

```
CD_A2@CL3-15: ~/Documents/230905408/lab1
File Edit View Search Terminal Help
1 // To count the number of lines and characters in a file.
2 #include <stdio.h>
3 #include <stdlib.h>
4
5 int main(int argc, char* argv[]){
6     FILE *fp;
7     int ch;
8     int lines = 0, characters=0;
9
10    if(argc !=2){
11        printf("Usage: %s <filename>\n", argv[0]);
12        return 1;
13    }
14
15    fp = fopen(argv[1], "r");
16    if(fp==NULL){
17        perror("Error opening file!!");
18        return 1;
19    }
20
21    while((ch=getc(fp)) != EOF){
22        characters++;
23        if(ch=='\n')
24            lines++;
25    }
26
27    fclose(fp);
28
29    printf("Number of lines      : %d\n", lines);
30    printf("Number of characters : %d\n", characters);
31
32    return 0;
33 }
```

NORMAL q1.c c utf-8 2% 1/34 1:1 [1]tra...

"q1.c" 34L, 572B

```
CD_A2@CL3-15: ~/Documents/230905408/lab1
File Edit View Search Terminal Help
CD_A2@CL3-15:~/Documents/230905408/lab1$ gcc q1.c
CD_A2@CL3-15:~/Documents/230905408/lab1$ ./a.out q2.c
Number of lines      : 41
Number of characters : 908
CD_A2@CL3-15:~/Documents/230905408/lab1$
```

CD\_A2@CL3-15: ~/Documents/230905408/lab1

File Edit View Search Terminal Help

1 #include <stdio.h>

2 #include <stdlib.h>

3 int main(int argc, char\* argv) {

4 FILE \*sourceFile, \*destFile;

5 char ch;

6 long fileSize, i;

7

8

9 sourceFile = fopen( "q1.c", "r");

10 if (sourceFile == NULL) {

11 printf("Error: Could not open source file.\n");

12 return 1;

13 }

14

15

16 destFile = fopen("output.txt", "w");

17 if (destFile == NULL) {

18 printf("Error: Could not open destination file.\n");

19 fclose(sourceFile);

20 return 1;

21 }

22

23 fseek(sourceFile, 0, SEEK\_END);

24 fileSize = ftell(sourceFile);

25

26 printf("The size of the file is: %ld bytes\n", fileSize);

27

28 for (i = fileSize - 1; i >= 0; i--) {

29 fseek(sourceFile, i, SEEK\_SET);

30 ch = fgetc(sourceFile);

31 fputc(ch, destFile);

32 }

33

34 printf("File reversed successfully and stored in 'output.txt'.\n");

35

36 fclose(sourceFile);

37 fclose(destFile);

38

39 return 0;

40 }

NORMAL

q2.c

c

utf-8

2% 1/41 %:1 [25]tra...

NERDTreeToggle

CD\_A2@CL3-15: ~/Documents/230905408/lab1

File Edit View Search Terminal Help

CD\_A2@CL3-15:~/Documents/230905408/lab1\$ gcc q2.c

\CD\_A2@CL3-15:~/Documents/230905408/lab1\$ ./a.out

The size of the file is: 572 bytes

File reversed successfully and stored in 'output.txt'.

CD\_A2@CL3-15:~/Documents/230905408/lab1\$ cat output.txt

}

;0 nruter

;sretcarahc ,"n\d% : sretcarahc fo rebmuN"(ftnirp

;senil ,"n\d% : senil fo rebmuN"(ftnirp

;)pf(esolcf

}

;++senil

)'n\'==hc(fi

;++sretcarahc

{)FOE != ) )pf(cteg=hc((elihw

}

;1 nruter

;)"!elif gninepo rorrE"(rorrep

{)LLUN==pf(fi

;)"r" ,]1[vgra(nepof = pf

}

;1 nruter

;)]0[vgra ,"n\>emanelif< s% :egasU"(ftnirp

{)2!=! cgra(fi

;0=sretcarahc ,0 = senil tni

;hc tni

;pf\* ELIF

{])[vgra \*rahc ,cgra tni(niam tni

>h.bildts< edulcni#

>h.oidts< edulcni#

.elif a ni sretcarahc dna senil fo rebmun eht tnuoc oT //CD\_A2@CL3-15:~/Documents/230905408/L

ab1\$

EN

15:25

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CD_A2@CL3-15: ~/Documents/230905408/lab1
File Edit View Search Terminal Help
1 //Wap that merges lines alternatively from 2 files and stores it in a resultant file.
2 #include <stdio.h>
3 #include <stdlib.h>
4
5 #define MAX_LINE 1024
6
7 int main() {
8     FILE *f1, *f2, *res;
9     char line1[MAX_LINE], line2[MAX_LINE];
10    int file1_done = 0, file2_done = 0;
11
12    f1 = fopen("q1.c", "r");
13    f2 = fopen("q2.c", "r");
14    res = fopen("merged.txt", "w");
15
16    if (f1 == NULL || f2 == NULL || res == NULL) {
17        printf("Error opening files.\n");
18        return 1;
19    }
20
21    while (!file1_done || !file2_done) {
22        if (fgets(line1, MAX_LINE, f1) != NULL) {
23            fputs(line1, res);
24        } else {
25            file1_done = 1;
26        }
27
28        if (fgets(line2, MAX_LINE, f2) != NULL) {
29            fputs(line2, res);
30        } else {
31            file2_done = 1;
32        }
33    }
34
35    printf("Files merged alternatively into 'merged.txt' successfully.\n");
36
37    fclose(f1);
38    fclose(f2);
39    fclose(res);
40
41    return 0;
42 }
```

NORMAL q3.c c utf-8 2% 1/43 %:1 [1]tra...

NERDTreeToggle

```
CD_A2@CL3-15: ~/Documents/230905408/lab1
File Edit View Search Terminal Help
CD_A2@CL3-15:~/Documents/230905408/lab1$ gcc q3.c
CD_A2@CL3-15:~/Documents/230905408/lab1$ ./a.out
Files merged alternatively into 'merged.txt' successfully.
CD_A2@CL3-15:~/Documents/230905408/lab1$ cat merged.txt
// To count the number of lines and characters in a file.
#include <stdio.h>

#include <stdlib.h>
#include <stdio.h>

#include <stdlib.h>
int main(int argc, char* argv) {

    FILE *sourceFile, *destFile;
    int main(int argc, char* argv[]){
        char ch;
        FILE *fp;
        long fileSize, i;
        int ch;

        int lines = 0, characters=0;

        sourceFile = fopen( "q1.c", "r");
        if(argc !=2){
            printf("Usage: %s <filename>\n", argv[0]);
            printf("Error: Could not open source file.\n");
            return 1;
            return 1;
        }

        fp = fopen(argv[1], "r");

        if(fp==NULL){
            destFile = fopen("output.txt", "w");
            perror("Error opening file!!");
            if (destFile == NULL) {
                return 1;
                printf("Error: Could not open destination file.\n");
            }
            fclose(sourceFile);

            return 1;
            while((ch=getc(fp)) != EOF){

                characters++;

                if(ch=='\n')
                    lines++;
            }
        }
    }
}
```

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