

```
dherve@cslinux:~/cscd340/Lab 4/prob 1$ valgrind --leak-check=full --show-reachable=yes ./prob1
```

```
==10428== Memcheck, a memory error detector
```

```
==10428== Copyright (C) 2002-2011, and GNU GPL'd, by Julian Seward et al.
```

```
==10428== Using Valgrind-3.7.0 and LibVEX; rerun with -h for copyright info
```

```
==10428== Command: ./prob1
```

```
==10428==
```

```
Please enter a command (exit to exit or print to print) ls -l
```

```
There are 2 tokens.
```

```
The tokens are:
```

```
ls
```

```
-l
```

```
total 40
```

```
-rw-r--r-- 1 dherve IT-GenericLinuxGroup 4648 Oct 10 23:46 cscd340lab4prob1.c
```

```
-rw-r--r-- 1 dherve IT-GenericLinuxGroup 613 Oct 10 01:41 lab4prob1.h
```

```
-rw-r--r-- 1 dherve IT-GenericLinuxGroup 3312 Oct 10 00:00 linkedlist.c
```

```
-rw-r--r-- 1 dherve IT-GenericLinuxGroup 714 Oct 9 22:26 linkedList.h
```

```
-rw-r--r-- 1 dherve IT-GenericLinuxGroup 91 Oct 10 01:07 Makefile
```

```
-rwxr-xr-x 1 dherve IT-GenericLinuxGroup 13913 Oct 10 23:46 prob1
```

```
Please enter a command (exit to exit or print to print) pwd
```

```
There are 1 tokens.
```

```
The tokens are:
```

```
pwd
```

```
/home/EASTERN/dherve/cscd340/Lab 4/prob 1
```

```
Please enter a command (exit to exit or print to print) ps aux
```

```
There are 2 tokens.
```

```
The tokens are:
```

```
ps
```

aux

USER	PID	%CPU	%MEM	VSZ	RSS	TTY	STAT	START	TIME	COMMAND
root	1	0.0	0.1	29432	2472	?	Ss	Sep24 0:14		/sbin/init
root	2	0.0	0.0	0	0	?	S	Sep24 0:00		[kthreadd]
root	3	0.0	0.0	0	0	?	S	Sep24 0:27		[ksoftirqd/0]
root	5	0.0	0.0	0	0	?	S<	Sep24 0:00		[kworker/0:0H]
root	7	0.0	0.0	0	0	?	S	Sep24 2:27		[rcu_sched]
root	8	0.0	0.0	0	0	?	S	Sep24 5:25		[rcuos/0]
root	9	0.0	0.0	0	0	?	S	Sep24 4:37		[rcuos/1]
root	10	0.0	0.0	0	0	?	S	Sep24 0:00		[rcu_bh]
root	11	0.0	0.0	0	0	?	S	Sep24 0:00		[rcuob/0]
root	12	0.0	0.0	0	0	?	S	Sep24 0:00		[rcuob/1]
root	13	0.0	0.0	0	0	?	S	Sep24 0:04		[migration/0]
root	14	0.0	0.0	0	0	?	S	Sep24 0:07		[watchdog/0]
root	15	0.0	0.0	0	0	?	S	Sep24 0:07		[watchdog/1]
root	16	0.0	0.0	0	0	?	S	Sep24 0:05		[migration/1]
root	17	0.0	0.0	0	0	?	S	Sep24 0:00		[ksoftirqd/1]
root	19	0.0	0.0	0	0	?	S<	Sep24 0:00		[kworker/1:0H]
root	20	0.0	0.0	0	0	?	S<	Sep24 0:00		[khelper]
root	21	0.0	0.0	0	0	?	S	Sep24 0:00		[kdevtmpfs]
root	22	0.0	0.0	0	0	?	S<	Sep24 0:00		[netns]
root	23	0.0	0.0	0	0	?	S<	Sep24 0:00		[writeback]
root	24	0.0	0.0	0	0	?	S<	Sep24 0:00		[kintegrityd]
root	25	0.0	0.0	0	0	?	S<	Sep24 0:00		[bioset]
root	26	0.0	0.0	0	0	?	S<	Sep24 0:00		[kworker/u5:0]
root	27	0.0	0.0	0	0	?	S<	Sep24 0:00		[kblockd]
root	28	0.0	0.0	0	0	?	S<	Sep24 0:00		[ata_sff]
root	29	0.0	0.0	0	0	?	S	Sep24 0:00		[khubd]

root	30	0.0	0.0	0	0 ?	S<	Sep24	0:00	[md]
root	31	0.0	0.0	0	0 ?	S<	Sep24	0:00	[devfreq_wq]
root	34	0.0	0.0	0	0 ?	S	Sep24	0:00	[khungtaskd]
root	35	0.0	0.0	0	0 ?	S	Sep24	0:10	[kswapd0]
root	36	0.0	0.0	0	0 ?	SN	Sep24	0:00	[ksmd]
root	37	0.0	0.0	0	0 ?	SN	Sep24	0:07	[khugepaged]
root	38	0.0	0.0	0	0 ?	S	Sep24	0:00	[fsnotify_mark]
root	39	0.0	0.0	0	0 ?	S	Sep24	0:00	[ecryptfs-kthrea]
root	40	0.0	0.0	0	0 ?	S<	Sep24	0:00	[crypto]
root	52	0.0	0.0	0	0 ?	S<	Sep24	0:00	[kthrotld]
root	55	0.0	0.0	0	0 ?	S	Sep24	0:00	[scsi_eh_0]
root	56	0.0	0.0	0	0 ?	S	Sep24	0:00	[scsi_eh_1]
root	77	0.0	0.0	0	0 ?	S<	Sep24	0:00	[deferwq]
root	78	0.0	0.0	0	0 ?	S<	Sep24	0:00	[charger_manager]
root	229	0.0	0.0	0	0 ?	S<	Sep24	0:00	[mpt_poll_0]
root	230	0.0	0.0	0	0 ?	S<	Sep24	0:00	[mpt/0]
root	233	0.0	0.0	0	0 ?	S	Sep24	0:00	[scsi_eh_2]
root	246	0.0	0.0	0	0 ?	S	Sep24	0:04	[jbd2/sda1-8]
root	247	0.0	0.0	0	0 ?	S<	Sep24	0:00	[ext4-rsv-conver]
root	348	0.0	0.0	17236	516 ?	S	Sep24	0:01	upstart-udev-bridge --daemon
root	358	0.0	0.0	15196	816 ?	Ss	Sep24	0:01	/sbin/udev --daemon
root	369	0.0	0.0	0	0 ?	S<	Sep24	0:00	[reiserfs]
root	477	0.0	0.0	0	0 ?	S<	Sep24	0:00	[rpciod]
102	492	0.0	0.0	26928	1288 ?	Ss	Sep24	0:00	dbus-daemon --system --fork --act
root	506	0.0	0.0	0	0 ?	S<	Sep24	0:00	[nfsiod]
root	508	0.0	0.0	0	0 ?	S<	Sep24	0:00	[ttm_swap]
avahi	542	0.0	0.0	35364	1804 ?	S	Sep24	0:16	avahi-daemon: running [cslinux.lo
avahi	546	0.0	0.0	35204	180 ?	S	Sep24	0:00	avahi-daemon: chroot helper
root	559	0.0	0.0	19212	440 ?	Ss	Sep24	0:02	rpc.idmapd

```

root    567 0.0 0.0   0  0 ?    S< Sep24  0:00 [kpsmoused]
root    648 0.0 0.1 127420 2532 ?    Ss Sep24  0:05 smbd -F
root    660 0.0 0.0 15192 368 ?    S Sep24  0:00 upstart-socket-bridge --daemon
root    665 0.0 0.0 19204 968 ?    Ss Sep24  0:02 rpcbind -w
statd   720 0.0 0.0 29868 1240 ?    Ss Sep24  0:00 rpc.statd -L
root    765 0.0 0.0 45860 1508 ?    Ss Sep24  0:02 /usr/sbin/sshd -D
root    804 0.0 0.0 97592 1716 ?    Ss Sep24  1:11 nmbd -D
root    899 0.0 0.0 9456 664 tty4 Ss+ Sep24  0:00 /sbin/getty -8 38400 tty4
root    905 0.0 0.0 9456 664 tty5 Ss+ Sep24  0:00 /sbin/getty -8 38400 tty5
root    921 0.0 0.0 9456 664 tty2 Ss+ Sep24  0:00 /sbin/getty -8 38400 tty2
root    922 0.0 0.0 9456 664 tty3 Ss+ Sep24  0:00 /sbin/getty -8 38400 tty3
root    924 0.0 0.0 9456 664 tty6 Ss+ Sep24  0:00 /sbin/getty -8 38400 tty6
root    935 0.0 0.0 12784 772 ?    Ss Sep24  0:02 cron
daemon  937 0.0 0.0 10580 216 ?    Ss Sep24  0:00 atd
root    944 0.0 0.0 4364 484 ?    Ss Sep24  0:00 acpid -c /etc/acpi/events -s /var
root    955 0.0 0.0 15984 540 ?    Ss Sep24  2:29 /usr/sbin/irqbalance
900605922 956 4.8 0.0 4304 100 ?    R 22:49 2:47 ./lab3prob3
root    959 0.0 0.1 111412 2280 ?    Ss Sep24  0:01 /usr/sbin/winbindd
whoopsie 966 0.0 0.0 185464 1924 ?    Ssl Sep24  0:19 whoopsie
root    985 0.0 0.1 111496 3640 ?    S Sep24  0:03 /usr/sbin/winbindd
root   1019 0.0 0.4 43996 8824 ?    Ss Sep24  5:00 /opt/quest/sbin/.vasd -p /var/opt
daemon 1027 0.0 2.1 76288 43780 ?    S Sep24  4:36 /opt/quest/sbin/.vasd -p /var/opt
root   1029 0.0 0.0 104848 1416 ?    S Sep24  0:00 /usr/sbin/winbindd
root   1030 0.0 0.1 111352 2168 ?    S Sep24  0:00 /usr/sbin/winbindd
root   1031 0.0 0.0 104848 1220 ?    S Sep24  0:00 /usr/sbin/winbindd
root   1041 0.0 0.0 127524 504 ?    S Sep24  0:00 smbd -F
daemon 1207 0.0 1.2 57692 24872 ?    S Sep24 16:00 /opt/quest/sbin/.vasd -p /var/opt
daemon 1208 0.1 0.7 52236 15540 ?    S Sep24 30:07 /opt/quest/sbin/.vasd -p /var/opt
daemon 1209 0.0 0.7 52276 14400 ?    S Sep24  0:11 /opt/quest/sbin/.vasd -p /var/opt

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```

900605922 1245 4.8 0.0 4304 100 ?    R  22:50  2:41 ./lab3prob3
root   1322 0.0 0.0 9456 664 tty1  Ss+ Sep24  0:00 /sbin/getty -8 38400 tty1
eroe   1445 0.0 0.0 20088 996 ?    Ss  Oct05  1:28 tmux
eroe   1446 0.0 0.0 31132 1184 pts/16 Ss  Oct05  0:00 -bash
root   1934 0.0 0.2 95512 5352 ?    SLs 22:56  0:00 sshd: paulj [priv]
eroe   1935 0.0 0.0 26900 1164 pts/16 S+  Oct05  0:00 bash
root   1962 0.0 0.0  0  0 ?    S<  Sep24  0:00 [xfsalloc]
root   1964 0.0 0.0  0  0 ?    S<  Sep24  0:00 [xfs_mru_cache]
root   1965 0.0 0.0  0  0 ?    S<  Sep24  0:00 [xfslogd]
root   1966 0.0 0.0 15076 572 ?    S   Sep24  0:00 /sbin/udev --daemon
root   1967 0.0 0.0 15236 136 ?    S   Sep24  0:00 /sbin/udev --daemon
root   1970 0.0 0.0  0  0 ?    S   Sep24  0:00 [jfsIO]
root   1971 0.0 0.0  0  0 ?    S   Sep24  0:00 [jfsCommit]
root   1972 0.0 0.0  0  0 ?    S   Sep24  0:00 [jfsCommit]
root   1973 0.0 0.0  0  0 ?    S   Sep24  0:00 [jfsSync]
root   1993 0.0 0.0  0  0 ?    S<  Sep24  0:00 [bioset]
paulj  2087 0.0 0.1 95512 2388 ?    S   22:57  0:00 sshd: paulj@notty
paulj  2088 0.0 0.0 17996 1296 ?    Ss  22:57  0:00 /usr/lib/openssh/sftp-server
900605922 2187 4.7 0.0 4304 100 ?    R  22:58  2:19 ./lab3prob3
root   2515 0.0 0.2 95508 5352 ?    SLs 23:00  0:00 sshd: paulj [priv]
paulj  2566 0.0 0.1 95508 2384 ?    S   23:00  0:00 sshd: paulj@notty
paulj  2567 0.0 0.0 17864 1272 ?    Ss  23:00  0:00 /usr/lib/openssh/sftp-server
root   2615 0.0 0.0  0  0 ?    S<  Sep24  0:00 [cifsiod]
900605922 2696 4.8 0.0 4304 100 ?    R  23:01  2:10 ./lab3prob3
root   2774 0.0 0.0 442432 1816 ?    Ssl Sep30 15:06 /usr/sbin/automount
root   2820 0.0 0.0  0  0 ?    S<  Sep30  0:00 [kworker/u5:1]
900605922 3032 4.8 0.0 4304 100 ?    R  23:03  2:03 ./lab3prob3
900605922 3174 4.8 0.0 4304 100 ?    R  23:04  2:00 ./lab3prob3
900470274 3204 5.3 0.0 4168 92 ?    R  23:05  2:12 ./a.out

```

```

root    3220 0.0 0.2 95512 5368 ?    SLs 23:05 0:00 sshd: ahenry [priv]
ahenry  3280 0.0 0.1 95512 2376 ?    S   23:05 0:00 sshd: ahenry@pts/4
ahenry  3282 0.0 0.4 31208 9728 pts/4  Ss+ 23:05 0:00 -bash
900470274 3385 0.0 0.0 4648 116 ?    S   Oct07 0:00 strace -c -D ./a.out
900470274 3386 0.0 0.0 0 0 ?    Z   Oct07 0:00 [strace] <defunct>
900470274 3389 5.3 0.0 4168 92 ?    R   23:05 2:09 ./a.out
900470274 3456 5.3 0.0 4168 92 ?    R   23:06 2:09 ./a.out
900470274 3512 5.3 0.0 4168 92 ?    R   23:07 2:07 ./a.out
900605922 3520 4.8 0.0 4304 100 ?    R   23:07 1:54 ./lab3prob3
900470274 3527 5.3 0.0 4168 92 ?    R   23:07 2:05 ./a.out
900470274 3535 5.3 0.0 4168 92 ?    R   23:07 2:05 ./a.out
900470274 3536 5.3 0.0 4168 92 ?    R   23:07 2:05 ./a.out
900470274 3577 5.3 0.0 4168 92 ?    R   23:07 2:05 ./a.out
900470274 3614 5.3 0.0 4168 92 ?    R   23:08 2:04 ./a.out
900470274 3696 5.3 0.0 4168 92 ?    R   23:08 2:01 ./a.out
900470274 3697 5.3 0.0 4168 92 ?    R   23:08 2:01 ./a.out
900470274 3706 5.3 0.0 4168 92 ?    R   23:08 2:01 ./a.out
900470274 3729 5.2 0.0 4168 92 ?    R   23:09 1:58 ./a.out
900470274 3738 5.3 0.0 4168 92 ?    R   23:09 1:59 ./a.out
900470274 3804 5.2 0.0 4168 92 ?    R   23:09 1:57 ./a.out
900470274 3805 5.3 0.0 4168 92 ?    R   23:09 1:59 ./a.out
900470274 3827 5.3 0.0 4168 92 ?    R   23:09 1:58 ./a.out
900470274 3879 5.3 0.0 4168 92 ?    R   23:10 1:57 ./a.out
root    4332 0.0 0.0 0 0 ?    S   23:12 0:00 [kworker/u4:0]
900605922 4846 4.7 0.0 4304 100 ?    R   23:13 1:34 ./lab3prob3
900605922 5144 4.7 0.0 4304 100 ?    R   23:16 1:27 ./lab3prob3
900605922 5413 4.7 0.0 4304 100 ?    R   23:17 1:22 ./lab3prob3
900605922 5578 4.8 0.0 4304 100 ?    R   23:19 1:18 ./lab3prob3
900605922 5766 4.8 0.0 4304 100 ?    R   23:19 1:17 ./lab3prob3

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900605922 5816 4.8 0.0 4304 100 ? R 23:20 1:15 ./lab3prob3
rbabcoc1 6524 0.0 0.0 11348 372 ? S Oct09 0:00 script log.txt
rbabcoc1 6525 0.0 0.2 26860 5384 pts/9 Ss Oct09 0:00 bash -i
900708837 6786 0.0 0.2 57212 5224 pts/12 S+ 23:23 0:00 vim linkedlist.c
root 7423 0.0 0.0 0 0 ? S 23:29 0:00 [kworker/1:2]
root 7437 0.0 0.0 0 0 ? S Sep24 5:51 [cifsd]
root 7554 0.0 0.2 95512 5368 ? SLs 20:42 0:00 sshd: cschadewitz [priv]
900605922 7591 4.8 0.0 4304 100 ? R 23:30 0:47 ./lab3prob3
900708837 7605 0.0 0.1 95672 2500 ? S 20:42 0:00 sshd: cschadewitz@pts/12
900708837 7606 0.0 0.4 31392 9960 pts/12 Ss 20:42 0:00 -bash
cstaaben 7718 0.0 0.1 15396 2936 pts/18 S+ 23:31 0:00 nano test.c
root 7776 0.0 0.0 0 0 ? S 23:32 0:00 [kworker/0:1]
900605922 8157 4.8 0.0 4304 100 ? R 23:35 0:33 ./lab3prob3
root 8268 0.0 0.2 95508 5368 ? SLs 23:35 0:00 sshd: mpeterson10 [priv]
900709769 8352 0.0 0.1 95508 2380 ? S 23:35 0:00 sshd: mpeterson10@pts/3
900709769 8353 0.0 0.4 31228 9740 pts/3 Ss+ 23:35 0:00 -bash
root 8878 0.0 0.0 0 0 ? S 23:38 0:00 [kworker/0:2]
900605922 9038 4.8 0.0 4304 100 ? R 23:39 0:19 ./lab3prob3
root 9259 0.0 0.0 0 0 ? S 23:41 0:00 [kworker/u4:2]
rbabcoc1 9269 0.0 0.2 57280 5212 pts/9 S+ Oct09 0:00 ex myScript
root 9395 0.0 0.2 95512 5468 ? SLs 23:42 0:00 sshd: nowens [priv]
nowens 9537 0.0 0.1 95512 2444 ? S 23:42 0:00 sshd: nowens@pts/10
nowens 9538 0.0 0.2 26768 5280 pts/10 Ss+ 23:42 0:00 -bash
root 9649 0.0 0.0 0 0 ? S 23:43 0:00 [kworker/1:1]
root 9667 0.0 0.2 95508 5352 ? SLs 23:43 0:00 sshd: chatch4 [priv]
root 9676 0.0 0.2 95508 5348 ? SLs 23:43 0:00 sshd: chatch4 [priv]
chatch4 9723 0.0 0.1 95508 2384 ? S 23:43 0:00 sshd: chatch4@pts/11
chatch4 9724 0.1 0.4 31204 9756 pts/11 Ss+ 23:43 0:00 -bash
chatch4 9865 0.0 0.1 95508 2380 ? S 23:43 0:00 sshd: chatch4@pts/13

chatch4 9867 0.1 0.4 31144 9684 pts/13 Ss 23:43 0:00 -bash

root 10012 0.0 0.2 95512 5356 ? SLs 21:03 0:00 sshd: nowens [priv]

root 10043 0.0 0.0 0 0 ? S 23:43 0:00 [kworker/0:0]

root 10065 0.0 0.2 95512 5368 ? SLs 23:43 0:00 sshd: nowens [priv]

chatch4 10067 0.0 0.1 14856 2436 pts/13 S+ 23:43 0:00 nano cscd340lab4prob4.c

nowens 10068 0.0 0.1 95512 2496 ? S 21:03 0:00 sshd: nowens@notty

nowens 10069 0.0 0.0 17992 1404 ? Ss 21:03 0:00 /usr/lib/openssh/sftp-server

nowens 10129 0.0 0.1 95512 2376 ? S 23:44 0:00 sshd: nowens@pts/14

nowens 10130 0.1 0.2 26768 5280 pts/14 Ss+ 23:44 0:00 -bash

900605922 10370 4.5 0.0 4304 100 ? R 23:46 0:01 ./lab3prob3

dherve 10428 3.3 1.7 82848 35268 pts/1 S+ 23:46 0:00 /usr/bin/valgrind.bin --leak-chec

dherve 10461 0.0 0.0 27396 1632 pts/1 R+ 23:46 0:00 ps aux

root 11615 0.0 0.2 95512 5368 ? SLs 21:14 0:00 sshd: cschadewitz [priv]

900708837 11669 0.0 0.1 95512 2468 ? S 21:14 0:00 sshd: cschadewitz@pts/19

900708837 11670 0.0 0.4 31300 9868 pts/19 Ss+ 21:14 0:00 -bash

root 11805 0.0 0.2 95508 5364 ? SLs 21:14 0:00 sshd: ajones77 [priv]

ajones77 11871 0.0 0.1 95508 2200 ? S 21:15 0:00 sshd: ajones77@pts/21

ajones77 11872 0.0 0.4 31316 9876 pts/21 Ss+ 21:15 0:00 -bash

root 12370 0.0 0.2 95512 5356 ? SLs 21:17 0:00 sshd: dherve [priv]

dherve 12419 0.0 0.1 95512 2484 ? S 21:17 0:00 sshd: dherve@notty

dherve 12420 0.0 0.0 17864 1276 ? Ss 21:17 0:00 /usr/lib/openssh/sftp-server

syslog 15642 0.0 0.0 243132 1400 ? SI 06:33 0:02 rsyslogd -c5

root 16390 0.0 0.2 95512 5468 ? SLs 21:50 0:00 sshd: dherve [priv]

dherve 16450 0.0 0.1 95512 2444 ? S 21:50 0:00 sshd: dherve@pts/1

dherve 16451 0.0 0.4 31288 9840 pts/1 Ss 21:50 0:00 -bash

900605922 18837 4.8 0.0 4304 100 ? R 22:06 4:48 ./lab3prob3

root 19401 0.0 0.2 95512 5356 ? SLs 22:11 0:00 sshd: cstaaben [priv]

cstaaben 19450 0.0 0.1 95512 2488 ? S 22:11 0:00 sshd: cstaaben@notty

cstaaben 19451 0.0 0.0 17996 1300 ? Ss 22:11 0:00 /usr/lib/openssh/sftp-server


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root 19581 0.0 0.2 95512 5368 ? SLs 22:12 0:00 sshd: cstaaben [priv]
cstaaben 19654 0.0 0.1 96448 3392 ? S 22:12 0:01 sshd: cstaaben@pts/18
cstaaben 19655 0.0 0.4 31272 9840 pts/18 Ss 22:12 0:00 -bash
900605922 19849 4.7 0.0 4304 100 ? R 22:13 4:26 ./lab3prob3
900605922 21236 4.7 0.0 4304 100 ? R 22:20 4:07 ./lab3prob3
root 21346 0.0 0.0 0 0 ? S 18:09 0:01 [kworker/1:0]
solson31 22496 0.0 0.0 34244 616 ? Ss Oct05 3:26 SCREEN
solson31 22497 0.0 0.0 26876 1184 pts/7 Ss Oct05 0:00 /bin/bash
solson31 22691 0.0 0.0 9400 344 pts/7 S Oct05 0:00 -sh
solson31 22772 0.0 0.0 26876 1160 pts/7 S Oct05 0:00 bash
solson31 22860 0.0 0.0 9428 488 pts/7 S Oct05 0:00 -sh
solson31 23071 0.0 0.0 26876 1184 pts/7 S+ Oct05 0:00 bash
root 27665 0.0 0.2 95512 5364 ? SLs 16:39 0:00 sshd: paulj [priv]
paulj 27718 0.0 0.1 95672 2496 ? S 16:39 0:00 sshd: paulj@pts/2
paulj 27719 0.0 0.4 31236 9760 pts/2 Ss+ 16:39 0:00 -bash
root 30316 0.0 0.2 95512 5348 ? SLs 22:29 0:00 sshd: pdickman [priv]
pdickman 30383 0.0 0.1 95512 2476 ? S 22:29 0:00 sshd: pdickman@notty
pdickman 30385 0.0 0.0 17864 1320 ? Ss 22:29 0:00 /usr/lib/openssh/sftp-server
root 31611 0.0 0.2 95512 5368 ? SLs 22:35 0:00 sshd: pdickman [priv]
pdickman 31683 0.0 0.1 95512 2492 ? S 22:35 0:00 sshd: pdickman@pts/28
pdickman 31684 0.0 0.4 31104 9628 pts/28 Ss+ 22:35 0:00 -bash
root 32345 0.0 0.2 95512 5348 ? SLs 22:41 0:00 sshd: nowens [priv]
nowens 32401 0.0 0.1 95512 2496 ? S 22:41 0:00 sshd: nowens@notty
nowens 32402 0.0 0.0 18012 1388 ? Ss 22:41 0:00 /usr/lib/openssh/sftp-server
```

Please enter a command (exit to exit or print to print) print

1 ls

2 pwd

3 ps

Please enter a command (exit to exit or print to print)