1. How can I display the threads per process using:

a. ps command:

root@localhost:~ $ ps -elf | grep sleep

0 S root 125203 814 0 80 0 - 27013 hrtime 03:04 ? 00:00:00 sleep 60

0 S root **125248** 3346 0 80 0 - 27013 hrtime 03:05 pts/1 00:00:00 sleep 100

0 S root 125251 5681 0 80 0 - 28202 pipe\_w 03:05 pts/2 00:00:00 grep --color=auto sleep

root@localhost:~ $ ps -o nlwp **125248**

NLWP

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b. pstree command:

root@localhost:~ $ ps -elf |grep sleep

0 S root 125582 814 0 80 0 - 27013 hrtime 03:18 ? 00:00:00 sleep 60

0 S root **125583** 3346 0 80 0 - 27013 hrtime 03:19 pts/1 00:00:00 sleep 100

0 S root 125585 5681 0 80 0 - 28202 pipe\_w 03:19 pts/2 00:00:00 grep --color=auto sleep

root@localhost:~ $ pstree -s **125583**

systemd───sshd───sshd───sshd───bash───su───bash───sleep

c. top command:

root@localhost:~ $ ps -elf |grep sleep

0 S root 125814 814 0 80 0 - 27013 hrtime 03:26 ? 00:00:00 sleep 60

0 S root **125841** 3346 0 80 0 - 27013 hrtime 03:27 pts/1 00:00:00 sleep 100

0 R root 125843 5681 0 80 0 - 28202 - 03:27 pts/2 00:00:00 grep --color=auto sleep

root@localhost:~ $

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND

**125841** root 20 0 108052 352 280 S 0.0 0.0 0:00.00 sleep

2. How can check the thread count of per process using pid status:

root@localhost:~ $ ps -elf | grep sleep

0 S root 126000 814 0 80 0 - 27013 hrtime 03:33 ? 00:00:00 sleep 60

0 S root  **126019**  3346 0 80 0 - 27013 hrtime 03:34 pts/1 00:00:00 sleep 100

0 S root 126021 5681 0 80 0 - 28202 pipe\_w 03:34 pts/2 00:00:00 grep --color=auto sleep

root@localhost:~ $ ls /proc/126019/task

**126019**

3. How can I check the default number of threads in the linux system:

root@localhost:~ $ cat /proc/sys/kernel/threads-max

**14291**

4. How can I check the upper limit on the number of threads a user might create:

root@localhost:~ $ cat /proc/sys/kernel/threads-max

**14291**

5. What is meaning of lsof command in linux?

> lsof stands List of open files. It is used by linux system to show which files are open and by which process who open them.

Example:

root@localhost:~ $ lsof -c sleep

lsof: WARNING: can't stat() fuse.gvfsd-fuse file system /run/user/1000/gvfs

Output information may be incomplete.

COMMAND PID USER FD TYPE DEVICE SIZE/OFF NODE NAME

sleep 126771 root cwd DIR 253,0 237 64 /

sleep 126771 root rtd DIR 253,0 237 64 /

sleep 126771 root txt REG 253,0 33128 100847388 /usr/bin/sleep

sleep 126771 root mem REG 253,0 106172832 101013184 /usr/lib/locale/locale-archive

sleep 126771 root mem REG 253,0 2156240 42073 /usr/lib64/libc-2.17.so

sleep 126771 root mem REG 253,0 163312 42066 /usr/lib64/ld-2.17.so

sleep 126771 root 0r CHR 1,3 0t0 6513 /dev/null

sleep 126771 root 1u unix 0xffff899575e71980 0t0 22398 socket

sleep 126771 root 2u unix 0xffff899575e71980 0t0 22398 socket

sleep 126772 root cwd DIR 253,0 208 102863697 /root/WorkSpace/src

sleep 126772 root rtd DIR 253,0 237 64 /

sleep 126772 root txt REG 253,0 33128 100847388 /usr/bin/sleep

sleep 126772 root mem REG 253,0 106172832 101013184 /usr/lib/locale/locale-archive

sleep 126772 root mem REG 253,0 2156240 42073 /usr/lib64/libc-2.17.so

sleep 126772 root mem REG 253,0 163312 42066 /usr/lib64/ld-2.17.so

sleep 126772 root 0u CHR 136,1 0t0 4 /dev/pts/1

sleep 126772 root 1u CHR 136,1 0t0 4 /dev/pts/1

sleep 126772 root 2u CHR 136,1 0t0 4 /dev/pts/1

6. How can I see the list of open files by a particular user and a process:

> root@localhost:~ $ lsof -u akhil -c sleep