

1. Run top cmd and observe the display, noting the information shown about CPU usage, memory usage, and the list of running processes.
2. Press q to exit top.
3. Run top again and while in top
  - a. Press M to sort processes by memory
  - b. Press P (uppercase) to sort processes by CPU usage.
  - c. Press N (uppercase) to sort processes by PID.
  - d. Press T (uppercase) to sort processes by TIME+.
4. While in top
  - a. Press l to toggle first line (load summary line)
  - b. Press t- swap the CPU displays to simple ASCII graphs that show the percentage of usage for each CPU
  - c. Press "t" again to change the graph display to solid block characters
  - d. Press "t" once more to remove the CPU display and task summary line completely.
  - e. Press m to cycle the memory and swap memory lines through different display options.
  - f. Press c – to toggle the command name and full command line.
5. While in top
  - a. Press d – to change the delay time to 2.0 and back to 3.0
  - b. Press f to change the columns to be displayed in top result (select/unselect using d)
  - c. Press z to change color of the display.
  - d. Press n – to list n number of lines (e.g. press n and then enter 10 to display only 10 lines)
    - i. Press = to get the normal display back
6. While in top
  - a. Press u – and give the username to filter the process by username (press u -enter root to see all processes run by root etc)
  - b. Press o to enter the filter option
    - i. Type COMMAND=yourProcessname and press enter
      1. COMMAND=sleep
      2. COMMAND=gnome
      3. COMMAND=kworker
    - ii. Type %CPU>anyvalue and press enter
    - iii. Type %MEM=anyvalue and press enter
    - iv. Type !USER=root and press enter
    - v. Type USER=username and press enter
7. While in top
  - a. Press k – to kill a process (create sleep process to run bg and kill it)
  - b. Enter signal 15 and 9 and check
  - c. Kill the top process itself
8. Create a process with nice value
  - a. nice -n 10 sleep 100 & and Run ps -eo pid,nice,cmd | grep sleep
  - b. nice -n 8 cat and Run ps -eo pid,nice,cmd | grep cat
  - c. nice -n -9 seq 20 ( become root) and Run ps -eo pid,nice,cmd | grep seq
9. Change the nice value of a running process using – renice niceval pidofprocess
10. Check the change using ps -f pidofprocess.