

## 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)
<b>Project Management</b>	Oversaw all integration points and ensured milestones (like authentication and recommendation pipeline) were met.
<b>Backend Framework</b>	Established the core Django Model-Template-View (MTV) architecture, handling URL routing and view function setup ( <code>views.py</code> ).
<b>Server Logic</b>	Managed the data flow between the User Interface and the recommendation engine (the "Brain").
<b>Deployment</b>	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)
<b>Algorithm Design</b>	Developed the <b>Collaborative Filtering</b> system using the <b>Matrix Factorization</b> approach (referencing $V_u \cdot V_i$ calculation).
<b>Feature Engineering</b>	Defined the logic for the "Current Mood" <b>weight adjustment</b> 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)
<b>UI/UX Implementation</b>	Implemented the Bootstrap 5 styling and ensured the application was fully <b>responsive</b> on mobile and desktop views.
<b>Dashboard Design</b>	Designed the layout of the <code>home.html</code> dashboard, separating <b>Personalized Recommendations</b> from <b>Currently Trending</b> movies.
<b>Profile Pages</b>	Developed the <code>profile.html</code> page, ensuring the <code>UserProfileForm</code> correctly rendered and submitted the selected genres (checkboxes) and mood (dropdown).
<b>Interaction Design</b>	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)
<b>Database Design</b>	Created the data models for <code>Movie</code> , <code>UserProfile</code> , <code>Watchlist</code> , and <code>RecentlyViewed</code> to track user behavior.
<b>User Authentication</b>	Implemented the secure Django User Authentication system, including the presentation of <code>login.html</code> and <code>register.html</code> .
<b>Data Privacy</b>	Ensured <b>data masking</b> by using numerical User IDs/Movie IDs for the algorithm, not PII (Referencing Q&A Prep Sheet, Q9).

<b>Security Audit</b>	Ensured Django's default defenses against <b>CSRF</b> and <b>SQL Injection</b> were correctly implemented.
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## 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)
<b>Testing &amp; Bug Reporting</b>	Performed extensive testing on features, including the critical fix for the <code>favorite_genres</code> loading issue in <code>UserProfileForm</code> .
<b>Q&amp;A Preparation</b>	Developed and rehearsed the counter-answers for challenging questions about the model's performance, metrics (RMSE), and technology choices (Referencing Q&A Prep Sheet).
<b>Technical Documentation</b>	Produced the detailed algorithm document describing the Latent Factor Prediction and Score Calculation ( <code>project_algorithm.md</code> ).