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UX PORTFOLIO

A designer and project manager seeking to make an impact for social good

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2. MY PROCESS

5. Iterate as needed ↗

3. PROTOTYPING

- Create **digital mock-ups**, and **interactive prototypes** in order to flesh out different possibilities for features and catch design flaws

My Process

2. IDEATION

- Come up with solutions to the problem through discussion and research
- Use **storyboarding** and **personas**
- Draw up a **feature list**

1. RESEARCH

- Carry out **needfinding processes** that explore possible solutions through **interviews, observation**, and **competitive analyses**





SafetyNet is a project I designed for a UC San Diego **UX** and **Startup** design course, with 3 of my peers over a 10-week period of time.

During the time that we were thinking about what problem to tackle for our class, the news was ridden with harrowing stories of **natural disaster**, **refugee crises**, and **school shootings**.

We wanted to explore solutions to existing problems that were in common with victims of these types of emergencies.



Research

SafetyNet is an application that services two main user bases:

1. Victims of natural disaster
2. Volunteers

Therefore, we decided to **interview** several members of the two different groups about their needs, asking questions tailored to their categories. Our interviewees were all from ages 18-45 across genders and demographics.

VICTIMS



- What resources did you **need the most** in your situation?
- What were the **biggest challenges** you faced?
- Did you have resources set aside for emergencies?
- How did you get the help you needed?

What **motivates** you to volunteer?

Were there times that you wanted to volunteer but could not?

What **prevented** you?



VOLUNTEERS



We furthermore conducted a **competitive analysis** on preexisting solutions to our problem.

PROS



- Massive pre-existing global user base
- Alerts based on location
- Can notify family and friends of whereabouts
- Delivery of aid and resources through relief trucks and emergency centers
- Network of relief centers



American
Red Cross

CONS

- No organised method of contact
- Victims must scroll through posts to see if volunteers are offering what they need
 - difficult to navigate
- Lack of transparency for distribution of donations
- Long turnover time to receive aid
- No direct avenues for community members to offer assistance except through donation

Other competitors



From this research and the interviews, we determined a few key elements that we wanted to focus on for the design of our project that our competitors failed to do:

1. Providing aid as **soon as possible** by connecting nearby victims to nearby resources
2. Create an interface that is easy for both victims and volunteers to navigate and find exactly what they are looking for
3. Involving different community members such as local businesses for donations and shelter

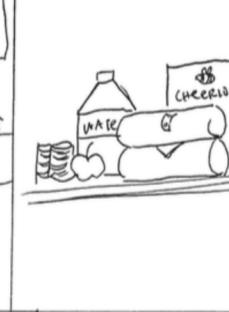


Ideation

Through ideation we explored several possible directions that we could take the app in, sharing them and gaining insight and feedback through surveys.

- An application that allows everyday people to keep inventory of emergency supplies and their expiration dates
- **An application that connects victims and their needs with local volunteers and their resources**
- An application that provides emergency preparation resources to be taught in schools with check in features that allow students to alert their parents of their status

After surveying potential users, it was clear that the second option was the most popular. We created **storyboards** which described that two target **personas** would use our application for: victims and volunteers

ALLOCATING LOCAL RESOURCES			
CONTEXT	PROBLEM	SOLUTION	RESOLUTION
			
KATY'S HOUSE WAS LOST IN THE WILDFIRES. SHE NEEDS FOOD AND CLOTHES.	HOWEVER, SHE DOES NOT KNOW WHERE TO OBTAIN THESE SUPPLIES.	RALPH'S CHECKS IN ON SAFETYNET TO NOTIFY THOSE IN NEED THAT THEIR STORE IS HOSTING FOOD AND SUPPLIES FROM VOLUNTEERS AND OTHER BUSINESSES.	KATY IS ABLE TO GET THE FOOD AND CLOTHES THAT SHE NEEDS.



FEATURE LIST

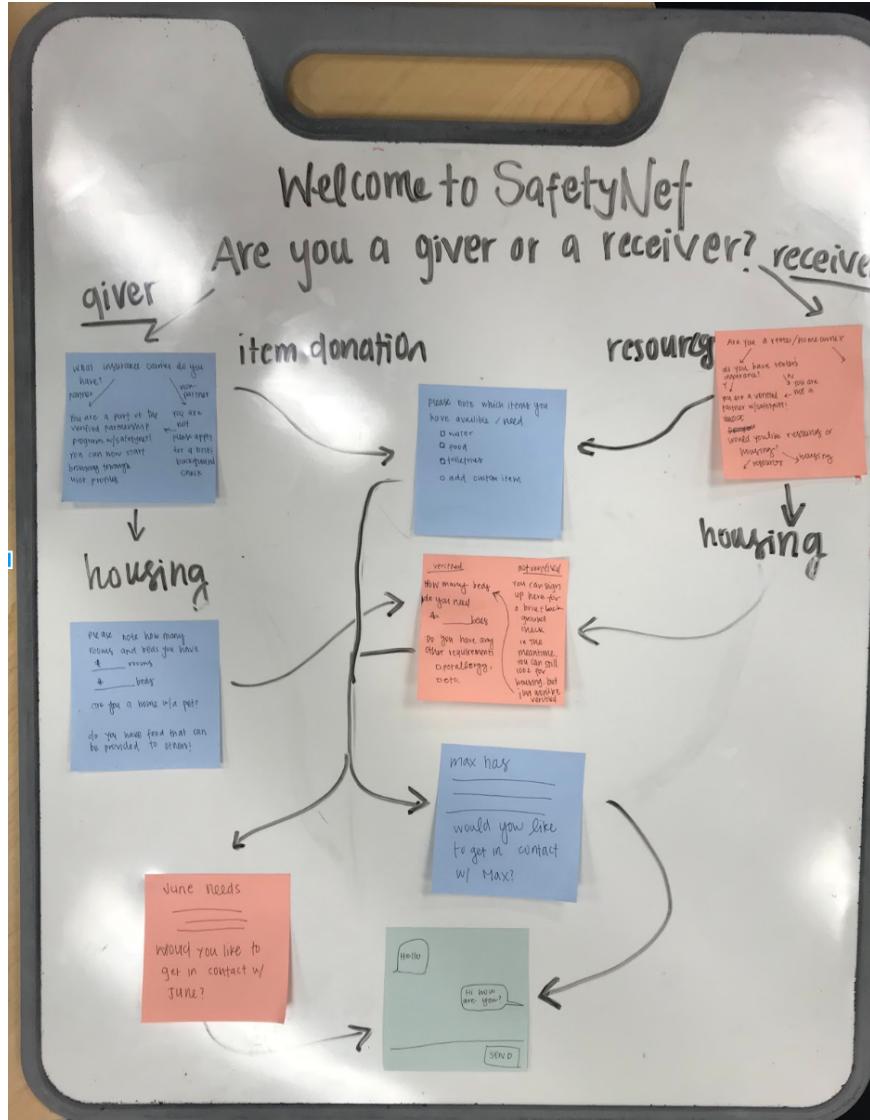
We decided on a few **key features** which we wanted to implement:

- Volunteers (Givers) inputting available supplies/housing specifications
- Victims (Receivers) inputting supplies/housing specifications
- A Tinder-style matching algorithm that matches Givers with Receivers, allowing them to chat
- A verification system that ensures that both the Givers and Receivers are legitimate in order to create a safe community - although all people can sign up to volunteer and receive aid, if they go through a verification process confirming identity and situation, they are more likely to be matched with a counterpart



Prototyping

We utilised a Wizard of Oz service enactment in order to test out our prototype, essentially simulating a walk through the app.



User Testing



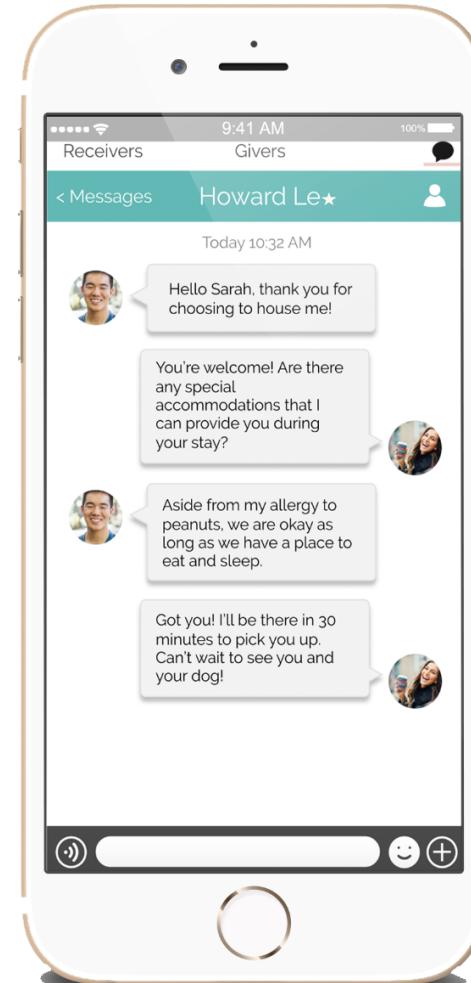
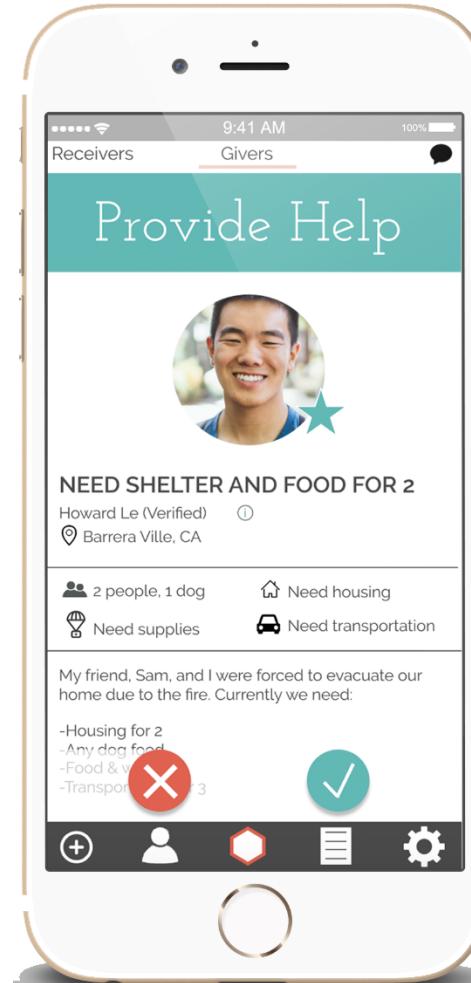
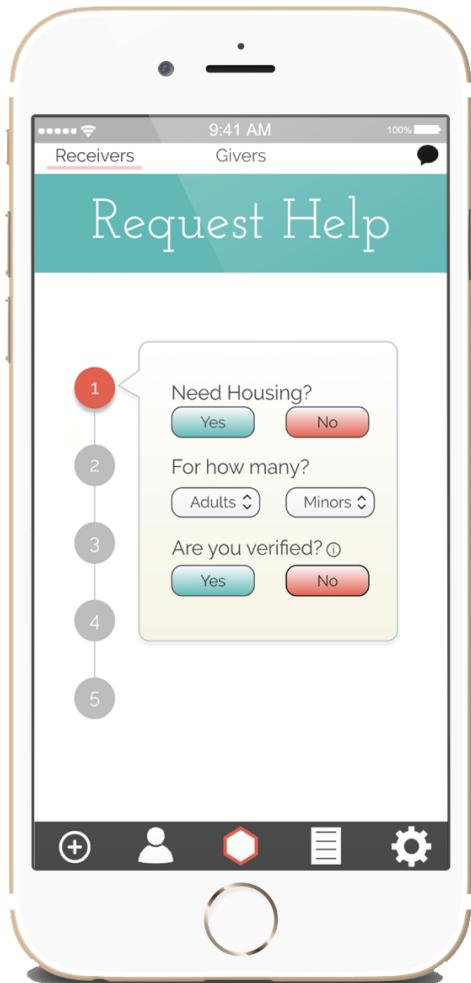
From this enactment, we gained a few key insights into our design flaws:

- The Giver/Receiver terminology proved to be confusing for most people we tested on
- People were not too sure what the verified status meant
- The concern of the usefulness of the application when cell service and wifi were not available was raised.

From these insights, we were able to iterate our design:

- Provide more in depth information about what terms such as giver, receive, and verified meant
- Embed offline resources such as maps for shelters into the application

Final Design



We created a high-fidelity prototype with the help of inVision, accessible at
https://projects.invisionapp.com/share/H2GGYHV34GS#/screens/286657097_Welcome_Page

Reflections

There were a few takeaways that I gained from working on this project:

- Given that the class was about designing a startup, an important part of our design revolved around the monetization of our application. Because I did not want to take away resources donated to the Receivers to be used for anything other than helping them, we struggled with finding a method to monetize. We ended up exploring unconventional ideas such as partnering with insurance companies to offer SafetyNet as a service to their clients in return for a percentage of the policy fees. This gave me much insight into the struggle for non-profits and other charitable organizations to stay afloat whilst fulfilling their missions
- We initially had far too many features that we wanted to implement. It was a painstaking process to hone down all the things we wanted to achieve with the application, but it made me realize that applications are not an "end all" solution to all of the issues within a problem space. Instead, they take a problem, and whittle it down to a specific subproblem, which then can be solved. In our case, it was the distribution of resources to local people in need.