

# **Multiplex Booking System End User Module**

## Introduction

This document contains requirements specifications of the show case project that should be carried out as part of the training completion prerequisite.

A multiplex is a movie theatre complex having multiple screens to screen the movies. Many movies can run on these screens simultaneously during various time slots of a day. Movie halls that contain these screens are of different capacities and have different types of seats (e.g. premium, executive, normal, etc.). Customers can book their seats online in advance for a movie show. They can get the details of the show from the show time table published by the multiplex on their website. An application needs to be developed to manage these shows.

## 1.Business Requirements

The following are the business requirements for this project:

Sl	Requirement	Responsible	Status
1	User registration	End user	To be implemented
2	Query details of show / movie	End user	To be implemented
3	Book seats	End user	To be implemented
4	Cancel seats	End user	To be implemented
5	Publish show details	Administrator	To be implemented
6	Generate earnings report	Administrator	To be implemented

This Multiplex Booking System should maintain an updated catalogue of different movies running in the various screens (halls). It should have a feature to display the show details of all movies - movie name, hall (screen) no., from date and time slots. Further, this show detail and their timings should be dynamically configurable by the management. A separate administration module will have to be developed to take care of this, which is out of scope for this project.

This system should allow for creation of new users into the system. It should be accessible by two kinds of users: a) The Multiplex Administrator b) The Customers / End Users

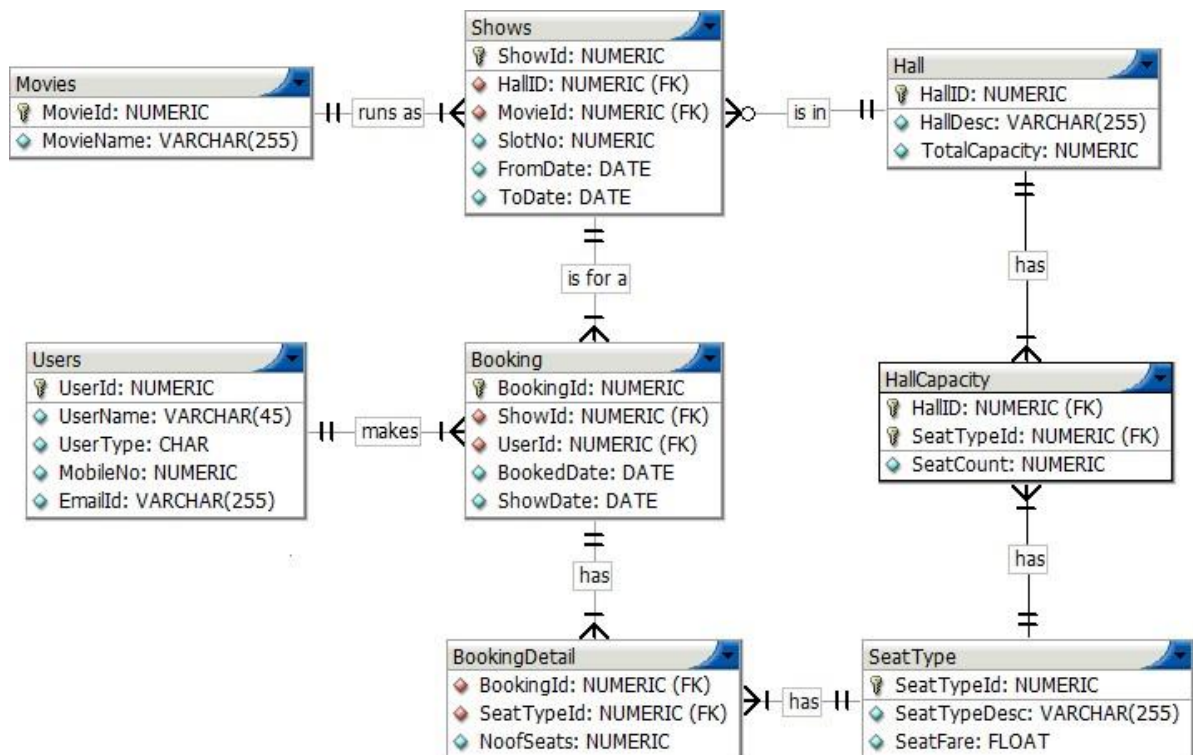
The Customer / End User should be able use the system to query on the currently running movies and query the hall and seat availability appropriately.

Further, the customers should also be given the facility to book the show of their preference in the respective hall where the movie is scheduled to run and be able to select the seats, only if they become registered users of the system.

## 2.Database

System should maintain information about following data items:

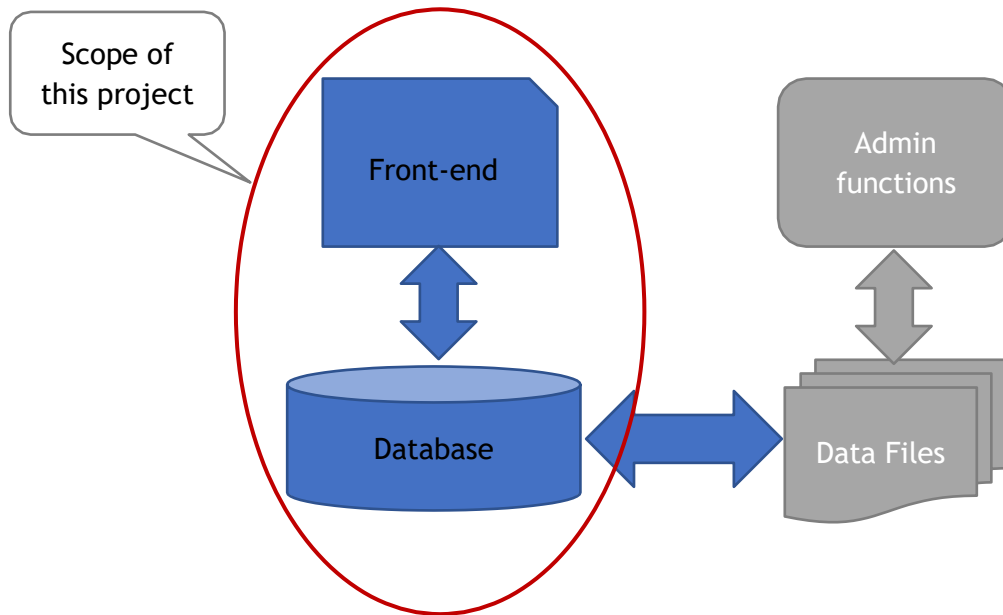
- User information
- Show details
- Movie information
- Hall details
- Booking and cancellation details



## 3.Requirements Details

### 3.1. Overall architecture

Following diagram captures the overall architecture of the system:



### 3.2. User registration

*Description:* Any user should be able to see the details of movies, shows, multiplex and other information. However, only registered users can book the seats for a show. New users should register himself / herself into the system; existing users should login to the system before they can proceed with the booking.

*Inputs required for new user registration:* Name, valid email id, valid mobile number, date of birth, password and confirm password.

*Process:* Once the new user submits these information, system should send a registration link to user's email id or send a one-time-password to user's mobile number (option as chosen by the user). Upon clicking on this link or entering the OTP, the system should enable the user.

### 3.3. Query details of show / movie

*Description:* Any user (either registered or unregistered) can query for the details of movie, hall and seat availability for a show.

*Inputs:* Show id, Movie name or Hall id/name

*Process:* From the list of shows displayed, if the user clicks on a show id, details of the selected show i.e. show id, its timings, movie name and the hall name should be displayed. Upon clicking on a show, it should show details of the show along with the movie poster and

available seats. Clicking on movie poster should show the details of the movie (name, type, key actors, brief description about the movie)

If the user enters the movie name and clicks on Search, all shows screening the given movie name should be displayed.

### **3.4. Book seats**

*Description:* It is one of the most important features of the system. Users should be provided with a link to book the seats for the selected show. User should have logged into the system before (s)he can proceed with the booking. If it's the new user, (s)he should sign up to the system before proceeding.

*Inputs:* Selected show, date, number of different types of seats i.e. normal, executive, premium

*Process:* Once the user enters all these information, system should check for availability of selected number of respective seats for the given show & date. If those seats are available, it should confirm the booking upon successful payment for the booking.

If only some number of seats but not all requested seats are available, system should prompt to user if (s)he wants to proceed with only some of these available seats. Book those seats if the user confirms it affirmatively.

Once the booking is complete, it should send a message to user's mobile number and user's email id providing the booking details. Display a booking confirmation message at the end as well as mention that the booking details are sent to their mobile number and email id.

P.S.: Capturing details of the payment (net banking, credit / debit card, etc.) and processing it, sending messages to mobile number and email id are beyond the scope for this project.

### **3.5. Cancel seats**

*Description:* Users can cancel their booking 48 hours before the show timing. No cancellation is allowed after this time. Cancellation charges for every cancellation request is 20% of the total ticket fare. Partial cancellation is not allowed in this version of the system.

*Inputs:* Booking id and either user's mobile number or email id.

*Process:* If the cancellation request is before 48 hours of show time, confirm if the user certainly wants to cancel the tickets. If the user confirms it, cancel the tickets and free up the booked seats to mark them available. Refund the amount to user's account after deducting the cancellation charges from the total ticket fare. Send messages to user's mobile number and email id about this cancellation.

*P.S.:* Actual refunding process to user's account, sending actual messages to user's mobile number and email id is beyond the scope for this project.

### **3.6. Publish show details**

*Description:* Publish a list of movies to be shown in various time slots in different screens along with the total number of seats available in each hall.

*Inputs:* Movie name, Hall / Screen IDs, Time slots, From and To dates

*Process:* Show the list of available movies, halls and timeslots. Let the user (admin) choose the hall and timeslot for the selected movies. Publish the shows list (show id, movie name, time slot, hall name, from and to dates) once the user confirms it. Clicking on the movie name, should show its details like name, type, key actors, etc.

### **3.7. Generate earnings report**

*Description:* A report for the management to know the total earnings for a given date range.

*Inputs:* 'From' date and 'To' date

*Process:* For the given date range, for each day, print the total number of seats booked, sum up the total fares for all confirmed seats and sum of the cancellation charges of all cancelled tickets. Print these two sums against each date. Print the total earnings, total cancellation charges and the sum of these two at the bottom.

## **4.Deliverables**

Each project team is expected to deliver following artifacts (check with the facilitator for any changes to this list) after proper planning, analysis and discussion.

- Design document
- Screenshots
- Database
- Source code
- Test plan
- Test cases
- Test results

## 5. Project Guidelines

- Every project team member should have a role (e.g. developer, tester, analyst, etc.) after a proper discussion among the team members
- Each person may have to take more than one role based on the team size
- Work needs to be distributed among each project team member equally
- Presentation to be done preferably using PPTs or as instructed by the facilitator
- Submit prescribed deliverables to the facilitator as guided by him/her
- The evaluation methodology will consider the quality of work done, artifacts produced, presentation quality, Q&A handling, team work and individual contribution
- This project work may have to be presented to senior members in the company or showcased in display boards for future reference. Hence it is very important to ensure on end-to-end quality throughout the project.