Marks: 30

Introduction

In this first assignment, you are being tasked to create a Web Forms solution for a boat marina company called **Inland Marina Ltd**.

Learning Outcomes

Utilize Master pages to ensure common layout across multiple pages
Create Content pages that use the Master page Use
Bootstrap for navigation and page layout
Manage State using Session
Secure the Application using Forms Authentication

Purpose

This assignment will be used to assess your programming skills in developing a Web Forms application across multiple software layers using the Entity Framework DB-First approach.

Instructions

Once the assignment is completed, the solution is to be zipped up and uploaded to the Assignment section of the course D2L site.

Marking Criteria

REQUIREMENT	MARKS
Master page and 5 Content pages designed as required	5
Registration process works as required	4
Lease Slip page protected as required	4
Leased slips for the customer display correctly in the Lease Slip page	4
Only non-leased slips are displayed in the forms	4
Good use of Bootstrap/CSS for design, layout and color	2
A multilayered solution is developed using 2 projects as required	3
A MarinaManager class is implemented as required	4
Total	30

Background Information

Inland Marina Ltd, a company operating a marina facility at Inland Lake has asked you to build an application that will handle their leasing services. Inland Lake, one of the largest lakes in the southern US offers a year-round boating paradise. The company is the largest marina on Inland Lake and has the capacity to house 90 boats on three docks.

With recent increases in tourism, the current practice of taking telephone bookings from customers is becoming too much to handle. Automating the process of leasing a slip, a "parking spot" for a boat, will enable the office staff to concentrate on other duties.

In discussions with management it has been determined that the best solution would be to develop a web-enabled application that allows customers the ability to search for available slips on their docks at Inland Lake. Once a customer is registered in the system, they will be allowed to lease an available slip located on one of their docks.

A corporate logo (as a jpg file) is supplied. It measures 800 x 100 px in size.

Use Cases

1. As a potential customer, I should be able to navigate the website so that I can gain information about the marina.
2. As a potential marina customer, I should be able to see only non-leased slips by a selected dock so that I can make a decision on what slip I would lease once registered.
3. As a potential customer, I should be able to register with the marina so that I can select an available slip for leasing.
4. As a registered customer, I should be able to view all my leases so that I know which slips I have rented before.

Web Application Requirements

1. A **Home** page that welcomes the user to the site and displays a brief outline of the company. This is the start-up page for the web application available to everyone. Text is provided in this document. This page can be accessed from the navigation menu.
2. An **Available Slips** by dock page. This page can be accessed from the navigation menu.
3. A **Contact Us** page that contains company locations, address and phone numbers. Text provided in this document. This page can be accessed from the navigation menu.
4. A **Registration Page** allows users to register on line. This page can be accessed from the navigation menu.
5. A **Lease Slip** page where users can select a slip and hold it for leasing. Users can lease one or more slips on any dock. This page is only accessed from the registration page once user has successfully registered. It cannot be accessed from the navigation menu.

Technical Requirements

A database script has been provided that contains Dock and Slip lookup data already entered as well as a few Customer and Lease records. There is no need to add docks or slips.

1. Use Master and Content pages in a Web Forms project.
2. Use styles (in a css file or in-line styles) and Bootstrap to give the web application a nice corporate look and feel. Use the corporate colors found in the corporate image supplied. Use any boat and marina images from the web you would like to use on your forms.
3. Do not allow direct access to the Lease Slip page. It is not in the navigation menu and if a user tries to enter the page url directly in the browser window, redirect them to registration page. You can use Session state described in the next item to control this. Check the Session and if no customer object in session then redirect them.
4. Customers have to register first before leasing a slip. Once a registration form is completed and database checks done, add the customer object to Session state. The database is checked to see if this customer has registered previously. If there is a match of first and last names, use that customer record to create the customer object and add it to session. This page will serve as a **pseudo login** for existing customers.
5. The Lease Slip page has a control to display Docks (drop down list or grid view). Select a dock and another control displays all the slips associated with that dock (drop down list or grid view). Select a slip and click the Lease button. A grid view control at the bottom of the page should show current slips leased. If this is a returning customer who has leased slips before, this will display in the grid view.
6. An Entity Data Model (from the existing database) is added to a class library. A MarinaManager has all the methods required by the Web forms. The forms do not call the context class directly. The manager class contains all the logic required.

Additional Notes:

Please note that the id field in all tables is an identity field which automatically increments the id value for each insert.

Ensure both projects are in the solution file before zipping up with your name in the file name.

Website Content

Home Page Information:

Welcome to Inland Marina located on the south shore Inland Lake, just a small commute from major centers in the south west.

Inland Marina was established in the 1967 shortly after Inland Lake was created as a result of the South West damn. From its humble beginnings, it has grown to be the largest marina on Inland Lake. Due to the warm climate that extends year round, Inland Lake has become a popular tourist destination in the south west. Boat owners from California, Arizona, Nevada, and Utah are attracted to the area. Inland Marina has 90 slips ranging in size from 16 to 32 feet in length. Dock services include electrical and fresh water.

Contact Information:

Inland Lake Marina
Box 123
Inland Lake, Arizona
86038

(office ph) 928-555-2234
(leasing ph) 928-555-2235
(fax) 928-555-2236
Manager: Glenn Cooke
Slip Manager: Kimberley Carson
Contact email: info@inlandmarina.com

Image:

Size = 800 X 100 pixels

Database Diagram

Slip

	Column Name	Data Type	Allow Nulls
🔑	ID	int	☐
	Width	int	☐
	Length	int	☐
	DockID	int	☐
			☐

Lease

	Column Name	Data Type	Allow Nulls
🔑	ID	int	☐
	SlipID	int	☐
	CustomerID	int	☐
			☐

Dock

	Column Name	Data Type	Allow Nulls
🔑	ID	int	☐
	Name	varchar(50)	☐
	WaterService	bit	☐
	ElectricalService	bit	☐
			☐

Customer

	Column Name	Data Type	Allow Nulls
🔑	ID	int	☐
	FirstName	varchar(30)	☐
	LastName	varchar(30)	☐
	Phone	varchar(14)	☐
	City	varchar(30)	☐
			☐