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Department of Computer Science and Engineering
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Synopsis

TITLE: Movie Ticket Booking System		
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1. Introduction

We propose an application with both front-end app interface and back-end database systems to help one book tickets for a movie from a list in any format (2D, 3D, 4DX), at a particular theatre and at a particular date and time. The details are separately stored in a different database and can be retrieved and filled automatically by verification of a passcode for the user. It serves as a replacement to traditional systems where you have to enter details manually every time to generate QR codes and other necessities. This can be deployed as a free-to-download app from the play store. This system makes it more convenient for a user to book tickets to their favourite movies.

2. Existing System

Existing System allows you to book tickets for the location and theatre of your choice. Users can select the seat of their choice, enter the details, and pay for the ticket on the website. A QR code is generated which acts like a ticket for the movie and needs to be shown at the entrance to the theatre.

3. Proposed System

Proposed System lets you book tickets for the theatre and movie of your choice and also fills in the required details like Email ID, Phone Number and Payment Details. This way the user does not have to enter their details repeatedly and can just skip to the payment portal with a few clicks.

4. Relational Database Structure

The main entities and data stored are :-

- User : This contains entries of all the users , their details and their role in the website
- Movie :- This is a database for all the movies. The attributes are movie name, genre,director,description,duration etc
- Theatre :- Contains list of theatres where this application can be used. It contains attributes such as theatreId, noOfScreens, city where the theatre is located,theatre address etc.
- Screen :- Each theatre has multiple screens. This entity stores all the screens and links it to the theatre each belongs to. It has attributes like screenId,, theatre percentage of seat filled in the screen etc.
- Show :- This contains entries for all the shows. It contains attributes such as which screen the show belongs, the movie being played in the show and time of the show.
- Seat :- This contains entries of all the seats. Attributes of this entities are seatId, screenId, isBooked etc.
- Ticket - This contains entries of all the tickets booked by the user.
- Reviews - This collection is used to store the reviews of the movies posted by the users.

5. RDBMS AND NoSQL Integration

RDBMS will be used to store all the details mentioned above as they are all dependent on each other. Eg: Theatres HAVE screens and seats, screens SHOW movies at a particular time and the city in a state HAS multiple theatres. These details can be directly linked to the app and offer a good level of hierarchy and peer-level connections and dependencies. NoSQL will be used to store movie and theatre reviews and comments by critics and audience that will be displayed to the user before they book tickets. This will be sorted based on relevance and upload dates and can easily be accessed.

6. Societal Concern

Movies are a source of entertainment for a huge number of people and making it convenient and cheap for people to watch is beneficial if not necessary. People can now conveniently book tickets and compare prices for their favourite movies as well as look at reviews all in one place. It is also important for their data to be kept safe and hence password protection is important. We will also try to implement some machine learning algorithms to make predictions based on user preferences for movie, theatre and seat recommendations to make selecting a movie easier.