```c
#include<stdio.h>
#include<sys/types.h>

void main()
{
pid_t pid;
pid=fork();
if(pid>0)
{
//wait(10);
//sleep(10);
printf("\nthis is the parent process");
printf("\npid or parent is %d",getpid());
}

else if(pid==0)
{
//wait(10);
sleep(10);
printf("\nthis is the child process");
printf("\npid or child is %d",getpid());
}

else
{
printf("fork get failed");
}
system("ps -l");
}
```

```
Output:-
[root@localhost ~]# cd Documents
[root@localhost Documents]# gcc Sandesh.c
[root@localhost Documents]# ./a.out

this is the child process
F S    UID    PID   PPID  C PRI  NI ADDR SZ WCHAN   TTY          TIME CMD
4 S      0   4103   4099  0  80   0 - 29206 wait    pts/0    00:00:00 bash
0 S      0   4252   4103  0  80   0 -  1036 hrtime  pts/0    00:00:00 a.out
1 S      0   4253   4252  0  80   0 -  1037 wait    pts/0    00:00:00 a.out
0 R      0   4254   4253  0  80   0 - 30315 -       pts/0    00:00:00 ps
pid or child is 4253
this is the parent process
F S    UID    PID   PPID  C PRI  NI ADDR SZ WCHAN   TTY          TIME CMD
4 S      0   4103   4099  0  80   0 - 29206 wait    pts/0    00:00:00 bash
0 S      0   4252   4103  0  80   0 -  1037 wait    pts/0    00:00:00 a.out
1 Z      0   4253   4252  0  80   0 -     0 exit    pts/0    00:00:00 a.ou <defunct>
0 R      0   4255   4252  0  80   0 - 30315 -       pts/0    00:00:00 ps
pid or parent is 4252[root@localhost Documents]# ps -e
  PID TTY          TIME CMD
    1 ?        00:00:00 systemd
    2 ?        00:00:00 kthreadd
    3 ?        00:00:00 ksoftirqd/0
    4 ?        00:00:00 kworker/0:0
    5 ?        00:00:00 kworker/0:0H
    6 ?        00:00:00 kworker/u8:0
    7 ?        00:00:00 rcu_sched
    8 ?        00:00:00 rcu_bh
    9 ?        00:00:00 migration/0
   10 ?        00:00:00 migration/1
   11 ?        00:00:00 ksoftirqd/1
   12 ?        00:00:00 kworker/1:0
   13 ?        00:00:00 kworker/1:0H
   14 ?        00:00:00 khelper
   15 ?        00:00:00 kdevtmpfs
```

```
  16 ?        00:00:00 netns
  17 ?        00:00:00 kworker/u8:1
 347 ?        00:00:00 writeback
 350 ?        00:00:00 bioset
 351 ?        00:00:00 crypto
 353 ?        00:00:00 kblockd
 454 ?        00:00:00 ata_sff
 466 ?        00:00:00 khubd
 475 ?        00:00:00 md
 484 ?        00:00:00 kworker/0:1
 485 ?        00:00:00 cfg80211
 489 ?        00:00:00 kworker/1:1
 593 ?        00:00:00 rpciod
 620 ?        00:00:00 kswapd0
 690 ?        00:00:00 fsnotify_mark
 706 ?        00:00:00 nfsiod
 746 ?        00:00:00 kworker/u8:2
 812 ?        00:00:00 scsi_eh_0
 813 ?        00:00:00 scsi_tmf_0
 816 ?        00:00:00 scsi_eh_1
 817 ?        00:00:00 scsi_tmf_1
 820 ?        00:00:00 kworker/u8:3
 864 ?        00:00:00 kpsmoused
 866 ?        00:00:00 kworker/0:2
 912 ?        00:00:00 ipv6_addrconf
 914 ?        00:00:00 kworker/0:3
 924 ?        00:00:00 deferwq
 925 ?        00:00:00 hd-audio0
 930 ?        00:00:00 kworker/1:2
 934 ?        00:00:00 kworker/u8:4
 958 ?        00:00:00 kauditd
 973 ?        00:00:00 kworker/1:3
1582 ?        00:00:00 kworker/1:1H
1589 ?        00:00:00 kworker/0:1H
1717 ?        00:00:00 kdmflush
1718 ?        00:00:00 bioset
1723 ?        00:00:00 kdmflush
1724 ?        00:00:00 bioset
1759 ?        00:00:00 jbd2/dm-1-8
1760 ?        00:00:00 ext4-rsv-conver
1821 ?        00:00:00 systemd-journal
2033 ?        00:00:00 lvmetad
2421 ?        00:00:00 systemd-udevd
2463 ?        00:00:00 kdmflush
2464 ?        00:00:00 bioset
2472 ?        00:00:00 jbd2/sda6-8
2473 ?        00:00:00 ext4-rsv-conver
2486 ?        00:00:00 jbd2/dm-2-8
2487 ?        00:00:00 ext4-rsv-conver
2492 ?        00:00:00 auditd
2503 ?        00:00:00 audispd
2506 ?        00:00:00 sedispatch
2509 ?        00:00:00 alsactl
2510 ?        00:00:00 firewalld
2512 ?        00:00:00 accounts-daemon
2516 ?        00:00:00 rtkit-daemon
2517 ?        00:00:00 abrtd
2523 ?        00:00:00 smartd
2524 ?        00:00:00 abrt-watch-log
2525 ?        00:00:00 irqbalance
2532 ?        00:00:00 chronyd
2535 ?        00:00:00 abrt-watch-log
2537 ?        00:00:00 ModemManager
2538 ?        00:00:00 avahi-daemon
2539 ?        00:00:00 rsyslogd
2541 ?        00:00:00 systemd-logind
2542 ?        00:00:00 dbus-daemon
```

```
2546 ?          00:00:00 crond
2547 ?          00:00:00 atd
2549 ?          00:00:00 gdm
2551 ?          00:00:00 mcelog
2559 ?          00:00:00 avahi-daemon
2583 ?          00:00:00 gdm-simple-slav
2584 ?          00:00:00 polkitd
2592 tty1       00:00:06 Xorg
2656 ?          00:00:00 NetworkManager
2791 ?          00:00:00 libvirtd
2809 ?          00:00:00 sshd
2816 ?          00:00:00 rpcbind
2842 ?          00:00:00 mysqld_safe
2947 ?          00:00:00 mongod
3108 ?          00:00:00 mysqld
3123 ?          00:00:00 rpc.statd
3205 ?          00:00:00 systemd
3210 ?          00:00:00 (sd-pam)
3346 ?          00:00:00 systemd
3349 ?          00:00:00 (sd-pam)
3392 ?          00:00:00 upowerd
3414 ?          00:00:00 colord
3415 ?          00:00:00 pcscd
3431 ?          00:00:00 systemd-localed
3518 ?          00:00:00 gdm-session-wor
3526 ?          00:00:00 gnome-keyring-d
3528 ?          00:00:00 gnome-session
3536 ?          00:00:00 dbus-launch
3537 ?          00:00:00 dbus-daemon
3602 ?          00:00:00 gvfsd
3678 ?          00:00:00 at-spi-bus-laun
3682 ?          00:00:00 dbus-daemon
3686 ?          00:00:00 at-spi2-registr
3700 ?          00:00:00 gnome-settings-
3714 ?          00:00:00 pulseaudio
3729 ?          00:00:00 dconf-service
3733 ?          00:00:00 gvfs-udisks2-vo
3735 ?          00:00:00 udisksd
3744 ?          00:00:00 gvfs-mtp-volume
3748 ?          00:00:00 gvfs-afc-volume
3753 ?          00:00:00 gvfs-gphoto2-vo
3757 ?          00:00:00 gvfs-goa-volume
3760 ?          00:00:00 goa-daemon
3767 ?          00:00:00 mission-control
3768 ?          00:00:28 gnome-shell
3770 ?          00:00:00 packagekitd
3784 ?          00:00:00 cupsd
3791 ?          00:00:00 gsd-printer
3802 ?          00:00:00 gnome-shell-cal
3805 ?          00:00:00 ibus-daemon
3809 ?          00:00:00 ibus-dconf
3811 ?          00:00:00 ibus-x11
3823 ?          00:00:00 evolution-sourc
3842 ?          00:00:00 abrt-applet
3852 ?          00:00:00 deja-dup-monito
3856 ?          00:00:00 seapplet
3868 ?          00:00:00 ibus-engine-sim
3878 ?          00:00:00 tracker-miner-f
3895 ?          00:00:00 evolution-calen
3923 ?          00:00:00 tracker-store
3925 ?          00:00:00 evolution-alarm
4062 ?          00:00:00 gvfsd-burn
4099 ?          00:00:00 gnome-terminal-
4102 ?          00:00:00 gnome-pty-helpe
4103 pts/0      00:00:00 bash
4173 ?          00:00:00 gvfsd-trash
4180 ?          00:00:00 systemd-hostnam
```

```
 4203 ?        00:00:00 gedit
 4215 ?        00:00:00 gvfsd-metadata
 4259 pts/0    00:00:00 ps
[root@localhost Documents]# ps -f
UID        PID  PPID  C STIME TTY          TIME CMD
root      4103  4099  0 00:01 pts/0    00:00:00 bash
root      4263  4103  0 00:04 pts/0    00:00:00 ps -f
[root@localhost Documents]# gcc Sandesh.c
[root@localhost Documents]# ./a.out

this is the parent process
F S   UID   PID  PPID  C PRI  NI ADDR SZ WCHAN  TTY          TIME CMD
4 S     0  4103  4099  0  80   0 - 29206 wait   pts/0    00:00:00 bash
0 S     0  4294  4103  0  80   0 -  1037 wait   pts/0    00:00:00 a.out
1 S     0  4295  4294  0  80   0 -  1036 hrtime pts/0    00:00:00 a.out
0 R     0  4296  4294  0  80   0 - 30315 -      pts/0    00:00:00 ps
pid or parent is 4294[root@localhost Documents]#
this is the child process
F S   UID   PID  PPID  C PRI  NI ADDR SZ WCHAN  TTY          TIME CMD
4 S     0  4103  4099  0  80   0 - 29206 n_tty_ pts/0    00:00:00 bash
1 S     0  4295     1  0  80   0 -  1037 wait   pts/0    00:00:00 a.out
0 R     0  4300  4295  0  80   0 - 30315 -      pts/0    00:00:00 ps
pid or child is  4295
[root@localhost Documents]# ps -e
  PID TTY          TIME CMD
    1 ?        00:00:00 systemd
    2 ?        00:00:00 kthreadd
    3 ?        00:00:00 ksoftirqd/0
    4 ?        00:00:00 kworker/0:0
    5 ?        00:00:00 kworker/0:0H
    6 ?        00:00:00 kworker/u8:0
    7 ?        00:00:00 rcu_sched
    8 ?        00:00:00 rcu_bh
    9 ?        00:00:00 migration/0
   10 ?        00:00:00 migration/1
   11 ?        00:00:00 ksoftirqd/1
   12 ?        00:00:00 kworker/1:0
   13 ?        00:00:00 kworker/1:0H
   14 ?        00:00:00 khelper
   15 ?        00:00:00 kdevtmpfs
   16 ?        00:00:00 netns
  347 ?        00:00:00 writeback
  350 ?        00:00:00 bioset
  351 ?        00:00:00 crypto
  353 ?        00:00:00 kblockd
  454 ?        00:00:00 ata_sff
  466 ?        00:00:00 khubd
  475 ?        00:00:00 md
  485 ?        00:00:00 cfg80211
  489 ?        00:00:00 kworker/1:1
  593 ?        00:00:00 rpciod
  620 ?        00:00:00 kswapd0
  690 ?        00:00:00 fsnotify_mark
  706 ?        00:00:00 nfsiod
  746 ?        00:00:00 kworker/u8:2
  812 ?        00:00:00 scsi_eh_0
  813 ?        00:00:00 scsi_tmf_0
  816 ?        00:00:00 scsi_eh_1
  817 ?        00:00:00 scsi_tmf_1
  864 ?        00:00:00 kpsmoused
  866 ?        00:00:00 kworker/0:2
  912 ?        00:00:00 ipv6_addrconf
  924 ?        00:00:00 deferwq
  925 ?        00:00:00 hd-audio0
  958 ?        00:00:00 kauditd
  973 ?        00:00:00 kworker/1:3
 1582 ?        00:00:00 kworker/1:1H
```

```
1589 ?        00:00:00 kworker/0:1H
1717 ?        00:00:00 kdmflush
1718 ?        00:00:00 bioset
1723 ?        00:00:00 kdmflush
1724 ?        00:00:00 bioset
1759 ?        00:00:00 jbd2/dm-1-8
1760 ?        00:00:00 ext4-rsv-conver
1821 ?        00:00:00 systemd-journal
2033 ?        00:00:00 lvmetad
2421 ?        00:00:00 systemd-udevd
2463 ?        00:00:00 kdmflush
2464 ?        00:00:00 bioset
2472 ?        00:00:00 jbd2/sda6-8
2473 ?        00:00:00 ext4-rsv-conver
2486 ?        00:00:00 jbd2/dm-2-8
2487 ?        00:00:00 ext4-rsv-conver
2492 ?        00:00:00 auditd
2503 ?        00:00:00 audispd
2506 ?        00:00:00 sedispatch
2509 ?        00:00:00 alsactl
2510 ?        00:00:00 firewalld
2512 ?        00:00:00 accounts-daemon
2516 ?        00:00:00 rtkit-daemon
2517 ?        00:00:00 abrtd
2523 ?        00:00:00 smartd
2524 ?        00:00:00 abrt-watch-log
2525 ?        00:00:00 irqbalance
2532 ?        00:00:00 chronyd
2535 ?        00:00:00 abrt-watch-log
2537 ?        00:00:00 ModemManager
2538 ?        00:00:00 avahi-daemon
2539 ?        00:00:00 rsyslogd
2541 ?        00:00:00 systemd-logind
2542 ?        00:00:00 dbus-daemon
2546 ?        00:00:00 crond
2547 ?        00:00:00 atd
2549 ?        00:00:00 gdm
2551 ?        00:00:00 mcelog
2559 ?        00:00:00 avahi-daemon
2583 ?        00:00:00 gdm-simple-slav
2584 ?        00:00:00 polkitd
2592 tty1     00:00:10 Xorg
2656 ?        00:00:00 NetworkManager
2791 ?        00:00:00 libvirtd
2809 ?        00:00:00 sshd
2816 ?        00:00:00 rpcbind
2842 ?        00:00:00 mysqld_safe
2947 ?        00:00:00 mongod
3108 ?        00:00:00 mysqld
3123 ?        00:00:00 rpc.statd
3205 ?        00:00:00 systemd
3210 ?        00:00:00 (sd-pam)
3346 ?        00:00:00 systemd
3349 ?        00:00:00 (sd-pam)
3392 ?        00:00:00 upowerd
3414 ?        00:00:00 colord
3415 ?        00:00:00 pcscd
3431 ?        00:00:00 systemd-localed
3518 ?        00:00:00 gdm-session-wor
3526 ?        00:00:00 gnome-keyring-d
3528 ?        00:00:00 gnome-session
3536 ?        00:00:00 dbus-launch
3537 ?        00:00:00 dbus-daemon
3602 ?        00:00:00 gvfsd
3678 ?        00:00:00 at-spi-bus-laun
3682 ?        00:00:00 dbus-daemon
3686 ?        00:00:00 at-spi2-registr
```

```
3700 ?        00:00:00 gnome-settings-
3714 ?        00:00:00 pulseaudio
3729 ?        00:00:00 dconf-service
3733 ?        00:00:00 gvfs-udisks2-vo
3735 ?        00:00:00 udisksd
3744 ?        00:00:00 gvfs-mtp-volume
3748 ?        00:00:00 gvfs-afc-volume
3753 ?        00:00:00 gvfs-gphoto2-vo
3757 ?        00:00:00 gvfs-goa-volume
3760 ?        00:00:00 goa-daemon
3767 ?        00:00:00 mission-control
3768 ?        00:00:40 gnome-shell
3770 ?        00:00:00 packagekitd
3784 ?        00:00:00 cupsd
3791 ?        00:00:00 gsd-printer
3802 ?        00:00:00 gnome-shell-cal
3805 ?        00:00:00 ibus-daemon
3809 ?        00:00:00 ibus-dconf
3811 ?        00:00:00 ibus-x11
3823 ?        00:00:00 evolution-sourc
3842 ?        00:00:00 abrt-applet
3852 ?        00:00:00 deja-dup-monito
3856 ?        00:00:00 seapplet
3868 ?        00:00:00 ibus-engine-sim
3878 ?        00:00:00 tracker-miner-f
3895 ?        00:00:00 evolution-calen
3923 ?        00:00:00 tracker-store
3925 ?        00:00:00 evolution-alarm
4062 ?        00:00:00 gvfsd-burn
4099 ?        00:00:00 gnome-terminal-
4102 ?        00:00:00 gnome-pty-helpe
4103 pts/0    00:00:00 bash
4173 ?        00:00:00 gvfsd-trash
4180 ?        00:00:00 systemd-hostnam
4203 ?        00:00:01 gedit
4215 ?        00:00:00 gvfsd-metadata
4304 pts/0    00:00:00 ps
[root@localhost Documents]# ps -f
UID         PID  PPID  C STIME TTY          TIME CMD
root       4103  4099  0 00:01 pts/0    00:00:00 bash
root       4308  4103  0 00:05 pts/0    00:00:00 ps -f
[root@localhost Documents]#
```