

CS 631-01 RISC-V Assembly

Topics

Registers

instructions

labels

register conventions

function calling conventions

Simple functions

arrays

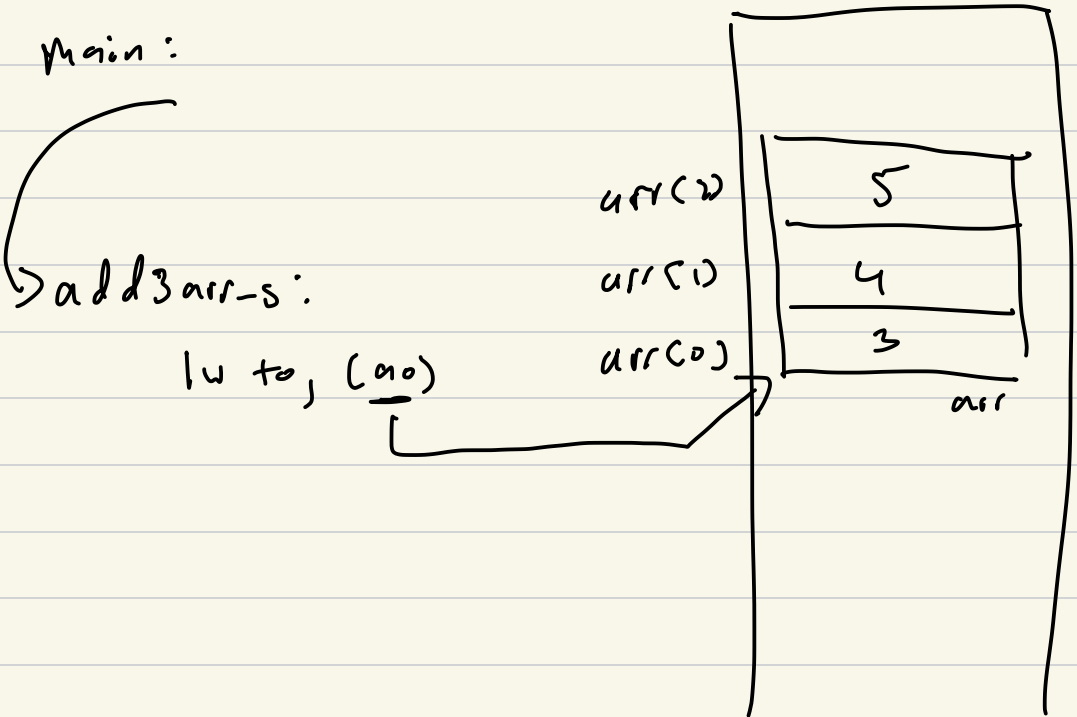
if/else

loops

Memory / Array

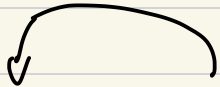
loads : ld, lw, lb
stores : sd, sw, sb

lw to, (a0) # to = *a0;
↑
a0 contains an address



Stores

$sw \ \underline{to}, (ao) \quad \# \quad *ao = to$



Control

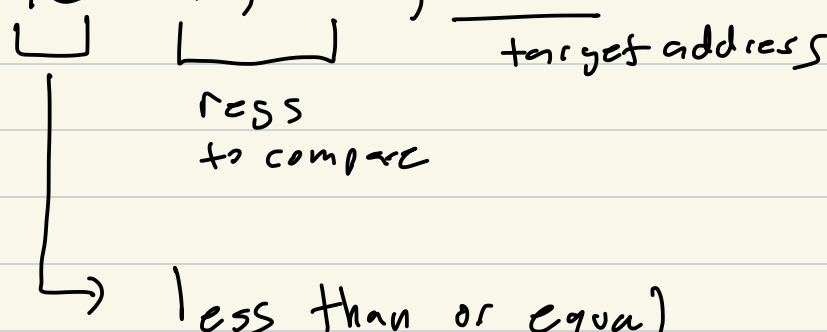
Branches and Jumps

$ble \ \underline{a0}, \underline{zero}, \underline{else}$

target address

ress
to compare

less than or equal



$bge \ \text{great than or equal}$

Simple Functions

Rules

arguments in $a0, a1, a2, \dots$

return value put into $a0$

Only use a registers or t registers

Don't use the s registers