main( ){

1°   What to wear tomorrow?

2° Where to have coffee ?

3° think about How to deal with the assignment.

}

main( ) {

1°   2°   3°

}

1°
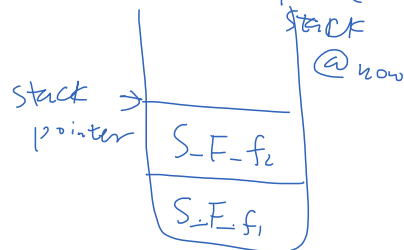2°   3°

1°   2°

3°

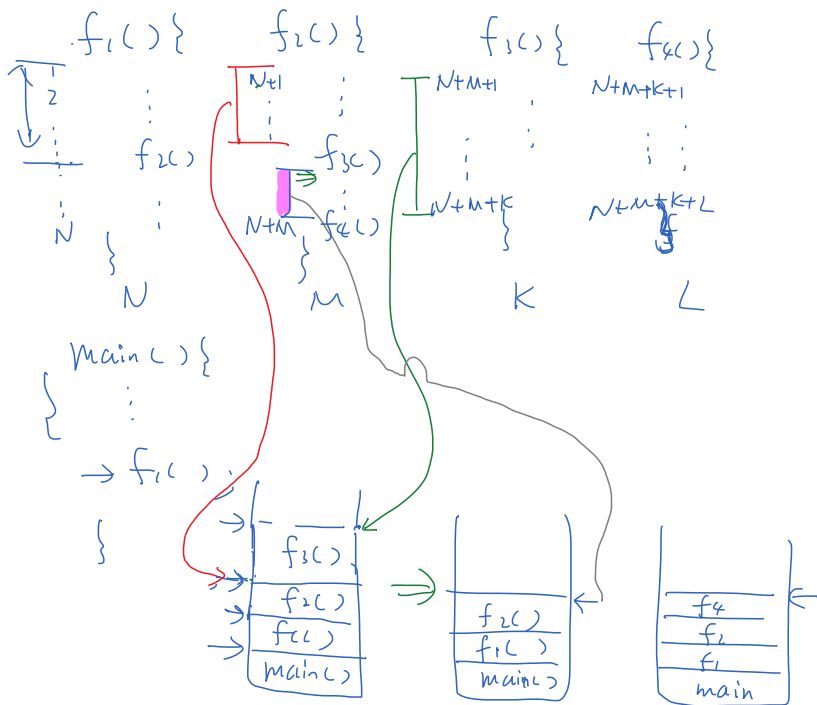f_1 (int tmp){

1:
2:
3:
$\vdots$
i: f_2(a, b);
$\vdots$
n   }
↑
PC

f_2 (int a, float b){

K:
K+1:
K+2:
$\vdots$
K+l
$\vdots$
K+M }

$\vdots$

View of the stack @ now

stack →
pointer

$S\_F\_f_2$
$S\_F\_f_1$

Q: What is the value of PC. ?

$f_1()\{$ $f_2()\}$ $f_3()\{$ $f_4()\}$

$\boxed{N+1}$ $N+M+1$ $N+M+K+1$

$f_2()$ $f_3()$

$f_4()$

$N+M$ $N+M+K$ $N+M+K+L$

N M K L

$main()\{$

$\rightarrow f_1()...$

$f_3()$
$f_2()$
$f_1()$
$main()$

$f_2()$
$f_1()$
$main()$

f_4
f_2
f_1
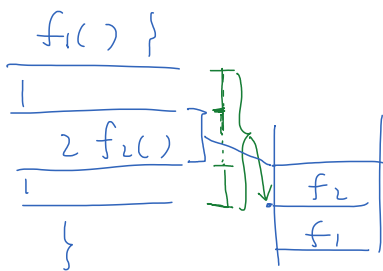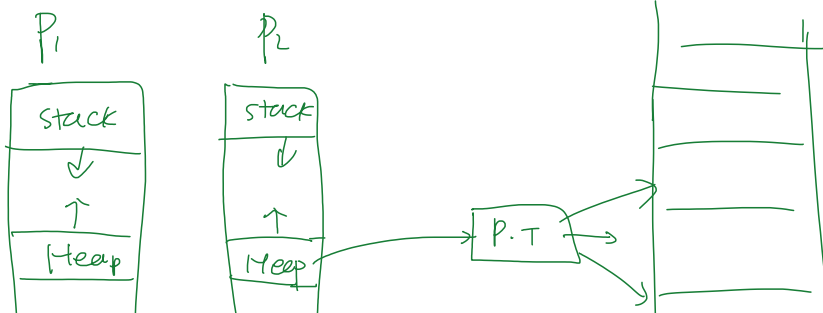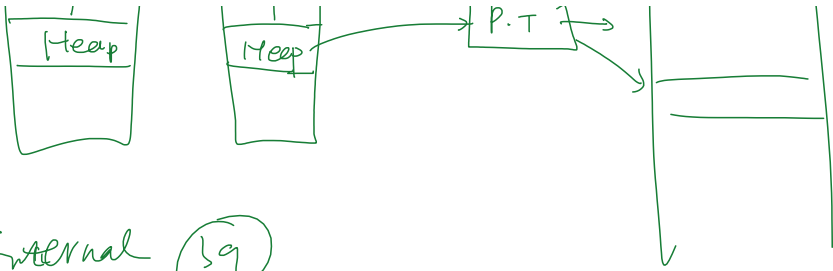$main$

Stack pointer location is a

function of time

└ "discrete" time
      step

Corresponds to
the duration of
execution

→ invocation of
   new function

→ till the finish
   of function.

$f_1()\}$

1

$2\ f_2()$

1

$\}$

f_2
f_1

$x_1 \cdot x_1$

P_1 P_2

stack   stack

↓   ↓

↑   ↑

Heap   Heap   P.T

Internal (39)