

Jireh:  
emergency response  
web design

december 2017

Huayun **Huang**, Marvin **Kennis**, Jiyuan **Li**, Sharon

05-651 c, interaction design studio i

# table of contents

3 **research**

Guerilla research, personas

7 **stories**

scenarios, storyboard

11 **design**

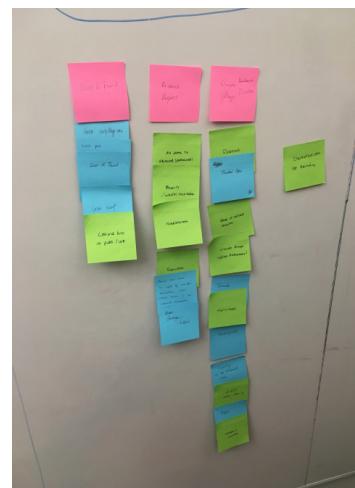
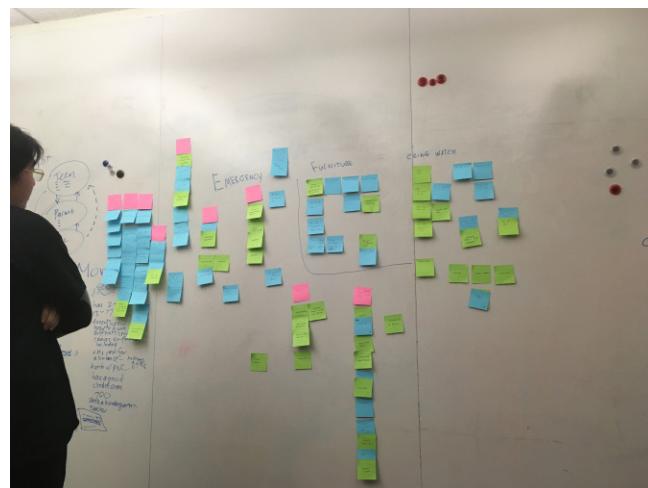
screen maps, wire frames, final design

mobile site demo: [invis.io/DAEV8FJ2Z](https://invis.io/DAEV8FJ2Z)  
desktop site demo: [invis.io/RWEV5W2KQ](https://invis.io/RWEV5W2KQ)

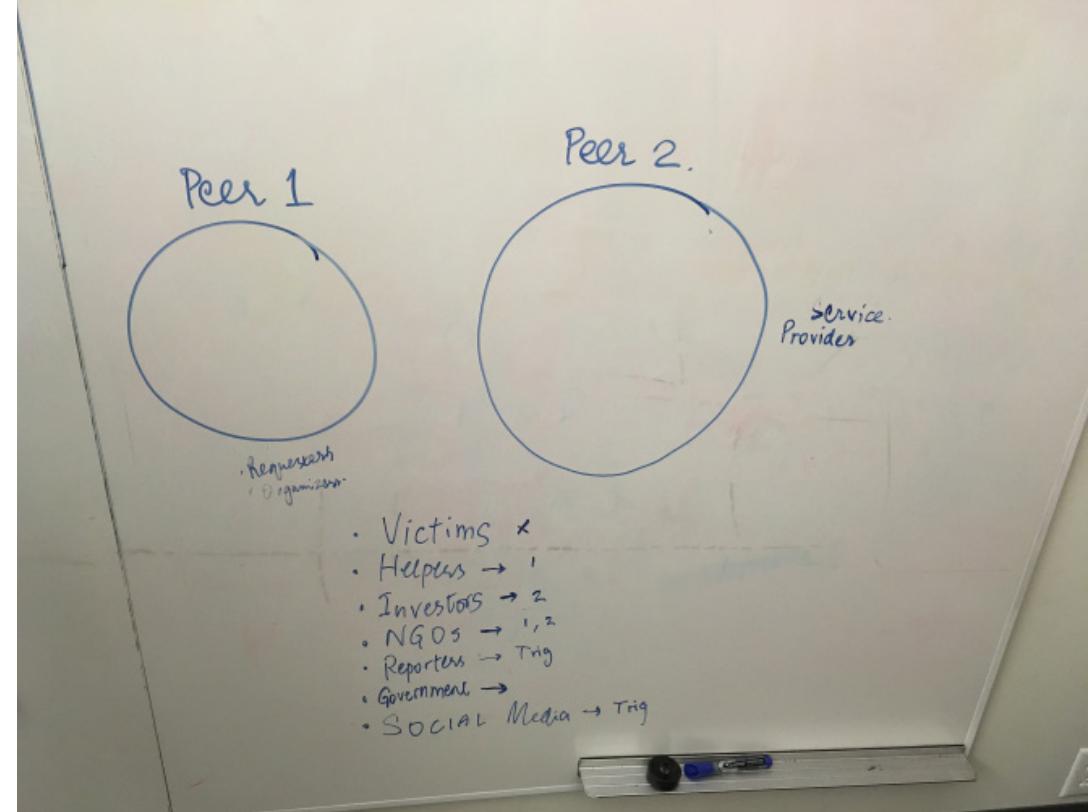
# research

# research

The first thing we did was brainstorming over our direction under the three big domains: emergency response, furniture exchange, and criminal watch. Through affinity diagramming, we came up with many potential market needs, and ended up focusing on natural disaster relief.



After we decided to work on the natural disaster relief, we conducted Guerilla research, a process that involves walking up to random people and ask about their experiences. Specifically, we were curious about how people react to unexpected natural disasters, either as a bystander, or as a victim.



WIP base scenarios

personas - task exchange

Persona's Marvin

Scenarios - Sharon

jiyuanl\_persona.docx

Persona 1 - Sharon Zachariah.png

We came up with many different personas, and nailed them down into two: Amy, the donator, and Bob, the victim. We believe that these are the two most typical personas for our potential P2P economy that can maintain the service exchange balance.

# persona 1 - Amy



## Amy

29, female, bank clerk  
Spring Branch East, Houston, TX.

Amy holds a B.A in Economics from Rice University. At Rice, her main involvement is Undergraduate Student Government as the Vice President of the Class of 2010. Upon graduation, she got an offer to work as a clerk at a local bank. She rents an one bedroom apartment on the top floor of a six-floor apartment building in Spring Branch East, Houston, TX. She has been paying constant attention to the news about Harvey and during the time Houston is struck by the hurricane, Amy leaves the city to live with her parents in Chicago for a while.

### Motivation

Although Amy's apartment remains undamaged during the flash flood, she feels sad about her neighbors whose house got severely flooded. To help rebuild her community as quickly as possible, Amy looks forward to a platform to make her donation directly towards the affected population.

### Features used

- Donation checklist
- About page of requester
- Map track for donations

# persona 2 - Bob



## Bob

Bob, 27, male, Actuary  
River Oaks, Houston, TX.

Bob comes from New Jersey. After he got his B.A in mathematics from New York University, he moved to Houston to work as an actuary at the Houston office of an international company. He and two other roommates share a House in River Oaks, Houston, TX. During the hurricane, he fled back home in Jersey and he was terrified by what he saw happened to Houston due to the water brought by Harvey. He knew his house would be in a mess.

### Motivation

Bob's house was severely affected during the flood and he wasn't fully equipped for the post-flood clean-up. He didn't know where to start, what to pay attention to and the supplies he would need for different tasks. Bob looks forward to a resource where he can learn about the steps he has to follow during a post-flood recovery and ask for help with tools and tips.

### Features used

- Supply Request Page
- About page of donor
- Map track for donations

# stories

Based on our researches, we narrowed down the stage of the disaster relief to exactly the point when the water retreats, and people start to move back and clean the mud out -- and this is when problems rise.

People may not receive their help on time. Even if they do, in many situations the supplies is not what they are looking for. And this is where a peer economy can be helpful.

*... bought me a box of noodles. But I had nowhere to cook the noodles. So I took them and I opened them, and I put that little sauce in them. And they ate dried noodles.*

*... I could take the diaper, scrape the diaper, and put it back on them, because I had no choice.*

# NEW ORLEANS MAYOR: SOS

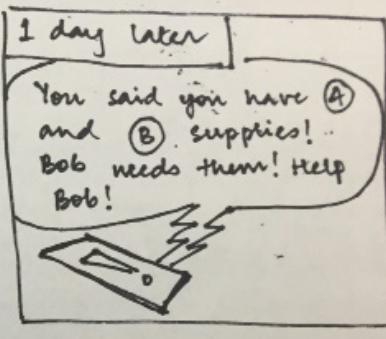
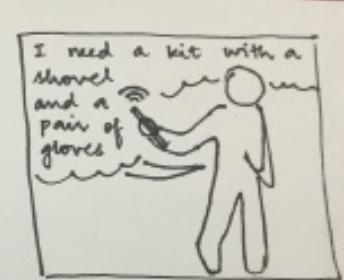
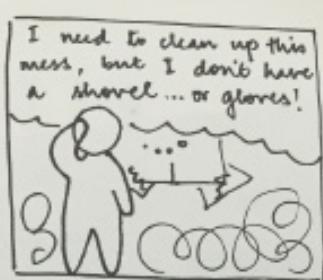
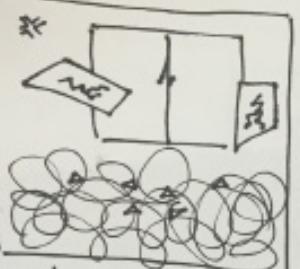
*"This is a desperate SOS. Right now we are out of resources at the Convention Center and don't anticipate enough buses. Currently the convention center is unsanitary and unsafe and we are...*

HURRICANE TRACKER

HURRICANE KATRINA

NEW ORLEANS MAYOR ISSUES DESPERATE SOS TODAY

30 TRANSFORMATIVE NAM



# storyboard

Based on the personas, we came up with a scenario, and generate two storyboards telling the same story, but from different perspectives.

Bob's home is severely damaged by a flash flood, and when the water retreats, he looks up *Jireh.com* on his phone. *Jireh.com* has a list of tools specially needed for mud cleaning (and many other tasks to recover from flash flood), and Bob notices that he still needs a shovel and a pair of gloves for his cleaning work. Amy, who lives in an unaffected area, has already signed up for this emergency response system right after she learned about the disaster to provide shovels and gloves, and as soon as Bob requests for the tools, she gets a pushed notification instantly through her desktop / phone. They make contact with each other, and Bob picked up tools from her 20 minutes later.

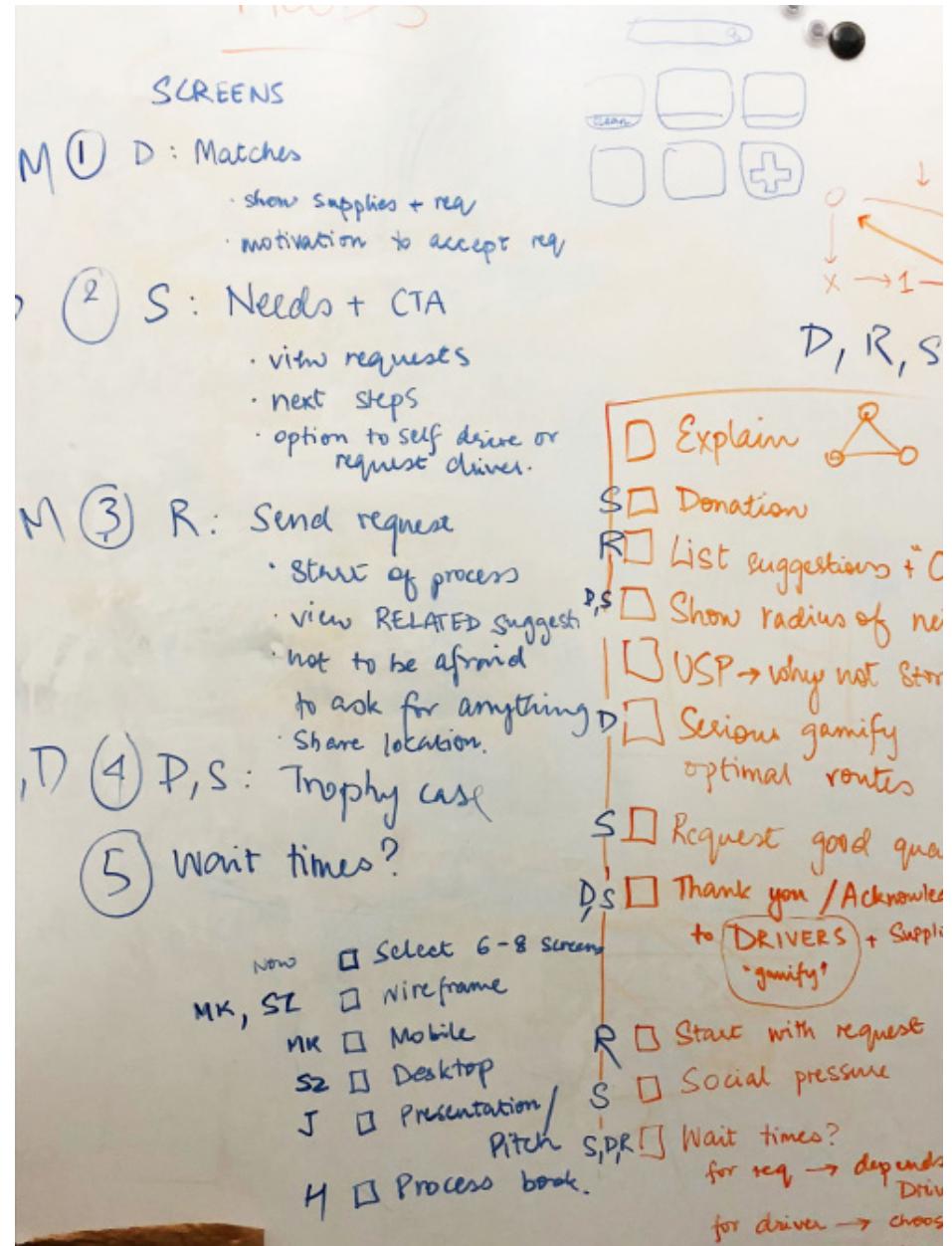
# feedback received

We “speed dated” our storyboard with different people, and finalized our design details.

Many think it would be cumbersome to request items and pick it up later, leaving the house unguarded. So we introduced the driver unit to transport the donations. The driver unit can deliver for multiple families on their routes.

People doubt if the donations would be returned on time, undamaged, so instead of the borrowing system, we switched to a donation system.

We also finalized other details: the stage of the flood in which the story of Amy and Bob starts, the broadcasting radius, the checklist interface, and the delivery system.



# design

After “speed dating” with the other people for feedback, we started moving towards the actual web design.

We started with screen maps, then move on to the wireframes and the final high fidelity design.

# screen map

General landing page explaining the purpose. Should also be used to foster trust and credibility. Include endorsements?

Single account type during sign up? Or select supplier / affected type right here?

Explain general process and set expectations; when people make supplies available, other people can show up and pick it up

An overview of active disaster's or supply recruiting happening in the user's geo-location range

Imagining a dashboard-like overview of the disaster, people affected, heat map to see what is going on where, and where supplies are needed

Landing page



Registration / sign up



Introduction tutorial or walkthrough



Active disasters / open fund recruiting



Disaster overview description + heatmap



Suggest items that are typical in the given disaster. Prevent people from donating items that are not needed

Confirmation to make sure users have the right expectations after committing their supplies

Making it easier for affected people to know what kind of items they can request by providing a disaster-typical checklist

Personal connection; view more information about the people that request supplies / have accepted your supplies

Required supplies checklist



Confirm supply availability / open to pick up



Request item from checklist

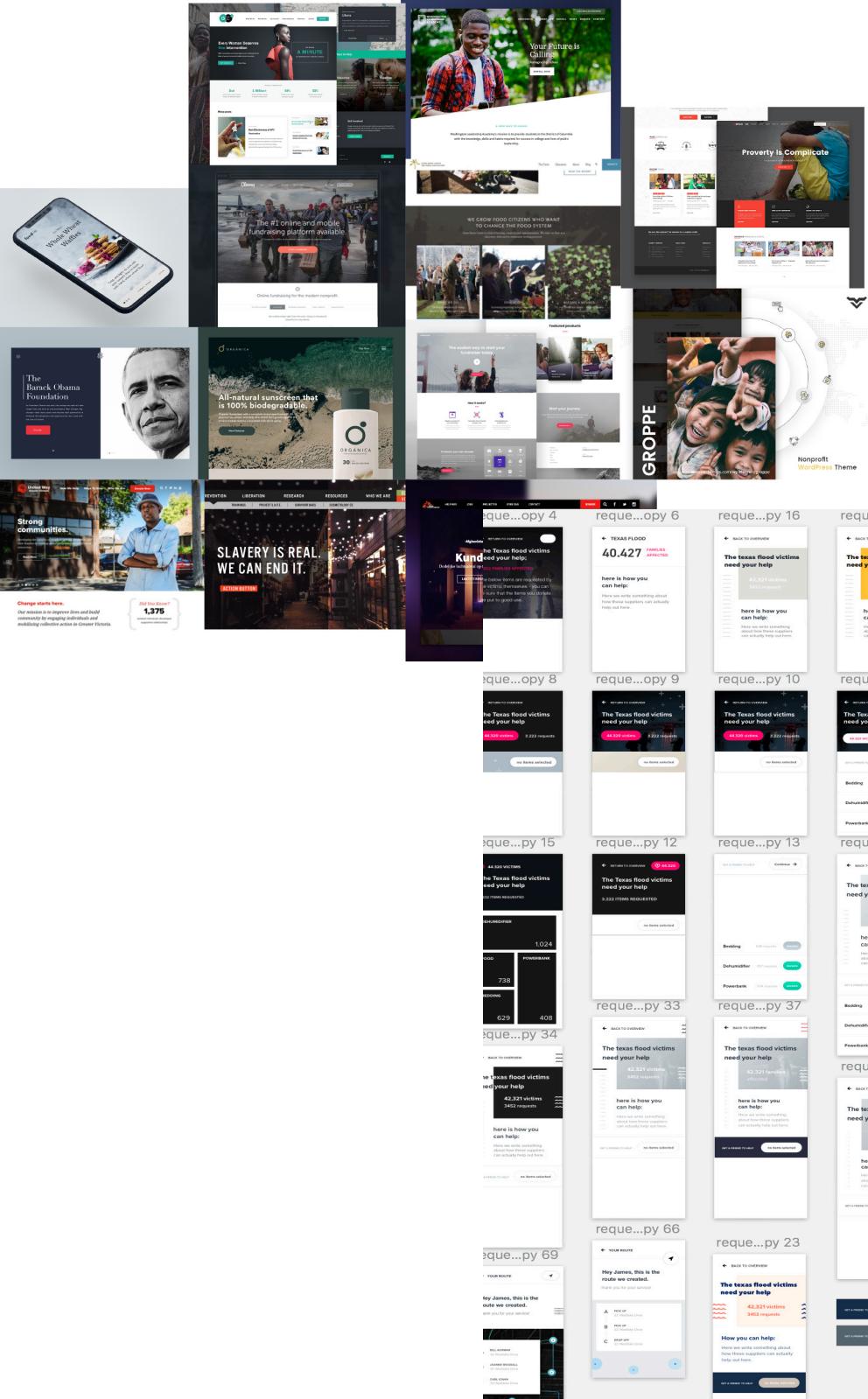


About [person Y] (supply requester)



Allows for tracking (know when to expect goods to arrive), and serves as confirmation that the supplies were dropped off with the correct person

Track requested / donated items



We explored many different responsive web design, and ideated different interfaces.

# wireframes

trophy case

Your donations 100

<b>Bedding</b> 4	donated to William Jones	1
DELIVERED BY TIM FARAH		
<b>Shovel</b> 2	donated to Frank Hillman	1
DELIVERED BY TIM FARAH		
<b>Shovel</b> 2	donated to Lloyd Blankfein	1
DELIVERED BY CARL ICAGAN		

match requests

Texas floods 23.122 requests

1023 Bedding	donate
854 Dehumidifier	donate
601 Bucket	donate
522 Shovel	donate
244 Food (non-ex...)	donate
108 Powerbanks	donate

recruit a friend    No items selected

matching requests selected

Texas floods 23.122 requests

1023 Bedding	remove
854 Dehumidifier	donate
601 Bucket	remove
522 Shovel	remove
244 Food (non-ex...)	donate
108 Powerbanks	donate

recruit a friend    3 items

request detail view

**Bedding** Requested by 1023 people

Bedding is susceptible to mold. Here we put an explanation for the detail view of this object. Let's the supplier know why it is needed

William Jones Houston, TX has been waiting for 4 days

Sarah Anderson San Antonio, TX has been waiting for 22 hours

Tiffany Hill Houston, TX has been waiting for 7 hours

donation confirmation

Your donation 8 items

Bedding	-	1	+
Bucket	-	5	+
Shovel	-	2	+

I will bring this myself  
(we will let you know where)

Have it picked up by drivers  
(we will assign a volunteer driver)

request view

Request supplies

Commonly requested in your area

Cleaning supplies 4 items	Food and water 6 items	For 6
------------------------------	---------------------------	----------

What would you like to request?  
enter anything here

601 Bucket	donate
522 Shovel	donate
244 Food (non-ex...)	donate
108 Powerbanks	donate

request matching 2

Texas floods 23.122 requests

1023 Bedding	donate
854 Dehumidifier	donate
601 Bucket	donate
522 Shovel	donate
244 Food (non-ex...)	donate
108 Powerbanks	donate

recruit a friend    No items selected

request matching 3

Texas floods 23.122 requests

1023 Bedding	remove
854 Dehumidifier	donate
601 Bucket	remove
522 Shovel	remove
244 Food (non-ex...)	donate
108 Powerbanks	donate

donation confirmation copy 2

Plan your trip view trip

total trip time 00:44m 4 STOPS

01x Humidifier +0:10m for Johanna, donated by Charles

02x Buckets +0:22m for Johanna, donated by Charles

01x Powerbank +0:05m for Johanna, donated by Charles

03x Bedding +0:10m for Johanna, donated by Charles

driver trip plan

Plan your trip 10 ITEMS, 4 STOPS 00:44m

01x Humidifier +0:10m for Johanna, donated by Charles

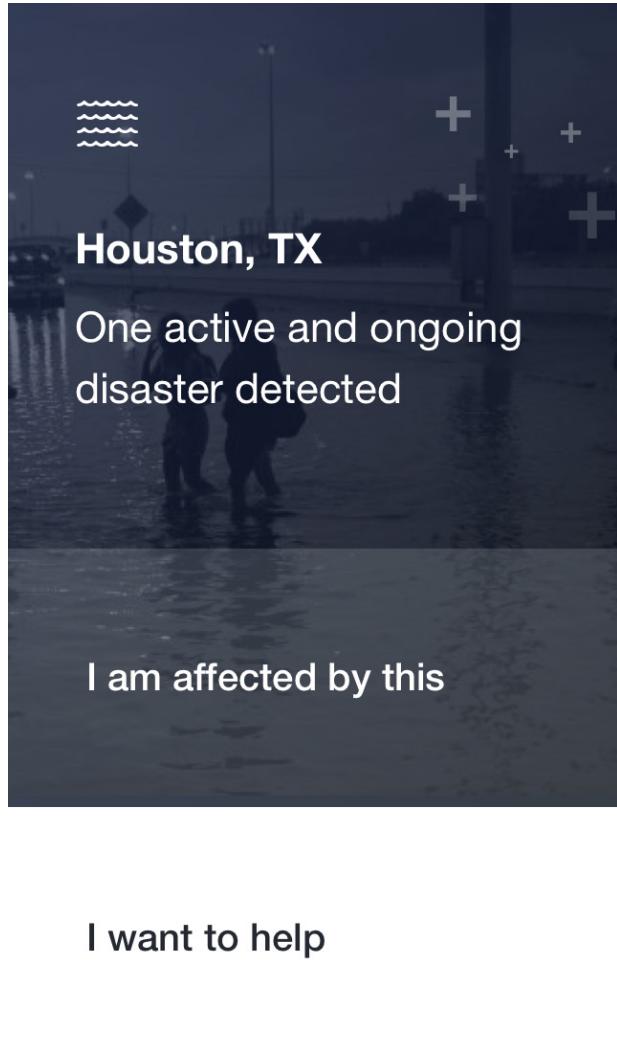
02x Buckets +0:22m for Johanna, donated by Charles

01x Powerbank +0:05m for Johanna, donated by Charles

03x Bedding +0:10m for Johanna, donated by Charles

driver plan 2

# final design



The community is here to help you.

You can send out a request for anything to help in your recovery.

type to request any item

FREQUENTLY REQUESTED ITEMS

powerbanks

medical

42.493 people in Texas need your help

3,222 ITEMS REQUESTED

GET A FRIEND TO HELP

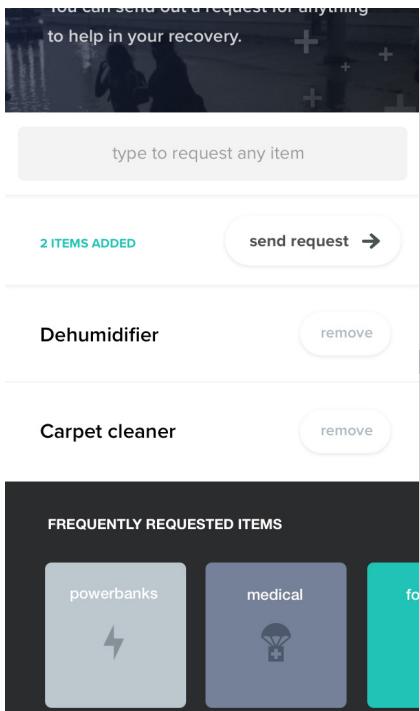
no items selected

Bedding 548 requests [donate](#)

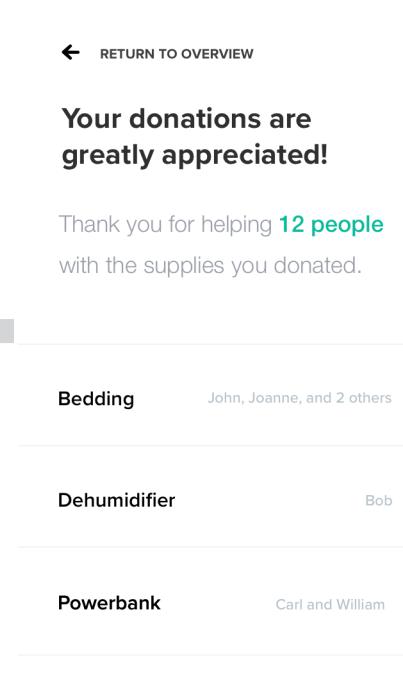
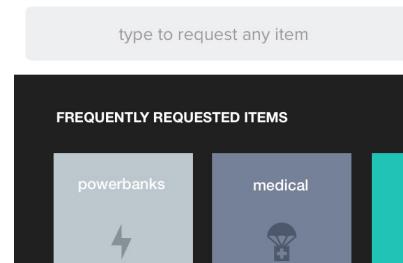
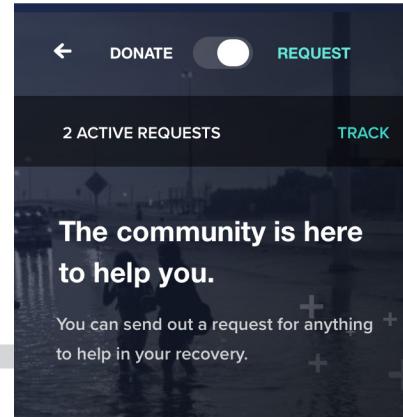
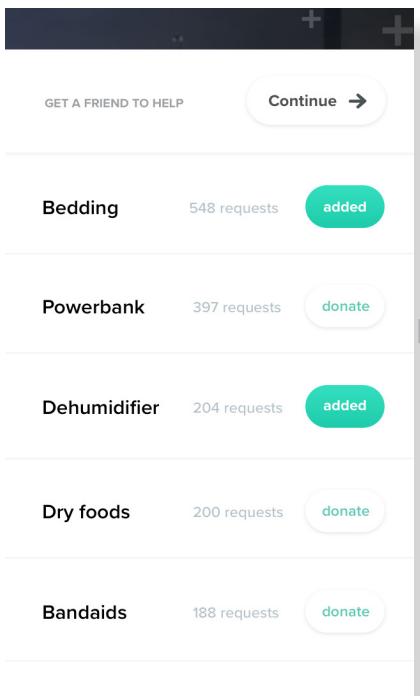
Powerbank 397 requests [donate](#)

Dehumidifier 204 requests [donate](#)

select items

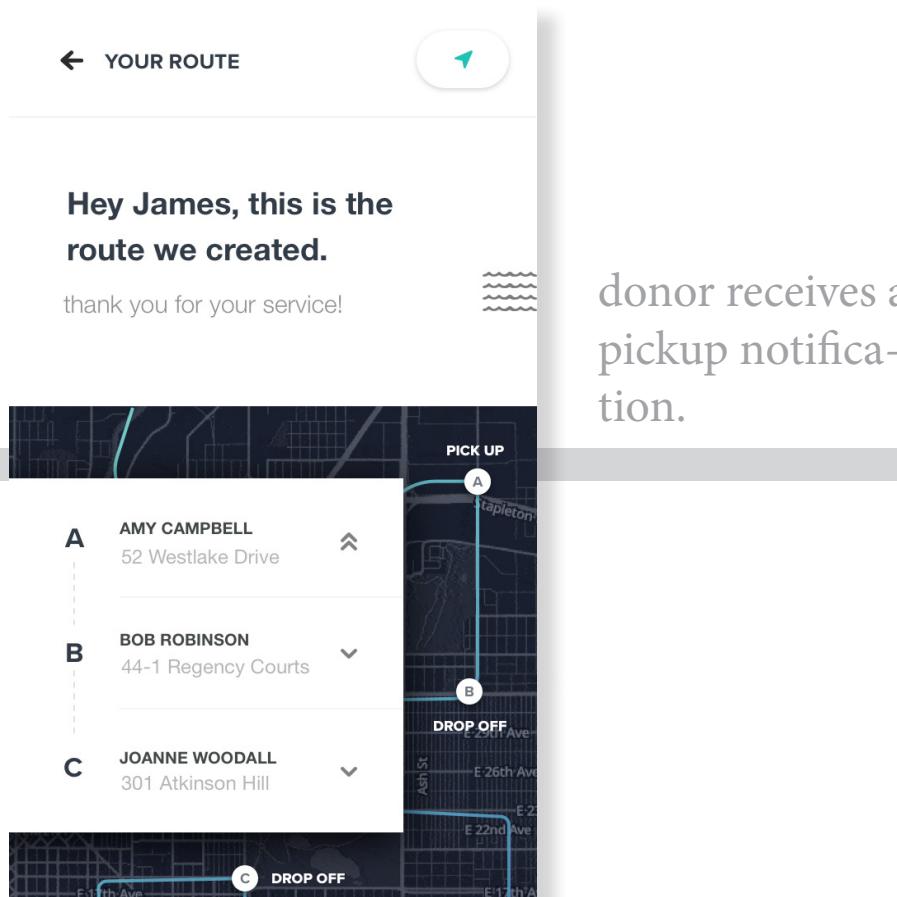


select items

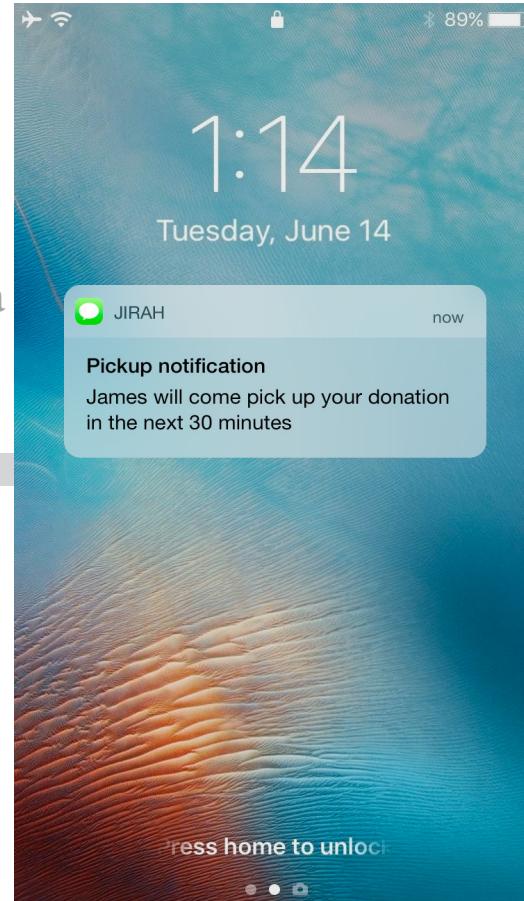


drivers collect  
items and deliver

drivers collect  
items and deliver



donor receives a  
pickup notification.





40.427 families were affected by the flood.

## The people of Texas need your help.

The below items are requested by the victims themselves.  
You can be sure that the items you donate are put to good use.

[Home](#) / [Donate](#) / [Texas floods](#) / [Bedding](#)

Although our target platform is mobile devices, the donators may have full desktop access to the internet, and they may make donations on the computer.

### Requested items

<b>Bedding</b>	1023 requests
Buckets	601 requests
Shovel	588 requests
Rubber boots	523 requests
Powerbank	520 requests
Gloves	489 requests
Dehumidifier	457 requests
Bottled water	433 requests
Rake	401 requests
Dog food	390 requests
Mop	316 requests
Mugs	300 requests
Flashlight	289 requests
AA batteries	237 requests
Nail cutter	221 requests
Garbage bags	109 requests
Pliers	10 requests
Diapers	3 requests
Kettle	2 requests

### BEDDING

Bedding is susceptible to mold. Since the water was contaminated, their bedding was soiled and needed to be thrown away.

Get a friend to help with this donation



Quantity  Anyone

[Donate](#)

People also donated these items:

Buckets  
Bottled water  
Flashlight  
Garbage bags

### PEER GROUPS

[Requesters](#)  
[Donors](#)  
[Drivers](#)

### ABOUT US

[Mission](#)  
[Vision](#)  
[How Jireh works](#)  
[Our team](#)

### YOUR ACCOUNT

[Account settings](#)  
[Your activity](#)  
[Privacy](#)  
[Personal information](#)

### CONTACT

300S Craig St.  
Pittsburgh, PA 15213  
[Email: help@jireh.org](mailto:help@jireh.org)

**Requested items**

Item	Requests
Bedding	1023 requests
Buckets	601 requests
Shovel	588 requests
Rubber boots	523 requests
Powerbank	520 requests
Gloves	489 requests
Dehumidifier	457 requests
Bottled water	433 requests
Rake	401 requests
Dog food	390 requests
Mop	316 requests
Mugs	300 requests
Flashlight	289 requests
AA batteries	237 requests
Nail cutter	221 requests
Garbage bags	109 requests
Pliers	10 requests
Diapers	3 requests
Kettle	2 requests

**BEDDING**

Bedding is susceptible to mold. Contaminated, their bedding was thrown away.

*Get a friend to help with this donation!*

Quantity  Anyone

**Donate**

People also donated these items:

- Buckets
- Bottled water
- Flashlight
- Garbage bags

**Requested items**

Item	Requests
Bedding	1023 requests
Buckets	601 requests
Shovel	588 requests
Rubber boots	523 requests
Powerbank	520 requests
Gloves	489 requests
Dehumidifier	457 requests
Bottled water	433 requests
Rake	401 requests
Dog food	390 requests
Mop	316 requests
Mugs	300 requests
Flashlight	289 requests
AA batteries	237 requests
Nail cutter	221 requests
Garbage bags	109 requests
Pliers	10 requests
Diapers	3 requests
Kettle	2 requests

**BEDDING**

Bedding is susceptible to mold. Contaminated, their bedding was thrown away.

*Get a friend to help with this donation!*

Quantity  Anyone

**Donate**

People also donated these items:

- Buckets
- Bottled water
- Flashlight
- Garbage bags

**Your Donations**

Item	Quantity	Action
Bedding to Bob Robinson	1	X
Buckets to Anyone	2	X
Dehumidifier to Bob Robinson	1	X

**Add more items**

**Continue**

Since we are doing a mobile-first design, the desktop version displays the same information, but with multiple stages (checklist, checkout) integrated together, which gives you an overview of the entire donation process. Henceforth the desktop view allows for more elaborate planning: users would be able to sit down and match available inventory and requested items.