CODE: MICROPROJECT on MUSIC LIBRARY MANAGEMENT

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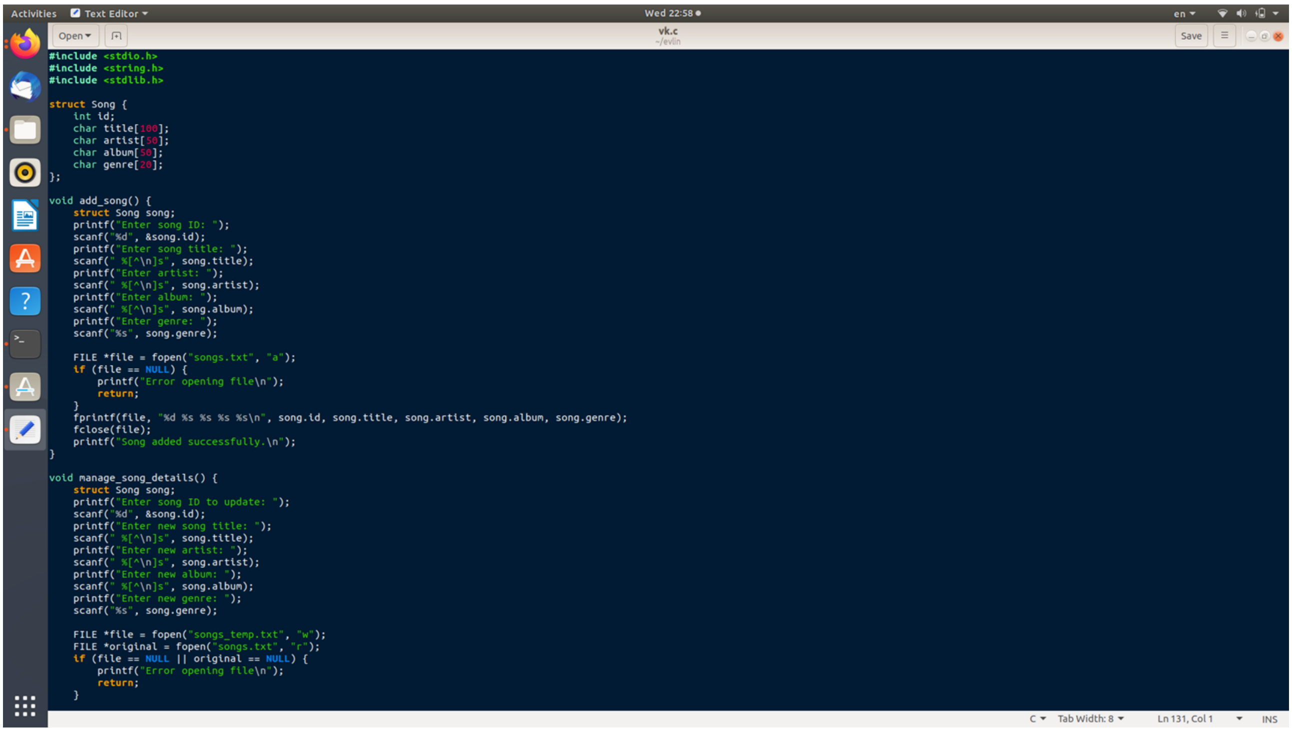
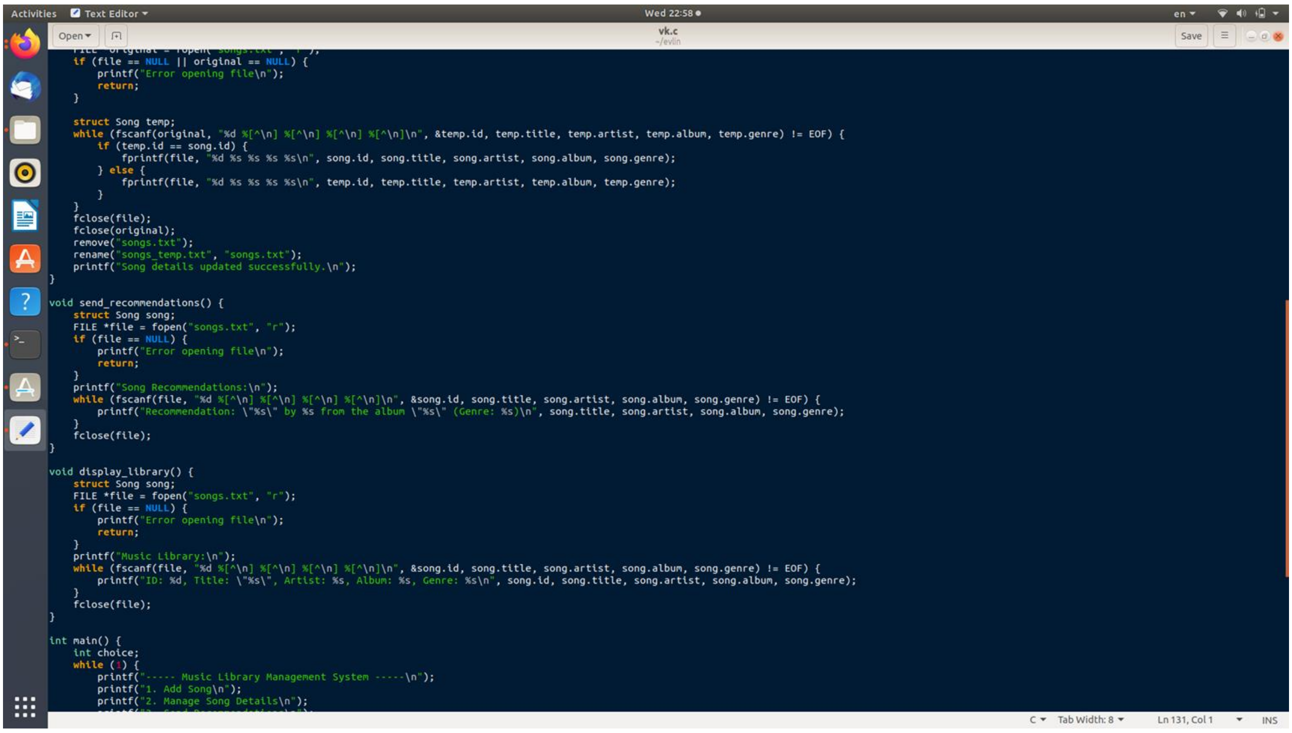
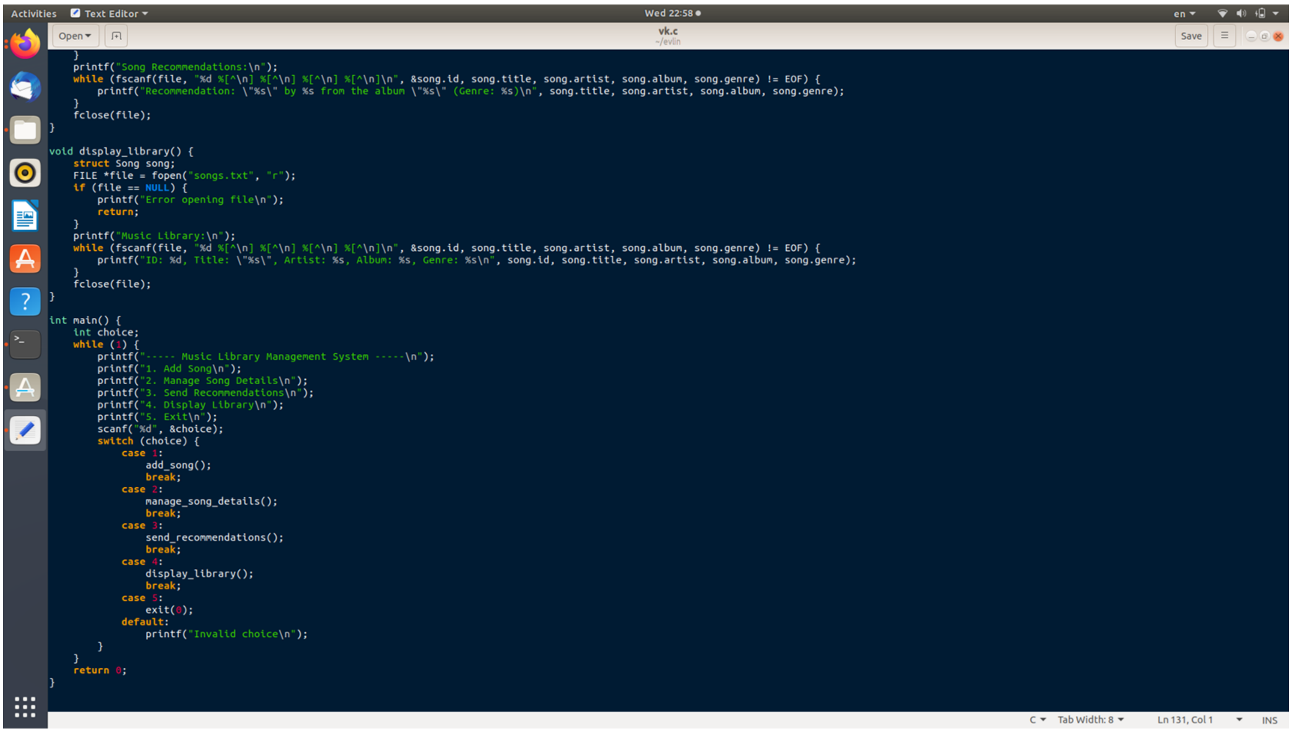
S3 CSE B



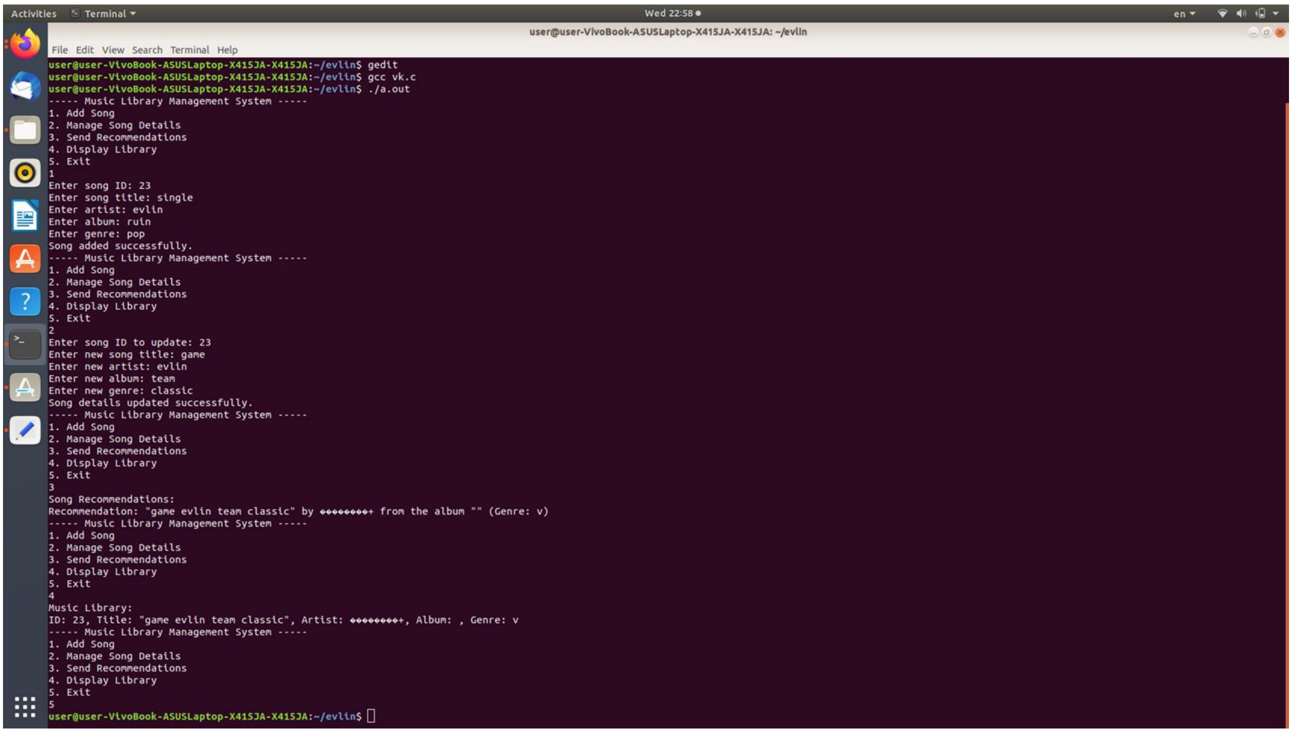
```c
#include <stdio.h>
#include <string.h>
#include <stdlib.h>

struct Song {
    int id;
    char title[100];
    char artist[50];
    char album[50];
    char genre[20];
};

void add_song() {
    struct Song song;
    printf("Enter song ID: ");
    scanf("%d", &song.id);
    printf("Enter song title: ");
    scanf(" %[^\n]s", song.title);
    printf("Enter artist: ");
    scanf(" %[^\n]s", song.artist);
    printf("Enter album: ");
    scanf(" %[^\n]s", song.album);
    printf("Enter genre: ");
    scanf("%s", song.genre);

    FILE *file = fopen("songs.txt", "a");
    if (file == NULL) {
        printf("Error opening file\n");
        return;
    }
    fprintf(file, "%d %s %s %s %s\n", song.id, song.title, song.artist, song.album, song.genre);
    fclose(file);
    printf("Song added successfully.\n");
}

void manage_song_details() {
    struct Song song;
    printf("Enter song ID to update: ");
    scanf("%d", &song.id);
    printf("Enter new song title: ");
    scanf(" %[^\n]s", song.title);
    printf("Enter new artist: ");
    scanf(" %[^\n]s", song.artist);
    printf("Enter new album: ");
    scanf(" %[^\n]s", song.album);
    printf("Enter new genre: ");
    scanf("%s", song.genre);

    FILE *file = fopen("songs_temp.txt", "w");
    FILE *original = fopen("songs.txt", "r");
    if (file == NULL || original == NULL) {
        printf("Error opening file\n");
        return;
    }
```



```c
    FILE *original = fopen("songs.txt", "r");
    if (file == NULL || original == NULL) {
        printf("Error opening file\n");
        return;
    }

    struct Song temp;
    while (fscanf(original, "%d %[^\n] %[^\n] %[^\n] %[^\n]\n", &temp.id, temp.title, temp.artist, temp.album, temp.genre) != EOF) {
        if (temp.id == song.id) {
            fprintf(file, "%d %s %s %s %s\n", song.id, song.title, song.artist, song.album, song.genre);
        } else {
            fprintf(file, "%d %s %s %s %s\n", temp.id, temp.title, temp.artist, temp.album, temp.genre);
        }
    }
    fclose(file);
    fclose(original);
    remove("songs.txt");
    rename("songs_temp.txt", "songs.txt");
    printf("Song details updated successfully.\n");
}

void send_recommendations() {
    struct Song song;
    FILE *file = fopen("songs.txt", "r");
    if (file == NULL) {
        printf("Error opening file\n");
        return;
    }
    printf("Song Recommendations:\n");
    while (fscanf(file, "%d %[^\n] %[^\n] %[^\n] %[^\n]\n", &song.id, song.title, song.artist, song.album, song.genre) != EOF) {
        printf("Recommendation: \"%s\" by %s from the album \"%s\" (Genre: %s)\n", song.title, song.artist, song.album, song.genre);
    }
    fclose(file);
}

void display_library() {
    struct Song song;
    FILE *file = fopen("songs.txt", "r");
    if (file == NULL) {
        printf("Error opening file\n");
        return;
    }
    printf("Music Library:\n");
    while (fscanf(file, "%d %[^\n] %[^\n] %[^\n] %[^\n]\n", &song.id, song.title, song.artist, song.album, song.genre) != EOF) {
        printf("ID: %d, Title: \"%s\", Artist: %s, Album: %s, Genre: %s\n", song.id, song.title, song.artist, song.album, song.genre);
    }
    fclose(file);
}

int main() {
    int choice;
    while (1) {
        printf("----- Music Library Management System -----\n");
        printf("1. Add Song\n");
        printf("2. Manage Song Details\n");
        printf("3. Send Recommendations\n");
```



```c
    }
    printf("Song Recommendations:\n");
    while (fscanf(file, "%d %[^\n] %[^\n] %[^\n] %[^\n]\n", &song.id, song.title, song.artist, song.album, song.genre) != EOF) {
        printf("Recommendation: \"%s\" by %s from the album \"%s\" (Genre: %s)\n", song.title, song.artist, song.album, song.genre);
    }
    fclose(file);
}

void display_library() {
    struct Song song;
    FILE *file = fopen("songs.txt", "r");
    if (file == NULL) {
        printf("Error opening file\n");
        return;
    }
    printf("Music Library:\n");
    while (fscanf(file, "%d %[^\n] %[^\n] %[^\n] %[^\n]\n", &song.id, song.title, song.artist, song.album, song.genre) != EOF) {
        printf("ID: %d, Title: \"%s\", Artist: %s, Album: %s, Genre: %s\n", song.id, song.title, song.artist, song.album, song.genre);
    }
    fclose(file);
}

int main() {
    int choice;
    while (1) {
        printf("----- Music Library Management System -----\n");
        printf("1. Add Song\n");
        printf("2. Manage Song Details\n");
        printf("3. Send Recommendations\n");
        printf("4. Display Library\n");
        printf("5. Exit\n");
        scanf("%d", &choice);
        switch (choice) {
            case 1:
                add_song();
                break;
            case 2:
                manage_song_details();
                break;
            case 3:
                send_recommendations();
                break;
            case 4:
                display_library();
                break;
            case 5:
                exit(0);
            default:
                printf("Invalid choice\n");
        }
    }
    return 0;
}
```



```
user@user-VivoBook-ASUSLaptop-X415JA-X415JA:~/evlin$ gedit
user@user-VivoBook-ASUSLaptop-X415JA-X415JA:~/evlin$ gcc vk.c
user@user-VivoBook-ASUSLaptop-X415JA-X415JA:~/evlin$ ./a.out
----- Music Library Management System -----
1. Add Song
2. Manage Song Details
3. Send Recommendations
4. Display Library
5. Exit
1
Enter song ID: 23
Enter song title: single
Enter artist: evlin
Enter album: ruin
Enter genre: pop
Song added successfully.
----- Music Library Management System -----
1. Add Song
2. Manage Song Details
3. Send Recommendations
4. Display Library
5. Exit
2
Enter song ID to update: 23
Enter new song title: game
Enter new artist: evlin
Enter new album: team
Enter new genre: classic
Song details updated successfully.
----- Music Library Management System -----
1. Add Song
2. Manage Song Details
3. Send Recommendations
4. Display Library
5. Exit
3
Song Recommendations:
Recommendation: "game evlin team classic" by ◆◆◆◆◆◆◆◆+ from the album "" (Genre: v)
----- Music Library Management System -----
1. Add Song
2. Manage Song Details
3. Send Recommendations
4. Display Library
5. Exit
4
Music Library:
ID: 23, Title: "game evlin team classic", Artist: ◆◆◆◆◆◆◆◆+, Album: , Genre: v
----- Music Library Management System -----
1. Add Song
2. Manage Song Details
3. Send Recommendations
4. Display Library
5. Exit
5
user@user-VivoBook-ASUSLaptop-X415JA-X415JA:~/evlin$ 
```