

**PROJECT:**

# **Movie Ticket Management System**

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**SUBJECT=**PROGRAMMING IN C (PROJECT)

# Purpose of the Project

- - To create a menu-driven movie ticket booking system.
- - To demonstrate the use of structures, file handling, and functions.
- - To provide a real-world simulation of ticket booking.

## Constraints

- Only one movie record displayed at a time.
- Limited number of tickets.
- Input validation required.
- Basic text-based interface (CLI).

# Introduction

- This project is a simple Movie Ticket Management System developed using C programming. It allows users to book movie tickets, view movie details, and manage ticket information.

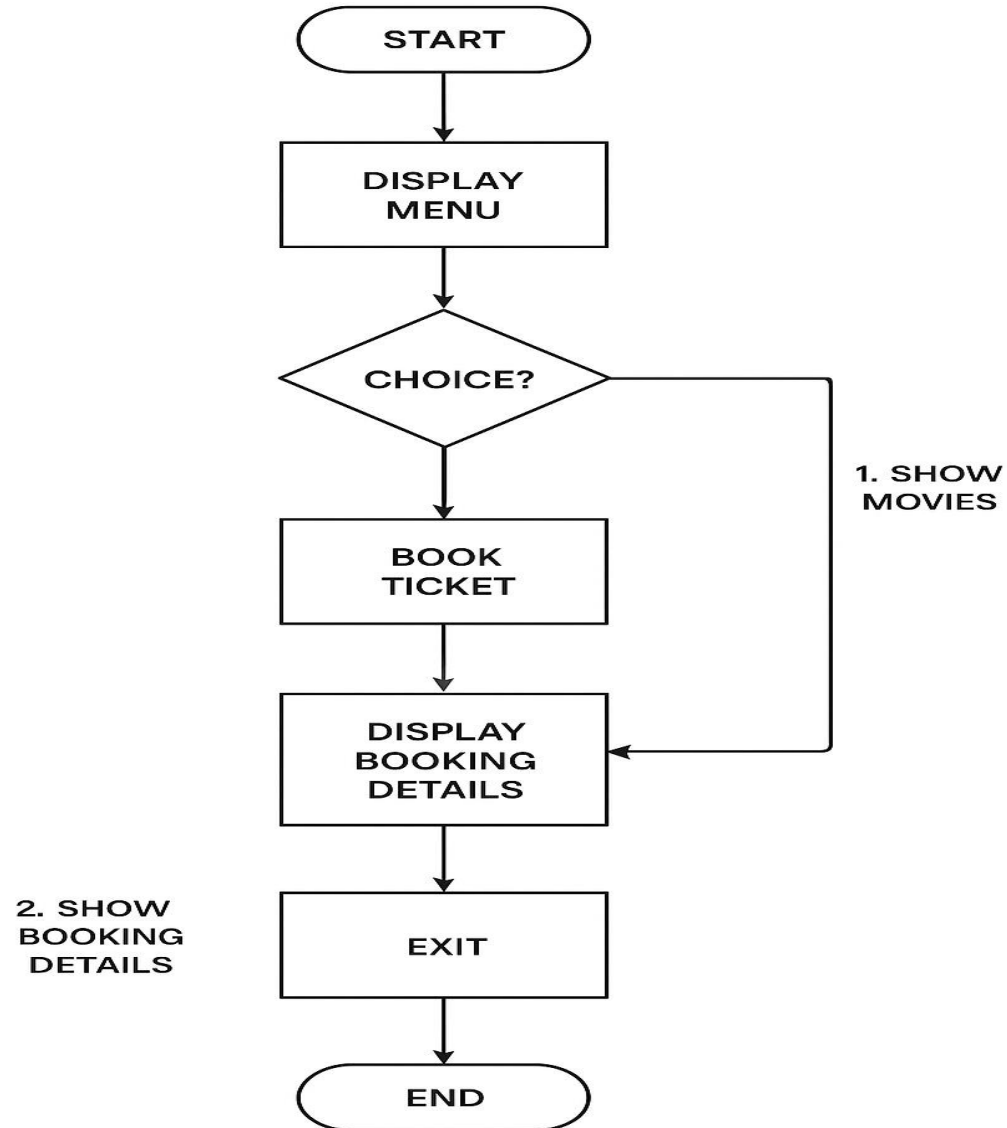
# Syntax Concepts Used

- - Structures (struct)
- - File handling (fopen, fwrite, fread)
- - Functions
- - Conditional statements
- - Switch-case menu
- - Loops (for, while)

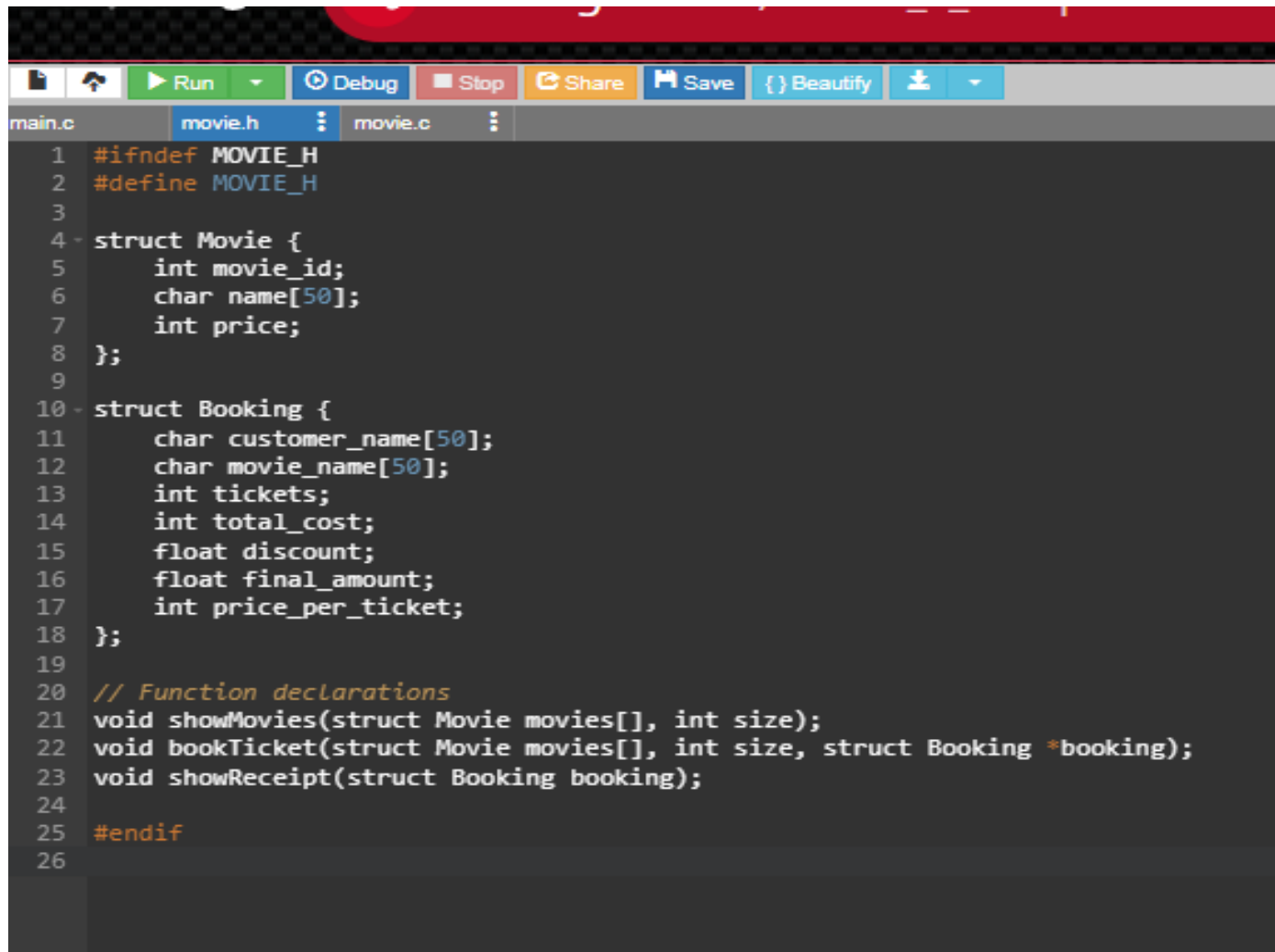
# Keywords Used

- struct, FILE, fopen, fclose, fwrite, fread, if, else, switch,
- case, return, char, int, void

# Flowchart:



# PROGRAM: (header file)



```
main.c  movie.h  movie.c
1  #ifndef MOVIE_H
2  #define MOVIE_H
3
4  struct Movie {
5      int movie_id;
6      char name[50];
7      int price;
8  };
9
10 struct Booking {
11     char customer_name[50];
12     char movie_name[50];
13     int tickets;
14     int total_cost;
15     float discount;
16     float final_amount;
17     int price_per_ticket;
18 };
19
20 // Function declarations
21 void showMovies(struct Movie movies[], int size);
22 void bookTicket(struct Movie movies[], int size, struct Booking *booking);
23 void showReceipt(struct Booking booking);
24
25 #endif
26
```

## (function file):

```

1 #include <stdio.h>
2 #include <string.h>
3 #include "movie.h"
4
5 void showMovies(struct Movie movies[], int size) {
6     printf("\n Available Movies \n");
7     for (int i = 0; i < size; i++) {
8         printf("%d. %s (Price: Rs %d per ticket)\n",
9             movies[i].movie_id, movies[i].name, movies[i].price);
10    }
11 }
12
13 void bookTicket(struct Movie movies[], int size, struct Booking *booking) {
14     printf("\nEnter your name: ");
15     scanf("%s", booking->customer_name);
16
17     int id, found = 0;
18     printf("\nEnter Movie ID to Book: ");
19     scanf("%d", &id);
20
21     for (int i = 0; i < size; i++) {
22         if (movies[i].movie_id == id) {
23             found = 1;
24
25             strcpy(booking->movie_name, movies[i].name);
26
27             printf("Enter number of tickets: ");
28             scanf("%d", &booking->tickets);
29
30             booking->price_per_ticket = movies[i].price;
31             booking->total_cost = booking->tickets * movies[i].price;
32
33             // Discounts
34             if (booking->tickets >= 3 && booking->tickets <= 5)
35                 booking->discount = booking->total_cost * 0.10;
36             else if (booking->tickets > 5)
37                 booking->discount = booking->total_cost * 0.20;
38             else
39                 booking->discount = 0;
40
41             booking->final_amount = booking->total_cost - booking->discount;
42
43             printf("\nTickets booked successfully!\n");
44             return;
45         }
46     }
47
48     if (!found) {
49         printf("Invalid Movie ID!\n");
50     }
51 }
52
53 void showReceipt(struct Booking booking) {
54     printf("\n BOOKING RECEIPT \n");
55 }
56
57 int main() {
58     struct Movie movies[] = {
59         {1, "The Godfather", 100},
60         {2, "The Godfather Part II", 100},
61         {3, "The Godfather Part III", 100},
62         {4, "The Godfather: A Novel Adaptation", 100},
63         {5, "The Godfather: The Story of the Mafia", 100},
64         {6, "The Godfather: The Story of the Mafia Part II", 100},
65         {7, "The Godfather: The Story of the Mafia Part III", 100},
66         {8, "The Godfather: The Story of the Mafia Part IV", 100},
67         {9, "The Godfather: The Story of the Mafia Part V", 100},
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70         {12, "The Godfather: The Story of the Mafia Part VIII", 100},
71         {13, "The Godfather: The Story of the Mafia Part IX", 100},
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86         {28, "The Godfather: The Story of the Mafia Part XXIV", 100},
87         {29, "The Godfather: The Story of the Mafia Part XXV", 100},
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94         {36, "The Godfather: The Story of the Mafia Part XXXII", 100},
95         {37, "The Godfather: The Story of the Mafia Part XXXIII", 100},
96         {38, "The Godfather: The Story of the Mafia Part XXXIV", 100},
97         {39, "The Godfather: The Story of the Mafia Part XXXV", 100},
98         {40, "The Godfather: The Story of the Mafia Part XXXVI", 100},
99         {41, "The Godfather: The Story of the Mafia Part XXXVII", 100},
100        {42, "The Godfather: The Story of the Mafia Part XXXVIII", 100},
101        {43, "The Godfather: The Story of the Mafia Part XXXIX", 100},
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103        {45, "The Godfather: The Story of the Mafia Part XLI", 100},
104        {46, "The Godfather: The Story of the Mafia Part XLII", 100},
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108        {50, "The Godfather: The Story of the Mafia Part XLVI", 100},
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110        {52, "The Godfather: The Story of the Mafia Part XLVIII", 100},
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114        {56, "The Godfather: The Story of the Mafia Part LII", 100},
115        {57, "The Godfather: The Story of the Mafia Part LIII", 100},
116        {58, "The Godfather: The Story of the Mafia Part LIV", 100},
117        {59, "The Godfather: The Story of the Mafia Part LV", 100},
118        {60, "The Godfather: The Story of the Mafia Part LVI", 100},
119        {61, "The Godfather: The Story of the Mafia Part LVII", 100},
120        {62, "The Godfather: The Story of the Mafia Part LVIII", 100},
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126        {68, "The Godfather: The Story of the Mafia Part LXIV", 100},
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149        {91, "The Godfather: The Story of the Mafia Part LXXXVII", 100},
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159        {101, "The Godfather: The Story of the Mafia Part LXXXXVII", 100},
160        {102, "The Godfather: The Story of the Mafia Part LXXXXVIII", 100},
161        {103, "The Godfather: The Story of the Mafia Part LXXXXIX", 100},
162        {104, "The Godfather: The Story of the Mafia Part LXXXXX", 100},
163        {105, "The Godfather: The Story of the Mafia Part LXXXXXI", 100},
164        {106, "The Godfather: The Story of the Mafia Part LXXXXXII", 100},
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174        {116, "The Godfather: The Story of the Mafia Part LXXXXXXII", 100},
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181        {123, "The Godfather: The Story of the Mafia Part LXXXXXXIX", 100},
182        {124, "The Godfather: The Story of the Mafia Part LXXXXXXX", 100},
183        {125, "The Godfather
```



```
main.c movie.h movie.c
25
26 strcpy(booking->movie_name, movies[i].name);
27
28 printf("Enter number of tickets: ");
29 scanf("%d", &booking->tickets);
30
31 booking->price_per_ticket = movies[i].price;
32 booking->total_cost = booking->tickets * movies[i].price;
33
34 // Discounts
35 if (booking->tickets >= 3 && booking->tickets <= 5)
36     booking->discount = booking->total_cost * 0.10;
37 else if (booking->tickets > 5)
38     booking->discount = booking->total_cost * 0.20;
39 else
40     booking->discount = 0;
41
42 booking->final_amount = booking->total_cost - booking->discount;
43
44 printf("\nTickets booked successfully!\n");
45 return;
46 }
47 }
48
49 if (!found) {
50     printf("Invalid Movie ID!\n");
51 }
52 }
53
54 void showReceipt(struct Booking booking) {
55
56     printf("\n..... BOOKING RECEIPT ..... \n");
57     printf("----- \n");
58     printf("                CINEMA WORLD MULTIPLEX \n");
59     printf("----- \n");
60
61     printf("Customer Name   : %s \n", booking.customer_name);
62     printf("Movie Booked    : %s \n", booking.movie_name);
63     printf("Tickets         : %d \n", booking.tickets);
64     printf("Cost per Ticket : Rs %d \n", booking.price_per_ticket);
65
66     printf("----- \n");
67     printf("Total Cost      : Rs %d \n", booking.total_cost);
68
69     if (booking.discount > 0)
70         printf("Discount Applied: Rs %.2f \n", booking.discount);
71     else
72         printf("Discount Applied: Rs 0.00 \n");
73
74     printf("----- \n");
75     printf("FINAL AMOUNT    : Rs %.2f \n", booking.final_amount);
76     printf("----- \n");
77     printf("                THANK YOU! ENJOY YOUR SHOW \n");
78     printf("..... \n");
79 }
80
```

# (main file):

```
1 #include <stdio.h>
2 #include "movie.h"
3
4 int main() {
5
6     struct Movie movies[3] = {
7         {1, "Animal", 250},
8         {2, "Bajrangi Bhaijaan", 200},
9         {3, "Stranger's Things", 300}
10    };
11
12    struct Booking booking;
13    int choice;
14
15    while (1) {
16        printf("\n..... MOVIE TICKET MANAGEMENT SYSTEM ..... \n");
17        printf("1. Show Movies\n");
18        printf("2. Book Ticket\n");
19        printf("3. Show Booking Receipt\n");
20        printf("4. Exit\n");
21        printf("Enter your choice: ");
22        scanf("%d", &choice);
23
24        switch (choice) {
25
26            case 1:
27                showMovies(movies, 3);
28                break;
29
30            case 2:
31                bookTicket(movies, 3, &booking);
32                break;
33
34            case 3:
35                showReceipt(booking);
36                break;
37
38            case 4:
39                printf("\nThank you for using Movie Ticket System!\n");
40                return 0;
41
42            default:
43                printf("\nInvalid Choice! Try again.\n");
44        }
45    }
46
47    return 0;
48 }
49
```

# OUTPUT:

```
..... MOVIE TICKET MANAGEMENT SYSTEM .....
1. Show Movies
2. Book Ticket
3. Show Booking Receipt
4. Exit
Enter your choice: 1

    Available Movies
1. Animal (Price: Rs 250 per ticket)
2. Bajrangi Bhaijaan (Price: Rs 200 per ticket)
3. Stranger's Things (Price: Rs 300 per ticket)

..... MOVIE TICKET MANAGEMENT SYSTEM .....
1. Show Movies
2. Book Ticket
3. Show Booking Receipt
4. Exit
Enter your choice: 2

Enter your name: Abhijeet Panwar

Enter Movie ID to Book: 2
Enter number of tickets: 2

Tickets booked successfully!

..... MOVIE TICKET MANAGEMENT SYSTEM .....
1. Show Movies
2. Book Ticket
3. Show Booking Receipt
4. Exit
Enter your choice: 3

..... BOOKING RECEIPT .....
..... CINEMA WORLD MULTIPLEX .....
Customer Name   : Abhijeet Panwar
Movie Booked    : Bajrangi Bhaijaan
Tickets         : 2
Cost per Ticket : Rs 200
-----
Total Cost      : Rs 400
Discount Applied: Rs 0.00
-----
FINAL AMOUNT    : Rs 400.00
-----
THANK YOU! ENJOY YOUR SHOW
-----

..... MOVIE TICKET MANAGEMENT SYSTEM .....
1. Show Movies
2. Book Ticket
3. Show Booking Receipt
4. Exit
Enter your choice: 4

Thank you for using Movie Ticket System!

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

# Conclusion

- This project demonstrates a basic implementation of a Movie Ticket Management System. It shows the use of file handling, structures, user-defined functions, and menu-driven programming.