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local.ly

local made easy

CS 147

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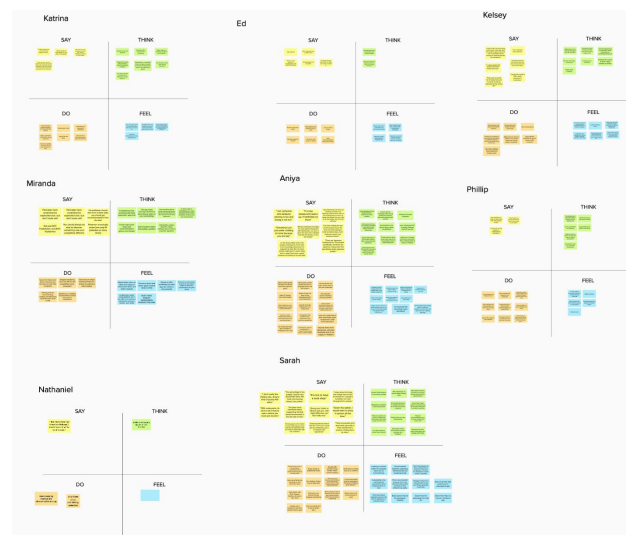
Problem and Solution Overview

There is an important and troubling disconnect occurring in the modern economy. The growth of e-commerce giants like Amazon make it easier than ever to find products that cater to customer's needs, such as the desire to shop for affinity and ethically aligned brands. However, customers also desire to support their local communities and minimize the carbon footprint of their shopping habits, which is perceived as being worse in online shopping where shipping and individual packaging contribute to shopper's anxieties. Local.ly helps relieve this tension between ethical and local shopping. Our app enables users to search for shops based on ethical criteria, exchange recommendations to friends, and develop relationships with local businesses.

Needfinding Interviews

We interviewed a range of potential users representing diversity in age, ethnicity, gender identity, geography, and sexual orientation. After starting broadly on the topic of community and serendipity, we decided to narrow our focus to supporting small businesses. For our interview script, we decided to focus on three main topics of exploration: Habits, Trust, and Discovery.

From these interviews, we began to key in a tension that exists between in-person and online shopping as compelling justifications exist for both options. We learned that customers generally like to support small businesses and shop local when they can but many will choose online shopping for convenience and price reasons. Interestingly, even those who hate Amazon and online shopping generally will shop online because that is the easiest place to discover and support brands that share their values or are affinity aligned.



POVs & Experience Prototypes

From our Needfinding process, we developed three POV statements and brainstormed a series of “How Might We...?” questions.

We met... Sarah, a young adult who prefers shopping in-person, primarily due to sustainability concerns around shipping.

We were amazed to realize... she has difficulty shopping in-person AND supporting minority-owned brands because it’s hard to find nearby minority businesses, causing anxiety as she has to choose between the two.

It would be game-changing to... provide her with access to more shopping options that give her the confidence that all of her values are being met.



How Might We...?

- More accurately map and make available a business’s values and impact?
- How might we combine the pros of online and offline shopping?
- How might we make local minority-owned brands more visible?



We met... Aniya, a Thai foodie who has been on the search for new restaurants since COVID caused some of her favorite places to shut down.

We were amazed to realize... some restaurants only advertise in a certain language and remain unknown to potential customers who don’t search in that language.

It would be game-changing to... help people overcome the language barrier and discover more authentic small restaurants.

How Might We...?

- Help customers and businesses communicate without needing language?
- How might we make people more aware of cuisine characteristics?
- How might we increase foot traffic // customers for non-english (/dominant lang) speaking businesses?

We met... Nathaniel, a college student who prioritizes having a larger selection and maximizing value when shopping.

We were amazed to realize... he defaults to staple retail brands (i.e. Walmart, Amazon) due to perception of consistent convenience and value.

It would be game-changing to... have better information around the availability and prices of items at more stores to get better options.



How Might We...?

- Recreate the sense of “familiarity” which draws consumers to chain businesses?
- How might we distinguish in-person shopping from online in domains other than price?
- How might we make local businesses easier to find for non local people?

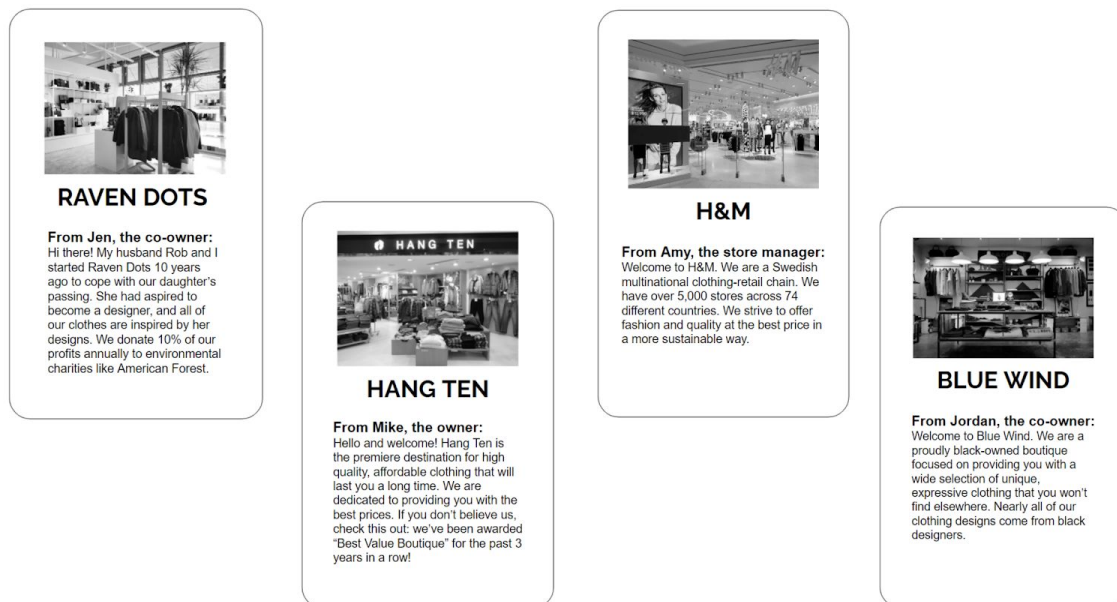
From these prompts, we decided on three solutions to initially develop and test. Each of the POVs we developed were compelling, and we were excited by helping solve problems in every area so, although it was not intentional, after voting for our favorites, we moved forward with one solution for each POV.

POV #1 - Sarah

How might we more accurately map and make available a business's values and impact?

For this prompt, we decided to prototype a platform for businesses to communicate their story and values to consumers. For this solution, we wanted to test our assumption that

some users would prioritize impact over values. While not true for all users, this assumption fit the POV of Sarah who wanted to purchase from stores and brands that had a more compelling story than “better quality at better prices.” To test this assumption, we developed an experience prototype representing “Store Profiles” where users can see a description of the store and learn more about the owners. Both small and large businesses were mocked up to test whether or not there was a markedly different response between the two.

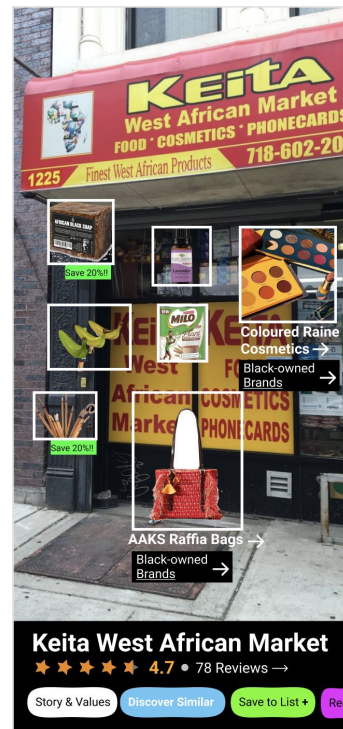
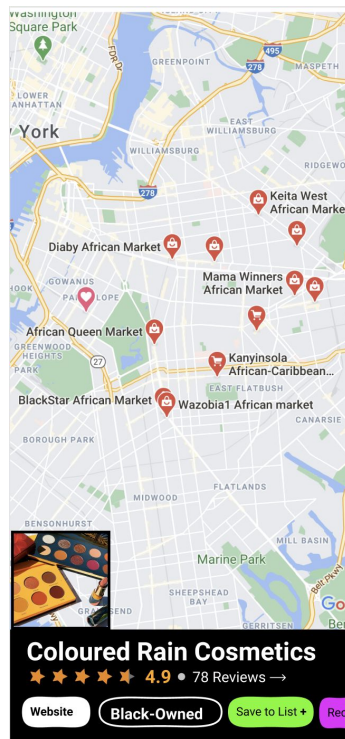


When we showed these mockups off, we were surprised by the learning that, while the story and values we wanted to associate was very clear, the story may not be trusted without proof that the business is honestly fulfilling the values. At its worst, these came off as advertisements and a cynical attempt to trick users.

POV #2 - Aniya

How might we help customers and businesses communicate without needing language?

For this prompt, we decided to prototype a virtual storefront with floating AR charts of image-driven products and deals a customer can view before entering a store. For this solution, we wanted to test that with better information about what's inside, people will be more confident and go into a store, and *more likely* to seek out their chosen products at stores like it.

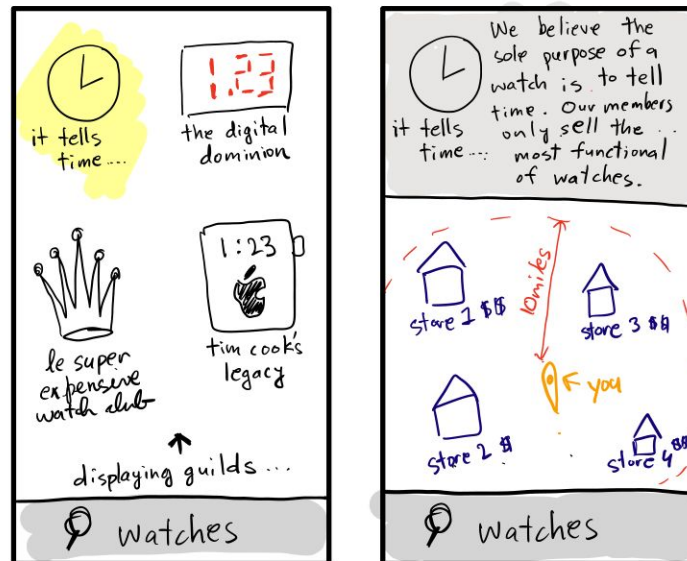


However, we learned that more options is not always better as users can feel overwhelmed by too many choices. This led us to believe that more filtered and tailored options would be an important feature to add, possibly with personalized recommendations and / or social networking to aid in this.

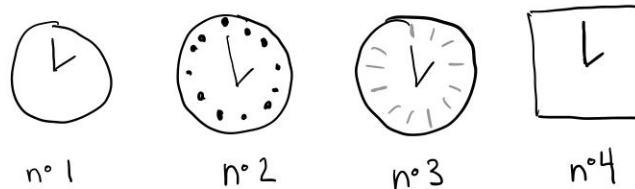
POV #3 - Nathaniel

How might we recreate the sense of “familiarity” which draws consumers to chain businesses?

For this prompt, we decided to prototype a system where local businesses across the country with similar values can form “guilds” to signify their value alignment. For this solution, we wanted to test the assumption that a business’s association with a larger group (or guild) will better establish trust with a consumer.



sample catalog



While this idea was positively received, we learned that people generally shop with an idea of what they need in mind rather than look for stores and then learn what products are inside. They do not generally care about the association if the product they are looking for is not already there.

Design Evolution

For our final solution, we came up with an app that allows users to discover new businesses, share new products with their friends, and build new relationships with their community.

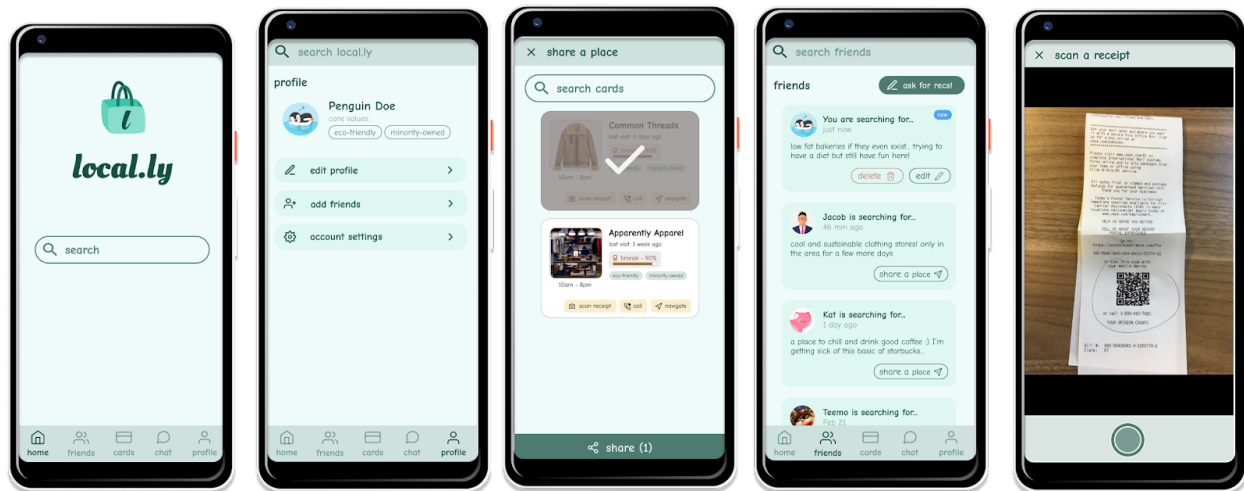


Figure 1: Final Design Overview

Task Overview

Task #1 - *Easy* - Buy value-driven product(s) locally

We considered the discovery and purchase of a product to be the most foundational and straightforward task. It involves a simple search and filter mechanism but does not require a full check out sequence as the user would buy in-person.

Task #2 - *Medium* - Build relationships with local businesses

This task is an important one as it helps realize the larger goal of the app to build a level of affinity and trust with the app. This is a slightly more difficult task as it is more amorphous than the first task (i.e. it could take a number of different forms) and it is a task that relates to a less clear end state (relationship building vs. buying an item).

Task #3 - *Hard* - Discover new businesses with similar values

This task we also feel is essential to the overall app as it keys in on the core mechanism of the app and that is personalized recommendations. We learned this was an important feature to add from the experience prototype but it is more difficult as now there are two or more users interacting with increased complexity and room for error.

Task #3.5 - *Hard* - Share businesses with friends

We added this task to the initial three as it represents the third task in reverse. Whereas the central user is receiving recommendations in the third task, in this task they are giving recommendations. We felt that this was important to include to make sure the sharing experience was comprehensive.

Low-Fi Prototype



Changes from Low-Fi to Med-Fi

The progress bar that was originally overlaid on the “Shop Now” of rewards card was not originally associated with progress towards a goal. Moreover, it was largely viewed neutrally or negatively, with one respondent indicating it looked like a “sketchy internet

ad.” To address this, we added a goal oriented label (e.g. Bronze, Silver) percentage count to indicate how close to the next level the user was.

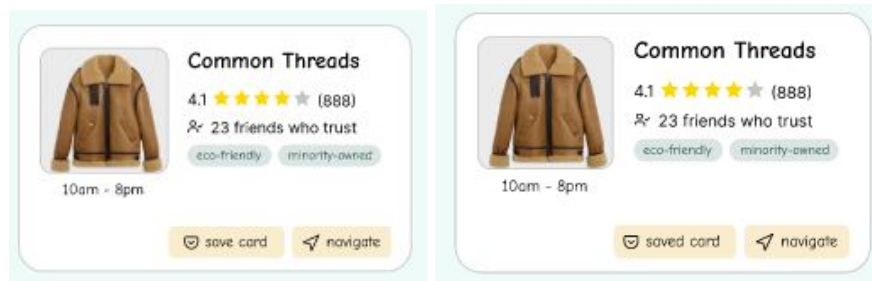
Additionally, we saw a large and consistent pattern of confusion in where to go to “Build a relationship.” Understandably, users believed the icon with multiple people (which was intended to indicate friends) was where they should go to progress their relationship with the business. To address this, we added labels to the sections and more explicitly associated the identity of the businesses with the concept of the cards so they had a 1:1 relationship.

Med-Fi Prototype

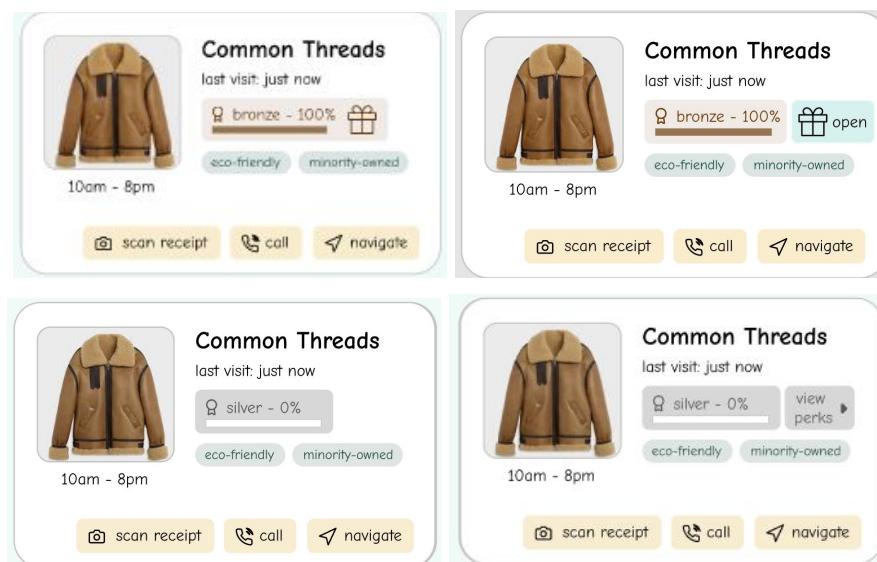


Changes from Med-Fi to Hi-Fi

The ability to undo a saved card was identified as a severity 4 issue. This violated Heuristic 3 - User Control and Freedom - as users could not control the state of their profile. This was fixed by causing the click of the “saved card” to undo itself back to “save card”.

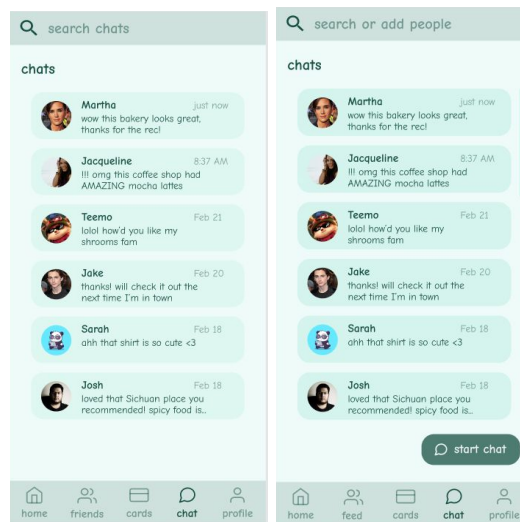


Although improvements were made to the visibility of the status of rewards from the low-fi prototype, this area was still identified as a severity 4 issue. Specifically, it violated Heuristic 1 (Visibility of System Status) in that after a reward was achieved, it was difficult to understand where the rewards were accessible from. This was resolved with the explicit addition of a “View Perks” icon next to the progress bar to indicate that perks were available and where to find them.

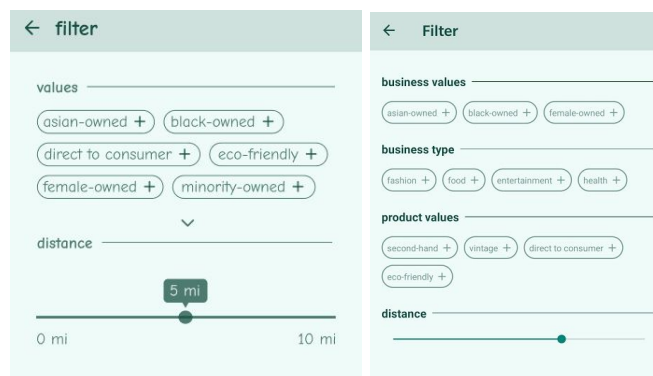


Additionally, users felt that the cards lacked important features like the ability to favorite certain cards, which would give more agency to the user to control the state of the app. This was identified as a severity 3 issue. To address this, we added the ability to favorite cards.

Within friends, feedback was received that the messaging and card sharing process could be streamlined and the current inefficiencies deemed it a severity 3 issue. In response, we renamed “Friends” to “Feeds” and added the ability to start new chats from the “Chat” screen rather than have to start them from the “Friends” screen.

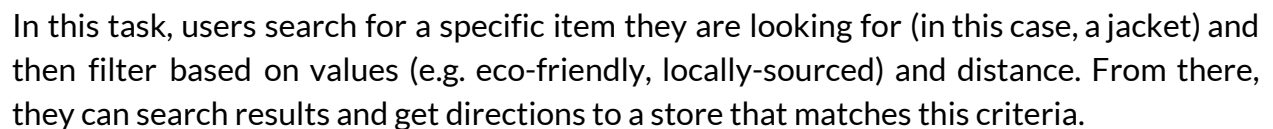


Within search, it was noted that not all tags are applicable to all stores and this can cause confusion to the user, warranting a severity 3 warning. This is a reasonable point as the filters that are pertinent to a bakery is very different from a clothing store. In response to this, the filter screen was re-organized to have suggested tags that adjust depending on the type of business chosen.

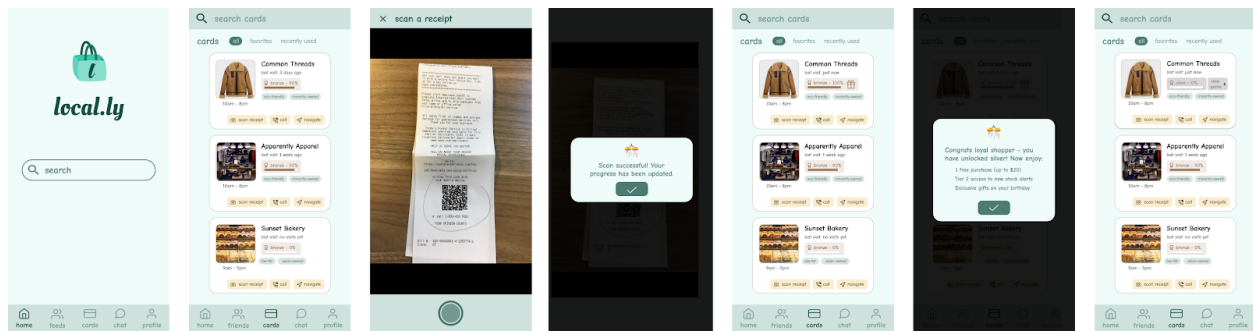


Beyond these changes, we also changed the font from Comic Neue to Lato as there were accessibility concerns of Comic Neue being difficult to read when small.

Sign Up Flow

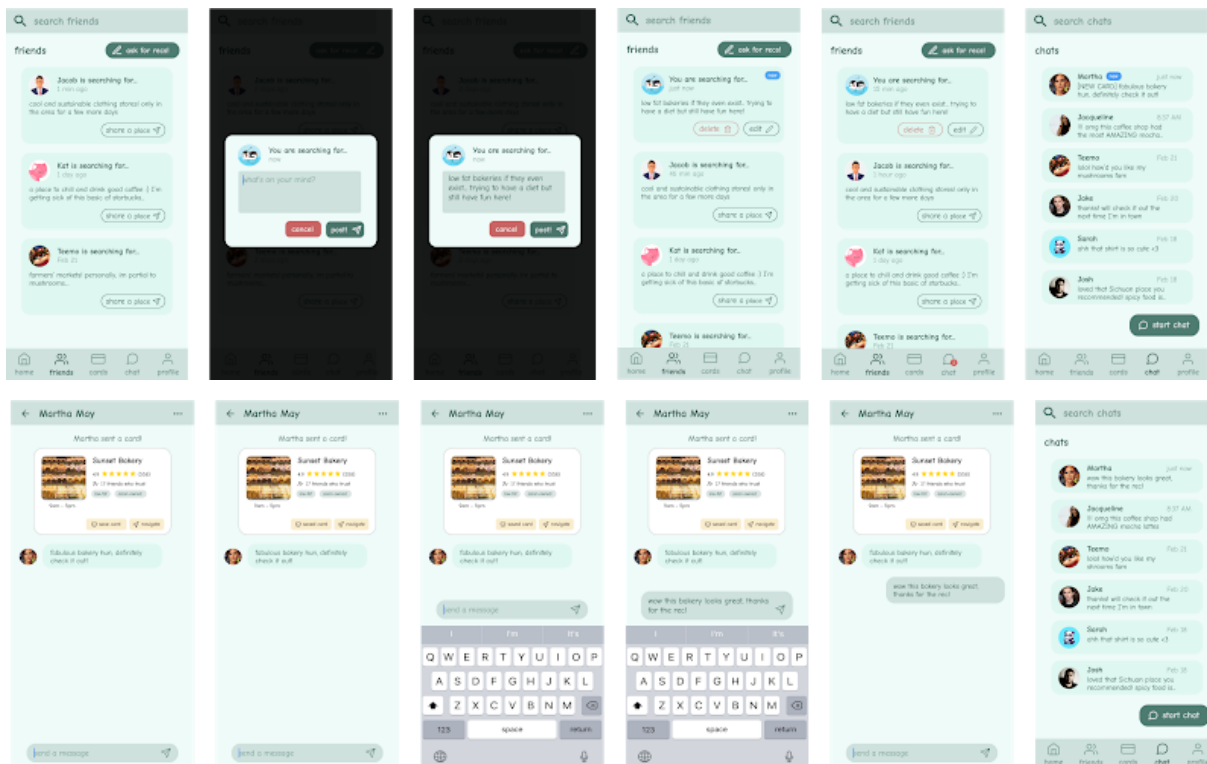


Task #2 - Build relationships with local businesses



In this task, users progress forward in their relationship with businesses by scanning a receipt and adding it to their account to prove a purchase with the business. This “levels up” the user to the next status (i.e. Bronze to Silver). This is noted both with a pop up indicating the level progression and a change to the business card back on the cards page.

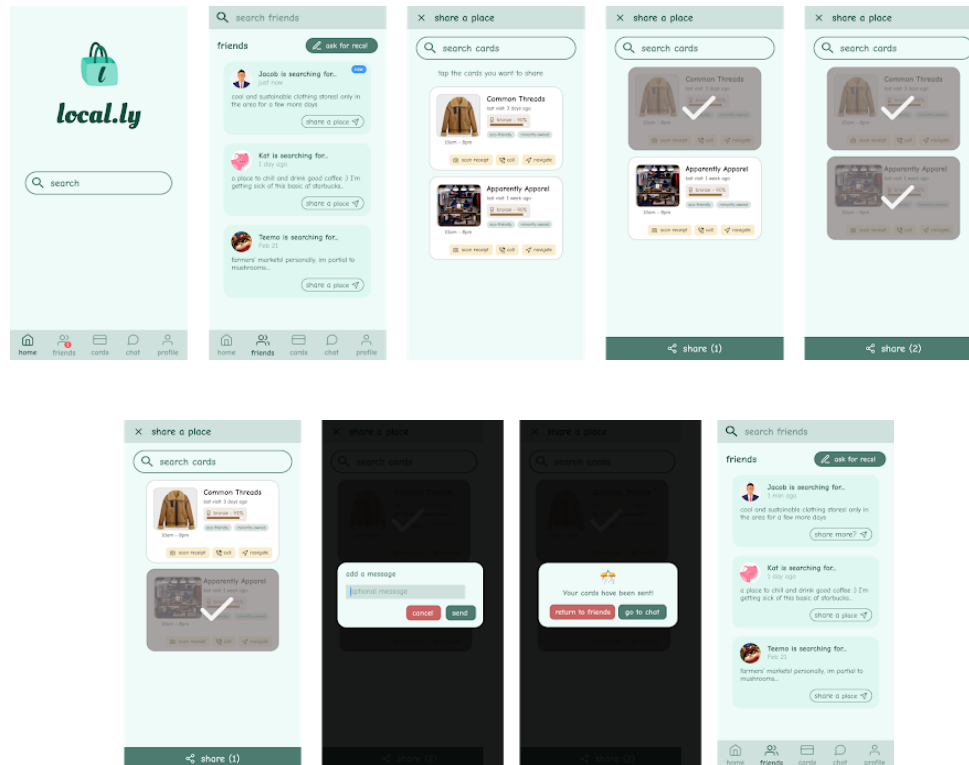
Task #3 - Discover new businesses with similar values



This task begins with the user desiring to find a new business. They send out a request to their network and receive responses in the chat category. From there they can respond

back and clarify elements of the recommendation. These recommendations and conversations are then kept in the chat category for future reference.

Task #3.5 - Share businesses with friends



In this task, the user reciprocates the previous recommendation with a recommendation of their own. They see a friend is looking for a certain type of business that they are able to share and does so by clicking on the card (causing a check to appear). They can then add a message and send the card out.

Final Prototype Implementation

For the final prototype, we created the final wireframe in Figma and developed the prototype using React Native. This tool had the benefit of allowing the members of our team to test with Android (if using Windows as two of our members are) and iOS (if using Apple as our other two members are). However, we found that this tool had some limitations with regards to initial installation. After one member started the project, the three remaining team members spent between hours and days getting their local environment setup correctly.

There were a number of wizard of oz techniques required to make the prototype work at this stage. Namely, because there is no backend api or database, all data in the app regarding stores, brands, profiles, and purchase history are hardcoded. Because of this, conversations were pre-loaded but appear to have occurred in real-time. Additionally, while the search functionality works, it will only work when data that has been pre-loaded is entered (e.g. "Watch").

Summary & Next Steps

While we would have liked to have been able to test our assumptions and early prototypes in-person, within the limitations of the Covid-19 restrictions, we were very happy with the insights we were able to develop and the direction that the project took. Specifically, the push to identify what tensions existed throughout the feedback gathered in the needfinding process was a very helpful guiding north star in developing the app down the line. Within our studio, we were very excited by some of the associated technologies (e.g. AR) but the constraints put on the early exploration to not become too prescriptive with technology too early helped put the focus on the user and solving real pain points. Lastly, with our project itself, we learned the delicate balance between authenticity and manipulation. Without evidence to back up how a business is adhering to certain values, users can have a worse perception than if they had never attempted to appear values driven in the first place as it will be assumed that it is all a cynical ploy.

Had we had more time, we would have liked to add in more features to better incentivize people to be physically in stores and meet with shop owners. We discussed different ideas around this including a rewards based program based on how well you know the shop owners or different brands but, given the constraints of Covid-19 and not wanting to encourage people to take unsafe precautions, these ideas were shelved for the time being.