Spoiled Tomatillos Project Description

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I. Overview

The client for this project is Mystery Startup, an aptly named stealth startup which aims to bridge the gap between social media services such as Facebook, and streaming services such as Netflix and Amazon. In order to do this, they want to develop Spoiled Tomatillos, a movie recommendation service that incorporates user reviews, and more specifically reviews from social media friends, into its algorithm. This is a new space that Mystery Startup believes can be monetized.

Mystery Startup comes out of Northeastern University, and was founded by three computer science professors. They are funded by Northeastern University, and approached Team J.A.N.K.Y. to develop Spoiled Tomatillos, their latest idea. As they are computer science professors, the level of quality that will be expected from this project is quite high. Mystery Startup is fully controlled by the founders, so despite being part of a university, the team will only be dealing with the company, not the university. Spoiled Tomatillos is not their only project, so they have hired a team in order to help direct their projects. This team, the Tomatillos Advocates (TAs), is a second resource. They mostly know what the founders want in terms of design and quality, but any information we get directly from the founders should be prioritized.

At a basic level, what Mystery Startup wants is a website. The end users will be able to make an account on the site, search movies, and look at recommendations. Additionally, the website will have basic social media functions, with users able to identify friends, that will make their recommendations even better. Users will be able to recommend movies to each other. The website will also use an algorithm to find other users with similar tastes to connect them. The website will also be able to recommend movies to a user, based on how they have reviewed the movies they have seen. Additionally, sales agent accounts will be available so that movie agents or other

interested parties are able to advertise to a relevant user base on the site. The entire website will have moderators in the form of administrative accounts.

   The client has approached us to make *Spoiled Tomatillos* because the client wants to create a business out of this website. Mystery Startup can see that there is a need for a new movie reviewing website that has a purposefully incorporated social media aspect to it. Other websites have focused on the movie reviewing aspect, such as *Rotten Tomatoes* and *IMDb*, and have only created the social media aspect as an afterthought. The amount that users can interact with each other is limited to reading and "upvoting" each other's reviews or going into separate, designated forums to discuss a movie amongst each other. *Spoiled Tomatillos* intends to put the social aspect of finding and reviewing movies into the forefront, creating a whole new type of movie-reviewing environment. Users of *Spoiled Tomatillos* will be able to have friends on the website, follow different amateur and professional movie reviewers, and recommend movies to their friends. Mystery Startup knows that this is a new idea that could be very lucrative for them.

II. Background

   Mystery Startup has requested that we use a specified set of technologies while developing their website, but is not mandating it. Since we know that this startup is run by computer science professors, their recommendations should strongly be considered, because they know their stuff. Their recommendations include the full range of capabilities we will need for this project, from database to hosting service. At this time we do not plan to deviate from this set of technologies, as they are pretty standard within industry, the client has requested them, and we have no strongly compelling reasons to do otherwise.

   There are a number of existing movie recommendation sites. As previously mentioned, Rotten Tomatoes and IMDb both have movie reviews, but neither has social media implemented as fully as Mystery Startup intends to. However, after a brief internet search, we found a site we believe will be a very close competitor. Taste.io does not have the full range of social media services either, but it does have a very cool recommendation system that recognizes how people watch movies today, offering to filter to only movies on Netflix. Additionally it offers the ability to combine profiles to find a movie that would be good to watch with a particular friend. While this is not a feature that was requested for Spoiled Tomatillos, perhaps it is something to consider, or at least make note of reactions to so we can learn from this other site.

   This is an entirely new project, and all of the work we will be doing is from scratch. There are two reasons that we are unable to simply buy the system. The first is that it does not exist yet. The second is that we are more or less the one selling the

system, since we are making it. Once we are done creating the system, operation of it will fall to Mystery Startup itself. As they and the TAs are all knowledgeable persons, they will have the ability to operate the system without further support from Team JANKY if it is designed well enough. This also reinforces the need for quality work on this project, as the eventual operators can and will check on future operability of the system while it is being built.

III. Scope

At a high level, there are a lot of requirements that have been discussed with Mystery Startup, but there are also some that Team JANKY is still speculating about. For the movie aspects of the website, they want a large database of movies with information such as plot, cast, awards, and availability in theaters, similar to *IMDb*. Users will need to be able to search for movies in this very large database, and they will also have the ability to filter results to make searching easier. They will be able to rate and write reviews on movies they have seen. On the social media aspects of the website, Mystery Startup has specified that user profiles will be public for the most part. A user will be able to follow other users and be friends with other users, which allows the user to see the movies they have seen, their recommendations, and their ratings. The user will also be able to recommend movies to their friends. The website will also be able to send a user recommendations based on what kind of movies they like and how the users have rated them. This is going to be done using algorithms and machine learning.

There are some things that Team JANKY is currently speculating on. This may be because the client has not specified how they want these certain things done or because the client is not sure of what they want. Either way, we will do our best to come up with educated guesses on what the client may be looking for and we will always be open to changing things if it is not what the client had in mind. The kinds of things that we are unsure of as of right now are smaller problems that are not urgently needed to be solved. For the most part, Mystery Startup has not specified what the website should look like. Team JANKY has worked hard to create a user interface that works well with the function of the website and encourages users to keep coming back to *Spoiled Tomatillos*. Some other assumptions we have made are about the reviewing and rating details, such as the rating scale and who would be able to see reviews. We have also made some assumptions on the various roles users other than end users would play on the site. For example, we have given the operations users certain abilities over end users, but we have decided upon those from our own experiences. We are unsure of what Mystery Startup exactly needs from its operations users. This is all information we

can continue to get from the client, so it's not a problem currently that we do not know these answers.

Because we don't know all the details about what the client wants and we are building this system totally from scratch, there are a few foreseen difficulties that we may be facing. As a team, we are most worried about writing the algorithm which will be used to create recommendations of movies for the users. It is something that the team does not have much experience in, so we anticipate that there will be a bit of a learning curve there. However, we are excited to test our skills and we know we have many resources to make sure we do it correctly. Additionally, we will need to keep track of some risks in security. *Spoiled Tomatillos* would use and maintain a lot of information about its users, which can be dangerous in the wrong hands. While this may seem like a lot of things to keep track of and look out for, we are confident in our ability to keep things sorted and succeed.