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**CAB230 ASSIGNMENT 2 CLIENT SIDE
MOVIEFINDER+**

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Introduction

Purpose & Description

This React-based web application is a full-featured movie discovery and cataloguing platform named MovieFinder+. The purpose of the application is to allow users to search, browse and discover a large database of movies, using search title and year filtering and dynamic data presentation. The user can search by title and year, sort movies using the interactive data grids, view movie details, and individual cast and crew metadata.

In developing MovieFinder+, particular attention was given to user experience continuity. One standout feature is the app's ability to preserve state across navigation. When a user views a movie detail and navigates back to the catalogue, their previous search filters and current page within the AG Grid are restored, ensuring a smooth and non-disruptive browsing experience. This was implemented using sessionStorage alongside precise DOM targeting within the AG Grid component to restore scroll offsets.

The visual polish of the app is elevated through careful integration of modern UI libraries such as Chart.js for dynamic rating visualisations and AG Grid for scalable, performant tabular data. The styling system is component-scoped but cohesive across views, maintaining strong branding consistency with custom, red-accented theme palettes. Authentication leverages secure token-based flows with automatic token refresh, sparing users from unnecessary logins while protecting access-restricted endpoints.

Completeness and Limitations

The core functionality of the application has been successfully implemented. Users can register, log in, and access authenticated endpoints to browse movies and actor details. The application integrates AG Grid to provide a powerful and responsive tabular view of movie data, complete with pagination, sorting, and dynamic content rendering. Search functionality supports filtering by title and year, and navigation is handled smoothly using React Router. On the actor detail page, a dynamic bar chart visualises IMDb rating distributions using Chart.js, adding valuable data visualisation component.

However, there is a limitation to acknowledge. Scroll position is preserved between routes, the AG Grid internal scroll (i.e. vertical scroll within the data grid) is not fully restored after navigation. Despite this limitation, the app aligns closely with the grade 7 specification, with components functioning cohesively, a clean and intuitive interface, and strong alignment between data, structure, and design.

Welcome to MovieFinder+

Your next favorite movie is just a search away. Happy watching!

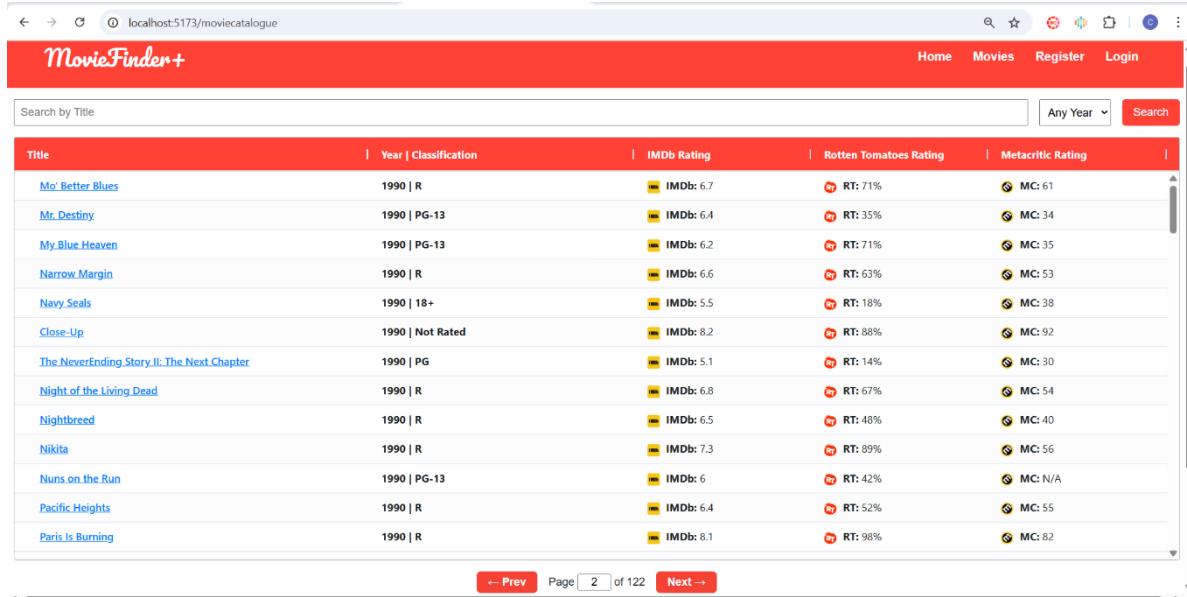


Use of End Points

/movies/search

The /movies/search endpoint is used in the Movie Catalogue page to fetch and display paginated movie search results based on user-defined filters such as title and year. Users can search for a specific title, filter by release year, and browse through multiple pages using custom pagination controls.

As shown in the screenshot, the results include key data like IMDb rating, Rotten Tomatoes rating, Metacritic rating, and classification. The app uses AG Grid to efficiently render a scrollable, paginated table. Additional UX enhancements include restored page state (title, year, page, and scroll position) when navigating back from a movie.



The screenshot shows a web browser window for 'MovieFinder+' at localhost:5173/movielist. The header includes a logo, navigation links for Home, Movies, Register, and Login, and a search bar with dropdowns for 'Any Year' and 'Search'. Below is a table with the following data:

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
Mo' Better Blues	1990 R	IMDb: 6.7	RT: 71%	MC: 61
Mr. Destiny	1990 PG-13	IMDb: 6.4	RT: 35%	MC: 34
My Blue Heaven	1990 PG-13	IMDb: 6.2	RT: 71%	MC: 35
Narrow Margin	1990 R	IMDb: 6.6	RT: 63%	MC: 53
Navy Seals	1990 18+	IMDb: 5.5	RT: 18%	MC: 38
Close-Up	1990 Not Rated	IMDb: 8.2	RT: 88%	MC: 92
The NeverEnding Story II: The Next Chapter	1990 PG	IMDb: 5.1	RT: 14%	MC: 30
Night of the Living Dead	1990 R	IMDb: 6.8	RT: 67%	MC: 54
Nightbreed	1990 R	IMDb: 6.5	RT: 48%	MC: 40
Nikita	1990 R	IMDb: 7.3	RT: 89%	MC: 56
Nuns on the Run	1990 PG-13	IMDb: 6	RT: 42%	MC: N/A
Pacific Heights	1990 R	IMDb: 6.4	RT: 52%	MC: 55
Paris Is Burning	1990 R	IMDb: 8.1	RT: 98%	MC: 82

At the bottom, there are navigation buttons: '...Prev', 'Page 2 of 122', and 'Next...'

/movies/data/{imdbID}

This endpoint is used to retrieve full details of a single movie. When a user clicks on a movie in the catalogue, they are navigated to the Movie Detail view. This page displays the poster, year, runtime, genre pills, box office revenue, country of origin, and plot, followed by a structured table of cast and

crew. Ratings from IMDb, Rotten Tomatoes, and Metacritic are also included and styled consistently. A "← Back to Catalogue" button returns the user to their previous search state.

MovieFinder+
Home
Movies
Register
Login

[← Back to Catalogue](#)

Mo' Better Blues

Released: 1990

Runtime: 129 minutes

Genres: Drama, Music, Romance

Country: United States

Box Office: \$16,153,593

Jazz trumpeter Bleek Gilliam makes questionable decisions in his professional and romantic lives.

IMDb: 6.7/10

Rotten Tomatoes: 71%

Metacritic: 61/100

Cast & Crew

Role	Name	Character
Actor	Denzel Washington	Bleek Gilliam
Actor	Spike Lee	Giant
Actor	Wesley Snipes	Shadow Henderson (Sax)
Actor	Giancarlo Esposito	Left Hand Lacey (Piano)
Composer	Bill Lee	-
Cinematographer	Ernest R. Dickerson	-
Editor	Sam Pollard	-
Production_designer	Wynn Thomas	-

All data is from IMDb, Metacritic and Rotten Tomatoe
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</people/{id}>

Clicking any actor/crew name leads to the individual person page using their unique ID. The page shows their name, lifespan (birth year to death year), and a list of all movies they were involved in, with roles and characters. Below that, a bar chart visualises the IMDb ratings of those movies, grouped in bands. The chart provides a quick visual assessment of their film history.

[← Back to Movie](#)

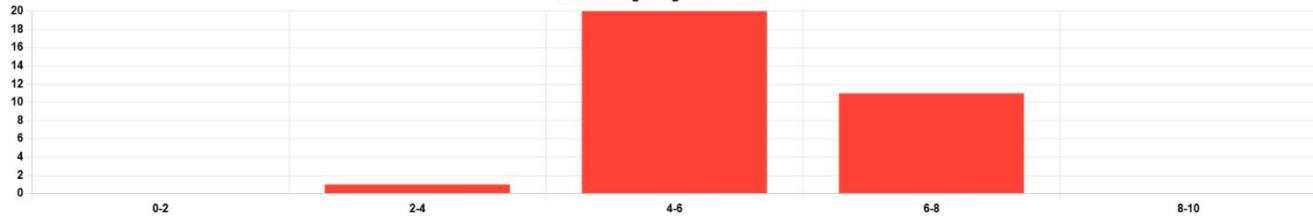
Eddie Murphy

Born: 1961 – Present

Movie	Role	Character(s)	IMDb Rating
Another 48 Hrs.	actor	Reggie Hammond	5.9
Boomerang	actor	Marcus	5.6
The Distinguished Gentleman	actor	Thomas Jefferson Johnson	5.9
Beverly Hills Cop III	actor	Axel Foley	5.5
Vampire in Brooklyn	actor	Maximillian, Preacher Pauly, Guido	4.6
The Nutty Professor	actor	Sherman Klump, Buddy Love, Lance Perkins	5.7
Doctor Dolittle	actor	Dr. John Dolittle	5.4
Metro	actor	Insp. Scott Roper	5.6

[Prev](#) Page 1 / 4 [Next](#)

IMDb Rating Range Breakdown



All data is from IMDB, Metacritic and Rotten Tomatoe
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/user/register

This endpoint enables new users to create an account. The registration form collects an email and password, with confirmation for validation. On submission, the data is sent via POST to /user/register. If successful, the user is redirected to login. The registration view is designed for clarity and ease-of-use, centered in a clean card layout. It includes error handling, basic validation, and a link to the login page for existing users.

A screenshot of a web browser window displaying the MovieFinder+ application. The URL in the address bar is `localhost:5173/register`. The page has a red header with the title "MovieFinder+" and navigation links for "Home", "Movies", "Register", and "Login". The main content area contains a registration form titled "Register". It includes three input fields: "Email", "Password", and "Confirm Password", followed by a red "Register" button. Below the form is a link "Already have an account? [Login](#)".

/user/login

This endpoint authenticates returning users. The login form takes an email and password, sending a POST request to `/user/login`. Upon successful authentication, the backend issues a bearer token and refresh token, which are stored locally and used for future authenticated requests. The user interface is minimalist and user-friendly, emphasising clarity.

A screenshot of a web browser window displaying the MovieFinder+ application. The URL in the address bar is `localhost:5173/login`. The page has a red header with the title "MovieFinder+" and navigation links for "Home", "Movies", "Register", and "Login". The main content area contains a login form titled "Login". It includes two input fields: "Email" and "Password", followed by a red "Login" button. Below the form is a link "Don't have an account? [Register](#)".

/user/refresh

The `/user/refresh` endpoint is used to issue a new bearer token once the original access token has expired. This allows users to stay logged in without needing to re-enter their credentials, provided their refresh token is still valid. In the application, this endpoint is triggered automatically when a 401 Unauthorised response is received during a fetch call. The app intercepts this, sends the stored refresh token to `/user/refresh`, and if successful, updates both the bearer and refresh tokens in `localStorage`. The original request is then retried using the new access token, allowing the app to recover seamlessly without interrupting the user.

The screenshot shows the MovieFinder+ application interface. At the top, there's a navigation bar with links for Home, Movies, chris@email.com, and Logout. Below the navigation bar, a button labeled "Back to Movie" is visible. The main content area displays a list of movies for Leonardo DiCaprio, including:

Movie	Role	Character(s)	IMDb Rating
This Boy's Life	actor	Toby	7.3
What's Eating Gilbert Grape	actor	Arnie Grape	7.7
The Basketball Diaries	actor	Jim Carroll	7.3
The Quick and the Dead	actor	Kid	6.5
Total Eclipse	actor	Arthur Rimbaud	6.5
Marvin's Room	actor	Hank	6.7
Romeo + Juliet	actor	Romeo	6.8
Titanic	actor	Jack Dawson	7.9

To the right of the application window, a browser developer tools window is open, specifically the Application tab. It shows the local storage for the domain http://localhost:5173. A red box highlights the tokens stored in local storage:

- bearerToken: eyJhbGciJUJUz1NilsInR5cCl6lkpXVC...
- debug: honeycore-sdk*
- refreshToken: eyJhbGciJUJUz1NilsInR5cCl6lkpXVC...
- userEmail: chris@email.com

A message in the developer tools console indicates that code selection has been deprecated:

ag-grid-react.js?ver=7baadd370
codeSelection with the values "single" or "multiple" have been deprecated. Use the object value instead.

</user/logout>

The /user/logout endpoint is called when a user clicks the **Logout** button in the top-right corner of the navigation bar. This triggers a POST request that removes the user's refresh token from the server, securely ending their session.

After a successful logout, the user is immediately redirected to the login page, and all authentication data (including bearer and refresh tokens) is cleared from local storage. This ensures proper session termination and reinforces security by invalidating any lingering credentials.

The screenshot shows the MovieFinder+ login page. The header features the "MovieFinder+" logo, a navigation bar with Home, Movies, chris@email.com, and Logout links, and a "Logout" button highlighted with a red box. The main content area has a large, stylized "Welcome to MovieFinder+" heading. Below it is a smaller text: "Your next favorite movie is just a search away. Happy watching!". At the bottom of the page is a large, appetizing image of popped popcorn.

Modules Used

Ag-grid-react

Module to provide fully featured table components, including pagination, sorting, filtering, and infinite scrolling.

<https://www.ag-grid.com/react-grid/>

Chart.js

Powerful, flexible JavaScript charting library used to visually represent IMDb rating breakdowns in bar chart form.

<https://www.npmjs.com/package/chart.js?activeTab=readme>

React-router DOM

Handles navigation and route management across multiple pages, including protected routes based on authentication status.

<https://www.npmjs.com/package/react-router-dom>

React-Strap

React wrapper for Bootstrap 5 components, allowing easy creation of styled forms and layout components.

<https://reactstrap.github.io/>

Boot-Strap

A widely used CSS framework for responsive layout and consistent styling.

<https://getbootstrap.com/docs/5.3/getting-started/introduction/>

Application Design

Navigation and Layout

The application was designed with a simple, user-focused layout that keeps navigation clear and interactions intuitive. At the top of each page, the navigation bar provides quick access to key pages: Home, Movies, Register, and Login. Once a user logs in, their email is shown in the navbar, and the Register/Login options are replaced with a Logout button. From the Movie Catalogue, users can search or filter through the list of films and then click a movie title to view more details. Each movie detail page includes links to cast members, allowing navigation to individual Actor pages. A “Back to Catalogue” button is consistently placed across pages and restores the user’s previous filters, and pagination—making it easy to continue browsing where they left off.

The homepage and nav layout used the same structure of the “Minty Yard” tutorial. Initially, I had planned for a minimalist layout but decided to keep a more vibrant and thematic style by using a popcorn background and matching footer. This cinema-themed approach helped set the tone for the app and gave it a light, friendly personality. The overall visual design was kept consistent with only a few colours and font styles reused across pages for clarity and readability.

Originally, the Movie Catalogue was meant to be displayed using a grid of card components, each showing a movie poster and ratings. While this layout looked great and felt familiar—like IMDb or Rotten Tomatoes—it required a separate API request for each movie to retrieve rating data. This quickly triggered 429 (Too Many Requests) errors. To improve performance and reduce API load, I switched to using AG Grid. This allowed for batched data loading, built-in pagination, and filtering—but it did mean sacrificing the visual richness of the original design.



Original Homepage before design scheme and logo added

A screenshot of the MovieFinder+ application's movie catalogue page. The header is red with the text 'MovieFinder+' and navigation links for Home, Movies, Register, and Login. Below the header is a search bar with the placeholder 'Search by Title'. The main content area displays a grid of movie cards. Each card includes a small movie poster, the movie title, its release year and rating, and three small circular icons representing IMDb, RT, and MC ratings. The cards are arranged in two rows.

Original MovieCatalogue before divert to AG-GRID

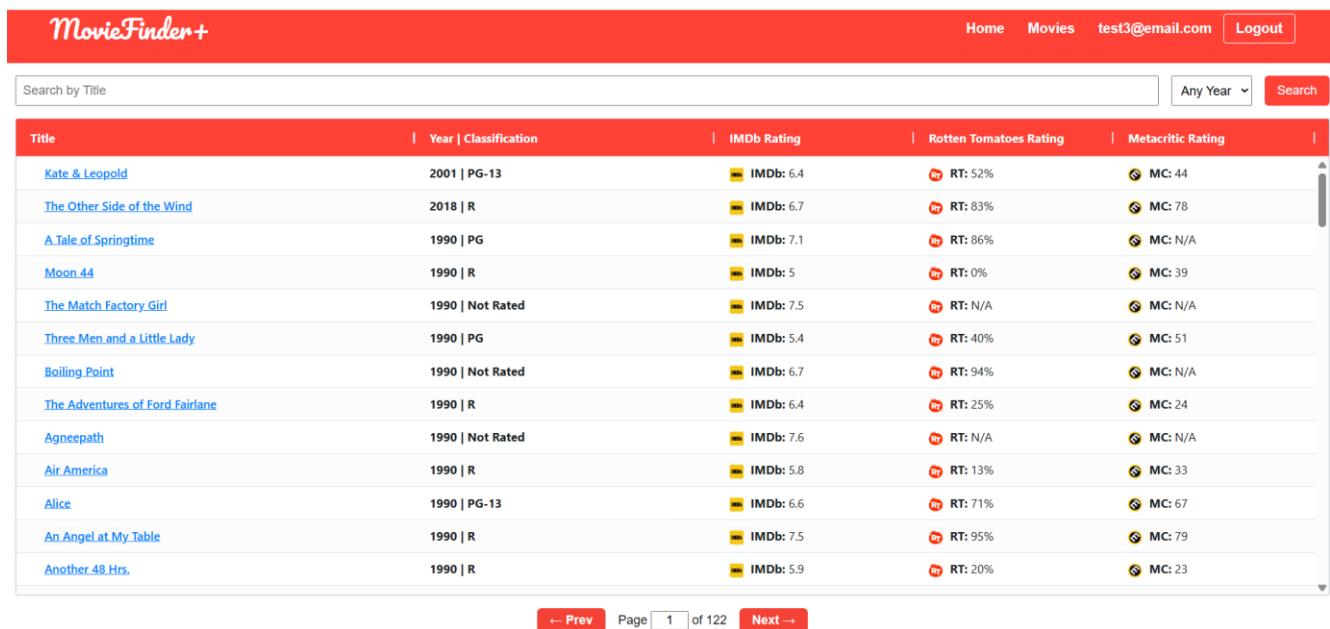
Usability and Quality of Design

The MovieFinder+ application is simple and intuitive to use. From the beginning, I tried to keep the layout clean and straightforward—search inputs are clearly placed, the filters are where you'd expect them to be, and key information such as movie ratings, titles, and years are easy to spot at a glance. The navigation bar remains fixed across all pages, letting users move between Home, Movies, Register, and Login with ease. Once logged in, users can explore the catalogue, click into a movie for more details, and even dig deeper into cast and crew information—all with predictable, smooth transitions.

That said, there were a few parts of the design that didn't turn out quite how I initially envisioned. One of the bigger compromises was moving away from the grid-style card layout for the movie catalogue. I originally designed the catalogue to look more like what you'd see on sites like IMDb or Rotten Tomatoes—with big posters and bold titles arranged in neat cards. Visually, it was far more engaging and closer to what users are used to. But technically, it quickly became a problem. Each card needed to fetch data separately, and with so many API calls firing off at once, I started getting 429 "Too Many Requests" errors. Unfortunately, the only viable workaround was to switch to AG Grid and render the movies in a table instead. It's functional and efficient, but definitely not as visually appealing.

Another area I struggled with was scroll position within the AG Grid itself. I was able to restore the main page scroll when navigating back from a movie detail page, but AG Grid uses its own internal scroll container—and I couldn't get it to lock the exact scroll position inside the grid. That means if a user is halfway through a list of movies, clicks into one, and comes back, they might lose their place and have to scroll to find it again. It's a small thing, but it can affect the experience—especially if you're browsing dozens of titles.

Despite these trade-offs, the app is consistent in design. I stuck to a limited colour scheme (mostly red, white, and black) and only used one or two font styles throughout, which keeps it tidy. The structure is solid and easy to follow. If I had more time—or a more generous API—I'd definitely revisit the grid-style layout and put more effort into polish and usability details like persistent scroll.



The screenshot shows the MovieFinder+ application interface. At the top, there is a red header bar with the title "MovieFinder+" on the left, and navigation links for "Home", "Movies", "test3@email.com", and "Logout" on the right. Below the header is a search bar with a placeholder "Search by Title" and a dropdown menu set to "Any Year". To the right of the search bar is a red "Search" button. The main content area is a table with the following columns: "Title", "Year | Classification", "IMDb Rating", "Rotten Tomatoes Rating", and "Metacritic Rating". The table lists 12 movies, each with a small poster thumbnail, the movie title, its release year and classification, and its ratings from three sources. At the bottom of the table, there are navigation buttons for "Prev", "Page 1 of 122", and "Next".

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
Kate & Leopold	2001 PG-13	IMDb: 6.4	RT: 52%	MC: 44
The Other Side of the Wind	2018 R	IMDb: 6.7	RT: 83%	MC: 78
A Tale of Springtime	1990 PG	IMDb: 7.1	RT: 86%	MC: N/A
Moon 44	1990 R	IMDb: 5	RT: 0%	MC: 39
The Match Factory Girl	1990 Not Rated	IMDb: 7.5	RT: N/A	MC: N/A
Three Men and a Little Lady	1990 PG	IMDb: 5.4	RT: 40%	MC: 51
Boiling Point	1990 Not Rated	IMDb: 6.7	RT: 94%	MC: N/A
The Adventures of Ford Fairlane	1990 R	IMDb: 6.4	RT: 25%	MC: 24
Agneepath	1990 Not Rated	IMDb: 7.6	RT: N/A	MC: N/A
Air America	1990 R	IMDb: 5.8	RT: 13%	MC: 33
Alice	1990 PG-13	IMDb: 6.6	RT: 71%	MC: 67
An Angel at My Table	1990 R	IMDb: 7.5	RT: 95%	MC: 79
Another 48 Hrs.	1990 R	IMDb: 5.9	RT: 20%	MC: 23

Accessibility

The application demonstrates a strong commitment to accessibility by implementing multiple key Priority 1 recommendations from W3C's Web Content Accessibility Guidelines. All non-text elements, including icons and images, are accompanied by descriptive alt attributes. Notably, a custom "no poster available" image is used when a movie poster is not provided, ensuring that users still receive meaningful visual feedback. The application also avoids using colour as the sole means of conveying information, ensuring that all content remains understandable even for users with colour vision deficiencies.

localhost:5173/movie/tt0059897

MovieFinder+

Home Movies test3@email.com Logout

[← Back to Catalogue](#)

The Adventures of Ford Fairlane

Released: 1990
 Runtime: 104 minutes
 Genres: Action Adventure Comedy
 Country: United States
 Box Office: \$21,413,502
A vulgar private detective is hired to find a missing groupie and is drawn into a mystery involving a series of murders tied to the music industry.
IMDb: 6.4/10
Rotten Tomatoes: 25%
Metacritic: 24/100

[Cast & Crew](#)



The HTML structure is semantic and well-organised, allowing the content to remain readable even when stylesheets are disabled. The design avoids visual flickers, blinks, or auto-refreshes, contributing to a stable and distraction-free experience. The textual language used throughout the site is simple and concise, improving usability for users with cognitive impairments. The table used on the actor page properly distinguishes between column headers and data cells, meeting accessibility standards for tabular data presentation.

[MovieFinder+](#)

- [Home](#)
- [Movies](#)
- [Register](#)
- [Login](#)

[← Back to Catalogue](#)

The Adventures of Ford Fairlane

Released: 1990
 Runtime: 104 minutes
 Genres: Action Adventure Comedy
 Country: United States
 Box Office: \$21,413,502
A vulgar private detective is hired to find a missing groupie and is drawn into a mystery involving a series of murders tied to the music industry.

 IMDb: 6.4/10



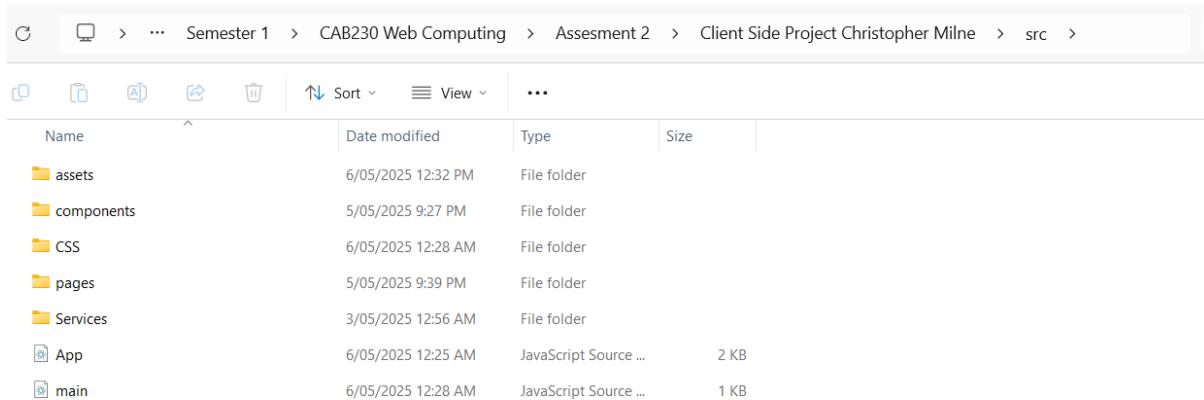
However, there are some limitations. Dynamic content, such as updates to the movie grid, is not currently announced via ARIA live regions or similar screen reader-friendly methods. This could create a barrier for visually impaired users trying to understand when content has changed. Additionally, while the forms are accessible with keyboard navigation, they rely heavily on placeholders rather than explicit `<label>` elements, which can reduce usability for screen readers. The AG Grid component, while powerful, presents challenges: it does not preserve scroll state consistently when navigating between screens, and its virtualisation can interfere with accessibility technologies.

The site also lacks certain enhancements such as language metadata declarations, structured navigation aids like skip links or sitemaps, and keyboard shortcuts for primary navigation items. Despite these areas for improvement, the overall accessibility of the application is solid for general use. With future iterations, implementing these remaining features could bring the application much closer to full compliance with WCAG standards, making it even more inclusive and user-friendly.

Technical Description

Architecture

The application follows a modular architecture built with React, where responsibilities are separated into distinct folders under the `src/` directory. This design choice was intentional to improve maintainability, readability, and scalability of the codebase. The structure reflects the principles of separation of concerns and component reusability — a key strength of React.

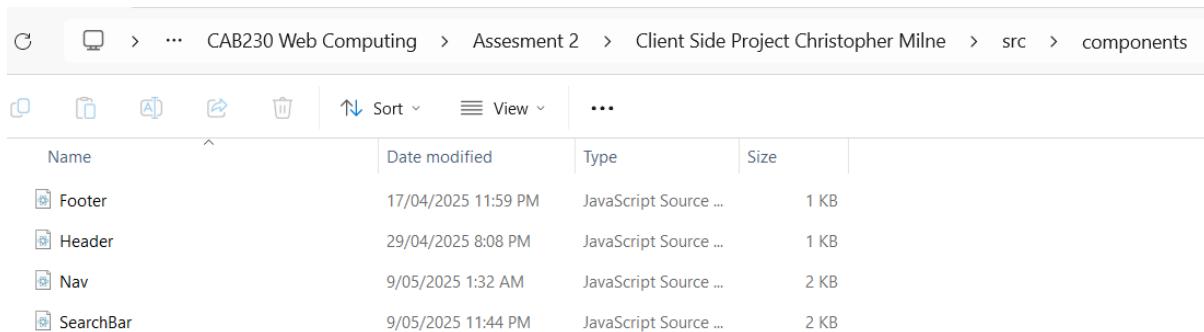


A screenshot of a file explorer window showing the contents of the `src` directory. The path in the address bar is: Semester 1 > CAB230 Web Computing > Assesment 2 > Client Side Project Christopher Milne > src >. The table below lists the files and folders found in this directory.

Name	Date modified	Type	Size
assets	6/05/2025 12:32 PM	File folder	
components	5/05/2025 9:27 PM	File folder	
CSS	6/05/2025 12:28 AM	File folder	
pages	5/05/2025 9:39 PM	File folder	
Services	3/05/2025 12:56 AM	File folder	
App	6/05/2025 12:25 AM	JavaScript Source ...	2 KB
main	6/05/2025 12:28 AM	JavaScript Source ...	1 KB

Components:

Contains shared UI components like Nav, Header, Footer, and SearchBar. These are small, reusable pieces that appear across different pages and help maintain a consistent layout and design system throughout the app.

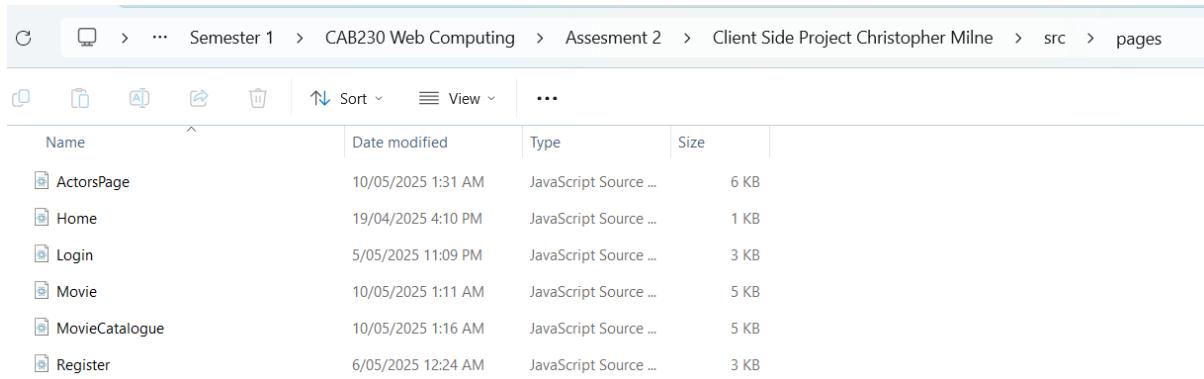


A screenshot of a file explorer window showing the contents of the `components` folder. The path in the address bar is: Semester 1 > CAB230 Web Computing > Assesment 2 > Client Side Project Christopher Milne > src > components. The table below lists the files found in this directory.

Name	Date modified	Type	Size
Footer	17/04/2025 11:59 PM	JavaScript Source ...	1 KB
Header	29/04/2025 8:08 PM	JavaScript Source ...	1 KB
Nav	9/05/2025 1:32 AM	JavaScript Source ...	2 KB
SearchBar	9/05/2025 11:44 PM	JavaScript Source ...	2 KB

Pages:

Stores all route-specific views such as Home, Login, Register, MovieCatalogue, Movie, and ActorsPage. These pages serve as the main entry points for each screen and manage the primary logic and rendering of data fetched from the backend.

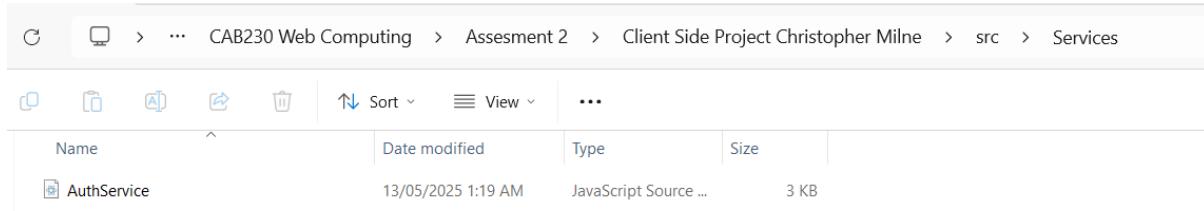


A screenshot of a file explorer window showing the 'pages' directory. The path is: Semester 1 > CAB230 Web Computing > Assesment 2 > Client Side Project Christopher Milne > src > pages. The table lists the following files:

Name	Date modified	Type	Size
ActorsPage	10/05/2025 1:31 AM	JavaScript Source ...	6 KB
Home	19/04/2025 4:10 PM	JavaScript Source ...	1 KB
Login	5/05/2025 11:09 PM	JavaScript Source ...	3 KB
Movie	10/05/2025 1:11 AM	JavaScript Source ...	5 KB
MovieCatalogue	10/05/2025 1:16 AM	JavaScript Source ...	5 KB
Register	6/05/2025 12:24 AM	JavaScript Source ...	3 KB

Services:

This holds the AuthService.js file which encapsulates authentication logic, such as logout, and refresh token handling. Abstracting this into a service layer keeps most of the authentication flow centralised and decoupled from component logic.

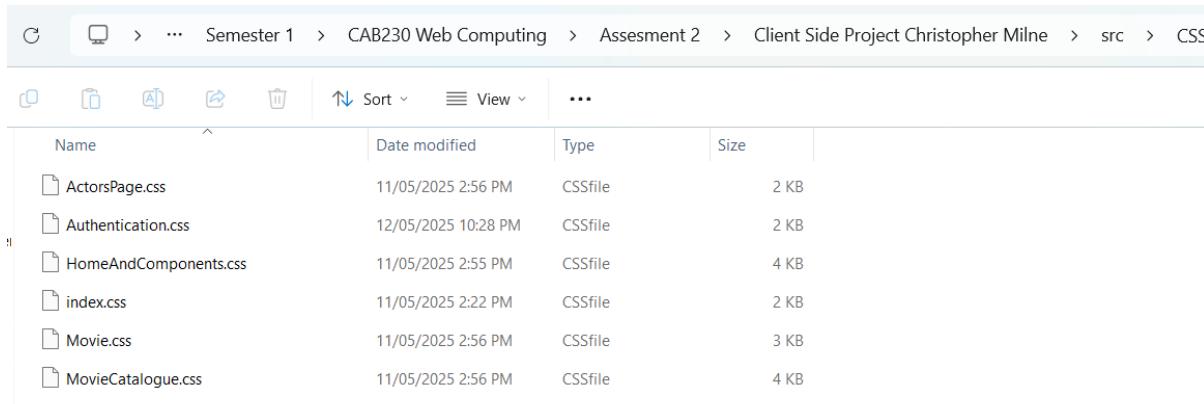


A screenshot of a file explorer window showing the 'Services' directory. The path is: Semester 1 > CAB230 Web Computing > Assesment 2 > Client Side Project Christopher Milne > src > Services. The table lists the following file:

Name	Date modified	Type	Size
AuthService	13/05/2025 1:19 AM	JavaScript Source ...	3 KB

CSS:

Contains all custom stylesheets like Authentication.css, MovieCatalogue.css, Movie.css, and more. Each CSS file is scoped to match its respective page or component, allowing for cleaner and more manageable styling.

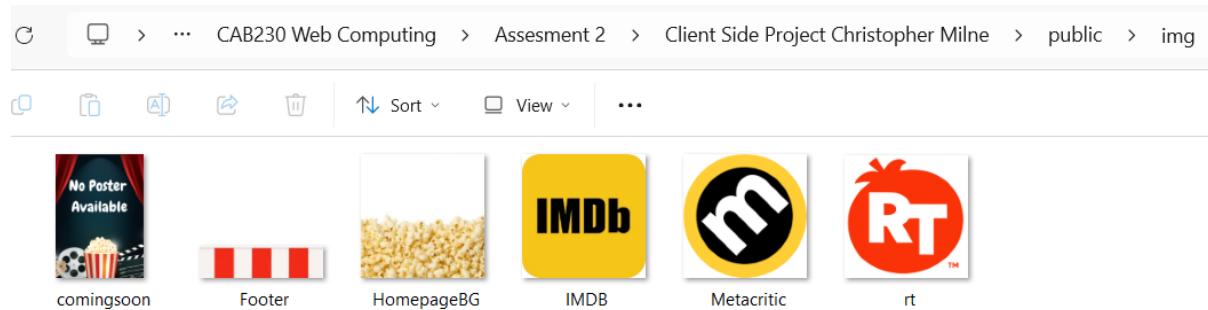


A screenshot of a file explorer window showing the 'CSS' directory. The path is: Semester 1 > CAB230 Web Computing > Assesment 2 > Client Side Project Christopher Milne > src > CSS. The table lists the following files:

Name	Date modified	Type	Size
ActorsPage.css	11/05/2025 2:56 PM	CSSfile	2 KB
Authentication.css	12/05/2025 10:28 PM	CSSfile	2 KB
HomeAndComponents.css	11/05/2025 2:55 PM	CSSfile	4 KB
index.css	11/05/2025 2:22 PM	CSSfile	2 KB
Movie.css	11/05/2025 2:56 PM	CSSfile	3 KB
MovieCatalogue.css	11/05/2025 2:56 PM	CSSfile	4 KB

Public/Img:

The public/img/ directory stores all static image assets used throughout the application. These resources play a crucial role in enhancing the visual design, maintaining branding consistency, and meeting accessibility requirements



Test plan

Positive test cases

Task	Expected Outcome	Result
Search movie title "Star Wars"	All Star Wars movies populate	PASS
Search movie year 2010"	Movies from created in 2010 are populated	PASS
View movie details	Movie details page loads with cast table	PASS
View actor details while logged in	Actor's filmography and chart shown	PASS
Register new user	Success message, redirected to login	PASS
Login existing user	Redirected to home page and nav bar updated with email and logout link	PASS
Token refresh on expiry	New bearer token issued, user stays logged in	PASS

Negative/edge test cases

Task	Expected Outcome	Result
View actors details without being logged in	Actor pages does not load and a banner advising user to login is displayed	PASS
Login with invalid password	App shows an error message and does not log the user in	PASS
Register an already registered account	Error message is shown advising that user already exists and does not submit	PASS
When registering an account have the passwords not match	Error message is displayed that passwords must match	PASS

Try to log in without an email or password	Small message advises that users must fill out email and password	PASS
--	---	------

State preservation cases

Task	Expected Outcome	Result
Year filter is saved and restored when user selects a movie and then returns	Selected year remains active in the dropdown on returning to the catalogue	PASS
Search title is saved and restored when user selects a movie and then returns	Search term is preserved and field shows previously entered value	PASS
Page number is saved and restored when user selects a movie and returns	Returns user to the same page number in ag-grid instead of resetting to page 1	PASS

See appendix A for evidence screenshots

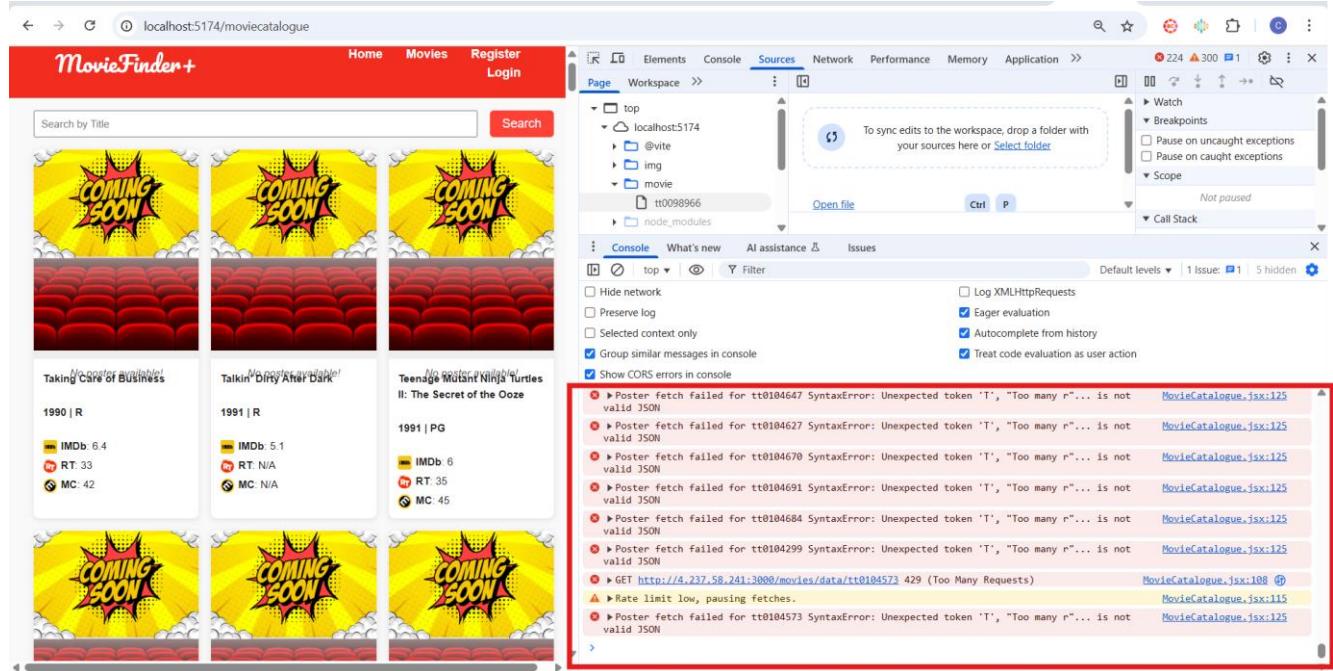
Difficulties / Exclusions / unresolved & persistent errors /

One of the earliest major design goals I had for the app was to implement a visually engaging, grid-style movie catalogue—similar in layout to popular platforms like IMDb or Rotten Tomatoes. This format used movie posters as clickable cards, with associated metadata such as title, year, and ratings displayed below. While it worked well visually, it introduced a major performance issue. The grid layout required a separate API call to fetch the poster for each individual movie, which quickly overwhelmed the backend service and resulted in HTTP 429 "Too Many Requests" errors. Despite attempts to optimise the request batching, this made the feature unsustainable. As a result, I pivoted to using ag-grid-react, which allows pagination and fetches only a subset of movies at a time.

A second technical limitation involved scroll lock behavior within AG Grid. When a user navigates away from the grid (e.g., by clicking into a movie page) and then returns, the scroll position is lost. This negatively impacts user experience—especially when browsing through a large dataset—because the user must manually scroll back to their prior location. I attempted to implement scroll restoration using sessionStorage and manually tracking the current page and scroll offset, but AG Grid does not expose a reliable API for restoring vertical scroll position once the DOM unmounts and remounts.

Another difficulty arose while trying to implement custom “results per page” pagination. AG Grid provides its own internal pagination logic and overriding it to manually control the number of rows displayed required syncing external state with AG Grid’s internal pagination model. This quickly introduced complexity and edge cases such as desynchronisation between the UI and the internal row model. Ultimately, I chose to use a default 100 per page and hide AG-GRID pagination.

These issues, while limiting in some ways, helped guide more maintainable and performant design choices. Nonetheless, they represent key areas I would explore further in a future version of the application.



Extensions

There are multiple directions this application could be taken in future developments to enhance both its functionality and visual appeal. As mentioned previously, the first major improvement would be to revisit and fully implement the tiled movie poster grid layout. This approach is more engaging and aligns better with established movie platforms like IMDb and Rotten Tomatoes. With backend rate limits addressed or optimised with server-side rendering and pagination, the grid layout could offer users a visually rich browsing experience without compromising performance.

Secondly, a valuable extension would be to incorporate advanced filtering and sorting options, such as filtering movies by highest to lowest IMDb, Rotten Tomatoes, or Metacritic ratings, or filtering by genre. This would allow users to find top-rated or preferred-category films more intuitively, enhancing usability and data discovery.

Lastly, a feature to bookmark or save movies to a personal watchlist would greatly improve user experience and personalisation. This could be tied to authenticated user profiles and stored in local or server-side state, giving users the ability to track movies they plan to watch later—similar to functionality seen in most streaming services.

Design mock-ups of future changes:

The screenshot shows the MovieFinder+ application running on a local server. At the top, there's a red header bar with the title "MovieFinder+". Below it is a navigation bar with links for "Home", "Movies", and "Logout". A user account is logged in as "test3@email.com". On the left, there's a search bar labeled "Search by Title". To the right of the search bar are dropdown menus for "Rating: Highest to Lowest", "Genre", and "Any Year", followed by a "Search" button. The main content area displays a table of movie results. Each row contains a movie title, its release year, classification, IMDB rating, Rotten Tomatoes rating, and Metacritic rating. The table has columns for "Title", "Year | Classification", "IMDb Rating", "Rotten Tomatoes Rating", and "Metacritic Rating". The rows list various movies from 1990 to 2001, such as "Kate & Leopold", "The Other Side of the Wind", and "A Tale of Springtime".

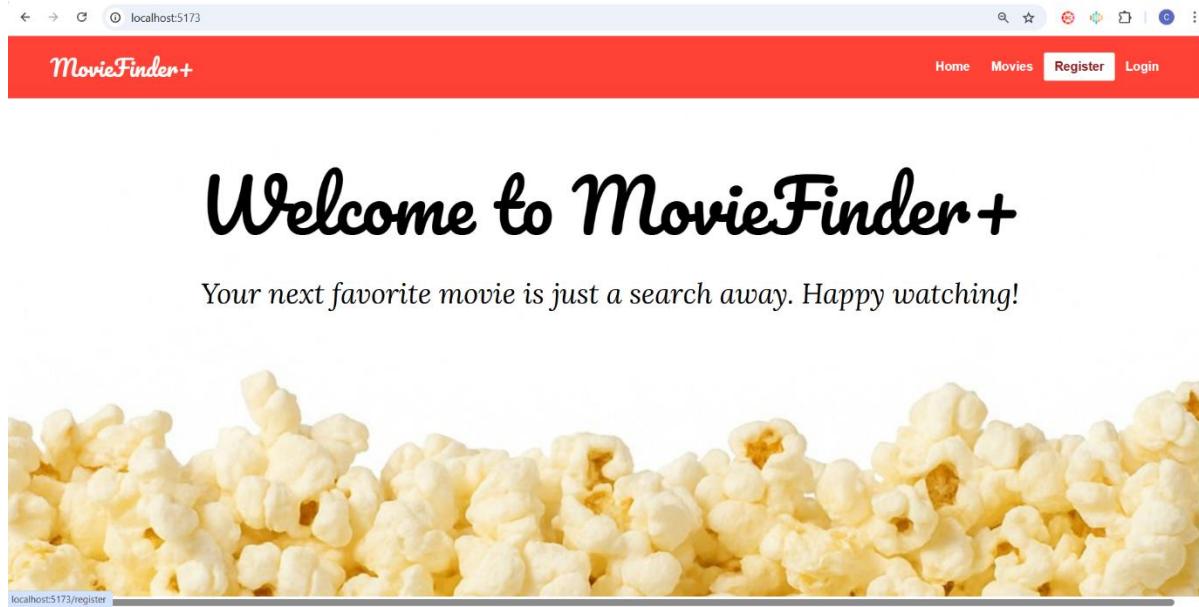
Extra search filters added to search by genre or rating

This screenshot shows the same MovieFinder+ application interface as the previous one, but with a new feature: a small, semi-transparent vertical menu on the right side of the screen. This menu includes three items: "Watch List" (represented by a heart icon), "Settings" (represented by a gear icon), and "Logout" (represented by a person icon). The rest of the interface remains the same, with the movie list and search/filter controls.

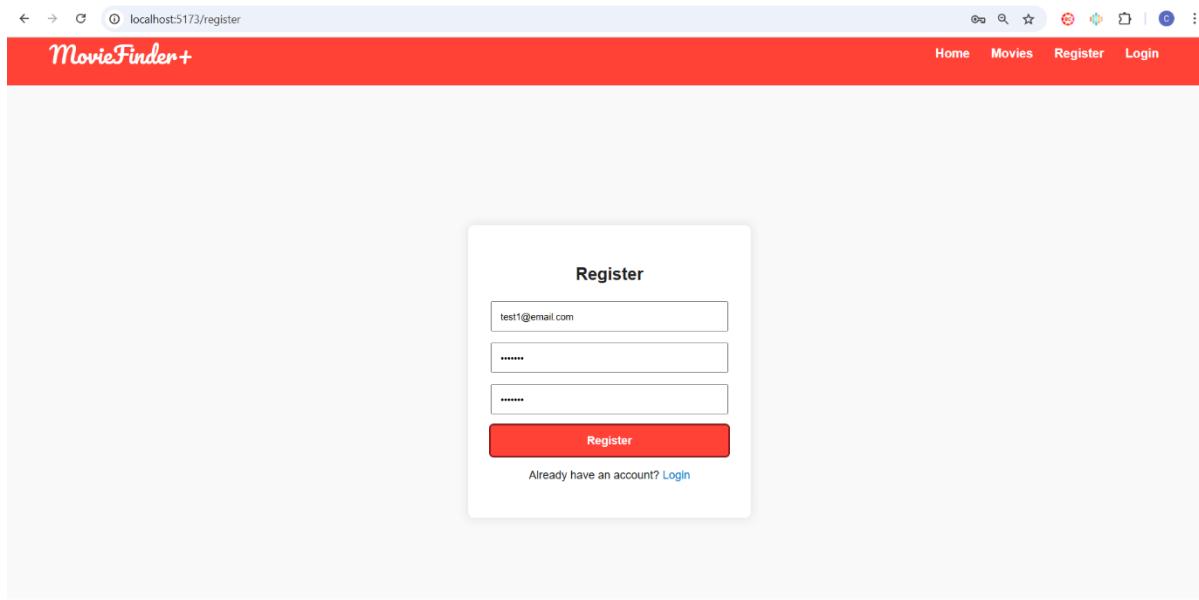
Small menu added which holds watch list, settings and logout

User guide

Landing page – The user can then click on the register menu option to navigate to the register page



Register Page: The user then creates an account by typing in their email address and choosing a password, once successful it will advise them “Registration successful! Please login” and automatically navigate to the login page



localhost:5173/register

MovieFinder+

Home Movies Register Login

Register

test3@email.com

.....

.....

Registration successful! Please login.

Register

Already have an account? [Login](#)

Login- The user can put in their registered email address and password to login; they will automatically be directed to the landing page and the navigation menu will display their email address and logout link.

localhost:5173/login

MovieFinder+

Home Movies Register Login

Login

test3@email.com

.....

Login

Don't have an account? [Register](#)

localhost:5173

MovieFinder+

Home Movies test3@email.com Logout

Welcome to MovieFinder+

Your next favorite movie is just a search away. Happy watching!



Movie Catalogue – This is the main catalogue view where users can browse 122 pages of movies in a paginated table. Users can also search for movie titles or filter by year using the dropdown.

The screenshot shows a web browser window for 'localhost:5173/moviecatalogue'. The title bar says 'MovieFinder+'. The header includes links for 'Home', 'Movies', 'test3@email.com', and 'Logout'. Below the header is a search bar with 'Search by Title' placeholder text, a dropdown for 'Any Year', and a red 'Search' button. A table lists 15 movies from 1990 to 2018, each with its title, year, classification, IMDb rating, Rotten Tomatoes rating, and Metacritic rating. At the bottom are navigation buttons for 'Prev', 'Page 1 of 122', and 'Next'.

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
The Other Side of the Wind	2018 R	IMDb: 6.7	RT: 83%	MC: 78
A Tale of Springtime	1990 PG	IMDb: 7.1	RT: 86%	MC: N/A
Moon 44	1990 R	IMDb: 5	RT: 0%	MC: 39
The Match Factory Girl	1990 Not Rated	IMDb: 7.5	RT: N/A	MC: N/A
Three Men and a Little Lady	1990 PG	IMDb: 5.4	RT: 40%	MC: 51
Boiling Point	1990 Not Rated	IMDb: 6.7	RT: 94%	MC: N/A
The Adventures of Ford Fairlane	1990 R	IMDb: 6.4	RT: 25%	MC: 24
Agneepath	1990 Not Rated	IMDb: 7.6	RT: N/A	MC: N/A
Air America	1990 R	IMDb: 5.8	RT: 13%	MC: 33
Alice	1990 PG-13	IMDb: 6.6	RT: 71%	MC: 67
An Angel at My Table	1990 R	IMDb: 7.5	RT: 95%	MC: 79
Another 48 Hrs.	1990 R	IMDb: 5.9	RT: 20%	MC: 23
Arachnophobia	1990 PG-13	IMDb: 6.5	RT: 93%	MC: 67

← Prev Page 1 of 122 Next →

The screenshot shows a web browser window for 'localhost:5173/moviecatalogue'. The title bar says 'MovieFinder+'. The header includes links for 'Home', 'Movies', 'test3@email.com', and 'Logout'. Below the header is a search bar with 'the wolf of wall street' placeholder text, a dropdown for '2013', and a red 'Search' button. A table lists 1 movie from 2013, each with its title, year, classification, IMDb rating, Rotten Tomatoes rating, and Metacritic rating. At the bottom are navigation buttons for 'Prev', 'Page 1 of 1', and 'Next'.

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
The Wolf of Wall Street	2013 R	IMDb: 8.2	RT: 80%	MC: 75

← Prev Page 1 of 1 Next →

Movie page- Users can select their choice of movie to see the movie details such as poster, year, runtime, genre pills, box office revenue, country of origin, ratings, and plot, followed by a structured table of cast and crew.

The screenshot shows a movie page for 'The Wolf of Wall Street'. At the top, there's a red header bar with the logo 'MovieFinder+'. Below it, a navigation bar includes 'Home', 'Movies', an email link 'test3@email.com', and a 'Logout' button. A red button labeled '← Back to Catalogue' is also present. The main content area features the movie title 'The Wolf of Wall Street' in large bold letters. Below the title are release details: 'Released: 2013', 'Runtime: 180 minutes', 'Genres: Biography, Comedy, Crime', 'Country: United States', and 'Box Office: \$116,900,694'. A short plot summary follows: 'Based on the true story of Jordan Belfort, from his rise to a wealthy stock-broker living the high life to his fall involving crime, corruption and the federal government.' Below this are three rating links: 'IMDb: 8.2/10', 'Rotten Tomatoes: 80%', and 'Metacritic: 75/100'. To the right of the text is a large movie poster for 'The Wolf of Wall Street' featuring Leonardo DiCaprio. Below the poster is a table titled 'Cast & Crew' with a red header. The table lists the roles, names, and characters of the cast and crew members involved in the movie.

Role	Name	Character
Producer	Emma Tillinger Koskoff	-
Actor	Leonardo DiCaprio	Jordan Belfort
Actor	Jonah Hill	Donnie Azoff
Actress	Margot Robbie	Naomi Lapaglia
Actor	Matthew McConaughey	Mark Hanna
Director	Martin Scorsese	-
Writer	Terence Winter	-
Writer	Jordan Belfort	-
Producer	Riza Aziz	-
Producer	Joey McFarland	-

Actors Page – Users can click the individual cast and crew members to view more details about the selected cast members view details such as their name, lifespan (birth year to death year), and a list of all movies they were involved in, with roles and characters. Lastly a bar chart visualises the IMDb ratings of those movies

The screenshot shows an actor profile for Leonardo DiCaprio. At the top, there's a red header bar with the logo 'MovieFinder+'. Below it, a navigation bar includes 'Home', 'Movies', an email link 'test3@email.com', and a 'Logout' button. A red button labeled '← Back to Movie' is also present. The main content area features the actor's name 'Leonardo DiCaprio' in large bold letters. Below the name are birth and death details: 'Born: 1974 – Present'. A table below lists the movies the actor has been in, including the movie title, role, character(s), and the corresponding IMDb rating.

Leonardo DiCaprio

Born: 1974 – Present

Movie	Role	Character(s)	IMDb Rating
This Boy's Life	actor	Toby	7.3
What's Eating Gilbert Grape	actor	Arnie Grape	7.7
The Basketball Diaries	actor	Jim Carroll	7.3
The Quick and the Dead	actor	Kid	6.5
Total Eclipse	actor	Arthur Rimbaud	6.5
Man on Fire	actor	Hank	6.7

Navigating back to the MovieCatalogue:

Navigating back from actors page to the MovieCatalogue:

MovieFinder+

[← Back to Movie](#)

Leonardo DiCaprio

Born: 1974 – Present

Movie	Role	Character(s)	IMDb Rating
This Boy's Life	actor	Toby	7.3
What's Eating Gilbert Grape	actor	Arnie Grape	7.7
The Basketball Diaries	actor	Jim Carroll	7.3
The Quick and the Dead	actor	Kid	6.5
Total Eclipse	actor	Arthur Rimbaud	6.5
Marvin's Room	actor	Hank	6.7
Romeo + Juliet	actor	Romeo	6.8
Titanic	actor	Jack Dawson	7.9

MovieFinder+

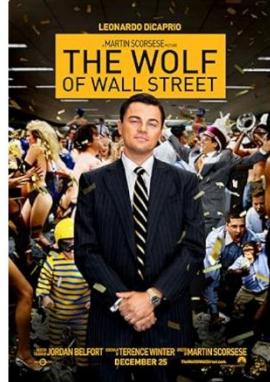
[← Back to Catalogue](#)

The Wolf of Wall Street

Released: 2013
Runtime: 180 minutes
Genres: Biography, Comedy, Crime
Country: United States
Box Office: \$116,900,694

Based on the true story of Jordan Belfort, from his rise to a wealthy stock-broker living the high life to his fall involving crime, corruption and the federal government.

IMDb: 8.2/10
Rotten Tomatoes: 80%
Metacritic: 75/100



localhost:5173/moviecatalogue

MovieFinder+

the wolf of wall street

2013 | R

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
The Wolf of Wall Street	2013 R	IMDb: 8.2	RT: 80%	MC: 75

← Prev Page 1 of 1 Next →

Appendices

Appendix A: Test Cases Evidence

1. Search movie title “Star Wars”

MovieFinder+

Star wars

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
Star Wars: Episode I - The Phantom Menace	1999 PG	IMDb: 6.5	RT: 51%	MC: 51
Star Wars: Episode II - Attack of the Clones	2002 PG	IMDb: 6.6	RT: 65%	MC: 54
Star Wars: Episode III - Revenge of the Sith	2005 PG-13	IMDb: 7.6	RT: 79%	MC: 68
Star Wars: The Clone Wars	2008 PG	IMDb: 5.9	RT: 18%	MC: 35
Star Wars: Episode VII - The Force Awakens	2015 PG-13	IMDb: 7.8	RT: 93%	MC: 80
Star Wars: Episode VIII - The Last Jedi	2017 PG-13	IMDb: 6.9	RT: 91%	MC: 84
Star Wars: Episode IX - The Rise of Skywalker	2019 PG-13	IMDb: 6.5	RT: 52%	MC: 53
Rogue One: A Star Wars Story	2016 PG-13	IMDb: 7.8	RT: 84%	MC: 65
Solo: A Star Wars Story	2018 PG-13	IMDb: 6.9	RT: 69%	MC: 62

2. Search movie year “2010”

localhost:5173/moviecatalogue

MovieFinder+

Search by Title

Title	Year Classification	IMDb Rating	Rotten Tomatoes Rating	Metacritic Rating
Tangled	2010 PG	IMDb: 7.7	RT: 89%	MC: 71
Tekken	2010 R	IMDb: 4.8	RT: 0%	MC: N/A
Dinner for Schmucks	2010 PG-13	IMDb: 5.9	RT: 42%	MC: 56
The A-Team	2010 PG-13	IMDb: 6.7	RT: 48%	MC: 47
Toy Story 3	2010 G	IMDb: 8.3	RT: 98%	MC: 92
7 Days	2010 Not Rated	IMDb: 6.5	RT: 80%	MC: N/A
Scott Pilgrim vs. the World	2010 PG-13	IMDb: 7.5	RT: 82%	MC: 69
The Crazies	2010 R	IMDb: 6.5	RT: 71%	MC: 56
Piranha 3D	2010 R	IMDb: 5.5	RT: 74%	MC: 53
Prince of Persia: The Sands of Time	2010 PG-13	IMDb: 6.6	RT: 37%	MC: 50
Unstoppable	2010 PG-13	IMDb: 6.8	RT: 87%	MC: 69
The Losers	2010 PG-13	IMDb: 6.2	RT: 48%	MC: 44
Furry Vengeance	2010 PG	IMDb: 3.8	RT: N/A	MC: 23

Page of 6

3. View movie details

localhost:5173/movie/tt0398286

MovieFinder+

Tangled

Released: 2010
Runtime: 100 minutes
Genres: Adventure, Animation, Comedy
Country: United States
Box Office: \$200,821,936

The magically long-haired Rapunzel has spent her entire life in a tower, but now that a runaway thief has stumbled upon her, she is about to discover the world for the first time, and who she really is.

IMDb: 7.7/10
Rotten Tomatoes: 89%
Metacritic: 71/100



4. View actor details while logged in

The screenshot shows the MovieFinder+ application interface. At the top, there is a red header bar with the logo "MovieFinder+" on the left and navigation links "Home", "Movies", "test3@email.com", and "Logout" on the right. Below the header, a green border highlights the main content area. In the center, the title "Dwayne Johnson" is displayed in a large, bold, black font. Above the title, the text "Born: 1972 – Present" is shown. Below the title is a table with a red header row. The table lists various movies Dwayne Johnson has acted in, along with his character name and the IMDb rating. The data is as follows:

Movie	Role	Character(s)	IMDb Rating
The Scorpion King	actor	Mathayus	5.5
The Rundown	actor	Beck	6.6
Walking Tall	actor	Chris Vaughn	6.2
Be Cool	actor	Elliot Wilhelm	5.6
Southland Tales	actor	Boxer Santaros, Jericho Cane	5.3
Doom	actor	Sarge	5.2
Gridiron Gang	actor	Sean Porter	7.1
Get Smart	actor	Agent 23	6.5

5. Register new user

The screenshot shows the MovieFinder+ application interface. At the top, there is a red header bar with the logo "MovieFinder+" on the left and navigation links "Home", "Movies", "Register", and "Login" on the right. Below the header, a green border highlights the main content area. In the center, a modal window titled "Register" is open. It contains three input fields: one for email (filled with "test3@email.com"), one for password (filled with "*****"), and one for confirmation (also filled with "*****"). Below the fields is a green success message: "Registration successful! Please login.". A red "Register" button is at the bottom of the modal. Below the modal, a link "Already have an account? Login" is visible.

6. Login new user

The screenshot shows the MovieFinder+ application interface. At the top, there is a red header bar with the logo "MovieFinder+" on the left and navigation links "Home", "Movies", "Register", and "Login" on the right. Below the header, a green border highlights the main content area. In the center, a modal window titled "Login" is open. It contains two input fields: one for email (filled with "test3@email.com") and one for password (filled with "*****"). Below the fields is a red "Login" button. Below the modal, a link "Don't have an account? Register" is visible.

The screenshot shows the MovieFinder+ home page. At the top, there's a red header bar with the title "MovieFinder+" on the left and navigation links "Home", "Movies", "test3@email.com", and "Logout" on the right. Below the header, a large, stylized "Welcome to MovieFinder+" title is centered. Underneath it, a subtext reads "Your next favorite movie is just a search away. Happy watching!". A large image of popcorn is displayed below the subtext. The URL "localhost:5173/moviecatalogue" is visible at the bottom of the browser window.

7. Token refresh on expiry

The screenshot shows a browser window with the MovieFinder+ application. The main content displays a list of movies for actor Dwayne Johnson, including "The Scorpion King", "The Rundown", "Walking Tall", "Be Cool", "Southland Tales", "Doom", and "Gridiron Gang". Each entry shows the movie title, role, character(s), and IMDB rating. To the right of the main content, the browser's developer tools are open, specifically the Network tab under the Application panel. This panel shows various storage types like Local storage, Session storage, and Cookies. A table in the Network tab lists tokens and their values, with one row highlighted. The DevTools interface also includes a Console tab, a status bar at the bottom, and a system tray icon in the bottom right corner.

The screenshot shows a browser window displaying the jwt.io website. The page features a dark header with the "JUUT" logo and navigation links for "Debugger", "Libraries", "Introduction", and "Ask". It also mentions "Crafted by auth0". Below the header, there's a pink banner asking for feedback on the new version. The main content area shows a large input field containing a JWT token. To the right of the token, there are three sections: "HEADER: ALGORITHM & TOKEN TYPE", "PAYLOAD: DATA", and "VERIFY SIGNATURE". The "PAYLOAD: DATA" section contains the decoded payload: {"email": "test3@email.com", "exp": 1747379393, "iat": 1747378793}. The "VERIFY SIGNATURE" section shows the HMACSHA256 verification code. The browser's status bar and taskbar are visible at the bottom.

localhost:5173/actor/nm0425005

Movie	Role	Character(s)	IMDb Rating
The Scorpion King	actor	Mathayus	5.5
The Rundown	actor	Beck	6.6
Walking Tall	actor	Chris Vaughn	6.2
Be Cool	actor	Elliot Wilhelm	5.6
Southland Tales	actor	Boxer Santaros, Jericho Cane	5.3
Doom	actor	Sarge	5.2
Gridiron Gang	actor	Sean Porter	7.1

jwt.io

HEADER: ALGORITHM & TOKEN TYPE

```
{
  "alg": "HS256",
  "typ": "JWT"
}
```

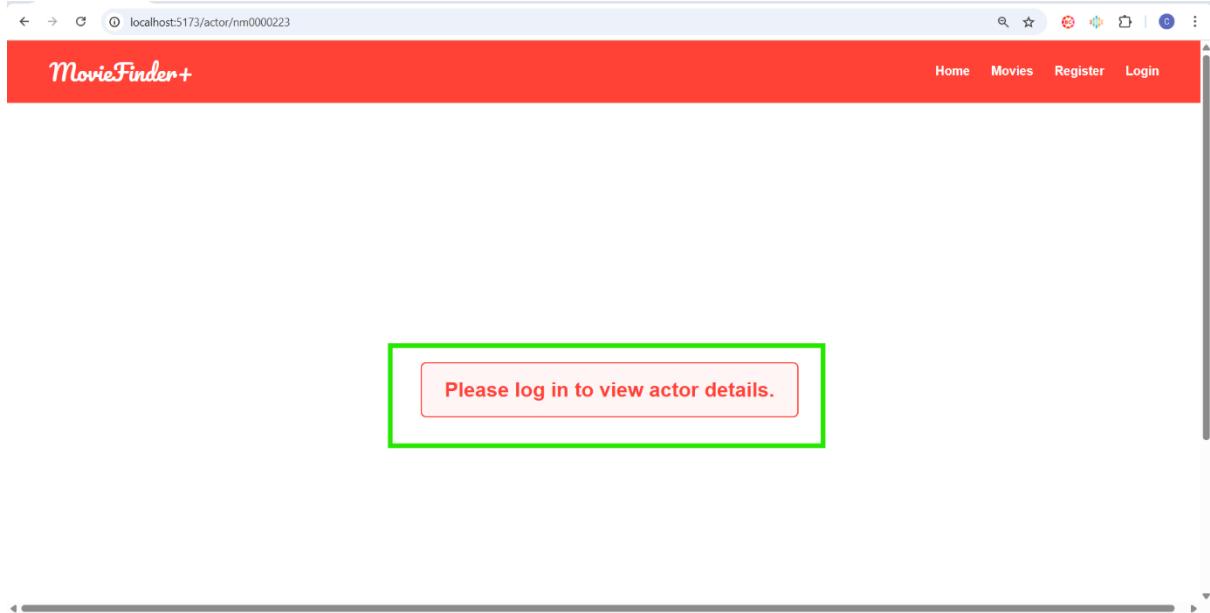
PAYOUT: DATA

```
{
  "email": "test3@email.com",
  "exp": 1747388003, // Fri May 16 2025 17:20:03 GMT+1000 (Australian Eastern Standard Time)
  "iat": 1747379483
}
```

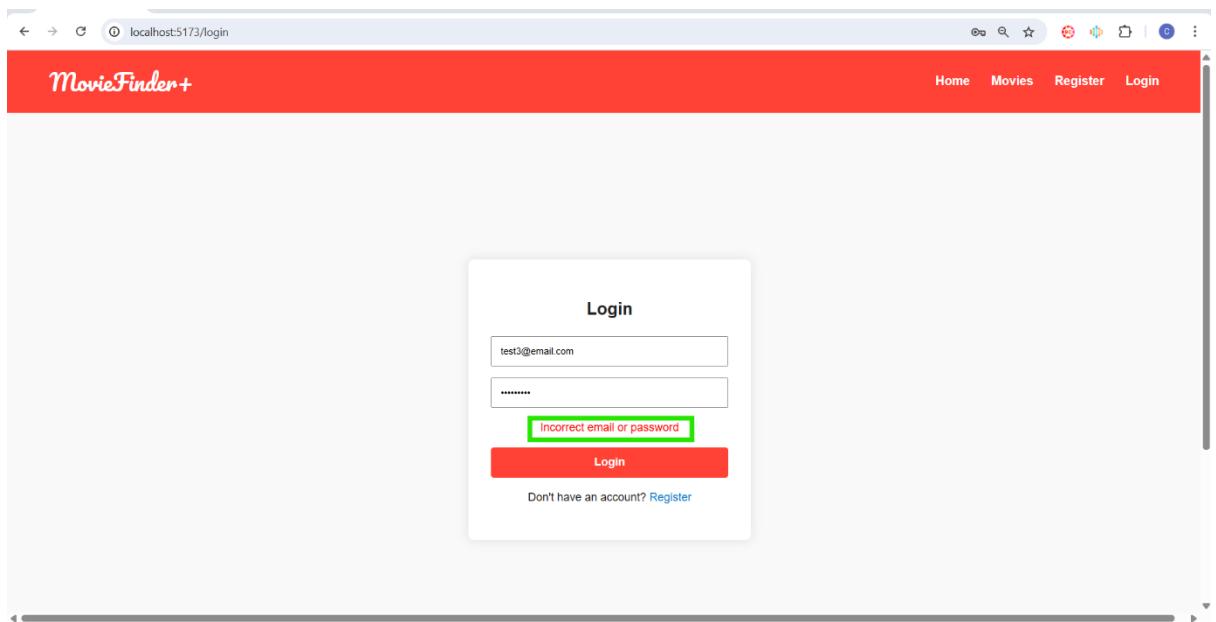
VERIFY SIGNATURE

```
HMACSHA256(
  base64UrlEncode(header) + "." +
  base64UrlEncode(payload),
  your-256-bit-secret
) □ secret base64 encoded
```

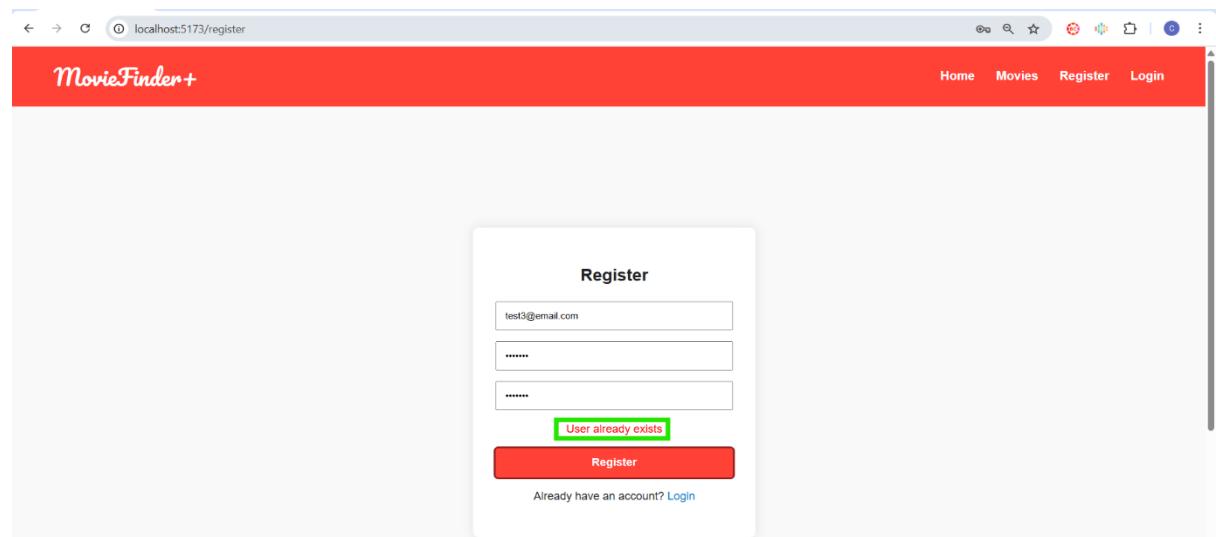
8. View actor details without being logged in.



9. Login with an invalid password



10. Register an already existing account



11. When registering an account have the password not match

The screenshot shows the registration form on a browser. The URL is `localhost:5173/register`. The form has three password input fields. The third field contains the text "Passwords do not match." which is highlighted with a green border. Below the form is a red "Register" button and a link to "Already have an account? [Login](#)".

12. Try to login with a blank email and password

The screenshot shows the login form on a browser. The URL is `localhost:5173/login`. Both the "Email" and "Password" fields are highlighted with green borders and contain the message "Please fill out this field." Below the form is a red "Login" button and a link to "Don't have an account? [Register](#)".

13. Year filter is saved and restored when user selects the movie and then returns

The screenshot shows a movie detail page for "Louder Than Bombs" and a developer tools application window. The movie details include: Released: 2015, Runtime: 109 minutes, Genres: Drama, Country: Norway, France, Denmark, United States, Box Office: \$163,807, and a plot summary. The developer tools Application tab shows storage for the current session, specifically a key "restoreSearchYear" with a value of "2015". The developer tools also show a warning about the "AG Grid" library's use of deprecated "rowSelection" properties.

MovieFinder+

Home Movies Register Login

Search by Title 2015

Title	Year Classification	IMDb Rating	Rotten Tomatoes	Metacritic
One Wild Moment	2015 Not Rated	IMDb...	RT: ...	MC: ...
Run All Night	2015 R	IMDb...	RT: ...	MC: ...
Liza the Fox-Fairy	2015 N/A	IMDb...	RT: ...	MC: ...
Louder Than Bombs	2015 R	IMDb...	RT: ...	MC: ...
Home	2015 PG	IMDb...	RT: ...	MC: ...
Wild Card	2015 R	IMDb...	RT: ...	MC: ...
Miss You Already	2015 PG-13	IMDb...	RT: ...	MC: ...
Magic Mike XXL	2015 R	IMDb...	RT: ...	MC: ...
Forsaken	2015 R	IMDb...	RT: ...	MC: ...
True Story	2015 R	IMDb...	RT: ...	MC: ...
Love the Coopers	2015 PG-13	IMDb...	RT: ...	MC: ...
The SpongeBob Movie: S	2015 PG	IMDb...	RT: ...	MC: ...
Minions	2015 PG	IMDb...	RT: ...	MC: ...

No value selected
Select a value to preview

Console What's new AI assistance Issues

Default levels 2 Issues: 2 4 hidden

Log XMLHttpRequests Eager evaluation Autocomplete from history Treat code evaluation as user action

Download the React DevTools for a better development experience: <https://react.dev/link/react-devtools>

AG Grid: As of version 32.2.1, using 'rowSelection' with the values "single" or "multiple" has been deprecated. Use the object value instead.

14. Search title is saved and restored when user selects a movie and returns

← Back to Catalogue

Star Wars: Episode II - Attack of the Clones

Released: 2002

Runtime: 142 minutes

Genres: Action Adventure Fantasy

Country: United States

Box Office: \$310,676,740

Ten years after initially meeting, Anakin Skywalker shares a forbidden romance with Padmé Amidala, while Obi-Wan Kenobi discovers a secret clone army crafted for the Jedi.

No value selected
Select a value to preview

Console What's new AI assistance Issues

Default levels 2 Issues: 2 4 hidden

Log XMLHttpRequests Eager evaluation Autocomplete from history Treat code evaluation as user action

Download the React DevTools for a better development experience: <https://react.dev/link/react-devtools>

AG Grid: As of version 32.2.1, using 'rowSelection' with the values "single" or "multiple" has been deprecated. Use the object value instead.

localhost:5173/movielist

star wars Any Year

Title	Year Classification	IMDb Rating	Rotten Tomatoes	Metacritic
Star Wars: Episode I - The	1999 PG	IMDb...	RT: ...	MC: ...
Star Wars: Episode II - Att	2002 PG	IMDb...	RT: ...	MC: ...
Star Wars: Episode III - Re	2005 PG-13	IMDb...	RT: ...	MC: ...
Star Wars: The Clone Wars	2008 PG	IMDb...	RT: ...	MC: ...
Star Wars: Episode VII - Th	2015 PG-13	IMDb...	RT: ...	MC: ...
Star Wars: Episode VIII - T	2017 PG-13	IMDb...	RT: ...	MC: ...
Star Wars: Episode IX - Th	2019 PG-13	IMDb...	RT: ...	MC: ...
Rogue One: A Star Wars S	2016 PG-13	IMDb...	RT: ...	MC: ...
Solo: A Star Wars Story	2018 PG-13	IMDb...	RT: ...	MC: ...

No value selected
Select a value to preview

Console What's new AI assistance Issues

Default levels 4 Issues: 4 4 hidden

Log XMLHttpRequests Eager evaluation Autocomplete from history Treat code evaluation as user action

Download the React DevTools for a better development experience: <https://react.dev/link/react-devtools>

AG Grid: As of version 32.2.1, using 'rowSelection' with the values "single" or "multiple" has been deprecated. Use the object value instead.

15. Page number is saved and restored when user selects a movie and then returns

The screenshot shows a browser window with the URL localhost:5173/movie/tt0103060. The page displays movie details for "Teenage Mutant Ninja Turtles II: The Secret of the Ooze" (Released: 1991, Runtime: 88 minutes, Genres: Action, Adventure, Comedy, Country: Hong Kong, United States, Box Office: \$78,656,813). The "Restore Page" key in the browser's Application Storage panel has a value of 4, indicating the page number was saved and restored.

The screenshot shows a browser window with the URL localhost:5173/movielist. The page displays a grid of movie titles from 1991, including "What About Bob?", "White Fang", "White Palace", "Wild Hearts Can't Be Broken", "Once Upon a Time in China", "1492: Conquest of Paradise", "3 Ninjas", "Aladdin", "Alien³", "American Me", "A Scene at the Sea", "The Babe", and "Bad Lieutenant". The "Restore Page" key in the browser's Application Storage panel has a value of 4, indicating the page number was saved and restored.

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