Homework Assignment 3

(200 points)

Assigned Date: Wednesday, November 4, 2009

Due Date: 5:30 PM Wednesday, November 18, 2009

Educational Goal

Become familiar with 3-layered Website Architecture.

Requirements

- **(80%)** On the basis of homework assignments 1 and 2, re-construct the Best Pizza House website using the three-tier architecture.
  - (30%) Presentation Tier: Use one master page, one CSS file, user server controls, and ASP.NET web forms. This tier implements the following functions:
    1) Validating form data (same requirements as Homework 1)
    2) Obtaining the options of pizza topping from the Business Tier and perform data binding. The pizza toppings information must be kept in the SQL Server database→the Business Tier→the Presentation Tier.
    3) Passing ordering information to the Business Tier including the option of pizza topping and the quantity of pizzas (same requirements as Homework 1)
    4) Obtaining the calculated prices from the Business Tier. The unit price of different pizza topping must be kept in the SQL Server database→the Business Tier (calculate the price)→the Presentation Tier
    5) Displaying receipts
    6) Separating presentation from content. Use CSS to design the web site.
  - (30%) Business Tier: use C# classes. This tier implements the following functions:
    1) Reading database data using factory method in generic data access
    2) Calculating prices using the information obtained from the Presentation Tier and the Data Tier
  - (20%) Data Tier: use database table(s) and stored procedure(s)
    1) Keep the options and prices of pizza topping inside database table(s)
- **(20%)** Write a summary to explain the detailed design of your Presentation Tier, Business Tier, and Data Tier. List all the files used in each tier. Explain the relation among those files. The summary should also include the result of a successful transaction with the receipt displayed.

Submission Requirements

1. Zip all the files of the assignment including the summary page into one ZIP file. Name the ZIP file as web_lastname_firstname_hwk3. For example, student John Smith should name his file as web_Smith_John_hwk3. Submit the softcopy to the UMass Online.
2. You should leave a working copy of your website under your account at fantasyland server.
3. Submit a paper copy of your summary page in class including the directory location of your website at the fantasyland server.
4. No hard copies or soft copies results in 0 points.