

Experiment No.1.3

Programs using the following system calls of Linux operating system

1. fork, getpid, getppid, exit, wait, close.
2. I/O system calls of Linux operating systems (open, read, write, etc.).

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Branch: 20-IOT

Semester: 3

Subject Name: OPERATING SYSTEM Lab

UID: 20BCS4576

Section/Group: A

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Subject Code:20CSP-232

1. Aim/Overview of the practical:

To write C Programs using the following system calls of UNIX operating system fork, exec, getpid, exit, wait, close, stat, opendir, readdir.

2. Apparatus:

- a. Laptop/PC
- b. Good internet connection
- c. C language IDE
- d. Linux system

3. Code:

Code for fork commands -:

```
#include <stdio.h>
```

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

```
#include <unistd.h>
```

```
int main()
```

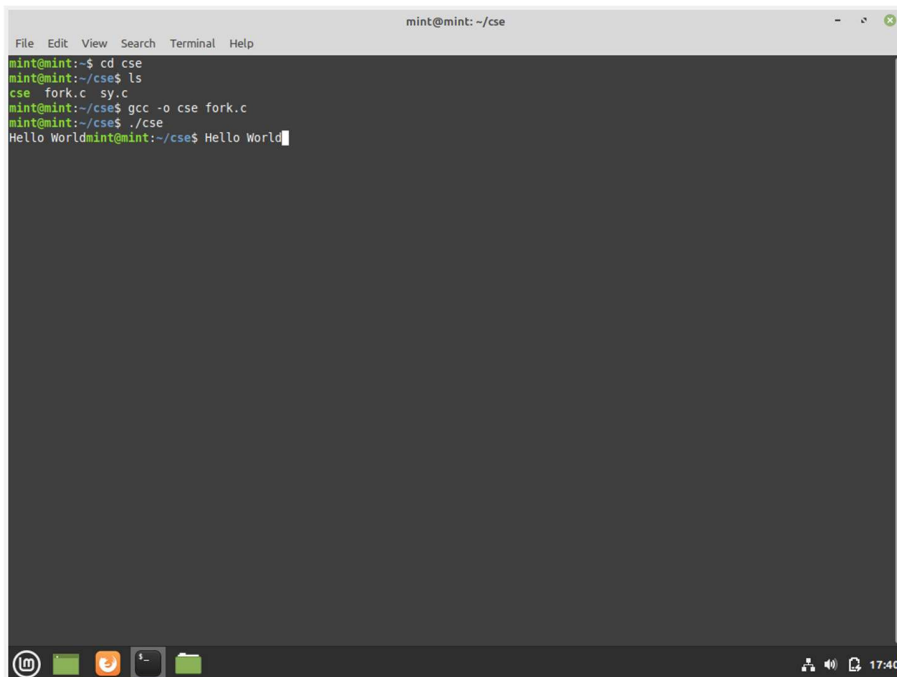
```
{
```

```
    fork();
```

```
    printf("Hello World");
```

```
    return 0;
```

```
}
```



```
mint@mint: ~/cse
File Edit View Search Terminal Help
mint@mint:~$ cd cse
mint@mint:~/cse$ ls
cse fork.c sys.c
mint@mint:~/cse$ gcc -o cse fork.c
mint@mint:~/cse$ ./cse
Hello Worldmint@mint:~/cse$ Hello World
```

• Code for open ,read, write command :

```
#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>
#include <fcntl.h>
int main()
{
    char buff[80];
    char msg[80] = "Hi my name is Neha Sharma";
    int fd = open("2.txt", O_RDWR | O_CREAT);
    printf("fd = %d\n", fd);
    if (fd != -1)
        write(fd, msg, sizeof(msg));
        lseek(fd, 0, SEEK_SET);
        read(fd, buff, sizeof(buff));
        printf("\n%s was written to file\n", buff);
        close(fd);
    return 0;
}
```

```

File Edit View Search Terminal Help
mint@mint: ~/cse
mint@mint:~$ cd cse
mint@mint:~/cse$ gcc -o cse sy.c
mint@mint:~/cse$ ./cse
fd = 3
hi my name is neha was written to file
mint@mint:~/cse$

```

Learning outcomes (What I have learnt):

1. What is shell programming
2. UNIX commands
3. Shell script

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			



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