

Use your midterm project as a foundation for your final project. In the final project you should make the following improvements:

1. **[30pts]** Convert all the products you used in your midterm project and into a PHP array or a JS array.
2. **[80pts]** Instead of one page for each category of products, use only a single page to display all products with the following filter options (you may use button or anchor tag or select tag):
  - a. Show All Products
  - b. Show Category

\*note: If using php, you may have to use get or post request and if using js, you need to use event handler to change the view

3. **[10pts]** Upgrade your website's unified design and the CSS file to make your page user friendly, readable with proper color scheme.
4. **[80pts]** Add a new page to your site for user login and secure all pages in your website by allowing authenticated users to access any page in your website.
  - a. You will use php session for authentication in combination with php header function.
  - b. A php file is provided for you to use for authentication.
  - c. A function is called isAuthenticated() is provided which returns true if the current user is authenticated or not. If the user is authenticated, then this function will return true. This function will be used in every page to allow authenticated users to visit the page.
  - d. A function called authenticateUser(username,password) which would take username and password as arguments and will return true if there is a match, otherwise it will return false.
  - e. Compare the two functions and use your wits to make a logical relation using these two functions as a means of user authentication and securing your website.
5. **[50 Extra Credit]** Upgrade the shopping cart to use php session. Make sure to catch duplicates and bundle duplicates into a single entry with adjusted total price.