

Project Proposal: Movie Recommendation Platform

1. Project Overview

Movie mix: is an recommendation platform that provides personalized film suggestions based on user preferences. Users can log in, browse movies, view ratings, save favorites, and search for specific titles.

Objectives

- Allow users to **rate and review** movies to refine.
- Enable **favorites management** for saved movies.
- Implement **secure user authentication** (login/signup).
- Offer **seamless search functionality** to find any movie quickly.
- Display **multiple rating systems**.

Scope

- **User Authentication:** Secure sign-up/login with email/password.
 - **Movie Database:** 50,000+ films with metadata (genre, cast, director, ratings).
 - **User Profiles:**, favorites list.
 - **Search Functionality:** Fast and accurate movie search.
 - **Responsive Design:** Works on desktop, mobile, and tablets.
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2. Project Plan

Timeline

Phase	Task	Duration	Team
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Phase 1	Requirements & Planning	2 Weeks	All
Phase 2	Frontend Development (React.js)	5 Weeks	All
Phase 3	Backend & Database (Node.js, MongoDB)	4 Weeks	All
Phase 4	Testing & Debugging	2 Weeks	All
Phase 5	Deployment & Monitoring	1 Week	All

Milestones & Deliverables

- **Week 2:** Finalized wireframes & tech stack.
- **Week 10:** Core frontend & backend functionality.
- **Week 13:** search feature ready.
- **Week 15:** Fully tested platform.
- **Week 16:** Live deployment.

Tech Stack

- **Frontend:** React.js
- **Backend:** Node.js, Express.js
- **Database:** MongoDB (user data: email, password)
- **Search:** function search
- **Authentication:** login form

3. Team Roles & Responsibilities

Team Member	Role	Responsibilities
Project Lead	1	Overall coordination & management
Frontend Devs	3	React development, state management
Backend Devs	2	API development, database setup

QA Engineers	2	Testing, performance optimization
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4. Risk Assessment & Mitigation

Risk	Potential Impact	Solution
Poor recommendation accuracy	Low user engagement	Continuous model training & A/B testing
Slow search performance	Bad user experience	
Security vulnerabilities	Data breaches	Implement JWT, encryption, and audits

5. Key Performance Indicators (KPIs)

Metric	Target
User Sign-ups	10,000+ in 6 months
Search Response Time	<500ms
Favorites Saved per User	5+ movies
Monthly Active Users (MAU)	50,000+

User Flow Example

1. **User logs in** → Directed to the homepage with recommendations.
 2. **Browse movies** → View ratings (tmdb).
 3. **Click on a movie** → See details (trailer, cast, similar movies).
 4. **Add to favorites** → Saved in fav list.
 5. **Search for movies** → Quick results with filters.
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