



UX research report

Borrow Box

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OCTOBER 2018

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THE ASK

Validate whether City-Based Food-Court Patrons (CFPs) will delight in adopting a reusable take away container service during lunch.

“BorrowBox.”

HYPOTHESIS

**People are growing more
conscious.**

GROWING AWARENESS

"Australians see plastic pollutions as the #1 threat to Australia's oceans and coastal waters"

HYPOTHESIS

We are here to give them a means to participate and make a change.

OUR APPROACH

We have used a **design thinking** problem solving approach, based on **user-centred design** principles, to help ForPurposeCo envision the end-to-end digital opportunities.



Empathise

- Contextual Inquiries
- In-depth Interviews
- Competitive Analysis
- Mood boarding & mind mapping



Define

- Qualitative Analysis
- Affinity Mapping
- Personas
- Customer Journey Mapping



Ideate

- Reframing problem into HMW statements
- Sketching
- Rapid ideation & brainstorming



Prototype

- Low-fidelity paper prototype
- Mid-Fidelity wireframe prototype
- Concept testing



Test

- Usability Testing
- SUPRQ User Experience questionnaire
- Customer NPS rating benchmark



What we found

INSIGHT #1

Chaotic Convenience

City food-courts need to cater to a large amount of personnel traffic and to produce food as fast as possible. These patrons have less than 60 to 30 minutes to get and consume their lunch within their break period. Crowds and waiting in line are common pain points for corporate workers as they want food selection and ordering to happen invisibly in the background so they can focus most of their lunch time eating and winding down.

How might we...

ensure that BorrowBox will provide **service that enhances time and convenience** of the lunch time patron to suit their basic lunch time needs?



INSIGHT #2

Inconsistent Waste Education

Not everyone is aware of recycling rules. There is often confusion of what can and can't be recycled when it comes to take away containers. This is further complicated by different places have different signs. This is often an indication of how they practice waste at home.

For the environmentally conscious, the lack of education of their peers are their greatest frustration.

How might we...

educate and empower users to lead themselves and others into a more sustainable lifestyle?



INSIGHT #3

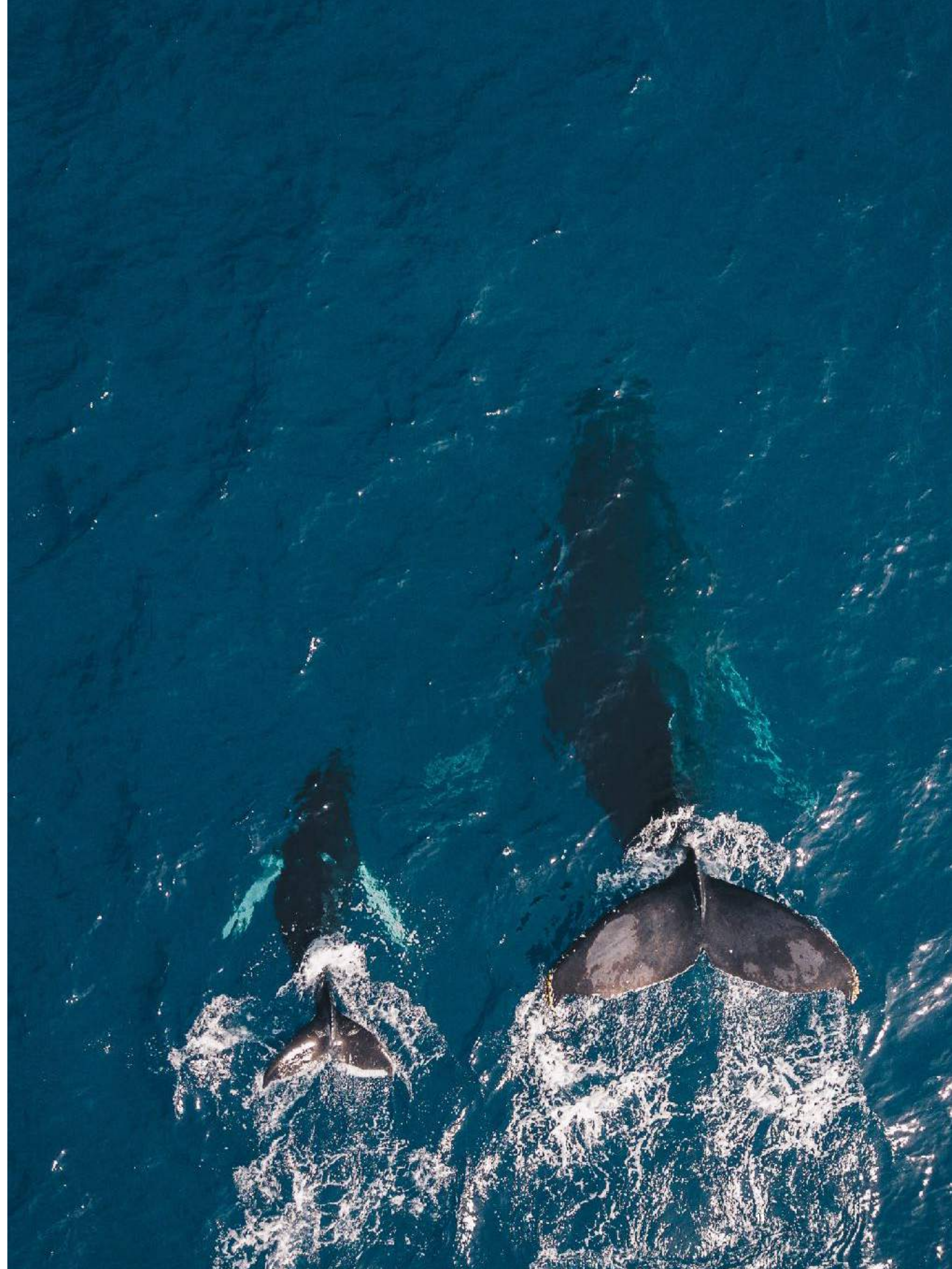
Impact Is Worth the Sacrifice

For the environmentally conscious patrons, the impact they can have to reduce personal waste footprint is more important than the personal cost of convenience, money and even social perception.

The ability to see their personal and collective impact is crucial to their engagement.

How might we...

help patrons visualise their impact while using BorrowBox to increase their engagement and evangelism?



Meet the CFPs...

**“I rehash salad
boxes to reuse
again; my
colleagues think
that I am weird.”**

Committed Charlene



Committed Charlene



Age: 36

Lunch duration: 60 minutes

Food court: MLC Centre

Lunch habits

- Takeaway from food-court 1-2 times a week
- Used to buy lunch more often, but is starting to make better choices for herself and the environment
- Prefers to take food back to the office to use office kitchen utensils

Pains

- Concerned about **personal environmental footprint**
- Flabbergasted by family, friends, & coworkers who are not aware of their environmental responsibility to the planet's future
- Feels powerless about the **abundance of waste in businesses**, including the food vendors

Motivations

- Seeks new ways and ideas to reduce their environmental footprint further
- Wishes for others to be educated, and concerned about waste as well
- Hopes that their small part plays an accumulated impact on the environment

Environmental Meter

Willing to spend additional money for impact

**“As long as it
makes my life
easier, I’d give
anything a go.”**

Negotiable Neil



Negotiable Neil



Age: 26

Lunch duration: 30 minutes

Food court: Australian Square

Lunch habits

- Takeaway from food-court 4-5 times a week
- Has lunch at irregular times, often governed by meeting times
- Pre-orders food via an app to avoid waiting in line

Pains

- Crowded food-courts with **long waiting lines**
- **Time-poor**, lunch time is often shared with work meetings
- **Unable to make decisions** on food choices

Motivations

- Wants to maximise his lunch time to eat food as well as socialise
- Likes to stay on top of new tech, and utilises app service to streamline his life, (uber for transport, Hey You! for his morning coffee)
- Wants to be well perceived by his peers

Environmental Meter



Would only join a movement if it gives him enough benefits, such as convenience or a good social image

CURRENT JOURNEY MAP

Pre-Lunch	Selection	Payment	Consumption	Disposal
Notices Time. It's 11:30am, Charlene is getting hungry. She enquires what others in the office are thinking of getting.	Makes way to food court. Charlene walks to the nearest food-court to check out the two food vendors that serve healthy food.	Taps to pay. Charlene pays via her NFC-chipped bank card, and also gets her frequent customer loyalty card marked by the vendor.	Returns to office to utilise metal utensils. Charlene refuses the offered plastic spork and serviette pack with her meal, opting to use the metal utensils when she gets back to the office.	Washes and keeps food container. Charlene decides to wash her plastic food container for reuse. She tries not to get annoyed that the office bins contain incorrectly disposed of waste.



"I kinda already know what I want to get."

"I love being a regular - it's nice when the vendor remembers you."



"I can't get what everyone else is getting - I prefer something healthy, plus I am a vegetarian."

"The popular food places tend to have longer lines."

"Ever since ABC's 'War on Waste', I'm noticing the unnecessary plastic packing everywhere!"

"I hate how half of the office does not know which bin to use..."

Opportunities

Help users make food selections

Help users avoid waiting and save time

Help users reduce and refuse single use waste

Help users be educated, and educated others



What does this mean?

THIS MEANS...

City based workers **prioritise time and convenience** during lunch.

THIS MEANS...

**Most city based workers are
increasingly aware of waste,
but not all are educated on
what to do.**

THIS MEANS...

City based workers who are conscious of waste are invested in **quantifying the impact** of their seemingly small personal efforts.

MINIMUM VIABLE EXPERIENCE

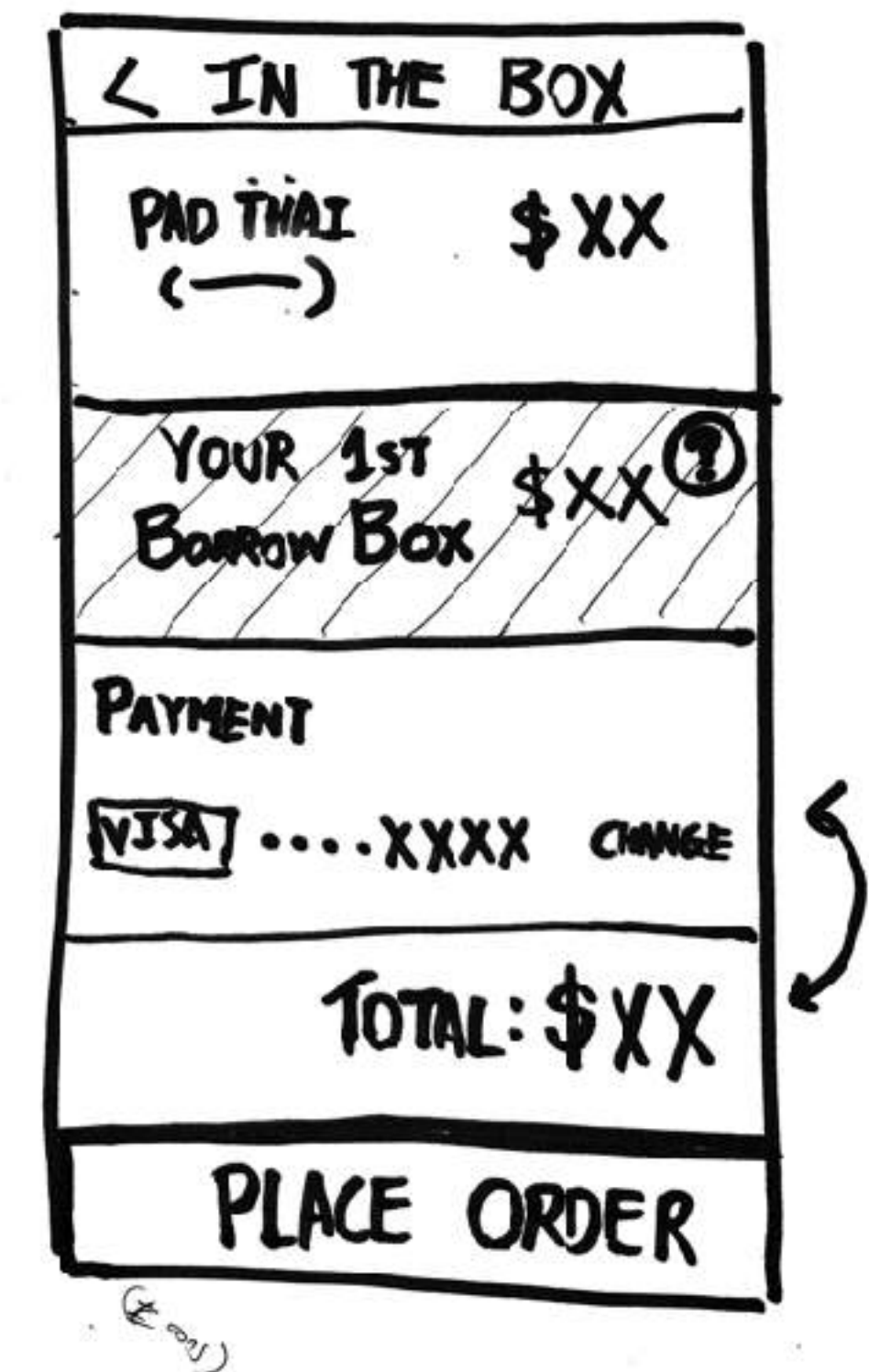
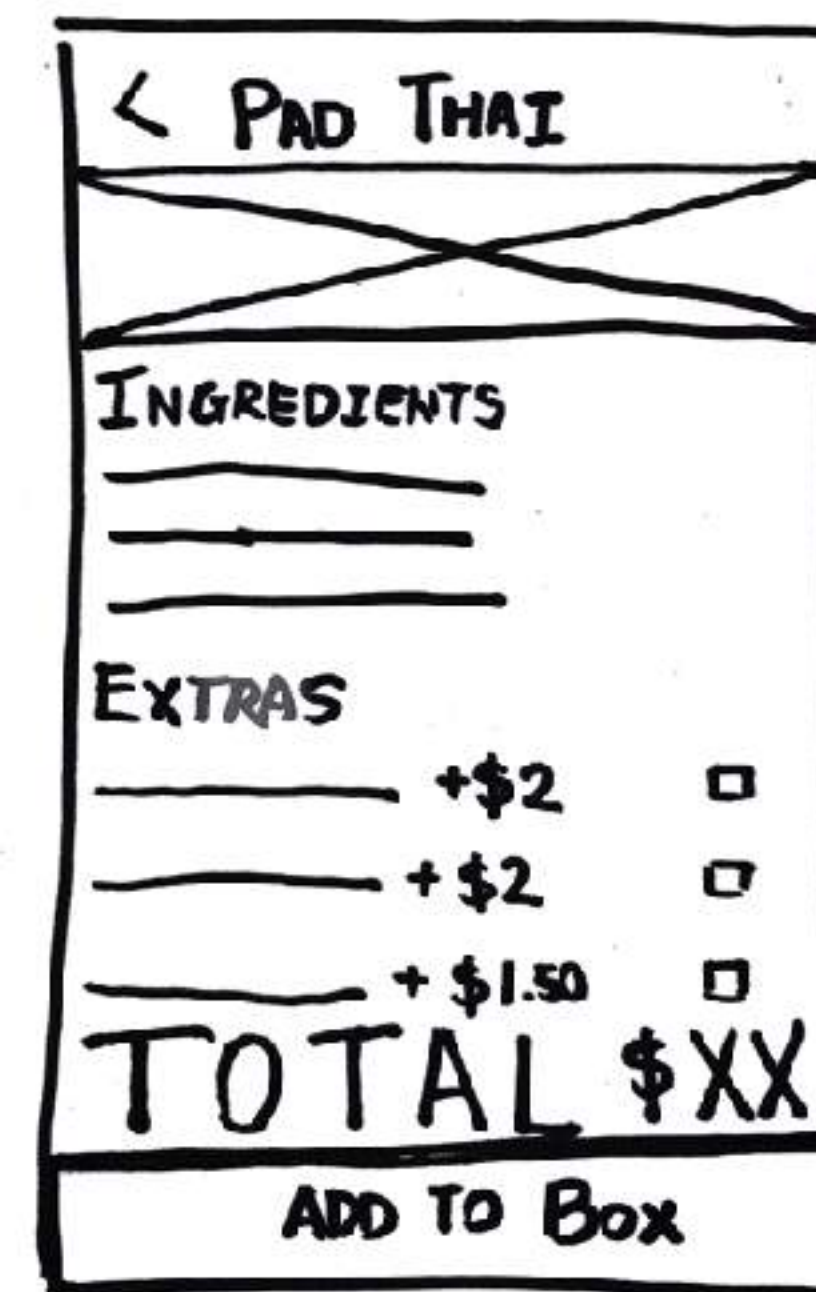
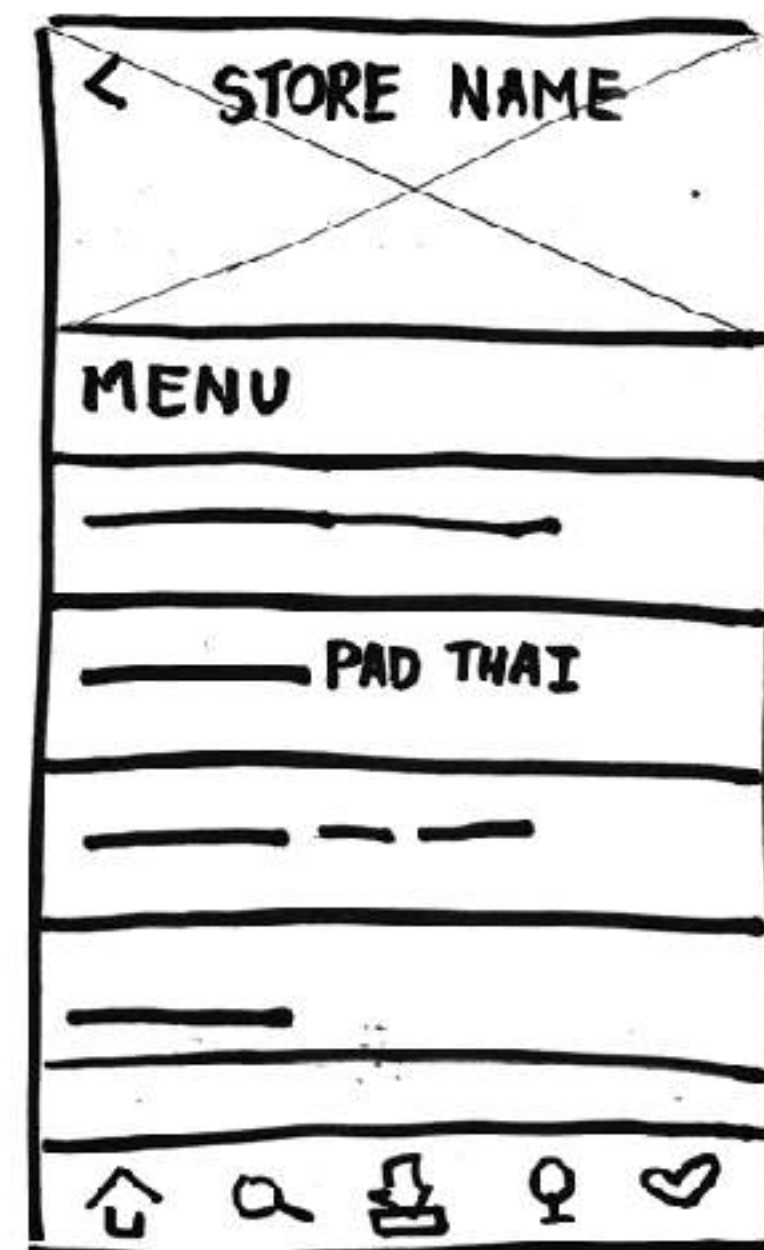
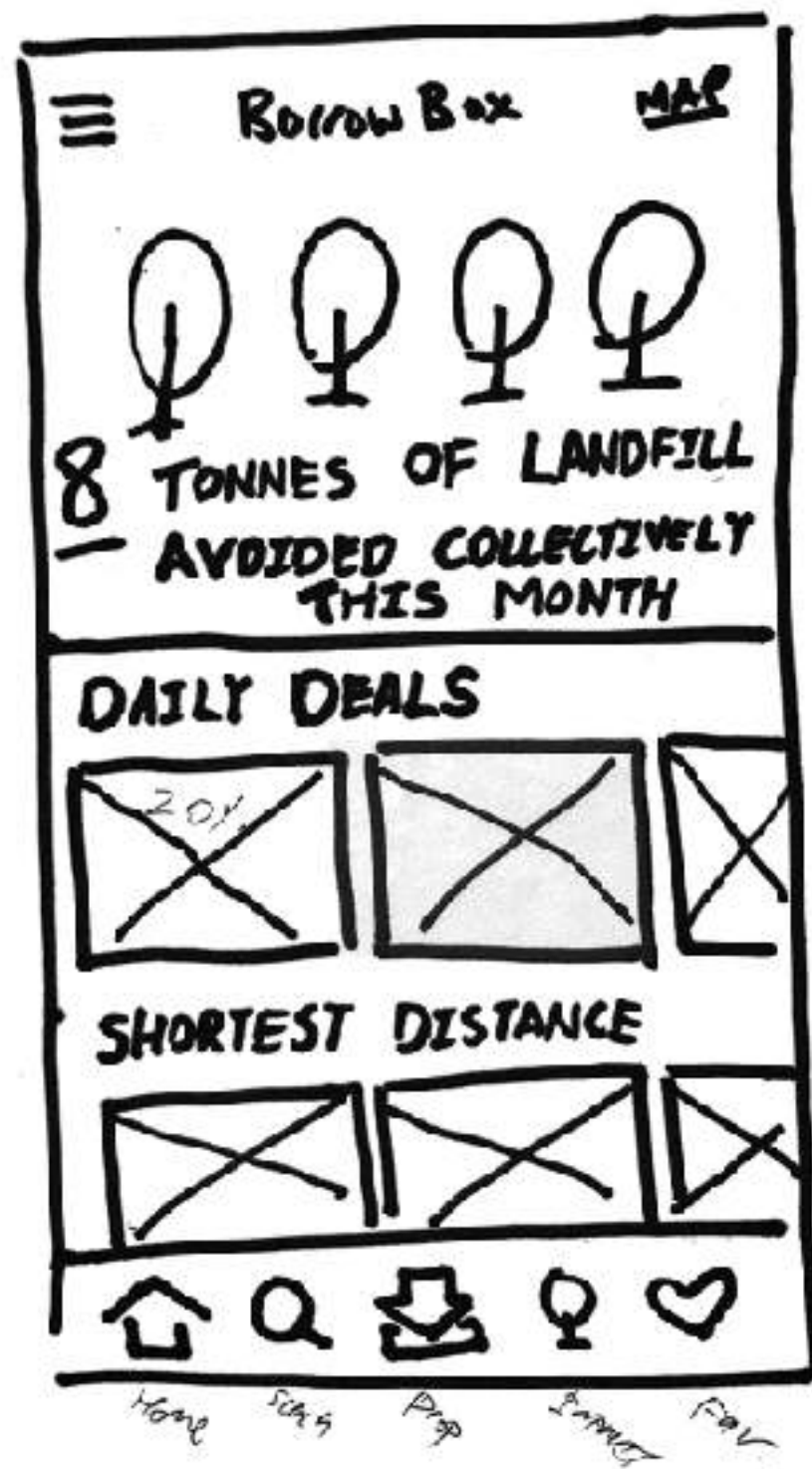
There are 3 MVEs that the user research has revealed as must have digital experiences.

1. CFPs need to be able to **search and find food** seamlessly and easily
2. CFPs need to be able to **locate and navigate to drop-off points** in an easy maps system
3. CFPs need to **visualise and appreciate the impact** their participation of the service is having

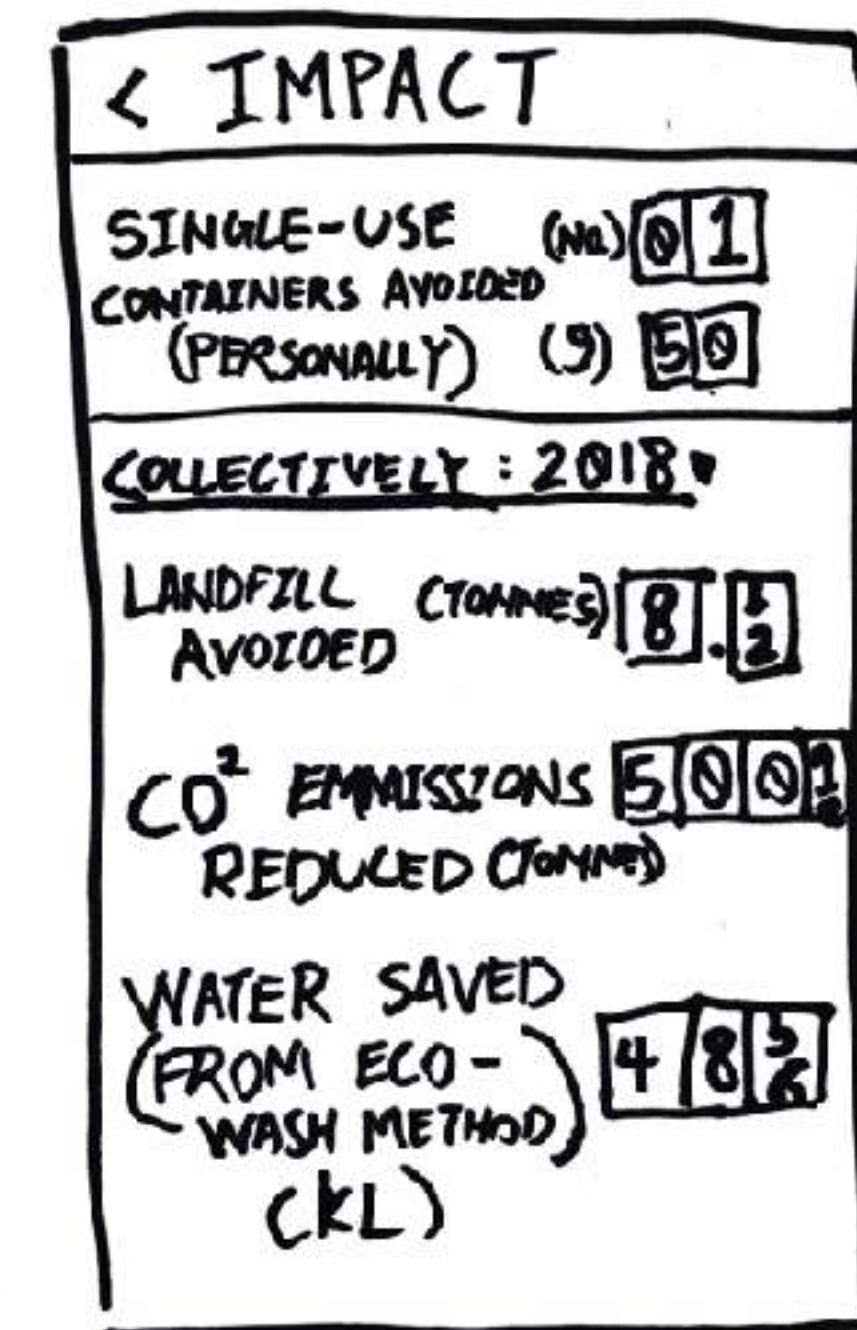
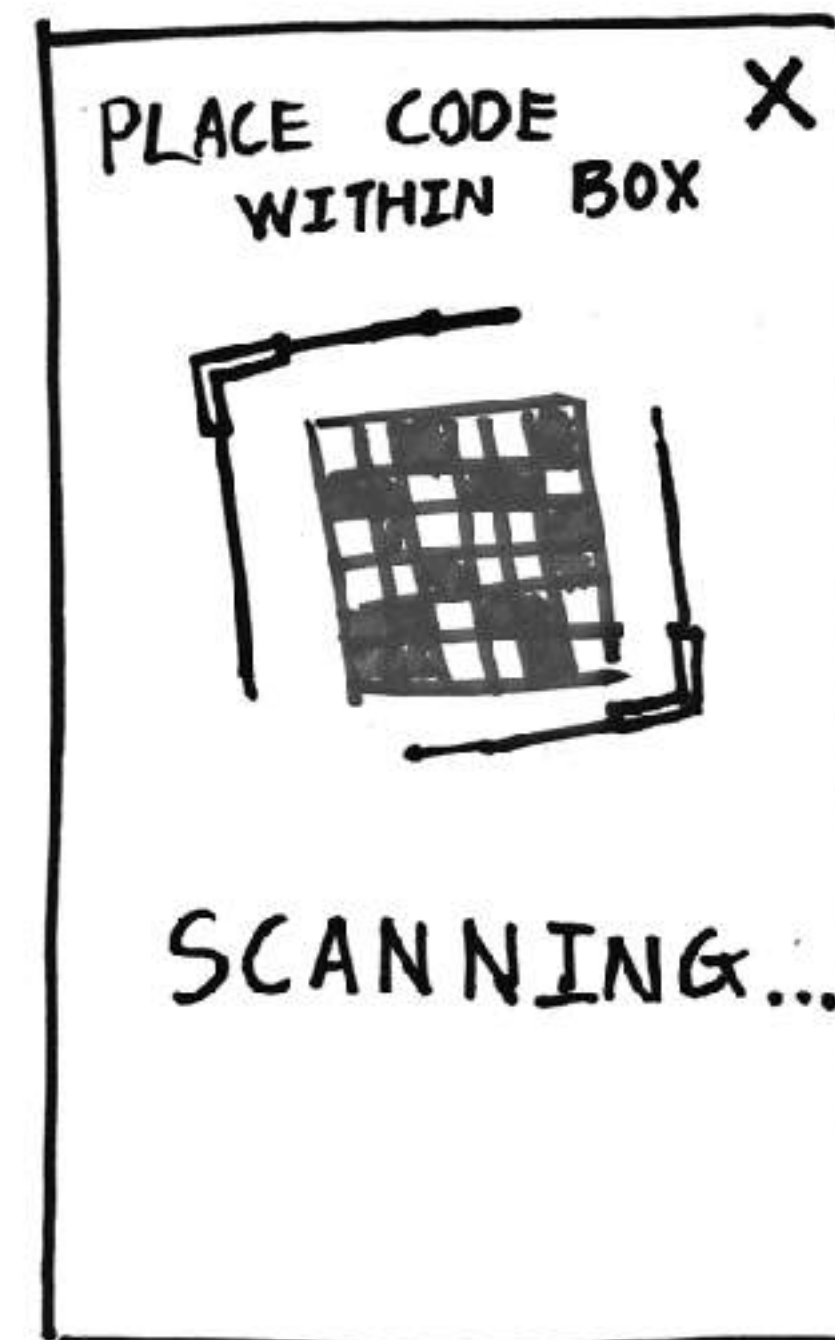
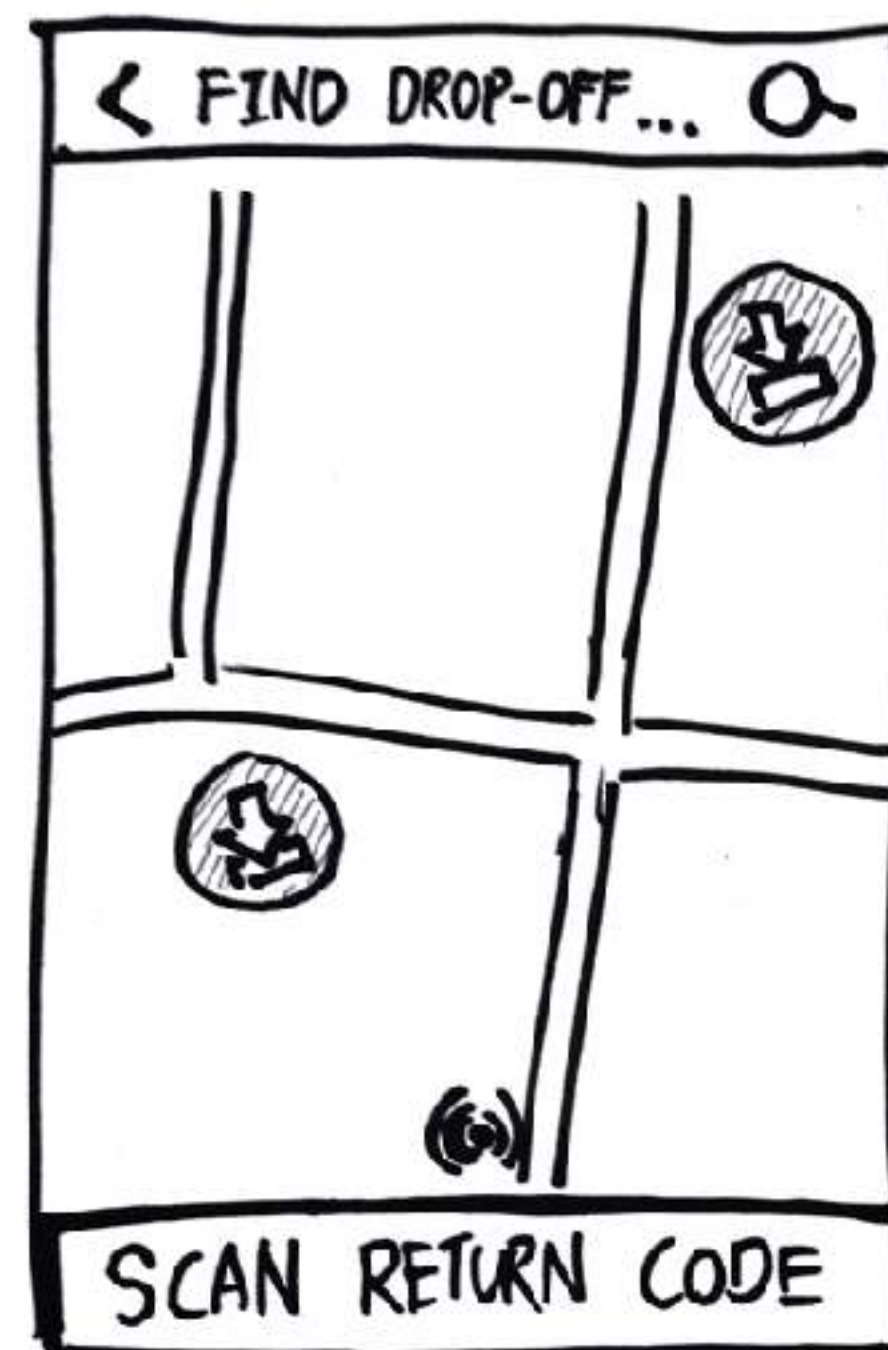
The Prototype



TEST 1: PAPER PROTOTYPE



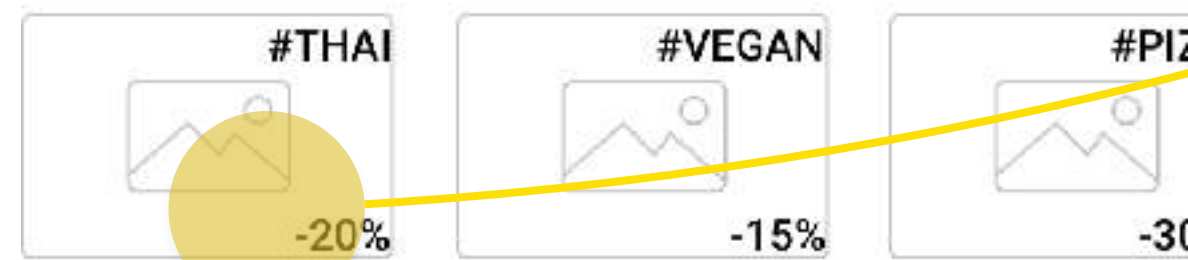
TEST 1: PAPER PROTOTYPE



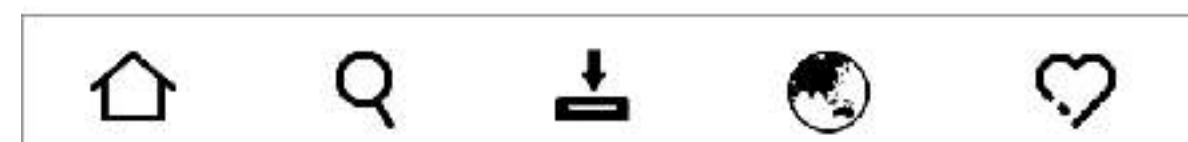
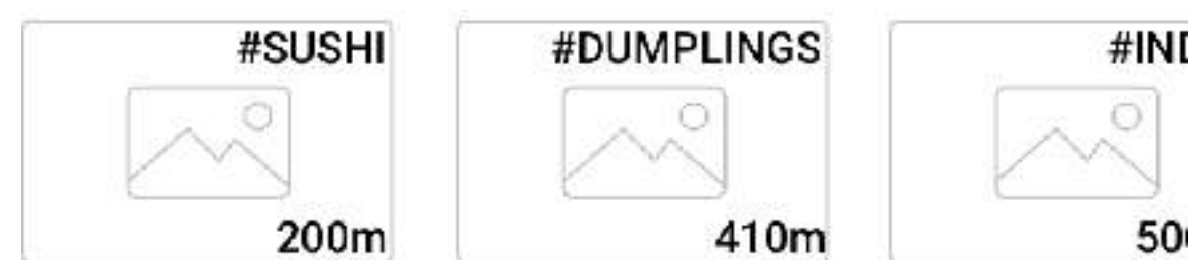


5 Tonnes of landfill avoided collectively this month

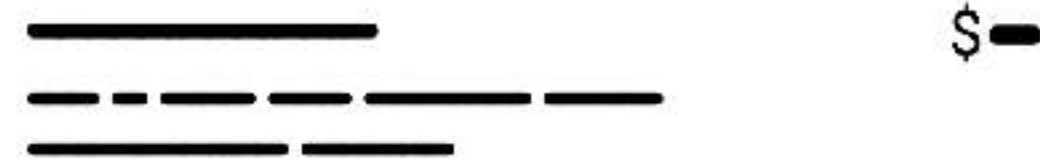
Like a deal?



In a hurry?



On the menu



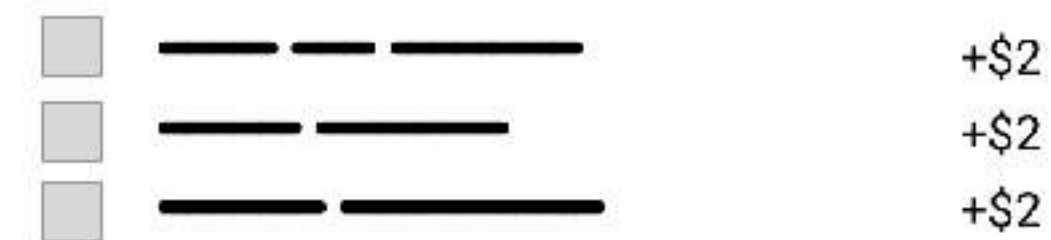
Pad Thai - Tofu



What's in it?



Extras and goodies!



Additional Comments

TOTAL

\$ XX.XX

ADD TO YOUR BOX



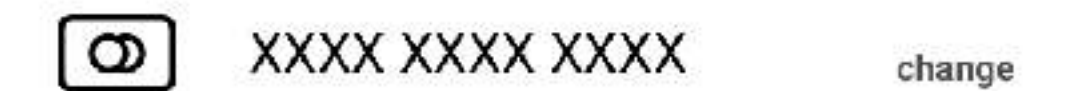
Pad Thai - Tofu

No Cashews

\$XX



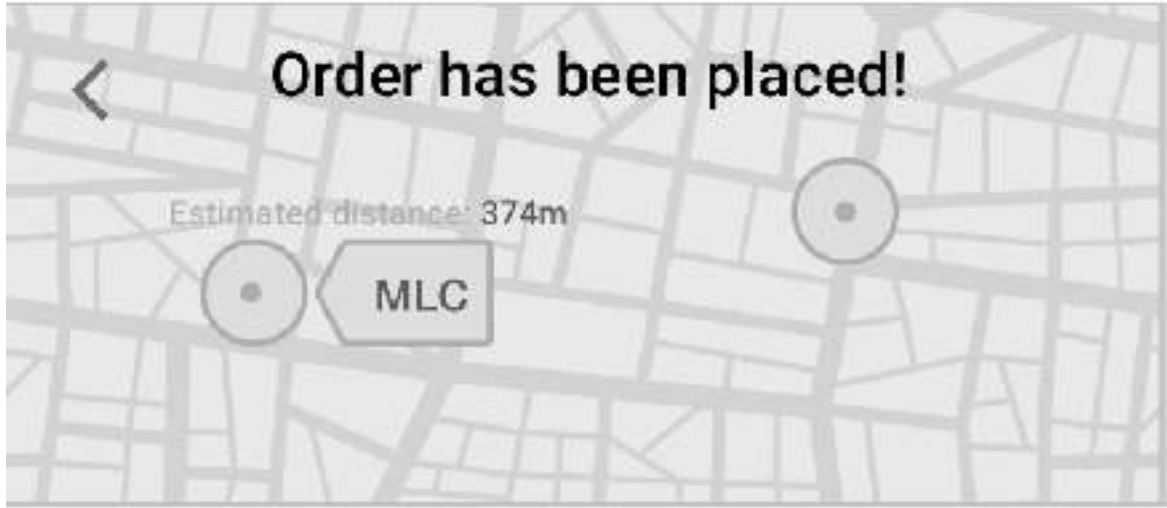
Your payment method



TOTAL

\$ XX.XX

PLACE ORDER



Your order has been placed and is being prepared!

It should be ready in:

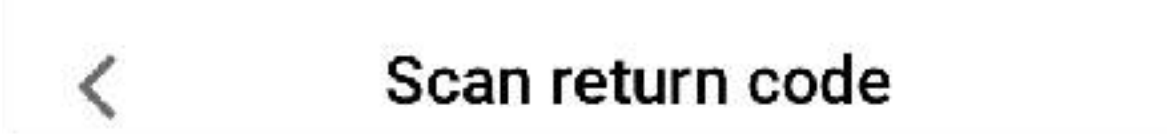
5 min

A friend is picking up my food

Contact store



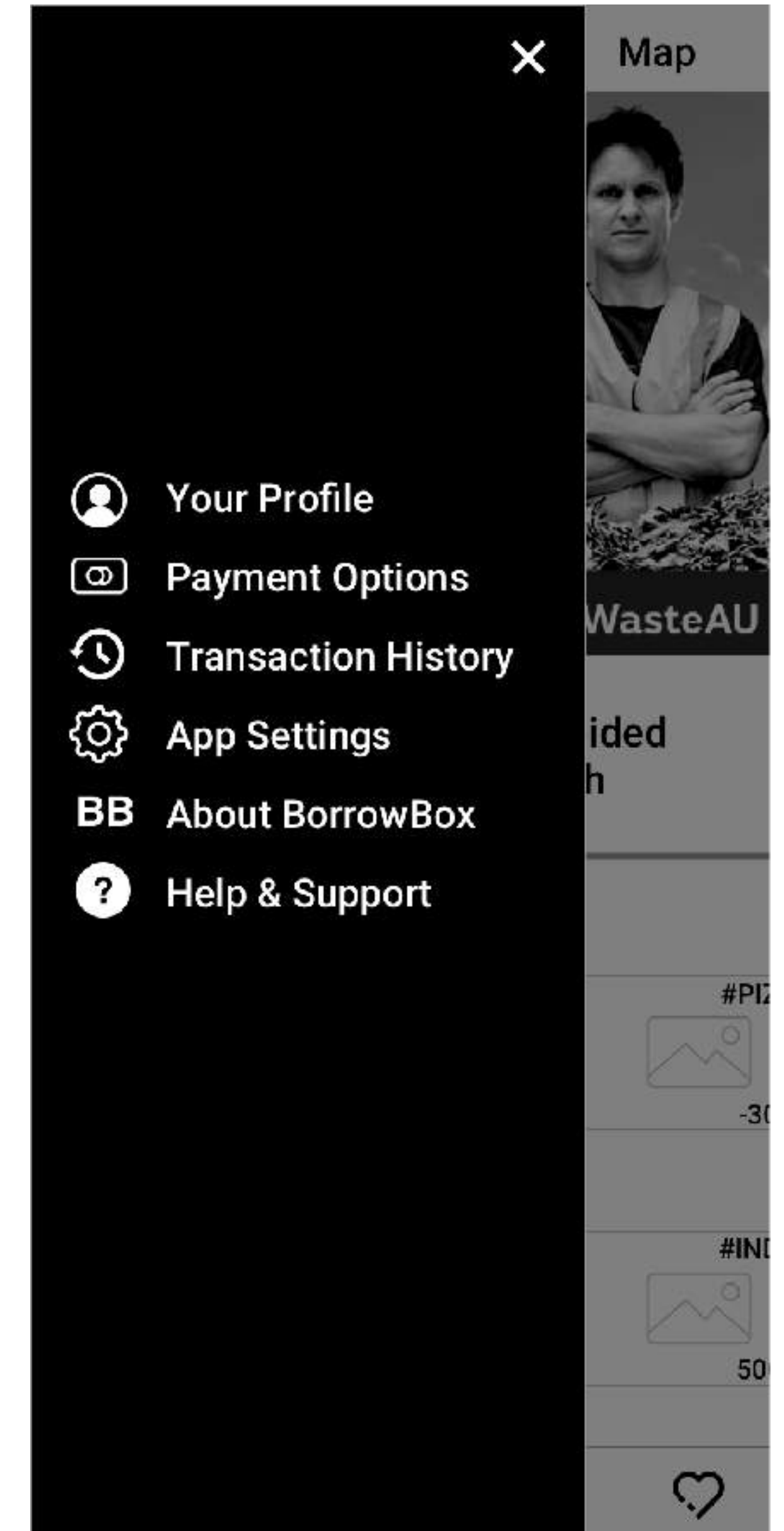
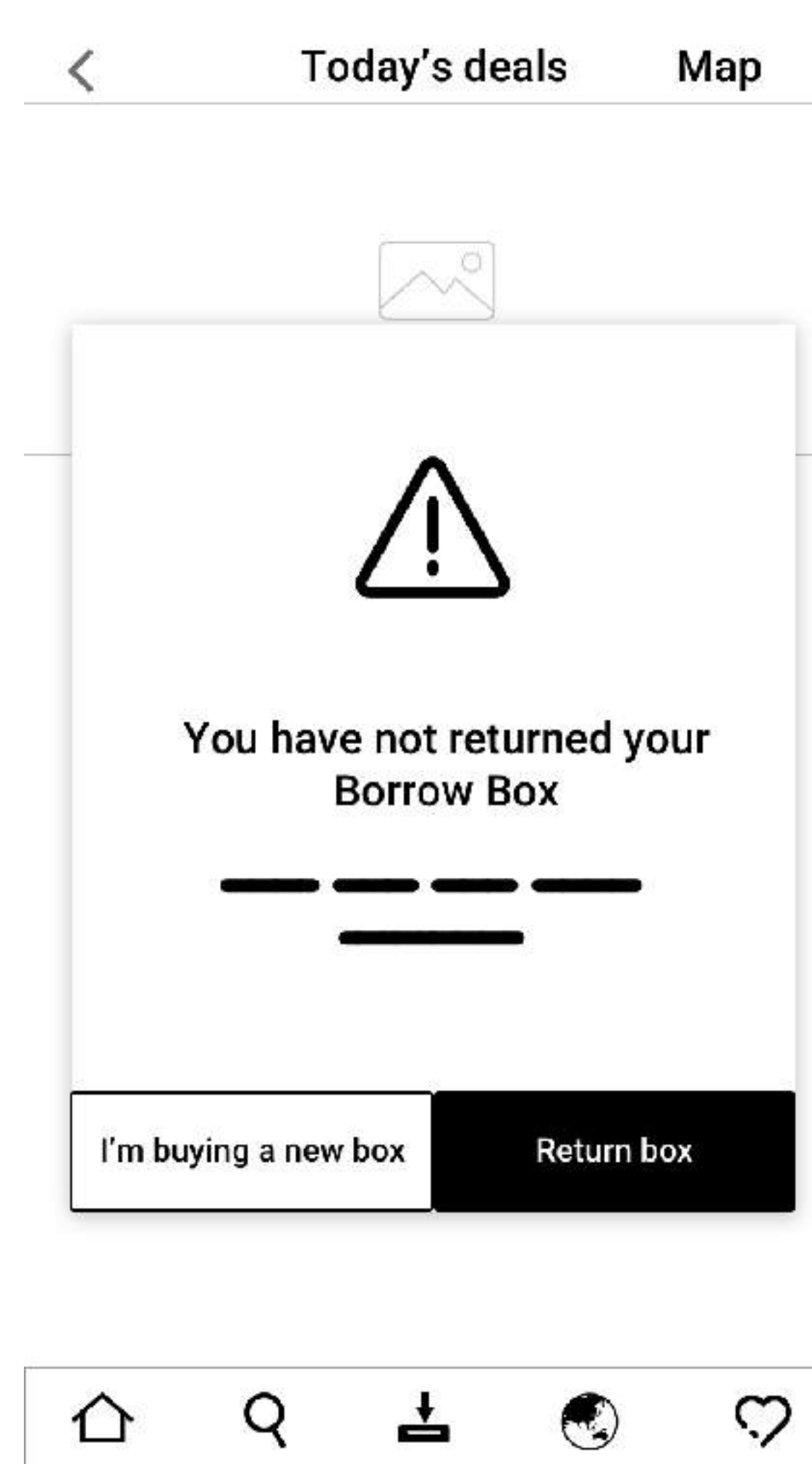
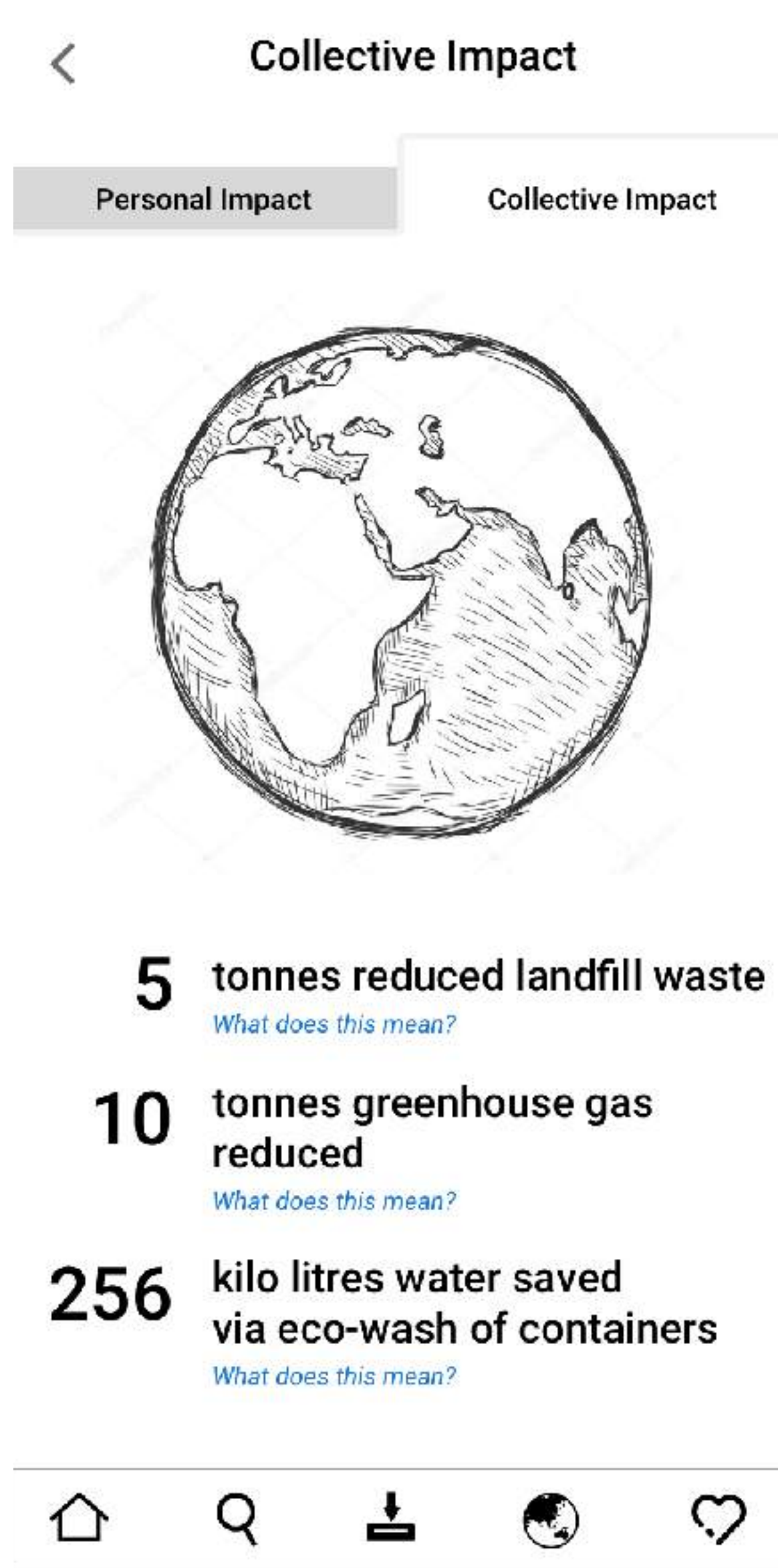
Place code within box



Your box has been returned



You've just unlocked a new badge!



BorrowBox

Map

WAR

ON WASTE

Tuesday, 16 May, 8.30pm

#WarOnWasteAU

5

Tonnes of landfill avoided collectively this month

Like a deal?

#THAI

-20%

#VEGAN

-15%

#PIZZA

In a hurry?

#SUSHI

5min

#DUMPLINGS

7min

#MEXICAN

<

Personal Impact

Personal Impact

Collective Impact

You've prevented 5kg of plastic waste!

Go you, superhero.

New badge!

BB 5 10

Summary

UX - DESIRABILITY MEETS FUNCTIONALITY

We Need to:

1. Help them **search and find food** seamlessly and easily
 2. Help them **locate and navigate to drop-off points** in an easy maps system
 3. & help them **visualise and appreciate their impact**
- Neil wants to make an impact, **but needs a useful and easy system**
 - **Charlene needs a BorrowBox**, and wants Neil to get one too.

ALSO...

Don't forget the vendor!



Lack of space in kitchen and storage for additional inventory

insight: size and storage of box



Already managing too many separate tablets/devices for ordering systems

insight: simple system for vendors to receive and verify orders



10% of current customers already are making sustainable choices: re-usable coffee cups, rejecting plastic cutlery and straws

insight: Desirable!

Thank you!



Appendix



How Might We

A collection of How Might We were used during ideation.

This was done to ensure I will have covered all the many different angles of the problem.

HOW MIGHT WE...

Ensure that BorrowBox will provide service that enhances time and convenience of the lunch time patron to suit their basic lunch time needs?

HOW MIGHT WE...

**Educate and empower users
to lead themselves and
others into a more
sustainable lifestyle?**

HOW MIGHT WE...

**Help patrons visualise their
impact while using
BorrowBox to increase their
engagement and evangelism?**

HOW MIGHT WE...

Encourage city food-court patrons to adopt a more sustainable habit during their take-away lunch time routine?

HOW MIGHT WE...

Design a service that encourages the adoption of reusable food containers that will reduce lunch time waste using food ordering?

HOW MIGHT WE...

**Connect city food-court
patrons to food vendor
options that reduce their
waste better?**

HOW MIGHT WE...

**Show customers their direct
environmental impact from
using borrow box?**

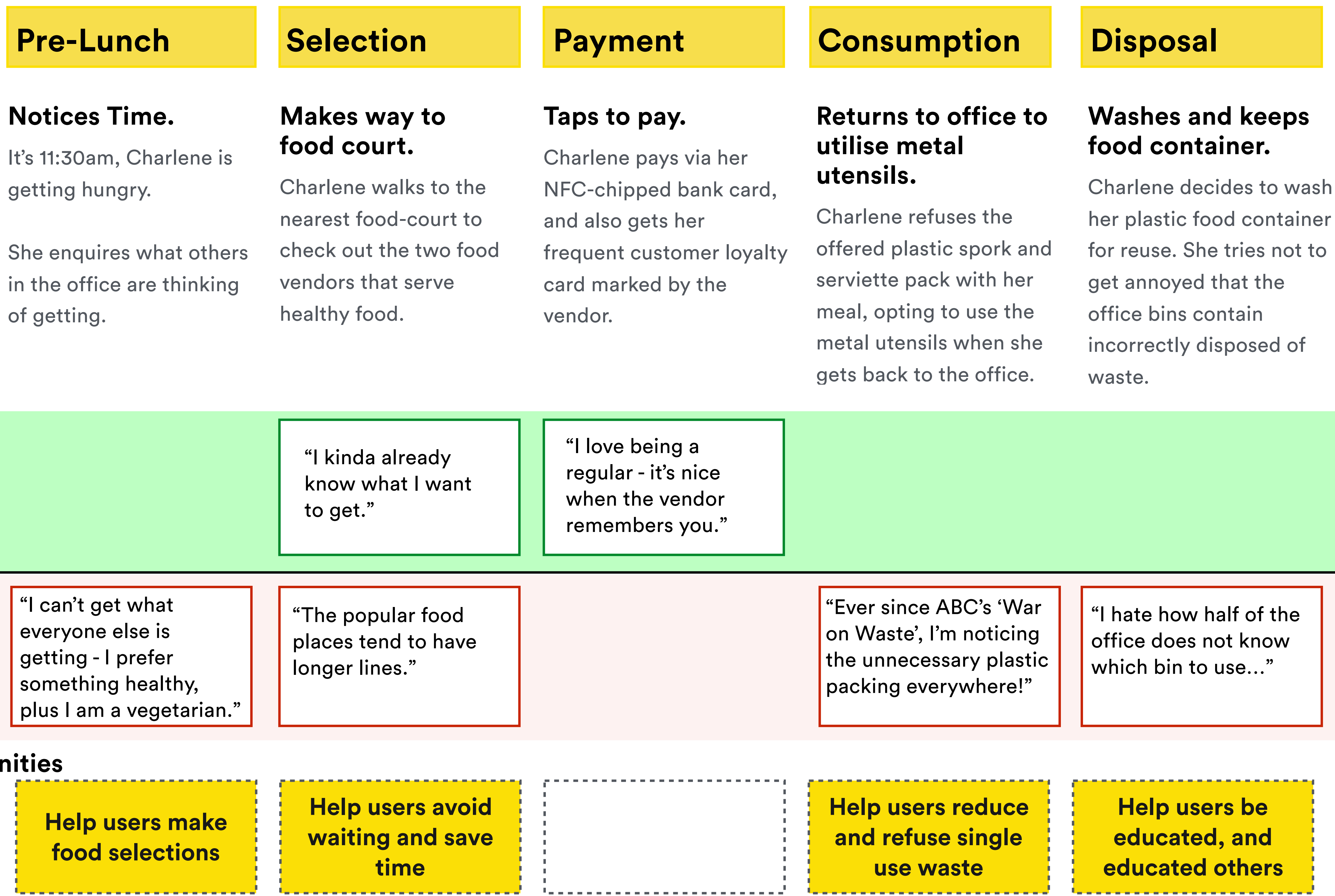
HOW MIGHT WE...

Ensure the on-boarding of BorrowBox and how it's system works is seamless and simple?



Customer Journeys

CURRENT JOURNEY MAP



Results



USABILITY TESTING

A	B	C	D	E	F	G	H	I	J	K	L
PHASE;SCREEN	MAIN SCREEN	VENDOR SCREEN	FOOD SCREEN	PURCHASE SCREEN	CONFIRMATION SCREEN	MAP - VENDOR	MAP - DROP OFF POINTS	AR SCANNER	IMPACT	MENU DRAWER	Comments
CONCEPT TESTING	too confusing text not clear, not clear that its a pickup system not a delivery system, icons need text - return and impact icon not intuitive, pictures should include logo of store, food type, and discount % - [PASS for next screen]	[PASS for making order], need prices displayed	Ingredients to show vegetarian, nut allergies etc. Option to request for certain dietary req. comment section, expectation price change shown as extras are chosen [PASS]	First order BorrowBox request makes sense, next purchase use "your borrowbox is ready" [PASS for next screen]	Confirmation time is not clear, expecting a timer with countdown, address of store to make way to food, ability to share with friend if they are picking up on user's behalf, Reference code or Name here for vendor, Current affirmation text is ineffective - "I just want to eat", Might be more effective after returning box, ability to get back to map screen. Potential to use language to delight by being more conversational		expectation: dotted path when location selected with directions, ability to discern available points and offline points, tap on location to reveal location, upon returning box encourage users to use the system again tomorrow	Return drop off point to match language used so instructions are clear, eg: "scan code" - "scan here", expectation that there is a confirmation screen when box returned.	Needs a stronger personal connection, water saving is interesting and wants to know more (add external link). expectation for gamification and badges, use badges to educate and affirm of impact made, more conversational simpler language, more icons instead of words	"History" confusing what this is, rearrange history to follow payment details, expected help and support to be the last item. Desires conversational language.	
Mk1 - User 1	Problem with map icon not making sense, find icon isn't associated with a gps map, suggest using same map for drop off and finding vendors, use search for non-map searches; [PASS for next screen]	; [PASS for next screen]	Back button not working; [PASS for next screen]	Adjustable delayed orders "Pickup in [-] 5 [+]" ; set timers and reminders; [PASS for next screen]			Aim to delight with language	More colloquial language			Add colour
Mk1 - User 2	For "Hurry" selection - distance is less relevant of metric - time more important, unless "distance/close to you/what's around you?" then distance is relevant; [PASS for next screen]	; [PASS for next screen]	; [PASS for next screen]	; [PASS for next screen]					Swipe left to community section (separate personal and community impact screen); Badges based on food vendors, metrics used are not clear - "what does 5 tonnes of CO2 look like to me?"	Expectation: Touch outside drawer to close	articulate impact to s terms
Mk2 - User 3	Big banner picture used to advertisement of vendors, or "what is happening?", articles Expectation to go to impact page if touching "8 tonnes of waste reduced" section; [PASS for next screen]	; [PASS for next screen]	; [PASS for next screen]	; [PASS for next screen]							
Mk2 - User 4	Icons are intuitive, except for "Search" icon - should be a map, impact icon use "BorrowBox" icon "BB"; [PASS for next screen]	Reiterate discount in banner, and reflect discount in price list "I want to see the savings"; [PASS for next screen]	Fix back buttons; [PASS for next screen]	Fix/-add back button; [FAIL to nav]	Fix back button						Borrow Box title in top expected/missing in s
Mk3 - User 5	; [PASS for next screen]	; [PASS for next screen]	"Extras and goodies" not clear; [PASS for next screen]	Exit / cancel button in top corner "X" missing, "how do I cancel?", show "SC" or FREE for box if returned, expected a pop up alert if box is not returned yet prompting users are aware before starting process up until confirmation	Expectation: Simple Timer "5:00" Pop up at 5 minutes Notifications Button to contact store TOP BANNER picture is google map / clickable to maps, "A friend is picking this order up" language, use clever language	(?) or (!) help/instructions button as this screen is unique to other digital experiences	"Your box has been returned" pop up,	Two pages for impact - slide right-left for personal and collective, more descriptions under "person" icon, explain what "20 grams" means to user, Picture of landfill underground with "badges" interacting - potentially location based visuals.	Transition expectation <-> into ^	Expect transitions to some screens, fan of icons	

Ideation



MOODBOARD



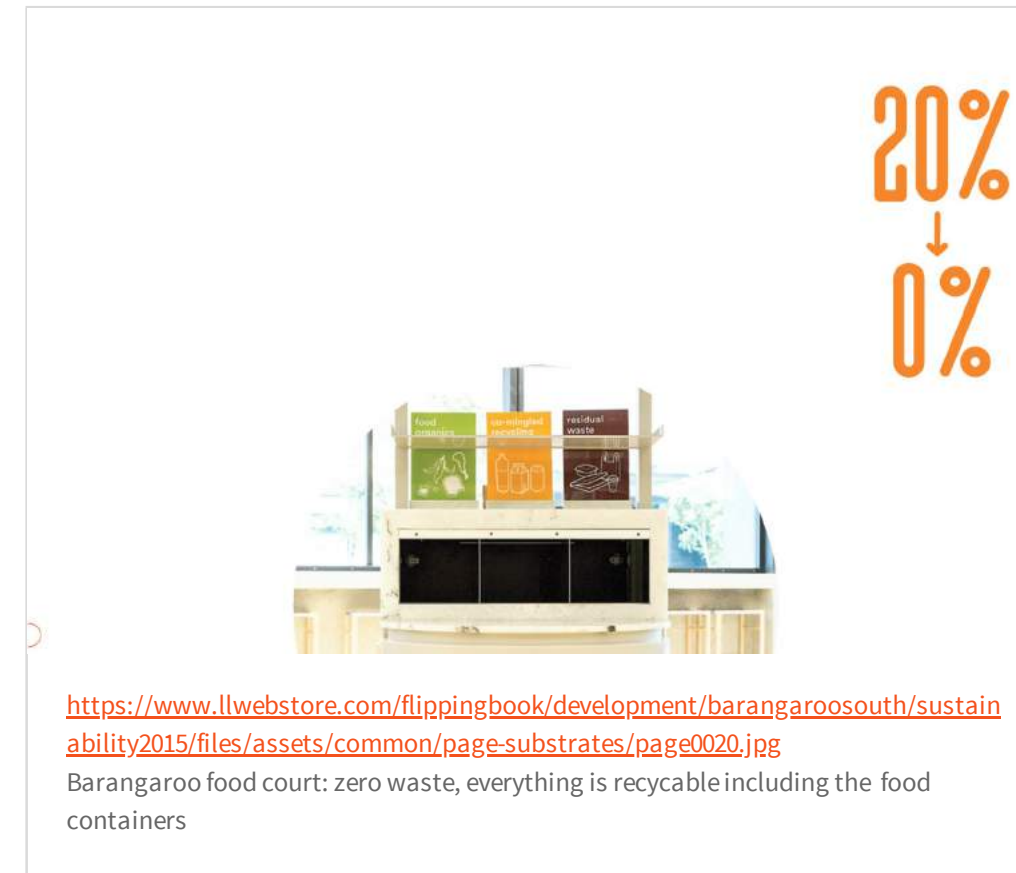
https://cdn.shopify.com/s/files/1/0895/4522/products/hHW7Qh78SwSEPWIA18Tn_A5_MEMO_BOTTLE_CAMPAIGN_2_1500x1500.jpg?v=1524545975
Product design: slim to fit into the bag and looks nice, simplistic and aesthetics



A5 Leather Sleeve + memobottle Pack



<https://i.pinimg.com/564x/9c/66/68/9c66680db824699551acd29019cc82c7.jpg>
Home food waste bin: nordic aesthetics



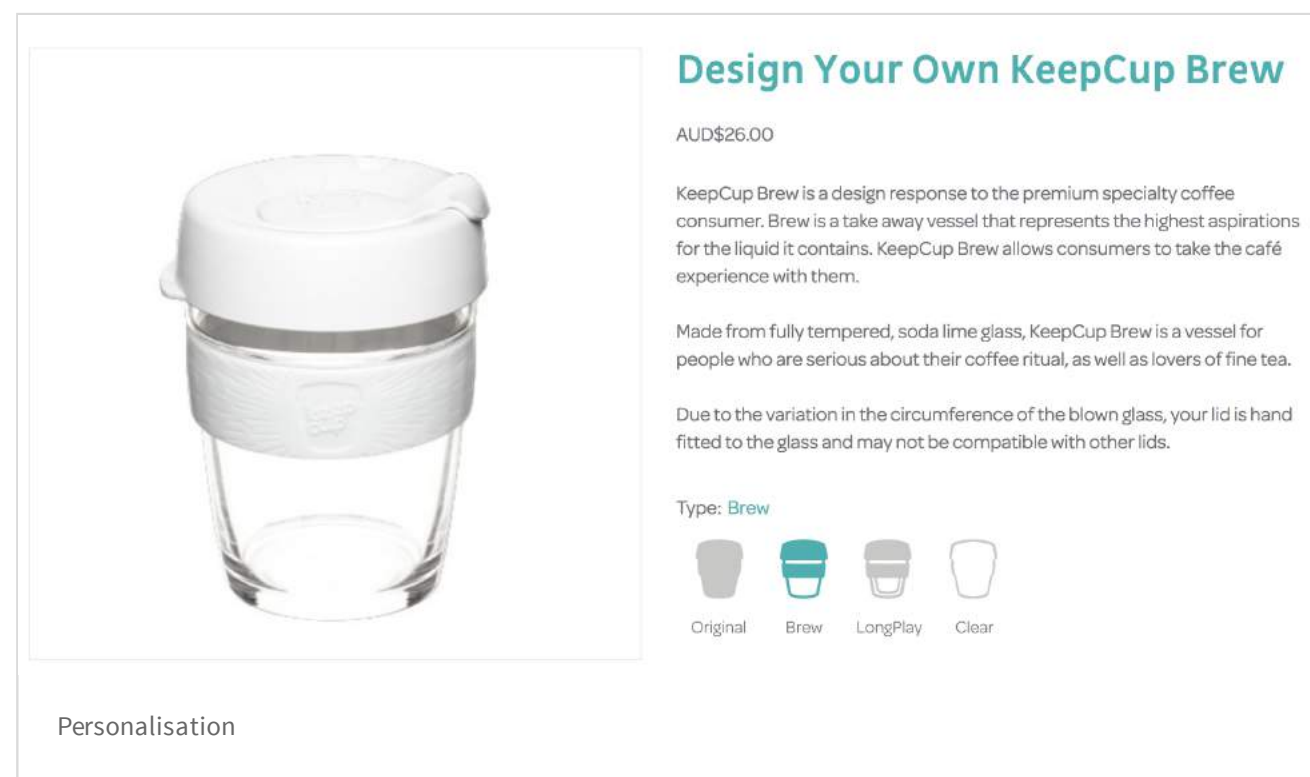
9

Good design is environmentally-friendly

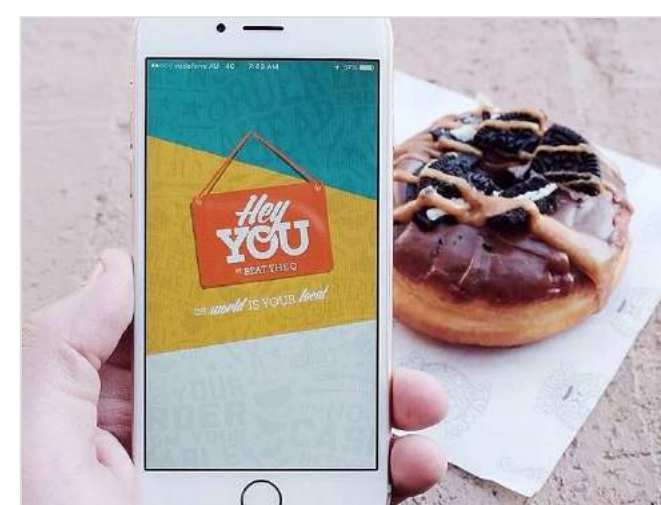
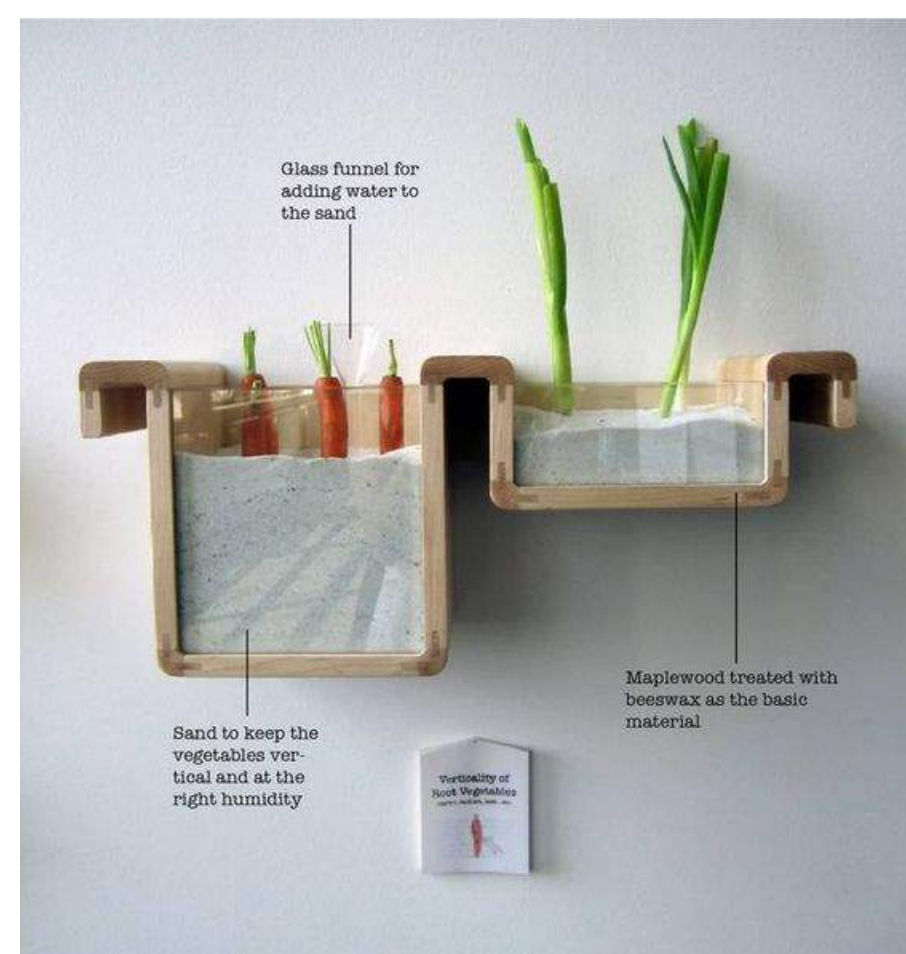
Design makes an important contribution to the preservation of the environment. It conserves resources and minimises physical and visual pollution throughout the lifecycle of the product.



606 Universal Shelving System, 1960, by Dieter Rams for Vitsoe



Personalisation

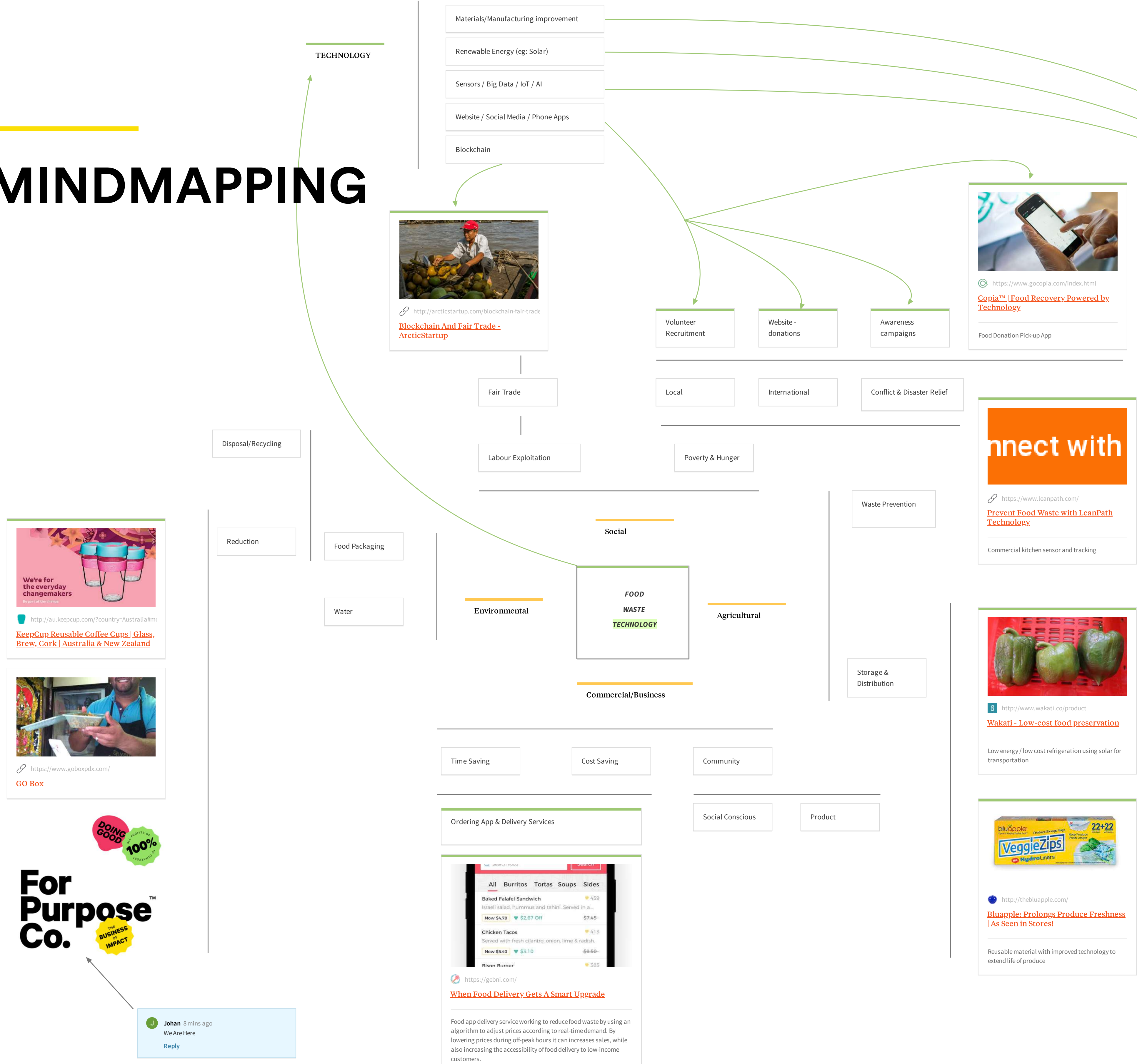


<https://edge.alluremedia.com.au/uploads/businessinsider/2016/01/Hey-You-App.jpg>
Office app: Convenience and On The Go

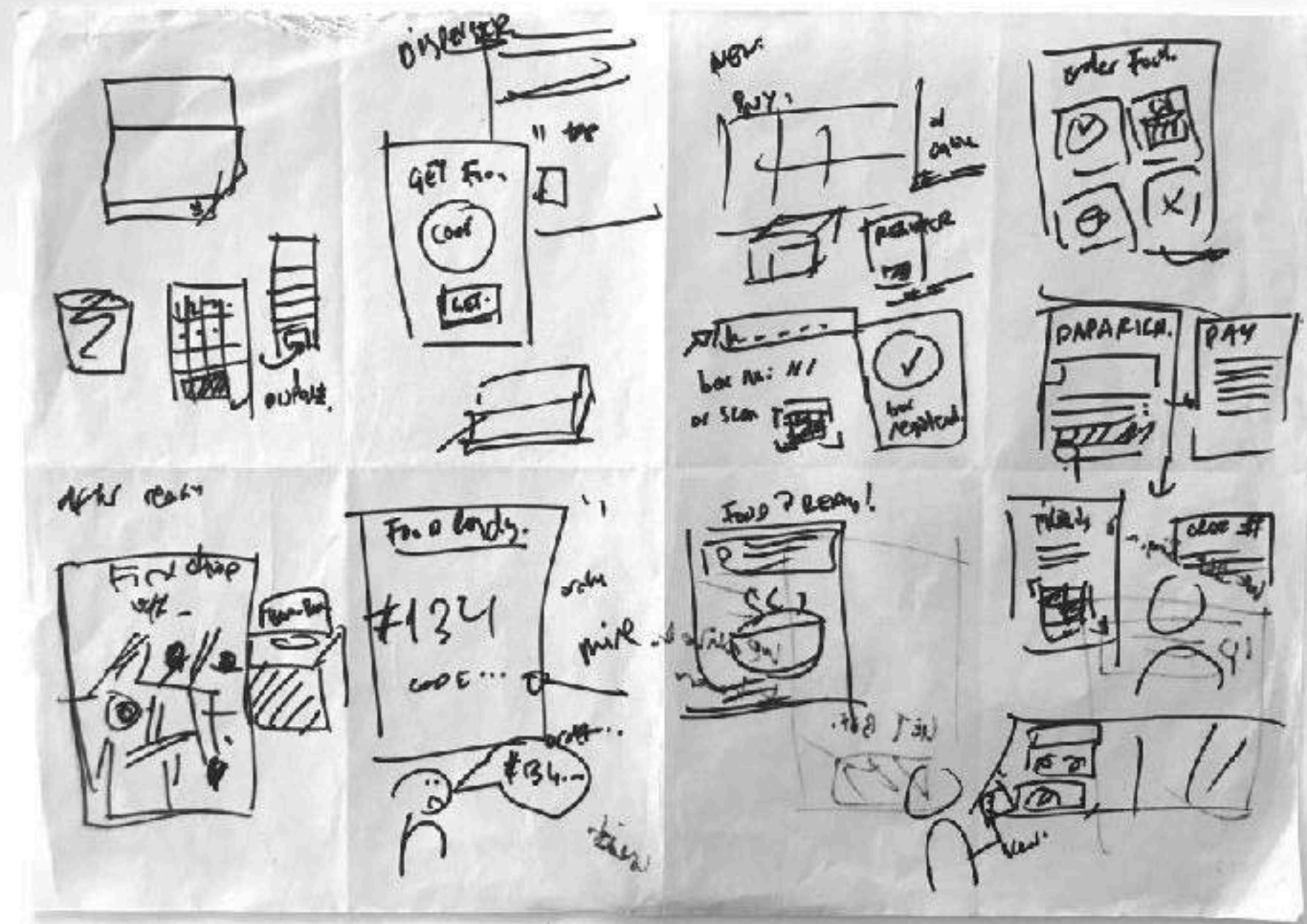
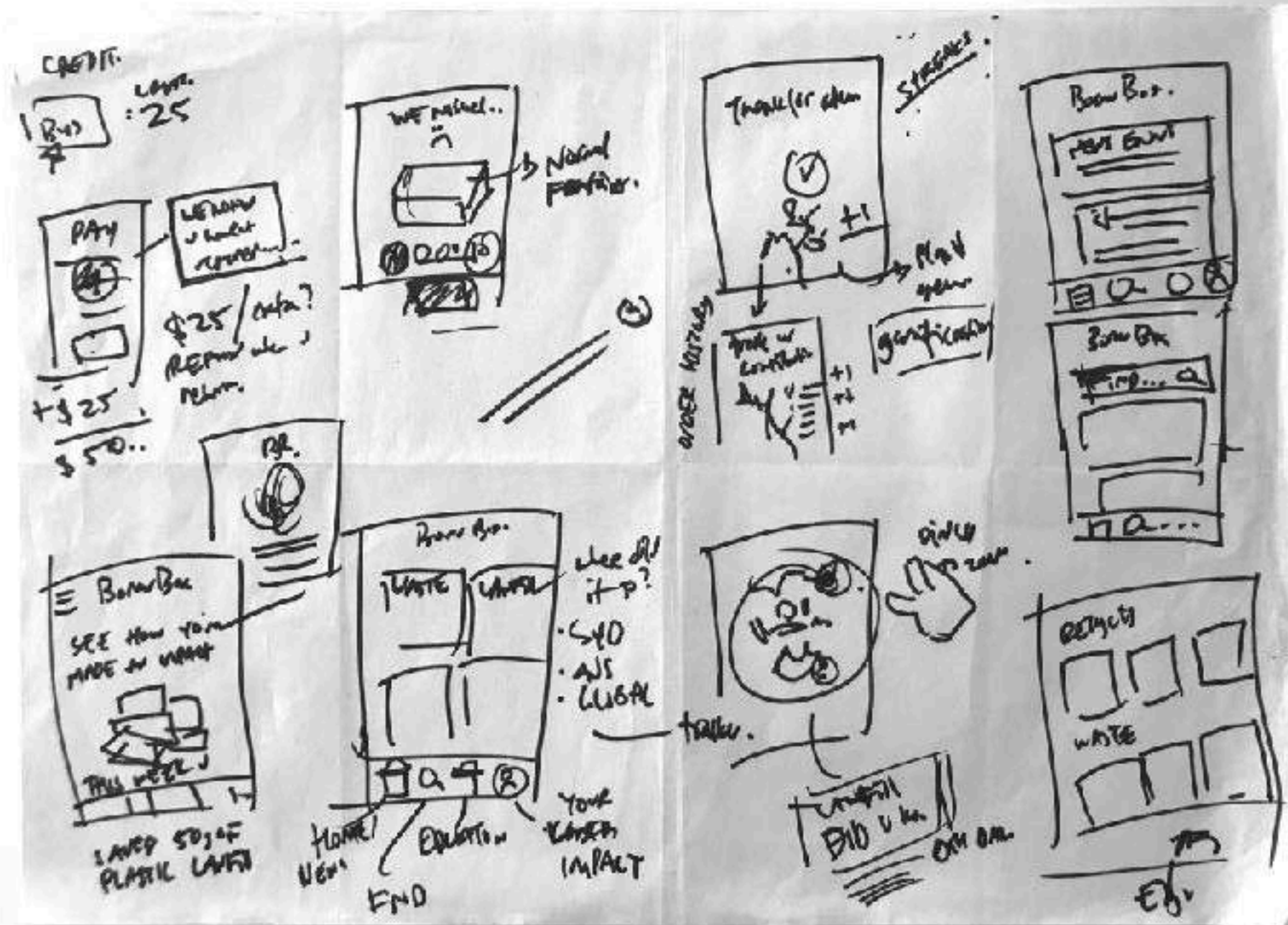
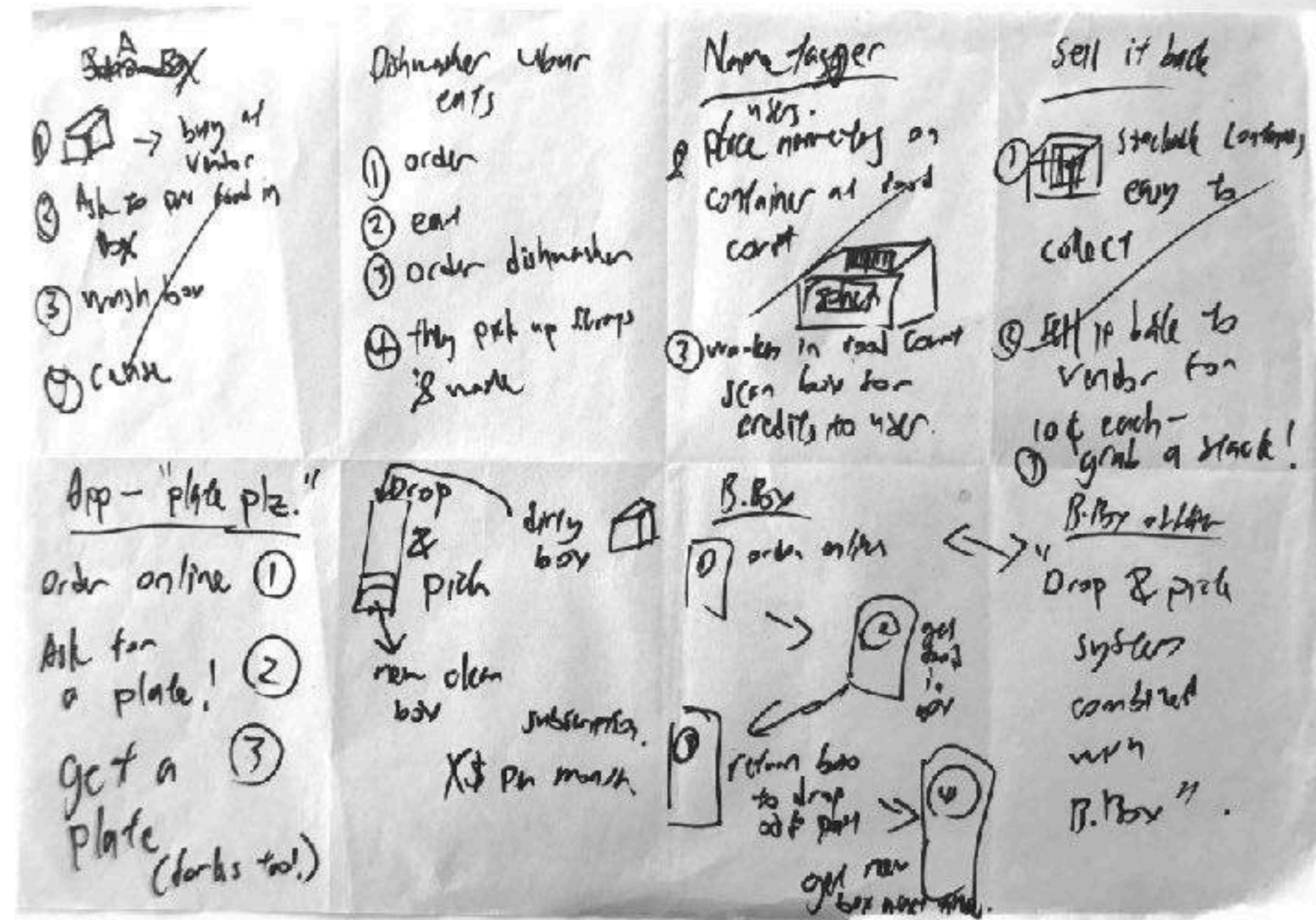


http://storecdn.keepcup.com/media/wysiwyg/series-update/Series_Tile_SW_may4th.jpg
Customisation

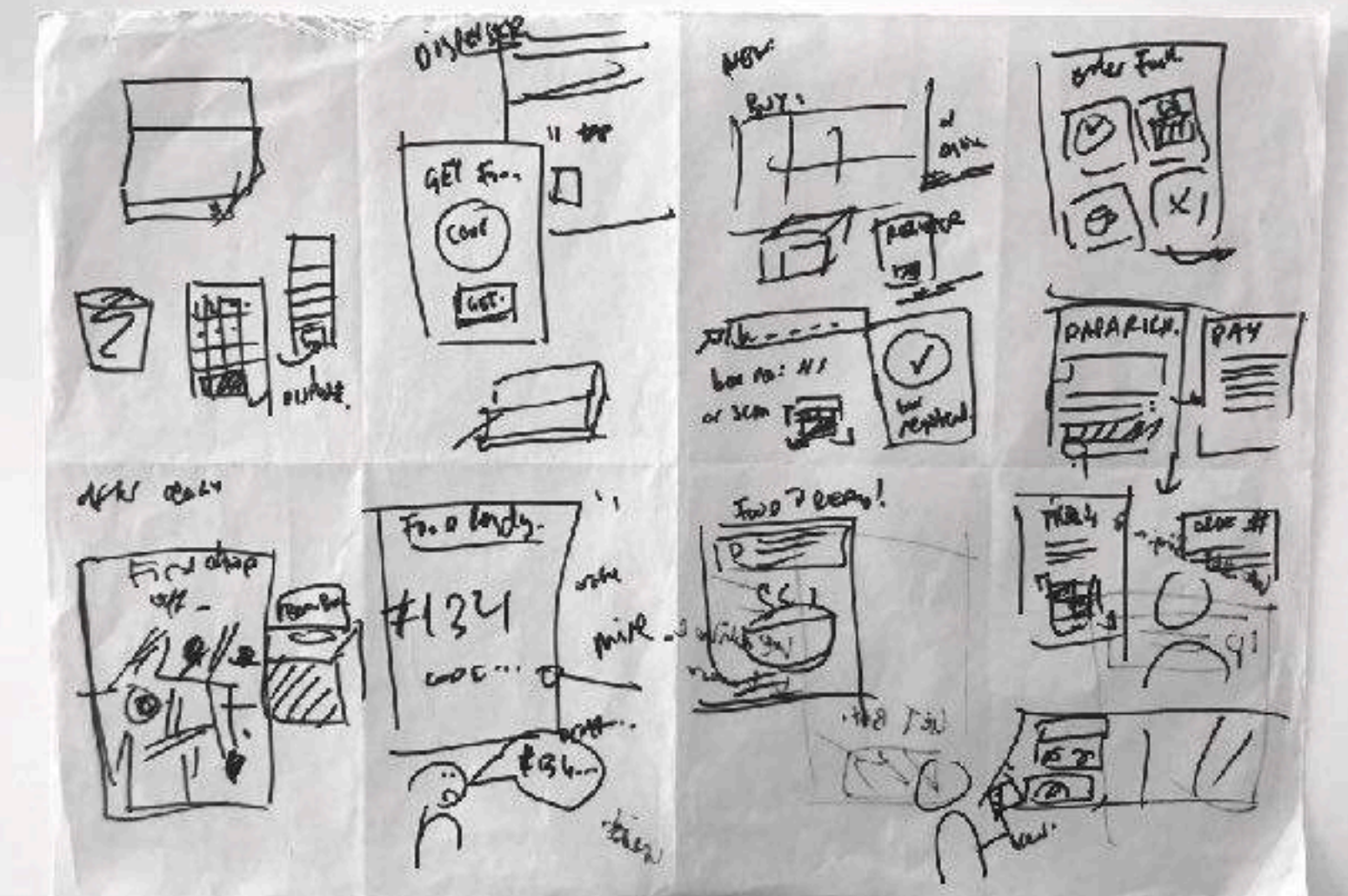
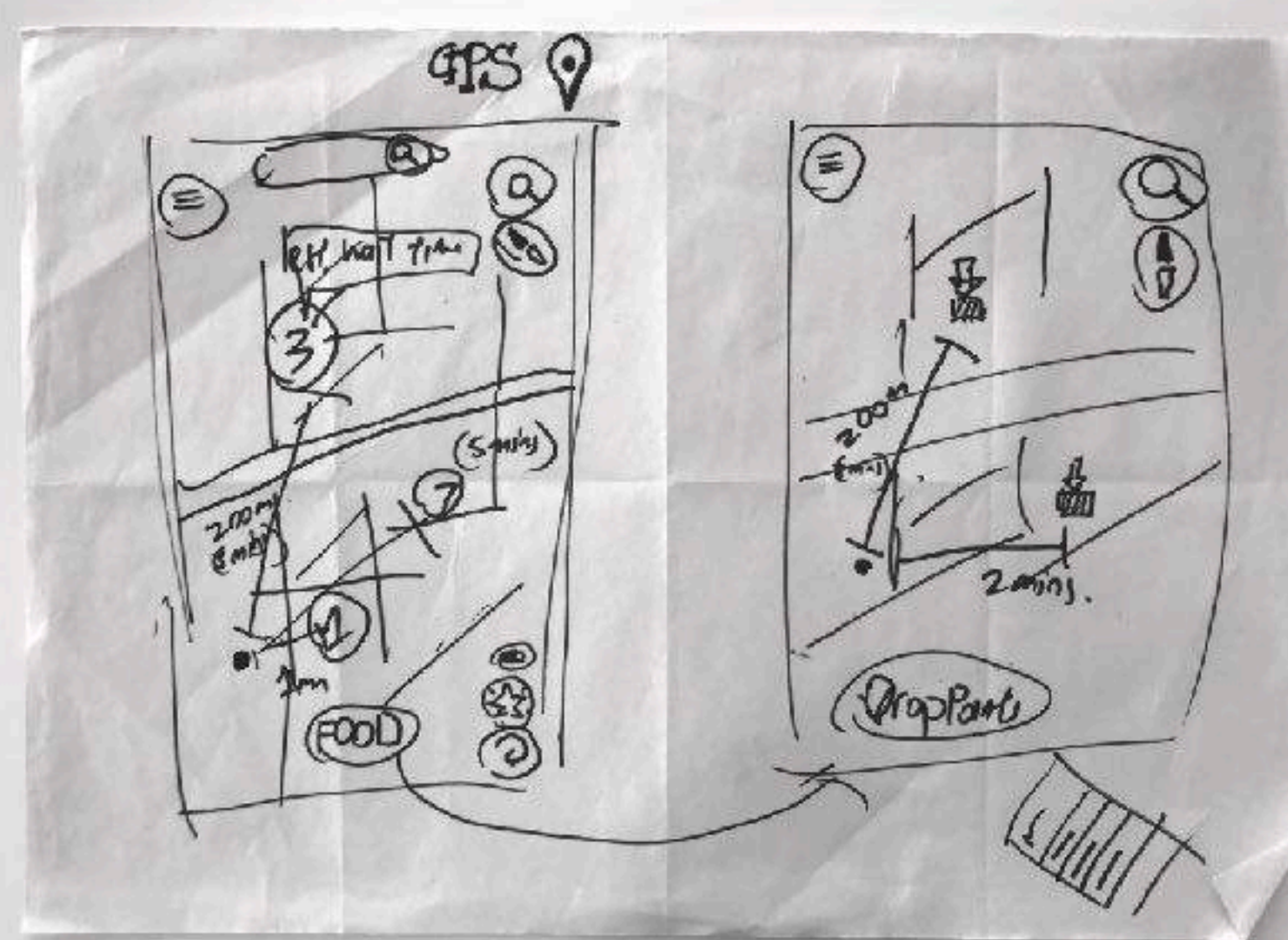
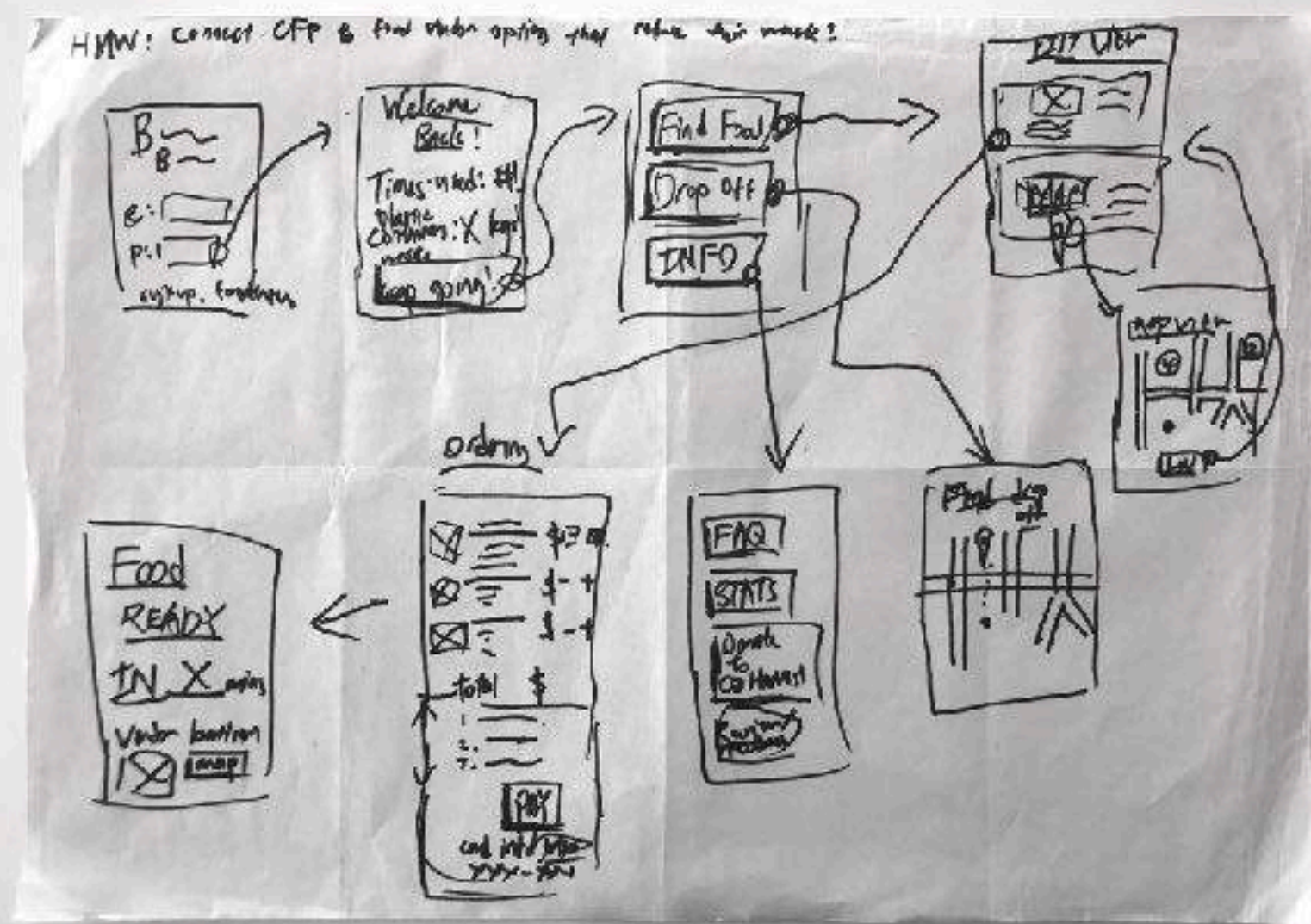
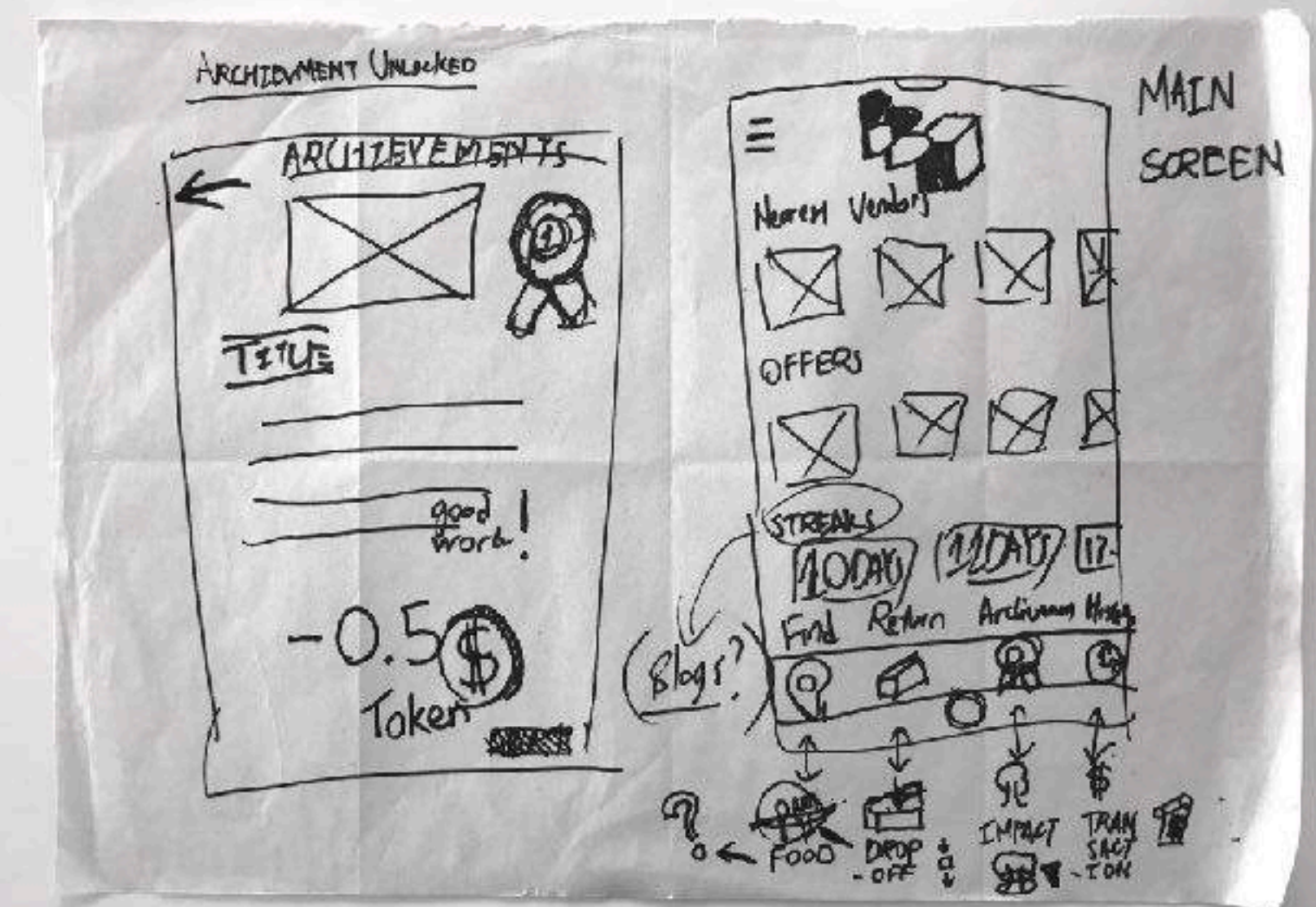
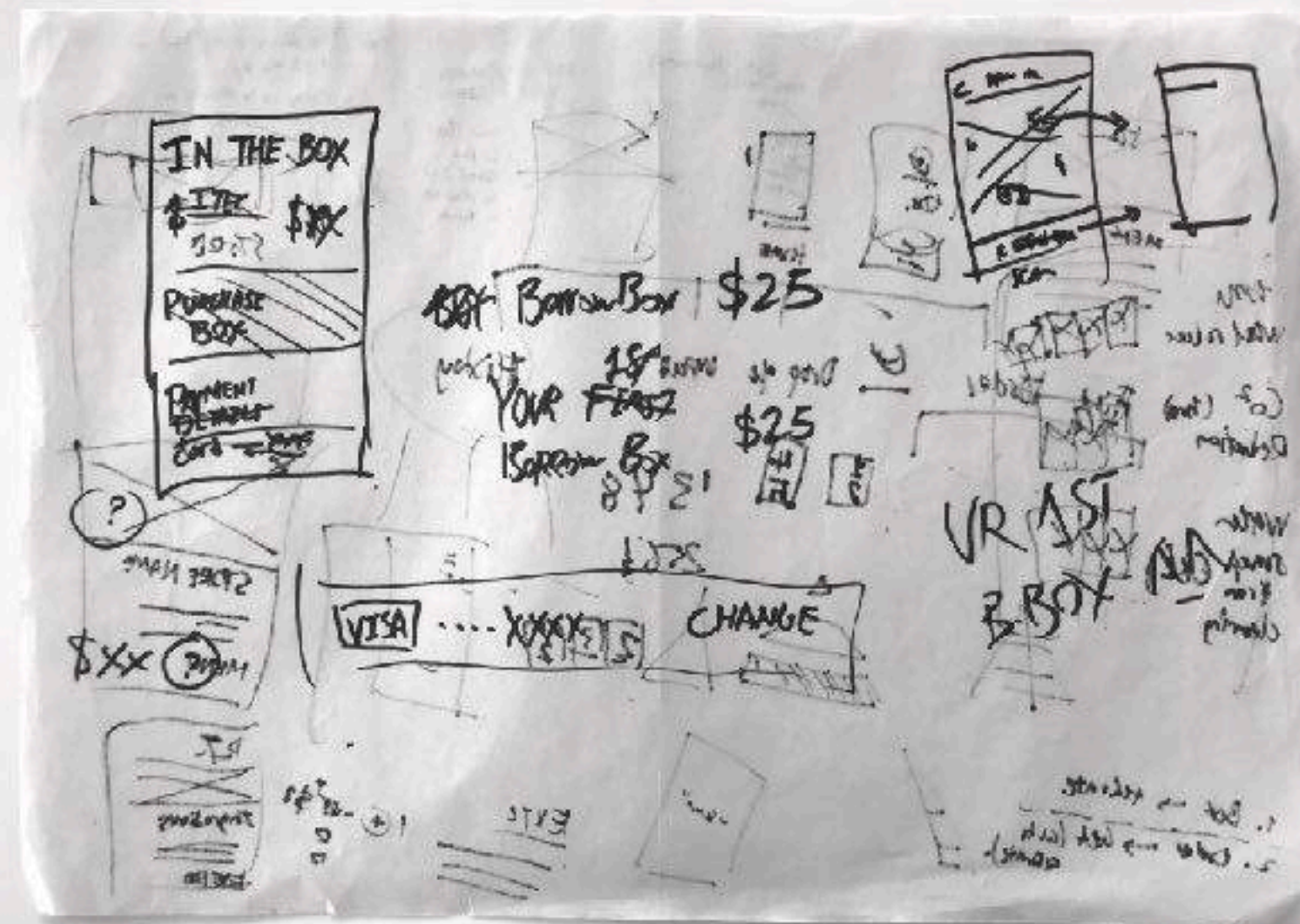
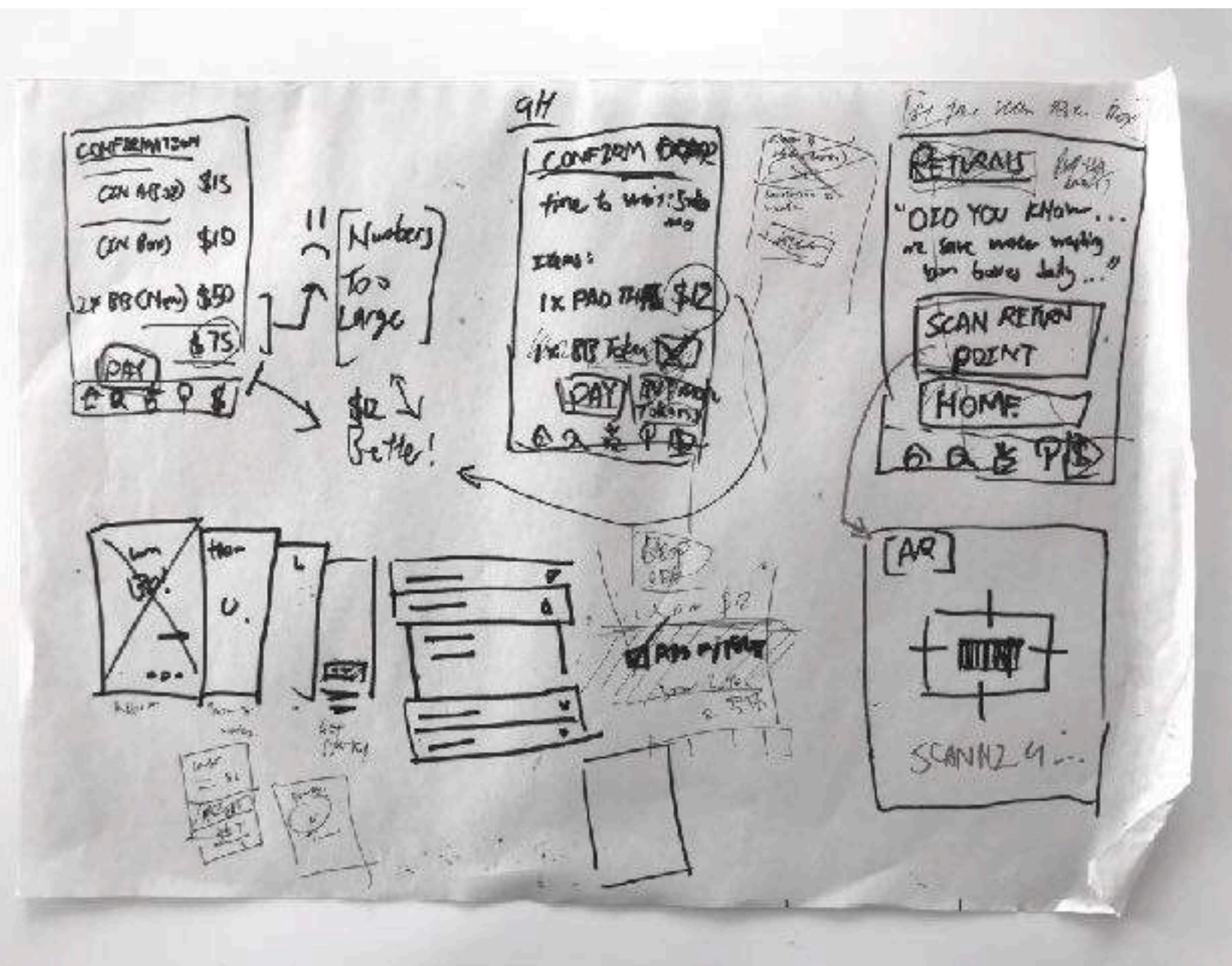
MINDMAPPING



CRAZY 8'S

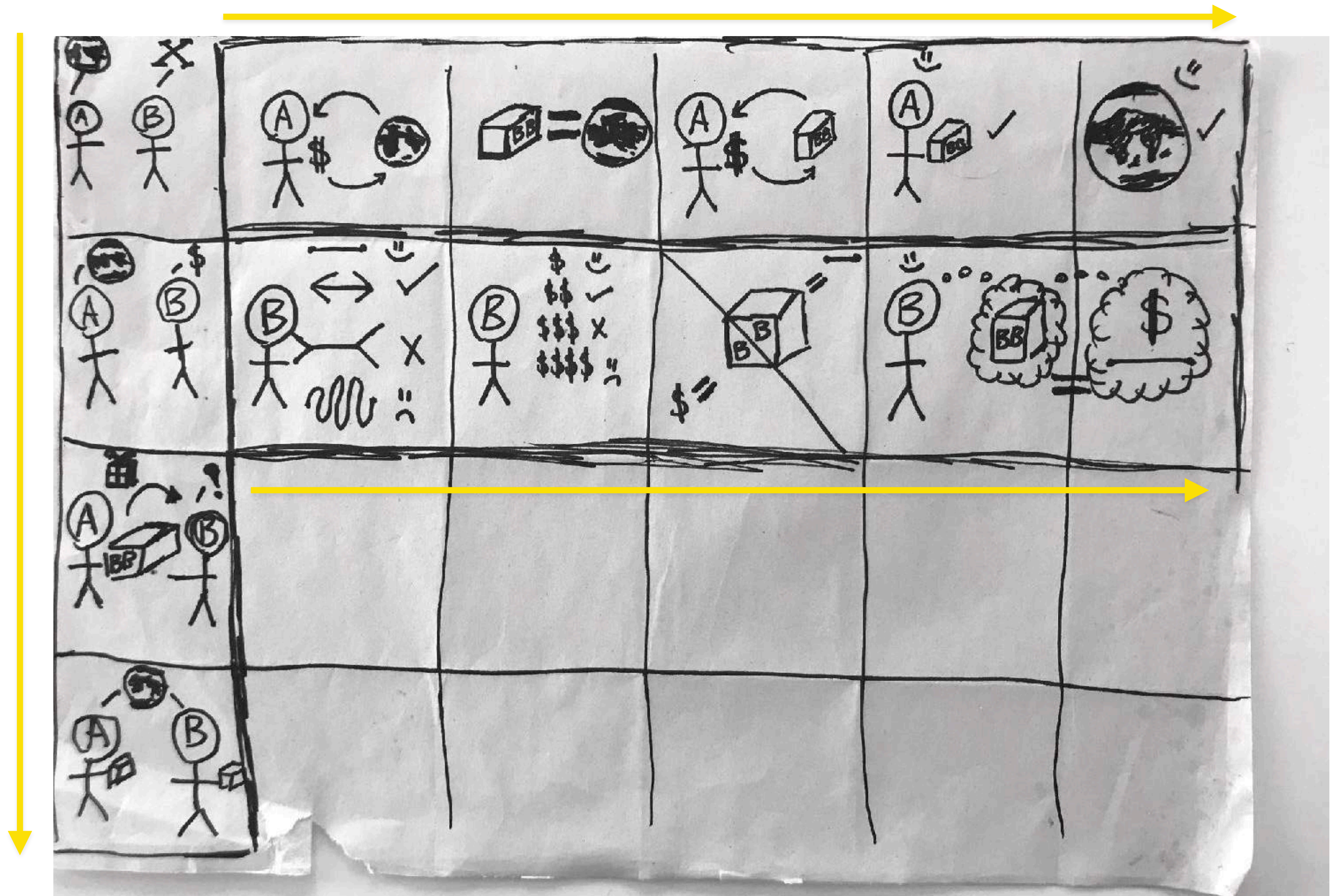


CRAZY 8'S



USER STORY:

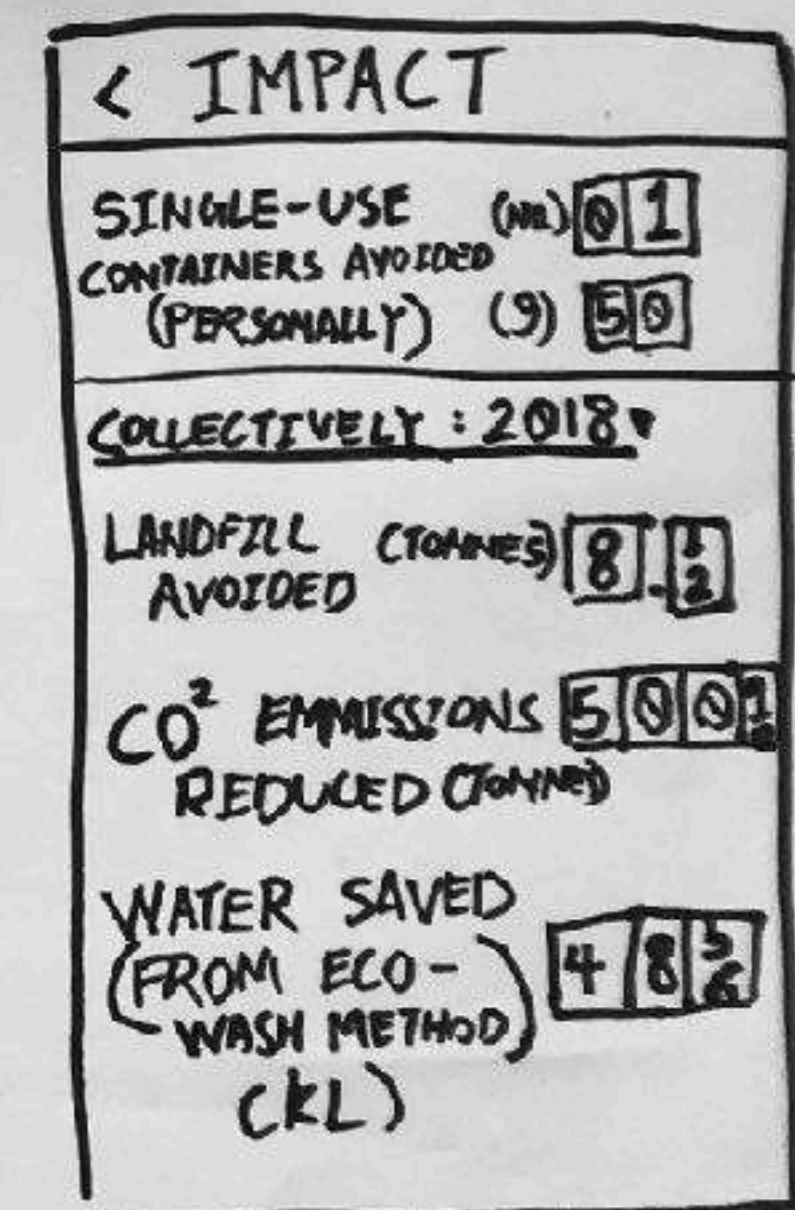
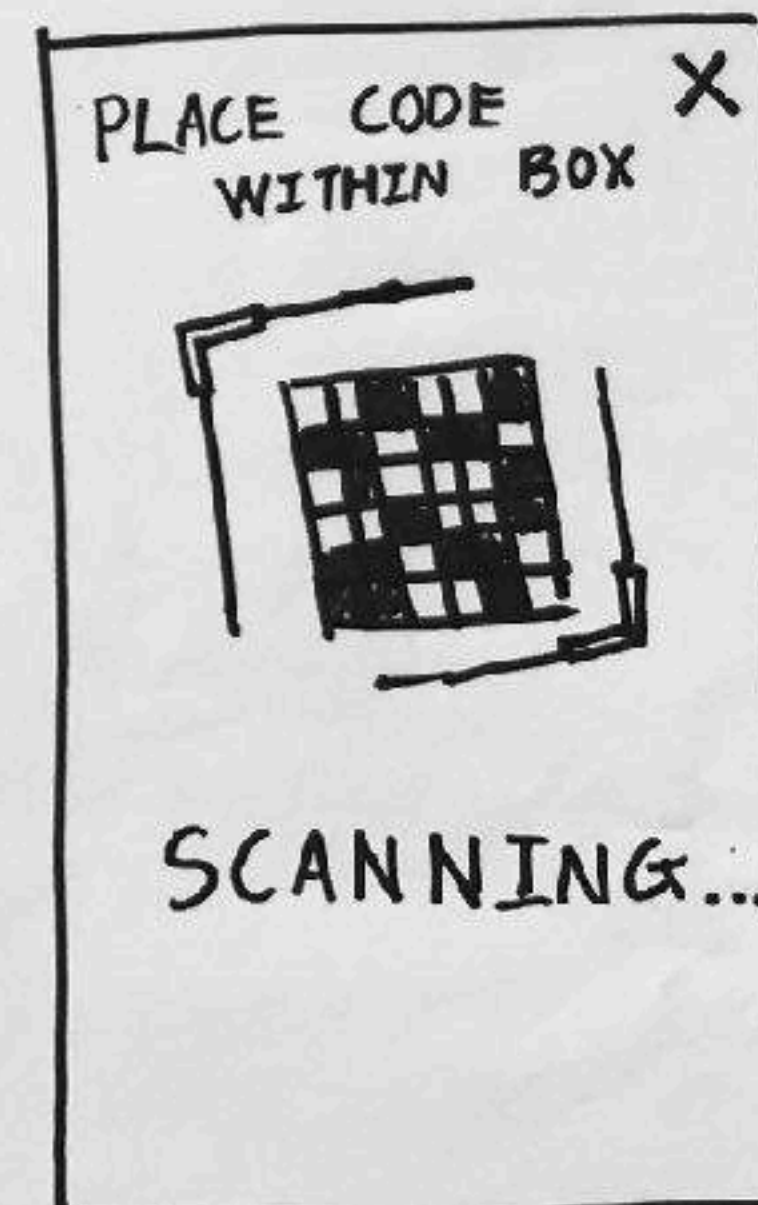
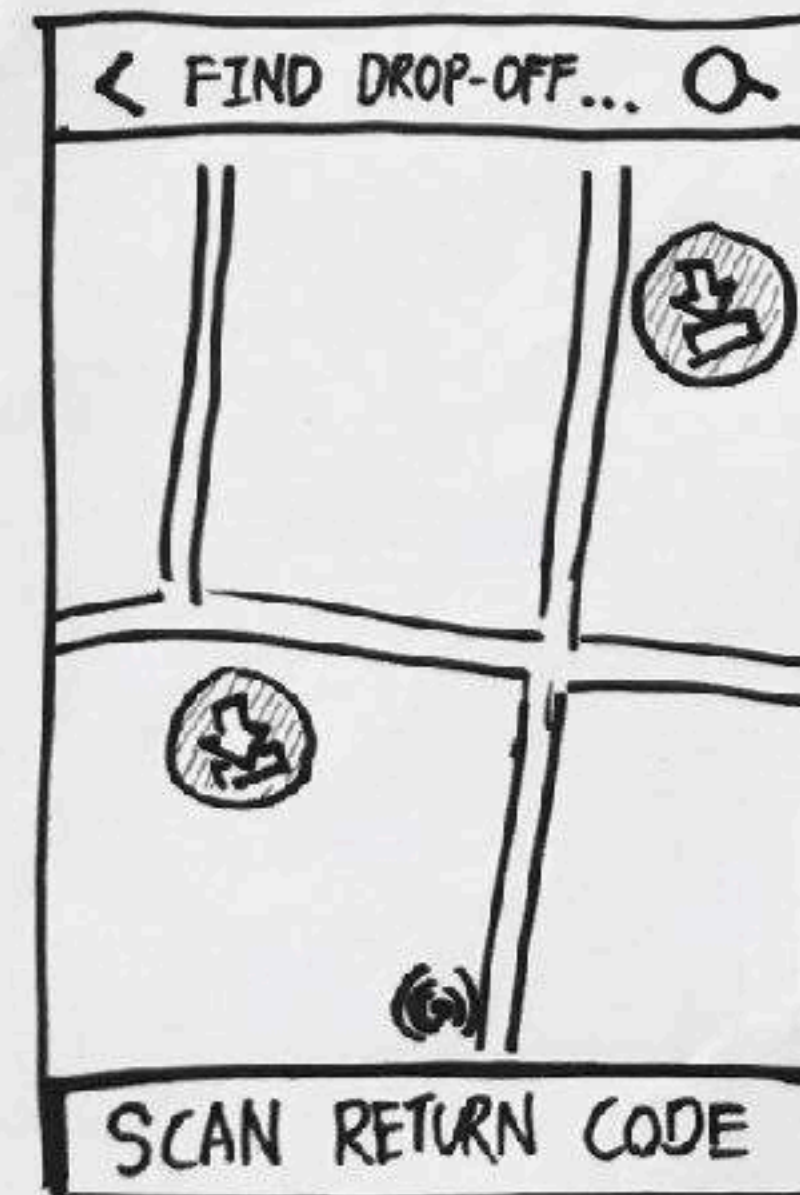
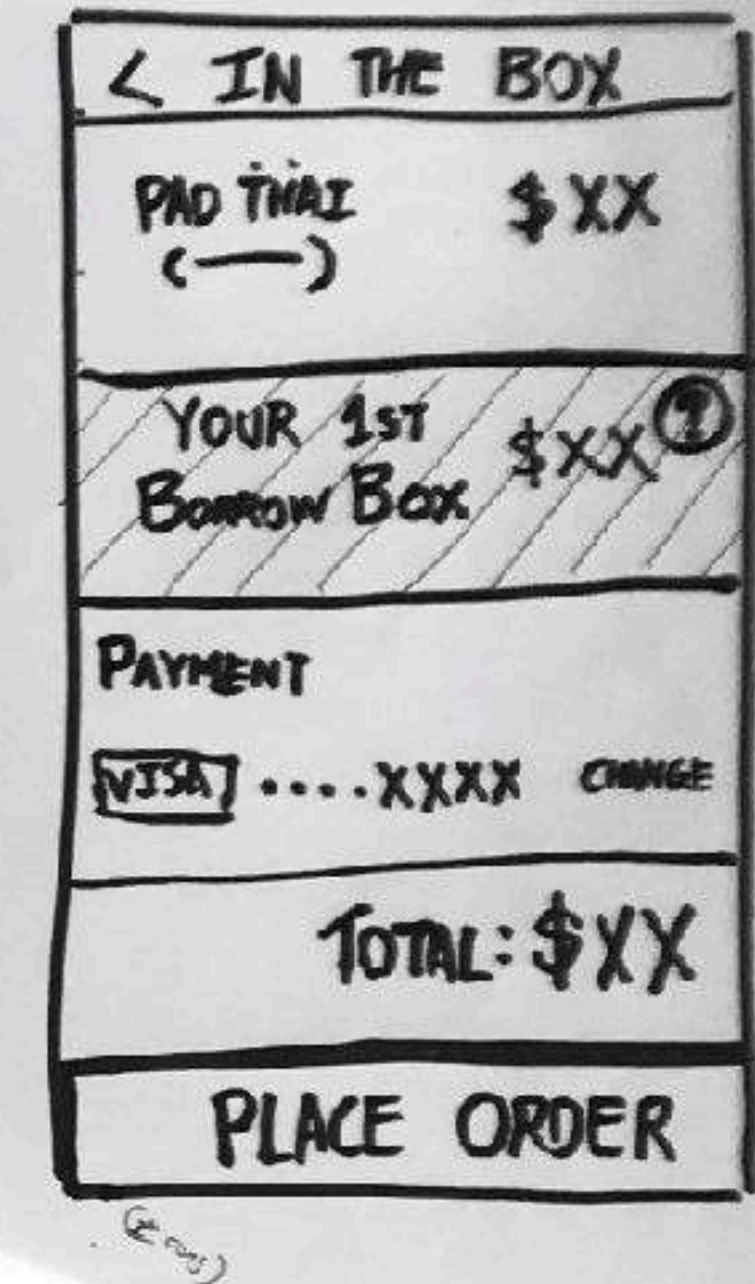
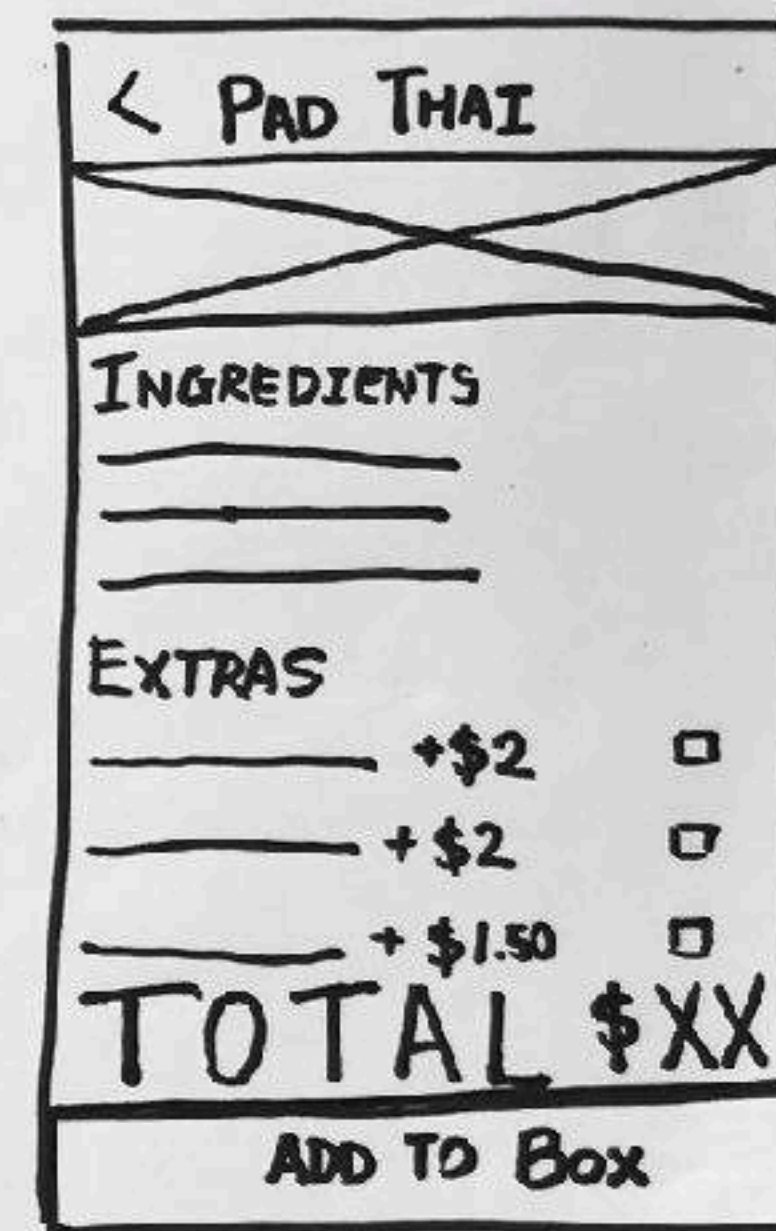
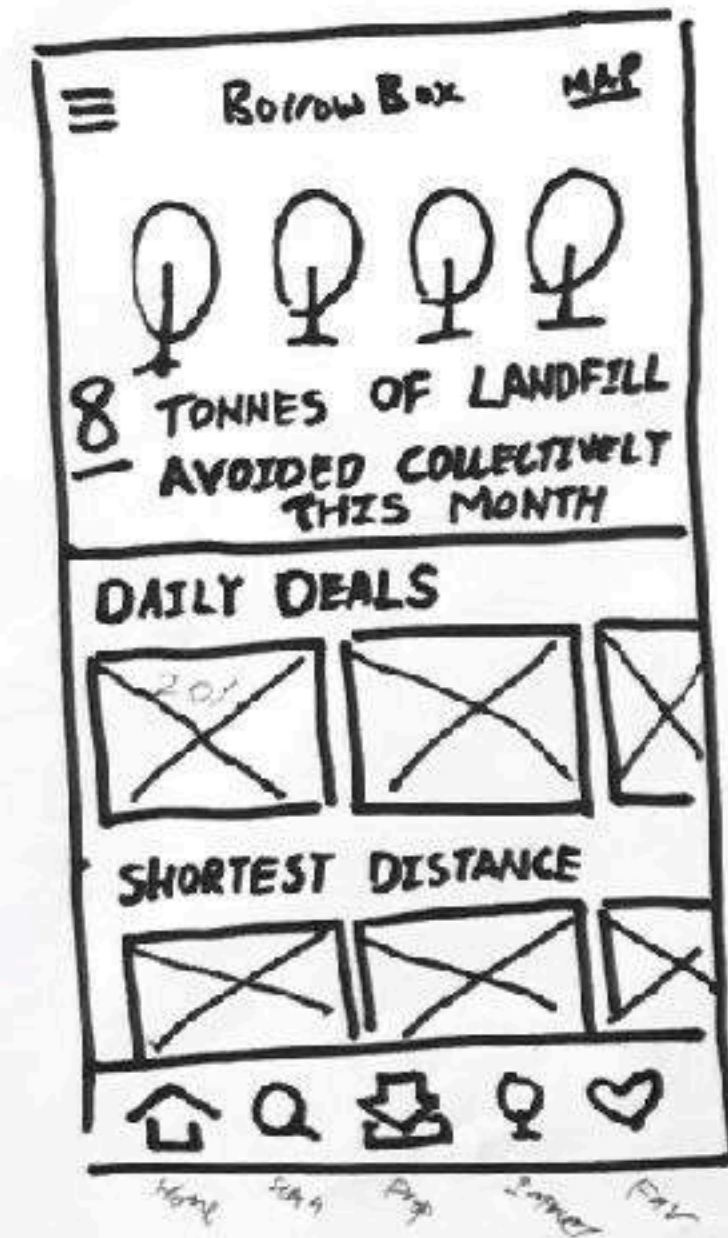
A/B TYPE PERSPECTIVES (HORIZON) & HOW TYPE A HELPS B GET ON THE SAME PAGE (VERTICAL)



The Prototype



PAPER PROTOTYPE



BorrowBox

Map

WAR ON WASTE

Tuesday, 16 May, 8.30pm

ABC iview

#WarOnWasteAU

5

Tonnes of landfill avoided collectively this month

Like a deal?

#THAI

-20%

#VEGAN

-15%

#PIZZA

-30%

In a hurry?

#SUSHI

200m

#DUMPLINGS

410m

#INI

50%

Home

Search

Download

Map

Heart

ThaiRiffic

Map

On the menu

\$-

\$-

Pad Thai - Tofu

\$-

\$-

\$-

Home

Search

Download

Map

Heart

Pad Thai - Tofu

What's in it?

Extras and goodies!

+\$2

+\$2

+\$2

Additional Comments

TOTAL

\$ XX.XX

ADD TO YOUR BOX

Confirm payment

Pad Thai - Tofu

No Cashews

\$XX

Get your very first BorrowBox!

Welcome to team BorrowBox!

\$25

Your payment method

XXXX XXXX XXXX

change

TOTAL

\$ XX.XX

PLACE ORDER

Order has been placed!

Estimated distance: 374m

MLC

Your order has been placed and is being prepared!

It should be ready in:

5 min

A friend is picking up my food

Contact store

Home

Search

Download

Map

Heart

Return your box

Return Point: Active

Return Point: In-active

Return Point: Active

MLC

Return Point: Active

SCAN CODE

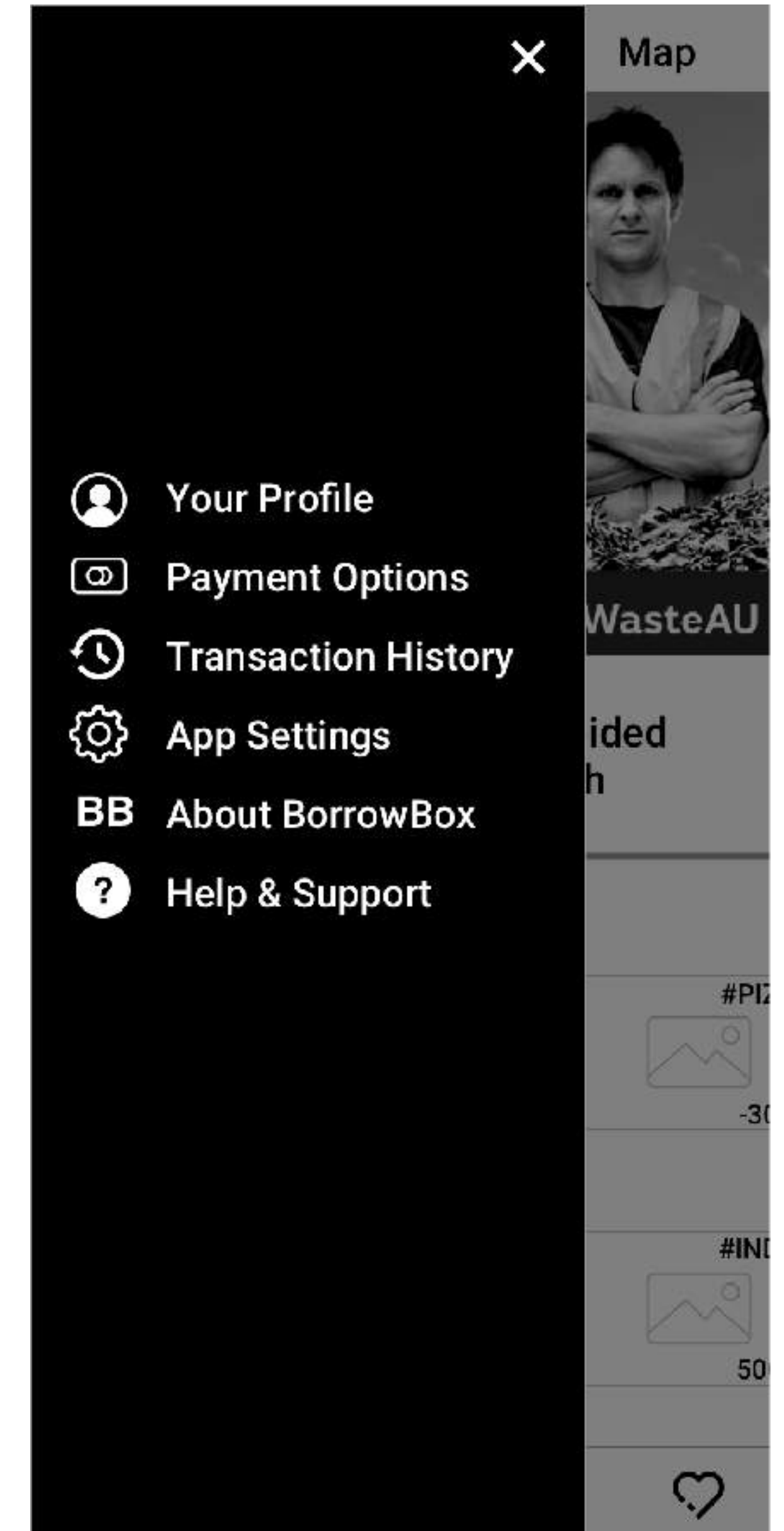
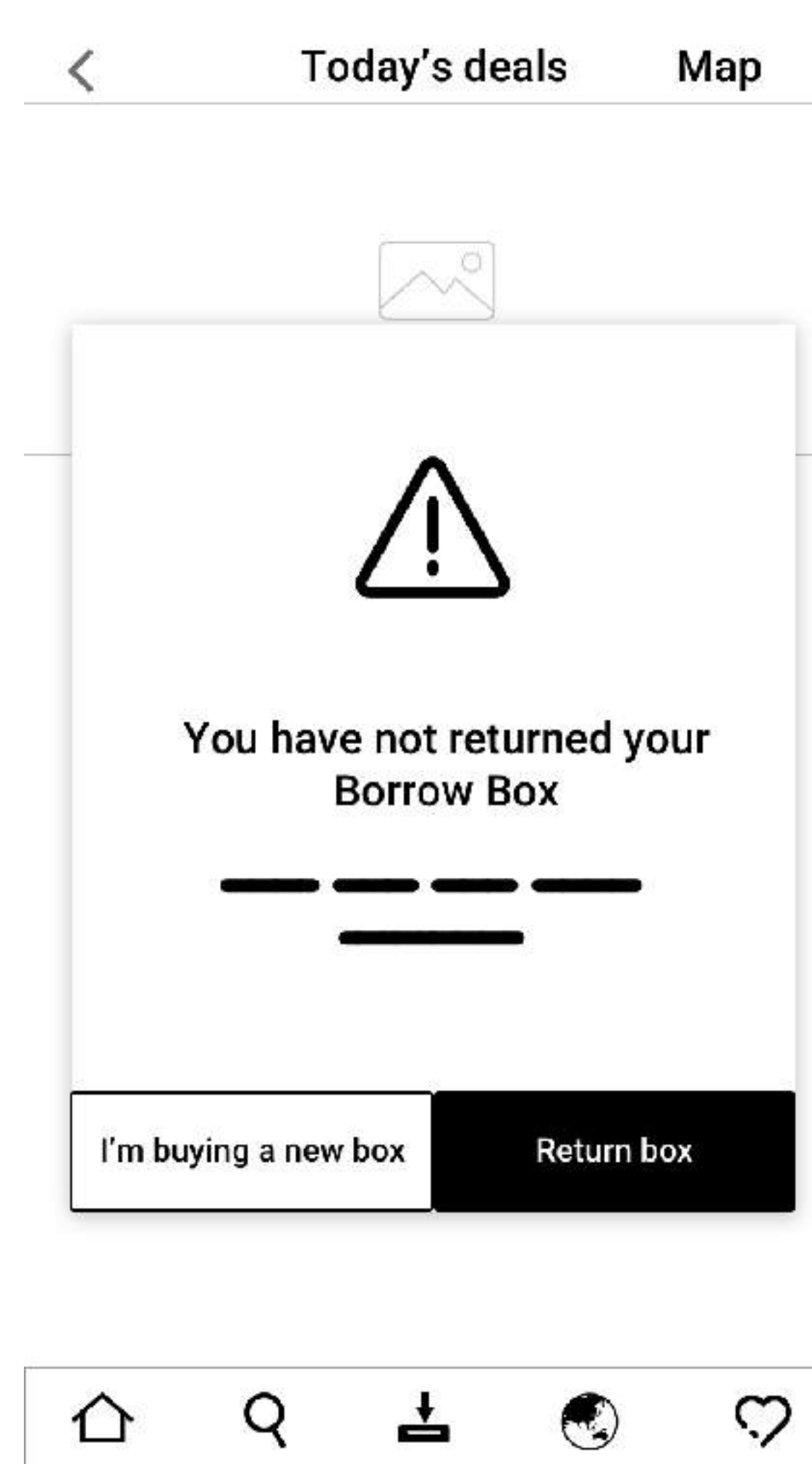
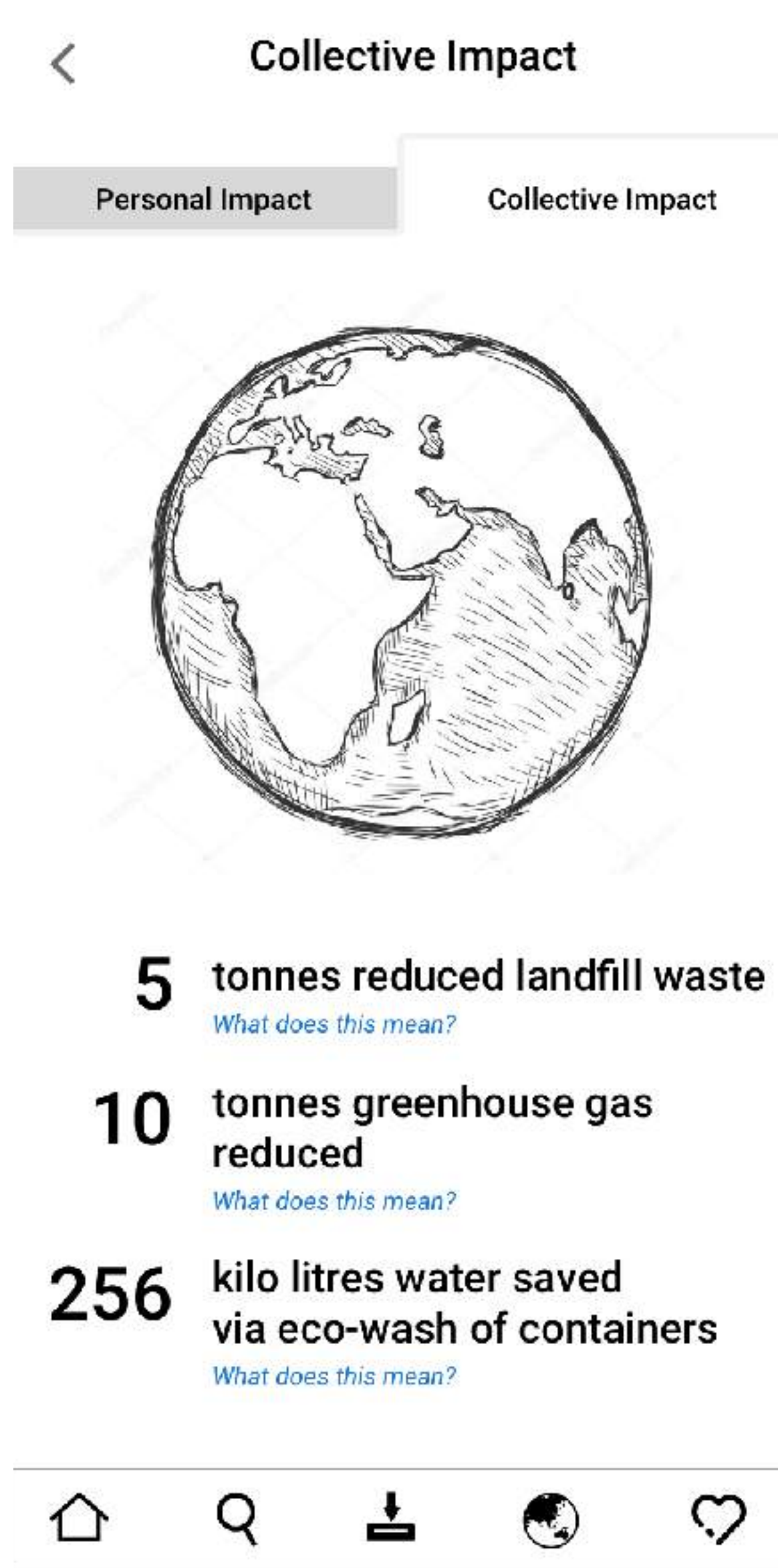
Scan return code

Place code within box

Scan return code

Your box has been returned

You've just unlocked a new badge!



BorrowBox

Map

WAR

ON WASTE

Tuesday, 16 May, 8.30pm

#WarOnWasteAU

5

Tonnes of landfill avoided collectively this month

Like a deal?

#THAI

-20%

#VEGAN

-15%

#PIZZA

In a hurry?

#SUSHI

5min

#DUMPLINGS

7min

#MEXICAN



<

Personal Impact

Personal Impact

Collective Impact

You've prevented 5kg of plastic waste!

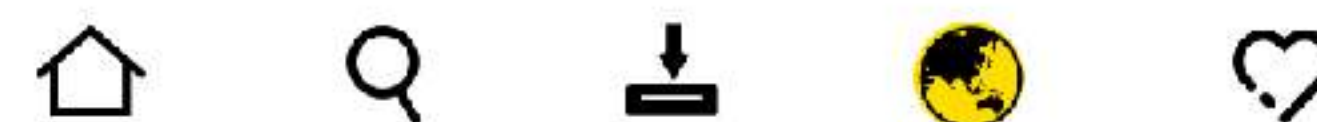
Go you, superhero.

New badge!

BB

5

10



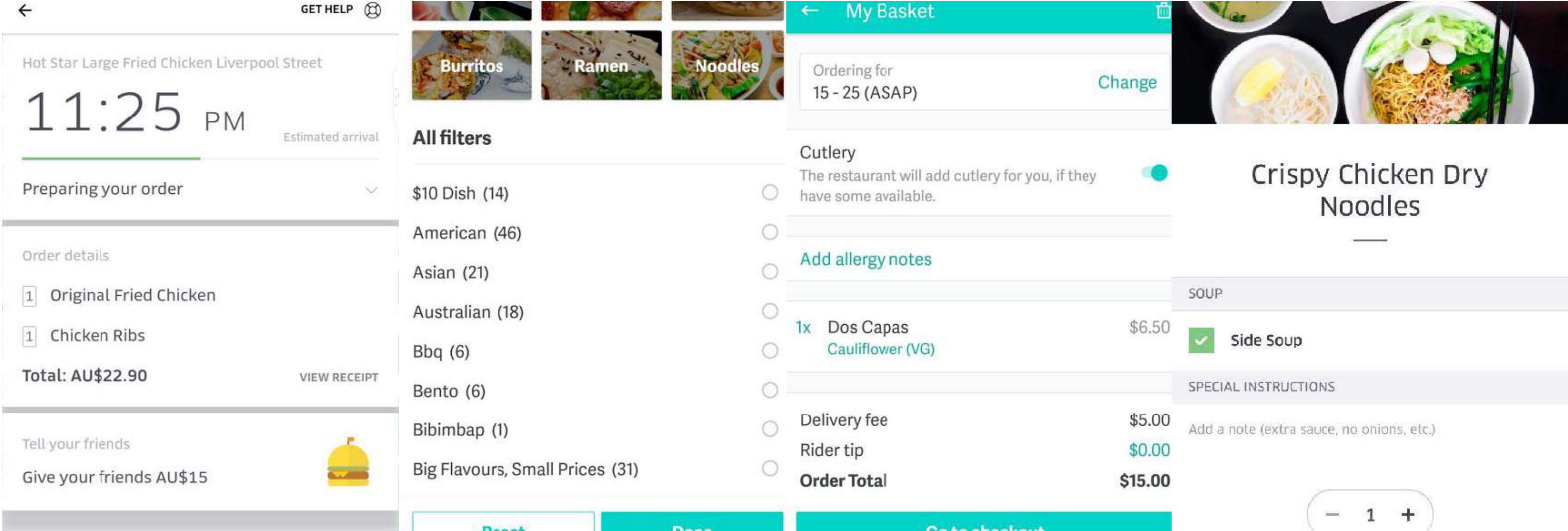
TRY IT YOURSELF

[https://invis.io/GZOBX8NSH6C#/
322798237_Main_Page](https://invis.io/GZOBX8NSH6C#/322798237_Main_Page)

Competitor Analysis

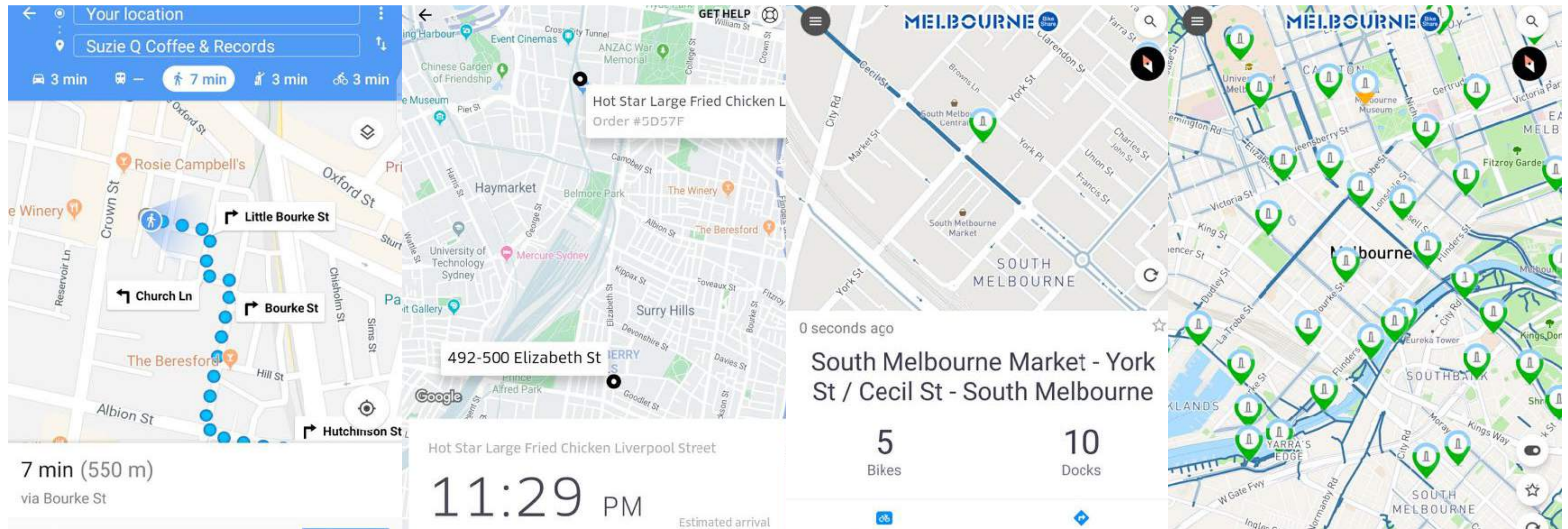


TREND: FOOD SELECTION SCREENS



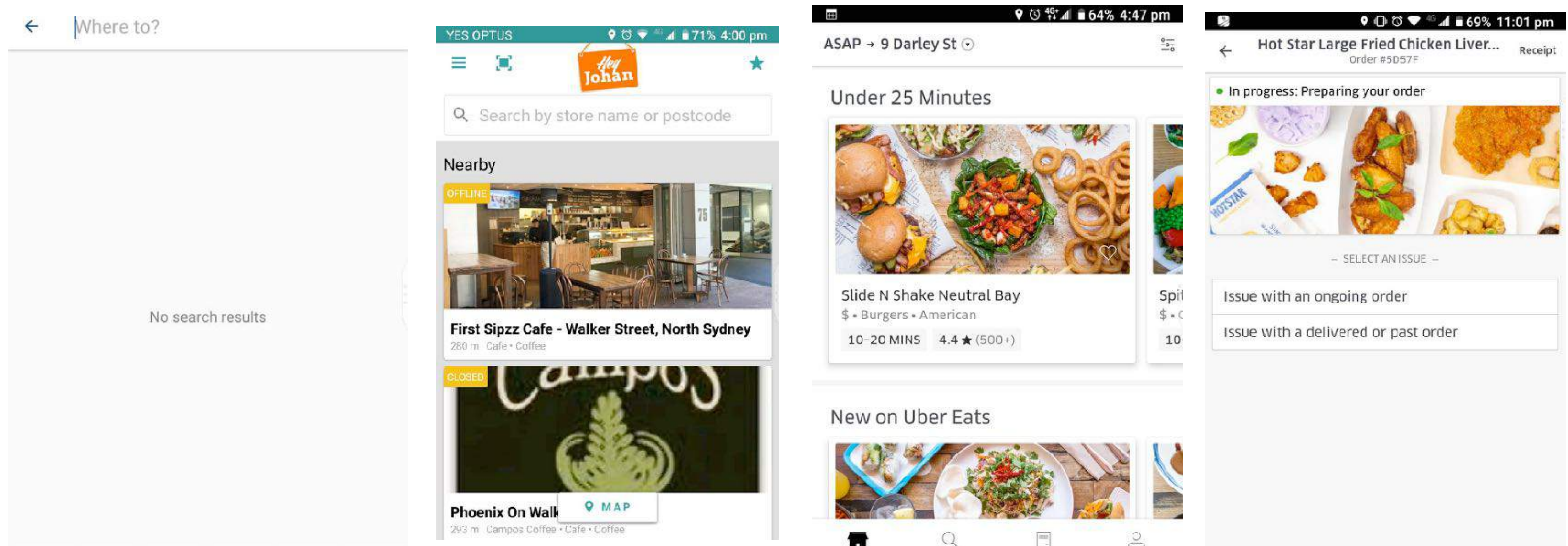
Apps: Uber Eats, Foodora
Design: Choices pane, Prices and Totals

TREND: NAVIGATION



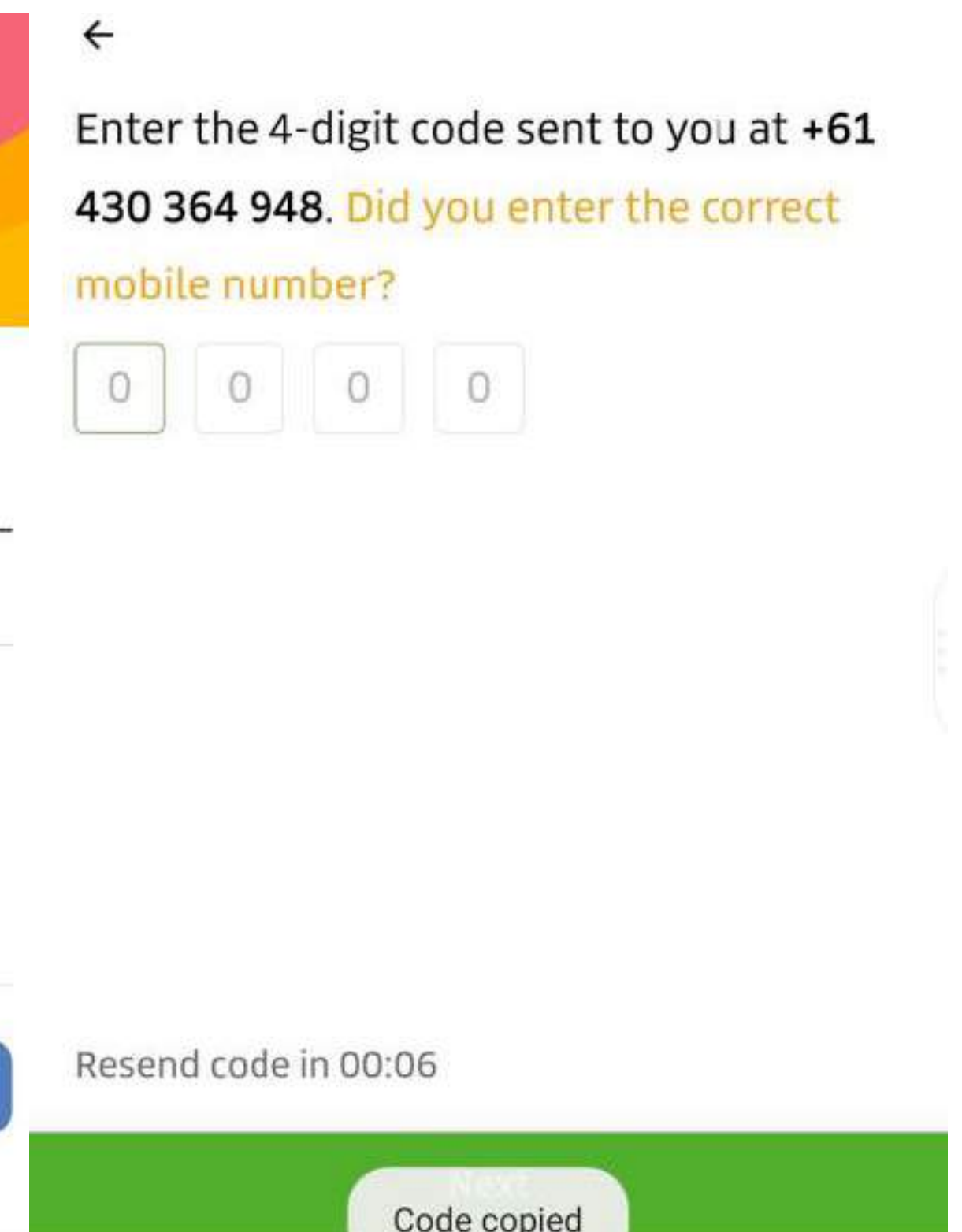
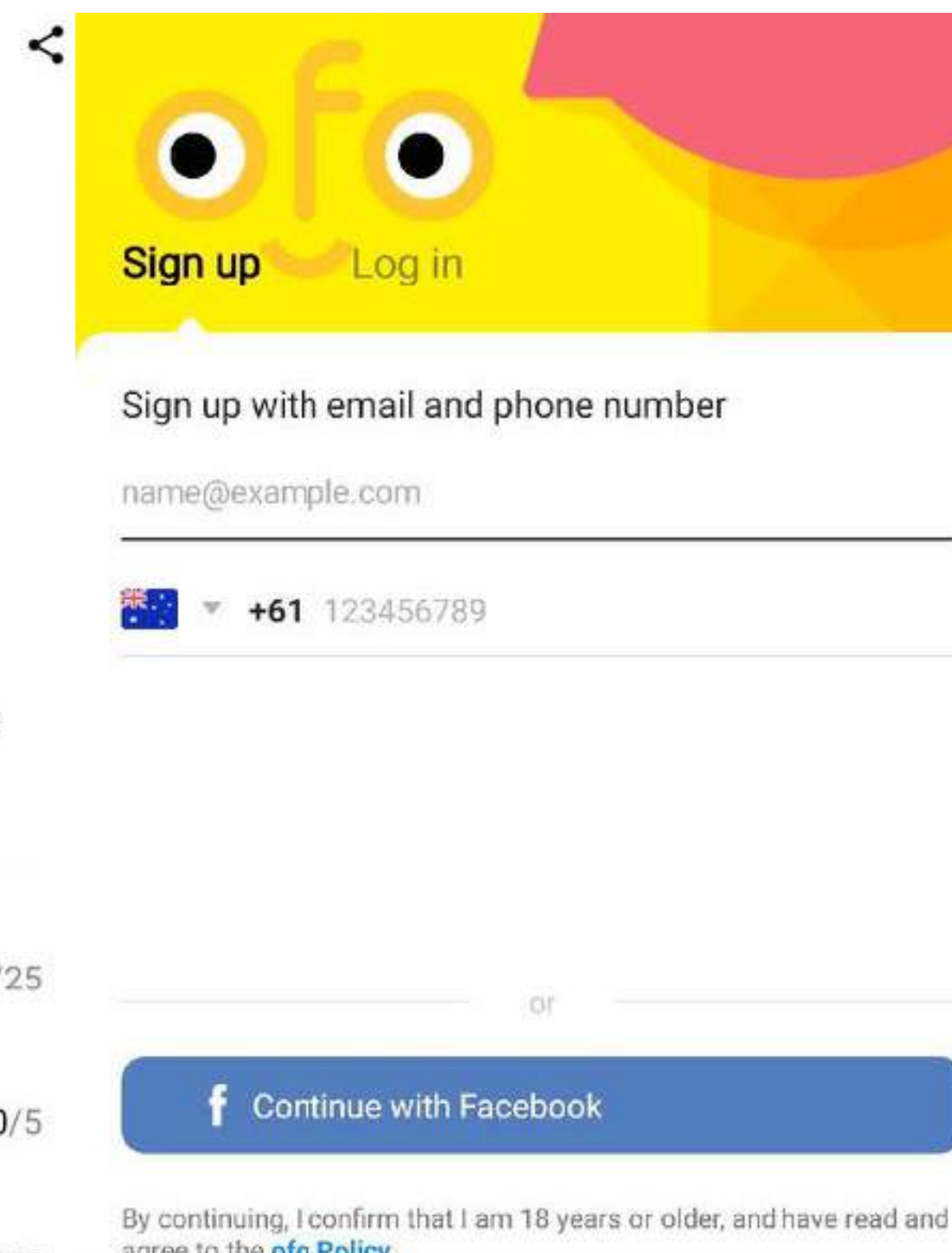
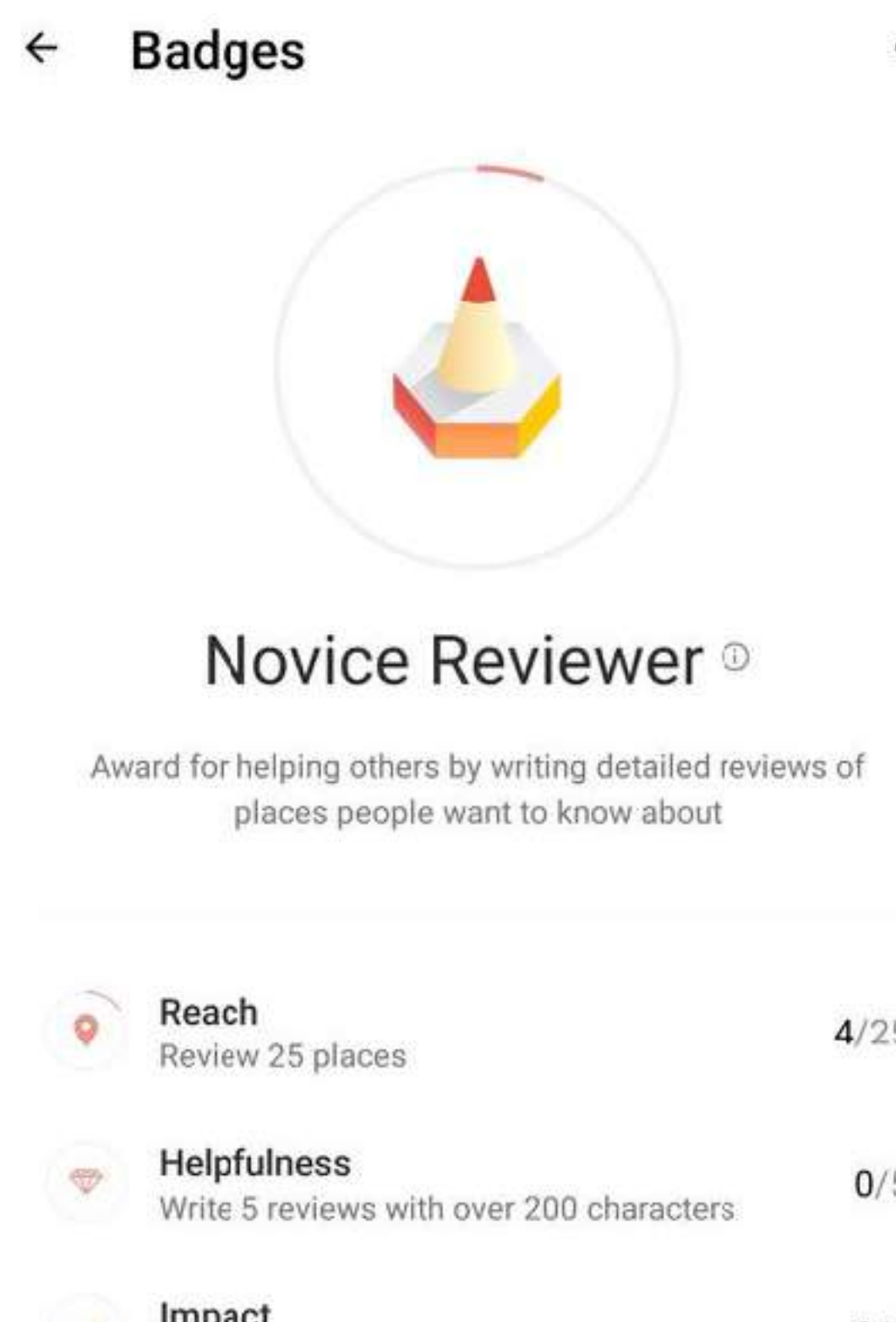
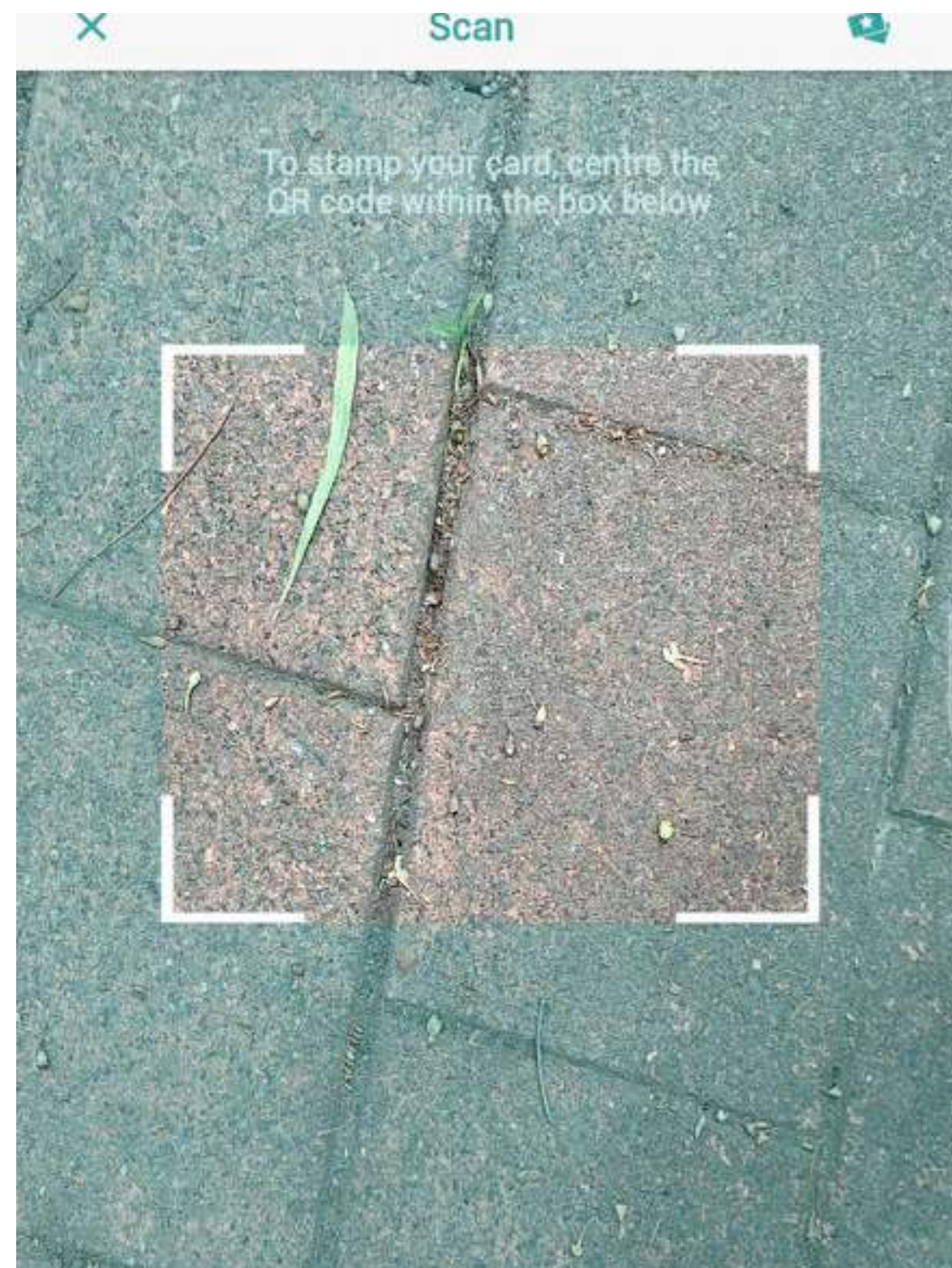
Apps: Melbourne Bike Share, Google Maps, Uber Eats
Design: Online/Offline drop off points, Start - Destination

TREND: VENDOR SELECTION SCREENS



Apps: Uber Eats, Hey You!, Foodora
Design: Cards layout, Ratings on vendors, Deliver time approximation

TREND: MISC.



Apps: Hey You!, Google Maps, Ofo, Uber Eats
Design: AR Card Scanner, Badges, Sign-up Screens