

## **Project final Programming and Data Structures Lab – II (Mini Project)**

### **MOVIE TICKET BOOKING SYSTEM**

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#### **Problem Description**

Theatres, the most popular recreational activity in the modern times, its in demand so much that there's a separate industry that thriving cause of it. Previously people used to stand in a huge queue just to get a ticket added to that they weren't given a choice of seat(the price they can afford and the comfortable position in the hall), which happens to be huge drawback and a really time consuming process.

To solve the above mentioned problem we came up with a ticket booking system to make it easier for people to see the availability of seats, their location and price and give them an option to reserve the seat they wish to get.

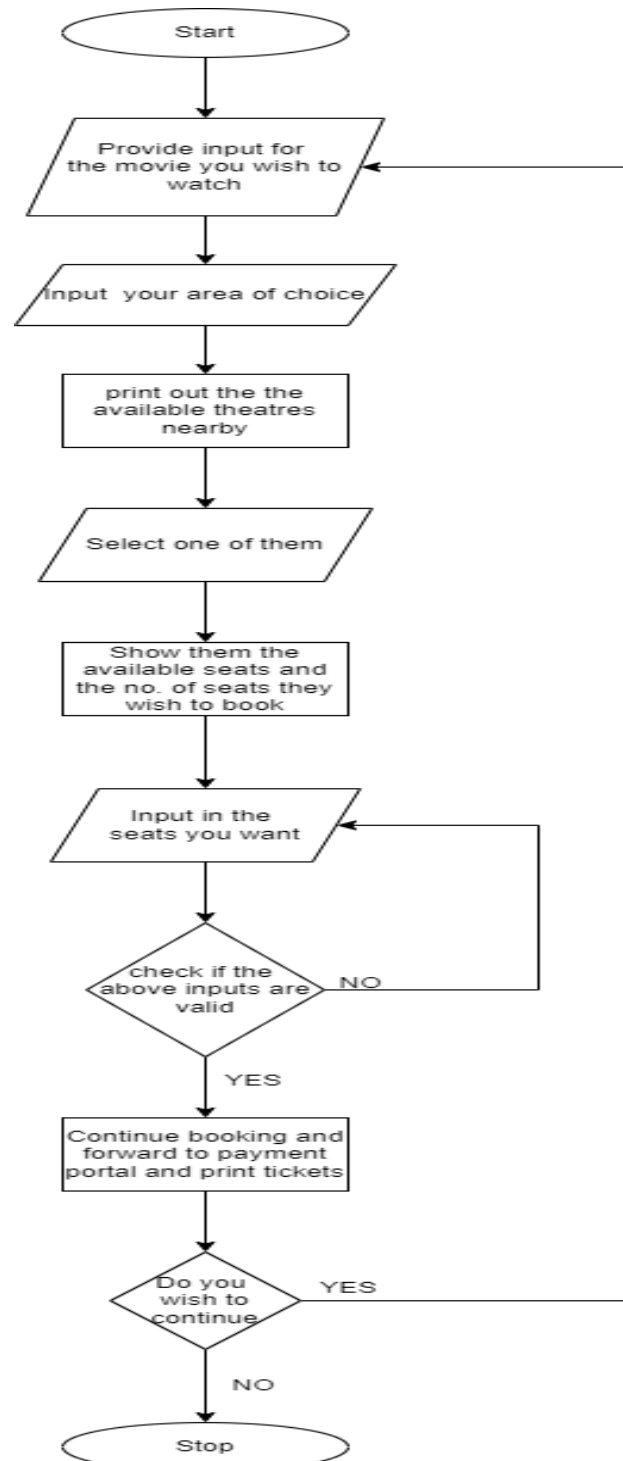
A typical online ticket reservation system has the following components:

1. Provide them with the list of movies and let them select one.
2. We ask them to select the area of choice.
3. Then we display all the available theatres near by that area of choice and the ones in proximity.
4. The we display the seats available for their choice  
(R – reserved L – available; 3 seat categories (a-c : Rs.50, d-j : Rs.150, k-m : Rs. 200) ; 13 rows 20 columns)
5. Once we select the seat we need we reserve the tickets and direct them to the payment portal.

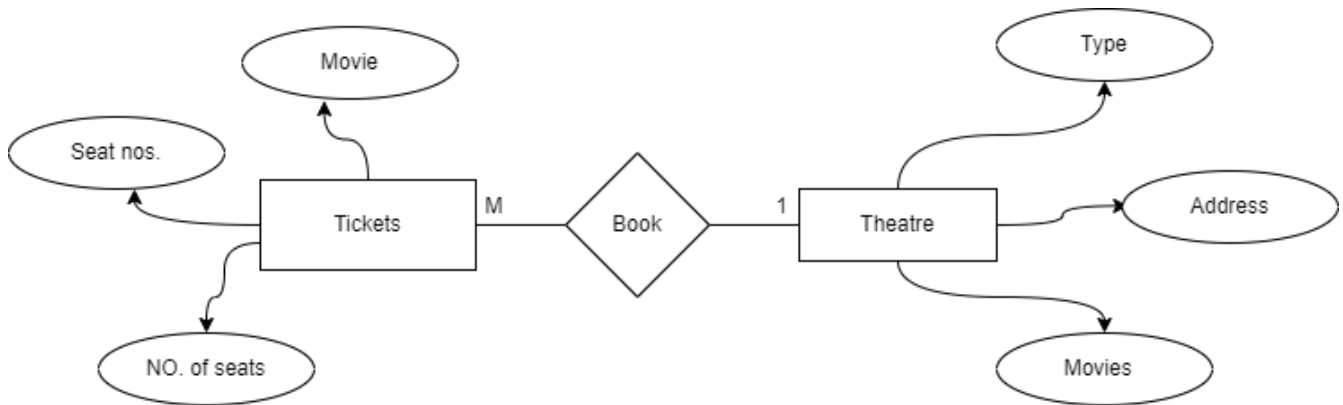
## Project flow diagram

The control flow of our project has been shown as follows :

FLOWCHART :



### ER Diagram:



### Data Structures:

#### 1. Dijkstra's algorithm

Dijkstra's algorithm allows us to find the shortest path between any two vertices of a graph.

In this project we find the shortest distance from an area to the other theatres passing through other areas.

Each time we select an area Dijkstra's algorithm is called to find the distance to other theatres and are displayed.

## Outputs:

```
Choose the movie:
1 KGF 2
2 Vikram
3 Major
4 Don
5 Black Adam
6 Legend

Enter your choice: 6

Choose your area:
1 OMR
2 Adyar
3 Mylapore
4 Guindy
5 Anna Nagar

Enter your choice: 3

The distance of theatre from Mylapore are:
1 INOX - not screening the movie
2 SPI - 1 kilometre
3 IMAX - not screening the movie
4 Sathyam - 5 kilometre
5 Mayajal - 7 kilometre

Select the theatre: 1
Theatre not screening the movie! Try a different theatre!

Select the theatre: 2

Enter number of tickets to book: 2
```

SPI

SCREEN THIS WAY																				
Movie: Legend																				
A	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
C	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
D	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
E	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
F	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
G	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
H	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
I	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
J	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
K	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
M	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
#(Rs50)each					#(Rs150)each										#(Rs200)each					

Select seat1(eg:A1): h10

SPI

SCREEN THIS WAY																				
Movie: Legend																				
A	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
B	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
C	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
D	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
E	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
F	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
G	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
H	L	L	L	L	L	L	L	L	R	L	L	L	L	L	L	L	L	L	L	
I	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
J	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
K	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
M	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

#(Rs50)each      #(Rs150)each      #(Rs200)each

Select seat2(eg:A1): h11

SPI

```

                SCREEN
                THIS WAY

Movie: Legend
A  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
B  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
C  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
D  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
E  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
F  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
G  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
H  L  L  L  L  L      L  L  L  L  R  R  L  L  L  L      L  L  L  L  L
I  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
J  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
K  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
L  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
M  L  L  L  L  L      L  L  L  L  L  L  L  L  L  L      L  L  L  L  L
    1  2  3  4  5      6  7  8  9 10 11 12 13 14 15      16 17 18 19 20
```

#(Rs50)each      #(Rs150)each      #(Rs200)each

The total cost of 2 tickets is Rs 300

Are you paying through (cash/card)? : cash

```

=====TICKET=====
Movie           : Legend
Theatre        : SPI
Number of tickets: 2
Seats          : H10,H11
Cost           : 300
Payment done through cash
```

Thank you for booking

Do you wish to continue?(y/n) : y

Choose the movie:

- 1 KGF 2
- 2 Vikram
- 3 Major
- 4 Don
- 5 Black Adam
- 6 Legend

Enter your choice: 6

Choose your area:

- 1 OMR
- 2 Adyar
- 3 Mylapore
- 4 Guindy
- 5 Anna Nagar

Enter your choice: 1

The distance of theatre from OMR are:

- 1 INOX - not screening the movie
- 2 SPI - 4 kilometre
- 3 IMAX - not screening the movie
- 4 Sathyam - 2 kilometre
- 5 Mayajal - 5 kilometre

Select the theatre: 2

Enter number of tickets to book: 1

SPI

```

                                SCREEN
                                THIS WAY

Movie: Legend
A  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
B  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
C  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
D  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
E  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
F  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
G  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
H  L  L  L  L  L  L  L  L  L  L  L  R  R  L  L  L  L  L  L  L  L  L  L  L  L  L  L
I  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
J  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
K  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L

#(Rs50)each      #(Rs150)each      #(Rs200)each
Select seat1(eg:A1): k1
```

SPI

```

                                SCREEN
                                THIS WAY

Movie: Legend
A  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
B  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
C  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
D  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
E  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
F  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
G  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
H  L  L  L  L  L  L  L  L  L  L  L  R  R  L  L  L  L  L  L  L  L  L  L  L  L  L  L
I  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
J  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
K  R  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L
M  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L  L

    1  2  3  4  5      6  7  8  9  10 11 12 13 14 15      16 17 18 19 20

#(Rs50)each      #(Rs150)each      #(Rs200)each
The total cost of 1 tickets is Rs 200
```

Are you paying through (cash/card)? : cash

```

=====TICKET=====
Movie           : Legend
Theatre         : SPI
Number of tickets: 1
Seats           : K1
Cost            : 200
Payment done through cash
```

Thank you for booking

Do you wish to continue?(y/n) : n

PS C:\Users\Tarun\Desktop\mini>



