6.813/6.831 2018 Group Project Hearth

Group Members

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Problem Statement

Korean Drama (KDrama) fans have difficulty keeping track of, organizing, and analyzing the shows they have watched, are currently watching, or plan to watch. Furthermore, they often run into problems when trying to identify new shows to watch, as current methods don’t provide enough resources for users to easily find their desired types of shows and current recommendations simply seem to propose what is popular or trending.

Webpage

http://web.mit.edu/jisoomin/www/6813/

Video

https://youtu.be/uvOnMKvK4X8

Source Code

https://github.com/jisoomin/6.813

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### Group Members

1. Problem Statement
2. Webpage
3. Video
4. Source Code

#### GR1: Analysis

<table>
<thead>
<tr>
<th>Observations &amp; Interviews</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee 1. Female Senior at MIT living in McCormick</td>
<td>5</td>
</tr>
<tr>
<td>Interviewee 2. Female Korean-American Senior at MIT living in Simmons</td>
<td>5</td>
</tr>
<tr>
<td>Interviewee 3. Female Senior at The University of Tennessee, Knoxville</td>
<td>6</td>
</tr>
<tr>
<td>Interviewee 4. Male Korean-American College Graduate in California</td>
<td>6</td>
</tr>
<tr>
<td>Interviewee 5. Middle-aged Korean Female in Korea</td>
<td>7</td>
</tr>
</tbody>
</table>

#### User Classes

| The Avid Viewer | 7 |
| The Bursty Viewer | 7 |
| The Casual Viewer | 7 |
| The Live Stream Viewer | 7 |
| The App/Website Viewer | 8 |
| The Younger Generation | 8 |
| The Older Generation | 8 |

#### Goals

| Organization | 8 |
| History & Statistics | 8 |
| Recommendations & Searching | 8 |
| Socialization | 9 |

#### GR2: Designs

| Scenario | 10 |
| Individual Design Sketches | 10 |
| Elijah Dylan Stiles | 10 |
| Design 1 | 10 |
| Design 2 | 11 |
| Design 3 (Tiny Screen) | 11 |
| Michael Feffer | 12 |
| Design 1 | 12 |
| Design 2 (Tiny Screen) | 13 |
# GR6: User Testing

## Design

### Important Design Decisions

#### General

- Aesthetics
- Usability and Learnability
- Simplicity
- Motivated by paper prototyping
- Motivated by heuristic evaluation

#### Usability

- Usability
- Aesthetics
- Motivated by user testing

### Design Alternatives Considered

### Implementation

#### Design Decisions in the Implementation

#### Potential Pitfalls

### Evaluation

#### Search for Users

#### Briefing

#### Tasks Performed

#### Usability Problems

### Reflection

### Acknowledgments
GR1: Analysis

Observations & Interviews

Interviewee 1. Female Senior at MIT living in McCormick

This user watches KDramas depending on her time availability and interest in the airing shows. She typically watches two to four episodes over the weekend and noted that watching more than that would be difficult due to other commitments.

The interviewee showed three different sites that she uses to discover and watch KDramas: Viki, Dramafever, and Dramabeans.

1. She has a subscription to Viki, which can be used to watch dramas online (think Netflix, Hulu, Amazon Prime Video, etc.). Viki recommends shows, but this interviewee complained that the recommendations are not related to her watch history.
2. She does not have a subscription to Dramafever, but occasionally also uses it if a show gets licensed there but not to Viki. Similar to Viki, Dramafever provides unhelpful recommendations for this user.
3. She uses Dramabeans for recommendations, a site where KDrama fans blog about popular or upcoming shows. She typically selects shows based on the cast and writers of series that she likes. She noted that having statistics related to the number of shows she has finished with a particular actor, actress, or writer would help her in her searches.

Interviewee 2. Female Korean-American Senior at MIT living in Simmons

This user typically does not watch KDramas during the semester, but she will watch quite frequently (“binge-watch”) during a break, even noting that it would be cool to get statistics on “how much time she wastes.” She watches only one series at a time and usually watches completed shows, but she will watch an airing show if it is “really good.” However, when watching a completed show, she doesn’t keep track of where she is in the series. If she knows that she is only part-way through a certain series, she will just Google search for the episode that sounds right and watch part of it. If the episode is unfamiliar, she will scan forwards or backwards in episodes, and she will also just rewatch from the beginning of the series if it has been a long time since she originally started it.

When looking for new shows to watch, this user uses a mixture of Google, word-of-mouth, and memory recall to figure out what would be good. First, her mother and friends discuss good KDrama shows with her, but she does not write down any titles. Then, she’ll Google “Best KDramas of 20XX” (insert year) and get a list of good series and corresponding reviews and ratings, and if any sound familiar (from what she heard from her mother and friends), then she will start watching it.
Interviewee 3. Female Senior at The University of Tennessee, Knoxville

This user watches at least 20 hours of KDrama on a normal school week and even more on less busy weeks and breaks. Due to this large amount of KDrama consumption, common recommendations of mostly seen dramas are useless for this user. Therefore, she attempts to find new shows by filtering down to shows of her desired taste and then thoroughly reviewing each show through comments, ratings, and notable tags, such as whether a given show has “a major character death.” She also noted that there are several more filters she would like to apply such as filtering out airing shows and even filtering out ratings of people who have not finished the show.

This user also had a notably difficult time organizing her “Seen” and “To Watch” lists on MyDramaList (one site used to keep track of KDramas one has watched or is currently watching), saying how she disliked just having lists sorted by names and instead wanted more custom organization options like color-coding and sorting/filtering by genre. To overcome this organizational barrier, she organizes her shows based on genre and streaming service availability using notecards attached to her wall. Finally, she mentioned wishing she could see certain statistics of these lists like “how many hours of genre X have I watched” and “what is my average rating of genre Y.”

Interviewee 4. Male Korean-American College Graduate in California

This user intermittently lived in Korea for 11 years, and started watching KDramas from a young age because he was well exposed to them. He has a strong connection to the Korean culture and watches only the airing KDramas based on his time availabilities. He is not interested in past KDramas because they are “outdated” in many ways.

He watches about four to eight episodes per week, completes approximately five drama series per year, and likes to watch the entirety of the drama series once he starts watching.

This user has an interesting behavior in deciding whether he should continue with the show. He initially chooses KDramas based on the writer (i.e. the lines in the drama), the broadcasting network, and the preview on YouTube. After filtering out the series, he then watches the first two episodes to make a clear decision if he will continue watching the rest of the series.

This user faces difficulties when he is busy and falls behind with the episodes. When he misses more than four episodes, he loses interest. He feels overwhelmed to catch up with all the missed episodes. The technique he currently uses is to watch about five 3-minute clips on YouTube for each of the missed episodes. He wants some kind of plot summaries for each episodes rather than the clips.
Interviewee 5. Middle-aged Korean Female in Korea

This user selects KDramas based on her colleague’s suggestions. Because she spends most of her time at work with her colleagues, having a common interest is important to her.

She talked about the history of KDrama airing times. Most companies used to require six work days per week even until about a decade ago. Back then, the most popular KDramas were aired on Saturday and Sunday nights. Now that most people only work during the weekdays due to government regulation, broadcasting networks also changed their airing schedules to match the viewers’ preference. Now, the series are aired on Friday and Saturday nights are the most popular for workers. She mentioned that it is easier for her and her colleagues to watch KDramas now because they can keep a consistent view schedule that does not conflict with the workdays. From this, we learned that different age groups strongly prefer different KDramas based on the airing schedule.

User Classes

The Avid Viewer

The avid viewer watches KDrama regularly and relatively often. They can watch 4-5 series at a time and will typically watch over 10 episodes per week. Avid viewers are also more likely to have seen more series than casual viewers.

The Bursty Viewer

The bursty viewer watches KDrama intermittently. They will go for a while without watching KDramas (due to academic or work obligations, for instance) and then watch a lot in a short timespan (such as a series in a day or two). They are also more likely to have seen more series than casual viewers.

The Casual Viewer

The casual viewer watches KDrama regularly. However, they will only watch 1-2 series at a time and 2-4 episodes per week. Furthermore, they are likely to have seen fewer series than the average avid and bursty viewers.

The Live Stream Viewer

The live stream viewer lives in Korea and chooses KDramas mostly based on the airing time. They have lower tendency to binge-watch or watch past series. They are more interested in knowing what shows are currently popular.
The App/Website Viewer

The app/website viewer watches KDrama on websites and applications with archives of shows, allowing them to watch shows when they wish and, in turn, to binge-watch more often.

The Younger Generation

The younger generation tend to be more interested in the cast and are well-exposed to various alternative platforms to watching KDramas. Compared to the older generation, younger generations watch KDramas more spontaneously and irregularly depending on their interests and time availabilities. Due to these behaviors, they require more custom-built support in their navigation and management of KDramas.

The Older Generation

The older generation tend to be more interested in the social role of the KDramas. They watch KDramas for the sake of sharing interest with coworkers or with younger generations, although the fun factor of the dramas follows along.

Goals

Organization

Users wish to have customizable organization when it comes to their “Seen” and “To-Watch” lists. For example, Interviewee 3 stated she wished she could sort, color-code, and filter her lists as she sees fit.

History & Statistics

Users often wish to view the history of the shows they have completed and their current position in the shows they have not. This is especially apparent in Interviewee 2’s problem of constantly forgetting where she left off on shows, forcing her to manually find the episode she was on. Furthermore, users wish to have easily accessible statistics on their history as noted by Interviewees 1 and 3 wanting a way to see the number of hours, shows, and ratings of specific genre types.

Recommendations & Searching

Users also desire a way to get recommendations from what they have already seen as stated by Interviewee 1’s wish for more personalized recommendations based on her own history instead of just trending show recommendations.
Meanwhile, more experienced users rely mainly on manual searching, making them want more filtering options. This is seen in Interviewee 2’s “Best of 20XX” searches and Interviewee 3’s searching method of finding shows with certain qualities like having a good ending or not having a main character death.

**Socialization**

All members of the large user population of KDrama viewers -- ranging from casual viewers to avid viewers and from younger generation to older generation -- try to share their interest and experience with other viewers. Interviewee 2 (from the younger generation) will use conversations with her mother and friends to determine what KDramas to watch next, and Interviewee 5 (from the older generation) similarly selects KDramas based on her colleagues’ recommendations and uses them to converse with people at work. Both of these cases demonstrate that users want to know what their acquaintances have watched or have thought of a certain series.

**Studio Reflection**

Our first piece of feedback asked how we got the numbers regarding the avid, bursty, and casual watching habits, which we originally estimated based on our interviews and average show length. To get a better sense of these numbers however, we could search online and interview more people to see how much KDrama they watch and what kind of viewer they consider themselves to be.

We were also asked about the extra user classes presented on the summary slide of the presentation. This was a mishap on our part as we were still debating discussing these user classes. We have now added and defined the two other user classes in this report, as the description of the two new interviews make the user classes more apparent.

Next, we were asked how we would evaluate our system in comparison to other currently available systems, which we had not thought about yet since we hadn’t actually thought of solutions to the problems yet. To incorporate this feedback, we will begin thinking of evaluation methods as we come up with solutions. This, of course, will be a major theme during the sketching of paper prototyping portions of the project.

Finally, we received a comment mentioning how it could be helpful to help users ‘evolve’ from casual viewers to avid viewers within the system as they begin to watch more shows. This comment seems to indirectly be concerned about the scalability of the system. That is to say, as users watch more and more shows, it may become more difficult to organize, track, and find shows. Therefore, we plan to keep this potential problem in mind when designing the parts of our system that will be affected by scalability.
GR2: Designs

Scenario

Bob wants to find a new show to watch. Specifically, he wants to find an airing show that airs on Mondays as he wants something to look forward to on Mondays. Furthermore, he wants the show to be a thriller with an average rating above 8.5. Upon finding the show, Bob wants to add the airing show to his “Airing” list, organizing it by the day of the week. Finally, now that Bob has added all of his airing shows, he wants to get an idea of how many hours and episodes of KDrama he will be watching per week.

Individual Design Sketches

Elijah Dylan Stiles

Design 1

This first design attempts to simply go with an expected, clean design (i.e. Amazon-like). The user lists themselves, (1), are separated by tabs with each individual list having a list of collapsible headers with shows within the headers; users can create new lists and drag-and-drop shows or headers to sort them how they wish. Image (2) shows the searching feature of the website, allowing the user to filter (left) out shows they don’t want and give higher weights (right) to shows they do want to see. Finally, (3) shows a dedicated statistics page where the user can apply filters (left) so the statistics only show information about the shows of the selected type or in the selected list(s).
Design 2

Design 2 takes inspiration from the idea of organizing lists with post-it notes on the wall (sort of like the Stickies application on Mac). That said, image (1) shows my interpretation of such a design, allowing the user to have multiple “Walls” which each can have “Post-it” notes on them that keep track on shows; I believe this design allows for a lot of customization. Image (2) shows what it could look like when a user searches for airing shows with shows separated by the days in which they air. Finally, image (3) shows that statistics would be supported by statistics buttons on the Walls and Post-it notes where clicking one of these buttons displays an overlay that shows the statistics of the targeted section.

Design 3 (Tiny Screen)

Lastly, design 3 is my ‘extreme’ design that attempts to make an interface for a tiny screen (i.e. a watch). Essentially, one can navigate this design by swiping up and down to switch between selections and left and right to go in and out of menus. Adding a show to a user’s list is
depicted with (4) and (5) where a user clicks the plus button next to a show and then checks the lists he wants to add the show to. Furthermore, updating episode counts is supported by (6) while searching/filtering is supported as shown in (3).

Michael Feffer

Design 1

Design 1 was inspired by personalization features found in music-playing software (like Spotify or iTunes) and content arrangement and browsing schema found in video and show hosting sites (like YouTube or Netflix). A sidebar on the left of the application is used to load different menus and panes. Clicking the main “KTracker” button takes the user to a screen that shows series categorized by different criteria including (but not limited to) popularity, novelty, and
genre. If one is unsatisfied with the results initially loaded, they can use the search bar to look for shows by title or tags, and for more control over the results, they can additionally click on the “Advanced Search” link to filter shows based on numerous criteria. In response to a search, the application loads a list of shows that meet the results and keep the selected criteria at the top of the page for faceted browsing. Clicking on any one of the thumbnails of the show that results brings the user to a page that has more details about the show as well as an option to add the show to a list of their choice. The sidebar can be used to get to the Lists screen to observe a user’s lists and filter contents by characteristics of shows, and the Statistics menu can be used to look at graphical representations of a user’s viewing history and projected viewing habits.

**Design 2 (Tiny Screen)**

This design was optimized for a smartwatch and therefore assumes a tiny screen. It also assumes that there is a knob that can turned to scroll through options and pressed to select an option. The user can choose between options to find shows, view lists, and view statistics on the opening screen of the application. Selecting the option to find a show allows a user to select genres of the desired show, whether the show is completed, and how to sort results. A user can scroll through the results and select a show to view more information and add it to their lists. Then, back in the opening screen, a user can browse their lists and filter contents by various categories and also view statistics with a different menu.
This design was inspired by Amazon’s method of loading and displaying results. The opening screen is optimized for showing trending and featured shows. As in the first design, Search and Advanced Search can be used to search for shows if unsatisfied with the opening results. After searching, a sidebar on the left of the application can be used for faceted browsing and further refining the results that appear. The right part of a subwindow showing a result can be used to quickly add the show to one of the user’s lists. Lastly, a user can click on a button linked to their profile so that the sidebar on the left changes and reveals menus one can use to view and edit lists and study viewing history and projected viewing behavior.
Jisoo Min

Design 1 (For use while driving)

This design is a voice-based interface that can be easily used while driving. There are simple, predefined commands such as “search X” or “add X” that the user can easily use while driving. Upon starting the interface, the screen has an animated, cartoon-like person who guides through the search and provides answers. While driving, the user will have limited time to view the screen, so the idea is to limit the visual distraction with guided questions. In the proposed scenario, the user Bob can find a new show then filter the options using “Yes” or “No” voice inputs.

Design 2

This design simplifies the episode management and search processes. The main focus is enable intuitive motions or commands. For example, the user drags the KDrama of his or her
interest to the appropriate bucket, and the user can hover over the images to see the descriptions. The sorting is similar to the general sorting mechanism used in filesystem.

Design 3

This design has three main pages: KDrama management, socialization, and consumption tracker. On the management page, the user can search for KDramas and see the description helpful descriptions such as the cast, writer, and director of the drama. On this page, the user can check whether they have watched or are planning to watch the drama. On the socialization page, the user can see their own progress and their friends’, to discover more options. On the consumption tracking page, the user can see time graph and the watch history.
Joseph Torres

Design 1 (Ultra-safe)

Ultrasonic options filters are less efficient but very strict in terms of finding content. This is more fine a search than traditional methods.

$K$-Tracker

I'm looking for a show that...

and

and

and

Bob's List

Pretty Page Art

<table>
<thead>
<tr>
<th>Time</th>
<th>Hours per week: 4 hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>Average Season Rating: 8.975</td>
</tr>
</tbody>
</table>

Instead of having a massive filter list, add incremental options (more safe, less efficient). Different options have different filters. The personal page is a simple two-column layout for shows and statistics (all shows may be edited and sorted).
Instead of a search generating a list of shows, we present a list of shows in a grid and provide a simple interface for filtering and adding easily too. We can make the list a part of a users page with different panes for different information.
Design 3

K Tracker

Enter the Name of a Show

<table>
<thead>
<tr>
<th>Days airing</th>
<th>Rating</th>
<th>Genre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1124225</td>
<td>8.5 to 10</td>
<td>Thriller</td>
</tr>
</tbody>
</table>

Search

**Bob's Shows**

<table>
<thead>
<tr>
<th>Airing Name</th>
<th>Days</th>
<th>Ep.</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show 1</td>
<td>M</td>
<td>1/13</td>
<td>8.0</td>
</tr>
<tr>
<td>Show 2</td>
<td>T</td>
<td>1/13</td>
<td>9.0</td>
</tr>
<tr>
<td>Show 3</td>
<td>F</td>
<td>1/13</td>
<td>9.0</td>
</tr>
<tr>
<td>Show 4</td>
<td>V</td>
<td>1/13</td>
<td>9.0</td>
</tr>
</tbody>
</table>

**Statistics**

Average Show Rating: 8.95

4 hours of shows a week

This model proposes a simpler search with filters for the season. We can then add to the correct list as we watch each separate show, with statistics and our airing list, into two different pages.
Design 1 places an emphasis on meeting the users’ expectations. In other words, design 1 is what a user might expect this type of interface to look like as it has the most external
consistency with similar websites. The primary function of this interface is to allow for a straightforward search for shows, as indicated by the homepage (which is reminiscent of various search engines with its simple, dedicated search). There exists, however, an added functionality of list management, where one may add shows after searching for them. This additional list has great flexibility (at the expense of potentially overwhelming the user), as does the dedicated statistics page that can be generated for different lists.

This design is fairly safe overall. In terms of the search, if one accidentally applies a certain filter or wishes to fetch results sans one of the filters, they can simply deselect that filter and search again. The greatest issue exists more with the list functionality. On the first add of a show, there is no clearly scalable way of designating its default location in the user's list (as the list is highly customizable, this could get messy or complicated - there will need to be some kind of tradeoff). If a show is added by accident, however, then the add button can simply be substituted with a "remove" button; if the "remove" button is pressed, the show (wherever it is) will be removed from the user's list. The safety of generating user statistics is similar to the safety we see in searching, as adjusting filters is straightforward.

The greatest challenge for design 1 is its learnability. Although the search feature maintains great external consistency with other websites (the initial search page is easy to follow, and filtering for shows thereafter is simple), the dedicated user lists require some maneuverability. One of the existing issues that KTracker seeks to address is additional features for users with respect to their lists; in design 1, we do this by allowing extensive modifications and features in a user's list so that they can perform specific types of sorting, color coding, and more. The tradeoff is that we reveal many features, perhaps too many, which may cause the user to feel swamped with choices. For the more casual viewer, this additional functionality is not needed, and is perhaps inferior to similar websites. In the future we may need to enable a gradient of features depending on the user class, as the current design caters more towards avid and bursty viewers. The statistics page is fairly learnable as its filters share internal consistency with the search page for shows, allowing retrieval of statistics that the user wants to be easy.

Finally, the efficiency of this interface is a function of how much experience the user has with it. The action of searching for shows or generating statistics is fairly efficient for all users, particularly because of the aforementioned external consistency. Manipulation of the current user lists may be inefficient for new users as it takes time to learn about all of the different features. However, once users are familiar with the interface, then it is very efficient to make highly customizable lists, especially within the scope of other websites in this category.
In terms of the design itself, Design 2 (i.e. the Wall Design) has a great advantage in terms of customizability, allowing users to minimize, arrange, size, and color the Post-it notes however they wish; users are also able to customize the background, or wallpaper, of the Walls to distinguish them. Furthermore, the design leaves open the possibility of allowing users to make normal sticky notes (like the Mac application Stickies) so they can jot down notes however they want. The airing shows search feature (i.e. the home page) does have a problem, however, as the setup of the page requires the screen to have ample width, which would cause a problem for smaller screens like mobile, requiring a redesign when the screen becomes too small.

The prominent safety issue of the design comes when users accidently add a show to the wrong Wall as this requires the user to re-add the show to the correct Wall and also go delete the show from the wrong Wall. This could likely be fixed by adding an Undo feature, but this is not currently depicted in the design shown in the storyboard. The user accidently putting the show on the wrong Post-it, however, is not as much of an issue since the can simply go to the corresponding Wall and drag the show over to the correct Post-it.
The learnability of the Wall Design has a few good points worth pointing out. First, the design has internal consistency when it comes to the overlays presented to the user. Specifically, from the storyboard we see that click both the “Add Show” button and “Statistics” button creates an upside down messenger-like bubble to display further options/selections/results. Furthermore, the design provides external consistency when it comes to coloring the Post-it notes and the Post-it notes themselves. That is to say, using the bucket to color the notes is consistent with most drawing applications as this is how they color portions of the drawing as well. Meanwhile, the Post-it notes themselves, resemble the idea of the Stickies application on Mac, meaning users familiar with this will already know they can arrange, resize, and collapse the notes.

Lastly, the Wall design provides several efficiency benefits by making some common tasks quick to perform. For example, removing filtering tags is only one click away, seeing the statistics of a Wall or Post-it is also one click away when on said Wall, and seeing what is airing on what day is made efficient by displaying airing shows on the homepage. In terms of bad points, however, the ample use of dropdown lists may cause users to have to type, click, and/or scroll more than a different layout that uses more space but allows users to just do one or two clicks to get their desired result.
Design 3

1. After logging into iTracker, Bob finds a honymp with filter based on genre. By clicking on a genre, he can filter the movies by rating, popularity, and recency. He can then select a specific time to watch the movies.

2. After selecting his watch criteria, Bob can choose the result and additional options by pressing the airview or airview button. He collects the movies on the top of the category.

3. Bob clicks on his airview list to open his airview. From there, he can organize his shows by the day of his watch. He can use the list to track his favorite films.

4. Lastly, Bob clicks on the "My List" side menu to open the options. He selects the airview for the day and time. He can then select his favorite films and schedule them to watch the films he will be watching for the week.
The motivation behind this design was to try and make searching for shows and keeping track of them as easy as possible for the user. To meet the former goal, we decided to go for a design that would recommend shows to the user based on their viewing history and contents of their lists as well as organize shows on the homepage according to genre, popularity, and novelty. While we wanted to have functionality to load results according to a user’s preferences, we also wanted to allow users to customize and organize lists of shows. We also wanted to have effective visualizations of a user’s progress in their shows (via progress bars, for example) as well as graphs for viewing statistics and projected statistics based on their viewing history as a whole.

Therefore, from a learnability perspective, this design is rather effective. It has high degrees of external consistency with other applications in terms of how content and recommended shows are loaded (especially Netflix and YouTube, for instance) and how a user can organize lists of shows and view statistics (seen in software like Spotify and iTunes). Potential drawbacks of this design in terms of learnability include how the “add to list” feature is currently implemented (as a dropdown annotation discoverable only by recognizing that the “+” icon means “add”) and how a user can change the progress of a show (only by noticing that clicking the ellipsis button at the right of a percentage opens options for them to change for a given show).

In most aspects of efficiency, this design is rather efficient. Provided that the recommendation and content loading systems are implemented properly, a user should not necessarily need to use Search or Advanced Search to find a show that they would like to watch. Moreover, clicking on a show thumbnail quickly reveals information about the show that a user can utilize to determine whether they would want to add the show to their viewing list. The visualizations of progress and viewing statistics can also be used to quickly and qualitatively assess various characteristics of a person’s viewing preferences and habits. However, some current downfalls of efficiency come from having to use Advanced Search. There are many options that the page presents to the user, not all of which may be needed for a given search. Having to comprehend these different options and select the desired ones could hamper efficiency. Additionally, changing progress in a show requires using the ellipsis button and entering a number corresponding to the episode number. Entering progress for a show cannot be done as a batched operation in this design, so onboarding new users who have finished many shows could be a difficulty.

Lastly, in most aspects of safety, this design is safe. There are tags corresponding to search terms that appear at the top of an advanced search screen that can be clicked to be removed in-case one feels that their search was too specific. On the other hand, if the search was not specific enough, clicking “Back” can take them back to the search page so that they can add the necessary features. In the lists area, progress can always be changed for a show, and shows can always be added or removed, so accidental progress entry or show additions or deletions can be remedied easily.
Studio Reflection

For the first design, we received feedback on the complexity of the visual representation. We designed the airing drama page based on day of the week and enabled additional functionalities for each drama on the thin row-based options. We received feedback that this may be confusing for the user and end up unused. We plan to incorporate this feedback by updating the interface with grouped options such as Monday/Tuesday or Wednesday/Thursday and with limited button options. Actual airing dates are grouped in this manner as well, so the interface will effectively mirror that.

For the second design, we received feedback on the efficiency aspect. Because we use the concept of sticky notes for this design, the user may have difficulty quickly modifying content on the interface. To incorporate this feedback, we will provide more guidance to the user so that they don’t have to make complicated sequence of clicks or drags. The user will be given multiple options to choose from. Based on these guidance, the user only has to type in notes or choose necessary notes to create or modify the sticky notes. Although the representation stays as sticky notes, the user will have less trouble efficiently navigating the pages.

For the second design, we received feedback on the visual scalability as well. When the interface is used on a smaller screen, it may be difficult to have all the sticky notes in one place. To incorporate this feedback, we will only show parts of the screen and let the user choose the scope. In other words, there will be more nested screens. For example, when the user chooses a day of the week, the interface will only display sticky notes in that category.

For the third design, we received feedback on navigation. We originally only had a navigation status bar on the left hand side. We plan to incorporate this feedback by more clearly indicating the current page location relative to other pages.
GR3: Paper Prototyping

Prototype Images
Briefing

● **Background Information**
  ○ KDramas, short for Korean Dramas, are a type of show produced in South Korea that have quite the dedicated fan base.
  ○ KDrama fans, though, have difficulty keeping track of, organizing, and analyzing the shows they have watched, are currently watching, or plan to watch.

● **Purpose**
  ○ The purpose of our application, KTracker, is to provide a way for these fans to:
    ■ easily find new shows to watch,
    ■ customly organize their KDrama lists,
    ■ and track their viewing history and statistics
  ○ You login to the website before beginning any tasks.

Scenario Tasks

● **Task 1**
  ○ Find and add a completed thriller show with a rating greater than or equal to 7.5 to the “Thriller” section of your “To Watch” list.

● **Task 2**
  ○ Make a new list named "Airing." Afterwards, create two new sections - one named "Monday" and the other named "Wednesday."

● **Task 3**
  ○ Out of the shows you have completed, figure out what genre you have seen the most of.
Observations

- The show information snippets (on the “All” search page) originally didn’t provide enough information, annoying users that were unsure if a show was airing or completed
- Several users displayed trouble finding the dropdown to switch from the Airing show search to the All show search
- Several users were unsure what to click first when searching for a show when the filter section was clickable/expandable.
- Users occasionally used the lists page to perform Task 3 and manually tallied the shows of a certain genre instead of using the stats page
- Some users were originally confused by how the histograms on the statistics page worked.
- Before a prototype iteration, internal consistency issues between rating systems and list names confused users
- One user on Wednesday said “Nice” when she clicked the edit button on the list page, showing the screen in which a user can add and remove sections and shows from a list.

Prototype Iterations

We performed three user testing sessions where each session tested three users, meaning we created a total of four paper prototypes (i.e. the initial paper prototype and then an updated prototype after each user testing session).

- **Iteration 1 to Iteration 2 (Monday Classes)**
  - Clickable filter to static filter
  - Bigger statistics histograms with no arrows
  - Display what lists the statistics page is currently analyzing
  - Updated the show items with more information and no star rating system

- **Iteration 2 to Iteration 3 (Dorm Session)**
  - Added functionality for editing list/section names
  - Added functionality to delete sections and/or shows from lists
  - Added functionality to deleting entire lists
  - Updated how the interface adds sections to a given list
  - Tried to make the “Airing” dropdown on home page more prominent (i.e. using sharpie)
  - Updated a few of the filters to use checkboxes instead of radio buttons

- **Iteration 3 to Iteration 4 (Wednesday Classes)**
  - Updated the “Stats” button on the “My Lists” page to say “Show <List name> Stats” to make the button more clear and prominent.
  - Decided to make the “All” search page the homepage instead of the “Airing” search page.
○ Need to make the Airing/All dropdown more prominent using color and size during computer prototyping and/or separate the two functionalities into their own sections (i.e. an “Airing” and “Search” link on the top header bar)

**Studio Reflection**

First, we received some positive feedback regarding the improvements we made on the second iteration. The major compliment was that the design was a lot simpler on the second iteration, so we plan to see if there are any further simplifications we can make. Other positive feedback were on changes between two iterations such as the rating filter change from checkbox to bounding.

Second, we received suggestions regarding the visual representation for efficiency. We will replace pie charts with bar graphs, enlarge the scrolling arrows, clarify endpoints of the graphs, and emphasize filtering options on the list page.

Third, we were asked for some clarifications on some of the smaller features we implemented. We plan on improving learnability in these areas. We hadn’t thought of the sorting mechanism for the default page so the user simply had to assume some ordering. We will test different sorting mechanisms to find the most efficient method. As the TA suggested, we plan to seek more user feedback on the list page show sorting task. The currently implemented draggable sorting feature was less noticeable by the user.
GR4: Computer Prototyping

Platform Details

Platform tested:
- macOS High Sierra with 13-inch screen
- Ubuntu 16.04 with 15.6-inch screen with 1366 x 768 resolution

Software requirements:
- Chrome (v. 66) or Safari (v. 11.1)

Instructions

URL: http://web.mit.edu/jisoomin/www/6813/
Note: High fidelity in feel is implemented in 13-inch screen Chrome (v. 66) and Safari (v. 11.1). For 15-inch screen, 125% browser zoom is recommended. Most platforms, including Mac and Ubuntu will support the interface.

Shallow Parts

Scenarios

We focused on implementing features needed by our scenarios from GR2.
- Scenario 1: Find a specific airing show by filtering
  - Rating above 8.5
  - Adventure and Mystery genre
- Scenario 2: Add airing show to a list
- Scenario 3: See personal stats
  - Look for Avg. Episodes / Week
High fidelity in look and feel
Low fidelity in breadth and depth

In terms of **breadth**, please do not expect full functionality in the following things:
- A search box exists at the top of the page for high fidelity in look and feel, but manual searching is not available.
- “All Shows” and “My List” tabs are available on the navigation bar, but the pages themselves are not available.
- The user avatar and dropdown button to open a user profile menu exist, but no further action can be taken regarding user settings.
- Some filters such as “# of Episodes,” “Release Year,” “Actors,” and “Service” are located under the filter bar, but do not display options. Please try the filters towards the top of the menu.

In terms of **depth**, please do not expect full functionality in the following things:
- Clicking to add a show to any given list gives confirmation message to the user, but does not modify the user’s list in the backend.
- On the “Airing” page, clicking the “Apply Filter” button changes the show combinations to convey that the page will be updated. But the change is random, not deterministic based on the filter. Similarly, on the “Stats” page, clicking the “Apply Filter” button changes the numerical combinations only to convey that the page will be updated. The change is random, not deterministic based on the filter.

Canned Data

Some KDrama related content is loaded on the page, but they are not accurate. For example, the shows displayed on the “Airing” tab includes not only currently airing KDramas but also completed ones. The images are just to give the test user an idea of the interface.

Studio Reflection

First, we received some suggestions regarding usability issues. We were told that the genre options under the genre filter can be a little overwhelming to the user. Because the genres are all distinct, we plan to find a good alignment and styling to simplify the display while keeping all options available to the user. Also the “Apply Filter” button was unclear as to when it has to be clicked. We will address this problem in the future by activating the button and signaling activation to the user when the user has made changes to the filter.

Second, we were asked for some clarifications regarding the “Add” button. It seemed like it can be confusing as to why shows need to be added explicitly to “Airing” or “Completed” list. We clarified that this is because multiple user-defined lists can be chosen with different combinations. To convey this message to the user in the future, we will consider changing the list options.
Third, we received some suggestions regarding the aesthetic aspects of the interface. We received positive feedback regarding the general color scheme and the font selection. Going off this feedback, we plan on exploring more on the font weights for the future to emphasize headings and deemphasize content. For simple aesthetic suggestions for the buttons, we incorporated them into GR4. We changed the color schemes for the buttons to make them more noticeable and distinguishable from the background.
GR5: Implementation

URL
http://web.mit.edu/jisoomin/www/6813/

Platform Details
OS:
- macOS High Sierra with 13-inch screen
- Ubuntu 16.04 with 15.6-inch screen with 1366 x 768 resolution
Browser:
- Chrome (v. 66)

Individual Prototype Contributions

Elijah Dylan Stiles

- General
  - Helped determine the color scheme of the website.
  - Implemented the data generation functions used on every page (e.g. general shows for the All Shows page and user lists for My Lists page and Stats page).
  - Designed and implemented the dropdown functionality when a user clicks the plus button to add a show on the Airing and All Shows page; also did basic styling.

- Navbar
  - Helped with the layout, links, and styling of the Navbar element on the top of each page.

- Filter
  - Styled sections of the filter bar (e.g. fixed the maximum height of the bar and made only certain parts of the bar scrollable).
  - Fixed a bug that made it where users could not click the filter button until the filter bar was scrolled all the way up.
  - Helped design the algorithm for populating the sections available in the filter bar based on which page is loaded (e.g. Airing page does not have the ‘Status’ filter and the Stats page has the ‘Lists’ filter).

- Airing Page
  - Designed, implemented, and styled the show carousel.

- All Shows Page
  - Setup basic/overall structure and styling of the page.
- Designed and implemented the basic styling of the show cards.
- Made it such that the filtering bar really does filter the displayed shows.

**My Lists Page**
- Setup basic/overall structure and styling of the page.
- Designed and implemented the way the list tabs work.
- Designed and implemented the add list functionality.
- Helped style part of the add list modal that is displayed upon clicking the plus button.
- Designed and implemented the algorithm the updates the DOM to display the correct title bar, section bars, and show bars depending on which list tab is currently clicked.
- Setup the styling of the different type of bars found within the lists (title bar, section bars, and show bars).
- Designed, implemented, and styled the edit mode that appears once the user has clicked the edit button on the title bar of a given list page.
- Designed and implemented the adding a section to a list functionality within the edit mode.
- Made a slight improvement that automatically puts the list page into edit mode once a new list has been created so a user can quickly start inputting section names.

**Stats Page**
- Setup basic/overall structure and styling of the page.
- Ensured that the data presented looks reasonable (i.e. the numbers displayed make logical sense).
- Found (plot.ly) and implemented the histogram displayed on the page to fit the shows being analyzed.
- Made it such that the filtering bar really does filter the displayed data.

**Michael Feffer**

- **Overall**
  - Chose fonts to be used for header and body text throughout the site.
  - Helped determine overall color scheme and color of backgrounds of pages.
  - Addressed concerns from heuristic evaluations.
  - Made minor bug fixes in various parts of the site where needed.
  - Reworked dropdown menus that appear when “+” buttons are clicked on the Airing and All Shows pages so that they use expandable lists of checkboxes.

- **Filter**
  - Integrated Lea Verou’s double-ended range slider into the Ratings filter widget.
  - Added drop shadow for “Apply Filter(s)” button to make it look more 3D and more like a button.
  - Made it so that clicking text corresponding to a checkbox checked or unchecked the corresponding box.
- **Navbar**
  - Started off barebones implementation of navbar.
    - Layout from this implementation was largely the same as that in the final version.
    - Found profile picture placeholder for usage in the rightmost part of the navbar (later styled to be more rectangular).
  - Added magnifying glass to right end of search bar.
  - Styled the site’s logo in the top left corner of the navbar.

- **Airing Page**
  - Improved basic styling.

- **All Shows Page**
  - Started off implementation of page.
    - Wrote code to allow page to access randomized and canned responses.
    - Created initial styles and setup initial structure for show cards (structure remains largely the same).

- **My Lists Page**
  - Worked on styling of the page.
  - Implemented “Show Stats” button functionality such that clicking it brings a user to the Stats page with the List submenu in the Filter menu opened and the corresponding list checked.
  - Implemented list deletion.

- **Stats Page**
  - Wrote code to allow page to show randomly generated stats.
  - Helped implement basic styling of the page.
  - Worked with Plotly API so that bars in histogram are sorted in descending height order, making it easier for users to learn useful information about their viewing habits.

**Jisoo Min**

- **Overall**
  - Developed color scheme for website.
  - Developed the general feel.
    - anchored filter bar
    - scrollable individual elements
    - unified background.
  - Fixed learnability, usability, and simplicity issues along with cosmetic issues based on classmates’ PS5 heuristic evaluations feedback.

- **Filter**
  - Fixed usability issues reported by classmates.
    - small checkboxes
    - small font sizes
    - unclickable text options
• poor formatting
  ○ Implemented caret direction flip to match the real world customs as reported by classmates.
  ○ Worked on converting the manual input rating filter to a scrollable bar selection.
• Navar
  ○ Worked on highlighting the active page.
• Airing Page
  ○ Converted the "Add" button to a more intuitive, simple plus button.
  ○ Implemented the confirmation message.
  ○ Worked on styling of the dropdown menu and of the page in general.
• All Shows Page
  ○ Set up the scaffold of the page.
  ○ Implemented and revised minor backend functionality in generating the shows.
• My Lists Page
  ○ Set up the scaffold of the page.
  ○ Worked on the CSS styling.
• Stats Page
  ○ Set up the scaffold of the page.

**Joseph Torres**

Below the following contributions I made on the various components of the website:

• Overall
  ○ Developed color scheme for website
  ○ Addressed various feedback from heuristic evaluations (varying from small styling changes to slightly larger functionality fixes)
• Filter
  ○ Created the filter
  ○ Did most of the styling for filters on all of the pages
  ○ Added various functionality (including but not limited to):
    ▪ Enabling/disabling the filter only when changes have been made
    ▪ Procedurally generating input types
    ▪ Various helper functions regarding filtering data and modifying the filter's content
• Navbar
  ○ Did various styling of components
    ▪ Search bar (along with character limits in fake searches)
    ▪ Profile Picture
    ▪ Put appropriate spacing for different the different pages' tabs, especially relative to the filter
• Airing Page
- Worked on various bug fixes and styling of initial carousel for GR4 (such as strange overflow bugs and minimizing duplicate shows from appearing on the same day)
- More minor styling changes for GR5 were done
- Added and edited initial dropdown/modals for adding shows to new lists

- All Shows Page
  - Added some of the data for GR5 scenario, ensuring that this task is always possible to complete (otherwise there may be cases where randomness would prevent the scenario from being possible to complete)
  - Modified filtering functionality for rating slider
  - Did initial styling/setup of success modals for adding new shows

- My Lists Page
  - Did most of the styling for My Lists page, such as selecting colors, changing fonts, fixing margins, and more
  - Minor bug fixes for "Show Stats" button (making sure that the appropriate box is checked on the stats page and that the body text is properly updated)

- Stats Page
  - Added and styled genre button
  - Added generation of text based off of filter state
  - Various styling changes to the body of the page

## Studio Reflection

Studio feedback was overwhelmingly positive, with other groups generally appreciating the simplistic design we chose to emphasize. As more components of the system were developed, the end-to-end functionality and aesthetic were better praised. That said, we received some feedback regarding specific components of our interface.

Although the checkboxes used in the filter were made larger, some individuals had concerns regarding their appearance in arbitrarily long lists. After viewing other websites, we determined that there exists no great solution to many genres, and that the larger checkboxes and corresponding labels are worth the drawback of having a larger list.

The learnability of the website was also questioned via the distinction between "Airing" and "Completed" shows are for new users. Although we maintain that KTracker is best used by individuals who have some experience with K-dramas, we took this advice into account and our implementation does not include "Airing" as a default list (in fact, part of our GR3 scenario is to create this list!). Aside from this feedback, we were mainly encouraged to keep developing our interface.
GR6: User Testing

Design

Important Design Decisions

General

Aesthetics
We chose an unsaturated, blue-and-gray color scheme to create a simple interface that does not strain the eyes of our users. We designed our interface so that it has few words and displays the shows and statistics as effectively as possible, and to that end, we used the sans serif font Oswald throughout our application to cleanly illustrate information. Additionally, we used this font with different weights in different parts of the interface to give hierarchy to the overall application and add emphasis where necessary.

Usability and Learnability
Buttons and content have light shadowing to suggest clickable functionality. When the mouse is hovered over a clickable item, the color of the item changes. To achieve usability and simplicity goals simultaneously, at most five KDramas are shown at once for a given day, and the user can search through more results by clicking on the arrow buttons. In text fields, we have implemented placeholder texts to help users understand the purposes of the fields.
Simplicity

The interface is mainly divided into three sections: the navigation bar at the top, the filter bar on the left, and the rest of the content in the remaining space. These sections are divided with different color schemes and gridding without any line borders. For intuitive grouping, all KDrama poster images have equal size and identical horizontal (left-right) alignment. Similarly, all statistics on the “Stats” page have the same horizontal alignment as well. Also, we have added extra spacing between vertical content to help with grouping.

Motivated by paper prototyping

The paper prototype stage helped us think through the end-to-end operations for the user. Because the users helped us identify what they expected from certain button clicks or upon opening new pages, we added all of the logical steps needed for the users. Mainly we were able to understand what the user expects to see for the given tasks. For the final product, we kept the features that worked well in the paper prototyping and added new features that the users were looking for.

Task 1: Find show
- The users easily located the filter bar on the left and applied the filters, but they were unsure whether the updates were applied dynamically or manually. From this observation, we decided to keep the general structure of the filter bars and the main page, but to add an additional button of “Apply Filter.”

“Apply Filter(s)” button to apply the filter

Task 2: Add show to list
- We initially only had the add button for all shows. From this design choice, the users were confused what happens after clicking the add button. We implemented a dropdown menu for the add buttons to let the users choose the list to which they want to add the show.
Task 3: See stats

- Most of the prototyping for the statistics feature was clear for the users. From this observation, we decided to keep the filtering options and the two-column style information.

![Displaying statistics for all shows]

| Total Shows | 35 | Completed Shows: | 10 |
| Total Episodes | 1572 | Completed Episodes: | 629 |
| Total Hours: | 1577.1 | Completed Hours: | 600.5 |
| Avg. Episodes / Week: | 12.1 | Avg. Hours / Week: | 12.7 |
| Favorite Genre: | Fantasy | Favorite Actor: | Song Joong Ki |
| Meta Avg. Ratings: | 5.2 | Year Avg. Rating: | 6.6 |

Additionally, we made important features of the website more discoverable.

- Rather than sorting the main page by “airing” and “completed,” we implemented a new page on the UI dedicated to displaying all available dramas so that another is dedicated to “airing.”

Motivated by heuristic evaluation

Usability

- replaced the confirmation message notification with a simple message display
- expanded the clickable area for checkbox options
- enlarged the checkboxes and corresponding labels
- removed two number entry boxes, and added sliders for the rating filters
- fixed wording to match user expectation (e.g. “filter(s)” instead of “filter”)
- implemented caret flips for selected options
- replaced “Add” buttons with plus buttons
- unified scroll bar locations and functionalities
confirmation message displayed for one second

plus (“+”) buttons in the corner for adding shows

draggable rating selection in the filter bar

Aesthetics

- center-aligned the shows within the carousel to avoid irregular white space
- improved spacing using margins to improve upon aesthetics and alignment
- reorganized the content to help the user understand the flow
- removed focuses (i.e. blue highlight) from clickable components after the click

centered carousels and centered dramas within the carousels

aligned sections
Motivated by user testing

- This was the final iteration of the design. We had mainly positive feedback on usability and learnability, but we made final touches to the aesthetics even so. On the “My Lists” page, we unified the color scheme and made options more discoverable. The buttons and the text became much larger than the previous iteration.

![unified color scheme on “My Lists” page](image)

Design Alternatives Considered

- For the homepage, we were considering using a design similar to those used by online shopping retailers like Amazon by having large banners and images devoted to promoting featured shows (featured because they were liked by most of the user population, newly released and grossing, etc.) and shows representing given categories (like Thriller, Romance, Comedy, etc.) while only having links to still less popular (yet still relevant) shows. This would have promoted more user exploration, but for a user with a set target (i.e. finding a show that airs only on a certain day), this layout would not have been as helpful.

- Regarding adding to lists and displaying show information, we were considering having both of those features in a unique page for each show only accessible through clicking on an image of the show (i.e. one of the images in the carousel). However, the “cards” in the All Shows page provide these descriptions easily, and adding was easily implemented via a popup with the “+” button.

- The “+” button was briefly implemented as a button displaying the world “Add” with a downwards caret (or arrow), but this was dropped in favor of the more minimalistic “+”, which also provides for external consistency with application like Spotify.
Implementation

Design Decisions in the Implementation

- We wanted to make the components of our project as modular as possible (to prevent bugs in one part from spilling over to other part) while at the same time reusing pieces of functionality and styling across multiple parts when fitting. To this end, there were three clear parts of most of our pages: the navbar, the filter menu (only omitted in the My Lists page), and the main body of the page. The filter and navbar had their own styling, but each page had a different stylesheet with the option of inheriting from a main stylesheet when convenient.

- Canned data and randomly-generated responses were managed by one Javascript file that was queried when necessary to populate fields.

- On the other hand, each page had its own Javascript file to manipulate the DOM described by the HTML corresponding to the page. Data from the aforementioned responses-producing file was managed in such a way that it could be easily used and reused in the functions defined in these Javascript files that were tailored to each page.

- GET requests with parameters could be made to pass data between pages (especially useful when loading stats based on a given list using the “Show Stats” button).

Potential Pitfalls

The primary problems that users encountered were differentiating between the Airing page and the All Shows page, modifying lists on the My Lists page, and performing filtering.

As the homepage of the website defaulted to the Airing page, users started browsing from there. This led to an assumption that filtering for any show (primarily non-airing shows) could occur from this page. This led to confusion as the user was not sure how to proceed (the idea of using a different page did not immediately strike them). This led to decreased efficiency and an erroneous affordance on the Airing page.

On the My Lists page, the redundancy between a tab title for a list and a body section for the list (in the center of the page) led to confusion regarding which "Add" button to use when making new lists. Usually this question could be answered by proceeding to add a new section to a list (as it would be clear that adding a new list should be elsewhere).

Filtering had issues in its slight differences between the pages. Although some information is redundant between filters in all pages, some filters are excluded where they do not make sense (i.e. Airing has no Status filter as all shows on the Airing page are airing). In doing this, though, we may sacrifice internal consistency.
Evaluation

Search for Users
Two of the users that we found for user testing of our finished implementation were users that we interviewed originally for GR1 (and could be classified as “Casual” and “Bursty” viewers); therefore they were very representative of our target user population. The last user that we found for user testing helped evaluate our revisions to our paper prototype while iterating. He has occasionally watched KDramas and could be considered a “Casual” viewer based on the user class descriptions outlined in GR1.

Briefing
We gave the same briefing as that used for the paper prototype testing. For convenience, this is reproduced below:

● Background Information
  ○ KDramas, short for Korean Dramas, are a type of show produced in South Korea that have quite the dedicated fan base.
  ○ KDrama fans, though, have difficulty keeping track of, organizing, and analyzing the shows they have watched, are currently watching, or plan to watch.
● Purpose
  ○ The purpose of our application, KTracker, is to provide a way for these fans to:
    ■ easily find new shows to watch,
    ■ customly organize their KDrama lists,
    ■ and track their viewing history and statistics
  ○ You login to the website before beginning any tasks.

Tasks Performed
We used tasks similar to those employed in the paper prototype testing. We streamlined the tasks to be the following:

● Task 1
  ○ Find and add a completed thriller show with a rating greater than or equal to 7.5 to the “Thriller” section of your “To Watch” list.
● Task 2
  ○ Make a new list named "Airing." Afterwards, create two new sections - one named "Monday" and the other named "Wednesday."
● Task 3
  ○ Out of the shows you have completed, figure out what genre you have seen the most of.
Usability Problems

The following usability problems were identified during our user testing:

1. **Problem:** User did not realize they were required to go to All Shows page to solve Task 1 (attempted to solve on Airing page)
   **Severity:** Major
   **Heuristic:** Learnability (Tog's First Principles)
   **Users Who Encountered:** All
   **Analysis:** Many users struggled to accomplish the first task as the homepage of the website is the Airing page. This caused individuals to assume that the first page was where the solution to Task 1 could be found. The reason this occurred is because users could not differentiate between airing shows and completed shows at a glance (even though to the seasoned user a page with airing shows can't possibly contain completed shows). To address this, we could add some titles or text to the page which more clearly indicate that all of the shows in airing are current, and we could also stress day of the week titles for sections.

2. **Problem:** User did not notice the “+” tab for creating a new list and additionally thought that sections were lists
   **Severity:** Major
   **Heuristic:** Learnability (Tog's First Principles)
   **Users Who Encountered:** User 2
   **Analysis:** The My Lists page operations can sometimes be a bit misleading when it comes to adding new lists. As the name of the list is replicated between the main pane and the tabs, the two "Add" buttons can sometimes conflict. In order to address this, we can make the tabs more noticeable (i.e. highlight the current list's tab), or remove any unnecessary "Add" buttons on the My Lists page.

3. **Problem:** User did not notice how to finalize changes on My Lists page
   **Severity:** Minor
   **Heuristic:** Consistency (Tog's First Principles)
   **Users Who Encountered:** User 1
   **Analysis:** User 1 noticed external consistency in list editing (as it is loosely modeled off of Apple's edit mode for lists) but because of this became confused when she sought a way to exit the edit mode. This user was unsure how to accept the changes she made. The way to solve this would be to extend the external consistency to model Apple's editing even more, and make the check mark we use to accept changes more green and noticeable.
4. **Problem:** User did not realize that Stats page could make Task 3 easier (attempted to solve based on My Lists page)  
   **Severity:** Minor  
   **Heuristic:** Explorable Interfaces (Tog's First Principles)  
   **Users Who Encountered:** All  
   **Analysis:** Users 1 and 2 attempted to solve the problem by perusing the My Lists page and manually determining what genre they viewed the most of. User 3 navigated directly to the stats page after some delay. This reflects a lack of noticeability in two areas: the Show Stats button on the My Lists page, and the Stats page itself. In order to remedy this, we could implement a shortcut in the list itself (in addition to or to replace the Show Stats button) to a graph, or some other clear indicator that stats can be accessed directly from the My Lists page.

5. **Problem:** User did not notice that the Status filter encompassed the status of the show  
   **Severity:** Minor  
   **Heuristic:** Learnability (Tog's First Principles)  
   **Users Who Encountered:** User 3  
   **Analysis:** When the user was performing Task 1, they clicked the dropdown for the Status filter but didn't notice that "Completed" was listed under the section. Renaming the section to "Show Status" may remove the potential ambiguity.

**Reflection**

We learned that even if designers try to think from a user perspectives, it is difficult to imagine what the exact expectations are. The spiral design process of starting from low fidelity and low cost prototyping helped us provide multiple options for the users and decide on the best option at the end. If we were to go through another prototyping procedure, we would again decide to go through the spiral design process. In terms of collaboration, however, we would try to work together at the same time more often, and not in parallel, to achieve high depth in implementation and design when necessary.

Even after several iterations of user testing, we continued to get constructive feedback from the classmates and the TA during studio. As we received almost around fifty suggestions and comments through the heuristic evaluation, we learned that users interpret the UI differently. To improve on our risk assessments, we hope to do more iterations of user testing before we move onto high fidelity implementations.

We mainly focused on three tasks for this project. Although we got to explore and implement different parts of the UI with high final fidelity, we could not allocate enough time and human resources to other parts of the UI that we also considered important. For the future, we want to identify approximately five to seven tasks on which we can focus. This way we would be able to...
avoid any overlaps between the tasks and implement a few more features that could solve the initial problems that we identified for the user group.

To evaluate the results of the observations, we requested feedback from other people and made a to-do list based on that. Our team went down the list and fixed all individual problems without classifying the problems. In the future, we hope to categorize and organize the results first so that we are more effective with fixing the problems.

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