

# SI 582 Final Report

## -Who'sIn-

David Cheng (kccheng)

My Interactive prototype:

<https://davidcheng.proto.io/share/?id=c8c00689-9b15-4953-aa40-2ab26f27d2a2&v=3>

### Problem Statement

From economies of scale, bigger order often gives lower unit price. This is a very common commercial trick that can be found in many retailer stores or restaurants. However, if you do not have a big family, buying too much same items would often cause waste, especially of the food easily expired. Some warehouses, such as Costco, selling most of their items in large packs that you have to purchase many same kind of merchandise in one time. Some retailer also like to offer deals like 'buy one get one 50% off' to attract customers. You may also face this problem in taking out a 10-inch pizza if you live alone. However, finding someone to share these items before making the purchase is not a trivial problem. Your friends might live far from you, or they might have no interest on what you are going to buy. It would be nice if someone living close to you (besides your roommate), were also interested in what you are buying and were willing to share the items, grocery, and food. Through helping you and these people group together and split the cost, All you can not only take advantage of low unit prices, but also getting a starting point to know each other and form connections with them..

### Solution Overview

My goal is to encourage the residents living in a close proximity to interact with their neighbors through developing a system to facilitate the activities of food group buying. There are many platforms to build up this system, such as website, mobile App, Facebook, physical/digital bulletin board. Since the problem might happen when people are not in front of their desk, my final solution is to build a mobile App that can help people to form a group anytime anywhere. In my system, a user who wants someone to split the items, for example, pizza, can post the information to the system and become a group host. If the user's friends are interested in the pizza, they can choose to join the group for cost splitting. Furthermore, they can spread the information to their friends (who might not know the host initially) to help fill out the group. Therefore, a network could be established based on their common interest in this item. Everyone in the group can take the appropriate amounts, save money and time, and sometimes make new friends and know their interests. Moreover, users are able to management their payment and meet up through management interfaces. No one would miss the time they should meet to take the items, and forget who they should pay for or request for money.

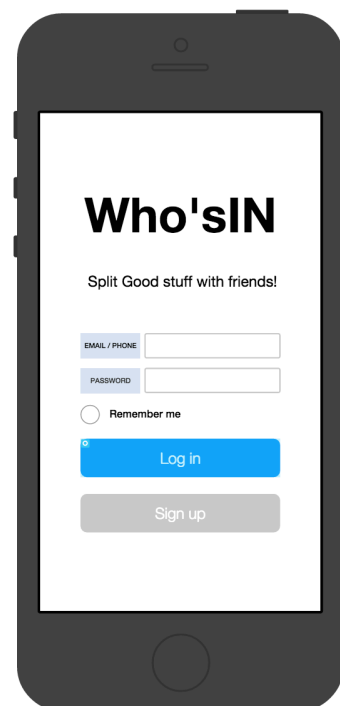


Figure 1. Log in Page

## Final Design

*Describe the functionality (i.e., what you can do with it)*

In my final design system, firstly you have to sign up a user account since there is a social network independent with Facebook in this system. Here I assume that the required information includes their ID, name, email, phone and address, which is very basic. Therefore the process of signup is skipped in my prototype and the usage of the system is more focused.

## Stuff List

After you have a user account, you can log in and you will see you are at the “Find Good stuff” tab. All of the item shown are from you friends or your friends’ friends. Also you can check the tab on the top to see all of the category or your chosen category, which could be setup in “My Page”. Also you can click the search icon on the top right corner and then a search input box would show.

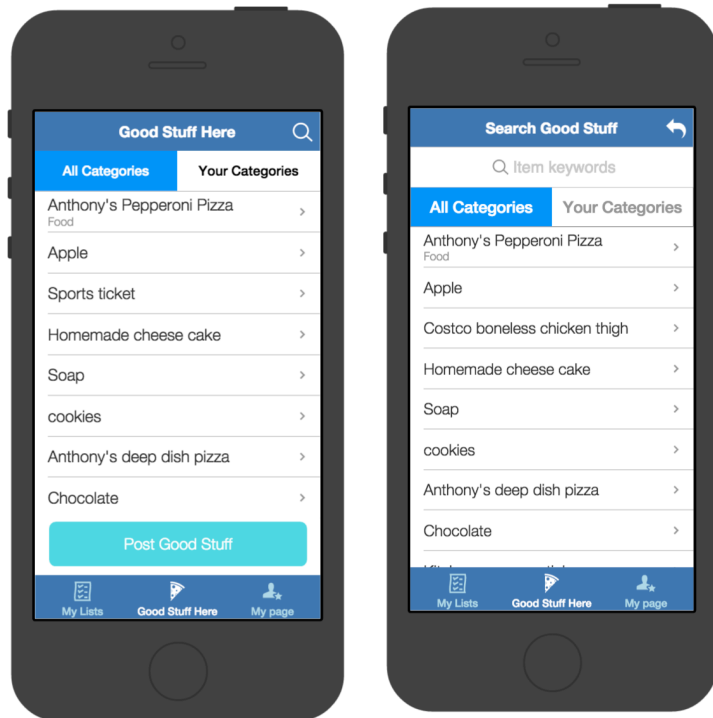


Figure 2. Good Stuff here page and key word search

## Post – Become a Host

The first function to be described is the “Post” function. By click the button “Post Good Stuff” on the bottom, you will be forwarded to the Post page to fill out a form as a ‘Host’. The page is shown in Figure 2. You have to fill out the information to complete a Post, such as upload photos, items names, Categories of the item and time/place you are available to meet these group member for giving the items. Note that host would be asked to decide the unit here. The reason is that not everything is countable, such as coffee power (you might

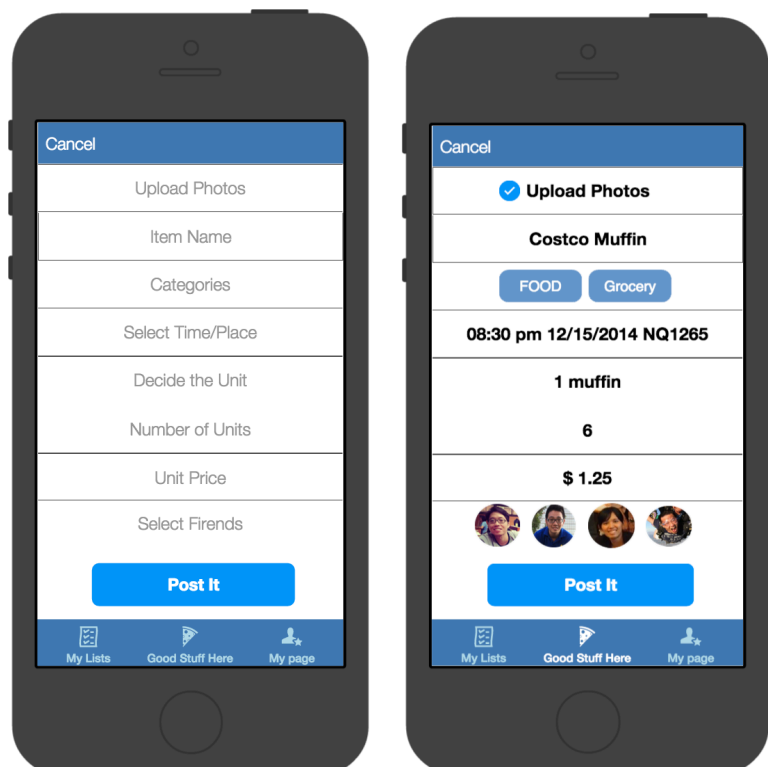


Figure 3. Post form

decide the unit of coffee power as 5 oz). Here the example is Muffin so the unit could be used as ‘1 muffin’. After that, enter how many of the items you want to share and how much of each single one unit. I the end, select some of your friends to send out the notification. This is important because it can help you to fill out the group sooner. By interacting with your friends through this system, you might gradually know their interest and know whom you should select in this post.

### Join - Count me in

Another important activity is to join other’s group. As shown in Figure 3, if you click the “Anthony’s Pepperoni Pizza” and you would be forward to its item page, which is shown in Figure 4. There are title, pictures, unit and unit price shown in this page. Here you can choose the time/place that the host available and the quantity of unit you want. After filling out the required information, you can click the ‘Count me IN’ to join the group. The button will show feedback to you to ensure you that you are in the group.

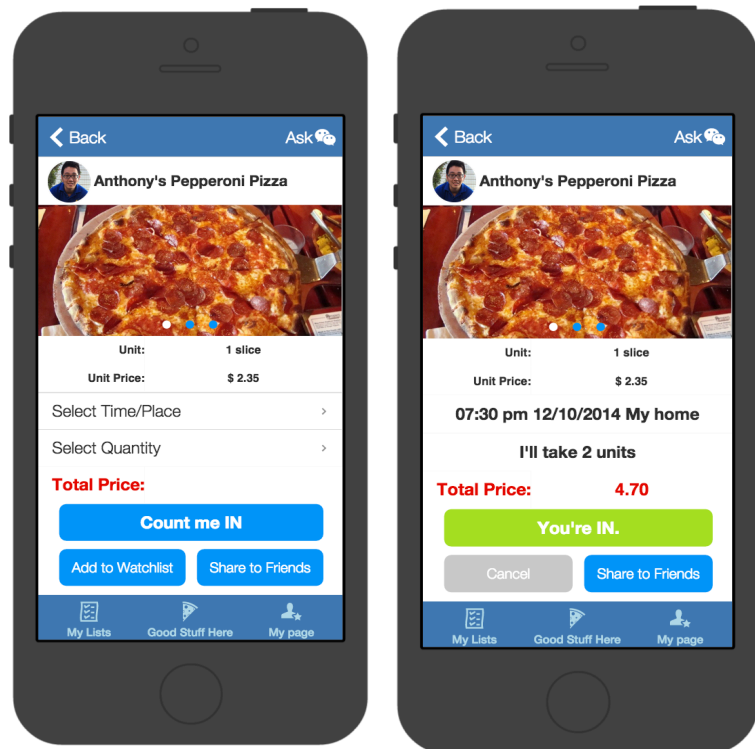


Figure 4. Item page - Count me in

### My Lists

Here you can click the ‘My lists’ tab in the bottom and you can see your Lists, including what you’ve posted, what you are in, and watchlist. You can see that “Anthony’s Pepperoni Pizza” is in your “I’m In” list. You would be forwarded to the item page and check the detailed information as long as click the item. See Figure 5.

### My Page

Here you can also manage the payment, and see your friend list. In the top right of the screen, the bell is responsible for telling you that

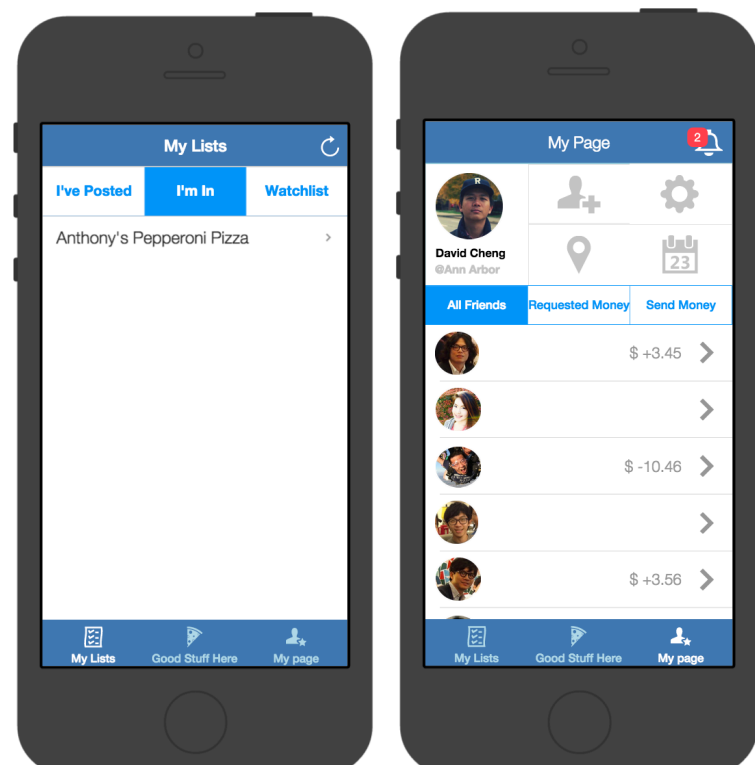


Figure 5 my lists and my page

some of your friends just share something to you. The coordinate icon can visualize your list on map that you can know where you should go for giving/taking items. Calendar visualize your lists on time. In the main part of the page, you can see your friends and who you should pay to and who should pay to you. The three tabs: “All friends”, “Requested Money” and “Send Money” can help you to filter friends on the screen. I have considered that people don’t have cash in their hand, so mostly they use online payment, such as Chase Quickpay to pay for their friends. However, the how to link my system to the existing online payment application has not been implemented and it may be a future work.

### Sketching techniques and approaches

In my design process, I mainly use pencil, sticker and paper to do sketching. The reason I choose pencil is that it can be easily erased and save some papers. Paper is necessary. Sticker is important because I can easily control these papers and would not make it mess up. Figure 6. Shows my sketch.

### Tool(s) you used to develop the design

Here are the approaches I have been using for developing design: sketching, wireframe, paper prototype and digital prototype.

#### Sketching:

For sketching, I used pencil, sticker and paper.

Pros: sketching can help me to record my ideas very quickly

Cons: After a period of time, tons of sketching will be produced. It is always time-consuming to figure out which parts of these sketching are informative and useful.

#### Wireframe:

For building up my wireframe, I use Balsamiq mockups software.

Pros: wireframe can help me to quickly buildup some static screenshot. These screenshot can be used to describe some main modules in my system.

Cons: wireframe of system cannot be used to interact with participants, therefore we would not know the potential problem.

#### Paper Prototype:

Pros: can be used to test participants and find out the potential problems within interaction

Cons: are interactions are manipulated by the designer, so the process is not smooth and fluent.

#### Digital Prototype:

Pros: the interface is polished and the user can much more easily to navigate by themselves.

Cons: highly time-consuming



Figure 6. My sketch

## Design Evolution

1. Describe how your design changed from initial sketches, brainstorming, low-fidelity prototype, to final design

In the sketches, I was decided to build up only two functions: share and want. Also I was intended to focus on a neighborhood that has a storage room that can be used to put these items so that people do not have to meet up to take the items. But After that, I found that not every neighbor community has this kind of place to storage. Also, we might not possible to put food in the storage box. Moreover, this somewhat prevent the neighbors meeting each other.

There are some differences

between my lo-fi and digital prototype. Parts of them are shown in Figure 6.

In my low-fidelity prototype, I decided to build up three modules, Post, item lists and Profile. In the digital prototype, I choose to incorporate the post function in the “Good stuff here”. The function of purchase history in the lo-fi prototype are made as an independent module as “My lists” since I found that people need to frequently check the information, which is very important and should be easily access.

In the lo-fi prototype, payment should be complete immediately as long as you confirm you want to join. But in my hi-fi prototype, I design a payment management module in “My page” and I believe this will make the payment more flexible and people would more like to use this systems.



Figure 6 design analysis

## Reading Reflection

Finally, in the reading, “Envisioning Systemic Effects on Persons and Society Throughout Interactive System Design”, I found that some of the ideas are helpful in my design process since I will always keep in mind that I should envision how people might use this system in long-term. Identifying Non-target Use help me to find that my system can also be used for some cookers to share some homemade food and make money by this if the food is really good. The value, trust, is also considered. Since this system needs people to trust and take item on time, I intend to set the interaction within people who are familiar with each other in the beginning. Someone joins you group must either be your friend or your friend’s friend. So I believe value sensitive design help me a lot in my design process.