## SHEET -10 - PROCESS MANAGEMENT

- 1. Use the ps cmd to list down all the processes ,pipe it to more or less for paging
  - a. ps-e
  - b. ps -ef
  - c. ps-f
  - d. ps -aux
  - e. ps -u username
    - i. ps -u root
    - ii. ps -u yourname
- 2. find the pid of bash
  - a. pidof bash
  - b. run ps -f (pidofbash)
  - c. pgrep bash / pgrep -l bash
- 3. run cat > processfile
  - a. input some text and suspend or stop the process using ctrl +z
  - b. get the pid of cat using pidof or pgrep cmd
  - c. list the process details using ps -f (pidofcat)
  - d. Now start the cat process using fg cmd
  - e. Check bg jobs if any using jobs cmd.
- 4. Use vi to create a little text file. Suspend vi in background.
- 5. Verify with jobs that vi is suspended in background.
- 6. Start sleep 100 process, suspend or terminate before it finishes
  - a. Get the details of sleep process using ps -f pidsleep
  - b. Start the sleep cmd in bg.
- 7. Start two long sleep processes in background.
- 8. Display all jobs in background
- 9. Use pstree cmd to lists all process of bash pstree pidofbash
- 10. Customise the output columns of ps cmd using
  - a. ps -eo user,uid,pcpu,pmem,cmd
  - b. ps -eo user=username,uid=userid,pcpu=cpu,pmem=mem,cmd=command
  - c. ps axo user, uid, cmd, stat, pid, ppid
- 11. Put one of the sleep process in foreground
- 12. Kill one of the sleep process
  - a. Use job id to kill sleep process kill %[jobid]
  - b. Use pid of sleep kill pid
- 13. Kill the vi process using pkill cmd
- 14. Use killall to kill all sleep process
- 15. Use kill -9 to kill the bash process
- 16. Open 2 terminals and start 2 long sleep processes. (provide screen shots for grep cmd alone in both cases)
  - a. Put them in bg
  - b. Check the jobs in bg
  - c. In 1<sup>st</sup> terminal run -> ps -ef | grep sleep and observe
  - d. Now close the second terminal and run grep cmd again to check and understand.
  - e. Inorder to run a process without a terminal we use nohup (hangup cmd)
    - i. Start sleep process with nohup sleep 100 &
    - ii. In 1<sup>st</sup> terminal run -> ps -ef | grep sleep and observe
    - iii. Now close the second terminal and run grep cmd again to check and understand.
  - f. Observe a new file nohup.out is created cat and chk