

DOKUZ EYLUL UNIVERSITY ENGINEERING FACULTY DEPARTMENT OF COMPUTER ENGINEERING

CME3201 DATABASE MANAGEMENT SYSTEMS

FINAL REPORT CRITIFLIX

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1. Project Description:

- 1.1. CritiFlix is a project that's all about bringing movie-series lovers together. Instead of just being a place for reviews, it's designed to be a lively community where users can share and build a collection of their favorite cinematic moments. The platform goes beyond just providing a space for discussions; it is designed to offer recommendations. This means user selects specific genres and year parameters and system recommends a random movie or series based on what user wants.
- 1.2. As users search for movies or series, the data retrieved from the API is consistently integrated into the CritiFlix database. This continuous addition of new information ensures that the platform stays up-to-date with the latest releases, enabling users to explore a fresh and ever-growing catalog of movies and TV series. With the integration of API data, the database is always up-to-date.
- 1.3. Additionally, our database operates swiftly, thanks to smart features like indexing and search algorithms. These techy tools help organize and find information super quickly. So, when you're scrolling through CritiFlix or searching for a specific movie or series, the process is speedy and efficient. The combination of indexing and search algorithms ensures that you can navigate through our extensive collection very quickly.
- 1.4. Moreover, users can follow each other. By following someone on CritiFlix, you can easily see their opinions and reviews, creating a community where everyone's thoughts contribute to the overall movie-watching experience. It's a great way to discover new favorites, get recommendations, and engage in conversations with like-minded movie-series enthusiasts. So, CritiFlix isn't just about your own reviews, it's about sharing the movie love and discovering hidden gems.

2. Tech Stack for System:

- 2.1. In the development of the CritiFlix System, a current technology stack is being used to ensure a user-friendly experience. The integration of HTML, CSS, API, .NET, and MS SQL serves as the fundamentals of the system.
- 2.2. HTML (HyperText Markup Language) is used for structuring the content of the web pages, ensuring a well-organized and readable layout.
- 2.3. CSS (Cascading Style Sheets) is employed for styling and presentation, enhancing the visual aesthetics and user experience of the CritiFlix interface.
- 2.4. Application Programming Interfaces (APIs) are integrated into the CritiFlix System to fetch real-time data from external sources. This ensures that the platform's content is continuously updated with the latest information, providing users with the most recent releases and details about movies and TV series.
- 2.5. The CritiFlix System leverages the .NET framework, a versatile and powerful framework for building web applications. .NET provides a secure and scalable foundation for the platform's functionalities, including user management, content delivery, and interaction handling.
- 2.6. Microsoft SQL Server (MS SQL) is utilized as the database management system for CritiFlix. It efficiently stores and manages the vast amount of data, ensuring quick and reliable access to information. The use of MS SQL contributes to the platform's responsiveness and real-time data integration.

3. System Architecture:

3.1. User Interface (UI):

- 3.1.1. The user interface is primarily crafted using HTML and CSS, with occasional integration of JavaScript to enhance visual appeal and ensure an intuitive design that facilitates user interaction.
- 3.1.2. .NET Framework is employed on the server side to handle HTTP requests and responses. This includes processing user actions, managing sessions, and serving content.

3.2. API Integration:

3.2.1. APIs are integrated into the server to fetch real-time data from external sources. This ensures that the platform's content is continuously updated with the latest information about movies and TV series.

3.3. MSSQL Database:

3.3.1. Microsoft SQL Server is used as the relational database management system (RDBMS) to store and manage user data, movie details, series details, reviews, and other relevant information.

3.4. Admin Panel:

3.4.1. The admin panel is a separate module that allows administrators to monitor and manage user-generated content, ensuring a safe and respectful online environment.

3.5. User Authentication:

3.5.1. Handles user sign-up, login, and authentication processes, ensuring secure access to user accounts. All passwords and private stuff is being encrypted.

3.6. Search Module:

3.6.1. Employs advanced search algorithms to allow users to find movies or series based on various parameters.

3.7. Recommendation Module:

3.7.1. Users select genres and year parameters, prompting the system to recommend a random movie or series based on their preferences. This feature enhances the user experience by providing curated content recommendations.

4. Completion Report:

4.1. Tasks Completed:

- 4.1.1. Community Building and Reviews: Made a place where people who love movies can talk and share their favorite parts. Users can also write reviews about movies and TV shows.
- 4.1.2. API Integration and Database: Connected our system with external sources to keep our movie and TV show list always updated. New releases are added automatically.
- 4.1.3. Database Speed: Made the database work fast by using smart tools like indexing and search. This helps users find movies and shows quickly.
- 4.1.4. User-Following: Added a feature where users can follow each other. This way, they can see what others like and share opinions. It creates a friendly community of movie lovers.
- 4.1.5. User Profile Creation: Implemented a system for users to create profiles, allowing them to personalize their CritiFlix experience. Users can add details about themselves and showcase their movie preferences.
- 4.1.6. Commenting on Reviews: Enabled users to interact by commenting on each other's reviews. This feature encourages discussions and allows the community to share different perspectives on movies and TV shows.
- 4.1.7. Search Functionality: Implemented a robust search function that enables users to quickly find specific movies, series, or reviews. This enhances the overall user experience by making content easily accessible.

4.2. Tasks Not Completed:

- 4.2.1. Smart Recommendations: Couldn't make the system give personalized suggestions based on what users like. This would have helped users discover new movies or shows they might enjoy.
- 4.2.2. Smart Post Suggestions: Planned to suggest interesting posts based on what users do on the platform. This feature would have made discussions more engaging.
- 4.2.3. GUI Improvements: The way the website looks and feels is not exactly how we wanted it. It works, but it could be made more visually appealing and easier to use.
- 4.2.4. User Votes System: The proposed user voting system feature was not implemented.

5. Click Streams:

5.1. User Registration and Profile Setup:

- 5.1.1. User navigates to the CritiFlix homepage.
- 5.1.2. User clicks on the "Sign Up" button.
- 5.1.3. User fills in registration details and clicks "Sing in"
- 5.1.4. After registration, user is prompted to set up their profile.

5.2. Exploring Movies and TV Shows:

- 5.2.1. User logs in and lands on the home page.
- 5.2.2. User uses the navigation menu to explore different genres or new releases.
- 5.2.3. Clicks on a movie or TV to view details.
- 5.2.4. While viewing details, user selects a list and adds it to selected list.
- 5.2.5. User navigates back to the home page or explores more content.

5.3. Community Interaction:

- 5.3.1. User reads a review on the home page.
- 5.3.2. User can like review.
- 5.3.3. User can look comments for selected review.
- 5.3.4. User can write comment for review.
- 5.3.5. User can search and look profiles and follow them.

5.4. Writing a Review:

- 5.4.1. User decides to write a review after watching a movie.
- 5.4.2. Clicks on the "Write a Review" button on details page.
- 5.4.3. Fills in the review form with comments, ratings, and tags.
- 5.4.4. Submits the review and sees it on their profile.

6. Future Work:

6.1. Intelligent Discovery and Recommendation System:

- 6.1.1. Implement a robust recommendation algorithm based on user preferences, viewing history, and community interactions.
- 6.1.2. Explore machine learning techniques to provide more personalized and accurate movie and series suggestions.

6.2. Intelligent Post Suggestions:

- 6.2.1. Develop an algorithm to intelligently suggest posts or discussions based on user activity, preferences, and engagement history.
- 6.2.2. Implement features that encourage community participation and discussions.

6.3. GUI Refinement:

- 6.3.1. Redesign the graphical user interface (GUI) to enhance visual appeal, usability, and overall user experience.
- 6.3.2. Implement user feedback to make navigation more intuitive and engaging.

6.4. User Voting System:

6.4.1. A user voting system to allow CritiFlix users to express preferences and opinions more directly, enhancing community engagement and creating a more interactive experience.

7. Scheduling:

7.1. Week 1 Project Inception and Planning

7.1.1. Define goals, roles, and responsibilities.

7.2. Week 2 API Integration and Database Building

7.2.1. Integrate APIs and build CritiFlix database.

7.3. Week 3 User Authentication Implementation

7.3.1. Implement secure login operations.

7.4. Week 4 List Creation Feature

7.4.1. Empower users with list creation.

7.5. Week 5 Film Details Design:

7.5.1. Enhance content view for users.

7.6. Week 6 Adding Films to Lists Feature:

7.6.1. Allow users to add films to lists.

7.7. Week 7 Break due to midterms.

7.8. Week 8 Creating and Sharing Posts Feature:

7.8.1. Enable users to create and share posts.

7.9. Week 9 Writing Comments Feature:

7.9.1. Introduce a commenting system.

7.10. Week 10 Discovering Cinematic Gems

7.10.1. Create a "Discover" section with personalized recommendations.

7. 11. Week 11 General GUI Refinements:

7.10.2. Refine GUI for a polished look based on user feedback.

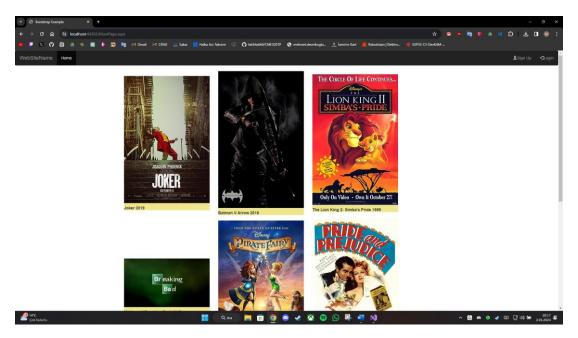
7.12. Week 12 Debugging and Quality Assurance:

- 7.10.3. Conclude with debugging and ensure a seamless user experience.
- 7.10.4. Also drawing necessary diagrams for to submit project.

8. Conclusion:

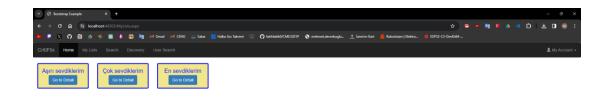
- 8.1. In summary, CritiFlix is a cool place for people who love movies and shows. You can write reviews, follow others, and discover new stuff. We did a good job setting up reviews, keeping the catalog updated, and making the website work well.
- 8.2. But, we had some challenges. We couldn't make personalized recommendations, the smart post suggestions didn't happen, and the website design isn't exactly how we wanted. Still, CritiFlix works fine.
- 8.3. Looking forward, there's a lot we can do. We can make better movie suggestions, improve the website look, and add more fun features. CritiFlix has potential, and we can make it even better for movie fans.

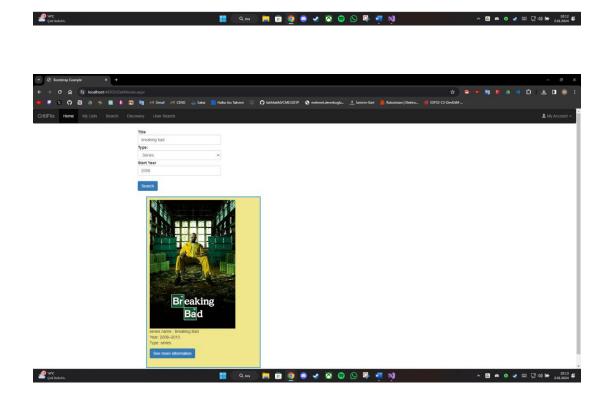
9. ScreenShots:

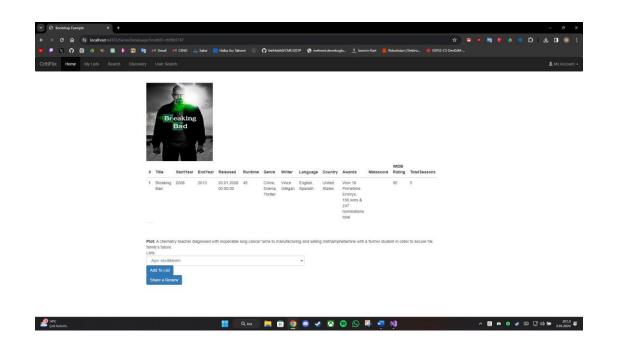


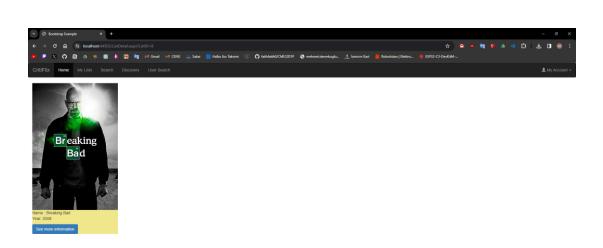




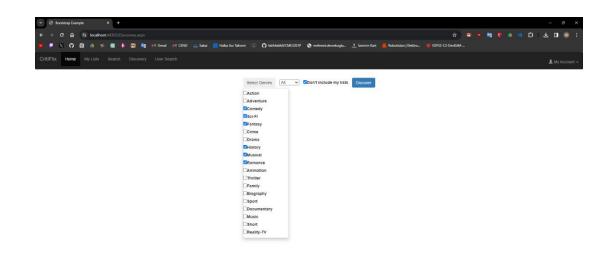


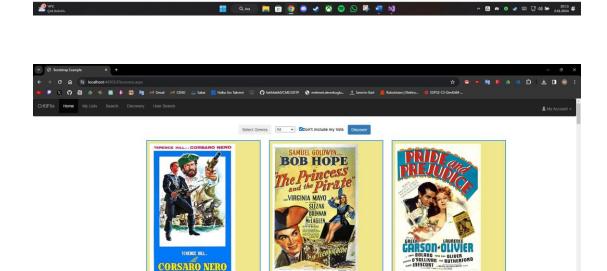












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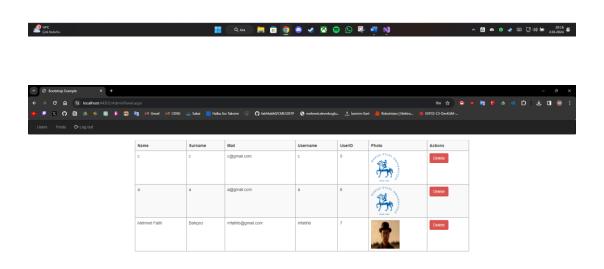
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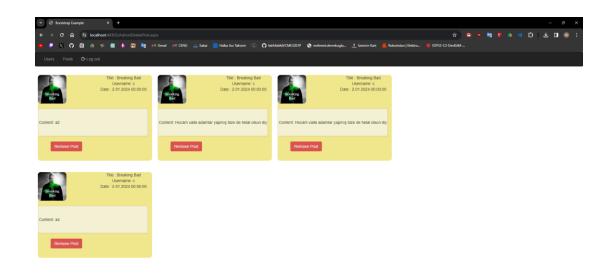
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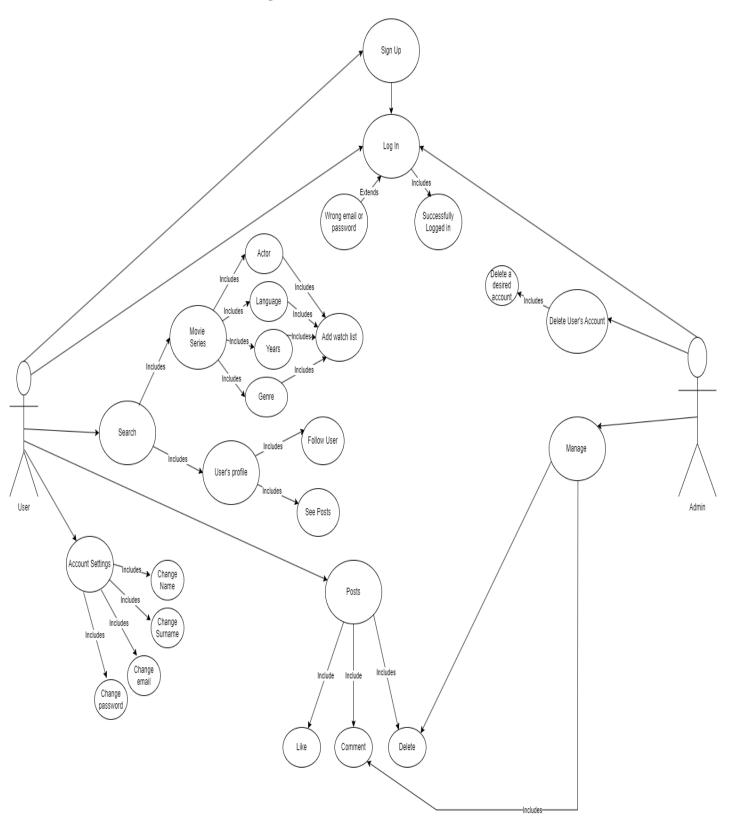




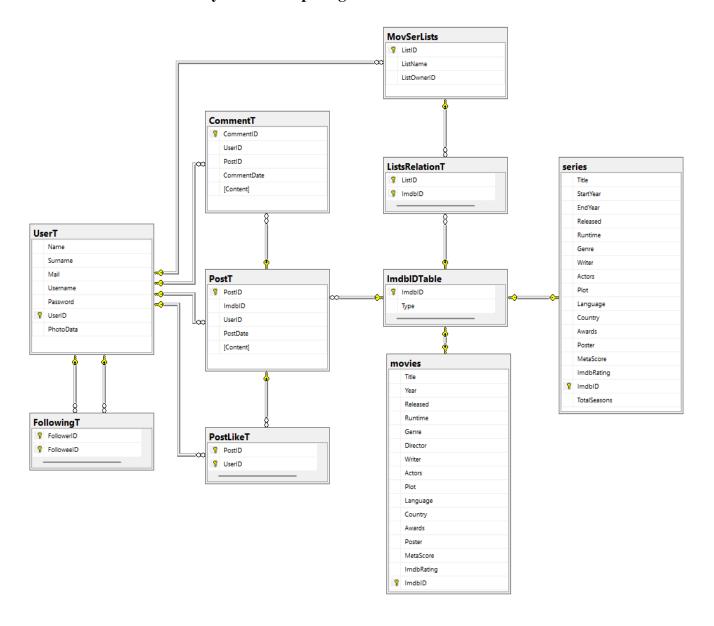


10. Appendix:

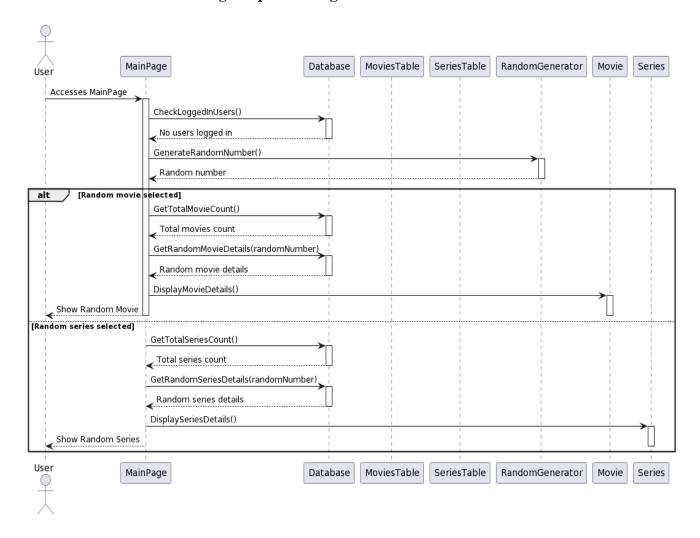
10.1. Use Case Diagram:



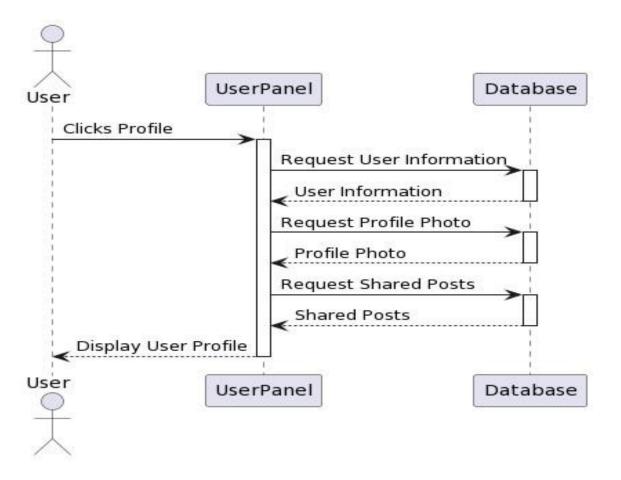
10.2. Entity Relationship Diagram:



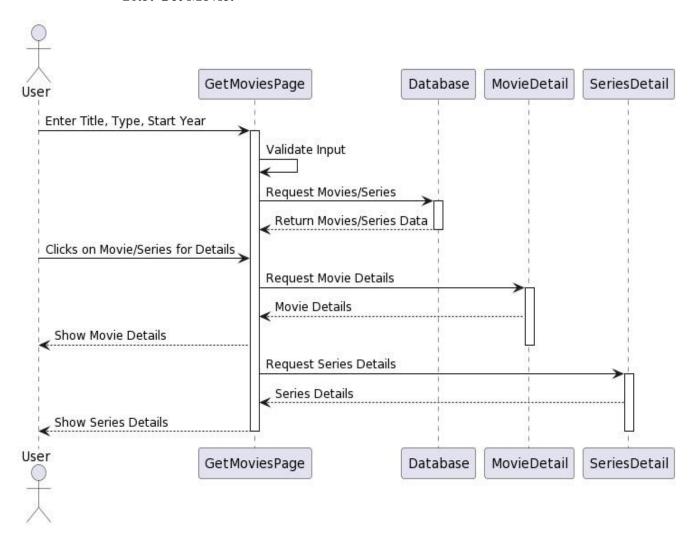
10.3. Main-Page Sequence Diagram:



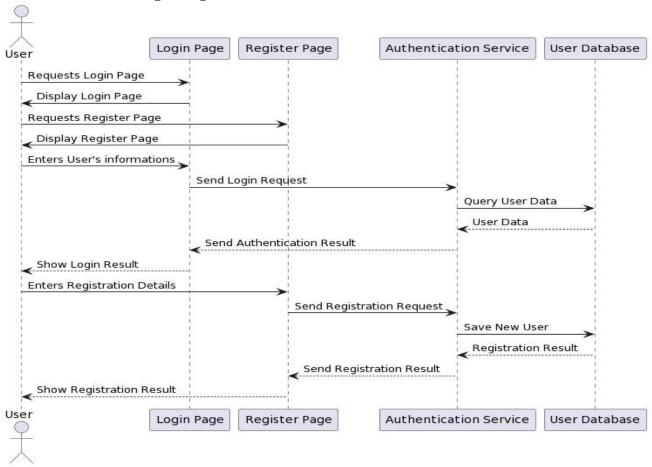
10.4. User Panel:



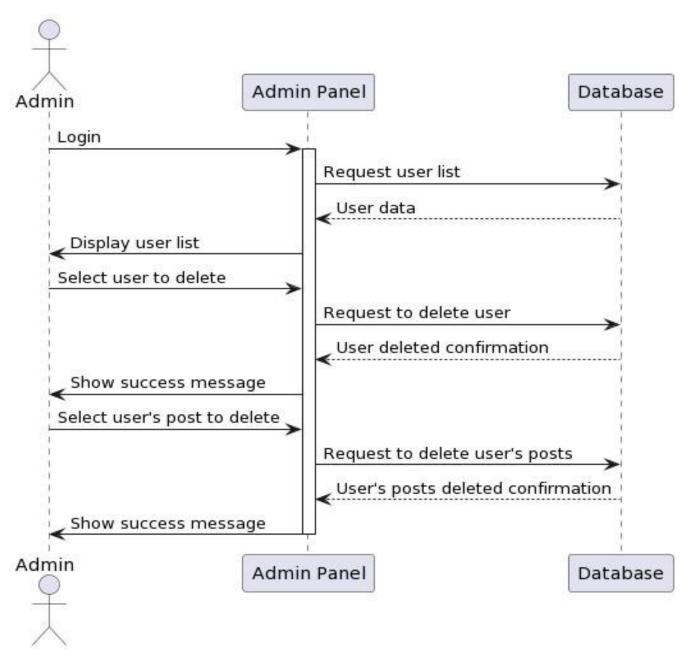
10.5. Get Movie:



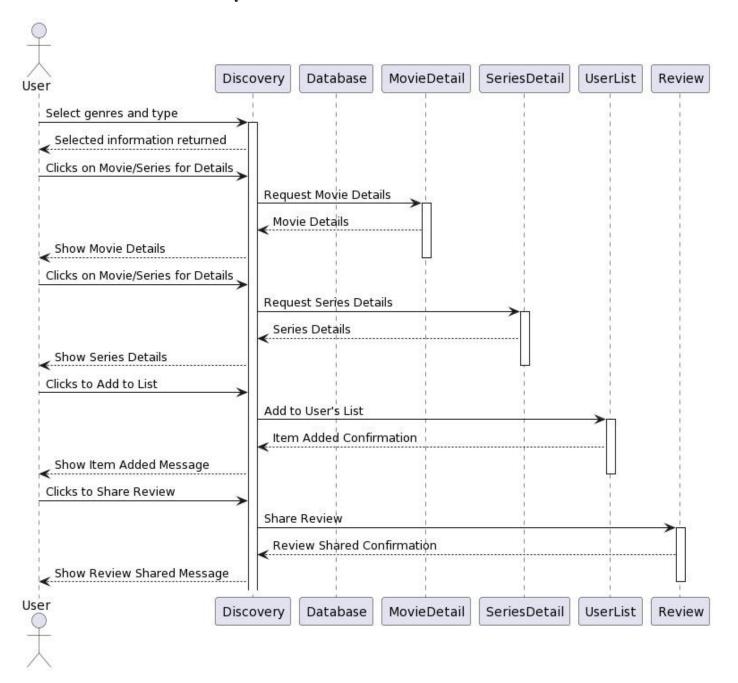
10.6. Login-Register:



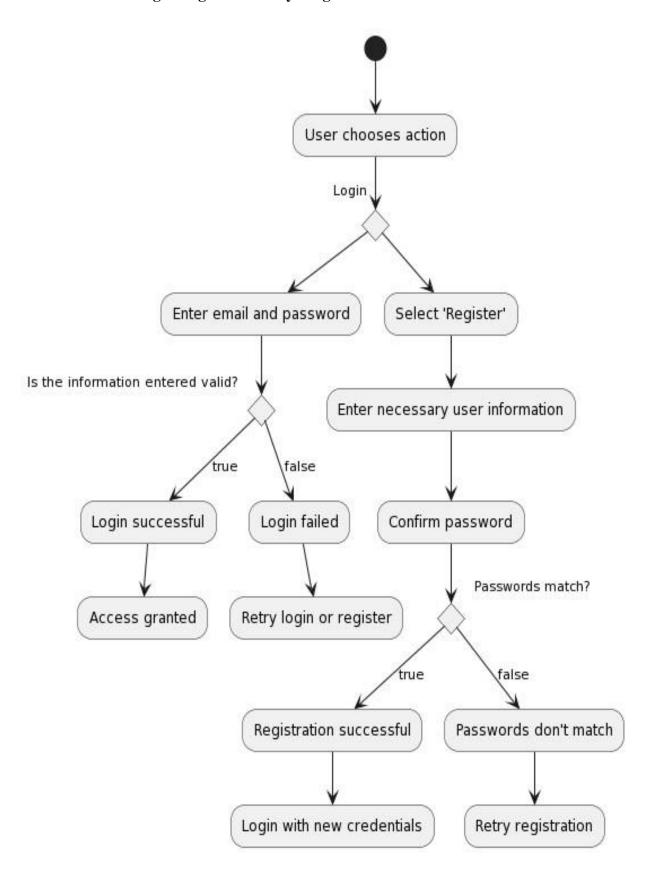
10.7. Admin Panel:



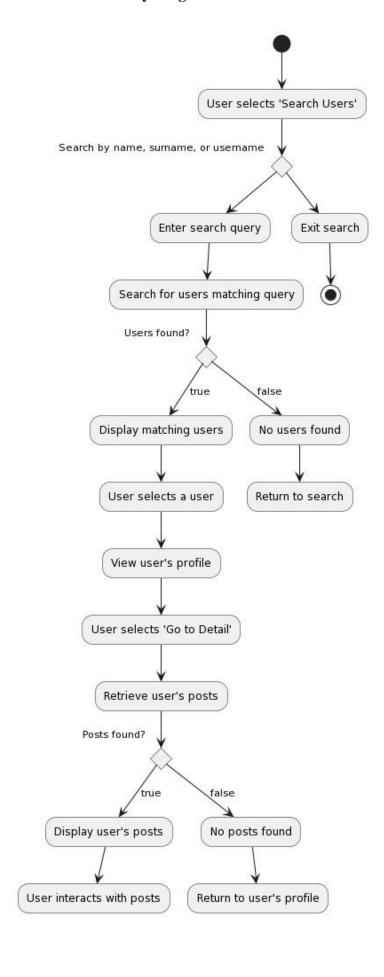
10.8. Discovery:



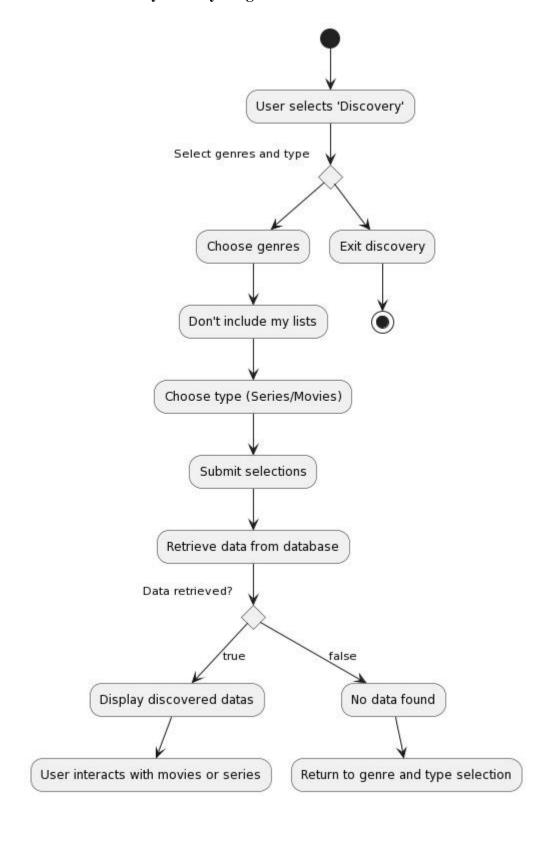
10.9. Login-Register Activity Diagram:



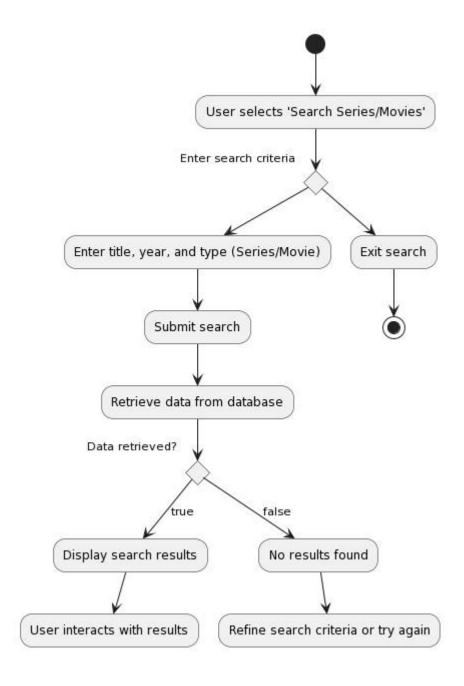
10.10. Search User Activity Diagram:



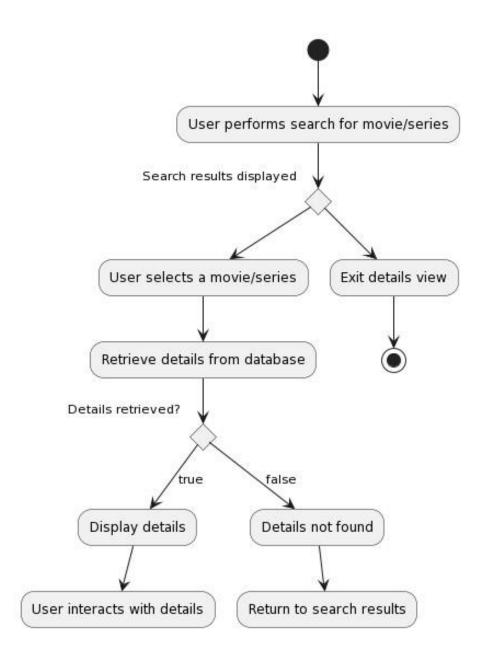
10.11. Discovery Activity Diagram:



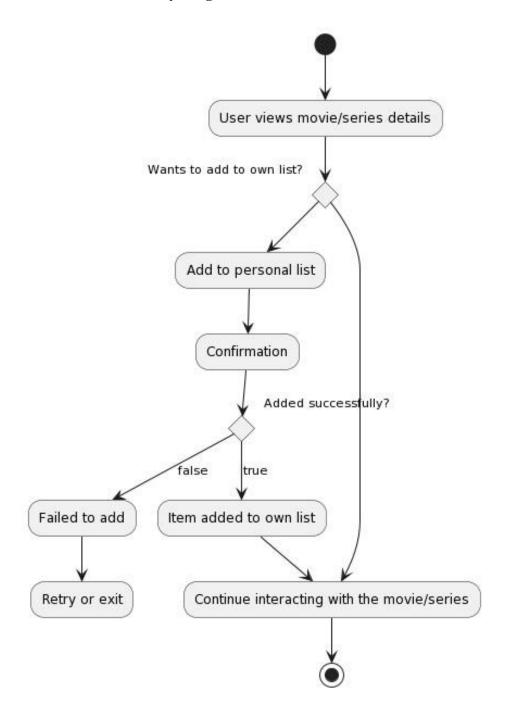
10.12. Movie-Series Search Activity Diagram:



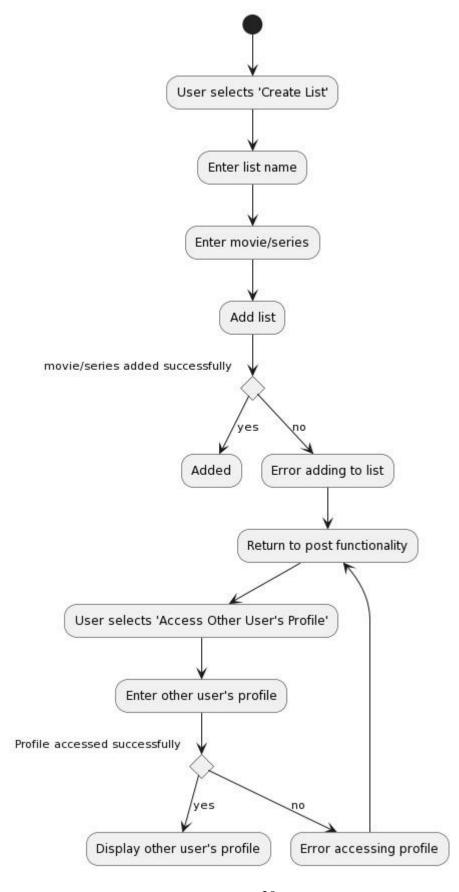
10.13. Movie-Series Detail Activity Diagram:



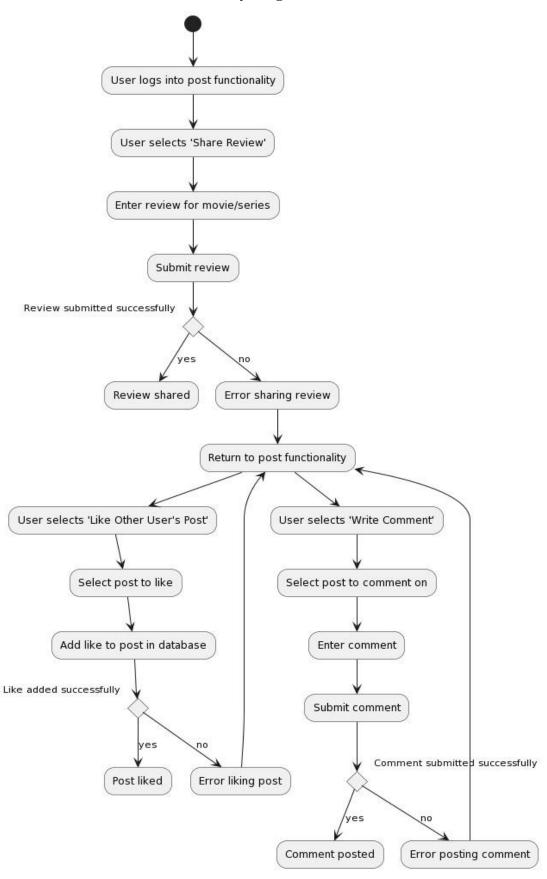
10.14. Create List Activity Diagram:



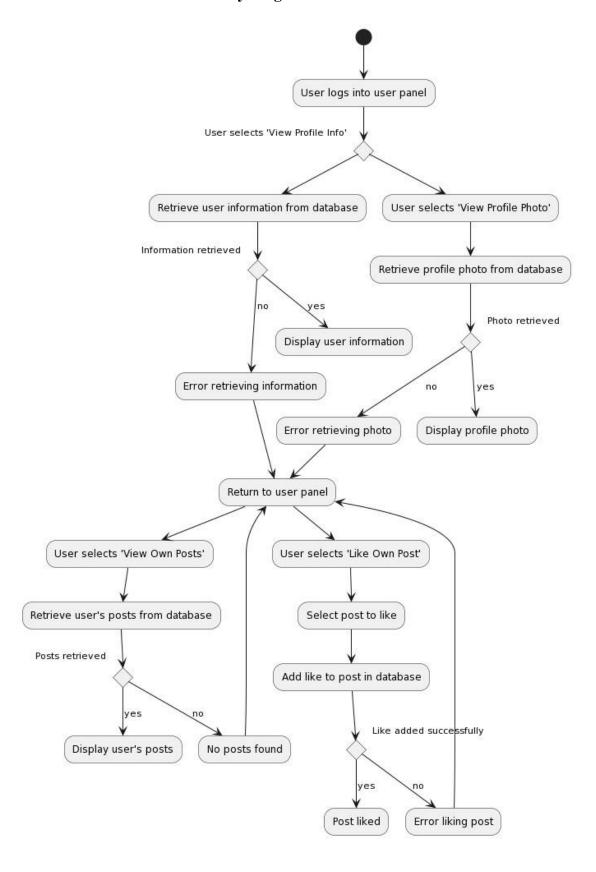
10.15. Add-List Activity Diagram:



10.16. Post-Comment Activity Diagram:



10.17. User-Panel Activity Diagram:



10.18. Admin-Panel Activity Diagram:

