

Design and Implement a Session-Based Shopping Cart using JSP and Servlets

The "shopping cart" is the heart of any e-commerce application. It is something highly talked about. But, what do you mean by a session-based shopping cart? Well, shopping carts can be mainly session based or database based. As the name indicates, session-based carts are completely maintained in the user's session. Only after the checkout is completed, the information is persisted in the database. On the other hand, a database-based shopping cart is maintained in the database. Every time cart items are added or updated, it gets persisted in the database. Both of them have their own advantages and disadvantages. For each add or update in database-based cart, there will be a hit in the database. On the other hand, it gives us the advantage of cart persistence. You can leave your shopping halfway and come back after some time and resume the shopping session.

For this assignment, you need to create a product list or store page, with an "Add to cart" button. The shopping cart is the collection of items added to the session. The cart holds the items the customer wishes to purchase. Have your cart hold items other than just cart items for example, promotional codes or coupon numbers. Also add something to control the events coming from the "Add to cart," "Update Item" and "Delete Item." That is, give provide functionality to add and remove items to the shopping cart.

When the cart is complete, there should be a button to "purchase" the items. The purchase functionality should add up the costs, add any appropriate sales tax (just make it up) and shipping cost and present the user with a receipt. The receipt can be in the form of output that is show to the user to summarize their order.

If it helps, mimic the shopping cart functionality of your favorite e-commerce engine. You can be creative with the functionality and the user interface and theme. You can invent your own company or use one of your favorites. Obviously, no credit card or actually charge functionality needs to be included. You are pretending that this would happen, if this were a real-life shopping cart. Make sure to have at least one HTML, CSS, Session Data, JSP, and Servlet, component or page. You should follow the Model-View-Controller (MVC) design pattern in your implementation.

Your score will be broken out as follows: (35 points total)

Overall Design	10 points
Controls & Functionality	10 points
Accuracy of Results	5 points
User Interface Design	5 points
Stability (Error Handling)	5 point