Description for Project: "Spoiled Tomatillos"
Coders Unlimited (Team 26)
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Overview

We at Coders Unlimited have been approached by a stealth startup to produce an online social media platform. The organization, CCIS, has expressed their ideas via two of their highest-ranking members: co-founders Michael Weintraub (CEO) and Jose Annunziato, (CTO). As obvious internal members of their organization, Weintraub and Annunziato have had some experience with development and are looking to step further into the world of web applications and social media.

In the last few months, Weintraub and Annunziato have been able to develop a prototype for the service they desire. It has generated enough interest among its test users that they have decided to have it professionally developed using our services.

The platform CCIS has requested shall be known as, until otherwise decided, "Spoiled Tomatillos". In broad terms, Spoiled Tomatillos will be a social platform dedicated to movies and the responses that they generate from users. The client would also like the service to integrate a user management system that would require end-users to create their own personal account. With an account, users will be able to interact with the features that the site will provide.

Users will be presented with an interface that allows them, first and foremost, to look up movies at will and learn about their plot, cast, awards, availability at local theaters, and possibly more. The client would like the interface and the info provided to be similar to IMDB, Netflix, Amazon, Fandango, and similar existing services.

As a social media platform, the client would like the service to mimic the "friends" feature seen in many social media applications today. They would like a way to find friends they know who use the platform and identify that they are friends on the platform. Once a user has friends, the clients would like users to be able to recommend movies to their friends, either just to watch in general or to go see together.

The client would also like personalization to be a key feature. The client would like users to be able to rate and review movies they've seen. From this data, the client would like the platform to then offer recommendations for movies they haven't seen. The recommendations will also factor in data such as external critic ratings, site-wide ratings, and other users on the site with similar taste in movies.

The client does not intend for users to have to pay for use of the platform; instead, they envision the product will eventually be monetized by utilizing affiliate programs with online movie ticket sellers and digital movie retailers and providing users purchase links via these programs. This will drive us to make the algorithm as accurate as possible, as users will be more likely to purchase tickets/digital copies if the recommendation algorithm shows them movies that they end up enjoying.

Weintraub and Annunziato intend to be able to maintain Spoiled Tomatillos using members of their own staff at CCIS. They will be responsible for moderating the user data and content that is posted and generated as well as acting as system administrators to keep the service working as intended.

This platform is important to CCIS because they have recognized a need in the market for something like this. Currently, there does not exist a service like the one they desire to be built, and they believe that by creating one they will stand a chance to profit substantially while also giving consumers a one-stop-shop to find and discuss movies with their friends, family, and other acquaintances. They also believe that it's important to innovate based on the successful principles of other sites like IMDB, Facebook, Netflix, and Amazon. Spoiled Tomatillos represents a chance to do that.

Background

Spoiled Tomatillos is an entirely new website that utilizes existing critic ratings, website user ratings, and a few machine learning algorithms that recommend movies to users based on the data that they have provided the platform. The website combines the informative nature of movie sites, such as IMDB, with social media-style commenting, rating, and personalization features in a unique manner to improve its recommendation algorithms.

IMDB was created as a searchable database of movies and the work of actors/actresses[1]. It has added significantly more features since its creation in the early 1990s, including the ability to rate movies, gather user contributions, and save movies to a user's "watchlist". However, all of the social aspects of IMDB require other social media to work, such as sharing movies to Facebook or Twitter. It does not integrate any aspects of social media directly into the platform.

Netflix is another service in the movie industry that Spoiled Tomatillos can naturally be compared to. Our client at CCIS has recognized that Netflix's rise in popularity and their features within the platform have been quite admirable, and they should be and can be innovated upon with future services such as Spoiled Tomatillos. However, Weintraub and Annunziato intend Spoiled Tomatillos to include more of a social experience within its platform and to, at least initially, refrain from the streaming of movies directly on the site.

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[1] http://time.com/4068036/imdb-history-25th-anniversary/

Users who stream movies and television shows on Netflix frequently like to talk about them after seeing them, but Netflix does not provide a way to do so directly within its system. The client believes there lies an opportunity to do so with a new site, which Netflix users would be highly motivated to use to share their thoughts and reflections on films that they have seen.

By creating this platform, CCIS is able to expand on the features already seen on sites such as IMDB and Netflix and, at the same time, is also able to provide a service that does not already exist within the market today. CCIS has recognized the popularity seen with other social media sites such as Facebook, Twitter, and Amazon in the current market and has realized that an opportunity exists to combine the best features of those sites together with highly appealing movie-related content like IMDB provides. This, effectively, has the ability to create a new market altogether. By being the first to step foot into this area of service, CCIS is able to gain a competitive advantage over sites such as IMDB.

The main operators of this system are, of course, projected to be people who tend to frequently watch movies and rate them on sites such as IMDB and Netflix. But by also incorporating social media-like features within the platform, it further expands the amount of users it can attract. Younger generations who have grown up with social media will certainly be more inclined to use a new social media platform, especially when it includes attractive and popular content such as movies, which a large percentage of the population enjoys already.

Scope

Design details
- End users will each have their own profile page. On this page will be listed a user's chosen display name, profile picture, and recent activity on the site, such as ratings, recommendations, groups they have joined, and follower updates.
- Users will be able to control the privacy of all elements of their profiles, including the ability to make their profile completely unsearchable by other users.
- Community moderators are users that can use the site in all the same ways regular end-users can, with the extra responsibility of reviewing inappropriate user-generated content. Mod users will have a badge on their profile indicating so.
- Administrators are users for the back-end of the site. They log in via a different landing page and see a completely different interface that's focused on showing as much data about the site as possible.
- Each user will be redirected to the site's homepage after logging in, which will contain a dashboard and activity feed, similar to that of Facebook.
  - Here, users will be able to view the recent activity of other users they follow and will also be prompted to respond to any requests from other users or the system that they might have.

- ○ The dashboard will also contain personalized recommendations from the system and any prods that might have been sent to them by friends.
- Groups will consist of groups of users within the system. They can be created for whatever reason and the user who created the group becomes the group's administrator. Users can request to join a group by submitting a request to the group administrator.
  - ○ Group administrators have the ability to delete group members and moderate content posted to the group's page.

We want to implement a social media site that allows end users to create and update their profiles, comment and rate movies, view suggested movies based on the user's own taste in movies, connect with friends, and possibly eventually view suggested friends based on similar interest in movies and view suggested movies based on trending friend's interests.

Difficulties

Initially, we are expecting four major difficulties. The first is that implementing algorithms to suggest new movies will be difficult. Algorithms can be challenging to implement, especially ones that require machine-learning. Making sure our algorithms do what we want them to do and making sure that we are not providing bogus recommendations stands to be a challenge for us.

Secondly, the design of the user interface will include many functions and pages. It will be moderately complex as well as time-consuming to correctly implement and test. Putting that all together so that our site has a reasonable user experience is also much easier said than done. We will also need to take feedback from users and modify our presentation as needed to make it as intuitive and easy to use as possible. We hope to catch these errors early on in the process by surveying a select group of people regarding the overall design and experience of the alpha and beta releases.

A third difficulty to consider will be regarding the database we will be using to store information about the users. The database back-end may be time-consuming to implement. It can be somewhat time-consuming to design a proper schema for a database, and with many different factors to consider in our service, there's potential for difficulties to arise.

And lastly, because we are relying on a third-party API to retrieve all of the movie information, we are essentially relying on it for our platform to work as expected. Therefore, if there happens to be any problems with the API we could definitely run into some difficulties on our own platform. We need to recognize how to handle those errors gracefully and with proper messages to the user. To go along with that, there is also the possibility of copyright infringement when dealing with movie data. Because we are

retrieving the data from a third-party, we are assuming that the source has taken all legal precautions. If not, that would certainly provide a difficulty for us.

Boundaries

The following are a few points that help define the scope by identifying clear boundaries of what Spoiled Tomatillos is not projected to do.

Spoiled Tomatillos will not allow any kind of streaming or showing trailers of movies; it is not that kind of website and it is more focused on rating movies, sharing and reading reviews, socializing with friends, and finding movies to watch based on films other like-minded people have viewed and rated.

Secondly, Spoiled Tomatillos will not allow users to post arbitrary content to a personal feed, as Facebook does, for example. The only content that should be generated by a user are movie reviews and recommendations for other users. The reasoning for limiting this functionality is to prevent users from posting content that is unrelated to movies, which could cause larger traffic on the system and also detracts from the original purpose of the platform. As a peripheral to this, users also will not be able to check in to specific locations and use location services for any reason other than for determining theaters close by. Simply put, this website is about the movies, reviewing them, and sharing your thoughts on films with friends.

Also, we do not want to be able to give users, admins, or moderators rights to modify or otherwise change the information that we pull about movies or critic ratings but rather just comment or supply their own personal ratings. The data that we will be using for movies is from a trusted third-party source, so maintenance users have no reason to modify any objective information that may be provided to the platform.

Assumptions:
- It's going to be a website
- Community mods can use the site like regular users.
- Admins log in through a completely separate landing page (e.g. a subdomain or subdirectory), and see a completely different interface from end users.
- User database needs to be designed to be scalable to accommodate thousands or millions of tuples for user profiles