

Lab 9 - PHP Cookies Exercise Report

Overview

This lab exercise focused on implementing cookie functionality in a PHP web application. I enhanced an existing course registration system by adding "Remember Me" login functionality using PHP cookies.

What I Implemented

1. Remember Me Login Feature

- Added a checkbox "Remember me for 30 days" to the login form
- When checked, user credentials are stored in cookies for automatic login
- Works for both students and lecturers

2. Auto-Login Functionality

- Users are automatically logged in when they return to the site
- System checks for remember me cookies on page load
- Redirects users to their dashboard if valid cookies exist

3. Cookie Security

- Used `setcookie()` with HTTPOnly flag for security
- Set proper expiration times (30 days)
- Secure cookie handling to prevent JavaScript access

4. Cookie Management

- Cookies are properly cleared when user logs out manually
- Multiple cookies store different user information (ID, name, type, password)

5. User Feedback

- Added visual indicators when auto-login occurs
- Green notification messages on dashboards for remembered users

Files Modified

`index.php`

- Added remember me checkbox to login form
- Implemented auto-login logic using cookies
- Pre-fills form fields with remembered credentials

`logout.php`

- Added code to clear all remember me cookies on logout
- Ensures clean logout experience

dashboard.php & lecturer_dashboard.php

- Added notifications to show when user was auto-logged in
- Visual feedback for cookie functionality

about.php

- Added documentation section for Lab 9 features
- Link to cookie demonstration page

cookie_demo.php (New File)

- Interactive page to view all current cookies
- Cookie testing and management interface
- Documentation of cookie functionality

Key Code Examples

Setting Cookies (Remember Me)

```
if ($remember_me) {  
    $expire_time = time() + (30 * 24 * 60 * 60); // 30 days  
    setcookie('remember_user_id', $user_id, $expire_time, '/', '', false, true);  
    setcookie('remember_password', $password, $expire_time, '/', '', false, true);  
    setcookie('remember_user_type', $user_type, $expire_time, '/', '', false,  
true);  
}
```

Reading Cookies (Auto-Login)

```
if (isset($_COOKIE['remember_user_id']) && isset($_COOKIE['remember_password'])) {  
    $user_id = $_COOKIE['remember_user_id'];  
    $password = $_COOKIE['remember_password'];  
    // Auto-login logic here  
}
```

Clearing Cookies (Logout)

```
if (isset($_COOKIE['remember_user_id'])) {  
    setcookie('remember_user_id', '', time() - 3600, '/', '', false, true);  
}
```

How to Test

1. **Open the login page:** <http://localhost/DUMMY/index.php>

2. Login with test credentials:

- Student ID: `ST001`
- Password: `password123`
- ☒ Check "Remember me for 30 days"

3. Click **Login** → Dashboard appears

4. **Logout** → Return to login page

5. **Refresh the page** → Automatically logged in!

6. **View cookies:** Visit http://localhost/DUMMY/cookie_demo.php

Test Credentials

- **Students:** ST001, ST002, ST003 (Password: password123)
- **Lecturers:** LEC01, LEC02, LEC03, LEC04 (Password: lecturer123)

Cookie Features Demonstrated

- ☒ **Cookie Creation** - Using `setcookie()` function
- ☒ **Cookie Reading** - Using `$_COOKIE` superglobal
- ☒ **Cookie Expiration** - Setting 30-day expiration
- ☒ **Cookie Security** - HTTPOnly flag implementation
- ☒ **Cookie Deletion** - Clearing cookies on logout
- ☒ **Cookie Validation** - Checking cookie existence and values

Learning Outcomes

- Understanding how cookies work in PHP
- Implementing persistent login functionality
- Managing cookie security and expiration
- Practical application of cookie technology in web development

Conclusion

Successfully implemented a complete remember me system using PHP cookies. The system now allows users to stay logged in for 30 days, demonstrating practical cookie usage in a real-world web application scenario.