

CineRecommender Project Team Structure

Team Size: 5 Members **Goal:** To deliver a professional, scalable, and highly accurate personalized movie recommendation system.

The project was divided into five specialized domains to ensure expert focus on the core architectural, algorithmic, and user experience components.

1. Project Lead & Backend Architect

(Team Member 1: [Your Name - Leader])

This role was responsible for the overall project success, defining the technology stack, and setting up the primary application framework.

Area of Responsibility	Specific Contributions (Evidence from Files)
Project Management	Oversaw all integration points and ensured milestones (like authentication and recommendation pipeline) were met.
Backend Framework	Established the core Django Model-Template-View (MTV) architecture, handling URL routing and view function setup (<code>views.py</code>).
Server Logic	Managed the data flow between the User Interface and the recommendation engine (the "Brain").
Deployment	Handled the final packaging and hosting of the application.

2. Machine Learning & Algorithm Specialist

(Team Member 2: [Name 2])

This role was critical for designing, implementing, and validating the predictive power of the system.

Area of Responsibility	Specific Contributions (Evidence from Files)
Algorithm Design	Developed the Collaborative Filtering system using the Matrix Factorization approach (referencing $V_u \cdot V_i$ calculation).
Feature Engineering	Defined the logic for the "Current Mood" weight adjustment on the user vector to provide contextual recommendations.

Model Evaluation	Defined the Root Mean Square Error (RMSE) metric used to measure model accuracy and success (Referencing Q&A Prep Sheet, Q6).
Cold Start Solution	Implemented the two-part solution for new users and new movies using initial genre preferences and the Trending section.

3. Frontend & User Experience (UX) Developer

(Team Member 3: [Name 3])

This role focused on creating an intuitive, responsive, and visually appealing interface across all devices.

Area of Responsibility	Specific Contributions (Evidence from Files)
UI/UX Implementation	Implemented the Bootstrap 5 styling and ensured the application was fully responsive on mobile and desktop views.
Dashboard Design	Designed the layout of the <code>home.html</code> dashboard, separating Personalized Recommendations from Currently Trending movies.
Profile Pages	Developed the <code>profile.html</code> page, ensuring the <code>UserProfileForm</code> correctly rendered and submitted the selected genres (checkboxes) and mood (dropdown).
Interaction Design	Managed the logic for adding and removing movies from the Watchlist (<code>add_to_watchlist</code> and <code>remove_from_watchlist</code> view logic).

4. Database & Security Engineer

(Team Member 4: [Name 4])

This role was responsible for data integrity, defining the database schema (Models), and ensuring the application adhered to modern security standards.

Area of Responsibility	Specific Contributions (Evidence from Files)
Database Design	Created the data models for <code>Movie</code> , <code>UserProfile</code> , <code>Watchlist</code> , and <code>RecentlyViewed</code> to track user behavior.
User Authentication	Implemented the secure Django User Authentication system, including the presentation of <code>login.html</code> and <code>register.html</code> .
Data Privacy	Ensured data masking by using numerical User IDs/Movie IDs for the algorithm, not PII (Referencing Q&A Prep Sheet, Q9).

Security Audit

Ensured Django’s default defenses against **CSRF** and **SQL Injection** were correctly implemented.

5. Quality Assurance (QA) & Documentation Specialist

(Team Member 5: [Name 5])

This role ensured the final product was stable, met requirements, and that all project knowledge was professionally documented.

Area of Responsibility	Specific Contributions (Evidence from Files)
Testing & Bug Reporting	Performed extensive testing on features, including the critical fix for the <code>favorite_genres</code> loading issue in <code>UserProfileForm</code> .
Q&A Preparation	Developed and rehearsed the counter-answers for challenging questions about the model's performance, metrics (RMSE), and technology choices (Referencing Q&A Prep Sheet).
Technical Documentation	Produced the detailed algorithm document describing the Latent Factor Prediction and Score Calculation (<code>project_algorithm.md</code>).