NanaHelp

A LUXURIOUS POST-PURCHASE
CUSTOMER SERVICE MOBILE EXPERIENCE

Project 2: Mobile Service Design
Interaction Design Studio II: Section C
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Overview

Tasked with designing a mobile service that co-creates value for both our client, NanaWall, and their customers, we created **NanaHelp** , a mobile app centered on creating a seamless customer service experience.

With three distinct phases of research, ideation, and prototyping, we aimed to deliver the best possible solution that fulfills the needs of both our intended stakeholders and users.

Research Phase

January 29 - February 5

Company / Domain Report

Stakeholder Diagram

Value Flow Model

Concept Model

About NanaWall

NanaWall is a company that designs and produces high-end operable glass walls for installation into both residential and commercial properties. Our team was tasked to find an opportunity space through research and then design a native mobile solution that would provide value for NanaWall, while considering the intrinsic capabilities and limitations of mobile devices. We were also tasked to design at least one microinteraction within our mobile solution to contribute to a greater and more delightful user experience.

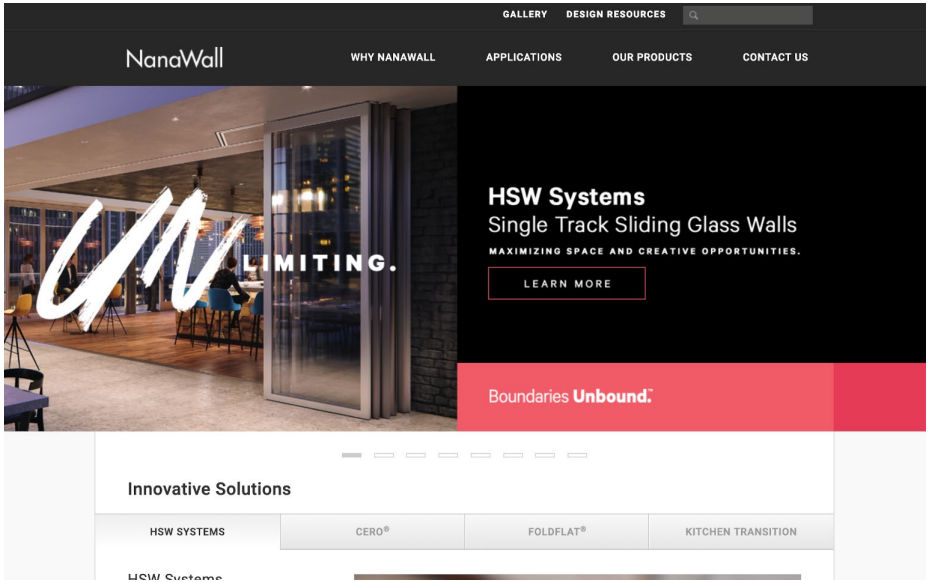
NanaWall®

Engineering the Exceptional

Introduction

Through domain research and visualizations, creative ideation, and an iterative prototyping process, we created NanaHelp: a luxurious mobile customer service experience to fill the gap between NanaWall's customers' expectations of service based on the company's high -end product, and the reality of NanaWall's limited resources. NanaHelp uses a chatbot to provide customers with immediate service and to save NanaWall's resources for where they're needed most, and we took care to design the microinteractions of the chat interface to create that luxurious experience that NanaWall customers expect.

Initial Research



We began our research with NanaWall's website, getting a feel for their products, services, and branding. Through the website, we learned that NanaWall's products are expensive to purchase, that they mostly work with customers through the mediators (or middlemen, as we termed them) of architecture and design firms, and that NanaWall's representatives are embedded within existing firms.

Initial Research

We also found from other online research that NanaWall is a very small privately held company of less than 90 employees, and that installers have had difficulty installing their products correctly and that end users —the customers whose homes and business have NanaWalls —have had poor customer service experiences.

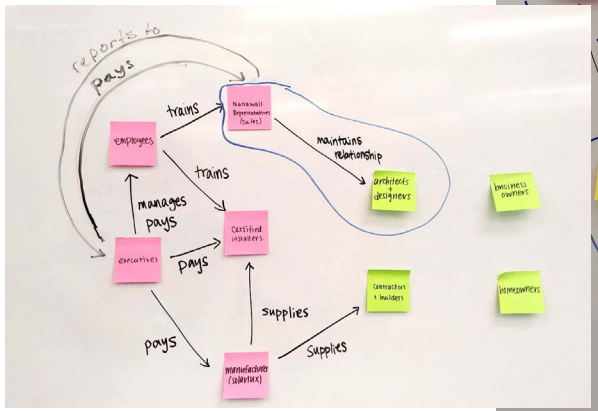
Interview with Franklin Interiors

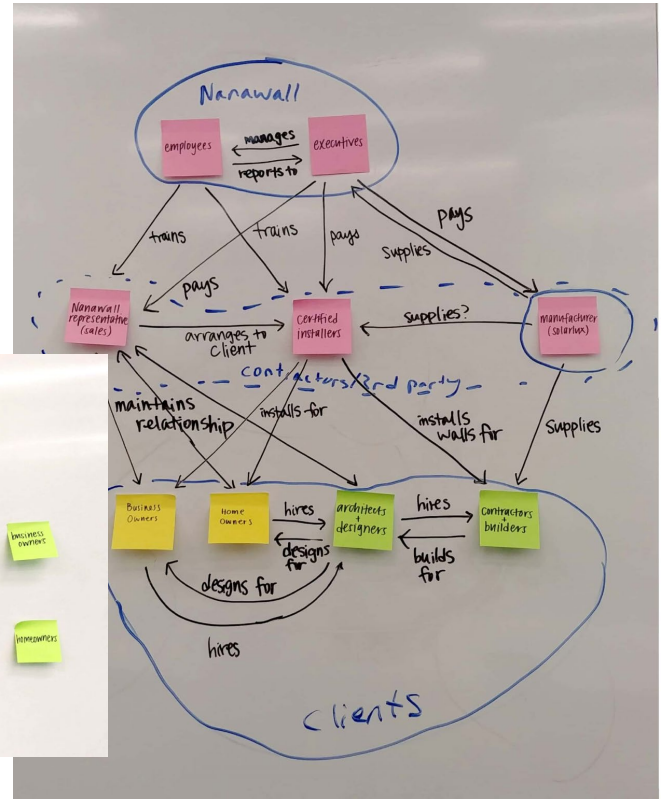
While NanaWall was unavailable for us to directly contact, we did get in touch with local design firm Franklin Interiors and conducted an in-site interview at their showroom. Through our conversation and tour of their modular wall products, we learned more about the domain of operable glass walls and interior design. Our interviewee emphasized how rare and costly it is to purchase a NanaWall, and that end user customers rarely ask for such a product directly—almost always, it is the designers hired by the client who suggest an operable glass wall for the interior.

NanaWall Stakeholders

Through our research, we identified three primary groups of stakeholders: those within NanaWall itself, including the CEO, employees, and the manufacturer; the end user customers; and the middlemen of representatives, installers, and designers.

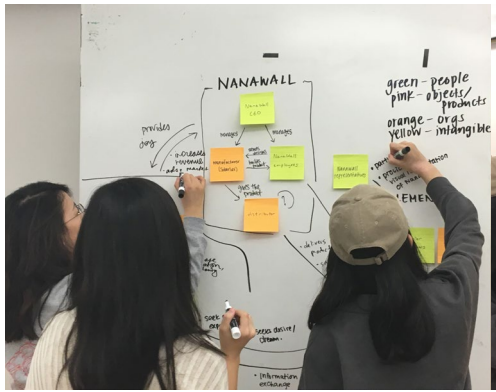
We visualized the relationship between the stakeholders through a stakeholder map, and identified that there was a lack of direct contact between NanaWall and their customers .

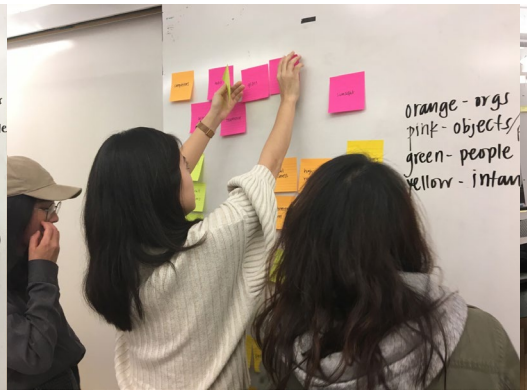




Conceptual Modeling

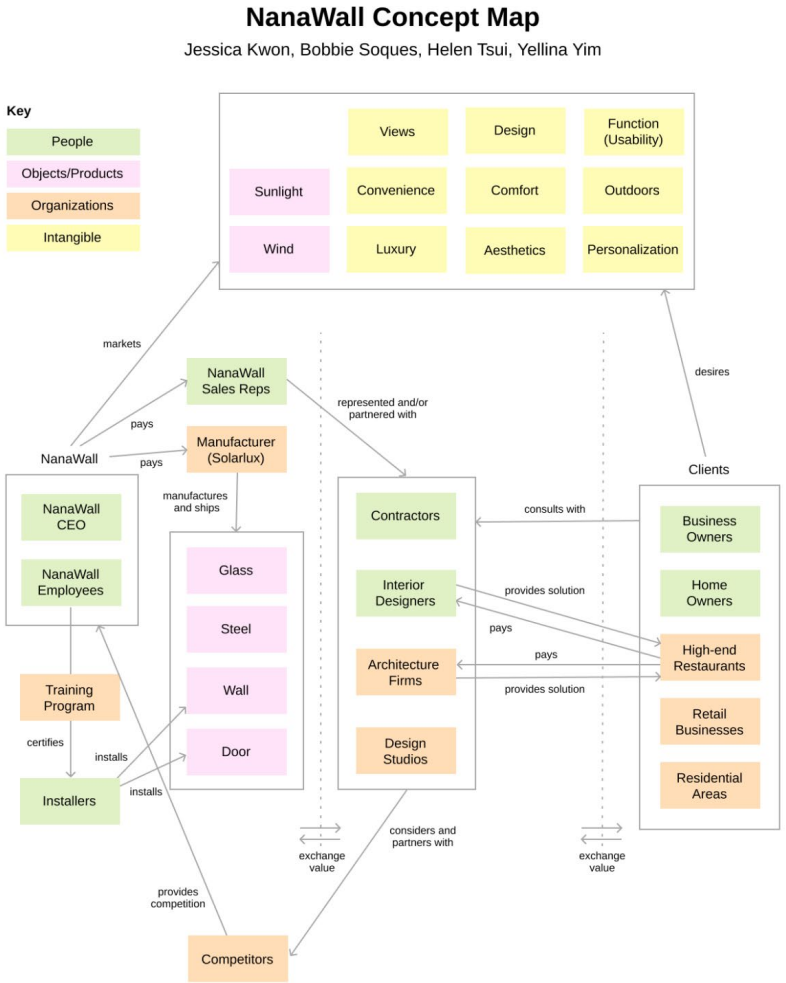
We jotted down all concepts, people, and organizations associated with NanaWall that we found through our research, and organized them into a concept map. In this model, we organized concepts to show which ones are closely related to which, and their relationships. Our concept map closely resembled one of our initial stakeholder map iterations, but we also identified NanaWall competitors and that they add value to the interactions between stakeholders, and that installers are not necessarily within NanaWall but are trained to install their products through a program.





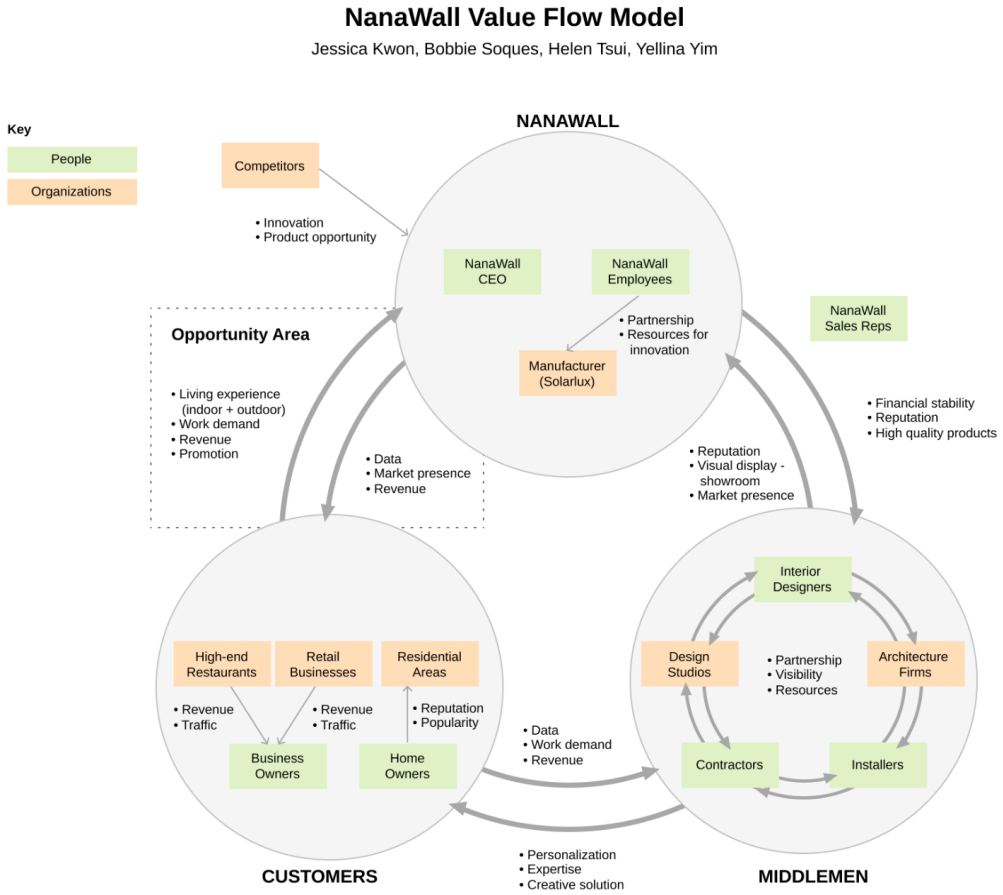
Concept Map

We found that most of the intangible concepts are marketed by NanaWall and desired by their customers, but that again, there is no direct relationship between the customers and NanaWall.



Value Flow Model

In a second iteration of the stakeholder map, we modeled the flow of value —not just money — between all the stakeholders, and found indirect value flow between NanaWall and their customers. We identified the relationship between NanaWall and their customers as an opportunity area for a mobile solution, since there is so little direct contact and NanaWall has a poor customer service reputation.



Ideation Phase

February 7 - February 14

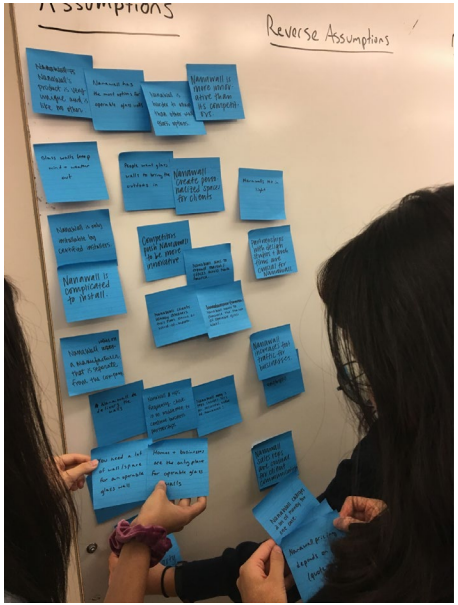
Ideation Exercises

Collaborative Sketching

Focus Setting

More Sketching

Solidifying the Problem



With our research insights, we started off the ideation phase with in class activities and discussion.

We wrote down potential problems that NanaWall may have:

1. Is it normal to have sales representatives for products in the architecture industry?
2. Why do clients not have a direct relationship with NanaWall?
3. Is it most efficient to consult with design and architecture firms to best use the products of NanaWall?
4. Is it efficient to have middlemen between NanaWall and direct customers (homeowners, business owners, etc.)?
5. Are there resources available to those with no interior design background to most effectively incorporate new products for personalized spaces?
6. Can clients communicate their vision effectively to architecture firm / designers?
7. How can NanaWall / design studios / architecture firms communicate their vision effectively to their clients?

Problem Scope

We concluded this discussion with a final problem statement:

Clients have difficulty accurately sharing their vision with NanaWall, and NanaWall has difficulty accurately sharing their vision with clients.

Ideation

We then generated 20 questions for problem framing:

1. What is the vision of NanaWall?
2. What is the vision of clients?
3. Are all NanaWall products fully advertised to direct clients?
4. How do clients communicate and share their vision right now?
5. What is the average length of time dedicated towards fully communicating the vision of both parties now?

Expanding Scope

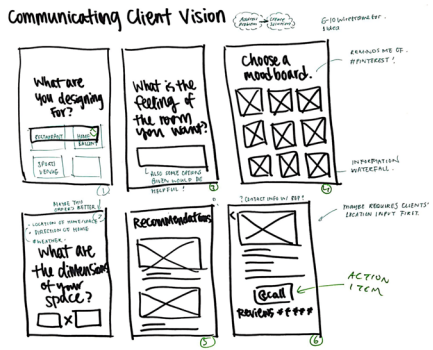
1. Can clients share their vision in ways other than words and image boards?
2. Can NanaWall share their vision in ways other than CADs, sketches, etc.?
3. Will clients be able to understand the jargon that NanaWall uses to convey the mission and vision of their products and services?
4. Can we reduce the communication delay between clients and NanaWall (i.e. waiting for email)?
5. Can clients learn to use the NanaWall / architecture jargon to more clearly convey their idea?
6. What kinds of client -facing platforms does NanaWall use?
7. How do people decide on a specific NanaWall product (i.e. What is their decision -making process?)
8. Can NanaWall accurately design a solution for clients without an in -house visit? / Can they get a good idea of the client's vision without an in -house visit?
9. Can NanaWall demonstrate their products without a showroom?

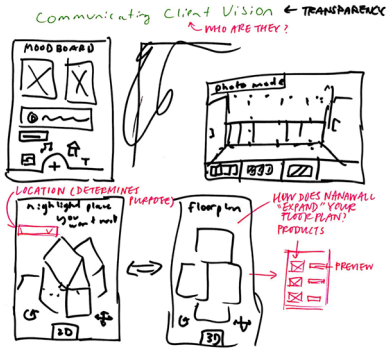
Probing Deeper

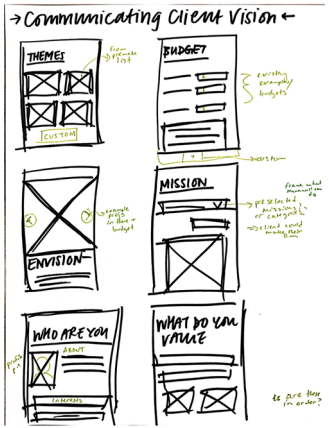
1. Do clients need to share their ideas at all?
2. Do clients know what they want?
3. Does NanaWall assume that clients know what they want?
4. Can clients mind meld with NanaWall designers to immediately convey their visions?
5. What if NanaWall and clients had a shared 3D model to communicate their ideas? (like a digital Lego version of the space they could move around while talking)
6. Virtual reality -- real life scale model of design: can see it in "real life" rather than a smaller model

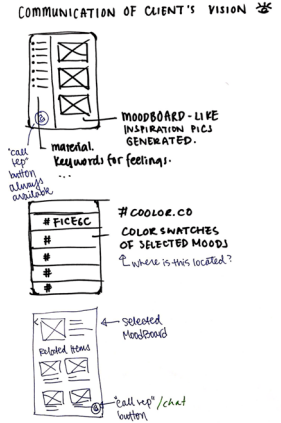
Finding Our Focus

Our ideation exercises allowed our team to narrow down our scope to ways to communicate client vision to NanaWall. We then proceeded to collaboratively sketch mobile service concepts and gave each other feedback.









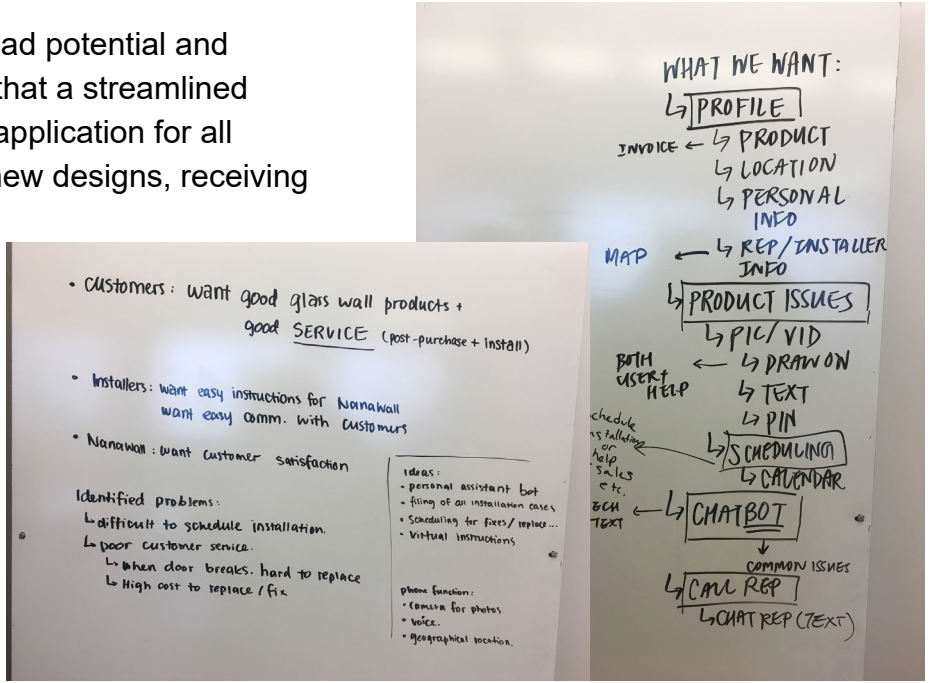
Refined Collaborative Sketching

With this solidified problem statement and domain, we decided to refine our individual sketches to share at a later time. The next meeting, we brought our refined sketches and discussed our visions.

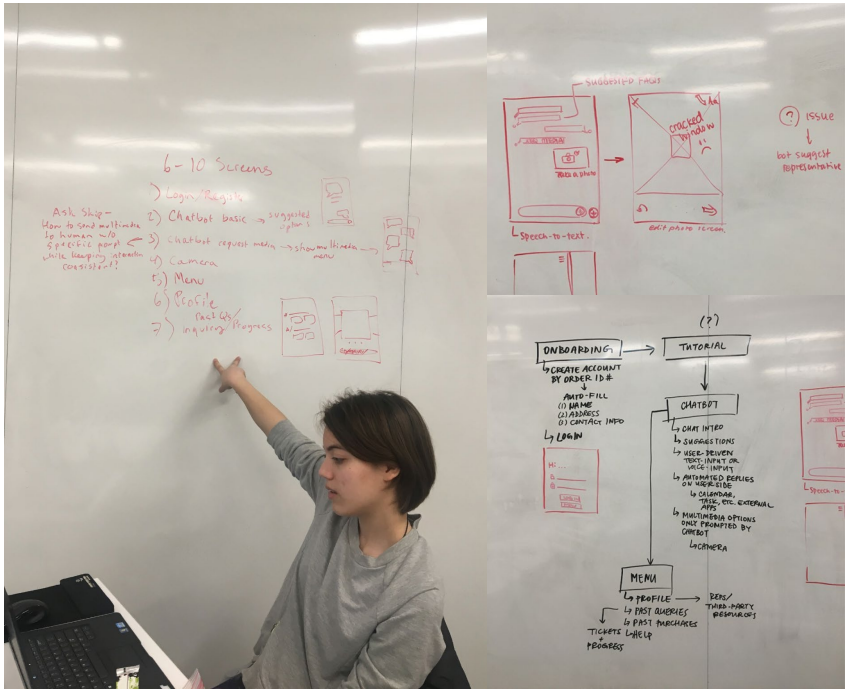
Potential Solution

From this activity, we were able to pull what had potential and combine them into a solution. We concluded that a streamlined chatbot service could be a one -stop mobile application for all things related to NanaWall, such as viewing new designs, receiving an estimated quote, and customer service.

This would alleviate the pain points that occur due to NanaWall's limited resources.



Pivoting



However, further discussion revealed that our problem statement was not an accurate portrayal of the current state because NanaWall is an extremely high-end, exclusive brand. Our identified problem of difficult vision sharing between client and NanaWall was not a significant pain point because clients usually hire middlemen to approach NanaWall. On the other hand, further online research on the brand showed that NanaWall did not provide quality customer service that customers expect, given that the product is very high quality and expensive. Thus, we pivoted our idea of a one-stop chatbot for all NanaWall related tasks to one that is dedicated to customer service, using mobile capabilities to record any potential problems of the product, such as camera and microphone. With this new idea, we started creating a low-fidelity flow.

Prototyping Phase

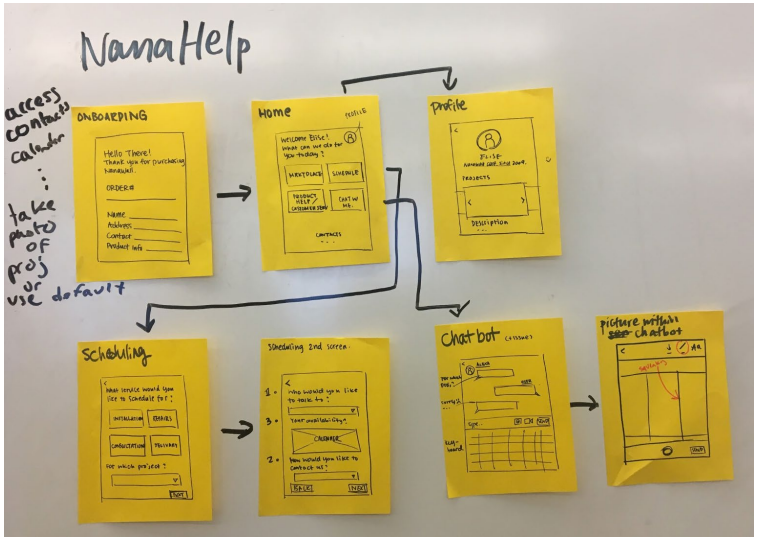
February 14 - February 26

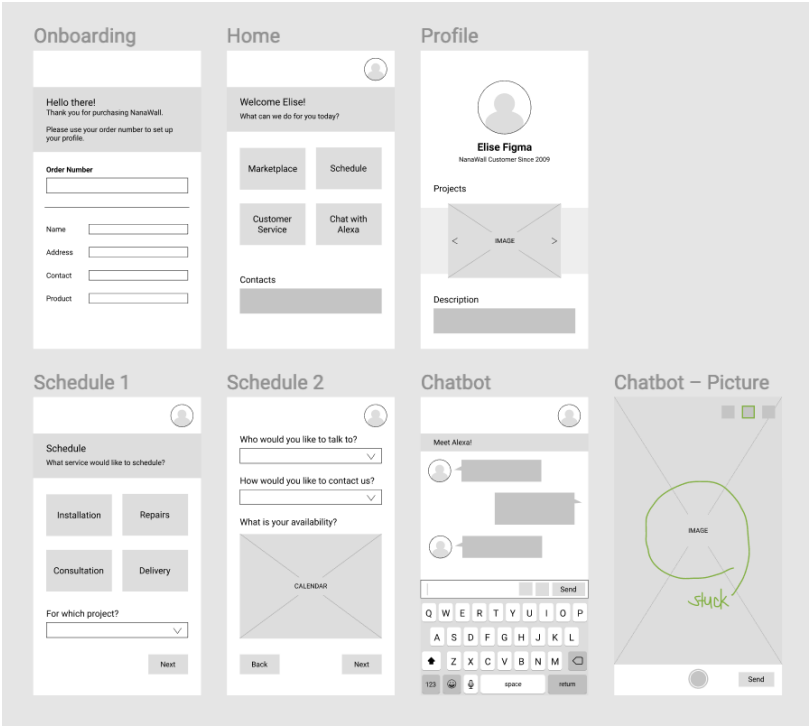
Low-Fidelity Screens

Medium-Fidelity Screens

High-Fidelity Screens

Sketches and Wireframes





In-Class Pitch Based on Wireframes

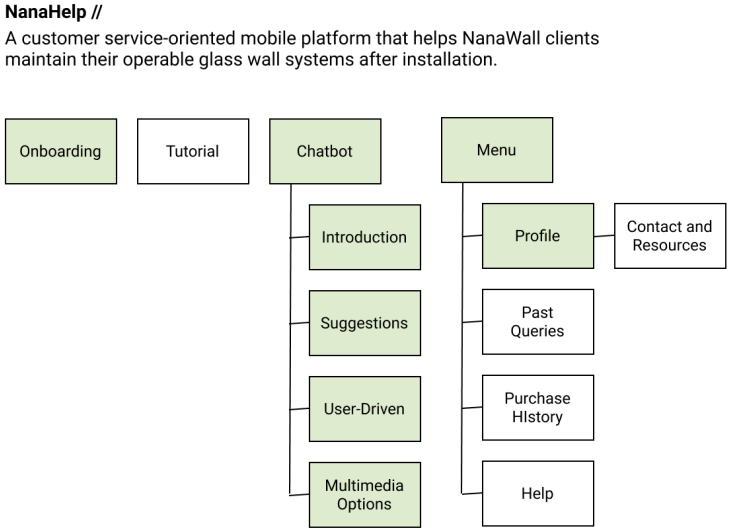
In class, we pitched our solution using our wireframes. Here is some of the feedback we got:

- We should pitch our idea by showing how this solution can maintain Nanawall's brand image
- We should consider how to gather data from customers and turn it into value
- Focusing on the help customers receive through our service is important

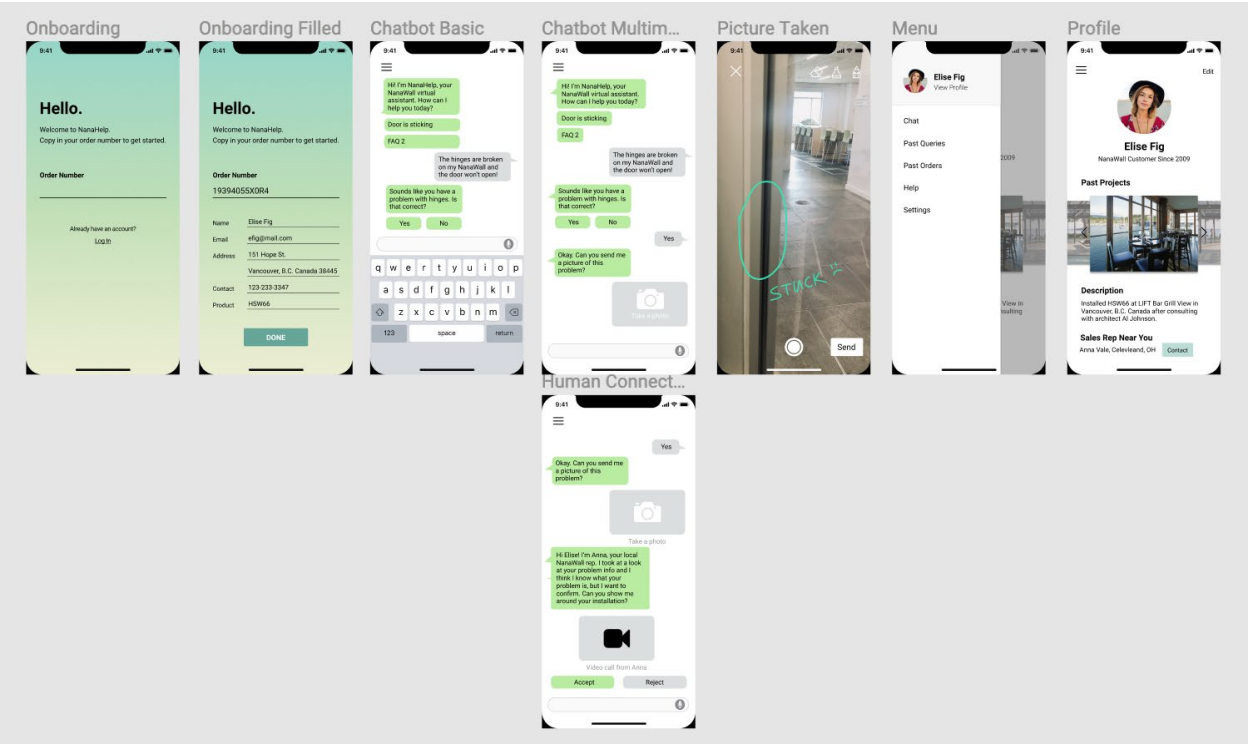
Medium - Fidelity Screens

Based on in - class feedback, we considered ways to gather data from our solution. We decided to incorporate a database that could store all of the product issues that customers face and use the app for, so that NanaWall could improve its products and services. Metadata from the users would also be helpful in finding trends based on location and product type.

Moving on to mid fidelity screens, we digitized our site map and iterated on a flow of a customer using the app for the first time to get help for a problem with her glass wall. We used green as our main color, as it is the main color for NanaWall.



Medium - Fidelity Screens



Final Solution

Introducing **NanaHelp**

Microinteractions

App Features

Value Proposition

Microinteractions

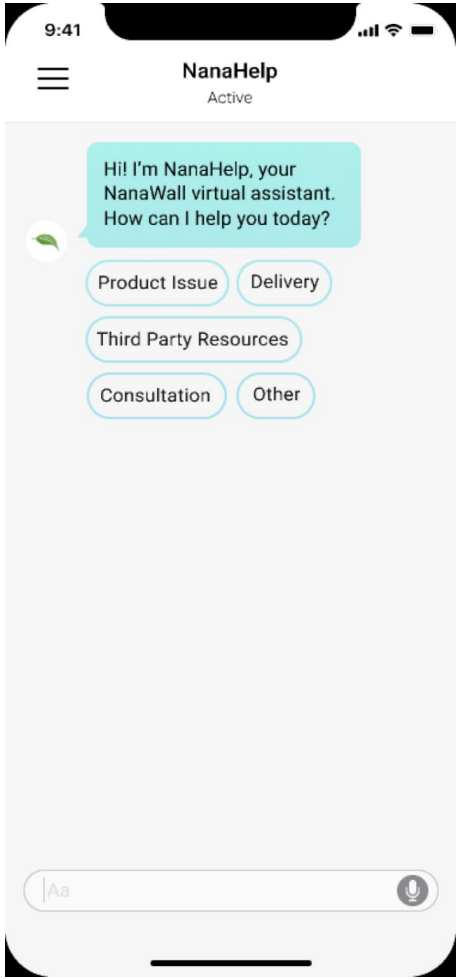
"Microinteractions force designers to work simply, to focus on details. They challenge designers to see how lightweight they can design, to reduce complexity and streamline features that could otherwise be burdensome" – Dan Saffer

After multiple team discussions, we decided to incorporate several microinteractions within our chatbot to hopefully make the interface more user -friendly and more delightful:

- Predicted frequently asked questions
- Auto-suggested responses
- Smart-fill order details
- Speech to text translation

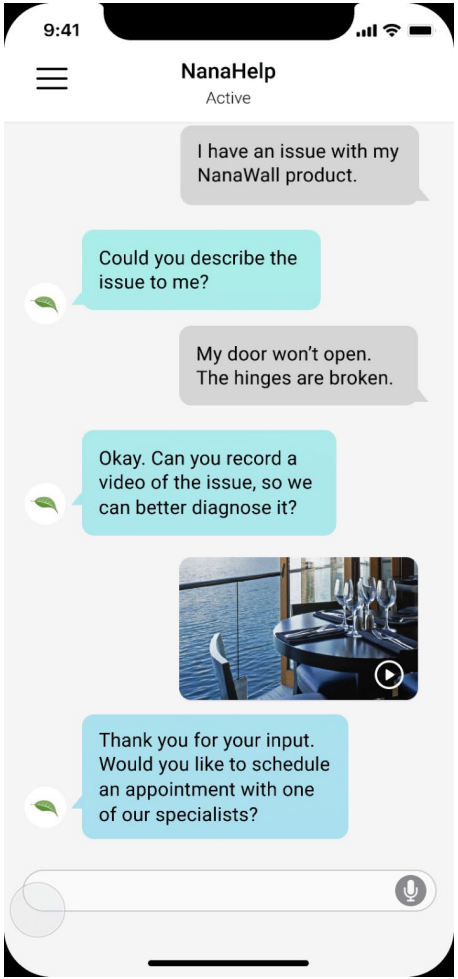
Predicted Frequently Asked Questions

When users first enter the chatbot screen, there will be several FAQ selections that user can tap on, so that users don’t have go through the hassle of typing everything in.



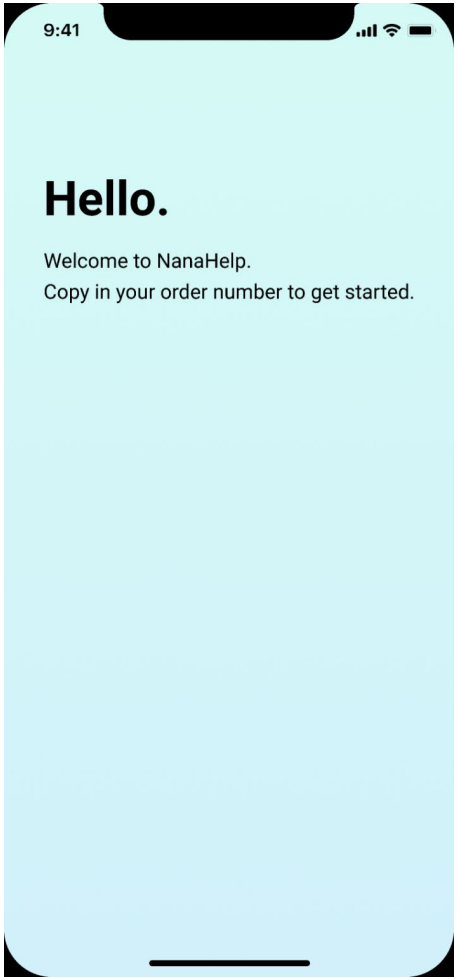
Auto-Suggested Responses

If the chatbot has asked an easy question (such as “have you encountered with _____ problem before?”), there would be “yes” or “no” floating buttons so that users can just tap to respond. Other automated responses would be generated for simple questions generated by the chatbot.



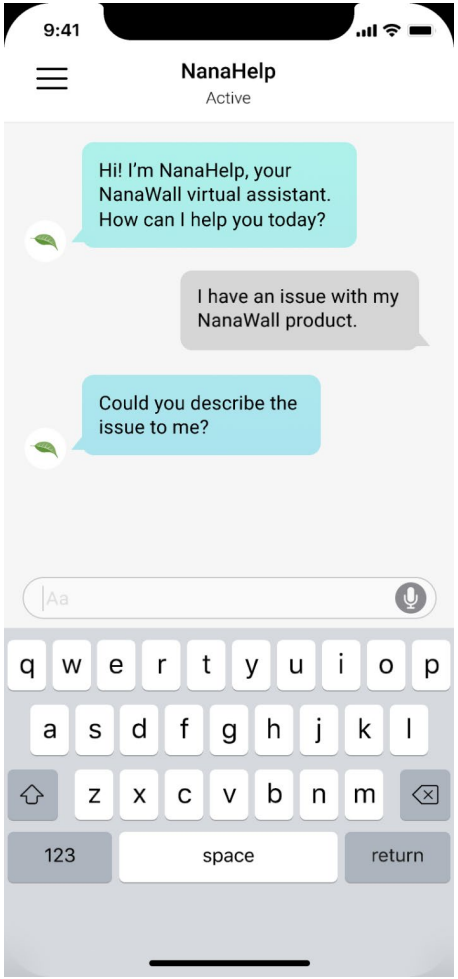
Smart - Fill Customer Profile

During the user’s onboarding experience, the form details of the customers —which are previously collected during the NanaWall purchase —will be populated automatically in the screen as they enter the NanaWall order number. This microinteraction aims to provide a personalized touch to their service experience and adds convenience for their use of this application.



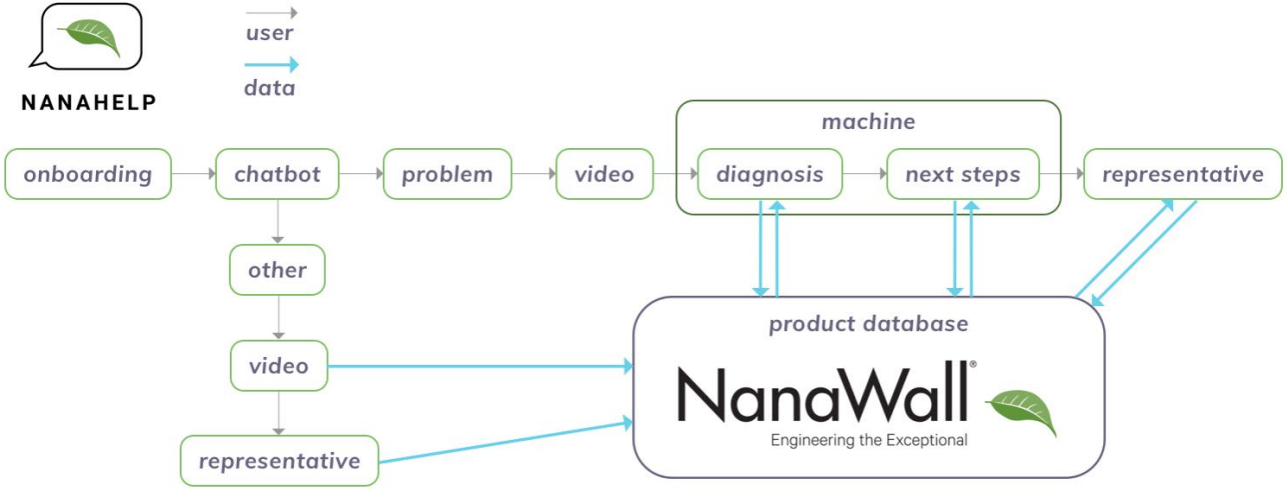
Speech-to-Text Translation

In addition to the text entry, users are also encouraged to utilize the “speech -to-text” function, which aims to serve busy customers who want to solve their NanaWall problems on the go as efficiently as possible.



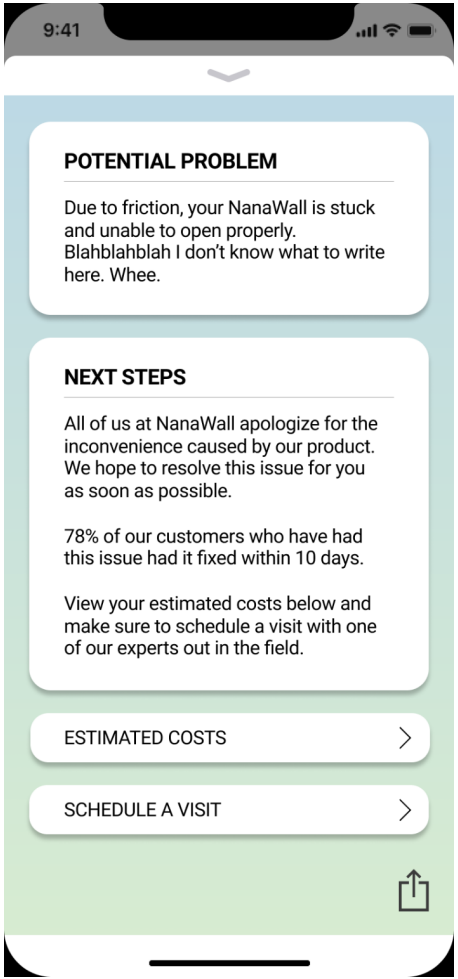
NanaHelp’s Features

NanaHelp’s features not only address the pain point of an inefficient customer service journey for both NanaWall clients and NanaWall employees but also hope to further contribute to the product life cycle management of NanaWall products.



Machine Learning Diagnosis & Informative Data Insights

Since we will be collecting data for the problems reported by the users in the forms of text and multimedia footages, NanaWall is able to use machine learning algorithms to develop diagnosis for users' problems. The more data it can eventually pull from NanaWall's database, the smarter it becomes and later contributes more to NanaWall's future operable glass wall designs, and will minimize the workload for NanaWall installers and representatives. Furthermore, NanaWall customers will run into a fewer amount of problems.



Mobile Phone Capabilities

As mentioned before, we are utilizing the native mobile capabilities including geographical location of users, audio input and output, phone camera (for image, video, and video calls) to maximize not only the efficiency with which users can experience the app but also to provide the value of customer data to NanaWall. The data collected will help form user profiles to understand what problems occur the most, how most people usually approach the issue, and how effective NanaHelp's solutions are.

NanaHelp's Co-Creation of Value

NanaHelp's mission is to help bridge the gap between customers' love for NanaWall's premium product lines with the inefficient, time-consuming and costly customer service after purchase.

We are able to meet customers' high expectations through co-creation of value between the corporation and customers. For employees, since NanaWall only has limited employees, utilizing NanaHelp as a resource allows employees to better allocate their attention and already limited resources to where it is most needed; for the corporation as a whole, this post-purchase service enables more customer loyalty and attracts more business opportunities in the long run. Customers can access the service on their mobile device within seconds, and depending on complexity of the issue, their issues can be solved easily through the chatbot or scheduled appointment with the human experts.

Customers

Personalized diagnosis

Immediate response

Resource and cost-saving

Automatic scheduling

NanaWall

Gain customer loyalty

Informed data insights

NanaHelp's Envisioned Future

We envision that our mobile solution, NanaHelp, will serve as a long-term, sustainable solution for NanaWall.

There are many features and functions that we would like to incorporate into our future iterations, and also utilize the collected problem and solution data to inform more insights for the company. We believe that the application will be implemented into customers' daily lives, and help with future NanaWall product innovations.

Creating ongoing value...

1 year from now

- Notify customer when visit or call is upcoming
- Improve FAQ and video database and diagnosis
- Video calls

3 years from now

- Universal automatic scheduling
- More onboard diagnosis using sensors

5 years from now

- Virtual walkthrough of customer house, save time for in-person visits further
- More accessible repairs and installation

Reflection

The biggest challenge of this project was trying to design for a client for which we had no direct contact with or information, as well as an industry we had limited exposure to. We gained a lot of practical experience of working within our means, by researching NanaWall through not just their website but third-party sources like Yelp, Houzz and by researching within the domain by directly contacting people involved in the interior design and operable wall industry, including CMU Architecture professors, Cascade Construction Products, Cleveland Design Studios, etc.

This project also drove home the importance of talking to experts within the domain —without speaking to Franklin Interiors, we would have tried to design a solution for the relationship between designers and clients, assuming that clients had specific visions in mind that involved a NanaWall, when that's not actually true.

Relatedly, the biggest takeaway from this project is that it is not a failure to pivot while designing a solution, and that doing so earlier in the process will save a lot of strain further on. We learned that clients *truly* don't know what they want after we had already began our ideation and wireframing process, and pivoting from that space to improving NanaWall's customer service took a significant change in outlook but resulted in a product that creates far more value for our client.