

CS 631-02 RISC-V Functions

Lab 03

array indexing

$$x = \underbrace{a[i]}_{\text{addr}}$$

$$\text{addr} = \text{base} + (i \times \text{sizeof}(\text{int}))$$

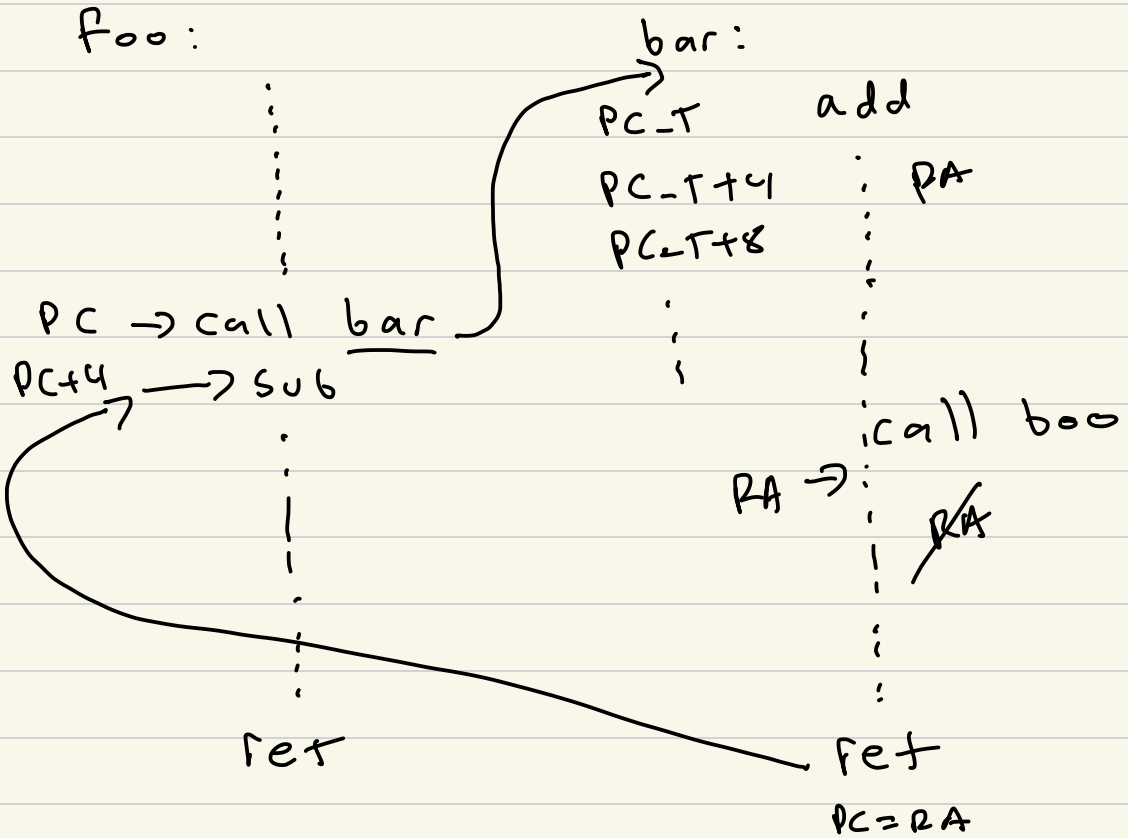
$$a + (i \times 4)$$

slli t2, t0, 2 # t0 << 2

Functions

caller

callee



PC program counter

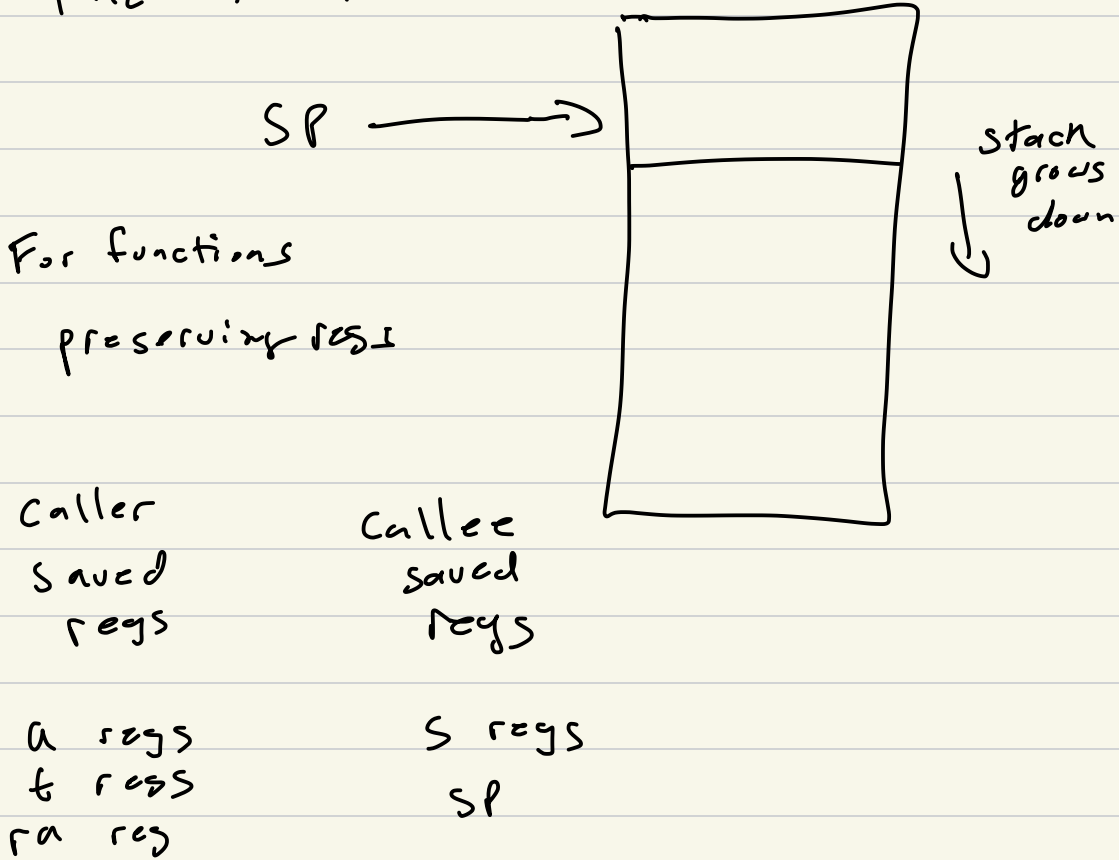
RA return address

`call (jal)` $RA = PC + 4$, $PC = \text{target address}$

`ret (jalr)` $PC = RA$

`jalr` ~~to~~ ra

The Stack



addi sp, sp, -16

sd ra, (sp)

