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

struct student {
    char name[50];
    int id;
    float grade;
};

void insertStudent(FILE *fptr);
void searchStudent(FILE *fptr);
void deleteStudent(FILE *fptr);
void increaseGrade(FILE *fptr);
void exitProgram();

int main() {
    printf("1- Insert the info of n students to a file\n");
    printf("2- Searching a student in the same file\n");
    printf("3- Deleting a student from the same file\n");
    printf("4- Increasing the grade of a student\n");
    printf("5- EXIT\n");

    int choice;
    printf("Enter your choice: ");
    scanf("%d", &choice);

    FILE *fptr = fopen("students.txt", "a+");
    if (fptr == NULL) {
        printf("Error opening file.\n");
        return 1;
    }

    switch (choice) {
        case 1:
            insertStudent(fptr);
            break;
        case 2:
            searchStudent(fptr);
            break;
        case 3:
            deleteStudent(fptr);
            break;
        case 4:
            increaseGrade(fptr);
            break;
        case 5:
            exitProgram();
            break;
        default:
            printf("Invalid choice. Please enter a number between 1 and
5.\n");
    }

    fclose(fptr);
    return 0;
}

void insertStudent(FILE *fptr) {
```

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    int n;
    printf("Please enter the number of students: ");
    scanf("%d", &n);

    struct student st;

    for (int i = 0; i < n; i++) {
        printf("Enter name, id, and grade for student %d: ", i );
        scanf("%s %d %f", st.name, &st.id, &st.grade);
        fwrite(&st, sizeof(struct student), 1, fptr);
    }
}

void searchStudent(FILE *fptr) {
    rewind(fptr);

    int searchId;
    printf("Please enter student ID to search: ");
    scanf("%d", &searchId);

    struct student st;

    while (fread(&st, sizeof(struct student), 1, fptr)) {
        if (st.id == searchId) {
            printf("Name: %s, ID: %d, Grade: %.2f\n", st.name, st.id,
st.grade);
            return;
        }
    }

    printf("Student with ID %d not found.\n", searchId);
}

void deleteStudent(FILE *fptr) {
    int deleteId;
    printf("Please enter student ID to delete: ");
    scanf("%d", &deleteId);

    FILE *temp = fopen("temp.txt", "w");
    if (temp == NULL) {
        printf("Error opening temporary file.\n");
        return;
    }

    struct student st;

    while (fread(&st, sizeof(struct student), 1, fptr)) {
        if (st.id != deleteId) {
            fwrite(&st, sizeof(struct student), 1, temp);
        }
    }

    fclose(fptr);
    fclose(temp);

    remove("students.txt");
    rename("temp.txt", "students.txt");
    printf("Student with ID %d deleted.\n", deleteId);
```

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}

void increaseGrade(FILE *fptr) {
    int searchId;
    printf("Enter student ID to increase grade: ");
    scanf("%d", &searchId);

    float increase;
    printf("Enter the increase in grade: ");
    scanf("%f", &increase);

    struct student st;

    while (fread(&st, sizeof(struct student), 1, fptr)) {
        if (st.id == searchId) {
            st.grade += increase;
            fseek(fptr, sizeof(struct student), SEEK_CUR);
            fwrite(&st, sizeof(struct student), 1, fptr);
            printf("Grade increased successfully.\n");
            return;
        }
    }

    printf("Student with ID %d not found.\n", searchId);
}

void exitProgram() {
    printf("Exit program.\n");
    exit(0);
}
```