DSA PROJECT REPORT

PROJECT STATEMENT:

Multiplex Movie Ticket Reservation (multiplex with four halls): Each hall will have a capacity of 30. Generate a booking list sorted on category (front circle, rear circle) if 50% tickets are sold. Senior citizens will have preference over normal category. user may enquire about seat through interactive mode. If hall is full, user will have option to book for any of the other 3 movies (if available).

OUTPUT:

```
Welcome to the Multiplex Movie ticket reservation program!



                        *************Main menu*************

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        1. Ticket booking
        2. Ticket cancellation
        3. Print hall's customer list
        4. Quit

---------------------------------------


        Enter your choice [1-4]: 1

Ticket booking
Please enter the number of tickets you want to book 2
Please enter the movie (hall) you want to make reservations
1. Hall 1
2. Hall 2
3. Hall 3
4. Hall 4
5. Exit reservation
Enter your choice [1-5]: 1

Customer name (no spaces allowed): Anuj
Customer age: 20

Customer name (no spaces allowed): Harry
Customer age: 18
```

```
                        *************Main menu*************

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        1. Ticket booking
        2. Ticket cancellation
        3. Print hall's customer list
        4. Quit

---------------------------------------


        Enter your choice [1-4]: 2

Ticket canceling
Customer name: Anuj
Customer age: 20
Movie: 1
```

```
Welcome to the Multiplex Movie ticket reservation program!



                  *************Main menu*************

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         1. Ticket booking
         2. Ticket cancellation
         3. Print hall's customer list
         4. Quit


----------------------------------------



         Enter your choice [1-4]: 2

Ticket canceling
Customer name: Anuj
Customer age: 20
Movie: 3
Customer not found!
```

```
                  *************Main menu*************

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         1. Ticket booking
         2. Ticket cancellation
         3. Print hall's customer list
         4. Quit


----------------------------------------



         Enter your choice [1-4]: 3

Please enter the hall for which you want to print the list
1. Hall 1
2. Hall 2
3. Hall 3
4. Hall 4
5. Exit
Enter your choice [1-5]: 2
Customer list is not formed yet for hall 2 because it is more than half empty.

Welcome to the Multiplex Movie ticket reservation program!
```

INTRODUCTION:

The Multiplex Movie Ticket Reservation System is a designed to facilitate the booking and management of movie tickets in a cinema. It also offers features for managing movies, theaters, and customer bookings.

OBJECTIVE:

The objective of this project is to develop a Multiplex Movie Ticket Reservation System using data structures in C.

FEATURES:

The Multiplex Movie Ticket Reservation System offers the following key features:

a) Movie Hall Management:
   User is allowed to choose between four halls. Each hall has a capacity of 30. The seats in each hall are divided into two sections: front circle and rear circle. The front circle has 6 seats and rear circle has 24 seats. If the seats in the selected hall are filled, user can book seat in the other halls.

b) Age Reservation:
   The users must enter their name and age during booking. The seats are reserved according to age. Senior citizens the given preference over younger citizens. Hence the bookings are sorted according to age in a descending order. Thus, more senior citizens get seats in the front circle of a hall.

c) Ticket Cancellation:
   The users can also cancel their reservation. In that case the user has to input their name and age to cancel their reservation.

d) Displaying reserved seats:
   Users can display the information of the booked seats if the hall is at least half full.

DATA STRUCTURES USED:
   • Linked List
   • Structure
   • Array
   • Queue

LIMITATIONS:

The following limitations are present in the program:

a) The users cannot choose their own seat numbers.

b) Price and movie timings are not included during reservations.

c) User cannot enquire about the seat information without filling at least half of the seats in a hall.

d) Bill is not generated based on the booking.

e) Information of all the customers whose seats have been booked are displayed on enquiry instead of just the seats booked by the current user.

These limitations can be addressed in future.

CONCLUSION:

The Multiplex Movie Ticket Reservation System allows user to book seats in movie halls. Senior citizens are given more preference while reserving seats. It allows users to view the information of the reserved seats.