

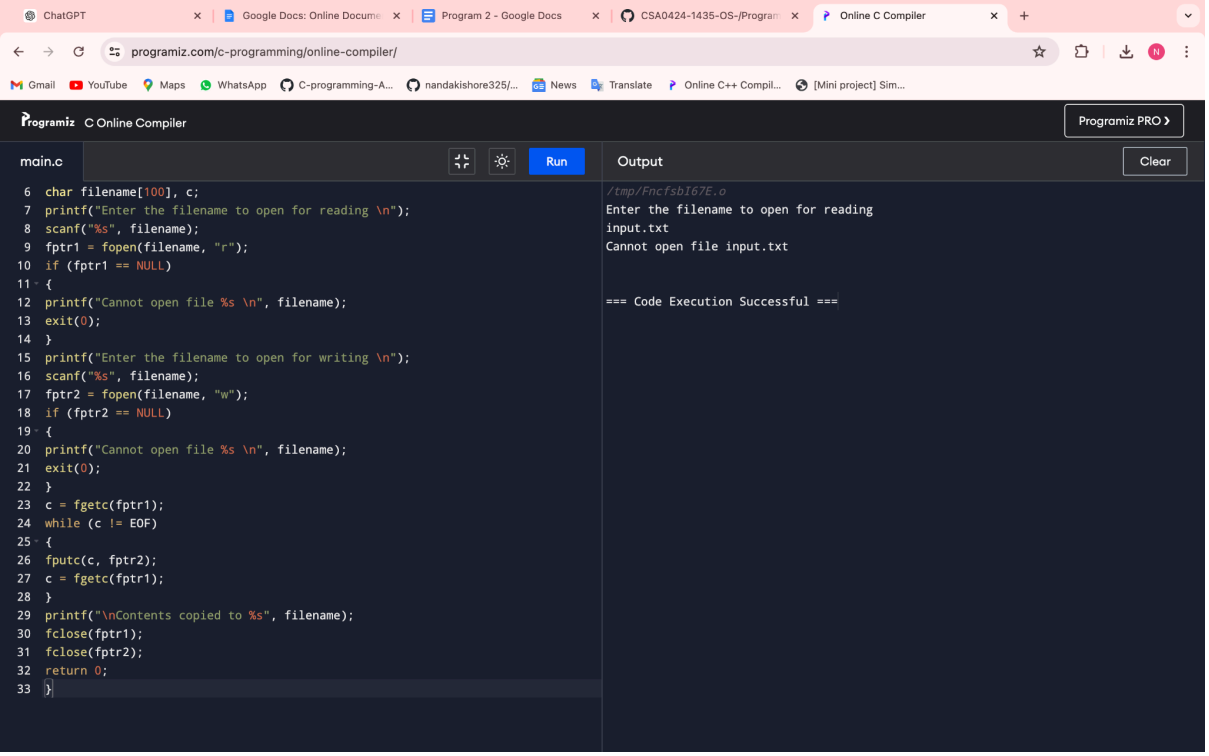
Aim :

Identify the system calls to copy the content of one file to another and illustrate the same using a C program.

Algorithm :

1. Prompt and read the source filename from the user.
2. Attempt to open the source file for reading ("r" mode).
3. If source file cannot be opened, print an error message and exit.
4. Prompt and read the destination filename from the user.
5. Attempt to open the destination file for writing ("w" mode).
6. If destination file cannot be opened, print an error message and exit.

Program & Output:



The screenshot shows a web browser with multiple tabs, including 'Online C Compiler'. The compiler interface displays a C program in a text editor on the left and its output on the right. The program, named 'main.c', prompts the user for a filename to read from and a filename to write to. It attempts to open the source file in 'r' mode and the destination file in 'w' mode. If either file cannot be opened, it prints an error message and exits. If both files are successfully opened, it copies the contents of the source file to the destination file using a loop of 'fgetc' and 'fputc' operations. The output window shows the program's execution: it prompts for a filename, receives 'input.txt', attempts to open it, and prints 'Cannot open file input.txt' before displaying '=== Code Execution Successful ==='.

```
main.c
6 char filename[100], c;
7 printf("Enter the filename to open for reading \n");
8 scanf("%s", filename);
9 fptr1 = fopen(filename, "r");
10 if (fptr1 == NULL)
11 {
12 printf("Cannot open file %s \n", filename);
13 exit(0);
14 }
15 printf("Enter the filename to open for writing \n");
16 scanf("%s", filename);
17 fptr2 = fopen(filename, "w");
18 if (fptr2 == NULL)
19 {
20 printf("Cannot open file %s \n", filename);
21 exit(0);
22 }
23 c = fgetc(fptr1);
24 while (c != EOF)
25 {
26 fputc(c, fptr2);
27 c = fgetc(fptr1);
28 }
29 printf("\nContents copied to %s", filename);
30 fclose(fptr1);
31 fclose(fptr2);
32 return 0;
33 }
```

Output

```
/tmp/FncfsbI67E.o
Enter the filename to open for reading
input.txt
Cannot open file input.txt

=== Code Execution Successful ===
```

Conclusion : In conclusion, the program efficiently copies the contents of one file to another, handling file input and output operations with error-checking for file opening. It demonstrates basic file handling techniques in C programming.