OPERATING SYSTEMS ASSIGNMENT-2

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

#define buf 100
#define READ_END 0
#define WRITE_END 1

int main()
{
        int count = 0;
        int fd[2];
        pid_t  pid;
        char writestring[buf]="";
        char readstring[buf]="";

        if (pipe(fd) == -1)
        {
                printf("Pipe failed\n");
                return 1;
        }
        pid = fork();
        if (pid > 0)
        {
                char c;
                FILE* fr = fopen("input.txt","r");
                close(fd[READ_END]);
                int i=0;
                while ((c=fgetc(fr))!=EOF)
                {
                        writestring[i]=c;
                        i++;
                }
                write(fd[WRITE_END], writestring, strlen(writestring)+1);
                close(fd[WRITE_END]);
                //wait(NULL);
        }
        else if (pid == 0)
        {
                close(fd[WRITE_END]);
                read(fd[READ_END], readstring, buf);
                printf("Child Process Read : %s\n", readstring);
                for(int i = 0; readstring[i] != '\0'; i++)
                {
                        if(readstring[i] == ' ' || readstring[i] == '\n' || readstring[i] == '\t')
                        {
                            count++;
                        }
                }
                printf("\n The Total Number of Words in this String : %d", count);
                close(fd[READ_END]);
        }
        else
        {
                printf("Fork failed\n");
                return 1;
        }

}
```

input.txt

```
1 Hello world! My name is Gaurav! I study in Section C
2
```