Week-end Challenge

04

Subject:

Creating a random dice roller.

Rules:

- Only 1 submission per student/team. You can work in teams of up to 2. The points will be divided for each member of the team.
- Your code has to be written in C and compile with the following flags: `-Wall -Wextra -Werror`
- Try to respect the norm as much as you can to make it readable, but also feel free to take some liberties if you want to: longer functions (more than 25 lines), the use of `switch` and `for`, etc
- To compile your program, please provide a `Makefile` or, if you can't be bothered, a script called `build.sh`.
- Handling error cases (invalid arguments, etc) is not mandatory, but doing it will be considered a bonus.

Mandatory part:

program name	`roll`
turn-in files	`*.c / *.h / Makefile or build.sh`
Arguments	- the number of dices to throw {1, 128} - the number of sides of the dices {2, 50}
Authorized libraries	anything from the **libc**
Description	Your program will receive a number of dices to roll and the number of sides the dices have and print the corresponding results using pseudorandom generation functions.

Upon being called, the roll program will print `Rolling **X** d**Y**...` on the first line - with X being the number of dice and Y the number of sides - and will print one dice roll result on each following lines.

Use case:

```
> ./roll 5d20
Rolling 5 d20...
17
2
7
8
4
>
```

Ressources:

- WEC GitHub repository
- Online dice roller example

Bonus:

If your program works perfectly, you can add more features to increase your chances of winning. Feel free to add any bonus you want, here are a few suggestions:

- Implementing your own pseudorandom number generator without using the premade functions (rand(), time(), etc).
- Making a ***cool*** command line interface

Example:

```
> ./roll -C 3d6
Rolling 3 d6...
-----
|o o|
| o |
|o o|
-----
*********
-----
|o  |
|   |
|  o|
-----
*********
-----
|o  |
| o |
|  o|
-----
>
```

- Adding explosive dice rolls - AKA re-rolling a dice if it reaches the maximum value.

Example:

```
> ./roll -E 5d19
Rolling 2 d6...
12
19 -> 8
3
11
19 -> 19 -> 16
>
```

Turn-in:

To submit your project, compress the folder of the source code into a zip archive and send it by email to tutors@s19.be with the following subject: `wec04 - [login]`. The deadline is Sunday at 10:19pm.

Results:

The results will be announced after the following Monday's AMA.