CE154 Web Development

Assignment: Online Shopping

1. Introduction

The aim of the project is to implement an online shopping site for a hypothetical company which sells books, music CDs, games and DVDs. The following is a general description of the assignment. The separate marking scheme file tells you exactly what features your website should have, and how many marks you will get for each.

2. Design of the Site

2.1 Outline

There should be a home page for the shop with menus across the top and down the left hand side. There should be four departments - books, CDs, games and DVDs. Each should have at least one page of products for sale. Menus at top and side should be consistent across all the pages of the site. The site should be nicely designed.

Behind the site will be a MySQL database which has already been created for you. On pages for products, you can for example display the title, text extracts, illustration image, price and stock count (i.e. how many are available to buy at that moment). The database contains information of this kind which you can use. You can obtain illustration images of each book etc. from the internet.

There are two kinds of users of the site, firstly Customers, and secondly the Manager.

2.2 Customers

A customer of the site should be able to do the following things:

1. View pages of books, music CDs, games and DVDs without logging on. Customers should be able to see the price and stock count of each item, but they should not be able to buy without logging on.

2. Log on as a customer and then buy an item by clicking a button which says ‘Buy’ which is next to each such item. Note there is no shopping cart and minimal process involved. Clicking the button goes to a purchase page where a button can be clicked to complete the purchase.

Buying an item creates one new entry in the customer_order table and one new entry in the order_item table. (We assume a customer orders one item at a time and there is one customer_order and one order_item for that item.)

3. Log out.

2.3 The Manager

The manager of the shop should be able to do the following things:

1. Log on as manager and then view all the database tables on the system.

2. Log out.

In this assignment, the manager can only view the tables and cannot modify them or perform any other tasks - refer to the marking scheme document to see exactly what your website needs to do to gain 100%.

3. Architecture

The project should be implemented as a set of HTML5 pages. Javascript can be used, e.g. for validating usernames etc. within the browser, before transmission to the server. Server-side processing must be handled using JSP / JSTL, Tomcat server and MySQL, exactly as covered in the lectures and labs.

Behind your website will be a MySQL database, initialised with a script provided by us. This creates the database tables for you and populates them with some initial data. As part of the assignment, you will need to do two things:

- Find images to go with existing items for sale in the database. You will see that each item in the database has a filename for an image - e.g. aa01-001.jpg. However, there is no such file; you need to obtain a suitable image, give it that name and then make the corresponding page of your website use that image by referring to the database.
- Add two further items to each section of the online shop, i.e. eight additional items in total.
- Note that the numbering of the merchanise in the database has 'gaps' for you to fill: AA01-001-AA01-004 are already books. You are going to add AA01-005 and AA01-006 which are not there yet. We then continue with AA01-07-AA01-010 which are already in the database and are music CDs. You are going to add two more, AA01-011 and AA01-012, and so on.

4. Deployment

You should develop the site on your local machine to start with, just as you have in the weekly labs. Once the site is working, you can upload it to the csee5 server and test it from there. You must test everything thoroughly on csee5 to make sure it is all functioning correctly. You must also make sure that the final version which you wish to be evaluated is up on csee5 by the due deadline.

5. Validation

The project should be developed in HTML5. All code for the project should be written by you personally. Thus you should not use tools like Dreamweaver for this work.

The site should be capable of being used in Mozilla Firefox (exactly as installed in the labs).

Content in HTML5 and CSS should be accepted as correct by the online W3C validators https://validator.w3.org/nu/ and http://jigsaw.w3.org/css-validator/ respectively. Recall from the labs that you can access these conveniently through Mozilla using Tools - Validate HTML etc.

6. Assessment

Assessment of the project will take place during Weeks 24 and 25. The version you upload to the csee5 server will be the one that is evaluated. We may also wish to ask you questions about your assignment. We will contact you if this is necessary. If you do not hear from us, you can assume that it is not necessary.

7. Marking Scheme

Marking will be according to a detailed marking scheme - check under Assignment on Moodle. The marking scheme lists the exact features your website should have, so you can use it as a checklist.

8. Submission and Deadline

The project should be uploaded on the Faser system as a WAR file by the deadline which is Week 23 (Friday 10th March 2017, 11:59). By that time it must also be uploaded and fully operational on the csee5 server.

Note: If you do not upload your assignment to Faser by the deadline, the people in the office will say you have not submitted your assignment. They will then say you cannot get a mark. So please do make sure you have uploaded well before the deadline - do not leave it to the last minute.

If you have nothing working on csee5 by the deadline, then the markers of the assignment will say you cannot get a mark... So please do make sure you have everything on the csee5 well before the deadline.

In other words, make sure you have uploaded to Faser and uploaded to csee5 before the deadline. In both cases, you can always upload something and then, later on, upload again.

9. Getting Help

This is not an easy assignment but everything you need to know is in the lectures and the lab sheets. If you turn up to the two-hour lab each week, we can help you with every step - experienced GLAs are in attendance. Also, there are three lab sessions each week and there is nothing to stop you appearing at all three if you need more help (subject to space being available).

10. Plagiarism

The usual policy on plagiarism applies: https://moodle.essex.ac.uk/course/view.php?id=5844.

This assignment must be entirely your own work. You are however allowed to adapt any code from the numerous examples provided within this module.