CSE 440
3f: Final Report
Lend a Hand - Isaac Schaaf, Michael Kim, Elizabeth Schibig, Ellen Wu

1. Title
Lend A Hand

2. Team
Isaac Schaaf   - Ninja Project Manager
Michael Kim   - Ninja Web Developer
Elizabeth Schibig   - Ninja Writer
Ellen Wu   - Ninja Designer

3. Problem and Solution Overview

In our increasingly digital age, human interactions between community members and neighbors become extremely rare. Because of the large blanket of anonymity that encompasses most neighborhoods, it is difficult to give help to and get help from your neighbors even though in a lot of circumstances it would be beneficial to leverage community members in order to get help with a problem. If you need to drive to work but your car won't start because the battery is dead most neighbors are able and willing to jump start your car anonymity but isolation makes it difficult to ask for assistance. Instead, you may call your friend who lives thirty minutes away to jump your car, and as a result, you arrive to work late. Elderly or disabled members of the community, who may not be able to freely move through their own homes, may at times need (or like) help with maintaining their lawns or moving heavy objects. Asking someone you don't know well for help face to face may often be troublesome because of an absence of trust--in order to bridge gaps in communication in communities, we proposed designing an app that gives user a space to introduce themselves and give/offer help when needed. Implementing a feedback system within this design will also allow users to gauge the trustworthiness levels of people they are helping or receiving help from. Facilitating these in-person interactions between people will help improve the health and strength of communities, making neighborhoods safer and more interconnected in the long run.

4. Initial Paper Prototype
Our paper prototype consists of the basic skeleton of our app, allowing users to go view and accept requests as well as create new requests. For completed requests, users can select to leave feedback.
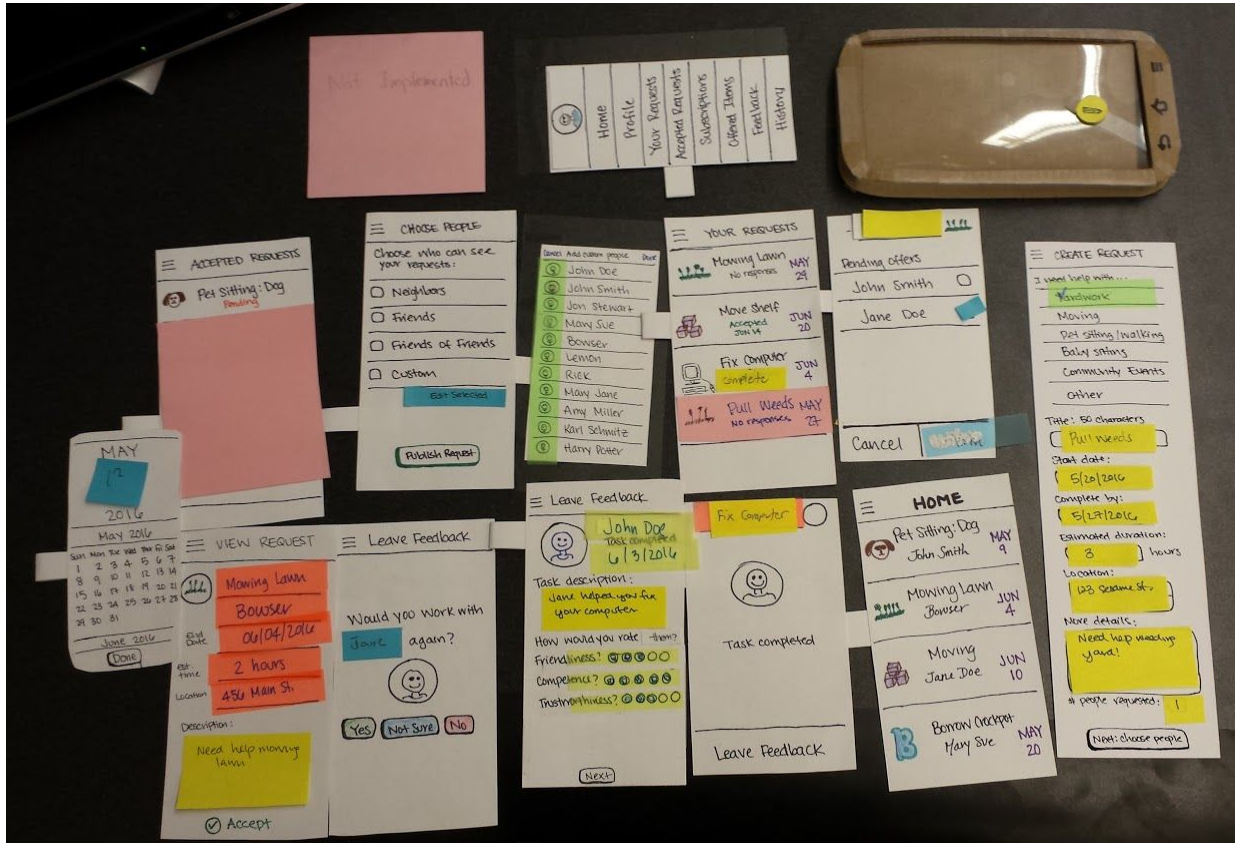

Convey the critical aspects of your design:
Users wanting help with a certain task can submit a structured request--choosing first a category that their request belongs to, followed by more date/time/details, as well as options to choose the people who can view their request. The home page of the app design is a scrolling table of requests from an individual's neighborhood/community, and they can click on any entry to view more details to see if they want to accept the request. The user who submitted the request can view the users who have offered help and accept help from one of them. When tasks are completed, both users (the requestor and the helper) provide feedback on the experience. User who requested help will be asked different feedback questions than users who offered help.

The two primary tasks we explain in our prototypes are (1) Request in-person help and (2) Leave Feedback.
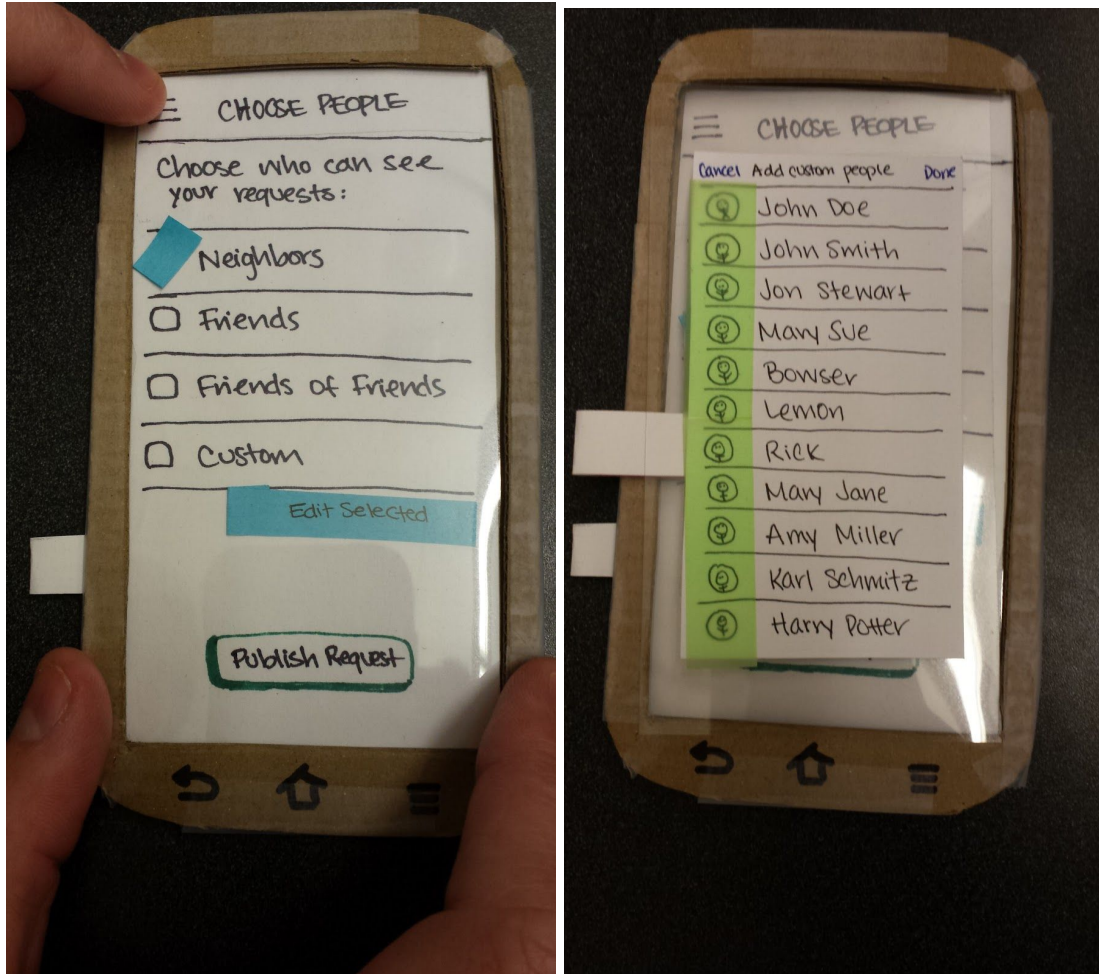
Task 1: Requesting in-person help -- AS USER A
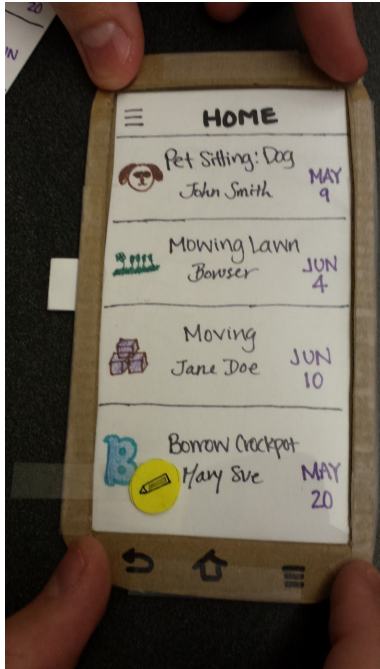
From the home screen the user can select to create a new request by tapping the pencil
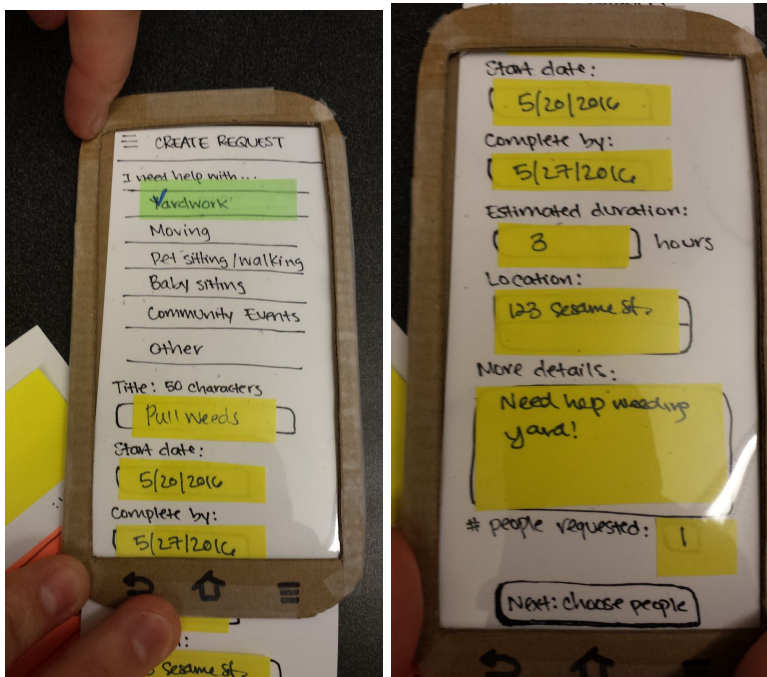
The user then fills out the new request form

After tapping 'next: choose people', the user is taken to the visibility screen

(left) The user can tap any of the available visibility options or (right) create a custom one.
The user then publishes the request and is taken back to the home screen

To accept a request, the user first taps the request from the home screen to view it, then taps
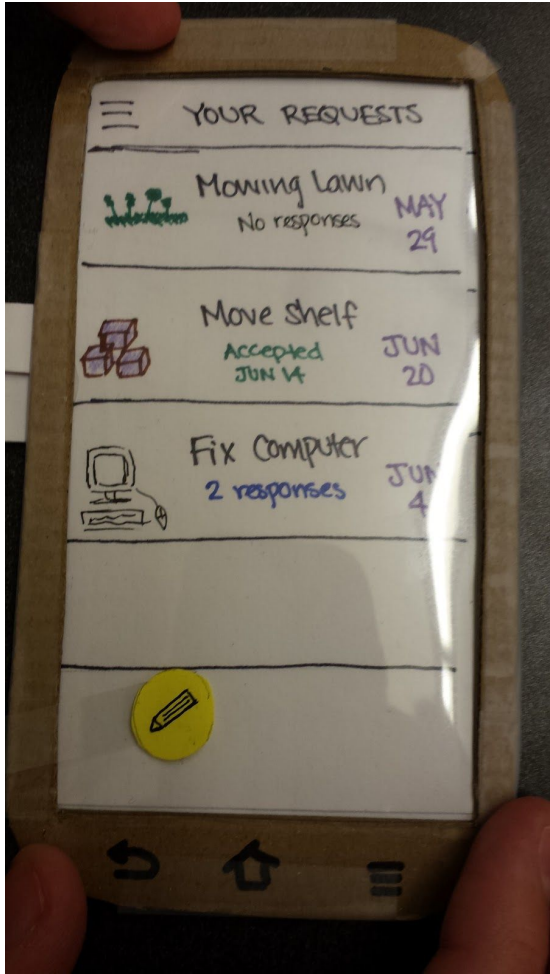accept on the view request screen
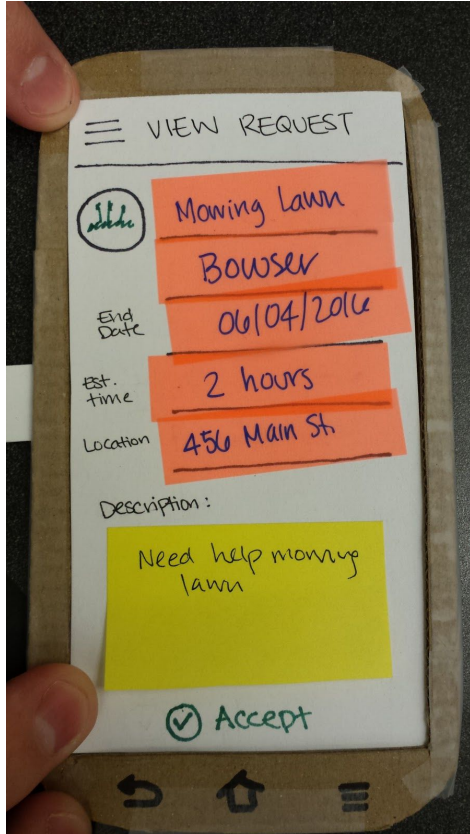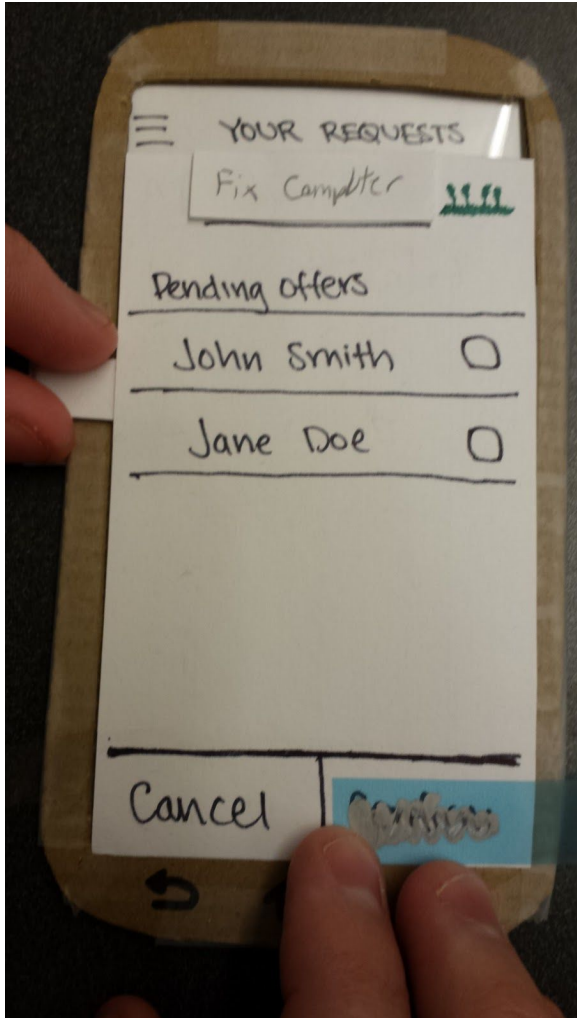
Accepting Help -- AS USER B

To confirm a person who accepted your request, the user opens the menu and selects "your requests"
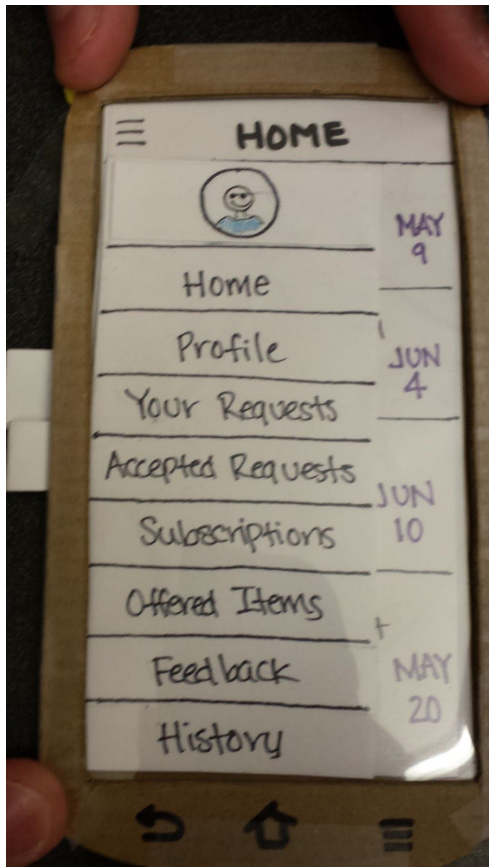
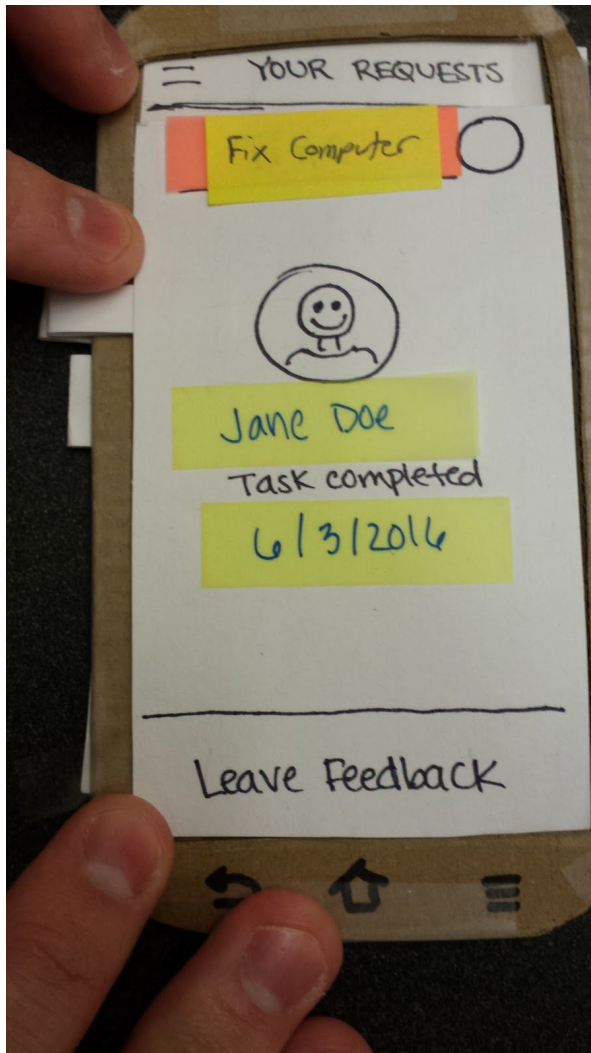From there the user taps the request they want to update.

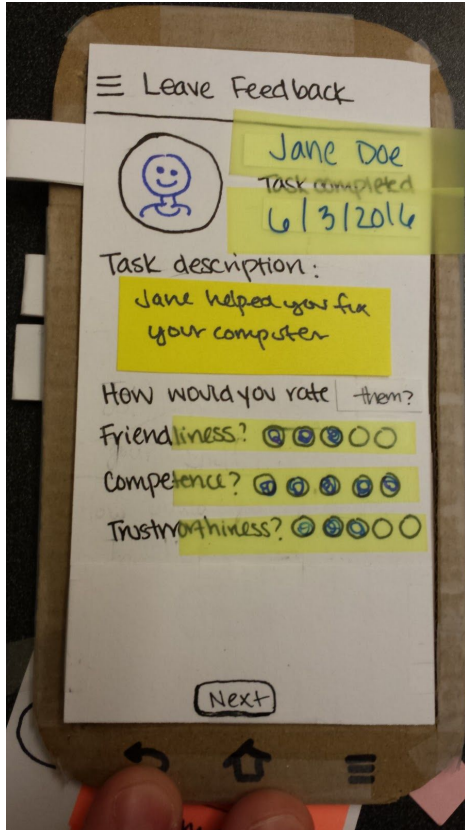The user can then select a person who has accepted and confirm them.
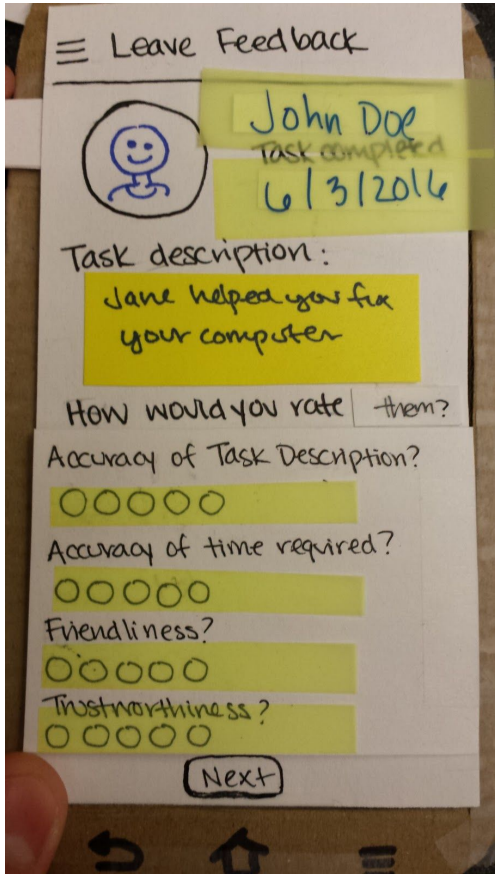
Task 2: Leaving feedback

If a person wants to close a request, they must leave feedback from the detailed request screen
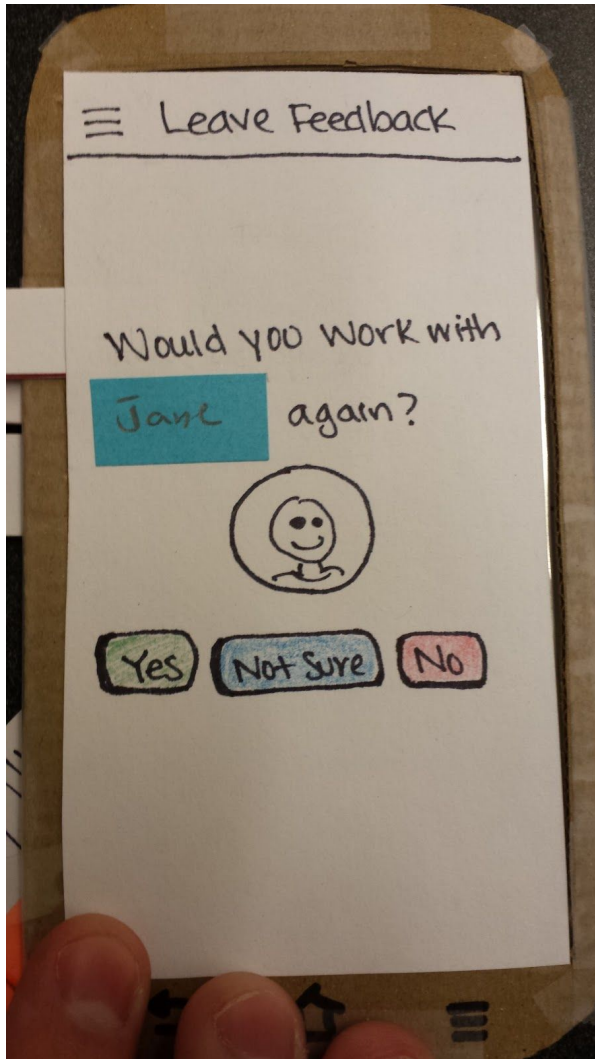

If the person is the requestor (the one who requested help) they are prompted with 3 questions

If the person is the helper (the one who fulfilled the request) they are prompted with 4 questions

Clicking next will bring the user to the final feedback screen asking if they would work with that person again

After selecting an option, the user will be taken back to whichever screen they were viewing before they entered the feedback process.

5. Testing Process

<u>Overview</u>
For each of our tests, we began by explaining the context and motivation behind our design and project as a whole. We then jumped into the goals of the test and gave an overview of the different roles they would be playing. Due to the fact that the participant would be taking on the roles of different users throughout the process, we explained how we would be switching context halfway through the test. Once this clarification was complete, we began running through tasks. Each task began with a small intro (what context got them into the app) and a goal. Once the task was in progress we gave no further instructions. After all tasks for user A were complete, we debriefed on what they had done, and switched to the tasks for user B. After completing all tasks, we did a final debriefing in which we explained some of the areas that they were confused on as well as asked for any additional thoughts and feedback. We then concluded the test and thanked them for their time.

<u>Usability Test 1: Jennifer</u>
Our first usability test was with Jennifer, a younger suburban resident in Wallingford. We chose to work with Jennifer because she is rather technologically literate and would therefore make a good first test participant to both refine the design as well as our testing structure. The testing protocol was rather open. We gave Jennifer generic tasks (such as make a request for help) and then simply let her try to figure out what to do (rather than giving her specific things to ask for help with). The main thing we learned from this test was that being more specific in our instructions would be helpful. In order to focus on the design rather than the personalized content on each page, we would be better off asking users to do very specific tasks (such as telling them exactly the task they are trying to get help with).
Roles: Human Computer - Isaac, Note Taker - Elizabeth

<u>Usability Test 2: Mike</u>
Mike is a middle-upper aged suburban homeowner. He has a house with large lawn and has lots he has to do around the house. Mike happens to fall perfectly into the target audience of our app. Hence the usefulness of performing a usability test with him. Mike is also only semi-literate in technology; he's someone who knows how to use a smartphone but isn't an expert with it. In order to test our design, we came up with two specific scenarios to fulfill - making a request and giving feedback, from both the perspective of the requester and the requestee. We let Mike try to complete the task on his own, but provided tips when he needed it. One member of the group acted as a computer as another took notes.
Roles: Human Computer - Elizabeth, Note Taker - Ellen

Concerns expressed by Mike:
The main page seems kind of blank. Without explanation of what the requests on the main page are, the user was very confused. The feedback with 46* wasn't very clear, the user had no idea what this represented. The dates on the right side of each request were unclear. We said that's

the complete by/end date, but he thought is meant the requested needed to be done on that specific day. Greyed out confirm button was confusing, he tried to use it like an OK button to exit the screen.

Usability Test 3: Rick

Rick is a middle-aged homeowner from the suburban town of Ashland Oregon. He is very friendly in the community and puts a lot of effort into helping others, as a result, he is a perfect candidate for our app. He is not overly technologically inclined which helped us to get some insight into some more potentially subtle usability issues. The first task we asked Rick to complete, was to put out a request to his neighbors to get help mowing his lawn. This task included three stages: create a request, view potential helpers and accept one, and finally leave feedback after the request was complete. The second task was from the perspective of the other user in the scenario, we simply asked Rick to accept a request for help put out by a friend. The main feedback we got was with confusion over what some of the pages meant. When the app was initially opened, Rick was very confused with what he was seeing and expressed that some sort of start page would be helpful. New Request button on the main page was also confusing (not sure what it meant).
Roles: Human Computer - Isaac, Note Taker - Elizabeth

Evolution of Testing

Based on how the first usability test went, we modified our testing process to focus on guiding the user through very specific tasks. Essentially we don't let the user enter whatever they want (since our screens will need to reflect their input), and instead focus on trying to understand the clarity of the UI itself for input we have prepared for ahead of time. We lead the user through a simulation of accepting a request as well as creating a request (we set up two user perspectives for them to utilize), and we ensured that the information was consistent throughout the test (e.g. the request that user A creates will be the request user B accepts, and the same people names appear throughout the app, unlike our first paper prototype design). In order to still give the user the chance to explore the app without verbally explaining each step (which could bias the user beforehand), we explained the specific task that was to be accomplished and allowed the user to discover how to do it. Many of the follow-up tasks (such as confirming someone who has offered help) began by us informing the user that they had just received a notification saying that they have ___ pending offers for their request, and then opening the app. This allowed us to guide the user to the specific task in a way that was natural.
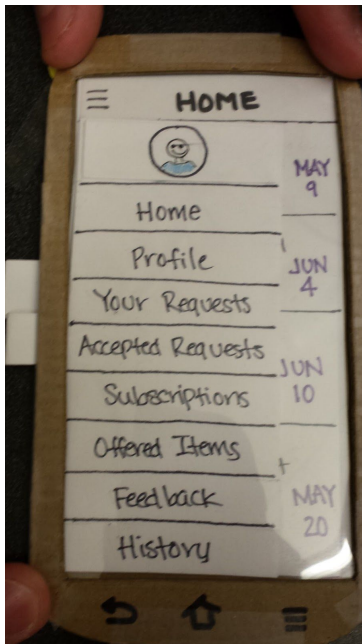
6. Testing Results
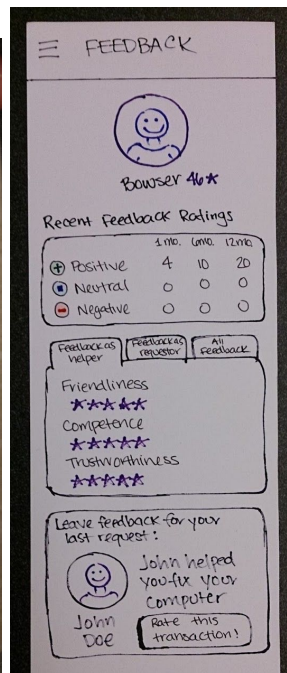
Initial Inspection-Based Results:

Violation: Match between system and real world
Severity 2.5: Feedback option was unclear
Fixability 3: requires redesigning aspects of design, but we have ideas of how to fix it
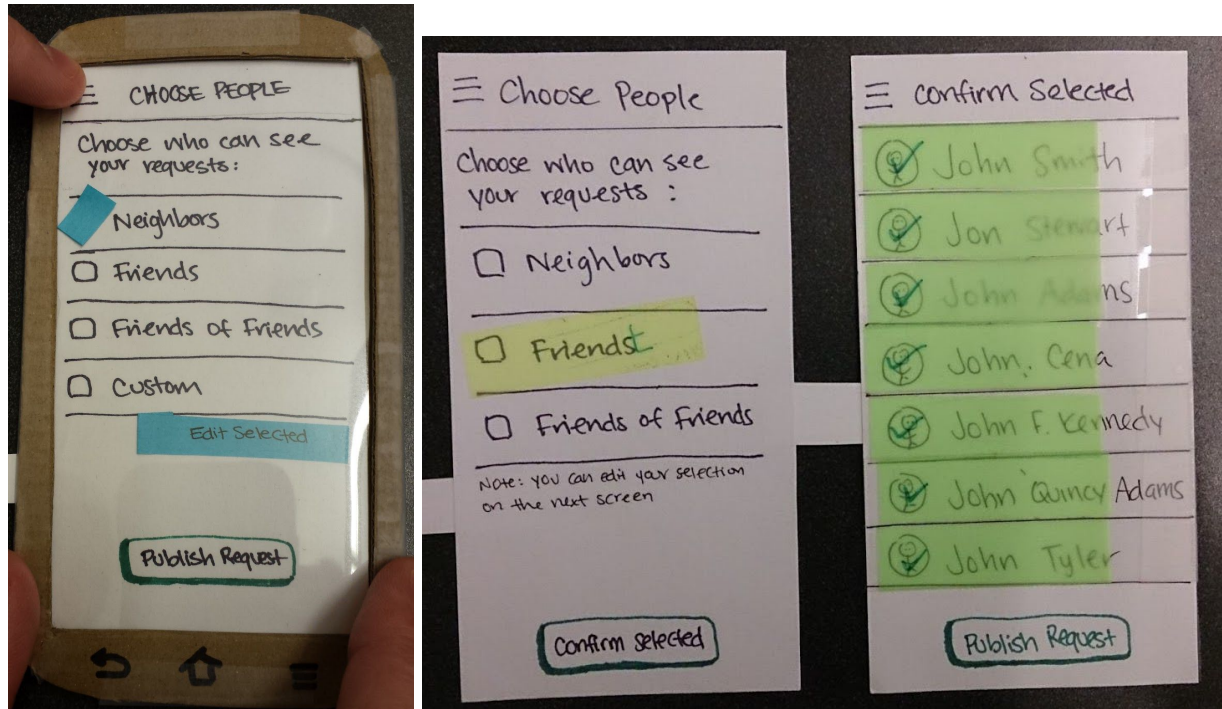

Original

Revised

User thought they could leave feedback through the "Feedback" option in the main menu, but this originally only led to a feedback overview/summary. We added a section on the bottom of the feedback page that lets the user rate requests they have completed but have not led feedback for yet.

Violation: Help and documentation
Severity 2: Custom vs Edit Selected difference was confusing. People didn't understand the difference between the two.
Fixability 3: this was considered during the design process--we will likely remove the custom option

Original	Revised

We revised the choose people page -- removed the custom and edit selected options. Instead, after the user selects a category of people they want to see their request, they will be taken to another page where they can confirm/edit the people they have already selected before publishing the request.

Violation: Consistency and Standards

Severity 3: Add new request button looks like a compose message button in Gmail. Pencil oftens means edit. People didn't understand the purpose of this button.

Fixability 4: Easy fix, use plus icon instead
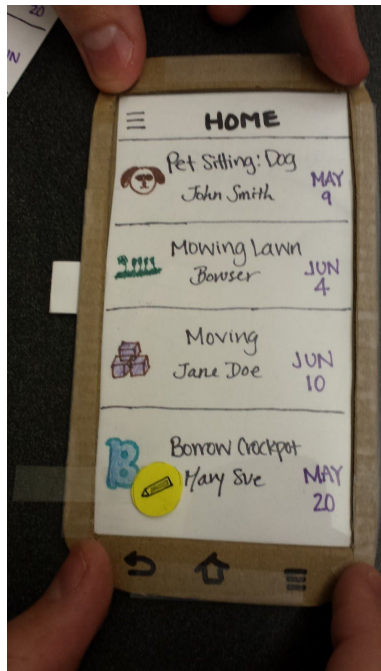
Original   Revised

Usability Test Results Iteration #1:

Main Menu design
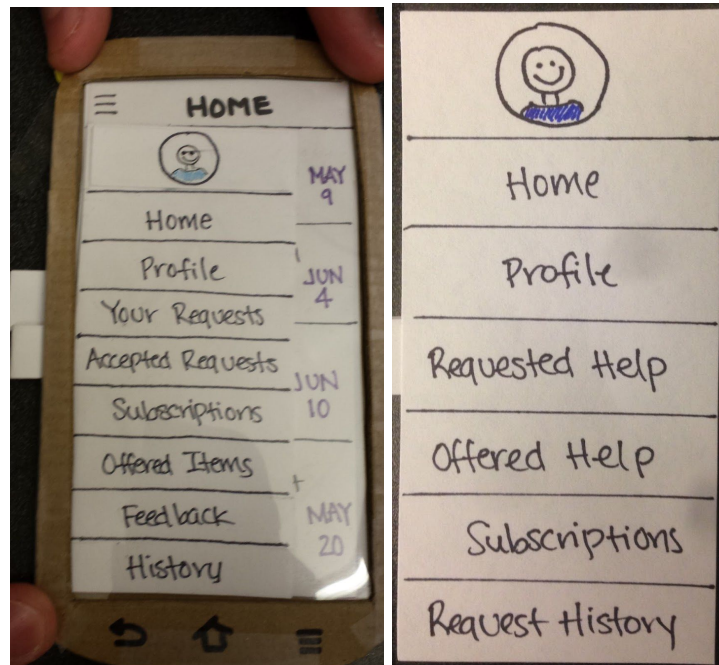
| Original | Revised |

Issue: Main menu options were not obvious as to what they do. Our user seemed to have have trouble understanding what each entry meant (especially "Your Requests" and "Accepted Requests"
Severity: 3.5
Revision: We redesigned the main menu to provide some more descriptive names as well as removing confusing ones altogether.

Start/End date clarity

| Original | Revised |

Issue: what does start date mean, is it even necessary

Severity: 1

Revision: We removed the start date altogether--it was not necessary
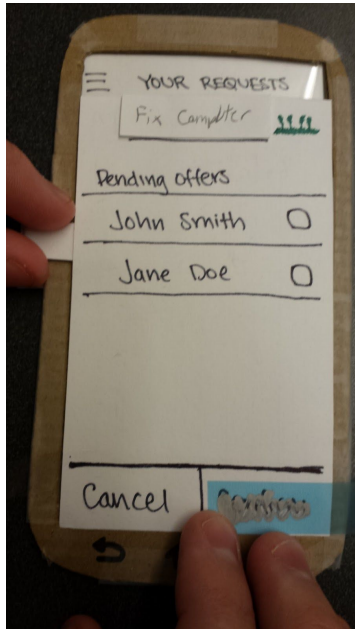
Leaving feedback
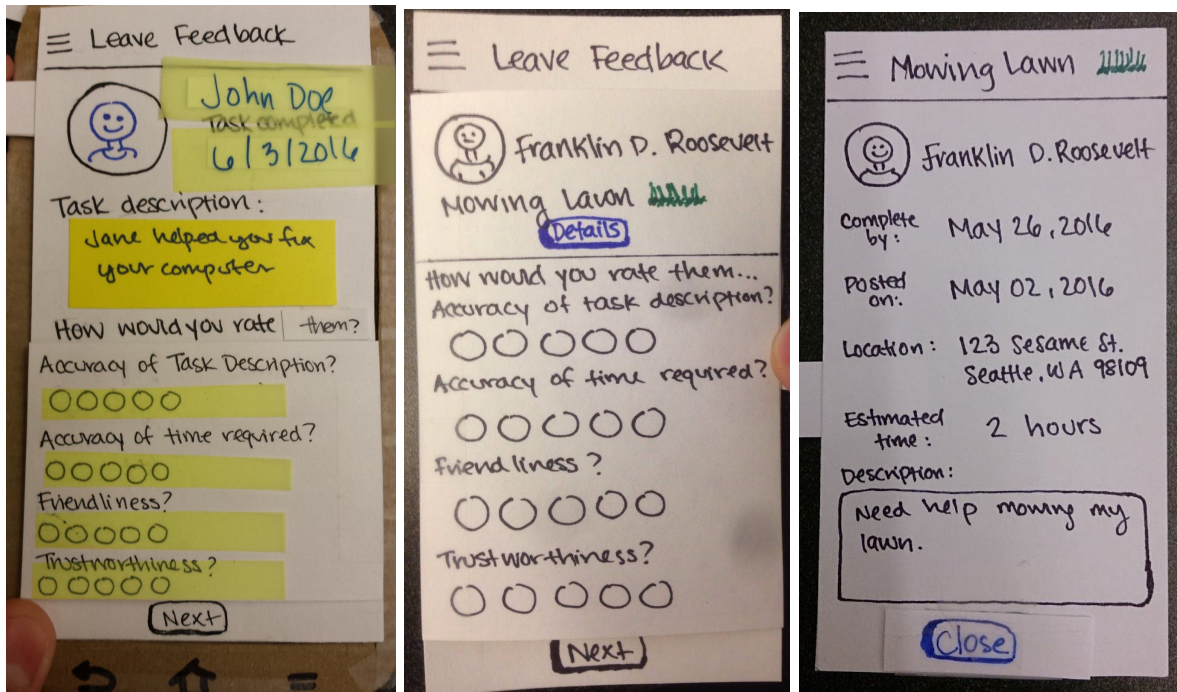
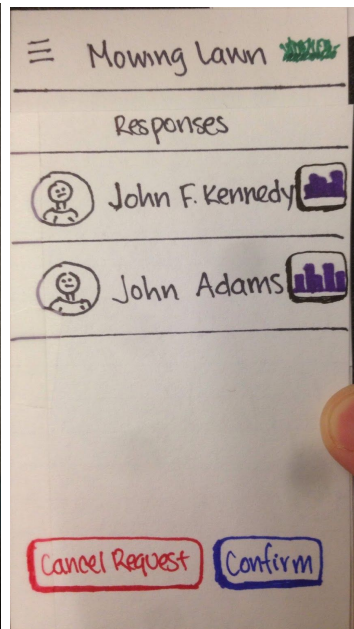Original   Revised--details button --->   launches details about task

Issue: When leaving feedback on request description accuracy, user should be able to view task details to remind them of the task/person they are rating.

Severity: 2

Revision: On the feedback page, the user can click the details button to see more the entire original task description
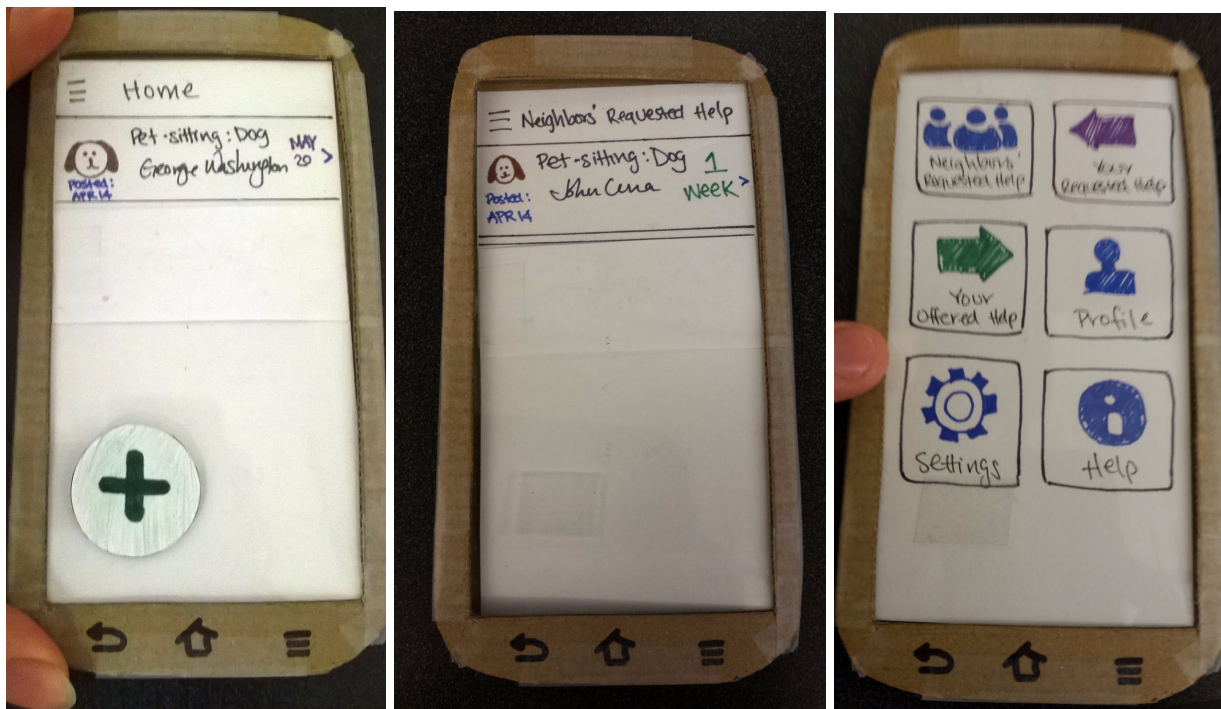
Original   Revised

Issue: user wanted to be able to view information about a person before confirming them.

Severity: 2

Revision: to deal with this, we redesigned the confirm page to include the user's picture as well as a link to view their profile. This way users can do a quick check before confirming.

Usability Test Results Iteration #2:

Home page design

Original   Revised page title   New startup screen

Issue: User did not understand what is on this page. What is this 'request'. Is it my requests, neighbors requests? Also the '+' button added to this confusion.
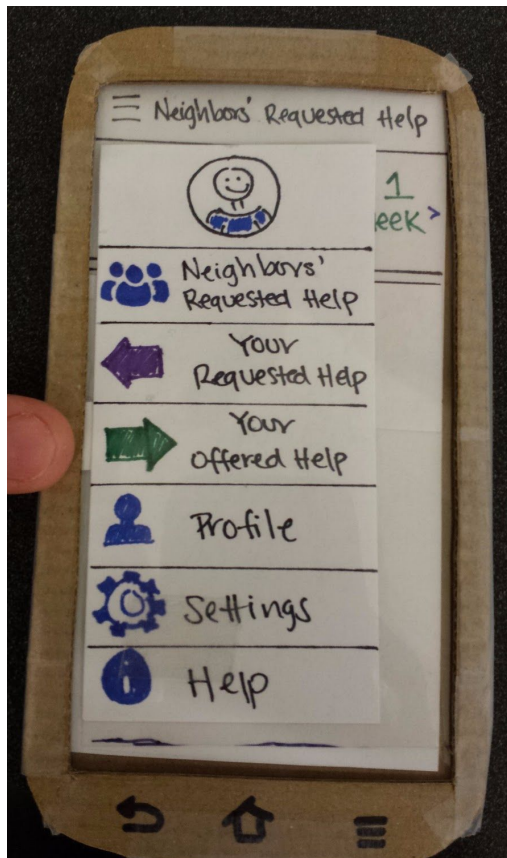Severity: 3
Revision: Made a new page that shows on startup only (landing screen). This replaces the 'Home' screen as the first thing you see. Renamed old home screen, gave it the new title Neighbor's Requested Help . Moved '+' button off page to only exist on My Requests page.

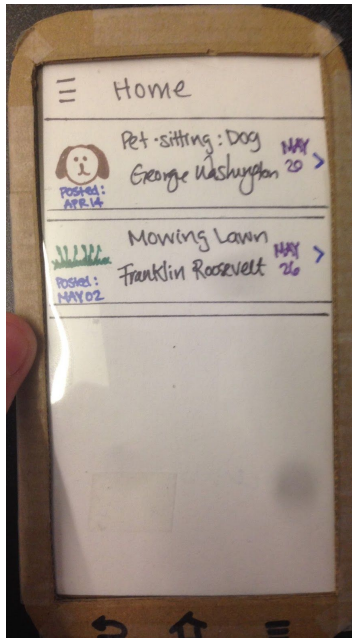Menu
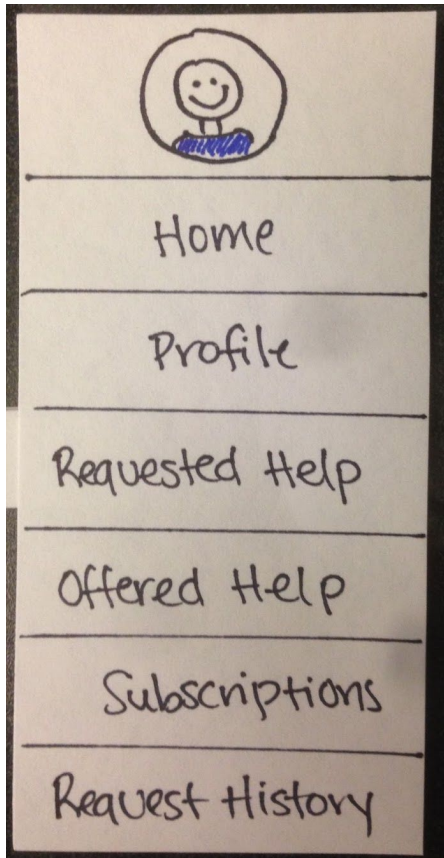
Original   Revised
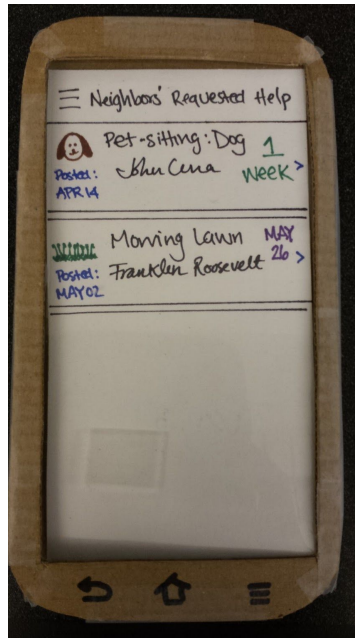
Issue: Page naming still unclear
Severity: 1.5
Revision: Relabeled pages, added icon pictures. Since the pages are relabeled, the titles on other screens got relabeled too.

Date on Requests
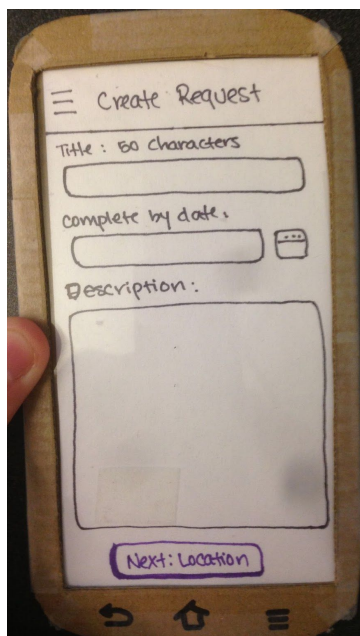

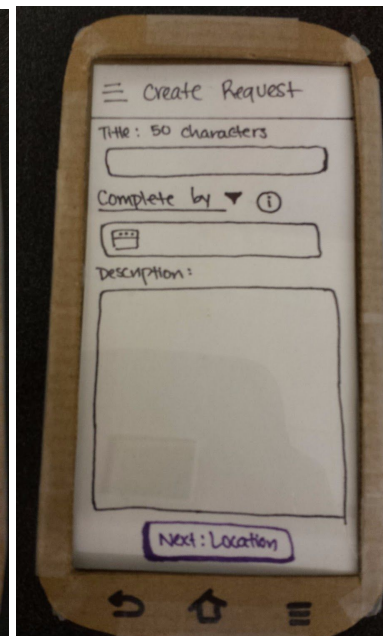Original   Revised

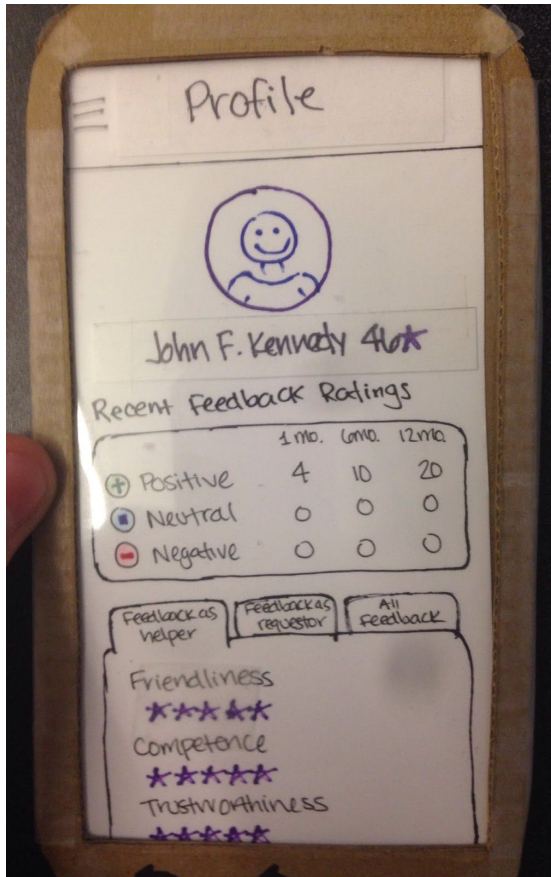Original   Revised

Issue: The user did not understand if the purple dates on the right indicate that the task needs to be done *on* that day, or just sometime *by* that date.

Severity: 3

Revision: Put a countdown on requests that are 'completed by' and left the date for requests that need to be 'completed on' that date. Also had to modify creating requests to allow selection of this option.

Feedback Profile

Original   Revised
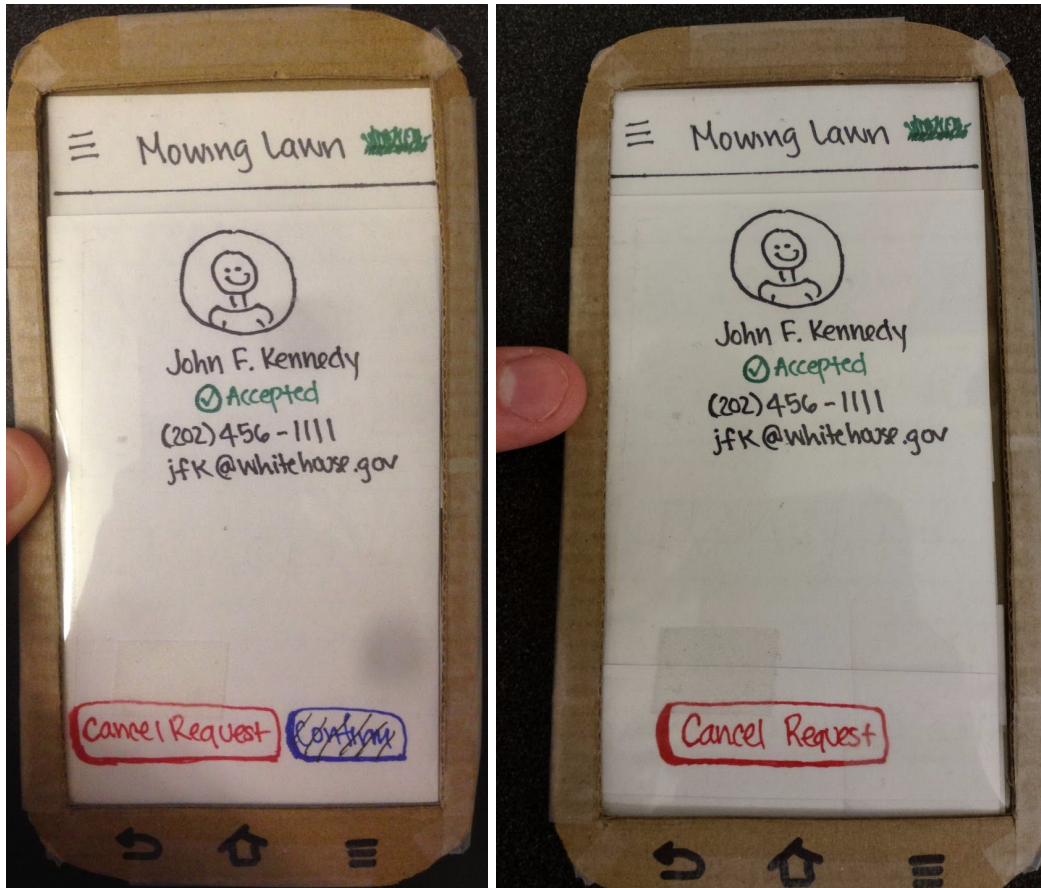
Issue: The 46* next to user's name made no sense.
Severity: 1
Revision: Removed 46*

View Requests

Original   Revised

Issue: Having greyed out buttons for 'Confirm' confused users. When users saw the button they wanted to click it thinking it functioned like 'OK' and would exit the screen.
Severity: 1
Revision: Removed greyed out buttons on screens where they didn't need to be. Centered any remaining floating buttons.

Important Revisions

Main Menu redesign - This change was highly important for a number of reasons, most notably the large number of people who found our current menu options confusing or even misleading. Almost every person we talked to found the names we were using to identify our different pages confusing. This resulted in an inability to do basic navigation in the app without first doing trial and error to find out what each page was, leading to extreme difficulty in using the app. In order to fix this, we decided that simply changing the names might not be enough, therefore, not only did we add more descriptive names, but we also added icons to the main menu to help facilitate understanding and alleviate confusion.

Landing Page - Showing users the "Neighbors' Requested Help" page (previously titled "Home") was a little confusing, as they were not quite sure what the requests on the page represented. We sought to clarify this by retitling the page to "Neighbors' Requested Help" but thought we could make it a little clearer by showing the user a landing page (basically the menu converted to individual icons/buttons) every time they newly start up the app so the user can decide which page they want to visit, giving them more control over what they first see.

7. Final Paper Prototype

Final Prototype:
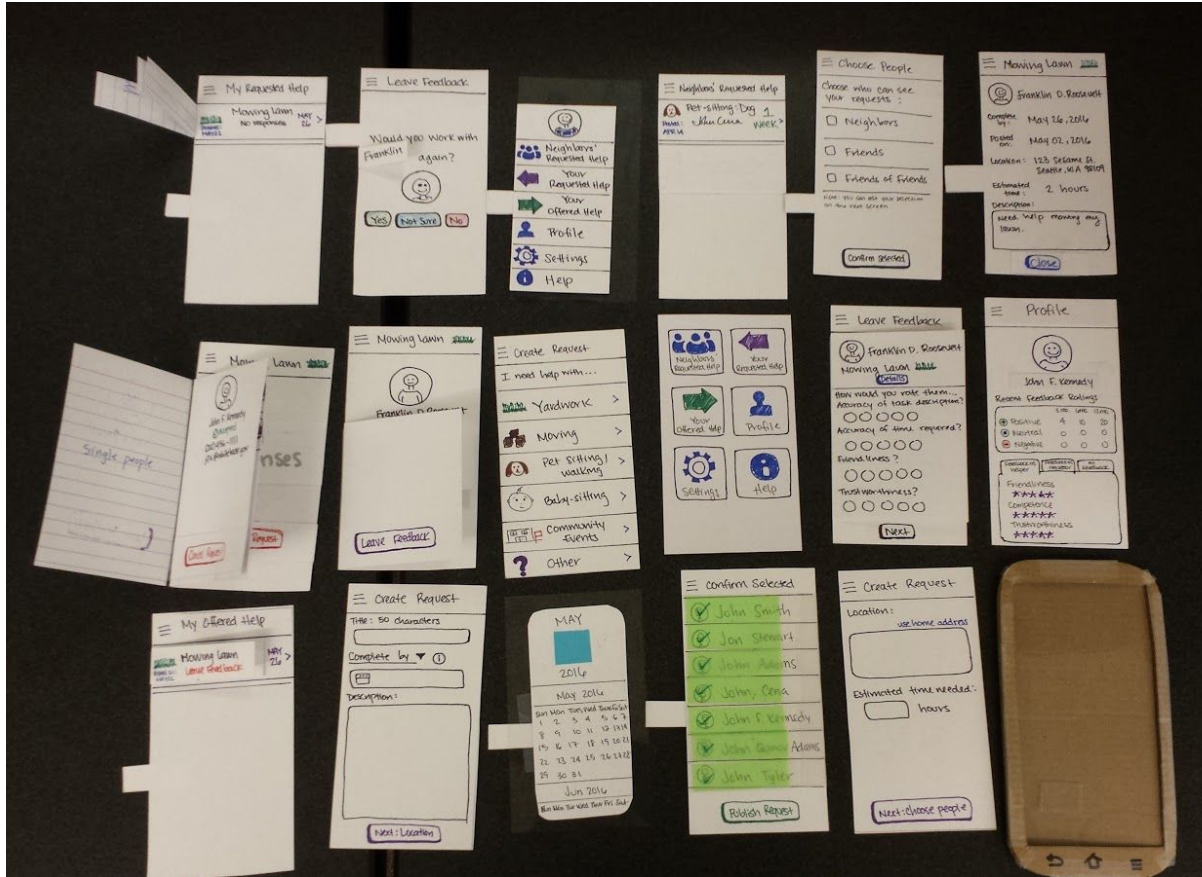
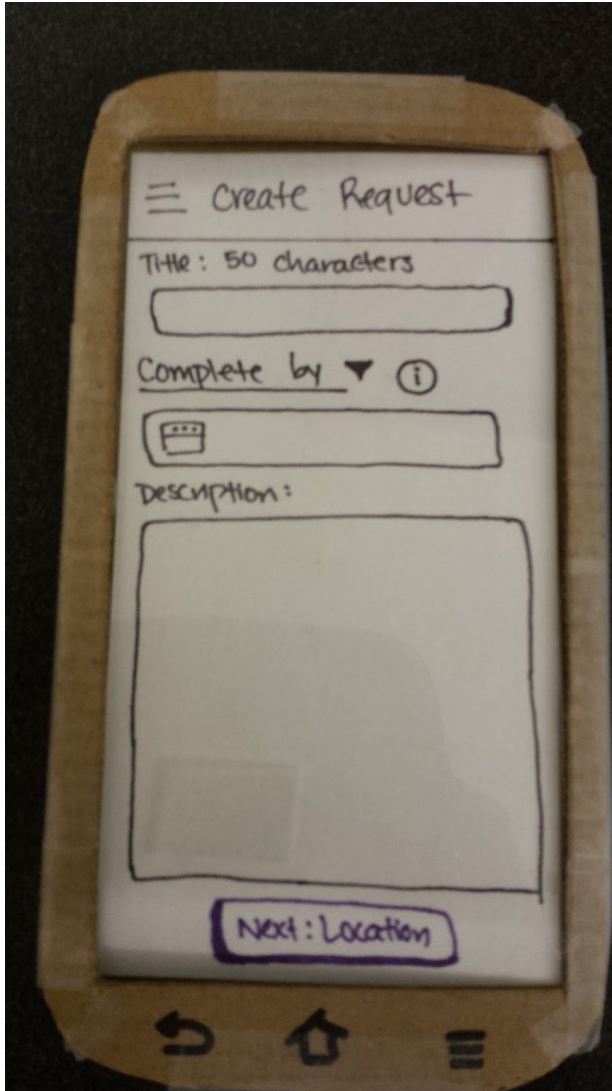**Task 1: Requesting in-person help -- AS USER A**
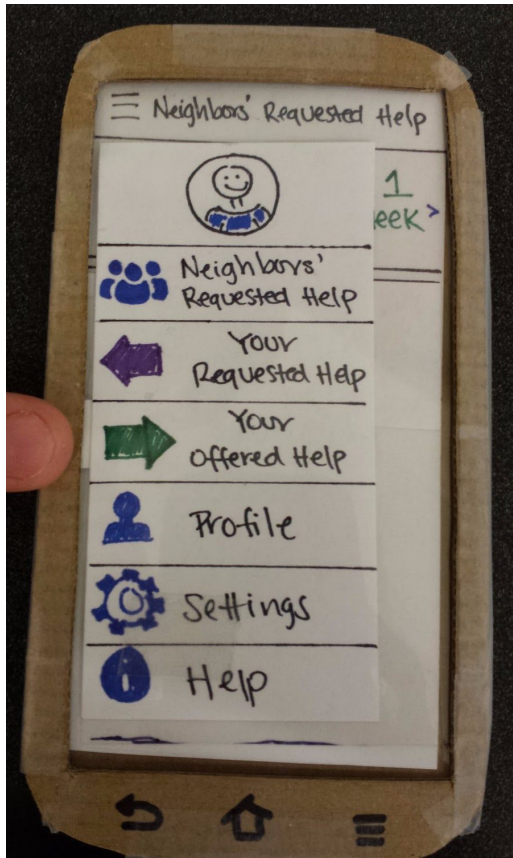
User opens the menu and selects Your Requested Help

From Your Requested Help user A can create a new request by tapping the '+' floating button.

≡ Create Request

I need help with...

🌱 Yardwork　　＞

📦 Moving　　＞

🐶 Pet Sitting / walking　＞

👶 Baby-sitting　＞

🏠 Community Events　＞

❓ Other　　＞

Create Request starts with a 'choose a category' of help page.

Left screen (phone mockup)

≡ Create Request

Title: 50 characters

[ ]

Complete by ▼ ⓘ

[ ]

Description:

[ ]

[Next : Location]

Right screen (calendar/date picker)

MAY

2016

May 2016

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Jun 2016

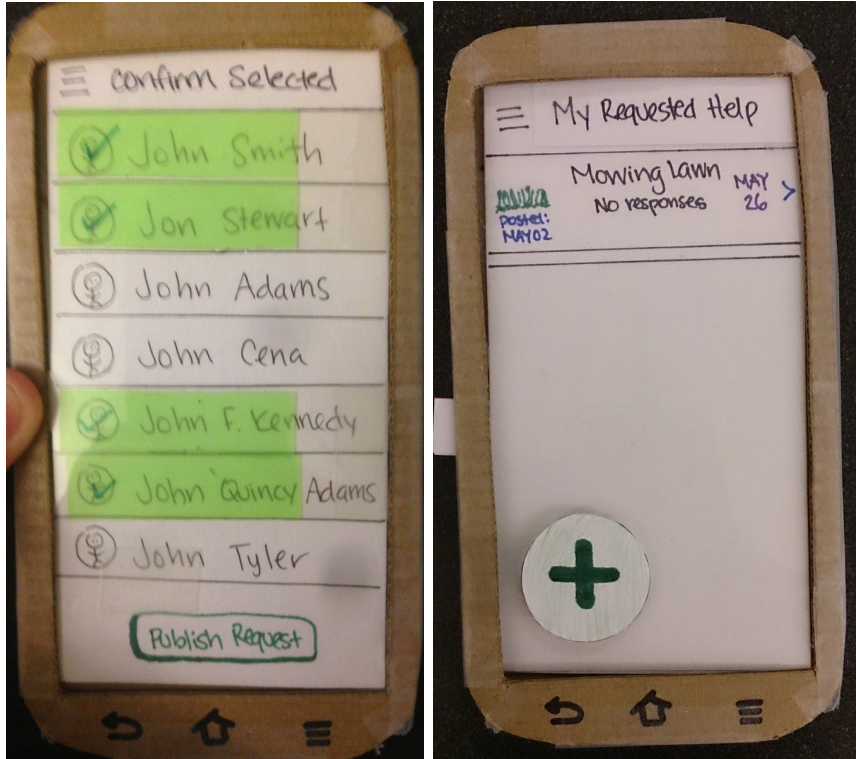Sun Mon Tue Wed Thur Fri Sat

Calendar/date picker

Once a category is chosen, the user can name the request, when it needs to be completed by/on, and a brief description.
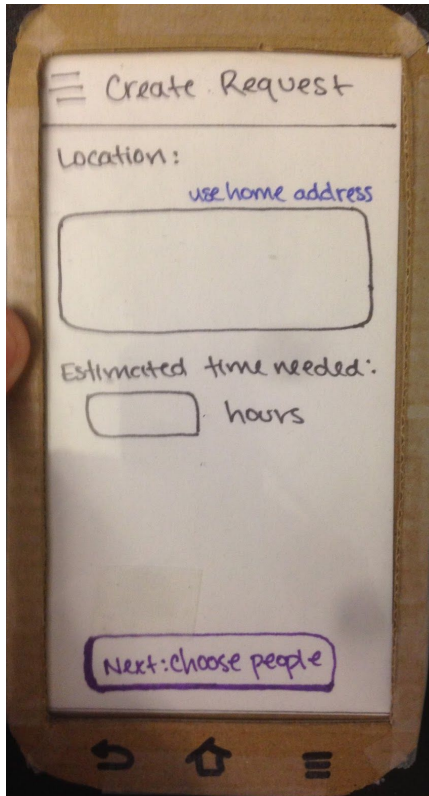
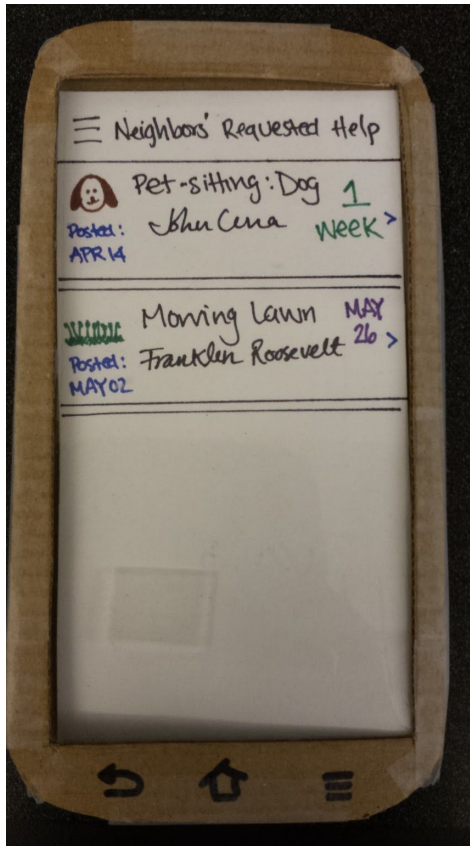Then the user can state where the request is to occur, as well as how long it should take.
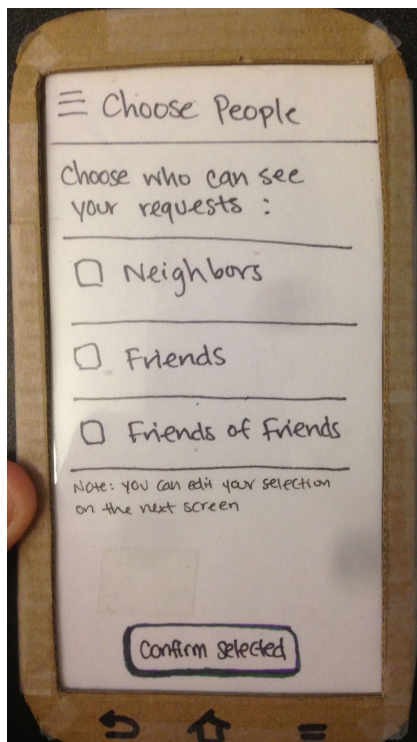
Then the user can select a category of people who can see the request.
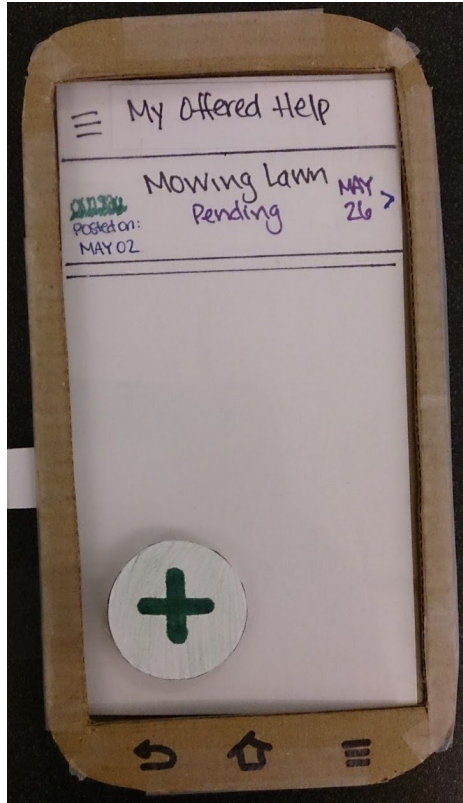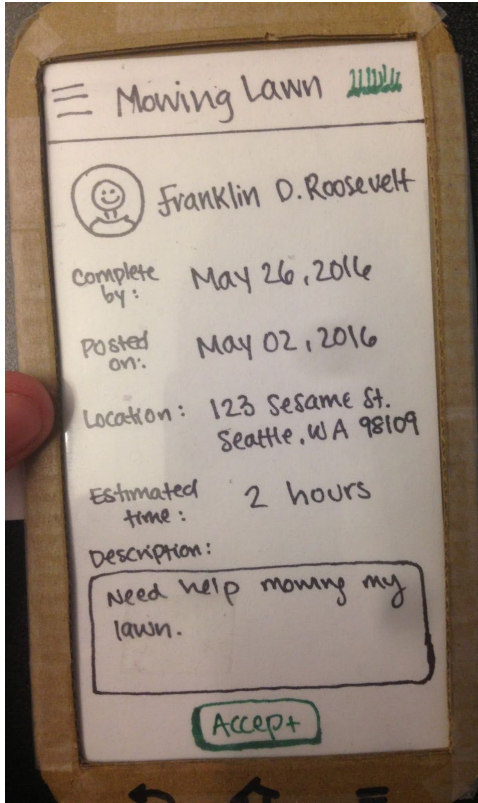
The user then has the option to customize who can see the request before publishing the request.

Publishing the request returns the user to the Your Requested Help page.
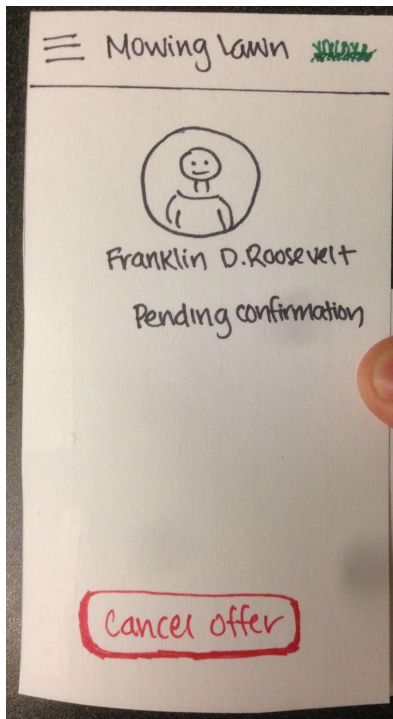
Offering Help -- AS USER B

To accept a request, the user first taps the request from the home screen to view it.
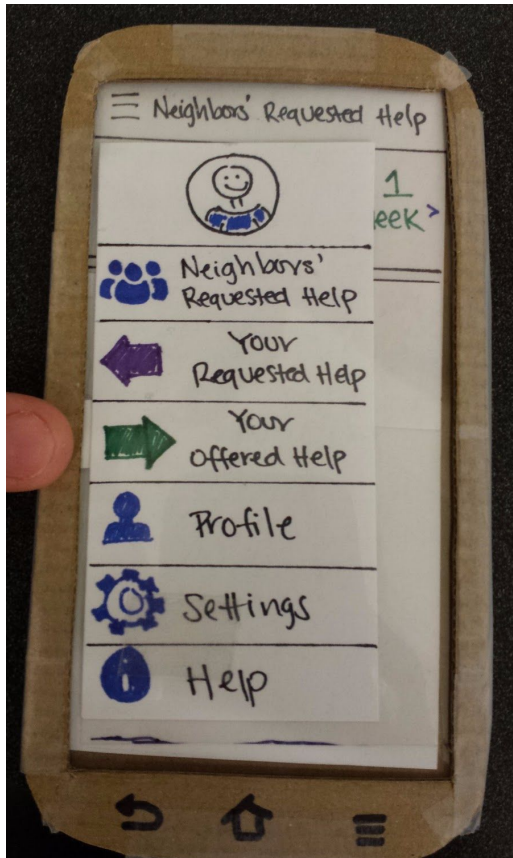
(Left) The user can then choose to accept that request.
(Right) The user is then taken to the My Offered Help screen, and can see the request they just accepted.
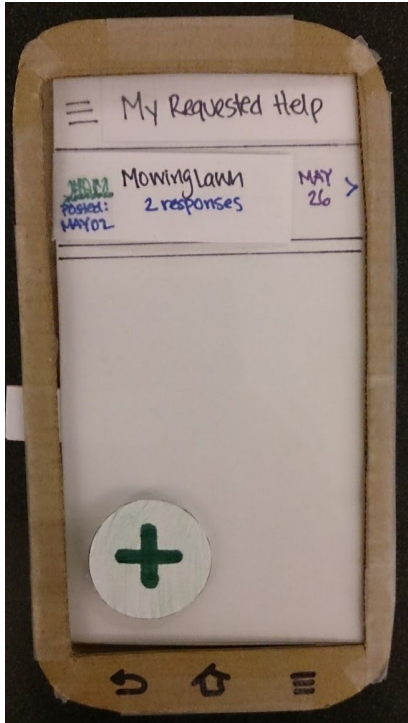

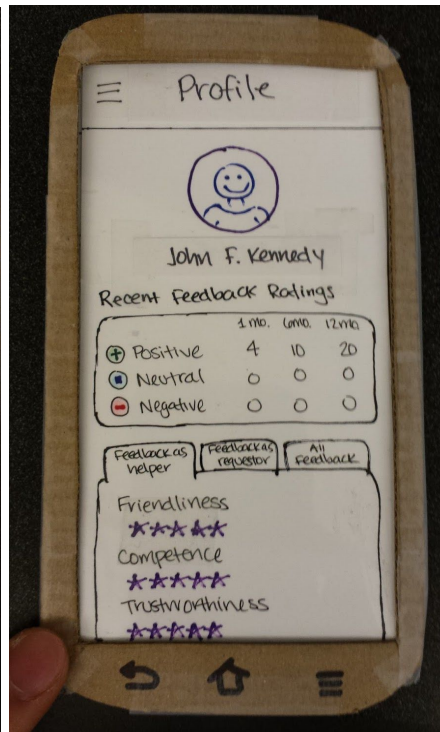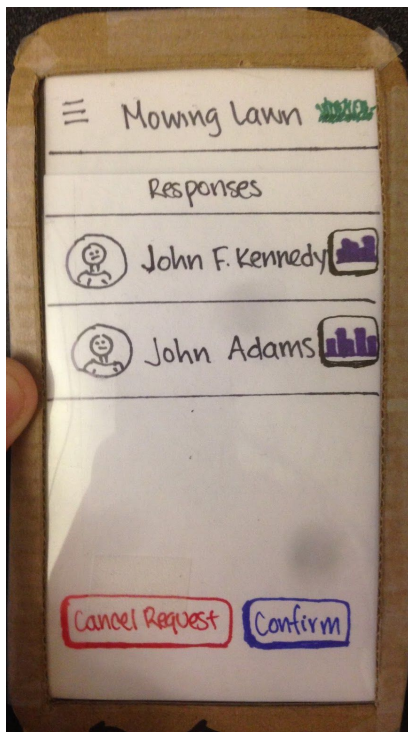The status is now pending (confirmation from the requestor).

Accepting Help -- AS USER A

To confirm a person who has accepted your request, the user opens the menu and selects Your Requested Help.

From there the user taps the request they want to update.

(Left) The user can then select a person who has accepted and either cancel the request or confirm the person.
(Right) Optionally by clicking on the 'stats' button on the right of each name brings up the profile of said person.

Once user A has accepted the offer for help, they can see the other person's contact information

Mowing lawn

Franklin D. Roosevelt

✓ Accepted
(202)456-9111
fdr@whitehouse.gov

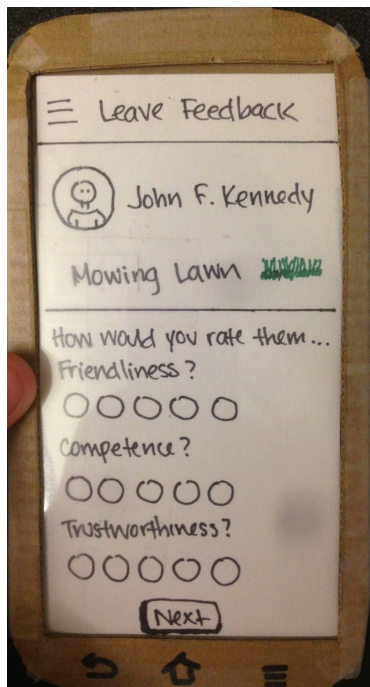Cancel offer

User B will also be able to see the contact information of the person who requested help
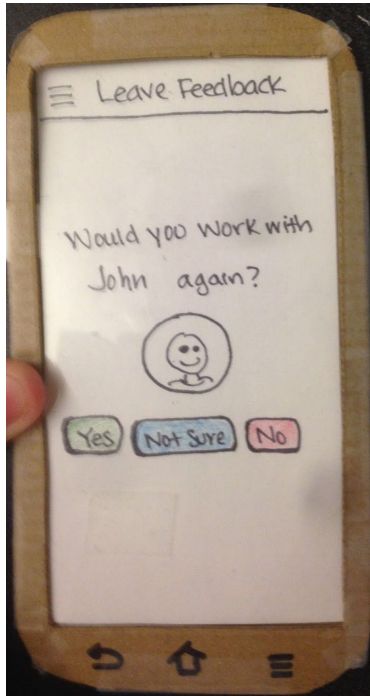
Task 2: Leaving Feedback

User A (who requested help) will see a "Leave Feedback" message beneath the name of their task once the task has been completed. Clicking the task will lead them to a page prompting them to leave feedback

Clicking leave feedback will take them to a ratings screen

After they complete the 3 questions they will be taken to a final screen where they can choose whether or not to recommend the user that helped them.
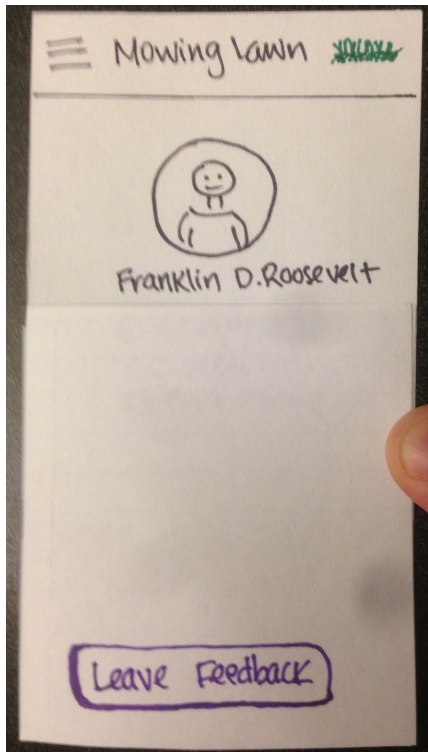
User B (who helped with the task) will also be prompted to leave feedback
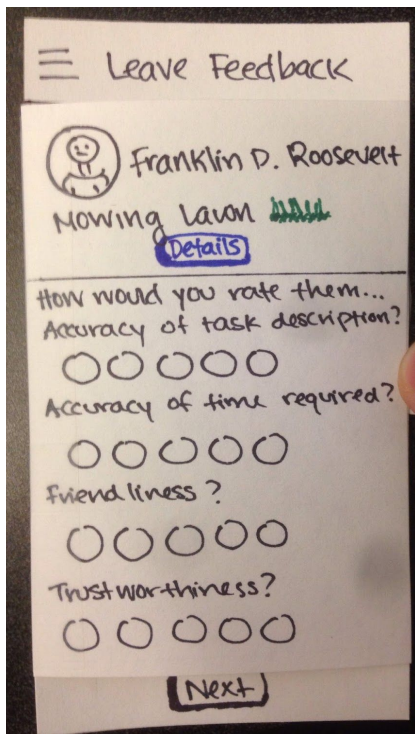
Once they click "leave feedback" they will be taken a page with 4 questions asking them to rate the requestor. They can also view details about the task from this page. After leaving this set of feedback they will be taken to the same screen asking them to recommend/not recommend the other user.

8. Digital Mockup

Overview Digital Mockup:

Leave Feedback

Franklin D. Roosevelt

Mowing Lawn

[Details]
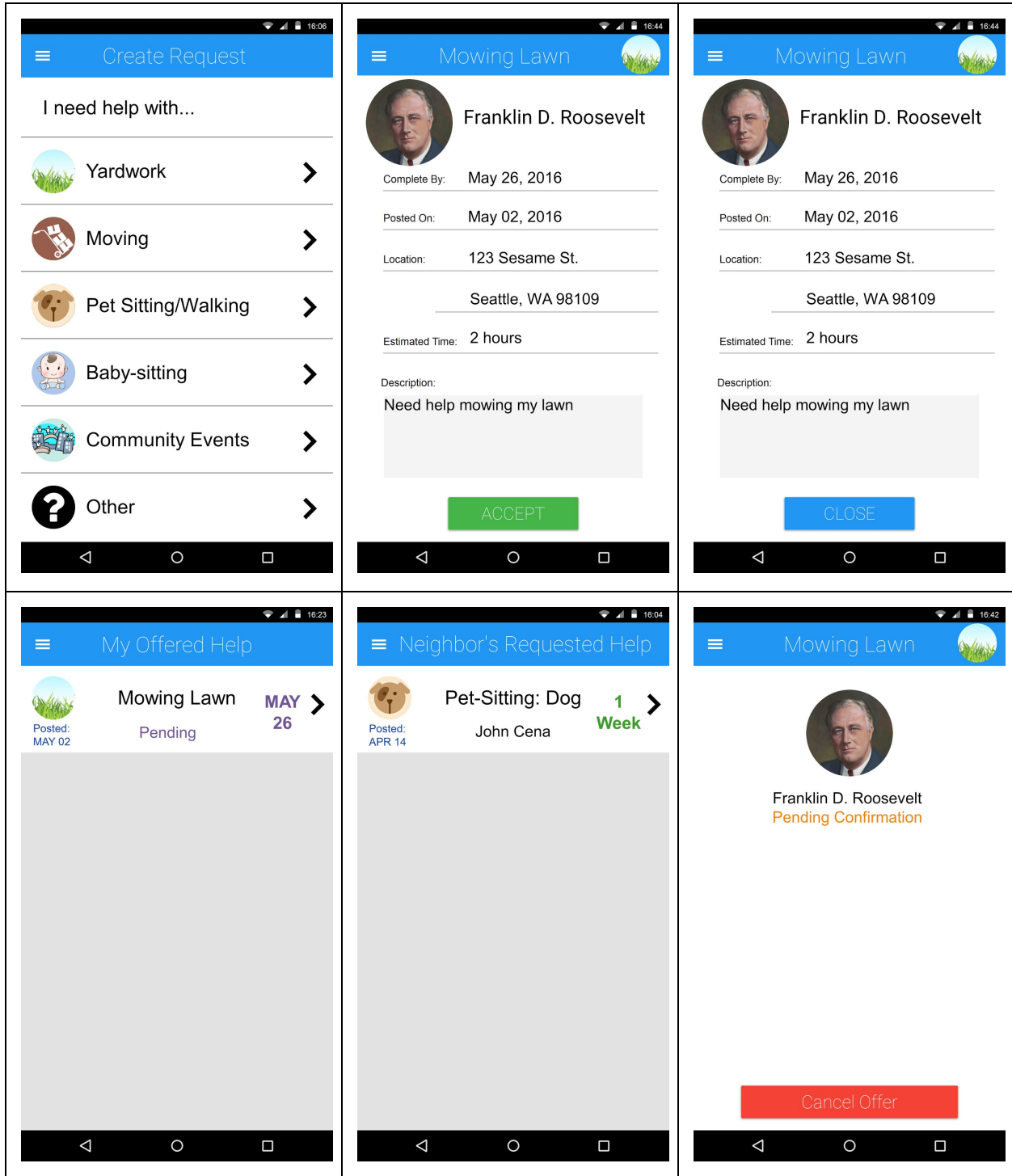
How would you rate Franklin

Accuracy of task description

☆☆☆☆☆

Accuracy of time required

☆☆☆☆☆

Friendliness

☆☆☆☆☆

Trustworthiness

☆☆☆☆☆

[Next]

Create Request

THURSDAY

MAY

26

2016

May 2016

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June 2016

DONE

Create Request

Title:

50 Characters

Complete by ▾ ⓘ

📅 _____

Description:

[Next: Location]

My Offered Help

🌱 **Mowing Lawn**   **MAY 26** ›
Posted: MAY 02   Accepted

Neighbor's Requested Help

🐶 **Pet-Sitting: Dog**   **1 Week** ›
Posted: APR 14   John Cena

🌱 **Mowing Lawn**   **MAY 26** ›
Posted: MAY 02   Franklin Roosevelt

Mowing Lawn

John F. Kennedy

Accepted

(202) 456-1111

jfk@whitehouse.gov

[Cancel Request]

Create Request

Location: Use Home Address

Address

Estimated time needed:

_____ hours

Next: Choose People

◁ ○ ▢

Leave Feedback

John F. Kennedy

Mowing Lawn

Details

How would you rate John

Friendliness

☆☆☆☆☆

Competence

☆☆☆☆☆

Trustworthiness

☆☆☆☆☆

Next

◁ ○ ▢

My Offered Help

Mowing Lawn

Posted: MAY 02

Leave Feedback

MAY 26 ❯

◁ ○ ▢

Mowing Lawn

Franklin D. Roosevelt

Accepted

(202) 456-9111

fdr@whitehouse.gov

Cancel Offer

◁ ○ ▢

My Requested Help

Mowing Lawn

Posted: MAY 02

2 Responses

MAY 26 ❯

＋

◁ ○ ▢

Mowing Lawn

John F. Kennedy

Leave Feedback

◁ ○ ▢

Screen 1:

≡ My Requested Help

Mowing Lawn — **MAY 26** >
Accepted

Posted: MAY 02

\+

◁ ○ ▢

Screen 2:

≡ My Requested Help

\+

◁ ○ ▢

Screen 3:

≡ My Requested Help

Mowing Lawn — **MAY 26** >
No Responses

Posted: MAY 02

\+

◁ ○ ▢

Screen 4:

≡ Mowing Lawn

No Responses

Cancel Request

◁ ○ ▢

Screen 5:

≡ Leave Feedback

Would you work with John again?

Yes   Not Sure   No

◁ ○ ▢

Screen 6:

≡ My Requested Help

Mowing Lawn — **MAY 26** >
Leave Feedback

Posted: MAY 02

\+

◁ ○ ▢

Screen 1: Mowing Lawn — Responses

Mowing Lawn

Responses

John F. Kennedy		Profile
John Cena		Profile

Cancel Request   Confirm

Screen 2: Leave Feedback

Leave Feedback

Would you work with Franklin again?

Yes   Not Sure   No

Screen 3: Mowing Lawn

Mowing Lawn

Franklin D. Roosevelt

Leave Feedback

Screen 4: Leave Feedback

Leave Feedback

Franklin D. Roosevelt

Mowing Lawn

Details

How would you rate Franklin

Accuracy of task description
☆☆☆☆☆

Accuracy of time required
☆☆☆☆☆

Friendliness
☆☆☆☆☆

Trustworthiness
☆☆☆☆☆

Next

Screen 5: Choose People

Choose People

Choose who can see
your requests:

☐ Neighbors

☐ Friends

☐ Friends of Friends

Note: You can edit your selction on the next screen

Confirm Selected

Screen 6: Confirm Selected

Confirm Selected

✓	John F. Kennedy
✓	John Cena
	John Locke
✓	John Hurt
	John S. Mill
✓	Jon Stewart

Publish Request

Screen 1

Confirm Selected

John F. Kennedy

John Cena

John Locke

John Hurt

John S. Mill

Jon Stewart

Publish Request

Screen 2

Lend a Hand

Neighbors' Requested Help

My Requested Help

My Offered Help

Profile

Settings

Help

Screen 3

Neighbor's Requested Help

Franklin D. Roosevelt

1 Week

Neighbors' Requested Help

My Requested Help

My Offered Help

Profile

Settings

Help

Screen 4

Profile

John F. Kennedy

Recent Feedback Ratings

	1 mo.	3 mo.	12 mo.
Positive	7	11	23
Neutral	0	0	0
Negative	0	0	0

As Helper | As Requestor

Friendliness
★★★★★

Competence
★★★★★

Trustworthiness
★★★★★

Screen 5

Profile

Franklin D. Roosevelt

Recent Feedback Ratings

	1 mo.	3 mo.	12 mo.
Positive	4	11	17
Neutral	0	0	0
Negative	0	0	0

As Helper | As Requestor

Friendliness
★★★★☆

Competence
★★★★★

Trustworthiness
★★★★★

Screen 6

Profile

Franklin D. Roosevelt

Recent Feedback Ratings

	1 mo.	3 mo.	12 mo.
Positive	4	11	17
Neutral	0	0	0
Negative	0	0	0

As Helper | As Requestor

Friendliness
★★★★☆

Trustworthiness
★★★★★

Accuracy of task described
★★★★★

Accuracy of time required
★★★★★

Task 1: Requesting in-person help -- AS USER A

User opens the menu and selects My Requested Help

From Me Requested Help user A can create a new request by tapping the '+' floating button.
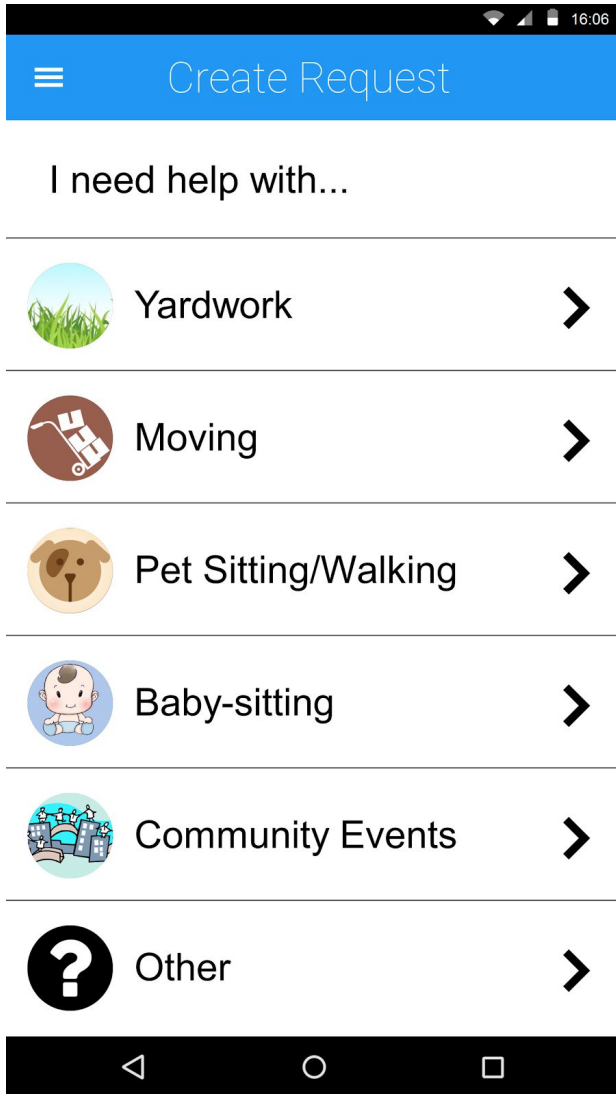
Create Request

I need help with...

Yardwork >

Moving >

Pet Sitting/Walking >

Baby-sitting >

Community Events >

Other >

Create Request starts with a 'choose a category' of help page.

Screen 1 (left):

Create Request

Title:

50 Characters

Complete by ▾ ⓘ

📅

Description:

Next: Location

Screen 2 (right):

Create Request

THURSDAY

MAY

26

2016

May 2016

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June 2016

DONE

Once a category is chosen, the user can name the request, when it needs to be completed by/on (user can select which option in a dropdown menu), and a brief description.

Then the user can state where the request is to occur, as well as how long it should take.

Then the user can select a category of people who can see the request.

≡ Confirm Selected	≡ My Requested Help

Confirm Selected screen:

- ✓ John F. Kennedy
- ✓ John Cena
- John Locke
- ✓ John Hurt
- John S. Mill
- ✓ Jon Stewart

Publish Request

My Requested Help screen:

Mowing Lawn
Posted: MAY 02
No Responses
MAY 26 ›

The user then has the option to customize who can see the request before publishing the request.

Publishing the request returns the user to the Your Requested Help page.

Offering Help -- AS USER B

To accept a request, the user first taps the request from the home screen to view it.

(Left) The user can then choose to accept that request.

(Right) The user is then taken to the My Offered Help screen, and can see the request they just accepted.

Franklin D. Roosevelt

Pending Confirmation

Cancel Offer

The status is now pending (confirmation from the requestor).

Accepting Help -- AS USER A

To confirm a person who has accepted your request, the user opens the menu and selects My Requested Help.

From there the user taps the request they want to update.

(Left) The user can then select a person who has accepted and either cancel the request or confirm the person.

(Right) Optionally by clicking on the 'profile' button on the right of each name brings up the profile of said person.

Once user A has accepted the offer for help, they can see the other person's contact information

Franklin D. Roosevelt
Accepted
(202) 456-9111
fdr@whitehouse.gov

Cancel Offer

User B will also be able to see the contact information of the person who requested help

Task 2: Leaving Feedback

User A (who requested help) will see a "Leave Feedback" message beneath the name of their task once the task has been completed. Clicking the task will lead them to a page prompting them to leave feedback

Leave Feedback

John F. Kennedy

Mowing Lawn

Details

How would you rate John

Friendliness

☆☆☆☆☆

Competence

☆☆☆☆☆

Trustworthiness

☆☆☆☆☆

Next

Clicking leave feedback will take them to a ratings screen

Leave Feedback

Would you work with John again?

Yes	Not Sure	No

◁　　　○　　　▢

After they complete the 3 questions they will be taken to a final screen where they can choose whether or not to recommend the user that helped them.

Leave Feedback

Franklin D. Roosevelt

Leave Feedback

User B (who helped with the task) will also be prompted to leave feedback

☰ Leave Feedback

☰ Leave Feedback

Franklin D. Roosevelt

Mowing Lawn

Details

How would you rate Franklin

Accuracy of task description

☆☆☆☆☆

Accuracy of time required

☆☆☆☆☆

Friendliness

☆☆☆☆☆

Trustworthiness

☆☆☆☆☆

Next

Would you work with Franklin again?

Yes   Not Sure   No

Once they click "leave feedback" they will be taken a page with 4 questions asking them to rate the requestor. They can also view details about the task from this page. After leaving this set of feedback they will be taken to the same screen asking them to recommend/not recommend the other user.

Decisions and Changes

Overall, we did not make any changes to the design when implementing the digital prototype, however, did make some minor changes to the alignment of text and buttons. The main reason for these changes was to take advantage of the extra space available when using typed words rather than hand-written ones. Beyond that, icons were redesigned with nicer digital versions. We also removed the "all feedback" section from the profile/feedback screen because we realized it did not make much sense--feedback left for someone as a requestor and as a helper contain different questions, so there was no good way to "aggregate" the feedback aside from displaying the two feedback sections one after another. Rather than implementing that "all feedback" tab and being redundant with our information, we decided to eliminate it altogether.

Briefly discuss any changes you made in response to critique:
We went back to revise the buttons and font sizes/types for our entire design because of feedback indicating that our text was a little hard to read and there were too many colors to buttons. We kept all "cancel" and "remove" buttons red, and revised all other buttons to be a standard blue (same color as the "+" button for creating a new request). The thin font type we used made button text especially hard to read, and we updated those to utilize a bolder font.

Include descriptions of how your design supports each of your primary tasks (e.g., one paragraph per task):
Requesting help: When users want to request help with a certain task, they can do so through their "my requested help" section and clicking the "+" floating icon. From there, they can choose which category their help request belongs to, and fill out details about the task they want completed. In order to give users some privacy, they can also choose the "categories" of users they want their task visible to (e.g. neighbors, friends, or friends of friends) and refine it further after that if there are specific people they want to avoid. The users that the task are visible to can then click on the task in their "neighbors' requested help" page and accept the task if they wish; after that the original requestor will receive a notification indicating someone has offered help, and they can choose to accept or reject that person's help (they will also be able to view the other user's feedback profile at this point).

Leaving feedback: After the task has been completed, both the requestor and helper will be prompted to leave feedback for their interaction. The helper will be asked to review the requestor based on how accurate the task description was or the time required, as well as the requestor's friendliness and perceived trustworthiness. The requestor will be asked to review the helper in terms of friendliness, perceived trustworthiness, and competence. All of these questions will be rated on a five point scale. After the initial feedback the users will be asked whether or not they will choose to work with the other user again. A "yes" translates to positive feedback, "no" to negative, and "not sure" to neutral. The feedback left will be aggregated into both users' average ratings, and will be visible to the general public.

9. Discussion: Reflect upon and discuss your project and your results

What did you learn from the process of iterative design?

We learned that while the process of iterative design is time consuming, it is an effective way to design a good application. We learned that it is important to continue iterating through designs and not spend too much time perfecting a particular design. We learned that the initial design is often full of problems and needs to be improved through user testing. We learned that changes that we make in response to user feedback may not always be correct and require further testing. For example, from our user testing, we learned that some of our titles and wording in our design were ambiguous or difficult to understand. We made changes in the next iteration of the design but these changes were also ambiguous and did not solve the problem.

How did the process shape your final design?

After constructing the paper prototypes based on our initial designs, we conducted several user tests that exposed some problems with our design which included the following: unclear or ambiguous titles and wording, general confusion about page meanings, and unnecessary text and information. These different issues ranged in severity however their combined revisions led to a much more intuitive straight-forward design. Through iteration we came to realize that for things like menus, simplicity is key. Avoiding ambiguous wording or too many options helps to speedup user interaction. Any less important information should be nested inside a page and not directly accessible from the menu.

How have your tasks changed as a result of your usability tests?

Our tasks themselves also incurred a fair amount of revision. As a result of our tests we came to realize many trivial, or confusing aspects about the tasks themselves. Things such as providing a start date for requests were quickly shown to be unnecessary, while providing a set category for the requests being created was very helpful. In all, our user testing provided a mixture of pressure points in our design both for the interface layout as well as for the task structure itself.

Do you think you could have used more, or fewer, iterations upon your design?

We think that one more user test for our actual digital design might have been useful--we received some feedback on our final digital mockup that was not mentioned during any of our paper tests, and while we thought that the feedback provided was valuable, we were hesitant to actually implement the idea because we were unable to do any user testing on it. One of the ideas mentioned during our digital mockup critique was pinning the "offered help" section on top of the "neighbors' requested help" page instead of giving it its own screen in order to eliminate confusion between the three "neighbors' requested help", "my offered help", and "my requested help" categories. However, we ultimately decided not to implement that design change because the idea was never presented to our users, and overall they had seemed satisfied with our final paper prototype. We could have benefited from an additional user test involving the digital mockup due to this feedback/critique, and it would have been nice to test out aspects of our design that were difficult to convey on paper (e.g. animation, popups, scrolling, etc.).

10. Appendix

User Test Script
Although we didn't have a printed script, the tests did follow a general guideline.
- Introduce ourselves and our project
- Explain the motivation behind our design and our goals
- Explain the app itself and the context behind it
- Introduce the testing format. Namely, how the participant will be going through a sequence of tasks, first from the perspective of one user, then the perspective of another
- Introduce the first task (create a request), explaining the general nature of the request they need help with
- Do the first task with the participant
- Introduce the second task (confirm someone who has accepted their request). After some passage of time, the user has just received a notification on their phone that someone has responded to their request (the one they made in task 1) and they just opened the app to respond.
- Do the second task
- Introduce the third task (leave feedback). After some passage of time, the task has been completed and everything went well. Now that the task is done, the user opened the app to leave feedback.
- Do the third task
- Explain the context switch. The participant will now be taking on the role of providing help.
- Introduce the fourth task (respond to a neighbor's request)
- Do the fourth task
- Introduce the fifth task (leave feedback). Similar to before, now they are opening the app to leave feedback on the person who they just helped
- Do the fifth task
- Debrief. Talk about how things went. Look at areas where they struggled (ensuring them that it was through no fault of their own, but rather our design being a work in progress). Asked for any final feedback including any suggestions they might have

Critical Incidents:
1. Menu Wording/Clarity
   When first opening up the menu, Jennifer was confused on where to go in order to view the requests she had agreed to help with. It was only through trial and error that she was able to figure out the correct page.
2. Leaving Feedback
   When tasked with leaving feedback on a person who had helped her, Jennifer immediately thought to open the Feedback option on the main menu. This was not the intended use of that screen and as a result she had a lot of trouble finding where to actually go to begin leaving feedback.

3. Homepage Design

        When initially opening up the app, Mike was not sure what the screen he was on represented. Although it was clearly a request screen, it was unclear what types of requests were being displayed and how they related to him. As a result he wasn't sure really what to do when he first started using the app.