

Design Analysis for Final Project

Online Retail Business System

**O-TECH Inc. Computer Sales Website
Design Analysis**

Advanced Visual Programming

CMSC 3413

Spring 2012

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General Description of System

The website to be created is for O-TECH Inc. (a fictional company that sells computer parts). The website contains pages for customers and administrators. The website is going to be created so customers have the convenience of ordering computer parts from their homes, pay for them online, and have the computer parts shipped to them. The website will allow administrators of the website to manage product and order information. Users will be able to view products for sale, add products to their cart, checkout their items, and view and print a receipt when the transaction is finished.

Detailed Description of System

New users can create their accounts by clicking on the new user link on the login page. Returning users can use their username and password to login to the website and access the pages for which they have been granted access. Users will be able to view their login status and role (customer or admin). Users can logout by clicking the logout button at the top right of each page. Each page is customized to each user according to their role.

The website will allow administrators of the website to manage product and order information. Admins who login are taken to the Admin Menu page. On this page admins can either navigate to the Product Edit Page or the Order View Page. On the Product Edit Page admins can change the name of items, their picture URL, the item description, the price, the quantity of the item available, as well as other information related to the item. On the Order View Page Admins can display order information, which consists of the order number, customer name, and order date. Admins can also modify and delete orders using this page. Some admins are also customers and will be able to view and purchase products just like any other customer.

Customers will be able to view products for sale by clicking the “View Products” button on the main menu bar at the top of any page. A customer can add an item to their cart and can specify the quantity of each item to add on the View Products Page. Customers can view a picture of the item, the name, price, and can read a description of the item.

On the Cart View Page the customer can return to the Product View Page to browse for more items they would like to purchase, they can proceed to checkout, they can remove items from their cart by clicking the “remove item” button with the item to remove selected. Customers can change the quantity of the item they would like to purchase on this page. They can view the cart subtotal.

On the Confirm Order Page users will see the items they have placed in their carts, along with the price, item total, item tax, shopping cart subtotal, and quantity of each item. They can view the shopping cart total, total tax, and total shipping. They can cancel the order and return to the Product View Page or they can click the “Proceed to Payment” button to be taken to the Checkout Page.

On the Checkout page the user can enter their shipping address, enter their name and phone number, and enter their credit card information. Validators will verify the credit card information. The user can cancel the order by clicking the “Cancel Order” button. This will redirect their browser to the View Products Page. They can also click the “Place Order” button which takes them to the Order Page.

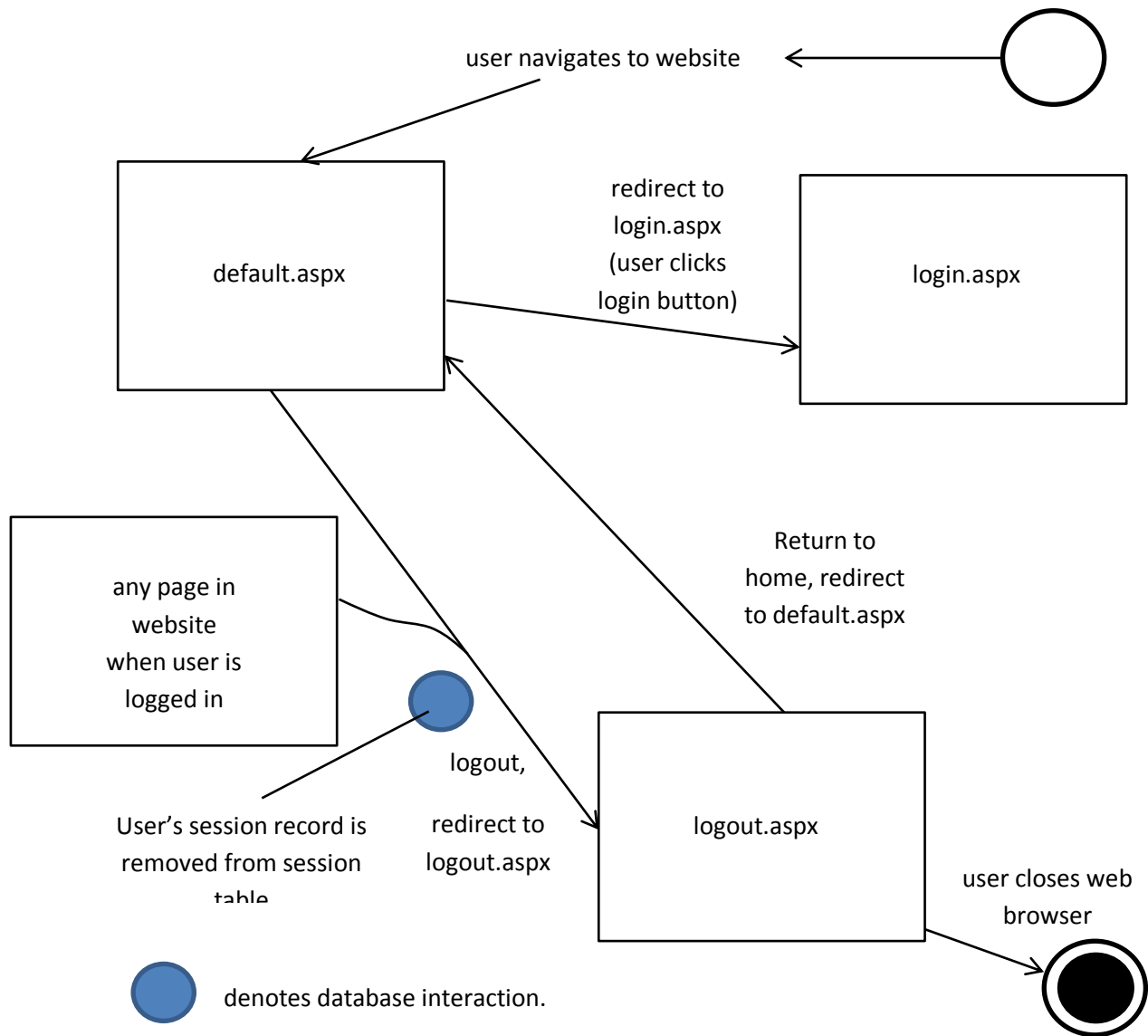
Customers can view and print a receipt of the order on the Order Page including the order total, subtotal, total tax, total shipping, order date, the order number, the shipping address, their card number, as well as information about each item (the name, price, and item tax). Customers

can navigate to the Customer Orders page by clicking the “My Orders” button on the menu bar at the top of any page. On this page customers can view a list of orders they have placed and print receipts for those orders. Customers can access a list of preferences to customize their online shopping experience by clicking the My Account button on the main menu bar at the top of any page. Customers can use this page to change their password.

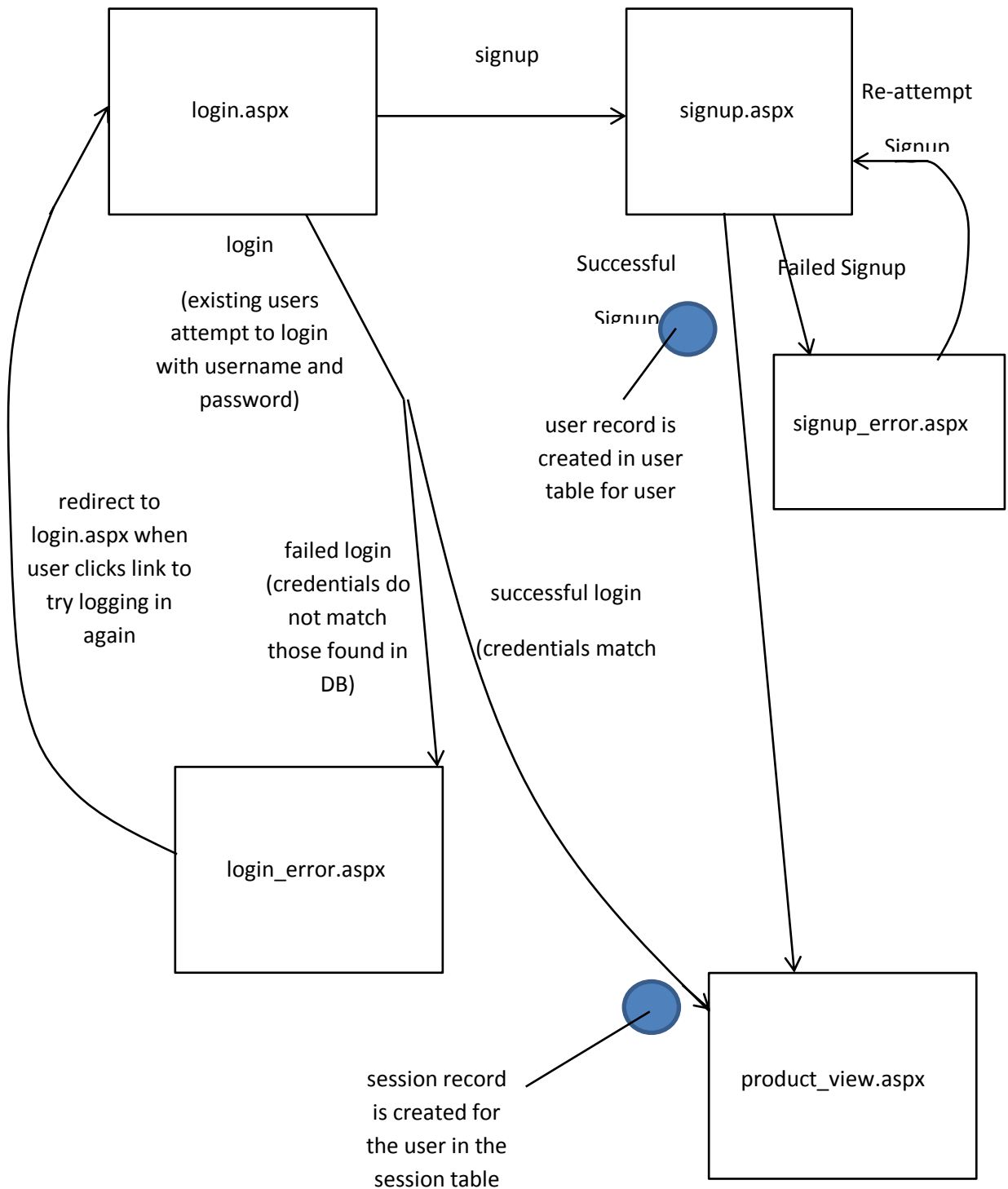
When a user is on the Login Page they can click a button that says “Forgot My Password”. Clicking this button causes an e-mail to be sent to the user with their password. An e-mail with the user’s password is sent to the user when their account is created.

2.0 Page Interaction Flow Diagrams

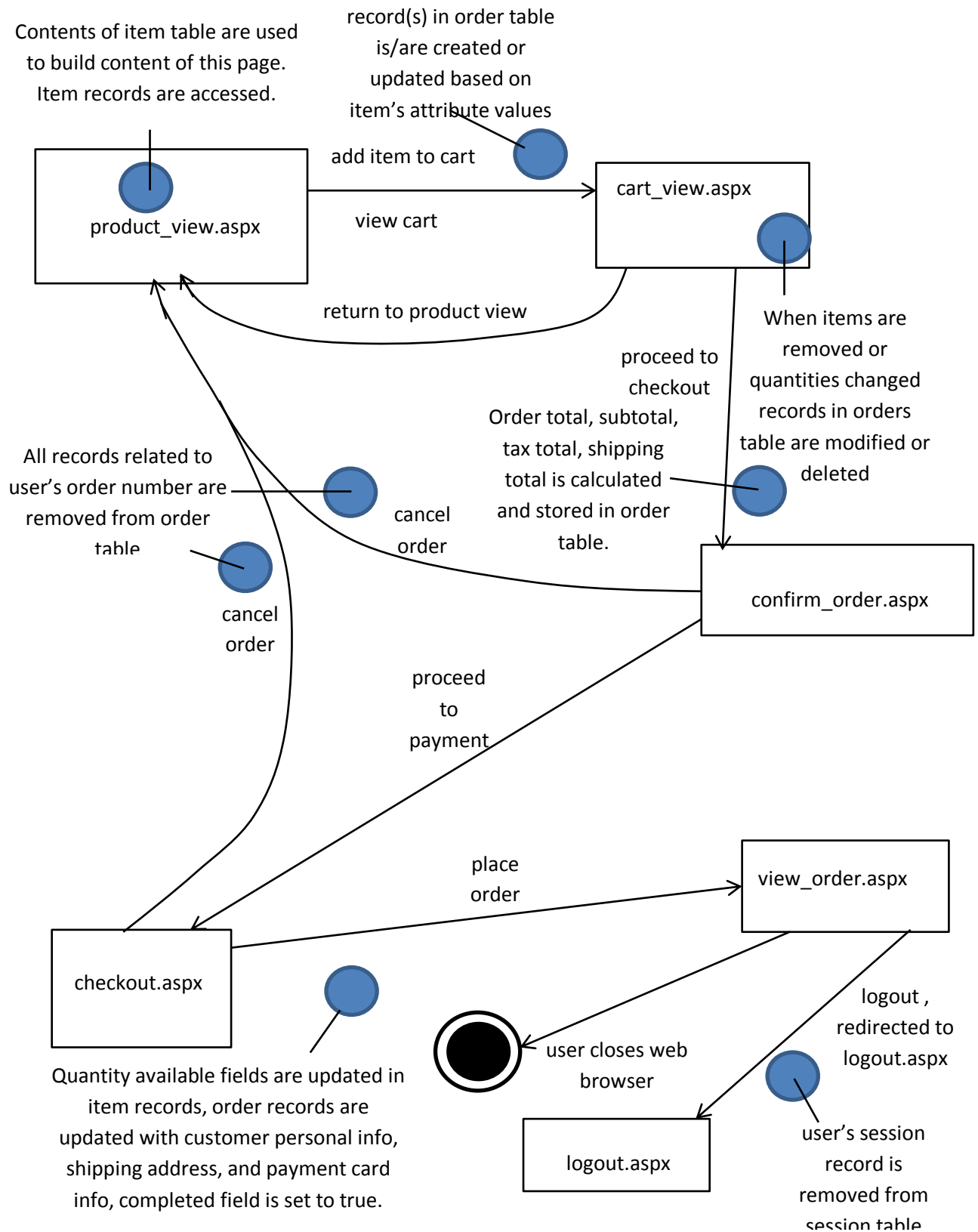
2.1 Logout and Login Part 1 for both Customers and Admins



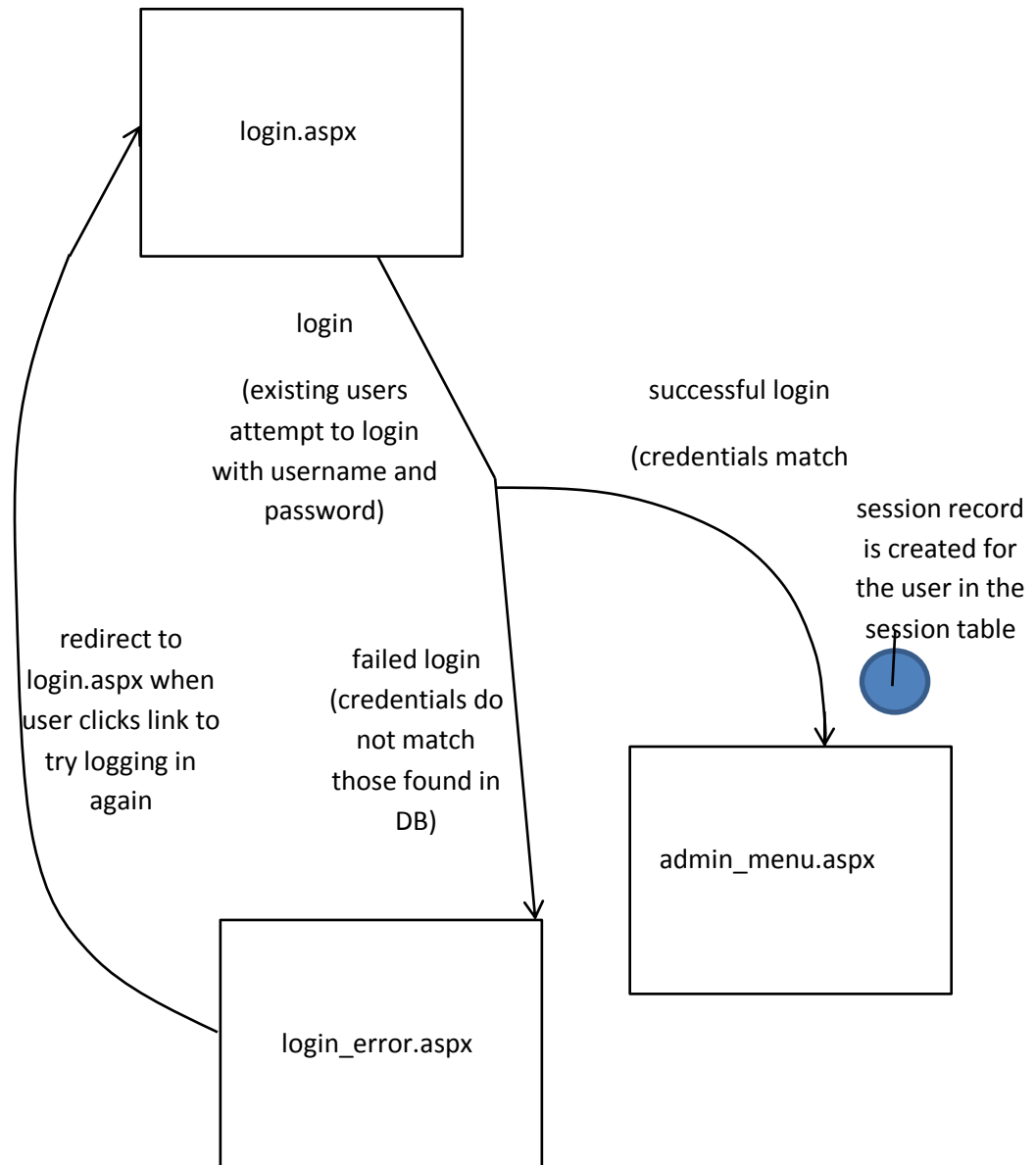
2.2 Customer Login Part 2, including Login Errors, Customer Signup Process



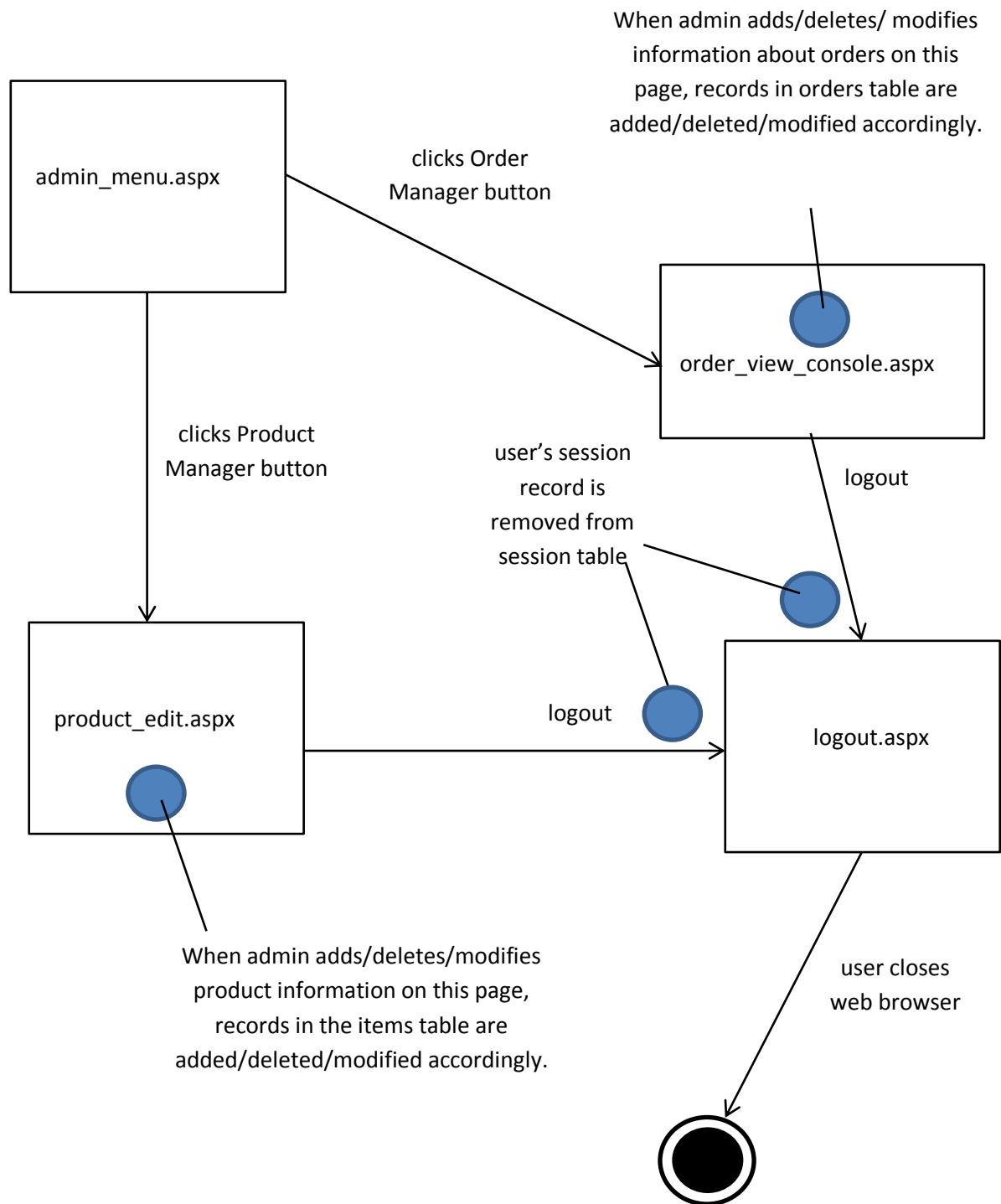
2.3 Customer Product Purchase Process



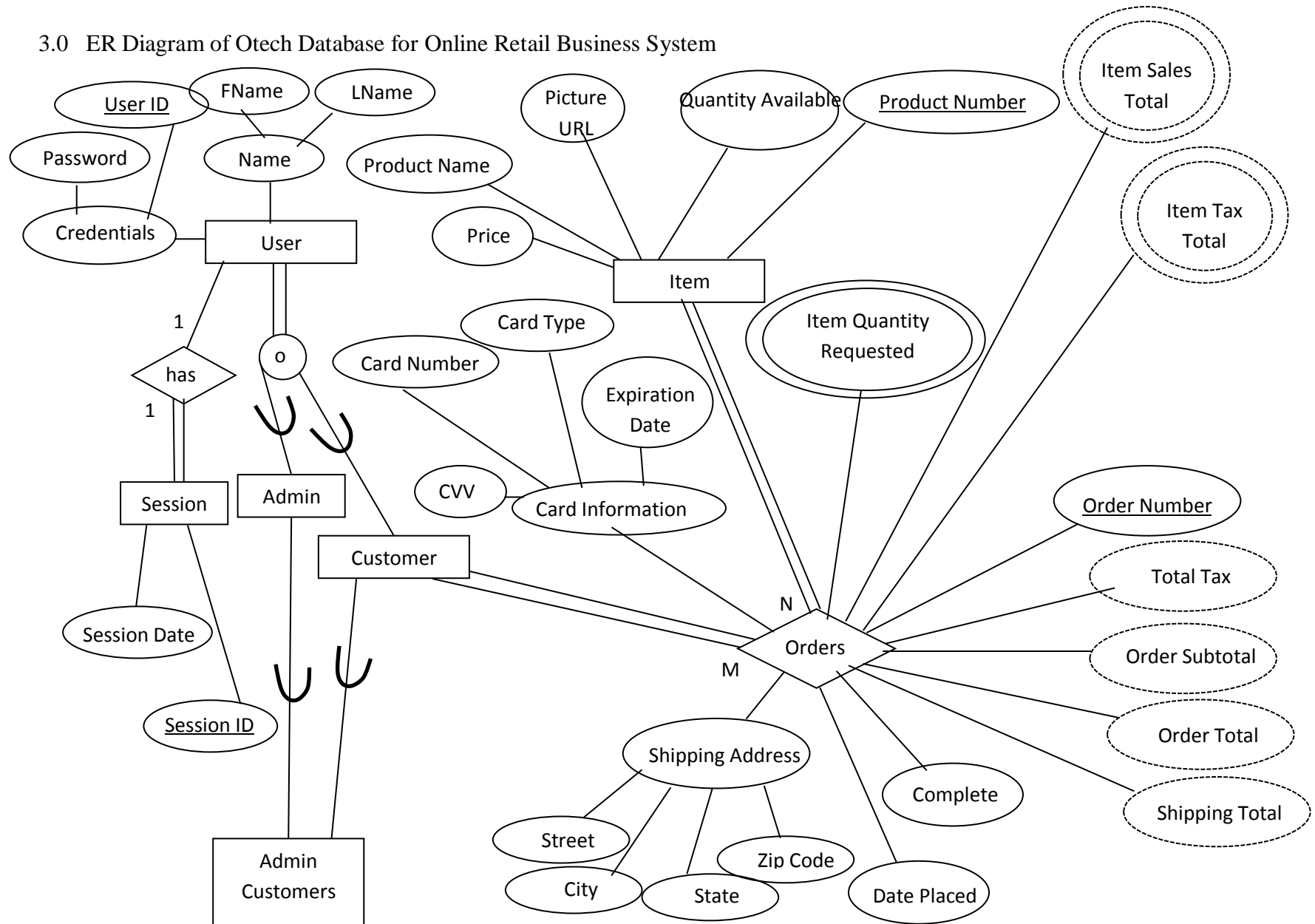
2.4 Admin Login Part 2



2.5 Interaction of Web Pages for Admins

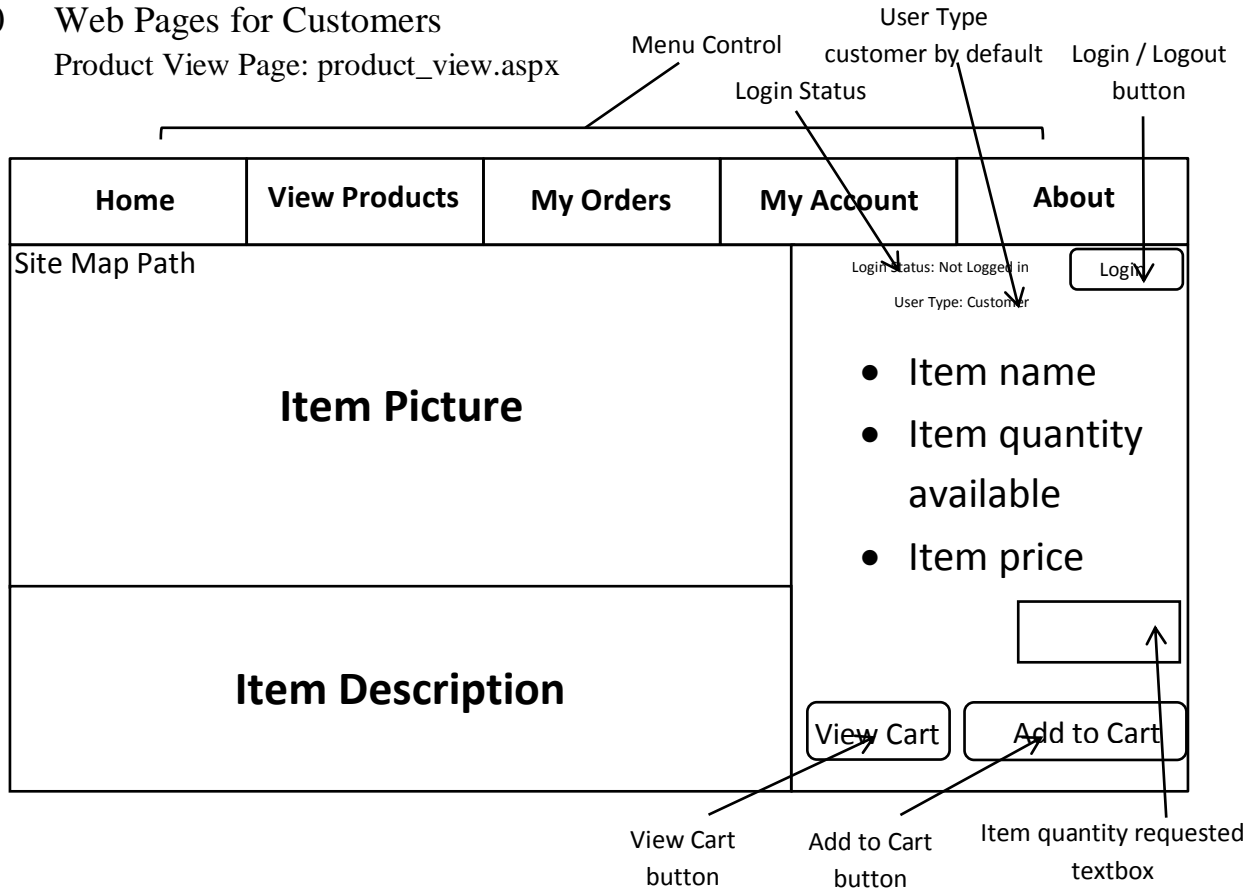


3.0 ER Diagram of Otech Database for Online Retail Business System

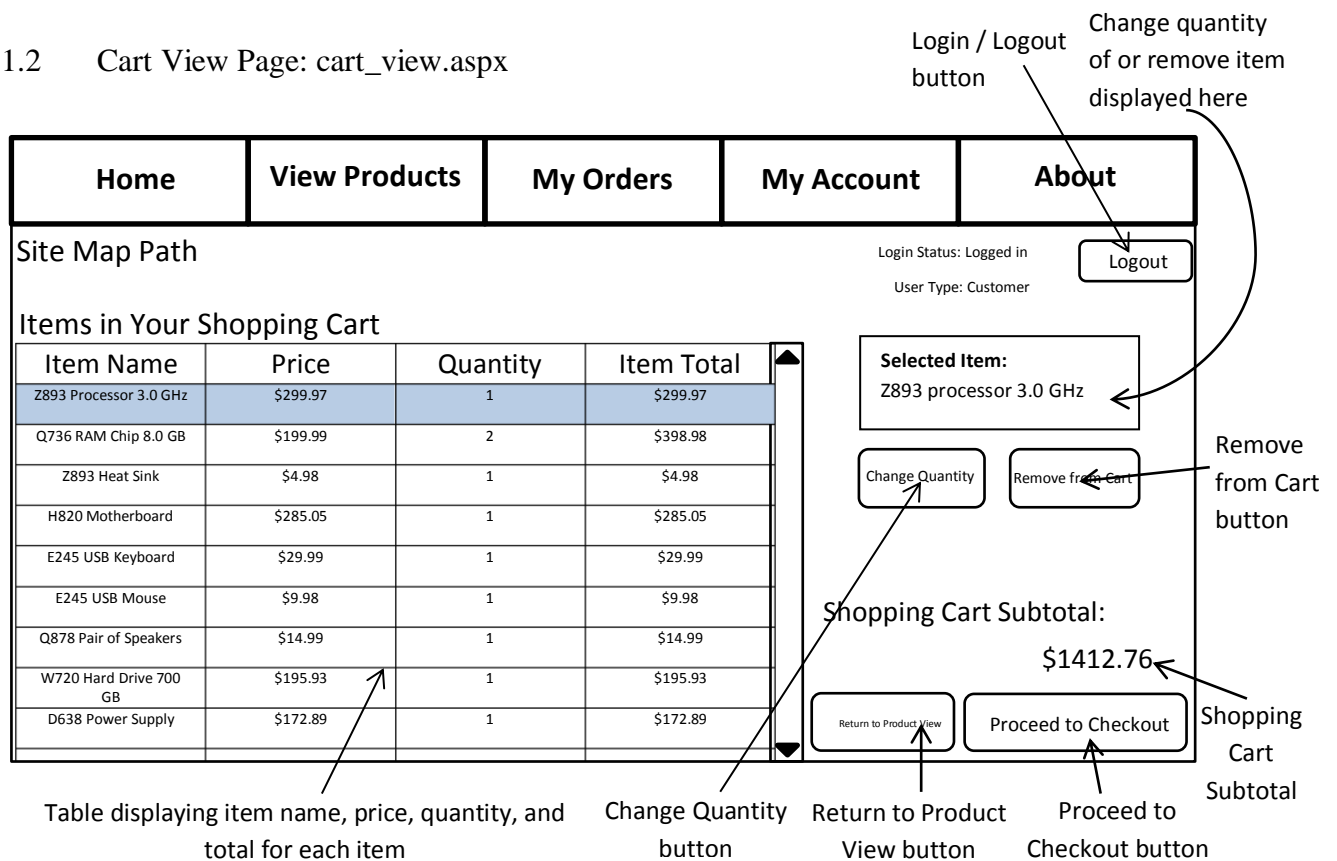


1.0 Web Pages for Customers

1.1 Product View Page: product_view.aspx



1.2 Cart View Page: cart_view.aspx



1.3 Confirm Order Page: confirm_order.aspx

Home View Products My Orders My Account About

Site Map Path: Confirm Order → Checkout → View Order

Order Process Indicator

Items in Your Shopping Cart

Item Name	Price	Qty	Item Total	Tax	Shipping
Z893 Processor 3.0 GHz	\$299.97	1	\$299.97	\$24.00	\$0.31
Q736 RAM Chip 8.0 GB	\$199.99	2	\$398.98	\$31.92	\$0.94
Z893 Heat Sink	\$4.98	1	\$4.98	\$0.04	\$0.31
H820 Motherboard	\$285.05	1	\$285.05	\$22.80	\$10.04
E245 USB Keyboard	\$29.99	1	\$29.99	\$2.40	\$8.77
E245 USB Mouse	\$9.98	1	\$9.98	\$0.80	\$1.56
Q878 Pair of Speakers	\$14.99	1	\$14.99	\$1.20	\$8.25
W720 Hard Drive 700 GB	\$195.93	1	\$195.93	\$15.67	\$19.38
D638 Power Supply	\$172.89	1	\$172.89	\$13.83	\$25.55

Order Totals

Shopping Cart Subtotal: \$1412.76

Total Tax: \$112.66

Total Shipping: \$75.11

Shopping Cart Total: \$1600.53

Cancel Order Proceed to Payment

Cancel Order button Proceed to Payment button

1.4 Checkout Page: checkout.aspx

Home View Products My Orders My Account About

Site Map Path: Confirm Order → Checkout → View Order

Order Process Indicator

Please Provide us with the Requested Information to Complete Your Order.

Please Enter Your Name and Billing Address

* First Name: Type your first name

* Last Name: Type your last name

* Street: Type your street address

* City: Type your city here.

* Select State: --

* Zip Code: Type your zip code here.

Please Enter Phone and Email Contact Information:

Primary Phone Number: Enter your primary

Secondary Phone Number: Enter your secondary

E-mail Address: Enter your e-mail address here.

Verify E-mail Address: Re-enter your e-mail address

Please Enter Your Payment Card Information:

* Select Card Expiration Date: Calendar Control

* Select Card Type: Select Card Type

* Card Number: Enter your Card Number here.

* CVV: Enter your Card CVV here.

Cancel Order Place Order

Calendar Control Cancel Order button Place Order button

1.5 Order Page: view_order.aspx

The screenshot shows a web application interface for viewing an order. At the top is a navigation bar with links: Home, View Products, My Orders, My Account, and About. Below this is a 'Site Map Path' section showing a sequence of steps: Confirm Order, Checkout, and View Order (the current step, highlighted with a blue button). To the right of the path, the user's login status is 'Logged in' and their user type is 'Customer', with a 'Logout' button. A large yellow box with a black border contains a thank-you message: 'Thank you for your order! Your order has been completed. We will be shipping your order soon. Please print a copy of this page for your'. On the left, an 'Order Details' section lists various order metrics. To its right is an 'Order Items Details' table listing the items ordered, their prices, quantities, and totals. At the bottom right, there is a 'Print this Page' button. Annotations with arrows point to the 'Order Process Indicator' (the path sequence), 'Order Details' (the left sidebar), and the 'Print this Page' button.

Home View Products My Orders My Account About

Site Map Path

Confirm Order → Checkout → View Order

Login Status: Logged in
User Type: Customer
Logout

Thank you for your order! Your order has been completed. We will be shipping your order soon. Please print a copy of this page for your

Order Details

Order Number: 415824769
Date Ordered: April 08, 2012
Shipping Address: 1234 Main Street
Oklahoma City, OK 78912
Customer Name: John Smith
Card Number: 1234567890
Order Subtotal: \$1412.76
Total Tax: 1234567890
Total Shipping: 1234567890
Order Total Charge: 1234567890

Order Items Details

Item Name	Price	Qty	Item Total	Tax	Shipping
Z893 Processor 3.0 GHz	\$299.97	1	\$299.97	\$24.00	\$0.31
Q736 RAM Chip 8.0 GB	\$199.99	2	\$398.98	\$31.92	\$0.94
Z893 Heat Sink	\$4.98	1	\$4.98	\$0.04	\$0.31
H820 Motherboard	\$285.05	1	\$285.05	\$22.80	\$10.04
E245 USB Keyboard	\$29.99	1	\$29.99	\$2.40	\$8.77
E245 USB Mouse	\$9.98	1	\$9.98	\$0.80	\$1.56
Q878 Pair of Speakers	\$14.99	1	\$14.99	\$1.20	\$8.25

Print this Page

Order Process Indicator

Order Details

Print this Page button

2.0 Web Pages for Admin

2.1 Admin Menu Page: admin_menu.aspx

Home	View Products	My Orders	My Account	About
<div>Site Map Path</div> <div>Login Status: Logged in User Type: Customer</div> <div>Logout</div>				
Admins can edit product item information and submit it.		Admins can view order information containing the order number, customer name, and order date.		
<div>Product Manager</div>		<div>Order Manager</div>		

2.2 Product Edit Page: product_edit.aspx

Home	View Products	My Orders	My Account	About
<div>Site Map Path</div> <div>Login Status: Logged in User Type: Customer</div> <div>Logout</div>				
Use this Page to Edit Product Information				
Item Number:	<input type="text"/>	<div>Item Picture</div>		
Item Name:	<input type="text"/>			
Item Price:	<input type="text"/>			
Item Quantity Available:	<input type="text"/>			
Item Picture:	<div>Set Item Picture</div>	<div></div>		
Item Description:				
<div>Submit Product Edit</div>		Admin Types Description of Item Here		

Submit Product Edit button

2.3 Order View Page: order_view_console.aspx

Home	View Products	My Orders	My Account	About
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Site Map Path

Login Status: Logged in
User Type: Customer

Logout

Order Information

Order Number	Customer Name	Order Date
4083517723	Fred Thompson	04/01/2012
4083517724	David Wilson	04/01/2012
4083517725	Roger Brown	04/01/2012
4083517726	Stacey Green	04/02/2012
4083517727	Cheryl Seals	04/03/2012
4083517728	Gary Franklin	04/03/2012

Edit Selected Item
Order Number:
Customer First Name:
Customer Last Name:
Select Order Date from Calendar:

Calendar control used
to change order date.