



TRANSFORMING LIVING SPACES

POV/HMW & EXPERIENCE PROTOTYPES

JINWOO Y. / JAMES B. / SRINIVAS M. / FABIAN B.



Fabian B.



James B.



Srinivas M.



Jin Woo Y.

BRIEF RECAP

Recap



Additional Interviews



Solutions



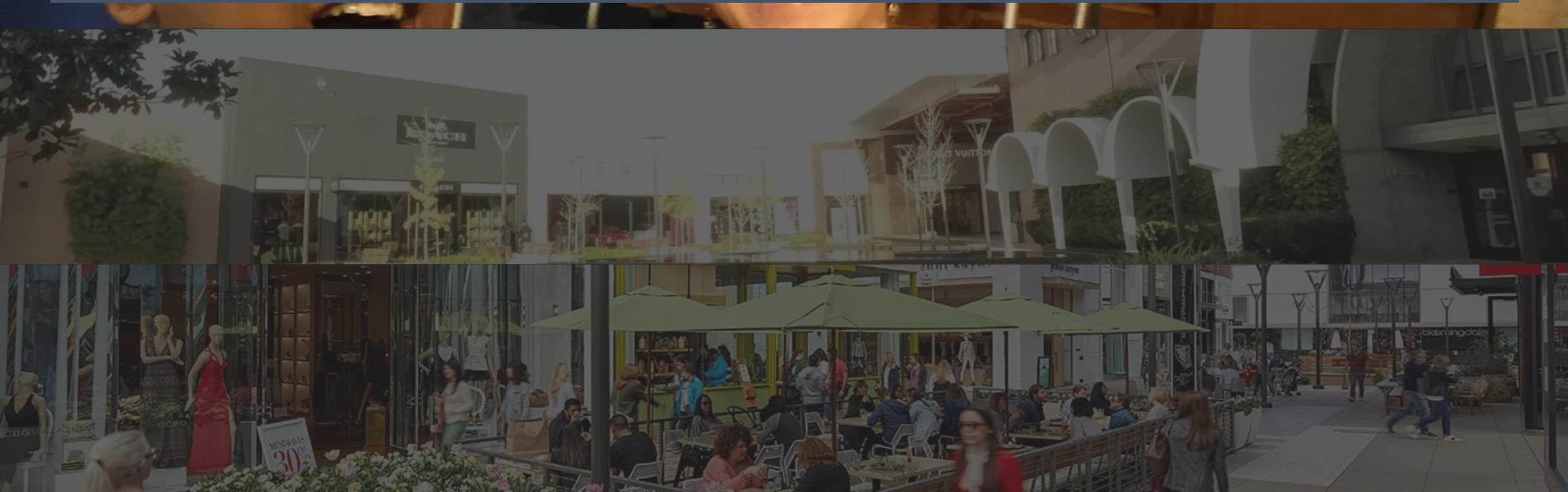
Prototyping



PRELIMINARY POV : FROM THE FIRST 3 INTERVIEWS

INTERVIEWEE 1 | MARY

- An optimistic and devoted mother/wife
- Surprising amount of work she does around home
- Help her to coordinate all these tasks.



PRELIMINARY POV : FROM THE FIRST 3 INTERVIEWS



INTERVIEWEE 2 | GILBERT

- An over-burdened father without help
- He takes care of himself and the children in the morning
- Relieve / reallocate some of his workload



PRELIMINARY POV : FROM THE FIRST 3 INTERVIEWS



INTERVIEWEE 3 | MOE

- Person who loves to have friends over at his home
- Willing to spend resources to serve his guests in a novel way
- Help provide personalized/unforgettable guest experiences

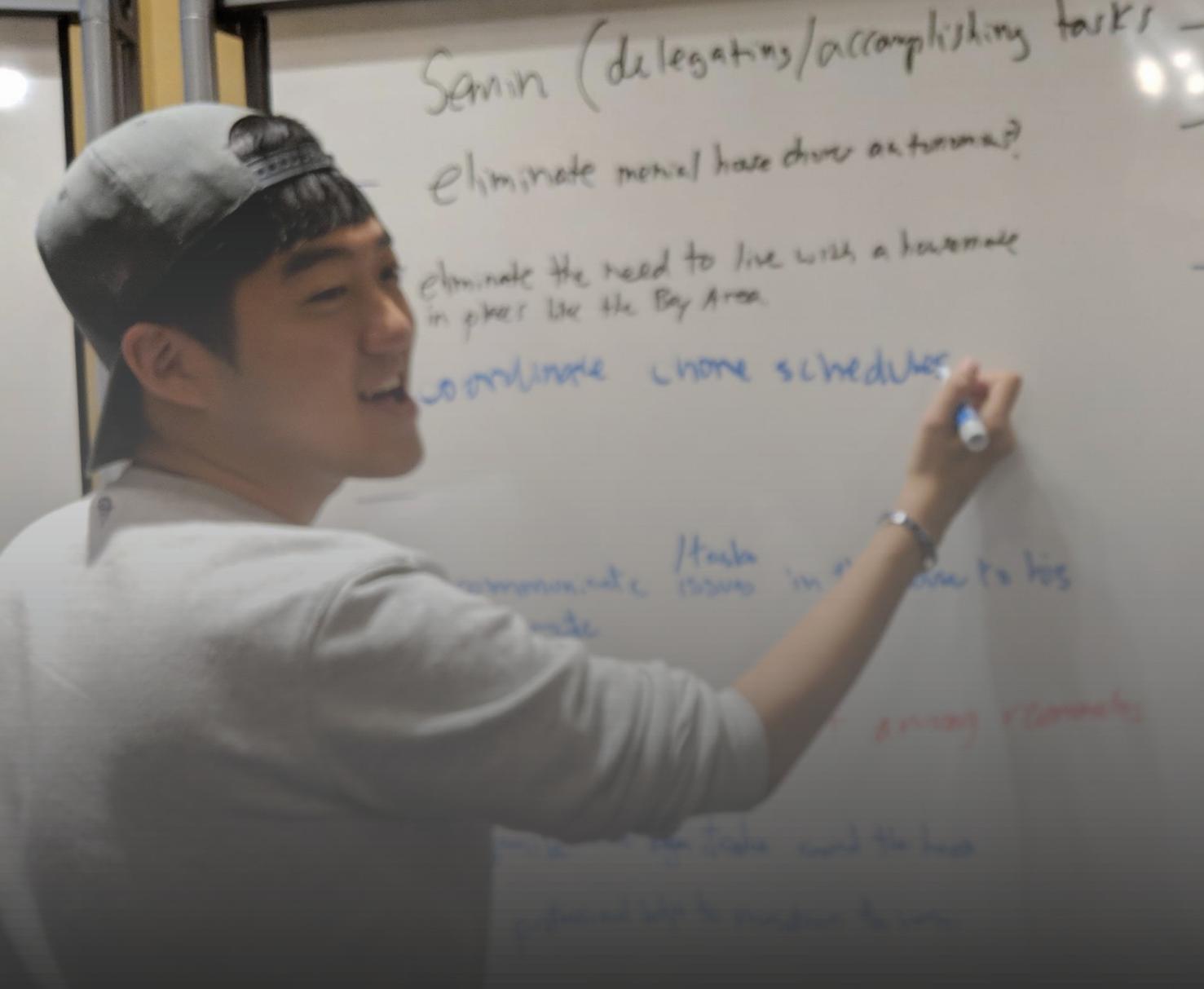
PROBLEM DOMAIN, NARROWED DOWN

“Facilitating the ‘to-do’s around the house”

(a.k.a household chores)

ADDITIONAL INTERVIEWS





Semin (delegating/accomplishing tasks)

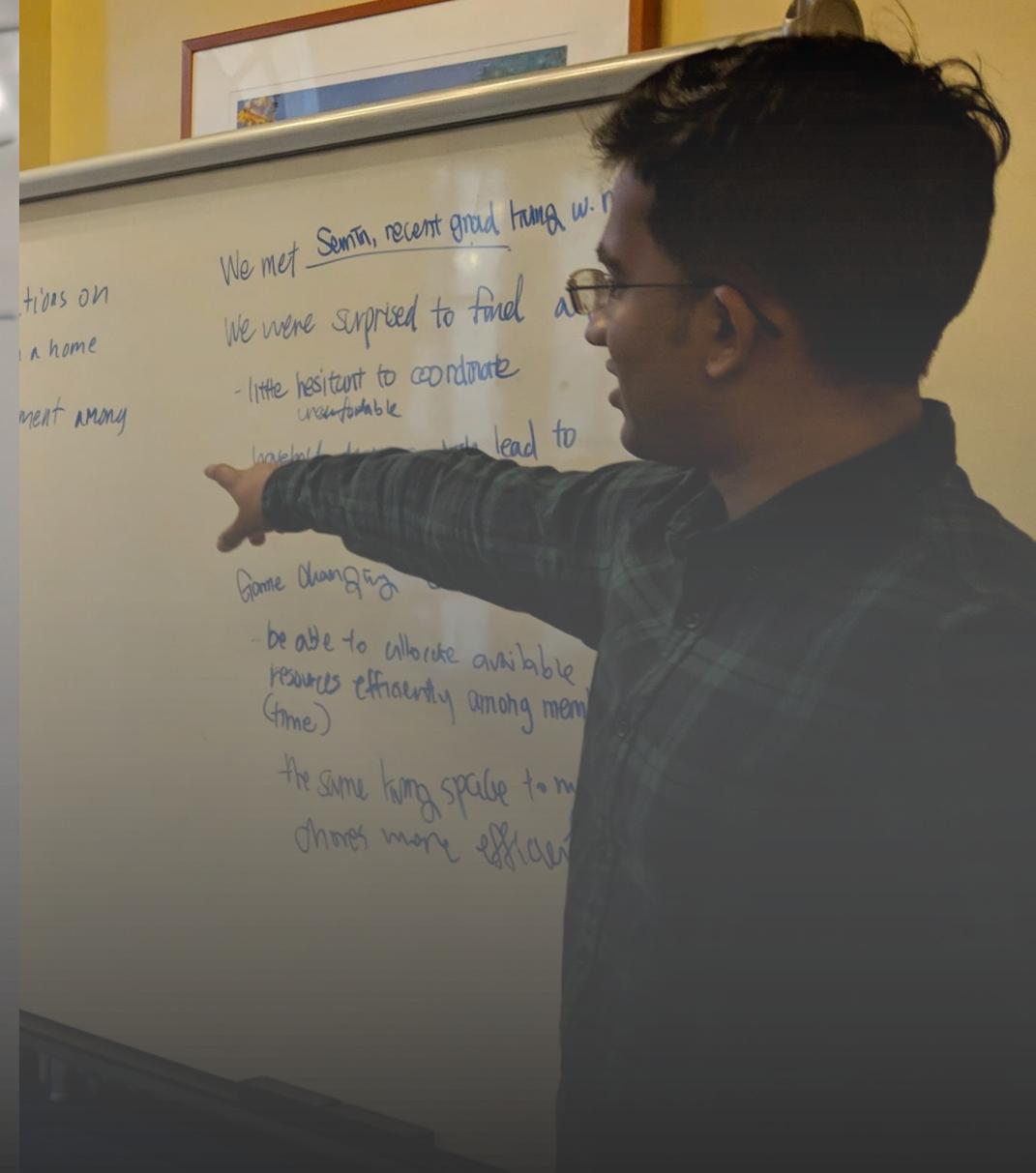
eliminate mental house chores automation?

eliminate the need to live with a housemate in places like the Bay Area

coordinate chore schedules

communicate / tasks in relation to his

among roommates



We met Semin, recent grad living w. n

We were surprised to find at

- little hesitant to coordinate
uncomfortable

workload / time that lead to

Game changing

- be able to allocate available
resources efficiently among mem
(time)

- the same living space to m
chores more efficient

~ Sharing Interview Results + Coming up with POV/HMW Statements ~

ADDITIONAL INTERVIEW #4 : CHANTELLE



ADDITIONAL INTERVIEW #4 : CHANTELLE

WE MET.....

Chantelle, a young working adult who lives in a shared home with several other people.

WE WERE AMAZED TO REALIZE.....

Although Chantelle 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.

ADDITIONAL INTERVIEW #4 : CHANTELLE

HMW STATEMENTS

HMW personalize grocery run requests?

HMW eliminate the need to go to the store at the first place?

HMW incentivize others to help accomplish tasks?

HMW break the awkward barrier of asking others to shop for you?

HMW help her convey exactly what she needs to friends?

HMW let her share her standards in choosing products with roommates?

HMW help her to have trust in her housemates?

HMW delegate choice not dependent on personal taste to other people?

HMW help her make her trip to the grocery store less agonizing?

HMW foster a community that helps users work together to accomplish tasks?

ADDITIONAL INTERVIEW #4 : CHANTELLE

HMW STATEMENTS

HMW personalize grocery run requests?

HMW eliminate the need to go to the store at the first place?

HMW incentivize others to help accomplish tasks?

HMW break the awkward barrier of asking others to shop for you?

HMW help her convey exactly what she needs to friends?

HMW let her share her standards in choosing products with roommates?

HMW help her to have trust in her housemates?

HMW delegate choice not dependent on personal taste to other people?

HMW help her make her trip to the grocery store less agonizing?

HMW foster a community that helps users work together to accomplish tasks?

ADDITIONAL INTERVIEW #5 : SEMIN

WE MET.....

Semin, a recent university graduate working in the tech industry, who lives with a roommate.

WE WERE AMAZED TO REALIZE.....

Semin 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.

ADDITIONAL INTERVIEW #5 : SEMIN

HMW STATEMENTS

HMW facilitate conversations on things that has to be done within a home?

HMW encourage engagement among roommates?

HMW aggregate and delegate the tasks around the house?

HMW communicate household chore preferences among roommates?

HMW level the standard of household chores?

HMW eliminate misunderstanding and tensions that arise from overdue tasks?

HMW help people get professional help to maintain the house?

HMW eliminate the need to live with a housemate?

HMW help people coordinate chore schedules?

HMW help people address issues in the house to their roommates?

ADDITIONAL INTERVIEW #5 : SEMIN

HMW STATEMENTS

HMW facilitate conversations on things that has to be done within a home?

HMW encourage engagement among roommates?

HMW aggregate and delegate the tasks around the house?

HMW communicate household chore preferences among roommates?

HMW level the standard of household chores?

HMW eliminate misunderstanding and tensions that arise from overdue tasks?

HMW help people get professional help to maintain the house?

HMW eliminate the need to live with a housemate?

HMW help people coordinate chore schedules?

HMW help people address issues in the house to their roommates?

ADDITIONAL INTERVIEW #6 : SCOTT



ADDITIONAL INTERVIEW #6 : SCOTT

WE MET.....

Scott, an adult with 2 kids and a 15 years and counting marriage.

WE WERE AMAZED TO REALIZE.....

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.

ADDITIONAL INTERVIEW #6 : SCOTT

HMW STATEMENTS

HMW encourage neighbors to help out each other in terms of household chores?

HMW make shopping a fun experience?

HMW keep track of needs to buy for events?

HMW encourage Scott's friends to participate in planning events with him?

HMW help his mother manage household tasks remotely?

HMW reduce the trips to the grocery store?

HMW incorporate children's participation to get household chores done?

HMW help parents keep track of children's tasks or schedules?

HMW allow access to affordable professional help with chores?

HMW incentivize all members of the family to do their part in the house?

ADDITIONAL INTERVIEW #6 : SCOTT

HMW STATEMENTS

HMW encourage neighbors to help out each other in terms of household chores?

HMW make shopping a fun experience?

HMW keep track of needs to buy for events?

HMW encourage Scott's friends to participate in planning events with him?

HMW help his mother manage household tasks remotely?

HMW reduce the trips to the grocery store?

HMW incorporate children's participation to get household chores done?

HMW help parents keep track of children's tasks or schedules?

HMW allow access to affordable professional help with chores?

HMW incentivize all members of the family to do their part in the house?

- tasks
- Awkward
 - eliminate misunderstandings and tensions that arise from overdue tasks
 - level the standard of household chores (communicate preferences)

15

minutes

“OMG I know what we should work on!” – The look on James’ Face

3 HMW STATEMENTS CHOSEN

HMW help people address issues in the house to their roommates?

-SEMIN

HMW incentivize all members of the family to do their part in the house?

-SCOTT

HMW foster a community that helps users work together to accomplish tasks?

-CHANTELLE

DEFINING THE SOLUTIONS



QUESTION #1

HOW CAN WE HELP PEOPLE ADDRESS ISSUES IN THE HOUSE TO THEIR ROOMMATES?

An app that can display how a roommate feels at any one time and why

An app that allows community members to post problems anonymously that they would like to see resolved

An app that helps members of the same house to mediate conversations between each other

An app that helps roommates to resolve conflicts through games or activities

An app that allows housemates to build trust with their roommates by learning about each other through questions

A virtual roommate that serves to mediate conversations.

A device that can sense the feelings of the inhabitants of a home.

An app that keeps track of interactions between roommates over time and evaluates closeness.

An app that builds up your confidence by complimenting you daily.

A service that would help people formulate sentences to start up a conversation around an issue.

QUESTION #1

HOW CAN WE HELP PEOPLE ADDRESS ISSUES IN THE HOUSE TO THEIR ROOMMATES?

An app that can display how a roommate feels at any one time and why

An app that allows community members to post problems anonymously that they would like to see resolved

An app that helps members of the same house to mediate conversations between each other

An app that helps roommates to resolve conflicts through games or activities

An app that allows housemates to build trust with their roommates by learning about each other through questions

A virtual roommate that serves to mediate conversations.

A device that can sense the feelings of the inhabitants of a home.

An app that keeps track of interactions between roommates over time and evaluates closeness.

An app that builds up your confidence by complimenting you daily.

A service that would help people formulate sentences to start up a conversation around an issue.

QUESTION #2

HMW INCENTIVIZE ALL MEMBERS OF THE FAMILY TO DO THEIR PART IN THE HOUSE?

An app that assigns reward points to each chore that are given out to members who completes the task.

An app that matches them to a pending task that best fits their schedule to increase convenience/

An app that allows people to trade chores they don't like for chores they do like

An app that sets reminders for people proportional to the amount of work they have already contributed to the house

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.

A way for parents to pair chores and rewards to customize for their house's needs.

An app that assigns equal amount of tasks automatically to members of the house according to their interest/preference and difficulty of the task.

An app that can reward you for providing data on chore completion

Create a device that can use music to encourage doing chores

QUESTION #2

HOW TO INCENTIVIZE ALL MEMBERS OF THE FAMILY TO DO THEIR PART IN THE HOUSE?

An app that assigns reward points to each chore that are given out to members who completes the task.

An app that matches them to a pending task that best fits their schedule to increase convenience/

An app that allows people to trade chores they don't like for chores they do like

An app that sets reminders for people proportional to the amount of work they have already contributed to the house

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.

A way for parents to pair chores and rewards to customize for their house's needs.

An app that assigns equal amount of tasks automatically to members of the house according to their interest/preference and difficulty of the task.

An app that can reward you for providing data on chore completion

Create a device that can use music to encourage doing chores

QUESTION #3

HOW TO FOSTER A COMMUNITY THAT HELPS USERS WORK TOGETHER TO ACCOMPLISH TASKS?

An app that allows members to learn about the pending tasks most suitable for them based on location and schedule

A service that helps people pool their grocery lists to make one shopping run instead of multiple

An app that helps users to break their tasks down into chunks that multiple people can accomplish

An app that coordinates different household tasks by directing the actions of the members involved

An app that helps people build a good reputation according to how many grocery runs they go for other households.

An app that shares what resources are prevalent in which house so neighbors can easily borrow.

An app that lets you hire your neighbors to help you with tasks

An app that lets you post what you need help with in your neighborhood

Use AR/VR to rearrange the common areas to best accommodate the household.

Create an app that keeps track of the memories made in the shared physical space.

QUESTION #3

HOW FOSTER A COMMUNITY THAT HELPS USERS WORK TOGETHER TO ACCOMPLISH TASKS?

An app that allows members to learn about the pending tasks most suitable for them based on location and schedule

A service that helps people pool their grocery lists to help make shopping runs more efficient.

An app that helps users to break their tasks down into chunks that multiple people can accomplish

An app that coordinates different household tasks by directing the actions of the members involved

An app that helps people build a good reputation according to how many grocery runs they go for other households.

An app that shares what resources are prevalent in which house so neighbors can easily borrow.

An app that lets you hire your neighbors to help you with tasks

An app that lets you post what you need help with in your neighborhood

Use AR/VR to rearrange the common areas to best accommodate the household.

Create an app that keeps track of the memories made in the shared physical space.

3 SOLUTIONS TO WORK ON

- 1 An app that assigns reward points to each chore that are given out to members who completes the task.
- 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.
- 3 A service that helps people pool their grocery lists to help make shopping runs more efficient.

3 SOLUTIONS TO WORK ON

1 CHORES – REWARD APP

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.

3 A service that helps people pool their grocery lists to help make shopping runs more efficient.

3 SOLUTIONS TO WORK ON

1 CHORES – REWARD APP

2 SMART CHORE ASSIGNMENTS

3 A service that helps people pool their grocery lists to help make shopping runs more efficient.

3 SOLUTIONS TO WORK ON

- 1 CHORES – REWARD APP
- 2 SMART CHORE ASSIGNMENTS
- 3 PIGGYBACK SHOPPING

EXPERIENCE PROTOTYPING

Recap



Additional Interviews



Solutions



Prototyping



1

CHORES - REWARD APP

1

CHORES – REWARD APP

* GOALS

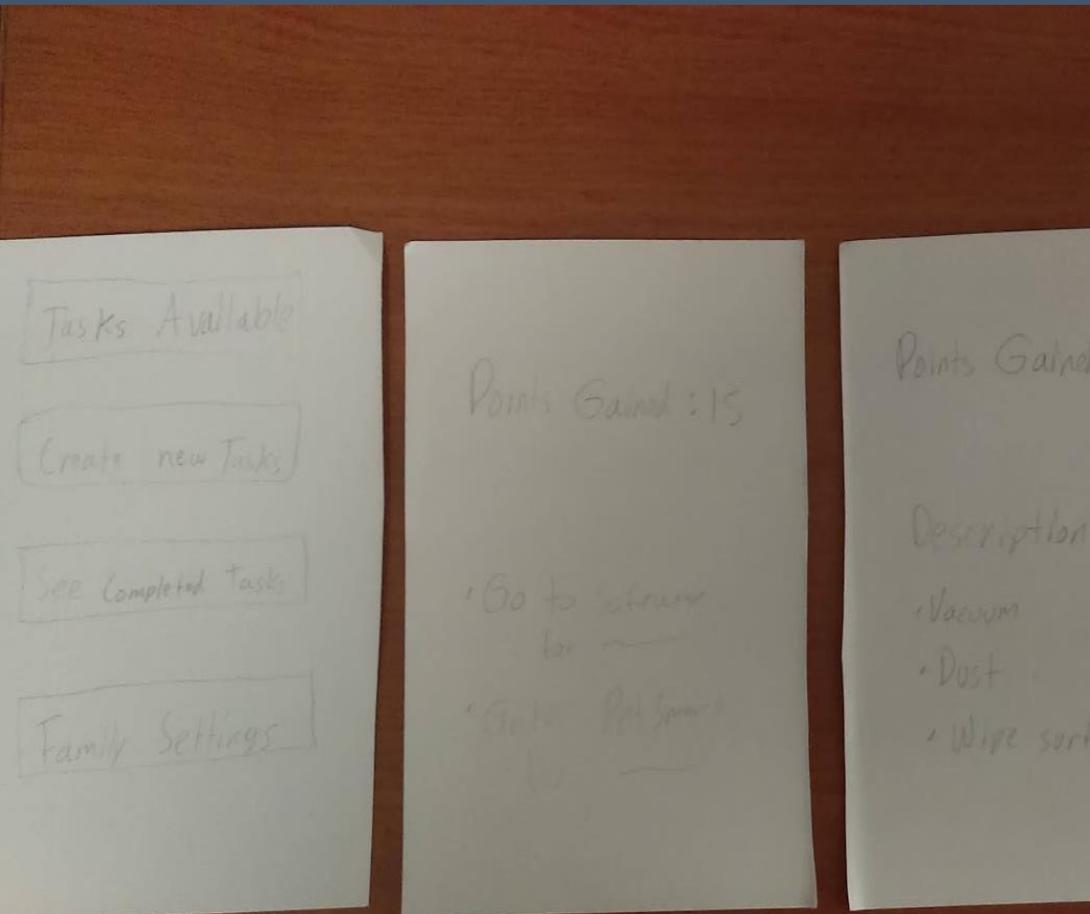
Want to learn if people will actively take on chores if points received through taking on chores are shared with members.

* ASSUMPTION

Sharing scores with members of the community, thereby fostering a sense of competition would incentivize people to complete more chores.

1

CHORES - REWARD APP



1

CHORES – REWARD APP

TESTING PROCESS

Scenario Setup ► Give task description and scores ► Show score reports ► Repeat Process

LIKED

Earning points could be something they enjoy as a community
More points = Cleaner Household

ASSUMPTION

Turned out to be valid Next : See if a community will actually opt in to using a system like this

2

SMART CHORE ASSIGNMENTS

2

SMART CHORE ASSIGNMENTS

* GOALS

Want to learn if family members would fulfill their role in household management if they feel they are assigned adequate amount of tasks.

* ASSUMPTION

People take on chores based on the tasks' difficulty and individual interests/ability.

Main reason behind inefficient chore completion is due to unfair delegations, which leads to dissatisfaction/disinterest toward the duties of a community member.

2

SMART CHORE ASSIGNMENTS

Ac Group
Add Members

Groups	Home
Office	members
Home	Dad Mom Son1 Son2 daughter1
Golf club	Add chores

Home	
CHORES	
toilet	100 pts
sweep	30 pts
Cook dinner	20 pts
Dishes	30 pts

Groups	Home
Office	members
Home	Dad Mom Son1 Son2 daughter1
Golf club	Add chores

Home	
CHORES	
toilet	100 pts
sweep	30 pts
Cook dinner	20 pts
Dishes	30 pts

Home.	
Assignment	
toilet	100
Dishes	30
130pts MAX.	

Home.	
Assignment	
Dad	Cook dinner 20
Mom	Sweep 30
Son1	Sweep 30
Son2	Cook lunch 20
100pts MAX.	

MUM	
MG	
TASK Completion.	
Dishes	<input checked="" type="checkbox"/>
Shower	<input type="checkbox"/>
..	<input checked="" type="checkbox"/>

MUM	
MG	
TASK Completion.	
Dishes	<input checked="" type="checkbox"/>
Shower	<input type="checkbox"/>
..	<input checked="" type="checkbox"/>

MUM	
MG	
TASK Completion.	
Dishes	<input checked="" type="checkbox"/>
Shower	<input type="checkbox"/>
..	<input checked="" type="checkbox"/>

2

SMART CHORE ASSIGNMENTS

TESTING PROCESS

Scenario Setup ► Register with data ► Chores are automatically assigned ► Share progress

LIKED / DISLIKED

Idea was fairly simple to understand and to use

However, conservative families would not be up for delegating roles through an app.

ASSUMPTION

Turned out to be valid, but solution seemed have innate limits.

3

PIGGYBACK SHOPPING

3

PIGGYBACK SHOPPING

* GOALS

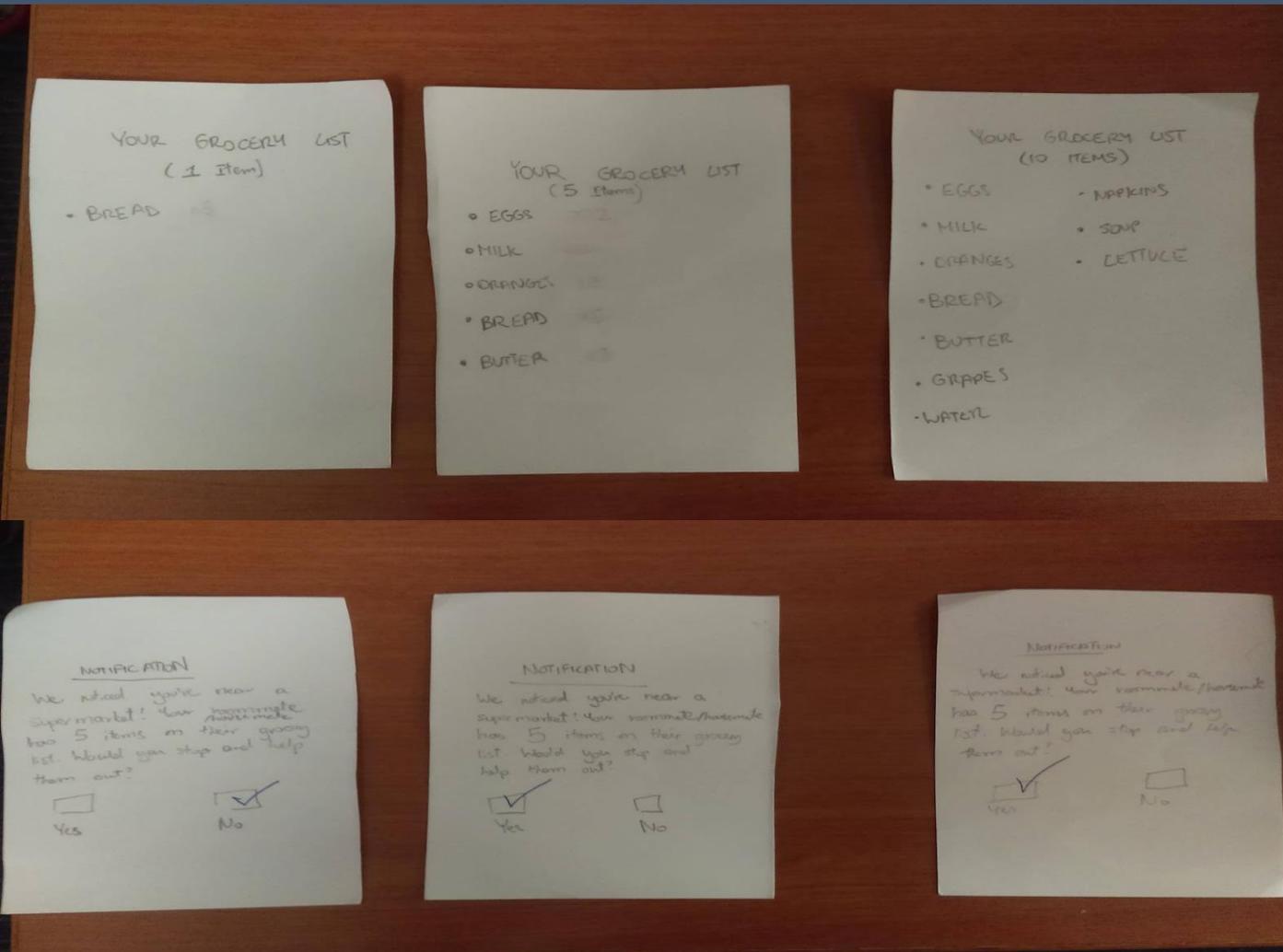
Want to learn what kind of information would make people willing to spend time buying groceries for each other

* ASSUMPTION

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.

3

PIGGYBACK SHOPPING



3

PIGGYBACK SHOPPING

TESTING PROCESS

Scenario Setup ► Give user's own groceries list ► Show shopping request ► Record Choice

LIKED

The participant responded very quickly (Simple concept)

ASSUMPTION

Turned out to be valid

New Assumption : participants are more willing to help out shopping requests if reminded at the different times (i.e. when already shopping a mart)

The Verdict



3

PIGGYBACK SHOPPING

Solves a specific problem

Intuitive concept

Interesting assumptions to explore

Thank You