CS 347 Site Proposal: JMUStore.com

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We are proposing a web-based e-commerce store. This store sells JMU memorabilia and apparel and must be able to monitor users and their shopping carts as well as reliably process transactions. There is a nationwide market for JMU memorabilia, particularly current, future and past students and their families and our e-commerce store has the potential to serve them all. Users will be able to browse the store's catalog, add and remove items from their shopping cart easily, make purchases via credit/debit cards and maintain a secure customer profile. This profile contains their payment information, billing and shipping addresses, order history, and personal data. A person is not required to have an account to place an order, but anonymous order information is still saved and can be retrieved.

Our site will rely heavily on dynamic content. There will be a sign-in button located at the top of each page that will be displayed if an anonymous user is browsing the catalog or a welcome message, a "View Profile" button, and a shopping cart indicator if they are signed in. The site content will also be dynamic. Each product category page will pull from a table of products that contains a description, title, price, sizing options, and category; each product detail page will also be a template with interchangeable product information fields. This will allow site administrators to add and remove content through a GUI rather than interacting with the database or HTML pages directly, and will reduce the amount of time and resources needed to edit the product manifest. User profile pages will also be dynamically generated with specific profile information. The shopping cart will also be dynamically generated since it can change at any point in time.

There are two categories of database tables that our application requires: Product information and user data. There will be a "Products" table that contains information such as product name, description, category, sizes, price, and an image. There will also be a product category table that contains information about each grouping of products. User information is more complicated, since users can have multiple forms of payment and there are security concerns with storing personal data. There will be a payment information table that will encrypt and contain credit card information. There will also be a username/password table that will encrypt and keep track of a user's username, password, and security questions. The third profile table will contain other relevant personal information.

1. Recover Password: a registered user will be able to change their forgotten password by answering pre-determined security questions.

2. Delete Account: a registered user will be able to remove their account from the system.

3. Change Account Information: a registered user will be able to change any profile information.

4. Log Out: any non-anonymous user or administrator will be able to log out of their account.

5. Browse: any site visitor will be able to view the product catalog

6. Place an Order: any site visitor will be able to place an order

7. Create Account: anonymous visitors will be able to create an account

8. Log In: Any user or administrator will be able to log in to view their profile.

9. Add Content: Administrators will be able to add new product categories and products without having to edit raw HTML or interact directly with the database.

10. Remove Content: Administrators will be able to remove products and categories without direct interaction with the database.