

SOFTWARE ENGINEERING PROJECT LAB

Online Movie Ticket Booking System



NETAJI SUBHASH ENGINEERING COLLEGE

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INTRODUCTION

This online ticket reservation system provides an online portal for a cinema hall where users with an internet connection can book tickets for various movies. They can use any online payment method and their ticket will be generated and emailed to them which need to be shown at the venue. Users need to register for a new account whenever they visit the site for the first time which is then saved in the database permanently. Subsequently, they can log in to their existing ones. The application provides complete information regarding currently running movies on all the screens with each having details of the respective movies, such as the genre and category of the movie, the plot, the cast, the movie review and ratings, the hall details and show timings. The users will have options to select the appropriate venue, timings and also the number of seats and the position of seats they want to book.

Ticket reservations are done depending on the seat availability after the customer requests booking. The booking is confirmed after successful payment through any of the online payment methods. The payment section will be accomplished by a third party. When the payment is successful, the ticket will be generated and user will have an option to download the soft copy.

The program automatically calculates the subtotal and grand total. When a visitor decides to finally book the ticket, the order information including the buyer's name, address and billing information is stored in the database securely. The bookings can be cancelled up to a certain duration only. The application saves time for the users by helping them avoid standing in long queues to book tickets. It is made keeping the users in mind so that it is easy for them to navigate through the application and find their choice of movies. Users can log on, navigate and find out movies for themselves.

This system will be managed by one or more admin each having a designation. The movies, the show dates and timings will be set and updated by the admin. In case of situations when a show is cancelled, the admin will have to remove the show from the system and an automated refund and ticket cancellation will be performed by the system.

The users will be able to view details of the hall namely, address, contact details of the hall in which they have booked their ticket.

SOFTWARE REQUIREMENTS AND SPECIFICATION

1.FUNCTIONAL REQUIREMENTS

- 1. Registration - If a customer wants to book the ticket then he/she must be registered. User has to provide email id, name, phone number, address for registration.
- 2. Login - A registered customer logs in to the system by entering valid user id and password.
- 3. Search Movie - The system shall have a search function. Customers or visitors can search movies based on the movie name, date and venue of the hall.
- 4. Seat Viewing - The customer shall be shown a 2D image of the seats from which the desired seats are selected.
- 5. Ticket booking - The customer shall be given an option to cancel the ticket one hour before the movie with some fine.
- 6. Payment - The payment will be accomplished by a third party. For the customer there are many types of secure payment options like debit or credit card, net banking, UPI.
- 7. Generate ticket - After the payment or browse the movie, the customer will log out.
- 8. Ticket Cancellation - If a customer wants to cancel then he can click on the option Ticket Cancellation.
- 9. Log out - After booking, the system can generate the portable document file (.pdf) and then send one copy to the customer's Email-address and another one as an SMS to the customer's phone.
- 10. Add movies - The system shall have a feature for admin to add movies and their details.
- 11. Remove movies - The system shall have a feature for admin to remove movies.

2. NON FUNCTIONAL REQUIREMENTS

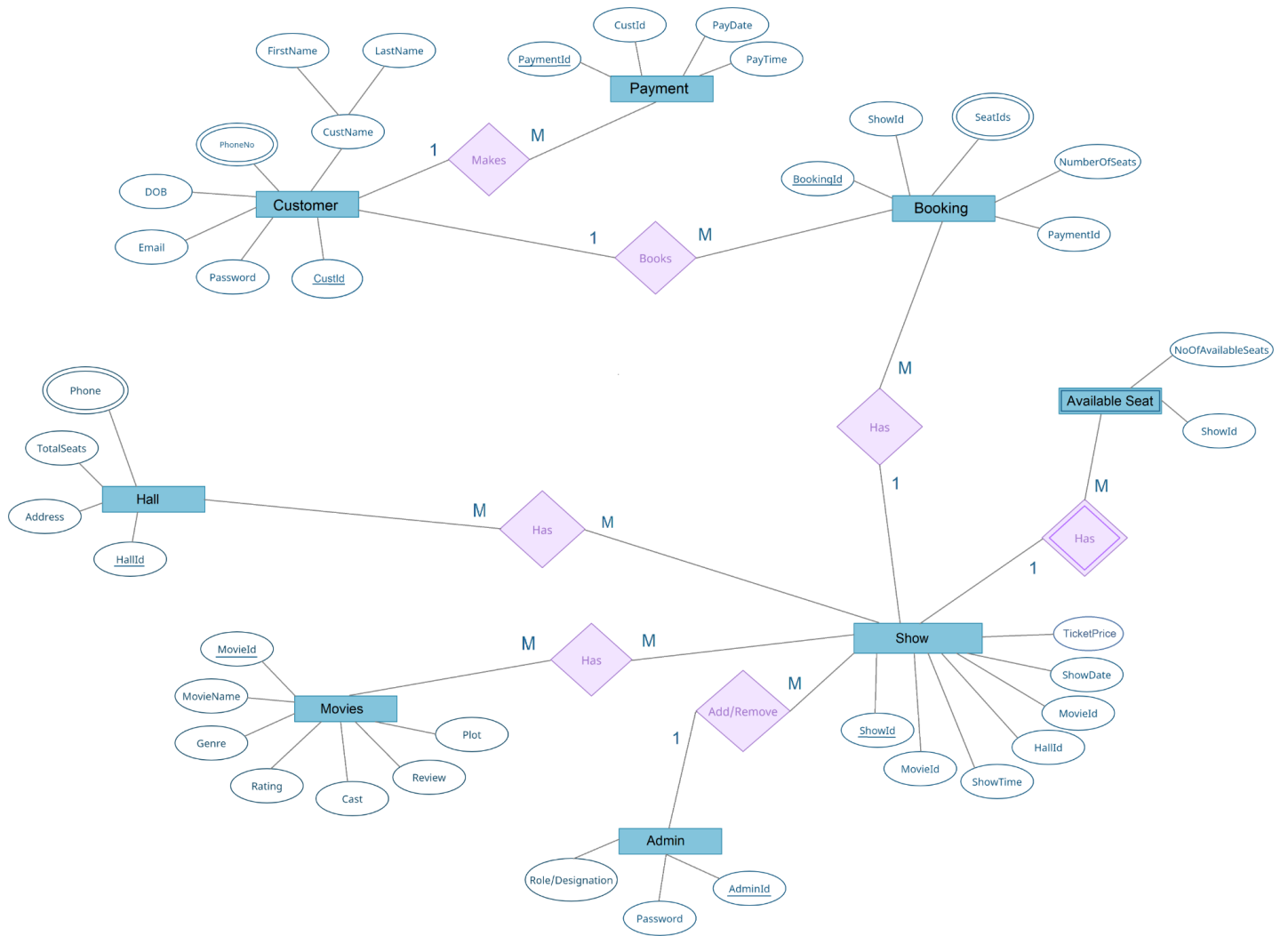
- Security - The system uses SSL (secured socket layer) in all transactions that include any confidential customer information. The system must automatically log out all customers after a period of inactivity. The system should not leave any cookies on the customer's computer containing the user's password. The system's back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.
- Reliability - The system provides storage of all databases on redundant computers with automatic switchover. The reliability of the overall program depends on the reliability of the separate components. The main pillar of the reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes. Thus the overall stability of the system depends on the stability of the container and its underlying operating system.
- Availability - The system should be available at all times, meaning the user can access it using a web browser, only restricted by the downtime of the server on which the system runs. In case of any hardware failure or database corruption, a replacement page will be shown. Also in case of a hardware failure or database corruption, backups of the database should be retrieved from the server and saved by the administrator. Then the service will be restarted. It means 24 X 7 availability.
- Maintainability - A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the program will be done. Also, the software design is being done with modularity in mind so that maintainability can be done efficiently.
- Portability - The application is HTML and scripting language based. So The end-user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future. An end-user is using this system on any OS on PC, laptop or phone.

DESIGN

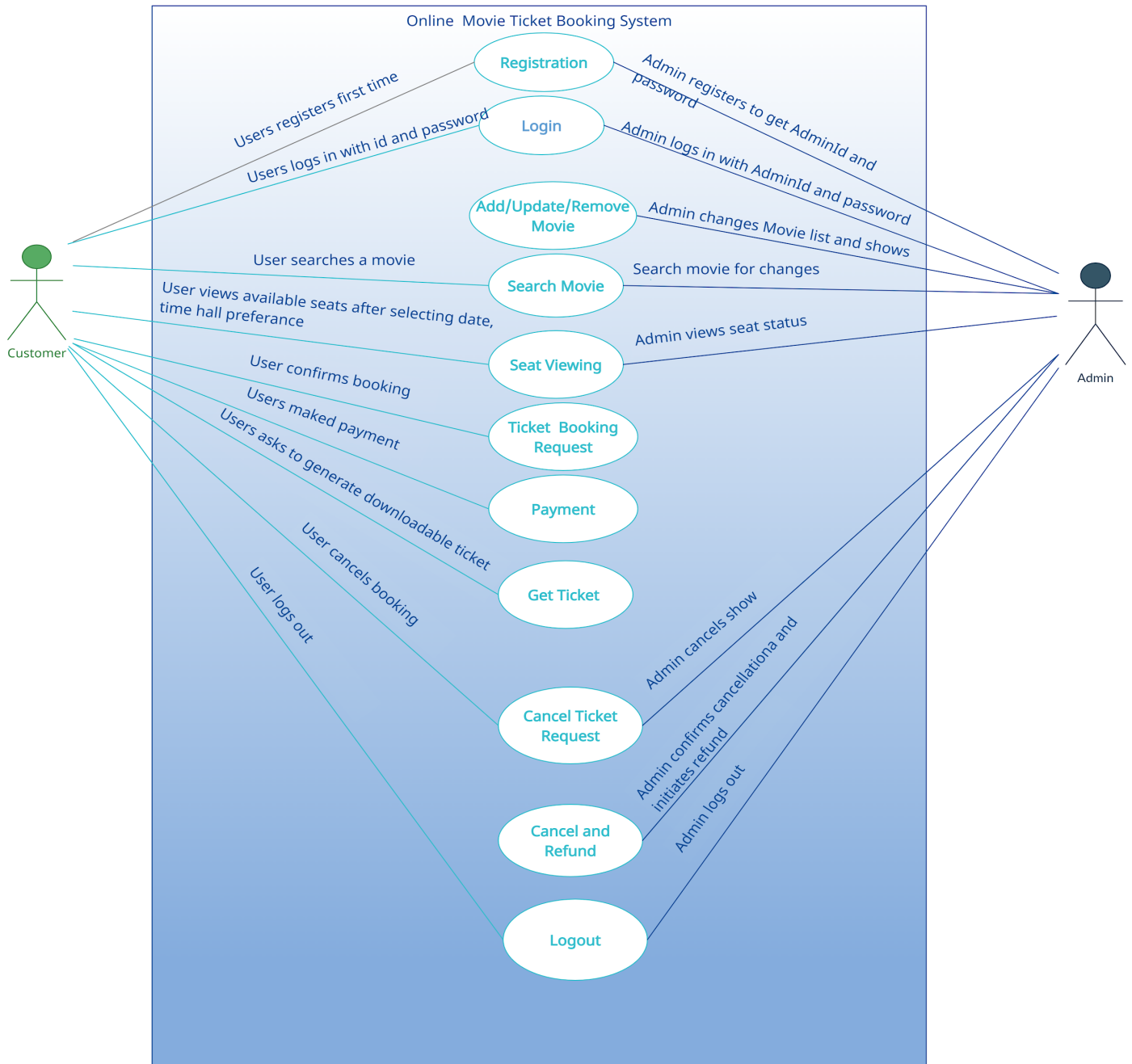
Entity Description Table

Entity	Attributes	Description
Admin	<u>AdminId</u> , Password, Role	Organizes and manages all the activities.
Customer	<u>CustId</u> , CustName(First, Last), Email, Password, Phone No, DOB	Customer books tickets.
Booking	<u>BookingId</u> , NoOfSeats, SeatIds, ShowId, PaymentId	Show tickets booked by the customers.
Payment	<u>PaymentId</u> , Date, Time, CustId	Payment of the booking.
Movies	<u>MovieId</u> , MovieName, genre, plot, the cast, movie review, ratings	The movie that the customer books.
Hall	<u>HallId</u> , Address, Phone , TotalSeats	Details of all the halls.
Show	<u>ShowId</u> , HallId, MovieId, ShowTime, ShowDate, Ticket Price	About the show.
AvailableSeats	<u>ShowId</u> , No.OfSeats	Number of seats available to be booked.

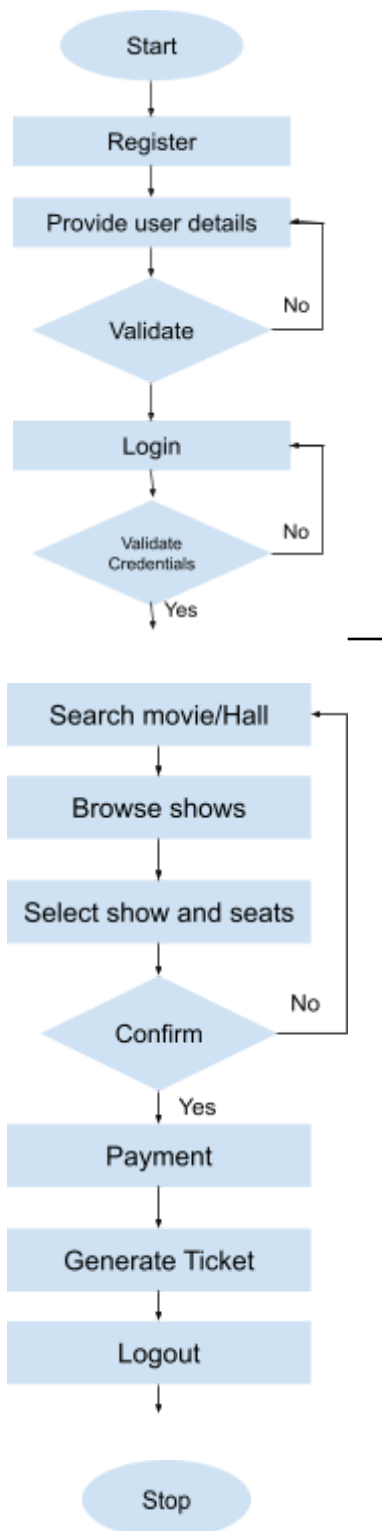
ER Diagram



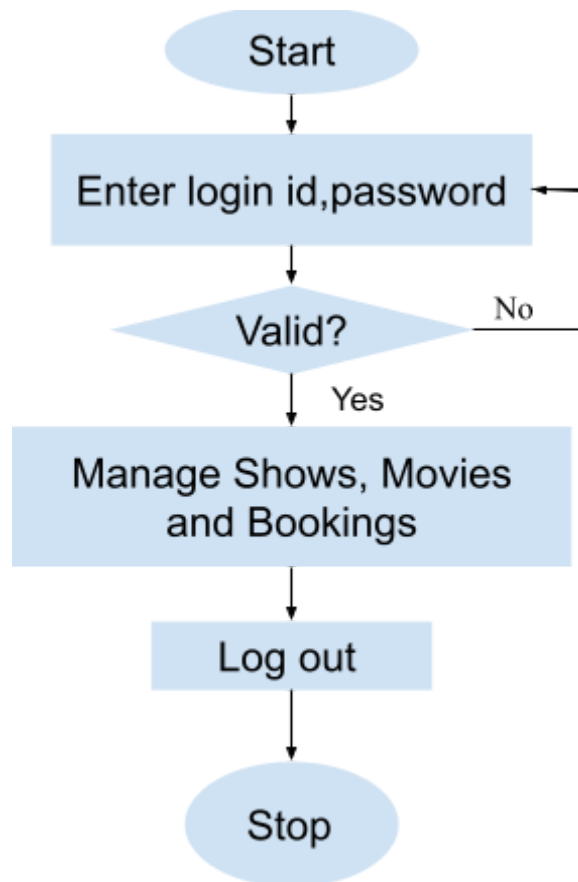
Use Case Diagram



Activity Diagrams:Activity Diagram for new user booking ticket:


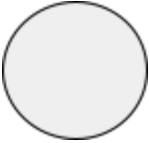
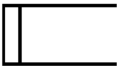



Activity Diagram for Admin to manage shows:

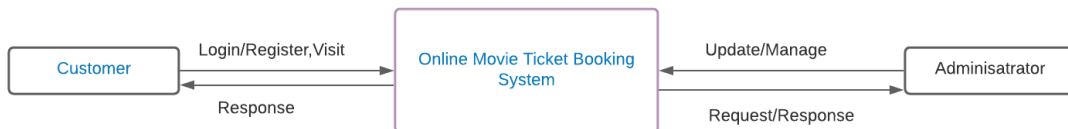


DFD

DFD Symbols Used:

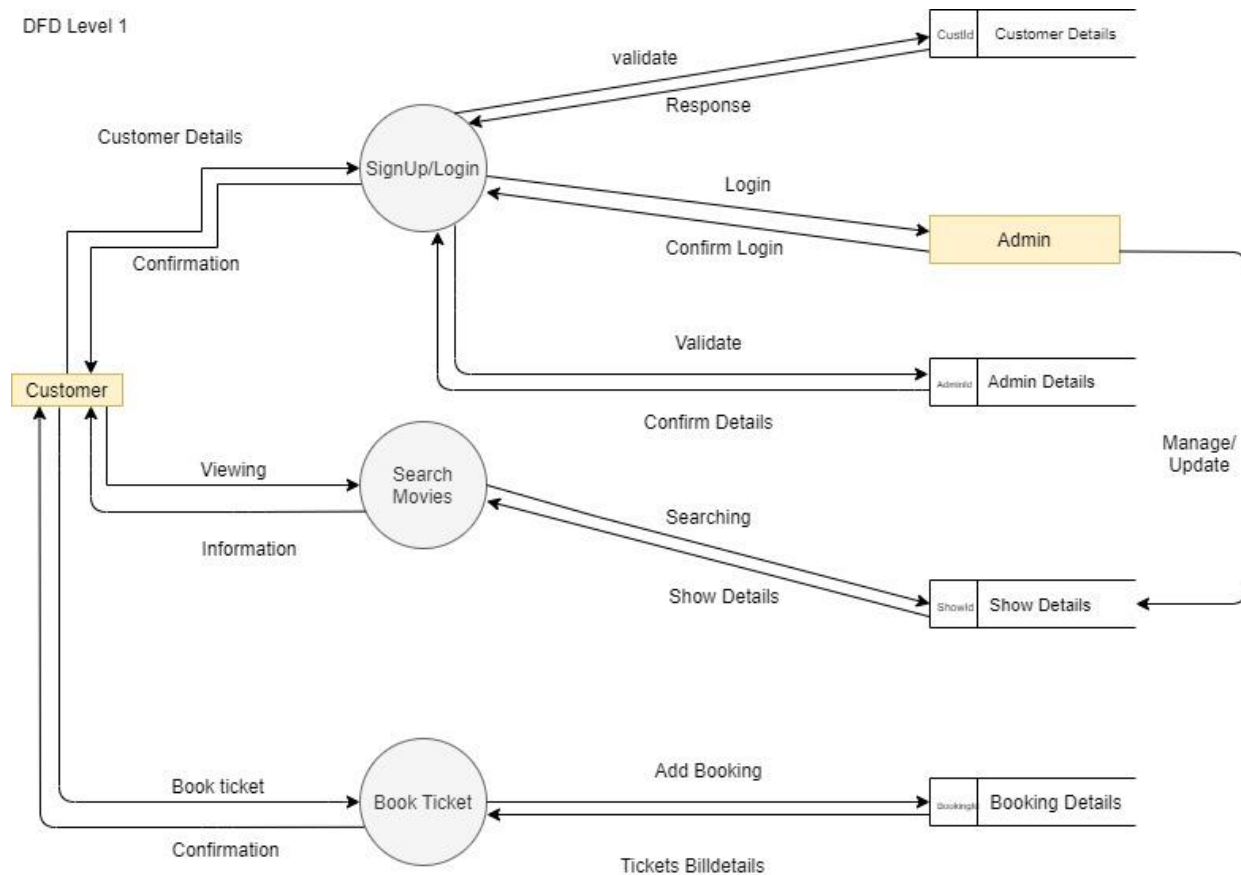
	External Entity
	Process
	Data store/Database
	Data Flow

Level 0

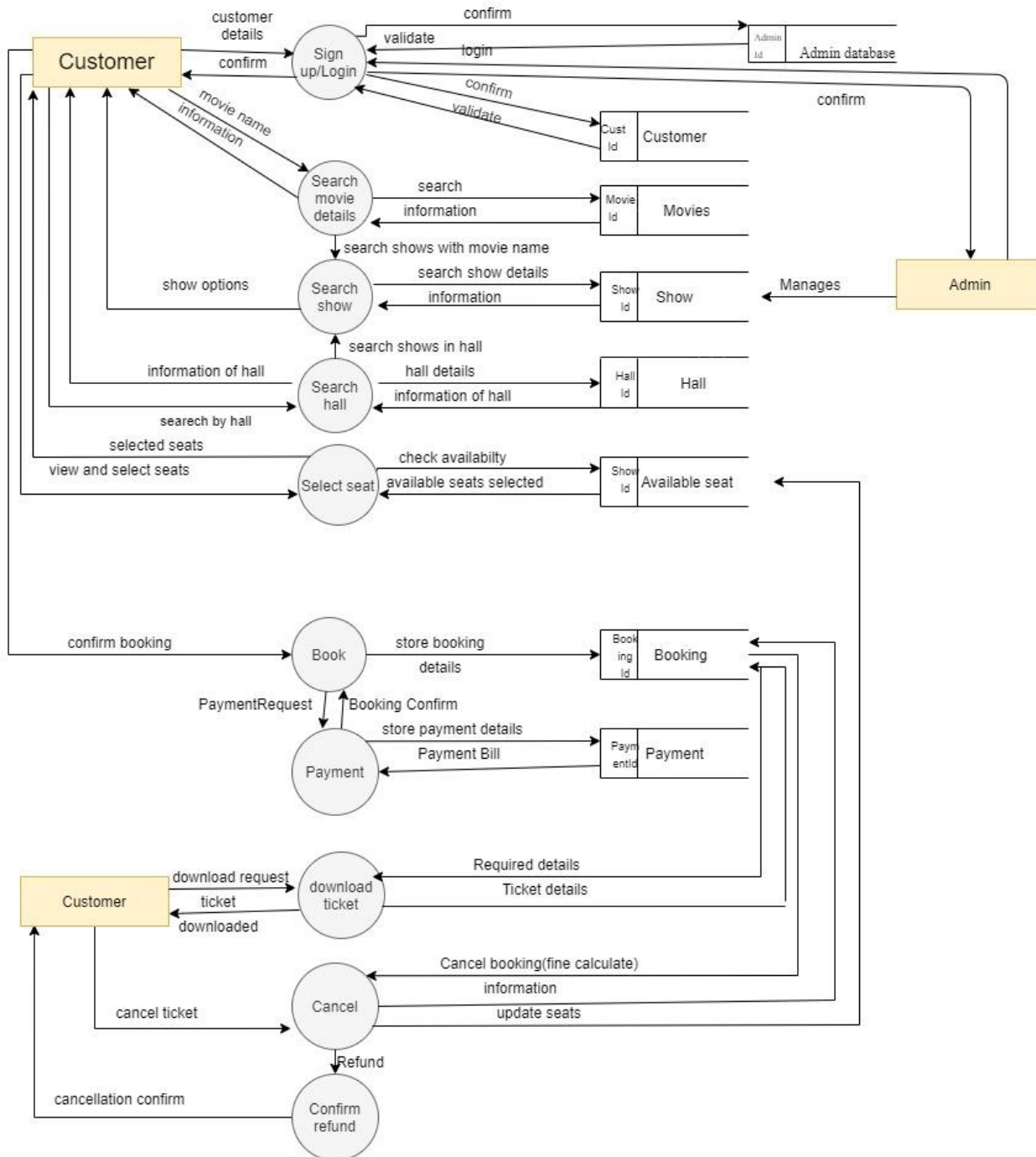


Level 1

DFD Level 1



Level 2



CONCLUSION

This online movie ticket booking system has the scope of availing the benefits of hasslefree online booking, payment and cancellation. This system is automated and requires minimal admin intervention for smooth functioning. The addition, removal and updation of movie details are done by the admin through the portal. As the customer details are stored in the database while registration, the hall can contact the customer for promotional purposes or notifying the customer about offers when needed. This is a time saving and user-friendly system for movie ticket booking for both the hall managers and the customers.

References:

- 1.https://www.tutorialspoint.com/uml/uml_use_case_diagram.htm
- 2.https://www.tutorialspoint.com/uml/uml_activity_diagram.htm
- 3.<https://www.javatpoint.com/software-engineering-data-flow-diagrams>
- 4.<https://www.javatpoint.com/software-engineering-entity-relationship-diagrams>