MerchanCS

MerchanCS satisfies the specified requirements in the following ways:

1. **HTML5 compliance**

We have periodically verified our HTML with the W3 Schools online verification.

1. **JavaScript and user interaction**

Our main header and footer offer dynamic content to the user. Many features are just for fun (i.e. the bouncing professor photos), but also provide the user with an entertaining and pleasant experience. Users can select a “theme,” which allows for several different colors of buttons. The cart page updates automatically to recognize additions and deletions, providing the user with helpful feedback during his shopping.

1. **PHP and dynamic content**

Behind the scenes, MerchanCS makes use of a custom MVC class hierarchy in PHP. Each page is given a “module,” which contains a specific Model, View, and Controller class derived from the general base classes. Each model class is responsible for interactions with the database, funneling that data through the controller, which is responsible for handling user input as well as interacting between the model and view. The view finally receives the data and is responsible for displaying the content to the user. Each derived view class takes advantage of a standard template (main.phtml), and simply spits out the body HTML for its page.

The heart of MerchanCS is the index.php page. This script is always active and uses a $\_GET parameter to determine which model, view, and controller to instantiate, thereby altering which page is displayed. A user action which would lead to another page simply redirects back to index.php with a different page parameter.

1. **SQL and persistence**

MerchanCS takes advantage of sessions as well as an SQLite database to handle all persistent product and user information. The database handles multiple users, who can each log in and log out. The user can update his cart and leave the session, and the data will remain when he returns.