(420-PV3-AB) 420-PS4-AB) Developing ASP .NET Web Applications
Summer 2018

Exam - 1

15 - June – 2018   **[Worth 25%]**

Exam Time: 2 Hours 30 Minutes

Please read the following instruction carefully:
1- Exam is an open book exam.
2- Read each question carefully.
3- Please provide all details for your answer as you may be rewarded partially for the steps if the final answer is not correct. Add comments to your code as you may be rewarded to comments in case the application is not working properly.
4- If you have a question, please raise up your hand and wait until the instructor addresses you.
5- Cheating during the exam will not be tolerated. Any cheating attempt will result is voiding the exam result.

Good Luck ☺

Question 1 (40 pts)	
Question 2 (60 pts)	
Question 3 (Bonus)	
Total (100 pts)	

Using Northwind database, build the following webforms using ASP .NET:

1- **Supplier Search Webform:**

In this form you will provide the user with two options to search for suppliers. Using Object Data Source build the following search options. Add needed classes to be able to use Object Data Sources using LINQ to SQL.

    a. <u>First search option:</u> Search by company name.

        In a dropdown list display a list of all available suppliers from the "Suppliers" table. The displayed text of the list should show the company name, while the selected value should include the supplier ID.

        Upon selection of a supplier from the dropdown list, redirect the user to the <u>"New Product"</u> webform. Include the selected supplierID in the query string redirect URL.

    b. <u>Second search option:</u> Search by city:

        Add a textbox labeled City. Add a "Search by City" button. In the click event of the button, you will query the database for suppliers in the provided city and display the results in a GridView below.

        Upon selection of a supplier from the grid, redirect the user to the <u>"New Product"</u> webform. Include the selected supplierID in the query string redirect URL.

2- New Product Webform:

a. Create a webform to add a new product to the database. A new product requires the following fields:
   i. Product Name: string, required, provided by user
   ii. QuantityPerUnit: string, required, provided by user
   iii. UnitPrice: double, Provided by user
   iv. UnitsInStock: int, optional, default 0, Provided by user
   v. UnitsOnOrder: int, optional, default 0, Provided by user
   vi. OrderLevel: int, optional, default 0, Provided by user
   vii. Discontinued: bit, required, checkbox, Provided by user

b. Foreign Keys:
   i. CategoryID:
      Using SQL data source, display in the same form add a dropdown list with all available categories from the "Categories" table. The displayed text of the list should show the category name, while the selected value should include the category ID.
   ii. SupplierID:
      Acquired from query string (not included in the form)

c. Adding new product to the database:
   i. Add any needed validations as you see fit:
      • Required field validations.
      • Datatype validations.
   ii. Add a "Add New Product" button. In the click event of the button, use ADO .NET to add a new record to the database using the value provided in the form.
   iii. Upon a successful insert into the database:
      • Display a message "Product added successfully".
      • Disable the "Add New Product" button.
      • Display a hyperlink that will direct the user to "Supplier Search" webform.

3- Bonus:

a. Add a mater page: Site.Master. Include the following in it:
   i. Header: with a logo left justified and date label right justified.
   ii. Footer: Copy rights, developer name and contact information.