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Co-Living Application

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ABSTRACT

User Interface and User Experience are the key aspects of any product development. It may not be only in the technology world, but they are the most important part of any field. User Experience raises questions like what problems users are facing? , what could be done in order to solve that issue, and how an experience could be made more user-friendly to a user. Creating a product that solves user problems is not enough, making the product fun and interesting which excites users to keep their focus and not get distracted is what makes a product successful. User Interface can be defined as how a human interacts with the computer interface. Stages taken in designing an interface include identifying the user needs, understanding the user problem, and other stages like observation, creating a storyboard, empathizing with user problems, and creating information architecture and wireframes. The goal of this process is the satisfaction of the users and the company. Having a good User Interface and User Experience can make a vast difference for the company and users.

Keywords: User Interface, User Experience, Design, Solution, Pain Points, Goals, Personas, Empathy Mapping, User Journey, Compatible, Card Sorting, Information Architecture, Wireframe.

1. Introduction

To build a successful website or an application having a skilled developer is not the only major requirement, there should be a person to decide factors like

- To what kind of user is the product targeted to
- What are the problems users are facing?
- What are the critical issues to focus on?
- Emotional journey a user goes through in order to complete a task
- Coming with all possible solutions until you find one that matches the requirement

When it comes to finding out user problems it is always best practice to find real users i.e., the targeted audience because a designer can never think like a user. We find all kinds of people, who are good with technology, who are not so good at using them, and users from different age groups. Designers cannot always think from every user's point of view. This is where user research begins.

Interviewing users depends on the kind of project a team is working on. If it's an existing product and any new changes are needed, many users of different backgrounds are chosen to ask if they are facing any problems and how the app could be improvised. If the team is working on a new product, the primary task is to find who are the targeted users for the product and try to get those users for an interview asking for their input.

Considering the inputs from user interviews, the design team prioritizes the problem they have to focus on and starts the rest of the research process. Having interviewed a bunch of users, the team categorizes the problems and goals as user personas. User Personas are fictional characters whose goals, pain points, and gain points can be drawn from the user interviews done in the first stage. These personas give the team an idea of whom they are designing and it won't let them lose their goal.

With the personas, it is also a good practice to take a look around for any similar products existing in the market already and try to compare the good and the bad features in them and how you can improve in your product.

Once the team is familiarized with the problem statement, targeted users, and other competitor products, it's time for finding the solution.

There is a number of research methods to find solution. Beginning with card sorting, it is a technique that involves asking users to organize information into logical groups. This research can be done by the design team or can be carried out by users. This method is used to organize and structure the information. This method is carried out by first writing out features in cards and then sorting them into the category they belong to.

After understanding the workflow, its time to empathise with the user's emotion and create an empathy map, which helps us find out how they

- Think & Feel
- See
- Say & Do
- Hear

Data for these could be drawn from the user personas. This method depends on users' emotions such as, how they "think & feel" when they use a product, what they "see" around them, what they "say & do" to solve a problem, and what they "hear" regarding the problem they are facing. This process gives them a better understanding of the user's pain points.

Another important research method is to create a user journey, by this method we can get a deeper understanding of users' emotional journey when completing a task. For example, if a user needs to book an airline ticket, we can study the journey a user takes to successfully book the ticket.

With all the gathered data, it will be easy to create an information architecture. Information architecture is the complete workflow diagram from beginning to end.

After all these research methods, the process of wireframing begins. The process from user journey map to wireframe is repeated over and over again with new changes based on user feedback or stakeholder's feedback. Once the stakeholders are satisfied with the wireframes, the next process of creating high fidelity screens is started.

The "Co-Living" application focuses on users who need help finding a place to stay in a new city. The main goal for this app was to create an interface where users don't have to deal with a number of filters. Although there are numerous websites and applications with similar features, this application has focused on users' frustration with the competitor's product and tried to come up with an easy solution.

Literature Survey

On basis of feedback provided on the existing products, the public has reported that they are not satisfied with the user experience and interface they provide. I have gathered the data by studying the feedbacks user have given to the existing products. The analytics of their problem show that 70% of them are not able to find a place due to high rental demand. A few of the other problems the users are facing are

High rent and no knowledge about the rent cost in a different area

Most of them have no idea how much an average rent can be in different places. In this day and age, there are many people who can easily take advantage of people like these. According to an article, 40% of tenants get scammed by the owners of the house or the brokers.

Pay brokers

One of the disadvantages of finding a new place is paying a broker to find a place. Many brokers try to take advantage of naive users. Sometimes users have no choice but to give in to their demands to find the desired place.

Find a place in the desired place

The third most common problem is finding a place near the desired location. When searching on the existing application the search result also shows the places far from your searched place. Also, not every application allows you to find the distance and mode of transportation you could take or any nearby locations in their application. Providing these features makes users feel confident about their search and gives them an idea about the location.

Maintaining the rooms

Maintenance of the building and rooms is another issue users had trouble with. The rooms they visit are not always maintained or secured especially if they are looking for Paying Guest accommodation type.

Trusted source

The images are not always trusted. For the last 2-3 years few applications make sure they personally check and post the photos to their application, which users can trust. But still, in most cases, it's the owner's job to post the photos and they are not always to be trusted according to the research.

2. Problem Statement

When moving to a new city, the main concern for anyone is to find a good place to stay, especially in a place where you don't know anyone. In those times everyone turns over to the internet, but we cannot trust all the sources where everyone is claiming to be authentic. People also find it irritating when there are given more options to choose from. Going through the psychology of choice explains that a human brain always makes faster decisions when given lesser choice. The more options we provide users they tend to lose interest or are more likely to get frustrated. The main goal of finding a solution is to make sure users are given the right amount of options of filters to choose from, and also make them feel safe and trust the application.

3. Improvement Of Existing System

There is plenty of website and application providing the platform to look for houses or other places to stay. Few direct competitors are

- Zolo
- Stanza Living
- CoHo
- Oyo Life

	Furnishing	Hygiene & Maintenance	Security	3 Types Of Accomodation	Payment Via Website	Cafe	Meal Flexibility	Technology	Supervision
Zolo	○	✓	✓	○	○	○	○	○	○
Stanza Living	✓	✓	✓	✓	○	✓	✓	✓	✓
Coho	○	✓	○	○	○	✓	✓	✓	○
Oyo Life	✓	✓	✓	✓	○	✓	○	✓	✓
Co-Living	✓	✓	✓	✓	✓	✓	✓	✓	✓

Fig 4.1: Competitors Research

The basic features like furnishing, food facilities, and security are available with the competitor, but when browsing through their website/app, the main issue I found was the filter feature. Few products had fewer filter options whereas others had options that were more than required.

Features in the “co-living app” include, only the right amount of filter search and it displayed how much per cent the result is compatible with the filters we have chosen.

4. Research Methods

The design stages for this case study were

- User interviews
- User personas
- Empathy mapping
- Card Sorting
- User Journey
- Information Architecture
- Wireframes
- Choosing the fonts and color pallet

- High-fidelity screens

The “Co-Living app” is mainly focused on users who move to a new city, especially for studies or work. My main target audience was students and employees between the aged of 18 to 25, thus I started my user interviews with people I studied with who had moved across cities and even states.

There are some techniques when it comes to interviewing users,

1. Determining the goal: the interviewer must decide what information is necessary to find a suitable solution.
2. Interview questions: the questions have to be open-ended and easily understood by users, i.e., users must feel comfortable, and must not feel like they are being interrogated. The questions should not be Yes/No type or which makes them feel comfortable discussing their journey process.

5. Research Design

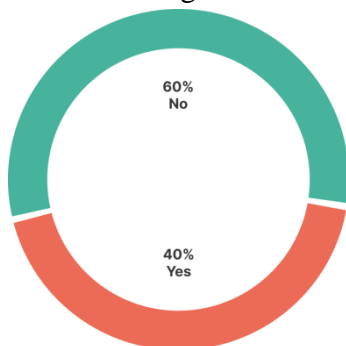
Data Collection My goal: It was to find out what was the users’ process to find a place to stay, and how many days it took them to find a place they are comfortable with.

Interview Questions:

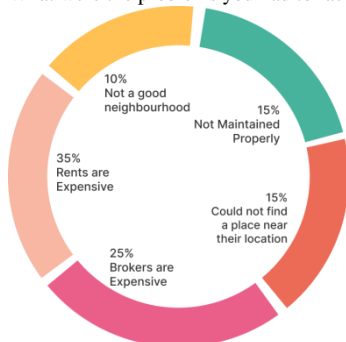
1. How did you start looking for a place to stay before moving to a new city?



2. Were the images matched the actual place when you visited?



3. What were the problems you had to face when looking for a place?



4. How was your experience with the application/website?
5. What could have been improved which would have helped to narrow down your choices?

These were some of the questions which I asked during the initial stages of the interview. Through this interview, I understood that

- The users found it hard to find a place near their institute or office
- There was no easy way to check how far it is near their desired location.
- Users were not able to find decent places, for their requirements.
- They had difficulty choosing between many filter options, and most of their required filter was not present.

Based on the data gathers from user interviews, I took the most common pain points and goals and created user personas.

User personas: User personas are archetypical users whose goals and characteristics represent the needs of a larger group of users. Designers usually create user persona template templates, which include a few fictional personal details to make the persona a realistic character as well as context-specific details ^[1]. This process is done to narrow down the list we need to focus on. When we conduct 5 - 6 users, everyone has their opinion and their own pain points, catering to each and every need can never help designers solve the problem, thus it is a common practice to gather all the common pain points and goals and create dummy users for the design teams reference to what exactly they are trying to find solutions for.

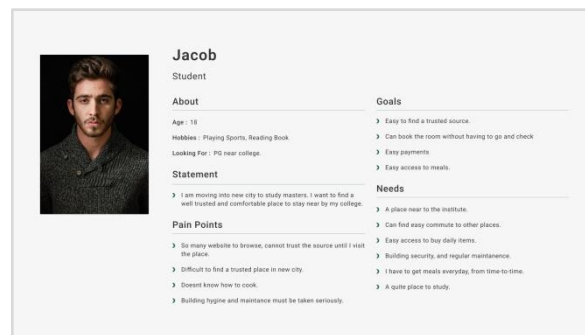


Fig 6.1: User Persona 1

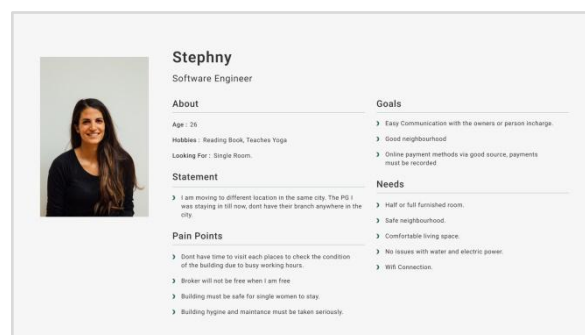


Fig 6.2: User Persona 2

Card Sorting: Card sorting is a technique that involves asking users to organise information into logical groups ^[2]. This process could be done with target users, which gives an, even more, a better understanding of their point of view, or the design team could do it and ask for their opinion. Users are given a series of labelled cards and asked to organise and sort them into groups that they think are appropriate. Card sorting helps you to design an information architecture, workflow, menu structure or website navigation paths ^[2]. I listed down all the possible features the users are looking for and started placing them down on the sticky notes, one easy way to categorize them is to color-code them, which makes it easier to categorize and visually pleasing. After I completed the card sorting, I asked a few of the users I interviewed earlier for their feedback. There were a few rearrangements that had to be done based on their opinion, and I had a piece of good knowledge of the user problems and which problem I was going to prioritize.



With prioritizing the problem we have to solve it is time to focus on users' emotional journey when performing a task.

Empathy Mapping: An empathy map is a simple, easy-to-digest visual that captures knowledge about a user’s behaviours and attitudes [3]. It is a useful tool to help teams better understand their users. This process is widely used to understand the users' situation in a better way and learn about their interaction with the computer.

To create an empathy map, gather any qualitative research data, personas, and your team. The only materials needed are large sheets of paper or a whiteboard, colored sticky notes, and markers [3].

I made a chart and place what I know about the users so far. In an empathy map, there are mainly

4 quadrants:

- Think: what do users are feeling when interacting with a product
- Feel: what are the different emotional journeys they go through in order to complete a task.
- See: what they see in the product, and
- Say & Do: how they decide to use that product to complete a certain task. People’s actual words could be used as quotes here.



Fig 6.3: Empathy Mapping

User Journey: User flows are a great method for segmenting and defining your user experience. They allow you to track what screens users typically see when they interact with a product and how they interact with those screens [4]. It is a visualization or illustration of users' emotions when they are completing a task. When using an application or website, there are multiple thoughts going on in users' minds. Most naive users usually get panicked when they find any inconvenience. Users should always feel safe and confident when using a product. One of the ways to increase users' confidence is to ensure that if and when they make a mistake, those mistakes could be undone.

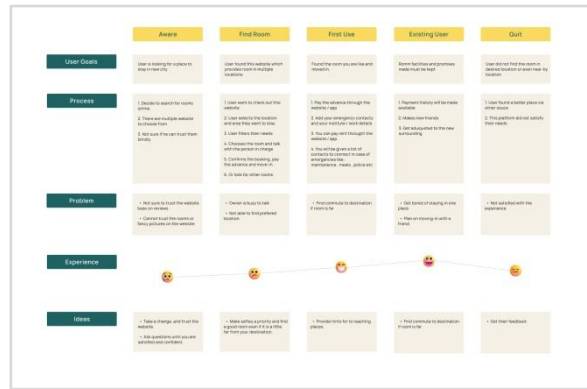


Fig 6.4: User Journey

After completing the user journey, we have a better understanding of the user's emotional journey when using a product. The main goal is to design a journey for users where they get less anxiety and can also enjoy the process.

Information Architecture: Information architecture (IA) focuses on organizing, structuring, and labelling content in an effective and sustainable way. The goal is to help users find information and complete tasks [5]. It is a process to organize the data. This is the process when the designers decide how the product should work and its workflow. It begins with the splash screens and to the endpoint of the task.

This is a detailed diagram of each and every option provided and every possible outcome of the choices we select. This architecture is one of the complex tasks and needs more than 4- 5 sprints to finalize. If any problems are found, the process of all the research methods has to be carried out with the updated data.

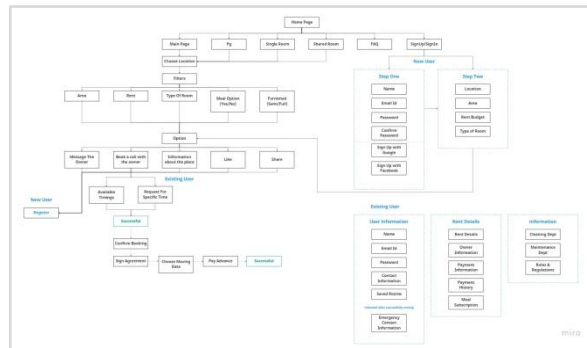
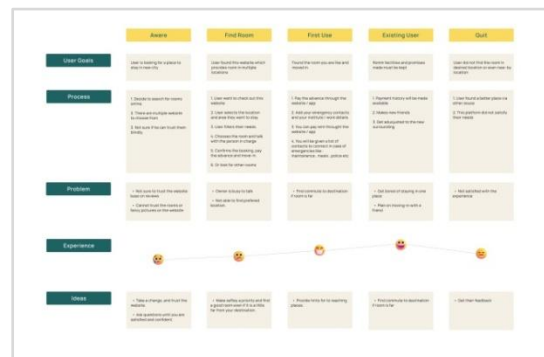


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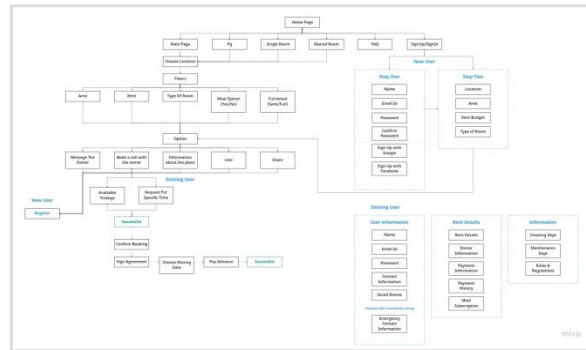


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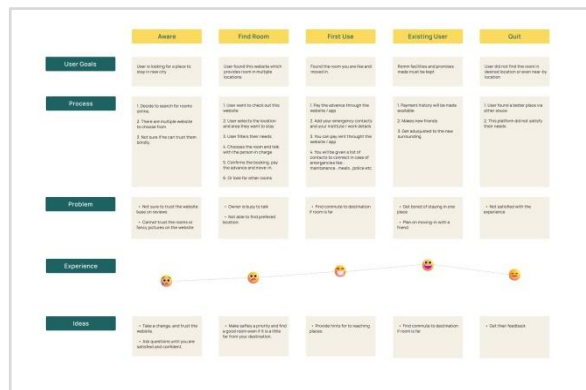


Fig 6.5: Information Architecture

Once the first draft information architecture is ready, we can create wireframes based on the information gathered.

Wireframe: In this process, we have to design interactive screens. A wireframe is generally a monochromatic drawing that's created in the design phase of Design Thinking Process. It provides a blueprint of the page structure, layout, information and functions. This in turn gives a clear idea to the stakeholders about the functioning and visual representation of application UI [6]. Designing screens behind with a rough sketch to get an idea about what features need to be added and where they would get placed. Gradually we can start with a black and white screen with more detailing in placing the data and other visual elements.

Wireframes and information architecture are similar in a few ways; designers have to keep on working for more than 4-5 sprints in order to come up with a good design that must satisfy the users and stakeholders if any are present.

Once wireframes are designed, they are tested with the targeted users, this process is not always mandatory to do but it is a good practice. If we test after creating the final screens, it is difficult and will cost us money and time to redesign it.

6. Result

My main goal in designing this application was to give users a better experience while searching for a new place to live. This process is a very hard job, which leads users to get frustrated very easily. By gathering all the user data, goals, and pain points, the two main features I wanted to solve was to provide the right amount of choices to the users and guide users on how much per cent of their search results were compatible with their filter choices. It is always easier to make easy decisions with fewer choices. The human brain gets frustrated when given more than necessary options to choose from. From the user interviews I collected, I combined all their pain points and goals they wish they had when they were looking for a place and found a few common fields like Location, Price range, Accommodation type, and Furnishing type. The search results also informed users on how much they are compatible with their choice. After completing the screens, when tested with the users, they find it at least 40% more user-friendly to find a place with this application.

7. Conclusion

User Interface and User Experience is and always will be a major factor in a product's successful journey. A product can never make users happy if they find it frustrating to use. Designers should not always focus on solving users' problems, but they should also focus on making it an exited journey for users and keep them engaged, also make sure they return to using the product over and over again. This will ultimately increase in companies' revenue. While using an application or website, users should easily find what they are looking for and make sure they can complete their task with no issues, and even if they do make a mistake, an interface should be designed in such a way that the users' actions can be reversed. An interface has to be designed keeping all the age groups and all the possible users in mind. It has to be accessible even for disabled people. A few ways that could work would be choosing a color pallet that people with color blindness have no difficulty viewing, tab indexing if there is no availability for house or text to speech, and vice versa option, there are many more options that could be implemented. I would like to conclude this paper by stating that, for any product, whether it's a technology-related or other field, a good user experience, and the user interface is the key to success.

Reference

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^[3] <https://www.uxbooth.com/articles/empathy-mapping-a-guide-to-getting-inside-a-users-head/>

^[4] <https://xd.adobe.com/ideas/process/user-research/user-journey-vs-user-flow/>

^[5] <https://www.usability.gov/what-and-why/information-architecture.html>

^[6] <https://medium.com/detaux/what-is-ui-ux-wireframe-designerrs-46dac9c8a153>