

CSI 3140 / CSI 3540
WWW Structures, Techniques and Standards

Assignment #3:
Server-Side Programming (Cont'd)

Due: April 3, by email to the TA

Goal: Strengthen server-side functional modules for AmazonLite by a login mechanism (along with sessions) and a shopping cart.

Mark: 25% of the project's total mark

By now, you have identified a number of functionalities that were implemented on the client side, and others to be implemented on the server side. You have given and implemented client-side functionalities in Assignment 1. In Assignment 2, you have implemented a simple as well as a category search mechanisms.

To do in this assignment

You must ensure that AmazonLite incorporates access control functionality along with a shopping cart. Do use the servlet session tracking API to this end.

A shopping cart contains the following at list the following information: CustID as well as customer first and last names, the number of books that have been selected by the customer, the total price of the books, and a list of the books selected along with the ISBNs, the quantity to purchase, as well as book prices and descriptions. Display your cart in a well-chosen corner of the client's browser.

AmazonLite's main functions for the shopping cart should include at least the following:

1. **Adding books:** The objective here is to select and add books into the cart. A new cart object is created if one did not exist already (should the visit be the first one) or if there was a timeout.
2. **Updating books:** The objective here is to allow the user to update items already added into the cart by changing attributes such as quantity or by simply deleting the entry.
3. **Clearing books:** This allows the removal of all book items from the cart.
4. **Viewing the cart:** This is a support feature to allow the display of the current value of the cart.

These functionalities should be implemented using an appropriate servlet that tracks sessions to both support user authentication and build the cart.

As a hint, the main steps for this servlet may be as follows: First, provide the user with a cart after logging him into the system. Then, use the doGet() method to drive the control flow of the servlet by doing appropriate actions. These actions can be: display a login dialog box, authenticate the input username/password pair, and display a welcome message, possibly with a cart if any already exists from a previous visit. Finally, there should be a method for logging out. Logging out destroys the cart. In all these actions, do not forget to display the outcomes (success or failure).

Do not hesitate to modify your already designed client pages if necessary.

Deliverables

You must provide an electronic version of your **working** program, and a short report (2 pages) describing what you have done and how you have done it, including a description of the architecture of your code. Explain what techniques seen in class you have used, where and why. Your deliverable should be easy to deploy. Again, if you make use of libraries, make it very clear: we should be able to know what code is yours.

Check your documents for spelling and grammatical mistakes. Poorly written projects will receive poor mark.