Homie: A Home Repair and Sevices Mobile App

TEAM Q

Heuristic Evaluation Report

TEAM MEMBERS

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EVALUATORS

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REVIEWERS

Philmo Gu
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Project Description

The "Homie" app is a mobile application that aims to provide customers with access to all available home repair and services in just one app and also to give providers a platform to further market their service or business. Services will include plumbing, electrical, cleaning, paint works and many other services. The app will be primarily used by customers such as homeowners or tenants who are looking for a specific home repair or services. Home service providers will also use the app to provide their service to the users of the app. Customers are expected to use the app to find a service provider, check details, request booking, make payments, track providers and give ratings. Service providers are expected to use the app to advertise their service, confirm booking requests, track their earnings and assist the customers with their concerns and questions.

Tasks
Vertical

- Customers can find a specific service and book an appointment. This task is divided into the following sub-tasks:
  - Customers can search through the given service categories.
  - Customers can filter/sort the results.
  - Customers can view the service provider's details.
  - Customers can set the time and date for the appointment.
  - Customers can book the chosen service.

- Customers can give reviews and ratings for a service provider and can also see the reviews of others for a specific service provider.
- Customers can have access to a list of service providers that can deliver services immediately using the Urgent Service Requirement feature.
- Service providers will be able to manage the services that they provide (edit, add,remove and set price).

Horizontal

- Customers and service providers can communicate using the live chat feature.

- Customers can choose from different payment options.
- Service Providers will be able track their earnings.
- Customers will be able to track the home service providers on their way to the customer's home.
- Customers can add a service provider to Favourites.

Heuristic Evaluation

I.   Process

The Heuristic Evaluation was conducted independently by John Valencia, David Akobundu and Emma (Aarti's Barakale's roommate). The evaluators used Nielsen and Molich's User

Interface Design Guidelines to evaluate the tasks listed above. Before starting the evaluation, Emma was given a brief overview of the app and the tasks listed above to be completed using the prototype. Since John and David are members of the team, they already know the tasks to be completed and were tasked to treat the prototype like it's their first time using it for the evaluation preparation. Each evaluator first navigated the prototype freely to see the flow of the app. The evaluators then studied the app several times with the special focus on completing the vertical tasks listed above while recording heuristic violations to make sure that most violations and usability issues are covered. The evaluations were then submitted to the reviewers, Aarti Barakale and TA Philmo Gu. During the review process, the problems that were identified during the evaluation were compiled and rated based on severity ratings shown in Table 1 in the Appendix. The problems were then ranked from the most important to least important to fix.

II. Findings

After the evaluation and review, findings were classified into two categories: Positive Findings and Negative Findings. Table 2 below shows the summary of problems that were identified during the Heuristic Evaluation. Table 3 shows the summary of notable positive findings for the app.

Table 2. Negative Findings

Issue	Heuristic(s)	Severity
No error message conveyed when invalid actions are made	Error prevention Help users recognize, diagnose and recover from errors	A
The Service Provider Page is crowded. Home button is not visible unless the user scrolls down.	Aesthetic and Minimalist	A
Missing shortcuts for completing tasks (Favorites)	Flexibility and ease of use	B
No edit option for custom reviews	User control & freedom	A
Back button isn't enable in some parts of the app	User control & freedom	A
Missing Undo/ Redo Button	User control & freedom	C
Help button is not enabled	Help and Documentation	A

Table 3. Positive Findings

Positive Findings	Heuristic(s)
The look of the application was quite professional and appealing.	Aesthetic and Minimalist

Confirmation page for booking before checking out prevents error before completing a payment.	Error prevention
1. Familiar words and icons were used. 2. Booking process comprehensive and similar to a real world scenario.	Match between system and real world
Flexibility of adding a card/choosing a saved card while checking out enables the client to avoid navigation to the account page to simply complete this task.	Flexibility and ease of use; Recognition rather than recall

III.   Decisions

The group decided to modify the look of the Service Provider Page to make it more organized and less crowded. Error messages were added to guide the users when invalid actions were made. Back buttons and Home Button were properly utilized so that it will correctly guide the user when navigating the app. An "Add to Favorite" feature was introduced to give the user a shortcut. Edit button is also added to the review page.

Reflections
I.   What went well for our group?

Extensive debriefing sessions after the evaluation elevated our design. Tutorials to learn Figma proved beneficial for our team as we achieved the smooth user experience we were expecting through our hi-fi prototype.Since the evaluations were conducted "individually" by reviewing and understanding the Rule of Thumb properly, it became easy to identify some similar and varied usability, utility and desirability problems with these individual elements and how they impact the overall user experience in a categorical and systematic manner.This arrangement aided the reviewers to collate these problems and improvement suggestions into an organised rating scale.

II.   What went poorly?

Due to COVID-19, social distancing rules restricted us to conduct the evaluation amongst the team members itself thus, devoiding us the experience of a completely 'unbiased' evaluation by the evaluators and reviewers.

III.   What would we do differently if we were to do it again?

We would ask members from other teams to conduct the evaluation as since they don't know our application which would give way to an outsider's real time usability problems. Perform evaluation again post gaining experience with several distinct designs.

Appendix

Table 1.

Rate	Description
A	Most Severe Problem
B	Severe Problem
C	Least Severe Problem

Heuristic Evaluations

Evaluator: John Leanard Valencia
Mobile App: "Homie" - A Home Repair and Services App

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	Yes. 1. The buttons changes colour when clicked 2. The progress circle in the earnings page lets the service provider know the change in earnings. 3. Success message pops up when the provider accepts/ rejects a booking appointment. 4. Tracking page is shown after payment to see the progress of service provider.		This rule will help the users recognize if their action were accepted and so will help the user know if the app is processing correctly.

2. Match between system and real world	Yes. 1. Regular words were used 2. The icons that were used were familiar to users.	Yes. 1. The icon used for the service provider page isn't very descriptive.	This rule will improve usability and desirability because if the user feels familiar with the app then they will likely to use it again.
3. User Control and Freedom		Yes. 1. There are no "Undo" or "Redo" buttons when editing or doing changes on information. 2. Edit option must also be available when giving reviews.	This rule is important for utility because it can help the user recover and change errors that were made.
4. Consistency and standards		Yes. 1. The Available Service Provider Page uses a different format of buttons in terms of colour, shape and font as compared to other parts of the prototype.	Consistency is important for desirability and usability because having a uniform looking components will make the user more attracted on using the app.
5. Error Prevention	Yes. 1. Confirmation page for booking before checking out prevents error before doing the payment. 2. When deleting a service, the service provider is prompted to choose between permanently deleting and temporarily making unavailable.		Error prevention is very important to guide the user with the tasks and to help them reduce making errors in the app. This will also help reduce misunderstanding between customer and provider.

6. Recognition rather than recall	Yes. 1. Home button and the My Account button is something that users can easily recognize even if it's their first time using the system. 2. The user's saved cards can be accessed through the "My Account" and also in choosing the payment method.		This rule will improve desirability and usability by having a user friendly interface that is easy to remember and use.
7. Flexibility and ease of use	Yes. 1. Having the saved cards as the payment option makes it easier for the user to have a smooth transaction rather than having to input it everytime. 2. Service providers can easily access reviews/ratings in the service provider home page. 3. The urgent button gives the users the shortcut of accessing all the immediately available service providers. 4. The Date and Time Picker automatically		This will improve the desirability, usability, and utility because having shortcuts and helper tools will make the users enjoy using the app as it lets them complete tasks quickly and conveniently.

	sorts the results based on the chosen date and time.		
8. Aesthetic and Minimalist Design	Yes. 1. The app uses uniform colours based on the task that needs to be done in the app. Teal colour was used for pages that involved the customer and dark green for the pages that involves the service providers. 2. The format of the pages are mostly uniform. (Font, colour)	Yes. 1. The available service provider page looks very crowded.	Aesthetic and Minimalist design is also an important improvement because having a visually appealing interface can attract more users and repeated users.
9. Help users recognize, diagnose, and recover from errors.		Yes. 1. No error messages were displayed / used in the app on parts that can produce common errors.	It is important to guide the users with the errors so that they will not likely do it again next time.
10. Help and Documentation	Yes. 1. Live Chat feature is accessible for both customers and service providers to provide help. 2. Help button is also available but is not fully functional yet.		Help and Documentation is important as it improve the service quality to users by providing assistance when a user experience a problem while using the app. Having documentation or help results to positive response to the users.

Evaluator: Emma Nowlon (Aarti's Roommate)*

*Due to lack of team members in Team Q. By the permission of the professor Lorans Alabood and the Teaching Assistant Philmo Gu, we invited a non-member of Team Q to complete one evaluation. It is to note that care was taken to explain the Rule of Thumb to Emma Nowlon.

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 button appears to be clickable the minute one hovers over it.		
2. Match between system and the real world	Yes, as it follows the same flow of information collection, service, and payment process.		Clarification of certain aspects before confirming the booking, by maybe giving contact information and accessibility before booking. Tutorial videos on quick fixes can be displayed at the start of a certain service page for temporary fixes till the service provider arrives.
3. User control and freedom		Yes, as the user has to go to the very bottom of a page to access the home button, and account button, especially when there is a list of service providers to choose from on that page.	The three lines in the top left corner for accessing some quick pages like the home page, client account and help instead of having a tab bar at the bottom of the page.

4. Consistency and standards		Yes, Back option not enabled on every page.	We can have the quick accessibility to some pages showed by the three horizontal lines on the right and back button the left to maintain consistency throughout the application. Password verification field can be included for customer satisfaction as that is what they are normally familiar with viewing.
5. Error prevention		Yes, Sort and filter does not show filtered page easily as the buttons tend to overlap. The service provider page does not fit well. Help button is not enabled.	Sort and filter can be fixed by making buttons bigger and easily clickable.
6. Recognition rather than recall	Yes, as the flow of task itself is very self explanatory when maneuvering through the given tasks and options in the app.		

7. Flexibility and efficiency of use	Yes, simple yet efficient method of logging in -> picking the service by given well organised categories -> booking -> Paying -> Tracking. Hence, was not nervous to take next steps.		A submit confirmation page can be added to the review page so as to inform the client that the review has been submitted. A log out option can be implemented.
8. Aesthetic and minimalist design	Yes, very professional looking and feeling design and experience. Swiping to see the offers and additional news was interesting! Placement of options were smart and sleek choices.		Offers can be displayed in a cleaner format, i.e. the font can changed to something more eye catching.
9. Help users recognize, diagnose and recover from errors	Yes, as everything seemed very self explanatory while performing tasks.		Small suggestions can be given while proceeding through the booking steps to prompt about some service provider information/ service related points itself.
10. Help and documentation		Yes, the help button is not enabled, hence clarification on some aspects of the application is left uncleared.	Why/ What is the purpose of authorised user while signing up as a client could be displayed using a quick help button on the page itself.

Rules 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	Yes. The different states in the system are communicated to users effectively	No	Users would not be in a state of confusion when using the app as to what page they are on
2. Match between system and the real world	Yes. The user is familiar with languages and concepts used in the app.	No	It makes sure that the application is easy to use as users are familiar with similar systems
3. User control and freedom	Yes. Users have the freedom to back out of actions and make changes to decisions	No	This makes the app more desirable as costumers know they can always make changes to their action so they don't have worries about making mistakes
4. Consistency and standards	Yes. The languages and actions used are consistent with other applications in the world.	No	This also fosters usability as users are familiar with other applications that use a similar languages and processes
5. Error Prevention	Not at all times. Some processes do not cover the cases for when the user makes an error e.g the wrong card number is typed in	Yes	Being able to detect error would help users to know when they have made a mistake when carrying out an action.
6. Recognition rather than recall	Yes. Information required to use the app remains visible for the user	No	This makes the app easy to use. Users do not have to search for a long time to find something they are looking for
7. Flexibility and efficiency of use	No.	Yes. There are no shortcuts to carry out a task. Processes to carry out a task are designed in one way.	This would improve utility as expert users would be able to carry out actions speedily
8. Aesthetic and minimalist design	Yes. There is no unnecessary information	No	This enhances the desirability of the app as users stay way from designs that are not minimalist in nature. No one likes an

			interface with so much irrelevant information that makes it hard to use.
9. Help users recognize, diagnose, and recover from errors	No.	Yes. The prototype does not showcase any sample of error messages coming into effect	Being able to detect error would help users to know when they have made a mistake when carrying out an action.
10. Help and documentation	Yes. It is easy for the user to find how to get help.	No	This makes the app easy to use as users are able to get help easily immidiately they need it.

Evaluator: David Akobundu

John

- There is no descriptions for icons (B - if not obvious, C otherwise)
- No undo / redo when editing (would be nice, but not necessary)
- No editing option given after writing review (A)
- Formatting buttons to be consistent to other parts of prototype (B - if not obvious, C otherwise)
- Service provider page looks crowded (B)
- No error messages conveyed when invalid actions are taken (A)

Aarti

- Home and account button at the end of screen to return to page, which is not easily accessible (??)
- Sort and filter buttons are overlapping, which clicks both buttons at the same time (limited by prototyping method?) - New problem (prototyping limitations)
- Service provider page has poor layout formatting (B)
- Help button is not enabled (A)

David

- No comment on invalid input (A)
- No shortcuts to completing some tasks faster? (B) - Favorite services, service history
- No messages to help recognize, diagnose, and recover from errors. (A)

Ratings

1. Error prevention - provide feedback when input is invalid
2. User control & freedom - editing reviews after done, pressing back button to return to previous screen
3. Help to recognize, diagnose and recover from errors
4. Shortcuts to completing tasks faster - Favorite services, service history
5. Appearance of service page??? - 2/3 investigator said it
6. Undo / redo reviews while writing? - Unnecessary, but could be nice? Seems more useful with keyboard

Prototyping limitations

- Let users explore, but give them option to go back when they realize they are in the wrong place

Reviewer: Aarti Barakale

The range of severity of the problems noted by the evaluators is from

(A): Most Severe problems

(B): Severe problem

(C): Least Severe problem

Evaluator Emma:

1. The home button is only accessible if one scrolls to the very bottom of the page. (B)

-> Contents option can be shown at the top of the page to avoid scrolling.

2. Back option to go to the previous page is not available/ not available on every page. (A)

3. Offers can be shown with better formatting to attain a professional look of the application. (B)

4. No help button for better understanding for certain options/tasks for the user. For instance, its confusing as to why and what does the authorised users do when a client is signing up for 'homie.' (A)

-> A help button/prompt can be used to provide instant assistance to the users for clarifications on several aspects of the app.

Evaluator John:

1. No brief descriptions for icons. (B)

2. No editing option when writing a review (B)

3. No editing options to undo or redo an action. (C)

4. There is some formatting inconsistencies on some pages of the application. (A)

-> Follow one pattern/style throughout the app

5. Service provider page looks crowded (A)

-> Spacing for better legibility of the options provided for the user to perform tasks will help.

-> Overlaying options for some additional tasks buttons can be used to keep the content clear on the page.

6. No error messages displayed on parts that can produce common errors. (A)

Evaluator David:

1. No shortcuts to carrying out certain tasks. (A)

-> Favourite Service provider list can be provided to the user

-> Frequently used services can be provided as prompts.

2. No message on invalid input by the user. (A)

-> Prompt message can be displayed before going ahead to the next step.

-> No messages to help recognize, diagnose, and recover from errors.

Ratings

Ratings

1. Consistency and standards: Back and help button should be available on every page **consistently**.
2. User control and freedom: UNDO/REDO/BACK button should be available for enabling the user to move between pages freely and edit the review they provide, if needed.
3. Error prevention: Sort and filter is not enabled correctly as wrong result shows up. A prompt should show up if input is incorrect.
4. Aesthetic and minimalist design: Service provider page is crowded
5. Help and Documentation: Help button/prompt provided on the page is not enabled.
6. Visibilty of system status: Every button should be clickable so the user has a feel of using an actual app on their phones rather than a prototype.
7. Help users recognise, diagnose and recover from errors: Messages/prompts should be displayed to guide the users when they are on wrong page or if they encounter an error while completing a specific task.