Team 47

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Overview of the Problem

Our client, a stealth startup, believes that current social recommendation systems for movies are inadequate at providing accurate automated recommendations. Our client aims to create a well designed system that solves this issue.

According to our client's request, the core of this system is providing users with the ability to look up information on various movies and share them with friends and family. Users are also able to receive personalized recommendation. There will be a large database containing data for movies, including current movies, where users are able to easily and quickly search and filter for specific movies. A user will then be able to read more information about the selected movie, see the reviews and showtimes, share the movie with friends or see related movies.

Similar to most forms of social media, users will be able to create a personal account where they can track what they watch, what they plan to watch, and who they want to share things with. Having an account gives users access to features such as rating movies, writing reviews, adding friends and recommending movies to their friends. The system will also deliver personalized recommendation to users via our algorithms based on critic ratings, ratings on the site, and friend ratings.

Through this system, our client would be able to fill a niche market where casual moviegoers to cinephiles are able to have a social media experience created around films. By allowing users to prod other users about movies on the site, we create a more efficient way to share and discover films between you and your friends. Additionally, this fusion between entertainment and social media can eventually lead to the expansion of the product to include other types of entertainment as well, such as books, music, or television shows.

Background

In terms of working software, the only legacy that we will be building off of is the IMDB-like database that is provided by the client. Although the database holds a great amount of information regarding movies, it lacks both an interface to interact with and users to build upon the rating/recommendation system. In other words, the IMDB-like database could provide users with information but does not provide much user functionality or usability.

There are other applications in the market that extend databases that contain movie information. However the value proposition of this project is the user information gathered and functionality that will be created. We will be building upon the database to create an intuitive application to track movie ratings, friendships, watchlists of the users, and provide other user focused functionality.

The client is currently in charge of maintaining and updating the database containing all the information on movies. However, a new database will be created for this system that will constantly update as users continue to sign up, add friends, and rate movies. This database will contain any user generated data and will be separated from the IMDB-like database.

Although possible, the new database will not be generated from an external source. This project will focus on creating a platform to gather user information such as user preferences, reviews, and friendships. These information will increase in value over time. As this project gains wide adoption and more users sign up, its value to both users and our client will grow. An internal information management team will be needed as the application grows to organize all the information collected.

To reiterate, there are similar systems that provide users with social media like functionality, but none of them capture the niche market identified by our client. This application will focus on harmonizing the movie information along with a user's desire socialize around those movies.

Scope

This section will go over what our client wants Spoiled Tomatillos to achieve. The client's first and foremost goal is that this system should provide a good user experience through a well designed interface. The system must be fast, clean, easy, pretty, secure, and fun to interact with. Note that since we are still in the design stage, some requirements may be added, removed, or even changed. The basic requirements of the system will be discussed from three perspectives: users, system, and monetization.

There are certain features of the system defined by our client that are essential for delivering value to the users. Anyone who accesses the web site will be able to sign up, sign in, and use the search function. Signing up for an account will require the user to fill out fields such as a unique username, first name, last name, password, retype password, etc. Signing in requires a username and password. Once signed in, users will be able to rate and review movies. Once a user decides to rate a movie, the rating will

be added to the overall community rating which is one of two movie ratings provided on the site (the other being an external average critic rating). Users will also have the ability to check out other users' profiles and add them as friends. Friends are able to "prod"-recommend a movie to each other or together. We are assuming that users will have permission settings on who can view their profiles, so that their profile is display differently depending on the viewer. We also will create a universal search bar that allows searches of movies, genre, usernames, actors, etc. all in one location.

The system itself is required to form recommendation lists based on three algorithms. Two of the algorithms are based on the ratings mentioned above and the last algorithm is User-User Collaborative Filtering. We assume that the system will be well designed and maintained for this will affect the current UI/UX and ease the process of updating the system in the future.

The monetizing plan to utilize the results from the recommendation algorithms and use movie ticket codes, links digital resources and more. In addition, this method could also be applied to other content like movies or books. Our client also wants to consider selling user data as a way to generate revenue. However, this will be announced to users later as the board is still coming up with ethical terms of service with profitable policies.

We believe that developing Spoiled Tomatillos is definitely doable after discussing in general the basic design and skills required. However, there are many difficulties that our team will likely encounter as we develop this product. The most blatant is creating a UI/UX that is clean, easy, secure, fun, and still valuable to the customers. One important component to UI/UX is providing the right mix of features. Though value mainly comes from the features, it will diminish if there are too many because users will be overwhelmed and confused. Another component is designing the layout and how features will be displayed. What may seem clear to the developers, may not be so intuitive to users new to the system. We plan to discuss these issues early on because we know that results of bad UI/UX will lead to wasting time on customer support and users leaving our system.

Along with good design, time itself could potentially prove to be an issue. Every member of the team has other classes and obligations so allocating time to work by ourselves and together will be hard at times. Our team may also want to accomplish a lot for this project but may be overly ambitious and overestimate the amount of time we have. For example, this project is a good opportunity to learn a new framework such as React but would take time away from other parts of the project There may also be key features that we run into issues with causing us to allocate more time than we planned to debug. Thus it will be important to prioritize tasks with room for flexibility.

Ultimately, we believe that with the information and requirements given by the client that creating Spoiled Tomatillos is possible. Our team assumes that the client has come to us with this project because they have not done a project like this or any previous attempts were unsuccessful. There are parts of the project that we could potentially hire experts to help develop, such as the user interface if we decide to use React. However, all the development work most likely will be done by our team.