

Assignment 2 Written Report

Studio Theme: Transforming Living Spaces

Meet The Team



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Problem Domain: Facilitating the 'to-do's around the house.

Through preliminary interviews, we were able to narrow down our problem domain into facilitating the 'to-do's around the house (a.k.a household chores). Stories of people from diverse housing backgrounds allowed us to discover that no matter with whom you lived, people felt the need to efficiently carry out the necessary 'to-do's or share responsibilities in a way that would make household chores easier and more bearable.

Preliminary POV : From the first 3 interviews.

When the initial interviews were conducted, our team did not have specific problem domain, and naturally, we asked more generic questions on people's routine lives in their respective living spaces. However, these 3 interviews allowed us to focus more on the problem of efficiently dealing with 'household chores'.

POV #1: We met Mary Esther, an optimistic and devoted mother/wife. We were surprised to learn how much she does around the home. It would be game changing if she had a way to coordinate all these tasks.

POV #2: We met Gilbert, an over-burdened father without help in the house. We were amazed to find that he takes on the challenge of prepping the children to go to schools in the morning, as well as his own work. It would be game changing to relieve some of his workload.

POV #3: We met Moe, a person who loves to have friends over at his home. We were amazed to realize that he would be willing to spend money, time and effort to serve his guests in a novel way. It would be game-changing to help Moe easily provide his guests with experiences that would be personalized, customizable, and unforgettable.

Additional POV and HMWs : From additional interviews.

After narrowing down the domain, we interviewed a total of 4 additional people, from which we selected 3 interviews to come up with HMW Statements.



POV #4 : We met Shantell, a young working adult who lives in a shared home with four other housemates. We were amazed to realize that although Shantell hates the traffic on the way to get groceries, she picks that over coordinating with other housemates to get it for her on one of their shopping trips. It would be game changing to help her feel more comfortable trusting her friends to buy her groceries.

Sample HMW Statements for POV #4

- HMW personalize grocery run requests?
- HMW let her share her standards in choosing products with roommates?
- **HMW foster a community that helps users work together to accomplish tasks?**



POV #5 : We met Semin, a recent university graduate working in the tech industry, who lives with a roommate. We were surprised to find out that he felt a bit uncomfortable to coordinate household chores with his roommate, which led to inefficiencies. It would be game changing to be able to allocate resources (time) efficiently among members of the same living space to make chores more efficient.

Sample HMW Statements for POV #5

- HMW facilitate conversations on things that has to be done within a home?
- **HMW help people address issues in the house to their roommates?**
- HMW eliminate misunderstanding and tensions that arise from overdue tasks?



POV #6 : We met Scott, an established adult with 2 kids and a 15 years and counting marriage. We were surprised to find that he has gotten into a routine of how his house is run, but will fly in his mother from time to time to have an extra helping hand during his busy times of the year. It would be game changing to be able to alleviate his workload to not have to fly in his mother for more support in managing the tasks in his household.

Sample HMW Statements for POV #6

- HMW encourage neighbors to help out each others?
- **HMW incentivize all members of the family to do their part in the house?**
- HMW help Scott's wife be part of the chore despite her busy schedule?

Generating Solutions: Initial effort to solve the problem

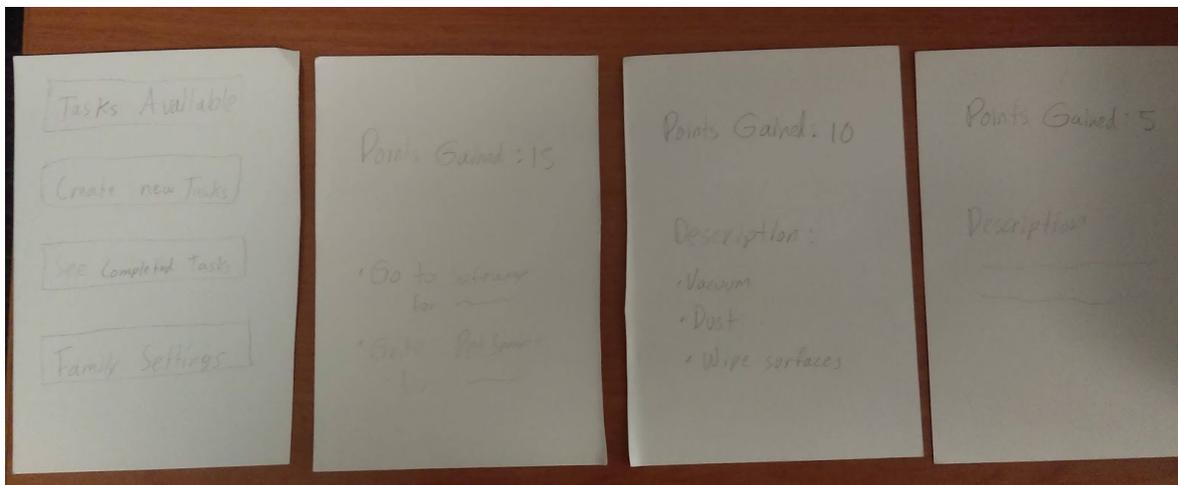
From the list above, we selected 3 HMW Statements, and started generating solutions. Here are some sample solutions that we came up with.

- **HMW help people address issues in the house to their roommates?**
 - A virtual roommate that serves to mediate conversations..
 - A service that would help people formulate sentences to say to one's roommate to start up a conversation around an issue.
- **HMW Incentivize all members of the family to do their part in the house?**
 - **(1) An app that assigns reward points to each chore that are given out to members who completes the task.**
 - An app that notifies parents after every chore is completed by children.
 - A system that unlocks immediate rewards around the house after a certain chore is completed..
 - **(2) An app that assigns equal amount of tasks automatically to members of the house according to their interest/preference and difficulty of the task.**
 - Create a device that can use music to encourage doing chores
- **HMW foster a community that helps users work together to accomplish tasks?**

- **(3) An app that helps people pool their grocery lists to make shopping runs more efficient**
- An app that helps users to break tasks down into chunks that multiple people can accomplish
- An app that helps neighbors pool/borrow resources from each other.
- Use AR/VR to rearrange the common areas to best accommodate the household.

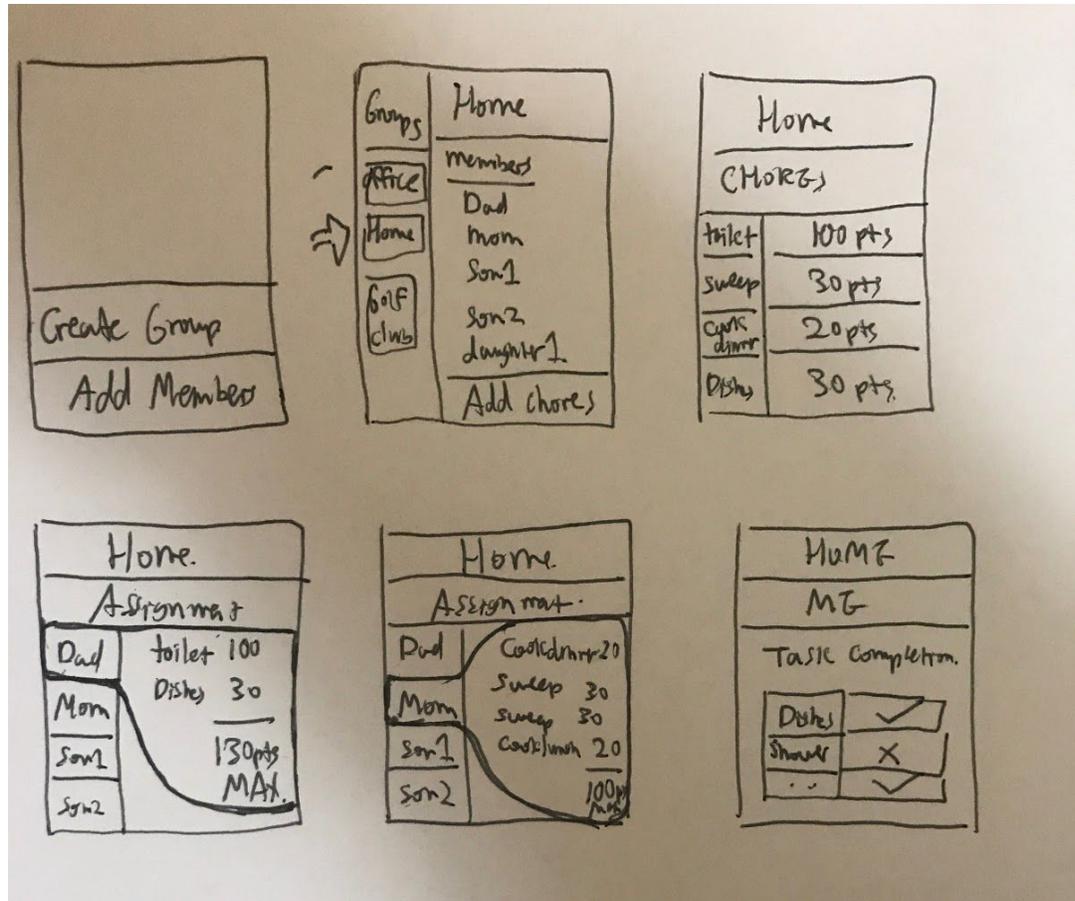
Creating Prototypes : Transforming solutions into concept

Among the solutions generated for the selected HMW statements, we selected the solutions that were written in bold font in the above list.



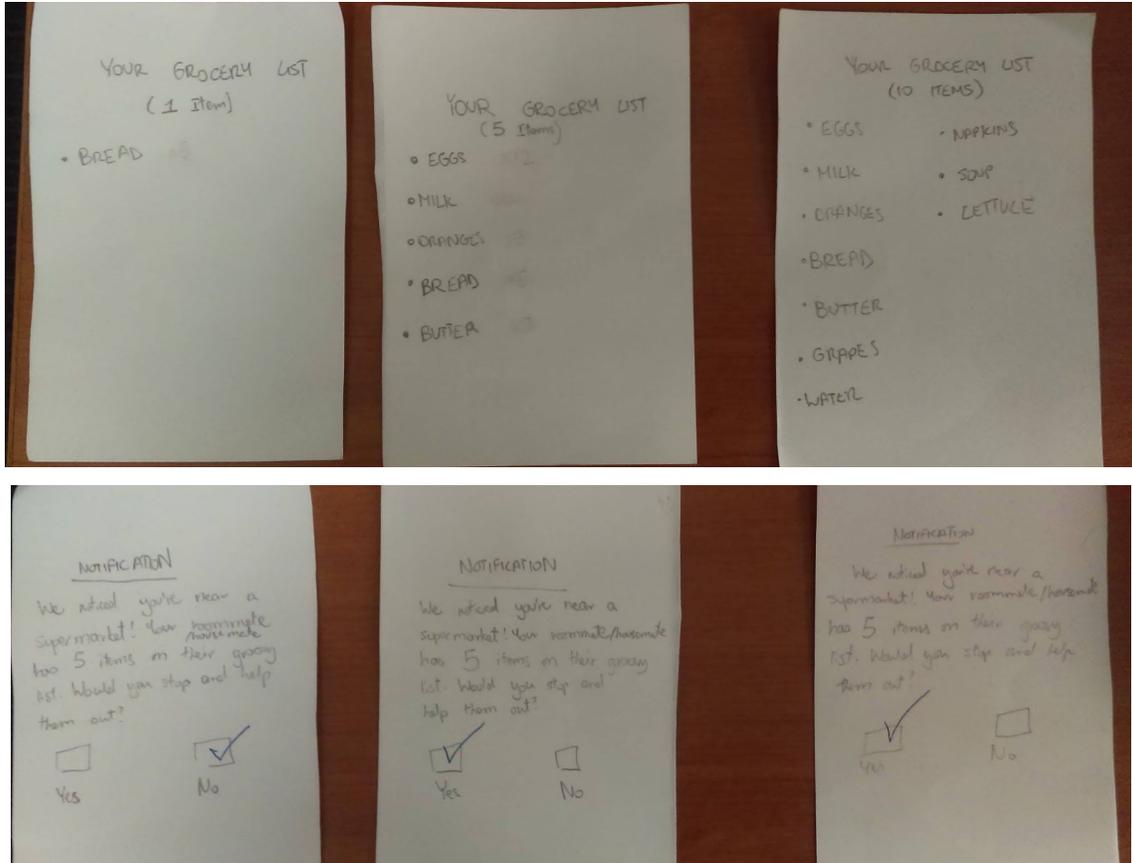
Prototype 1

- **Goal:** Want to learn if people will actively take on chores if points received through taking on chores are shared with members.
- **Assumption:** We assumed that sharing scores with members of the community, and fostering a sense of competition would incentivize people to complete more chores.
- **Making:** Index-sized paper depicting a list of chores, chore description and points, and a report on individual/group points.



Prototype 2

- **Goal:** Want to learn if family members would fulfill their role in household management if they feel they are assigned adequate amount of tasks.
- **Assumption:**
 - We assumed people take on chores based on the tasks' difficulty and individual interests/ability.
 - We assumed the main reason behind inefficient chore completion is due to unfair delegations, which leads to dissatisfaction/disinterest toward the duties of a community member.
- **Making:**
 - Low-fi paper prototype to mimic phone screens, that included a menu to add members with specific interest, and skill set.
 - Pages depicted automatic assignments of tasks, points of each tasks, and an additional functionality where people could commend others for having high points.



Prototype 3

- **Goal:** Want to learn what kind of information would make people willing to spend time buying groceries for each other
- **Assumption**
 - We assumed that the larger the number of groceries the participant had on their grocery list, the more likely it was that they would be willing to help buy someone else's groceries.
- **Making :** An index sized paper representing information about the participant's own grocery list, and the other member's request list.

Testing the Prototypes

Testing Prototype 1 (Conducted at Stanford Shopping Center)



- Testing : We set up the scenario of a shared household where housemates use this app to share chores needed to be done. When they picked tasks to do, we would show them a bigger description of the task, as well as its point. We gave the user the option to go back and select another task. Users could view other member's scores and household total scores.
- Takeaways
 - He liked how the points could be something they enjoy as a community, and how earning more points leads to them having a cleaner and better run household.
 - We learned that the idea was solid,. Our assumption turned out to be valid, and now we have to see if a community will actually opt in to using a system like this.

- **Prototype 3: (Program Associate at Toyon)**



- Testing:
 - We created a scenario where the participant were driving home from work. We used three index cards, each with a different number of grocery items (1, 5 and 10 respectively) that represented the participant's grocery list. The back of the card had information about the participant's housemate's grocery list (5 items)
 - After seeing information about the housemate's grocery list on the back of each card, the participant indicated whether or not they would be willing to buy groceries for themselves and their housemates.

- Takeaways:
 - The participant responded very quickly
 - Participant agreed to go shopping and help out when # of items on her own grocery list were relatively big (5/10).
 - A new assumption that arose was that participants are more willing to help out shopping requests if reminded at the different times (i.e. when already shopping a mart)

Verdict: Going with Prototype 3

Through experience prototyping, we decided to further develop the third prototype for this quarter. The third prototype validated our assumptions that people are willing to go shopping for oneself and for others when they already have a long list of groceries for themselves. It also opened the floor to many more interesting assumptions, such as the effect of notification timing. As the solution tackled a pretty specific domain with an intuitive way of usage, our testee was able to get used to the prototype quite easily. Instead of the first two prototypes, which we felt they tackled a broader concept, our team was more drawn to the third prototype that would specifically 'increase efficiency in shopping runs'.