UBUNTU COMMANDS

OPERATING SYSTEMS LABS

LAB TASK #08

Submitted By

AITZAZ TAHIR CH

(19P-0012)

Submitted to

MR. MUHAMMAD ABDULLAH

(COMPUTER INSTRUCTOR)

DEPARTMENT OF COMPUTER SCIENCE

FAST NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCINCES, PESHAWAR

Session 2019-2023

Q No.1:

C code:

```c
#include <unistd.h>
#include <stdlib.h>
#include<sys/wait.h>
#include <stdio.h>
int main()
{
int p;
p=fork();
if (p == 0)
{
printf("I am the Child with PID = %d\n", getpid());
char *av[] = {"ls","-al","/",0};
execvp("ls",av); // Here ls is the name of the program
exit(0); //Child terminates
}
else
{
wait(NULL); // Waiting for child to finish
printf("I am the Parent with PPID = %d\n",getppid());
}
}
```

Output:

```
zaz@zaz-IdeaPad-L340-15IRH-Gaming:~$ gcc q.c -o q
zaz@zaz-IdeaPad-L340-15IRH-Gaming:~$ ./q
I am the Child with PID = 4114
total 84
drwxr-xr-x  20 root root  4096 Jul  7 01:25 .
drwxr-xr-x  20 root root  4096 Jul  7 01:25 ..
lrwxrwxrwx   1 root root     7 Jun 18 10:33 bin -> usr/bin
drwxr-xr-x   4 root root  4096 Jul  6 21:05 boot
drwxrwxr-x   2 root root  4096 Jun 18 10:34 cdrom
drwxr-xr-x  19 root root  4560 Jul  9 20:00 dev
drwxr-xr-x 131 root root 12288 Jul  9 06:29 etc
drwxr-xr-x   4 root root  4096 Jun 18 10:35 home
lrwxrwxrwx   1 root root     7 Jun 18 10:33 lib -> usr/lib
lrwxrwxrwx   1 root root     9 Jun 18 10:33 lib32 -> usr/lib32
lrwxrwxrwx   1 root root     9 Jun 18 10:33 lib64 -> usr/lib64
lrwxrwxrwx   1 root root    10 Jun 18 10:33 libx32 -> usr/libx32
drwx------   2 root root 16384 Jun 18 10:33 lost+found
drwxr-xr-x   2 root root  4096 Jul 31  2020 media
drwxr-xr-x   2 root root  4096 Jul 31  2020 mnt
drwxr-xr-x   3 root root  4096 Jul  6 20:42 opt
dr-xr-xr-x 292 root root     0 Jul  9 20:00 proc
drwx------   4 root root  4096 Jul  8 01:41 root
drwxr-xr-x  32 root root   900 Jul  9 20:01 run
lrwxrwxrwx   1 root root     8 Jun 18 10:33 sbin -> usr/sbin
drwxr-xr-x   8 root root  4096 Jun 18 10:50 snap
drwxr-xr-x   2 root root  4096 Jul 31  2020 srv
dr-xr-xr-x  13 root root     0 Jul  9 20:00 sys
drwxrwxrwt  18 root root  4096 Jul  9 21:05 tmp
drwxr-xr-x  14 root root  4096 Jul 31  2020 usr
drwxr-xr-x  14 root root  4096 Jul 31  2020 var
I am the Parent with PPID = 3641
zaz@zaz-IdeaPad-L340-15IRH-Gaming:~$ ps au
USER        PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
zaz        1615  0.0  0.0 164348  6592 tty2     Ssl+ 20:01   0:00 /usr/lib/gdm3/gdm-x-session --run-script env GNOME_SHELL_SESSION_MODE=ubuntu /usr/bin/gnome-session --systemd --session=ubuntu
root       1617  1.4  1.4 25520488 114148 tty2  Sl+  20:01   0:57 /usr/lib/xorg/Xorg vt2 -displayfd 3 -auth /run/user/1000/gdm/Xauthority -background none -noreset -keeptty -verbose 3
zaz        1672  0.0  0.1 188552 13696 tty2     Sl+  20:01   0:00 /usr/libexec/gnome-session-binary --systemd --systemd --session=ubuntu
zaz        3641  0.0  0.0  10948  4956 pts/0    Ss   20:56   0:00 bash
zaz        4119  0.0  0.0  11828  3312 pts/0    R+   21:05   0:00 ps au
zaz@zaz-IdeaPad-L340-15IRH-Gaming:~$
```