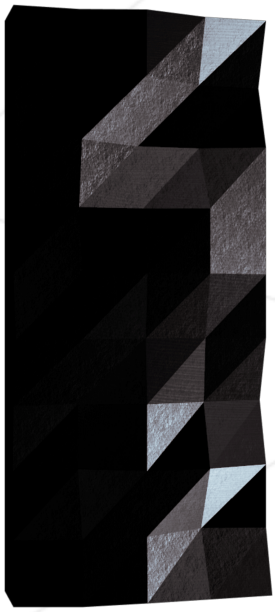

C Piscine

Day 03

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Abstract: This document is the subject for Day03 of the C Piscine @ 42.

Contents

Chapter I

Instructions

- Only this page will serve as reference: do not trust rumors.
- Watch out! This document could potentially change up to an hour before submission.
- Make sure you have the appropriate permissions on your files and directories.
- You have to follow the submission procedures for all your exercises.
- Your exercises will be checked and graded by your fellow classmates.
- On top of that, your exercises will be checked and graded by a program called Moulinette.
- Moulinette is very meticulous and strict in its evaluation of your work. It is entirely automated and there is no way to negotiate with it. So if you want to avoid bad surprises, be as thorough as possible.
- Moulinette is not very open-minded. It won't try and understand your code if it doesn't respect the Norm. Moulinette relies on a program called `Norminator` to check if your files respect the norm. TL;DR: it would be idiotic to submit a piece of work that doesn't pass `Norminator`'s check.
- These exercises are carefully laid out by order of difficulty - from easiest to hardest. We `will not` take into account a successfully completed harder exercise if an easier one is not perfectly functional.
- Using a forbidden function is considered cheating. Cheaters get a `-42`, and this grade is non-negotiable.
- If ft_putchar() is an authorized function, we will compile your code with our `ft_putchar.c`.
- You'll have to submit a main() function only if we ask for a program.

- Moulinette compiles with these flags: -Wall -Wextra -Werror, and uses `gcc`.
- If your program doesn't compile, you'll get a `0`.
- You cannot leave any additional file in your directory than those specified in the subject.
- Got a question? Ask your peer on your right. Otherwise, try your peer on your left.
- Your reference guide is called `Google / man / the Internet / ...`.
- Check out the "C Piscine" part of the forum on the intranet.
- Examine the examples thoroughly. They could very well call for details that are not explicitly mentioned in the subject...
- By Odin, by Thor ! Use your brain !!!

`Norminator must be launched with the -R CheckForbiddenSourceHeader flag. Moulinette will use it too.`

Chapter II

Foreword

Vincent: And you know what they call a... a... a Quarter Pounder with Cheese in Paris?

Jules: They don't call it a Quarter Pounder with cheese?

Vincent: No man, they got the metric system. They wouldn't know what the fuck a Quarter Pounder is.

Jules: Then what do they call it?

Vincent: They call it a Royale with cheese.

Jules: A Royale with cheese. What do they call a Big Mac?

Vincent: Well, a Big Mac's a Big Mac, but they call it le Big-Mac.

Jules: Le Big-Mac. Ha ha ha ha. What do they call a Whopper?

Vincent: I dunno, I didn't go into Burger King.

At least one of the following exercices has nothing to do you with a Royale with cheese.

Chapter III

Exercise 00 : ft_ft

	Exercice : 00
ft_ft	
Turn-in directory : *ex*00/	
Files to turn in : `ft_ft.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function that takes a pointer to int as a parameter, and sets the value "42" to that int.
- Here's how it should be prototyped :

```
void        ft_ft(int *nbr);
```

Chapter IV

Exercise 01 : ft_ultimate_ft

	Exercice : 01
ft_ultimate_ft	
Turn-in directory : $ex01/$	
Files to turn in : `ft_ultimate_ft.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function that takes a pointer to pointer to pointer to pointer to pointer to pointer to pointer to pointer to pointer to int as a parameter and sets the value "42" to that int.

- Here's how it should be prototyped :

```
void        ft_ultimate_ft(int *********nbr);
```

Chapter V

Exercise 02 : ft_swap

	Exercice : 02
ft_swap	
Turn-in directory : $ex02/$	
Files to turn in : `ft_swap.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function that swaps the value of two integers whose addresses are entered as parameters.
- Here's how it should be prototyped :

```
void    ft_swap(int *a, int *b);
```

Chapter VI

Exercise 03 : ft_div_mod

	Exercice : 03
ft_div_mod	
Turn-in directory : $ex03/$	
Files to turn in : `ft_div_mod.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function `ft_div_mod` prototyped like this :

```
void    ft_div_mod(int a, int b, int *div, int *mod);
```

- This function divides parameters `a` by `b` and stores the result in the int pointed by `div`. It also stores the remainder of the division of `a` by `b` in the int pointed by `mod`.

Chapter VII

Exercise 04 : ft_ultimate_div_mod

	Exercice : 04
ft_ultimate_div_mod	
Turn-in directory : $ex04/$	
Files to turn in : `ft_ultimate_div_mod.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function `ft_ultimate_div_mod` with the following prototype :

```
void    ft_ultimate_div_mod(int *a, int *b);
```

- This function divides parameters `a` by `b`. The result of this division is stored in the int pointed by `a`. The remainder of the division is stored in the int pointed by `b`.

Chapter VIII

Exercise 05 : ft_putstr

	Exercice : 05
ft_putstr	
Turn-in directory : $ex05/$	
Files to turn in : `ft_putstr.c`	
Allowed functions : `ft_putchar`	
Remarks : `n/a`	

- Create a function that displays a string of characters on the standard output.
- Here's how it should be prototyped :

```
void    ft_putstr(char *str);
```

Chapter IX

Exercise 06 : ft_strlen

	Exercice : 06
ft_strlen	
Turn-in directory : $ex06/$	
Files to turn in : `ft_strlen.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function that counts and returns the number of characters in a string.
- Here's how it should be prototyped :

```
int        ft_strlen(char *str);
```

Chapter X

Exercise 07 : ft_strrev

	Exercice : 07
ft_strrev	
Turn-in directory : *ex*07/	
Files to turn in : `ft_strrev.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function that reverses the order of characters in a string.
- It has to return str.
- Here's how it should be prototyped :

```
char        *ft_strrev(char *str);
```

- Example:

```
a => a
ab => ba
abcde => edcba
```

Chapter XI

Exercise 08 : ft_atoi

	Exercice : 08
ft_atoi	
Turn-in directory : *ex*08/	
Files to turn in : `ft_atoi.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Reproduce the behavior of the function `atoi` (man atoi).
- Here's how it should be prototyped :

```
int     ft_atoi(char *str);
```

Chapter XII

Exercise 09 : ft_sort_integer_table

	Exercice : 09
ft_sort_integer_table	
Turn-in directory : $ex09/$	
Files to turn in : `ft_sort_integer_table.c`	
Allowed functions : `Nothing`	
Remarks : `n/a`	

- Create a function which sorts an array (table) of integers by ascending order.
- The arguments are a pointer to int and the number of ints in the array.
- Here's how it should be prototyped :

```
void    ft_sort_integer_table(int *tab, int size);
```