Shopping Cart

This assignment will focus on using the session scope, and Expression Language (EL) and the Java Standard Tag Libraries (JSTL).

No Scriptlet may be used in any JSP.

The cart application in chapter 8 may be a good place to start. The code for the book's cart application has been uploaded to Angel in the assigment 2 folder. Their example uses the ProductIO class to read from a text file, this is not a requirement. No file IO or Database access is needed, but is an option.

This shopping cart application will consist of two pages, a browse page showing all of the available items to add to a cart, and a cart page summarizing the items that have been selected.

Many popular sites such as Amazon or Best Buy use shopping carts to allow users to select items to purchase. For this application you may choose any category of items to show, such as Books, Movies, Clothing, Music, etc.

The browse page must show at least 5 unique items. Each item must show the following (in any order):

- Item Name
- Unit Price
- Short Description
- An Image (Any reasonable size)

Each item will also have a quantity textbox defaulting to 1 and an "Add to Cart" button or link. When clicked the item will be added to the user's cart using the quantity entered into the corresponding textbox. If the item already exists in the user's cart the current quantity will be incremented by the quantity entered, not overwritten. Additionally validation is added to prevent any value less than 1 from being submitted as quantity. This validation may be client side or server side.

After the item has been added to the cart, the user is taken to the cart page. On the cart page all of the items the user has added to their cart will be displayed. For each item display the following (in any order):

- Item Name
- Unit Price
- Current Quantity
- Line Price (unit price * current quantity)

Each item in the cart also provides the user with a means to alter the quantity, or remove it completely. After the quantity has been altered or the item removed, the cart page is redisplayed with the updated values. Validation exists here as well to prevent any quantity less than 1. Unlike the quantity on the browse page, which adds to the existing quantity, the cart page sets the quantity (overwriting it) instead of adding to the existing quantity.

Below the list of items in the cart the item totals are displayed. First the sub-total, the sum of all line prices. Then the grand total, the sub-total with shipping and tax factored in. Use 7% for the tax, and a flat rate of 5.00 for shipping. Shipping should be added before applying the tax.

All currency numbers displayed on either the browse or cart pages are formatted as $1,234.56.

Lastly on the cart page display a hyperlink or button to allow the user to return to the browse page to make additional selections. Remember that if an item already exists in the cart its quantity is incremented, not overwritten.

Extra credit (5 Points):
On the browse screen add search functionality. This consists of a textbox and search button. The text entered into the search box will be used to filter which items the user can see.
The search will be over both the Item Name and Short Description, the filtering needs to be done using contains, meaning the search text "it" will match Item Name or Description "Guitar" (case insensitive).