

XHTML and JavaScript Website

CS4753: E-Commerce

Fall 2012

Assigned: 27 September 2012

Due: Noon 5 October 2012

Overview

Web developers commonly use a variety of different languages that must interact with each other to create a seamless final product. For this first assignment you will be creating a complete web site. This web site will be created using valid XHTML and JavaScript. The site must have at least five pages and must be validated by the W3C validator before handing in.

Your web site may be about anything related to e-commerce. Common topics include online clothing store, food ordering website, auctions website, etc. Make sure your web site has some content (at least as much as necessary for a demo performance). The assignment grading scheme is displayed below in section **Grading Scheme**.

Note: *You will continue to develop your website throughout the course with additional assignments that build on each other. It is imperative that you complete each assignment promptly!*

Objectives

The major objective of this assignment is to provide experience with standard technologies for website building. This assignment focuses on XHTML and client-side scripting (JavaScript). Because a basic familiarity with web development is expected, coverage of XHTML and the JavaScript Document Object Model (DOM) is brief. If you have trouble with these topics, please refer to one of the websites found in the **Resources** section of this document or—after consulting the resources—email the TA at besaleva@virginia.edu.

What to turn in

You may complete this assignment individually or in teams of two. The submission must include the source code (as detailed below), and a short document (1-3 pages) with a description and motivation of the choice of topic and design. If you elect to partner with someone, both partners must make a submission on Collab that clearly identifies your partner. Only one partner's submission must include the source code and document; it is not necessary for the other partner to make a duplicate submission.

Grading Scheme

You will be given a grade (maximum 100) and this grade will be 1/3 of your final programming assignment score. Here is how your grade will be made up:

- **Site Design (10 points)**

As this is an E-commerce class, the design of your website needs to be appealing to the users.

- **Site Content (5 points)**

Your site should have at least five pages and each page should have content. Make sure your pages do not look empty. Have enough content for class demo.

- **Valid XHTML (10 points)**

Validate your XHTML using the [W3C Validator](#). One mark will be deducted for each error or warning.

- **Well formatted XHTML and JavaScript (10 points)**

Your code must be well organized, tabbed and commented. Half a mark will be deducted for each improper formatting or insufficient commenting.

- **JavaScript Requirements (65 points)**

The biggest contribution to your grade will come from including the following JavaScript components:

1. Image Rollovers (10 points)
2. Image Slide Show (10 points)
3. Popup Window (5 points)
4. Form Validation (15 points)
5. Incorporate DOCUMENT.WRITE (5 points)
6. Incorporate an IF statement (5 points)
7. Incorporate a FOR or WHILE loop (5 points)
8. Incorporate a FUNCTION (10 points)

Points will be deducted for any JavaScript errors, improperly formatted code and insufficient commenting.

Code Formatting Principles

- Use blank lines to organize your code
- Properly tab your XHTML and JavaScript:

Incorrect	Correct
XHTML Example:	
<code><table><tr><td></code>	<code><table></code>
<code><div></code>	<code><tr></code>
Content	<code><td></code>
<code></div></code>	<code><div></code>
<code></td><td></code>	Content
More Content	<code></div></code>
<code></td></tr></table></code>	<code></td><tr></code>
	More Content
	<code></td></code>

```
</tr>
</table>
```

JavaScript Example

<pre><script> <!-- // for(i=0;i<10;i++){ if(variableName=="value"){ document.write("Content"); } } // --> </script></pre>	<pre><script> <!-- // for(i=0;i<10;i++){ if(varName=="value"){ document.write("Content"); } } // --> </script></pre>
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- Use properly formatted variable names (varName, firstName, etc...)
- End each line of JavaScript with a semi-colon (this does not include if statements, loops, functions, etc.)
- Properly open and close your SCRIPT tags:

```
<script type="text/javascript" language="javascript">
<!-- // Hide Script

/* JavaScript... */

// -->
</script>
```

Due Date – Noon 5 October 2012

When you submit your assignment send an email to **besaleva@virginia.edu** including your NAME, STUDENT ID and your ASSIGNMENT URL. Make sure your assignment URL is 100% correct!

Resources

Subtle differences in how browsers render XHTML pages and interpret JavaScript can be the cause of considerable angst for web developers. Validated code (i.e., code that conforms to the standards published by the [World Wide Web Consortium](#) (W3C)) usually performs much better than non-compliant code. Hence, please, validate your code with [W3C Validator](#).

Here are a few links to pages that will help with the assignment requirements:

- [XHTML 1.0 Standards](#)
 - [DOCUMENT.WRITE](#)
 - [IF Statements](#)
 - [FOR Loops](#)
 - [WHILE Loops](#)
 - [FUNCTIONS](#)
 - [Popup Windows Code Generator](#)
 - [WINDOW.OPEN](#)
 - [Web Monkey Slide Show](#)
 - [JavaScript Validation](#)
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Downloads

If you use FireFox as your browser download the Developer Extension and FireFox will validate ALL visited XHTML pages immediately. It will save you lots of time over using the W3C Validator.

- [FireFox Developer Extension](#)