

```

1  #include <stdio.h>
2
3  int main() {
4      char name[50];
5      int age;
6
7      FILE *fp = fopen("info.txt", "w");
8
9      if (fp == NULL) {
10         printf("Error opening file.\n");
11         return 1;
12     }
13
14     printf("Enter your name: ");
15     scanf("%s", name);
16
17     printf("Enter your age: ");
18     scanf("%d", &age);
19
20     fprintf(fp, "Name: %s\n", name);
21     fprintf(fp, "Age: %d\n", age);
22
23     fclose(fp);
24
25     printf("Data successfully saved to info.txt\n");
26
27     return 0;
28 }
29

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/v
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
tempCodeRunnerFile
Enter your name: nikhil
Enter your age: 18
Data successfully saved to info.txt
nikhilsisodia@Nikhils-MacBook-Air T %

```

```
1  #include <stdio.h>
2
3  int main() {
4      char line[200];
5
6      FILE *fp = fopen("info.txt", "r");
7
8      if (fp == NULL) {
9          printf("Unable to open file.\n");
10         return 1;
11     }
12
13     while (fgets(line, sizeof(line), fp) != NULL) {
14         printf("%s", line);
15     }
16
17     fclose(fp);
18
19     return 0;
20 }
21
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/v
000gn/T/"tempCodeRunnerFile
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile
Name: nikhil
Age: 18
nikhilsisodia@Nikhils-MacBook-Air T %
```

```

1  #include <stdio.h>
2  #include <ctype.h>
3
4  int main() {
5      FILE *fp;
6      char filename[100];
7      char ch;
8
9      int characters = 0, words = 0, lines = 0;
10     int inWord = 0;
11
12     printf("Enter file name: ");
13     scanf("%s", filename);
14
15     fp = fopen(filename, "r");
16
17     if (fp == NULL) {
18         printf("Error opening file.\n");
19         return 1;
20     }
21
22     while ((ch = fgetc(fp)) != EOF) {
23         characters++;
24
25         if (ch == '\n')
26             lines++;
27
28         if (isspace(ch)) {
29             inWord = 0;
30         } else if (inWord == 0) {
31             words++;

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/v
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile
Enter file name: info.txt
Characters: 21
Words: 4
Lines: 2
nikhilsisodia@Nikhils-MacBook-Air T %

```

```

1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <string.h>
4
5  void copy_file_content() {
6      FILE *source_ptr, *dest_ptr;
7      char source_filename[100];
8      char dest_filename[100];
9      int c;
10
11     printf("Enter the source filename (to read from): ");
12     if (scanf("%99s", source_filename) != 1) return;
13
14     printf("Enter the destination filename (to write to): ");
15     if (scanf("%99s", dest_filename) != 1) return;
16
17     source_ptr = fopen(source_filename, "r");
18     if (source_ptr == NULL) {
19         printf("\nError: Could not open source file %s for reading.\n", source_filename);
20         return;
21     }
22
23     dest_ptr = fopen(dest_filename, "w");
24     if (dest_ptr == NULL) {
25         printf("\nError: Could not open destination file %s for writing.\n", dest_filename);
26         fclose(source_ptr);
27         return;
28     }
29
30     while ((c = fgetc(source_ptr)) != EOF) {
31         fputc(c, dest_ptr);

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/v
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile

```

```

Enter the source filename (to read from): info.txt

```

```

Enter the destination filename (to write to): file.txt

```

```

Success! Content copied from info.txt to file.txt.

```

```

nikhilsisodia@Nikhils-MacBook-Air T % █

```

```

1  #include <stdio.h>
2
3  int main() {
4      char filename[100];
5      char text[200];
6      FILE *fp;
7
8      printf("Enter filename to open in append mode: ");
9      scanf("%s", filename);
10
11     fp = fopen(filename, "a");
12     if (fp == NULL) {
13         printf("Cannot open file.\n");
14         return 1;
15     }
16
17     printf("Enter the text to append: ");
18     getchar();
19     fgets(text, sizeof(text), stdin);
20
21     fputs(text, fp);
22
23     fclose(fp);
24
25     printf("Text appended successfully.\n");
26
27     return 0;
28 }
29

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/va
000gn/T/"tempCodeRunnerFile

```

```

● nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile

```

```

Enter filename to open in append mode: info.txt
Enter the text to append: nikhil
Text appended successfully.

```

```

○ nikhilsisodia@Nikhils-MacBook-Air T % 

```

```

1  #include <stdio.h>
2
3  int main() {
4      char filename[100];
5      FILE *fp;
6      char ch;
7
8      printf("Enter filename: ");
9      scanf("%s", filename);
10
11     fp = fopen(filename, "r");
12
13     if (fp == NULL) {
14         printf("Error: File does not exist or cannot be opened.\n");
15         return 1;
16     }
17
18     printf("\n--- File Content ---\n");
19
20     while ((ch = fgetc(fp)) != EOF) {
21         printf("%c", ch);
22     }
23
24     fclose(fp);
25
26     return 0;
27 }
28

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/va
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile
Enter filename: info.txt

```

```

--- File Content ---

```

```

Name: nikhil

```

```

Age: 18

```

```

nikhil

```

```

nikhilsisodia@Nikhils-MacBook-Air T %

```



```

1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <ctype.h>
4
5  void convert_file_case() {
6      FILE *input_ptr, *output_ptr;
7      const char *input_filename = "input.txt";
8      const char *output_filename = "output.txt";
9      int c;
10
11     input_ptr = fopen(input_filename, "r");
12     if (input_ptr == NULL) {
13         printf("Error: Could not open input file %s for reading.\n", input_filename);
14         printf("Please ensure a file named 'input.txt' exists with content.\n");
15         return;
16     }
17
18     output_ptr = fopen(output_filename, "w");
19     if (output_ptr == NULL) {
20         printf("Error: Could not open output file %s for writing.\n", output_filename);
21         fclose(input_ptr);
22         return;
23     }
24
25     while ((c = fgetc(input_ptr)) != EOF) {
26         if (islower(c)) {
27             c = toupper(c);
28         }
29         fputc(c, output_ptr);
30     }
31
32     printf("Success! All content from %s has been converted to uppercase and saved in %s.\n", input_filename, output_filename);
33
34     fclose(input_ptr);

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/va
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile

```

Note: This program requires an 'input.txt' file to exist in the same directory.

Success! All content from input.txt has been converted to uppercase and saved in output.txt.

```

nikhilsisodia@Nikhils-MacBook-Air T %

```

```

1  #include <stdio.h>
2  #include <ctype.h>
3
4  int main() {
5      FILE *fp;
6      char filename[100];
7      char ch;
8      int vowels = 0, consonants = 0;
9
10     printf("Enter filename: ");
11     scanf("%s", filename);
12
13     fp = fopen(filename, "r");
14
15     if (fp == NULL) {
16         printf("Cannot open file.\n");
17         return 1;
18     }
19
20     while ((ch = fgetc(fp)) != EOF) {
21         ch = tolower(ch);
22
23         if (ch >= 'a' && ch <= 'z') {
24             if (ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u')
25                 vowels++;
26             else
27                 consonants++;
28         }
29     }
30
31     fclose(fp);
32
33     printf("Vowels: %d\n", vowels);
34     printf("Consonants: %d\n", consonants);

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/va
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile

```

```

Enter filename: info.txt

```

```

Vowels: 8

```

```

Consonants: 11

```

```

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```



```

1  #include <stdio.h>
2  #include <stdlib.h>
3
4  void calculate_sum_and_average() {
5      FILE *file_ptr;
6      const char *filename = "numbers.txt";
7      int number;
8      long long sum = 0;
9      int count = 0;
10     double average = 0.0;
11
12     file_ptr = fopen(filename, "r");
13     if (file_ptr == NULL) {
14         printf("Error: Could not open file %s for reading.\n", filename);
15         printf("Please ensure a file named 'numbers.txt' exists with space-separated integers.\n");
16         return;
17     }
18
19     while (fscanf(file_ptr, "%d", &number) == 1) {
20         sum += number;
21         count++;
22     }
23
24     fclose(file_ptr);
25
26     if (count > 0) {
27         average = (double)sum / count;
28         printf("Total integers read: %d\n", count);
29         printf("Sum of the integers: %lld\n", sum);
30         printf("Average of the integers: %.2lf\n", average);
31     } else {
32         printf("No integers were found in the file %s.\n", filename);
33     }
34 }

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/va
nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunn
empCodeRunnerFile
Total integers read: 4
Sum of the integers: 25
Average of the integers: 6.25
nikhilsisodia@Nikhils-MacBook-Air T %

```

```

1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <string.h>
4
5  #define FILENAME "students.txt"
6  #define MAX_NAME_LEN 50
7  #define NUM_RECORDS 3
8
9  typedef struct {
10     char name[MAX_NAME_LEN];
11     int roll_number;
12     float marks;
13 } Student;
14
15 void write_records(Student students[], int count) {
16     FILE *file_ptr = fopen(FILENAME, "w");
17
18     if (file_ptr == NULL) {
19         printf("Error: Could not open file %s for writing.\n", FILENAME);
20         return;
21     }
22
23     for (int i = 0; i < count; i++) {
24         fprintf(file_ptr, "%s|%d|%.2f\n", students[i].name, students[i].roll_number, students[i].marks);
25     }
26
27     fclose(file_ptr);
28     printf("Successfully wrote %d records to %s.\n", count, FILENAME);
29 }
30
31 void read_and_display_records() {
32     FILE *file_ptr = fopen(FILENAME, "r");
33     Student s;
34     char line[200];

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

● nikhilsisodia@Nikhils-MacBook-Air ~ % cd "/var/folders/mp/q_89ln6x0_1_3z1sjbnr0mnr0000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile
Successfully wrote 3 records to students.txt.

```

--- Reading Student Records ---

Name	Roll Number	Marks
Alice Johnson	101	85.50
Bob Smith	102	92.75
Charlie Brown	103	78.00

Total records read: 3

```

○ nikhilsisodia@Nikhils-MacBook-Air T %

```