

SUPERFAN

CPSC471 FINAL REPORT

GROUP 20:

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ABSTRACT

This database management system course project's goal was to implement a working website that had a database running in the background. The general problem we thought of was the need for character tracking in mediums such as film, TV, and animation. Thus, the ultimate goal of the database is to create a resource where the user easily see relationships between characters and track relevant things.

For design, we have three main users: SuperFan, admins, and industry professionals. SuperFan are the main audience and come here to look up other users, browse the database, and create custom lists from the database. Admins are administrators and can edit the public database. Industry professionals can simply be a writer or the voice actor for a character, this is to help build the community. A use case analysis was also performed, which can be found in the appendix.

The ER diagram presented shows our data base design from an entity relationship model. Several assumptions are listed off in the actual report for the actual construction. We have separate relations for characters in TV and Movies, as you can see in our relational schema.

As for user interaction, an example one is searching for a media title. Users can do so by entering a specific title, year, studio, etc. and the results that match will appear. The interface follows a minimalistic design and several shots of the User Interface in action can be seen below.

INTRODUCTION

If you're a big movie or tv show fan, at times you may be interested the characters and how their traits change over the course of the runtime. However popular websites such as IMDB do not have this kind of feature, they only provide a basic synopsis and plot summary. Diehard fans or people who are keen to analyzing film would be forced to go to various websites to get detailed information, this can get quite tedious. In comes SUPERFAN, a database used to keep track of detailed information such as characters, their motivations, tv shows, movies etc. Essentially a lot of basic information found on IMDB would be available but on top of that we allow for more details of a tv show or film to be tracked essentially broadening the scope of our users. The ultimate goal of our database is to create a resource where user can get more in depth character detail.

PROJECT DESIGN SECTION

Our system has three main users: typical front end users with no admin control (Superfans), front end administrators (Which are still Superfans but with admin privileges). Then professionals who are Superfans but who have an industry connection or role to a media with a verified account. These three users are all able to interact with our interface and browse through movies and television shows, however there are different level of privileges for each that allow them to do different things.

The first user of our website is our Superfan user, or the typical user in layman terms. This user has no administrative privileges but they would be the main user of the database, and they are the largest primary user. Please refer to Appendix A for the Use Case Analysis, in there is Figure 1 which is a use case diagram for the primary user. The user can create an account, edit media, sign in, sign up, browse, create a collection such as adding to their Favourites, copy a collection, and look up and follow another user. Following a user entails getting

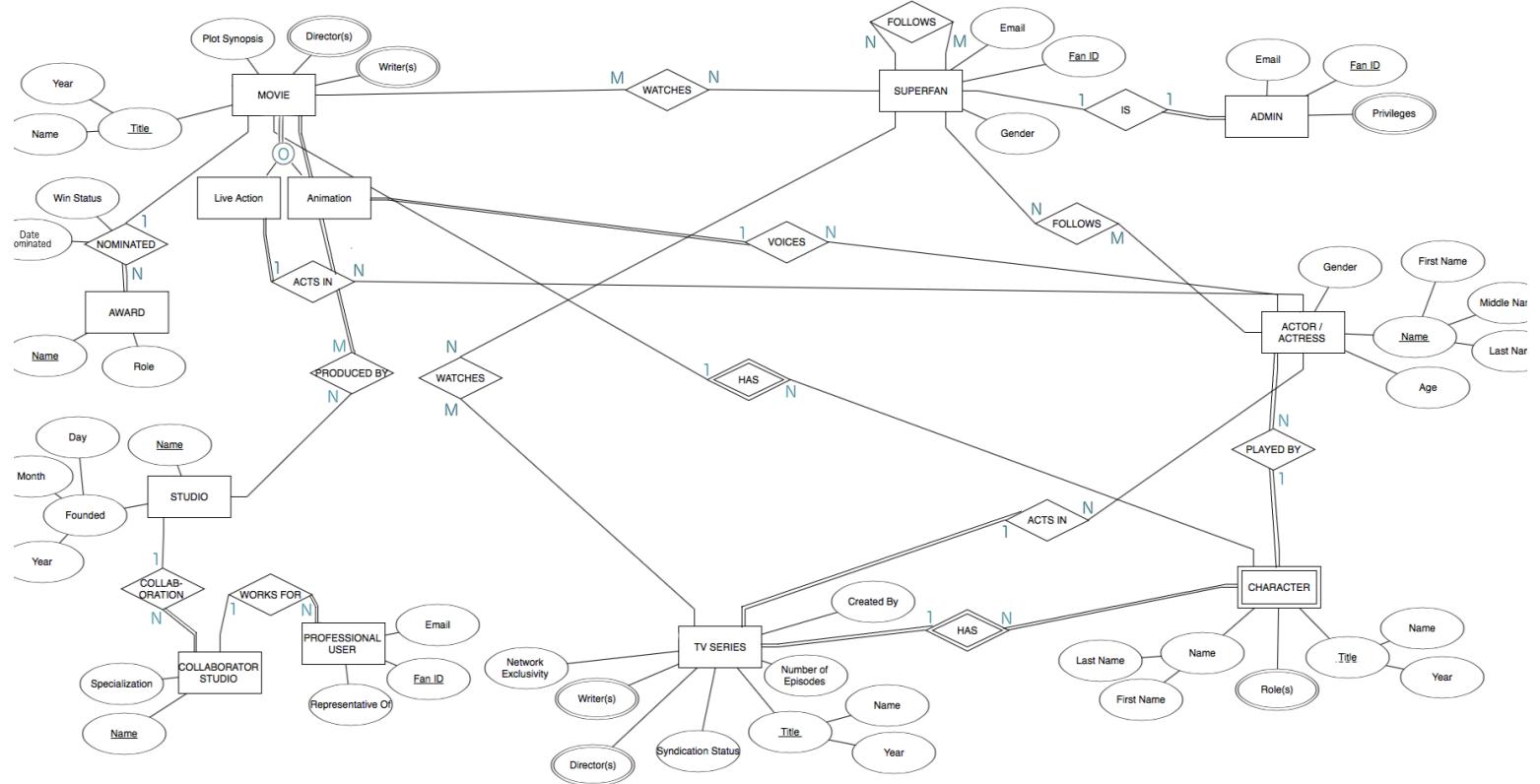
updates on another individual's collections and being able to see if they add to their own collections such as Favourites or "To-Watch." This allows for the regular user to perhaps get new ideas of what is good to watch from other people they decide to follow.

Secondly is the admin Superfan user. This user has administrative privileges and can add/edit media objects within the database, in addition to the user actions above. Essentially, the admin user is a Superfan user but with enhanced privileges. The admin Superfan user can add objects: shows; actors; industry people; movies, and edit the details of said objects. By adding objects, they can add television shows and movies to the database. They have control over the content of the website and what is displayed. For example, if a new show X has recently come out, the administrator can add X to the database so that all users can find information on it. The administrator can also modify any content in the database for if there are any changes that need to be made for a movie or television show.

The third user for our system is an industry professional. This person could be an actor, animator, voice actor, director, employee for a collaboration studio that worked on a movie, etc., in real life. In regards to the Superfan database, they are just an industry professional that is verified. They can act like a regular Superfan user but they have a few enhanced abilities, such as scheduling or posting a Q&A session. They can add quotes or insights to projects they work on. This user is considered for this system to add official information from a verified individual who has worked on a movie or television show. They have special privileges that allow for them to host question and answer forums where other users can ask questions about the movie/TV show they have worked on. Adding quotes or insights to projects they work is added to the database as well and appear on the corresponding movie or television show as extra information for users to see.

Screenshots are included below to see the functionality of SUPERFAN and how these user transactions will look on our website.

ER DIAGRAM

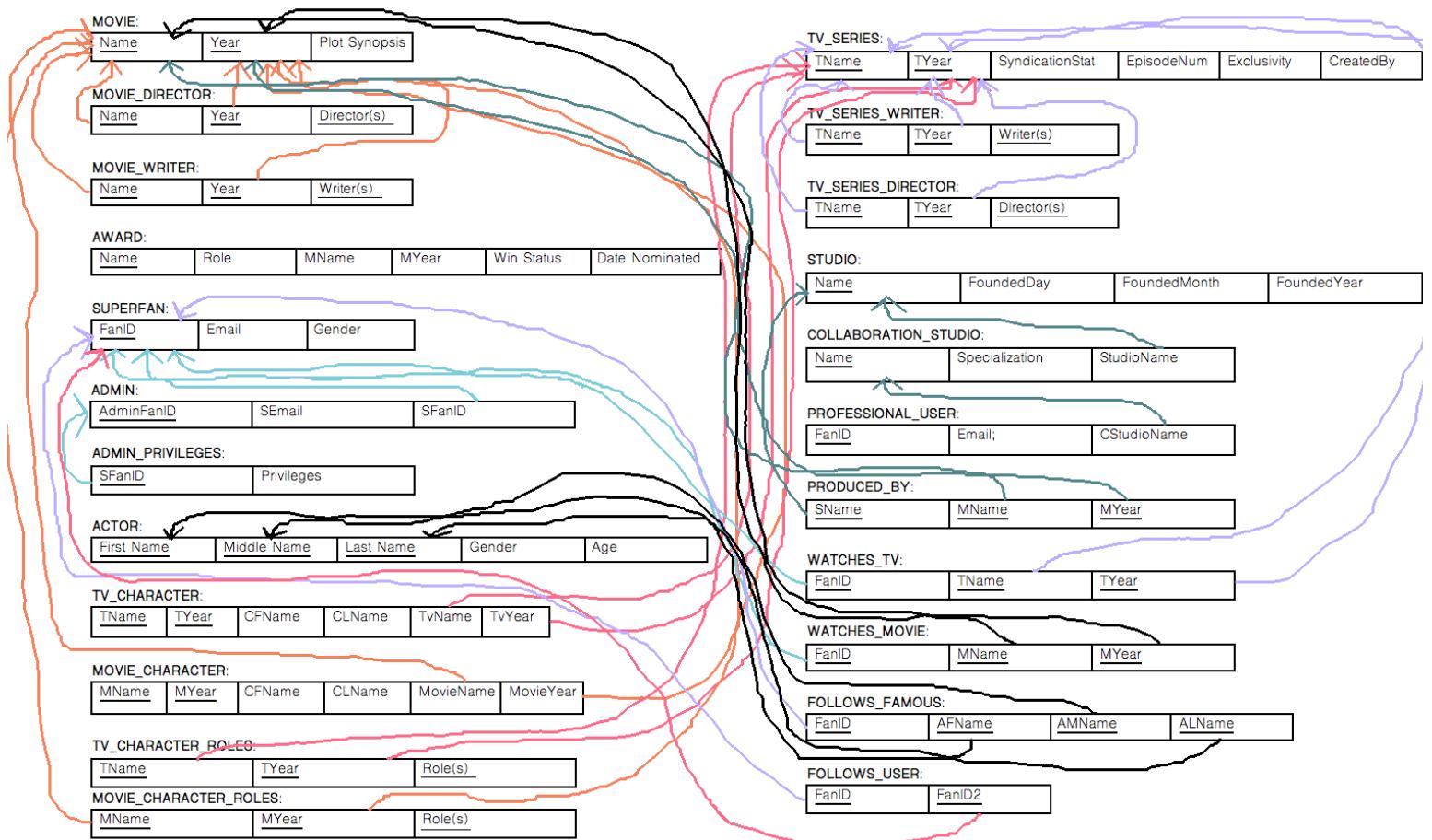


Above is our ER Diagram for SUPERFAN. The following assumptions were made:

- A movie or TV show does not necessarily need to be watched by a Superfan
- Not all actor/actresses either act in or voices in a movie
- Similar for TV shows, not all actor/actresses act in a TV show
- All characters must be played by an actor/actress and an actor/actress must play a character
- A character can be played by multiple actor/actresses (for example, a character in different adaptations or a character played by different people for different ages.)
- Movie can be specialized into a live action or animation movie and the two can overlap because there are some movies that are both (for example, "Enchanted" is a live movie with animation involved.)
- Character is a weak entity because it is dependent on the TV show or Movie and a character named John versus a character named John in a movie is uniquely identified by the title (name and year) of the movie or TV show

A few changes made to the ER diagram include changing the AWARD entity to only have the attributes: Name and Role and the relationship “NOMINATED” to have the following attribute “Win Status” because it is not guaranteed that a movie wins something. We also made the participation partial on the MOVIE side because not all movies are nominated for an award. We also added the PROFESSIONAL USER entity to consider another user of our system. In addition to the Superfan and Admin, we wanted to include a professional user who acts as a representative of a COLLABORATION STUDIO so they can use our system to host things like Q&A's, post official quotes, etc. for a movie.

RELATIONAL SCHEMA



The biggest decision made during the process of converting our ER diagram to a relational schema was having separate relations for TV characters and Movie characters. In our ER diagram, character is its own entity but in our relational, we have it as TV character and Movie character. The reason for this being we needed to differentiate between the characters and if the title of where they belong to is a movie or television (since TV SERIES and MOVIE both have the "HAS" relationship with characters).

Overall, we have many similar relations which are just differentiated by the fact if what's being stored in the database is a movie or television show. Both objects have the same relationship with characters and the Superfan and actors/actresses, therefore the relations look similar but need different relations to separate between movie and television titles.

DATABASE MANAGEMENT SYSTEM

The DBMS that we used was MySQL front. We decided to use this database management system because it is fairly easy to learn how to use. Often times, we wanted to share our tables with other group members, and using this DBMS we were easily able to import and export SQL tables. In MySQL front the user is given the opportunity to select a server (which we called localhost) and then create a SUPERFAN schema. This schema was where we kept our tables. Another great aspect of MySQL front was that we were able to debug our SQL queries by using the SQL editor. Using this schema, we were also able to manually insert tuple into a table, as well view the entirety of the table using the object browser view.

An interaction implemented for any user of our system (Superfan, admin, professional user, or just the casual user) is the SEARCH function. This is open for anyone to use on our website to search through our database. This means that a user can go to the TV or MOVIE page and browse and search through the different shows/movies using keywords. Users can search by entering a specific title, year, studio, etc. and the results that match will appear. For example, if a user was looking for information about the Shrek movies, they could type into the search bar: "Shrek" and the Shrek movies in the database will appear with its corresponding info. The SQL statement for this transaction is:

```
$sql = "SELECT Id, created, episodenum, synstat, network, director, writer, name  
FROM series  
WHERE name = '$series_name';"
```

Another interaction implemented for our system is the ADD function. This is for the administrators signed up on our site. They have the power to add to the database – meaning they are the ones to add new TV shows and movies for viewing. An example of this transaction at play is if a new TV show called X then the admin can use the add button to add this show to the website so that other users and everyone on our site can see the information about X, such as year of release, the characters, synopsis, etc.

```
$sql = "INSERT INTO movie (release, synopsis, title)  
VALUES('$_POST[release]', '$_POST[synopsis]', '$_POST[title]');"
```

An administrator of our website can also DELETE from the database. They have the privilege of controlling the content of our database. Admins can remove any TV shows or Movies currently on the website so that they are not available for viewing to users. An example of this interaction is once an admin is logged onto their account, they can open a TV show or movie page and choose to get rid of it by pressing the REMOVE button and confirming.

```
$sql = "DELETE FROM series  
WHERE Id = <"ID FROM PHP PAGE!">"
```

For every user of our system, they must LOG-IN to access their account and their privileges if they have any. People can still use our website to browse TV shows and movies, but Superfans can follow other users and add to collections, admins can change the content of the website and professional users can host forums and Q&A's. To sign-up for an account to eventually log on to the website, the user will go the main page and hit SIGN UP. There, they will insert into the form a username (Fan ID) and an e-mail address and will be able to log-in with that information later on. Signing up adds this user info to the database for safe-keeping and checking user validity when they log-in.

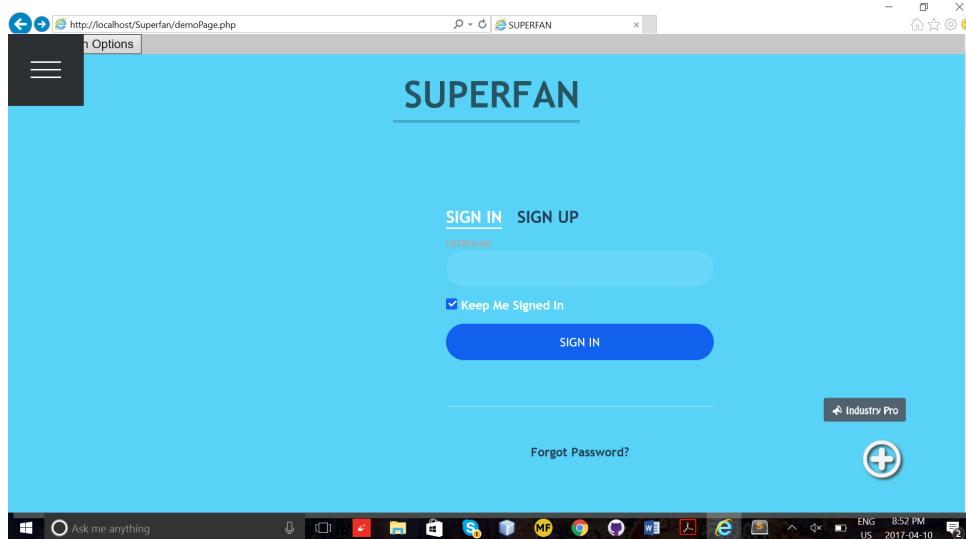
```
$sql = "INSERT INTO login (fanid, email)  
VALUES('$_POST[fanid]', '$_POST[email]');"
```

Another way the administrator changes the content of the database is by UPDATING information. The admin user is able to update the information of a TV series or Movie. This is a good function to keep the data for users up-to-date and accurate. We want to make sure that individuals are not reading false information. An example of this transaction is if a Movie gets a new section to add to the synopsis, an admin can update its content by clicking the edit button on the Movie page and making whatever changes they need.

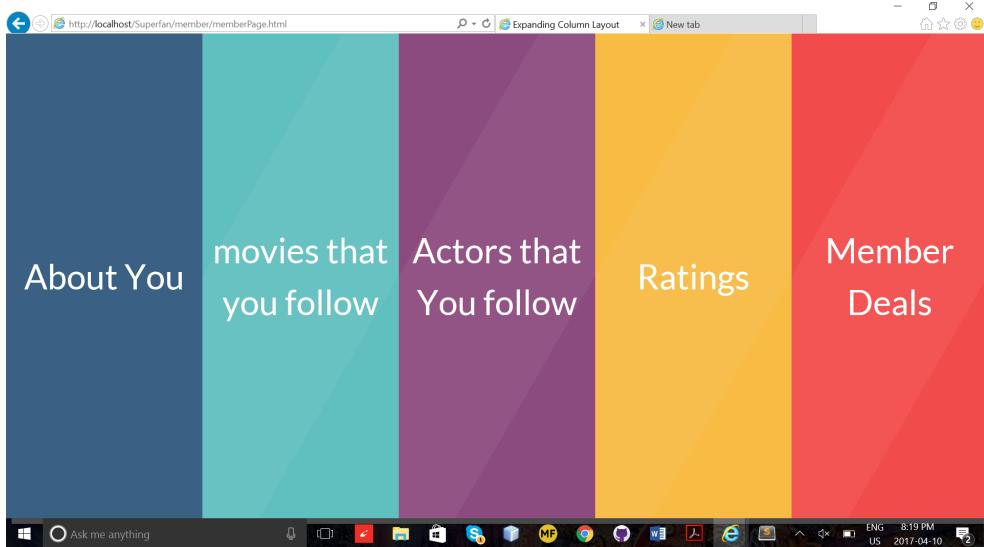
```
$sql = "UPDATE movie  
        SET 'name' = <movie name>, 'release' = <year>, synopsis = <some infor>  
        WHERE 'name' = <movie name to update>"
```

USER INTERFACE

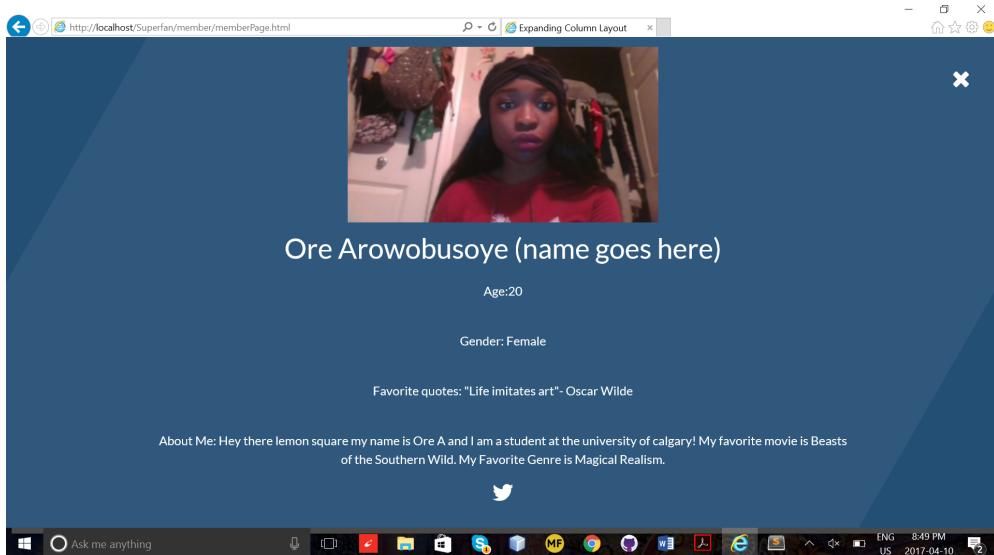
For our user interface, we decided to go with a minimalistic and clean design that is easy to navigate. We used a template found online, sourced in our code, for the webpage formatting panels and the toolbar on the side. We went for a website with few words but self-explanatory icons that describe what they do without the clutter of text. Once a user opens our website, they are greeted with a log-in/sign-up panel. They can decide to do that or continue scrolling to view information on movies and television shows. There is also a navigation bar on the side that will allow a user to quickly take a shortcut to the panel they desire. On the bar are ways to get to the log-in panel, the movies page, the television page, and the about section.



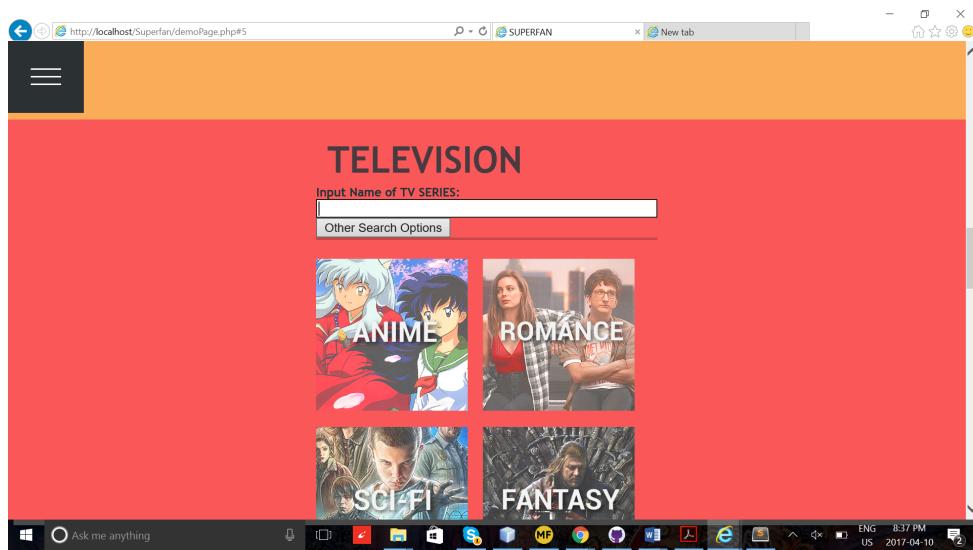
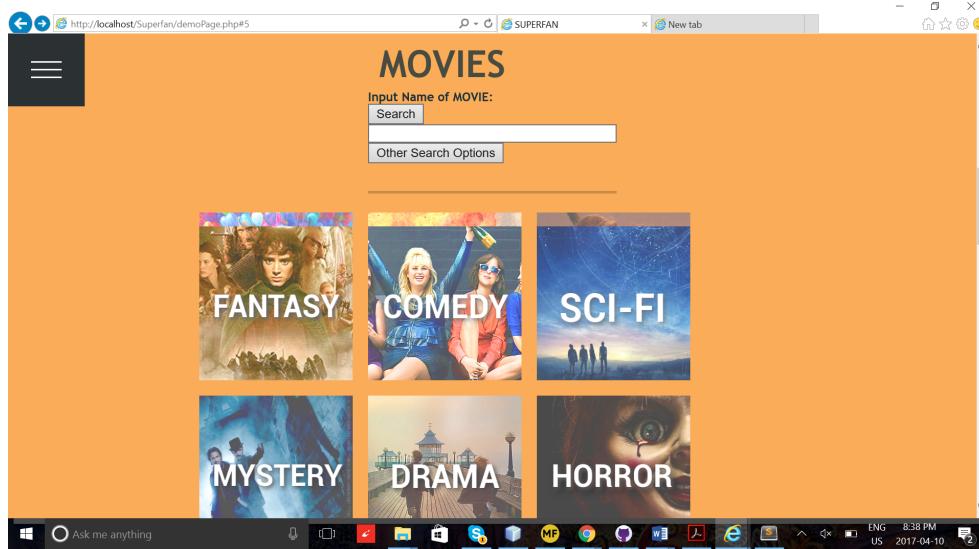
Once a user logs in, a profile page will replace the log-in page and a user will have access to their account. The first thing that appears are colorful tabs with a user about page, any collections they may have, such as "Movies that you Follow," ratings that users may have given any movies or tv shows, and any member deals which aren't currently implemented. A user will then be able to click a tab and that will open up the corresponding page.



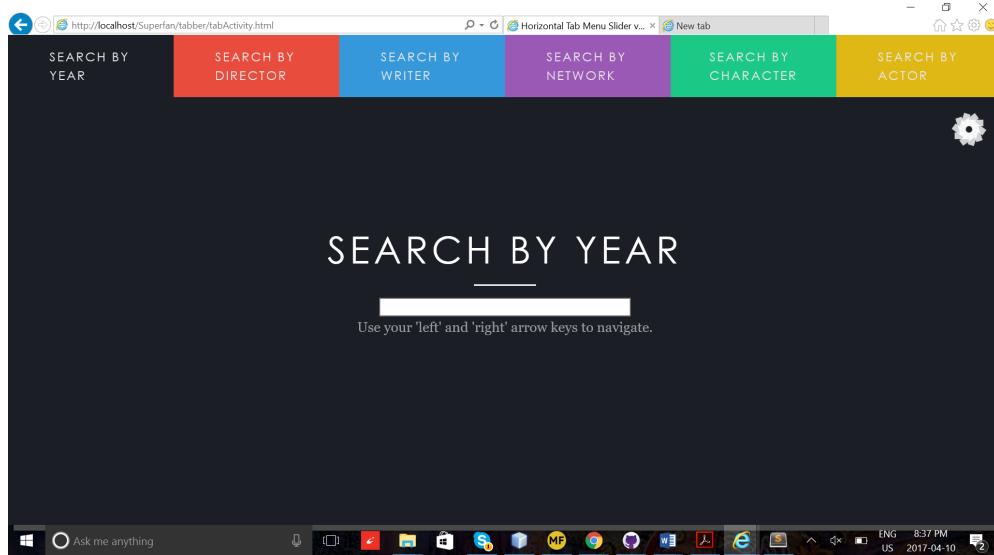
Clicking the “About You” page will open a user’s personal profile page. Here will display the user’s name, their age, gender, favourite quote and an about me section. It will also display a profile picture and a link to a user’s Twitter page (if they have one). This will be on display for other users to see and potentially decide to follow. The user can close out of it and continue with whatever they wanted to do, by hitting the close button.



For each movie and television show panel are the categories that movies/shows are classified under. This was designed to organize all the different types of entertainment for easier navigation for the user and make finding what they are looking for a quicker process. Below are our search features for our website. It allows for any user (with or without a login) to search for movies/television shows on the website based on their movie/tv name. The reason for having this feature is to make it convenient to retrieve the movies without having to manually search through all categories. With this feature, it will allow users to easily retrieve information.



There is also a button for other search options that the user can use to their advantage. These other search options include searching by the year, director, writer, network, characters, or actors/actresses in the movie/tv show. This makes navigating for specific shows/movies easier if a user does not know the title but is aware of other information and can narrow down options using other details. This navigation screen allows for a different way of searching. Users will use the left and right arrow keys to navigate between searches and the instruction/help line (the guide underneath the search bar) will always be there to guide the user as it is not self-explanatory that a person must use the keys to switch tabs.



If a user were to click a specific category for either a movie or TV show, it would open and list all the shows/movies listed under that category. Highlighting over an image will give the title of the series. The back button will also take the user back to either the movie or TV page, depending on what they were looking at in the first place.



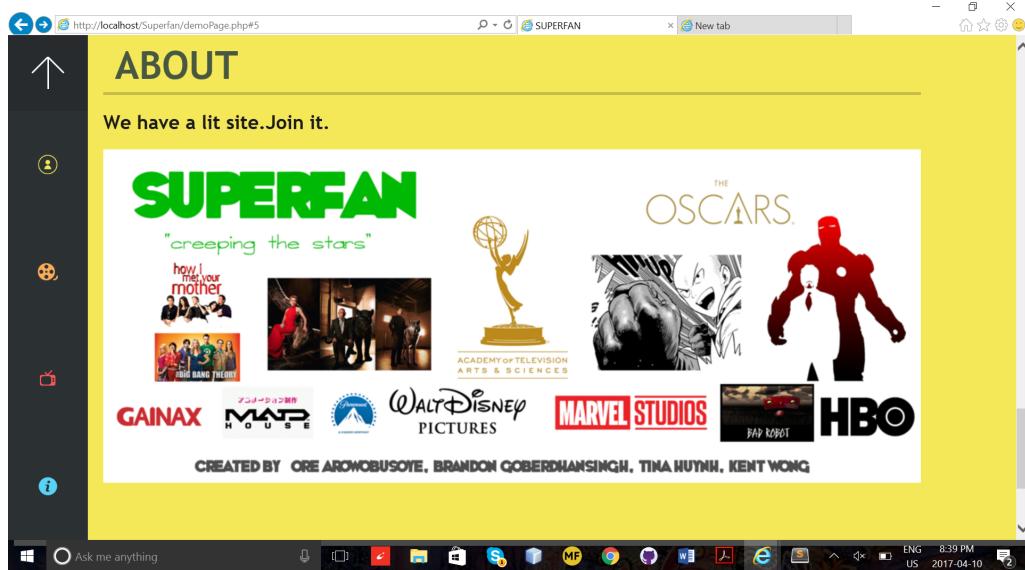
Other features of our website include adding to the database of entertainment, which only administrators can do. They do this by clicking the white plus button (refer to the first screenshot) on the bottom-right corner of the homepage. If a non-admin tries adding, an error screen will pop-up. An example of adding a TV show is below. Pressing submit will re-direct the user back to the main television show section where they can find the show they added. A user will complete the form and after hitting submit, the new TV show will be in the database and the user will be able to view the information entered.

The screenshot shows a form titled "ADD A TV SHOW". The form fields are: Name, Year, Created By, Number of Episodes, Director, Writer, Syndication Status, and Network Exclusivity. Each field has a red placeholder text. To the right of the fields is a large circular button containing a checkmark.

For the industry professional user, they will have access to the "Industry Pro" button (refer to the first screenshot of the homepage.) This is their sign-up page to get verified and request an industry professional account to have access to privileges of hosting forums and adding official information like quotes to movie or tv show pages. After hitting the button, the form below will appear. The individual will then be able to enter their name, email contact, agent contact (which should remain blank if N/A) and their current/most recent studio employer. After submitting, this information will be added to the database for review by the administrator and after being verified, the professional will be able to host forums and add information to the movie/tv pages.

The screenshot shows a form titled "Are you an Industry Professional?". The form fields are: Name, Email Contact, Agent contact (blank if N/A), and Current/Most Recent Studio employer. The "Agent contact (blank if N/A)" field is highlighted in blue. To the right of the fields is a large circular button containing a checkmark.

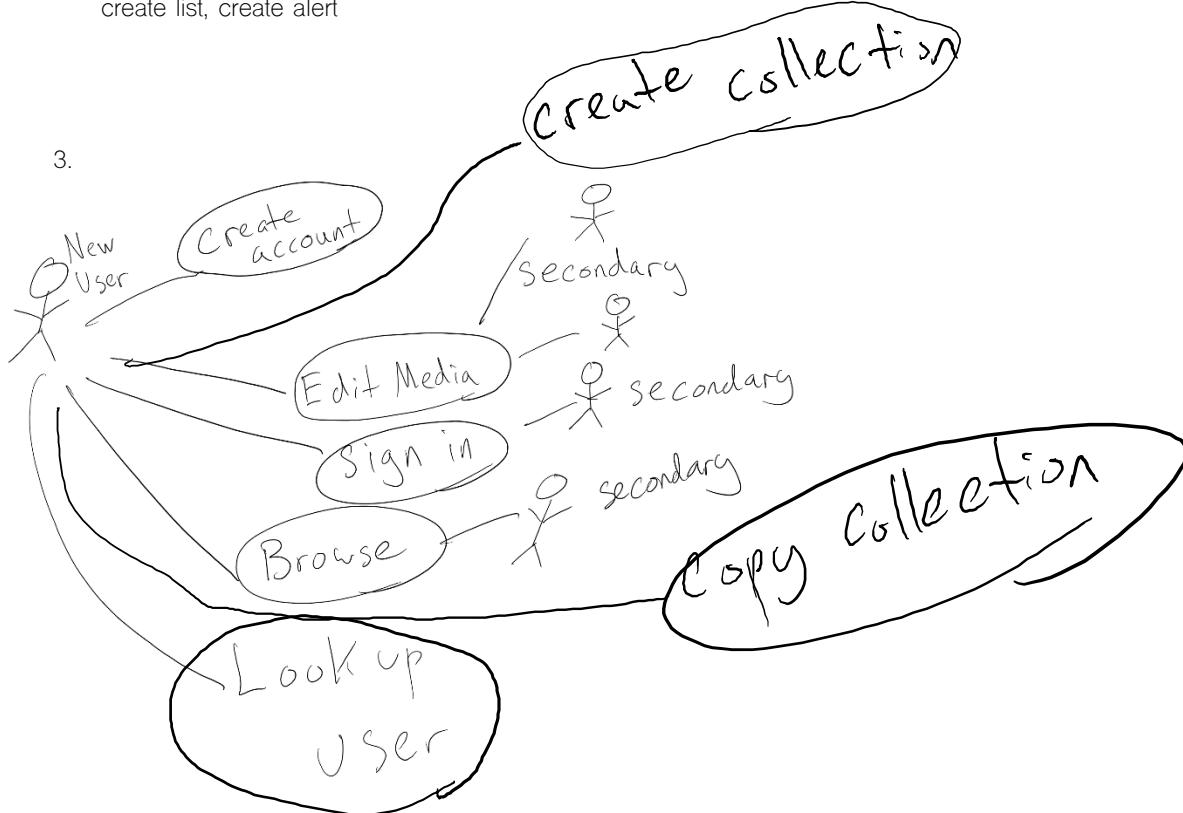
The about page gives a short description of our website and the creator names. This is just an extra tool to give information about what our site is about and who we are, if any individuals are curious. Below is also a snapshot of our navigation sidebar. Each icon redirects a user to their respective panel. The yellow icon is the log-in/user page, the orange icon is the movie page, the red icon is the television show page and the blue is the about page.



APENDIX

KEY STEPS

1. Actors:
Front end users (fans, professionals, and admins)
Back end users (designers, DBMS developers, owners of superfan)
2. Tasks (Cases): Sign up, sign in, edit media, look up an object, message other user, follow other user, create list, create alert



- 3.

Use case: Sign in

Actor: User (Primary User)
Goal: To sign into a users account and get past the login screen
Precondition: User has already created an account
Steps: User hits sign in and types in credentials and logs in

Use case: Sign up

Actor: User (Primary User)
Goal: To create an account in order to unlock more features on the site
Precondition: Nothing
Steps: Go to the site

Use case: Edit media

Actor: Admin (Primary User)

Goal: Change the contents of an object in the database

Precondition: The object must exist in the database

Steps: Find the object in the database and hit edit

Use case: Add media

Actor: Admin (Primary User)

Goal: Add content to the database

Precondition: Table must exist

Steps: hit the + button and add

Use case: Browse media

Actor: Basic User and Admin (both Primary) and Industry Professional User

Goal: Simply browse

Precondition: media must exist

Steps: explore via UI