



Mobile Computing
Project Report
Movies App
4th Year Computer Engineering



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Table of Content:

1- Project Idea Description and Key Features	3
2- Technologies used and Reusable Components	4
3- App Pipeline and Screen Flow	5
4- App Flow Summary.....	6
5- Screenshots	7

Project Idea Description

Our project is a mobile application that allows users to browse, discover, and interact with information about movies and cast members using The Movie Database (TMDB) API. The app offers an intuitive and visually appealing interface where users can explore three main categories of movies—**Trending**, **Upcoming**, and **Top Rated**—view detailed information about individual movies and actors, search for titles, and manage personalized favorites lists. Users can create accounts, log in, and maintain their preferences securely via Firebase authentication and storage integration.

Key Features

- Browse movies under three main categories: **Trending**, **Upcoming**, and **Top Rated**
- View comprehensive details for each movie:
 - Title, overview, status, runtime, release date, top cast, similar movies.
- View detailed profiles for cast members:
 - Name, birthdate, gender, genres, popularity, list of movies.
- Firebase Authentication for secure registration and login.
- Favorite Movies and Actors Lists using Firebase Firestore.
- Search for movies by title with debounce for optimized performance.
- Reusable UI components for consistent and efficient development.

Technologies Used

- **React Native:** Used for building the cross-platform mobile application.
- **TailwindCSS:** Utilized for styling UI elements in a consistent and responsive way.
- **React Navigation:** Manages the screen navigation flow within the app.
- **Firebase Authentication:** Handles user registration and login securely.
- **Firebase Firestore:** Used to store and manage user-specific favorite movies and actors.
- **Lodash (debounce):** Optimizes the search feature by reducing API calls during typing.
- **react-native-heroicons:** Provides attractive icons for various UI elements.
- **react-native-reanimated:** Enhances UI animations for better user experience.
- **react-native-reanimated-carousel:** Implements smooth carousel features for sliding movie content

Reusable Components

We developed and reused components to keep the codebase clean and maintainable:

- **MoviesList.js:** Displays a horizontal list of movies used in multiple screens:
 - Upcoming & Top Rated (in HomeScreen.js)
 - Similar Movies (in MovieScreen.js)
 - Actor's Movies (in PersonScreen.js)
- **Moves cards and actor cards:** Used to display movie or cast previews in list format across the app.



App Pipeline and Screen Flow

1. **RegistrationScreen.js**

- New users can register using email and password (via Firebase Auth).

2. **LoginScreen.js**

- Allows existing users to sign in securely.

3. **HomeScreen.js**

- Shows Trending, Upcoming, and Top Rated movie lists.
- Uses MoviesList component to render multiple categories.

4. **MovieScreen.js**

- Shows detailed information of a selected movie.
- Displays movie's overview, status, runtime, release date, top cast, and similar movies.

5. **PersonScreen.js**

- Shows details about a selected cast member, including personal info and movie credits.

6. **SearchScreen.js**

- Allows users to search for a movie by title using a debounced search input.

7. **FavoriteMoviesScreen.js**

- Displays all user-favorited movies stored in Firebase Firestore.
- Allows removing movies from the list.

8. **FavoriteActorsScreen.js**

- Displays all favorited cast members and allows removal.



App Flow Summary

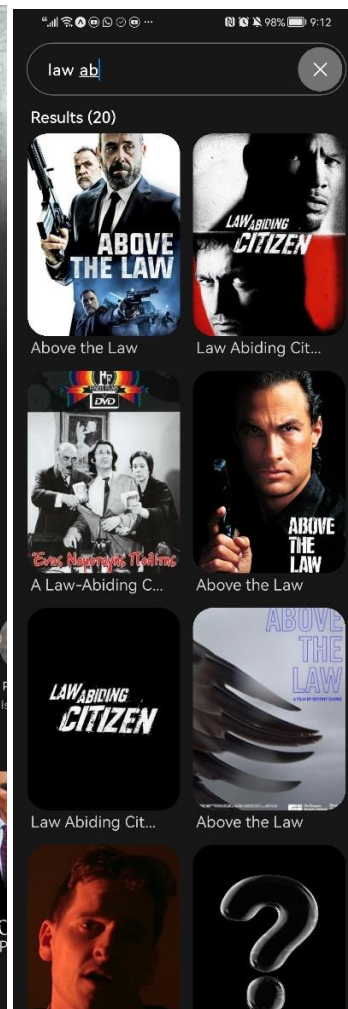
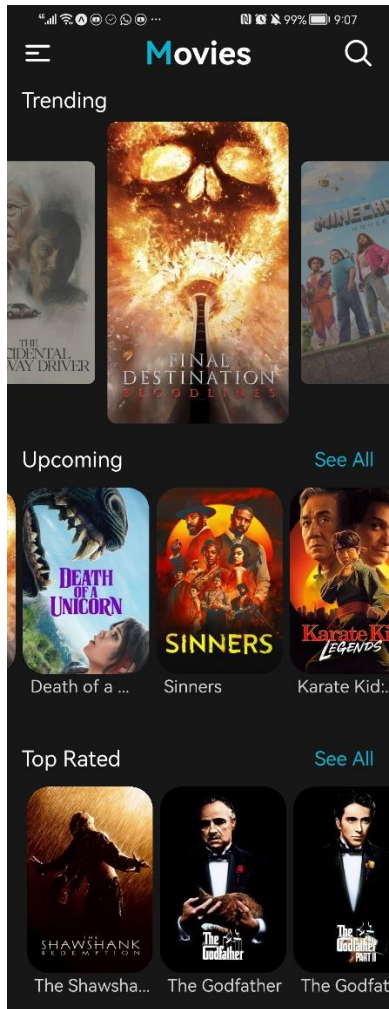
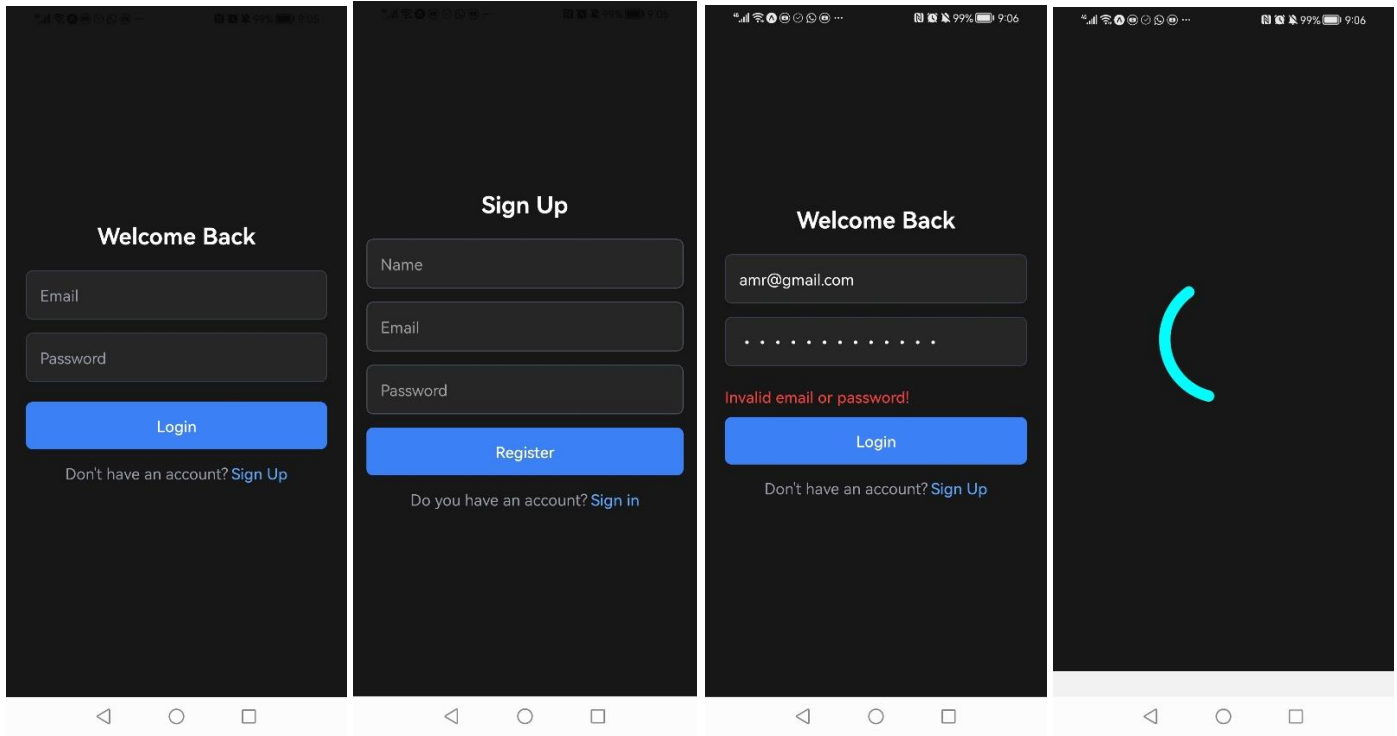
- The user starts by **registering** or **signing in**.
- After login, the **Home Screen** presents categories of movies.
- Clicking on a movie leads to the **Movie Screen**, where detailed info is available.
- Users can navigate to an actor's profile from a movie or **search** for any movie.
- Favorite movies and cast members can be added or removed using Firebase Firestore.
- Users can access **Favorite Screens** to view or manage their lists.




Thank You

Thank you so much for your support, patience, and encouragement throughout the term. You've always been there when we needed help, and we truly appreciate your kindness and effort.

We're grateful for everything. you've made a real difference. ❤️





Gerard Butler
Paisley, Scotland, UK




Gender	Birthday	Known for	Popularity
Male	1969-11-13	Acting	13.40

Biography
Gerard James Butler (born 13 November 1969) is a Scottish actor and film producer. After studying law, he turned to acting in the mid-1990s with minor roles in productions such as Mrs Brown (1997), the James Bond film Tomorrow Never Dies (1997), and Tale of the Mummy (1998). In 2000, he starred as Count Dracula in the gothic horror film Dracula 2000. He played Attila the Hun in the miniseries Attila (2001), then appeared in the films Reign of Fire (2002) and Lara Croft: Tomb Raider – The Cradle of Life (2003) before starring in the science fiction film Timeline (2003). He played Erik, The Phantom in Joel Schumacher's 2004 musical The Phantom of the Opera.


Butler gained wider recognition for portraying King Leonidas in Zack Snyder's fantasy war film 300 (2007). In 2010, he began lending his voice to the How to Train Your Dragon franchise. Also in the 2010s, he portrayed a Secret Service agent in the action thriller Has Fallen film series, played military leader Tullus Aufidius in the 2011 film Coriolanus, and Sam Childers in the 2011 action biopic Machine Gun Preacher. Butler had further action film roles in Geostorm (2017), Den of Thieves (2018), Greenland (2020), and Plane (2023).




Description above from the Wikipedia article Gerard Butler, licensed under CC-BY-SA, full list of contributors on Wikipedia.




Movies




300 How to Trai... Dracula 2000



 Logout
  Favorite Movies
  Favorite Actors








Upcoming [See All](#)

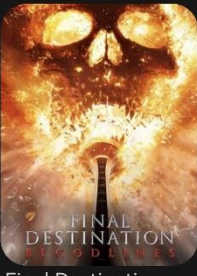
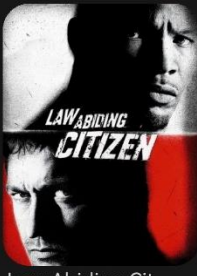
Tin Soldier Final Desti... Death of a

Top Rated [See All](#)

Favorite Movies 

Thunderbolts* Sinners

Final Destinati... Law Abiding Cit...

