

# CS 315-02 RISC-V Machine Code Em.

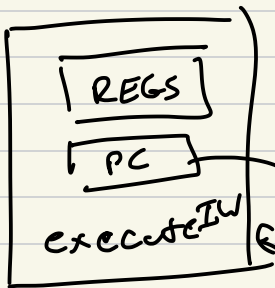
## Bitwise operators in RISC-V

and / andi  
or / ori  
xor / xori  
sll / slli  
srl / srli  
sra / srai

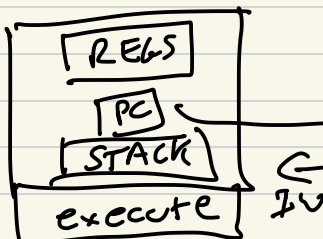
and t0, t1, t2  
# t0 = t1 & t2

andi t0, t1, 8

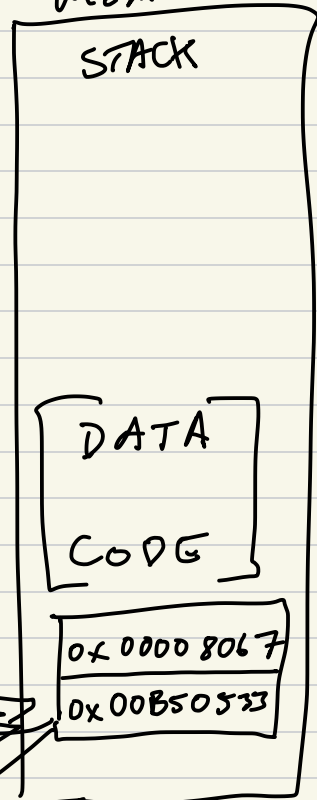
## RISC-V Processor



## RISC-V Emulator



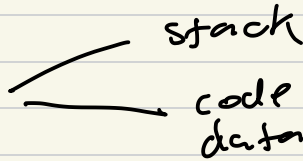
## Memory STACK



# Processor state

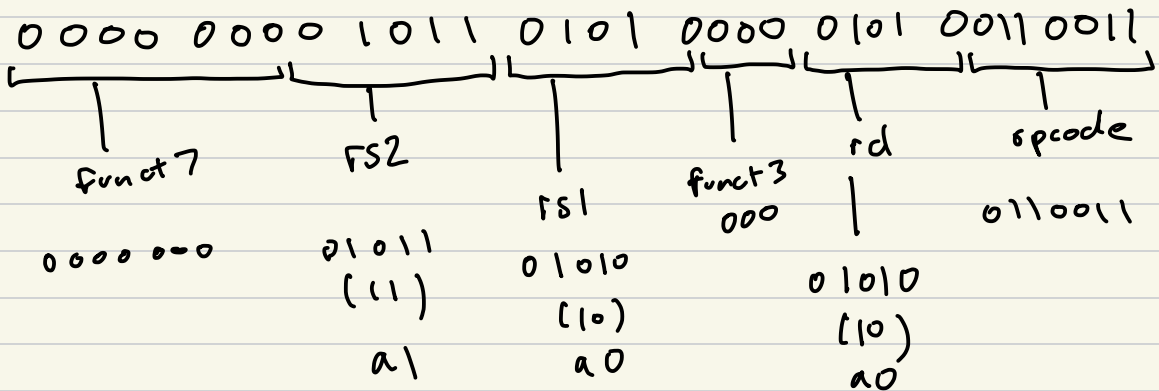
Registers (32) 64 bit value  
uint64\_t

PC uint64\_t  
program counter

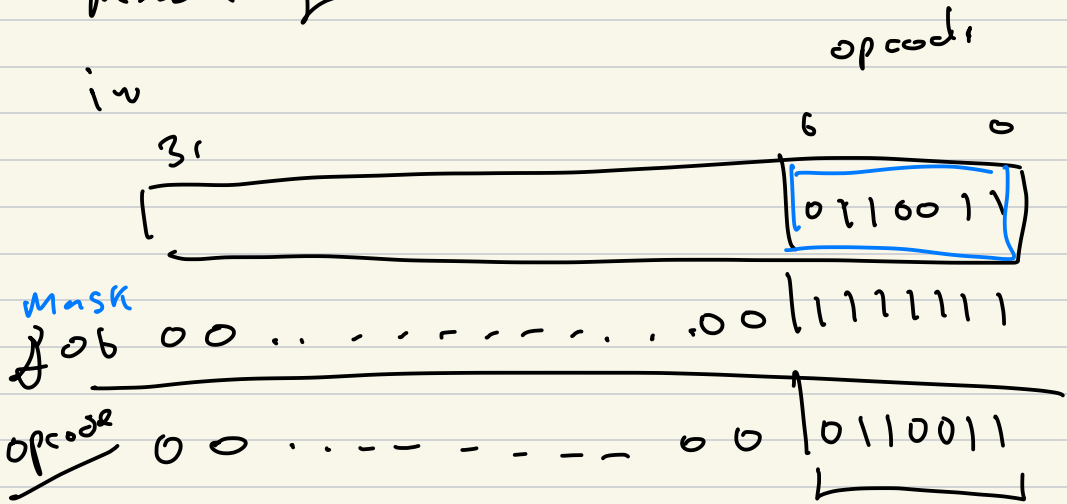
Memory   
stack  
code  
data

add no, a0, a1  
(rd) (rs1) (rs2)

0x00B50533



# Masking



3 1  
2 2

if (x > y) {

}

if (y < x) {

}

