User Requirements Document

Introduction

Overview of the Software Project

This project is a media index website that tracks various forms of media, such as movies, TV shows, and other entertainment content. Users can interact with the platform by rating, liking, and reviewing content. The website will also feature trending media and personalized recommendations.

Business Goals

- Create an interactive platform for users to explore and keep up with trending and relevant media.
- Provide a user-friendly interface for both casual users and administrators.
- Encourage engagement through user interactions like ratings, comments, and likes.

Project Objectives

- Implement secure user authentication using Flask, salting, and encryption.
- Build a database to store user, media, and interaction data.
- Provide a dynamic homepage that showcases trending and top-rated media.
- Ensure a "catchy" and modern UI for optimal user experience.
- Include a scalable admin portal to manage media entries.

Features

1. **User Authentication**: Secure user authentication using salting and encryption to protect passwords.
2. **Homepage with Top Media**: The homepage will feature top movies and shows, organized by category.
3. **Likes and Rating System**: Users can rate and like media items, with likes potentially affecting trending content.

4. **User Reviews and Comments**: Users can leave comments or reviews on media entries.
5. **Admin Portal**: A separate admin portal to manage media entries via an HTML form.
6. **Side Navigation Bar**: Icon-based side navigation for easy access to different media categories.
7. **Recommendations**: Optional feature for backend-generated media recommendations.
8. **Trending Content**: Display trending media based on user interaction (e.g., likes).

Integration Requirements

- **Client-side authentication**: Ensure seamless client-side authentication.
- **Database connectivity**: Efficient and scalable database setup to handle user and media data.
- **Data Encryption**: Store user passwords as salted and encrypted values.

User Interface

- **Consistent Design**: Maintain consistent dimensions for media images across the site.
- **Catchy UI**: Ensure a visually appealing homepage with categories displayed clearly (e.g., top movies, top shows).
- **Age Rating Disclaimers**: Display disclaimers for users under 18 viewing mature-rated content.
- **Side Navigation**: Icon-based navigation for easy browsing between categories.

Constraints

- **Performance**: Ensure that user interactions like likes and reviews are processed without causing race conditions (e.g., two users liking the same media simultaneously).
- **Security**: Focus on encryption and secure user sessions.

Use Cases

1. User Authentication and Login

- **Title**: User Authentication
- **Description**: A user can create an account or log in using their credentials.
- **Actors**: User
- **Steps**:
    1. The user accesses the login page.
    2. The user enters their username and password.
    3. The backend authenticates the user by checking the encrypted password and salt.
    4. If valid, a session is created, and the user is logged in.
- **Expected Outcome**: The user is logged in and redirected to the homepage.

2. Adding New Media (Admin)

- **Title**: Admin Adds New Media
- **Description**: An admin adds a new movie, TV show, or other media to the database.
- **Actors**: Admin
- **Steps**:
    1. The admin logs into the portal.
    2. The admin fills out the media details using the provided HTML form.
    3. The admin submits the form, and the backend updates the database.
- **Expected Outcome**: The new media is successfully added and displayed on the website.

3. Liking and Rating Media

- **Title**: User Likes and Rates Media
- **Description**: A user can like and rate media items.
- **Actors**: User
- **Steps**:
    1. The user views a media page.
    2. The user clicks the "like" button.
    3. The user rates the media on a scale (e.g., 5 or 10 stars).
    4. The like is processed and reflected in the media's overall trending score.
- **Expected Outcome**: The user's like and rating are registered, possibly affecting trending content.

Priorities and Milestones

Priority Levels

1. **High Priority**:
     - User authentication
     - Homepage with top media display
     - Likes and rating system
     - Admin portal
     - Database creation and connectivity
2. **Medium Priority**:
     - Recommendations feature
     - User reviews and comments
     - Side navigation with icons
3. **Low Priority**:
     - Trending media logic based on likes
     - Formula for trending content and ratings

Major Milestones

- **Milestone 1**: Complete user authentication system and secure login functionality.
- **Milestone 2**: Create the homepage with top media items for different categories.
- **Milestone 3**: Build and test the admin portal for media management.
- **Milestone 4**: Implement the like and rating system.
- **Milestone 5**: Develop the recommendation engine (optional).