



**Bachelor of IT (Computer Science)**  
**Assignment 2 - Client-Side React Application**  
**CAB230 - Web Computing**

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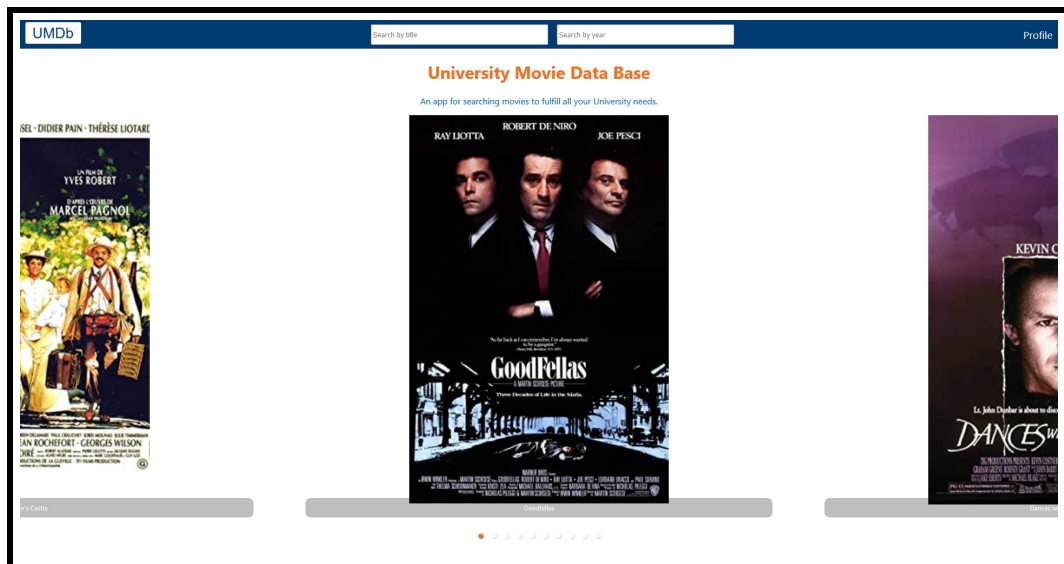
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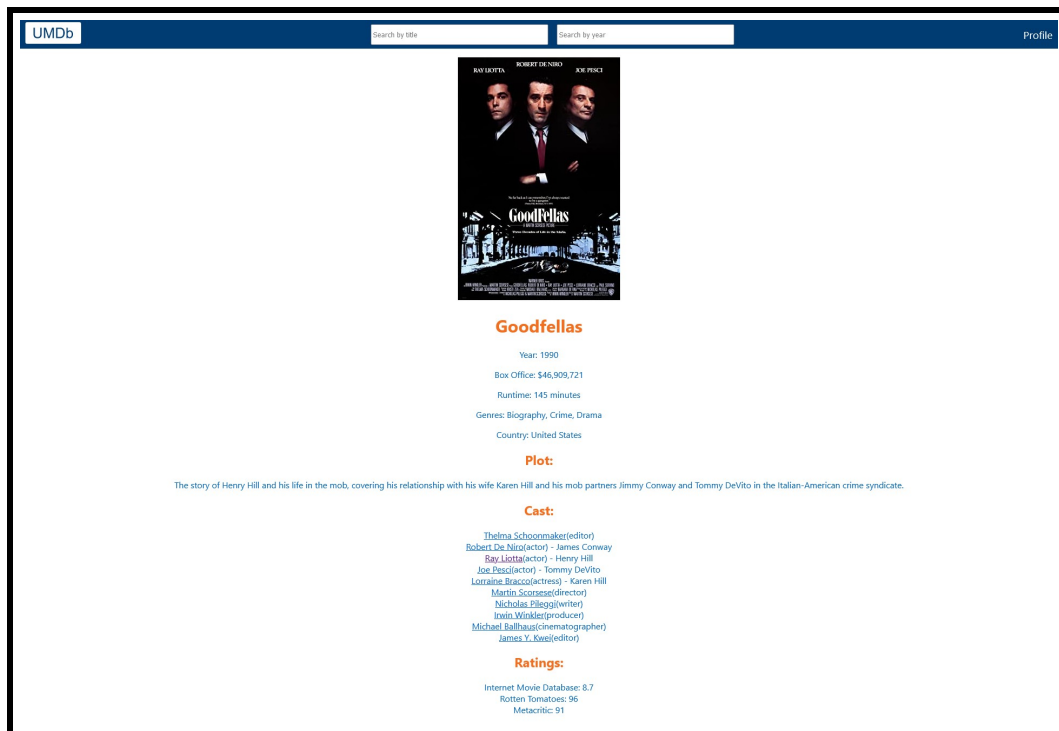
# 1 Introduction

## 1.1 Purpose and Description

The purpose of this react application is to collate and display information regarding movies, and cast members to the user in a responsive and accessible manner. The application should allow the user to search for movies by year or title and display the results in a list. When a movie is selected, the application should display all the details of the movie, including the year the movie was made, the plot of the movie and all the cast members involved with the movie. The application should also allow the user to visit individual pages of cast members where the user can view that cast members details, including their birth year, death year and all the movies they have been involved with.

It achieve this goal and to provide the user with the best experience I can, i have used a number of advanced react features, including the use of react router, IntesectionObserver and react-responsive-carousel. The use of these features has allowed me to create a professional looking application that is both easy to use and responsive for the user.





## 1.2 Completeness and Limitations

This implementation covers all the requirements of the assignment specification. Navigation is handled using react router, controlled forms are used for all user input, and every 10 minutes the refresh token is used to get a new access token. In addition to this, the application uses ag-grid to display the search results in an infinitely scrolling grid and react-responsive-carousel to display the highest scoring movies of all time on the home (landing) page. On the person page the movies the person is involved in are displayed in a grid with the IMDb Rating.

## 2 Use of End Points

The functionality for all the API endpoints is handled in API.js. This file contains all the functions that are used to make requests to the API. By containing all the API functionality in one file, it makes it easier to maintain and potentially update the application in the future.

### 2.1 /movies/search

This endpoint is implemented as the getMovies function and is utilised by two search forms at the top of the application. The first search form is for the user to search for movies by title, and the second is for the user to search for movies by year. Both of these forms are controlled forms and can be accessed from any page in the application. Doing it this way removes an extra layer of complexity for the user and allows them to get into the function of the application right from the start of the application.

| UMDb                                    |      | good        | Search by year         | Profile           |                |
|-----------------------------------------|------|-------------|------------------------|-------------------|----------------|
| Title                                   | Year | IMDb Rating | Rotten Tomatoes Rating | Metacritic Rating | Classification |
| Goodfellas                              | 1990 | 8.7         | 96                     | 91                | R              |
| A Few Good Men                          | 1992 | 7.7         | 84                     | 62                | R              |
| The Good Son                            | 1993 | 6.4         | 25                     | 45                | R              |
| The Long Kiss Goodnight                 | 1996 | 6.8         | 68                     | 44                | R              |
| Good Burger                             | 1997 | 5.7         | 33                     | 41                | PG             |
| Good Will Hunting                       | 1997 | 8.3         | 97                     | 70                | R              |
| Midnight in the Garden of Good and Evil | 1997 | 6.6         | 50                     | 57                | R              |
| As Good as It Gets                      | 1997 | 7.7         | 86                     | 67                | PG-13          |
| Good Advice                             | 2001 | 6.2         | 33                     |                   | R              |
| The Good Girl                           | 2002 | 6.4         |                        | 71                | R              |
| The Good Thief                          | 2002 | 6.5         | 77                     | 68                | R              |
| No Good Deed                            | 2002 | 5.4         | 25                     |                   | R              |
| Good Bye Lenin!                         | 2003 | 7.7         | 90                     | 68                | R              |
| The Good Shepherd                       | 2006 | 6.7         | 56                     | 61                | R              |
| Goodbye, Dragon Inn                     | 2003 | 7.1         | 81                     | 83                | N/A            |
| A Good Woman                            | 2004 | 6.5         | 37                     | 53                | PG             |
| In Good Company                         | 2004 | 6.5         | 82                     | 66                | PG-13          |
| A Good Year                             | 2006 | 6.9         | 26                     | 47                | PG-13          |

## 2.2 /movies/data/{imdbID}


This endpoint is implemented as the `getMovie` function and is utilised by the movie page to get the details of the movie the user has selected. The movie page is accessed by clicking on any of the movies in the search results. The movie page displays all the details of the movie, including the title, year, box office earnings, runtime, genre, country of origin, plot, cast and ratings. each cast member is a clickable link that will lead to that cast members respective page.

UMDb

Fight C

Search by year

Profile



### Fight Club

Year: 1999

Box Office: \$37,030,102

Runtime: 139 minutes

Genres: Drama

Country: Germany, United States

**Plot:**

An insomniac office worker and a devil-may-care soap maker form an underground fight club that evolves into much more.

**Cast:**

[Art Linson](#)(producer)  
[Brad Pitt](#)(actor) - Tyler Durden  
[Edward Norton](#)(actor) - Narrator  
[Meat Loaf](#)(actor) - Robert Paulsen  
[Zach Grenier](#)(actor) - Richard Chesler (Regional Manager)  
[David Fincher](#)(director)  
[Chuck Palahniuk](#)(writer)  
[Jim Ullrich](#)(writer)  
[Ross Grayson Bell](#)(producer)  
[Cedric Chaffin](#)(producer)

**Ratings:**

Internet Movie Database: 8.8  
Rotten Tomatoes: 79  
Metacritic: 66

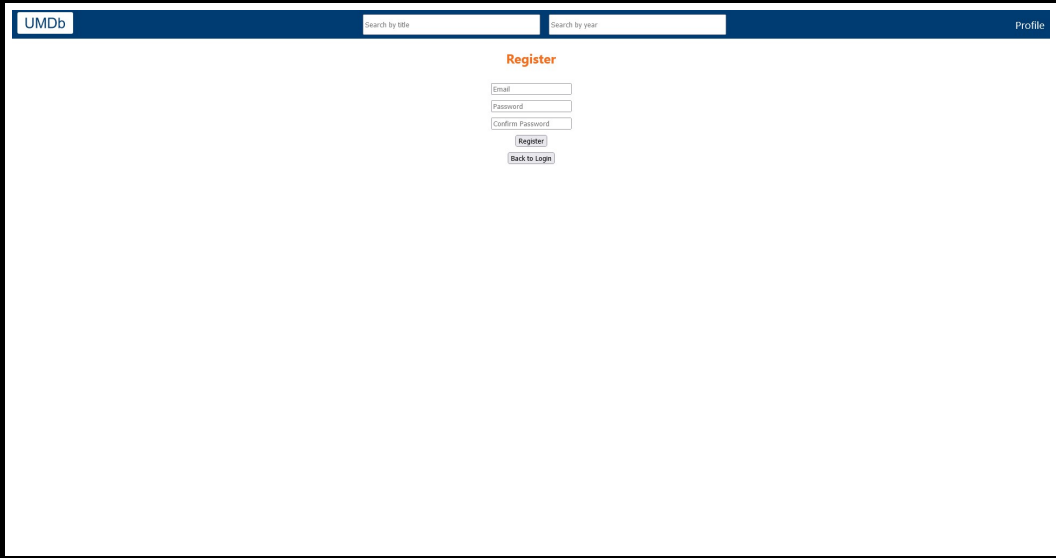
## 2.3 /people/{id}

This endpoint is implemented as the `getPerson` function and is utilised by the person page to get the details of the person the user has selected. The person page is accessed by clicking on any of the cast members on the movie page. The person page displays all the details of the person exposed by the API, including their name, birth year, death year, all the movies they have been involved with. In a grid the name of each movie, the name of the character the person played and the IMDb Rating is displayed for the users convenience.

| UMDb                  | Search by title | Search by year | Profile |
|-----------------------|-----------------|----------------|---------|
| <b>Person Details</b> |                 |                |         |
| <b>Robert De Niro</b> |                 |                |         |
| Date of Birth: 1943   |                 |                |         |
| Death:                |                 |                |         |
| <b>Roles:</b>         |                 |                |         |
| Movie Name            | Character       | IMDb Rating    |         |
| Awakenings            | Leonard Lowe    | 7.8            |         |
| Goodfellas            | James Conway    | 8.7            |         |
| Stanley & Iris        | Stanley Cox     | 6.3            |         |
| Backdraft             | Donald Rimgale  | 6.7            |         |
| Cape Fear             | Max Cady        | 7.3            |         |
| Guilty by Suspicion   | David Merrill   | 6.5            |         |
| Thunderheart          |                 | 6.8            |         |
| A Bronx Tale          | Lorenzo         | 7.8            |         |

## 2.4 /user/register

This endpoint is implemented as the postRegister function and is utilised by the profile page to register new users. The profile page is accessed by clicking on the profile button in the navigation bar at the top of the page.

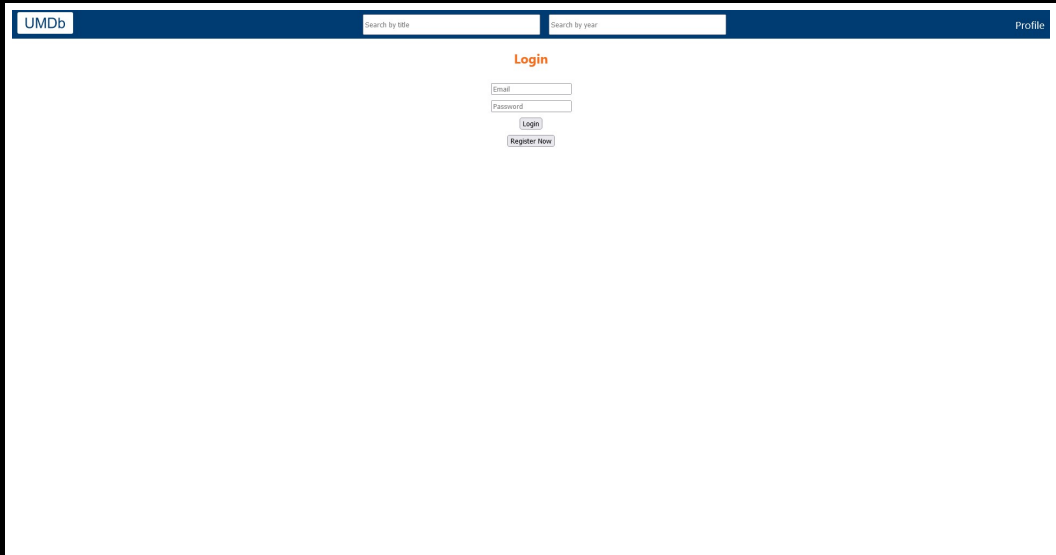


The screenshot shows a web application interface for user registration. At the top, there is a dark blue navigation bar with the 'UMDb' logo on the left, two search input fields labeled 'Search by title' and 'Search by year' in the center, and a 'Profile' link on the right. The main content area is white and contains a centered registration form. The form is titled 'Register' in orange text. It includes three input fields: 'Email', 'Password', and 'Confirm Password'. Below these fields are two buttons: a 'Register' button and a 'Back to Login' button.



## 2.5 /user/login

This endpoint is implemented as the postLogin function and is utilised by the profile page to login existing users.



The screenshot shows a web application interface for UMDb. At the top, there is a dark blue header bar. On the left of the header is the text "UMDb". In the center of the header are two search input fields: "Search by title" and "Search by year". On the right of the header is a link labeled "Profile". Below the header, the main content area is white. In the center of this area, the word "Login" is displayed in orange text. Below "Login" are two input fields: "Email" and "Password". Below these fields are two buttons: "Login" and "Register Now".

## **2.6    /user/refresh**

This endpoint is implemented as the postRefresh function and is utilised in the back end in App.js to refresh the tokens when the app first starts and every 10 minutes after. This is done to ensure the user does not have to login every 10 minutes.

## **2.7    /user/logout**

This endpoint is implemented as the postLogout function and is utilised by the profile page to logout the user.