

E-Commerce Development

Homeworks 3 and 4

Use the MSDN at the Microsoft Web site and Visual Studio on-line help to do this assignment.

Develop and deploy on our .Net server a wine sales application with an e-commerce payment utility. It should take all the necessary input for the user to select one product and make a credit card purchase.

Part 0: Time Tracking *10 points*

Include a note about your initial estimate and your final tally of time spent on this assignment. In that note, reflect on the differences in your guess (sorry, “estimate”) and the actual amount of time spent.

Part 1: The Store *30 points*

Develop two tables in your personal database for a wine sales application.

1. The first table should represent your inventory of wine.
2. The second table should be a list of your customers (previous buyers).
3. Be expressive and complete. Use good field names and appropriate data types.
4. Load at least 20 rows of test data into each table.

Write an ASP.Net application to present the user with the following options, and show the proper results:

Wine

- show all, sorted by name or sorted by region
- show some, select color (red, white, other)

Customers

- show all, sorted by name or sorted by state
- show some, select by gender (you can likely guess the choices)

Be sure that your displayed output is formatted nicely and contains a header row of the column names. (Hint: look up the DataTable columns property and the DataColumnCollection class.)

Part 2: Buying *20 points*

Permit the user to select one product from the wine display in Part 1 and buy it. When a product is selected, take the user to the payment page.

Part 3: Payment Page *40 points*

Present a fully functional and complete credit card payment page.

- Visually note which fields are required
- Check that all required fields have been entered.
 - If not, display one message that lists all of the required fields that are missing, and
 - place the cursor in the first of those fields
- Validate the credit card number, type, and expiration date.
- Add any other validation or enhancements that you can think of.

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- Provide field-by-field help text in the status bar or somewhere else on the form so that the user sees a message directing them what to do for every field on the form.
- In addition to the buyer's name, take input for two addresses: billing and shipping.
 - Provide a "same as billing" button or checkbox that copies the billing address data into the shipping address fields for end user convenience.

When all the payment details have been entered and validated, process the payment with the BONDS Credit Card Processing Service on our web site.

- If the transaction is declined, display an appropriate message and take the user back to the payment page.
- If the transaction is approved, take the user to a receipt page that displays the purchased product data, their payment data (only part of the credit card number), and the transaction data returned from the payment service.

Thoroughly test your application. **It's much more important to me that the features you do implement are well tested and totally bulletproof than whether or not you implement all of the features. In other words, quality is worth more partial credit than quantity.**

Be sure to use your best development practices. These include but are certainly not limited to:

- Proper use of indenting in all code (HTML, XML, JavaScript, ASPX, etc.) Actually, if it's not properly indented, don't even bother handing it in.
- Descriptive control and variable identifiers
- Informative and meaningful comments
- Good aesthetic visual design
- Obeys the laws of least astonishment

As ever (are you still reading this?) this web app should be as attractive and professional looking as you can make it. Neatness counts. Remember, I am (obsessive?) compulsive about this stuff. Embrace your inner OCD and take advantage of it. Be the Monk. It should also be completely bulletproof. Be the Bulletproof Monk.