

Final Project: My Movie Plan

Documentation

Developer: Michaela Tomanova

Date: 31st July, 2023

Instruction

Create a dynamic and responsive web application for booking movie tickets online for different genres and languages.

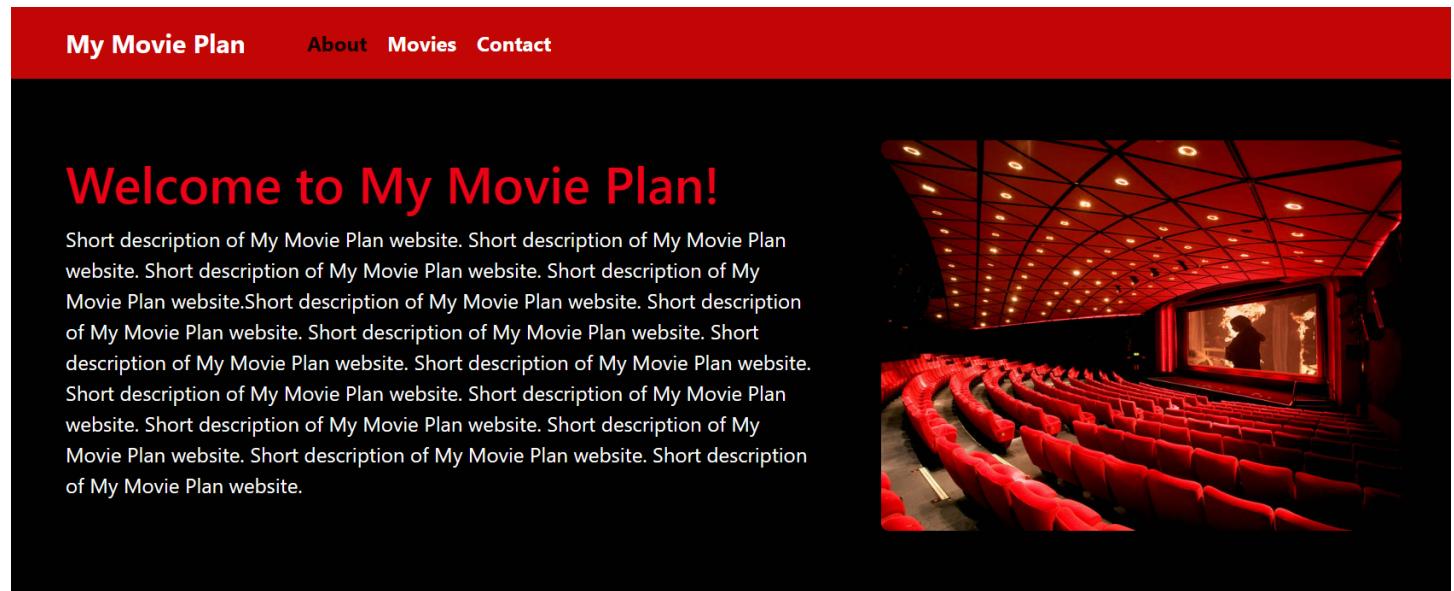
SPRINT PLANNING

Sprint 1

- Basic application structure (simple web project with 3 pages, connected to database)
- Navigation bar to switch easily between pages
- Static content of About and Contact page to introduce the company
- Dynamic content of Movie page to show company's current movie portfolio
- Detail page of selected movie to display all available information
- Styling for better orientation through the application
- Responsivity for comfortable browsing on different devices

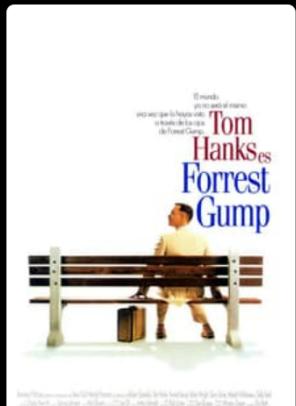
The **MVP of Sprint 1** was a simple web application which contained 3 pages: "About" page to introduce the company, "Movies" page to list available movies from the connected database and "Contact" page to display contacts. There was no admin or user portal yet. The application was already styled and responsive for better customer experience.

"About" page (= "Home" or "Welcome" page)



The screenshot shows a dark-themed website for "My Movie Plan". At the top, there is a red navigation bar with the title "My Movie Plan" on the left and links for "About", "Movies", and "Contact" on the right. The main content area has a black background. In the center, the text "Welcome to My Movie Plan!" is displayed in a large, bold, red font. Below this, there is a long, repetitive paragraph consisting of the sentence "Short description of My Movie Plan website. Short description of My Movie Plan website." repeated multiple times. To the right of the text, there is a photograph of a movie theater interior. The theater features red velvet seats arranged in rows, a dark ceiling with recessed lighting, and a bright screen at the front where a person is visible.

Available Movies



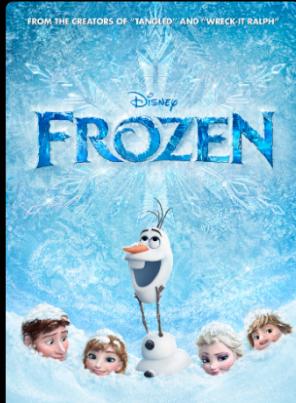
Forrest Gump

(Drama)

2023-08-08, 20:00:00

\$15

[More Info](#)



Frozen

(Animation)

2023-08-12, 14:00:00

\$12

[More Info](#)

Movie's detail page

Forrest Gump



Date: 2023-08-08, 20:00:00

Language: EN

Genre: Drama

Description: The history of the United States from the 1950s to the '70s unfolds from the perspective of an Alabama man with an IQ of 75, who yearns to be reunited with his childhood sweetheart.

Ticket Price: \$15

[Go Back](#)

"Contact" page

[My Movie Plan](#) [About](#) [Movies](#) [Contact](#)

Contact

Address: XXX, Pune, India

For More Info

E-mail: info@mmp.com

Phone Number: 555 555 555

Sprint 2:

- Admin portal to display advanced features for administration
- Adding feature to add new movies, genres and languages
- Editing feature to edit existing movies
- Deleting feature to delete movies out of company's portfolio
- Enable/disable feature to show/hide movies to/from customers

The **MVP of Sprint 2** gained an admin portal to administrate the company's portfolio. After logging in, the admin can add, edit and delete movies. Adding new movie genres and languages is also possible to widen the movie menu. Through the enable/disable buttons, the admin can control which movies are displayed to customers.

Admin log-in page

[My Movie Plan](#) [About](#) [Movies](#) [Contact](#)

[Log In](#)

Log in as Admin to administrate the website

Admin's Name:

Password:

[Log In](#)

"Movies" page from admin view (edit, enable/disable and delete buttons and link to add new movies)

Available Movies

[ADD NEW MOVIE, GENRE OR LANGUAGE](#)



Forrest Gump

(Drama)

2023-08-08, 20:00

\$15

[More Info](#)

[Edit](#)

[Disable](#)

[Delete](#)



Frozen

(Animation)

2023-08-12, 14:00

\$12

[More Info](#)

[Edit](#)

[Enable](#)

[Delete](#)

Page for adding new movies, movie genres and languages

Add New Movie

Name:

Add New Genre:

Genre:

[Add Genre](#)

Description:

Add New Language:

Language:

[Add Language](#)

Image URL:

Edit Movie

Name:

Forrest Gump

Genre:

Drama

Description:

The history of the United States from the 1950s to the '70s unfolds

Language:

EN

Image URL:

<https://m.media-amazon.com/images/M/MV5BNjhZmNmNTYtM>

Sprint 3:

- Customer portal to store customer data
- Customer's profile to show the account details
- Searching feature to search for specific movies
- Sorting feature to sort movies alphabetically or by date
- Filtering feature to filter movies based on preferred genre and language

The new feature of **MVP of Sprint 3** was the customer portal. Customers were newly enabled to register and log in to the application, mainly to view their account details (more features were planned to add in Sprint 4). For easier browsing through the company's portfolio, searching, sorting and filtering features were designed in that sprint.

Customer log-in page

[My Movie Plan](#) [About](#) [Movies](#) [Contact](#)

[Log In](#)

Log in to purchase tickets

User's Name:

Password:

[Log In](#)

[Are you new here? Register!](#)

[Log in as Admin instead](#)

Customer registration page

[My Movie Plan](#) [About](#) [Movies](#) [Contact](#)

[Log In](#)

Create an Account

Username:

First Name:

Last Name:

Email:

Password:

[Register](#)

"Movies" page with new filters

My Movie Plan About Movies Contact Profile Log Out

Available Movies

Search Movies:

Filter Movies: Fantasy CZ

Sort Movies: Alphabetically By Date



**Harry Potter and the
Sorcerer's Stone**
(Fantasy, CZ)
2023-08-04, 17:00
\$12
[More Info](#)



**Harry Potter and the
Chamber of Secrets**
(Fantasy, CZ)
2023-08-11, 17:00
\$12
[More Info](#)

Customer's profile page

My Movie Plan About Movies Contact Profile Log Out

Hello, John!

Account Details:

User ID: 1

Username: JohnDoe

Name: John Doe

Email: j.doe@gmail.com

Sprint 4:

- Cart page and add to cart feature to purchase tickets
- Order confirmation and summary
- Purchase history and orders details in customer's profile

The **MVP of Sprint 4** is the complete application which follows all the listed requirements set by the company. The most important new feature is the cart for purchasing tickets. Customers can also view their purchase history in their profile page. The complete application flow is described in the next chapter.

"Add to cart" buttons and "Cart" page added

My Movie Plan About Movies Contact Cart 3 Profile Log Out

Available Movies

Search Movies:

Filter Movies: All genres

Sort Movies: Alphabetically By Date

All languages



Harry Potter and the Sorcerer's Stone
(Fantasy, CZ)
2023-08-04, 17:00
\$12
[More Info](#) [Add to Cart!](#)



Forrest Gump
(Drama, EN)
2023-08-08, 20:00
\$15
[More Info](#) [Add to Cart!](#)

"Cart" page with cart customization options

My Movie Plan About Movies Contact Cart 3 Profile Log Out

Your Cart

Harry Potter and the Sorcerer's Stone (CZ, 2023-08-04 17:00)	-	+	2 x \$12
Harry Potter and the Chamber of Secrets (CZ, 2023-08-11 17:00)	-	+	2 x \$12
Harry Potter and the Prisoner of Azkaban (CZ, 2023-08-18 17:00)	-	+	2 x \$12

Total Price	\$72
-------------	------

[Pay Your Order](#)

Order summary

[My Movie Plan](#)[About](#) [Movies](#) [Contact](#) [Cart 0](#) [Profile](#) [Log Out](#)

Thank You for Your Order!

Your order with ID: 19 has been created successfully. You can find the order details also in your profile.

Harry Potter and the Sorcerer's Stone (CZ, 2023-08-04 17:00) 2x\$12

Harry Potter and the Chamber of Secrets (CZ, 2023-08-11 17:00) 2x\$12

Harry Potter and the Prisoner of Azkaban (CZ, 2023-08-18 17:00) 2x\$12

Total Price	\$72
--------------------	-------------

Advanced customer's profile

[My Movie Plan](#)[About](#) [Movies](#) [Contact](#) [Cart 0](#) [Profile](#) [Log Out](#)

Hello, Mary!

Account Details:

User ID: 2

Username: MarySue

Name: Mary Sue

Email: m.sue@gmail.com

Purchase History:

ID	Date	Total Price	Detail
12	2023-07-30	\$20	Detail
19	2023-07-31	\$72	Detail

Order detail page

[My Movie Plan](#)[About](#) [Movies](#) [Contact](#) [Cart 0](#) [Profile](#) [Log Out](#)

Order ID: 19

Purchase Date: 2023-07-31

Purchased Items:

Harry Potter and the Sorcerer's Stone (CZ, 2023-08-04 17:00) 2x\$12

Harry Potter and the Chamber of Secrets (CZ, 2023-08-11 17:00) 2x\$12

Harry Potter and the Prisoner of Azkaban (CZ, 2023-08-18 17:00) 2x\$12

Total Price	\$72
--------------------	-------------

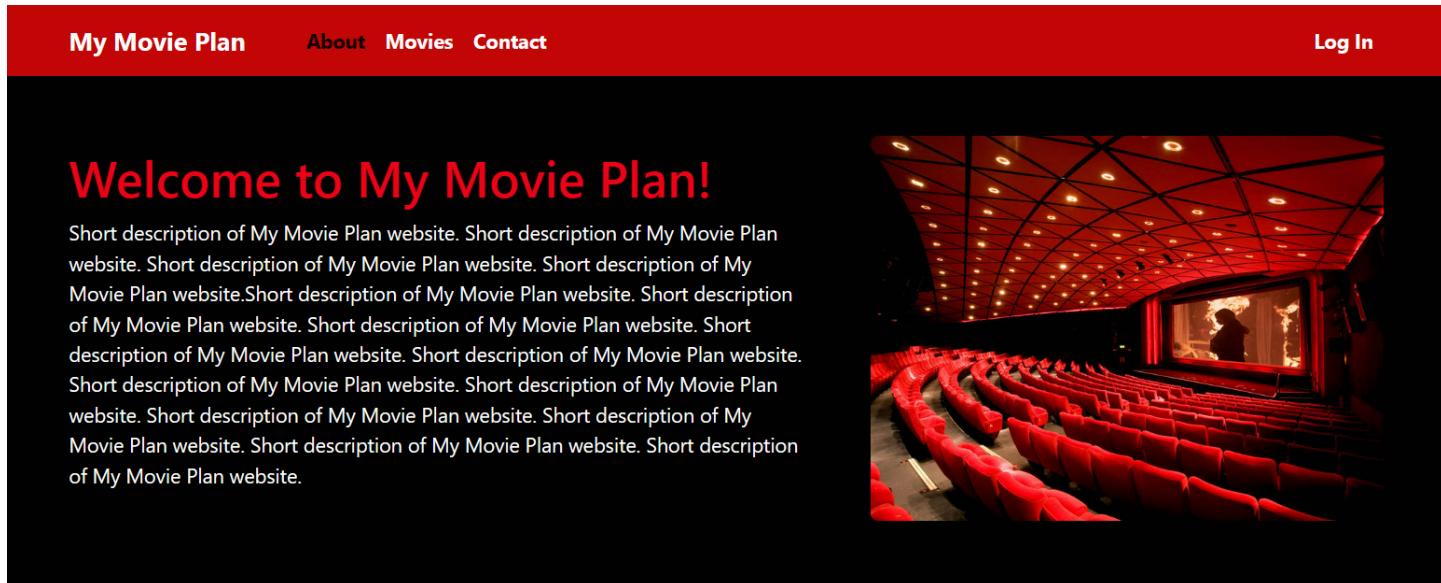
[Go Back](#)

APPLICATION FLOW

The My Movie Plan application offers 3 different points of view: as non-logged-in guest, as logged-in user and as admin.

Guest

On the About page, guest users can access the company's introduction.



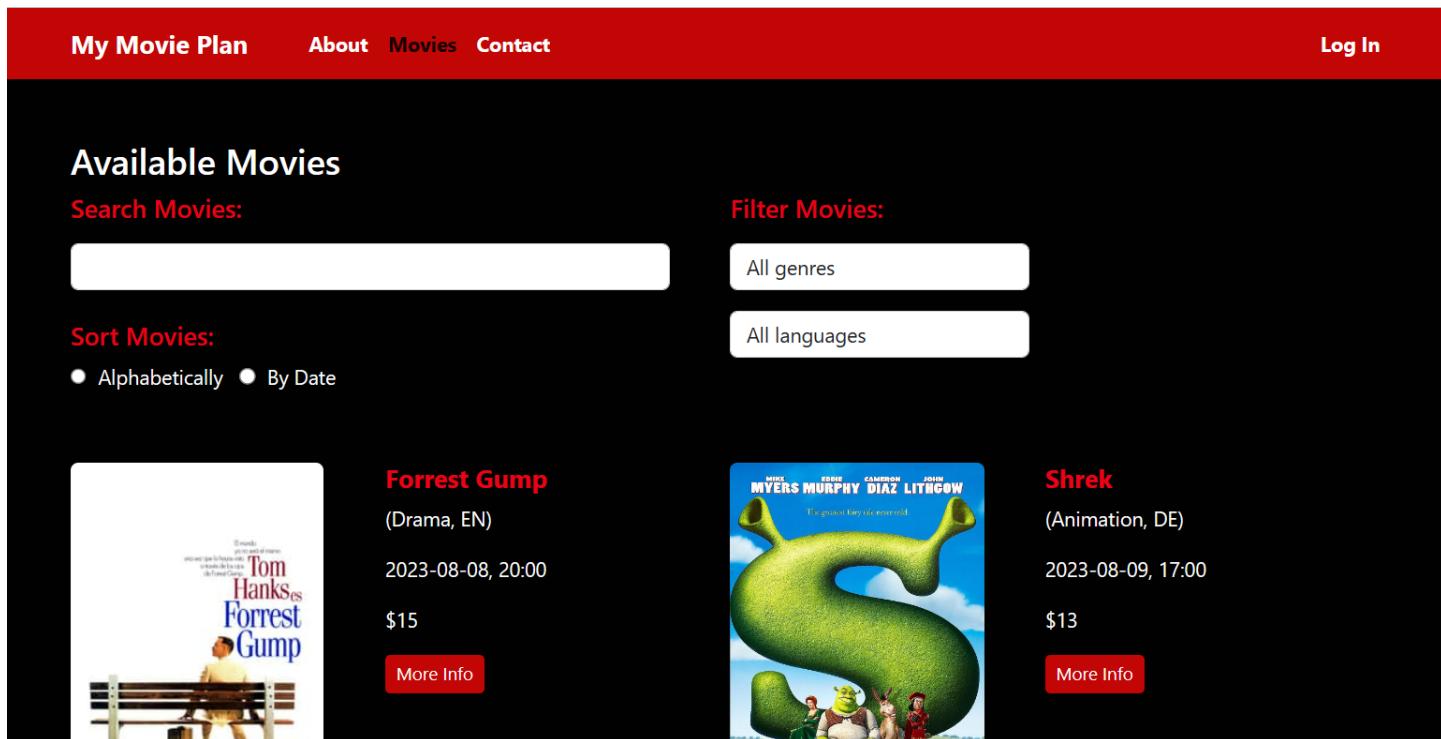
My Movie Plan About Movies Contact Log In

Welcome to My Movie Plan!

Short description of My Movie Plan website. Short description of My Movie Plan website.



Then on the Movies page, guests can view all available movies in the company's portfolio (except for movies which are currently disabled by the admin). To browse through them easily, guests can use different filters shown in the picture below.



My Movie Plan About Movies Contact Log In

Available Movies

Search Movies:

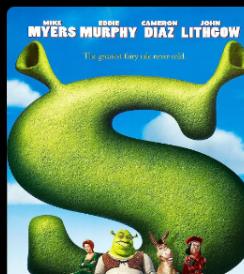
Filter Movies:

All genres

All languages

Sort Movies:

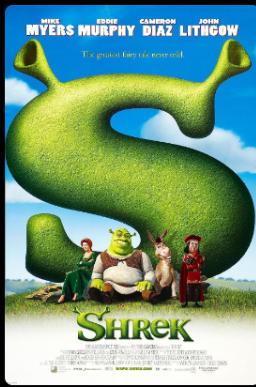
Alphabetically By Date

Movie Title	Genre	Date	Price	Action
 Forrest Gump	(Drama, EN)	2023-08-08, 20:00	\$15	More Info
 Shrek	(Animation, DE)	2023-08-09, 17:00	\$13	More Info

If interested, guests can click on the “More info” button to display all available information about the selected movie. Clicking on “Go back”, guests return to the main movie menu.

My Movie Plan [About](#) [Movies](#) [Contact](#) [Log In](#)

Shrek



Date: 2023-08-09, 17:00
Language: DE
Genre: Animation
Description: A mean lord exiles fairytale creatures to the swamp of a grumpy ogre, who must go on a quest and rescue a princess for the lord in order to get his land back.
Ticket Price: \$13

[Go Back](#)

The Contact page shows the company's address and contacts.

My Movie Plan [About](#) [Movies](#) [Contact](#) [Log In](#)

Contact

Address: XXX, Pune, India

For More Info
E-mail: info@mmp.com
Phone Number: 555 555 555

The last available page to guests is the Log In page which serves for registered users to log in. Considering that guest users do not have an account, they can click on the Register link to create one.

My Movie Plan [About](#) [Movies](#) [Contact](#) [Log In](#)

Log in to purchase tickets

Username:

Password:

[Log In](#)

[Are you new here? Register!](#)

[Log in as Admin instead](#)

Then the Registration form displays. If guests want to register, they can easily fill in the form and click on the “Register” button.

My Movie Plan [About](#) [Movies](#) [Contact](#) [Log In](#)

Create an Account

Username (must be unique):

First Name:

Last Name:

Email:

Password:

[Register](#)

As it is written by the Username, it must be unique. If not, an alert appears suggesting to change it.

A screenshot of a web browser window titled "localhost:3000/register". The main content area shows a red header with "My Movie Plan" and "About". Below it, a form titled "Create an Account" has a field labeled "Username (must be unique)" containing "TestingAccount". A modal dialog box is displayed in the center, titled "Web localhost:3000 říká", with the message "Registration unsuccessful. Try different username." and an "OK" button.

User

Users are customers who already have an account. On the Log In page, they can log in to the existing account. If the credentials are incorrect, an alert appears.

A screenshot of a web browser window titled "localhost:3000/login/user". The main content area shows a red header with "My Movie Plan" and "About". Below it, a form titled "Log in to purchase tickets" has fields for "Username" (containing "JohnDoe") and "Password" (containing "....."). A modal dialog box is displayed in the center, titled "Web localhost:3000 říká", with the message "Invalid credentials." and an "OK" button.

After logging-in, users can see new options. The first is that they are able to add tickets to the cart. Number of selected movies is displayed by the cart in the navigation bar.

My Movie Plan About Movies Contact  Cart 1 Profile Log Out

Available Movies

Search Movies:

Filter Movies: All genres All languages

Sort Movies: Alphabetically By Date

 Forrest Gump (Drama, EN) 2023-08-08, 20:00 \$15 More Info Add to Cart!	 Harry Potter and the Chamber of Secrets (Fantasy, CZ) 2023-08-11, 17:00 \$12 More Info Add to Cart!
--	--

When users have selected all preferred movie tickets, then they can go to the Cart page, where the content of the cart is displayed. On the Cart page, it is possible to customize the number of tickets in the cart and confirm the order.

My Movie Plan About Movies Contact  Cart 2 Profile Log Out

Your Cart

Forrest Gump (EN, 2023-08-08 20:00)	-	+	3 x \$15
Pretty Woman (IT, 2023-08-19 20:00)	-	+	2 x \$10
			Total Price
			\$65
Pay Your Order			

After confirming the Order, a Thank You page with the order summary is displayed.

My Movie Plan About Movies Contact Cart 0 Profile Log Out

Thank You for Your Order!

Your order with ID: 20 has been created successfully. You can find the order details also in your profile.

Forrest Gump (EN, 2023-08-08 20:00)	3x\$15
Pretty Woman (IT, 2023-08-19 20:00)	2x\$10
Total Price	\$65

On the Profile page, users can view their account details and purchase history.

My Movie Plan About Movies Contact Cart 0 Profile Log Out

Hello, John!

Account Details:

User ID: 1
Username: JohnDoe
Name: John Doe
Email: j.doe@gmail.com

Purchase History:

ID	Date	Total Price	Detail
9	2023-07-29	\$46	Detail
20	2023-08-01	\$65	Detail

Users can also click on the “Detail” button by the specific order to view the order detail and purchased items.

My Movie Plan About Movies Contact Cart 0 Profile Log Out

Order ID: 20

Purchase Date: 2023-08-01

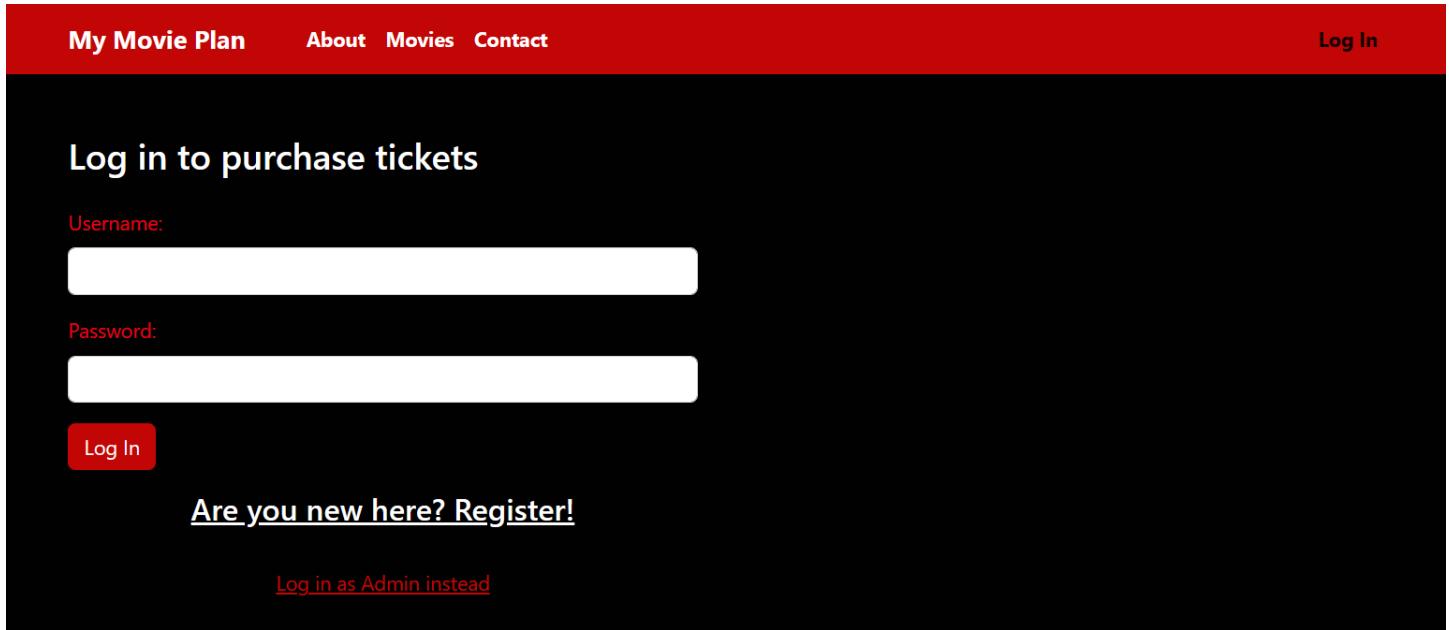
Purchased Items:

Forrest Gump (EN, 2023-08-08 20:00)	3x\$15
Pretty Woman (IT, 2023-08-19 20:00)	2x\$10
Total Price	\$65

[Go Back](#)

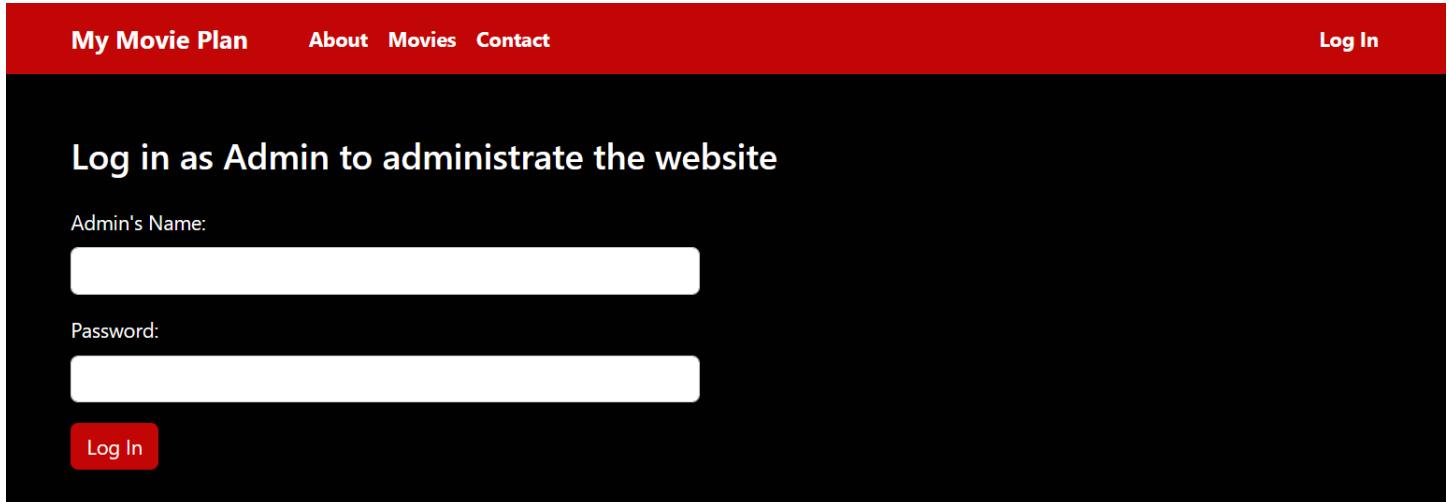
Admin

Admins are users who can administrate the application. To display the log-in form, admins have to go to the Log In page and click on the link “Log in as Admin instead”.



The screenshot shows a user log-in form on a black background with a red header bar. The header contains the navigation links "My Movie Plan", "About", "Movies", "Contact", and "Log In". Below the header, the text "Log in to purchase tickets" is displayed. The form includes fields for "Username" and "Password", both represented by white input boxes. A red "Log In" button is located below the password field. At the bottom of the form, there is a link "Are you new here? Register!" and a link "Log in as Admin instead".

Then the admin log in form shows.



The screenshot shows an admin log-in form on a black background with a red header bar. The header contains the navigation links "My Movie Plan", "About", "Movies", "Contact", and "Log In". Below the header, the text "Log in as Admin to administrate the website" is displayed. The form includes fields for "Admin's Name" and "Password", both represented by white input boxes. A red "Log In" button is located below the password field.

Admins have different options than basic registered users. On the “Movies” page, admins can delete or disable/enable movies. The delete option deletes movies from the database, the disable/enable option only hides/shows the movies from/to guests and users.

[My Movie Plan](#)
[About](#) [Movies](#) [Contact](#)
[Log Out](#)

Available Movies

[ADD NEW MOVIE, GENRE OR LANGUAGE](#)
[Filter Movies:](#)

Search Movies:

Filter Movies:

All genres
All languages

Sort Movies:

Alphabetically By Date

Forrest Gump
(Drama, EN)
2023-08-08, 20:00
\$15

[More Info](#)
[Edit](#)
[Disable](#)
[Delete](#)

Frozen
(Animation, EN)
2023-08-12, 14:00
\$12

[More Info](#)
[Edit](#)
[Enable](#)
[Delete](#)

Clicking on the “Add movie, genre or language” button, admins go to this form page. Here, admins can add movies and also new genres and languages which are then added to the filter on the Movie page.

[My Movie Plan](#)
[About](#) [Movies](#) [Contact](#)
[Log Out](#)

Add New Movie

Name:

Add New Genre:

Genre:

Add Genre

Description:

Add New Language:

Language:

Add Language

Image URL:

Date:

[Calendar icon]

Time:

Ticket Price:

[Add Movie](#)

By clicking on the “Edit” button by a specific movie, the edit form shows. The details of the movie are pre-filled so admins can edit only some of the boxes.

My Movie Plan [About](#) [Movies](#) [Contact](#) [Log Out](#)

Edit Movie

Name:

Genre:

Description:

Language:

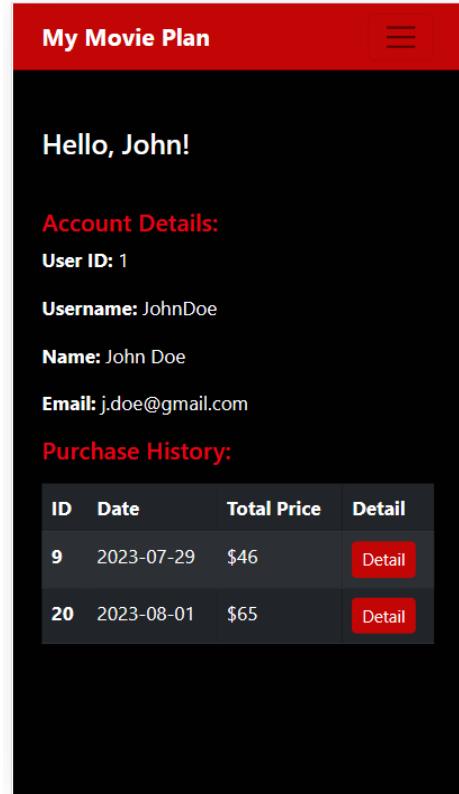
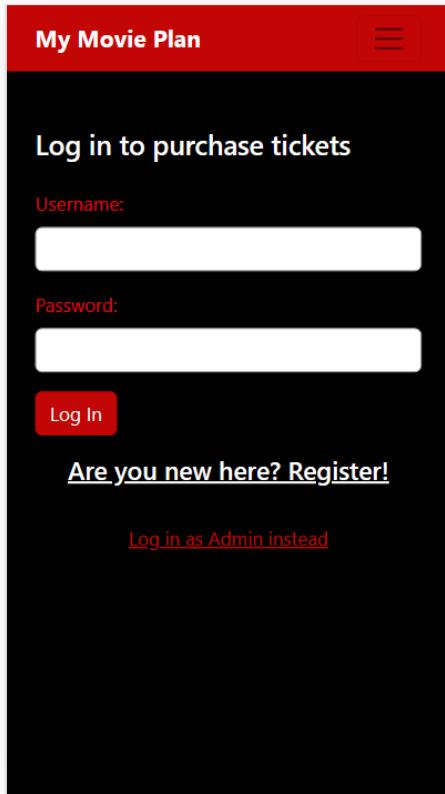
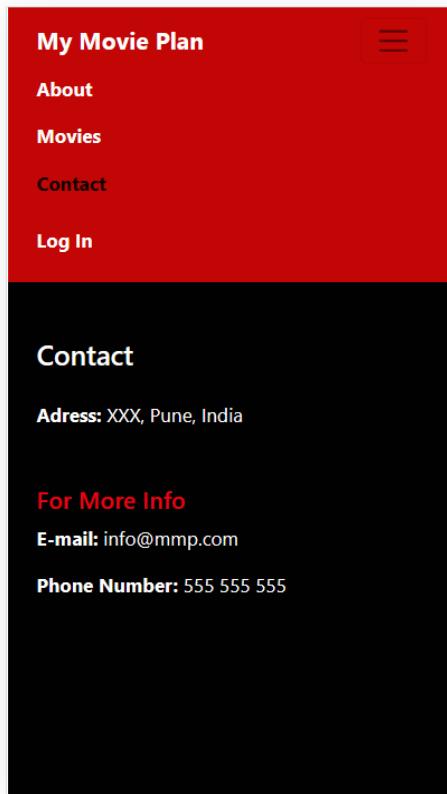
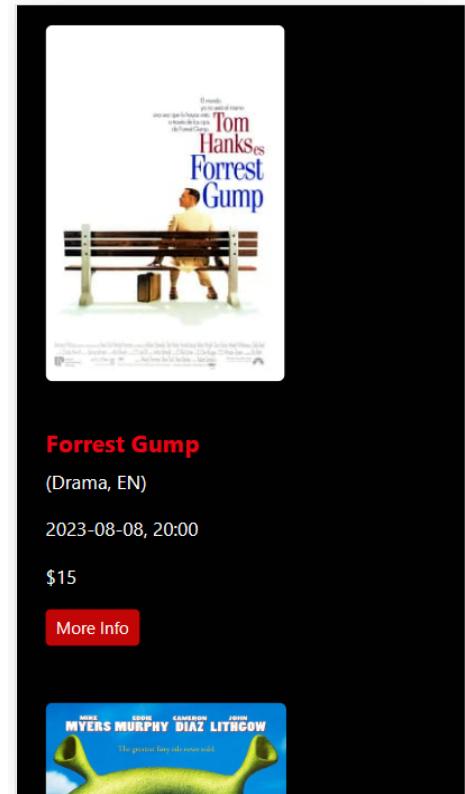
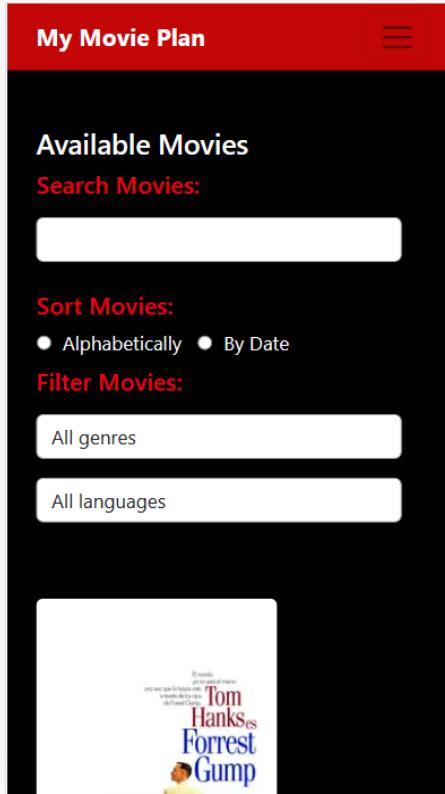
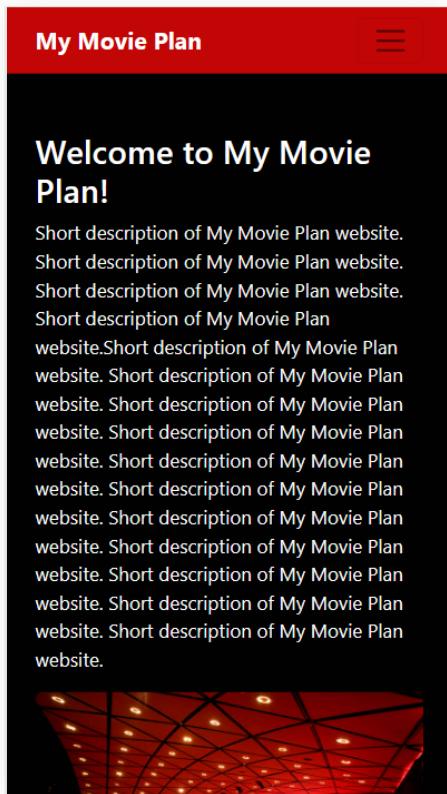
Image URL:

Date:

Time:

Ticket Price:

The whole application is responsive. All users can use it comfortably on many different devices.

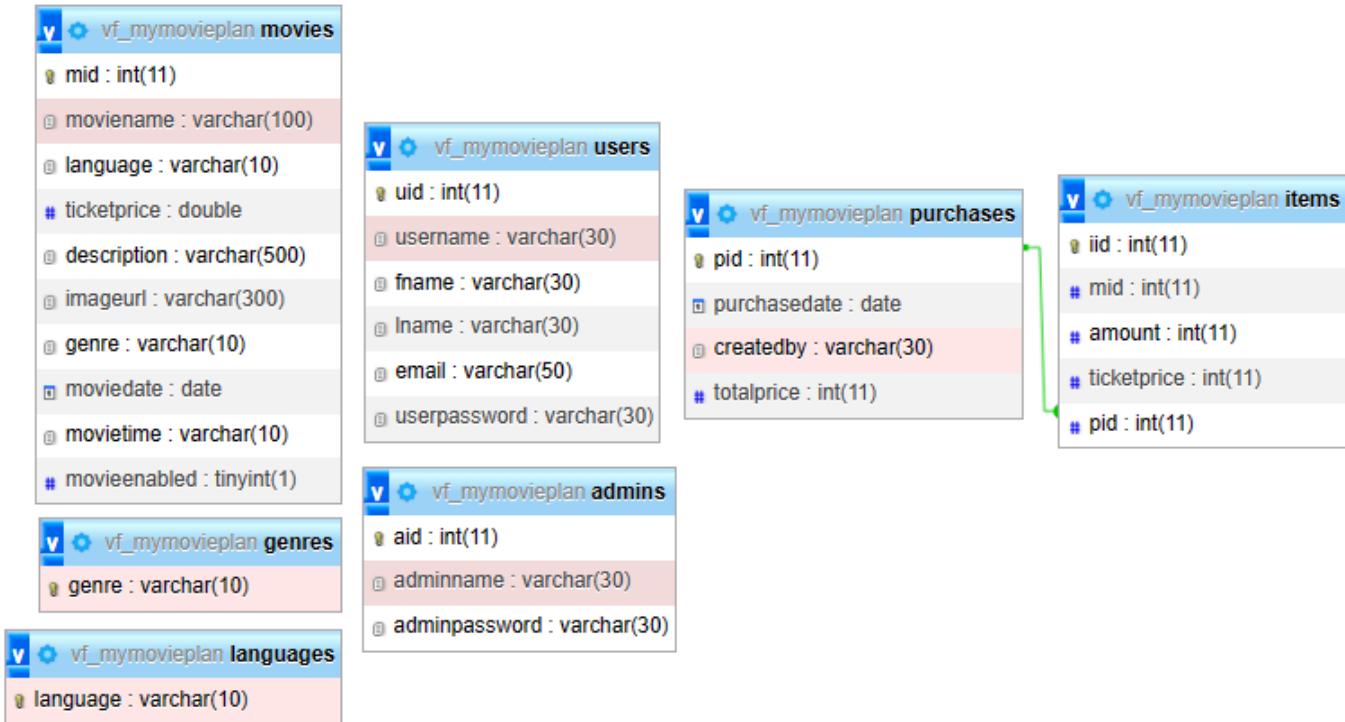


ID	Date	Total Price	Detail
9	2023-07-29	\$46	<button>Detail</button>
20	2023-08-01	\$65	<button>Detail</button>

DEVELOPER VIEW

Development

In the **MySQL** admin app, a database containing the following tables was designed.



Back-end application with the connection to this database was created using the **Java Spring Boot** framework with **Hibernate** and POJOs files were mapped to tables using annotations. The structure of BE application consisted typically from entity, repository, service and controller classes (or interfaces).

All necessary dependencies were integrated to the BE application in **Maven**'s pom.xml file. The BE app was running on **Apache Tomcat server**, port 8080.

For developing the front-end application, **JavaScript** framework **React** installed with Node JS was used. Thanks to implementing **Bootstrap**, the front-end application was styled and responsive.

During the whole developing process, versioning was managed by **Git** and all the versions were saved to **GitHub**.

Testing

During the developing process, usually manual testing was performed.

At the end of the last sprint, some automated tests using **TestNG** and **Selenium** were designed and executed. In the following picture, there is an example result of automation testing.

The screenshot shows an IDE interface with several panes:

- Code Editor:** Displays the file `MyMoviePlanApplicationTests.java` containing Selenium test code. It includes imports for `java.text.SimpleDateFormat`, annotations like `@SpringBootTest` and `@Test`, and several test methods: `loginPositive()`, `loginNegative()`, `registerPositive()`, and `registerNegative()`. The code uses `WebDriver` to interact with a local host at port 3000.
- Outline:** Shows the class structure with methods: `driver` (of type `WebDriver`), `loginPositive()`, `loginNegative()`, `registerPositive()`, `registerNegative()`, `beforeMethod()`, `afterMethod()`, `beforeClass()`, and `afterClass()`.
- Results:** A bottom pane titled "Results of running class MyMoviePlanApplicationTests" shows the test summary:
 - Search bar: Search...
 - Status: Passed: 4, Failed: 0, Skipped: 0
 - Total: Tests: 1/1 Methods: 4 (48205 ms)
- Tree View:** Shows the test hierarchy:
 - All Tests
 - Default suite (4/0/0/0) (26,438 s)
 - Default test (26,438 s)
 - com.project.MyMoviePlanApplicationTests
 - loginNegative (4,952 s)
 - loginPositive (4,322 s)
 - registerNegative (8,57 s)
 - registerPositive (8,594 s)

GitHub repository

https://github.com/mianto5/FSDp_FinalProject.git

Conclusion and enhancing possibilities

My Movie Plan is a simple application for displaying and administrating the company's portfolio and purchasing movie tickets by its customers. Every non-logged-in customer can view the company's movie menu, sort and filter listed movies, search for specific movies and view the movie details. To purchase the tickets, customers have to register and log-in to the application. Then they can also view their account details and purchase history. To administrate the movie portfolio, to log in as admin is needed. The admin can then add new movies, genres and languages, edit or delete existing movies or disable the movies so they are not visible to the customers. The application is styled for better customer and admin experience and fully responsive for comfortable browsing on different devices.

Even though this application meets all company's requirements, many enhancing possibilities can be proposed to improve customer experience. For example, a system for booking specific seats in the cinema could be integrated. Also, in the customer profile, a feature displaying active tickets could be added which would be surely very appreciated by the customers. To keep the application bug-free, more automated tests should be designed.