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

Aim

To develop a C program to perform basic file management operations: create, read, write, and append data to a file.

Algorithm

1. Start the program.
2. Display a menu for file operations (Create/Write, Read, Append, Exit).
3. Based on the user's choice:
    - **Create/Write**: Open a file in write mode, input data, and save it.
    - **Read**: Open a file in read mode and display its contents.
    - **Append**: Open a file in append mode and add new data.
4. Close the file after each operation.
5. Repeat until the user chooses to exit.
6. End the program.

Procedure

1. Use `fopen()` to create/open a file.
2. Perform operations using `fprintf()` for writing, `fscanf()` or `fgets()` for reading, and `fprintf()` for appending.
3. Handle user inputs and perform error checking (e.g., file not found).
4. Close the file using `fclose()`.

Code:

```
#include <stdio.h>

#include <stdlib.h>



void createFile() {

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

   if (file == NULL) {

      printf("Error creating file.\n");
```

```
        return;
    }
    printf("File created successfully.\n");
    fclose(file);
}

void writeFile() {
    FILE *file = fopen("file.txt", "w");
    if (file == NULL) {
        printf("Error opening file.\n");
        return;
    }
    char data[100];
    printf("Enter content to write into the file: ");
    getchar();
    fgets(data, 100, stdin);
    fprintf(file, "%s", data);
    printf("Data written successfully.\n");
    fclose(file);
}

void readFile() {
    FILE *file = fopen("file.txt", "r");
```

```
    if (file == NULL) {
        printf("Error opening file.\n");
        return;
    }
    char ch;
    printf("File content:\n");
    while ((ch = fgetc(file)) != EOF) {
        putchar(ch);
    }
    fclose(file);
}

void appendFile() {
    FILE *file = fopen("file.txt", "a");
    if (file == NULL) {
        printf("Error opening file.\n");
        return;
    }
    char data[100];
    printf("Enter content to append to the file: ");
    getchar();
    fgets(data, 100, stdin);
    fprintf(file, "%s", data);
```

```
    printf("Data appended successfully.\n");
    fclose(file);
}

int main() {
    int choice;
    do {
        printf("\nFile Management System\n");
        printf("1. Create File\n");
        printf("2. Write to File\n");
        printf("3. Read File\n");
        printf("4. Append to File\n");
        printf("5. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);
        switch (choice) {
            case 1: createFile(); break;
            case 2: writeFile(); break;
            case 3: readFile(); break;
            case 4: appendFile(); break;
            case 5: printf("Exiting...\n"); break;
            default: printf("Invalid choice. Try again.\n");
        }
```

```
    } while (choice != 5);

    return 0;

}
```

Result

The program successfully implements file management operations:

1. **Create File**: Creates an empty file named `file.txt`.
2. **Write File**: Writes user input to the file.
3. **Read File**: Reads and displays the file's contents.
4. **Append File**: Appends additional content to the file.

Output: