CSE 3320 Note 10/7/19

Quiz 2 on Wednesday (6,7,8,+a2)
- UNIX
- Large Scale, cluster, telecom.
- Job Scheduling (Ch 8)

Review Q (43:00)

- Cannot point process to array, each has new address space
- Cannot pass array to different thread (not on quiz?)
- Calculate RT, WT, Jobs
- Depending on Cluster, cannot pass pointer … because no shared memory
- Create new processes:
    - Fork: 2 identical processes
        - Return to current PID (vps?)
    - Exec(v,vp,…)
        - Return 0/1:man sec? goooo(to see if successful): nothing else
        - Ps-ax
        - Top

<u>3 major things in OS/resources:</u>

1. Process/CPU (Process Scheduling) 32:00[R8]

    a. Priorities
    - Highest Priority Preempt
        - Higher Priority and shorter

    b. Shortness of Job
    - Round Robin [R8 29:00]
        - Finish to Restart
    - Non-Preempt
        - Run smallest run time first
    - **[Pre-empt: RT, keep running or switch]**

    SJF→SJN

- Shortest first, then interrupt the next for the next shortest job
    - RT in between the same processs ID after a wait time
    - Wait→Run→Wait
    - Process time: RT+WT

c. FCFS/Queue

- Not efficient for small processes

  By PID, next PID has to wait until the end of the previous runtime is over)

  <u>Measurements</u>

  1. Wait Time:
     a. Time arrive til Time leave
  2. Run Time (in FCFS)
  3. Turnaround Time (individual person favor)
     a. Time process has to wait before run
  4. Adding all run time together would be Total Time to run all jobs (Throughput?- admin favor)

  1 CPM: 1 core/processes
  Multiple Processes: more difficult
  - Start
  - Share
- Process Mgt:
  - PID
  - Arrival Time (sec)
  - Memory Size
  - Run time
  - Priorities (larger, higher: arbritrary)
    - Different UNIX, different priority types

2. Memory
3. Files

(Networks: not critical)