

Decision Making Problems - Switch

Provide solutions to each of the problems below. Use a switch statement in your solution.

1. Write a program for an Internet service provider so they can calculate how much to bill their customers. The provider offers customers 3 packages:

PACKAGE	COST CALCULATION
A	\$9.95 per month for up to 10 hours; additional hours are billed at \$2.00 per hour
B	\$13.95 per month for up to 20 hours; additional hours are billed at \$1.00 per hour
C	\$19.95 per month for unlimited hours

The program should prompt for the letter of the service package (A, B, or C) and the number of hours they have used if either option A or B has been selected.

Sample output:

```
C:\DMIT_New_CPSC1012\Lessons\03_Decisions\DecisionProblems2-1\bin\Debug\DecisionProblems2-1.exe
Select the service package from the options below:
  A - $9.95 per month for up to 10 hours; additional hours are billed at $2.00 per hour
  B - $13.95 per month for up to 20 hours; additional hours are billed at $1.00 per hour
  C - $19.95 per month for unlimited hours
Option: b
Enter hours used: 25
The bill is $18.95
```

2. Write a program that can allow the user to perform some simple unit conversions. The program should display a menu of available options to the user, prompt for the desired option, and then prompt for the value. The conversion should be performed, and the new value should be displayed. Use the following table for conversions:

CONVERSION	FORMULA
POUNDS TO KILOGRAMS	$kg = lb / 2.20462$
FLUID OUNCES (U.S.) TO LITRES	1 litre = 33.8140226 ounces
INCHES TO CENTIMETERS	$cm = in / 0.393701$
FAHRENHEIT TO CELSIUS	$C = (F - 32) / 1.8$

As an option, also allow for conversions in the opposite direction (e.g. kilograms to pounds)

Sample output:

```
C:\DMIT_New_CPSC1012\Lessons\03_Decisions\DecisionProblem2-2\bin\Debug\DecisionProblem2-2.exe
Select from on of the following conversion options:
  1. Pounds to Kilograms
  2. Fluid Ounces to Litres
  3. Inches to Centimeters
  4. Fahrenheit to Celsius
Option: 4
Enter Fahrenheit: 32
32 F = 0 C

C:\DMIT_New_CPSC1012\Lessons\03_Decisions\DecisionProblem2-2\bin\Debug\DecisionProblem2-2.exe
Select from on of the following conversion options:
  1. Pounds to Kilograms
  2. Fluid Ounces to Litres
  3. Inches to Centimeters
  4. Fahrenheit to Celsius
Option: 1
Enter pounds: 150
150 lbs. = 68.038936415346 kg
```