

⇒ Memory features of xV6

- 1] Total 128 MB RAM is hardwired
- 2] main memory (RAM) is shared
- 3] CPU = core = HART

⇒ following is device management in xV6

- 1] UART (Used for taking data from keyboard)
- 2] DISK

(UART & DISK) are controlled by ~~each other~~ by one up, they are shared between 1 up (core)

- 3] PLIC (Platform Level Interrupt Controller)

Handles the interrupt & decides which core should be interrupted.

- 4] CLINT (Core local Interrupt controller)

⇒ Memory Management in xv6

1] Page size is of 4096 bytes

2] There is free list :- whenever page is required by kernel it is allocated from freelist

3] There is no variable sized allocation & malloc

4] There are 8 levels of page table

5] There is one table per process & one table for kernel

6] Pages can be marked as R/W/X/U/V

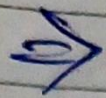
⇒ Scheduler in xv6

1] Round Robin

2] Timeslice is fixed 10000 cycles

3] All cores share 1 ready queue & next turn can be of any core.

⇒ Boot Sequence.

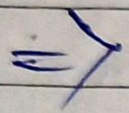


Locking.

spin locks()

sleep()

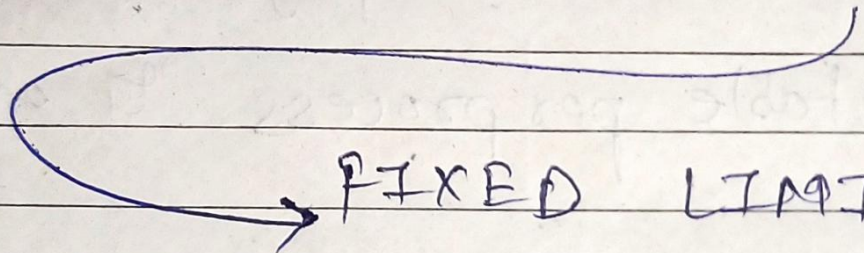
wakeup()



"PARAM.H"



has fixed number of processes &
opens files (All defined in)



FIXED LIMITS



kill(pid)

