

PROCESSES

OPERATING SYSTEMS LABS



LAB TASK # 08

Submitted By

SAWERA YOUSAF

(19P-0007)

Submitted to

MR. MUHAMMAD ABDULLAH

(COMPUTER INSTRUCTOR)

**DEPARTMENT OF COMPUTER SCIENCE
FAST NATIONAL UNIVERSITY OF
COMPUTER AND EMERGING SCIENCES,
PESHAWAR**

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Question 1:

Code:

```
#include <unistd.h>
#include <stdlib.h>
#include <sys/wait.h>
#include <stdio.h>

int main()
{
    int pid;
    pid=fork();
    if (pid == 0)
    {
        printf("I am the Child with PID = %d\n", getpid());
        char *argg[] = {"ls","-a","/",0};
        execvp("ls",argg); // ls is the process
        exit(0); //exit(0) means terminate child with success
    }
    else
    {
        wait(NULL); // Waiting for child to finish
        printf("I am the Parent with PPID = %d\n",getppid());
    }
    return 0;
}
```

OUTPUT:

```
(base) transient@arewas-thinkpad-x230:~$ cd Desktop
(base) transient@arewas-thinkpad-x230:~/Desktop$ touch lab_8.c
(base) transient@arewas-thinkpad-x230:~/Desktop$ gcc lab_8.c
(base) transient@arewas-thinkpad-x230:~/Desktop$ ./a.out
I am the Child with PID = 28646
total 2097304
drwxr-xr-x 24 root root      4096 Jul  8 11:13 .
drwxr-xr-x 24 root root      4096 Jul  8 11:13 ..
drwxr-xr-x  2 root root      4096 Jun 29 20:24 bin
drwxr-xr-x  3 root root      4096 Jul 10 10:41 boot
drwxrwxr-x  2 root root      4096 Oct  9  2019 cdrom
drwxr-xr-x 21 root root      4600 Jul 18 10:22 dev
drwxr-xr-x 153 root root    12288 Jul 19 08:23 etc
drwxr-xr-x  4 root root      4096 Aug 25  2020 home
lrwxrwxrwx  1 root root        34 Jul  8 11:13 initrd.img -> boot/initrd.img-4.15.0-147-generic
lrwxrwxrwx  1 root root        34 Jul  8 11:13 initrd.img.old -> boot/initrd.img-4.15.0-144-generic
drwxr-xr-x 22 root root      4096 Dec 30  2020 lib
drwxr-xr-x  2 root root      4096 Jun 29 20:23 lib64
drwx----- 2 root root    16384 Oct  9  2019 lost+found
drwxr-xr-x  3 root root      4096 Oct 10  2019 media
drwxr-xr-x  2 root root      4096 Apr 26  2018 mnt
drwxr-xr-x 10 root root      4096 Apr 23 11:50 opt
dr-xr-xr-x 312 root root        0 Jul 18 10:22 proc
drwx----- 6 root root      4096 Dec  7  2020 root
drwxr-xr-x 40 root root     1320 Jul 19 08:24 run
drwxr-xr-x  2 root root    12288 Jul  8 11:20 sbin
drwxr-xr-x 16 root root      4096 Jul  8 22:19 snap
drwxr-xr-x  3 root root      4096 Aug 24  2020 srv
-rw-----  1 root root 2147483648 Jan 22 08:08 swapfile
dr-xr-xr-x 13 root root        0 Jul 18 10:22 sys
drwxrwxrwt 19 root root     45056 Jul 19 09:43 tmp
drwxr-xr-x 13 root root      4096 Dec 30  2020 usr
drwxr-xr-x 15 root root      4096 Apr 18 08:08 var
lrwxrwxrwx  1 root root        31 Jul  8 11:13 vmlinuz -> boot/vmlinuz-4.15.0-147-generic
lrwxrwxrwx  1 root root        31 Jul  8 11:13 vmlinuz.old -> boot/vmlinuz-4.15.0-144-generic
I am the Parent with PPID = 28546
(base) transient@arewas-thinkpad-x230:~/Desktop$ █
```