System-oriented Programming
Spring 2018

S06

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Exercise 1

a)

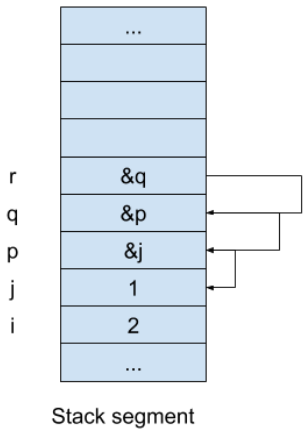

Figure 1:

b)

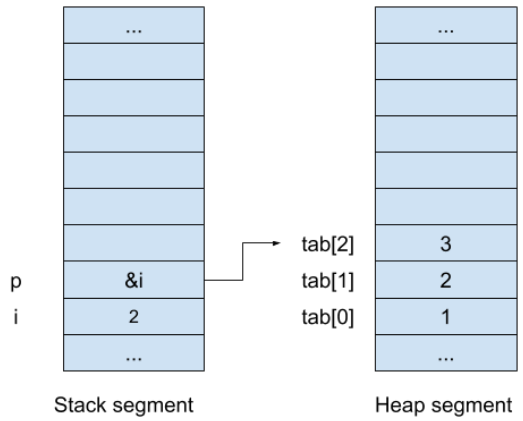

Figure 2:

c)

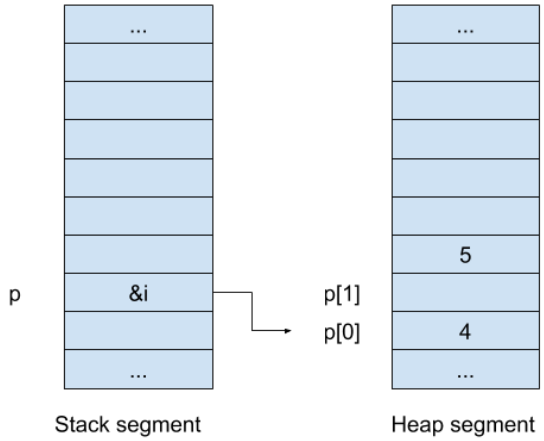

Figure 3:

Exercise 2

a) a is a local array of local array of int.

b) b is a local array of pointer on int.

c) c is a function which take no arguments and return an int. We have to specify *void* for the arguments to garanteed that the function should not take any argument.

d) d is a function which take a pointer of a function which has no argument and return an int. The function d return an int as well.

e) f is a function which return a function that return an int with no arguments. The function f take 0 argument.

Exercise 3

a) *stackt* is a synonym for pointer on void.

b) $fctInt\_t$ is a synonym for a function which take an int and return an int.

c) fct_gen is a synonym for a function which take a pointer on void and return a pointer on void.

d) *signal* is a synonym for a function which take 2 arguments : an int and a function that return nothing and take an int. *signal* return a function that return nothing and take an int.

Exercise 4

mult return $(2 + 4) * 8 = 48$. *compute* return $(2 + 4) * 8 = 48$

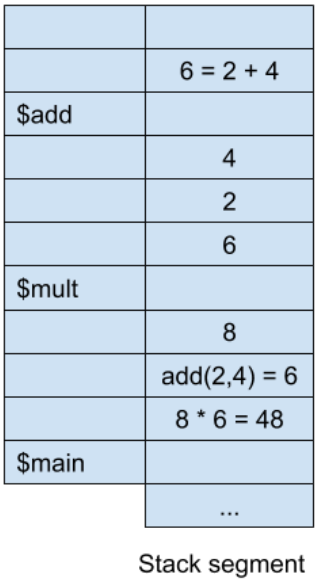

Figure 4: Stack segment of *mult*.

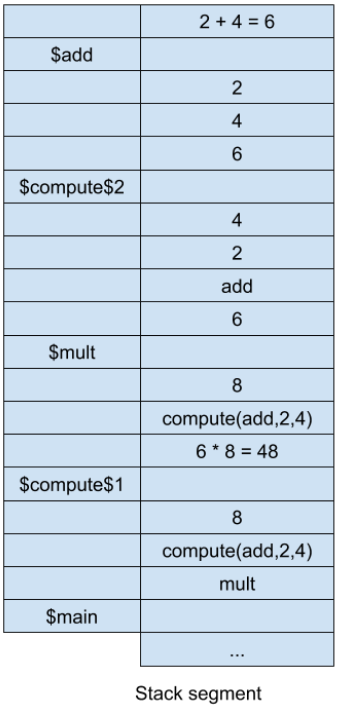

Figure 5: Stack segment of *compute*.

Exercise 5

I think I didn't find the correct code for this exercice...

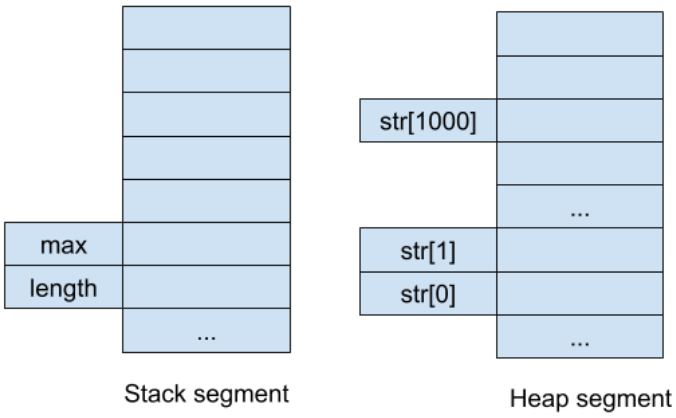

Figure 6: Stack and heap segment.