

SPRING 2020

PROCESS BOOK



HALF • CUP

EUNICE PARK

Eating Habits in Young Adults

Research Thesis

Presented in partial fulfillment of the requirements for graduation
with *research distinction* in Industrial Design in the undergraduate
colleges of The Ohio State University

by

Eunice Park

The Ohio State University

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Project Advisor: Sébastien Proulx, Ph.D., Department of Design





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01

WHAT IS THE PROBLEM?

WHY DO WE CARE?

WHO ARE OUR STAKEHOLDERS?

PROBLEM STATEMENT

PROJECT TIMELINE

**MORE THAN 2/3 OF
THE US POPULATION
IS OVERWEIGHT⁴
AND 1 IN 5 HAVE A
MENTAL ILLNESS⁶**

AND THOSE NUMBERS ARE EXPECTED TO RISE...



WHY SHOULD WE CARE?

CHRONIC DISEASE AND ILLNESS HAS A HUGE
COST THAT EVERYONE HAS TO PAY

"...a range of estimates for nationwide annual productivity losses due to obesity-related absenteeism [are] between \$3.38 billion (\$79 per obese individual) and \$6.38 billion (\$132 per obese individual)." ⁴

"an estimate for the financial cost of mental disorders was at least \$467 billion in the U.S. in 2012." ⁶

PROBLEM STATEMENT

The average U.S. adult struggles to maintain a balanced diet and lifestyle which contributes to large-scale economic and social losses.

So, how might we encourage young adults to eat healthy and help improve their mental health?

WHO ARE OUR STAKEHOLDERS?

PRIMARY | US ADULTS

SECONDARY | GROCERY PROVIDERS

TERTIARY | HEALTHCARE PROVIDERS

TARGET USERS | YOUNG ADULTS 18-35

18-35 is a window of opportunity where lifelong habits can be formed. Healthy habits can be carried into the rest of adulthood and be passed onto the next generation.

PROJECT TIMELINE

3.5 MONTHS

AUG/SEPT | Design Research + Design Conjectures

OCTOBER | Research Synthesis + Formative Assessment

NOVEMBER | Ideation + Development

DECEMBER 3 | Final Presentation

02

MARKET RESEARCH

SECONDARY RESEARCH

FORM HYPOTHESES

RESEARCH METHODS

ONLINE SURVEY

FOCUS GROUP

COMPETITIVE TESTING

DESIGN BRIEF

MARKET RESEARCH

MEALKITS | Home-delivered weekly meal plans

GROCERY MEALKITS | Grocery store mealkits for pickup

MEAL-SHARING | Shared homemade meals



meal sharing





The Shut-In Economy

Eunice Park - September 21, 2019

0



Millennials Are Ordering More Food Delivery, But Are They Killing The...

Eunice Park - September 18, 2019

0



This Korean Food Phenomenon Is Changing the Internet

Eunice Park - September 19, 2019



Why Americans Don't Cook as Much as We Used To

Eunice Park - August 29, 2019

SECONDARY RESEARCH

WE LEARNED THE FOLLOWING FROM A COLLECTION OF SCIENTIFIC JOURNALS, ARTICLES, AND REPORTS...

"Eating behaviour is strongly influenced by social context. We eat differently when we are with other people compared with when we eat alone. Our dietary choices also tend to converge with those of our close social connections." ⁵

"Americans not only cook less than people anywhere else in the world, but we, on average, spend only 27 minutes a day preparing food, compared to 60 minutes in 1965." ³

"The success of Grouper compared to other social dining apps is most likely based on two factors: the dating-esque platform and the fact that you have two friends to endure the awkwardness with you." ²

"A few clicks later, she learned that the neighbor who posted it had joined Josephine, an online marketplace that helps home cooks coordinate small takeout-food businesses... 'They would just pass before,' she says, 'and now they were coming into my home and having conversations... It was like family,' McGhee says." ⁷

FORMING HYPOTHESES

HYPOTHESES

- 1 Time and money are biggest factors preventing young adults from cooking regularly
- 2 Limited cooking ability and knowledge prevents young adults from cooking regularly
- 3 If presented with the opportunity, young adults would prefer to cook with others

RESEARCH METHODS

UNDERSTANDING THE MOTIVATIONS
AND CHALLENGES FOR YOUNG ADULTS
TO COOK AT HOME

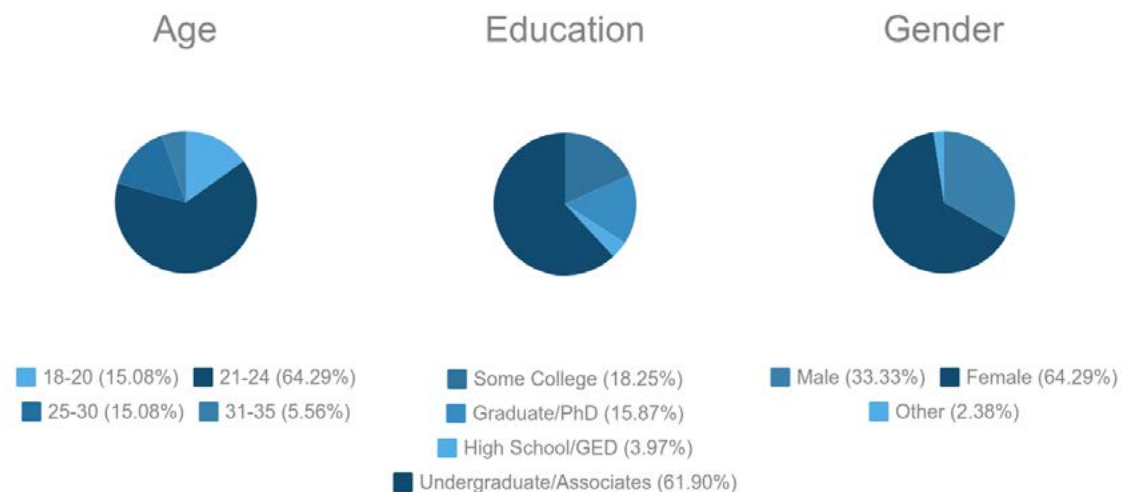
ONLINE SURVEY | big picture data

FOCUS GROUP | intimate story-driven data

COMPETITIVE TESTING | experience learning

ONLINE SURVEY

126 RESPONDENTS | YOUNG ADULTS 18-35



126 responses

Not accepting res

Message for respondents

This form **BIG TAKEAWAYS** responses

- Time and energy are the biggest factors
- They can cook, just not often
- They want to learn more about cooking
- Online videos/recipes are preferred resource
- Dinner is the most frequent homemade meal
- They cook because it's cheaper and healthier
- Most spend \$30-\$50 on groceries per week
- Most grocery shop once every week or every other week
- Nearly all had access to a clean kitchen, cooking equipment, a grocery store with fresh produce, and the Internet

Completion of this survey signifies an individual's voluntary consent to participating study and the use of the provided information for academic purposes.

126 responses

Yes, I agree.

FOCUS GROUP

7 PARTICIPANTS | YOUNG ADULTS 18-35

INTERESTING CO-DESIGN CONCEPTS

- 1 Cheap ingredient delivery
- 2 Deserted island forcing them to cook
- 3 Cooking with friends who can teach them
- 4 Cooking for a disabled elderly person
- 5 Automated system that prepares ingredients
- 6 Robotic arms that let you multitask
- 7 Fast ingredient delivery

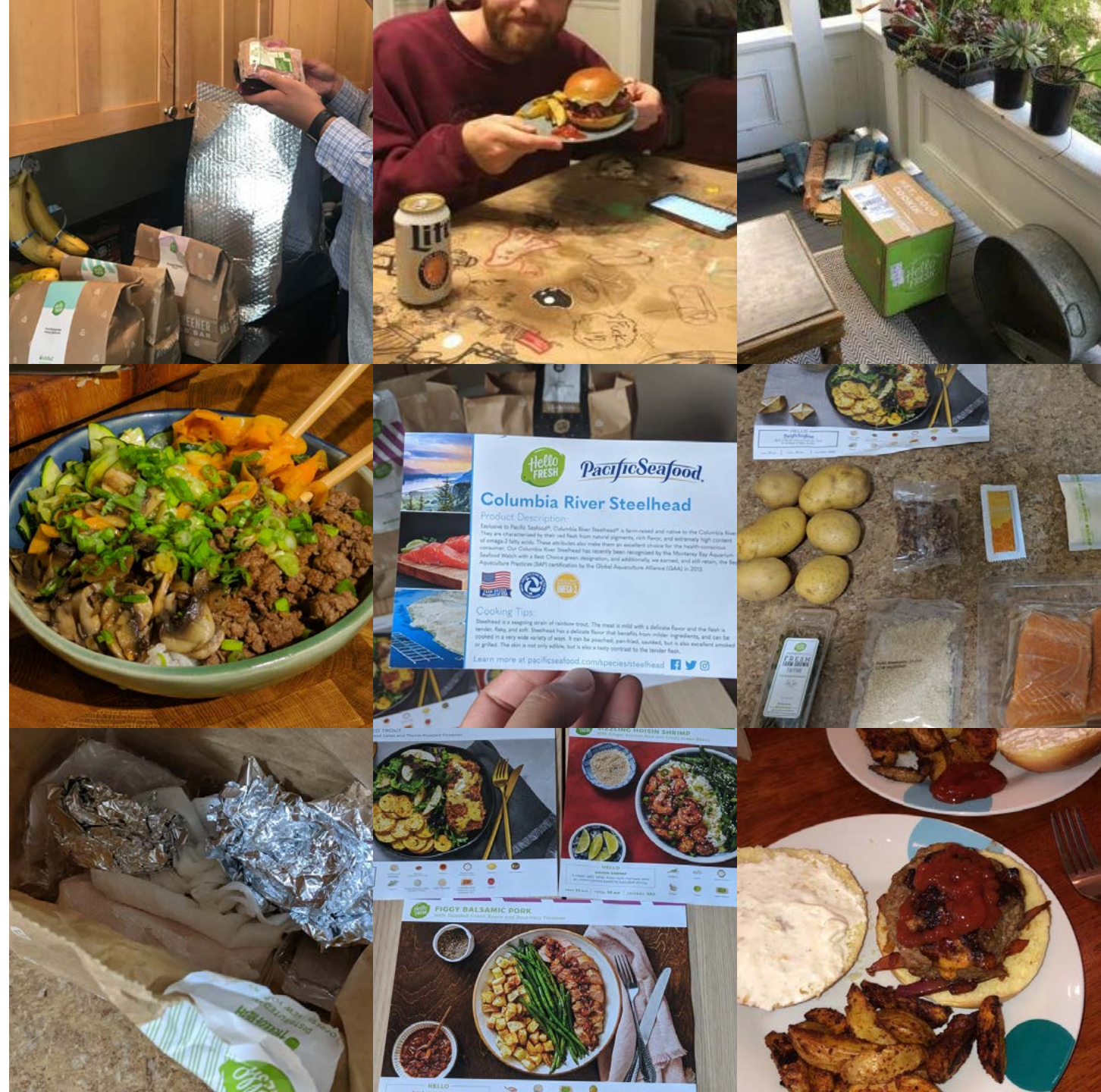


COMPETITIVE TESTING

5 PARTICIPANTS | 1 WEEK OF HELLOFRESH

BIG TAKEAWAYS

- Sustainability concerns with packaging
- Easy to recreate and tasty results
- More fun and fast with another person
- Too expensive for their budgets
- Doesn't cover all meals and most had to go to the grocery store regardless



DESIGN BRIEF

BASED ON THE RESEARCH, THE PRODUCT SHOULD HAVE THE FOLLOWING QUALITIES:

- 1 Create an environment of accountability
- 2 Utilize existing or new relationships
- 3 Save the user time and energy
- 4 Be environmentally sustainable



04

DESIGN CONJECTURES

FOCUSED EXPLORATION

PROPOSED SOLUTION

DESIGN CONJECTURES

4 DESIGN CONJECTURES:

FOCUS | Peer-to-Peer Cooking

SCIENCE & TECH | Grocery Buddies App

BUSINESS | Traveling Restaurant

ARTS | "A Table Meant For Four" Art Installation

CONJECTURE 1: PEER-TO-PEER COOKING



CONJECTURE 2: GROCERY BUDDIES



CONJECTURE 3: THE TRAVELING RESTAURANT

- 1** FULLY CERTIFIED COMMERCIAL RESTAURANT ON WHEELS

- 2** LOCAL HOME COOKS SELECTED WEEKLY

- 3** GO TO THE COOK'S HOME

- 4** PROMOTE THE RESTAURANT IN THE COMMUNITY

- 5** GUESTS EAT FAMILY STYLE

- 6** GUESTS PAY A FLAT RATE TO COVER EXPENSES

- 7** RENTABLE FOR SMALL FOOD BUSINESSES

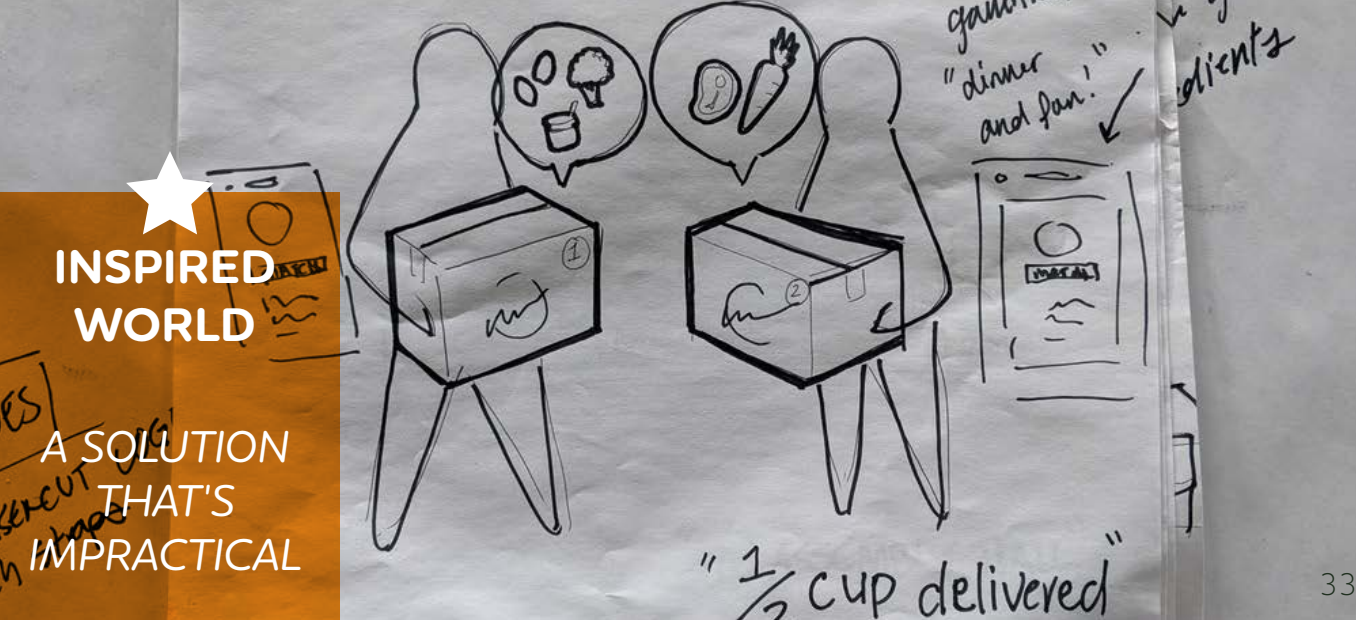
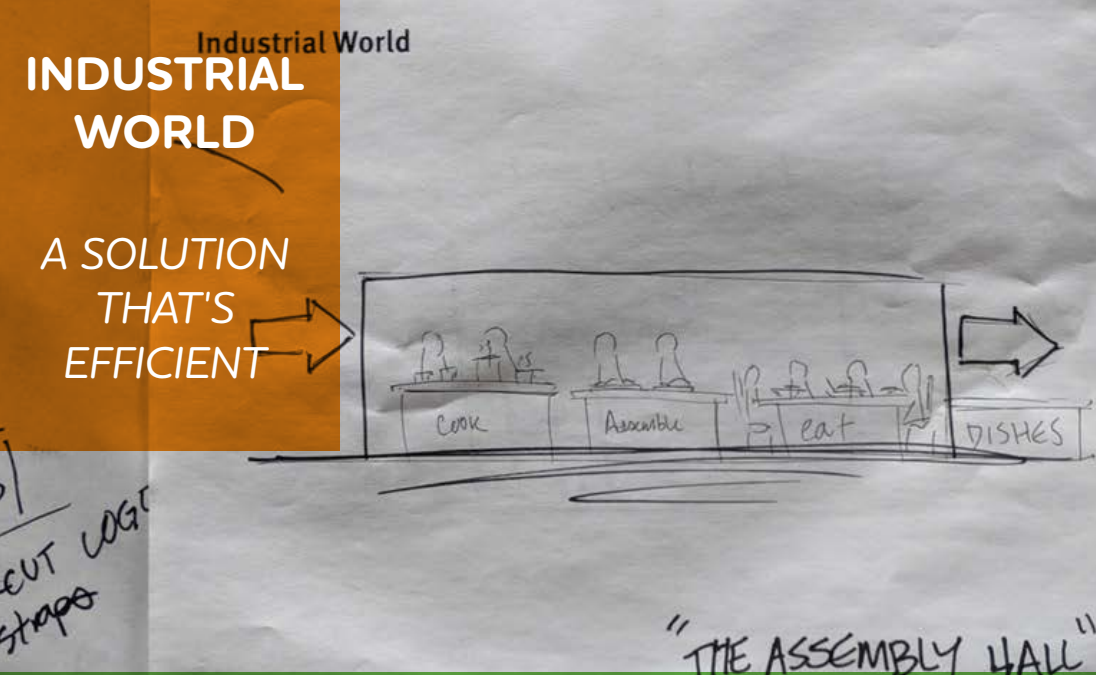
- 8** PARTNER WITH COMPANIES FOR SPONSORSHIPS

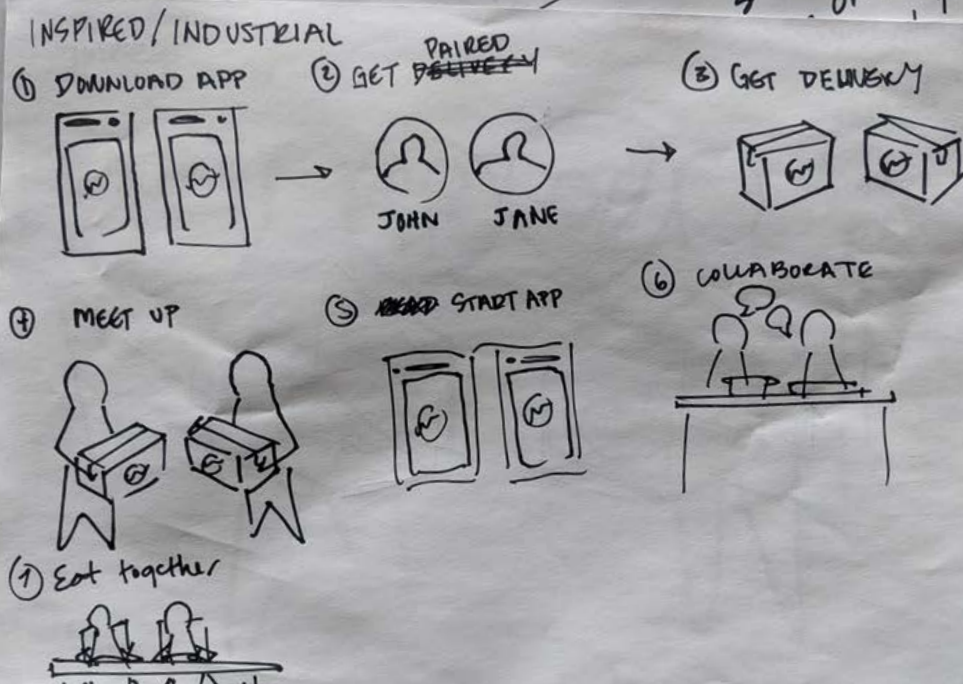

CONJECTURE 4: THE DINNER TABLE



EVALUATIVE DESIGN EXERCISE

4 "WORLDS" OF DESIGN

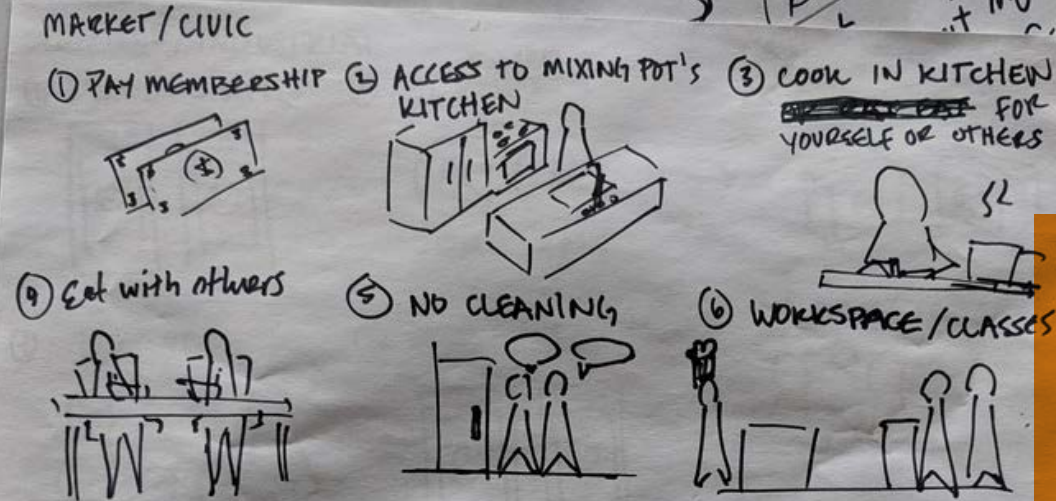




INSPIRED/
INDUSTRIAL

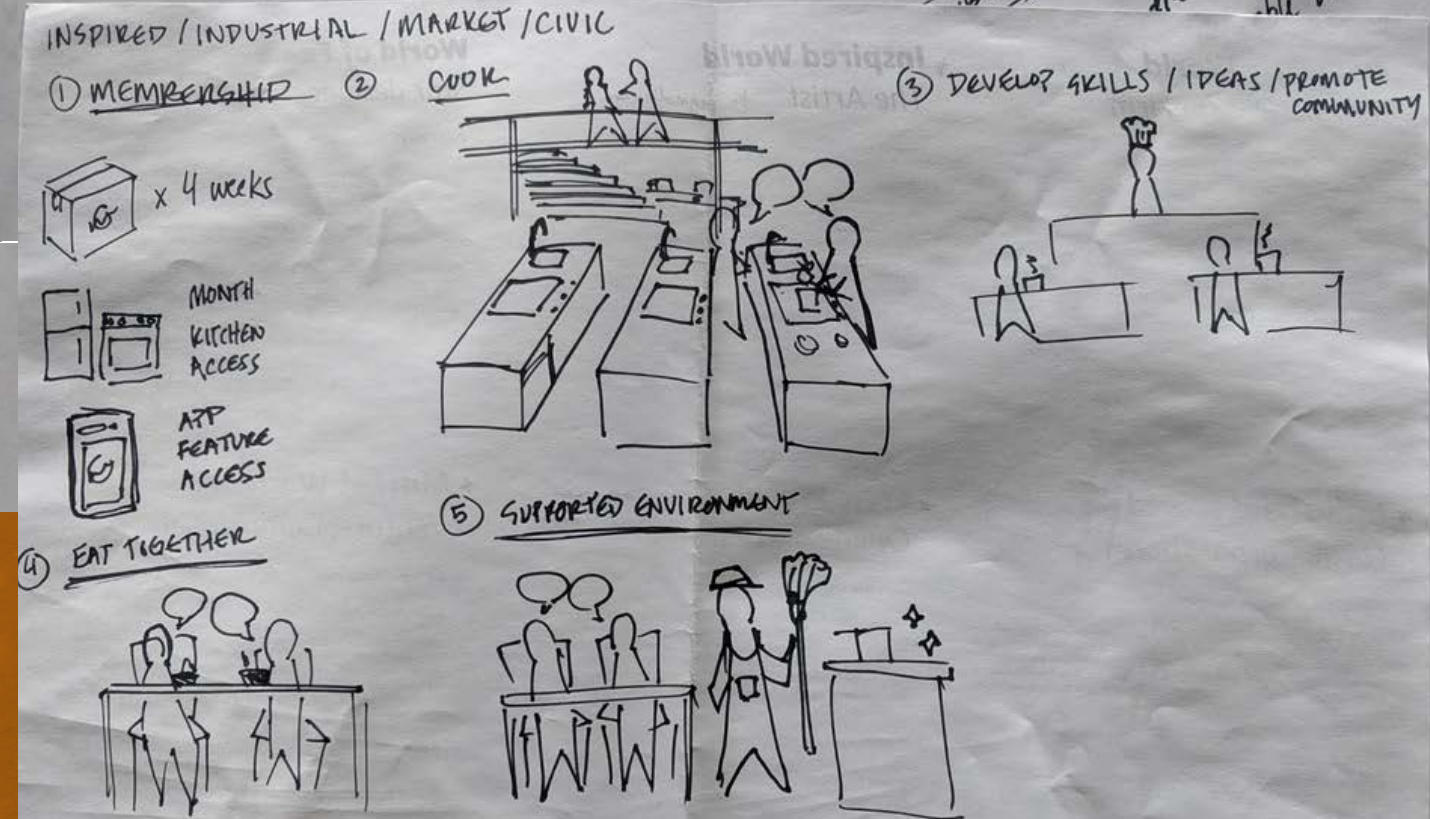


COMBINE 2 WORLDS



MARKET/
CIVIC

COMBINE 4 WORLDS
INSPIRED/INDUSTRIAL/MARKET/CIVIC



Learning Kit (Home/Individual)

- buy
- ~~take~~ X-week course
- option for delivery



- send tools
- can be loaned
- sponsorships
- shared ingredients

HOME/
INDIVIDUAL

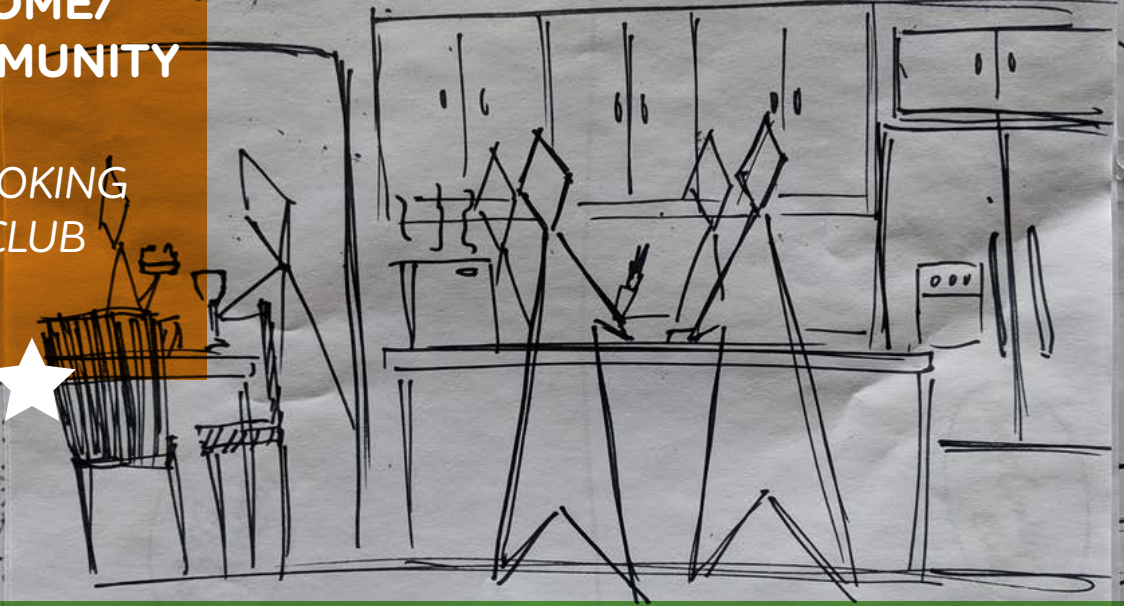
LEARNING
KIT

HOME/
COMMUNITY

COOKING
CLUB



Home-cooking Club (Home/Community)



- ① no heat, cooking - limited
② heat cooking some knife
③
- Personal Cooking-Trainer
• shared learning space w/ option for personal coaching

EXPLORING

ATTRIBUTES

Co-Kitchen

SHARED-
SPACE/
INDIVIDUAL

CO-KITCHEN

SHARED-
SPACE/
COMMUNITY

COOKING
CLASS

Cooking Class (Shared Space/Community)

- utilize dorm kitchens
- skills + budget + nutrition
- + Food safety



05

FINAL SOLUTION

SYSTEM DESIGN

UX/UI DESIGN

LOGO DESIGN

BAG DESIGN

FINAL SOLUTION

1/2 MEALKIT, 1/2 SOCIAL APP

- System and service for collaborative cooking
- Cook in-home or designated meeting place
- Provides ingredients and recipes
- Platform for connecting with others

USER JOURNEY

①

USER WANTS TO COOK

②

USER GETS NOTIFIED FROM FRIEND TO COOK

③

GROCERY STORES RECEIVE ORDER

③

USER REQUESTS ~~STRANGER~~ USES DISCOVER FEATURE

②

ACCEPT REQUEST

③

PACK ORDER

③

~~USER~~ REQUEST THIRD WHEEL

③

LABEL AND NOTIFY FOR PICKUP

①+②

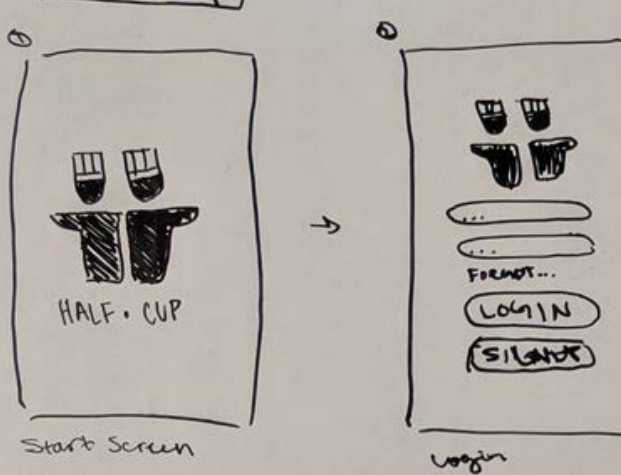
ENTER CHAT

①+②

SYSTEM DESIGN

3-PART SYSTEM

- 1 MOBILE APP | catalyst for interaction
- 2 GROCERY STORE | providers for ingredients
- 3 REUSABLE BAG | transporting the goods



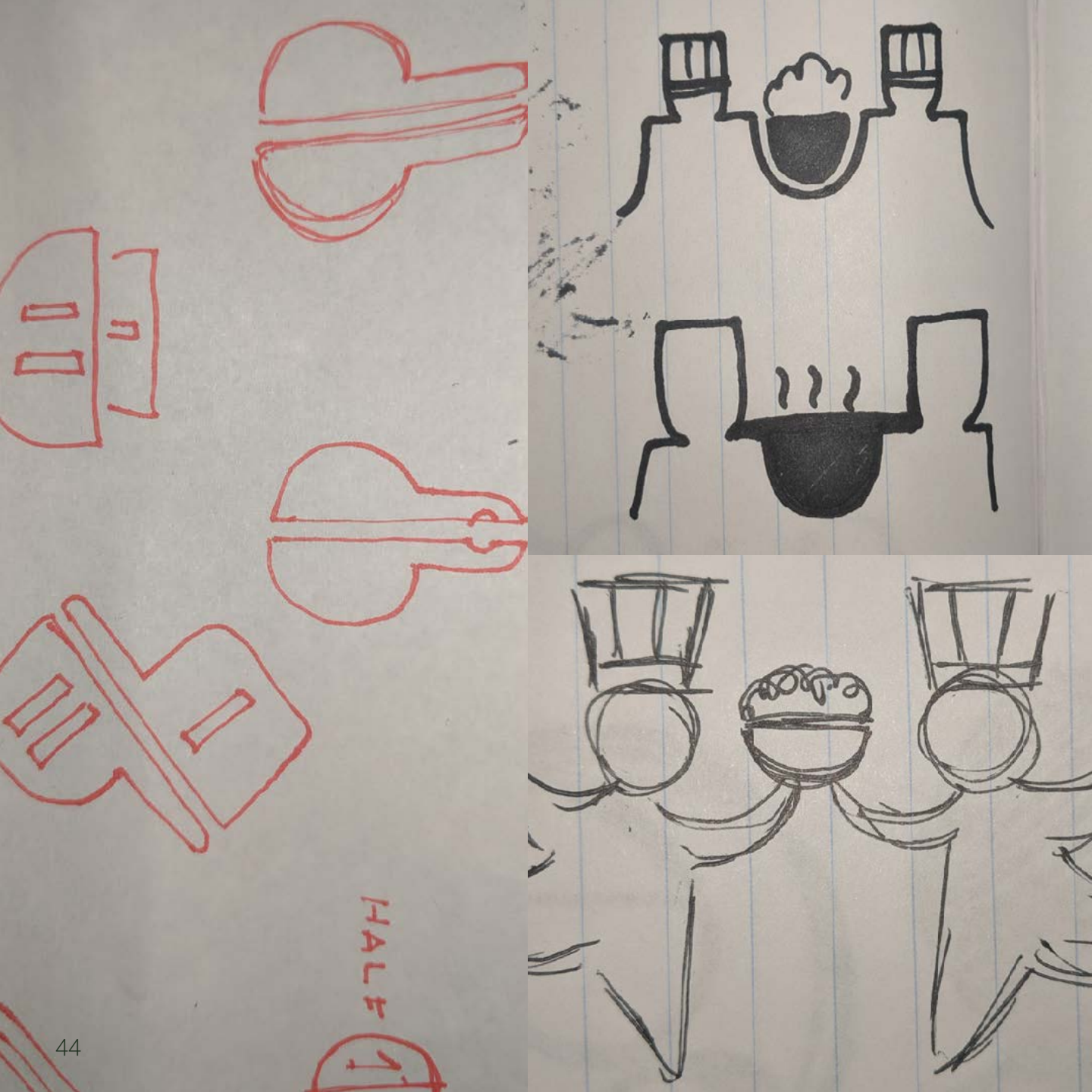
- ① make profile
- ② add friends/discover
- ③ notify friends when you want
- ④ ~~Schedule cooking sessions~~
- ⑤ ~~Schedule grocery pickup~~
- ⑥ Meet to pickup
- ⑦ Pickup bags
- ⑧ Cook meals
- ⑨ eat together
- ⑩ rate partner → upload photo



UX/UI DESIGN

REFINING FEATURES OF THE MOBILE APP

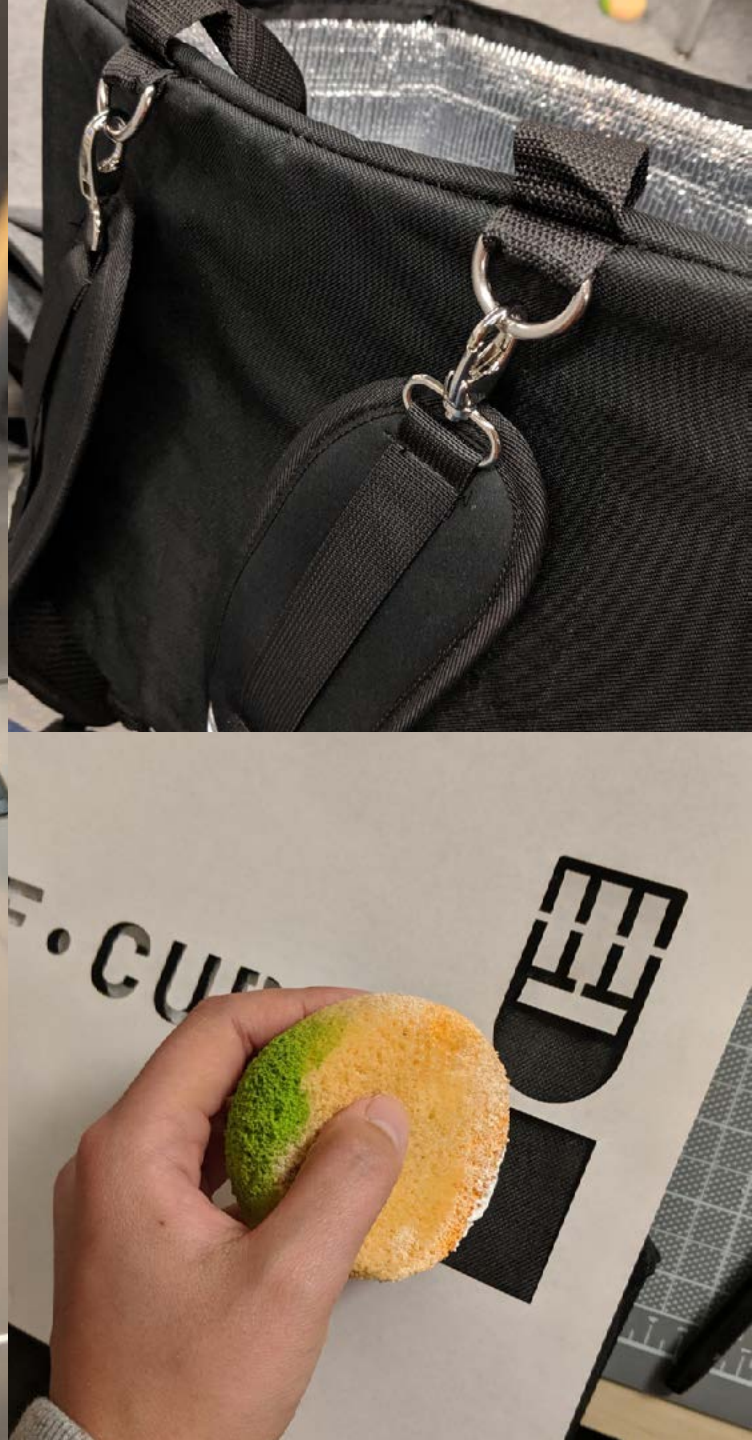
- 1 SOCIAL | profile creation, friends-list
- 2 RECIPES | recommended recipes/ingredients
- 3 PAIRING | pairing interface for cooking
- 4 ORDERING | ordering for pick-up
- 5 MEETING | messaging for meeting details
- 6 COOKING | instructional/guided recipes
- 7 SHARING | experience/photo sharing



LOGO DESIGN

CONSIDERATIONS FOR THE LOGO

- 1 Sense of community
- 2 Two parts equaling a whole
- 3 Cooking aspect



REUSABLE BAG DESIGN

CONSIDERATIONS FOR THE BAG

- 1 Must insulate the ingredients
- 2 Hands-free carrying for cycling/walking
- 3 Bags form logo when together
- 4 Washable and durable
- 5 Space for one full recipe

06

FINAL PRODUCT

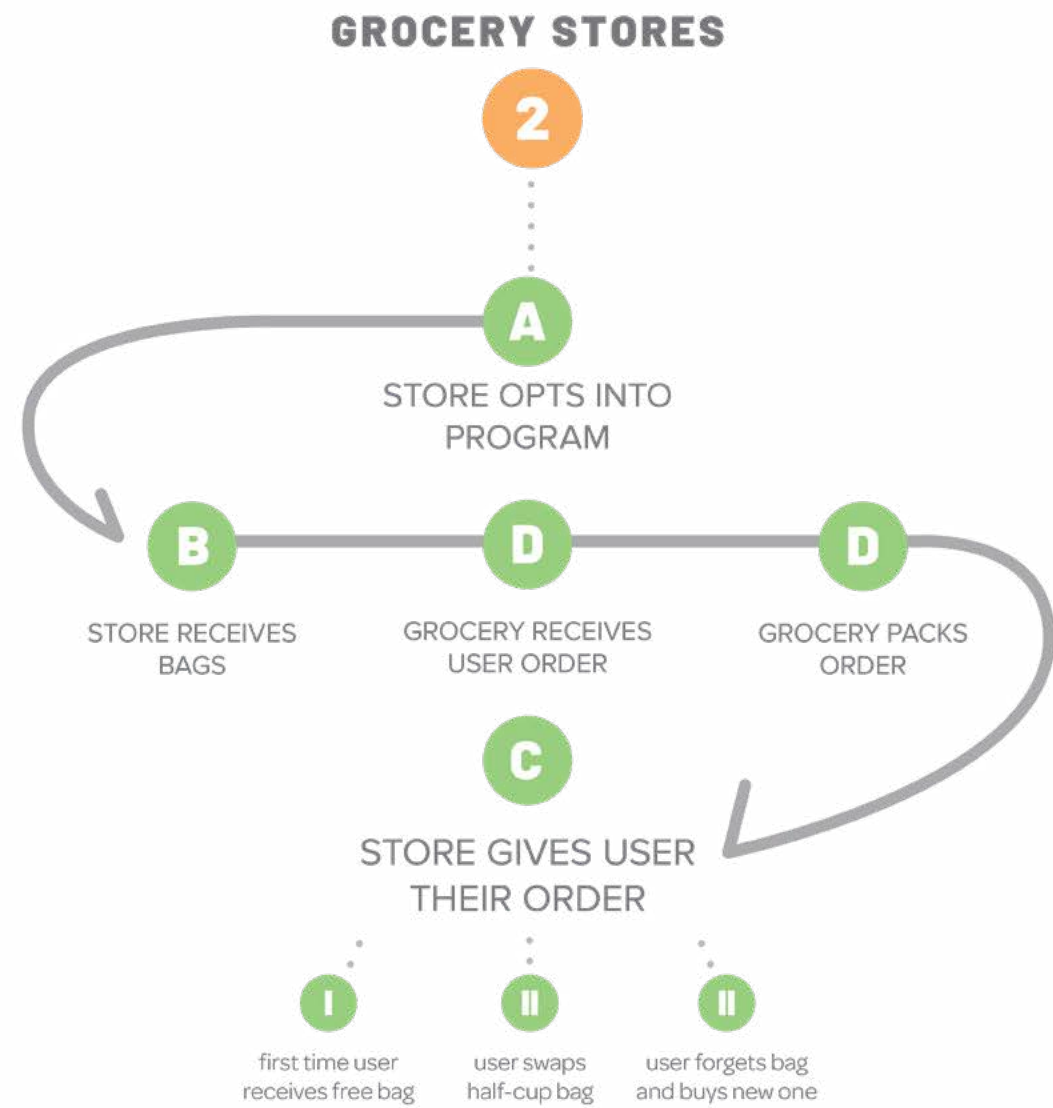
USER JOURNEY

APP SCREENS

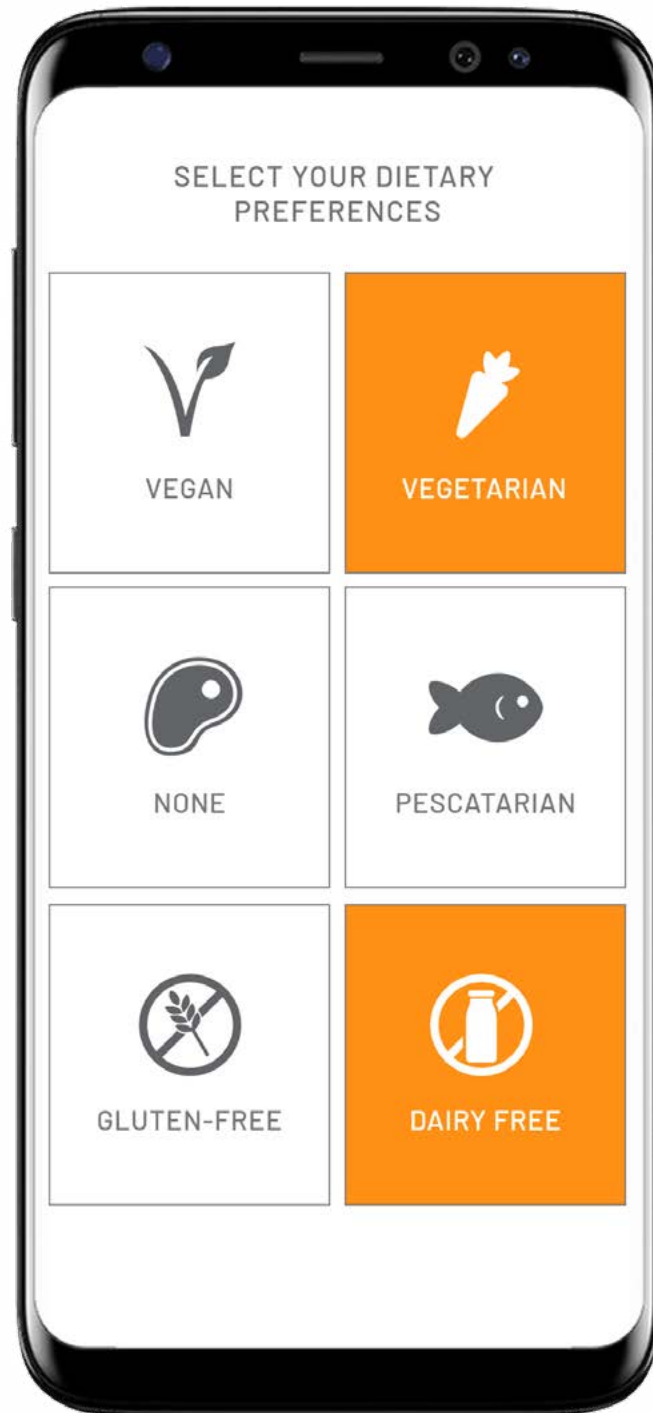
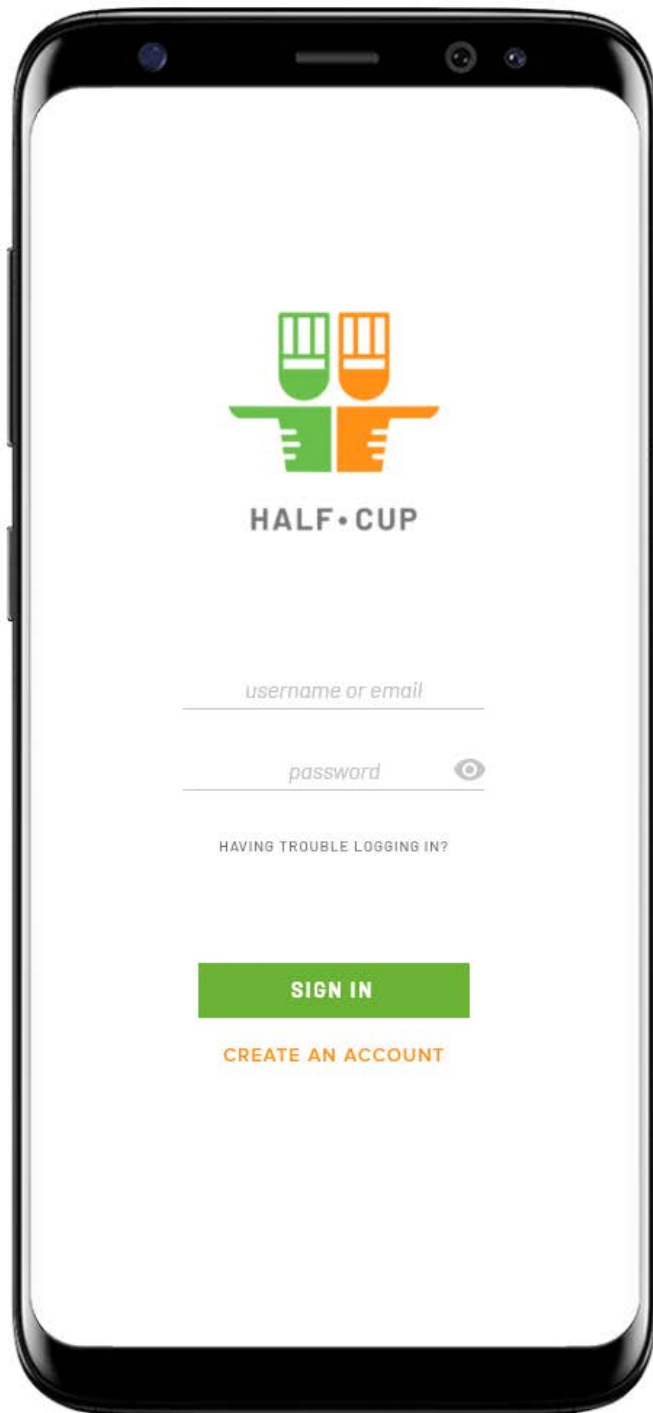
FINAL PRODUCT



USER JOURNEY



USER JOURNEY



PERSONAL PROFILE

CREATE AND ACCOUNT AND SELECT
YOUR DIETARY PREFERENCES



YOU ARE ONLINE



TODAY'S RECIPES



VEGETABLE SOBA WITH PONZU

\$

🌱 🥗 ⌚ 30m



SPINACH ALFREDO PASTA

\$

🌱 ⌚ 30m



TERIYAKI CHICKEN & SLAW

\$\$

🌱 🐟 ⌚ 40m



TOMATO POACHED TILAPIA

\$\$

🌱 🐟 ⌚ 35m



SPINACH ALFREDO PASTA

\$

🌱 ⌚ 30m

INGREDIENTS

+ penne pasta
+ spinach
+ red bell pepper
~~+ heavy cream~~
~~+ shredded mozzarella~~
+ salt
+ black pepper
+ olive oil

SUGGESTED SUBSTITUTES

+ coconut cream
+ daiya dairy-free
shredded mozzarella

FIND YOUR HALF-CUP

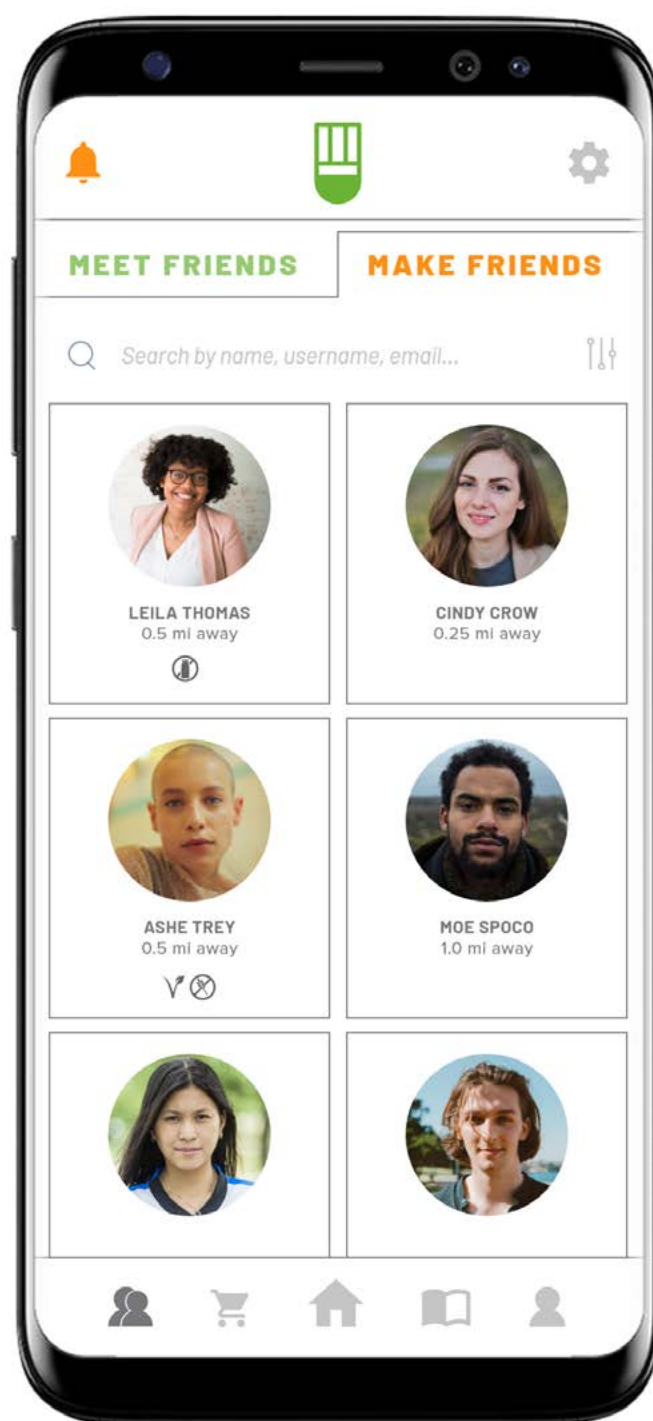
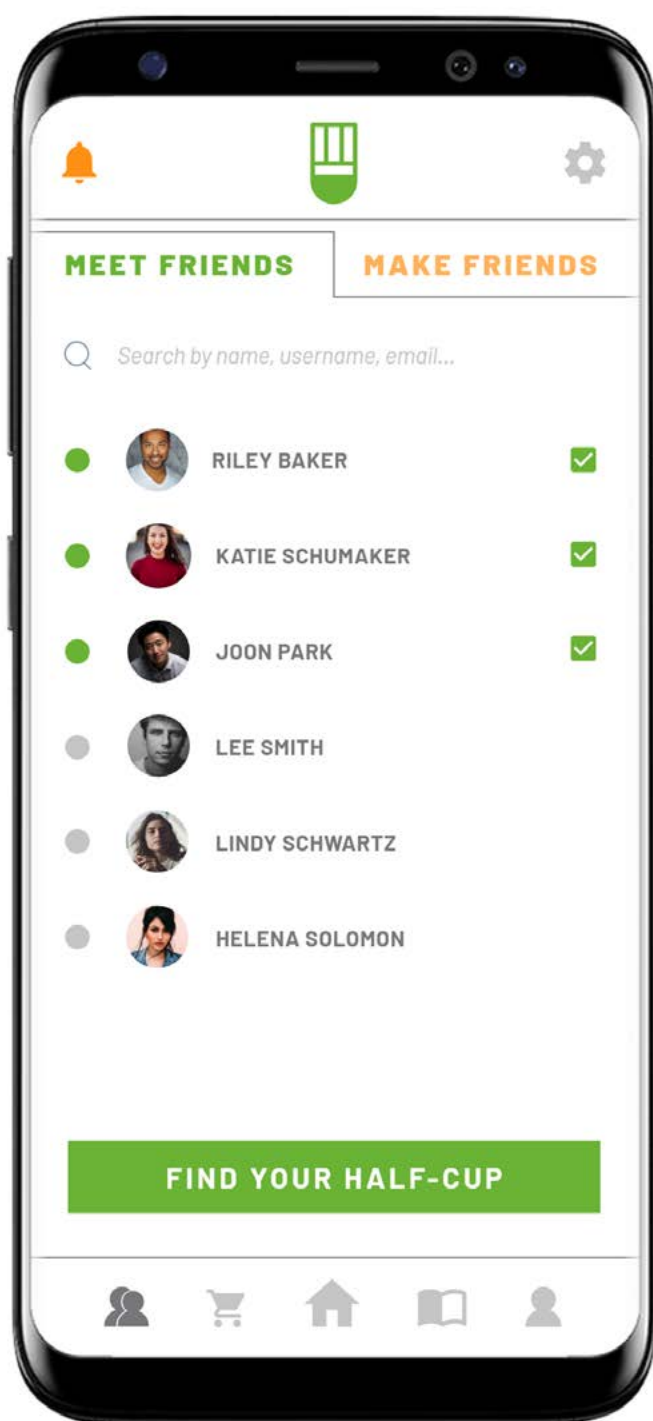
4 DAILY RECIPES

3/4 OPTIONS ARE ALWAYS ECO-FRIENDLY RECIPES TO ENCOURAGE HEALTHIER CHOICES AND RECIPES GIVE SUBSTITUTION SUGGESTIONS



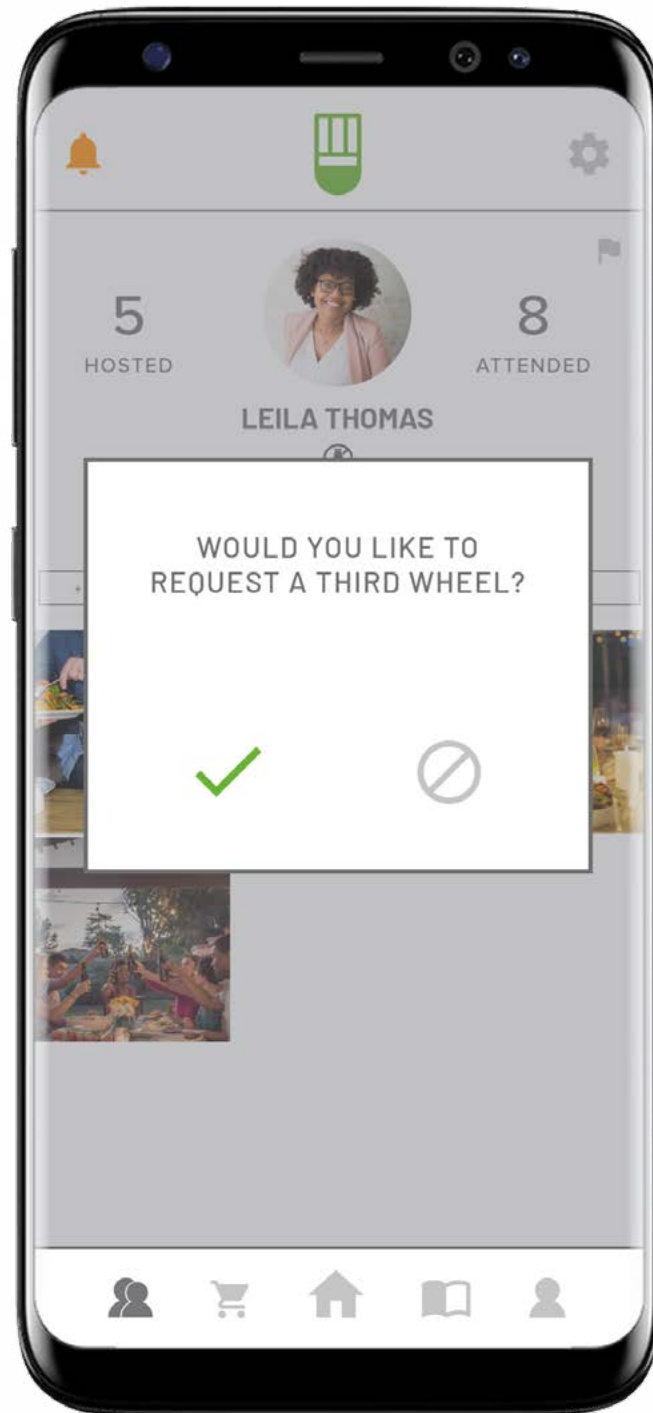
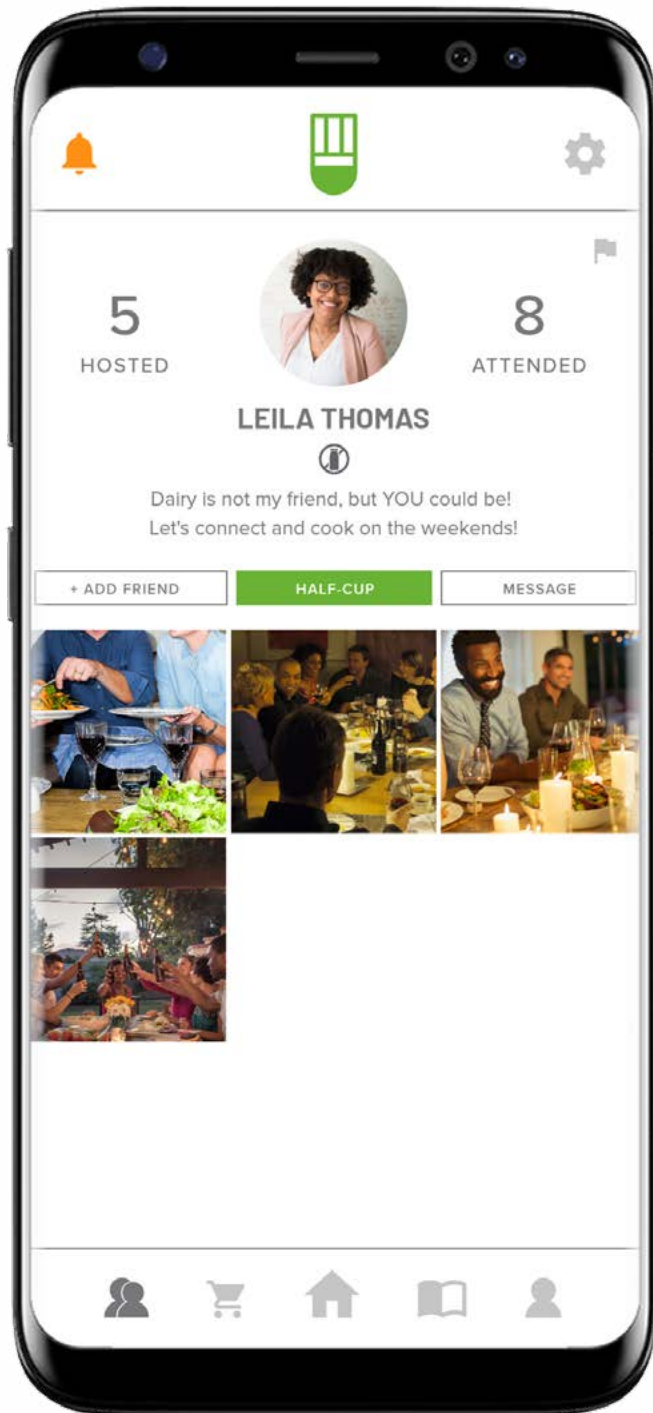
FIND YOUR HALF•CUP

YOU ONLY RECEIVE HALF THE INGREDIENTS FOR THE RECIPE, SO YOU'LL NEED TO PAIR UP WITH SOMEONE FOR THE OTHER HALF



CHOOSE WHO YOU WANT

VIEW YOUR FRIENDS LIST OR EXPLORE PEOPLE IN YOUR COMMUNITY



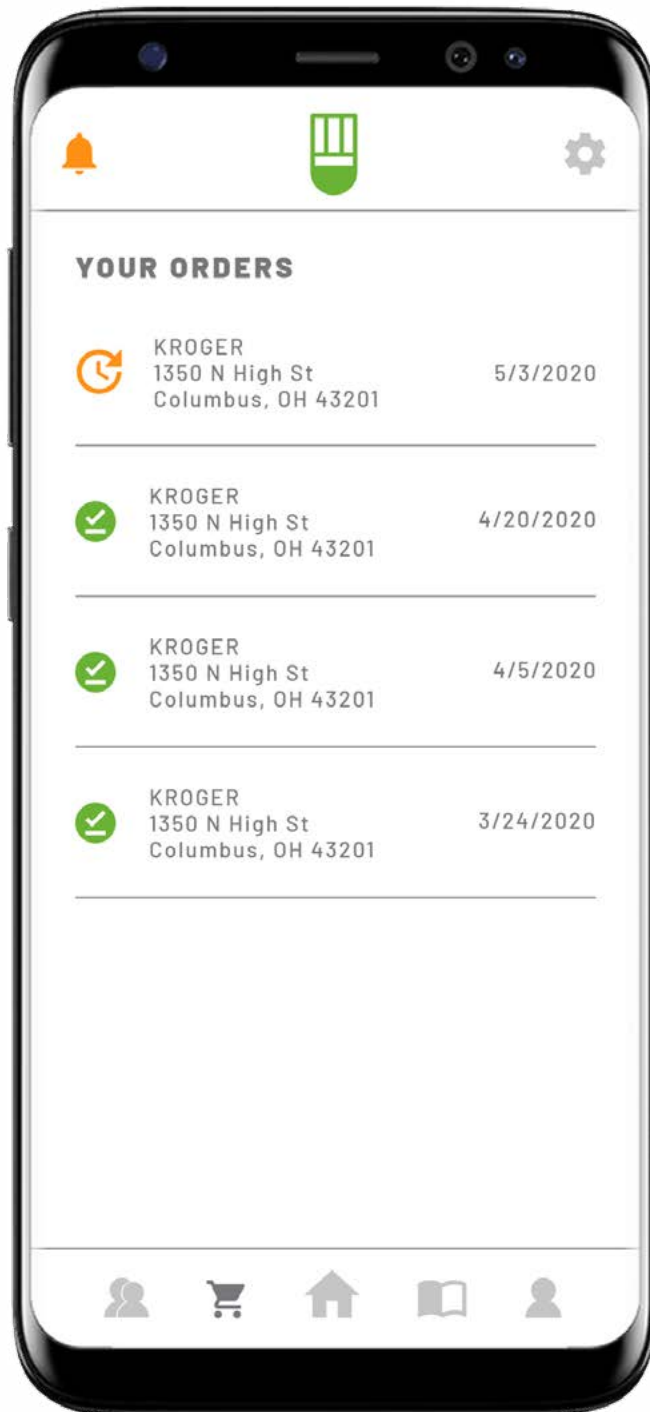
VIEW PEOPLE'S PROFILES

GET TO KNOW SOMEONE THROUGH THEIR PERSONAL PROFILE AND REQUEST A THIRD WHEEL IF YOU'D LIKE



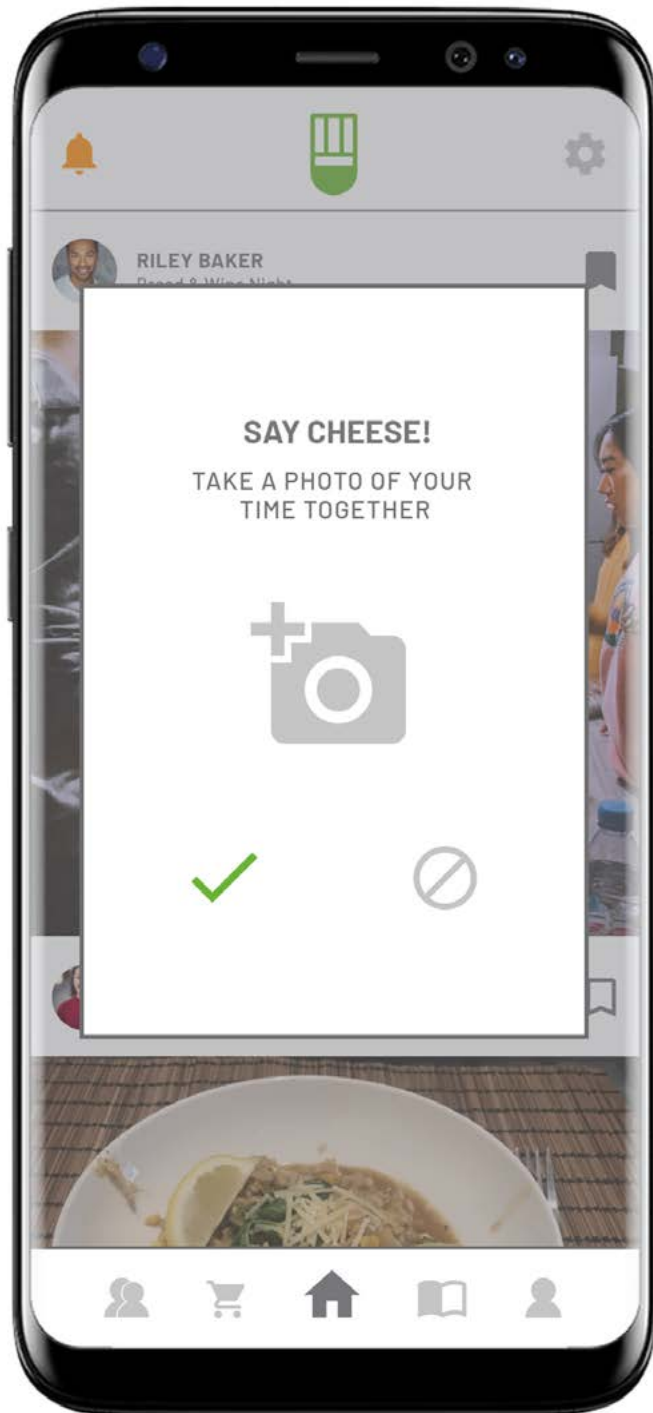
COMMUNICATE AND PLAN

MESSAGING ASSISTED BY CHAT BOT TO
FACILITATE MEETING PLANS



PICK-UP AND COOK TOGETHER

SEND YOUR ORDER TO YOUR PREFERRED GROCERY LOCATION AND BE INSTRUCTED STEP-BY-STEP FOR COOKING



SHARE YOUR EXPERIENCE

SHARE YOUR EXPERIENCE WITH THE
HALF•CUP COMMUNITY AND SEE
OTHER'S ON YOUR FEED

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