

## Practical 5

**Aim :** [C] Write a C program using `execvp()` system call which will count the characters from file 'wc', using program 'p.c'.

### Program Code :

#### System\_call.c

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

void main(int argc, char* argv[]){
    execvp("./word_count",argv);
}
```

#### Word\_count.c

```
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<sys/types.h>
#include<sys/stat.h>
#include<fcntl.h>
#include<libgen.h>
#include<dirent.h>

void main(int argc, char* argv[]){

    if(argc>1)
    {
        int file_name = open(argv[1], O_RDONLY);
        char buf;
        int n, counter=0;

        while(( n=read(file_name, &buf, 1)) != 0)
        {
            counter++;
            printf("%d, \n", counter);
        }
        printf("Total Characters in file : %d", counter);
    }
}
```

Open

system\_call.c

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```
1 #include<stdio.h>
2 #include<unistd.h>
3
4 void main(int argc, char* argv){
5     execvp("./word_count",argv);
6 }
```

Open

word\_count.c

~/Desktop/ios practicals/prac 6

```
1 #include<stdio.h>
2 #include<stdlib.h>
3 #include<unistd.h>
4 #include<sys/types.h>
5 #include<sys/stat.h>
6 #include<fcntl.h>
7 #include<libgen.h>
8 #include<dirent.h>
9
10 void main(int argc, char* argv){
11
12     if(argc>1)
13     {
14         int file_name = open(argv[1], O_RDONLY);
15         char buf;
16         int n, counter=0;
17
18         while(( n=read(file_name, &buf, 1)) != 0)
19         {
20             counter++;
21             printf("%d, \n", counter);
22         }
23         printf("Total Characters in file : %d", counter);
24     }
25 }
```

Open

file.txt

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```
1 Hello Nishit Here, doing practical while watching match.
```

**Output :**

```
nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$ gedit system_call.c
nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$ gedit word_count.c
nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$ gcc -o word_count word_count.c
nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$ gcc -o system_call system_call.c
nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$ gedit file.txt
nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$ ./system_call file.txt
1,
2,
3,
4,
5,
6,
7,
8,
9,
10,
11,
12,
13,
14,
15,
16,
17,
18,
19,
20,
21,
22,
23,
24,
25,
26,
27,
28,
29,
30,
31,
32,
33,
34,
35,
36,
37,
38,
39,
40,
41,
42,
43,
44,
45,
46,
47,
48,
49,
50,
51,
52,
53,
54,
55,
56,
57,
Total Characters in file : 57nishit@nishit-Inspiron:~/Desktop/ios practicals/prac 6$
```