Movie Ticket Booking System

Use Case Diagrams and Specification

Revision History

Date	Version	Description	Author
20.02.2019	1.0	Initial Version	Tanya Motwani

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Use Case Diagrams

1. *Main Booking System*
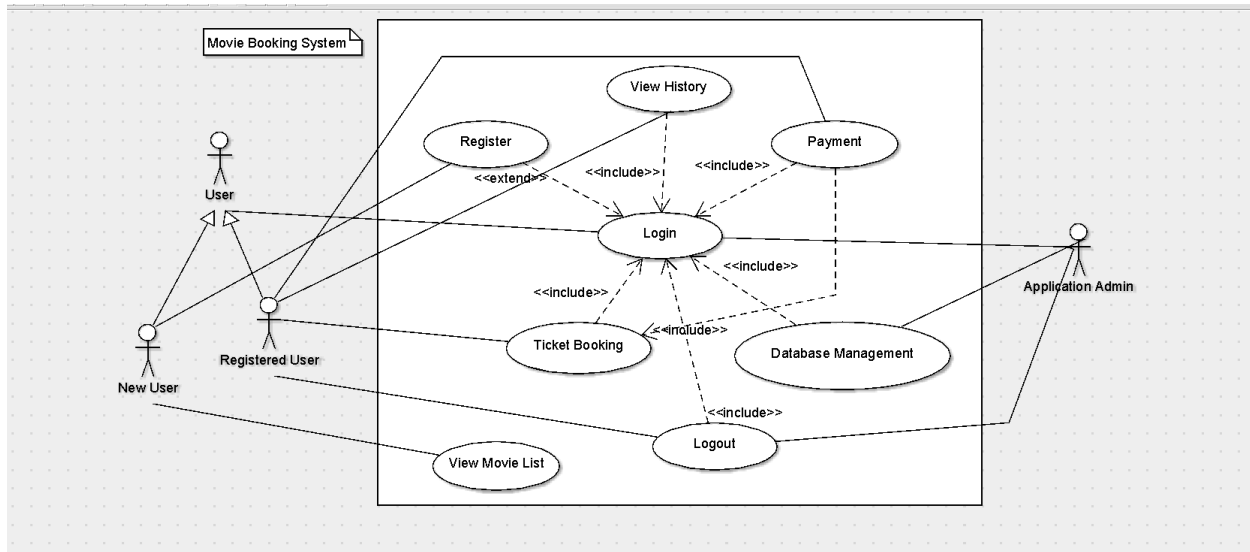
2. *Ticket Booking*
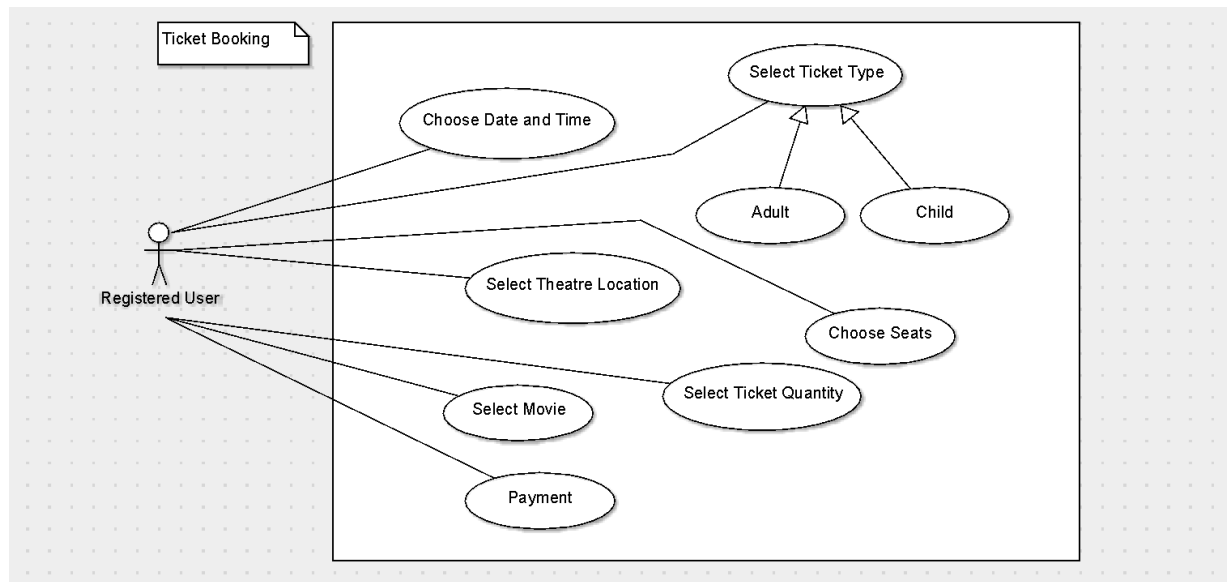
3. *Payment*

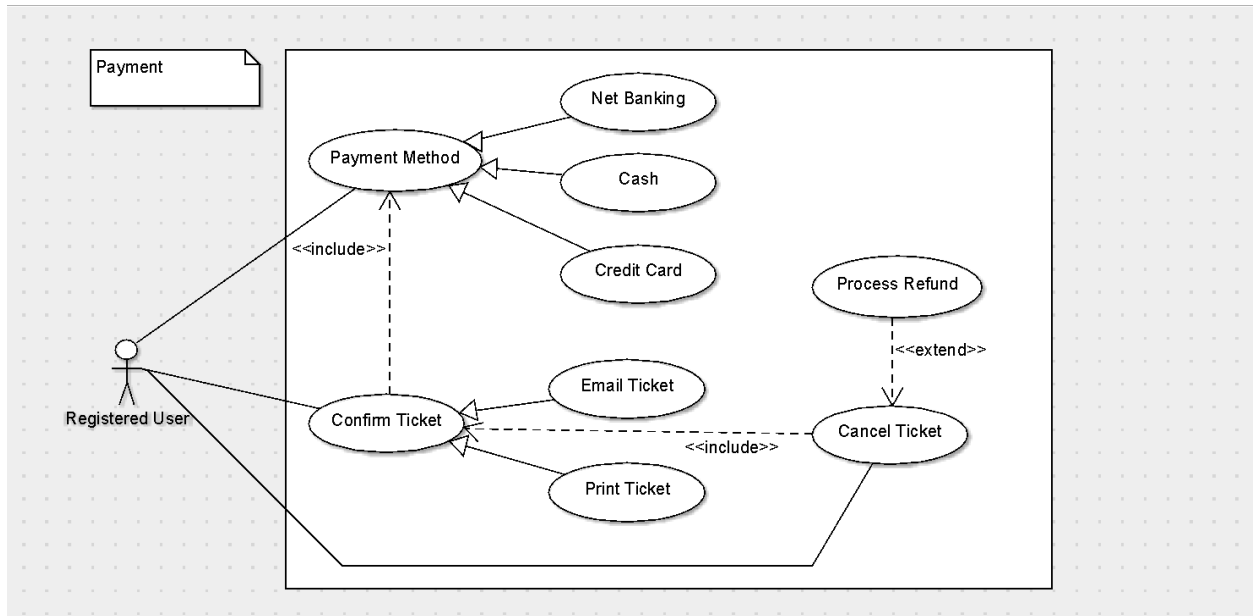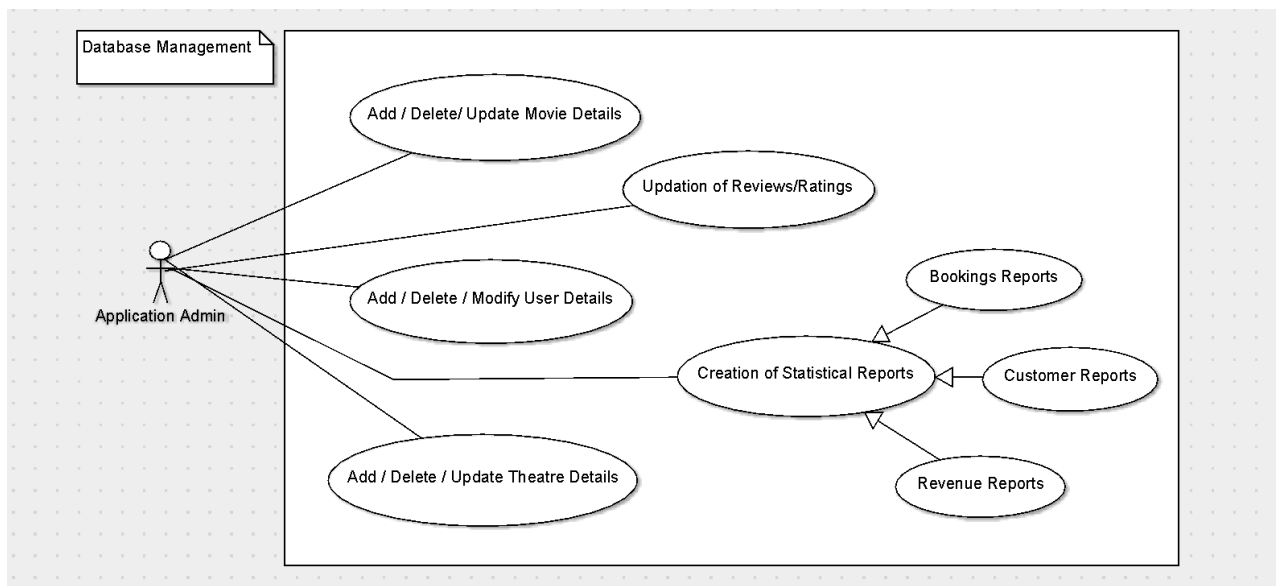## 4. *Database Management*

Use Case Specification: View Application

1.   View Application

1.1   Brief Description

This use case describes the flow with which an actor can view the application.

2.   Actors

Unregistered User
Registered User
Administrator

3.   Basic Flow

3.1   Basic Flow

1) The user accesses the home page of the site by logging in.

2) The user enters the location and chooses the theatre. The details of the movie for the location and theatre chosen will be displayed (i.e., movie name, now showing, exclusive and upcoming movies, reviews, ratings, duration, release date, genre, censor certification, format of movie, languages, cast, and a short description for the movie).

3) Recommended movies for the user will also be displayed.

3.2   Alternative Flows

3.2.1   First Alternative Flow

1) The user is not registered. The application site can still be viewed.

2) Clicking on the "Register" button, the user fills up the form.

3) The user logs in to the system and new functionalities are enabled.

3.2.2   Second Alternative Flow

1) The user is logged in. Some problem occurs while displaying the movie information from the database.

2)   A message will be displayed, "Database Error", and the site needs to be reloaded.

4.   Post Conditions

1) On clicking the "Book Tickets" button, the user will be redirected to the Movie Details page.

Use Case Specification: Register

1. Register

1.1 Brief Description

This use case describes the flow of the registration process in the system.

2. Actors

Customer

3. Basic Flow

3.1 Basic Flow

1) The user accesses the home page of the site.
2) The user clicks on the "Register" icon.
3) The user fills up the form which opens up.
4) On clicking the "Register" button, the details entered are successfully saved in the database. The user can now access the system with the username and password he/she has chosen.

3.2 Alternative Flows

3.2.1 First Alternative Flow

1) The user doesn't enter all the mandatory fields in the registration form.
2) Clicking on the "Register" button, the validation is fired and the user is asked to fill in the required fields.

3.2.2 Second Alternative Flow

1) The user enters wrong values for some of the fields. For example: In the email field, the user doesn't follow the convention somename@provider.com
2) The validation will be fired when "Register" button is clicked and the user will be asked to enter a valid email address. Same holds for any other fields which have some patterns to be followed.

3.2.3 Third Alternative Flow

1) All the fields have been entered properly.
2) The user clicks the "Register" button. Some problem occurs while saving the records in database.
3) The records will not be saved and the user will be displayed the message "Registration Failed!"

4. Post Conditions

1) On successful registration, the user will be logged into the system automatically with the registered username and password.
2) The user will be redirected to their home page and new functionalities will be enabled.

Use Case Specification: Login

1. Login

1.1 Brief Description

This use case describes the flow of the login process in the system.

2. Actors

Customer
Administrator

3. Basic Flow

3.1 Basic Flow

1) The user accesses the home page of the site.

2) The user clicks on the "Login" link.

3) The login page opens up which asks for username and password. Also, it asks to select the role of the user.

4) The user enters the username, password and selects the role; then clicks on the login button. The user is logged into the system based on their role.

3.2 Alternative Flows

3.2.1 First Alternative Flow

1) All the fields on login page are mandatory. The user skips any of the fields and clicks on Login button.

2) The validation is fired asking to user to enter all the mandatory fields.

3.2.2 Second Alternative Flow

1) The user enters wrong values for the email field. In the email field, the user doesn't follow the convention somename@provider.com

2) The validation will be fired when "Login" button is clicked and the user will be asked to enter a valid email address.

3.2.3 Third Alternative Flow

1) The user doesn't enter the password with the format – 8 characters

2) The validation will be fired when "Login" button is clicked and the user will be asked to enter a valid password.

3.2.4 Fourth Alternative Flow

1) The user enters incorrect username or password.

2) On clicking the "Login" button, the message will be displayed "Incorrect Username or Password". The user will have to again enter the correct details and login.

3.2.5 Fifth Alternative Flow

1) All the fields have been entered properly.

2) The user clicks the "Login" button. The database connection fails at this point.

3) The details can't be checked at this point and a message is displayed "Couldn't login. Some error occurred. Please try again".

4. Post Conditions

On successful login, the user will be redirected to the home page.

Use Case Specification: Manage Profile

1.   Update Account

1.1   Brief Description

This use case describes the flow for updating the profile of users in the system.

2.   Actors

Customer

3.   Basic Flow

3.1   Basic Flow

1) The user clicks on the "Update Account" link.
2) The registration form opens up with all the filled in details.
3) The user can update the required fields and on clicking the "Submit" button, the details are saved in the database.

3.2   Alternative Flows

3.2.1   First Alternative Flow

1) The user mistakenly skips any of the required fields.
2) Clicking on the "Submit" button, the validation is fired and the user is asked to fill in the required fields.

3.2.2   Second Alternative Flow

1) All the fields have been entered properly.
2) The user clicks the "Submit" button. Some problem occurs while saving the records in database.
3) The records will not be saved and the user will be displayed the message "Updation Failed! Please try again"

4.   Pre-Condition

The user must be logged into the system before he/she can update their profile.

5.   Post Condition

On successful updation, the user will be notified with the message "Profile updated successfully".

Use Case Specification: Ticket Booking

1. Add Movie Details

1.1 Brief Description

This use case describes the flow of booking tickets.

2. Actors

Customer

3. Basic Flow

3.1 Basic Flow

1) The user accesses the home page of the site.

2) The user clicks on the "Book Now" button.

3) The customers can add the details of the movie - Take all the information about the movie (i.e. movie name, movie date, time, language, format of movie, cinema name, number of tickets, ticket type, seats through seating arrangement and payment method).

4) Customer has to specify the number of tickets booked, depending on the type of the ticket, so that price can be calculated for the same.

3.2 Alternative Flows

3.2.1 *First Alternative Flow*

1) The customer mistakenly skips any of the required fields.

2) Clicking on the "Submit" button, the validation is fired and the customer is asked to fill in the required fields.

3.2.2 *Second Alternative Flow*

1) All the fields have been entered properly.

2) The customer clicks the "Submit" button. Some problem occurs while redirecting to Payment page.

3) The records have to be entered again.

4. Pre-Condition

The customer must be logged into the system before he/she can book a ticket.

5. Post Condition

On clicking "Submit" button, the customer will be redirected to the Payment page.

Use Case Specification: Payment

1. Payment

1.1 Brief Description

This use case describes the flow of the payment process in the system.

2. Actors

Customer

3. Basic Flow

3.1 Basic Flow

1) The user adds the required movie details.

2) The user clicks on the "Payment" icon.

3) The user has to provide the mode of payment which can be net banking, credit card or cash.

4) In case of net banking or credit card service, it will be a type of secure billing, provided by third party service like PayPal etc.

5) The user also has an option to enter discount code. On applying discount or coupon codes, the customer can get a discount. Various offers for theatre fast food counters are also available.

6) On clicking Book Ticket, the user will get a ticket number which is a unique number per booking order.

7) An invoice number will also be generated for the same.

8) All the above-mentioned details will be stored in a database on clicking Book Ticket button.

3.2 Alternative Flows

3.2.1 First Alternative Flow

1) The user chooses net banking or credit card service. Some problem occurs while payment through PayPal.

2) The transaction is not successful, and the user has to enter credit card details again.

3.2.2 Second Alternative Flow

1) The user clicks on Book Ticket. Some problem occurs while saving the records in database.

3) The records will not be saved and the user will be displayed the message "Please enter all details again."

4. Pre-Condition

The customer must enter all movie details before payment.

5. Post-Condition

The user will be displayed a message "Ticket Booking Successful" and will be sent an e-ticket through email. The user will be then redirected to the Home Page.

Use Case Specification: View Booking History

1. View Booking History

1.1 Brief Description

This use case describes the flow of the view booking history process in the system.

2. Actors

Customer

3. Basic Flow

3.1 Basic Flow

1) The user accesses the home page of the site.
2) The user clicks on the "View Booking History" icon.
3) The user can view all the details of his previous movie bookings – movie name, movie date, time, cinema name, number of tickets, ticket type, seats category and payment method.
4) The user also has an option to clear his/her booking history.
5) All the details are extracted from the database.

3.2 Alternative Flows

3.2.1 First Alternative Flow

1) The user clicks on "View Booking History" icon. Some problem occurs with the data extraction from the database.
2) The user has to reload the page.

4. Pre-Condition

The customer must be logged into the system before he/she can view booking history.

5. Post Condition

On clicking "Home", the customer will be redirected to the Home Page.

Use Case Specification: Subscription

1.   Subscription

1.1   Brief Description

This use case describes the flow of the subscription to the application site.

2.   Actors

Customer
Administrator

3.   Basic Flow

3.1   Basic Flow

1) The user accesses the home page of the site.
2) The user clicks on the "Subscribe" icon.
3) A text field is displayed where the user has to enter his/her Email ID.
4) On clicking the "Subscribe", the email ID will be stored in the database.
5) The administrator can send notifications to the subscribed users on any new movie releases, promotional news, advertising etc.

3.2   Alternative Flows

3.2.1   First Alternative Flow

1) The user enters the email ID and clicks on "Subscribe" button. Some error occurs and the email ID is not stored in the database.
2) The user will be notified with the message, "Subscription Error" and is asked to fill in the ID again.

4.   Post Condition

On clicking the "Subscribe", the user will be notified with the message "Subscription successful".

Use Case Specification: Feedback

1. Feedback

1.1 Brief Description

This use case describes the flow of the feedback process in the system.

2. Actors

Customer
Administrator

3. Basic Flow

3.1 Basic Flow

1) The user accesses the home page of the site.
2) The user clicks on the "Feedback" icon.
3) The user has to enter the name, email ID, complaint/ suggestions.
4) On clicking the "Submit" button, all the details are stored in the database. A message will be displayed, "Thank you for your feedback."
5) The administrator can look up in the database and further communication will be through email.

3.2 Alternative Flows

3.2.1 First Alternative Flow

1) The user mistakenly skips any of the required fields.
2) Clicking on the "Submit" button, the validation is fired and the customer is asked to fill in the required fields.

3.2.2 Second Alternative Flow

1) The user fills up all fields. The user clicks the "Submit" button. Some problem occurs while saving the records in database.
3) The records will not be saved and the customer will be displayed the message "Sorry, please enter feedback again."

4. Post Condition

On successfully adding the feedback in the database, the customer will be notified with the message "Thank you for your feedback".

Use Case Specification: Application Management

1.   Application Management

1.1   Brief Description

This use case describes the flow of the application management.

2.   Actors

Administrator

3.   Basic Flow

3.1   Basic Flow

1) The administrator is responsible for the application management. He/ She can choose from Movie management, User management and Theatre management. In all, he/ she has an option to Add", "Delete" or "Update".

2) The admin can alter movie/ user/ theatre details in text boxes according to his choice. On clicking "Submit", the records will be saved/ updated in the database.

4) On clicking "Movie Reviews" button, the admin has an option to alter movie ratings/ reviews.

5) On clicking "Create Reports" button, the admin can choose from booking reports, customer reports and revenue reports. Consequently, through the analysis of the data stored, the reports will be generated and displayed.

3.2   Alternative Flows

3.2.1   First Alternative Flow

1) The administrator mistakenly skips any of the required fields.

2) Clicking on the "Submit" button, the validation is fired and the administrator is asked to fill in the required fields.

3.2.2   Second Alternative Flow

1) The administrator fills all fields. Some problem occurs while saving the records in database.

3) The records will not be saved and the administrator will be displayed the message "Please enter details again."

3.2.3   Third Alternative Flow

1) The administrator chooses "Create reports". Some problem occurs while generation of reports.

3) The administrator has to reload the page and try again.

4.   Post Condition

On successful entering of records, the database will be updated and the administrator will be notified by the message, "Database Updated." On successful generation of reports, the administrator has an option to print the reports or to be redirected to Home Page.