

Homework 7

1.264, Fall 2013

Web site

Due: Wednesday, November 13

A. Web site

This is a two week homework; it is twice as long as usual. You should complete the first half of it by November 6.

Using Visual Web Developer, complete the Web site you began in homework 6:

- Build pages to display your aircraft parts catalog. You may wish to use the query string approach from lecture 20. Split your catalog by MIDO, for example, and display parts for each MIDO as a product line. As an alternative, you may create links for the first letter (a through z) of aircraft parts and use a LIKE keyword in the SQL on the next page to display parts that start with the given letter.
 - You should display the replacement part, original part, manufacturer, aircraft that it can be used for, PMA holder, price and inventory information.
 - You may use MIDO as your categories; they average 250 products, which is a lot, but this is the simplest way to assign products to a category. It's not a lot of work to add a category column to your product table, but it's not necessary, even if your requirements have a different categorization. To be clear: MIDO is not a sensible way to organize your catalog, but it's simple and lets you complete the catalog Web pages in the easiest way, which is fine for this homework. You do not need to allow wild card searches or other search functions.
- Build pages to display the name and modes for a carrier. You don't need to display anything else, or allow carriers or modes to be edited.
- You should allow orders to be input.
 - Use the approach outlined in lecture 20 that uses 3 SQL data sources, 2 grid views and a form view as a starting point.
 - Have the user enter the replacement part number and quantity. You don't have to provide dropdowns or an order link from the catalog to place a part in the order, although you can do so if you wish for extra credit. Your INSERT statement may fail if the user enters an invalid part number; you don't need to handle this error—assume the user will enter correct parts.
 - Show the order total price; use the SUM keyword in SQL. You also have to compute the extended price (quantity times unit price) for each item in the order, and then sum these to get the total order price. Computing order price takes several steps select the order line items in this order; compute the extended price for each line item; add the extended prices to get the total. You do not need to implement SQL transactions (rollback).
 - Handle carriers, modes and any other shipment logic very simply.
 - You don't have to handle the time/date of the order or shipment.

- Add your new pages into the SiteMapPath control for bread crumb navigation. Don't worry about how it works with any pages with querystring navigation.
- You may implement more features for extra credit, if you wish. Examples include showing all orders placed by a customer, or by all customers; the carriers in each state; and so on.

Things you do not have to do:

- Do not implement any login or security control. While relatively easy, it requires some careful configuration of users and privileges which can take a long time to troubleshoot. Your site will be a public site, and will also be used by internal distributor staff to enter orders received from customers. Don't implement any more detailed requirements that you may have written for your site.
- You do not need to display customer information, or any carrier information beyond name and modes.
- You do not need to allow aircraft parts, aircraft, MIDOs, manufacturers, etc. to be edited, deleted, or inserted.

B. Hints

For homework 7 you will keep building the pages you created for homework 6. At the start of homework 7, you should already have the following web pages and features:

- Home page
- Company profile and contact information
- Placeholders for:
 - Parts catalog
 - Order placement
 - Login
 - Others, such as carriers, based on your requirements
- MIT.master page and image folder (or any other master)
- Web.sitemap to allow navigation between pages
- Page with link to 2 external sites

B.1 Parts catalog

- Split catalog by MIDO and display the details (Reference - Lecture 20)
- Use the hyperlink example we did in class to create a set of links on the catalog page, each of which has a query string to go to a specific MIDO value.
- The next page will just show a grid view of the products.
- Use the sales reps 2 and 3 office example from Lecture 20
- Create 2 pages, one with a list of parts by MIDO.
- The second page will show the details for parts for the selected MIDO.
 - SqlDataSource1: select all from the product table where the MIDO (column) is equal (operator) to the query string (source) and the field is equal to MIDO. Add.
 - GridView1: configure data source; enable paging and sorting.

- In the first catalog page, add the hyperlink for each MIDO (e.g. MIDO ATL Catalog2.aspx?MIDO=ATL)

B.2 Place order

This one is hard and there are lots of variations. This is just an outline for one approach.

First create about 10 customers in the Customers table using SQL Server Mgt Studio. Your Web site does not need to allow new customers to be created.

In VWD, you can either:

- Create a page that displays these customers as your login page. You can click on a customer to mimic logging in, and you also now have the customer ID, which you need for the order process. Or
- Create a login page where the customer inserts its customer ID and other details. Use a FormView; set the DefaultMode property to Insert (<asp:FormView DefaultMode=Insert... />).

Then, in the order page, display the customers and their orders in VWD

- SQL 1: get the customer certificate number and name
- Gridview 1: allow selection

Second, display orders (header) for that customer.

- SQL 2: select from order headers table where customer = selected customer from Gridview 1.
 - Select the number, date, determine the subtotal and tax based on the order details quantity and price assuming a tax of 7%, the total of the order, the purchase order number, carrier's certification number and mode from the order header.
 - You will need to use joins and a conditional clause for the customer (Control GridView1).
- GridView2: allow select

We next allow customers to create new orders (using a FormView), edit or delete an existing order header, and select existing order details.

- SQL3: select all from order header where the order number = selected order number from GridView2. You will also need to write statements for the update, insert and delete
 - Example: UPDATE [Table] SET [column1]=@column1,.. This will take the value entered in the form view (below) and update the table. (Note: the syntax for insert and delete is different)
- FormView 1, associated with SQL 3:
 - Allow edit, delete, new (insert & cancel)

- If you have trouble with the IDENTITY property on order numbers, you may allow the customer to enter the order number. Change the table definition in SQL Server Mgt Studio.
- Go to the Events button (lightning bolt) in Properties Window and add the code for item deleted and item inserted, as in the lecture notes.
- SQL 4: Select from order details, and determine the subtotal of the order (price and quantity) where the order number = order number from grid view 2.
- GridView3: Shows the existing order details of an order; allow edit and select
 - Go to the events button and add the code for item update.
- SQL 5: Select from order detail where the order number = order number selected by the customer; fill in the statements for update, insert, and delete.
- FormView2: This will allow for changes to the order detail
 - Go to the events button and add code for item deleted, inserted, and updated.

Other hints:

- Always remember to use the events button to include the insert, update, and delete code (DataBinding) whenever you are allowing these.
- You will need to go over lecture, the book, and other resource (Google is amazing!) to get things running smoothly. You might find other ways of making your Web site work; this may not go hand in hand to your requirements.

C. Hand in

Each group only needs to submit one Web site. Please zip the entire site and upload it to the course Web site. The TA may ask you to come to office hours to review your site.

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