

Assignment 2

THE RENTAL CAR COMPANY

Due Monday, October 26, 2009(section 1)

Due Tuesday, October 27, 2009(section 2)
at the beginning of class

We are going to make user interface forms for an on-line store that allows customers to reserve a rental car. The site will have three forms. The first form will ask the user to type in their name and pick out a car. The second form will allow the user to select additional options for the car. And the third form will be a check-out form to show the final rental price.

On the first form, the user will be asked to type their name, the start date for their trip, the number of days to rent the car, and be given 3 types of cars to select from. They can also type in a coupon code, if they have one, and will be shown the rental fee for the car they have selected. For example, part of the form might look something like:

```
*****  
Welcome to  
The Rental Car Company  
*****  
  
Name:           |_____|  
Start Date for your trip: |_____|  
Number of days:  |_____|  
Select a Car:  
    o Economy    o Standard  o SUV  
Enter Coupon Code if you have one: |_____|
```

(You may choose a different title for your company, or other types of cars.)

In addition to these inputs (from TextBoxes and RadioButtons), you should have buttons:

- A button to show the rental fee for the car, and a label or textbox to display it in
- A button to navigate to the option page where the user may add options
- A button to navigate to the checkout page

Additional facts:

- the economy cars are \$30 per day, the standard size cars are \$40 per day, and the SUVs are \$50 per day.
- The allowable coupon code is SUV15OFF. If the user types in this string, then they will get \$15 off the (total) rental of the SUV rental

The second form is the option form. On this form, use checkboxes for the user to select additional options:

GPS system (\$20.00)
Extra Insurance (\$10.00 per day)
Child Safety Seat (\$5.00 per day)

From the option page, there should be a button to navigate either back to the main page or to the checkout page.

The third form is the checkout form. This form should display the following information:

- Name:
- Start Date:
- Number of days:
- Rental Fee (including options and discount)
- Tax
- Total Rental

This page may have a button to display the checkout information, or it may display everything when the form loads.

On this page, there should be a button to Exit.

Computation on the forms:

This application will require a Module. In this module, there should be variables for all the information that is needed on more than one page. In particular, note that you must save the Name, Start Date, Number of Days, and Total Rental Fee in order to display it on the checkout form.

Main Form: On this form, you are required to write a procedure to compute the rental fee for the cars. This procedure should have as parameters

- The type of car as a String

- The number of days (may be either an Integer or the TextBox)

- The coupon (may be either a String or the TextBox)

The procedure will test the type of the car and compute the rental fee, which will be put into a variable at the Module level, based on the number of days and the rate of the type of car. In addition, if the coupon is "SUV15OFF", \$15 will be subtracted from the rental fee.

The button procedure for the Show Rental Fee button will check the radiobuttons to define what type of car the user wants and call the procedure to compute the rental fee, which will be displayed on the form.

The other buttons will navigate to the other forms as described above.

Option Form: For any checkbox which is checked, the additional fee for that option will be computed and added into the rental fee variable, which is in the Module.

Checkout Form: This form will display the name, start date, number of days and rental fee from the Module. Then it will compute tax at 8% and add it to the rental fee to get the Total Rental Price, which will be displayed on the form.

On this form, the user can close the application.

To finish this assignment

- Design the layout of each form and make the forms
- Write the programs
 - Write comments on the top of each program, including **your name** and what the program is for

- Write (simple) comments before each button-click subroutine with the description of what it does
- Add a module and write the module level variables
- Write the code, including the procedure, design variables as appropriate and add any additional comments that will make the code clear to read

For this assignment, you will be graded on:

- Whether the programs runs and computes correctly
- Error checking for user input from textboxes
- Use of radiobuttons and checkboxes
- Format, clarity and appearance of user interface
- Design of variables and variable names
- Design and use of procedures
- Design and use of Modules
- Documentation
- Clarity and overall design of programs

How to Submit your Homework:

1. In your project directory, create a **zip file** of the sub-directory that has your homework project in it and submit it to the dropbox on the iLMS system.
2. Open your project in Visual Studio and print a **paper copy** of each of the the Formx.vb programs that shows what you put for the buttons on your form and your Module level program. Hand these programs in at the beginning of class.