

PROJECT 1: WEB-BASED SERVICES

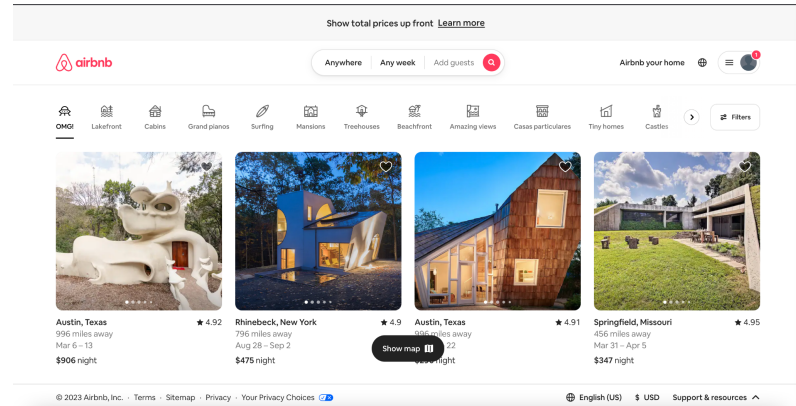
Adam Lewandowski, Diana Yang, Emily Ratsavong

Improved Airbnb Interface

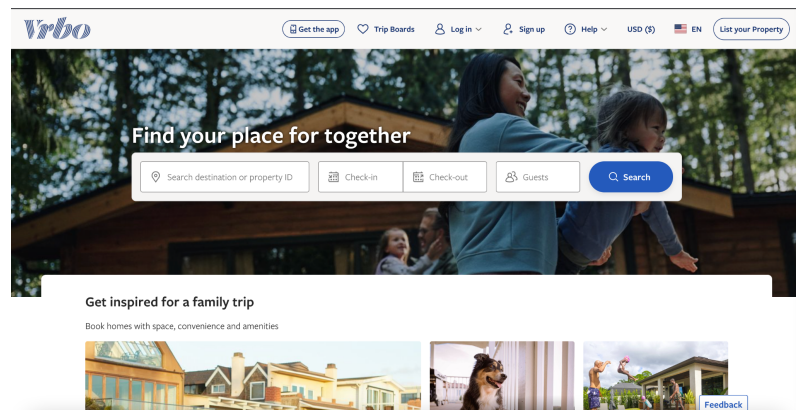
PROJECT I: WEB-BASED SERVICES

INTRODUCTION

Our team decided to take a look at a house booking or rental website interface, specifically Airbnb. We especially had interest in the quality of the main homepage where users search for the properties they would like to rent. Making it easier to filter options to their preferences and navigate through options was an area we determined to have opportunities for improvement. Other areas where we felt there could be improvement was easier access to information that renters could find important, such as what they are paying for when charged for a “service fee”. This information was difficult to find in detail, something we felt was not reasonable as it came at a considerable charge to the customer. On top of this, there was clearly a need for an enhanced, simpler review section as well as creating a space for users to save potential choices for comparison. This meant displaying the important information of “favorited” properties in a separated tab that made these comparisons simple as well as all in one spot. Websites such as Airbnb and Vrbo are the state-of-the-art examples in this field, but as we looked at both we realized that each had its strengths and weaknesses. Thus, we took note of what did and didn’t work, and also what neither had that could improve either site, and set our eyes on creating the best possible, easy to understand, experience for users booking a stay, even if it’s their first visit.



- Airbnb’s initial user interface

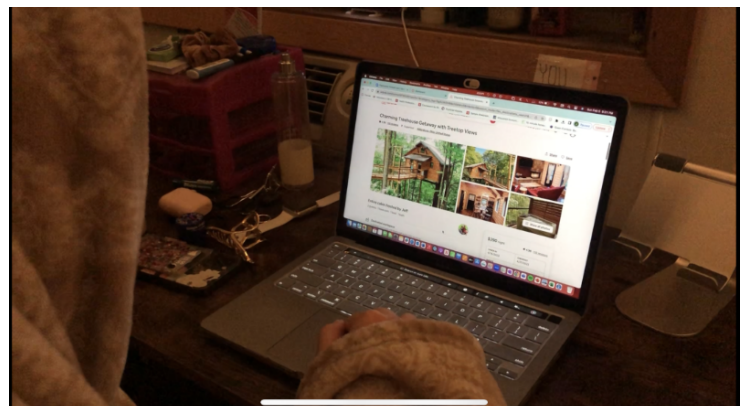


- Vrbo’s user interface

PROJECT I: WEB-BASED SERVICES

UNDERSTANDING

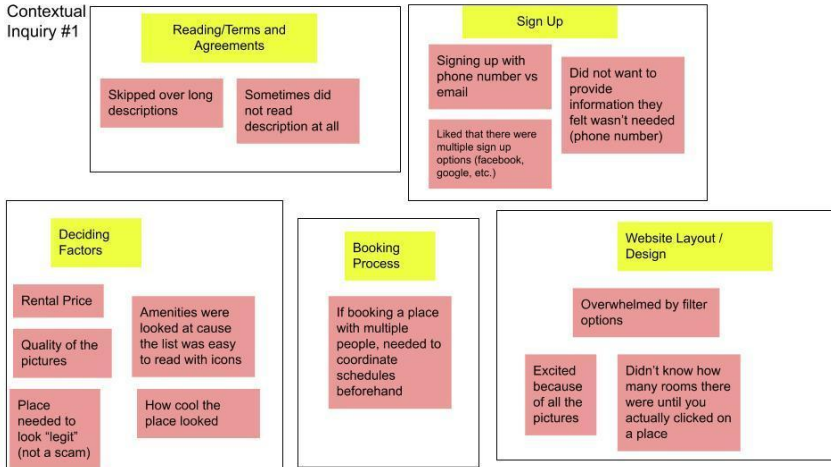
Our Contextual Inquiry process was to set up interviews and task users to create an account, search and filter through bookings, and try to book a property, all while they answer questions we would ask during the interview. During these interviews we took notice of any body language, small movements, expressions, and more that could indicate that the user was having issues or enjoying part of the interface. Each interview was watched back and every interaction was transcribed, allowing us to revisit the interviews and annotate what was occurring. This allowed us to make new observations on top of those made in the moment, which we used to create an affinity diagram. This diagram shifted our ideas into categories where we drew similarities and differences based on what each user encountered. We also were able to use these transcriptions to make various models and diagrams, allowing us to further understand what we desired to change and keep the same on the interface. After creating all of these resources, we sat down and discussed our not only opportunities for improvement, but what should remain the same on the interface from its current implementation.



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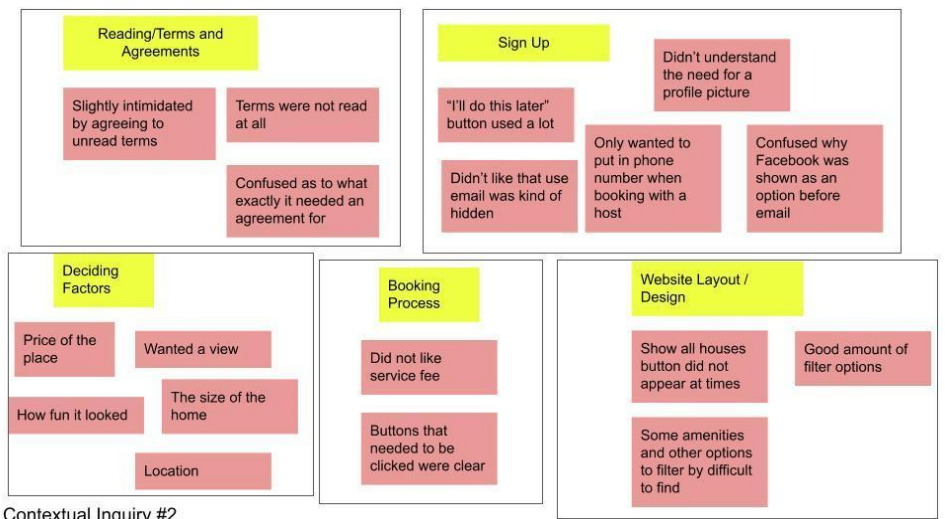
Understanding

Contextual Inquiry #1

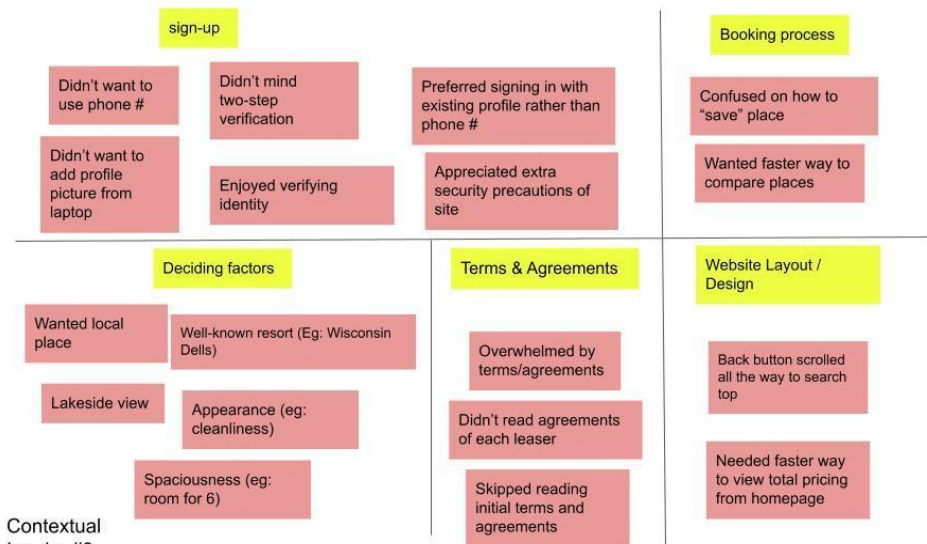


Affinity Diagrams:

One per each CI done. The findings are listed following the presentation of all the models.



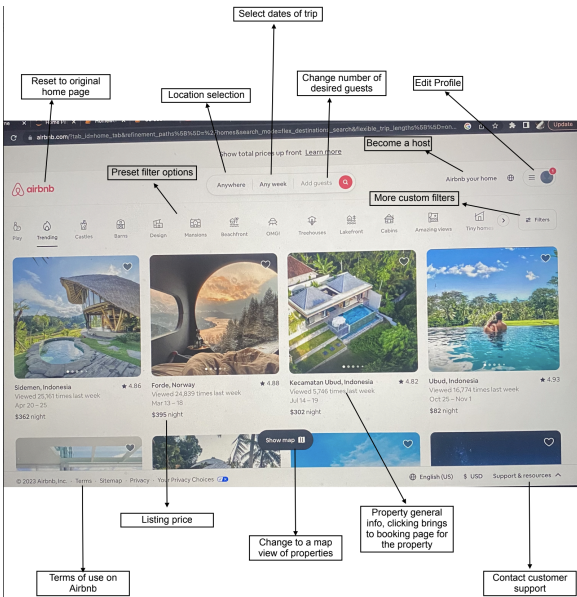
Contextual Inquiry #2



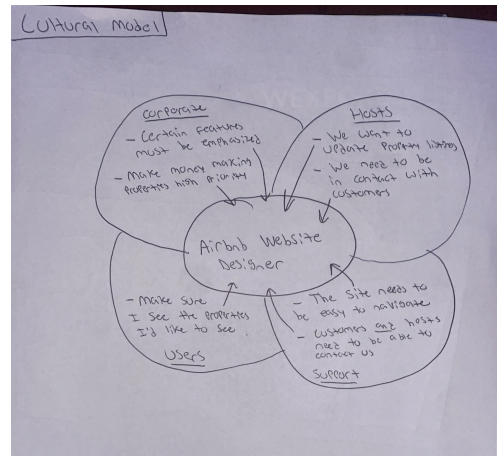
Contextual Inquiry #3

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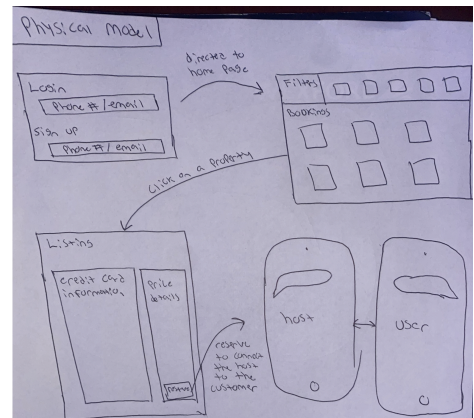
Models:



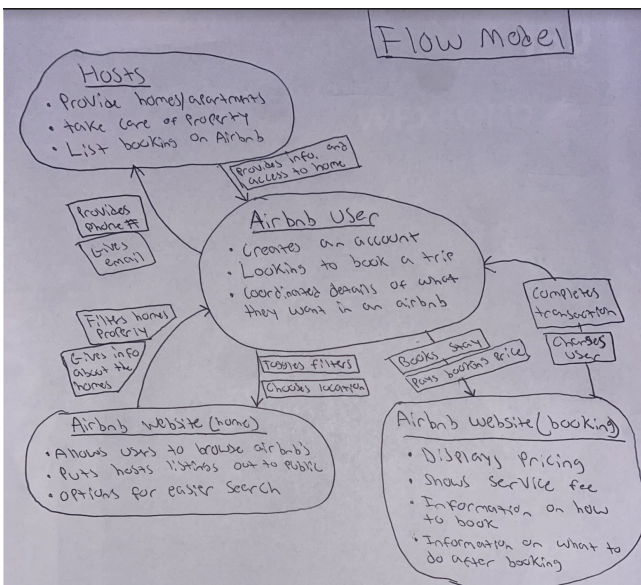
- Artifact Mode



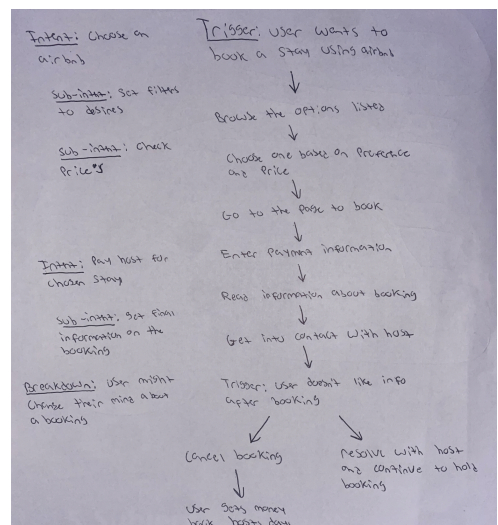
- Cultural Model



- Physical Model



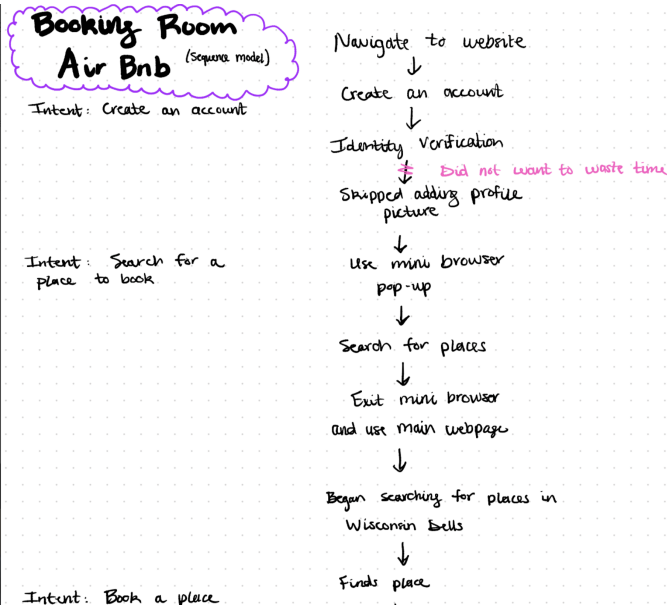
- Flow Model



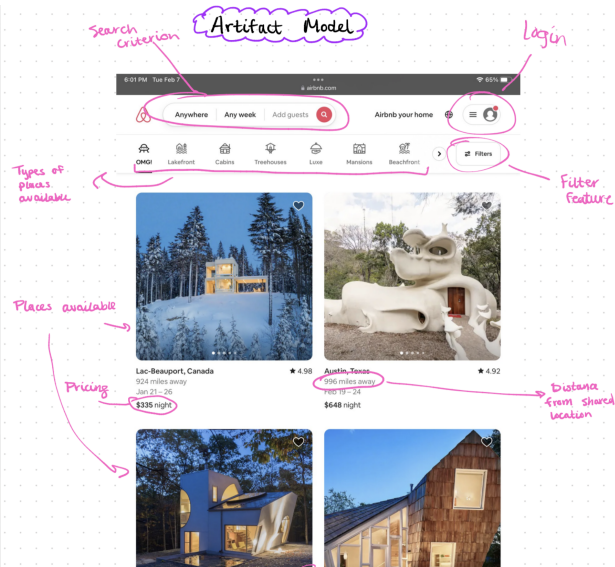
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Understanding

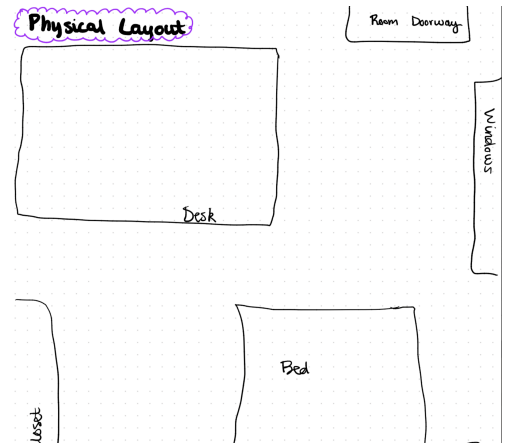
More Models:



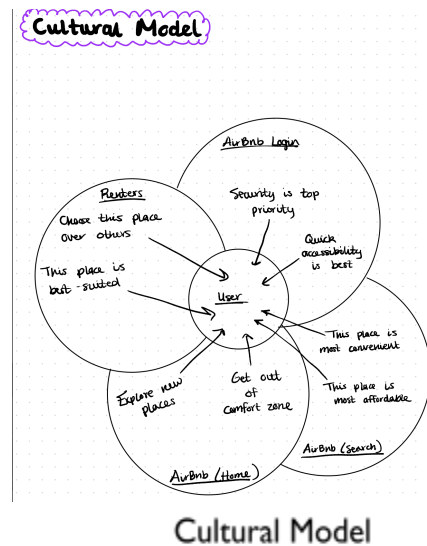
- Sequence Model



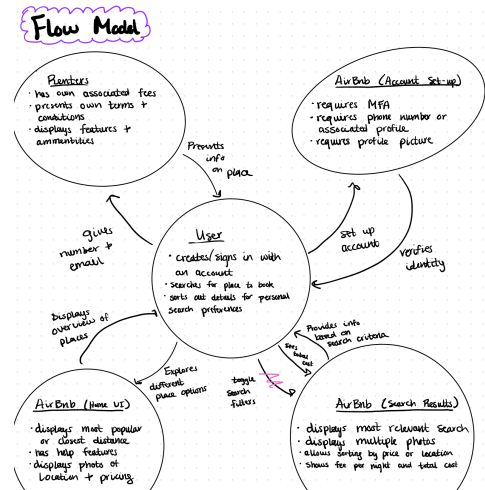
- Artifact Model



- Physical Model



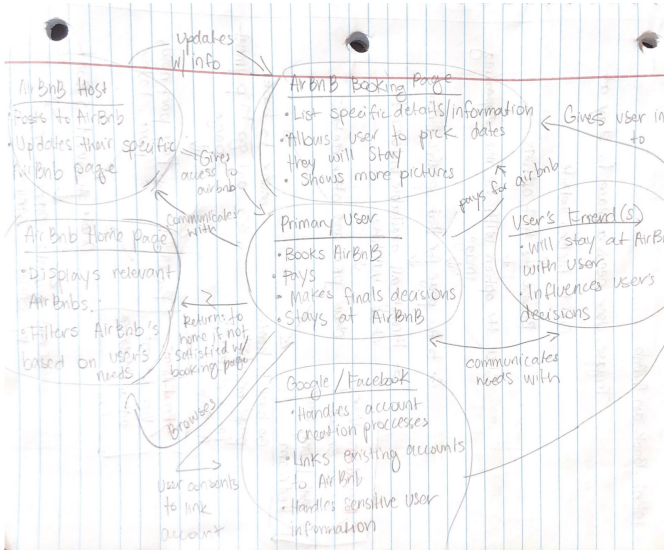
Cultural Model



Flow Model

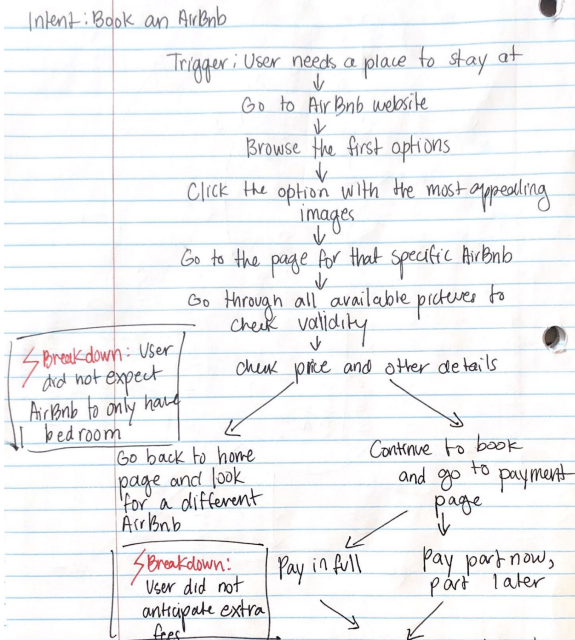
PROJECT I: WEB-BASED SERVICES UNDERSTANDING

More Models:

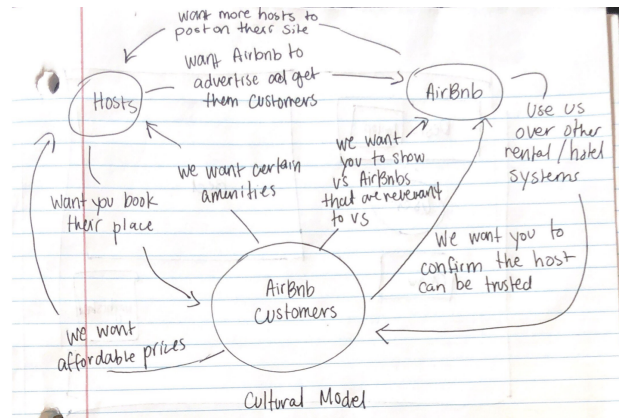


- Flow Model

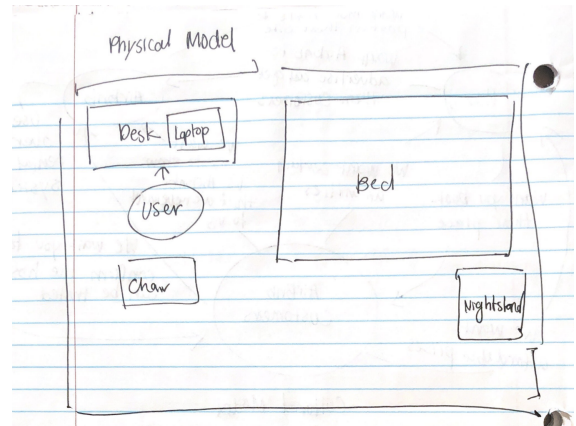
Sequence Model



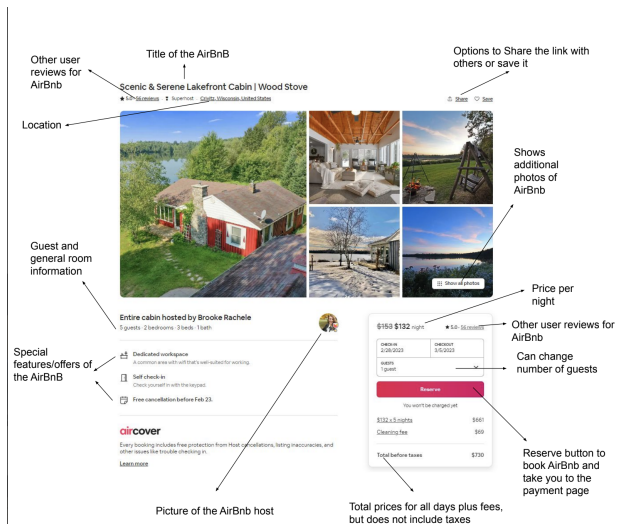
- Sequence Model



- Cultural Model



- Physical Model



Artifact Model

PROJECT I: WEB-BASED SERVICES

Understanding

Findings from Affinity Diagrams:

Upon finishing our Contextual Inquiries, we concluded that there were some commonalities between the users and the interface. First, it seemed that the home page and searching was slightly overwhelming. This came due to losing filter options and just how many properties were on the screen at once.

We also noticed that users did not feel that comfortable with some of the information that was displayed. This included an agreement, one that not a single participant read, and the service fee, which simply lacked information. We felt that these both could use updating and be shown to customers in a more effective way.

Another category we noticed was what deciding factors swayed users while looking through the site. We felt this was important in determining how the web page can be designed to simplify user experience. Using this, we created the idea of a favorites page that displays a person's saved properties with just the main information to compare them. Here, we believe the user can decide better based on their specific needs just which property they will want to book for their trip

Findings from Models:

After creating our models, we used the physical and artifact models to analyze the current UI. This allowed us to visualize what was currently being presented to users as well as what could look different. It seemed overwhelming from the artifact models, leaving us thinking of design simplifications for searching.

Sequence models allowed us to see the decision process that users go through when deciding on a property. This is essential information for figuring out the most effective way to display certain aspects of properties and search features. Knowing what users value, and don't value, when making decisions using the interface gave us insight into removing, moving, or adding features to the site.

Lastly, the cultural and flow models indicated the communications that need to consistently occur during the use of the website. Whether it be Airbnb with the user, or the customer communicating with the host, these are essential features that need to be maintained with easy access. We used these to understand which groups had essential functions that could have their experience improved or simplified for future use.

PROJECT I: WEB-BASED SERVICES Ideation

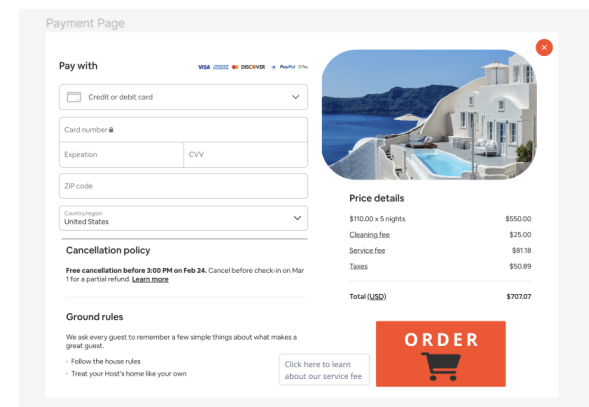
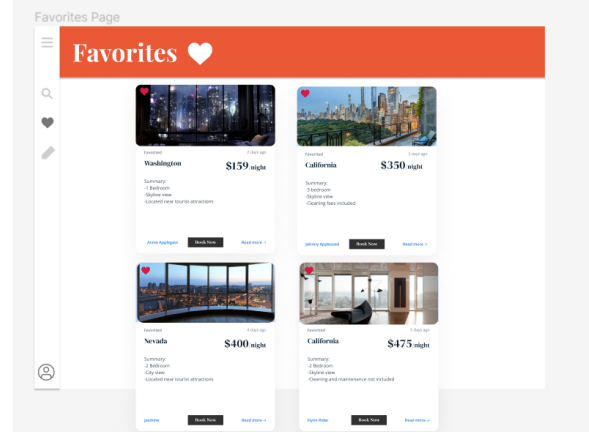
First we started with our storyboard which included an individual wanting to book a room for their vacation stay.

From there, we decided to have different screens for different tasks such as favoriting, leaving a review, and booking a room.

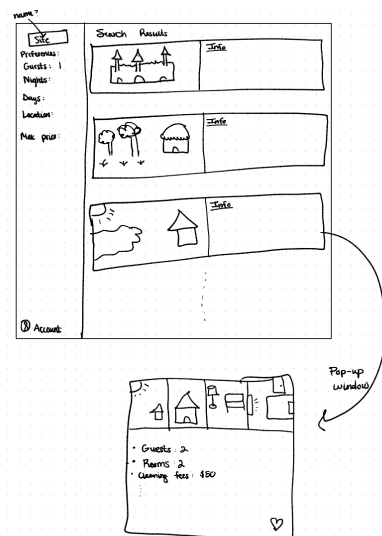
We knew from our Contextual Inquiries that having a page for favorites was necessary since our users did not enjoy how there was not a separate page. Since clicking on a new place would usually lead to a new page and bring the user back to the top of search results, we decided to create a separate pop-up for booking.

We also decided to add a separate payment page to make checkout easier for our users. On the original AirBnb site, it was difficult for users to navigate through payment processes.

Starting from the bottom, these are our initial ideas of what the homepage and booking screen should look like. When booking, we knew we wanted a pop-up window to show up. The images shown in the next column and above are how the payment and favorites windows turned out.



Payment Page and sketch (below)



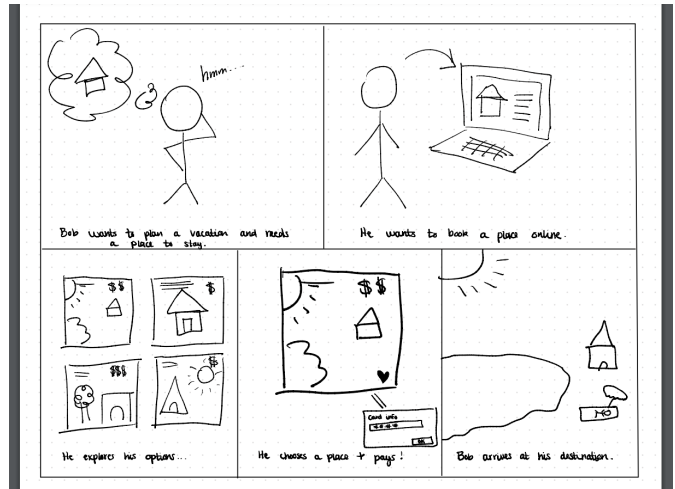
PROJECT I: WEB-BASED SERVICES PROTOTYPING

From our CI findings, we knew we wanted to curate a booking site that easily displayed favorite places and a site that could easily be toggled in terms of search criteria.

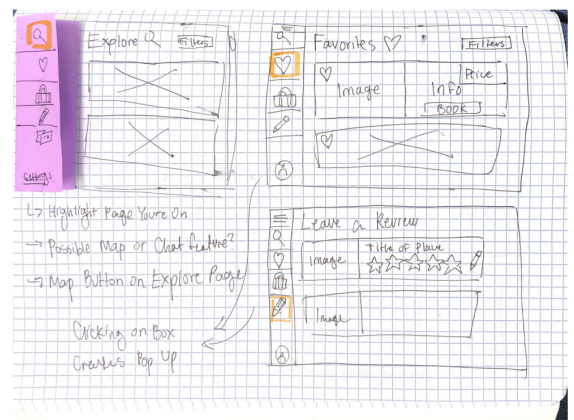
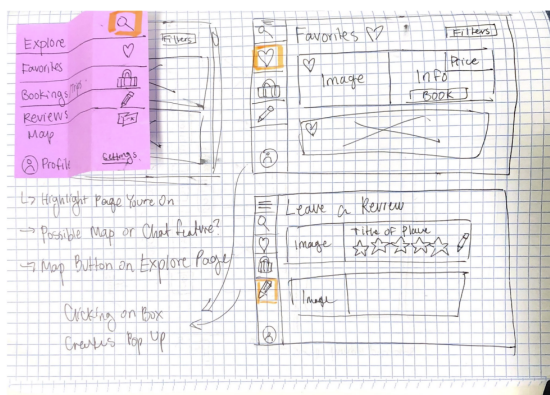
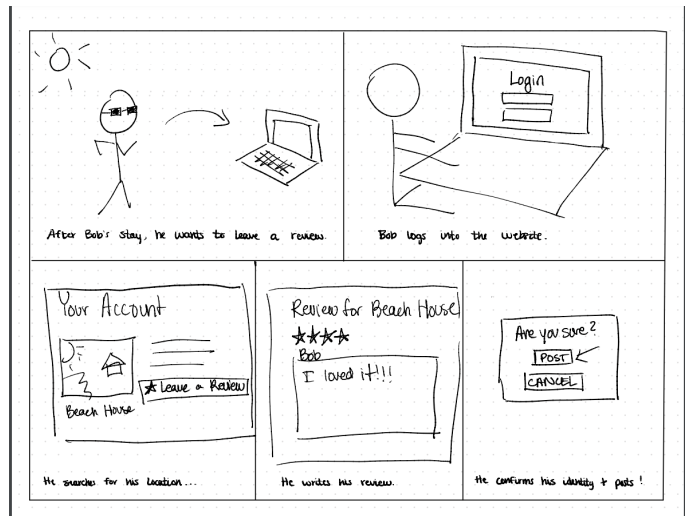
Many of our users identified the issue with being unable to quickly access favorite places to be booked, so with that in mind, we created a page just for favorites. We also created other pages such as ones to leave reviews.

Overall, our sketches were based on an idea that a user, Bob for example, wanted to book a vacation home online. After searching for a place online and booking it, he was able to enjoy the place and his stay. After his stay, he decides to go back online to post and leave a review talking about his experience.

Here are also examples of what we initially wanted our screens to look like (shown below):



Storyboards (above and below)



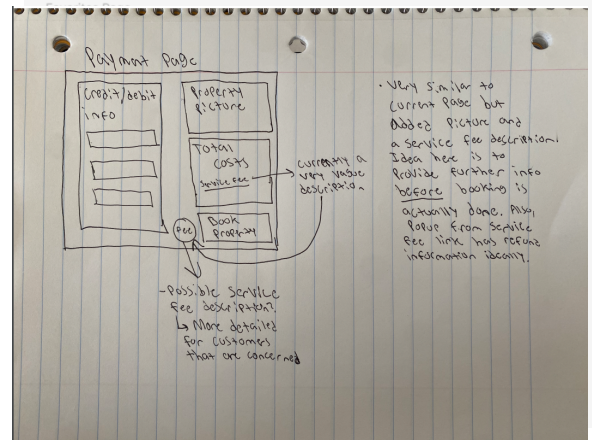
PROJECT I: WEB-BASED SERVICES

Ideation

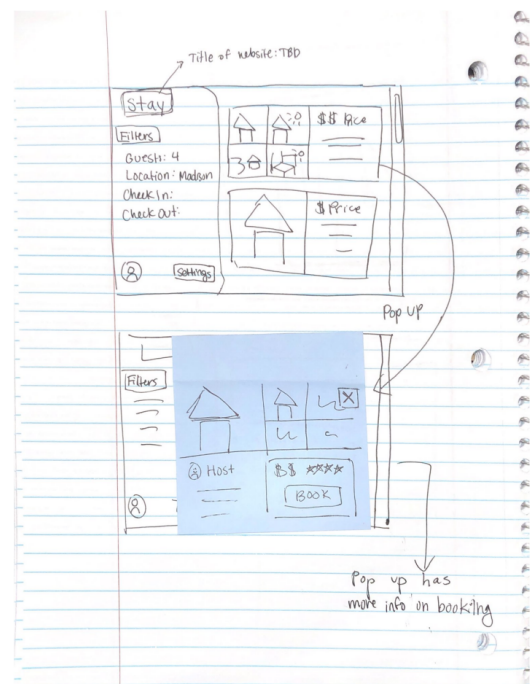
While creating prototypes, we continued to take into consideration the layout of the page and what we wanted to present to users. So from the storyboarding came sketches of our pages, and those sketches included things such as a favorites page, leaving a review, a pop-up, and an expandable search bar.

For our payments page, we wanted to be sure all associated fees were summarized and presented clearly to our users. We also wanted there to be a pop-up for search results in order to easily access the homepage back and forth. These ideas can be seen in our early sketches as we ran through iterations of prototyping.

Ultimately, after going through the process of prototyping, we came up with the following main pages: favorites, explore, leave a review, and payment. We took inspiration from other booking sites such as Airbnb, but wanted to make things more easily accessible and viewable. From our contextual inquiries, we knew users wanted easy access to favorite places, a chance to explore, the ability to leave a quick review, and finally, an easy way to submit payment. More than anything, we wanted our users to have speed and control at their convenience to book a place to stay.

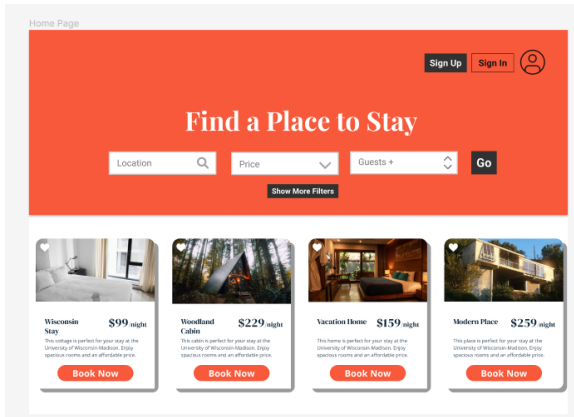


Payment page sketch

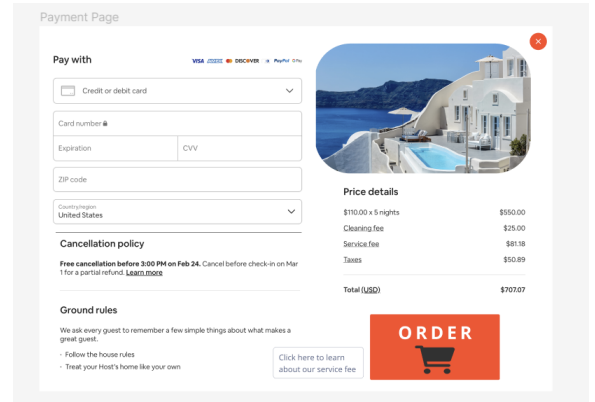


Pop-up screen sketch

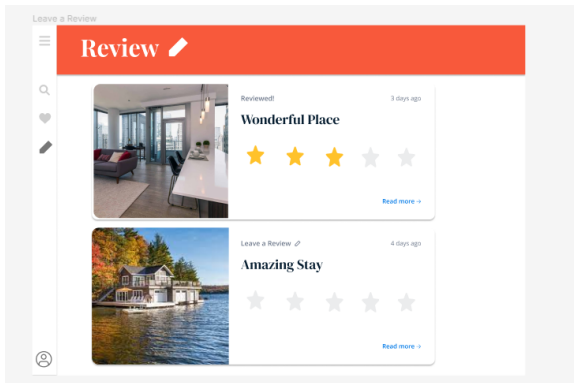
PROJECT I: WEB-BASED SERVICES PROTOTYPING



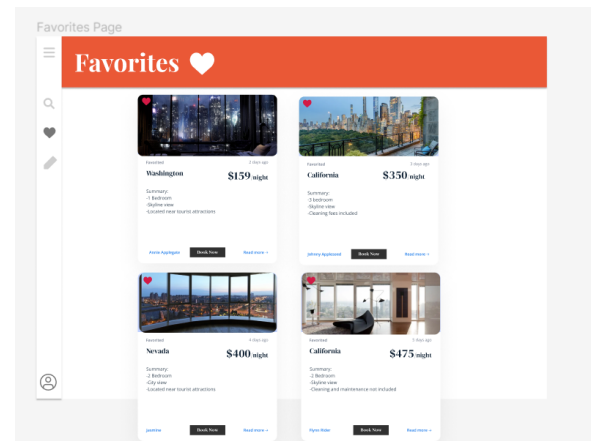
Home Page



Payment Page



Review Page



Favorites Page

PROJECT 1: WEB-BASED SERVICES EVALUATION

For our low fidelity and initial pages of our Figma prototype we did iterative testing with just the members of our group. We worked together to give feedback on each other's ideas and implementations to create the initial high fidelity prototype.

Our team then conducted 3 usability tests to get feedback from first time users on our initial prototype. Our tests were task-based and we asked our users to perform 2 tasks. The first task was to write a review for a booking they had stayed at. The second task was to book a place to stay. We used the Think Aloud Protocol where users performed the tasks while saying their thought process and breakdowns out loud.

The first usability tests brought some insight into the function and purpose of our initial landing page. When asked to book a place the user did not think of the filter options on the home page at all and opted to instead browse the bookings already displayed. However these did not lead to any other pages in the prototype. They then figured out that the only way to navigate to the Explore page was to use filters and hit the "GO" button. The remainder of the task went smoothly otherwise, with the user being able to successfully navigate to the final payment page to "book" a room. The next task of reviewing a room you already stayed at did present another breakdown. From the Explore page the user had trouble figuring out where to go to leave a review, but eventually found the

sidebar navigation. They also did not realize you could click the sidebar to have it extend to show more information. They also noted they wanted more review capabilities since the page was pretty limited in information and looked similar to the explore page.

The second usability test also showed some similar breakdowns. Upon trying to book a room, the user did not realize that there was an expanded filter option and only viewed the rooms displayed on the homepage. After searching on the homepage for a while, the user realized that they could use filters and hit the "go" button. They also realized that there was an expanded sidebar that could lead them to the favorites tab and the review page. The first part of the task was completed, and the remainder was completed with ease as the user could navigate through to the "leave a review" page.

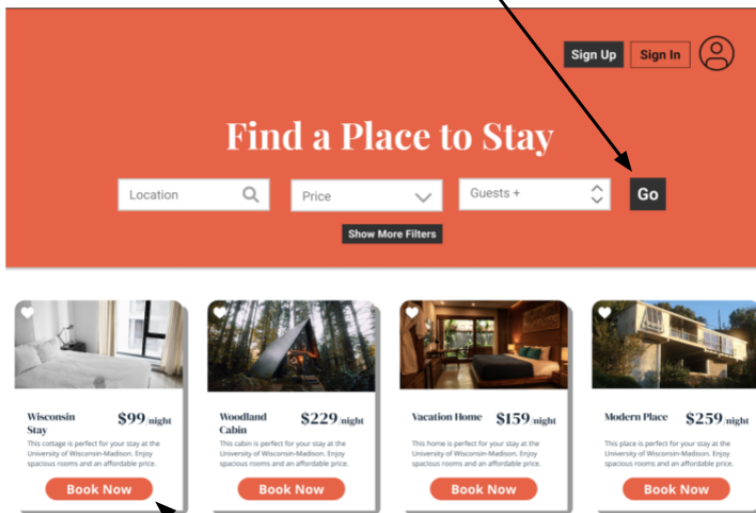
The user suggested that there could be a map displaying locations that were shown on the explore pages to compare different places and their distance from one another. The user also suggested that most buttons be able to link to the payment page; the user also noted that some pages could not be exited from properly. Therefore, it would be ideal that users can exit from any page smoothly. Lastly, the user suggested showing star reviews on the listed bookings, so that reviews could be seen beyond the review page and on the homepage.

PROJECT I: WEB-BASED SERVICES EVALUATION

Our last usability test showed similar concerns to the previous results as well as also suggesting there should be more information on the review page, and more direction on that page overall.

Home Page:
Breakdowns

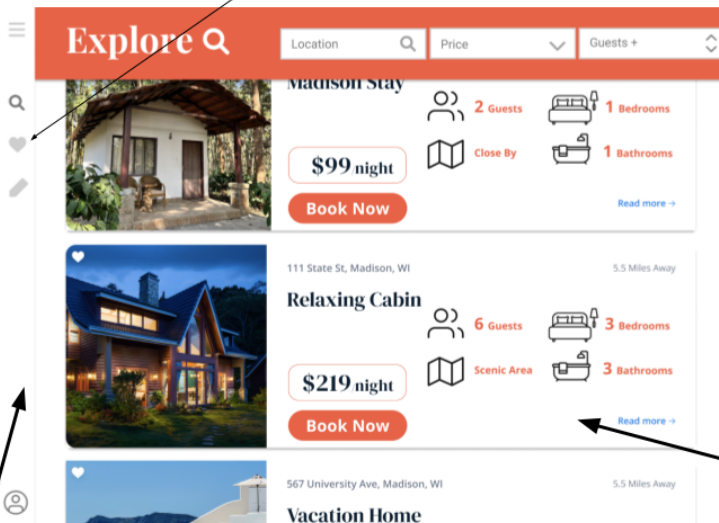
The only way to navigate to the rest of the pages



Skips actual information about the place, and doesn't navigate the user to the actual site

Explore Page:
Breakdowns and Feedback

User was not sure what icons mean / did not realize that the sidebar could extend



Lacking Basic Review Information - Not available until "read more" screen pops up

Sidebar navigation blends in with background - makes it hard to notice for users

PROJECT 1: WEB-BASED SERVICES

FINAL PROTOTYPE

Our final prototype was built upon from our original Figma prototype. From our evaluation we highlighted changes to make our application more usable as well as more options for our review feature.

To make our prototype more usable in terms of navigation and flow between pages we decided to allow users to enter the “Explore Page” from the home page without having to put in filters. Instead being able to click on the previewed place or click a “Browse” button that directs to the Explore page. This was because two of our users in our evaluations were drawn to the pictures on the homepage instead of the GO button and expressed disappointment when they did not have functionality. So, this added another option to advance to the rest of the site. The home page also was changed from saying “Find a place to stay” to “Where do you want to stay?”. We thought that the change to a question may encourage users to use the filter option and access the rest of the site using the filters/GO button.

We also decided to add access to the details of the stay on the payment page so the user will not have to go back to the explore page to remind themselves. With our prior prototype, it was too inconvenient for the user to click through so many steps if they just wanted to be reminded of, for instance, how many bedrooms there were. This also helped with easier flow between websites, preventing


users from getting stuck or only have one way to access needed information.

Another change we decided to implement was changing the colors and increasing the sidebar navigation so it was more visible. When the user lands on the web app the sidebar navigation will already be extended so the user will have to click away to close it. This makes them immediately aware of that navigation option since they are forced to interact with it upon first visitation. The color change to a dark gray helps to contrast with the background while still following the overall color scheme.

We needed to include information about the reviews upfront on the Explore page because that is a big factor in what makes users decide to look into booking a place. So we added the star review on a place’s banner next to the price.

ew

Explore
Favorites
Review




Reviewed! 3 days ago

Wonderful Place

★
★
★
★
★

Read more →



Leave a Review ↗ 4 days ago


Amazing Stay

★
★
★
★
★

Read more →

Explore

Location
Price
Guests +



567 University Ave, Madison, WI 5.5 Miles Away

Vacation Home

★★★★★

4 Guests

2 Bedrooms


\$110 night

Good Location

1 Bathrooms

Book Now

Read more →



123 Park St, Madison, WI 1.2 Miles Away

Cozy Cottage

★★★★☆

4 Guests

4 Bedrooms

\$110 night

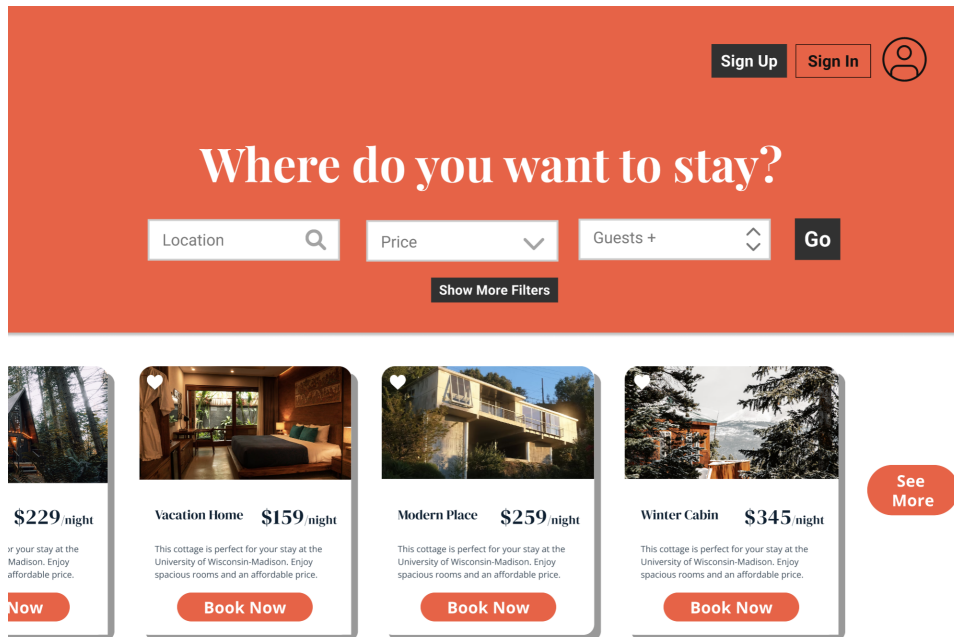
Good Location

3 Bathrooms

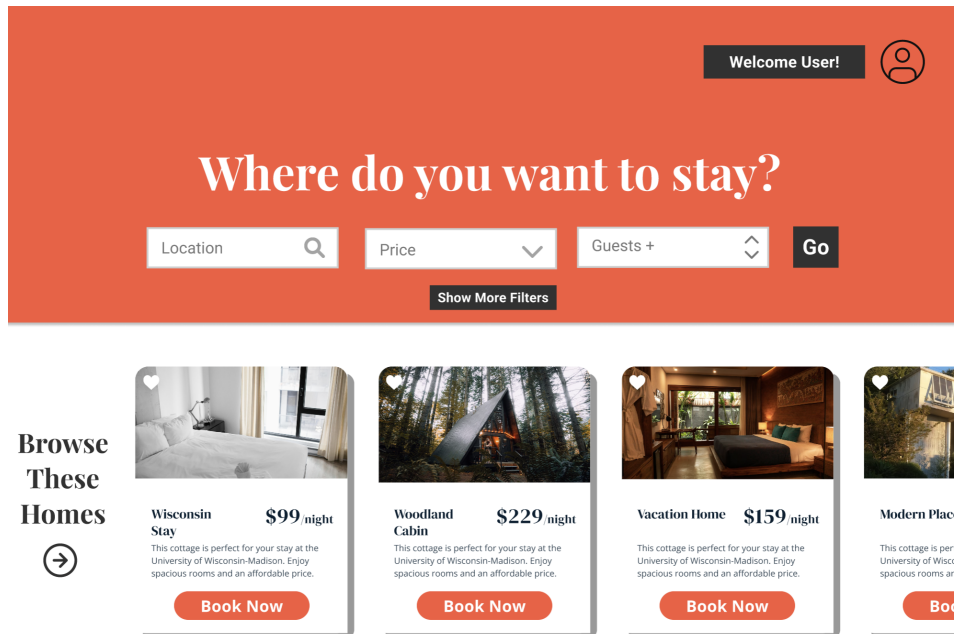
Book Now

Read more →

PROJECT I: WEB-BASED SERVICES FINAL PROTOTYPE



Home Page with updated "See More" button and updated title



Home page with added "Browse These Homes" to provide more direction to site flow