

mediaa—Saiph

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Mediaa attempts to give power to the user by making streaming your own media server streamlined and flexible. We will evaluate our interface design concept using a heuristic analytical evaluation and an empirical evaluation. We will utilize our revised paper prototype to gain insight into user experiences at this stage of development.

KEYWORDS

Heuristic evaluation; Analytical evaluation; Empirical evaluation; UI Usability; User-friendly; Discoverability

1. Introduction

This document aims to introduce the team's chosen methods in evaluating our application usability experience to find a leading solution for our media server application "Mediaa". It will also present the recorded findings based on the execution of our evaluation methods for our application usability experience. We will perform an analytical evaluation and an empirical user test to evaluate the usability of our media server software. Using two types of assessments, we will reach a broader conclusion about what aspects of our software needs to be improved. The analytical evaluation will consist of two separate heuristic analyses done by two of our team members. We will use Nielsen's 10 heuristics for user interface design to evaluate our software prototype. The empirical tests will be conducted on two separate individuals. Using both of these evaluation methods will allow us to create a more accurate sample for the use of our prototype. We will also take into account the previous knowledge and experience the users have to conduct our tests. We hope to gain insight into how users will interact with our software and potential issues that might arise from these user tests.

2. Analytical Evaluation

A. Goals

Our analytical evaluation's primary purpose is to gain insight into how to develop our application's usability experience to help ease our users' cognitive load when making a decision. We have decided to use Nielsen's heuristics, performed by two of our team members, for our evaluation criteria. Both team members separately will walk through various tasks that expose our application's core functionalities to examine their conformance to a few of the heuristics. These particular heuristics apply to the context of our application's use.

B. Methods and Techniques

Some of the key tasks that will be used throughout the evaluation include:

- Using a premade account to login to the media server application
- Navigating to different media screens
- Adding media to the media collection

- Selecting, playing and restarting media
- Browsing media details

Throughout the heuristics evaluation process, our team members aim to put aside the fact that they worked on this application's design. In doing so we will try to see through our target user's lens to search for a more satisfactory media server experience. We will also examine our usability experience from different user standpoints based on different technological skills. By doing this, we believe that it will help find an optimal solution to our application's usability experience and discoverability for a broad user base.

C. Materials

Here are Nielson's heuristics criteria that will be used to evaluate our application usability experience, as mentioned above earlier :

- Visibility of system status
 - Does our system always keep the user informed about what is going on, through appropriate feedback within a reasonable time?
- Match between system and the real world
 - Does our system speak the users' language, with words, phrases, and concepts familiar to the user?
 - Does our information appear in natural and logical order?
- User control and freedom
 - Does the user have the capability to leave an unwanted state without having to go through an extended dialogue when they make a mistake?
- Consistency and standards
 - Do our words, situations, and actions mean the same thing as the users expect?
- Error prevention
 - Does our system prevent errors from occurring and/or check for them and present users with a confirmation option before they proceed?
- Recognition rather than recall
 - Does our system minimize the user's memory load by making objects, actions, and options visible and recognizable?
- Flexibility and efficiency of use
 - Does our system cater to both inexperienced and experienced users by speeding up the interactions they have with accelerators?
- Aesthetic and minimalist design
 - Does our system have any irrelevant information?
- Help users recognize, diagnose, and recover from errors
 - Do error messages contain precise language to indicate any issues that the user might encounter?
- Help and documentation
 - Do we have concise documentation that helps the user better understand our system if they encounter an issue or have questions?

To make it easy on the team members who will be reporting on the issues found during the evaluation of our application's usability, they will rate each case they find according to four severity ratings. The severity ratings are as follows:

- 0 - I don't see this to be a usability issue.
- 1 - Low priority usability problem; should only be fixed as a stretch goal.
- 2 - Medium priority usability problem; there is a better way to optimize this solution.
- 3 - High priority usability problem; need to be fixed right away before our application's release.

Using this severity rating for the various heuristics while evaluating our application usability experience will help the team to focus on fixing the most critical issues first. This way, our team will be better prepared for a product release if there should be a delay in completing our product.

D. Analytical Evaluation

See appendices A and B for the individual heuristic analysis performed by two of our team members.

E. Results and Insights

For the visibility of system status (heuristic #1), the system does not frequently inform the user of the user status. For the "Scan Folder" feature, users should see the scan's current progress during the scan. Additionally, the users should be able to see and know the connection status with the server. Adding an icon that indicates the connection status with the server on the navigation bar on every screen would be useful for users.

The verbiage used throughout the screens is kept simple for the match between the system and the real world (heuristic #2). For example, the homepage consists of mainly icons and headers. This helps guide users to their intended tasks. Furthermore, we avoid using jargon that is hard for users to understand and state features in the simplest terms.

For user control and freedom (heuristic #3), the user is given a back button on every screen, allowing the user to go back to previous screens. Although this is the case, the addition of a home button on the navigation bar would be useful for users trying to get back to the homepage from any screen. Furthermore, the addition of a logout button would help users who are trying to log out from their account but not exit from the site entirely.

For consistency and standards (heuristic #4), there are certain areas of the interface where the features presented are ambiguous. For example, the "Security" section in the "Settings" can be better defined for what they do and change. Additionally, the "sort" feature on the "Movie Collection" page does not tell the user what it does. It is unknown what exactly the movies are sorted by. Otherwise, common and familiar terms are used throughout, which new users would immediately recognize.

For error prevention (heuristic #5), there can be better protection against adding media, viewing media itself, and viewing media details. There are no alert notifications or messages for when an invalid media file is added to our movie collection. Additionally, the user isn't notified if a certain media file fails to play. Users are also not notified when certain movie details are not provided.

For recognition instead of recall (heuristic #6), the overall themes and layouts of the system were very good. The system uses very commonplace imagery on the buttons so that users can easily recognize what a button would take them to. However, our system does have a fatal flaw in

the memory area, specifically in easily showing and keeping track of who is signed in to the application.

For flexibility and efficiency of use(heuristic #7), our application is very efficient in the system's layout. The settings, as an example, make the most common settings easy to get to and still allow for more advanced settings to be changed by experienced users. The application does have a failure in the inability to allow the user to stay logged in, instead of asking the user to log in with each use which is a failure of efficiency and might cause frustration.

For aesthetic and minimalist design(heuristic #8), the system and UX do a fantastic job. Screens only show a minimal amount of information for users. The home page where the user might spend a lot of time still has all of the information but provides a great aesthetic and doesn't overload the user with information. Overall the UX is focused on only showing the information to the user that they need to know.

To help users recognize, diagnose, and recover from errors (heuristic #9), our application seems to lack a major amount of information for the user when an error occurs and helps that user solve it. One primary example where the application does a poor job is the error warning with the email box on the signup page. For the most part, error messages are missing, and this is likely something we should work on with the prototype.

Lastly, for help and documentation(heuristic #10), our prototype provides virtually no support or documentation for the user. I would recommend adding a help button to the settings page that might take the user to external documentation or common questions and answers to problems. Without proper help and documentation, our application might be challenging for users unfamiliar with media servers.

3. Empirical Evaluation

A. Goals

Our empirical evaluation aims to provide necessary information about the usability of our application and any issues in our current design. To expand our research and development we chose two users that exemplify two subsets of our user base. Although both users are computer savvy – an assumption we are making of users of media servers – one of the users has never used a media server in their life. The other user, however, has some experience using media server software in the past.

This empirical evaluation will provide crucial information to our team and test if our application's designs are up to our standards of usability. We aim to give our users a compelling experience that brings them back to the product, time and time again. To meet our requirements our media server needs to be intuitive and easy to use. This means that it should be simple for any user, irrespective of their skill using media servers in the past, to use our application. By testing our interface designs with two different users of varying degrees of experience, we can compare their experiences with our predefined goals of usability.

B. Methods and Techniques

The evaluation itself will be prefaced with background information, explaining to our test-users the context of the application and the pre-conditions they will be provided with. Once the proper context has been given, the users will be tasked to use our media server. This task is multifaceted and tests several fundamental functionalities of the application. The users will need to create an account in our application, using pre-existing login credentials provided to them in our prototypes. Once logged in, the users will need to navigate our application screens and import a directory of movies from their local machine using the folder scanner. At this point, their media server will now contain all the movies from the searched directory, as the application automates the import process. Finally, the users will need to select a movie and view it. In completing all these tasks, this evaluation will give the team an insight into our media server's usability.

The first user subject to our evaluation is a male 4th-year student studying ecologic engineering at Oregon State University. This user represents a user who is not accustomed to media servers as he has had no experience with them in the past. He is an ideal candidate for this evaluation because of his lack of experience. If the interfaces are not intuitive, it will become clear that our designs have issues regarding their usability.

Our second user is a male 3rd-year student studying computer science at Oregon State University. This user will represent a demographic of our potential users who have had past experiences with media servers. This user is ideal as we will be able to see if our media server performs to the expectations of a seasoned media server user.

The empirical test itself will be conducted using a low-fidelity prototype created by our team. This prototype contains images of our application, with all functional requirements for our test modeled by the various screens. The users will be guided through the prototyped screens by a representative of our team, taking them to and from different interfaces according to the users' choices. The guidance will be limited and will not explain how the task needs to be done, but will instead mediate the user's experience for functional purposes.

The evaluation will begin after the task has been described to our test users, and all relevant background information has been supplied. Before the users begin, they will be asked if they understand the task clearly, and will get a chance to ask clarifying questions. Once the evaluation has begun, the observer will not provide any further assistance, aside from providing the functional support to simulate how our application works.

Throughout this evaluation process, the observer will record and document the user's behavior and experiences using the prototyped application. User questions and comments will be documented and the observer's notes about the evaluation process. The observer will also ask questions after the task has been completed about the user's experience and record their responses. These observations will inform our future designs as we hope to expose any shortcomings in our prototype application. Any issues encountered while the users are completing the task will speak to issues in the usability of our media server.

C. Materials

The empirical test involves a digital PDF of our low fidelity prototype given to our users for the task. The test will take place over a Zoom call, which allows us to observe our participants interacting with each of our screens. Users received no prior training or information outside of the pre-conditions and task descriptions to help reduce any bias when completing the task.

Task Description:

The Mediaa application is a media server software solution that will allow servers to host their owned media. With this media, the users can view the media on multiple devices, manage the media, and add more media. The application prototype will be utilized to simulate adding a movie to your library and viewing that movie through the application. The assumption is that this is the first time you are using this specific application and do not have an account. You will not start with any media in your collection, and instead, you must add the media to view a movie. You may use the simulation just like a normal desktop application, selecting, clicking, entering, etc. The navigation flow will be given to the user so they will be able to follow along with the UI as they navigate the UI to complete their task.

1. From the sign-up page, enter your username, password, and an invalid email. Go to page 2.
2. Now imagine you entered in a valid email. Go to page 3.
3. Navigate to your movie collection. Go to page 4. Notice that it is empty
4. Go back to the homepage. Gp to page 3.
5. From the “Home” page navigate to your settings. Go to page 6.
6. From your settings, in the “Manage Collection” section, add a folder to be scanned by the software by hitting the “Scan Folder” button. Go to page 7.
7. On the folder pop-up, select the correct folder that houses your media for scanning. Go to page 8.
8. Click “yes”. Go to page 6.
9. If the scan was a success and proceed back to the homepage using the “back” button. Go to page 3.
10. Go to view your movies by pressing the “Movies” button. Go to page 5.
11. Select the movie “The Silence of the Lambs” by pressing the cover art in your movie collection. Go to page 9.
12. Watch the selected movie by pressing the “play” button. Go to page 10.

Interview and User Interaction:

The guidelines for the follow-up questions asked users about their experience navigating the app, as well as their thoughts and comments on various interactions throughout the app.

1. Was the sign-up process intuitive and easy to understand?
2. How did you feel about the process of adding media to your server? Did you find that too much information was displayed at once or was it just enough?
3. How difficult was it to add a media file?
4. Can you think of any changes that would improve the interface?

5. How difficult is it to find a media file you were looking for? Are there any other options you would like to sort or separate the media by?
6. Did you find any of the transitions or interactions confusing at any point in the application?
7. What was your overall impression of the movie collection page? Would you change it in any way?
8. What did you like the least about the interface?
9. What did you like the most about the interface?
10. Did you have any other thoughts or comments about the application that you would like to share?

The prototype used for this evaluation is attached at the end of this document. The screens display the basic elements in the design of our interface. The screens will be shown virtually with details on how they transition. The evaluators will be recording the comments, thoughts, and interactions of users while presenting them with these prototypes.

The following bullet points describe the navigation flow of the prototype. Each screen is given a title at the top which will help to describe the transitions.

- Screen #1 goes to Screen #3 after a user successfully makes an account
- Screen #1 goes to Screen #2 if there is a login error
- Screen #3 has several buttons
 - Clicking 'Movies' will take the user to Screen #4 or #5
 - Screen #4 - User has not yet added media
 - Screen #5 - User has added their media collection
 - Clicking 'Settings' will take the user to Screen #6
- Screen #6 goes to Screen #7 if user clicks 'Scan Folder'
- Screen #7 goes to Screen #8 on folder select
- Screen #5 goes to Screen #9 if the user selects a movie
- Screen #9 goes to Screen #10 if the user clicks play

D. Empirical Data

See appendices C and D for the collected empirical data.

E. Results and Insights

We found our application to meet several of our predefined criteria for usability through our empirical user tests and evaluations. These goals were closely related to the user's ease of use with the media server prototype. Through the observations of the users subject to the empirical evaluation, it was evident that the application performed as intended and that no critical issues in our design were present. Both users completed the task on time, and when surveyed, reported that they had no qualms with the interfaces provided, furthermore commenting on the intuitiveness of the application.

By testing our usability criteria in a simulated real-world environment, we were able to uncover some essential insights into our application designs' strengths and weaknesses. The users that we choose for this evaluation exemplify varying degrees of experience in using media servers. This dichotomy between our test users made this evaluation a strong tool in accessing our application. Both researchers reported that the users had no issues with the application; the application interfaces were well satisfactory for experienced users and intuitive for less experienced users.

Upon completing the given tasks, users were surveyed about their experience with the application and asked to suggest improvements. Both users, independently of each other, gave very positive feedback and stated that their experience was easy and intuitive. All functionalities behaved as expected in their eyes, and both users felt that the application provided all the necessary content anticipated in a media server. Using these evaluations, our application usability goal was achieved, and both users gave some critique about the aesthetics of the screens presented to them. In the first evaluation (see appendix C) it was clear that the user wished that there was a "dark mode" for the application, referencing the ability to change the color scheme to a more subdued, darker color palette. The second evaluation user (see appendix D) also commented on the screens' designs, stating that they could be "more visually interesting or artistic". These critiques are important to note, as one of our goals for application is to provide a "compelling user experience". Our users should not only enjoy the functionality of the application, but also the visual experience of the interfaces.

In summation, we believe these preliminary evaluations were a resounding success and demonstrated our prototypes' strength. We aimed to create a valuable user experience, and by testing the prototype with real users, we were able to show our application's intuitive usability. However, our research is constrained by our limited sample size, as we were only able to conduct this empirical study on two users. As we advance, we hope to administer these evaluations with other users, allowing us to be more confident in our designs.

Appendix A - Heuristic Evaluation Walkthrough #1

User: Joshua Shequin

Tasks:

- Using a premade account to login to the media server application
- Adding media to the media collection

Heuristic Criteria	Description	0-3 Rating
#1 Visibility of system status	Our current prototype does not tell the user the progress of a folder scan for media. We do notify the user upon completion but we do not keep them informed of the status of the scan.	3
#2 Match between system and the real world	Our UX does a very good job of keeping the terms and descriptions and processes to be what the user expects. We limit the Jargon used and keep everything in simple and common terms.	0
#3 User control and freedom	Our UX provides a great way to go back or to cancel adding media to their collection. We allow a back button in the settings and we prompt them	0

	to make sure they are wanting to upload the media that the scan found.	
#4 Consistency and standards	I am not entirely sure what the "Security" section of the settings is for. It is relatively ambiguous.	1
#5 Error prevention	We have no defined error prevention if a user inputs a corrupt or faulty file into the software at this time.	3
#6 Recognition rather than recall	The current UX does a very poor job of showing who is logged in to the software. The only time you can figure this out is when you are logging in.	3
#7 Flexibility and efficiency of use	We should make it easier for the user to use the application faster by introducing a keep you logged in feature so that the user does not have to login every single time they want to use the application.	2
#8 Aesthetic and minimalist design	Our UX does a very good job of keeping information elements to a minimum and only showing information and options pertinent to the user at the time.	0
#9 Help users recognize, diagnose, and recover from errors	When signing up for a new account and the user puts an error in their email entry box, the only thing we tell them is invalid email address which is ambiguous.	1
#10 Help and documentation	We currently don't provide any documentation or help for how to use the software.	3

1. Visibility of system status

- a. Does our system always keep the user informed about what is going on, through appropriate feedback within a reasonable time?
 - i. Our system can do a better job of keeping the user informed during the process of a folder scan by showing them the progress of the scan rather than just the conclusion.

2. Match between system and the real world

- a. Does our system speak the users' language, with words, phrases, and concepts familiar to the user?
 - i. Yes our system does a good job of using common place words and concepts.
- b. Does our information appear in natural and logical order?
 - i. Yes it appears in the logical order.

3. User control and freedom

- a. Does the user have the capability to leave an unwanted state without having to go through an extended dialogue when they make a mistake?
 - i. Yes we provide a good amount of ways to leave an unwanted state such as back buttons and confirmations.

4. Consistency and standards

- a. Do our words, situations, and actions mean the same thing as the users expect?
 - i. The only consistency issue I see is what the "Security" section of the settings is for is unclear.

5. Error prevention

- a. Does our system prevent errors from occurring and/or check for them and present users with a confirmation option before they proceed?
 - i. Our system does not currently provide error prevention when the user is selecting specific files for upload.

6. Recognition rather than recall

- a. Does our system minimize the user's memory load by making objects, actions, and options visible and recognizable?
 - i. Our system does a very poor job of displaying who the user is that is currently signed in.

7. Flexibility and efficiency of use

- a. Does our system cater to both inexperienced and experienced users by speeding up the interactions they have with accelerators?
 - i. Our system lacks a way for the user to stay logged in so that they can use the software faster.

8. Aesthetic and minimalist design

- a. Does our system have any irrelevant information?
 - i. Our system does a very good job of keeping information overload to a bare minimum and showing only information pertinent to the user at the moment.

9. Help users recognize, diagnose, and recover from errors

- a. Do error messages contain precise language to indicate any issues that the user might encounter?
 - i. Our system does a poor job of explaining what error the user made, an example being the email entry form in the sign-up.

10. Help and documentation

- a. Do we have concise documentation that helps the user better understand our system if they encounter an issue or have questions?
 - i. Our system currently does not have any use documentation or help section for the user.

User: Anthony Trinh

Tasks:

- Selecting, playing, and restarting media
- Browsing media details
- Navigating to different media screens

Heuristic Criteria	Description (+ = positive, - negative)	0-3 Rating
#1 Visibility of system status	-No system connection symbol on the navigation bar (used to indicate connection status between server) -Not enough alerts. Users can be better informed of the current state of the system	3
#2 Match between system and the real world	+Familiar and common layout for the homepage. Navigation is intuitive and simple +The amount of information and features on each screen is limited, makes it easier to navigate +Homescreen branches off into 6 easy to understand categories/settings	0
#3 User control and freedom	+Back buttons are present on every screen so users can go back to the previous pages -There is no home button on the navigation bar for users to go directly back to the homepage from any screen -There is no logout function for users to signout	1
#4 Consistency and standards	+Homepages uses common words and meanings that most users would understand: "Settings", "Movies", "Music", "Tv Shows", etc. -"sort" function is ambiguous. What exactly does it sort by?	1
#5 Error prevention	-There is not much error prevention. This can be added for when movies fail to play or when certain movie details are not available	2

#6 Recognition rather than recall	+Interface uses many icons and images which helps with recognition +Layout for homepage is a common interface and would immediately be familiar to new users	1
#7 Flexibility and efficiency of use	+Common features are displayed first on the main screens +More advanced features are hidden away in the settings for more experienced users	0
#8 Aesthetic and minimalist design	+Screens only show the minimal amount of information for users to understand the page +Homepages consists of a few icons and headers +Movie details page shows only one of the tabs at one time (details, synopsis, cast-crew, audio/subs, extras)	0
#9 Help users recognize, diagnose, and recover from errors	-There is not much error prevention. This can be added for when movies fail to play or when certain movie details are not available	3
#10 Help and documentation	-No page dedicated to explaining what the different feature and screens do -No page dedicated to commonly asked questions or user issues	3

User: Anthony Trinh Project 7 - Analytical Evaluation

1. Visibility of system status

- b. Does our system always keep the user informed about what is going on, through appropriate feedback within a reasonable time?
 - i. The user is informed of what is going on through descriptions of options and features. The user can be better informed of the system status through additional alert messages. The addition of a connection symbol would be great to indicate the connection status between the user and the media on the server.

2. Match between system and the real world

- c. Does our system speak the users' language, with words, phrases, and concepts familiar to the user?
 - i. The verbiage used throughout the interface is straightforward and new users would be familiar with the wording of different options. For example, the home page is split up into 6 categories: Movies, 3D Media, Pictures, TV Shows, Music, and Settings. These are common in various other applications and a new user would be able to intuitively understand what option leads to.
- d. Does our information appear in natural and logical order?
 - i. Yes, the interface of our application is designed to limit the amount of information shown to the user to per screen. The user is shown only the necessary information to understand the interactions on the screen. For example, the homepage helps the user branch off into 6 different features/categories.

3. User control and freedom

- e. Does the user have the capability to leave an unwanted state without having to go through an extended dialogue when they make a mistake?
 - i. There are back buttons on nearly every screen which makes it easy and quicker for users to go back to previous screens. There is currently not a home button which will take the user back to the homepage from anywhere. Also, a logout button can be added for users to sign out.

4. Consistency and standards

- f. Do our words, situations, and actions mean the same thing as the users expect?
 - i. Yes, familiar words and descriptors are used to label the different options on the homepage. Additionally, the headers on and alerts that are shown to the user use common language such as "Success!", "synopsis", "cast+crew", "audio/subs", etc. These are familiar terms used to describe media (music or film) and users would immediately understand what they mean. The "sort" function on the homepage is ambiguous as the user might not know what exactly we are sorting by.

5. Error prevention

- g. Does our system prevent errors from occurring and/or check for them and present users with a confirmation option before they proceed?
 - i. There is not much error prevention implemented. Error prevention can be added when certain media files are not playable. When users are viewing movie details, he or she can be notified if that information is not available or provided.

6. Recognition rather than recall

- h. Does our system minimize the user's memory load by making objects, actions, and options visible and recognizable?
 - i. Yes, the design of our application incorporates the use of multiple icons and images. This makes it easy for the user to understand what the feature does and if it corresponds to what they are trying to accomplish. Additionally, our homepage and various icons are presented in a familiar layout that users would intuitively understand how to navigate.

7. Flexibility and efficiency of use

- i. Does our system cater to both inexperienced and experienced users by speeding up the interactions they have with accelerators?
 - i. The system does cater to both types of users. Common features are displayed on the main pages. More advanced features are hidden away in the "Settings" option on the homepage. More experienced users can use this to customize their layout and settings.

8. Aesthetic and minimalist design

- j. Does our system have any irrelevant information?
 - i. No, the information shown on each screen is limited only to the amount needed to understand and use the features. Most of the screens consist mainly of icons and a few headers. The "Movie Details" screen allows the user to only select the type of information about the media they want to view. Instead of viewing all these details at once, the user can select the type of information one at a time. This presents the information in a more concise manner and is easier to read.

9. Help users recognize, diagnose, and recover from errors

- k. Do error messages contain precise language to indicate any issues that the user might encounter?
 - i. There are not many error messages in our current implementation. For the tasks defined above, there are alerts for when errors occur. These can be added for when a certain media file is not playable. Also, when certain movie details are not provided such as subtitles or audio settings.

10. Help and documentation

- l. Do we have concise documentation that helps the user better understand our system if they encounter an issue or have questions?
 - i. There is currently not any documentation for when the system encounters an issue or if the user has any questions. One solution is to include a "Frequently Asked Questions" screen for commonly asked questions and errors. Additionally, a documentation page can also be included that describes the various features and interactions within the site.

Appendix C - Empirical Evaluation #1

Researcher: Cameron McCawley

User:

This user is a male 3rd year student studying computer science at Oregon State University. This user will represent a demographic of our potential users who have had past experiences with media servers. This user is ideal as we will be able to see if our media server performs to the expectations of a seasoned media server user.

Observations:

Throughout the entire evaluation process, our users could easily and quickly navigate to every single page with no issues whatsoever. Throughout the process, the user continuously keeps making comments about how intuitive and straightforward our software interface is compared to the current media server software(Plex) he uses to manage his media content. The entire evaluation only took three and a half minutes to complete.

Post Evaluation Questionnaire:

1. 1. Was the sign-up process intuitive and easy to understand?

“Uh, yeah! The only thing I would change about it personally is for there to be a confirmed password as well, that way you can just double check that you typed it in right, but other than that, yeah, it's very intuitive.”

2. How did you feel about the process of adding media to your server? Did you find that too much information was displayed at once or was it just enough?

“Um, I feel like overall just looking at it, I feel like it's just the perfect amount of information. Yeah, it seems perfect. I like the remove media options, like if you want to remove multiple at the same time, then you can do that.”

3. How difficult was it to add a media file?

“I'd say pretty easy, especially if you just want to add a whole folder and find all the movies. I understand this is a prototype, but as long as it works and it scans the movies properly, then yeah, very easy.”

4. Can you think of any changes that would improve the interface?

“Dark mode, but i'm pretty sure I already saw an option for that in Display and Themes, so it looks like you already have that covered. Other than that, I really like this home page design, with the very vibrant icons, it fits very well. It looks very intuitive and very clean, I like the styling of it.”

5. How difficult is it to find a media file you were looking for? Are there any other options you would like to sort or separate the media by?

"I'd say 8/10. I feel like if I had to scroll it would be a little harder. I feel like if you asked me to click a different movie, like one I didn't know the cover for, then it would be difficult for me to find it, but then the search feature is going to be very helpful, being able to search for the movies that you want. I think I would like a way to add custom filters, like if I want to just see movies of a certain genre I want to be able to do that."

6. Did you find any of the transitions or interactions confusing at any point in the application?

"No, not at all".

7. What was your overall impression of the movie collection page? Would you change it in any way?

"Yeah, my overall impression is that it looks very sleek, my only concern is that by showing two rows at a time, it might be hard to navigate with a large collection of movies if you have thousands of movies. But yeah, it's very efficient and sleek. I also like being able to just hover over a movie and see its details and not having to click on it to expand it."

8. What did you like the least about the interface?

"It's in light mode...."

9. What did you like the most about the interface?

"I like how clean it is, it's not cluttered, it's not- it has just the right amount of information in most spots, it's just overall clean and sleek."

10. Did you have any other thoughts or comments about the application that you would like to share?

"Make dark mode default, that's all I got. This prototype looks great."

Appendix D - Empirical Evaluation #2

Researcher: Benjamin Mayinger

User:

The user subject to this evaluation is a male 4th year student studying ecologic engineering at Oregon State University. This user represents a user who is not accustomed to media servers as he has had no experience with them in the past. He is an ideal candidate for this evaluation because of his lack of experience. If the interfaces are not intuitive, it will become clear that our designs have issues in regards to their usability.

Observations:

Throughout the process, the user did not seem to have any issues navigating the given interfaces. For each task, the user was proficient in completing it on time. Even though this user has not used a media server in the past, it is evident that they had no problem navigating through the prototype provided. Furthermore, the user commented on their thought process and made it clear that their experience was intuitive.

Post Evaluation Questionnaire:**1. Was the sign-up process intuitive and easy to understand?**

"Yes, I think it was exactly what you would expect from a login screen. The only thing I would add is a remember password button so I don't have to resubmit the form over and over."

2. How did you feel about the process of adding media to your server? Did you find that too much information was displayed at once or was it just enough?

"I really liked the layout, honestly. It was actually the right amount of information and it was easy to understand. I think the screens could be more stylized but that's more of a personal opinion I guess."

3. How difficult was it to add a media file?

"I don't think it was difficult at all, it all seemed pretty self-explanatory. And I also liked that there is a scanning option so that you don't have to do it yourself."

4. Can you think of any changes that would improve the interface?

"For me, I just think that it would be better if it was just more visually appealing but in terms of the actual functionality I can't really think of anything to add. Maybe more colors or something would make it more interesting."

5. How difficult is it to find a media file you were looking for? Are there any other options you would like to sort or separate the media by?

"Uhm I didn't find it to be confusing or difficult in any way but I think more sorting options would be useful as someone using this app. I know that the sorting functions weren't actually present but I always think little things like that are really useful. It just makes it easier for me to find what I want."

6. Did you find any of the transitions or interactions confusing at any point in the application?

"I mean I think the transitions would be fine when the app is actually implemented but it's hard to know without the actual experience of that."

7. What was your overall impression of the movie collection page? Would you change it in any way?

"I liked how everything is displayed with the covers of the movies and stuff, I don't think I would really change anything about it."

8. What did you like the least about the interface?

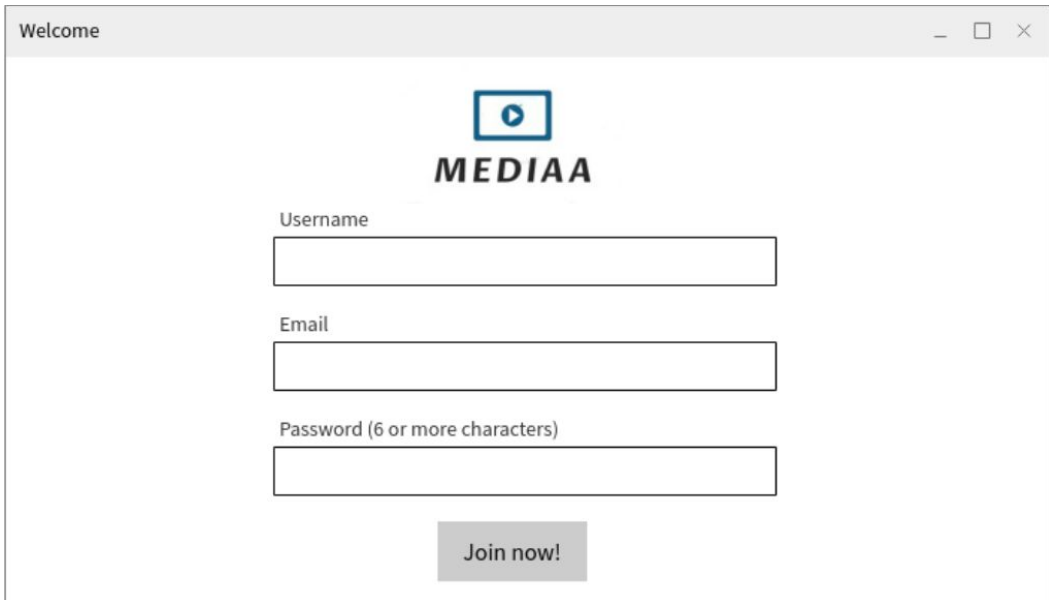
"I didn't hate anything but I think it could be more visually interesting or artistic or something. Just seemed a little bland if I'm gonna be brutally honest."

9. What did you like the most about the interface?


"It was really easy to use and I never felt confused about where to go next."

10. Did you have any other thoughts or comments about the application that you would like to share?

"I don't really have anything else but I think it looks good so far. I could honestly see myself using this if it were actually implemented."

Appendix E - Screens

Welcome

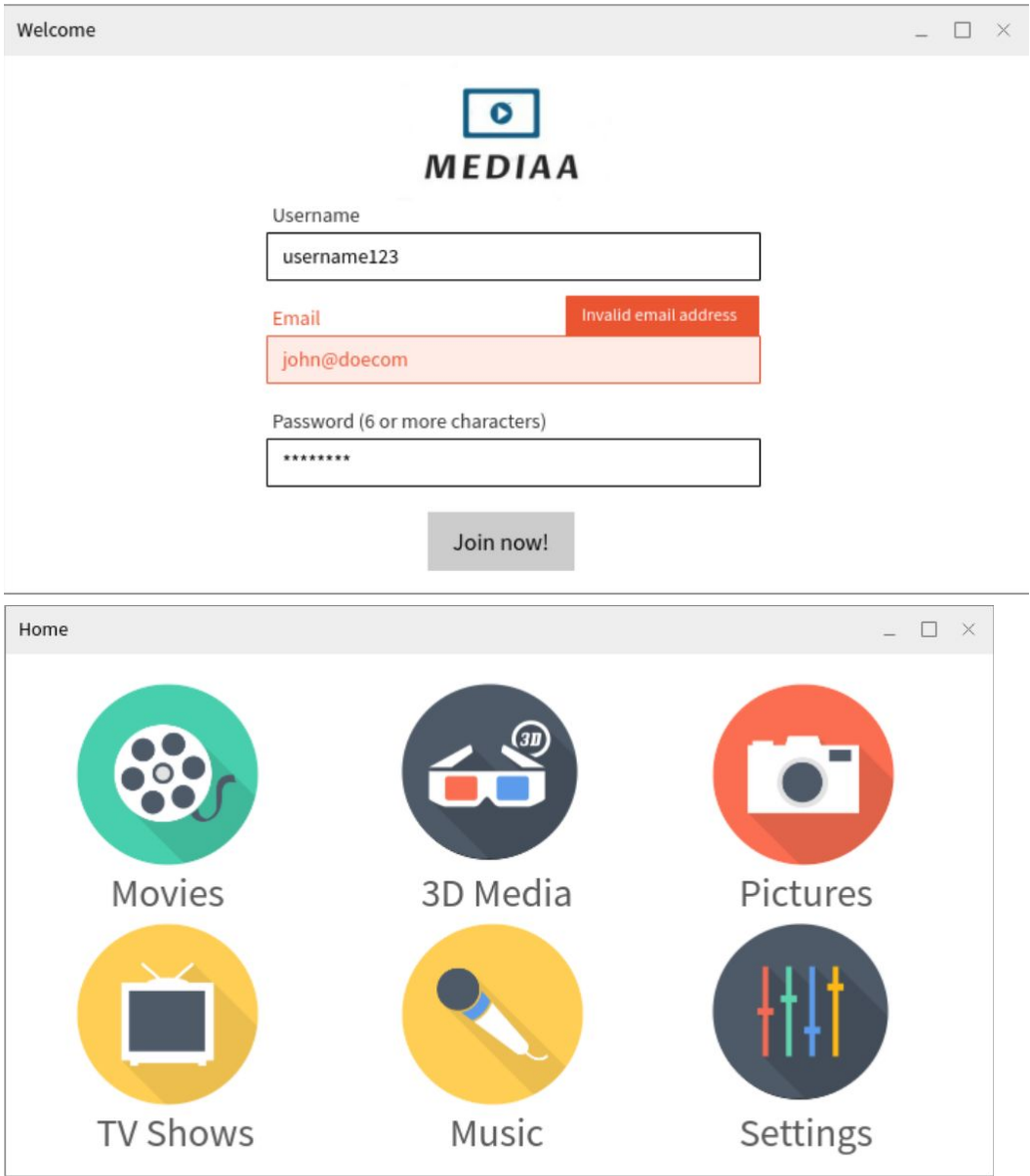


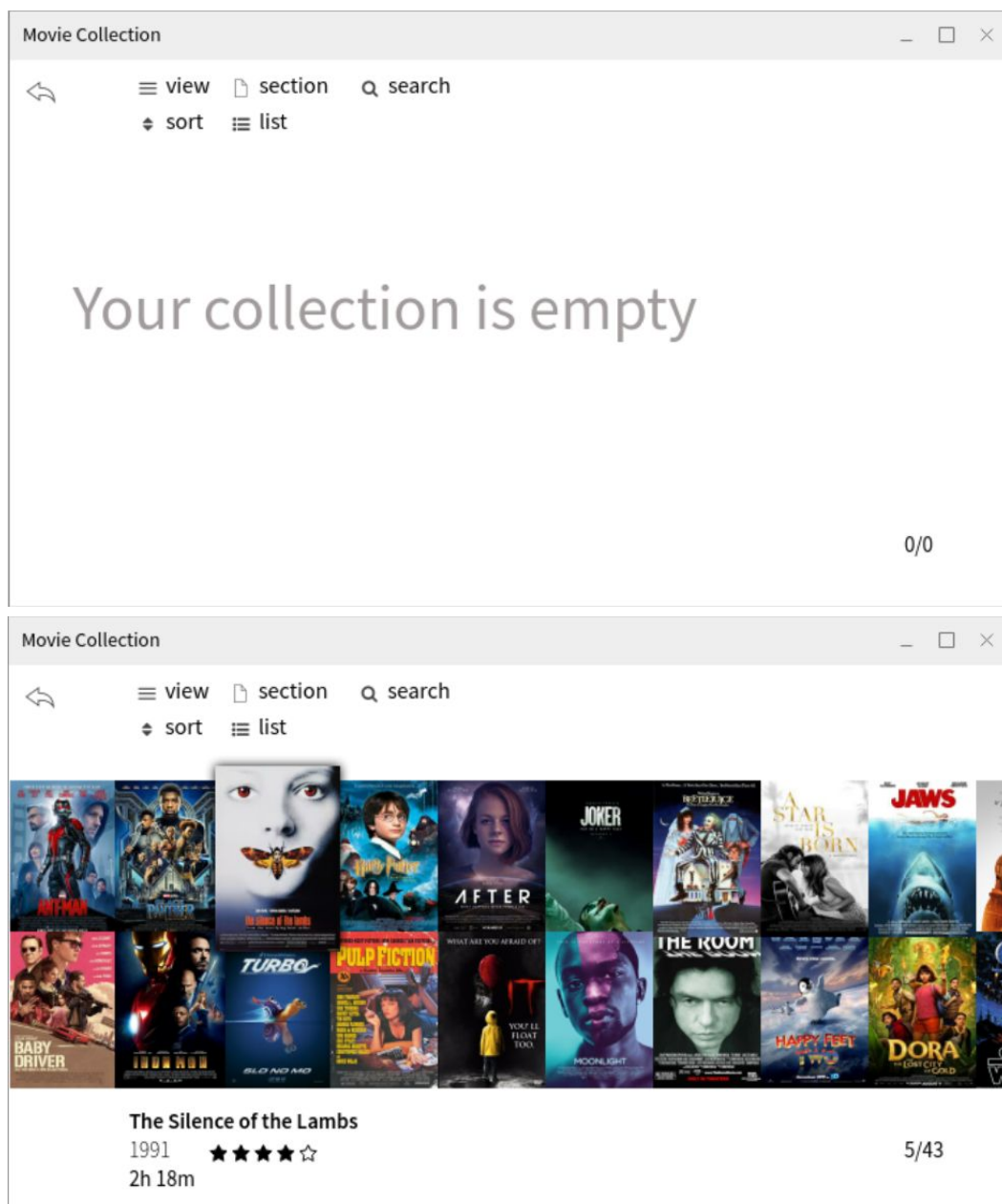
Username

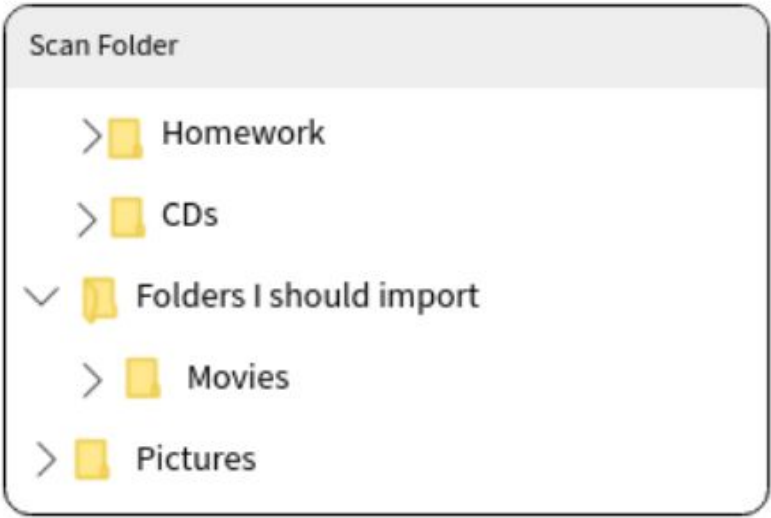
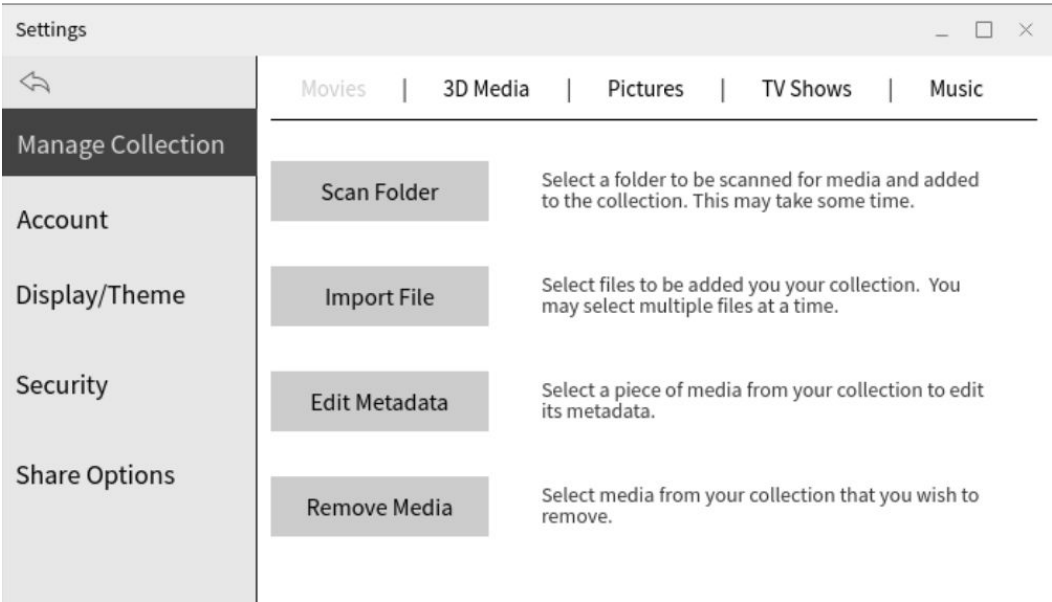
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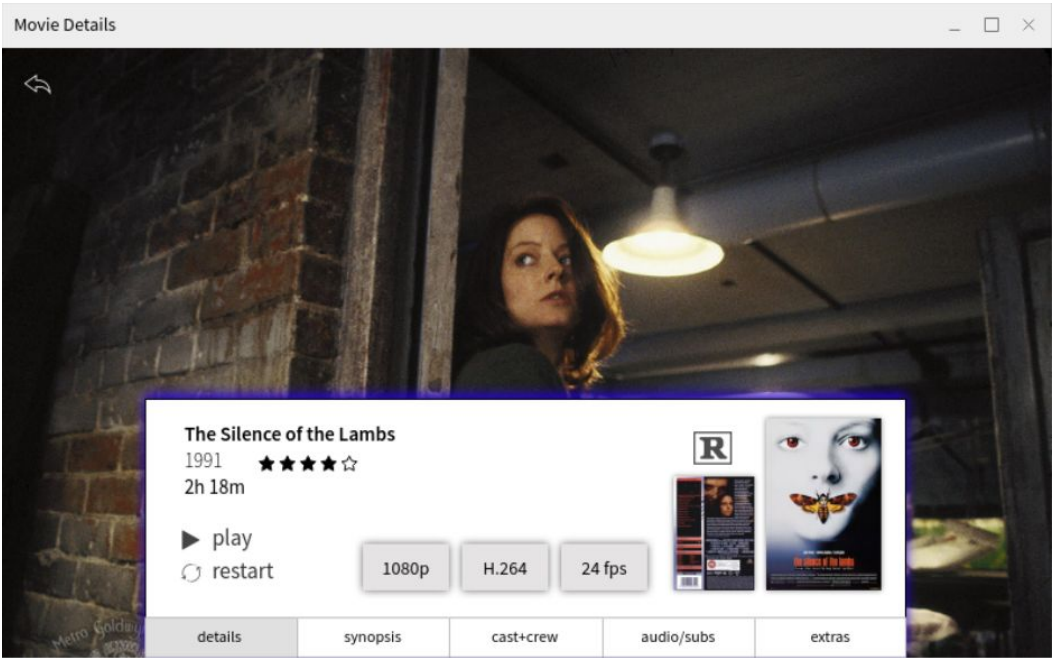
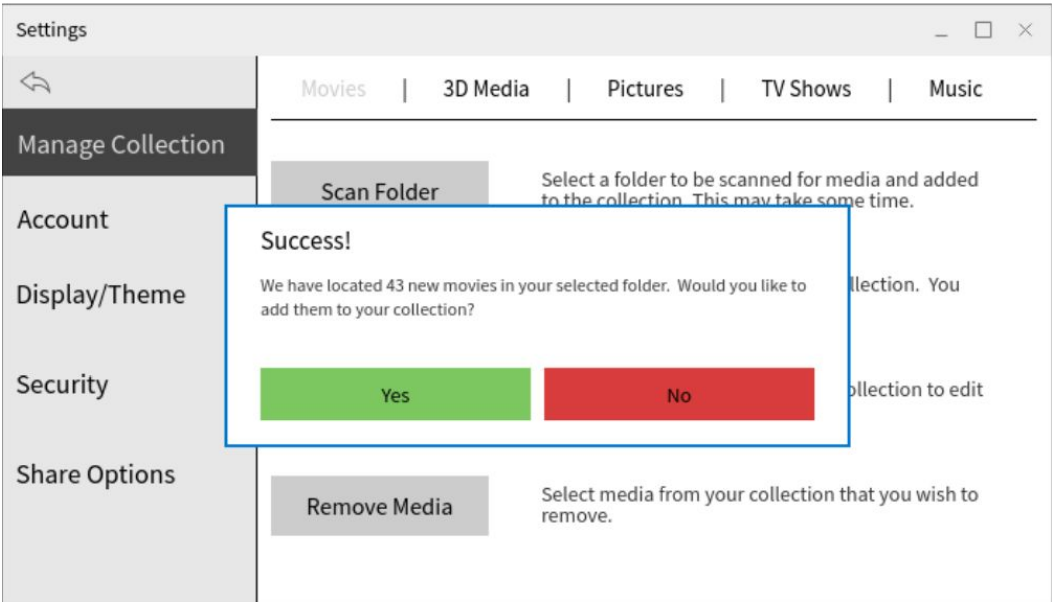
Password (6 or more characters)

Join now!











Peer Evaluation for Team Members

Member Name	Role	Responsibilities & Assigned Tasks	Tasks Completeness Grade
Cameron McCawley	Leadership/Management	Empirical Evaluation one	5
Benjamin Mayinger	Writing/Deliverables	Empirical Evaluation two	5
Danmar Green	User Research and Communication	Proofreading and Rest of Document	5
Joshua Shequin	User Research and Communication	Analytical Evaluation one	5
Anthony Trinh	Visual Design/UX Design	Analytical Evaluation two	5