

# **-MOVIE TICKET BOOKING SYSTEM-**

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Roll No-13

C Programming

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## **-INTRODUCTION-**

The project is developed based movie ticket booking system in C. It allows users to select a movie, choose a showtime, pick seats, and calculate the total cost. This project also provides solution to Factors like- single platform multiple booking types, slot management, price per booking, time slot management etc.

Main purpose of this project is to ensuring efficient seat selection, payment calculation, and seat availability management.

## **-SYSTEM REQUIREMENTS-**

### **-Hardware Requirements-**

Standard personal computer with sufficient RAM and processing power to run a console-based application.

## -Software Requirements-

# Operating System: Windows/Linux/macOS

# Development Environment: Code editor (e.g., Vs Code), GCC compiler.

## -DESIGN AND DEVELOPMENT-

The program initializes a **matrix of movie structures**, each containing an array representing seat availability. Then using **various functions assigned to each purpose** which include

No of persons who wish to watch the movie

showing booked seats (includes within same function),

adding 70 seats to an array,

Asking the user to choose the seats which is given to a new array,

New array is compared to array including 70 seats

Giving condition for re booking of same seat(new function),

Deleting the compared seats from the array including 70 seats

Another function including payment options.

Then User interacts a **menu-driven interface** to select movies, show timings giving appropriate function call . Input validation ensures only valid seat selections are accepted .

## **-PSEUDOCODE-**

START

Struct movie:

seat array of size MAX\_SEATS Function info(nn, selectedSeats, nnSelectedSeats):

Prompt user for number of persons

Display seat selection options

Show already booked seats

Function addSeats(seat):

Initialize seat array with seat numbers 1 to MAX\_SEATS  
Function

checkFunction(num, seat, selectedSeats, nn):

Check if the seat number is already selected

Check if the seat number is valid and available

Return validity status Function

fullFunction(seat, selectedSeats, nn):

For each person:

Prompt for seat number until a valid number is entered

Store the selected seat number Update seat array to mark  
selected seats as unavailable Function

paymentID(selectedSeats, nn):

Initialize payment amounts

Calculate total payment based on seat types

Add fixed booking fee and display total payment

Main function:

Declare variables Initialize seat availability for movies and showtimes

Display movie choices and prompt user for selection

While choice is not EXIT:

Prompt user for showtime selection

If valid movie and showtime selection:

Initialize selectedSeats array

Call info function

Call fullFunction to select seats

Call paymentID to calculate and display payment

Else:

Display invalid choice message

Prompt user to continue or exit

End

## **-TESTING AND RESULT-**

Test Case 1: Selecting seats sequentially.

```

PS C:\Users\gh\Desktop\C LEARNING\~C~> & 'c:\U
s\bin\WindowsDebugLauncher.exe' '--stdin=Micros
' '--stderr=Microsoft-MIEngine-Error-ohoztewc.z
bin\gdb.exe' '--interpreter=mi'
*MOVIE TICKET BOOKING SYSTEM*
Choose The Movie
1. KALKI
2. PARADISE
3. BIG BEN
4. EXIT
Enter Your Choice: 1

Choose the time:
1. 7:30 AM
2. 10:00 AM
3. 2:30 PM
4. 5:30 PM
5. 9:30 PM
Enter your choice: 1

Enter number of persons: 4

Select the seats from given below:
PLATINUM
70 69 68 67 66    65 64 63 62 61
60 59 58 57 56    55 54 53 52 51

NORMAL
50 49 48 47 46    45 44 43 42 41
40 39 38 37 36    35 34 33 32 31
30 29 28 27 26    25 24 23 22 21
20 19 18 17 16    15 14 13 12 11
10  9  8  7  6     5  4  3  2  1

*****
SCREEN

```

```

Booked seats are:
Enter the seat number: 24
Enter the seat number: 25
Enter the seat number: 55
Enter the seat number: 54
TOTAL: 840

```

Test Case 2: Attempting to select already booked seats.

```

Do you want to continue? (y/n): y
Choose The Movie
1. KALKI
2. PARADISE
3. BIG BEN
4. EXIT
Enter Your Choice: 1

Choose the time:
1. 7:30 AM
2. 10:00 AM
3. 2:30 PM
4. 5:30 PM
5. 9:30 PM
Enter your choice: 1

Enter number of persons: 2

Select the seats from given below:
PLATINUM
70 69 68 67 66    65 64 63 62 61
60 59 58 57 56    55 54 53 52 51

NORMAL
50 49 48 47 46    45 44 43 42 41
40 39 38 37 36    35 34 33 32 31
30 29 28 27 26    25 24 23 22 21
20 19 18 17 16    15 14 13 12 11
10  9  8  7  6     5  4  3  2  1

*****
SCREEN

```

```

Booked seats are:
Enter the seat number: 24
Invalid seat number.
Enter the seat number: 25
Invalid seat number.
Enter the seat number: 27
Enter the seat number: 26
TOTAL: 340
Do you want to continue? (y/n): y

```

Test Case 3: Calculating payment for different types of seats.

```
Choose The Movie
1. KALKI
2. PARADISE
3. BIG BEN
4. EXIT
Enter Your Choice: 3

Choose the time:
1. 7:30 AM
2. 10:00 AM
3. 2:30 PM
4. 5:30 PM
5. 9:30 PM
Enter your choice: 4

Enter number of persons: 4

Select the seats from given below:
PLATINUM
70 69 68 67 66      65 64 63 62 61
60 59 58 57 56      55 54 53 52 51

NORMAL
50 49 48 47 46      45 44 43 42 41
40 39 38 37 36      35 34 33 32 31
30 29 28 27 26      25 24 23 22 21
20 19 18 17 16      15 14 13 12 11
10  9  8  7  6       5  4  3  2  1

*****
SCREEN
Booked seats are:
Enter the seat number: 1
Enter the seat number: 2
Enter the seat number: 3
Enter the seat number: 4
TOTAL: 640
Do you want to continue? (y/n): n
PS C:\Users\gh\Desktop\C LEARNING\~C~> █
```

**-Discussion of Results-**

The system effectively manages seat bookings and calculates payments accurately. It handles input errors gracefully and provides clear prompts to users.

**-CONCLUSION-**

## **- SUMMARY OF THE PROJECT-**

The Movie Ticket Booking System in C successfully automates the process of reserving movie seats,select movies in accordance with time and payment according tho the class.

### **Future Enhancements**

# Implementing user authentication.

# Adding email/SMS notifications for booking confirmations.

# Integrating a graphical user interface for improved usability.

## **-REFERENCES-**

Chatgpt ,programiz for complex loops and reset booked seat for another timings

---

## **-APPENDICES-**

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

```
#define SEATS 70
```

```
struct movie {  
    int seat[SEATS];  
};
```



```

void info(int *nn, int selectedSeats[], int nnSelectedSeats)
{
    printf("\nEnter number of persons: ");
    scanf("%d", nn);

    printf("\nSelect the seats from given below:\n"
        "PLATINUM\n"
        "70 69 68 67 66  65 64 63 62 61\n"
        "60 59 58 57 56  55 54 53 52 51\n\n"
        "NORMAL\n"
        "50 49 48 47 46  45 44 43 42 41\n"
        "40 39 38 37 36  35 34 33 32 31\n"
        "30 29 28 27 26  25 24 23 22 21\n"
        "20 19 18 17 16  15 14 13 12 11\n"
        "10  9  8  7  6   5  4  3  2  1\n"
        "\n      *****\n"
        "          SCREEN\n");

    printf("Booked seats are: ");
    for (int i = 0; i < nnSelectedSeats; i++) {        //showing
booked seats
        printf("%d ", selectedSeats[i]);
    }
    printf("\n");
}

```

```

void addSeats(int seat[]) {

```

```

        for (int i = 0; i<SEATS; i++) {           //adding 70 seats to
an array
        seat[i] = i+1;
    }
}

```

```

int checkFunction(int num, int seat[], int selectedSeats[],
int nn) {
    for (int i = 0; i<nn; i++) {
        if (num==selectedSeats[i]) {
            printf("Seat number %d is already chosen.\n",num);
//if seat no is equal to previous selectedseat numbers
then
            return 0;
        }
    }
    for (int i= 0; i<SEATS; i++) {
        if (num == seat[i]) {

            return 1;
        }
    }
    printf("Invalid seat number.\n");
    return 0;
}

```

```

void fullFunction(int seat[], int selectedSeats[], int nn) {

```

```

int num;
for (int i = 0; i < nn; i++) {
    do {
        printf("Enter the seat number: ");
        scanf("%d", &num);
    } while (!checkFunction(num, seat, selectedSeats, i));
//if checkfunction condition is not valid
//then the given
seat number will transfered to new array

```

```

    selectedSeats[i] = num;
}

for (int i = 0; i < nn; i++) {
    for (int j = 0; j < SEATS; j++) {
        if (seat[j] == selectedSeats[i]) {
            for (int k = j; k < SEATS-1; k++) {          /*the seat
number given to selected
array and
delete that numbers from original array*/
                seat[k] = seat[k+1];
            }
            seat[SEATS-1] = 0;
            break;}
        }
    }
}

```

```

void paymentID(int selectedSeats[], int nn) {
    int pay = 0;
    int payPlat = 0;
    for (int i = 0; i < nn; i++) {

```

```

        if (selectedSeats[i] <= 50 && selectedSeats[i] != 0)
    {    //function for payment
        pay += 150;
    } else if (selectedSeats[i] > 50 && selectedSeats[i] <=
SEATS) {
        payPlat += 250;
    }
}
printf("TOTAL: %d\n", pay + payPlat + 40);
}

```

```

int main() {
    int choice, timeChoice, nn;
    struct movie movies[3][5];
    int selectedSeats[SEATS];

                                                                    // Initialize seat availability
    for each movie and showtime
        for (int i = 0; i < 3; i++) {
            for (int j = 0; j < 5; j++) {
                addSeats(movies[i][j].seat);
            }
        }
}

```

```

printf("*MOVIE TICKET BOOKING SYSTEM*\n");
printf("Choose The Movie\n");
printf("1. KALKI\n");
printf("2. PARADISE\n");
printf("3. BIG BEN\n");
printf("4. EXIT\n");
printf("Enter Your Choice: ");

```

```

scanf("%d", &choice);

while (choice != 4) {
    //using menu driven
    program combining movie name with movie timings
    printf("\nChoose the time:\n");
    printf("1. 7:30 AM\n");
    printf("2. 10:00 AM\n");
    printf("3. 2:30 PM\n");
    printf("4. 5:30 PM\n");
    printf("5. 9:30 PM\n");
    printf("Enter your choice: ");
    scanf("%d", &timeChoice);

    if (choice>=1 && choice<=3 && timeChoice>=1 &&
timeChoice<=5) {

        for (int i = 0;i<SEATS;i++) {
            selectedSeats[i]=0;
        }
        info(&nn, selectedSeats, 0);
        fullFunction(movies[choice-1][timeChoice-
1].seat,selectedSeats,nn);

        paymentID(selectedSeats,nn);
//function call
    } else {
        printf("Invalid choice! Please choose again.\n");
    }

    printf("Do you want to continue? (y/n): ");
    char continueChoice;
    scanf(" %c", &continueChoice);
    if (continueChoice=='n' || continueChoice=='N') {

```

```
        break;
    }
    printf("Choose The Movie\n");
    printf("1. KALKI\n");
    printf("2. PARADISE\n");
    printf("3. BIG BEN\n");
    printf("4. EXIT\n");
    printf("Enter Your Choice: ");
    scanf("%d", &choice);

}

return 0;
}
```