EL2208 Problem Solving with C Lab. Lab #4

Computing final cost of a new vehicle.

As usual, work on praktikum.ee.itb.ac.id server.

This week you will write a program to compute the final cost of a new vehicle. Some customizing options and the financing packages will taken into account. Also, there is a $1000 discount available for graduating seniors. This exercise will provide you with some experience with the `switch/case/break` commands.

There are a number of items which the user will enter. Enter them in the following order:

- Ask the user for the base price of the vehicle; read this into a floating-point variable (double)
- Present the user with the following menu:
  ```
  Select one of the following packages:
  (A) Towing package ($1200)
  (B) Off-road package ($1000)
  (C) Not applicable (no charge)
  ```
  Read their menu choice into a character variable and compute the appropriate option package charge. Be sure to handle both upper- and lower-case responses. Use a `switch/case/break` structure to make the decision.
- Next, present the user with the menu:
  ```
  Choose a sound system:
  (A) 500w CD/tape player ($500)
  (B) 200w CD only ($250)
  (C) Base model (no charge)
  ```
  Read their menu choice into a character variable and compute the appropriate sound-system charge. Be sure to handle both upper- and lower-case responses. Use a `switch/case/break` structure to make the decision.
- The dealer offers graduating seniors a $1000 discount on their cars. As the user if they qualify for this rebate.
  ```
  If you are graduating senior, you are eligible for a
   $1000 discount from.  Enter a 'Y' or 'y' for graduating
   senior status and an 'N' or 'n' for non-graduating senior.
  ```
  Use an `if` statement to read this answer and store the response into a character variable. If the user is not a graduating senior, then they do not get a discount.
- The last question refers to their financing choice. Present the following menu to the user:
  ```
  Choose your financing terms:
  (A) 5% of subtotal for each of 5 years
  (B) 4.5% of subtotal for each of 4 years
  (C) Paying in cash (no financing costs)
  ```
  Use a `switch/case/break` to determine which choice the user selects. Be sure to handle upper- and lower-case responses. The `subtotal` quantity is the sum of the base price and the cost of the two options minus the graduating senior discount (if applicable).

Format the output so that it appears:

```
Base Cost:                      $10000.00
Options Packages:               $ 1200.00
Graduating Senior Credit:       $ 1000.00
```

```
Subtotals:                  $10200.00
Financial Charges:          $ 2550.00
Final Cost:                 $12750.00
```

Because of the adjacent character responses in your input, you will have to declare a variable to store the enter key character.

Test your code with a variety of options and discounts. When you are convinced your code runs right, demonstrate it to the lab instructor, then submit it using usual perl script.