

COMP 3512 Assignment #2

Due Midnight-ish Monday Nov 16

Version 1.1, Oct 28 2015

Overview

You can work in groups of twos/three for this assignment. It is also possible to work individually, but I do strongly discourage it; please talk to me about this if you are planning on working by yourself. This assignment will allow you to apply the concepts and technologies covered in class to a “real” project situation. In this project, you will expand your first assignment.

If working in a group, each member needs to take responsibility for and complete an appropriate amount of the project work. **Be sure to consult the instructor at least one week prior to the due date if your group is experiencing serious problems in this regard.**

Submitting

Put your assignment in a folder named assign2_yourlogin (e.g., assign2_fsmi9876). Only one person in the group needs to submit the assignment.

Put all resources used by your assignment into this folder. Copy this folder to the submit drive in B215 and to the normal university-wide submit drive. You will lose marks if you do not follow these submission instructions.

Grading

The grade for this assignment will be broken down as follows:

Usability and visual design	20%
Program design and documentation	15%
Features	65%

USE CASE NAME:	Assignment 1 Functionality
DESCRIPTION:	Expected base functionality
1.	Your system must have ALL the functionality from assignment 1.

USE CASE NAME:	Program Design
DESCRIPTION:	Class Approach
1.	Make use of a class-based infrastructure for this assignment. Chapter 14 provides code examples for implementing this infrastructure.

USE CASE NAME:	Navigation
DESCRIPTION:	The web site's navigation system.
1.	To your existing navigation in the top row, add a Favorites and a Print Cart link. These will take the user to View Favorites and View Print Cart cases. For each of these links, the label for the link should include a count of the items in the respective lists (e.g., if there are three items in the Favorites list, the link label would be: Favorites (3). Please use the Bootstrap Badge class for these numbers.

USE CASE NAME:	Bootstrap Theme and Site Design
DESCRIPTION:	Design site's appearance by customizing Bootstrap
1.	<p>This time around you will be expected to change the visual design of your site. You can use the Customize facility in the Bootstrap website (http://getbootstrap.com/customize/) or use a live customizer (such as http://bootstrap-live-customizer.com/). Both options can be used to create a new alternate version of <code>bootstrap.css</code>.</p> <p>You may want to make use of a color scheme designer such as http://colorshemadesigner.com, http://www.colourlovers.com, https://kuler.adobe.com, or http://design-seeds.com if you need help coming up with a color scheme. Your color scheme must be substantially different from what you used in Assignment 1.</p> <p>Your customized theme must also use two fonts from the Google Web Fonts collection.</p> <p>I expect more than just color changes. You will also want to change things like navigation bar sizes, footer appearance, panel sizes, font sizes, etc. Many of these you can do via the customizer; others may require additional CSS formatting outside of Bootstrap.</p> <p>Minor style changes to the basic Bootstrap "look" will receive lower design marks than those groups that make more substantial changes.</p>

USE CASE NAME:	About Us
DESCRIPTION:	Display information about this site
1.	The system will display information about this site. Be sure to mention that this site is hypothetical and was created as a term project for COMP 3512 at Mount Royal University taught by Randy Connolly. As well, be sure to list the group member names and roughly what parts of the project each member implemented. If you used any external resources, be sure to cite (or link to) them here.

USE CASE NAME:	Simple Search
DESCRIPTION:	System allows user to search for travel images from a single search box.
1.	This use case is initiated when a user enters text into search box and hits some type of submit button or link. Note: this search box should be accessible everywhere in the site.

USE CASE NAME:	Search Results
DESCRIPTION:	System displays a listing of search results
1.	This use case is initiated after the user makes a search request.
2.	This system will show the matching images within <code>browse-images.php</code> . The results will be those images whose image title or description contains the search text (i.e., Like “%searchvalue%”).

USE CASE NAME:	Add To Favorites
DESCRIPTION:	Way to add an item to the user's favorites (travel image or travel post).
1.	Initiated when user clicks the Add item to favorites link/button.
2.	The system will add the item to the appropriate favorites (i.e., post or travel image) list and then either go to the View Favorites use case or indicate visually somehow that the item has been added to the favorites. The favorites list only needs to last as long as that session.

USE CASE NAME:	View Favorites
DESCRIPTION:	Way to view and modify the contents of user's favorites list.
1.	Initiated when user adds an item to the favorites list, or when user clicks the view favorites link/button.
2.	The system will display a listing of the contents of each of the two favorites list. For favorite posts, display small square image and post title; for favorite images, display small square image and image title. Allow the user to modify the favorites list's contents (i.e., remove an individual item as well as way to quickly remove all items from the list).

USE CASE NAME:	Add To Print Cart
DESCRIPTION:	Way to add a travel image to the user's Print Cart.
1.	Initiated when user clicks the Add item to print link/button.
2.	The system will add the item to the print cart list and then either go to the View Print Cart use case or indicate visually somehow that the item has been added to the print cart. The Print Cart list only needs to last as long as that session.

USE CASE NAME:	View Print Cart
DESCRIPTION:	Way to view and modify the contents of user's print cart list
1.	Initiated when user adds an image to the print cart list, or when user clicks the view print cart link/button. The point of the print cart is that the user will be allowed to “order” prints of each image in the print cart.
2.	Allow the user to remove an item or empty the entire print cart.
3	For each image in the cart, allow the user to select a print size (either 5”x7”, 8”x10”, 11”x14”, or 12”x18”) a quantity, a stock and a frame. Defaults are: 8”x10”, 1, Matte, None.
4	<p>Display the cost for each image in the cart based on the above values. The base costs for the different sizes are: \$0.50, \$2.50, \$6.00, and \$7.00.</p> <p>For instance, if the user selected 11”x14” and a quantity of 3, then the total for that image would be \$18 (\$6x3). However, the paper stock and frame selections will change these amounts (see next steps).</p>
5	<p>For each image in the cart, allow the user to select the paper stock (either Matte, Glossy, or Canvas). The additional cost for the different paper stocks vary depending on the size. For 5”x7” and 8”x10” the extra costs for each print are \$0, \$0.50, \$4. For 11”x14” and 12”x18” the extra costs for each print are \$0, \$1, \$8.</p> <p>For instance, if the user selected 11”x14”, canvas stock, and quantity of 3, then total for that image would be \$52 ([\$6+\$8]x3). However, the frame selected will change these amounts (see next item).</p>
6	<p>For each image in the cart, allow the user to select a frame. The additional cost for the frame varies depending on the frame type and print size. The options are: None [no cost], Blond Maple [\$10, \$12, \$16, \$20], Espresso Walnut [\$10, \$12, \$16, \$20], Gold Accent [\$10, \$12, \$16, \$20], and Silver Metal [\$10, \$12, \$16, \$20]. Those costs are for each quantity.</p> <p>For instance, if the user selected 11”x14”, canvas stock, quantity of 3, and silver metal frame, then the total for that image would be \$90 ([\$6+\$8+\$16]x3).</p>

7	<p>Display a subtotal (the sum of each total) and the shipping cost. The shipping cost varies depending upon the shipper and the amount of the order. The shipping options are Standard Shipping and Express Shipping. The cost for shipping varies depending upon whether there are any frames and whether the total quantity of items is above a certain threshold. If there are no frames in the order, standard shipping is \$5 and express shipping is \$15 (that is a one-time cost regardless of the number). If there are frames and the total frame quantity is less than 10, standard shipping is \$15 and express shipping is \$25; for framed quantities equal to or above 10, standard shipping is \$30 and express shipping is \$45.</p> <p>If the total order before shipping is \$100 or above, then standard shipping is free; if the total order is over \$300, then express shipping is also free.</p>
8	<p>Add an Order button (which does nothing), a Continue Shopping button (which returns to home page) and an Update button that will recalculate the totals based on user selections. The update and continue shopping buttons will preserve the user's choices in session state.</p> <p>This means if I move to another page after clicking either of these buttons, my quantity, stock, frame, and shipping costs will be preserved.</p>

Guidance

This is substantial assignment and your group will likely need to invest 50-70 hours into it. I would recommend the following process.

1. This is a data-driven site, so I would recommend beginning by constructing the data access layer. To begin, create data access objects for Posts, Cities, Countries, Users, and Travel Images. The architecture provided in chapter 14 gives you GetAll() and GetByID() functionality already. You will need to add additional methods that match the functionality required by the use cases.
2. Retrofit your assignment one pages to use this new infrastructure.
3. Customize the bootstrap design.
4. Add search results functionality to browse-images.php.
5. Add session abilities for favorites and print cart lists.
6. Implement the print cart. There is a reasonable amount of business logic in the view print cart use case and this logic needs to be encapsulated within one or more classes. Most of the usability mark will reside in how you implement this page. I would recommend using bootstrap popovers, tooltips, and/or modal dialog to help explain the different print options to the user.