**Functional Requirements**

**1. Movie Browsing & Search**

* **Users can search for movies by title.**
* **Autocomplete suggestions while typing.**
* **Display movie details including title, genre, rating, and release year.**

**2. Movie Recommendation System**

* **Provide personalized movie recommendations based on user preferences.**
* **Display trending and popular movies.**
* **Suggest movies based on genre selection.**

**3. Filtering & Sorting**

* **Filter movies by genre, release year, and rating.**
* **Sort movies by popularity, rating, or release date.**

**4. API Integration**

* **Fetch real-time movie data from The Movie Database (TMDb) API.**
* **Handle API requests efficiently to optimize performance.**

**5. State Management**

* **Use Redux for managing global state (movies, filters, user preferences).**
* **Implement Redux Thunk or Redux Toolkit for handling async actions.**

**6. Pagination & Navigation**

* **Implement pagination to handle large movie lists.**
* **Ensure smooth navigation between different sections of the application.**

**7. User Interaction & Reviews**

* **Allow users to rate movies and leave reviews.**
* **Display user-generated reviews alongside movie details.**

**8. Error Handling & Validation**

* **Handle API request failures gracefully.**
* **Display user-friendly error messages.**
* **Validate user inputs in search and filters.**

**9. Deployment & Performance Optimization**

* **Optimize the app for speed and responsiveness.**
* **Ensure cross-browser compatibility.**
* **Deploy the application on Netlify or Vercel.**

**These functionalities will ensure an interactive and user-friendly movie recommendation system.**