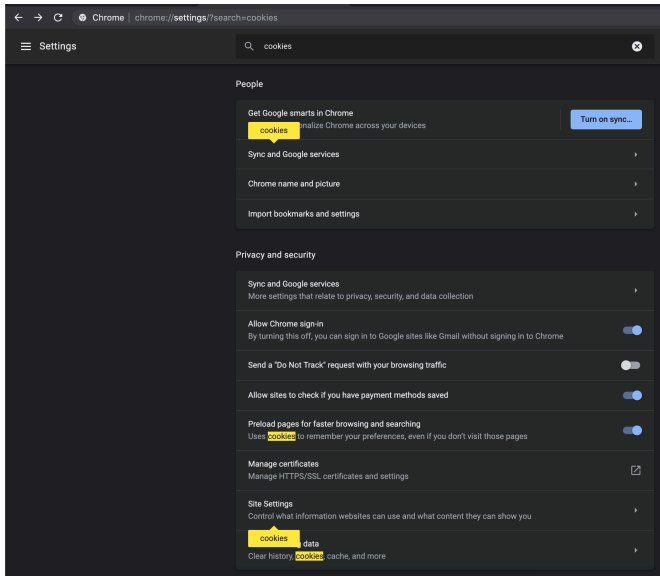
Note: Although cookies are used in every browser the same way, I recommend you only use either Firefox or Chrome in this lab. IE, Edge, and Safari typically won't display cookies from a localhost connection. In this lab, I am in version 90 of Chrome and in Firefox Quantum 80. Firefox has changed how to view cookies in their browser as of version 59. So if you use an old version of Firefox, either update it or google how to view cookie information in the version of the browser you have. I won't respond to questions on how to view cookies or delete cookies in a browser. I will assume you already know how to do that.

(NB: Firefox constantly changes how cookie information is viewed per version. I prefer the older Firefox versions prior to 59. Google is the only browser that hasn't changed how cookies are viewed.)

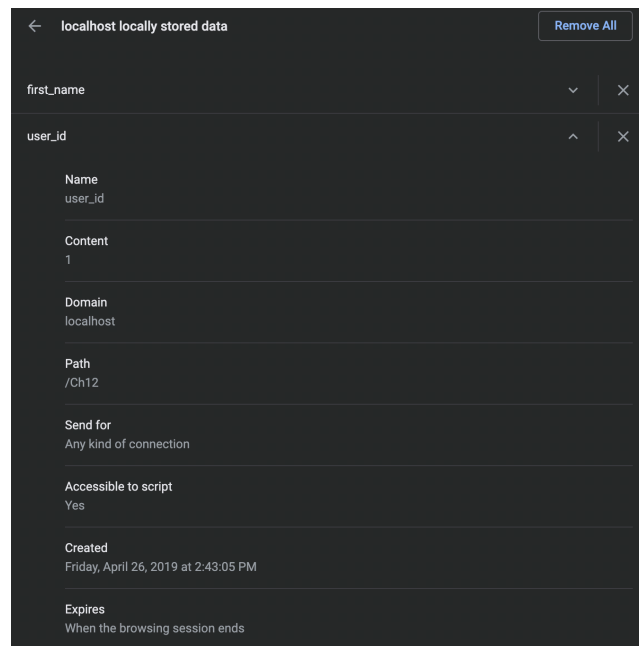
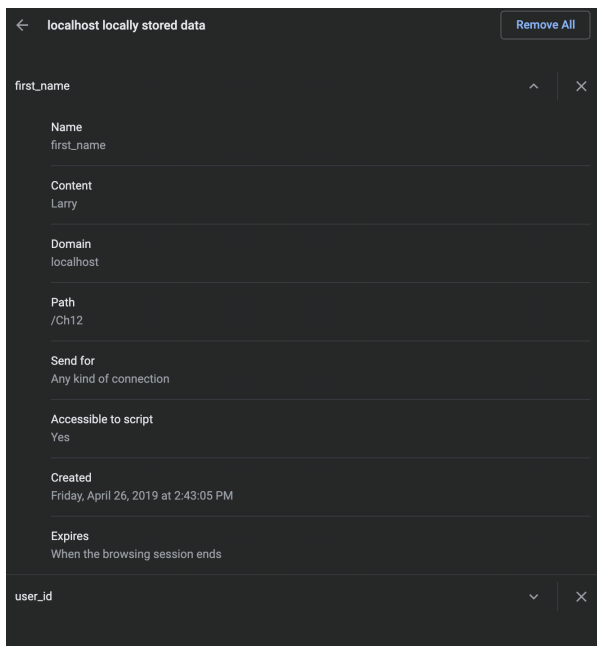
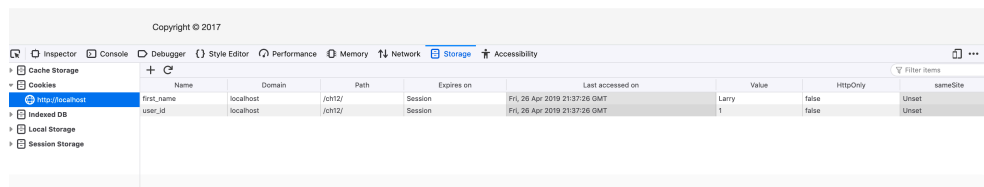
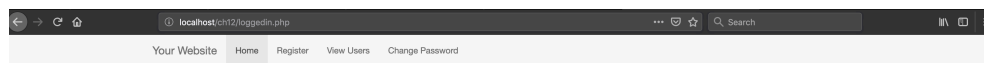
1. The current version of Firefox enables cookies by default. You can view cookie information by using the menu under Web Developer —> Web Developer Tools. It's the menu under the drop down on the right side of the browser in the tool bar. It is the menu with 3 horizontal lines. It will give you the storage inspector snapped to the bottom of the browser.



- These series of screenshots are how to view cookies in Chrome. Go to Preferences. Search for cookies. Click on Site Settings. Then click on Cookies. Then click on see all cookies and site data. (Ensure block third party cookies are off) Click on the cookie to view the data. In this lab, all cookies will be under localhost, unless you serve this site elsewhere.



3. Follow steps 1 - 8 on pages 392 - 394 to create Script 12.3 the **login.php** file.
4. Save the file in the **Ch12** folder.
5. This is the first part of the login process and sending cookies. To login in properly, we need another file to handle what to do when logged in, and accessing cookies.
6. Follow steps 1 - 8 on pages 394 - 396 under **To Access a Cookie** header to create Script 12.4 the **loggedin.php** file.
7. Save this file in the **ch12** folder.
8. Test this by running the login page in your browser: <http://localhost/ch12/login.php>
9. Login using the credentials from Larry Ullman in your database. If this doesn't work, then there's something wrong with your database.
Username: email@example.com
Password: mypass
10. Notice what happens when you login. The url changes to the **loggedin.php** page.
11. If you were to try to press the logout link, the script will 404 error because we haven't created the logout file yet. That's okay. We haven't done that yet.
12. Access your cookie in your browser. This is what it looks like in Firefox and Google Chrome.



13. Screenshot your cookie and the result of your logged.php file in one of the browsers.

14. Follow steps 1 - 3 on pages 397 - 398 under **To set a cookie's parameters** header to upgrade the **login.php** file. This will change script 12.3 to 12.5.
15. Test this by running the login page in your browser: <http://localhost/ch12/login.php>
16. **Screenshot the new cookie.** What's changed? If it's not obvious, delete the cookie and repeat step 15.
17. Follow steps 1 - 5 on pages 399 - 400 under the **To delete a cookie** header to create Script 12.6 the **logout.php** file. This will give us the ability to logout of the site.
18. Follow steps 1 - 3 on pages 400 - 403 under the **To create the logout link** header to upgrade the **header.html** file in the **includes** folder. This was Script 9.1 that you created in lab 9. After you change this file, it will be referred to as Script 12.7 in the text.
19. Browse the website: <http://localhost/ch12>.
20. Login and Logout using the credentials from Larry Ullman in your database.
21. Check the cookie in the browser, it should delete itself. If it didn't delete, then delete the cookie and login and then logout and check it again.
22. **Screenshot the results of the logout page and deleted cookie information.**

Part 4 - Using Sessions Pg 404

1. Follow the steps 1 - 3 on page 405 - 406 under the **To begin a session** header to upgrade the **login.php** file to accept sessions. This will upgrade the file from Script 12.5 to Script 12.8 in the text.
2. Test this by running the login page in your browser: <http://localhost/ch12/login.php>
3. Check your browser's cookie settings, as stated above. The cookie should change to reflect you are using sessions. (The name of the cookie will show PHPSESSID and the content will be a long hexadecimal string of data.)
4. **Copy a screenshot of your cookie.**
5. Follow steps 1 - 4 on pages 407 - 408 under the **To access session variables** header to upgrade the **loggedin.php** file. This will upgrade Script 12.4 to 12.9 in the text.
6. Follow steps 5 - 6 on pages 408 - 409 under the **To access session variables** header to upgrade the **header.html** file. This will upgrade Script 12.7 to 12.10 in the text.
7. Follow the steps 1 - 6 on page 410 - 411 under the **To delete a session** header to modify the **logout.php** file. This will upgrade Script 12.6 to 12.11 in the text.
8. Test the script by logging in and out using the credentials from Larry Ullman in your database

Part 5 - Improving Session Security Pg. 412

1. Follow steps 1 - 6 on page 413 - 414 under the **To use sessions more securely** header to update **login.php** and **loggedin.php** files. The **login.php** file was Script 12.8 it will be updated to Script 12.12. The **loggedin.php** file will be updated from Script 12.9 to Script 12.13. These versions are the final versions of the scripts.
2. Test the script and log in and out, as above.
3. **Copy the code from all files created in this lab into a zip archive and send it to me along with the screenshots. I require a zip archive with the screenshots in one folder and the lab files in another.**