

Exercice 1

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Je n'ai pas compris les fonctions de "my_list.mli" à implémenter. J'ai remis le code original de "test_list.ml" pour avoir quelque chose à mettre dans le rapport. Je n'ai donc pas d'exemple d'utilisation des fonctions.

```
1 let string_of_list str_fun l =
2   let rec string_content = function
3     | [] -> ""
4     | [x] -> (str_fun x)
5     | x::l -> (str_fun x) ^ ", " ^ (string_content l)
6   in "[" ^ (string_content l) ^ "]" in
7
8 let string_of_nat_list = string_of_list string_of_int in
9 let string_of_string_list = string_of_list (fun x -> x) in
10
11 let empty = [] in
12 let one = ["a"] in
13 let lst = [1; 3; 6; 10; 15; 21; 28; 36; 45; 55] in
14
15 let test_hd () =
16   Printf.printf "T te de %s : %s.\n" (string_of_string_list one) (List.hd one);
17   Printf.printf "T te de %s : %d.\n\n" (string_of_nat_list lst) (List.hd lst)
18
19 in let test_tl () =
20   Printf.printf "Queue de %s : %s.\n" (string_of_string_list one) (
21     string_of_string_list (List.tl one));
22   Printf.printf "Queue de %s : %s.\n\n" (string_of_nat_list lst) (string_of_nat_list (
23     List.tl lst))
24
25 in let test_length () =
26   Printf.printf "Taille de %s : %d.\n" (string_of_string_list one) (List.length one);
27   Printf.printf "Taille de %s : %d.\n" (string_of_nat_list lst) (List.length lst);
28   Printf.printf "Taille de %s : %d.\n\n" (string_of_string_list empty) (List.length
29     empty)
30
31 in let test_map ()=
32   Printf.printf "Map de (x -> xx) sur %s : %s.\n" (string_of_string_list one) (
33     string_of_string_list (List.map (fun s -> s ^ s) one));
34   Printf.printf "Map de (x -> 2x) sur %s : %s.\n" (string_of_nat_list lst) (
35     string_of_nat_list (List.map (fun n -> 2 * n) lst));
36   Printf.printf "Map de (x -> 2x) sur %s : %s.\n\n" (string_of_nat_list empty) (
37     string_of_nat_list (List.map (fun n -> 2 * n) empty));
38
39 in test_hd(); test_tl(); test_length(); test_map()
```