UNIVERSITY INSTITUTE OF COMPUTING

Bachelor of computer application (BCA)

Project

Data Structure

Submitted By: Supervision By:

Name: ankush kumar   **Name**: monika choudhry

UID: 24bca10455   **Designation**: assistant professor

Class & section: 24bca7(A)

MUSIC MANAGEMENT SYSTEM

AIM: To develop a music playlist manager by using a data structure using C

Procedure code

```c
#include <stdio.h>

#include <stdlib.h>

#include <string.h>

// Define structure for a song
```

```c
struct Song {
    char title[100];
    struct Song* next;
};

// Head and current pointers
struct Song* head = NULL;
struct Song* current = NULL;

// Function to add a new song to the playlist
void addSong() {
    struct Song* newSong = (struct Song*)malloc(sizeof(struct Song));

    printf("Enter song title: ");
    getchar();  // clear newline from buffer
    fgets(newSong->title, 100, stdin);
```

```c
    newSong->title[strcspn(newSong->title, "\n")] = '\0'; // remove newline

    newSong->next = NULL;

    if (head == NULL) {
        head = newSong;
    } else {
        struct Song* temp = head;
        while (temp->next != NULL) {
            temp = temp->next;
        }
        temp->next = newSong;
    }

    printf("'%s' added to playlist.\n", newSong->title);
}
```

```c
// Function to display the entire playlist
void displayPlaylist() {
    if (head == NULL) {
        printf("Playlist is empty.\n");
        return;
    }

    printf("\n--- Playlist ---\n");
    struct Song* temp = head;
    while (temp != NULL) {
        printf("- %s\n", temp->title);
        temp = temp->next;
    }
}

// Function to play next song
```

```c
void playNext() {
    if (current == NULL)
        current = head;
    else
        current = current->next;

    if (current != NULL)
        printf("Now playing: %s\n", current->title);
    else
        printf("No more songs in the playlist.\n");
}

// Main function with menu
int main() {
    int choice;
```

```c
while (1) {

    printf("\n--- Music Playlist Manager ---\n");

    printf("1. Add Song\n");

    printf("2. Display Playlist\n");

    printf("3. Play Next Song\n");

    printf("0. Exit\n");

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


    switch (choice) {

        case 1:

            addSong();

            break;

        case 2:

            displayPlaylist();

            break;
```

```c
        case 3:

            playNext();

            break;

        case 0:

            printf("Exiting... Thank you!\n");

            return 0;

        default:

            printf("Invalid choice. Try again.\n");

    }

}
```

OUTPUT

```
--- Music Playlist Manager ---
1. Add Song
2. Display Playlist
3. Play Next Song
0. Exit
Enter your choice: 1
Enter song title: LONG TIME NO SEE
'LONG TIME NO SEE' added to playlist.

--- Music Playlist Manager ---
1. Add Song
2. Display Playlist
3. Play Next Song
0. Exit
Enter your choice: 2

--- Playlist ---
- LONG TIME NO SEE
```

```
--- Music Playlist Manager ---
1. Add Song
2. Display Playlist
3. Play Next Song
0. Exit
Enter your choice: 3
Now playing: LONG TIME NO SEE

--- Music Playlist Manager ---
1. Add Song
2. Display Playlist
3. Play Next Song
0. Exit
Enter your choice: 0
Exiting... Thank you!


=== Code Execution Successful ===
```