

The screenshot shows a terminal window with the following content:

```
cd "/var/folders/w2/392b64ys4215vz_llsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_llsm4rs40000gn/T/"tempCodeRunnerFile
rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_llsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_llsm4rs40000gn/T/"tempCodeRunnerFile
Enter a string: hELLo how ARE YOU
Sentence case saved to sentence.txt
rajatsingh@Rajats-MacBook-Air T %
```

The screenshot shows a code editor interface with a dark theme. The top bar displays "Welcome" and the file path "#include <stdio.h> Untitled-1". The main area contains the following C code:

```
1 #include <stdio.h>
2
3 int main() {
4     FILE *fp;
5     char name[50];
6     int age;
7
8     fp = fopen("info.txt", "w");
9
10    printf("Enter name: ");
11    fgets(name, sizeof(name), stdin);
12
13    printf("Enter age: ");
14    scanf("%d", &age);
15
16    fprintf(fp, "Name: %sAge: %d\n", name, age);
17
18    fclose(fp);
19
20    printf("Data successfully saved to info.txt\n");
21    return 0;
22 }
```

Below the code editor is a navigation bar with tabs: PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS. The TERMINAL tab is currently selected, showing the terminal history:

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/"tempCodeRunnerFile
Enter name: Rajat
Enter age: 19
Data successfully saved to info.txt
○ rajatsingh@Rajats-MacBook-Air T %
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Code + □ ☰ ... | ⌂ X

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/"tempCodeRunnerFile  
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/"tempCodeRunnerFile  
Name: Rajat  
Age: 19  
● rajatsingh@Rajats-MacBook-Air T %
```

```
4 int main() {  
5     char ch;  
6     int characters=0, words=0, lines=0, inWord=0;  
7  
8     fp=fopen("info.txt","r");  
9     if(fp==NULL){  
10         printf("file not found");  
11         return 0;  
12     }  
13  
14     while((ch=fgetc(fp))!=EOF){  
15         characters++;  
16         if(ch=='\n')  
17             lines++;  
18         if(!isspace(ch) && inWord==0){  
19             inWord=1;  
20             words++;  
21         } else if(isspace(ch)){  
22             inWord=0;  
23         }  
24     }  
25  
26     fclose(fp);  
27     printf("Characters: %d\n",characters);  
28     printf("Words: %d\n",words);  
29     printf("Lines: %d",lines+1);  
30     return 0;  
31 }  
32  
33
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile  
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile  
Character: 20  
Words: 4  
Lines: 3  
○ rajatsingh@Rajats-MacBook-Air T %
```

The screenshot shows a code editor interface with a C file named "Untitled-1". The code implements a file copy function using standard I/O streams. It prompts the user for source and destination filenames, opens them, reads the source file character by character, and writes it to the destination file until EOF is reached. Finally, it prints a success message.

```
1 #include <stdio.h>
2
3 int main() {
4     FILE *src,*dest;
5     char sname[50], dname[50];
6     char ch;
7
8     printf("Enter source filename: ");
9     scanf("%s",sname);
10    printf("Enter destination filename: ");
11    scanf("%s",dname);
12
13    src=fopen(sname,"r");
14    if(src==NULL){
15        printf("Source file not found");
16        return 0;
17    }
18
19    dest=fopen(dname,"w");
20
21    while((ch=fgetc(src))!=EOF)
22        fputc(ch,dest);
23
24    fclose(src);
25    fclose(dest);
26    printf("File copied successfully");
27    return 0;
28}
29
```

Below the code editor is a terminal window showing the execution of the program. The user runs the compiled executable, enters "info.txt" as the source file, and "file.txt" as the destination file. The terminal then displays the message "File copied successfully".

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
```

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
Enter source filename: info.txt
Enter destination filename: file.txt
File copied successfully
● rajatsingh@Rajats-MacBook-Air T %
```

The screenshot shows a code editor interface with a dark theme. The top bar includes tabs for 'Welcome' and 'C #include <stdio.h> Untitled-1'. The main area contains the following C code:

```
1 #include <stdio.h>
2
3 int main() {
4     FILE *fp;
5     char line[200];
6
7     fp=fopen("data.txt","a");
8     if(fp==NULL){
9         printf("File not found");
10        return 0;
11    }
12
13    printf("Enter text to append: ");
14    getchar();
15    fgets(line,200,stdin);
16
17    fputs(line,fp);
18    fclose(fp);
19
20    printf("Text appended successfully");
21    return 0;
22 }
```

The code is numbered from 1 to 22. The bottom of the screen shows a terminal window with the following output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
```

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
Enter text to append: rajat
Text appended successfully!
● rajatsingh@Rajats-MacBook-Air T %
```

The screenshot shows a dark-themed code editor interface. At the top, there's a tab bar with 'Welcome' and two tabs labeled 'C #include <stdio.h> Untitled-1'. Below the tabs is a code editor area containing the following C code:

```
1 #include <stdio.h>
2
3 int main() {
4     FILE *fp;
5     char fname[50], line[200];
6
7     printf("Enter filename: ");
8     scanf("%s", fname);
9
10    fp=fopen(fname,"r");
11    if(fp==NULL){
12        printf("File does not exist");
13        return 0;
14    }
15
16    while(fgets(line,200,fp))
17        printf("%s",line);
18
19    fclose(fp);
20    return 0;
21 }
22
```

Below the code editor is a navigation bar with tabs: PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS. The TERMINAL tab is currently selected. The terminal window displays the following command-line session:

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
Enter filename: data.txt
ajat
○ rajatsingh@Rajats-MacBook-Air T %
```



```
1 #include <stdio.h>
2 #include <ctype.h>
3
4 int main() {
5     FILE *fp;
6     char ch;
7     int v=0,c=0;
8
9     fp=fopen("info.txt","r");
10    if(fp==NULL){
11        printf("File not found");
12        return 0;
13    }
14
15    while((ch=fgetc(fp))!=EOF){
16        ch=toupper(ch);
17        if(ch>='a' && ch<='z'){
18            if(ch=='a'||ch=='e'||ch=='i'||ch=='o'||ch=='u')
19                v++;
20            else
21                c++;
22        }
23    }
24
25    fclose(fp);
26    printf("Vowels: %d\nConsonants: %d",v,c);
27    return 0;
28 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Code + ×

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs40000gn/T/"tempCodeRunnerFile
Vowels: 6
Consonants: 6
○ rajatsingh@Rajats-MacBook-Air T %
```

The screenshot shows a code editor interface with a dark theme. The main area displays a C program named 'Untitled-1'. The code reads integers from a file named 'numbers.txt', calculates their sum and count, and then prints the average. The code is as follows:

```
1 #include <stdio.h>
2
3 int main() {
4     FILE *f;
5     int num, sum = 0, count = 0;
6     float avg;
7
8     f = fopen("numbers.txt", "w");
9     fprintf(f, "10 20 30 40 50");
10    fclose(f);
11
12    f = fopen("numbers.txt", "r");
13    while (fscanf(f, "%d", &num) == 1) {
14        sum += num;
15        count++;
16    }
17    fclose(f);
18
19    avg = (float)sum / count;
20
21    printf("Sum = %d\n", sum);
22    printf("Average = %.2f\n", avg);
23
24    return 0;
25 }
26 #include <stdio.h>
```

Below the code editor is a navigation bar with tabs: PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS. The TERMINAL tab is selected. The terminal window shows the command-line output of running the program:

```
cd "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_lllsm4rs4000gn/T/"tempCodeRunnerFile
Sum = 150
Average = 30.00
○ rajatsingh@Rajats-MacBook-Air T %
```

The screenshot shows a code editor window with the following details:

- Title Bar:** Welcome C #include <stdio.h> Untitled-1
- Code Area:** The code is written in C and reads student records from a file named "students.txt". It uses `fopen` for both reading and writing, `fprintf` for writing, and `fscanf` for reading. The output is formatted as "Name Roll Marks".

```
1 #include <stdio.h>
2
3 int main() {
4     FILE *f;
5     char name[50];
6     int roll, i;
7     float marks;
8
9     f = fopen("students.txt", "w");
10    fprintf(f, "Rajat 101 85.5\n");
11    fprintf(f, "Nikhil 102 92.0\n");
12    fprintf(f, "Abhay 103 78.25\n");
13    fclose(f);
14
15    f = fopen("students.txt", "r");
16    printf("Student Records:\n");
17
18    while (fscanf(f, "%s %d %f", name, &roll, &marks) == 3) {
19        printf("%s %d %.2f\n", name, roll, marks);
20    }
21
22    fclose(f);
23    return 0;
24 }
25 }
```
- Terminal Tab:** Shows the command line output of the program running in a terminal window.
- Terminal Output:**

```
cd "/var/folders/w2/392b64ys4215vz_llsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_llsm4rs4000gn/T/"tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/var/folders/w2/392b64ys4215vz_llsm4rs4000gn/T/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/var/folders/w2/392b64ys4215vz_llsm4rs4000gn/T/"tempCodeRunnerFile
Student Records:
Rajat 101 85.50
Nikhil 102 92.00
Abhay 103 78.25
○ rajatsingh@Rajats-MacBook-Air T %
```