

26 SEPT 2020

# Amazon Redesign

Tackling Sustainability in the E-Commerce Industry

---

## PROJECT DURATION

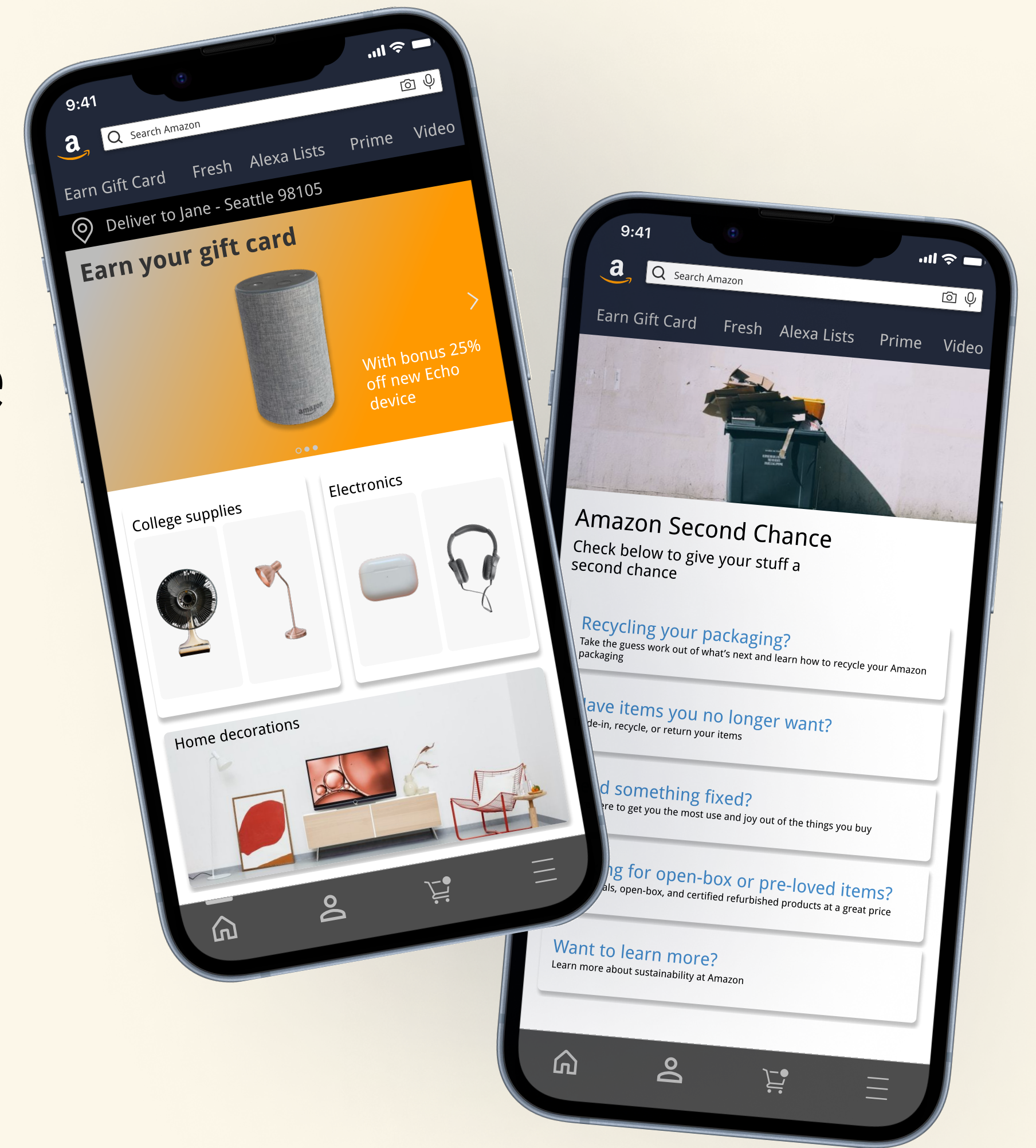
This project took place over a period of 7 days during Sept 2020 for [Drawerrr Design Challenge](#) at drawerrr.com.

## DESIGN CHALLENGE

Design checkout screens for e-commerce app to help people recycle the goods they buy.

# Our group focused on reducing materials and waste in the e-commerce industry to address sustainability.

As electronics evolve, they've transformed how we live and connect globally. However, we generate 40 million tons of e-waste annually—equivalent to 800 laptops discarded every second. By improving efficiency, using renewable energy, reducing materials, and cutting carbon emissions, we can make a positive change.



## OUR DESIGN QUESTION

“How might we improve the existence of current recycling programs and encourage users to utilize them?”



# User Research

To closely look at how different stakeholders tackle sustainability and recycling in the system, we identified their motivations and concerns via online archival research, user interviews, and surveys. Our **target users are the customers of e-commerce**. The **stakeholders include the e-commerce company, recycling facilities, delivery businesses, and advocacy groups for climate change**.

## 3 potential motivations of stakeholders:

1. Those businesses which hope to achieve green policy may want to **protect the habitat of pollinators**.
2. The customers or advocacy groups of climate change wish to **buy reused products** that are good for the environment.
3. Governmental **funds for sustainable materials** may motivate e-commerce businesses to recycle.

## 4 potential concerns of stakeholders:

1. Recycling development is **costly and complex**, making it hard for small businesses and startups to afford.
2. E-commerce businesses without **recycling training** may resist green cleaning policies.
3. Material **production lines can harm** natural habitats.
4. Higher costs and slower production **challenge fast fashion trends**.



# USER INTERVIEW INSIGHTS AFFINITY DIAGRAMS ON MIRO

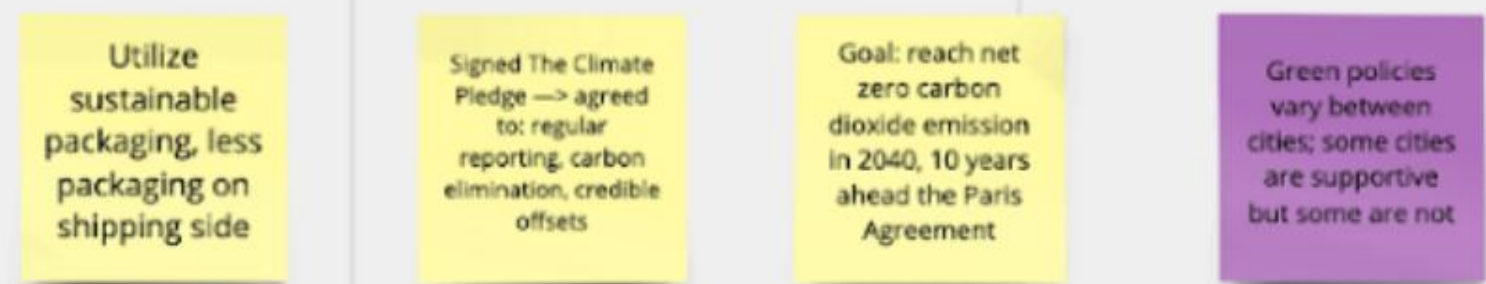
## COLOR CODED BY INTERVIEWEE'S IDENTITY



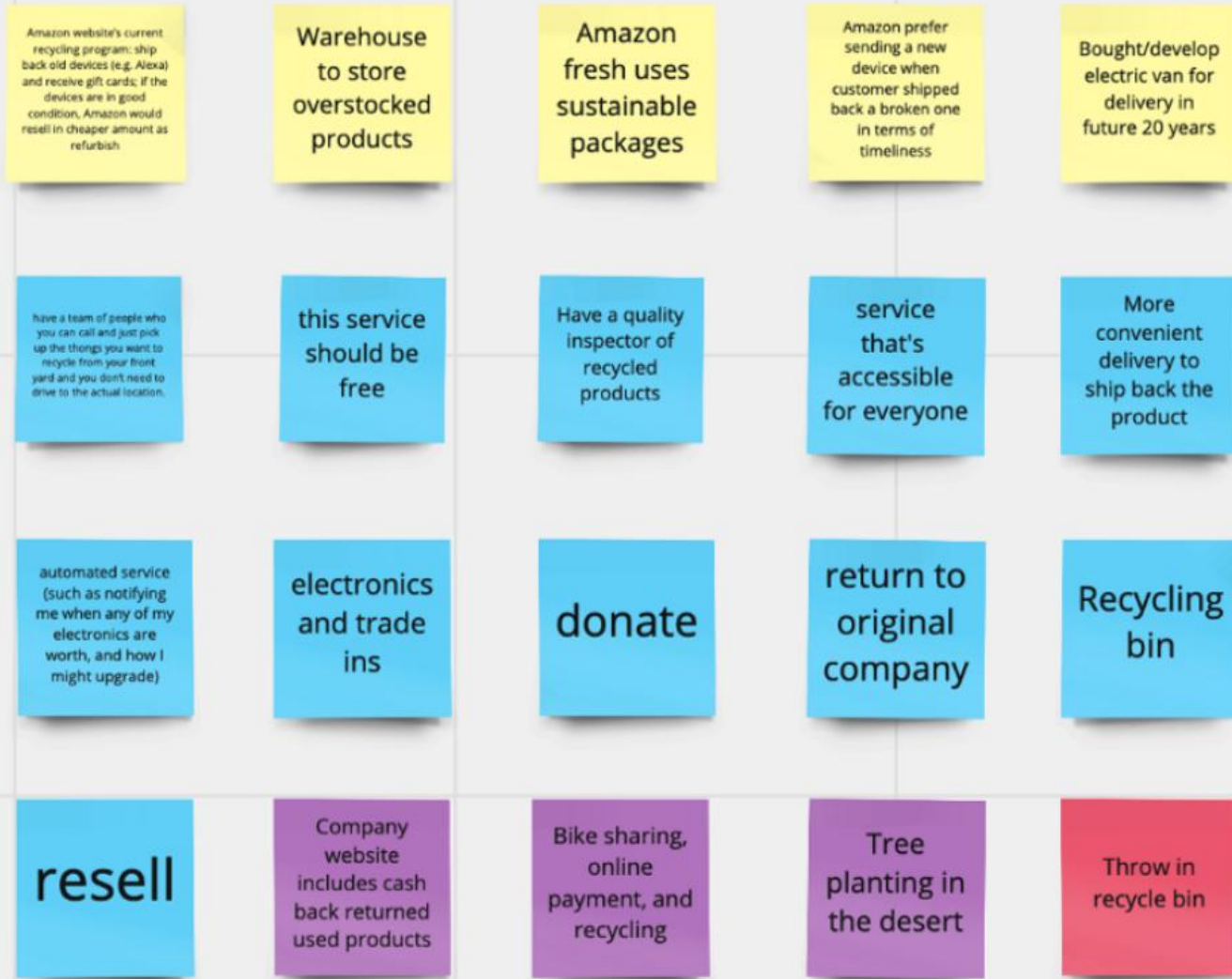
## VIEW OF RECYCLING/SUSTAINABILITY



## COMPANY'S CURRENT GREEN POLICY



## SOLUTION TO TACKLE SUSTAINABILITY



## E-COMMERCE PRO



## CHALLENGES FACED WHEN BALANCING SUSTAINABILITY IN E-COMMERCE INDUSTRY



After analyzing the motivations and concerns of stakeholders.

We look more closely at how e-commerce companies operate by **inspecting the business models** of the most popular shopping websites in **North America** and **Asia**: Amazon and Alibaba.



## AMAZON



Amazon is a massive **retailer of both new and used goods**. It sells products directly while also serving as an intermediary for other sellers. It takes a cut of the sale.

- Amazon Prime service: Subscription-based business model, the users will pay an annual fee for benefits (access to streaming media, and free shipping).
- Offers mobile application purchases.

## ALIBABA



Alibaba operates as a middleman between buyers and sellers, and the company is divided into **3 core businesses**:

- 1. Alibaba** charges merchants fees to appear higher on its search rankings.
- 2. Sellers on Taobao** (a fee-free marketplace similar to eBay) will pay to rank higher on the site's internal search engine. It generates advertising revenue for Alibaba.
- 3. Tmall** (e-commerce site) caters to well-known brands, such as Nike and Apple. Alibaba then earns from its deposits, annual user fees, and sales commissions charged to retailers utilizing the site.



## FINDINGS

# KEY FINDINGS

For the first few days of our design challenge, we interviewed some customers and workers from different e-commerce companies. (Amazon, Walmart, and other Chinese e-commerce businesses). Through our stakeholder interview, we identified some major findings:

1. Many e-commerce businesses have recycling programs that provide rewards when customers return old or broken devices but not all customers are aware that the website provides recycling services.
2. Though the customers are aware of the recycling service, the service might take too much effort that customers decline their incentives to utilize those services.

Besides interviews, we asked online users from different social media platforms to fill out a recycling survey.

From the survey result:

# 87.5%

chose Amazon as their favorite shopping website

# 71.4%

do not know any shopping sites that provide recycling programs

# 66.6%

knew existing recycling services but never/seldom used it

# Insights

While we were generating ideas for the solution, we researched a couple of existing apps, websites, and services that could be helpful. We found five apps or websites that provide recycling services only.



**ExtraCarbon**



**ECS e-waste**



**Karma Recycling**



**Zolopik Recycling**



**Attero Recycling**

Other recycling programs are featured under huge e-commerce businesses, such as Apple, Amazon, Walmart, and Alibaba.

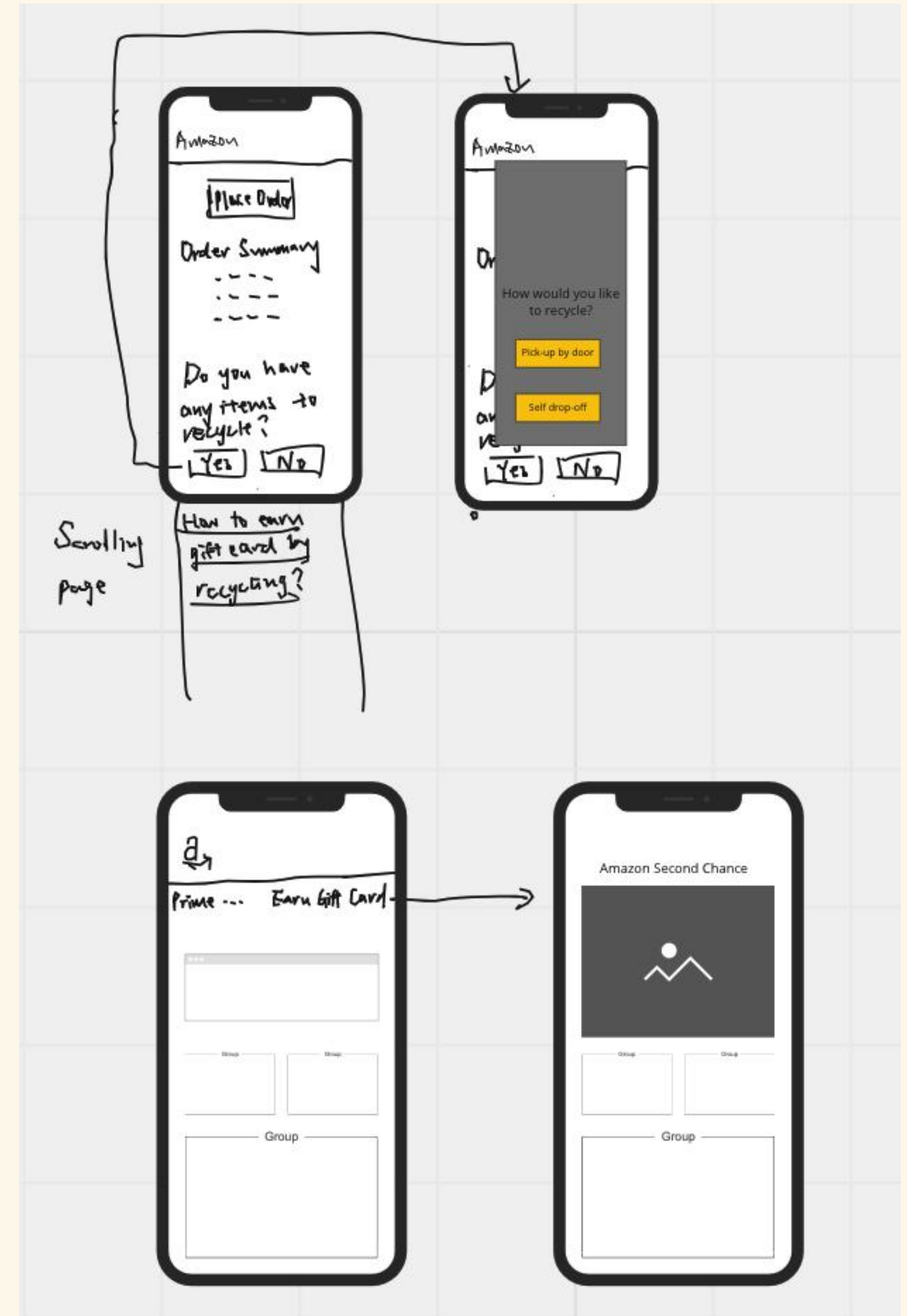
Common recycling program services include:

- Users first send a picture of the item to an individual recycling agency, get a quote, place a pickup request or drop off the item themselves, then receive vouchers, cashback, or store credit.
- Return the item or packaging to the original company then get cashback or store credits.
- Donate or resell by users themselves to a second-hand store.

# Ideation

Considering the existing apps and services, we came up with ideas that could potentially be featured on our prototype:

- 1. Redesign existing apps:** a lot of e-commerce websites/apps already have their own recycling programs. We considered either modifying the current recycling program or making the service more visible on the app
- 2. Create a new app to track locations that need recycling services:** There could be a courier to pick up the recycling items or users drop them off at selected locations.
- 3. Add map feature:** this feature locates the locations to drop off recycling items and types of recycling items, e.g. enter clothing to show second-hand store, enter packaging to show UPS, FedEx.





## SOLUTION

# Solutions and Design Features

Overall, customers in our user research expressed a positive attitude towards recycling services.

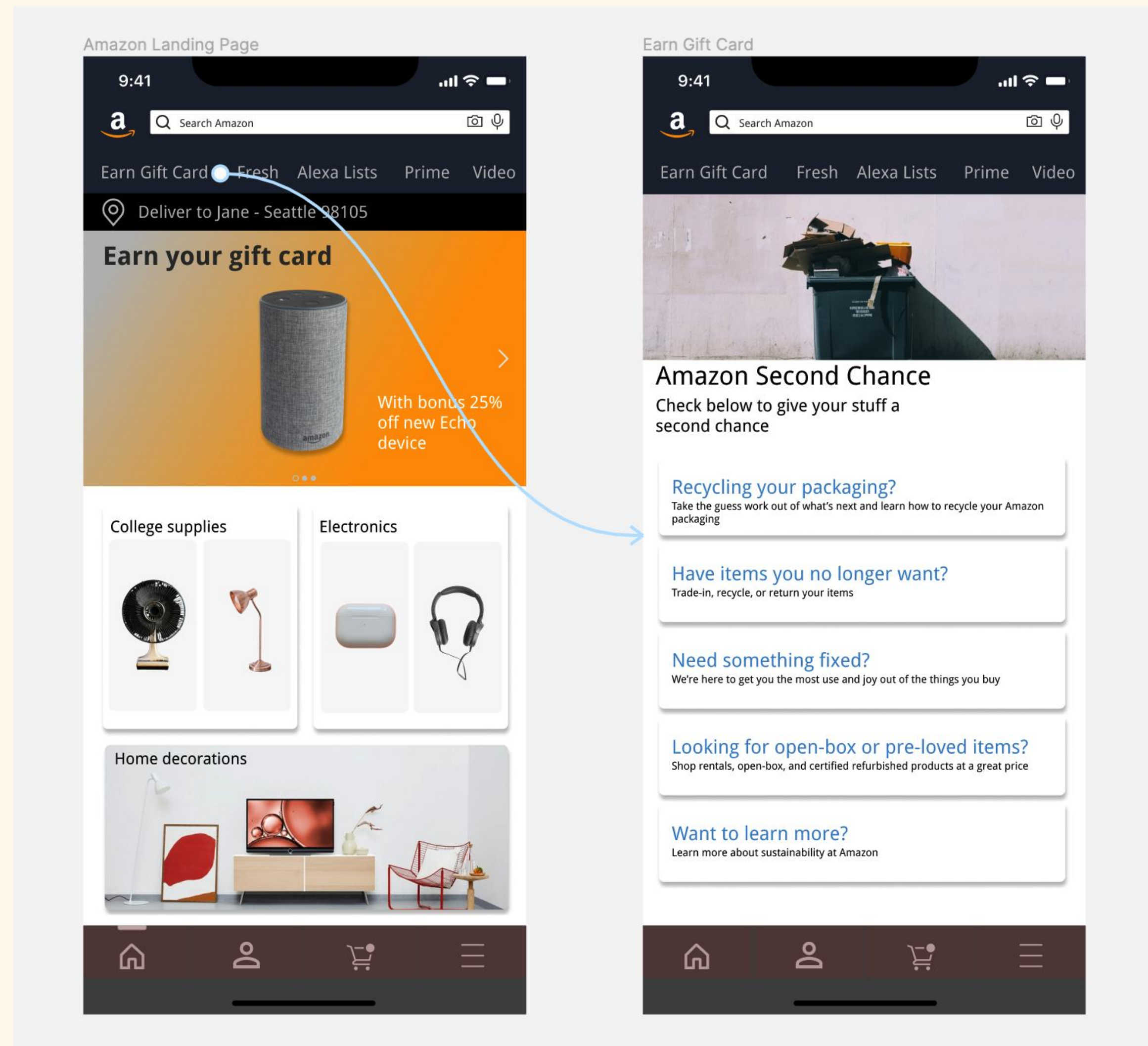
As our user survey revealed that the majority of our participants chose Amazon as their favorite shopping site, we came up with a solution for the Amazon app checkout screen redesign.

The goal of our solution is to make the recycling process more convenient and encourage customers to use the existing recycling program.

	Return for cashback or store credit	Donate/resell on the platform	Additional app/website for recycling services	App/website included recycling services
Apple	✓		✓	
Amazon	✓	✓	✓	
Alibaba		✓	✓	
Walmart	✓		✓	
ExtraCarbon, Attero, nCashJunk	✓	✓		✓
ECS e-waste, Karma Recycling, Zolopick Recycling	✓			✓



# Prototyping



Our redesign mainly focused on 2 add-on features:

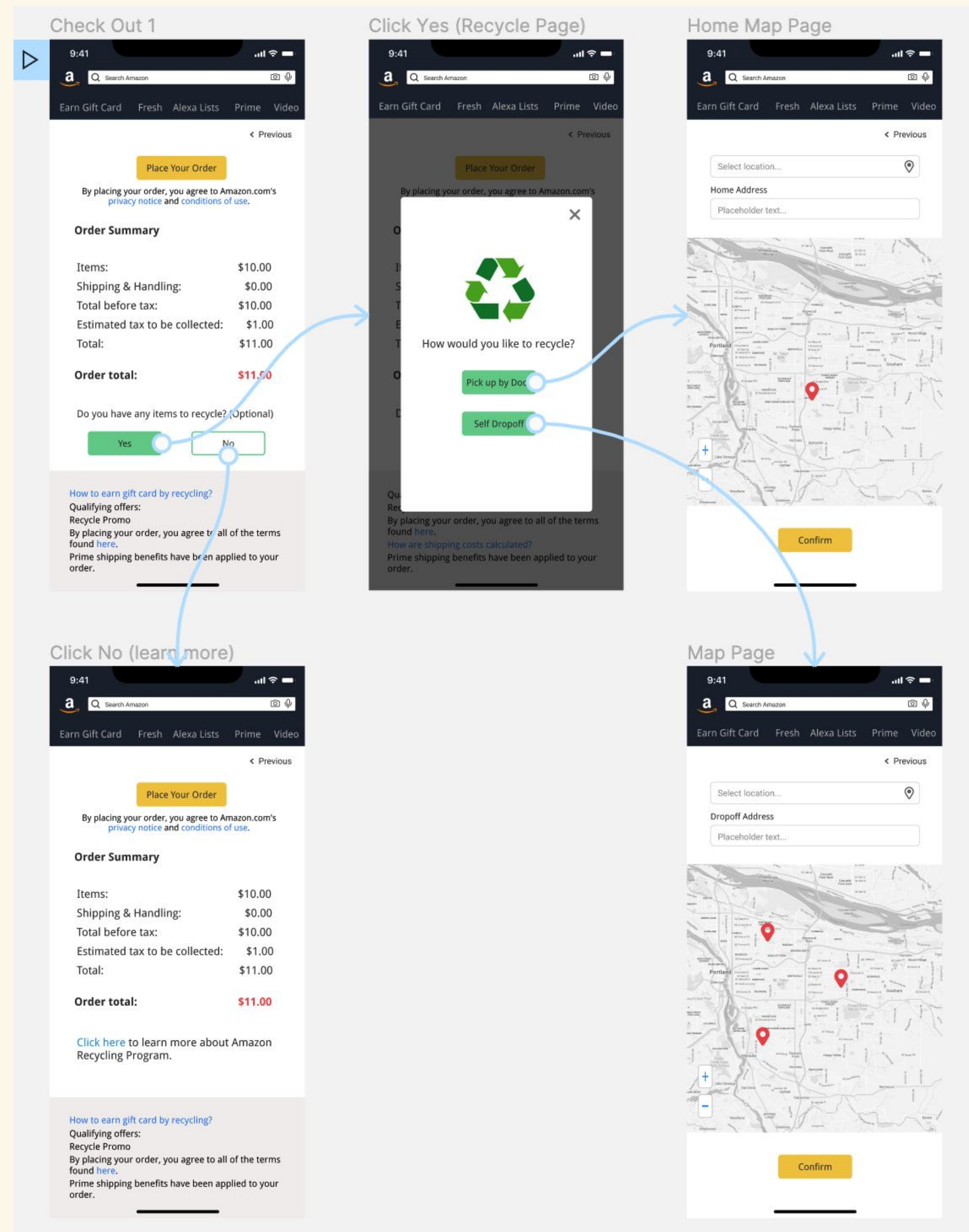
( 1 )

Make the link to the recycling program (Amazon Second Chance) **more visible on the Amazon app landing page** by adding the link on top of the navigation bar and naming it “Earn gift card” to increase incentives to click on.

By doing so, it presented how customers could benefit from the recycling program as well as the existence of the program.



# PROTOTYPE



(2)

**Have an optional question at the shopper's checkout screen.** The customer can choose if they have any current products they wish to recycle. If they do, the next time when their package arrives, the courier will pick up their recycling. By doing so, customers receive store credit instead of cash, and Amazon can still increase revenue.

- This feature benefits both the customer and the company. It cut the time for the customer to get to a location.
- This aligned with our user research finding that 55% of the participants think the timeliness of delivery time is important. Since the delivery location and recycle pick-up location is the same, the carrier only needs to be there once (cutting the time/cost on transportation).
- At the shopper's checkout screen, there are 2 options to recycle items; first, the courier came to pick them up, and second, the customer drops off the item at a designated store like UPS, FedEx, or Amazon Center.

# Testing & Iteration

To improve our prototype, we ran usability tests to get insight from potential users and explore the future direction of our design intervention. Our prototype is the modified version after the usability tests, and the integrated feedback is listed below:

## Pros of the Prototype

- summary page is easy to navigate
- information is clear
- good functionality
- interesting ideas
- understand the main point relates to recycle

## Cons of the Prototype

- buttons look similar
- the navigation bar should be more visible
- looks like a website instead of an app
- too many words

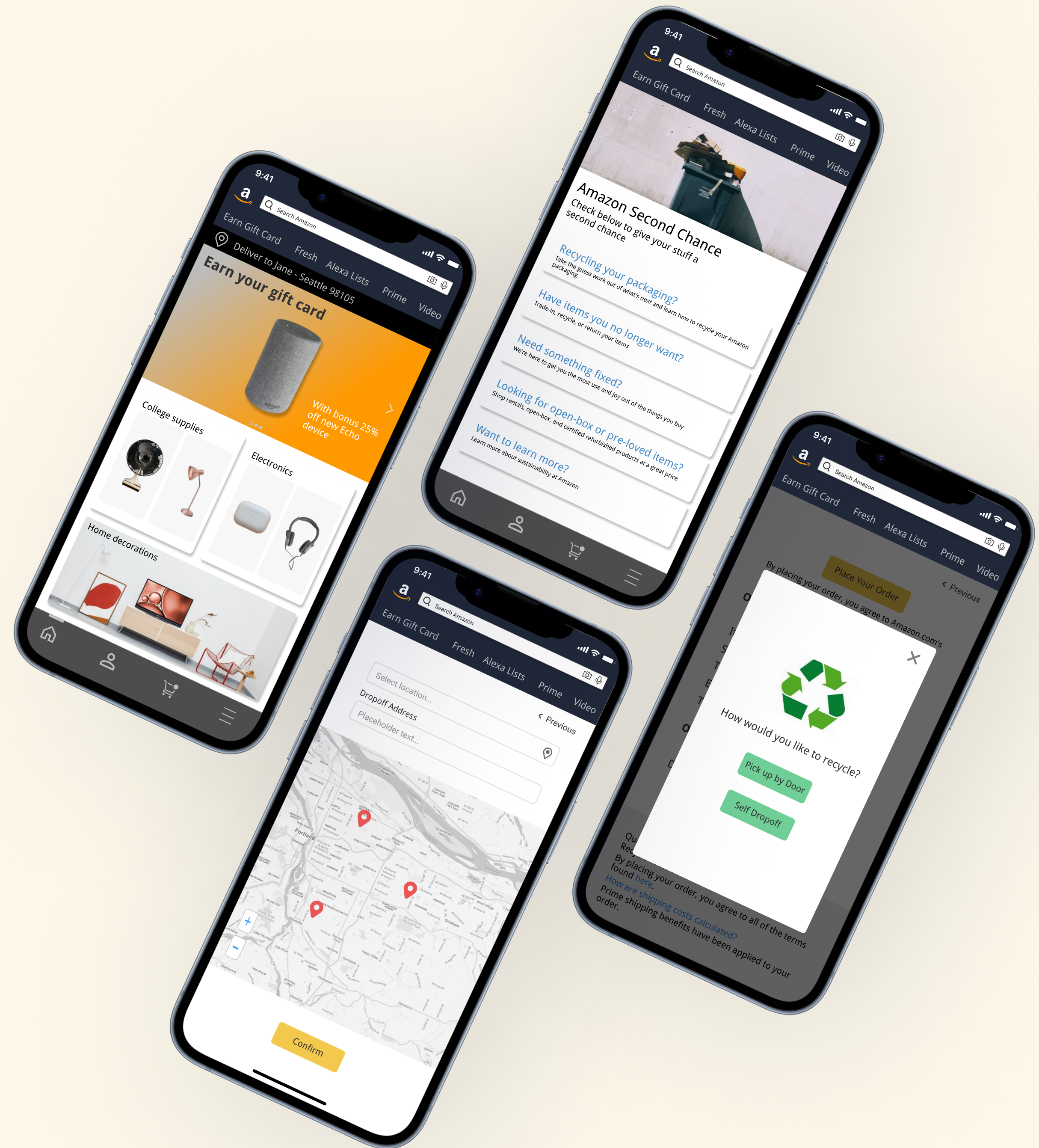
We have resolved the redundancy of the view location button by removing it on the checkout popup page, moved the “Earn gift card” feature to the most left on the top nav bar, and changed the “yes” “no” button on the checkout page to green and added the recycling question as “(optional)” to differentiate the priority between “place order”.



FINAL PROTOTYPE

# Final Prototype

→ [Access Final Prototype Here](#) ←





# Key Takeaways

## WHAT WE LEARNED

As we went through our design process, we figured that there are some features that Amazon Second Chance offered but we didn't focus on, which are donate, resell, repair features. We hope we could develop those on our add-on features on the checkout screen as well as develop the same checkout screen with add-on features on the website.

Furthermore, we hope that the concept of making existing recycling programs more visible could be expanded on more e-commerce websites and apps. In that case, users acknowledge the importance of recycling and make it a new shopping habit.