Lecture 37

* Quiz 4, Lab quiz 4, End-sem || Filesystems , Networking (?)
  Lab 10, Lab 11 (?)

                                          Virtualization ?
- CPU scheduler   (as in virtual machines)

    while (1) {   Linux (?)

        p = pick next task ();

     ⊗   switch to (p); ⟶   ? scheduling
                                    policy

    }

~ categorization of schedulers / scheduling policy.

(i) non-pre-emptive vs. pre-emptive ← user space process
                                          Kernel

(ii)   work conserving vs. non work-conserving

(iii)   real-time vs. IO centric vs. cpu-centric || applications
                            bursty
                          _____
                          interactive   (iv) SMP vs. Asymm. MP

~ list of scheduling policies.   scheduler   single/subset
     to choose from RUNNABLE processes   runs on   of cpus
                                                  all   execute
   (i) FCFS / FIFO   CPUs   scheduler
        — first come first serve   _____   &
                                                scheduling state decide
                                                is   tasks on
   (ii) Round — Robin   co.ord. & shared cpu set.

   (iii) Proportionate schedulers.
          + wrr — weighted ~~roun~~ round robin

— DRR — deficit round robin

(iv) Priority-based schedulers

(v) Lottery scheduling

(vi) CFS | Completely Fair Scheduler — Linux!