

04 守护进程子进程

杀死守护进程的子进程

使用 `ps -ef | grep test` 查看相关进程

注：此时父进程应当有回收子进程的处理，否则杀死子进程后子进程会变为僵尸进程

`kill [进程号]` 杀死对应子进程

```
[root@vm-linux-centos7 04]# ps -ef | grep test
root      16522      1  0 15:35 ?        00:00:00 ./test4-1
root      16523     16522  0 15:35 ?        00:00:00 ./test4-1
root      16524     16522  0 15:35 ?        00:00:00 ./test4-1
root      16525     16522  0 15:35 ?        00:00:00 ./test4-1
root      16526     16522  0 15:35 ?        00:00:00 ./test4-1
root      16527     16522  0 15:35 ?        00:00:00 ./test4-1
root      16528     16522  0 15:35 ?        00:00:00 ./test4-1
root      16529     16522  0 15:35 ?        00:00:00 ./test4-1
root      16530     16522  0 15:35 ?        00:00:00 ./test4-1
root      16531     16522  0 15:35 ?        00:00:00 ./test4-1
root      16532     16522  0 15:35 ?        00:00:00 ./test4-1
root      16534     15336  0 15:37 pts/1    00:00:00 grep --color=auto test

[root@vm-linux-centos7 04]# kill 16523
[root@vm-linux-centos7 04]# ps -ef | grep test
root      16522      1  0 15:35 ?        00:00:00 ./test4-1
root      16524     16522  0 15:35 ?        00:00:00 ./test4-1
root      16525     16522  0 15:35 ?        00:00:00 ./test4-1
root      16526     16522  0 15:35 ?        00:00:00 ./test4-1
root      16527     16522  0 15:35 ?        00:00:00 ./test4-1
root      16528     16522  0 15:35 ?        00:00:00 ./test4-1
root      16529     16522  0 15:35 ?        00:00:00 ./test4-1
root      16530     16522  0 15:35 ?        00:00:00 ./test4-1
root      16531     16522  0 15:35 ?        00:00:00 ./test4-1
root      16532     16522  0 15:35 ?        00:00:00 ./test4-1
root      16536     15336  0 15:37 pts/1    00:00:00 grep --color=auto test
```

`pkill -P [父进程号]` 杀死对应父进程号的所有子进程

```
[root@vm-linux-centos7 04]# ps -ef | grep test
root      16522      1  0 15:35 ?        00:00:00 ./test4-1
root      16524     16522  0 15:35 ?        00:00:00 ./test4-1
root      16525     16522  0 15:35 ?        00:00:00 ./test4-1
root      16526     16522  0 15:35 ?        00:00:00 ./test4-1
root      16527     16522  0 15:35 ?        00:00:00 ./test4-1
root      16528     16522  0 15:35 ?        00:00:00 ./test4-1
root      16529     16522  0 15:35 ?        00:00:00 ./test4-1
root      16530     16522  0 15:35 ?        00:00:00 ./test4-1
root      16531     16522  0 15:35 ?        00:00:00 ./test4-1
root      16532     16522  0 15:35 ?        00:00:00 ./test4-1
root      16536     15336  0 15:37 pts/1    00:00:00 grep --color=auto test

[root@vm-linux-centos7 04]# pkill -P 16522
[root@vm-linux-centos7 04]# ps -ef | grep test
root      16522      1  0 15:35 ?        00:00:00 ./test4-1
root      16540     15336  0 15:38 pts/1    00:00:00 grep --color=auto test
```

如果直接杀死父进程，所有子进程会被 1#进程接管继续运行

```
[root@vm-linux-centos7 04]# kill 16544
[root@vm-linux-centos7 04]# ps -ef | grep test
root      16545      1  0 15:39 ?        00:00:00 ./test4-1
root      16546      1  0 15:39 ?        00:00:00 ./test4-1
root      16547      1  0 15:39 ?        00:00:00 ./test4-1
root      16548      1  0 15:39 ?        00:00:00 ./test4-1
root      16549      1  0 15:39 ?        00:00:00 ./test4-1
root      16550      1  0 15:39 ?        00:00:00 ./test4-1
root      16551      1  0 15:39 ?        00:00:00 ./test4-1
root      16552      1  0 15:39 ?        00:00:00 ./test4-1
root      16553      1  0 15:39 ?        00:00:00 ./test4-1
root      16554      1  0 15:39 ?        00:00:00 ./test4-1
root      16563     15336  0 15:40 pts/1    00:00:00 grep --color=auto test
```

使用 killall test4-1 杀掉所有 test4-1 进程

代码中包含头文件

```
#include <sys/prctl.h>
#include <signal.h>
```

在子进程中使用 prctl 设置父进程退出后，发送 kill 给子进程

```
prctl(PR_SET_PDEATHSIG, SIGKILL);
```

此时直接 kill 父进程，所有子进程会被 1#接管并接受 kill 指令，被 1#进程回收