Find My Flick

Senior Design Team Contract

University of Cincinnati

College of Education, Criminal Justice and Human Services

School of Information Technology

Emman Asamoah

Caitlin Hemmert

Isabelle Kramer

Michelle Yau

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Intent

The following contract was written and agreed upon by Emman Asamoah, Caitlin Hemmert, Isabelle Kramer, and Michelle Yau. The contract provides expectations, objectives, and results for developing the Find My Flick application.

The contract is effective for all team members participating in the Senior Design Capstone class series in the 2025-2026 academic year.

Senior Design Contract

Project Summary

Find My Flick is a personalized movie recommendation platform that helps users discover films across multiple streaming services, tailored to their specific preferences. The platform takes into account users' favorite genres, actors, and directors, while also allowing them to filter out specific themes they'd prefer to avoid. Whether users are looking to explore new genres or avoid specific types of content, Find My Flick suggests options from a variety of services, giving users a broader selection of movies that match their unique tastes.

Problem Statement

With the overwhelming number of streaming services available today, finding the right movie to watch can be time-consuming and frustrating (Nielsen, 2022). Each platform only recommends content from its own library, limiting users' ability to discover films across services (Peters, 2022). Additionally, movie trailers and plot descriptions often fail to provide enough information to help viewers decide if a film includes themes or content they want to avoid.

While most services focus on genres, users often have more specific preferences, such as discovering their favorite actor from a period drama also has a starring role in a horror franchise (Peters et al., 2022). Whether they are avoiding certain actors, directors, or content, or are actively seeking out favorites, users need a platform that provides both flexibility and control over their viewing experience. Find My Flick addresses these challenges by offering personalized recommendations across multiple streaming platforms based on the user's unique preferences.

Solution

Find My Flick offers a personalized solution to the challenge of navigating multiple streaming platforms to find movies that align with individual preferences. By allowing users to filter out or seek specific genres, themes, actors, and directors, the platform enables each user to customize their viewing experience and discover movies they love. Whether they're interested in light-hearted comedies or intense dramas, Find My Flick delivers tailored recommendations that go beyond the limitations of single-platform algorithms, ensuring a broader and more satisfying selection while helping users avoid content that doesn't match their tastes.

Contact Information

Team Member	Degree + Track Track N/A for BSCyber	Email	Phone Number OR Other Contact Info
Emman Asamoah	BSIT – Software Application Development	asamoaee@mail.uc.edu	
Caitlin Hemmert	BSCYBER	hemmercn@mail.uc.edu	510-695-1274
Isabelle Kramer	BSIT – Software Application Development	kramerij@mail.uc.edu	513-767-5318
Michelle Yau	BSIT – Data Technologies	yaumj@mail.uc.edu	614-264-1181

Project Source

The team was initially formed through a network of connections and by previous members from different groups, bringing together a mix of skills and experiences. For the project, we brainstormed two to three potential ideas, each aligning with the team's goals and expertise. After discussing the possibilities, we presented these ideas to the group and engaged in a collaborative decision-making process. Together, we weighed the strengths and potential challenges of each concept and reached a consensus on the project that we believed would be most impactful and feasible to achieve.

Project Objectives/Goals

- Provide personalized movie recommendations across a variety of streaming platforms.
- Enable users to filter out or prioritize certain themes (e.g., graphic violence, drama, pet-related tragedies) based on their individual preferences.
- Allow for customization by actor and director, giving users the choice to avoid or prioritize certain individuals.
- Offer a seamless cross-platform experience, making it easier to discover new films without having to search each platform individually.

Team Members and Responsibilities

- **Emman Asamoah** - Front-End Developer
- **Caitlin Hemmert** - Cybersecurity Analysis
- **Isabelle Kramer** - Back-End Developer
- **Michelle Yau** - Data Administration

Project Scope

We will develop a functional website that will allow users to find movies to suit their needs and tastes by creating the following features:

- [MUST HAVE] Users will be able to create trigger, plot, and genre tags for movies
- [MUST HAVE] Users will be able to extensively filter movies to include or exclude tags, actors, directors, genres, etc.
- [MUST HAVE] Users will be able to interact with an AI-assisted chatbot which helps them find movies based on their preferences
- [MUST HAVE] Users will be able to search for movies by multiple criteria (like name and tags)
- [MUST HAVE] Users will be able to view automatically generated movie recommendations based on specific categories
- [MUST HAVE] Users will be able to see which streaming platforms contain which movies and be able to filter by streaming platforms
- [MUST HAVE] Users are able to create accounts and store their preference information
- [NICE TO HAVE] Users will be able to upvote or downvote tags that they find helpful or unhelpful
- [NICE TO HAVE] Users will be able to leave ratings on the movies that they have watched
- [WISHLIST] Highly curated algorithm which provides movie recommendations based on users' previously rated movie preferences

Out of Scope

To ensure a functional and complete product within the timeline of the Senior Design project, the following features will not be addressed:

- **Support for Niche Streaming Providers**: The platform will initially focus on major streaming providers such as Netflix, Hulu, Disney+, and Amazon Prime. Expanding to smaller or niche platforms may be considered for future development.
- **Mobile App Development**: The project will deliver a web-based service designed to be mobile-friendly but will not include a standalone phone app.
- **Support for Television Shows**: While the platform could be expanded to include television shows in the future, this feature will not be part of the initial implementation due to scope constraints and the focus on movies.

Quick Project Timeline

Task #	*Task Name*	*Duration*	*Start Date*	*End Date*
1	*Find movie data source*	*Summer 2025*	*May 2025*	*August 2025*
2	*Research cybersecurity standards*	*Early Fall 2025*	*August 2025*	*September 2025*
3	*Plan application UI*	*Early Fall 2025*	*September 2025*	*October 2025*
4	*Create class diagram*	*Early Fall 2025*	*September 2025*	*October 2025*
5	*Create use cases*	*Early Fall 2025*	*September 2025*	*October 2025*
6	*Create wireframe*	*Early Fall 2025*	*September 2025*	*October 2025*
7	*Create GitHub repository*	*Early Fall 2025*	*September 2025*	*October 2025*
8	*Create database diagram*	*Mid Fall 2025*	*October 2025*	*November 2025*
9	*Create Application Database*	*Late Fall 2025*	*October 2025*	*December 2025*
10	*Create Movie Data Source Integration*	*Late Fall 2025*	*October 2025*	*December 2025*
11	*Create User Login System*	*Late Fall 2025*	*October 2025*	*December 2025*
12	*Create Movie Tag System*	*Late Fall 2025*	*October 2025*	*December 2025*
13	*Create Movie Search System*	*Early Spring 2026*	*January 2026*	*February 2026*
14	*Create Tag upvote/downvote system*	*Early Spring 2026*	*January 2026*	*February 2026*
15	*Create automatic movie recommendation system*	*Early Spring 2026 – Late Spring 2026*	*January 2026*	*April 2026*
16	*Create Application UI*	*Late Fall 2025 – Late Spring 2026*	*October 2025*	*April 2026*
17	*Debug Application*	*Early Spring 2026 – Late Spring 2026*	*January 2026*	*April 2026*

Technologies Used

- **Frontend Development:**
  - HTML: Used for creating the structure of web pages.
  - CSS: Utilized for styling the appearance of the web pages.
  - Blazor: Employed to implement interactive features and functionality on the client-side.
- **Backend Development:**
  - Blazor: Utilized as the web application framework for building the backend server and runtime environment.
- **Database Management:**
  - MySQL: Employed as the relational database management system for storing and managing data related to users, tutors, sessions, and resources.
- **Real-time Communication:**
  - Teams: Utilized for implementing real-time communication features, such as audio/video calls and screen sharing, during virtual tutoring sessions.
- **Machine Learning & LLM:**
  - K Means Clustering: Utilized for the movie recommendation algorithm.
  - ChatGPT: Specifying and developing movie tags.

Ethical Considerations

Find My Flick will prioritize user privacy, transparency, and inclusivity. All viewing habits and preferences will be securely encrypted to ensure data protection (Richman, 2024). Users will have full control over their data, including the ability to opt in or out of data collection and personalized recommendations at any time (Titcombe, 2024).

The platform is designed to respect each user's preferences without judgment, whether they choose to avoid or seek out specific genres, actors, or themes. Find My Flick is committed to inclusivity, making the platform accessible to a diverse range of backgrounds and abilities, all designed to incorporate cultural sensitivities and individual preferences (Milano et al., 2020). To foster trust and openness with our users, we will provide clear explanations of how our recommendation algorithms operate, offering insight into the factors driving each suggestion.

To prevent unintended biases in our recommendations, we will draw from multiple, diverse data sources to capture a broad range of perspectives and avoid skewed information. By incorporating diverse viewpoints, we aim to deliver recommendations that are balanced and representative of a diverse user base (Milano et al., 2020). Regular assessment will ensure that no single source or perspective dominates the recommendation process. Transparency is key: users will be clearly informed about how their data is used and stored, and they will have full autonomy over their viewing experience (Ikezuruora, 2024).

Team Rules

1. Plagiarism will not be tolerated. Any team member that plagiarizes will be subject to university policies and a team meeting will be called.
2. Each team member will stay current on their tasks to ensure the project milestones are met. If an event will affect the completion of a deliverable, the team member will notify the other team members at least 24 hours in advance of the scheduled due date.
3. If a group member is going to be absent on class days or for an extended period, they will notify the other team members and the instructors.
4. Each group member will respond in a timely manner when another team member reaches out to them.

Team Signatures:

Signature: Michelle Yau

Date: 9/19/2025

Signature: Caitlin Hemmert

Date: 9/19/2025

Signature: Isabelle Kramer

Date: 9/19/2025

Signature: Emman Asamoah

Date: 9/19/2025

Advisor Signature:

Date:

References

Ikezuruora, C. (2024, February 5). *Transparency in data privacy: Your key to securing personal information*. PrivacyEnd. https://www.privacyend.com/role-transparency-data-privacy/

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