Program :

Client :

```c
#include<stdio.h>
#include<stdlib.h>
#include<sys/types.h>
#include<sys/stat.h>
#include<unistd.h>
#include<fcntl.h>
#include<string.h>

int main()
{
        puts("\n\tClient - Listening\n");
        int code6 = mkfifo("fifo6.txt",0666);
        int code7 = mkfifo("fifo7.txt",0666);
        char strMessage[5000];
        if(code6 == -1)
                perror("\n\tmkfifo6 returned an error-file any already exist\n");
        if(code7 == -1)
                perror("\n\tmkfifo7 returned an error-file any already exist\n");

        int fd = open("fifo6.txt", O_RDONLY);
        int fd2 = open("fifo7.txt", O_WRONLY);
        if(fd == -1)
        {
                perror("Cannot open FIFO6 for read");
                return EXIT_FAILURE;

        }
        if(fd2 == -1)
        {
                perror("Cannot open FIFO7 for write");
                return EXIT_FAILURE;

        }
        puts("FIFO OPEN");
        //read string up to(5000 characters)
        char stringBuffer[5000];
        memset(stringBuffer, 0, 5000);

        int res;
        char Len;
        //while(1)
        {
                res = read(fd, &Len, 1);
                //if(Len == 1)//since null counts 1
                        //break;

                read(fd, stringBuffer, Len); //Read String Characters
                stringBuffer[(int)Len] = 0;
                printf("\nClient Received: %s\n", stringBuffer);
                int j = 0,w=0, line = 0;
                while(stringBuffer[j]!='\0'){
                        char ch = stringBuffer[j];
                        if((ch==' ')||(ch=='\n')){
                                w++;
                                if(ch=='\n')
                                        line++;
                        }
                        j++;
                }
                char LC = (char) strlen(strMessage);
```

```c
            char str1[256];
            char str2[256];
            char str3[256];
            sprintf(str1," No.of Words : %d:::", w); strcat(strMessage,str1);
            sprintf(str2," No.of Charecters: %d:::",(j-1)); strcat(strMessage,str2);
            sprintf(str3," No.of Lines: %d",line); strcat(strMessage,str3);
            strcat(strMessage,"\0");
                    printf("\n\tString: %s",strMessage);
            write(fd2, &LC, 1);
            write(fd2, strMessage, strlen(strMessage));
            fflush(stdin);
            strMessage[0] = 0;//reseting the character array
            //if(LC==1)
                    //break;

        }
        printf("\n");
        puts("CLIENT CLOSED");
        puts("SERVER CLOSED");
        close(fd);
        close(fd2);
        return 0;
}
```

Server :

```c
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<sys/types.h>
#include<sys/types.h>
#include<fcntl.h>
#include<string.h>

int main()
{
        int n;
        puts("Server");
        char strMessage[5000];//[] = {"welcome", "to", "the", "module.", "This", "will", "now",
"stop"};
        int fd = open("fifo6.txt", O_WRONLY);
        int fd2 = open ("fifo7.txt", O_RDONLY);
        if(fd == -1)
        {
                perror("cannot open fifo6");
                return EXIT_FAILURE;
        }
        if(fd2 == -1)
        {
                perror("cannot open fifo7");
                return EXIT_FAILURE;
        }
        puts("FIFO OPEN");
        //read string up to(5000 characters)
        char stringBuffer[5000];
        memset(stringBuffer, 0, 5000);
        int res;
        char Len;
        //while(1)
        {
                printf("Enter the Message to be passed (hitting ENTER without any string will
terminate program): ");
                fgets(strMessage, 100, stdin);
```

```
            char L = (char) strlen(strMessage);
            //printf("\n\tLength of the given string: %d\n", (L-1));

            write(fd, &L, 1);
            write(fd, strMessage, strlen(strMessage));
            fflush(stdin);
            strMessage[0] = 0;//reseting the character array
            //if(L==1)//since null counts 1
                    //break;
            int len2;
            res = read(fd2, &len2, 1);
            //if(len2 == 1)//since null counts 1
                    //break;

            read(fd2, stringBuffer, 5000); //Read String Characters

            printf("\nServer Received: %s\n", stringBuffer);
            stringBuffer[(int)len2] = 0;
        };
        //printf("\n\nCLIENT CLOSED\n")
        //return 0;
}
```

Output :

```
stud@stud-MS-7D48:~/Desktop/aditya$ gcc server.c
stud@stud-MS-7D48:~/Desktop/aditya$ ./a.out
Server
FIFO OPEN


              Enter the Message to be passed (hitting ENTER without any string
 will terminate program): when your exam is going to start

Server Received:  No.of Words : 7::: No.of Charecters: 32::: No.of Lines: 1
stud@stud-MS-7D48:~/Desktop/aditya$ []
```