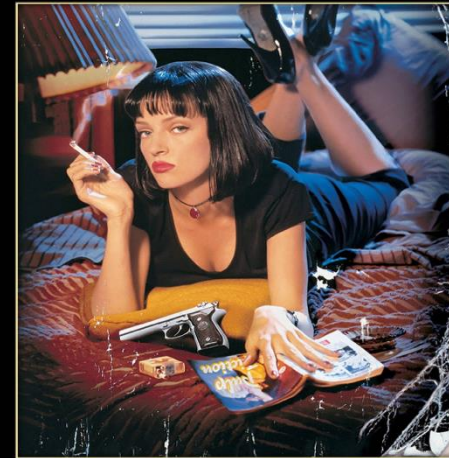


Case Study: MyFlix Project

MOVIEFLIX

PULP FICTION



Pulp Fiction

and Jules Winnfield are hitmen with a penchant for philosophical discussions. In this ultra-hip, multi-strand crime movie, their storyline is intertwined with that of Vincent Vega, a smooth-talking gangster; his boss, gangster Marsellus Wallace; his actress wife, Mia; struggling boxer Butch Coolidge; master fixer Winston Wolfe and a nervous pair of ar

Genre: Gangster

Director: Quentin Tarantino

MOVIEFLIX

Filter by Genre: All



A Space Odyssey
Stanley Kubrick

Add Favorite

PULP FICTION



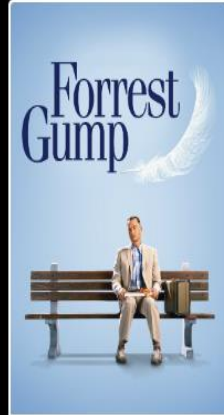
Pulp Fiction
Quentin Tarantino

Add Favorite



Casablanca
Michael Curtiz

Add Favorite



Forrest Gump
Robert Zemeckis

Add Favorite



Inception
Christopher Nolan

Remove Favorite

THE DARK KNIGHT



The Dark Knight
Christopher Nolan

Remove Favorite



Psycho
Alfred Hitchcock

Add Favorite



The Godfather
Francis Ford Coppola

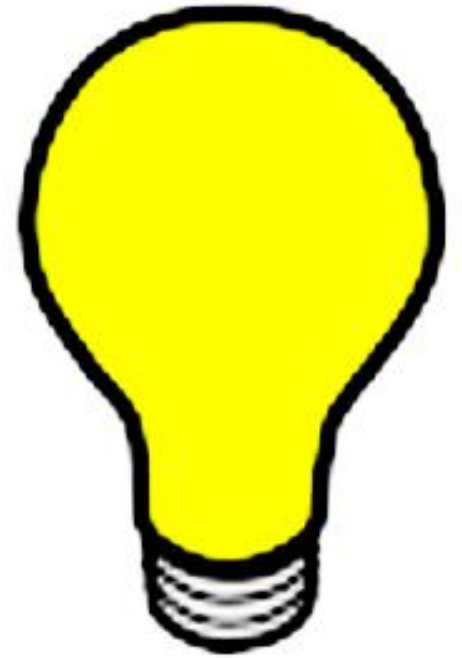
Add Favorite

Overview

The **myFlix** web application is a full-stack movie database built using React for the frontend and a MongoDB-based API for the backend. It allows users to browse a diverse selection of movies, create an account, and manage their favorites.

Purpose

The myFlix project aims to provide users with a seamless movie-browsing experience, allowing them to create accounts, manage favorite films, and receive personalized movie recommendations. Built with React and powered by a MongoDB backend, the application combines a responsive, user-friendly interface with secure account management and interactive features for movie enthusiasts.



Objective:

The objective of the myFlix project is to create a responsive movie database app that lets users explore movies, manage favorites, and receive personalized recommendations, providing an engaging and streamlined experience through modern web technologies.

Approach

Server-Side:

- The backend is built using Node.js and Express, providing a RESTful API to handle movie data, user accounts, authentication, and user preferences.
- MongoDB is used as the database to store user information, movie details, and favorite lists, ensuring scalability and flexibility.
- JWT (JSON Web Tokens) are implemented for secure authentication, allowing users to create accounts, log in, and manage their profiles safely.
- The server-side also includes endpoints to fetch movie data, update user profiles, and manage favorite movies, supporting seamless client-server communication.

Client-Side:

- The frontend is developed using React, with a focus on building reusable components to display movie details, user profiles, and favorites
- React Router is used for seamless navigation, creating a smooth, single-page application experience
- The app connects to the backend API using Axios for HTTP requests, enabling real-time data fetching and updates.
- Redux is used for state management to handle user data and movie-related actions across the app.
- The UI is designed to be responsive, providing a consistent experience across devices, with a focus on usability and simplicity.

myFlixDB.movies

STORAGE SIZE: 24KB LOGICAL DATA SIZE: 11.2KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 20KB

Find Indexes Schema Anti-Patterns 0 Aggregation Search Indexes

Filter

Type a query: { field: 'value' }

```
_id: ObjectId('65a8457b266d86b605bea401')
Title: "A Space Odyssey"
Description: "An imposing black structure provides a connection between the past and..."
Genre: Object
Director: Object
ImagePath: "https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcSvfAM066WHsduq5a..."
Featured: true
```

```
_id: ObjectId('65a84c3e266d86b605bea404')
Title: "Pulp Fiction"
Description: "Vincent Vega and Jules Winnfield are hitmen with a penchant for philos..."
Genre: Object
Director: Object
ImagePath: "https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTlNRzwKlBbE6QGNY..."
Featured: true
```

```
_id: ObjectId('65a84691266d86b605bea402')
Title: "Casablanca"
Description: "Rick Blaine, who owns a nightclub in Casablanca, discovers his old fla..."
Genre: Object
Director: Object
ImagePath: "https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcSxe_DEQcsxBKAzVS..."
Featured: true
```

myFlixDB.users

STORAGE SIZE: 44KB LOGICAL DATA SIZE: 7.86KB TOTAL DOCUMENTS: 40 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns 0 Aggregation Search Indexes

[Generate queries from natural language in Compass](#)

Filter

Type a query: { field: 'value' }

QUERY RESULTS: 1-20 OF MANY

```
_id: ObjectId('65a8572d266d86b605bea40a')
Username: "bobydylan"
Password: "positively4thstreet"
Email: "bobydylan@gmail.com"
Birthday: 1985-02-19T00:00:00.000+00:00
FavoriteMovies: ObjectId('65a843f2266d86b605bea400')
```

```
_id: ObjectId('65a858bc266d86b605bea40c')
Username: "johnnycash"
Password: "folsomprisonblues"
Email: "johnnycash@gmail.com"
Birthday: 2001-10-12T00:00:00.000+00:00
FavoriteMovies: ObjectId('65a8516e266d86b605bea408')
```

```
_id: ObjectId('65a8596a266d86b605bea40d')
Username: "Iggy pop"
```

M O V I E F L I X

Profile

Username

imissball


Email

imissball@gmail.com

Date of Birth

5/21/2024


Favorite movies



Forrest Gump

Robert Zemeckis


Remove Favorite



The Dark Knight

Christopher Nolan

Remove Favorite



The Godfather

Francis Ford Coppola

Remove Favorite

Edit Profile

Deregister

M O V I E F L I X

Login

Username:

Password:

Submit

M O V I E F L I X

Register:

Username:

Password:

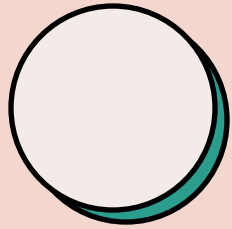
Email:

Birthday:

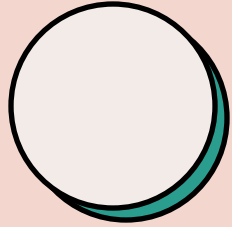
mm/dd/yyyy

Submit

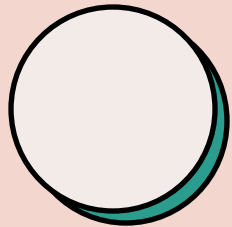
Challenges



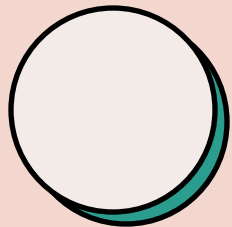
Ensuring secure user authentication with JWT implementation.



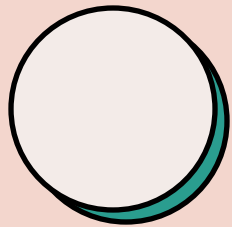
Managing real-time data updates between client and server.



Handling state efficiently with Redux across multiple components.



Designing a responsive, user-friendly UI for all devices.



Integrating personalized movie recommendations from user data.

Duration

Week 1: Initial planning and setting up the project structure, including backend API development and database design using MongoDB.

Week 2: Frontend development using React, focusing on creating user interfaces and implementing routing with React Router.

Week 3: Integrating backend services, implementing secure user authentication, and connecting the frontend to the backend API for data fetching.

Week 4: Finalizing features such as favorites management and personalized recommendations, followed by thorough testing and debugging to ensure functionality and responsiveness.

Retrospective

The myFlix project has been a rewarding journey that merged my love for movies with my web development skills. Working with React, Node.js, and MongoDB challenged me to think critically, especially in mastering state management with Redux and securing user authentication with JWT.

Designing a user-friendly interface that enhances the movie-watching experience was particularly fulfilling, as it reinforced the importance of user feedback. This project not only strengthened my technical abilities but also deepened my passion for storytelling through code, solidifying my ambition to become a frontend web developer.

Credits

Developer:

Haley Tolar

Tutor:

Adam Pagels

Mentor:

Shawn Rice