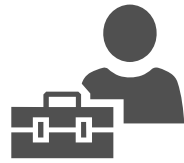
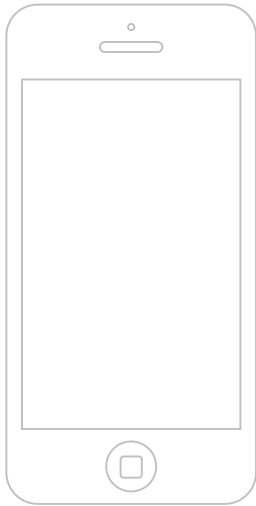


Functional requirements

- Users should be able to search for theaters in a given city.
- Once the user selects the city, user can search a movie available at different theaters.
- The user gets a list of theaters based on a movie.
- User can select the theater and check the available shows for the given movie in one week.
- User can select the show at a particular theater and book tickets via third party payment gateway.
- If somehow payment fails or there is an interruption in booking process, the seat should be sealed for the user for 15 mins after which it can be released if the user fails to book.
- After the seat is booked, a notification is sent to user along with ticket copy to their email address or SMS.
- Movie information, rating, comments.
- Theatres have their own DBs for ticketing system.

Non functional requirements.

- Financial transactions -> ACID compliant
- Highly concurrent since multiple users can book the same seat at the same time.
- secure transaction is the responsibility of TPPG



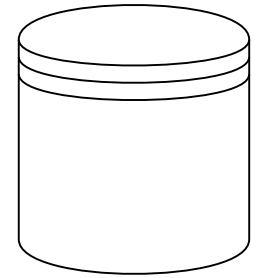
User management

1. Login
2. Sign up
3. Booking history
4. Any points to redeem(optional)



Search service

1. theatres in cities.
2. movies available in a given theatre.
3. a particular movie being played in any theater



Operations

1. Get theatre by cities
2. Theatre database with available movies for a given timespan.
3. Movie database with description, ratings and comments.
4. GetSeatMapping for a given theatre.
5. Bookings database with booking id, user id, theatre id, seat number, date and timestamp.
6. Users database with username, password, profile pic, location.
7. Theatres have their own databases to manage the ticketing as well as seats (not handled by book my show)



Order management

1. Takes in user id , theatre id, seat id and sends communication to theatre to block the seat for 15 minutes or until the booking is complete.
2. Maintains communication with the particular theatre.
3. Sends request to payment gateway to handle payment based on the mode of payment option user chooses.
4. After payment successful, notifies the theatre to block the seat for the particular user. This operation is synchronous.
5. If the payment fails and exceeds time limit of 15 mins, notifies the theatre to release the seat so it can be used by some other user.



