

Roommate Reviews Mobile Application

Stage Four Report

Team H

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Roommate Reviews idea description

Our updated project idea is a Roommate Review mobile application, where users can find and review roommates or landlords. Users that currently live with roommates and have a landlord will join a household group. Once the user moves out, they will be given the option to review members of their group. Tags and an overall score will be summarized based on a user's reviews and publicly displayed on their profile.

When finding potential roommates, users will be shown some recommended roommates based on personality, reviews, and location. Users can filter their search on certain criteria and view household groups that are looking for more roommates. They also have the option to message roommates they are interested in.

The application will feature an optional personality test. The results of the test will help users match with compatible people by improving their search results and recommendations. There will be 16 personality types based on the Myers & Briggs research studies.

List of updated tasks

User tasks that were prototyped horizontally:

- Main welcome screen that allows you to either sign in with user information or create a new account.
- Once you login, the main home screen that allows you to access your options, roommates and your own profile. Here you are able to:
 - Access the options slider bar.
 - View your current address via a map.
 - Access your personal profile page.
 - View your current roommates.
 - Message you landlord.
- Options slider bar that allows you to navigate through the app and do multiple tasks. Options include:
 - Roommate search.
 - Viewing messages.
 - Viewing household groups.
 - Performing a personality test.
 - Viewing previous roommates and previously viewed profiles.
 - Viewing your reviews and who reviewed you.
- Household groups containing the landlord and the tenants.
- View your own and other users' profile page.
- Message other users.
- Messages page that shows you all the people you have communicated with through messaging.

Heuristic evaluation process

Two members of the team were the evaluators during the heuristic evaluation process. The application was initially explored freely to gain information about the look, feel and scope of the application. We identified specific elements of the UI to evaluate, such as the roommate search, reviews, and messaging. Each page of the app also shared a navigation menu, so this was evaluated as well. Once the scope was determined, each element was more closely examined. Nielsen and Molich's UI Design Guidelines were followed, and the findings were placed in the tables as shown in the appendix. For each of rule of thumb, the evaluators looked for the following:

1. **Visibility of system status:** Does the UI respond to interaction? Does the system show progress during long processes, such as the personality quiz?
2. **Match between real system and the real world:** Are the words and concepts on each element clear to new users?
3. **User control and freedom:** When accessing something by mistake, is it easy for the user to leave? Does the application force the user to go through with the interaction?
4. **Consistency and standards:** Is the application consistent with itself? Does the application follow common conventions found in similar applications?
5. **Error prevention:** Is there any error prevention in the element?
6. **Recognition rather than recall:** When examining one part of the interface, is all the necessary information there? Do I need to go to another part of the interface in order to get the information?
7. **Flexibility and efficiency of use:** Can I easily access other elements from another element?
8. **Aesthetic and minimalist design:** Does the UI highlight or focus on the main information? Are there distractions in the design?
9. **Help users recognize, diagnose and recover from errors:** If an error occurs, does the design help the user solve it?
10. **Help and documentation:** Is there any help documentation? If so, is the documentation clear and concise?

Heuristic evaluation findings and review

1. Visibility of system status:
 - The evaluators found the system to be very responsive to user interaction. The personality test showed the user's progress, and the transition between parts of the interface were smooth. There were no issues found for this rule.
2. Match between real system and the real world:
 - The system uses familiar words and symbols in all parts of the interface. There were no issues found.
3. User control and freedom:
 - Most of the pages have a way to go back, or ways to access other parts of the interface. However, other parts such as the personality test or reviews have no back button. The reviewers gave this issue a rating of 2 because it is just a minor annoyance. A potential improvement is to add a back button on all pages.
4. Consistency and standards:
 - The application is consistent with itself, such as using the same navigation bar in each element. The application is also consistent with similar apps that utilize the five star review system. However, the evaluators found the search function difficult or confusing to use. The reviewers gave this issue a 3 rating because the search function can only be used for one criteria. A potential alternative is to add filters alongside the search to reduce restrictions and lower the learning curve for users.

5. Error prevention:

- The system is straight forward and behaves in a predictable way. One evaluator found the same symbol as both settings and edit profile, which can result in errors. The reviewers gave this issue a 1 rating because it is a cosmetic issue. Introducing a greater variety of symbols would be a solution.

6. Recognition rather than recall:

- The evaluators found the elements to be clearly labelled. Actions with the same symbol produced the same function, which helped with recognition. However, when accessing a review on the "Who reviewed you" page, the name of the reviewer does not appear on the top. The reviewers gave this issue a 2 rating. This is a minor annoyance because the user must go back in order to get the necessary information. The solution is to display the reviewer's name on the review.

7. Flexibility and efficiency of use:

- The system is very flexible because all features are accessible from any part of the interface. The evaluators found that the navigation menu was somewhat tedious because it contained a large list of options. Similar to the above issue, the reviewers gave a 2 rating because it is a minor annoyance. The solution would be to introduce easy access tabs for more efficient navigation.

8. Aesthetic and minimalist design:

- The design is very minimal because each part contains only the relevant features. The design is also aesthetically pleasing. One evaluator found the household group messaging and individual messaging features redundant, and suggested that the features be merged. However, the reviewers determined that these are two separate features and should not be combined. This issue was given a rating of 0.

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

- This rule was not applied by the design. One evaluator found an issue where login was successful with no password input. The reviewers gave this issue a 4 rating because the system would work poorly without a fix. Requiring authentic credentials and displaying error messages for invalid credentials would solve this issue.

10. Help and documentation:

- The evaluators did not find any help documentation, but found the features to be simple enough without it. However, the user must still rely on intuition, so it would be beneficial to have documentation under settings. The reviewers gave this issue a rating of 2.

Reflections and decisions

Through this process, our team was able to create a high fidelity prototype based on our low fidelity prototype from the previous stage. We were able to refine the prototype even further through the heuristic evaluation process and reviews. As a result, our prototype appears similar to a real application. We also learned how to use Figma during this project stage.

Both evaluators found a variety of different issues, so it would have been beneficial to have more evaluators to find more problems. More reviewers would also be beneficial to come up with new solutions for the problems. Each team member has been busy with other priorities, so it would have helped to start on the project earlier.

Online repository:

<https://github.com/LucasLongarini/CPSC-481-Project>

Online portfolio:

<https://lucaslongarini.github.io/CPSC-481-Project/index.html>

Appendices

Heuristic Evaluation - Josie Khampheng

Rule of Thumb	Is this rule being applied? How so?	Is this rule violated? How so?	How can this rule further improve usability, utility, and desirability?
1. Visibility of system status	The system is very responsive and feedback, such as opening the search and profiles is provided quickly. When a feature is selected, the transition is smooth, which helps the user process the change. The personality test has a progress bar to keep users informed about how many questions they have left to answer.	No, this rule is not violated.	It is important for the user to be informed about what the system is doing. For example, when a feature is loading, the user would like to know the progress so that they have an estimated wait time, and know that they aren't waiting forever. It is also important for the user to know that their interactions are producing a result.
2. Match between system and the real world	The words and concepts in the system are easy to understand. When visiting a new page, the title is clearly displayed on top. The information on each page appears in a logical order that does not confuse the user.	No, this rule is not violated.	The words and concepts should be clear to the user so that they understand how to use the system. In this application, the features such as "search", "profile" and "reviews" are understood by most people and are used in other applications.
3. User control and freedom	The user can easily access features from the navigation bar from any page. The user is also free to edit their reviews to others whenever they want.	The personality test has no back button, so the user cannot change their answers when they make a mistake.	Users should have the freedom to leave features when they access them by mistake. This application has many features, so it is possible that users can become confused. Being able to access the navigation from any page gives the user more control.
4. Consistency and standards	The five star rating system, comments, and tags are consistent with other review applications. The application is also consistent with itself, such as using the same navigation menu and color scheme for each part.	The roommate search has multiple search criteria. It is more common in applications to have one search bar, and then a filter to refine your searches. One possible alternative is to replace the search bar with filters, similar to dating site searches. This way, the user is not restricted to searching by just one criteria.	It should be expected that the users are using multiple apps. If this mobile application stays consistent with other apps, then the learning curve will be lower which improves the likelihood that users will keep using it.

5. Error prevention	The buttons are straight forward and produce a predictable action. The navigation options are distinct and it is difficult to mistake them for one another.	Symbols be improved. For example, both the settings and edit profile options are a gear symbol. Symbols should be distinct for each feature to prevent the user from selecting the wrong feature.	Errors can be frustrating for the user, and reduce usability as a result. It is important to prevent errors so that the user can enjoy the features of the app.
6. Recognition rather than recall	Features are clearly labelled which make it easy for the user to recognize. The navigation bar is always accessible from the top right corner of each page, and contain distinct symbols, which helps with user recognition.	When expanding reviews that others have given you, the name is not displayed at the top. The user would have to recall the name of the reviewer, or be forced to go back and try to find the name.	Being forced to recall parts of the application can be frustrating for the user. Having the necessary information on each page of the application makes it much more usable.
7. Flexibility and efficiency of use	The user can access any feature they want from the navigation bar, so all features are easily accessible. The user can pick and choose which features they would like to use.	Since all features are only accessible from the navigation bar, it could be time consuming for the user to search for the function they want. Having tab bars to access frequently used features, such as search, profile and messages could speed up interaction.	Flexibility can make the application convenient for the user. This is especially important in this application because there are so many features.
8. Aesthetic and minimalist design	The system is minimal for the most part. Each dialogue contains only the relevant information. The design is simplistic and pleasing to look at, and the user does not have to scroll far to view all of the information.	The household group chat is separate from the messages feature, which can be redundant. Adding these two chat features in one place could remove redundancy.	Having a minimal design improves utility because the user is not distracted by unnecessary information. A minimalist design could help highlight the main features of the application.
9. Help users recognize, diagnose and recover from errors	No, this rule is not being applied.	No, this rule is not being violated.	When a user runs into an error, they should be informed on how it can be solved so that they can continue using the application.
10. Help and documentation	The feature labels are pretty self-explanatory.	There is no help and documentation. It might be beneficial to have some documentation under settings.	Help and documentation is important for complicated applications, so that the user can understand how to use it. Our application has many features which could become complicated for new users.

Heuristic Evaluation - Abel Tekeste

Rule of Thumb	Is this rule being applied? How so?	Is this rule violated? How so?	How can this rule further improve usability, utility, and desirability?
1. Visibility of system status	The search page visibly shows you what criteria you are searching for by making it a different color than any of the criteria. The personality test shows you how many questions you have completed by a number and also a bar to represent how many you have completed out of the total number of questions. When the navigation bar slides from the side, the rest of the screen is made a little bit darker so that you know what is going on. When you choose any options in the navigation bar or press any of the symbols in the actual task pages, the system makes a new page slide from either the right or bottom sides of the screen to show the users what is going on with the system as a result of their choice.	This rule is not violated.	When a system status is not visible, it is especially frustration for the user. Users tend to spam buttons non-stop if they don't see any changes in the screen. Because we have implemented the sliding feature that smoothly transitions you to the next page, the user will always know what is going on with the status of system.
2. Match between system and the real world	The system uses very familiar terminology and symbols for each of its pages to notify the user of what page they are on and what functionality they can do there.	This rule is not violated by the system.	This rule is important in our system as the user should not have to guess what a button do because they are used to it doing a different function in a different app. When they understand it without having to look it up it allows them to have an easier time maneuvering through the app.
3. User control and freedom	Most pages have a way for you backtrack out of a function chosen by mistake.	If you were to be on the profile page and choose the personality test or reviews by mistake, there is no back button to allow you to go back to the profile page. The only to go back is to go through the options tab. If you were on the personality test and choose an option by mistake, there is no way to fix your mistake.	This rule improves the usability, utility and desirability of the system as it eases all the movements through the system for the user. If they have to go through multiple steps just to undo a step then the user freedom is not at its maximum and thus you should make sure the user should be given the freedom to make choices other than forced to make actions.

4. Consistency and standards	The review function is very similar to those of popular reviewing websites/apps in the industry. The symbol for "Who review you" is very similar to what other apps/websites would use for "Help/Documentation".	The search function might be difficult to understand for some people.	A good search engine should return everything relevant to a query, but nothing that is irrelevant and then give you the option to filter it based on the criteria that we have in the system right now.
5. Error prevention	The system will behave in a way such that any users can effectively predict what will happen when a button occurs as the action they can do are simple enough to avoid any errors.	This rule is not violated in the system.	By making all of the actions simple in order to prevent any errors, the usability of the system becomes better as there are less errors to worry about and any users won't have any problems doing any tasks.
6. Recognition rather than recall	The action that you do throughout the app are all consistent. If you can do an action on multiple pages, it will be marked with the same icon/symbol and will function the exact same.	This rule is violated as when you are check the reviews that other people did on you, it does not show you their name. this forces the user to have to do multiple steps to figure out who wrote what.	When checking any reviews about you, the name of the reviewer should be present at the top of the page so that it does not force you to backtrack to see who it was that reviewed you. This rule is important as it aids the flexibility and efficiency of use. If all the information needed at each page is present at every page it makes it so that the user does not have to go through a series of steps to figure out information.
7. Flexibility and efficiency of use	You can access any relevant pieces of information at each page that it is needed in. For example, when you are viewing your past roommates, it will tell you if you have reviewed them or not and will give you the option to do right from that screen. This allows the user to be able to do one of the most important tasks without having to go through many steps to find it.	The navigation through the app is kind of inefficient. Having to go through the navigation tab to get to all your tasks is very tedious.	A tab bar at the bottom of the screen might allow for greater flexibility and efficiency of use. By doing this, the rule will help improve the usability of the app as it will make it easier for users to navigate through all the options present in the system.
8. Aesthetic and minimalist design	The design is very minimalist, appropriate, and attractive. All the dialogues given in the app are very relevant to what is being done and can be regarded as needed information. For example, many of the pages only have dialogues containing page names and without them, it would be very difficult to know what page you are currently on.	This rule is no violated in the system.	In our generation of technology, it is very rare to see someone like to use a system that is very complicated and/or does not look aesthetically pleasing. The reason this rule is so important is that it effects how the user will perceive the system and in the end how their over all experience with it is going to be.

9. Help users recognize, diagnose and recover from errors	This rule has not been applied in the system.	The rule is violated as there are no traces of error messages given by the system, thus it is impossible for you to diagnose and recover from errors. For example, on the login screen it allows you to login without entering a password. The system should realize that this is an error and then prompt you to enter a password to proceed.	This rule can help improve the usability, utility and desirability of the system as it aids the user in fixing any errors. One of the most frustrating this in working with technology is the handling and resolution of errors and so this rule is especially important as it is what will ultimately decide the how the end user experience is.
10. Help and documentation	This rule has not been applied in the system.	This rule was violated as there is no help and documentation in the system.	It would be good to add an option in the options tab to access any help and documentation needed for the system. It would also be good to have a "Contact Us" function included with the help or on it's own. This is because of the fact that many users will need to have a way to access help for answering of their questions or to find help in resolving a problem.

Heuristic Evaluation Review - Joel Poirier & Lucas Longarini

Feature	Rating	Reasoning	Potential Improvements
3. User control and freedom	2	This does not create major usability issues, rather just minor annoying problems for the user.	Add a back button to each question on the personality test, and further make sure that a back button is present on all parts of the UI so that the user can undo a mistake or exit a page easily.
4. Consistency and standards	3	This limits the search functionality to just one criteria and gives the user a sub-optimal experience.	One possible alternative is to replace the search bar with filters, similar to dating site searches. This way, the user is not restricted to searching by just one criteria. Users will also be more familiar with this model which will reduce the learning curve and improve usability significantly.
5. Error prevention	1	The core functionality and usability is there, the icons can just be cosmetically better by being more diverse.	Introduce symbols with greater variety so that there is a unique symbol present for each component.
6. Recognition rather than recall	2	This has a minor usability issue because the user can be forced to go between screens to recall information.	Include the name of the reviewer in all places where the review is present.
7. Flexibility and efficiency of use	2	The core functionality is there, the user just has to spend a bit of extra time navigating. This is not a major issue because the system is still usable, just a little annoying.	Introduce easy access tabs rather than having to go through the entire navigation bar each time. This will have an extra click each time that a page is accessed to theoretically be twice as efficient.
8. Aesthetic and minimalist design	0	This is the intended design. Individual chat and household groups are 2 separate features that should not be combined.	N/A
9. Help users recognize, diagnose and recover from errors	4	This issue must be fixed as the user has indication of error and therefore cannot use the system properly. Without fixing this the system will work very poorly.	Include requirement for genuine login credentials to be entered; introduce error messages or indicators in other parts of the app where necessary (eg. no internet, server error, review left empty, etc.)
10. Help and documentation	2	The user can still implement full functionality, they just don't have any help doing so and must rely on intuition.	It might be beneficial to include some documentation under settings.