Table of Contents

Introduction

This document is a final summary of an online shopping website for Ramon's Electronics. It provides a walk through, and updated website features.

Executive Summary

Ramon's Electronics online is designed to be an easy to use shopping website that provides the user with an enjoyable, complete shopping experience. To allow this any user is allowed to browse the product list, view store information, and add items to their shopping cart. Project developers have created a diverse shopping cart that allows the user to update the quantity while viewing the shopping cart, remove items from the shopping cart, and adding additional items to the shopping cart. Items will only be added to the shopping cart if there is sufficient stock; otherwise an error message will appear. An unregistered user is also allowed to utilize the search and create account features. Although an unregistered user can view products and create a shopping cart that holds products they want to purchase, the user can only proceed to place an order once they have registered an account. This is to ensure that there is a valid shipping address to mail the order to.

Once a user has registered an account they have access to all the pages that non registered users have and also additional pages. They are allowed to change their account information (address, password, etc.), view previous order history, and place orders. When placing an order the user is provided with payment and shipping options. The user must enter valid credit card information and choose from the list of shipping providers. Once the payment has been verified the user is directed to a page that displays a summary of the order that has just been placed. Ramon's electronics also provides a registered user with a way to view all previous orders that have been placed.

As time progresses, products or employees may need to be removed or added. There is a special class of user named employee that can perform all the tasks of a user but can also perform administrator actions. These actions include: finding a user, creating an employee, removing an employee, editing a product, adding a new product, view order history, view sales history, and view statistics. Finding a user allows an employee to view that user's order history and account information. An admin can also update his employee list by removing an employee or adding a new employee. Adding a new employee takes a current user account and gives it access to the admin pages. A new employee must also be assigned a title and a salary. Removing a user's admin privileges is done by entering the employee id (same as user id). To update products the administrator must select the product to be updated from a drop down menu. Once directed to the new page the admin must enter the new information for the product. Inserting a new product allows the admin to keep the database up to date with the newest technology. The rest of the admin privileges are directed towards data mining. The sales history will allow the employee to view which products are being purchased most often and which customers are making the most purchases. The admin will also be able to view statistics such as number of customers, number of items sold, and useful information like that.

This website has a basic, easy-to-use feel about it but integrates powerful design that gives it advanced functionality and features.

Walk Through

The URL for the Ramon's Electronics homepage is http://cs-suse-4.ok.ubc.ca/group2.
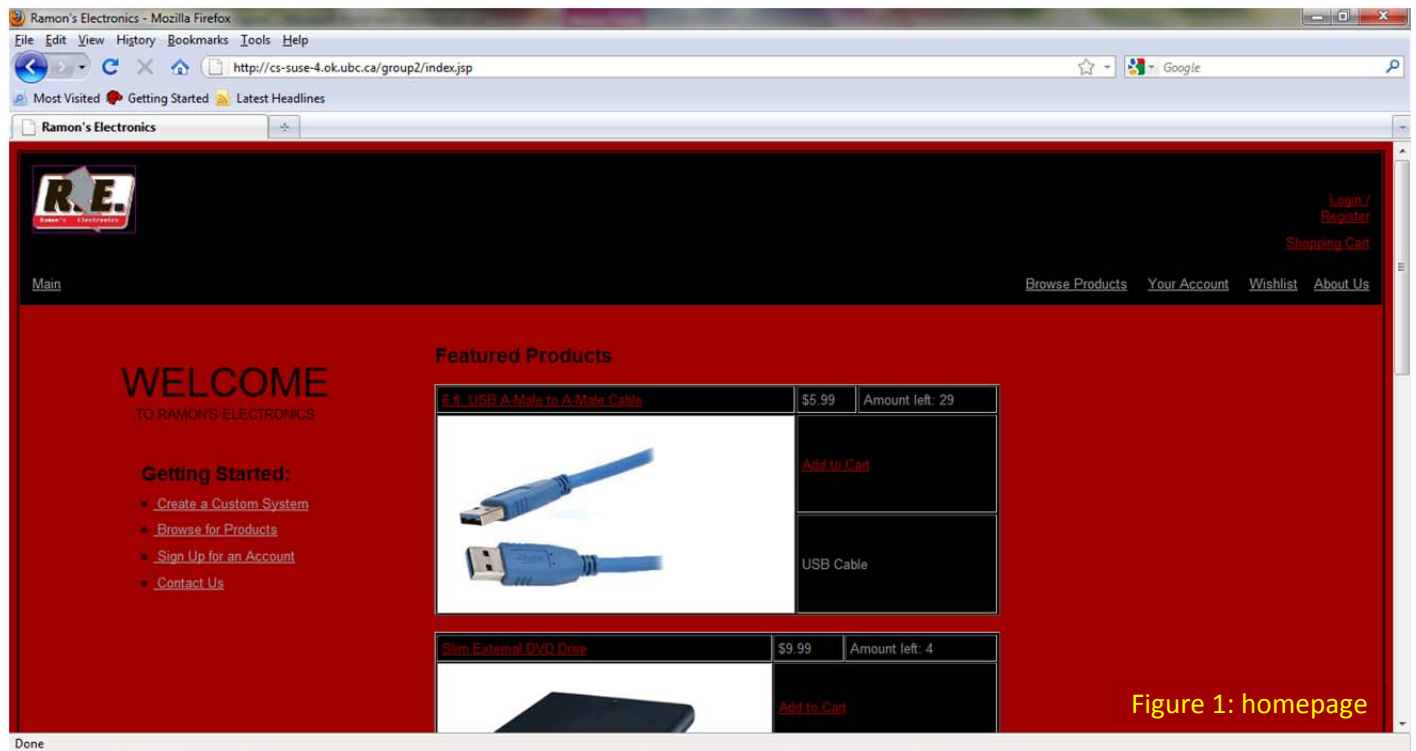
Figure 1: homepage

Unregistered User Guide

Enter the URL into the web browser address bar. This will take you to the homepage seen in figure 1. Along the top black bar you can see many links allowing you to do various things. These links are displayed on every page. Links that require a user to be logged in will direct a non-logged in user to the login page. There are also links for individual products.

Now we will browse, search, and add items. Click "browse products". Select any item from the list and click "Add to cart" that corresponds to your desired product. This will take you to your current shopping cart. Click "Continue Shopping". Now try searching for a product by either typing a keyword into the white box near the top, or by selecting a category from the drop down menu. This time click on the name of the item. This will display the item information, item reviews, and similar products. Click "Add to cart". Your shopping cart should now have more than one item. Note that there is a link by each item that allows you to remove the item from the shopping cart. Click "Remove Item from Cart" next to one of your items. Continue browsing products and add as many as you would like.

Click "Checkout". Notice how it directs you to the login page. You can either create your own account by clicking "new users click here", and entering all of the fields. Once registered you will be directed to the login page. Enter your e-mail and password then click "log in". Or you can use an existing account by entering email address: "Drift@Drift.com", and password: "drift", then click "log in". Continue walkthrough as you are now logged in as a registered user.

Registered User Guide

If you are continuing from the unregistered user guide skip the *blue italicized* font. *Enter the URL into the web browser address bar, Click "Add to cart", Click "Checkout", Enter Email Address: "Drift@Drift.com", and Password: "drift", then click "login".* Select your payment options (all fields must be filled) and click submit. This will now show you a summary of the order you just placed.

Create another order as shown in the unregistered user guide. Click "Logout". Now click "Login / Register" and Enter Email Address: "Drift@Drift.com", and Password: "drift", then click "login". Click "Shopping Cart". Notice how it saved your shopping cart from your last login.

Click "Continue Shopping". Then Click on the name of an item. Note now you can now leave a review. Only logged in users can leave a review.

Registered users also have a wish list that allows them to store many products that they would like to buy. To add an item to your wish list, simply find the product you like, and click "Add to Wishlist".

Feel free to click on any of the links or options available.

Administrator Guide

An admin has all functionalities of a regular user but also possesses the power to change the database. They are granted access to an admin page that gives various options. Click "Logout" if you are currently logged in. Now login as an admin: click "Login / Register" and enter Email Address: "admin@re.com", and Password: "admin", then click "login". You should now see an extra link that was not there when logged in as a user. Click "admin page". Let's start by searching for a user. Enter an integer next to "enter user id:" and click submit. You can now see this user's account information and order history. Click "admin page". Now Select a product from the drop down menu and click "submit". Enter the new values for any fields and click "submit changes". Unchanged fields will remain the same. It will also display a date when the update occurred. Return to the admin page. Click "insert a product", enter values for the required fields and click "submit". You can verify that this product is now added by searching for the product on the browse products page. Return to the admin page. Click on any of the "View …" links and behold the beauty of the generated reports. It is now time to erase all the meddling that you just did. Click "Reset the database". To check that this has worked please make sure that changes you made have been erased.

Figure 2: Admin page
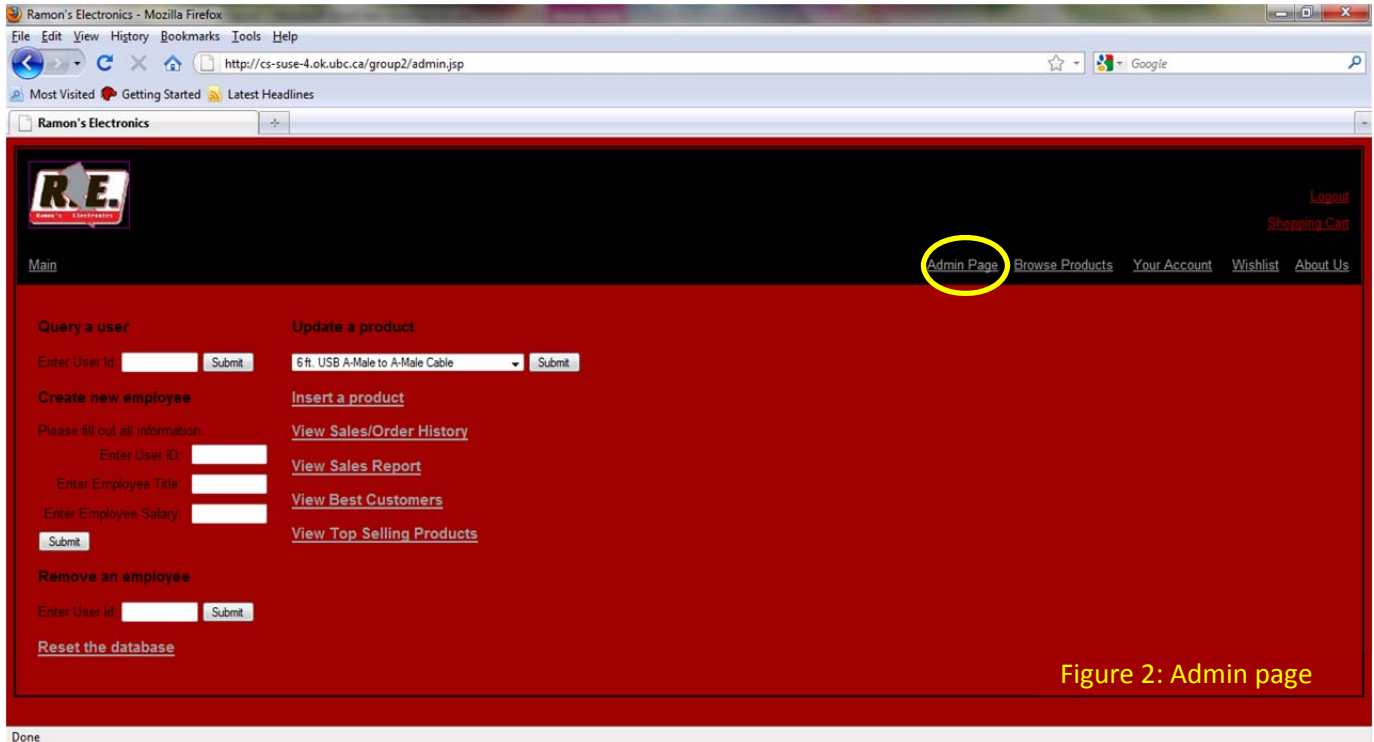
Changes Made Since Last Report

After consulting with the client's C.E.O., Dr. Ramon Lawrence, we have decided to scrap the data mining idea. Dr. Lawrence said he was happy with simple sales reports for now and wants to wait a few months to begin data mining. This way the scripts that perform the mining will be more complete. It will be easier to write an efficient, useful data mining program if we know what volume of data we are receiving. We also decided to not have a numerical user rating and just use a written user review. Our Group has improved and added functionality; giving the website some really awesome features that are better described in the **features section**.

Revised ER Diagram
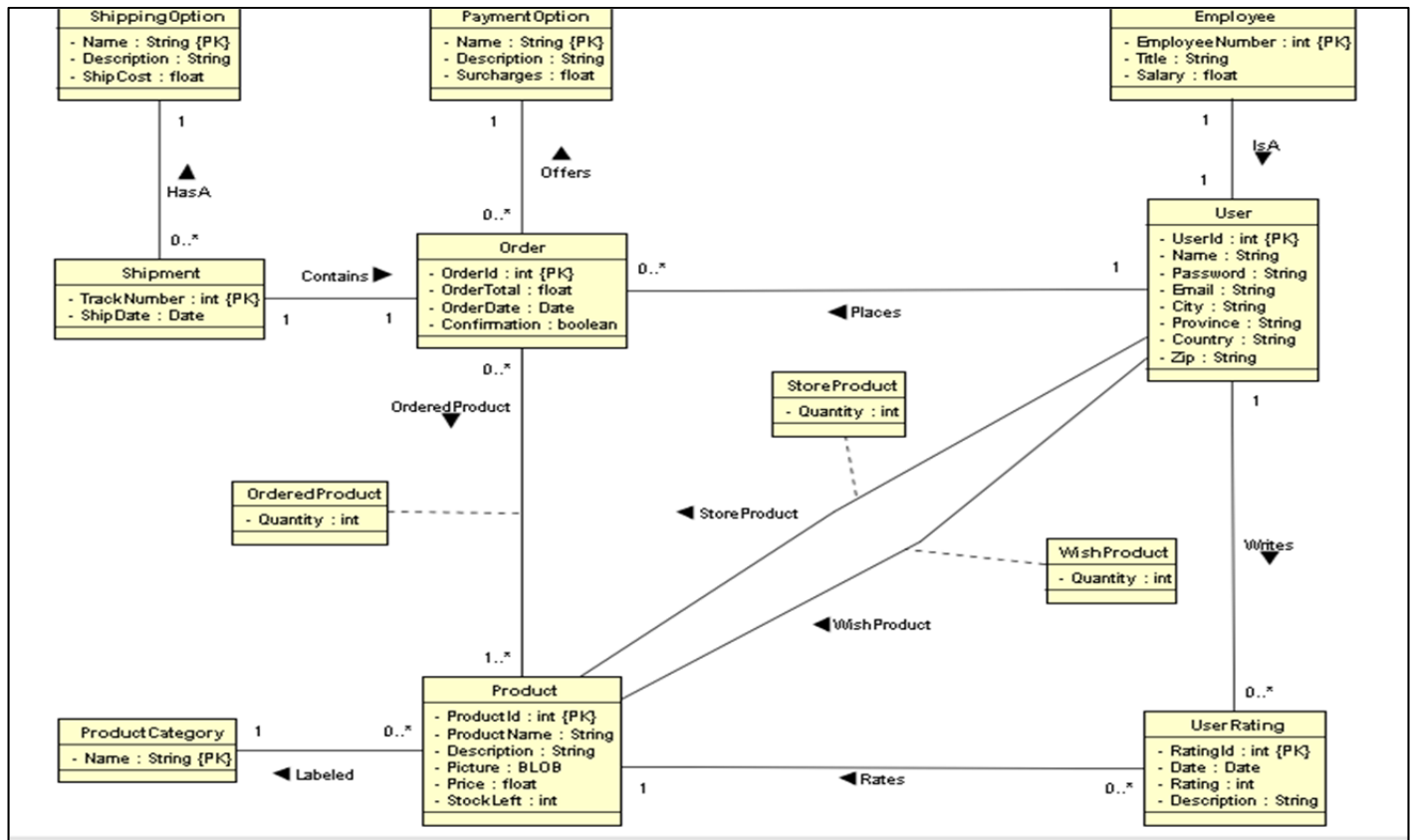
High Level Description

Our website allows for three levels of viewer access: administrator, registered user, and unregistered user. Administrators and registered users gain access by entering a password. An administrator has full access and is able to change the database. An admin can also give and remove admin privileges from registered users. They can perform any task that a registered user can. A registered user is granted full shopping functionality but cannot change the database. Specific tasks are described in detail in the *features* section. A registered user can perform any task that an unregistered user can. An unregistered user has basic browsing functionalities. They are allowed to sign up to become a registered user and add items to their shopping cart but they are not allowed to purchase items until they become a registered user.

Features

Ramon's Electronics website features make it easy to use and idiot proof. There are simple actions that perform powerful tasks and code in place to stop the user from breaking the database. This section describes the features that each level of user can utilize. One feature that is encompassed throughout the entire site is data validation. This means that it will not allow a user to update or proceed to the next step until the data entered is in a valid format.

Unregistered User

Unregistered users are given basic access to the site.

Homepage: The homepage is where a user is taken when they enter the URL given in the walkthrough. It displays featured products and a variety of links that will help get your shopping experience started.

Browse/Search Items: An unregistered user is given the privilege of being able to view and search products. Once they have found a product they can view reviews of the product and similar products. They also have the ability to add the product to their shopping cart.

Shopping Cart: A shopping cart allows for a user to perform versatile online shopping. They can purchase multiple items at a time, view their current items in the shopping cart, and remove items from their current shopping cart.

Creating a Custom System: An unregistered user can create a custom computer from scratch. All they have to do is select products from the drop down menus and we will assemble the system for them at no additional charge.

Creating an Account: An unregistered user must create an account in order to full experience Ramon's Electronics online shopping experience. Their account information includes the mailing address of the customer. Once an account has been created the user can now login and gain access to pages that were previously restricted to registered users only.

Registered User

Registered users are provided with all functionalities that unregistered users receive. In addition they also receive power to do the following. They must be logged in as a registered user.

Login/Logout: The login page allows a user to gain access to restricted pages by entering a username and password. Once a valid username and password is entered a user becomes a registered user. They can then logout at any time.

Your Account: This page allows for a user to change any information that is associated with their account. A user can also delete their account by clicking on the "close account" link.

Checkout & View Order: Once a customer has selected their desired items and added them to the shopping cart they can now purchase these items. To do this they must enter their credit card information and desired shipping method. Once the payment has been confirmed the customer is shown an order conformation summarizing their purchase.

Order History: A customer can click on a link that will display all of their previous orders.

Write a Review: A customer can leave a written review of a product. Any user can view the review.

Shopping Cart: In addition to unregistered user's shopping cart functionalities a registered user's shopping cart is saved upon logout and loaded when the user logs in. The shopping cart is cleared when an order is confirmed.

Wish List: A wish list allows a registered user to create a list of desired products that they can purchase later. This wish list is stored/loaded when the user logs out/in just like the shopping cart.

Administrator

An administrator is given full access to the database and should be a trusted employee. All functionalities described below require administrator status. Additionally an administrator can perform any task that a registered or unregistered user can perform.

Change Employees: An admin can promote an existing registered user to an employee. This will give the registered user admin status. An administrator can also remove employees from the database.

Change Products: An admin can add new products to the system. They can also edit existing products. While editing existing products the administrator can choose to only change one field. To do this they leave a blank in the fields that they do not want to change. Pictures can be uploaded via the insert product page. Products cannot be removed without resetting the database.

View Order History: An admin has the ability to view a list of every order that has been placed since the last database reset.

View Sales Reports: There are three sales reports that an admin can view. One shows a list of all products that have been sold, how many of each product has been sold, and how much profit has been made from that product. The top customer report shows the best five customers and how much they have spent at Ramon's Electronics online. The top selling products report shows just that. It displays the top five selling products and how many of each product has been sold.

Reset the Database: Restores the database to its original form. All changes to the database via admin or registered user actions will be removed. Only the basic product list and a few default users will remain.

JSP File Description

Most of the files have been edited by the group but the author column shows the original author of the file.

File Name	.jsp files included	Description	Author(s)
about.jsp	jdbc.jsp, header.jsp, navigation.jsp	Page containing store information such as location, phone number, etc.	Ryan
account.jsp	auth.jsp, accountinfo.jsp, header,jsp, navigation.jsp	Page that allows a user to change any of their account information.	Scott
accountinfo.jsp	jdbc.jsp	A file containing methods used to query customer information.	Scott
addcart.jsp		Adds a selected product to the cart.	Andrew
admin.jsp	adminauth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page that provides an administrator with a variety of options. Providing power to edit/add employees, edit/add products, view various reports	Ryan
adminauth.jsp		If this file is included then the page can only be viewed by an administrator.	Scott
auth.jsp		If this file is included then the page can only be viewed	Scott

		by a registered user or an administrator.	
browse.jsp	jdbc.jsp, header.jsp, navigation.jsp,	Page that allows a user to browse and search products.	Ryan
checkout.jsp	auth.jsp, header.jsp, navigation.jsp	Page that lets the customer place an order by picking their payment and shipping options.	Andrew
closeAccount.jsp	jdbc.jsp	Closes the current user account and directs to homepage.	Scott
confirmCloseAccount.jsp	header.jsp, navigation.jsp	Page that warns user of consequences of closing an account. User must confirm that they indeed want to close the account.	Scott
createEmployee.jsp	jdbc.jsp	Creates an employee.	Andrew
customSystem.jsp	jdbc.jsp, header.jsp, navigation.jsp	Page that allows a user to select parts to make up a custom computer.	Andrew / Scott
customSystemCart.jsp	jdbc.jsp	Adds all the products selected by the user to the shopping cart.	Andrew / Scott
featured.jsp		Displays featured products.	Ryan
forgotPassword.jsp	header.jsp, navigation.jsp	Page that prompts the user for the e-mail address of the user account they want to reset the password for.	Scott
generalsalesreport.jsp	adminauth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page that shows a history of all sales.	Steven / Ryan
header.jsp		Displays the header.	Scott
index.jsp	jdbc.jsp, header.jsp, navigation.jsp	Homepage. Displays featured and top selling products.	Ryan
insert.jsp	adminauth.jsp, jdbc.jsp	Inserts a new product into the database.	Andrew
insertProduct.jsp	adminauth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page that prompts an admin to input values that will comprise the new product.	Andrew
jdbc.jsp		A file that encapsulates all database access.	Scott
listorder.jsp		Displays the order information.	Ryan
login.jsp	header.jsp, navigation.jsp	Page that allows the user to login and gain access to pages that include auth.jsp, or adminauth.jsp if they have admin status.	Scott
logout.jsp		Logs a user out of the system.	Scott
makeaWish.jsp	auth.jsp, jdbc.jsp	Adds an item to the wish list of the current user.	Andrew
navigation.jsp		Displays the navigation bar and links	Scott
newuser.jsp	header.jsp, navigation.jsp	Page that allows a user to create a new account by entering their account information.	Scott
order.jsp	auth.jsp, jdbc.jsp,	Page that displays conformation and information about a recently placed order.	Ryan

	header.jsp, navigation.jsp		
orderHistory.jsp	adminauth.jsp, jdbc.jsp, listorder.jsp, header.jsp, navigation.jsp	Page that displays order history for the entire database since last reset.	Ryan?
product.jsp	jdbc.jsp, header.jsp, navigation.jsp	Page that displays specific product information and related items.	Ryan
prodUpdater.jsp	adminauth.jsp, jdbc.jsp	Updates the database corresponding to admin input.	Ryan
register.jsp	jdbc.jsp	Creates a new user.	Scott
removeEmployee.jsp	jdbc.jsp	Allows an admin to remove an employee from the database.	Scott / Ryan
resetPassword.jsp	jdbc.jsp, header.jsp, navigation.jsp	Page that allows a user to reset their password if they know the security question.	Scott
restore.jsp	adminauth.jsp, jdbc.jsp	Retrieves backup ddl file and restores the database to the default.	Scott / Ryan
review.jsp	auth.jsp, jdbc.jsp	Page that allows a user to leave a review for a product.	Ryan
securityQuestion.jsp	jdbc.jsp, header.jsp, navigation.jsp	Page that prompts the user for the answer to their security question and validates the answer.	Scott
showcart.jsp	header.jsp, navigation.jsp	Displays the current shopping cart.	Andrew
showOrders.jsp	jdbc.jsp, header.jsp, navigation.jsp	Page that displays a user's order history.	Ryan / Andrew
similar.jsp		Produces a list of similar products.	Ryan
time.jsp		Produces the current date.	Scott
topCustomers.jsp	adminauth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page that displays the top 5 customers based on money spent.	Steven
topProducts.jsp	adminauth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page that displays the top 5 selling products based on quantity sold.	Steven
updateAddress.jsp	jdbc.jsp	Updates a user's address.	Scott
updateEmail.jsp	jdbc.jsp	Updates a user's email.	Scott
updatePassword.jsp	jdbc.jsp	Updates a user's password.	Scott
updateProduct.jsp	adminauth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page where an admin inputs new values for an existing product.	Ryan
userQuery.jsp	adminauth.jsp,	Page where an admin can view a user's account	Scott /

	accountinfo.jsp, header.jsp, navigation.jsp	information.	Ryan
validateLogin.jsp	jdbc.jsp	Validates that a user is logged in.	Scott
wishlist.jsp	auth.jsp, jdbc.jsp, header.jsp, navigation.jsp	Page that shows the user what is currently on their wish list.	Andrew / Scott

Other Files

File Name	Author(s)
re.ddl	Ryan (most) / Steven
Project Plan	All
ER diagram	Andrew
Progress Report	Steven
Final Report	Steven

Site Limitations

The sky is the limit… But honestly there are a few limitations. These limitations are not concrete! The first limitation is ownership of the server. This can be overcome by throwing some money at the problem. I am sure we could scrounge together enough money to buy our own server and install tomcat on it. The other limitation is harder to conquer; the knowledge barrier. As we have not had much experience with databases our knowledge is probably still elementary. With more time to work on this project I am sure we could make a shopping website design that we could market and sell for money. Our main concern when starting a profitable shopping website would be securely passing and processing payment information.