CS1043   Programming Project

This assignment is designed for the student to demonstrate their acquired programming skills using the Java language. A quiz will be given on the due date for this assignment.

Create a class called *Golfer* that includes instance data, methods and constructors for a single *Golfer* as described here,

Private Instance Data: **name, holes[ ]**
One Constructor: Only one constructor that initializes the instance fields using the input arguments. You must make a deep copy.
4 Instance Methods:
1. **(String) toString()** returns the instance field data for the player on one formatted line. The output format is name followed by 9 scores.
2. **(String) getName()** returns the name of the player.
3. **(int) totalStrokes()** returns the total strokes for holes played by the Golfer.
4. **(int []) getHoles()**, returns an int-array containing the scores for all holes of one player.

Write a second class and give it a name other than *Golfer*. This second class will contain only one method: the *main* static method.

The main method will drive your program by doing the following:
- Create an array to hold all the individual golfers and par scores (type is Golfer[ ]).
- Prompt the user for a data file containing the Par scores and the player names and score. The format of the input file should look like this:

        Par, 3, 4, 4, 3, 4, 3, 5, 3, 4
        George, 3, 3, 4, 3, 4, 2, 3, 3, 4
        Paul, 4, 5, 4, 3, 6, 3, 4, 3, 5
        Ringo, 3, 3, 4, 3, 4, 2, 4, 3, 4
        John, 4, 4, 4, 3, 4, 2, 5, 3, 4

    Your program should read the file contents and store the information in your array of *Golfers*. Be sure to include a competent exception handler.

- Display a formatted table like this:

Name	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	Total	+-Par
Par	x	x	x	x	x	x	x	x	x	xx	xx
George	x	x	x	x	x	x	x	x	x	xx	xx
Paul	x	x	x	x	x	x	x	x	x	xx	xx
Ringo	x	x	x	x	x	x	x	x	x	xx	xx
John	x	x	x	x	x	x	x	x	x	xx	xx

The low score is:
The winner is:

About the columns in the table:

- H-1, H-2, … , refers to the score for a given hole. For example H-3 is the score for the third hole.
- The "Total" column is the sum of a player's nine scores.
- The entry in this column should be signed. The format modifier field is the plus symbol as in

  ```
  String str = String.format( "%+5d", value );
  ```