PocketChange

Final Project Report

Lexi Fogel, Kevin Choi, Eliza Heller, Aaron Huang, Anders Lundin

Design Problem Statement

How might we use technology to help improve certain processes that currently exist within the donation space as it relates to the homeless population?

"The best part of my day is helping others "

— Francine

"I want to find a way to help support Marsha through her diagnosis"

— Charles

Donors / Volunteers

Many people have the time or resources to assist those in need, but lack a safe, personal, and easy way to do so

People in need

Homeless and people in need struggle most with obtaining personal goods and finding free service providers

Solution Overview - Users & Settings

- Findings from our shelter visit shaped our design scope
  - Strong need for mental health resources
    - While the shelter has most of the physical resources they could need, they are lacking in support for problems that require human time/attention
  - A lack of awareness about existing services and resources available to residents
  - Strong need for personal hygiene/self care items such as moisturizer, sunscreen, earbuds, cleansing wipes, and water bottles

Solution Overview - Functionality

- PocketChange allows users to submit requests for funding through the home page
- Donors can then use the application to support causes by rounding their spending to the dollar for a selected period of time (they can also donate a percentage of their money if they want to donate more)
- Group competitions can be created in which users can choose their group in order to try and compete for the most donations in a set period of time.

Main Parts of Design Flow

View profile

Start a fundraiser

Create a profile

Home (Explore) page

Join a group

miro
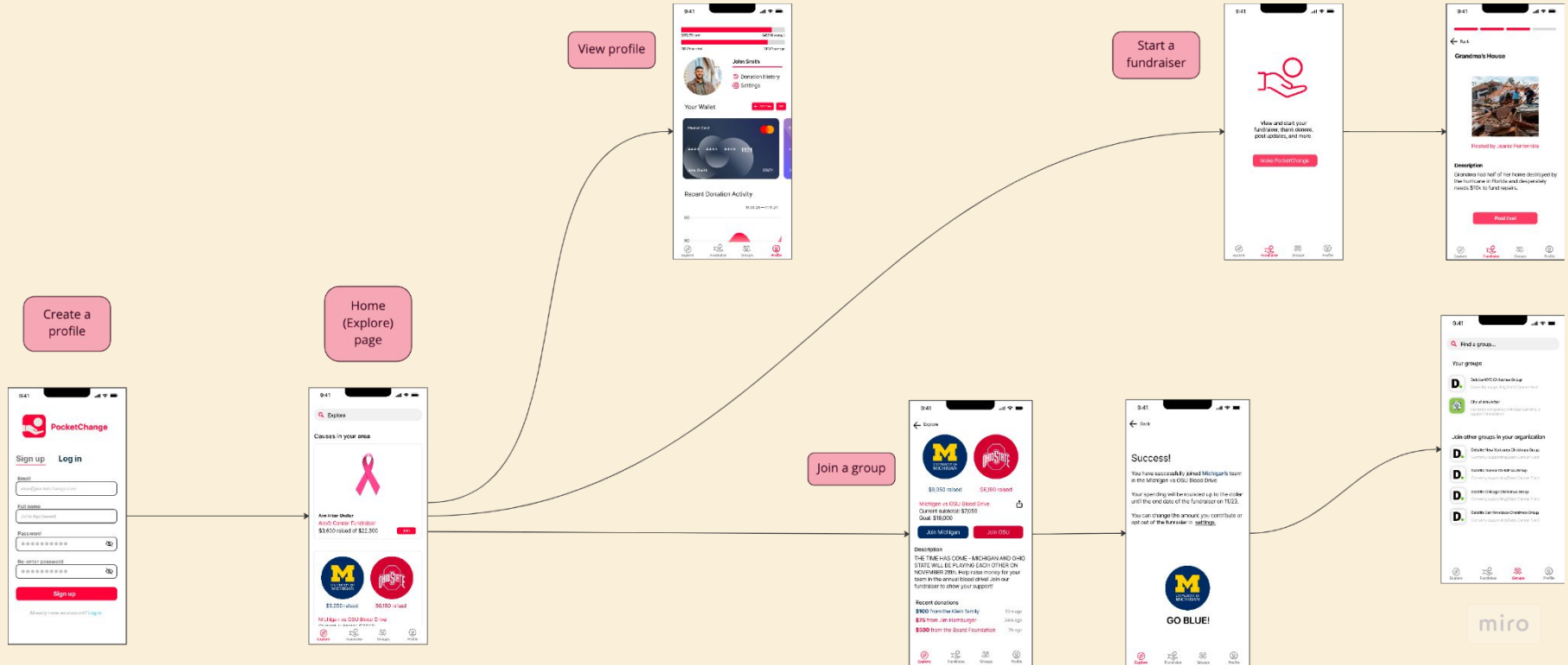
2 Aspects We're Most Excited About

1st aspect — PocketChange — **2st aspect**

Group Competitions

Great way to gamify the app and gain more attention from communities

Change round-up feature

Rounding up change spent on everyday purchases is an easy, low cost, high impact, one time setup process!

Aspects Ultimately Omitted

Accountability Feature

We felt that feature would be too intrusive on the user and we want them to donate at their own discretion

Hygiene products deliveries

While it would be ideal in a perfect world, we felt that it would sway users from donating because of the in person safety risk and extra effort

1 on 1 calls with homeless people

Decided to not focus this feature as we wanted a solution that provided physical resources

Tools & Approaches

Throughout our project, we used varying techniques such as user personas, storyboarding, miro for user flows, scenarios, sketching, and finally a Figma prototype to develop our design throughout. The tool that ultimately shaped our project the most was Figma, as we created three different iterations of our prototype through the platform.

We found our primary tools and approaches to be through sketching and using Figma. Sketching with pencil and paper allowed us to come up with a lot of ideas fast, giving space to iterate and eliminate ideas that did not make the most sense. Sketching, however, did not give us space to fully flesh out our designs and left a lot of room to be vague on what we wanted to say. This, is where Figma came in. Figma allowed the team to collaboratively develop a prototype that brought all of our ideas together in a way that led to a shared understanding for everyone. One con is that each iteration we created on Figma took much longer than sketching, causing for slower improvements if something was not perfect.
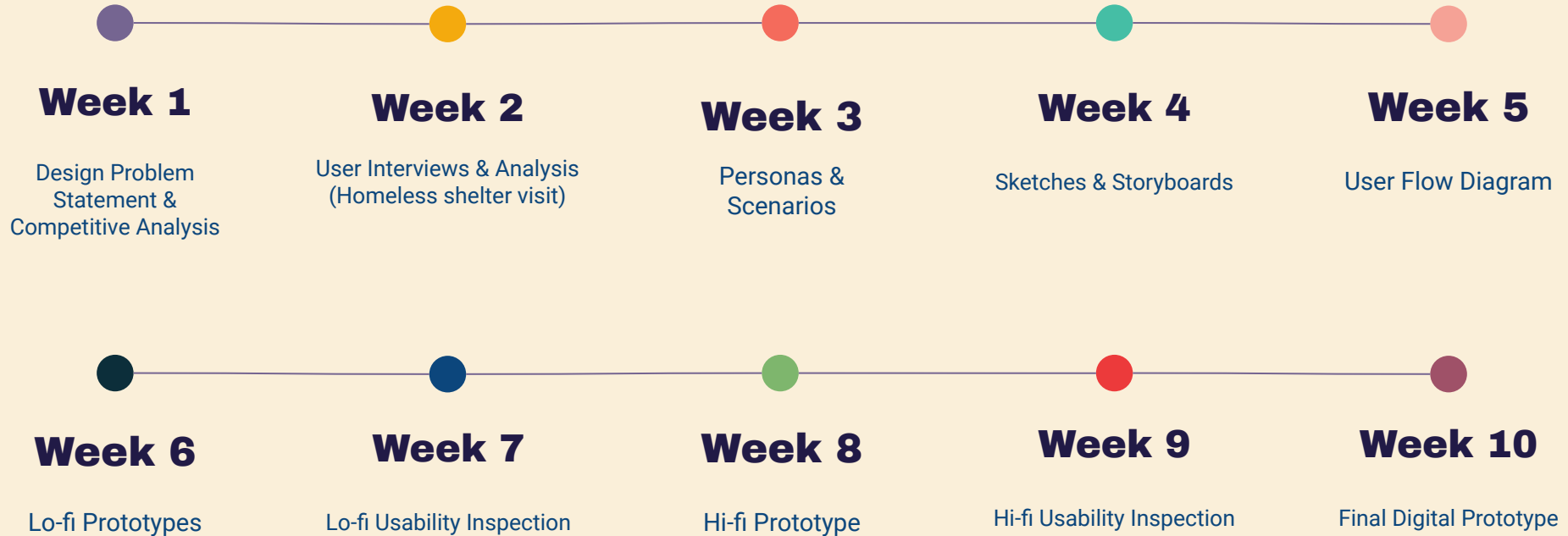
We conducted 5 interviews with our key stakeholders, and discovered that

Donors

Want to know what their money / time is going to

Shelter Workers

Want to guarantee efficient distribution of available resources

People in Need

Seek mental health support, personal goods, emotional connection

We then used these insights to develop 5 user personas that helped us design with our target stakeholders in mind throughout the rest of the design process

Charitable Chelsea

Motivations
- Guilt when donating on the streets
- Need to provide
- Giving back is how she was raised

Goals
- Wants to make an impact on others
- Make herself feel good
- Tax benefits

Frustrations
- Feel bad for not donating more
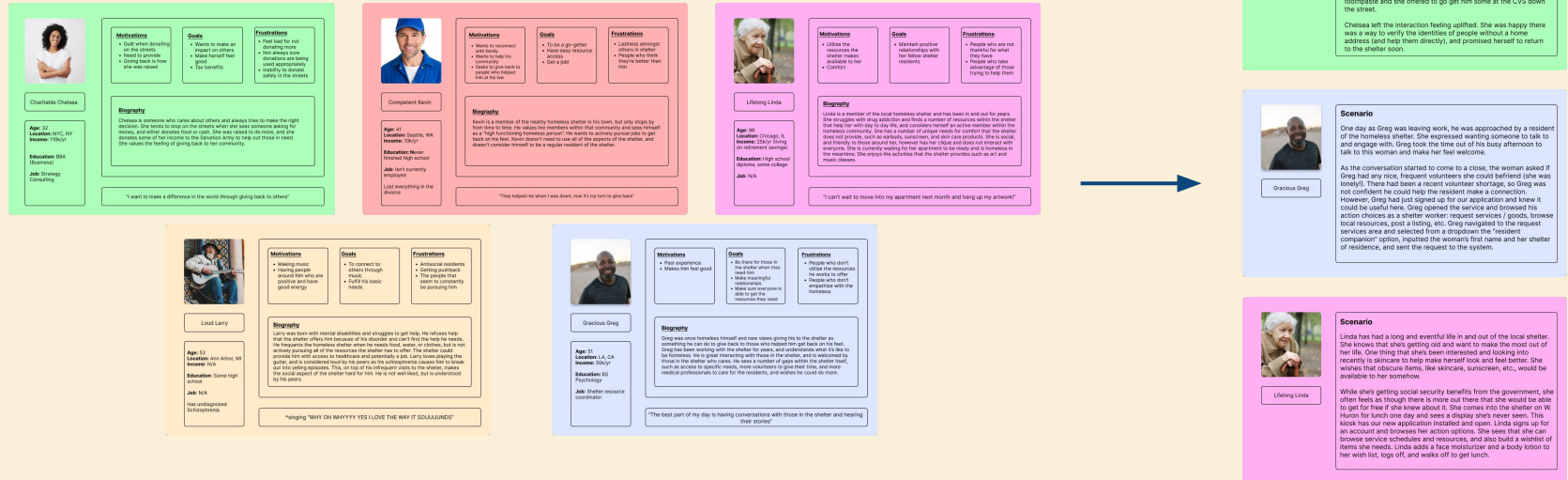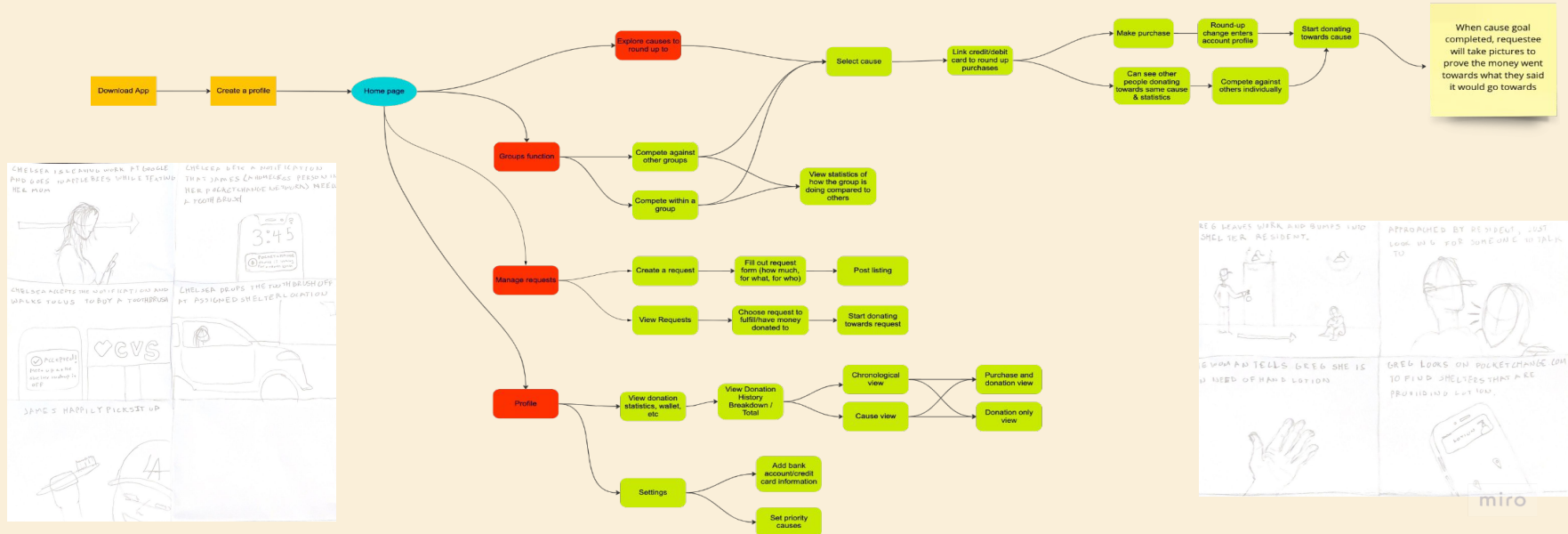- Not always sure donations are being used appropriately
- Inability to donate safely in the streets

Biography
Chelsea is someone who cares about others and always tries to make the right decision. She tends to stop on the streets when she sees someone asking for money, and either donates food or cash. She was raised to do more, and she donates some of her income to the Salvation Army to help out those in need. She values the feeling of giving back to her community.

Age: 32
Location: NYC, NY
Income: 110k/yr
Education: BBA (Business)
Job: Strategy Consulting

"I want to make a difference in the world through giving back to others"

Competent Kevin

Motivations
- Wants to reconnect with family
- Wants to help his community
- Seeks to give back to people who helped him at his low

Goals
- To be a go-getter
- Have easy resource access
- Get a job

Frustrations
- Lackness amongst others in shelter
- People who think they're better than him

Biography
Kevin is a member of the nearby homeless shelter in his town, but only stops by from time to time. He values the members within that community and sees himself as a "high functioning homeless person". He wants to actively pursue jobs to get back on his feet. Kevin doesn't need to use all of the aspects of the shelter, and doesn't consider himself to be a regular resident of the shelter.

Age: 41
Location: Seattle, WA
Income: 10k/yr
Education: High school finished high school
Job: isn't currently employed

Lost everything in the divorce

"They helped me when I was down, now it's my turn to give back"

Lifelong Linda

Motivations
- Utilize the resources the shelter makes available to her
- Comfort

Goals
- Maintain positive relationships with her fellow shelter residents

Frustrations
- People who are not thankful for what they have
- People who take advantage of those trying to help them

Biography
Linda is a member of the local homeless shelter and has been in and out for years. She struggles with drug addiction and finds a number of resources within the shelter that help her with day to day life, and considers herself an active member within the homeless community. She has a number of unique needs for comfort that the shelter does not provide, such as earbuds, sunscreen, and skin care products. She is social, and friendly to those around her, however has her clique and does not interact with everyone. She is currently waiting for her apartment to be ready and is homeless in the meantime. She enjoys the activities that the shelter provides such as art and music classes.

Age: 86
Location: Chicago, IL
Income: 25k/yr (living on retirement savings)
Education: High school diploma, some college
Job: N/A

"I can't wait to move into my apartment next month and hang up my artwork!"

Loud Larry

Motivations
- Making music
- Having people around him who are positive and have good energy

Goals
- To connect to others through music
- Fulfill his basic needs

Frustrations
- Antisocial residents
- Getting pushback
- The people that seem to constantly be pursuing him

Biography
Larry was born with mental disabilities and struggles to get help. He refuses help that the shelter offers him because of his disorder and can't find the help he needs. He frequents the homeless shelter when he needs food, water, or clothes, but is not actively pursuing all of the resources the shelter has to offer. The shelter could provide more help such as healthcare. Larry loves playing the guitar, and is considered loud by his peers as his schizophrenia causes him to break out into yelling episodes. This, on top of his infrequent visits to the shelter, makes the social aspect of the shelter hard for him. He is not well liked, but is understood by his peers.

Age: 53
Location: Ann Arbor, MI
Income: N/A
Education: Some high school
Job: N/A

Has undiagnosed Schizophrenia

*singing "WHY OH WHYYYY YES I LOVE THE WAY IT SOUUUUNDS"

Gracious Greg

Motivations
- Past experience
- Makes him feel good

Goals
- Be there for those in the shelter when they need him
- Make meaningful relationships
- Make sure everyone is able to get the resources they need

Frustrations
- People who don't utilize the resources he works to offer
- People who don't empathize with the homeless

Biography
Greg was once homeless himself and now views giving his to the shelter as something he can do to give back to those who helped him get back on his feet. Greg has been working with the shelter for years, and understands what it's like to be homeless. He is great interacting with those in the shelter, and is welcomed by those in the shelter who cares. He sees a number of gaps within the shelter itself, such as access to specific needs, more volunteers to give their time, and more medical professionals to care for the residents, and wishes he could do more.

Age: 51
Location: LA, CA
Income: 50k/yr
Education: BS Psychology
Job: Shelter resource coordinator

"The best part of my day is having conversations with those in the shelter and hearing their stories"

Scenario — Charitable Chelsea

Chelsea got off work and decided to meet up with a friend to get dinner. On the way home from Applebees, she saw James, a homeless man in her pocket change network. She was a bit caught off guard and felt in danger for a moment, but he recognized her and greeted her by name and her worries quickly evaporated.

She engaged in a short conversation with James, catching up since she had last seen him when teaching an art class at the local shelter. He mentioned that the shelter had a shortage of toothpaste and she offered to go get him some at the CVS down the street.

Chelsea left the interaction feeling uplifted. She was happy there was a way to verify the identities of people without a home address (and help them directly), and promised herself to return to the shelter soon.

Scenario — Gracious Greg

One day as Greg was leaving work, he was approached by a resident of the homeless shelter. She expressed wanting someone to talk to and engage with. Greg took the time out of his busy afternoon to talk to this woman and make her feel welcome.

As the conversation started to come to a close, the woman asked if Greg had any nice, frequent volunteers she could befriend (she was lonely). There had been a recent volunteer shortage, so Greg was not confident he could help the resident make a connection. However, Greg had just signed up for our application and knew it could be useful here. Greg opened the service and browsed his action choices as a shelter worker: request services / goods, browse local resources, post a listing, etc. Greg navigated to the request services area and selected from a dropdown the "resident companion" option, inputted the woman's first name and her shelter of residence, and sent the request to the system.

Scenario — Lifelong Linda

Linda has had a long and eventful life in and out of the local shelter. She knows that she's getting old and want to make the most out of her life. One thing that she's been interested and looking into recently is skincare to help make herself look and feel better. She wishes that obscure items, like skincare, sunscreen, etc., would be available to her somehow.

While she's getting social security benefits from the government, she often feels as though there is more out there that she would be able to get for free if she knew about it. She comes into the shelter on W. Huron for lunch one day and sees a display she's never seen. This kiosk has our new application installed and open. Linda signs up for an account and browses her action options. She sees that she can browse service schedules and resources, and also build a wishlist of items she needs. Linda adds a face moisturizer and a body lotion to her wish list, logs off, and walks off to get lunch.

Design Evolution - Summary (pg 3/6)

From this ideation, we created an initial draft of what a user's flow through the application might look like and examined what their experience with it might be with storyboards
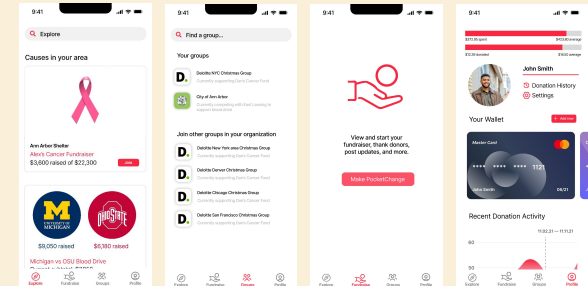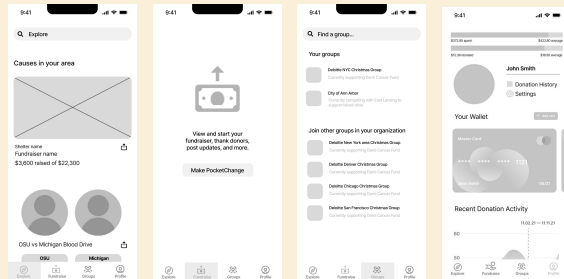
Design Evolution - Summary (pg 4/6)

Sketches helped us rapidly ideate many solutions which narrowed down the search for the ideal solution we wanted to pursue (Greenberg et al. 2011).

Being able to create a lo-fi prototype was beneficial to challenge our pre-existing notions and make changes quickly. We started brainstorming what pages to create and how we expected our users to interact with them.

The next step we took was to fill in our existing pages and add new pages and features that we noticed should be available to users on the last iteration. Finally, we added photos and implemented color changes to translate the project to high fidelity.

After each prototype, we conducted an inspection of its usability in the current state

Lo-fidelity

- We were able to locate many visibility and user freedom issues in our first test.

- One decision we made was making the credit cards carousel style so users are able to easily swipe through multiple credit cards (Batchu 2018).

- This was done after seeing a user struggle trying to figure out how they might see a separate card.

Hi-fidelity

- In this iteration of the prototype, half of us worked on stylistic changes while the other half worked on functional fixes. Naturally, this process created / uncovered a number of new issues we didn't encounter in the wireframe stage.

- One major change we did was at the end of creating a fundraiser, where there was nothing on the screen other than providing a visibility of system status. To remedy this, we added a button that allows users to quickly view the fundraiser (Pernice 2016).

Design Evolution - Summary (pg 6/6)

A preview of our final digital prototype is shown below
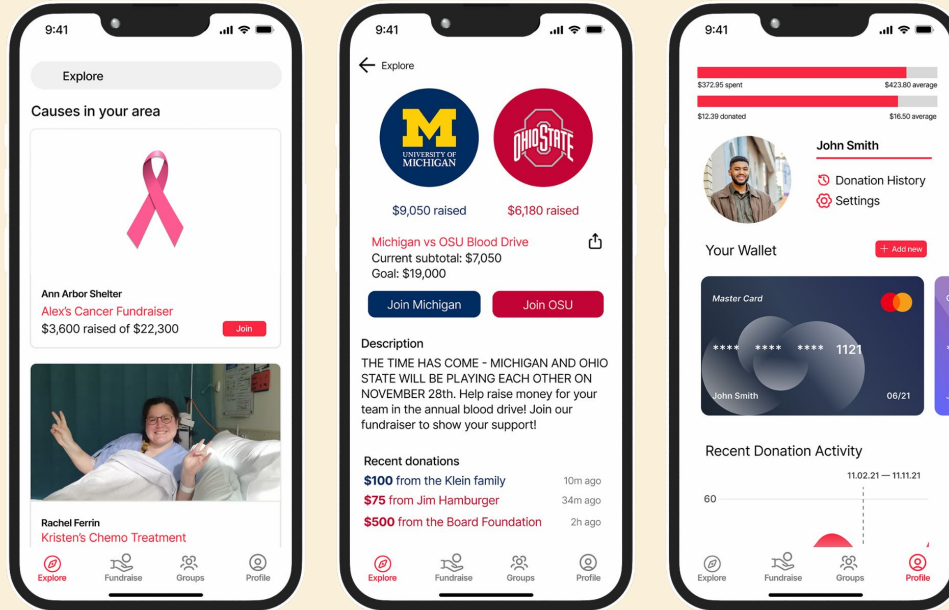
View prototype here: Figma

Design Evolution - 2 Big Changes
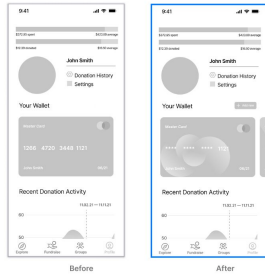
Issue 1

- 5/5 users **didn't know how to add a new card**
- 4/5 users struggled trying to figure out how they might edit a second or third card.
- **Privacy issue with credit card numbers** being displayed

Solution

- One decision we made was making the credit cards **carousel style so users are able to easily swipe** through multiple credit cards
- Add new button right above cards and only show last 4 digits of a credit card

Issue 2

- At the end of joining a community team, where there was **only a minor change on the screen** to provide a visibility of system status

Solution

- To remedy this, we added screen that would **confirm the sucess of joining** a community

Our first major change was in response to user feedback that it was unclear how to add a new credit card or view the other cards. Our solution was to add a carousel microinteraction so that more cards could be seen on swipe.

Our second major change was that many users found it confusing whether they had joined the team or not successfully after clicking join. In order to combat this, we had to add a success screen so that users could tell they joined with a visibility of system status.

Impact

Pros	Cons
• PocketChange could greatly impact the lives of individuals in need of specific, tangible goals	• One potential negative of this product is the potential of scammers abusing the system
• The service opens a window for casual spenders to help in little ways that end up creating a much greater impact through group efforts	• Another potential downside could be that these individuals won't work towards these goals themselves because they know someone else will help

Works Cited

Batchu, V. (2020, April 9). *Micro-interactions: Why, when and how to use them to improve the user experience*. Medium. Retrieved December 1, 2022, from https://uxdesign.cc/micro-interactions-why-when-and-how-to-use-them-to-boost-the-ux-17094b3baaa0

Browne, C. (2021, August 5). *What are user flows in UX design? [full beginner's guide]*. CareerFoundry. Retrieved December 1, 2022, from https://careerfoundry.com/en/blog/ux-design/what-are-user-flows/

Greenberg, S., Carpendale, S., Marquardt, N., & Buxton, W. (2011). *Sketching user experiences*. Morgan Kaufmann.

Pernice, K. (2016, December 18). *UX prototypes: Low fidelity vs. high fidelity*. Nielsen Norman Group. Retrieved December 1, 2022, from https://www.nngroup.com/articles/ux-prototype-hi-lo-fidelity/

Thank You!