

Online Movie Ticket Booking System

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System Overview

The online movie ticket booking system is a web-based enterprise system that allows customers to book movie tickets and cinema manager to do order management. The system stores lots of information, including customer order history, movie detail information and movie schedule information. The system allows customers to buy movie tickets, view movie information and order history, and it also allows a cinema manager to do movie schedule management and customer order management. The system has numbers of typical enterprise application characteristics, such as concurrent access, multiple user interface screen and different use permissions, which will make it suitable to support multiple users accessing and be able to handle conflicts like the required number of tickets not available or overlapped movie schedule.

Features & Use Cases

Feature A: Movie Management

The online movie ticket booking system allows movie management, and different users have different permissions on the system. A cinema could add new movies, delete movies, update movie information and schedule and view movie information, while a customer could only view the movie information in this system. The detailed use cases are shown below.

Scenario 1: Add Movie

Description: This service allows cinema managers to add new movies into the system.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Movie Management” button, and then there will be a list of all existed movies.
2. Click on the “Add New Movie” button
3. Input valid detail information about the movie.
4. Click on “Submit” button
5. The system shows “success” information and the movie is added successfully.

Alternative scenarios

3a. Some input is invalid, e.g. the theatre is invalid in the scheduled time

1. Click on the “Submit” button
2. The system shows “Some settings are invalid ” information and the movie is not added

3b. Some input field is empty

1. Click on the “Submit”button
2. The System shows “Some settings are needed” information and the movie is not added

Scenario 2: delete Movie

Description: This service allows cinema managers to delete existed movies from the system.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Movie Management” button, and then there will be a list of all existed movies.
2. Select a movie from the movie list
3. Click on “Delete” button
4. The system shows “success” information and the movie is deleted successfully.

Scenario 3: Update Movie Information

Description: This service allows cinema managers to update movies’ detailed information or schedule.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Movie Management” button, and then there will be a list of all existed movies.
2. Select a movie from the movie list
3. Click on the “Edit” button
4. Input valid detail information about the movie.
5. Click on “Submit” button
6. The system shows “success” information and the movie is added successfully.

Alternative scenarios

- 4a. Some input is invalid, e.g. the theatre is invalid in the scheduled time
 1. Click on the “Submit” button
 2. The system shows “Some settings are invalid ” information and the movie is not added
- 4b. Some input field is empty
 1. Click on the “Submit”button
 2. The System shows “Some settings are needed” information and the movie is not added

Scenario 4: View Movie Information (Cinema Manager)

Description: This service allows cinema managers to view existed movies from the system.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Movie Management” button, and then there will be a list of all existed movies.
2. Select a movie from the movie list
3. Then the system will show all the detailed information and schedule of the selected movie.

Scenario 5: View Movie Information (Customer)

Description: This service allows customers to view existed movies from the system.

Actor: Customer

Precondition: The customer has already logged in and in the home page

Main successfully scenarios:

1. Click on the “Movies” button

2. Select a movie from the movie list
3. The system shows detailed information and schedule of the selected movie.

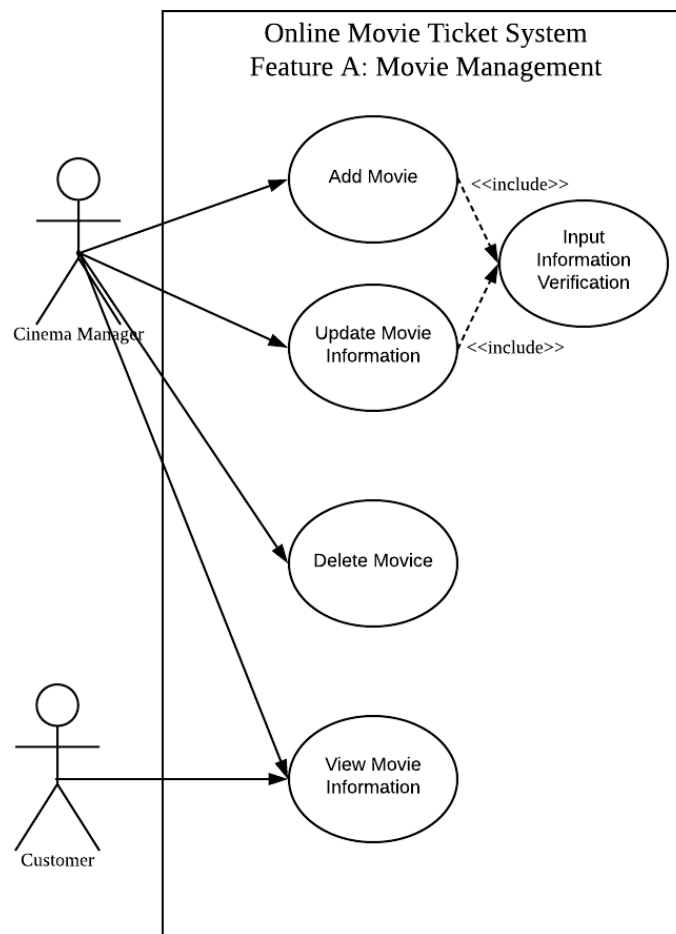


Figure 1 — Use case diagram of Feature A

Feature B: Order Management

The system allows order management, and different users have different permissions. A customer could create new orders and view all the existed orders (order history). A cinema could view all existed customer order information, cancel orders (with some limitation) and re-schedule order (with some limitation). The detailed use cases are shown below.

Scenario 6: Buy Movie Ticket

Description: This service allows customers to buy tickets of some specific movie session.

Actor: Customer

Precondition: The customer has already logged in and in the home page

Main successfully scenarios:

1. Click on the “Movies” button
2. Select a movie from the movie list
3. Click on “Buy Tickets” button
4. Select one time-schedule item from all the movie time list
5. Input some specific number of tickets
6. Click “Pay” to book the tickets
7. The system shows “Success” information and the number of tickets for that movie session are booked successfully.

Alternative scenarios

- 5a. Leave the field of number of tickets empty or input invalid information
 1. Click the “Pay” button
 2. The system shows “Please input a valid number” information and no ticket is booked
- 5b. The input number of tickets is larger than the number of available tickets
 1. Click the “Pay” button
 2. The system shows “No enough tickets left” information and no ticket is booked
- 6a. Click the “Cancel” button
 1. The booking is cancelled.
 2. The system jumps back to the home page
- 6b. The payment is unsuccessfully
 1. The system shows “Payment failure” information and no ticketed is booked
 2. The system jumps back to the home page

Scenario 7:View Order History

Description: This service allows customer to view all his order history.

Actor: Customer

Precondition: The customer has already logged in and in the home page

Main successfully scenarios:

1. Click on “Order” button
2. The system shows all the order history and information in the form of list.

Scenario 8: View customer order information

Description: This service allows cinema managers to view all customers’ order information.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Customer Management” button, and then there will be a new page with all existed customer accounts
2. Click on one specific account from the account list
3. Click on the “Order Management” button
4. The system shows an order list which is the order history of the selected customer

Scenario 9: Cancel customer order schedule

Description: This service allows cinema managers to cancel customer orders.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Customer Management” button, and then there will be a new page with all existed customer accounts
 2. Click on one specific account
 3. Click on the “Order Management” button
 4. The system shows an order list which is the order history of the selected customer
 5. Click on “Cancel” button in a specific order item row, where the specific order is still valid to be cancelled.
 6. The system shows “Success” information. The order is cancelled and the customer will be refunded later
- Alternative Scenarios:

- 5a. Click on “Cancel” button where the selected order is invalid to cancel (too late or some other reasons)
 1. The system will show “Cannot cancel it now” information. The order will not be cancelled and the customer won’t be refunded.

Scenario 10: Re-schedule customer order

Description: This service allows cinema managers to re-schedule customer orders.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Customer Management” button, and then there will be a new page with all existed customer accounts
2. Click on one specific account
3. Click on the “Order Management” button
4. The system shows an order list which is the order history of the selected customer
5. Click on “Re-schedule” button in a specific order item row, where the specific order is still valid to re-schedule.
6. Input valid re-schedule information, including movie, time and number of tickets.
7. Click on the “Submit” button
8. The system shows “Success” information. The order is re-scheduled and the customer will be refunded if necessary.

Alternative Scenarios:

- 5a. Click on “Re-schedule” button where the selected order is invalid to re-schedule (too late or some other reasons)
 1. The system will show “Cannot re-schedule it now” information. The order will not be changed.
- 6a. Input some invalid information or leave some field empty
 1. Click on the “Submit” button
 2. The system shows “Please input valid information”, and the order will not be changed
- 6b. The inputted schedule is not available, which may because the number of tickets is not available or some other reasons.
 1. Click on the “Submit” button
 2. The system shows “The schedule is invalid”, and the order will not be changed

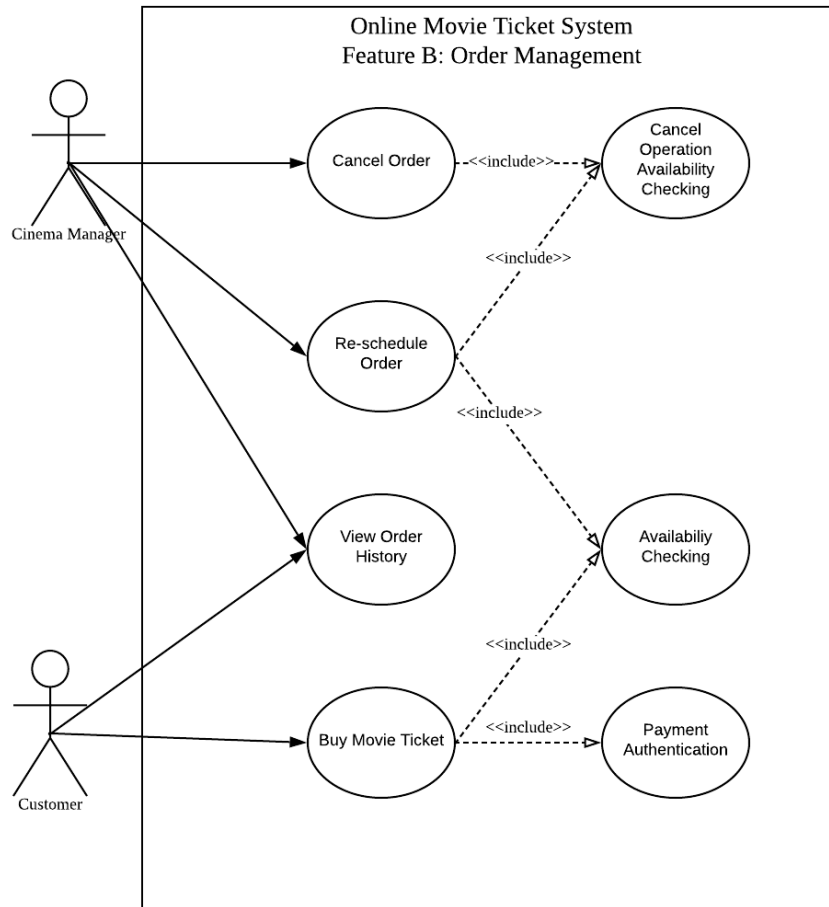


Figure 2 — Use Case diagram of Feature B

Some other necessary features & use cases

Scenario 11: Log in (Cinema Manager)

Description: This service allows users to log in as cinema managers with related permissions

Actor: Cinema Manager

Precondition: In the home page without any account already logged-in

Main Successful Scenarios:

1. The cinema manager click on the “Login” button
2. Input valid username and password.
3. Click on the “Login ” button
4. The system shows success information and the cinema manager logs in successfully.

Alternative Scenarios

- 2a. The cinema manager input invalid username or password
 1. Click on the “Login” button
 2. The system shows “invalid username or password” information and the cinema manager won’t be logged in.

- 2b. The cinema manager leaves username field or password field empty
1. Click on the “Login” button
 2. The system shows “username or password needed” information and the cinema manager won’t be logged in.

Scenario 12: Logout (Cinema Manager)

Description: This service allows cinema managers to log out.

Actor: Cinema manager

Precondition: The cinema manager has already been logged-in and on the home page.

Main successfully scenarios:

1. Click on the “Logout” button
2. The system will show “success” information and the cinema manager logs out successfully.

Scenario 13: Register (Customer)

Description: This service allows users to create new customer account

Actor: Customer

Precondition: In the home page without any account already logged-in

Main successfully scenarios:

1. Click on the “Register” button
2. Input valid username and password
3. Click on the “Submit” button
4. The new account is created successfully

Alternative Scenarios:

- 2a. The username has already been used
1. Click on the “Submit” button
 2. The system shows “Invalid username, input another please” information, and the new account is not created.
- 2b. The username or password field is empty
1. Click on the “Submit” button
 2. The system shows “Some field still empty” information, and the new account is not created.

Scenario 14: Login (Customer)

Description: This service allows users to log in as customers with related permissions

Actor: Customer

Precondition: In the home page without any account already logged-in

Main successfully scenarios:

1. Click on the “Login” button
2. Input valid username and password
3. Click on the “Login” button
4. The user logs in as a customer successfully

Alternative Scenarios:

- 2a. Input invalid username or password or leaves username field or password field empty
1. Click on the “Login” button
 2. The system shows “Please input valid username and password” information and the customer is not logged-in

Scenario 15: Logout (Customer)

Description: This service allows customers to log out.

Actor: Customer

Precondition: The customer has already logged in and in the home page

Main successfully scenarios:

1. Click on the “Logout” button
2. The system will show “success” information and the customer logs out successfully.

Overall Use Case Diagram:

