

# Simulazione run-time

```
let x = 1;;
```

```
let f1 = fun y z -> let f2 = fun x -> x * (y + z) in f2 x * (y - z);;
```

```
let rev lst =  
  let rec aux acc = function  
    | [] -> acc  
    | h::t -> aux (h::acc) t in aux [] lst
```

```
let rec apply g n (lst : int list) =  
  match (rev lst) with  
  | [] -> []  
  | hd::ls -> (g hd n):: apply g n ls;;
```

```
let res = apply f1 (x + 1) [2; 5; 1];;
```

Apply  
f1  
x+1  
[2;5;1]

g  
hd  
n

f2  
x\*(y-z)

A	SL = init	CL = init
	x	1
B	SL= A	CL=A
	f1	M1
C	SL = B	CL = B
	rev	M2
D	SL = C	CL = C
	Apply	M3
E	SL = D	CL=D
	g	M1
	n	2
	lst	[2,5,1]
	hd	1
F	lst	[5;2]
	res	[1;5;2]
	SL=A	CL= E
	y	1
	z	2
G	result	
	f2	M5
	SL= F	CL=F
	x	-1
	result	

M1	<cf1, A>
M2	<crev, B>
M3	<capp, D>
M4	<caux, F>
M5	<cf2, F>

```
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  let rec aux acc = function
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  let rec apply g n (lst : int list) =
    match (rev lst) with
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let res = apply f1 (x+1 ) [2;5;1];;
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