

EXP 26: Construct a C program to implement the file management operations.

```
#include <stdio.h>

#include <stdlib.h>

int main() {

    FILE *fp;

    char ch;

    char filename[100] = "file1.txt";

    char new_filename[100] = "file2.txt";

    char copy_filename[100] = "copy.txt";


    // 1. Create and write to a file

    fp = fopen(filename, "w");

    if (fp == NULL) {

        perror("Error creating file");

        return 1;

    }

    fprintf(fp, "Hello, this is a sample text.\n");

    fprintf(fp, "File Management Operations in C.\n");

    fclose(fp);

    printf("File '%s' created and written successfully.\n", filename);


    // 2. Read from the file

    fp = fopen(filename, "r");

    if (fp == NULL) {

        perror("Error reading file");

        return 1;

    }
```

```
}  
  
printf("\nContents of '%s':\n", filename);  
while ((ch = fgetc(fp)) != EOF) {  
    putchar(ch);  
}  
  
fclose(fp);
```

// 3. Copy contents to another file

```
FILE *src = fopen(filename, "r");  
FILE *dest = fopen(copy_filename, "w");  
if (src == NULL || dest == NULL) {  
    perror("Error opening files for copy");  
    return 1;  
}  
  
while ((ch = fgetc(src)) != EOF) {  
    fputc(ch, dest);  
}  
  
fclose(src);  
fclose(dest);  
  
printf("\nContents copied from '%s' to '%s'.\n", filename, copy_filename);
```

// 4. Rename the original file

```
if (rename(filename, new_filename) == 0) {  
    printf("File renamed from '%s' to '%s'.\n", filename, new_filename);  
} else {  
    perror("Error renaming file");  
}
```

// 5. Delete the copied file

```
if (remove(copy_filename) == 0) {  
    printf("File '%s' deleted successfully.\n", copy_filename);  
} else {  
    perror("Error deleting file");  
}  
  
return 0;  
}
```

Sample Output

```
File 'file1.txt' created and written successfully.  
  
Contents of 'file1.txt':  
Hello, this is a sample text.  
File Management Operations in C.  
  
Contents copied from 'file1.txt' to 'copy.txt'.  
File renamed from 'file1.txt' to 'file2.txt'.  
File 'copy.txt' deleted successfully.  
  
-----  
Process exited after 2.811 seconds with return value 0  
Press any key to continue . . . |
```