B2 - Stumpers

B-CPE-210

Golf Scorecard

Solo Stumper

{EPITECH.}
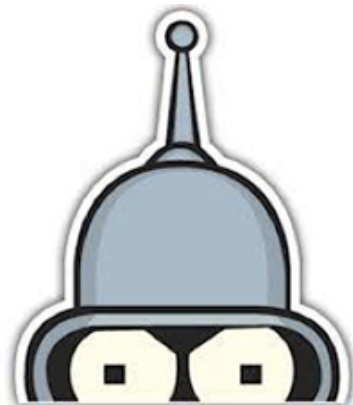
Golf Scorecard

binary name: golf_scorecard
language: C
compilation: via Makefile, including re, clean and fclean rules

- The totality of your source files, except all useless files (binary, temp files, obj files,...), must be included in your delivery.

- Error messages have to be written on the error output, and the program should then exit with the 84 error code (0 if there is no error).

For this project, the **only** authorized functions are `write`, `atoi`, `strtok`, `malloc`, `free` and `printf`.

In golf, the objective is to put the ball into a hole with the minimum amount of strokes possible.

Each hole has a defined amount of strokes, called *par*, in which players are expected to do the hole in.

Per-hole score is obtained by substracting the number of strokes made to the hole's par (doing 3 strokes on a par 4 gives a score of -1).
Final score is obtained by adding all holes' scores together.

For certain scores, there exists nicknames, which are as follows:

- +3: *Triple bogey*
- +2: *Double bogey*
- +1: *Bogey*
- 0: *Par*
- -1: *Birdie*
- -2: *Eagle*
- -3: *Albatros*
- -4: *Condor*

A hole made in 1 stroke is nicknamed *hole-in-one*.

{ EPITECH. }

Write a program that takes two parameters, each of them being a comma-separated list (of the same length) of strictly positive integers.

The first list represents the par values of each hole, and the second one the strokes made by the player on each hole.

> The lists will always be correctly formatted: all numbers will be valid, and the lists will have the same amount of numbers in each of them.

> There must be at least one hole.

The program must display the scorecard, with on each line:

- the number of the hole played;
- its par;
- the score's nickname, or the score itself in its numerical form if no nickname exists.

Then, the program must display, on separate lines:

- the total par of the course;
- the total amount of strokes done;
- the final score.

For each hole-in-one, `Hole-in-one!` must be displayed, with the usual nickname (or numerical score) displayed afterwards between brackets.

> When a score is displayed, its sign is always included (unless the score is 0).

EXAMPLES

```
~/B-CPE-210> ./golf_scorecard "4,3,5,4,4,5,3,4,5" "5,3,4,2,8,7,1,4,10"
Hole 1 (Par 4): Bogey
Hole 2 (Par 3): Par
Hole 3 (Par 5): Birdie
Hole 4 (Par 4): Eagle
Hole 5 (Par 4): +4
Hole 6 (Par 5): Double bogey
Hole 7 (Par 3): Hole-in-one! (Eagle)
Hole 8 (Par 4): Par
Hole 9 (Par 5): +5
Total par: 37
Total strokes: 44
Final score: +7
~/B-CPE-210> ./golf_scorecard "4,5,3" "4,3,10" | cat -e
Hole 1 (Par 4): Par$
Hole 2 (Par 5): Eagle$
Hole 3 (Par 3): +7$
Total par: 12$
Total strokes: 17$
Final score: +5$
~/B-CPE-210> ./golf_scorecard "4,5" ; echo $?
84
~/B-CPE-210> ./golf_scorecard "" ; echo $?
84
```