MIT APP INVENTOR APPATHON 2023

Five Miles

Sharing Made Simple:
Strengthening Communities Together

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Overview

APP NAME: Five Miles

APP DESCRIPTION: Five Miles is a community-driven app that allows users living close to each other to share tools, equipment, and other personal items.

TRACK: Youth Team

CATEGORY: Climate & Sustainability

FIVE-MILES

Topics Covered

- The Story Behind
- Theme
- What is our Solution?
- Introducing the 5 Miles APP
- How Does it Work?
- Instructions
- Limitations
- Acknowledgements

The Story Behind

- JESSICA -

Hello everyone! I'd like to share a personal story about my dad, who is very skilled with tools but faces a challenge due to their storage. Tools are stacked all over our shed, basement, and garage, taking up a lot of space and causing inconvenience. Moreover, he often encounters difficulties with certain projects because he lacks specific tools. To address this issue, our team came up with an innovative idea to create an app that enables parents to locate and share tools within their nearby communities across the US!

Through surveys conducted in local neighborhoods, we found that 80% of parents expressed enthusiasm and acknowledged the need for a tool-sharing platform. The positive feedback encouraged us to think beyond just tools, and we plan to extend the sharing feature to include books, toys, and other belongings as well!

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Theme

PROBLEM & PAIN POINTS

We have always been deeply passionate about tackling the pressing issue of climate change and promoting sustainability.

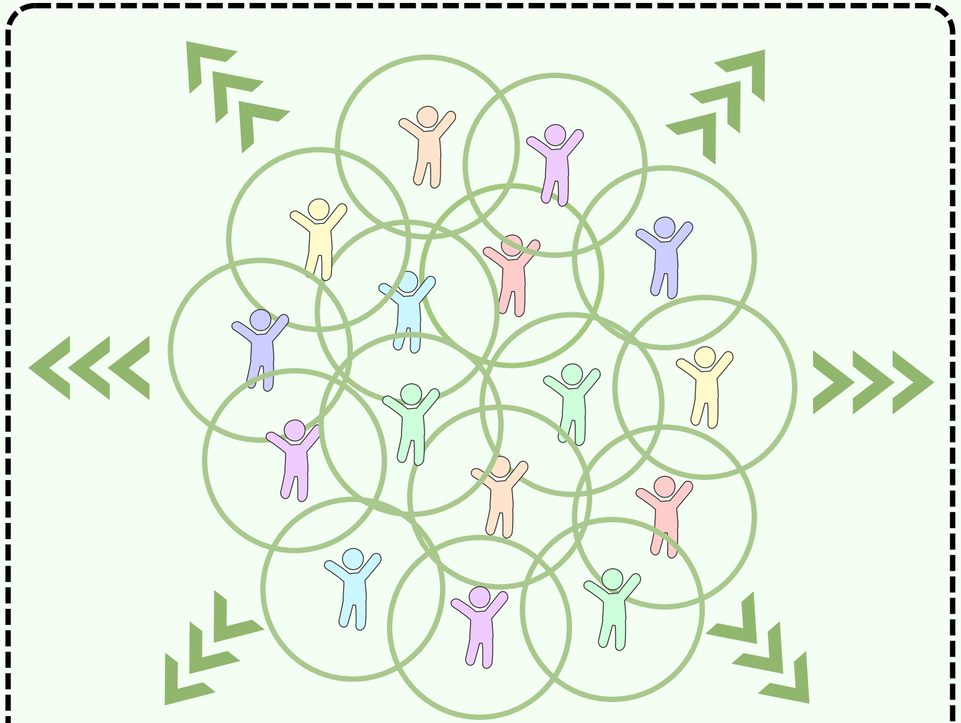
Observing skilled handymen struggling with scattered tools in their homes that end up in landfills, negatively impacting the plant's environment. This made us recognize the significance of resource efficiency.

The intersection of our concerns for these two issues ignited the idea to develop an app that could facilitate the utilization of seldom-used items, enabling people to save money and, most importantly, reduce unnecessary consumption and waste.

Our ultimate goal is to contribute to building a more sustainable and environmentally friendly world.

What is our Solution?

The 5 Miles App encourages resource-sharing, linking individuals with spare items to lend to those nearby who are in need. This saves individual's money, storage, space, and reduces waste production and disposal. Furthermore, it helps to enhance local bonds, ultimately creating a more resourceful and connected neighborhood.



Across the USA

Each individual user is the center of the 5 miles community, networking across the whole United States of America.

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Introducing 5 Miles

INTRODUCING 5 MILES - SHARING MADE SIMPLE: STRENGTHENING COMMUNITIES TOGETHER

BORROW FROM NEARBY OWNERS:

By using 5 Miles, you can tap into a large community of amiable neighbors ready to share their tools, books, and toys. Whether you require a power drill for a home improvement project, seek an engaging novel to immerse yourself in, or wish to provide your kids with new toys to play with, you'll find a treasure trove of items available for borrowing right in your neighborhood.

CONNECT WITH YOUR COMMUNITY:

With 5 Miles, neighbors come together in unprecedented ways. Easily communicate with lenders, coordinate pickups, and arrange item returns. Build friendships, cultivate trust, and foster a stronger, more connected neighborhood.

USER-FRIENDLY INTERFACE:

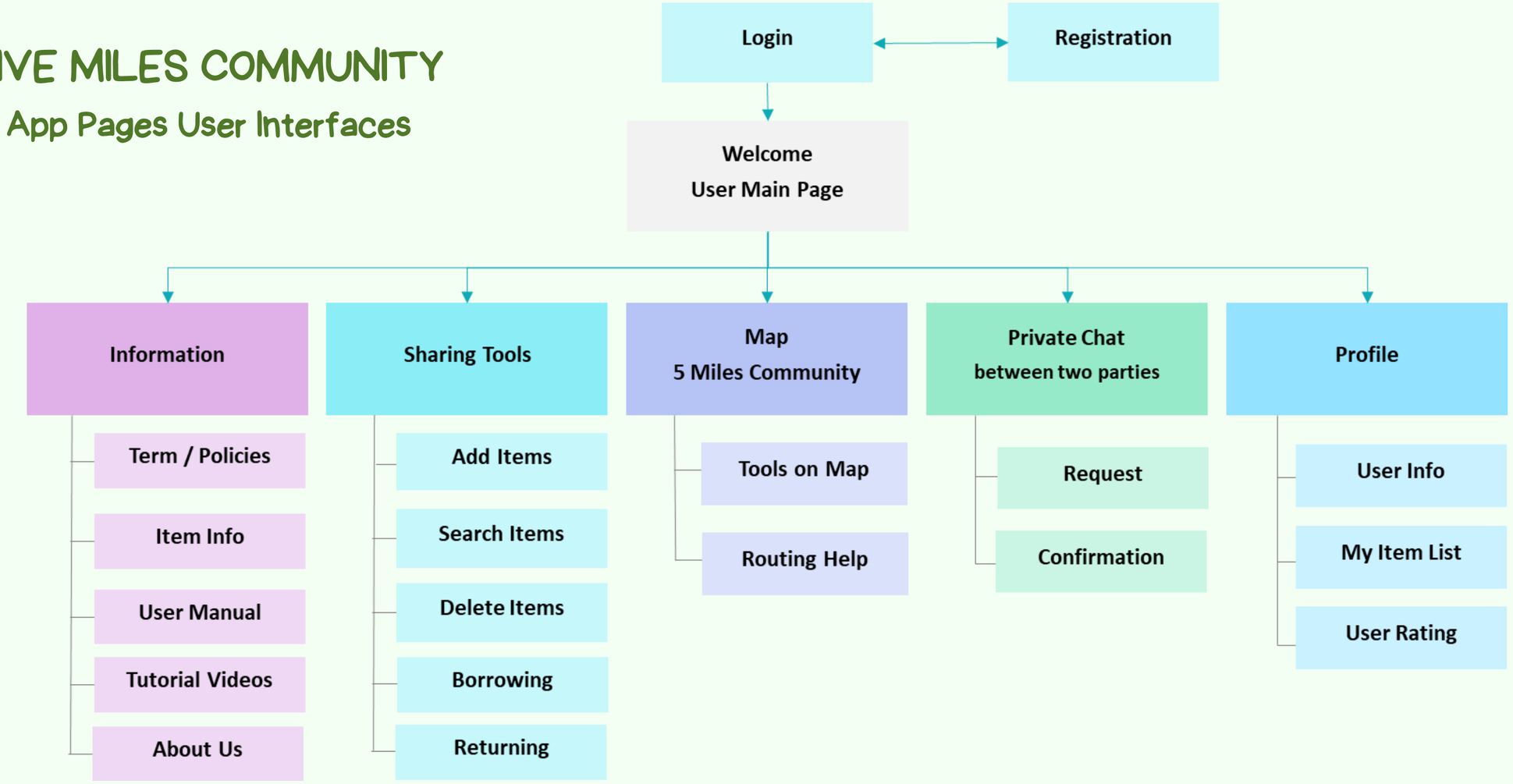
Using 5 Miles is effortless! Our app features a streamlined, user-friendly interface crafted to elevate your borrowing experience. With just a few taps, you can easily discover a diverse selection of tools, books, and toys available for lending. The app's intuitive design ensures that even newcomers can dive right in and start borrowing with ease.

JOIN THE THRIVING COMMUNITY OF SMART, RESOURCEFUL BORROWERS ON 5 MILES! TOGETHER, LET'S MAKE BORROWING THE NEW WAY TO LIVE.

How Does it Work?

FIVE MILES COMMUNITY

App Pages User Interfaces



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Instructions

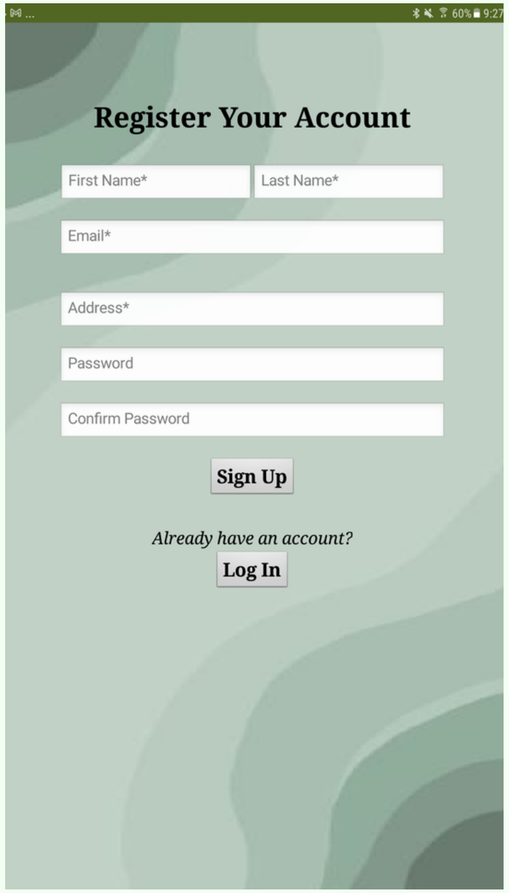
GETTING STARTED

STEP 1: SPLASH SCREEN

You will be greeted by a splash screen with our logo on it.

STEP 2: REGISTER

If you don't have an account, you can register and enter some information.



STEP 3: LOG IN

You will get a choice to log in with an existing account or sign up.

STEP 4: HOME PAGE

After you log in, you will be greeted by a home page with many options.

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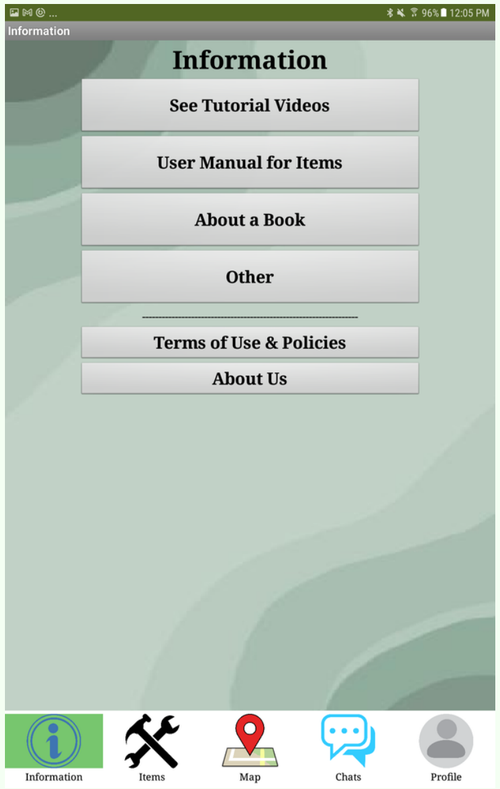
Instructions

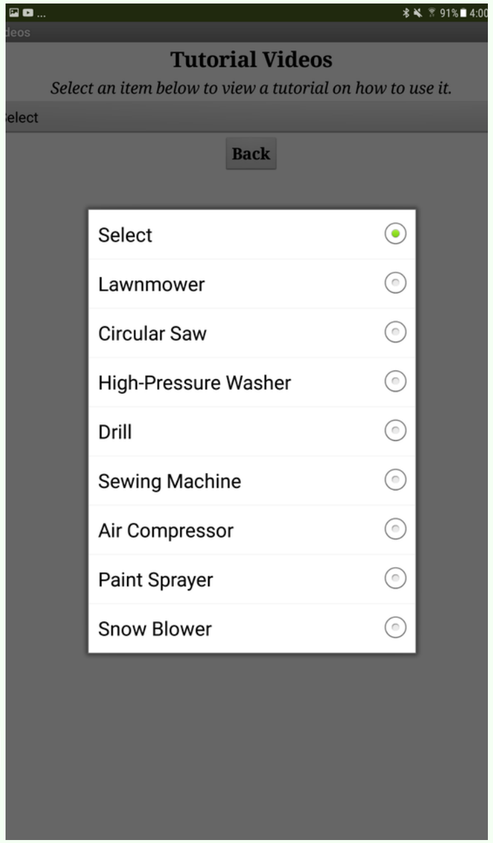
INFORMATION PT.1

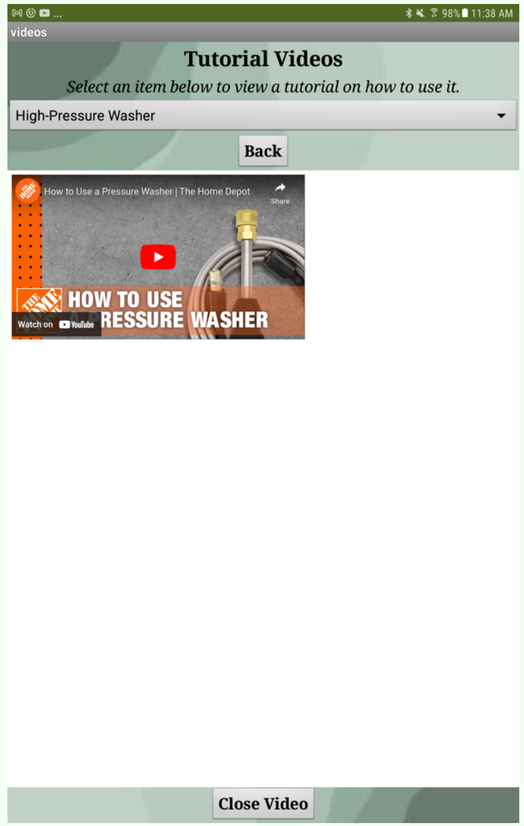
STEP 1: PRESS "INFORMATION"
Press the "Information" button on the bottom of your screen.



STEP 2: OPTIONS
You will get many choices to go to certain pages.

STEP 3: TUTORIAL VIDEOS
You can view tutorial videos of some tools after pressing "See Tutorial Videos".





STEP 4: VIEW TUTORIAL VIDEOS
After selecting your choice of a tool, you can view the tutorial video.

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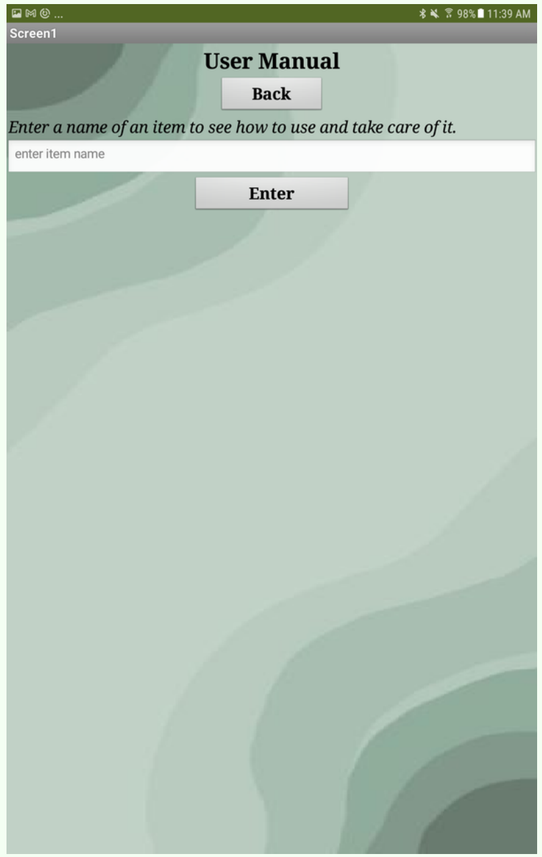
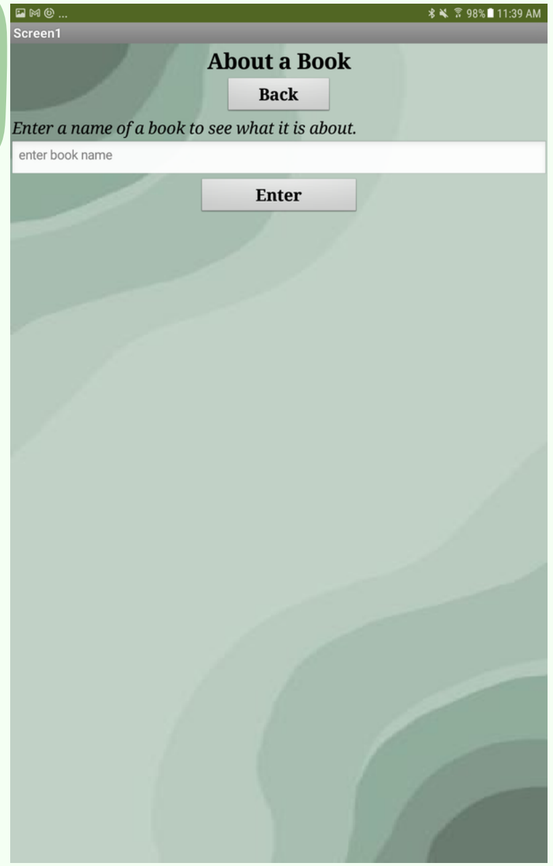
Instructions

INFORMATION PT.2

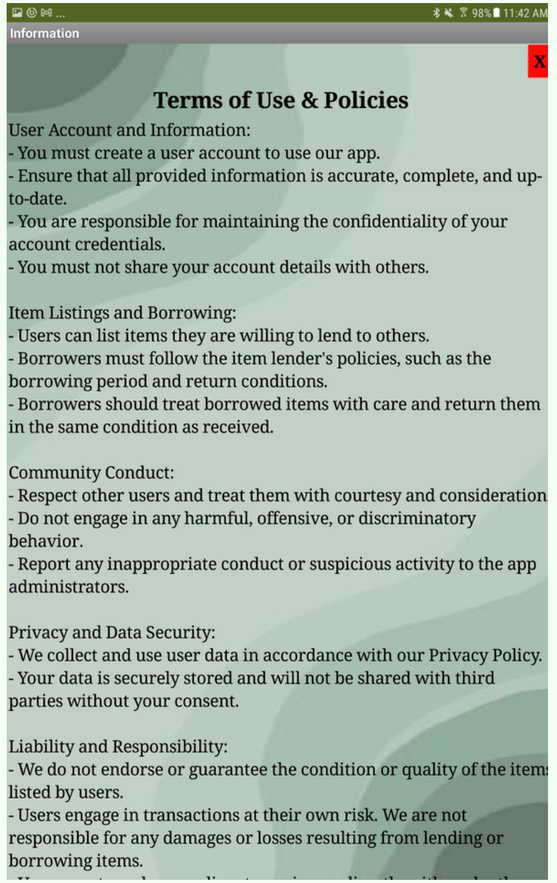
STEP 5: USER MANUAL FOR ITEMS
Powered by ChatGPT, you can enter an item's name, and it will return an user manual for that item.

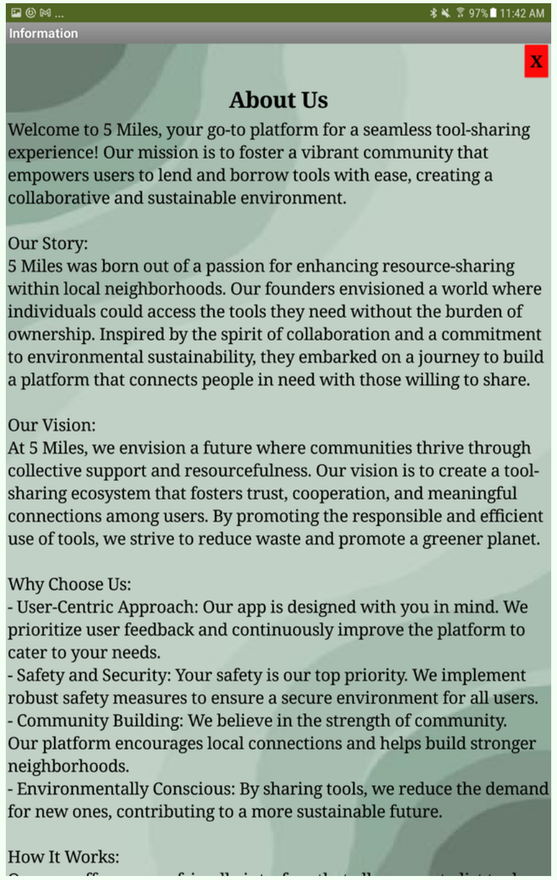




STEP 6: ABOUT A BOOK
Similar to the user manual's, you could type a book's name to get a summary of it.

STEP 7: TERMS & POLICIES
You can view our terms & policies as well in the "Information" section.





STEP 8: ABOUT US
In addition, you can also view the "About Us" page.

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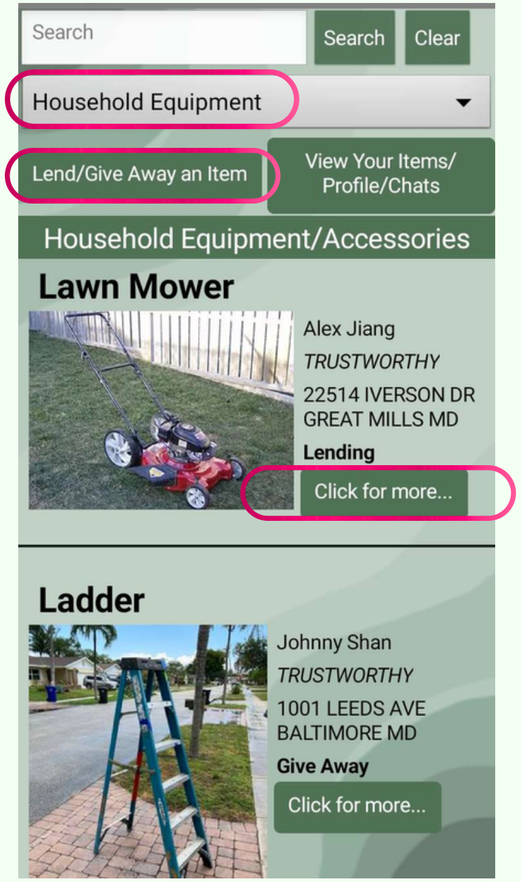
Instructions

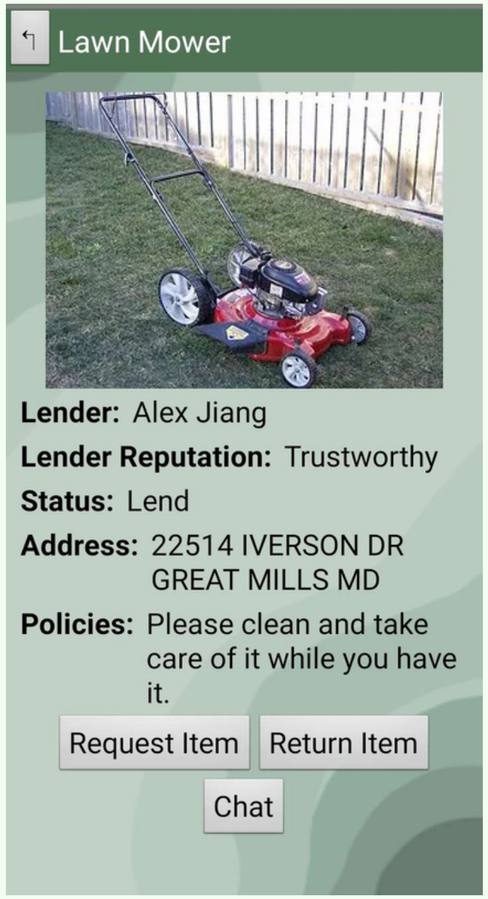
ITEM PAGES

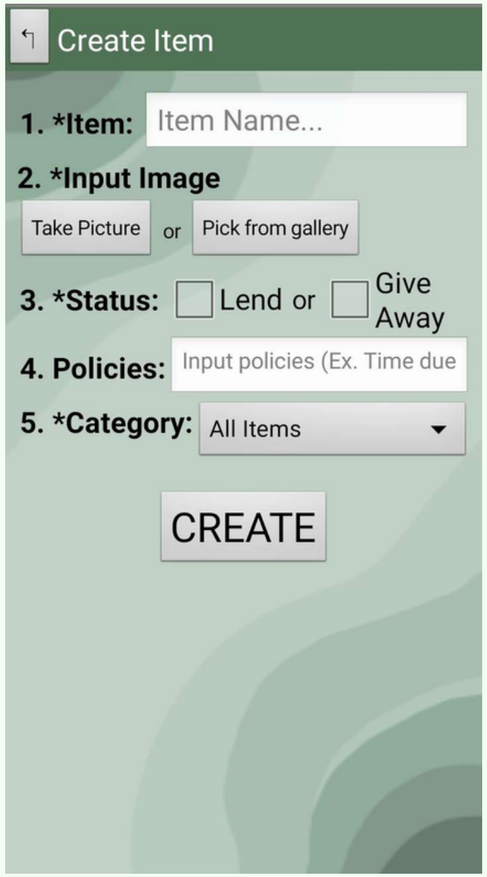
STEP 1: PRESS "ITEMS"
On your homepage, press the "Items" icon to lead you to the Items page.



STEP 2: CHOOSE AN ITEM
This page lets you choose items easily using a category dropdown and search.

STEP 3: REQUEST/RETURN/CHAT
Here, you can borrow, return, and chat with the lender.





STEP 4: LIST YOUR ITEM
List your item: choose to lend or give it away.

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Instructions

MAP PT.1

STEP 1: PRESS "MAP"

On your homepage, press the "Map" icon to lead you to the Map page.

STEP 2: CHOOSE ADDRESS

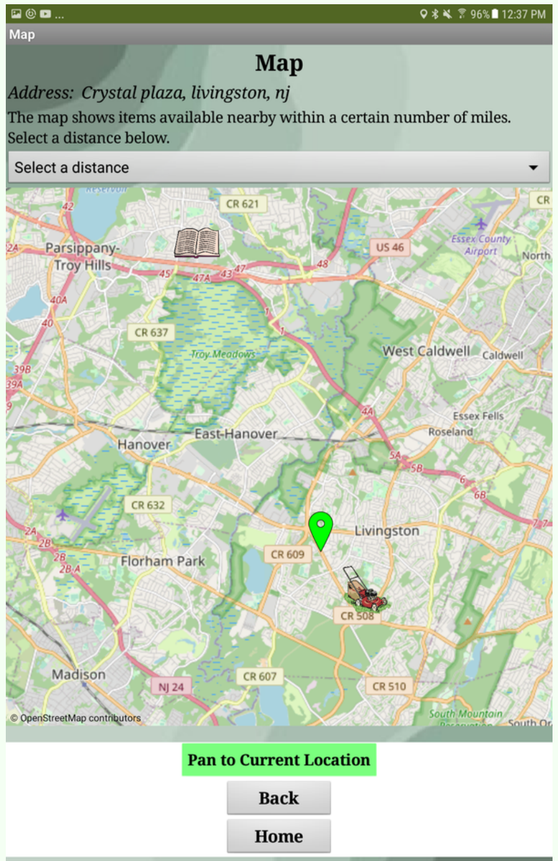
The address you entered when signing up will appear, but you get to choose to use another address if desired.

STEP 3: ENTER ADDRESS

If you chose to use another address, enter an address and press "use".

STEP 4: VIEW NEARBY ITEMS

View items near you (we added 2 for demo). The green marker is the address you inputted.



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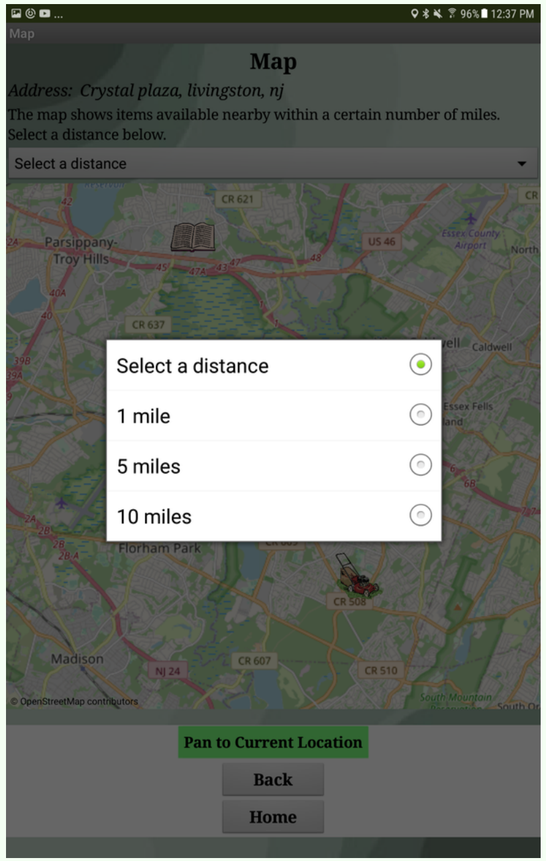
Instructions

DASHBOA MAP PT.2 M PAGES

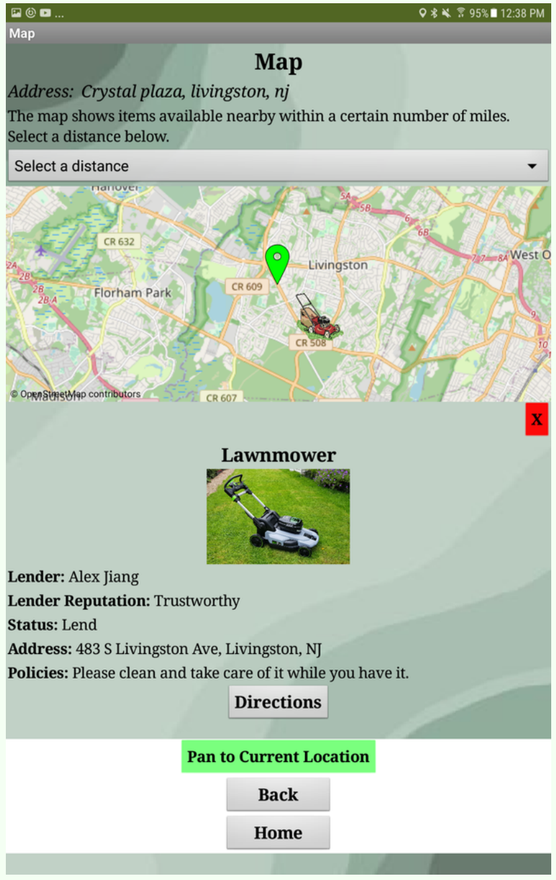
STEP 5: SELECT DISTANCE

You get to select a certain number of miles to show the items within that distance.



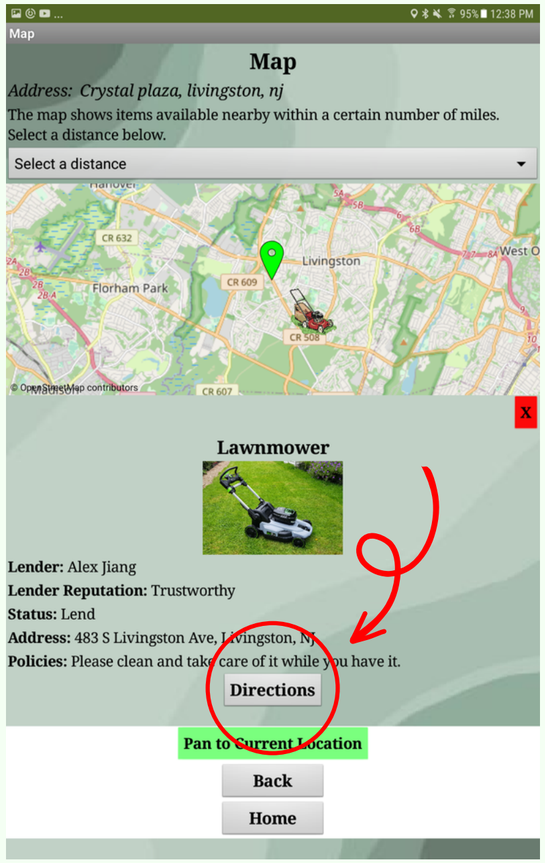
STEP 6: SEE ITEM INFO

When you press on an item, you get to see the information about that item like the lender, address, etc.



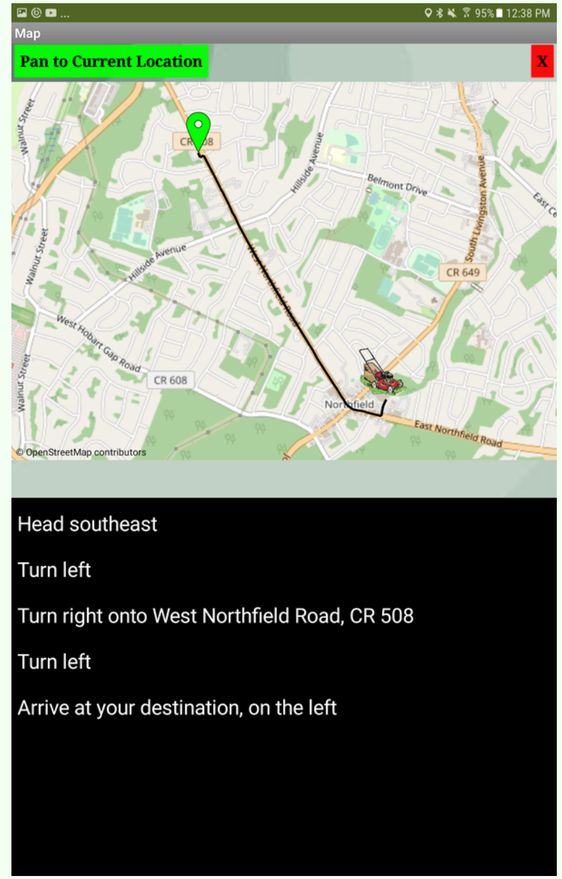
STEP 7: PRESS "DIRECTIONS"

If you want to view the route to that item's address, press the "directions" button.



STEP 8: VIEW DIRECTIONS

Now, you can view the route to the item along with directions of how to get there.



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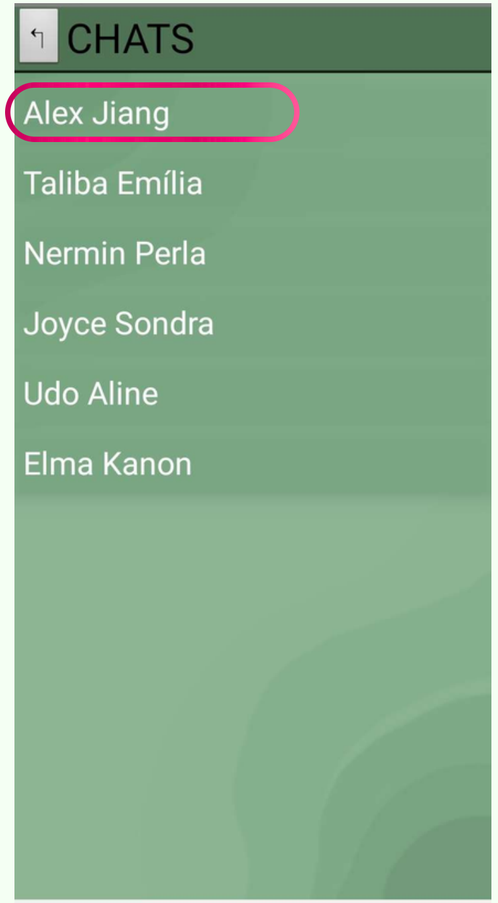
Instructions

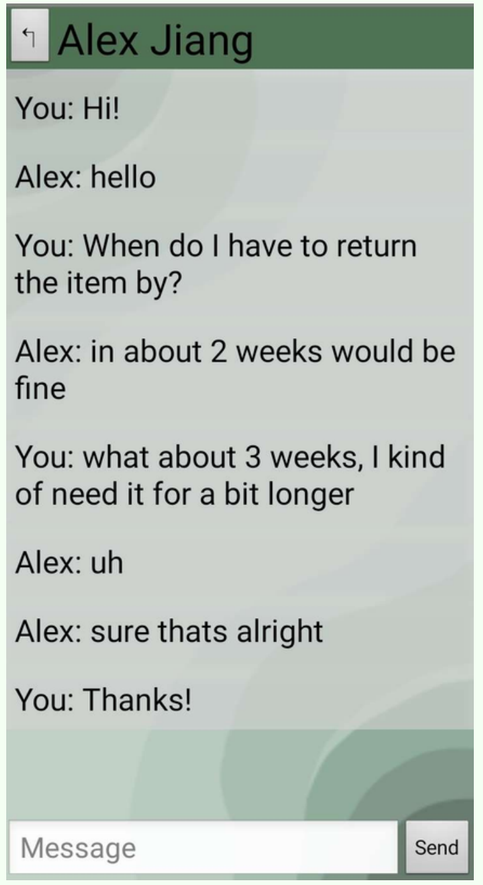
CHATS

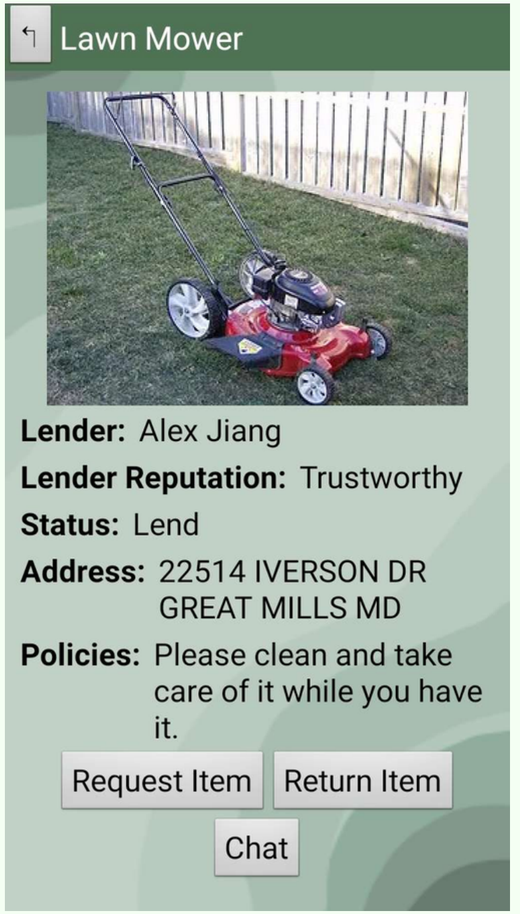
STEP 1: PRESS "CHATS"
On your homepage, press the "Chats" icon to lead you to the Chats page.



STEP 2: SELECT A CHAT
Leads you to one of your chats you have with your neighbors.

STEP 3: CHAT!
Start talking! You can use this to arrange meetups to pickup items





ALTERNATIVE
OR, you could go to an item page, and start chatting with them there.

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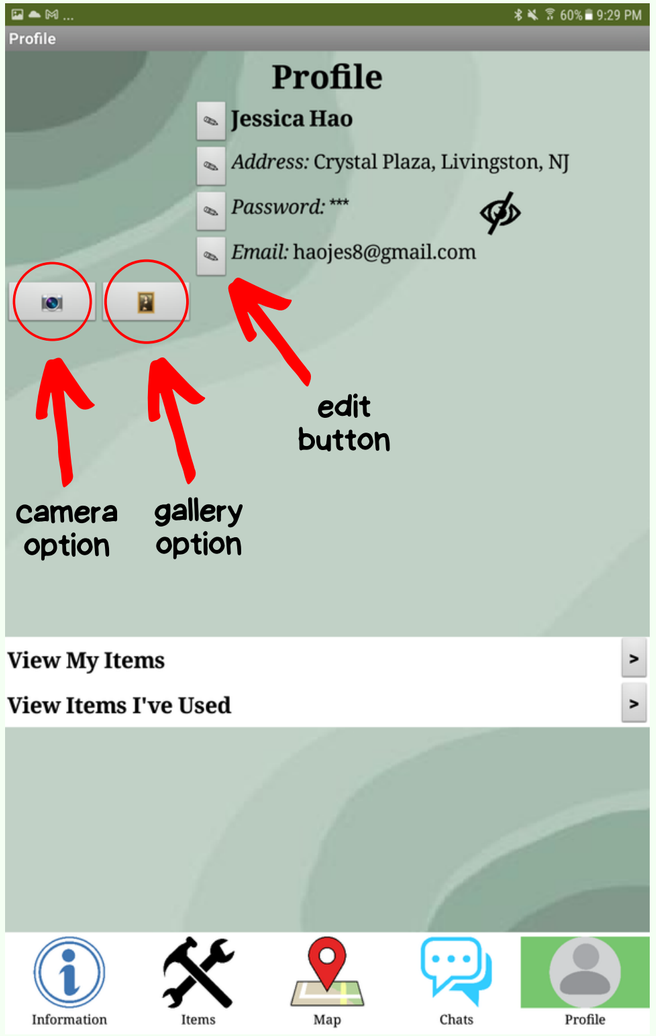
Instructions

PROFILE

STEP 1: PRESS "PROFILE"
On your homepage, press the "Profile" icon to lead you to the Profile page.



STEP 2: CHANGE PROFILE PICTURE
You get an option to take a photo or pick a photo from a gallery.

STEP 3: CHANGE ACCOUNT INFO IF NECESSARY
You get the option to change any information about yourself using the edit button.

STEP 4: VIEW YOUR ITEMS/ITEMS YOU'VE USED
You can also view your items and the ones you've shared from others from your profile.

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Technology

TECHNOLOGIES USED:

Using Chat GPT to create a quick description, provide instructions on how to use the item, and offer care tips.

Google Maps, GPS, and Navigation to track items within a certain number of miles.

Leveraging CloudDB and TinyDB to store information/data.

Limitations

SOME LIMITATIONS MAY INCLUDE:

The 5-mile range might be limited for sparsely populated neighborhoods. We could implement a feature in the future that allows users to select from various neighborhood sizes to share their belongings.

Accidents can lead to item breakage, and unfortunately, not all users have good intentions; some may not return borrowed items. We could implement a user rating function for both borrower and loaner to encourge good behaviors and create a friendly community.

Acknowledgments

WHO HELPED?

Dr. Yu Meng who teaches us how to use MIT App Inventor

Jessica's dad Jim Hao inspired us with the idea of this App

Each of our parents has been a supportive presence

MIT
APP INVENTOR

THANK YOU