COSC120 Programming Project 1

Due October 8, 2010 at 5:00PM
In the Digital Dropbox for COSC120

You have been asked to write a program that will calculate the target heart rate for a person based on their age. The American Heart Association defines the maximum heart rate for a person as 220-age beats per minute and the target heart rate range as 50-85% of maximum. Your users would like the program to remember the person's name as well as birth date and calculate the maximum and target heart rates for the person.

To complete this project, create a class called **HeartRates** which has instance variables for first name, last name and date of birth. Your class should have two constructors: a no-argument constructor and a constructor with arguments for each of the instance variables. Each of the instance variables should also have *get* and *set* methods. You should also have three methods: one to calculate age in years, one to calculate the maximum heart rate, and one to calculate target heart rate range.

Your *main* method should create an instance of **HeartRates** with the appropriate information and display the name, birthday, age, maximum heart rate, and target heart rate range.

A rubric for the project will be distributed by October 1, 2010.

Example Input:
Enter the first name: **John**
Enter the last name: **Smith**
Enter the birth month: **September**
Enter the birth date: **12**
Enter the birth year: **1983**

Example Output:
John Smith 9/12/1983 27 years
Max heart rate: 193 beats per minute
Target heart rate range: 96.5 – 164 beats per minute