

OPERATING SYSTEM

ASSIGNMENT – II

NAME :	SRN :	SECTION :
ANKITH GOWDA B S	PES2UG22CS077	B

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <unistd.h>
4 #include <string.h>
5 #include <sys/wait.h>
6
7 #define BUF_SIZE 100
8
9 void reverse(char *str) {
10     int len = strlen(str);
11     for (int i = 0; i < len / 2; i++) {
12         char temp = str[i];
13         str[i] = str[len - i - 1];
14         str[len - i - 1] = temp;
15     }
16 }
17
18 int main() {
19     int fd[2];
20     pid_t pid;
21
22     if (pipe(fd) == -1) {
23         perror("Pipe failed");
24         return 1;
25     }
26
27     pid = fork();
28
29     if (pid < 0) {
30         perror("Fork failed");
31         return 1;
32     }
```

```

33
34     if (pid > 0) {
35         // Parent process
36         char input[BUF_SIZE];
37         printf("Enter a string: ");
38         fgets(input, BUF_SIZE, stdin);
39         input[strcspn(input, "\n")] = '\0';
40
41         write(fd[1], input, strlen(input) + 1);
42         close(fd[1]);
43
44         wait(NULL);
45
46     } else {
47         // Child process
48         char received[BUF_SIZE];
49         read(fd[0], received, BUF_SIZE);
50         reverse(received);
51         printf("Reversed string: %s\n", received);
52         close(fd[0]);
53     }
54
55     return 0;
56 }
57

```

```

prajwal@Ubuntu22:~/OS$ gcc -o a q1.c
prajwal@Ubuntu22:~/OS$ ./a
Enter a string: Ankith Gowda
Reversed string: adwoG htiknA
prajwal@Ubuntu22:~/OS$

```