

Assignment 2

THE BIKE RENTAL COMPANY

***Due Tuesday, March 22, 2011 (first Tuesday after Spring Break)
at the beginning of class***

We are going to make user interface forms for an on-line store that allows customers to pick out bikes to rent. The form will have three parts. The first part will ask the user to input their name and the number of days that they will rent bikes. The second part will allow them to select one or more bike models and to select additional options for each bike. They can add as many bikes as they need by repeating this part of the form. The third part of the form will be a check-out where they can see how many bikes they have rented and the total cost.

In the first part of the form, the user types their name and the number of days that they wish to rent bikes. There should be a button here for the user to start the bike rentals, and if the user omits either of the two pieces of input information, a message box should give an alert and ask them to fill these in.

In the second part of the form, the user can specify a bike:

- Select between models: Road Bike or City Bike
- Select a size for the frame: Small, Medium, and Large.

Each combination of model and size has a rental price per day:

Road	Small	\$25.00
	Medium	\$26.00
	Large	\$27.00
City	Small	\$20.00
	Medium	\$21.00
	Large	\$22.00

Accessories can also be selected that add to the cost per day:

Helmet	add \$5
Reflective vest	add \$5
Child seat	add \$10

In addition to the daily price, the bike shop offers the weekly discount, which is that if the number of days is seven or more, the total rental of the bike with accessories is reduced by 10%.

After specifying all these options, the user can give the number of bikes that they want to rent of this specification and have a button where they can add this to their shopping cart. Note that the user can then go on to rent more bikes, adding to the information in the shopping cart.

The third part of the form is the checkout for all the items that have been added to the shopping cart in the first part of the form.

In this part of the form, the user may type in a discount coupon code, if they have one for a group rental. The allowable coupon code is "Group5OFF". If the user types in this string and if they have rented 4 or more bikes, then they will get \$5 off their rental price for each day of the rental.

The form will then have a button for checkout and will display

- the user name.
- the number of days renting bikes
- the number of bikes rented
- the amount of the rental before the coupon discount
- the amount of the coupon discount, if applied
- the total amount of the rental

Finally, there should be another button where the user can clear the shopping cart and start over.

Computation for the form:

This application will require class level variables to keep information in the shopping cart. In these variables, you should keep all the information that is needed in more than one button. In particular, note that you must save the all the information that must be displayed on the checkout form.

There is also a programming requirement for this assignment. This is that you are required to write and use a method to compute the price of bike rentals in the second part of the form, including the weekly discount.

Other requirements:

In the checkout, all monetary amounts should be formatted as currency.

To finish this assignment

- Design the layout of the form and make it. Give meaningful names to the components.
- 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 actionPerformed method with the description of what it does
 - Write the code, including the method; 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
Checking for missing input from the first two textboxes
Use of radiobuttons or checkboxes
Format, clarity and appearance of user interface
Currency Formatting
Design of variables and variable names
Design and use of methods
Documentation
Clarity and overall design of programs

How to Submit your Homework:

In your project directory, create a **zip file** of the sub-directory that has your homework project in it and submit it to the assignment 2 dropbox on the iLMS system.