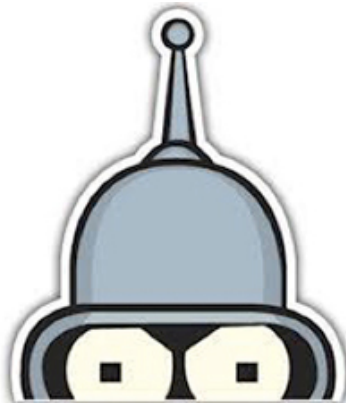# B2 - Stumpers

Pokemon

Duo Stumper

{ EPITECH. }

Pokemon

binary name: pokemon
repository name: CPE_duostumper_$STUMPERNUMBER_$ACADEMICYEAR
repository rights: ramassage-tek
language: C
compilation: via Makefile, including re, clean and fclean rules

- Your repository must contain the totality of your source files, but no useless files (binary, temp files, obj files,...).

- 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).

The $STUMPERNUMBER is always on one digit: 1, 2, …

For this project, the **only** authorized functions are those of the standard libC.

The goal of this exercise is to create a program in C that will allow you to simulate Pokemon fights.
The Pokemon to be used will be described in the files found in the pokecfg/ folder. The files will be formatted in CSV with the following fields:

```
~/B-CPE-210> cat -e pokecfg/pikachu
#name;attack;defense;speed;health$
Pikachu;42;42;42;42$
Raichu;84;20;84;84$
```

Your program should then read each file contained in the pokecfg/ folder in order to retrieve the information for each Pokemon.
Lines beginning with "#" are comments and should be ignored. Also, each file can contain several Pokemon.
After having retrieved the information from the configuration files, your program should display the retrieved Pokemon and their stats in the following way:

```
Pokemon NAME has ATTACK attack, DEFENSE defense, SPEED speed and HEALTH health.
```

The displayed pokemon must be sorted by their names (case insensitive)
If a line is invalid, you must skip it and continue the parsing.

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Next, you must pick the two Pokemon specified as parameter and simulate a fight between them.
Combat rules are as follow:

- The Pokemon take turns attacking
- The Pokemon that has the highest speed value starts
- A Pokemon attacks its opponent and tries to give an amount of damage between 0 and its attack value
- The opposing Pokemon decreases the damage incurred by its defense value
- The health value of the Pokemon opponent is decreased from the remaining damages
- When a Pokemon's health value is reduced to 0, he is KO and the fight is over

```
                             Terminal                              -  +  x
~/B-CPE-210> cat pokecfg/pikachu pokecfg/pidgeotto
#name;attack;defense;speed;health
Pikachu;42;10;42;42
Raichu;84;20;84;84
#name;attack;defense;speed;health
Pidgeotto;23;25;50;13
~/B-CPE-210> ./pokemon Pikachu Raichu
Pokemon Pidgeotto has 23 attack, 25 defense, 50 speed and 13 health
Pokemon Pikachu has 42 attack, 10 defense, 42 speed and 42 health
Pokemon Raichu has 84 attack, 20 defense, 84 speed and 84 health
Raichu attacks for 23 damage
Pikachu blocks 10 damage
Pikachu loses 13 health (29 left)
Pikachu attacks for 41 damage
Raichu blocks 20 damage
Raichu loses 21 health (63 left)
Raichu attacks for 80 damage
Pikachu blocks 10 damage
Pikachu loses 70 health (0 left)
Pikachu is KO
Raichu wins the fight!
~/B-CPE-210>
```

Your error messages must be clear and displayed on the error output.

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