Erot Store - Final Report

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1.0 - Introduction

Erot Store is an online store website that will allow users to browse and purchase products that will be shipped to their homes. It is designed in such a way that any business can implement and customize the Erot store as their online store presence.

This document provides a client walk-through, as well as an overview of the software's funcitonality.

1.1 - Purpose of Document

This document gives an overview the features that the Erot Store team intended on implementing. Tables and charts are provided to illustrate a clear picture of the development efforts.

1.2 - Document Scope

This document is a final review of the progress of the Erot Store web site development effort. Development has concluded.

2.0 - Executive Summary

Erot Store provides a solution for persons who are looking to create an online store. Erot store allows an Administrator to set-up and customize a fully functional online store, complete with: categories, search, check-out, product details, sales, news, and much more.

Depending on whether or not a user is registered, and depending on the user level of said user, different options and interfaces will be available.

Guests (unregistered users) are able to access the website, search the store's database, view the items in different categories, read the news, add items to their cart, and register for new accounts.

After registration, a Registered User is able to do do everything that a Guest can, with the additional abilities of being able to: checkout (purchase the items in their cart), edit their profile (personal information, password), view their order history, write reviews, delete their own reviews, add items to a wish-list, and share the wish-list with a friend.

Administrator accounts are able to do everything that a User can, but they also have a host of additional administrator abilities. Administrators have the ability to add, edit, and delete almost everything in the store, including: products, categories, users, orders, and news. Administrators also have the ability to view dynamically generated sales reports. They can also edit storefront settings like: the site name, the tag-line, the number of products listed per page, and the payment and shipping options available to the shoppers.

3.0 - Users and Guests Walk-through

Navigate your web browser of choice to http://erot.makemoneytakemoney.net. The navigation bar across the top of the website will always provide you with options for what you can do next.
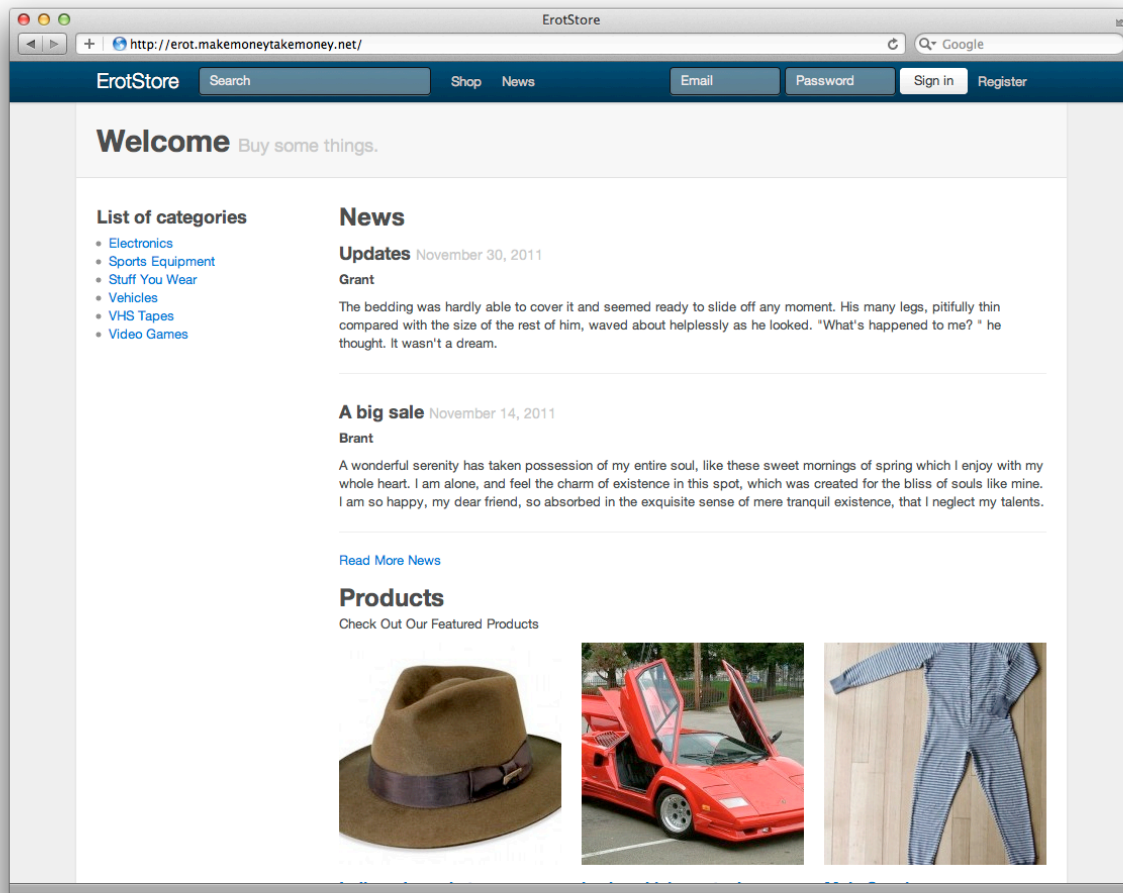
3.1 - Guest Experience

1. You are currently at the welcome page. You are presented with a list of categories, recent news posts, and featured items from the store. From here you can access everything that a Guest has access to.
2. At the top of the screen click on **News**. This page chronicles all of the news posts that the administrator in charge of the website has posted. At the bottom of the page you can see that they are paginated, meaning you can click the link to view older posts.
3. At the top of the screen click on **Shop**. On the left you are presented with each category in the database, as well as their description. On the right, once again you are presented with a small selection of the Store's Featured Products.

4. Click on the **Electronics** category.
5. This is every item the store sells in the Electronics category. Click on the Ipod (G1)
6. Here you are presented with all of the data about the product that is available to a user, including: price, sales, description, and reviews.
7. **Add the Ipod to your cart**. Because you aren't signed in, you will be alerted and taken to a sign in page. Now your guest experience is over, as you've experienced everything there is for a guest to experience.

3.2 - Registering an Account

1. Below the form, click **Create a new account**
2. Fill in all of your information. It is important to use your real email address. On this attempt you should put in an invalid email address, and make sure your 2 passwords don't match. Click **Complete Registration.**
3. You will notice that your registration failed, and you were notified what fields need to be modified. Fill in the form correctly.
4. From here you will be notified that you should be receiving an email shortly. The email will be from the address 'no-reply@erot.makemoneytakemoney.net' with the subject 'EROT Account Activation'. This email will include directions for what you should do next. **Click the link.** (Note: some servers are filtering this as spam, if you simply do not receive the email, enter the following info in the sign-in fields at the top of any page: 'test@test.com' the password is 'test'.)
5. **Sign in** with your provided information.

3.3 - Shopping

1. Click **Shop** at the top of the screen, then click **Electronics**, and then return to the **IPod** you wanted.
2. You'll notice that at the bottom of the page there are Reviews, but you can't leave one. This is because you have not bought an iPod from the store before.
3. **Add the Ipod to your cart.** In the top right corner of the site you'll see that you have 1 item in your cart, this is visible from any page. You'll be taken to the cart screen which will show your current cart. You'll also be presented with an alert from our site-wide alert system. You can **click the 'x'** on the side of any alert to hide it.
4. Now you've decided that your feeling cool, so you want more than an Ipod. At the top, enter 'Segway' into the search bar and hit enter.
5. The search results should return a Segway. **Click on it** to follow through to its product page.
6. **Add the Segway** to your cart.
7. Click **Shop**, from the Shop screen select the 'Male Onesie' on the right hand side, under 'Featured Products' and **add it to your cart**.
8. Repeat the last step, but this time select the 'Lamborghini Countach' from the featured products, and **add it to your wishlist.**

9. In the top left corner of the page **click on 'ErotStore'** to return to the site home page.
10. In the top right corner of the page **click on '3 items in cart'**, to return to your cart.
11. From here, you should adjust the quantity of the Segway and the Male Onesie. **Set one to be 0**, and **set the other to be 2**. Click **Update Cart**.
12. You'll notice that one item was deleted, while the other was doubled. Your cart total will reflect the new value. Click **Checkout**.

3.4 - Paying

1. You'll notice that your shipping address information is the same as the info that you entered when you registered.
2. Fill in the Credit Card info (with fake info, please. These forms will validate your data so be sure to enter info that resembles real info. Credit Card Numbers are 16 digits, '1234567890987654', expiry's are 5 '10/04'). Click **Checkout**.

3.5 - Reviewing a Product

1. At the top of your screen, enter 'iPod' into the search box, and hit enter.
2. **Click the iPod.**
3. At the bottom of the page you'll now see that you are able to Review the Product.
4. Click **Review this Product.**
5. Fill in the form with whatever you think about the iPod. Click **Save Review**
6. You'll see that you have been alerted that your review has been saved, and you have been sent to the Reviews tab of your User Section.

3.6 - User Options

1. You are already here, but in the top right corner of your screen, **click on your name** and a drop-down menu will appear. From the menu **select Profile**.
2. This is your User Profile. Feel free to change any of your profile information, then click **Save Profile.**
3. Now click the **Change Password** tab below 'Account'. Enter your Old Password, and then enter a New Password. Feel free to enter them incorrectly, it'll return you to the page to try again.
4. Now click **Order History**. Here you can see the current status of the order you just made. Click **View** if you forgot what you ordered (You did).
5. This is an individual Order View, it shows you all the important information about your order.
6. Now click the **Reviews** tab. Here we see the review you made earlier about the iPod. Since your opinion has since changed, please delete the review. You'll be notified that the review was deleted, and the list will now be empty.
7. Now click the **Wishlist** tab. Here you will see the awesome car that you added to your wishlist. If you don't want it to be in there anymore you can remove it. You can also share your wishlist with a friend. I'll share you my wishlist.
8. Open this link in your browser window:
   http://erot.makemoneytakemoney.net/wishlist/view/2/HDI85Y7S (If you have another

window or tab open, feel free to close it).

9. This is what a friend sees when you send them your wishlist. Feel free to buy me the items on my wishlist. I really want them. You should be able to do this on your own now.

3.7 - Forgot Password

1. Click your user drop-down at the top right of the header. Choose **<u>Sign Out</u>**.
2. You forgot your password. That sucks!
3. You should try to sign in with the fields in the header. But type in an incorrect password...because you *forgot* it. You'll be alerted that your email/password combination was incorrect. Click **<u>Forgot Password?</u>** from below the password field.
4. Enter your email address and click **<u>Send Instructions</u>**.
5. If the server does not block the password reset instruction email, you should receive it shortly. It contains a link to **<u>Reset your password</u>**, click it.
6. You will arrive at a page allowing you to enter a new password. Don't worry, no one else can access this page without your secure generated reset-code that has been assigned to your account! Enter your new password.

4.0 - Admin Walk-through
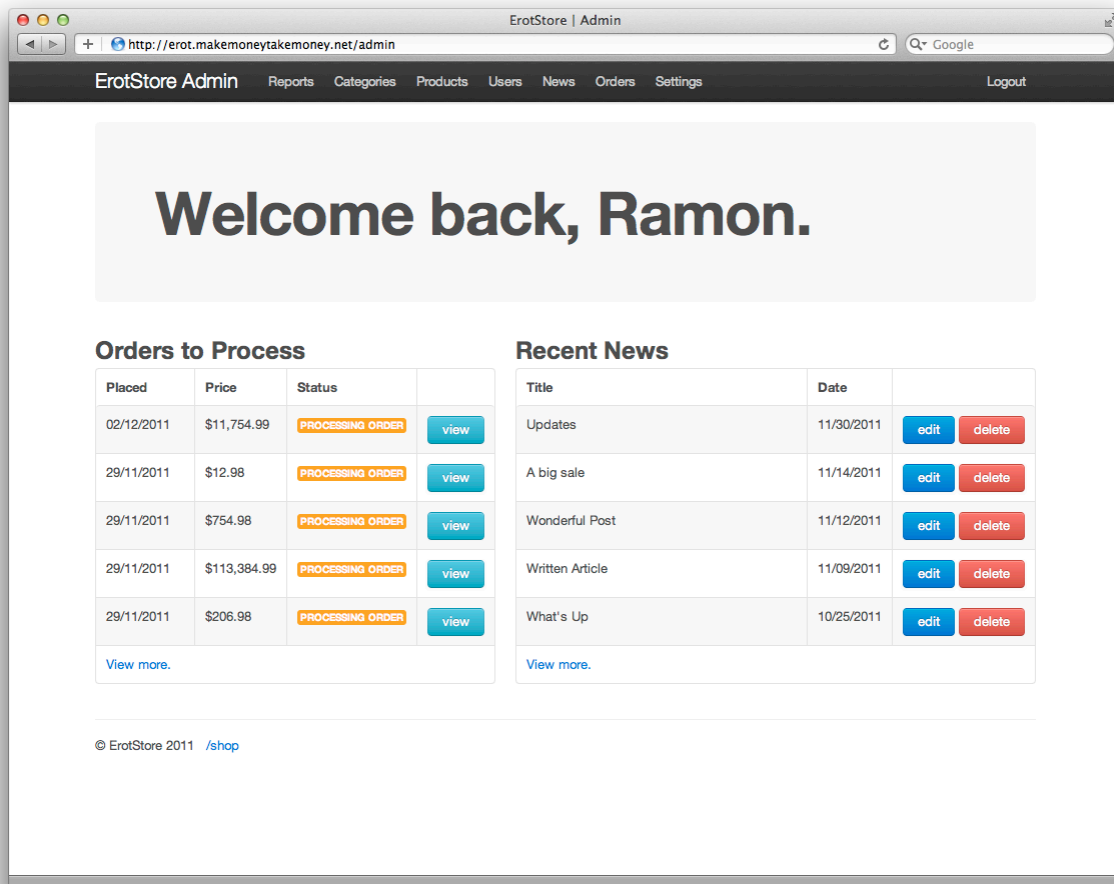
"Welcome back" message is dynamically tailored to the active user.

1. Because your account is not an admin account, you do not have access to any of the admin functionalities. You can attempt to get to the page on your own, by entering erot.makemoneytakemoney.net/admin into your address bar, but your access will be denied.
2. Go back to the site (clicking back in your browser should work, or just cut everything off the url after the /).
3. Click your name at the top of the page and click **Sign Out**. You'll be returned to the home page.
4. At the top of the site log in with the following info:
   a. email address: admin@admin.com
   b. password: admin
5. Click your name at the top of the screen, and from the drop-down menu select **Admin Dashboard** (This is also accessible by just going to /admin while not logged in)

6. The bar accross the top of the admin section contains the admin options instead of the user options. The footer of the website has a link */shop* that will take you back to the storefront.

4.1 - Reports

1. Click **Reports** in the header, at the top of the page.
2. Look around, move your mouse over the charts. Feel free to click any of the product names to see the product.

4.2 - Categories

1. In the header click **Categories**.
2. From here you can see that you can add, edit, or delete categories. The add and edit forms are identical, so why not create a new Category called "Lame things". In the description say something like "Things no one should ever buy".

4.3 - Products

1. In the header click **Products**.
2. Click **Add Another**.
3. Think about something you'd never buy, and fill in all the information you'd like. But leave category blank.
4. As you can see, you also need to choose a category for your new product.
5. If you'd like you can upload an image: our system only supports .JPG filetype at the moment, it also doesn't like huge images. Nothing obscene please.
6. Click **Save Product**
7. Return to the Products page and find the iPod product in the list (it's alphabetical).
8. Click **View**. You are presented with all of the info on the product (including things that are hidden from the shoppers), as well as the reviews.
9. Underneath Brant's review click **delete**, it's pretty rude.
10. At the top of the page, under 'Products', click **Edit**.
11. You can edit the product in any way you'd like. It's identical to "new product" form. Give it a try, you should move it to the category of things you'd never buy, since the price is ridiculous for such an outdated product.

4.4 - Users

1. In the header click **Users**.
2. This is a list of all the users registered on the site, including administrators.
3. Try modifying your old shopper account's user level by selecting a new level from the drop-down in their row, and clicking **Save**.
4. Now delete user with the id of 4. Click **Delete** in their row.

4.5 - News

1. In the header click **News**.
2. Click **Add another post**.

3. This form is quite similar to the New Category form. Try it out if you'd like.

4.6 - Orders

1. In the header click **Orders.**
2. Select the different tabs to see the orders filtered by their status.
3. Cancel an order by clicking on the drop-down box in its row, and picking cancel. Then click save.
4. Go ahead and delete a cancelled order.
5. Any changes you make in here would be reflected in the Purchaser's Order History. (If you'd like, you can log in to your old account to verify that what we're saying is true.)

4.4 - Settings

1. In the header click **Settings**.
2. This page gives you some general settings that you can modify on the site.
3. The Store Name will show up in all headers, footers, and page titles.
4. The Tagline will show up on the homepage beside the welcome message.
5. Products Per Page will dictate how many products are rendered per page on the site.
6. Click the **Payment** Tab.
7. This lets you manage the payment options available on the website, feel free to add, edit, or delete any of these.
8. Click the **Shipping** Tab.
9. This lets you manage the shipping options available on the website, once again, feel free to add, edit, or delete any of these.

5.0 - Revised ER Diagram
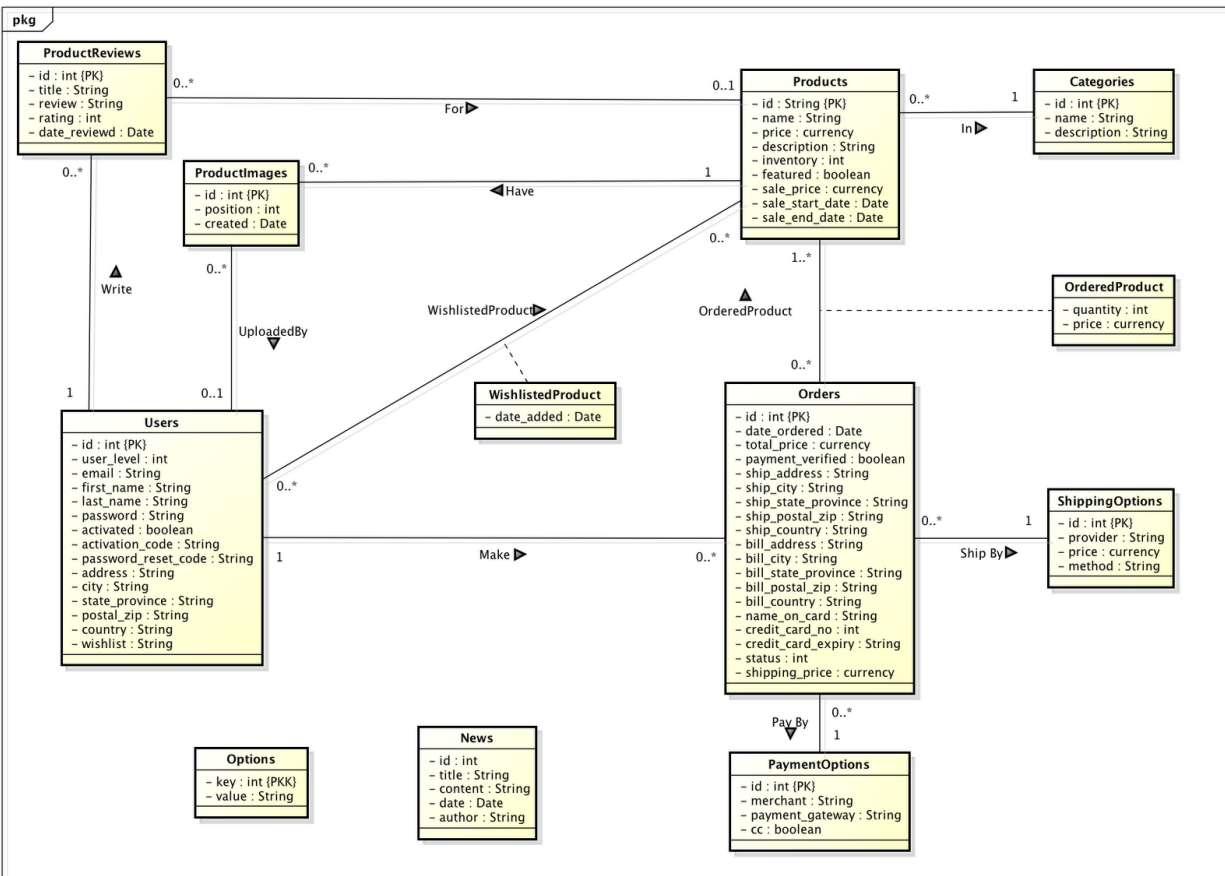
6.0 - Detailed Description

A 3-5 page detailed description of your implementation from a system or developer's perspective.

6.1 - Features Implemented

ErotStore is a complex e-commerce management software with a large amount of features. Some prominent features that we have implemented include:

- All potentially dangerous database interactions are run through an XSS cleaning method, provided through CodeIgniter, that cleans dangerous scripting and injection attacks.
- We created a system-wide (client-side and admin) alert system. This system utilizes "flash" session data which essentially allows us to save data to the session that is immediately cleared on the next request. We utilize this to send alerts to different pages during redirects as post data cannot be transferred in this method. This allows us to provide users and administrators with important information whenever they perform actions on the website.

- All forms interface with the CodeIgniter form validation library which allowed us to identify fields on a per-field basis and provide both validation (length, numeric, required, length, etc) and preparation (trim, md5) using both built in methods and custom callbacks (such as verifying unique email addresses). These validation errors are passed back to the form view and rendered for the user to successfully complete their task.
- For password resetting and account activation we generate unique codes, through a simple code generation method, which get attached to the user's row in the database. This unique code, when coupled with the user's email address, provides the necessary security for completing these tasks.

The following is a breakdown of the progress of individual aspects of the Erot site. Only functionalities that were added or abandoned since the last report are mentioned.

6.1.1 - User/Guest Functionality

Added

1. Improved */shop* page with detailed category listings.
2. Email activation required to complete registration
3. Users can reset forgotten passwords.
4. Users can change their password.
5. Users can view all news posts.
6. Users can review products they have purchased.
7. Shipping and billing options are in the checkout form.
8. Items that are on sale display both the sale price and the regular price, as well as the date the sale ends (if provided).
9. Update profile works.

Abandoned

1. Set a preferred payment method.

6.1.2 - Administrator Functionality

Added

1. Orders to process & Recent news to welcome page.
2. Sale Prices now fully functioning.
3. Individual Product view 'Edit' / 'View' tabs.
4. Product View also contains all hidden information.
5. Admins can moderate reviews.
6. Reports page contains all statistical sales data and charts generated through the Google Chart API.
7. News: add, edit, delete.
8. Orders
   a. filter by status

 b. change order status
 c. delete cancelled orders
9. Individual Order View
 a. includes all necessary information.
 b. Change status from order view.
10. Settings: change site name, tagline, and products per page.
11. Add, edit, and delete payment and shipping methods storewide.
12. Products can be set as "featured" and promoted in various locations throughout the site.

Abandoned

The following features were abandoned due to time constraints:
1. Product Inventory has to be manually updated by an administrator.
2. Third party suppliers not supported.
3. Pre-order is no longer an option for a product.
4. Static content pages.
5. Reviews don't have to be approved.
6. News is not rich text.

6.2 - Description of Source Files

ErotStore is built on top of a PHP framework called CodeIgniter. CodeIgniter is a lean MVC framework (Model, View, Controller) that isolates the unique aspects of a web application. By separating these aspects we were able to keep our code organized, handle complex server requests, provide users with an aesthetically pleasing URL structure, and manage a complex library of supporting classes and libraries. The site runs on a LAMP environment. Because the CodeIgniter framework is a lot more complex than a small collection of files we will just give you a brief overview of some primary files and folders and the functions they perform:

6.2.1 - application/Config

General configuration files forCodeIgniter. **Database.php** was essential in allowing us to specifiy unique database credentials, activated through an environment-triggered switch statement we developed. This allows us to use all of the same source on multiple environments with no modifications.

6.2.2 - application/Controllers

Handle server requests. Each controller is associated with a URL pattern through an automatic routing system. Each method within the controller is a subpage of that controller. Eg. http://erot.com/<Controller>/<Method>.

6.2.3 - application/Helpers/erot_helper.php

Contains some helper methods to aid productivity and clean code. Includes URL formatting, image src generation, flash alerts methods, etc.

6.2.4 - application/Libraries

Contains more complex libraries that extend the functionality of our site. Includes custom Bootstrapped library for building HTML forms with Bootstrap, Authentication library, and CodeGeneration library.

6.2.5 - application/Models

These files each interact with a table in the database. Allows us to organize database interactions and isolate data from the requests and views.

6.2.6 - application/Views

These are the HTML template files that print out the requested data and are returned to the user.

6.2.7 - Assets

General site assets including images, css, and javascript.

6.3 - High-level Functionality

Erot store allows for three different user levels: administrator, user, and guest. A guest can simply browse the storefront for products they would like to buy and read any news posts on the site. Any guest can sign up to be a user, by simply creating a count with a valid email address. Users have fully shopping abilities, and a User Profile, complete with an order history. Any User can be promoted into an Administrator, as Administrators have the ability to change the user level of any account in the system. Administrators also have the ability to change store settings, view reports, post news, moderate reviews, and manage the categories and products in the store's database.

6.4 - Known Limitations

- Reviews are not moderated before being posted.
- Inventories aren't updated when orders are processed.
- Payment is not set up to actually be any sort of legal or secure payment.
- Would like to have a 3rd user class that has some Administrator abilities but not all.

7.0 Files

- http://cl.ly/080R1Z3x3l3R3O2o1G3S
- All the source files, documentation.
- Database DDL.
- FTP information.