Final Project

Online Shopping Website (40%)

DUE DATE

Session 15

OBJECTIVES

The main objectives of this project are to:

- Interpret specifications and analysis performed.
- Design a solution based on the requirements and specifications.
- Design the logic required for a complete program design solution.
- Write the code for the program logic.
- Create the database that will be used for the online shopping store.
- Debug and test your program and make sure it is working properly.

DESCRIPTION

Time Required

You will require 10-12 hours to complete this project.

Required Material

You will need the following material to complete this project:

- Visual Studio
- SQL Server
- Microsoft Word (for document preparation)

In programming there are generally multiple possible solutions to the same problem. Your solution may not be identical to someone else's, but that does not mean that it is wrong. Your solution will not and should not look exactly like your colleague's solution. Any good solution is acceptable if produced following the principles and guidelines presented in this course.

INSTRUCTIONS

Provide a computerized data storage facility. Users can search easily for any item. All the stock of items is updated automatically in the new system by the Administrator. The system should be user friendly

and anyone having computer knowledge can handle it easily. The system can maintain stock, display item information, display customer information and bill information, and enable users to be able to pay online through credit cards.

Key Functions

The system should contain the following Functions:

1. **Admin Login:** Admin need to login by providing the login credentials to access the below given admin modules.
    a. **Product Entry:**
        i. Admin can enter details and pictures about new item products details.
        ii. Admin can update stock.
    b. **View Order:**
        i. Admin can view details about the order placed by the user.
    c. **View Users Details:**
        i. Admin can view all the registered user's details.
2. **User Login/Registration:** User can register on the system and get his online account on site.
    a. **Profile:**
        i. The user can add information for address, phone number.
        ii. The user can change his saved information.
    b. **View Products:**
        i. The products are arranged and can be viewed in categories.
        ii. Products are displayed with details and pictures.
    c. **The Cart:**
        i. Users can add multiple products to his cart.
        ii. Users can modify and update the cart.
    d. **Pay using Card:**
        i. After total bill is calculated user can pay via credit card online.
    e. **View Order:**
        i. User can view details about the order placed.
        ii. User can view the items purchased.

Requirements:

Model the Online Shopping Web Application:

Make sure you read through all of the specifications and extract the key pieces of information. Be on the lookout for processes that repeat themselves in various locations; this can be helpful to apply modularization techniques. Consider the various messages that the system is required to produce and document them.

Design the Program Logic

You will create the various flowcharts, pseudocode and coding to implement the online shopping web application:

1. Flowcharts and Pseudocode
   Model an algorithm for each of the processes described above using a flowchart or pseudocode.
2. Database
   Create the tables with all the needed columns for the online shopping web application. Add some dummy data for the shop stock.
3. Coding the program logic
   Using ASP.NET, HTML create the Online shopping web application. Connect the application to the database.

GUI DESIGN

This Online shopping system proposes different screens that the users will see at any given point in time. As part of any program design, the GUI design is an important component as it allows the designer to adapt the screen layouts to meet the design and functionality standards.

Requirements

1. Create the different wireframes for the screens that your online shopping will use. Your wireframes, must include all the options that the program will provide.
2. Prepare a storyboard showing how the screens are supposed to function together.
3. Prepare an Object dictionary which lists the interface objects used in the program, where they are found (Screen), any variables that they impact and any procedure, method or function that they invoke.
4. Human program interaction is very important to allow the user to communicate with your program in an easy and efficient way.

Class Design:

Object Oriented design you should be able to identify and design a number of classes for this solution. Create a class diagram for the created classes.

Where applicable, you must show inheritance, dependency or association between the different classes. Your class diagrams must use the proper format and naming conventions.

SUBMISSION INSTRUCTIONS

Your project must include a project report containing:

- a title page with your name, the submission date and your instructor's name
- a table of contents
- the project specifications
- all relevant documentation including diagrams, flowcharts, pseudocode, coding, database.

Work must be submitted in the correct file type and be properly labelled as per the College naming convention:
NAME_COURSE_ASSIGNMENT. E.g. XuXiaLing_FM50D_A01.

GRADING CRITERIA

Assignment Value: **40%**

Evaluation Elements	**% of mark**
Analysis for the online shopping web application	10
Design for the online shopping web application	10
Implementation for the online shopping web application	25
Database created	10
Communication between the code and the database	10
GUI design	15
Class diagrams	10
The website functionality	10
TOTAL	**100**

Penalties

- A penalty of 5% will be deducted from your mark for each day your project is late.
- Any project submitted more than three calendar days late will receive a maximum mark of 60%.