CSE 3320 Notes 10/16/2019

Process an execution or by part (Last Lecture):

- Fork
- Exec
    o Fork and Exec may fail (fork less common to fail: due to memory- ran out of memory, permission)
        ▪ Fork:
            • Out of memory (no unlimited memory)
            • Permissions
        ▪ Exec:
            • Return a code
            • Return a local variable
    o From external view:
        ▪ Ps-ax
        ▪ Top
        ▪ Htop

Threads (Light Weight Processes)

- User Level
    o Clib

        Thread Management:
            ▪ Open
            ▪ Read
            ▪ Write

- Kernel Level (Lower)
    o Parameter Sweep
    o Pipeline
        ▪ Coordinate between processes by waiting
            • Busy Wait
            • Non-busy wait- informed when change happens
        ▪ Pipes
        ▪ Locks (len/string)
        ▪ Swap
        ▪ SOM-phere
            • Prints

- Disk
  - Request→Queue(wait)→Signal for proceeding
- Locks/S-phone
  - Extremely rare condition

Scheduling Proceses
Thread
Manage Processes

RAM

- 8its to 12/64bits
- 8-64 bit for pointer address

Compile:

- Source→Obj(instructions + Constants[num/string] + Information about reserve size/space)
- Exe: lib obj… combined by linker

Dynamic link→ clib

- Share between multiple exe