Secure Web-Based Systems — Fall 2017
CS 4339/5339 — Professor L. Longpré

Team Project

Summary

This assignment is a group project to develop a web site. It should bring together most of the topics we have covered in this class. In the real world, web development is usually a team effort, and this project attempts to model this situation.

Description

You have to design a web site for a fictitious car parts company. Dr. Sassenfeld, a car enthusiast and a former lecturer in the department, provided a list of car parts with images, and allowed us to reuse his data in our project. The web site should have the following characteristics:

1. Consistent look and feel, where all pages share a similar design and navigation scheme. Use CSS to create some style. We are not using packages, we are not trained as graphic artists, and time is limited, so we don't expect anything elaborate.

2. Works on different browsers (test on at least 3 different browsers.)

3. It should be the group's own work. Do not include packages or themes downloaded from the internet. If you wish, you may use Jquery. We did not cover it in class, but it is part of our textbook.

4. There are 3 kinds of users: visitors, logged-in customers, admin.

5. All user input should be validated on the server.

6. Data validation from new or existing customers should be validated with JavaScript in addition to the server validation.

The tasks could be separated into several tasks:

1. Display car parts: There should be options for sorting, filtering and display. Sorting refers to the order of the display information. Filtering is selecting only some rows of the database of parts. Display options is the selection of which columns of the database to display. Parts pictures could be stored either in the database (using blobs) or on the server.

2. Customers: There should be a way for visitors to create an account. Then, you should implement authentication and sessions as we did in assignment 3. A logged-in customer should be able to access their account information, including changing address, password, and viewing previous orders.

3. Pricing: This involves computing the shipping prices using the database tables and order information. Tax should be added when shipping to a Texas address.

4. Purchasing: If you have a paypal account, there is a way to create sandbox paypal accounts for testing. You should create sandbox paypal accounts: an account for your company and some other accounts for customers. Some demo on this topic will be presented in class.

5. Admin: This involves a user interface to modify the car parts table or the shipping prices table. deleting a customer, or modifying customers addresses and passwords.

6. Integration: Designing and implementing the consistent look and feel.

You could decide to separate the tasks differently, or have a different number of tasks. Each of your tasks should have a team member that has the main responsibility for the task. Of course, this is a team project, and anyone can help with any of the tasks. A grade will be calculated for each task as you define it. Individual grades will be calculated as a weighted average of all tasks grades, with more weight on the tasks an individual is responsible for. You will submit an individual report and a team report. Instructions for what to include in your reports will be communicated later.

Due date: Somewhere around December 8. More details to be communicated later.