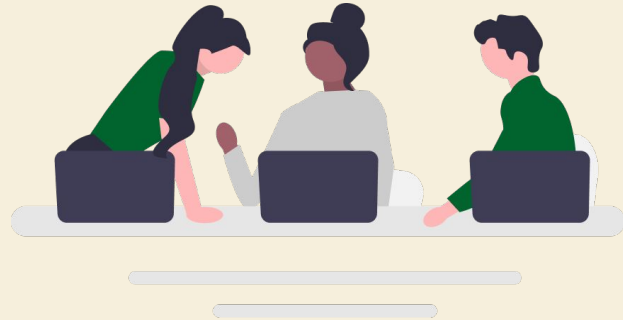# TechUp

designing for tech equity through flexible rental options

Team Beijing: Emily, Senait, Joyce, Wilson, Kashaf

CONTEXT

The world generates around **40 million tons** of electronic waste every year - equivalent to throwing away **800 laptops** every second. E-waste comprises **70%** of our overall toxic waste and this number is only increasing.

After conducting user research, we identified the following sentiment: people **don't know** what to do with their old tech devices or how to **properly dispose** of them.

THE TEAM

Members

- Senait
- Joyce
- Wilson
- Kashaf
- Emily

Tools

- Figma
- Google Drive

Timeline

- 14 weeks

Prototype Link

- Click Here to Access Prototype

PROBLEM SPACE

Design Statement

With the growth of new technology and products being continuously released in cycles to match the growing demands of the market, this leads to a decrease in equitable access and an increase in e-waste. Our solution helps users seamlessly donate and rent products in an attempt to balance the amount of e-waste produced and the amount that is properly re-used. Users of our platform, such as working professionals and the elderly, can rent our devices for a *desired length of time with our cost - effective options.*

SOLUTION OVERVIEW:
User Characteristics & Settings

Donors

Target donors are individuals who are tech savvy and like to update their devices frequently. They typically have expendable income, and/or have an interest in environmentalism.

Renters

The renter group we identified are working professionals on a budget who do not necessarily need to use technological devices such as laptops or tablets extensively, but rather for light to moderate use.

SOLUTION OVERVIEW :
Functionality

1. Users can browse devices by category, or search for a specific device they have in mind.
2. Users are able to rent devices by adding products to their bag from our single-product pages, then completing the checkout process.
3. Interested donors are able to access the donor form from our navigation bar and homepage.
4. At any point, users can create an account or log in from the navigation bar as well.
5. We created a contact page, where users can reach us with any concerns or questions.

DESIGN EVOLUTION

Early Sketches

Our first instance of bringing our designs to life were our early pencil on paper sketches. These began with a rough layout of our workflows, with each destination being drawn out into an early form of wireframes.

Wireframes

After getting an initial vision of our product with the sketches, we used Figma to clarify and define our websites features (Hannah, 2022) as a grey-toned wireframe representation of each page, which would act as a digital outline for our next step.

Lo-Fidelity

With our scaffolding in place, we created a low-fidelity static prototype to take the wireframes place. Designers won't generate much attachment to this version, which makes it quick and easy to implement change based on user feedback (Pernice, 2016)

Hi-Fidelity

Finally, we implemented changes to create flows for an interactive prototype. We used our feedback from user tests to make necessary changes and added all updated aesthetics (Pernice, 2016).

MAJOR CHANGES

1 | **Filter Feature**

During user-testing, we were made aware that our product details page was lacking a filter function important to ease of use. Thanks to the feedback, we were able to add a comprehensive filter to the final product.
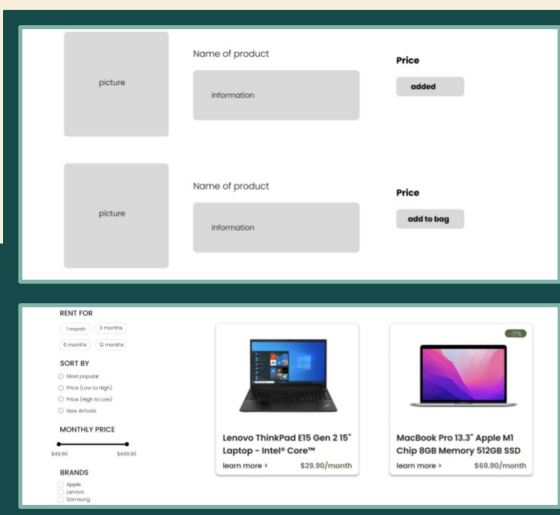
2 | **Negative Space**

User-testing also made us aware that our product categories page was a bit of an eyesore due to clutter and lack of negative space. This revelation led us to our final iteration, which is much more appealing and functionally easier to operate.
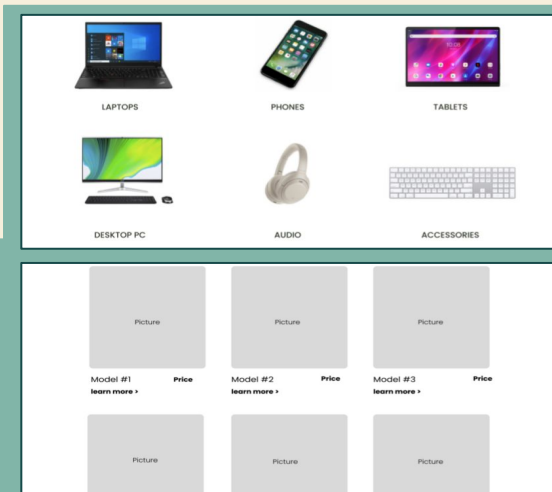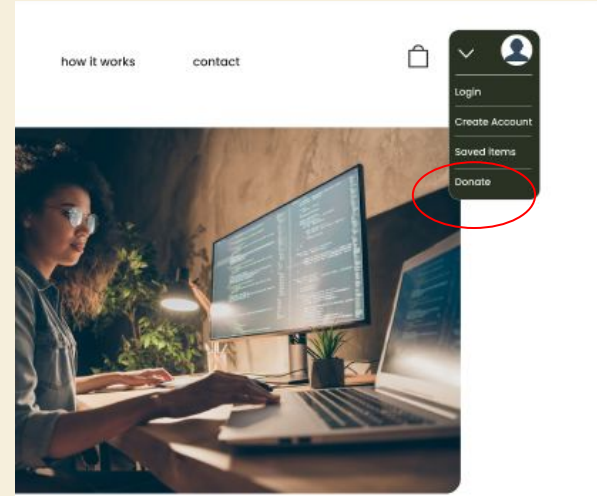
FINAL DESIGN

1 **Donations**

The first main part of our design flow is the ability for users to donate their tech devices to us through our website. The donated devices become our inventory to rent out to users who are looking for products to rent. The user can **access** the donation form in 2 main ways:

Clicking on the banner button on the landing page

Clicking the drop-down menu on the navigation bar

FINAL DESIGN

After accessing the donation form, the user will be prompted to fill out personal information regarding themselves and the item(s) they are looking to donate.

After filling out the necessary information for the donation, we will send a confirmation email with a tracking number of the box they can use to send in their devices.

Thank you for choosing to donate for TechUp.
Tell us about you first!

Full Name *
First and Last Name

Email *
Enter Email Address

Phone Number *
XXX - XXX - XXXX

Street Address (We will send a shipping label and box for you) *
Enter your street address...

City *

State *

Zipcode *

Now tell us about the product(s).

What devices are you looking to donate? Include Year Manufactured, Model Number, and quantity if possible.
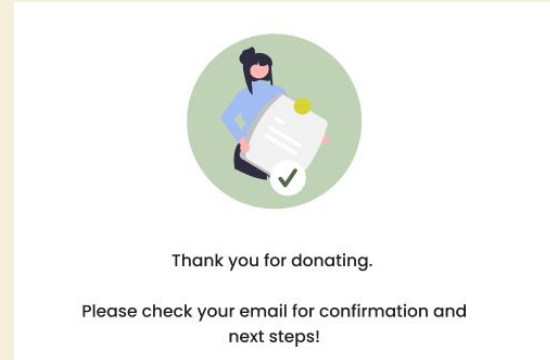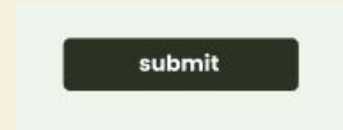
How long have you owned the product?
☐ Less than 3 months
☐ 3 - 6 months
☐ 6 - 12 months
☐ 1 - 3 years
☐ More than 3 years

Are all functions working properly with no impairments?
○ Yes   ○ No

submit

Thank you for donating.

Please check your email for confirmation and next steps!

FINAL DESIGN

2 **Renting a Product**

The second main part of our design flow is allowing users to find / browse through our product offerings to find the device they want to rent. On the landing page, there is a "categories" or "top products" section of the navigation bar, and the first large banner the users see is an option to search for a specific product.
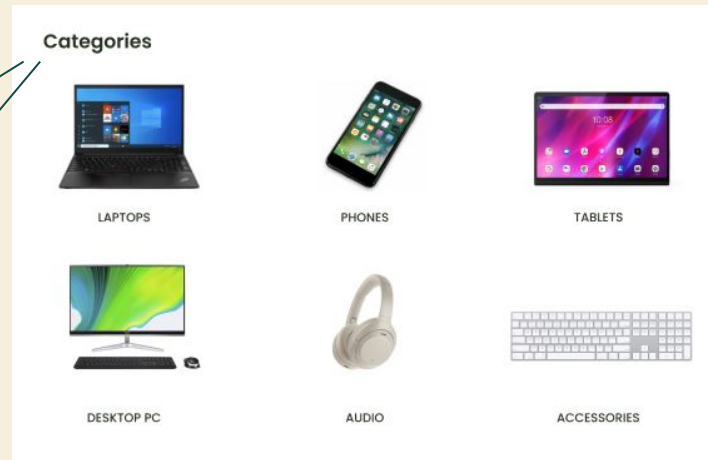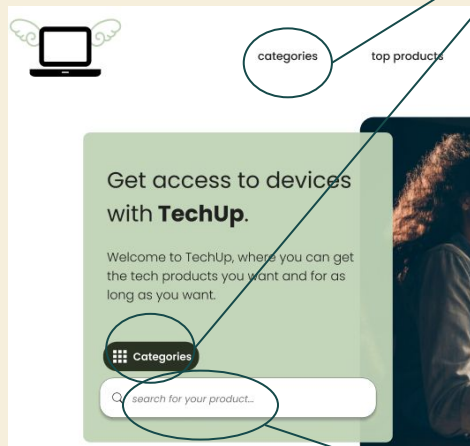
Clicking the drop-down menu on the navigation bar

FINAL DESIGN

2 **Renting a Product**

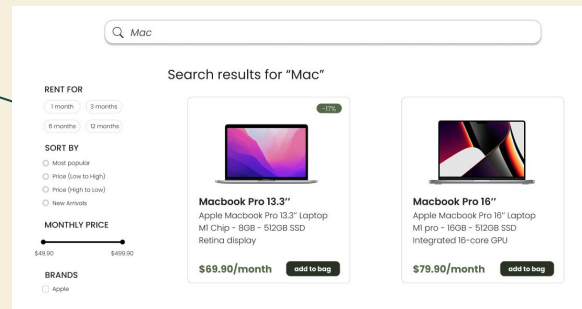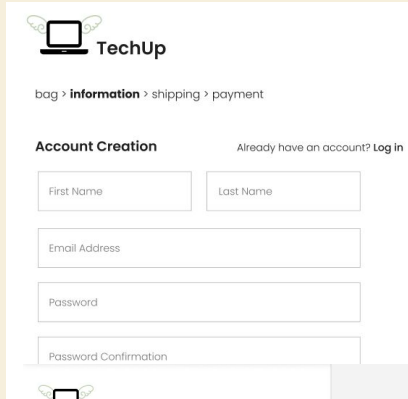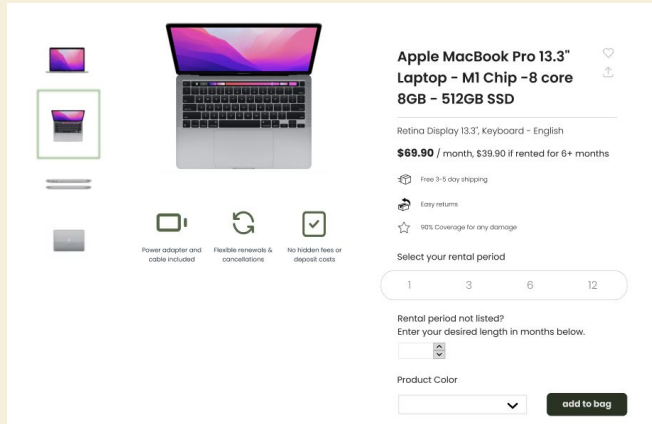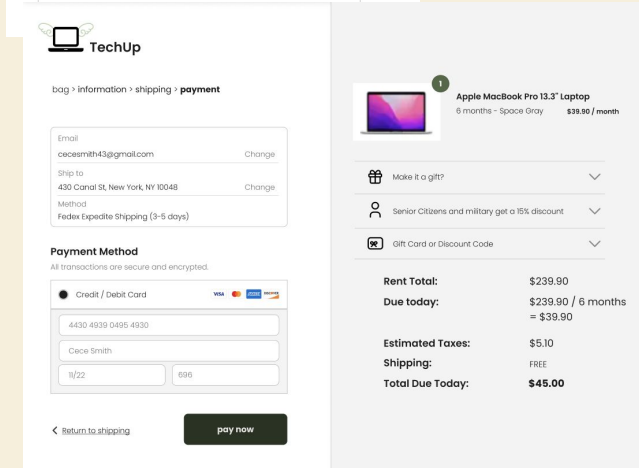After finding a specific product, the user can see information / specs related to the item, as well as choose their rental duration, color of the product, and add it to their bag. (Seen below)

After clicking check out from their bag, the user is prompted to create an account, or log in if they already have an existing one.

After entering their personal information and shipping details, the user can do a final confirmation on the right after entering their payment. It says the rental duration, total amount, and the amount due today at the time of purchase.

TechUp

bag > **information** > shipping > payment

Account Creation   Already have an account? **Log in**

First Name   Last Name

Email Address

Password

Password Confirmation

TechUp

bag > information > shipping > **payment**

Email
cecesmith43@gmail.com   Change
Ship to
430 Canal St, New York, NY 10048   Change
Method
Fedex Expedite Shipping (3-5 days)

Payment Method
All transactions are secure and encrypted.

Credit / Debit Card   VISA MasterCard AMEX Discover

4430 4939 0495 4930

Cece Smith

11/22   696

‹ Return to shipping   **pay now**

Apple MacBook Pro 13.3" Laptop
6 months - Space Gray $39.90 / month

🎁 Make it a gift?   ⌄
👤 Senior Citizens and military get a 15% discount   ⌄
🎫 Gift Card or Discount Code   ⌄

Rent Total: $239.90
Due today: $239.90 / 6 months
                     = $39.90

Estimated Taxes: $5.10
Shipping: FREE
Total Due Today: **$45.00**

Apple MacBook Pro 13.3"
Laptop - M1 Chip -8 core
8GB - 512GB SSD

Retina Display 13.3", Keyboard - English
$69.90 / month, $39.90 if rented for 6+ months

📦 Free 3-5 day shipping
↩ Easy returns
☆ 90% Coverage for any damage

Select your rental period

| 1 | 3 | 6 | 12 |

Rental period not listed?
Enter your desired length in months below.

Product Color

add to bag

Power adapter and cable included   Flexible renewals & cancellations   No hidden fees or deposit costs

EXCITING ASPECTS

1. User Assurance

We designed features to assure users that our used devices function **reliably.** Our user interviews allowed us to understand that users with reservations about using pre-owned devices won't be excited to rent with us. One major goal in our design is to gain user trust.

Multiple views on product pages allow users to explicitly discern the **physical condition** of our devices for themselves.

Damage Care

We'll cover 50% of any tech repair costs. Rules and specifications may apply.

Our **repair guarantee** is placed on our landing page intentionally. We aim to gain users' trust through **transparent and salient** placement of our policies

2. Variable Rental Length

We give our users the choice to determine their rental period, and allow them flexibility with renewals.
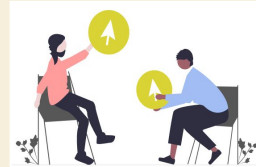
Select your rental period

| 1 | 3 | 6 | 12 |

Rental period not listed?
Enter your desired length in months below.

On the product pages, users can choose from one of the pre-populated rental lengths, otherwise, they are prompted to choose their own rental length before adding the product to their shopping bag.

Our aim was make this policy as salient as possible, which is evident by its inclusion our landing page.

Flexible Options

After your rental period ends, you can return for free, renew your current lease or extend for longer.

NOT IMPLEMENTED

1 Guest Checkout

The decision of not implementing a guest checkout was made due to privacy and ethical concerns. Guest checkout was not implemented in this version as we would need to store data from users renting and donating to scan for product validity and assurance. However, guest checkout can be a quick way users are able to check out in the future.

2 Instant Donation

Users, when donating, are to fill a form with personal and device information. Technical devices are to be scanned for a quality check, which is why users may have to wait for the donation process. This allows the process of renting out devices out smoother and reliable for the users.

TOOLS / APPROACHES

User Flow Diagram

Pros:
- Helpful tool for brainstorming and visualizing design flow
- Easy to iterate on throughout the design process

Cons:
- Can look messy and confusing when initially built because flows are often not linear
- Actual user flow design might look very different from the initial diagram version, difficult to outline flow without designing

Usability Inspection Report

Pros:
- Provides basic framework for evaluating usability of design
- Easy and simple to use, provides clarity on where's the issue and what category of issue

Cons:
- Overly simplified and generic, does not encompass many possible issues
- Need to manually add notes to the provided framework and do not allow for out of box thinking

IMPACT

1. **Raise awareness** about e-waste and its negative effects on the environment. By **balancing** the amount of e-waste produced and the amount that is properly re-used, we hope to promote the goal of Sustainable Cities and Communities.
2. Recycling tech products will **reduce emission** of hazardous reagents.
3. People on a budget and temporary tech users will **gain access** to **affordable** quality products.

Ethical consideration

From our user interviews, we found that **privacy & information security** is crucial for the success of our website. We will ensure that no personal information will be used or recorded during the rental period and all personal **information from users will be wiped** before renting to new users.

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Contribution Report

- Joyce - Final digital prototype video + Final Design, Context and Team Slides
- Senait - Problem Space, User Characteristics, Functionality, Exciting Aspects slides
- Wilson - Design Evolution, Major Changes, and Works Cited Slides
- Kashaf - Not Implemented Slide
- Emily - Tools/Approaches + Impact slides