

**Adam is working in an IT company. He has been given a task to reduce the load of a system by killing some of the processes running in the LINUX operating system. Which commands will he use to complete the given task with the help of the following operation?**

```
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$ ps aux
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$ ps aux
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START  TIME COMMAND
root        1  0.0  0.1  21776 12388 ?        Ss  16:38  0:00 /sbin/init
root        2  0.0  0.0   3120  1920 ?        Sl  16:38  0:00 /init
root        7  0.0  0.0   3136  1796 ?        Sl  16:38  0:00 plan9 --control-socket 7 --log-level 4 --server-fd 8
root       53  0.0  0.2  66748 18660 ?        S<s 16:38  0:00 /usr/lib/systemd/systemd-journald
root      113  0.0  0.0  25136  6272 ?        Ss  16:38  0:00 /usr/lib/systemd/systemd-udevd
systemd+   124  0.0  0.1  21456 12032 ?        Ss  16:38  0:00 /usr/lib/systemd/systemd-resolved
systemd+   125  0.0  0.0  91024  7808 ?        Ssl 16:38  0:00 /usr/lib/systemd/systemd-timesyncd
root      188  0.0  0.0   4236  2432 ?        Ss  16:38  0:00 /usr/sbin/cron -f -P
message+   189  0.0  0.0   9592  4864 ?        Ss  16:38  0:00 @dbus-daemon --system --address=systemd: --nofork --n
root      196  0.0  0.1  17964  8320 ?        Ss  16:38  0:00 /usr/lib/systemd/systemd-logind
root      198  0.0  0.1 1756096 12032 ?        Ssl 16:38  0:00 /usr/libexec/wsl-pro-service -vv
root      214  0.0  0.0   3160  1920 hvc0     Ss+ 16:38  0:00 /sbin/agetty -o -p -- \u --noclear --keep-baud - 1152
syslog     217  0.0  0.0  222508  4992 ?        Ssl 16:38  0:00 /usr/sbin/rsyslogd -n -iNONE
root      220  0.0  0.0   3116  1792 tty1     Ss+ 16:38  0:00 /sbin/agetty -o -p -- \u --noclear - linux
root      227  0.0  0.2 107028  22528 ?        Ssl 16:38  0:00 /usr/bin/python3 /usr/share/unattended-upgrades/unatt
root      349  0.0  0.0   3128   768 ?        Ss  16:38  0:00 /init
root      350  0.0  0.0   3144  1024 ?        S   16:38  0:00 /init
saniya    351  0.0  0.0   6076  5120 pts/0     Ss  16:38  0:00 /bin/bash
root      449  0.0  0.0   6692  4224 pts/1     Ss  16:40  0:00 /bin/login -f
saniya    488  0.0  0.1  20308 11008 ?        Ss  16:40  0:00 /usr/lib/systemd/systemd --user
saniya    490  0.0  0.0  21152  3520 ?        S   16:40  0:00 (sd-pam)
saniya    513  0.0  0.0   6056  4864 pts/1     S+  16:40  0:00 -bash
saniya    656  0.0  0.0   8280  4096 pts/0     R+  16:52  0:00 ps aux
```

## Kill Processes by name

```
saniya    359    293  0 17:21 pts/1    00:00:00 -bash
polkitd   681      1  0 17:27 ?    00:00:00 /usr/lib/polkit-1/polkitd --no-debug
saniya    816    292  0 17:37 pts/0    00:00:00 ps -ef
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$ pkill saniya
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$ ps -ef|saniya
saniya: command not found
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$
```

## Kill a single process at a time with the given process PID

```
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$ pkill saniya
[1]-  Done                                sleep 300
[2]+  Done                                sleep 300
saniya@LAPTOP-FSOUOMFO:/mnt/c/Windows/System32$ ps -ef|saniya
saniya: command not found
```

## Write a program for process creation using C

```
m309@m309-BY-OEM:~$ nano process.c
m309@m309-BY-OEM:~$ nano process.c
m309@m309-BY-OEM:~$ gcc process.c -o process
m309@m309-BY-OEM:~$ ./process
Parent Process
PID = 6863
Child Process
PID = 6864
PPID = 6863
```

## Orphan Process

```
m309@m309-BY-OEM:~$ nano orphan.c
m309@m309-BY-OEM:~$ gcc orphan.c -o process
m309@m309-BY-OEM:~$ gcc orphan.c -o orphan
m309@m309-BY-OEM:~$ ./orphan
Parent exiting
m309@m309-BY-OEM:~$ Child PID=6969 PPID=2166
```

## Zombie Process

```
BY-OEM:~$ Child PID=6969 PPID=2166

BY-OEM:~$ nano zombie.c
BY-OEM:~$ gcc zombie.c -o zombie
```