命令	作用
ps	显示进程
uptime	查看系统负载
w	列出所有用户的活动进程
top	以交互方式查看资源密集型进程
free	显示可用内存

ps

显示用户正在运行的进程的相关信息。

```
ps
```

```
┌──(kali㊀kali)-[~/Desktop/linuxpocketguide]
└─$ ps
  PID TTY          TIME CMD
 2249 pts/0    00:00:01 zsh
 9065 pts/0    00:00:00 ps
```

查看自己当前运行的进程

```
ps -ux
```

```
┌──(kali㊀kali)-[~]
└─$ ps -ux
USER        PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
kali        753  0.0  0.1  17600 10200 ?        Ss   08:04   0:00 /lib/systemd/systemd --user
kali        754  0.0  0.0 167176  5152 ?        S    08:04   0:00 (sd-pam)
kali        769  0.0  0.0  36988  6532 ?        S<sl 08:04   0:00 /usr/bin/pipewire
kali        770  0.0  0.0  23656  7512 ?        Ssl  08:04   0:00 /usr/bin/pipewire-media-session
kali        771  0.0  0.4 645984 34836 ?        S<sl 08:04   0:00 /usr/bin/pulseaudio --daemonize=no --log-target=journal
kali        772  0.0  0.3 270696 25164 ?        Ssl  08:04   0:00 xfce4-session
kali        782  0.0  0.0  10184  5548 ?        Ss   08:04   0:01 /usr/bin/dbus-daemon --session --address=systemd: --nofork --nopidfile --syste
kali        825  0.0  0.0   6184   476 ?        Ss   08:04   0:00 /usr/bin/ssh-agent x-session-manager
kali        835  0.0  0.1 312240  8404 ?        Ssl  08:04   0:00 /usr/libexec/at-spi-bus-launcher
kali        841  0.0  0.0   9884  5024 ?        S    08:04   0:00 /usr/bin/dbus-daemon --config-file=/usr/share/defaults/at-spi2/accessibility.c
kali        845  0.0  0.0 231600  6348 ?        Sl   08:04   0:00 /usr/lib/x86_64-linux-gnu/xfce4/xfconf/xfconfd
kali        851  0.0  0.1 167580  8228 ?        Sl   08:04   0:00 /usr/libexec/at-spi2-registryd --use-gnome-session
kali        861  0.0  0.0  81324  3560 ?        SLs  08:04   0:00 /usr/bin/gpg-agent --supervised
```

查看用户 **kali** 的所有进程

```
ps -U kali
```

```
┌──(kali㉿kali)-[~]
└─$ ps -U kali
    PID TTY          TIME CMD
    753 ?        00:00:00 systemd
    754 ?        00:00:00 (sd-pam)
    769 ?        00:00:00 pipewire
    770 ?        00:00:00 pipewire-media-
    771 ?        00:00:00 pulseaudio
    772 ?        00:00:00 xfce4-session
    782 ?        00:00:01 dbus-daemon
    825 ?        00:00:00 ssh-agent
```

查看一个程序的所有进程

```
ps -C <program_name>
```

在终端 N 上的进程

```
ps -tN
```

特定 pid 进程

```
ps -p1,2,3,4,123
```

输出所有进程信息，但输出信息会被截取

```
ps -ef
```

避免信息被截取

```
ps -efww
```

根据线程的角度，对隶属于同一个父进程下的子进程进行缩进处理

```
ps -efH
```

```
root         592       1  0 08:03 ?        00:00:00  /usr/sbin/cron -f
root         594       1  0 08:03 ?        00:00:00  /usr/sbin/lightdm
root         610     594  0 08:03 tty7     00:00:25  /usr/lib/xorg/Xorg :0 -seat seat0 -auth /var/run/lightdm/root/:0 -nolisten tcp vt7 -novts
root         748     594  0 08:04 ?        00:00:00     lightdm --session-child 14 23
kali         772     748  0 08:04 ?        00:00:00       xfce4-session
kali         825     772  0 08:04 ?        00:00:00         /usr/bin/ssh-agent x-session-manager
kali         863     772  0 08:04 ?        00:00:14       xfwm4
kali         897     772  0 08:04 ?        00:00:00       xfsettingsd
kali         905     772  0 08:04 ?        00:00:00       xfce4-panel
kali         917     905  0 08:04 ?        00:00:00         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         920     905  0 08:04 ?        00:00:12         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         921     905  0 08:04 ?        00:00:00         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         922     905  0 08:04 ?        00:00:09         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         923     905  0 08:04 ?        00:00:03         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         924     905  0 08:04 ?        00:00:00         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         925     905  0 08:04 ?        00:00:00         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
kali         926     905  0 08:04 ?        00:00:00         /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/p
```

uptime

指出从上次启动以来系统已经运行了多长时间

```
uptime
```

```
┌──(kali㉿kali)-[~]
└─$ uptime
 08:49:27 up 45 min,  2 users,  load average: 0.04, 0.03, 0.02
```

w

```
w [username]
```

显示所有登录用户在每个 shell 中运行的当前进程

```
┌──(kali㉿kali)-[~]
└─$ w
 08:52:02 up 48 min,  2 users,  load average: 0.00, 0.01, 0.00
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
kali     tty7     :0               08:04    48:25  26.96s  0.22s xfce4-session
kali     pts/0    192.168.1.100    08:38    1.00s  0.33s  0.00s w
```

top

top 命令可以用来监视最活跃的进程，并定期更新信息。

```
top - 08:53:28 up 49 min,  2 users,  load average: 0.00, 0.00, 0.00
Tasks: 207 total,   1 running, 206 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.0 us,  0.2 sy,  0.0 ni, 99.7 id,  0.0 wa,  0.0 hi,  0.1 si,  0.0 st
MiB Mem :   7921.4 total,   6661.0 free,    681.1 used,    579.4 buff/cache
MiB Swap:    975.0 total,    975.0 free,      0.0 used.   6998.6 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
    610 root      20   0  384072 129916  54036 S   0.7   1.6   0:27.50 Xorg
    261 root     -51   0       0      0      0 S   0.3   0.0   0:00.59 irq/16-vmwgfx
    863 kali      20   0 1524412 100812  77468 S   0.3   1.2   0:16.13 xfwm4
    920 kali      20   0  219288  40420  18836 S   0.3   0.5   0:13.70 panel-13-cpugra
    922 kali      20   0  361072  28068  20316 S   0.3   0.3   0:10.51 panel-15-genmon
   9976 root      20   0       0      0      0 I   0.3   0.0   0:00.15 kworker/0:0-events
      1 root      20   0  165940  11128   8324 S   0.0   0.1   0:00.99 systemd
      2 root      20   0       0      0      0 S   0.0   0.0   0:00.01 kthreadd
      3 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 rcu_gp
      4 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 rcu_par_gp
      5 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 netns
      7 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-events_highpri
      8 root      20   0       0      0      0 I   0.0   0.0   0:00.88 kworker/0:1-rcu_par_gp
     10 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
     11 root      20   0       0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_kthread
     12 root      20   0       0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_rude_kthread
     13 root      20   0       0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_trace_kthread
     14 root      20   0       0      0      0 S   0.0   0.0   0:00.01 ksoftirqd/0
     15 root      20   0       0      0      0 I   0.0   0.0   0:06.92 rcu_preempt
     16 root      rt   0       0      0      0 S   0.0   0.0   0:00.02 migration/0
     17 root      20   0       0      0      0 S   0.0   0.0   0:00.00 cpuhp/0
     18 root      20   0       0      0      0 S   0.0   0.0   0:00.00 cpuhp/1
```

输入 **h** 查看快捷键

输入 **s** 设置更新时间间隔

输入 **i** 隐藏空闲线程

输入 **k** 可以通过 pid 杀死进程

输入 **q** 退出

使用 `top -b -n1 > outfile` 将快照保存到文件中

free

用来显示内存的使用情况

```
┌──(kali㉿kali)-[~/Desktop/linuxpocketguide]
└─$ free
              total        used        free      shared  buff/cache   available
Mem:        8111560      692532     6824604        3000      594424     7171476
Swap:        998396           0      998396
```

常用选项

-b	显示字节数
-k	显示千字节数
-m	显示兆字节
-g	显示吉字节