

EXPERIMENT-26

Construct a C program to implement the file management operations.

AIM:-

To construct a C program to implement file management operations such as creating, writing, reading, renaming, and deleting a file.

ALGORITHM:-

1. **Create a File:**
 - Use fopen with the "w" mode to create and open a file.
2. **Write Data to the File:**
 - Use fprintf or fputs to write data into the file.
3. **Read Data from the File:**
 - Use fgets or fscanf to read data from the file.
4. **Rename the File:**
 - Use the rename function to rename the file.
5. **Delete the File:**
 - Use the remove function to delete the file

CODE:-

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
int main() {
```

```
FILE *file;

char data[100];


// Create and write to a file

file = fopen("file.txt", "w");

if (file == NULL) {

    perror("Error creating file");

    return 1;

}

fprintf(file, "This is a sample file management program.\n");

fclose(file);

printf("File created and data written successfully.\n");


// Read the file

file = fopen("file.txt", "r");

if (file == NULL) {

    perror("Error opening file for reading");

    return 1;

}

printf("Reading data from the file:\n");

while (fgets(data, sizeof(data), file) != NULL) {

    printf("%s", data);

}

fclose(file);
```

```

// Rename the file

if (rename("file.txt", "new_file.txt") == 0) {

    printf("\nFile renamed successfully to 'new_file.txt'.\n");

} else {

    perror("Error renaming file");

    return 1;

}


// Delete the file

if (remove("new_file.txt") == 0) {

    printf("File deleted successfully.\n");

} else {

    perror("Error deleting file");

    return 1;

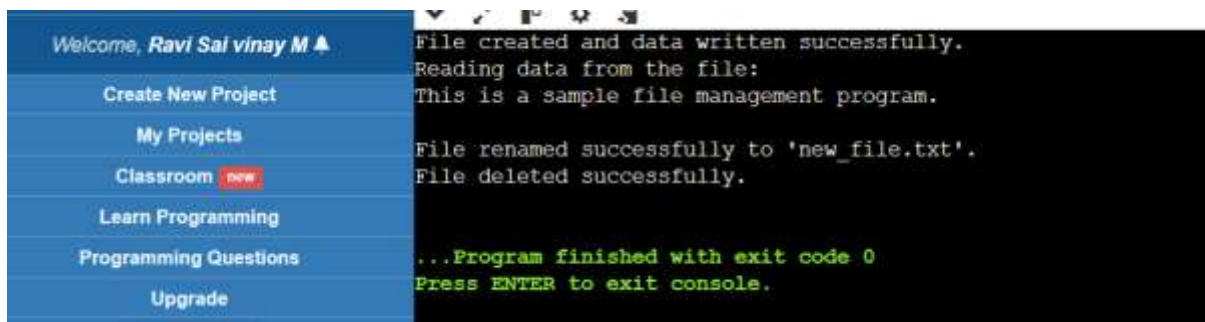
}


return 0;

}

```

OUTPUT:-



The screenshot shows a web application interface on the left and a terminal window on the right. The web interface has a blue sidebar with the following menu items: "Welcome, Ravi Sai vinay M ▲", "Create New Project", "My Projects", "Classroom new", "Learn Programming", "Programming Questions", and "Upgrade". The terminal window on the right displays the output of a program, showing file creation, reading, renaming, and deletion, followed by a message indicating the program finished with exit code 0 and a prompt to press ENTER to exit the console.

```

Welcome, Ravi Sai vinay M ▲
Create New Project
My Projects
Classroom new
Learn Programming
Programming Questions
Upgrade

File created and data written successfully.
Reading data from the file:
This is a sample file management program.

File renamed successfully to 'new_file.txt'.
File deleted successfully.

...Program finished with exit code 0
Press ENTER to exit console.

```

RESULT:-

The program successfully demonstrated file management operations such as creating, writing, reading, renaming, and deleting a file using C.