

## Group Project Log

<b>Group Name:</b>	Group 26
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<b>Group Members:</b>	Maya Varrier, Harsh Parmar, Rutika Patel, Sneha Kotha, Varun Chauhan
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<b>Deliverable:</b>	“MovieTime” project proposal and front-end code via GitHub
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Group Member Name	Work Done (%)
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Harsh Parmar	20%
Rutika Patel	20%
Sneha Kotha	20%
Varun Chauhan	20%
<b>Total:</b>	<b>100%</b>

# **PROJECT PROPOSAL**

## **PROJECT GROUP 26**

### **MovieTime: Where You Can Enjoy**

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## **1. PROJECT BACKGROUND**

The proposed project “MovieTime” is an online movie ticket booking project, where customers can book tickets for any upcoming movies or currently available movies for any preferred theater and location.

The purpose of this project is to develop an application using which users can easily book film tickets. Since almost everything has become “online” these days, an application where movie tickets can be booked online would make the film viewing experience easier for the movie lovers. Moreover, the application is designed keeping in mind the different age groups of the people that would use this application. Film is an art and people of all the age groups appreciate and enjoy it. This application is targeted to help every single of these people to make the procedures of booking a ticket for the film easier and hassle free.

The name of our application is “MovieTime : Where you can enjoy”. Our group intends to develop a responsive, eye-catching but simple user interface. We are also using the trending technologies to develop the application so that it’s easier to maintain.

### **1.1 Project Objectives**

The objective of this project is to provide an easy and convenient option for booking movie ticket online. It allows users to reserve their seats beforehand and avoid the ticket collection queue at theaters. Further, the application will allow users to check seat availability online and allow booking accordingly.

### **1.2 Live Project URL**

“MovieTime” project is deployed on Heroku, deployment link is provided below

<https://group26-project.herokuapp.com/>

The code for the project is present on GitHub , following is the link to our project repository

[https://github.com/rutikapatel/group26\\_webProject\\_assign](https://github.com/rutikapatel/group26_webProject_assign)

## **2. APPLICATION DETAILS**

### **2.1 Target User Insight**

Movietime is for the users who are fond of movies and like to book tickets as per their convenience. The application targets general users who like to watch movies, admin, and movie theater who likes to advertise their movie shows online. So, people of all age can

use the application with ease. The users should have an internet connection and should know how to use web browser or mobile.

## 2.2 Brand Attributes

As a brand, Movietime focus is to make the movie search as well as ticket booking easy for movie lovers. The web application is packed with number of features that will help the users to guide throughout the whole process starting from searching for a movie to booking tickets for the movie. Another key factor of Movietime is that portrays professionalism and a sense of reliability to the users otherwise user won't feel secure and are unlikely to share important information such as payment details. To enforce this feeling of trust and professionalism paying attention to subtle details during design phase is crucial, the site is designed to make key feature accessible to the users and give them the impression that the web application was carefully designed keeping user perspective in mind.

## 2.3 Competitive Landscape

Movietime is an online movie search and movie booking application that's helps the users to search for new movies based on their location and movie preference and will also allow the users to book tickets for the same.

Existing Competitor: Ciniplex, MovieTickets, LandMarkCinemas

**Overall Layout and Design:** The overall layout of the web application is simple yet elegant which will help the user to navigate through different features with ease. Unlike other sites which do not feel appealing nor even suggests users the movies based on their location and genre, this site on the other hand will help the user to search for movies which they like and will also help to customize and minimize the seat booking option when they book tickets which makes it a more well-rounded and universal user experience.

**Location Based Movie Booking:** Unlike other website our site will give whole control to the user when they search for movies which will be based on their preference (location and genre). This would help the users time to search for movies which are not available in their region and only showing movies that are available.

**Ticket-Booking:** Movietime comes with a unique way of ticket booking as the users will have options to choose the seat they like in the theater. This feature will save time of the users and will also provide solution to long waiting time for seat booking in theater. Moreover, users will also have the freedom to cancel the tickets any time they want.

**Daily Updates:** Movietime would be updated daily as new movies keeps releasing day by day. It will also include the movies that are to be released in future and for which the users can pre book the tickets.

## 2.4 Project Scope

### 2.4.1 Goals

The purpose for creating “MovieTime” is as follows :

- To facilitate users to check information on different type of movies, its show time and availability.
- Allow seat reservation at preferred theater, prior to the show
- Help find users the near-by shows available at near-by theaters
- Allows users to save movies for future, as a watch-list
- Facilitate users to keep track of their future reservations and past reservations
- Allows users to check reviews and ratings for a movie before booking.
- To provide users the option to select most appropriate offers online, which often is missing when booking movie tickets at theaters.

### 2.4.2 Features

1. **User Profile** : The application has user management feature which allows different kinds of users can login/ sign-up to use the web-application. User Profile will allow users to register, login into web-application, access their watchlist, bookings and edit their profile details.
2. **Location based Search** : It will allow users to select a particular location or theater in which they are planning to book movie show.
3. **Filter** : While Searching for movies, users can filter or sort movies according to the genre i.e. horror, sports, comedy, science fiction, action, animations etc. and also filter movies by language. Filter has an option to display 2D/3D/4DX movies.
4. **Watch-list** : If a user is interested in a movie, but not yet ready to book tickets, they can add that movie to watch-list. Watch-list will have a personalized list of movies the user is interested in.
5. **Offers** : All the offers available upon booking online, with detailed offer’s information will be displayed in “Offers”. The user can choose which offer suits them the most and book accordingly.
6. **Watch Trailer** : Users can watch the movie trailer from the detailed movie description page. It will give users some insight about the movie before booking the show.
7. **Ratings / Review** : Users can view movie’s ratings and reviews before booking the movie. This will provide the user general opinion about the movie.
8. **Seat Selection** : When user proceeds with booking, the application will allow users to select preferred seats from available seats. Selected seats will be booked and confirmed with the particular theater.
9. **Book Ticket/ Payment** : Once the movie is selected, application will allow users to book tickets. For booking tickets, it will ask users for details like date, show time, number of tickets for adults and children, and option to select offers from available offers. To proceed further, credit card details will be asked for payment.



10. **Ticket Generation** : Upon successful transaction, a ticket will be generated and a ticket.pdf file will be mails on the user's registered mail id. The generated ticket will have unique QR Code which can be shown at theaters as a proof of booking.
11. **Help/ Support** : This section will have all user-friendly instructions for using the website efficiently.
12. **Past bookings** : User can view details of their past and future bookings under "Bookings" option. This way they can keep track of their activity.

Features like watch-list, offers, add ratings/reviews, booking, seat selection and past bookings will be available to registered users.

### 2.4.3 Additional Features

Once all the above features are implemented, the application can be further improved by providing below mentioned features :

1. **Calendar Sync** : Once the booking is confirmed, calendar sync feature will allow users to sync the data with calendar and set reminders for the booked shows.
2. **Wallet Integration** : This feature will allow users to make secure and easy payment by using card details saved in their trusted digital wallet.
3. **FAQs** : Most frequently asked question along with their answers will be displayed under this section. Further, it will allow users to enter questions or answer questions asked by other users.
4. **Recommender** : A recommender algorithm will be implemented which will collect data from users search profile and will display movie suggestions accordingly.

## 2.5 Information Architecture

Provide a complete sitemap of your application or web service and wireframes for each page you intend to develop for your application.

### 2.5.1 Proposed Sitemap

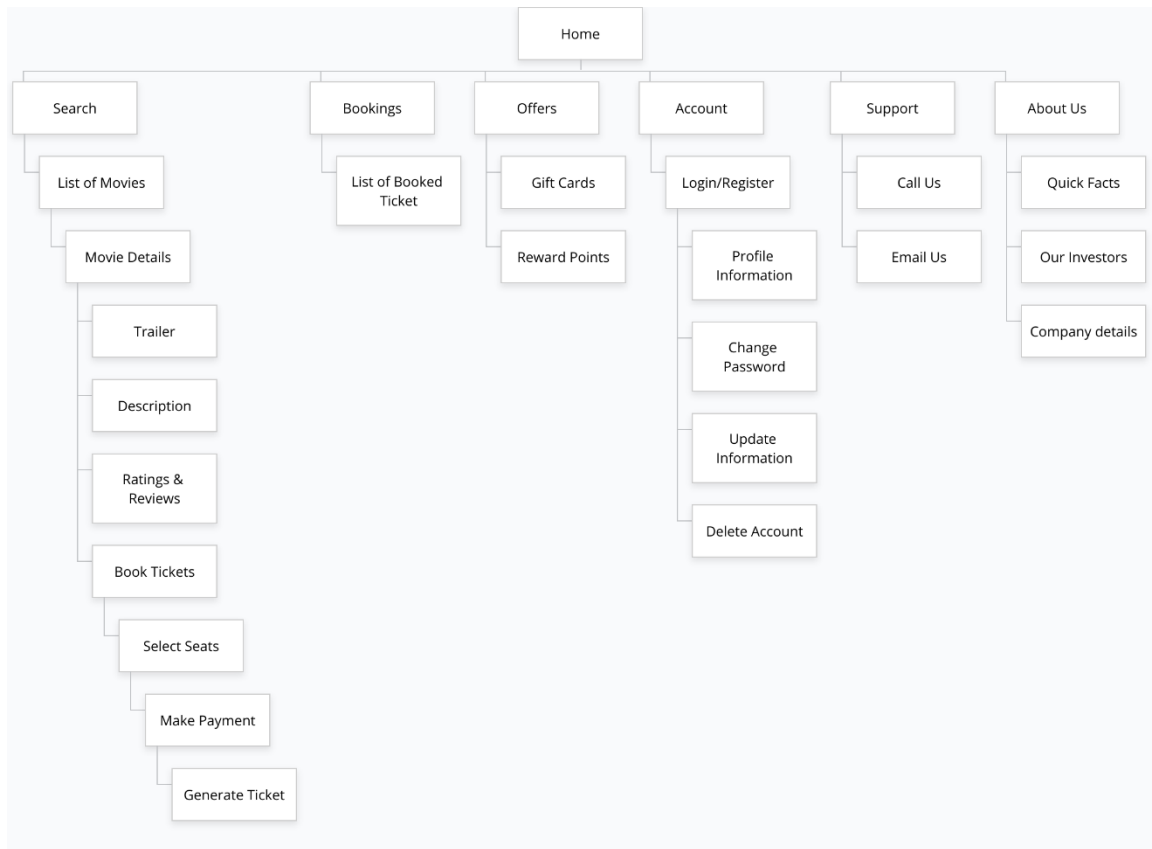
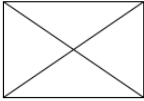



Figure 1: Sitemap for MovieTime


## 2.5.2 Proposed Wireframes



# MovieTime

 Profile

[Home](#) [Bookings](#) [Offers](#) [About Us](#) [Contact Us](#)



### My Profile

Email: abc@xyz.com

Update Email

Name: abc

Contact No: 123456789


Update Contact No.

Password: \*\*\*\*\*


Change Password

### Notifications

Email Notifications

On 

SMS Notifications

On 

### Watch List

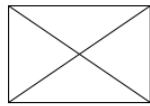
☐ ABC

☐ DEF

☐ GHI

☐ JKL

Figure 2: My Account page of MovieTime



# MovieTime

 Profile

Home

Bookings

Offers

About Us

Contact Us

Enter movie name



## Login

Email

\*\*\*\*\*

Login

[Forgot password?](#)

[Not a member yet? Register Now](#)

## Register

Name

Email

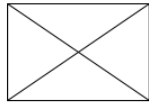
\*\*\*\*\*

\*\*\*\*\*

☐ I agree with terms of use and privacy

Register

Figure 3: Login and Sign Up page of MovieTime



# MovieTime

 Profile

[Home](#)[Bookings](#)[Offers](#)[About Us](#)[Contact Us](#)

## Contact Information

## Debit/Credit Card

☐ Terms and Conditions

Movie Name

Duration

Location

Date

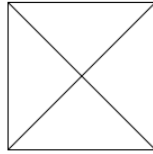
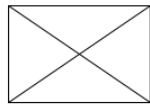
Show Time

## Tickets

Ticket	x2	\$100.00
Booking Fee		\$5.97
Seats		E7,E8
Total		\$105.97

Pay Now

Figure 4: Payment page of MovieTime



Movie Name

Language

Ratings

Genre

Duration

Release Date

Add to Watch List

Book Tickets



## Summary

Lorem ipsum dolor sit amet, sapien etiam, nunc amet dolor ac odio mauris justo. Luctus arcu, una praesent at id quisque ac.

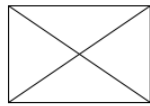
## Reviews

Lorem ipsum dolor sit amet, sapien etiam, nunc amet dolor ac odio mauris justo. Luctus arcu, una praesent at id quisque ac.

## Actors

Lorem ipsum dolor sit amet, sapien etiam, nunc amet dolor ac


Figure 5: Movie details page of MovieTime



# MovieTime

 Profile

**Home** Bookings Offers About Us Contact Us

Enter movie name 

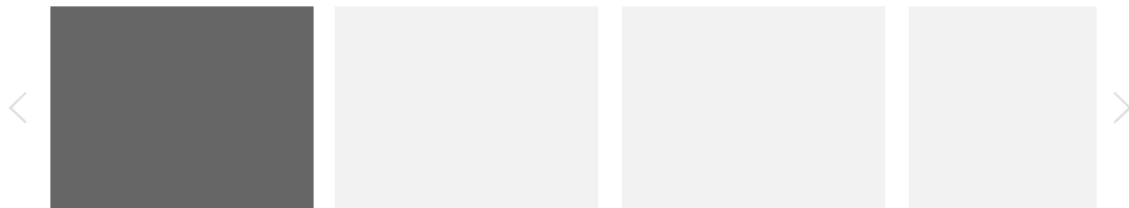


05/22/2020

Date

Filter

Now Showing



Upcoming

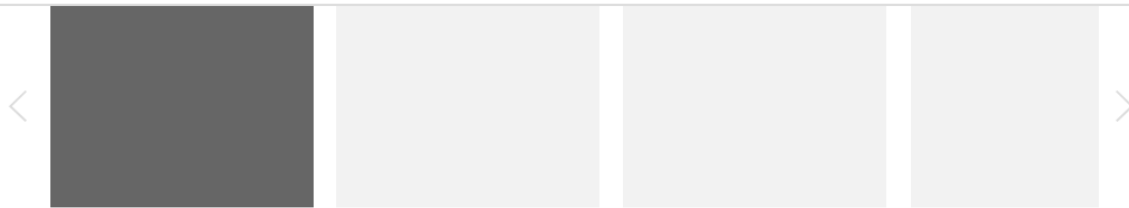


Figure 6: Home page of MovieTime

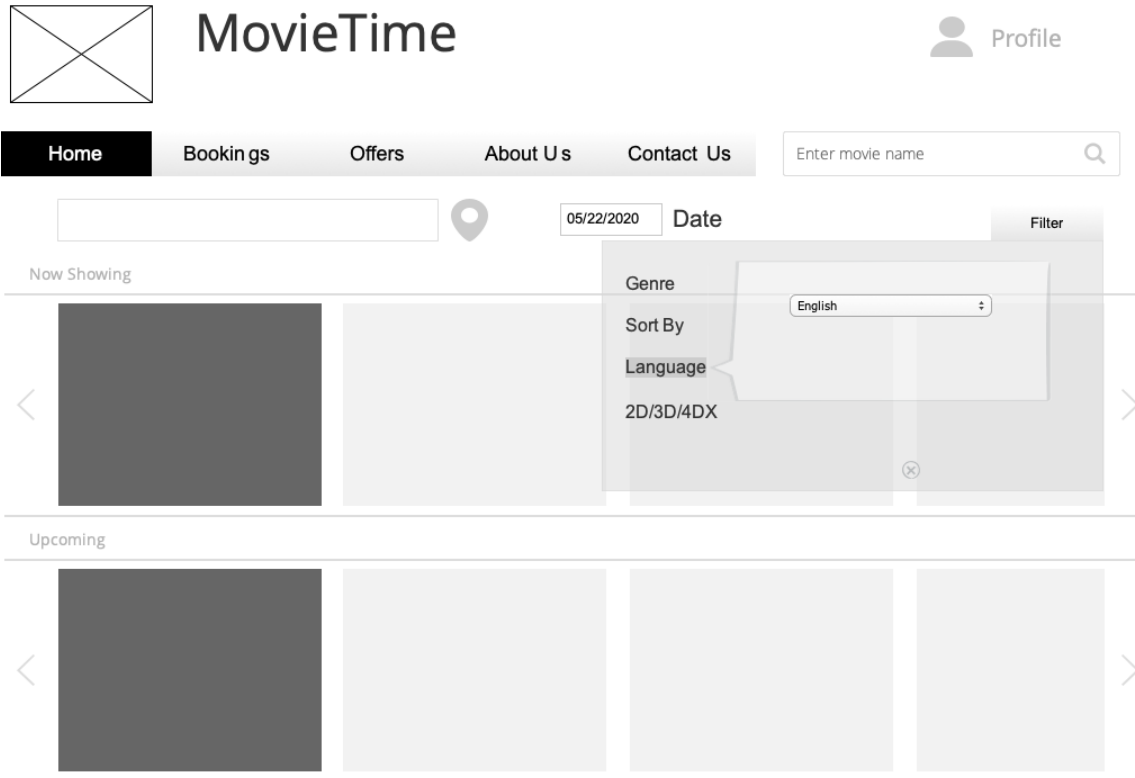
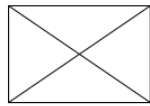


Figure 7: Filters option in Home page of MoveiTime





# MovieTime

 Profile

[Home](#)[Bookings](#)[Offers](#)[About Us](#)[Contact Us](#)

## Contact Us

MovieTime

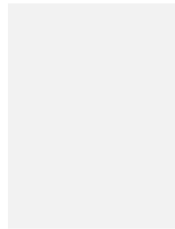
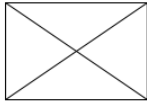
 support@movietime.com

 +0 000-000-0000

FOLLOW US

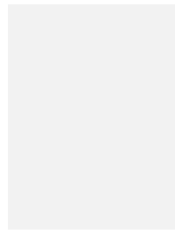


**Figure 8: Contact Us page of MovieTime**



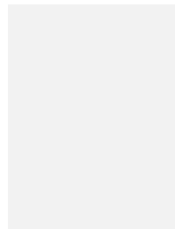
## Movie name 1

Date  
Time  
Seat No.  
Theatre name & location  
Transaction Id:



## Movie name 2

Date  
Time  
Seat No.  
Theatre name & location  
Transaction Id:

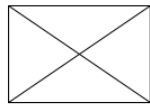


## Movie name 3

Date  
Time  
Seat No.  
Theatre name & location  
Transaction Id:



Figure 9: Bookings page of MovieTime



# MovieTime

 Profile

Home

**Bookings**

Offers

About Us

Contact Us

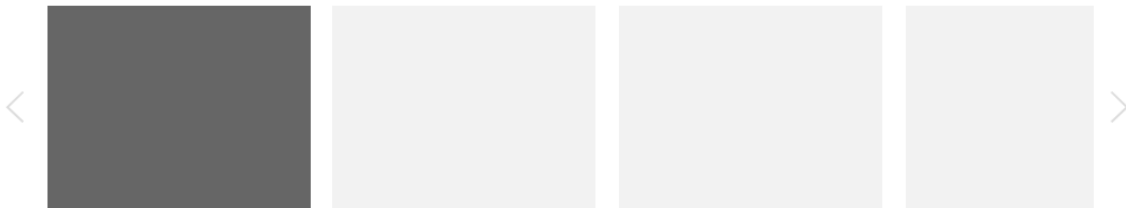
Enter movie name



## MovieTime

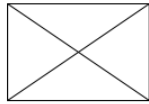
Description

### Our Investors



### Quick Facts

Figure 10: About Us page of MovieTime



# MovieTime

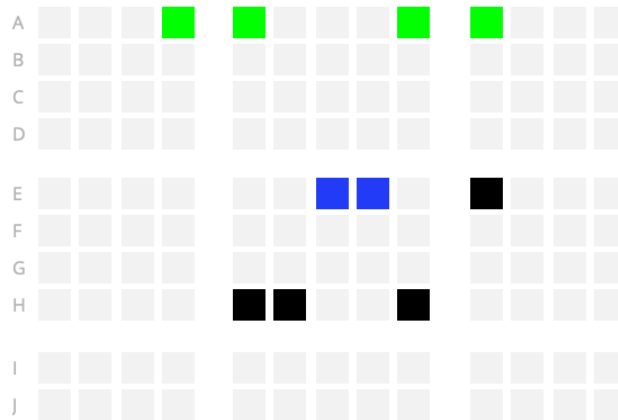
 Profile

[Home](#)[Bookings](#)[Offers](#)[About Us](#)[Contact Us](#)

Show Timings

8:00 PM

Select Seats



Screen This Way

 Available  Not Available  Your Seat  Wheelchair Accessible



Movie Name

Duration

Location

Date

Show Time

Tickets

Ticket	x2	\$100.00
--------	----	----------

Booking Fee	\$5.97
-------------	--------

Seats	E7,E8
-------	-------

Total	\$105.97
-------	----------

Continue

Figure 11: Seat Selection page of MovieTime

### 2.5.3 Website Design

As a reference to the sitemap layout we are building a website to book movie tickets online.

#### High fidelity prototype

The wireframe in the fig.12 represents the Sign-up form for the new users to register. This is accessible on any page in the website. Users need to provide the minimum details like name, email address and password to get their user account.

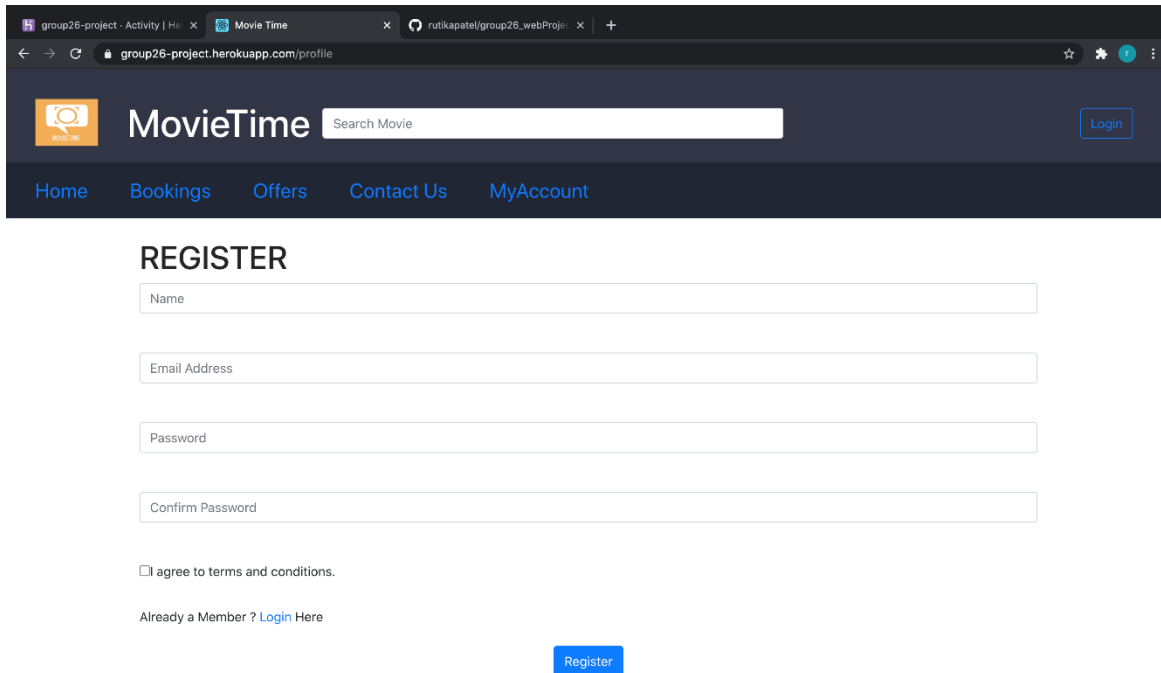
The image is a screenshot of a web browser displaying the 'REGISTER' page of a website called 'MovieTime'. The browser's address bar shows the URL 'group26-project.herokuapp.com/profile'. The website's header features the 'MovieTime' logo, a search bar with the placeholder text 'Search Movie', and a 'Login' button. Below the header is a navigation menu with links for 'Home', 'Bookings', 'Offers', 'Contact Us', and 'MyAccount'. The main content area is titled 'REGISTER' and contains four input fields: 'Name', 'Email Address', 'Password', and 'Confirm Password'. Below these fields is a checkbox labeled 'I agree to terms and conditions.' and a link that says 'Already a Member ? Login Here'. At the bottom of the form is a blue 'Register' button.

Figure 12: Register page of MovieTime

Fig 13. shows the Login form that lets users to log in using their registered email address. This page also has a reference to the registration form as Sign up and password recovery flow.

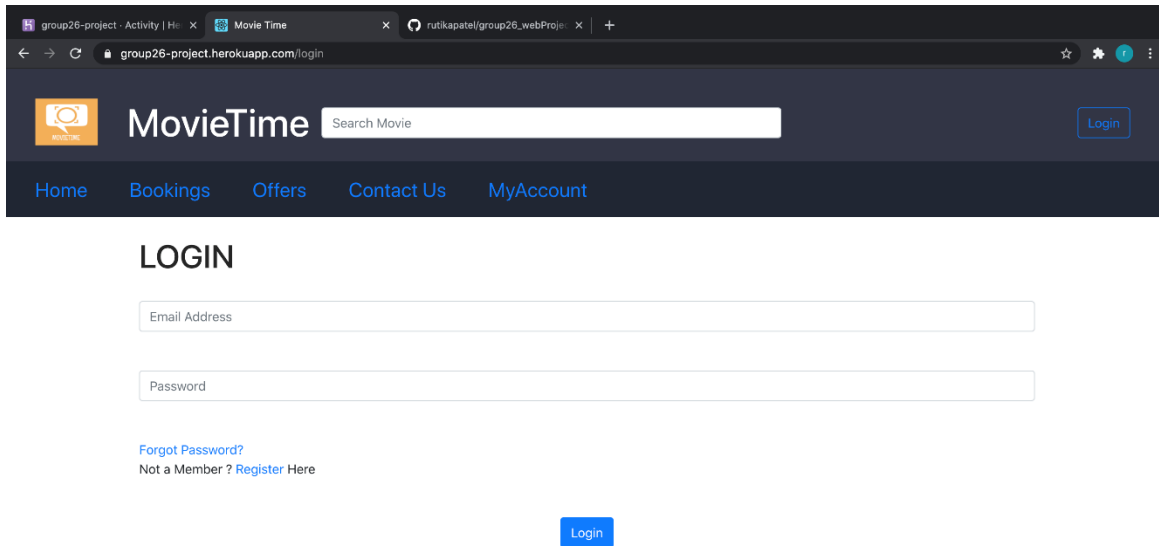


Figure 13: Login page of MovieTime

The wireframe in the fig.14 presents the landing page that contains the movie information, access to search now playing and upcoming movies quickly. The list of movies is generated based on the current movies that are playing in the locations based on their popularity and forthcoming or about to release movies. The home page also includes that populates the movies based on location and its availability based on date and time.

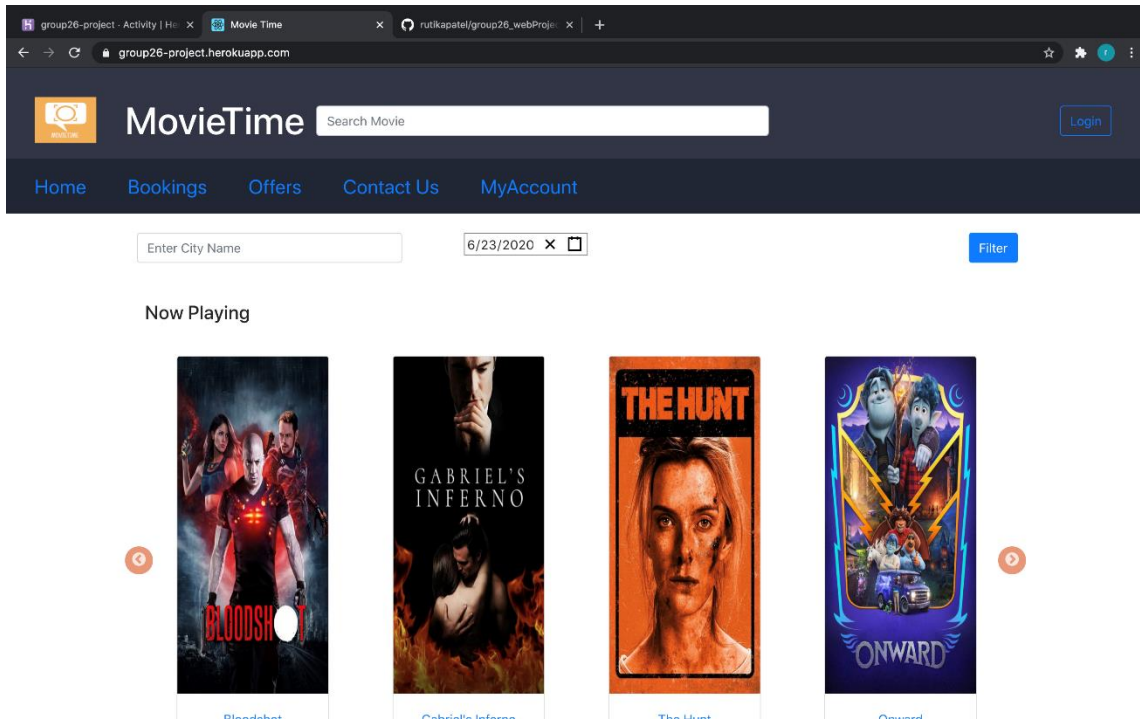


Figure 14: Home page of MovieTime

Fig.15 demonstrates the search functionality to find the availability of the preferred movies without scrolling and checking form the list of movies on the home page.

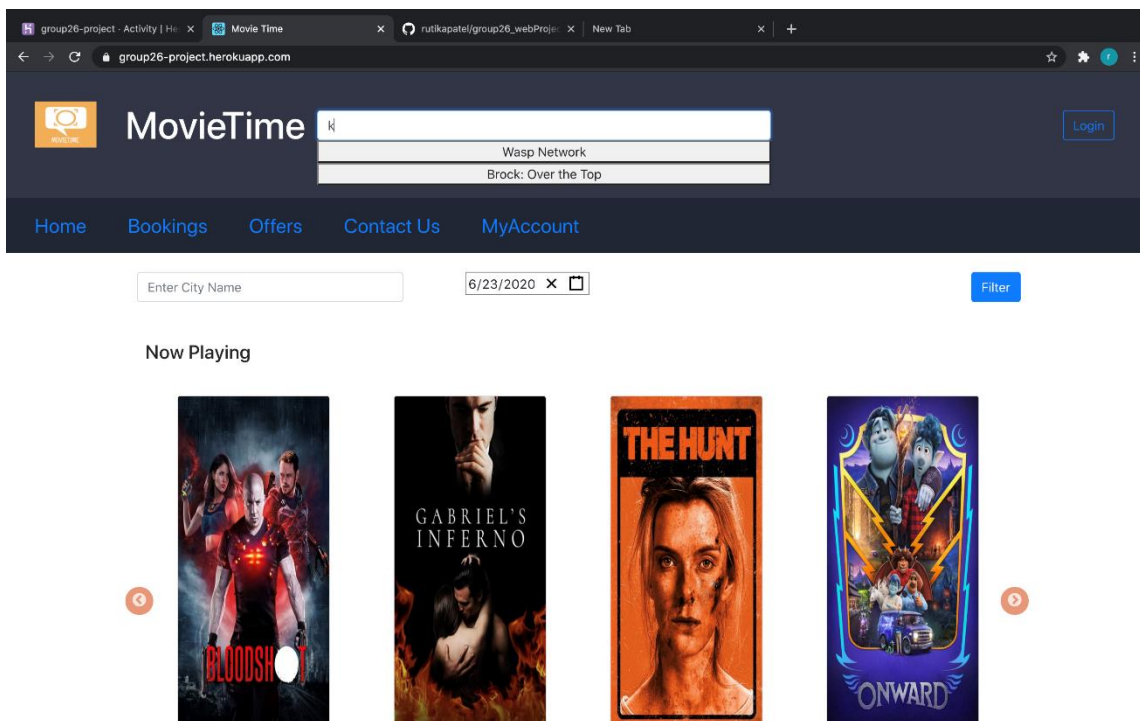


Figure 15: Search movie search bar of MovieTime

Not only the search by movie name but also user can filter the movie based on Genre or sorting based on the movie popularity, rating, etc., or even based on the language, as in fig.16.

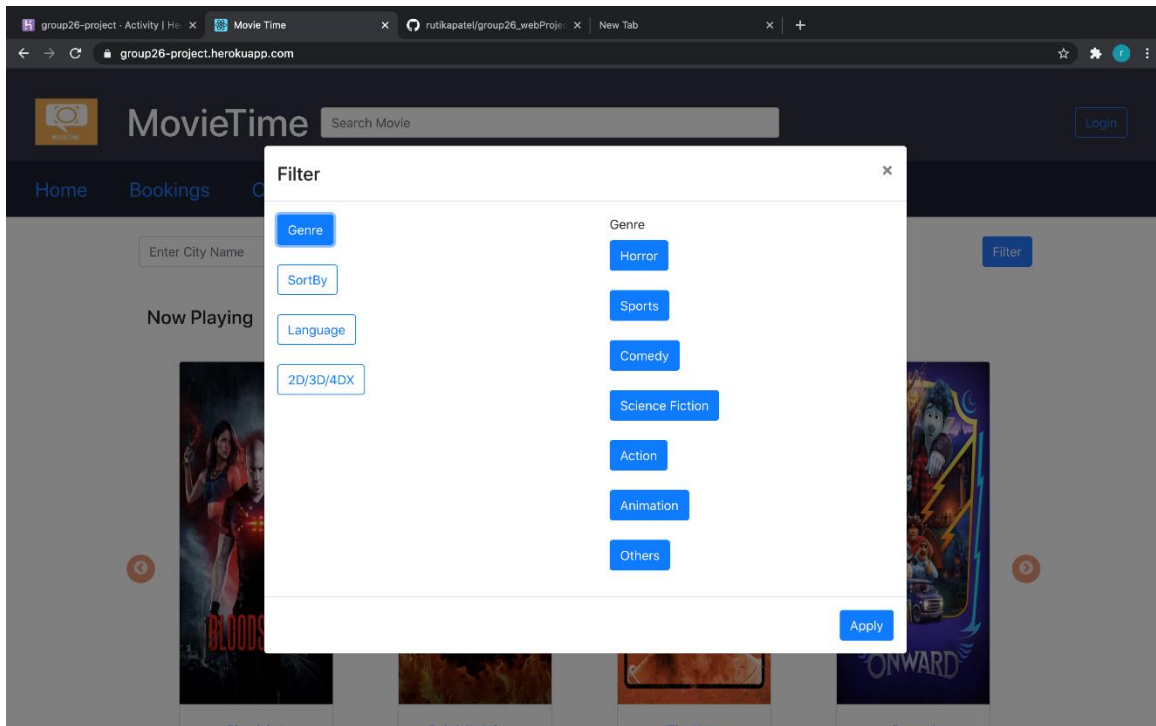


Figure 16: Filter Search of MovieTime

Selecting the movie from the list displayed, user can check the detailed information of the movie like language, rating, reviews, summary, genre or the release date as in fig.6. Moreover, users are provided with the option to watching the trailer without even navigating into a different page.



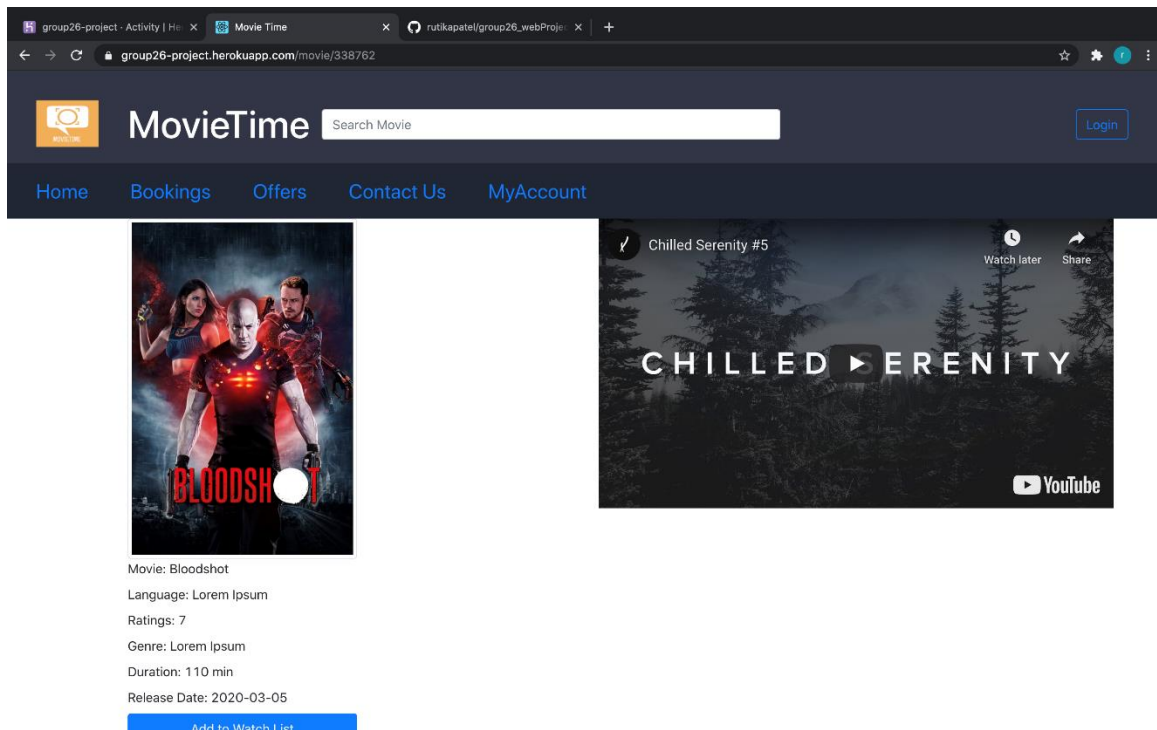


Figure 17: Movie Details page of MovieTime

If the user wishes to book tickets for a movie, can do this by clicking on the Book tickets available on the movie details page (fig.17) and will be navigated to the Book your tickets pages as in fig.18. This page allows user to choose the quantity of tickets along with the list of theaters available in their location. In addition, users are suggested with the offers available on the ticket price or any other Gift cards they may wish to avail while booking.

The screenshot shows a web browser with the URL `group26-project.herokuapp.com/book`. The page features a dark blue header with the 'MovieTime' logo, a search bar, and a 'Login' button. Below the header is a navigation bar with links for 'Home', 'Bookings', 'Offers', 'Contact Us', and 'MyAccount'. The main content area is titled 'Book your Tickets' and contains a form with the following fields:

- Name:** A text input field with the placeholder 'Name'.
- Date:** A date picker showing '2020-06-dd'.
- Movie Time:** A time picker showing '--:-- --'.
- Tickets:** Two input fields for 'Adults' and 'Child'.
- Theater 1:** A dropdown menu.
- offer 1:** A dropdown menu.
- Select Seat:** A green button at the bottom of the form.

Figure 18: Book your ticket

In the process of booking the ticket users are provided a feature to select their preferred seat from the available seating as illustrated in fig.19. The page clearly indicates the reserved, available and selected seats.

group26-project - Activity | H... x Movie Time x rutikapatel/group26\_webProje... x +

group26-project.herokuapp.com/seat

MovieTime Search Movie Login

Home Bookings Offers Contact Us MyAccount

Number OF Seats to be Booked

Available Seats			Not Available Seats			Your Seats					
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

Screen this Way

Figure 19: Seat Selection

Based on the quantity of the tickets selected in the previous step the amount is calculated and displayed on the payment information. The user can enter the card details to make the payment and get the movie tickets.

The screenshot shows a web browser with three tabs: 'group26-project - Activity | H...', 'Movie Time', and 'rutikapatel/group26\_webProje...'. The address bar shows 'group26-project.herokuapp.com/payment'. The page header features the 'MovieTime' logo, a search bar with the placeholder 'Search Movie', and a 'Login' button. Below the header is a navigation bar with links: 'Home', 'Bookings', 'Offers', 'Contact Us', and 'MyAccount'. The main content area is titled 'Payment Information' and contains a form with the following fields: 'Name' (text input), 'Amount' (displayed as '\$20'), 'Card Number' (text input with placeholder '10 digit Card Number'), 'CVV' (text input with placeholder 'cvv'), 'Ex. Date' (text input), and a date picker icon. A green 'Confirm' button is located below the form. A small thumbnail image of a calendar is visible in the bottom right corner of the page.

Figure 20: Payment Gateway

Fig.21 depicts the watch-list of the users with complete details of the movie along with the location.

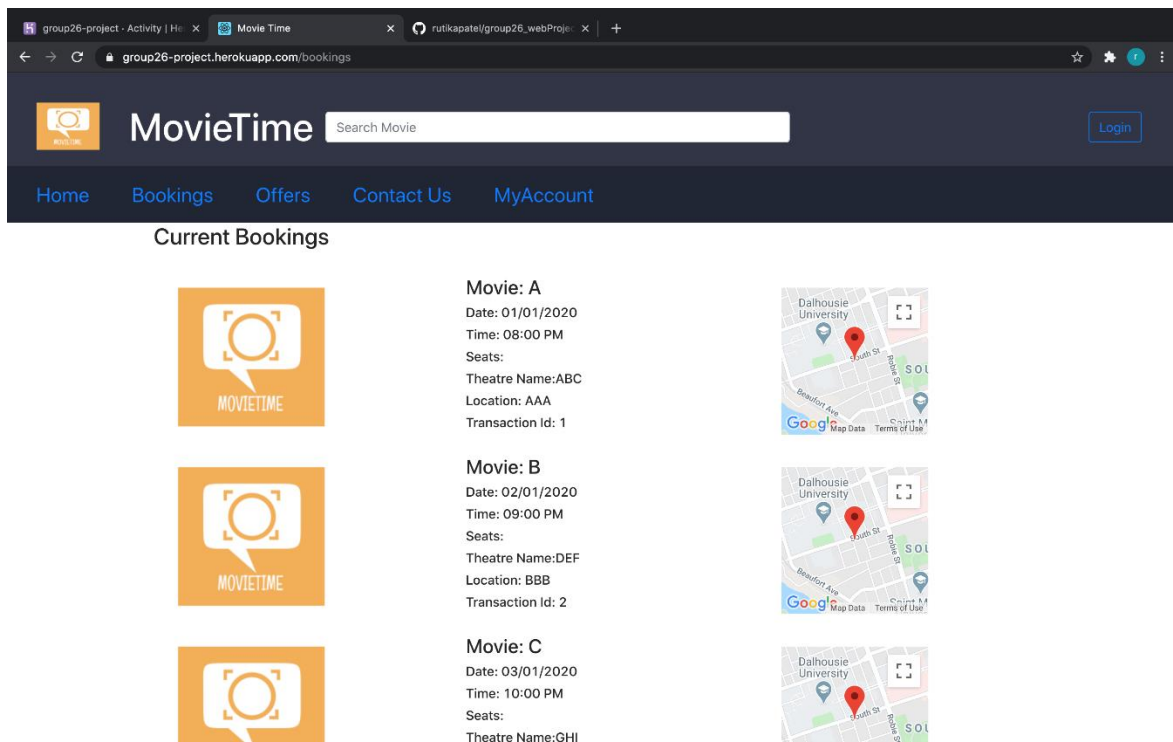


Figure 21: Bookings

User has the ability to check the terms and condition of the offers and Gift cards by navigating into the offers page on the header of the MovieTime website. This page lists all the offers and a place holder where user can input the coupon code to redeem their Giftcard as shown in the below fig.22.

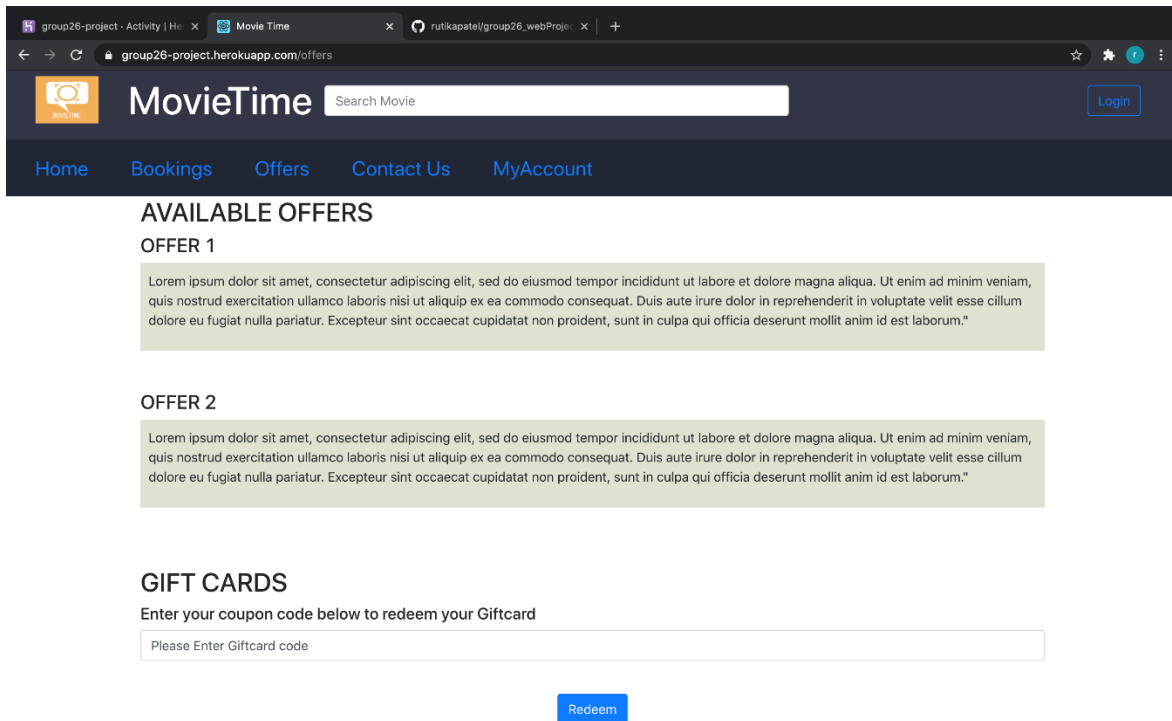


Figure 22: Offers/GiftCards

Fig 23. Shows the profile or account details of the user that has logged in to the MovieTime website to check the movies or book the tickets. The basic details that the user provided while their registration is displayed, that can help them to refer and keep track of their bookings and watchlist. Users can choose the images from the once listed on the *Choose profile picture button* (as shown in Fig 24).

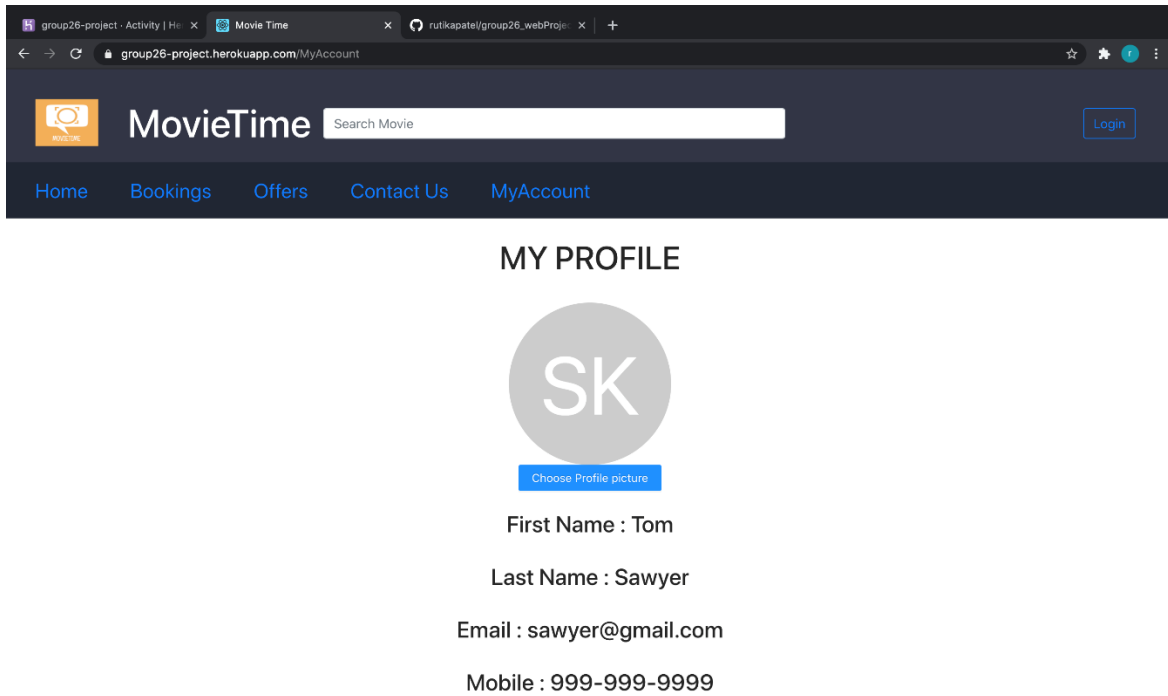


Figure 23: User Profile

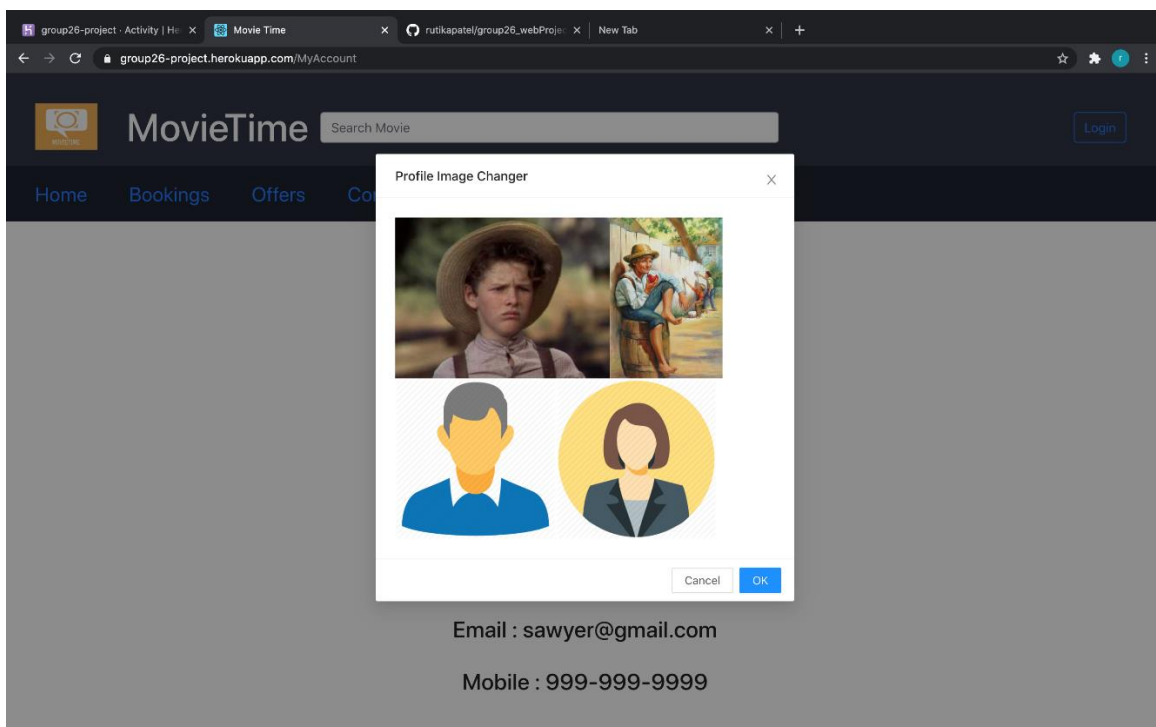





Figure 24: Choose profile picture

## 2.6 User Experience

### Legend

Table 1: Legends for taskflow diagrams

	Page
	System action
	User action

### Scenario 1

Bob wants to book movie tickets online in advance and is reasonably familiar in using web applications.

#### Use Case : Register

1. User visits the landing/home page.
2. User clicks on the '*Register*' button for registering.
3. The system displays the Registration page.
4. The use enters the mandatory fields (email and password). They have an option to enter the address details.
5. User clicks on the '*Register*' button.
6. The system validates the user details.
  - a. If the user is already registered, notify the user that they have already registered.
    - i. Redirect user to Login page.
    - ii. User enters username and password.
    - iii. Valid credentials redirects user to landing page.
    - iv. If user credentials are not valid, request user to re-enter user details.
  - b. New User registration.
    - i. The system show confirms user registration.
7. User redirected to landing page.



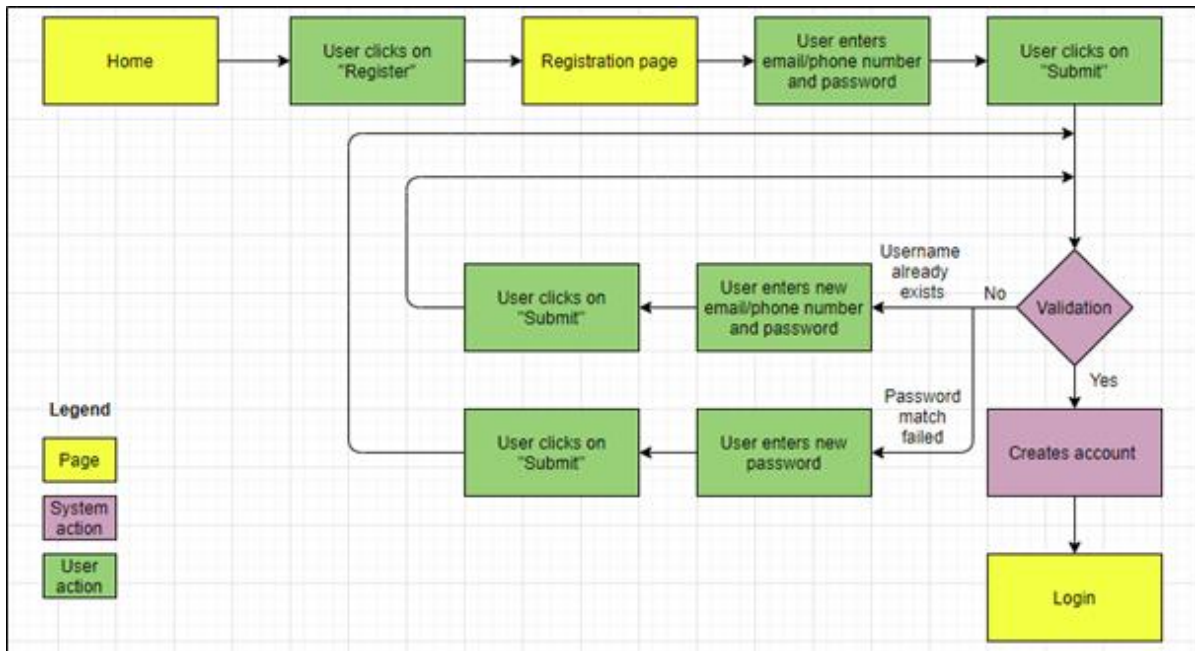


Figure 25: Scenario 1

## Scenario 2

Alice wants to login to book movie tickets

Use Case: User Login

1. User visits the landing/home page.
2. User clicks on the 'Login' button.
3. The system displays the Login page.
4. The user enters user name and password.
5. User clicks on the 'Login' button.
6. System validates user credentials.
7. User is redirected to home page.

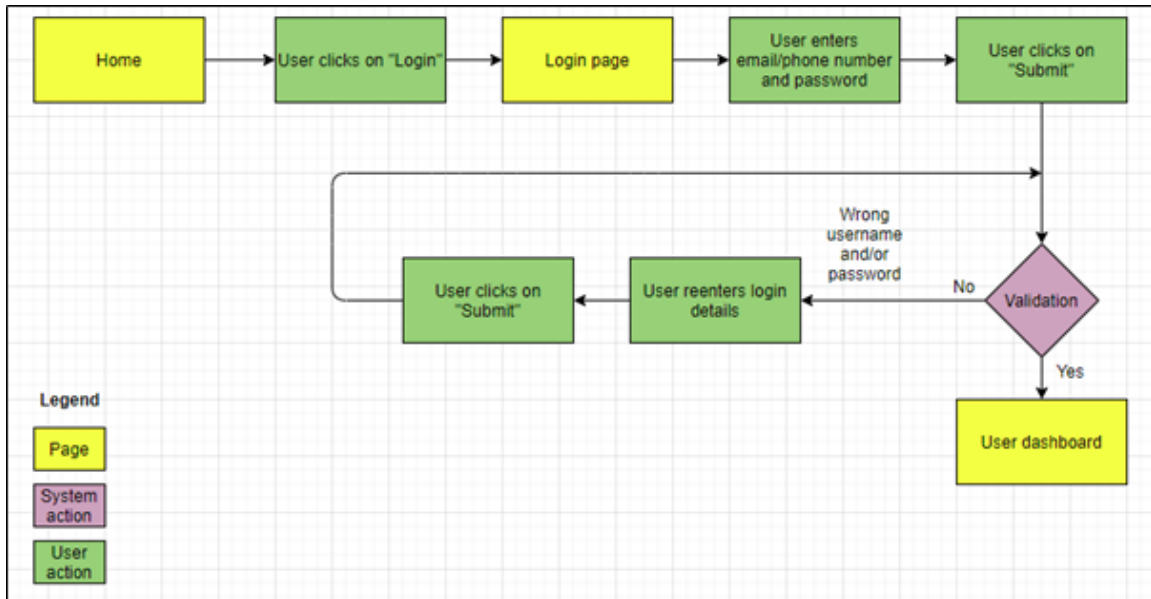


Figure 26: Scenario 2

### Scenario 3

Alice, an existing user, realizes that she has forgotten her password.

Use Case : Forgot Password

1. User visits the landing/home page.
2. User clicks on the 'Login' button.
3. User is redirected to the Login page.
4. The user clicks on the "Forgot Password" link.
5. The user is redirected to the password recovery page.
6. User is asked to provide their email address.
7. The link to reset password is sent to that email.
8. User can reset their password through that link.

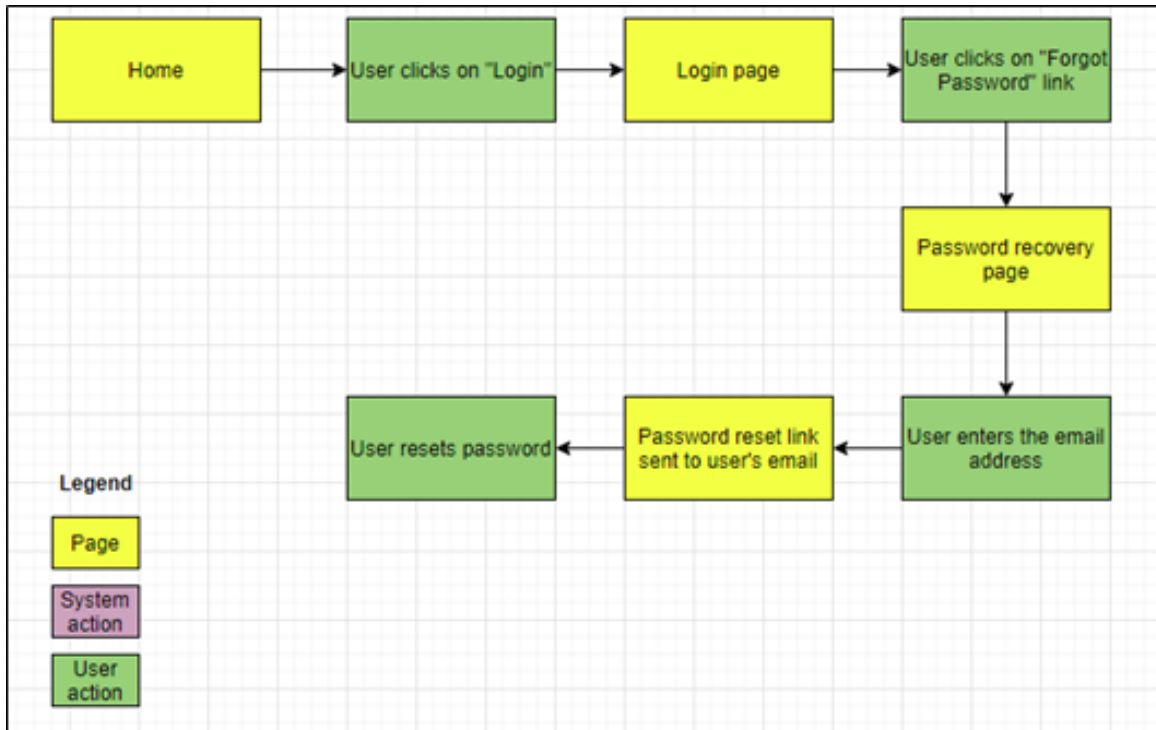


Figure 27: Scenario 3

#### Scenario 4

Bob wants to search for a movie.

Use Case : Search movies

1. User visits the landing/home page.
2. User clicks on 'Login' button, enters the correct login details and logs in.
3. The user reaches the home page.
4. The user is prompted to choose the location.
5. The user goes to the search bar and types out the name of the movie he/she wants to search for.
6. If the movie is playing in nearby locations, then it comes up. Else, a message saying "Movie not playing in theatres near you" comes up.

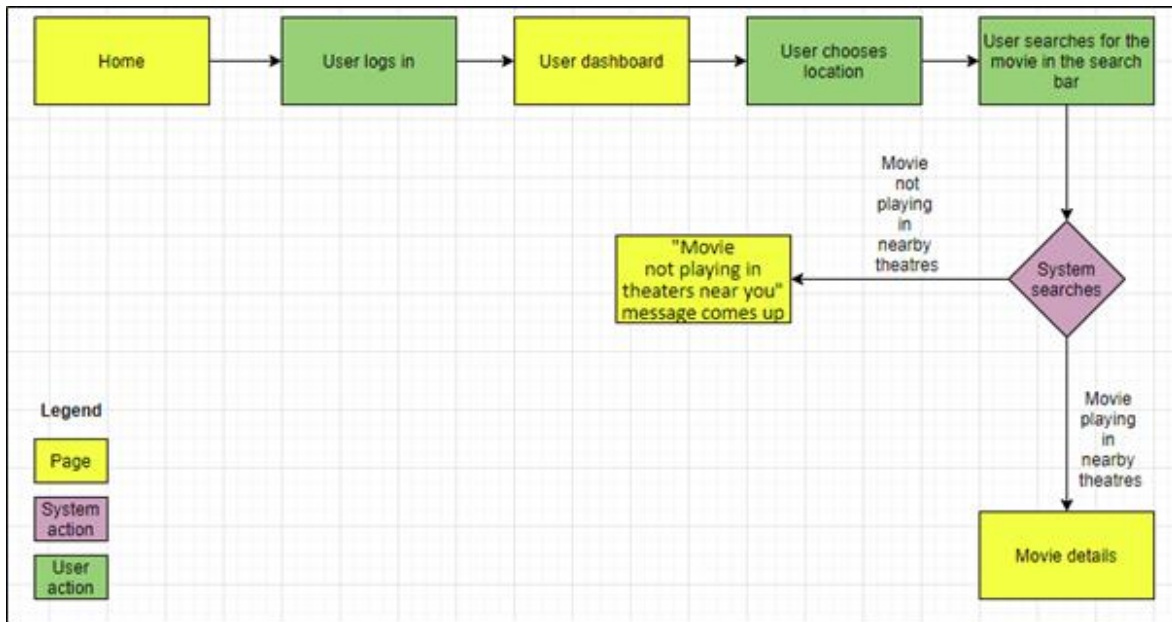


Figure 28: Scenario 4

## Scenario 5

Alice wants to view the details about a movie she is interested in.

Use case : View movie details

1. The user logs in using the correct credentials.
2. The user chooses the location.
3. The user searches for the movie in the search bar.
4. The movie list comes up.
5. The user chooses the movie.
6. The user is redirected to the page where movie details are displayed.
7. The user can view trailers, the reviews for the movie and its ratings.

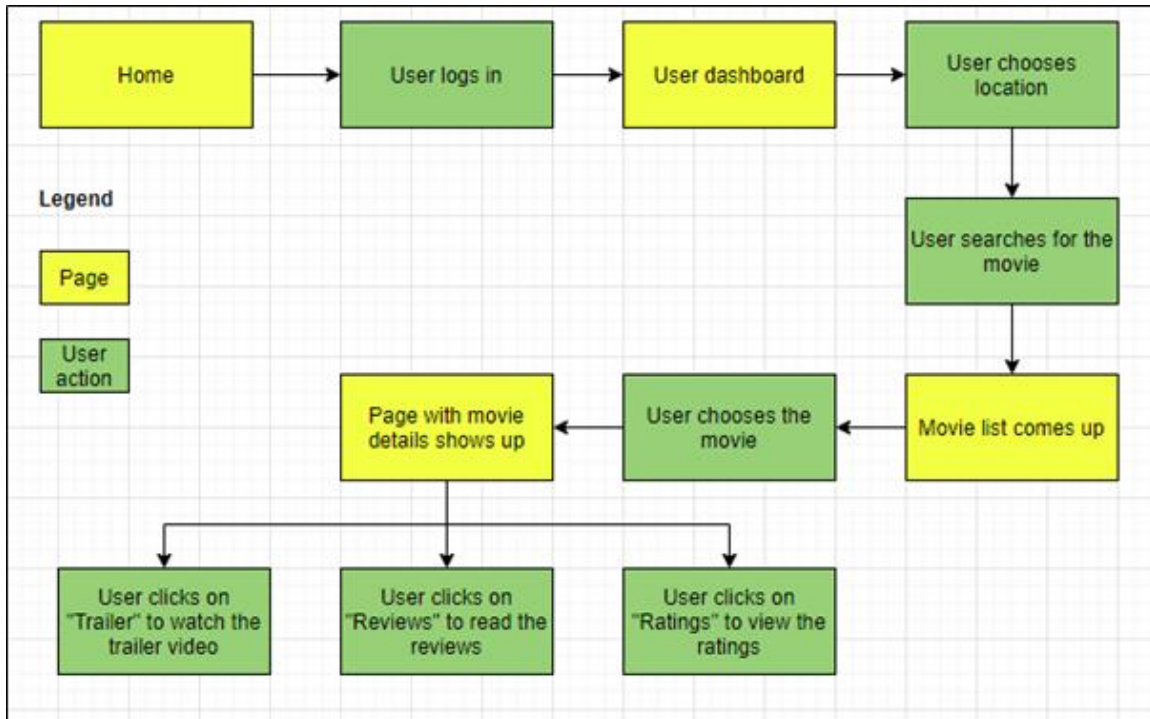


Figure 29: Scenario 5

## Scenario 6

Alice wants to book tickets for a movie.

Use case : Book movie tickets

1. The user logs in using the correct credentials.
2. The user chooses the location and searches for the movie he/she wishes to book tickets for.
3. The user is redirected to the page which contains the details of the movie and its rating and reviews and an option to "Book Tickets".
4. Once the user clicks on "Book Tickets", the user is redirected to the page to book tickets. This page shows the name of the theatres where the movie is playing in nearby locations of the user.
5. When the user chooses a theatre, he can see the show timings.
6. Once the user selects a time slot, he can see the seat availability.
7. The user can then choose a seat and the price of that seat will be displayed.
8. If the user wishes to reserve that seat, then he/she can click on the "Confirm seat" button.
9. Then the user will be redirected to the payments page.
10. In the payments page, the user can choose the mode of payment and completes payment.
11. Once the payment is confirmed, the user will be provided with an online ticket.

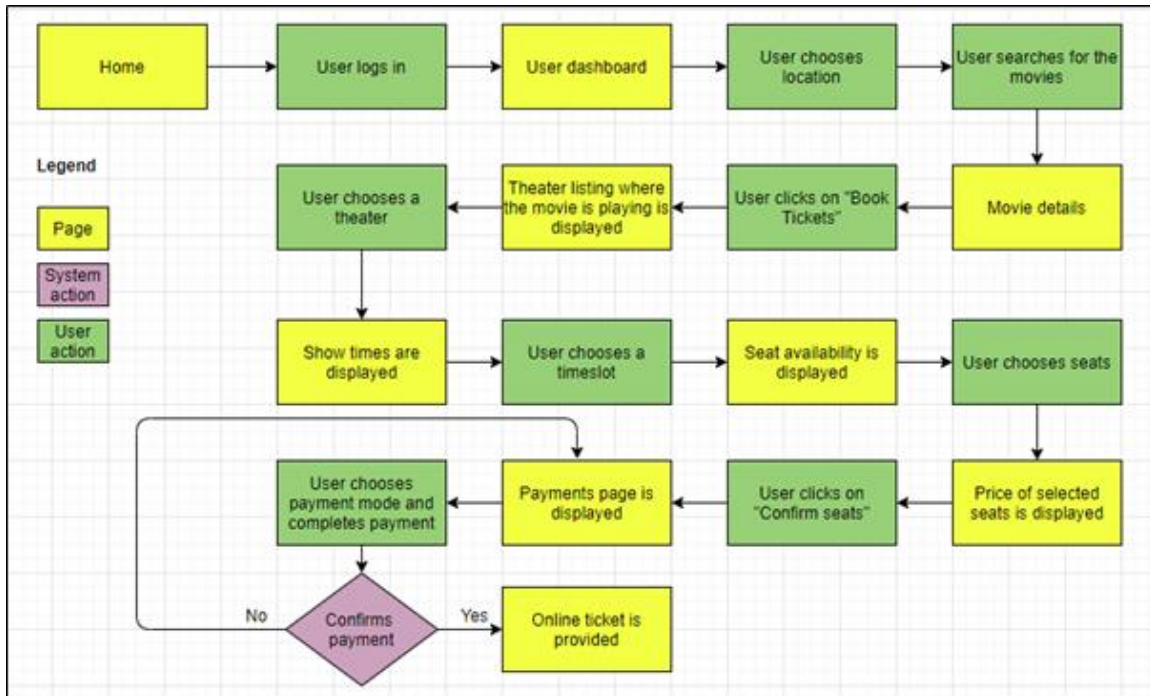


Figure 30: Scenario 6

## Scenario 7

Bob, who is an existing user, who faces an issue while booking movie tickets or after the movie tickets have been booked.

Use case : Help and support

1. The user logs in using the correct credentials.
2. The user navigates to the "Help and Support" section.
3. If the user finds solution to the issue in the FAQ section, then he/she can implement that solution.
4. If not, the user can send email to the given email address stating the issue.
5. If the user wants immediate solution to the issue, he/she can call the toll-free number and talk to the customer service representative.

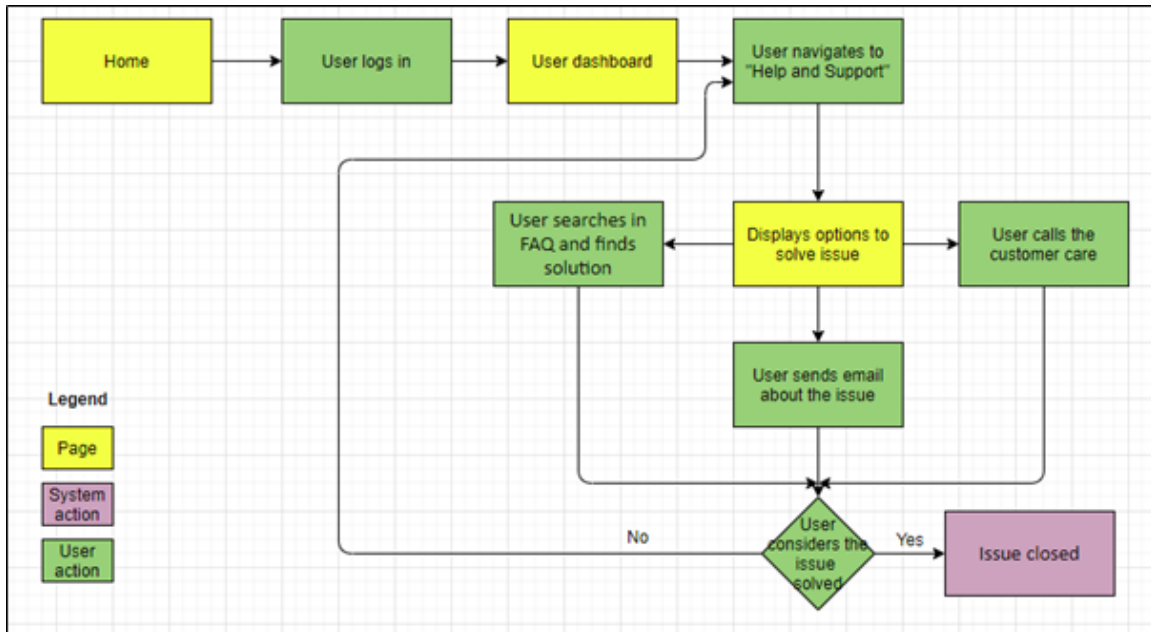


Figure 31: Scenario 7

## Scenario 8

Bob, who is an existing user, wants to know and use offers provided by the app through which they can get good deals on the ticket prices.

Use case : Avail offers

1. The user logs in using the correct credentials.
2. The user navigates to the "Offers" section.
3. This page shows the offers on movie tickets, reward points and details on how to avail them and gift cards and details on how to use them.
4. If the user wants to avail an offer, he books the movie tickets with the given promo code.
5. If the user wants to use the reward points, he checks his balance and uses the option of using reward points while booking tickets.

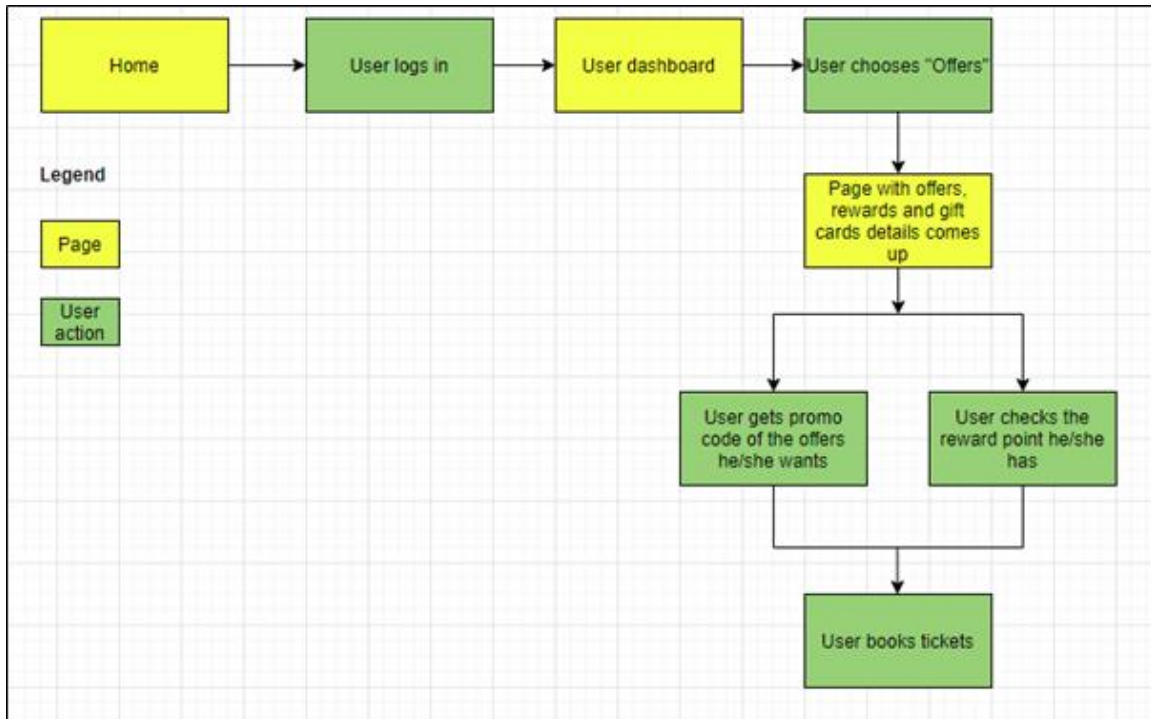


Figure 32: Scenario 8

#### Scenario 9

Alice, who is an existing user wants to see the booking history of the movie tickets she has purchased.

Use Case : View Bookings

1. User logs in using the correct credentials.
2. User navigates to the "My Bookings" tab and clicks on it.
3. The user is redirected to the "My Bookings" page.
4. This page shows "Previous Bookings" where tickets for the shows that were in the past is displayed.



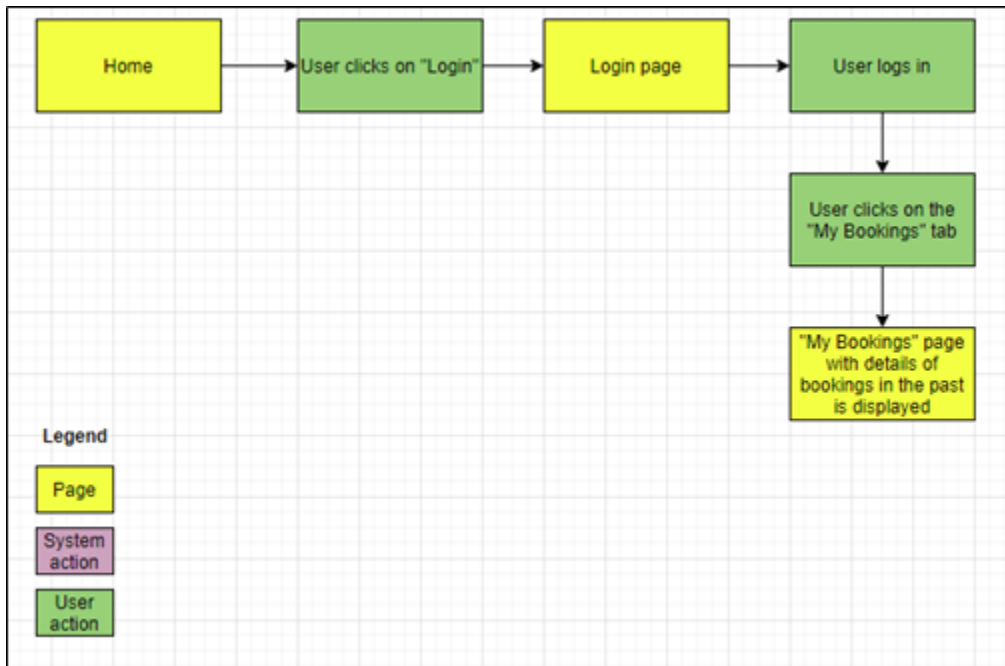


Figure 33: Scenario 9

### 3. Asset Inventory

The web application “MovieTime” will be developed using the MERN stack. The front-end of the web application will be developed using React.js. For developing the back end, we will be using Node.js and Express.js. MongoDB will be used for the database of the application.

Client-side languages:

The list of client-side technologies used in developing the website are:

- HTML 5: Used to make user interface templates of the website.
- CSS: Used to make alignment and for modifying the styles of the HTML templates.
- React : Used for making client-side validation and for making API call to the server.
- React-Bootstrap: Used for making the web pages responsive and for providing premade, uniform styles for commonly used elements, like buttons and background cards.

Server-side languages:

- Node.js: Used for server-side validations and to make calls to the database to fetch the data which is requested by the client side.
- NoSQL (MongoDB): Used to write queries in the database to fetch the required data.

API:

The list of APIs used in developing the application are as follows:

- REST API: Used to make API calls from client side to server side.
- Google MAPS API: To show theatre location in bookings page.

Images:

The list of image formats we used in developing our application are:

- jpeg
- jpg
- png

#### 4. Group Roles

Table 2: Group Roles

Name	Primary Role	Secondary Role
Maya Varrier	Full Stack Developer	Document Manager
Harsh Parmar	Full Stack Developer	Designer and Integrator
Rutika Patel	Full Stack Developer	Scrum Master
Sneha Kotha	Full Stack Developer	Designer and Tester
Varun Chauhan	Full Stack Developer	Designer and Tester

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