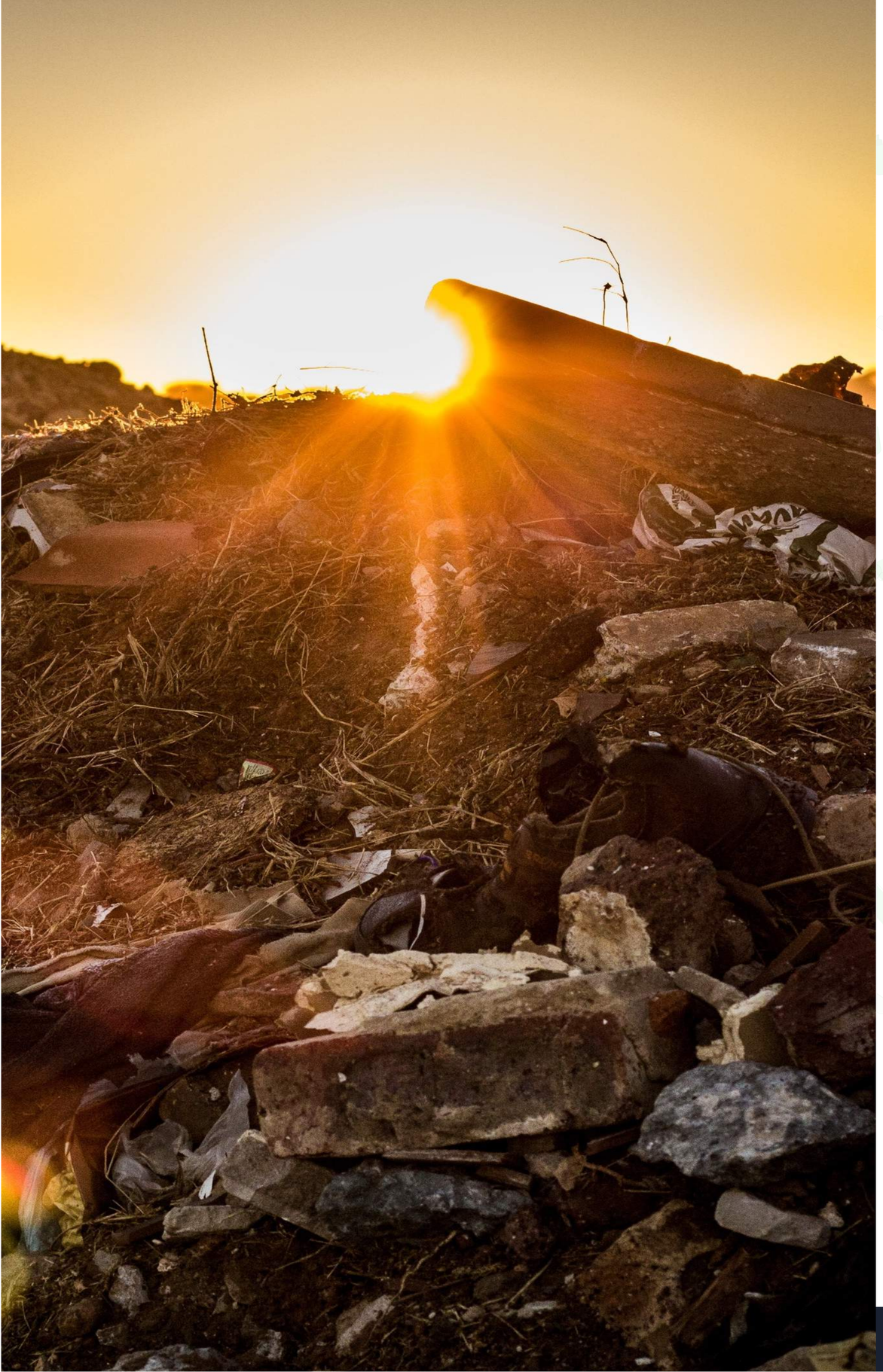
UNUM

Reducing waste one refill at a time.



THE BIG IDEA SUMMARY

According to the United Nations Environmental Program, “between **22-43%** of plastic used worldwide is disposed of in landfills, where the resources are wasted.” One of the most common contributors to plastic waste is the packaging of personal care products. These products are being consumed in large quantities and only a small percentage of these plastic packaging waste is being recycled. We gathered that reusing and repurposing has a longer lasting positive effect on the environment than recycling. In order to significantly reduce the amount of plastic being used and recycled, individuals need to be **encouraged to reuse** rather than recycle.

UNUM is a contemporary retail system that transforms the way we package, distribute and shop for personal hygiene products. This system will progressively reduce the amount of packaging waste, while creating a sustainable shopping experience for the consumer.

What we have envisioned is a store where the everyday consumer is able to purchase reusable bottles that are refilled with their desired personal care product via Product Dispensary Stations. These Product Stations are accessed from a mobile application through which the purchasing transactions are made.

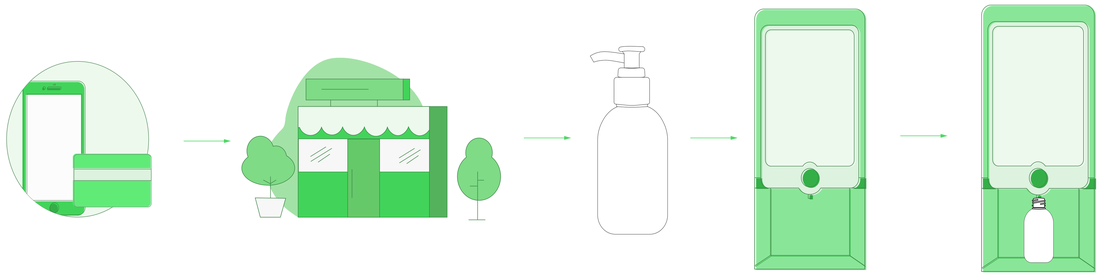
Our goal is not only to reduce waste, but to **enhance connectivity** with the consumer by creating a tailored personal sustainable shopping experience. The addition of the app is to merge both the physical and digital experience, in order to **encourage and reward** sustainable practices, while fostering customer loyalty.

THE STORE

How might we **reduce the overall packaging waste** for the personal care industry? To accurately answer this question and come up with an effective solution, we utilized several design thinking methodologies and guides such as IDEO's Guide to Designing for The Circular Economy. We found that although the general problem was excessive packaging, **human consumption** of personal care products and subsequent waste is growing exponentially faster than our recycling efforts. Therefore, we were faced with the challenge of **stimulating a change in human behaviour** that would lead to a long lasting reduction in the amount of waste produced. **UNUM** was created to be a catalyst for this change —the idea of a new shopping experience that encourages humans to adopt a more sustainabe lifestyle.

In order to create this motivation or drive for users to adopt or participate in this system, several factors had to be taken into consideration. First, **the location** of the system was vital. The ideal location of the system would be a high-traffic area for example, within a mall in order to achieve maximum brand awareness. The allowance for **customization** was also an important factor. From one of the user tests conducted, we found that users are more receptive to more personalized, targeted experiences. By allowing for customization, we are able to target a wide variety of consumers.

Ultimately, this system had to **integrate 'green' practices** in order to effectively encourage people to do the same. The store will be LEED Platinum certified, run on renewable energy and will include a "living plant wall" as an air filter.



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THE SYSTEM

For the consumer to enjoy the full personalized experience they must **sign up** either on their mobile devices or within the store. After successful completion of this, the consumer has full access to what **UNUM** has to offer. The consumer would have access to all the offers and rewards that are offered within the app, and have the ability to start purchasing at the store.

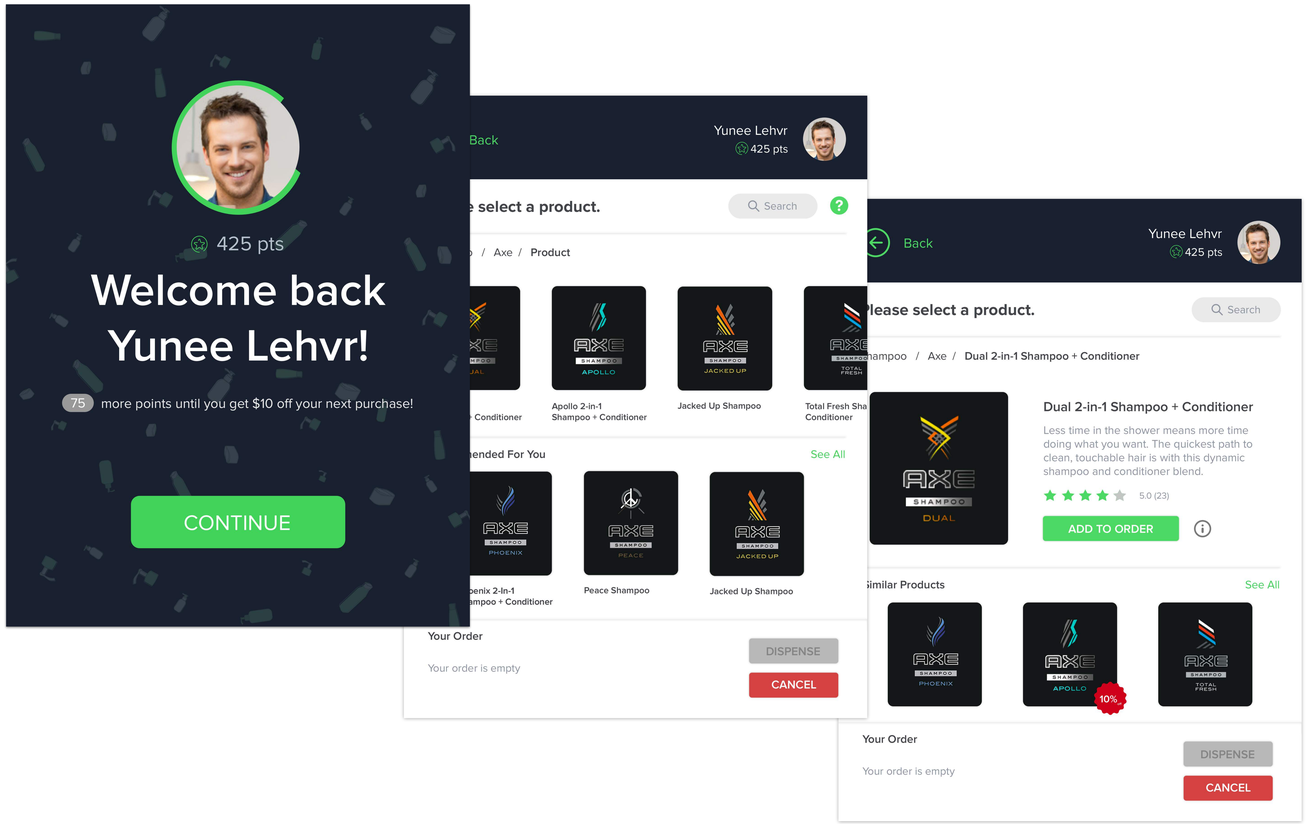
For a first time user, the first step would be to purchase **modular bottles** for the different types of products. These bottles are made from high density polyethylene lined with Liquiglide which are all eco-friendly materials. After purchasing these reusable bottles, the users have the ability to fill up these bottles with their desired product choices which are selected at the different **product dispenser stations**. Just a tap of the phone (with the app downloaded) on any product dispenser stations, and the user would be on their way to living a reusable lifestyle.

THE DISPENSER

To use the dispensers, the consumer would tap their phone on the touch screen, and select the product of their choice. The **NFC technology** in the dispenser would automatically add the product to the virtual cart on the consumer's app.

The dispensers would be created to work with **reusable bottles** from the store. Each bottle would be created with identical necks in order to fit properly into each refill unit. To seal the product, customers would select a pump lid or snap cap depending on the type of product dispensed. These options would be supplied in order to give consumers a more customizable experience and to adapt to various forms of bottles.

When a consumer is done shopping, the app on their smartphone would **automatically charge** the payment method attached to their account after the product is dispensed.



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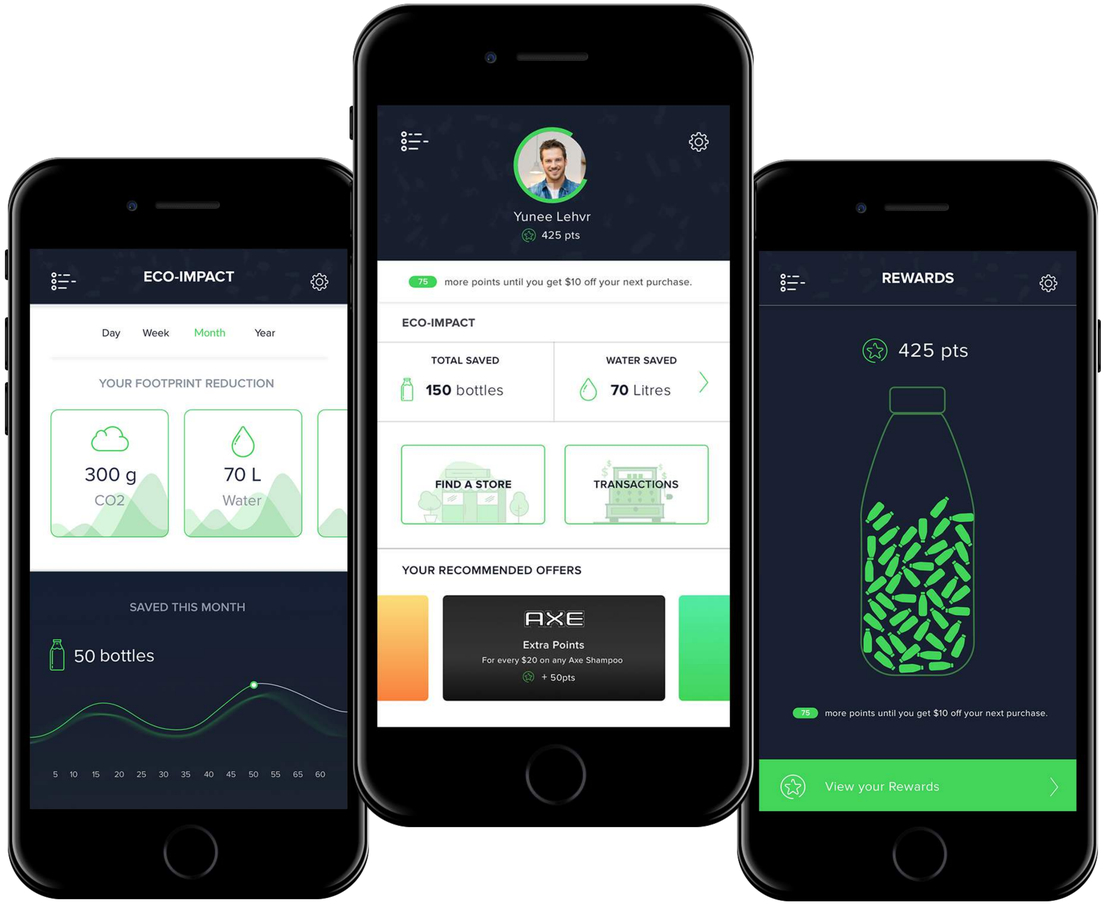
DIGITAL INTEGRATION

We wanted to create a more customizable and personal experience by enhancing the connectivity between the user and their interaction with the store. This was achieved by combining both the physical and digital elements of our system in the form of a mobile app.

Through the app, the user is able to access the dispensers, purchase their products, and monitor their transactions. We have also added a feature that enables the user to view how they positively impact the environment by choosing to reuse and refill. We added this feature to empower users and encourage them to continue to choose sustainable practices.

While conducting market research, a survey was distributed that revealed 67% of respondents were more likely to shop in a store where a loyalty reward program was integrated. To satisfy this need, we incorporated a rewards program within the app that offers users deals based on their purchasing activities.



Taking into consideration the fact that not all of our users might own smartphones, we have included a physical card with NFC capabilities. Coupled with a web version of the app, this card will give non-smartphone users access to the same experience as smartphone users.

THE MARKET

UNUM would exist in the beauty and personal care product market which is worth approximately **$465 billion** globally. Within this market, UNUM's target users will be the average mass market consumer of personal care products. Specifically at its initial stages, the target users are middle to high income families and individuals between the **ages of 20 to 60** who are environmentally conscious.

Unilever's committment to finding innovative ways to reduce their environmental footprint, the waste associated with the disposal of products, and improve the lives of consumers align perfectly with UNUM's goals. This is why **Unilever** is our first target customer.

In order to implement UNUM, Unilever will incur a **one time setup cost** inclusive of the dispenser and bottle production costs. The return Unilever would receive as a result of reduced packaging and manufacturing expenses would ultimately justify the startup costs of the business.

BENEFITS

UNUM also aims to reduce manufacturing costs in the long run. By refilling reusable bottles, consumers save money on personal care products.

The main incentive for implementation, would not strictly be the financial appeal. It would be **marketing value**, due to the store's unique approach to reducing plastic in landfills. This trait would set the store apart from other companies, giving it a competitive edge in the personal care product industry. UNUM would ultimately allow Unilever to improve their global brand image and increase their brand exposure.

By associating Unilever's corporate brand with its product brands, UNUM gives Unilever a platform to show the world how much they care, with an on-brand movement to reduce packaging waste.

This store would act as a **forward-thinking example** for other major personal care product companies. By demonstrating strong consumer appeal and high market value, this store would encourage others to incorporate similar dispensers as a part of their own store experience.

UNUM reduces the carbon footprint of both Unilever and each individual consumer to help make the world a greener place.

CREATIVE BRIEF

VISION

In recent years, there has been a shift to more recyclable and eco-friendly materials used in the manufacturing of personal care products and, in their packaging as well. Recycling may seem like an effective method of curbing waste production, however, it also encourages consumerist behaviour, rather than identifying ways to reduce overall consumption and waste production. This consumerist behaviour has led to consumers buying more one-time use products with the promise of 'recycling them later'. Not only does an increase in consumption cost both companies and consumers lots of money, it also has a negative impact on the environment as these products, once they are used, end up in landfills, waiting to be recycled. The current recycling technology cannot keep up with the amount of waste produced —we are producing more waste than recycling can handle.

Our vision is to create a new framework that could be adopted within a shopping experience to help facilitate the reduction of produced waste. Our solution is a new retail system that changes the way personal hygiene products are packaged, distributed, and purchased. This system will be implemented within a store, and will reinvent the traditional methods of product packaging by promoting the reuse of sustainable materials within a new distribution system. Our new retail system will be completely sustainable, powered by clean and renewable energy. To further encourage these sustainable practices, a parallel rewards system will be implemented to not only foster this behaviour but to be the catalyst for changing consumer behaviours. Beyond the solution, this new store experience will be used to alter consumer behaviour to practice a more sustainable and less consumeristic lifestyle. In the long run, this new retail system could be used as an independent framework which could be easily integrated and emulated within other industries.

CONSTRAINTS

While there are many benefits, we also have to consider the many constraints that comes with incorporating a new system. Older demographics are generally less knowledgeable, which causes them to use less technology. The learning process can be rather difficult if the users are unwilling to place trust in this new technological system. One of the major challenges we will face is to ensure that our consumers reuse their initial bottles rather than replacing it with a new purchased bottles each time they enter the store. Due to the large amount of products that will be available in our store, we will have to consider all the desires and conditions set by each individual brands. Another major issue would revolve around disabilities. As a store based system, we need to consider the values of all our consumers. Our services must be accessible and useable for all, no matter the conditions or disability.

REQUIREMENTS

Due to the many differentiating characteristics of our potential mass market user, our designs must focus on a simple but intuitive experience that enable users to easily navigate the physical environment and use the technology within it. Alongside the physical environment, the accompanying app must follow the same design principles to allow the users to have a more enjoyable yet efficient shopping experience.

Focusing on a business model that centres around self-sustainability and renewable energy, all design aspects of this system must help affirm our values. Therefore, all containers and vessels produced for the store must be sustainable and recyclable. Furthermore, the branding and experience of the store not only has to affirm our position, but help encourage sustainability within our everyday consumers' lifestyle.

TONE

Exciting, Inviting, Engaging, Futuristic, Refreshing

CUSTOMER & USER

Our customers are companies that produce personal care products and are interested in sustainable business methods. Specifically, we are targeting companies that are invested in more renewable methods of manufacturing, and distribution; and enhancing the circular economy through the repurposing and reusing of products.

Our first targeted company will be Unilever because the company not only has a large market share in the personal care industry, but is also devoted to green initiatives that foster the circular economy.

Generally, this system would be used by the average mass market users of personal hygiene products. These users generally have a range of different characteristics and are hard to define thoroughly. However, on a more specific note at the initial stages of this system we are targeting families or individuals who regularly purchase personal care and hygiene products. They are mostly middle class consumers who are concerned about the environment and are looking to be involved in more sustainable practices. We are targeting the mass market users because our products are fast moving and necessary for everyday use.

DEFINING CHARACTERISTICS

- Automated purchasing and payments that sync to user's account information
- Refreshing and exciting store experience
- Gamified rewards system that encourages sustainable behavior
- Simplified store experience that syncs seamlessly with user profiles
- Accessible design for a variety of users
- Contemporary product distribution that reduces waste production

IDEATION

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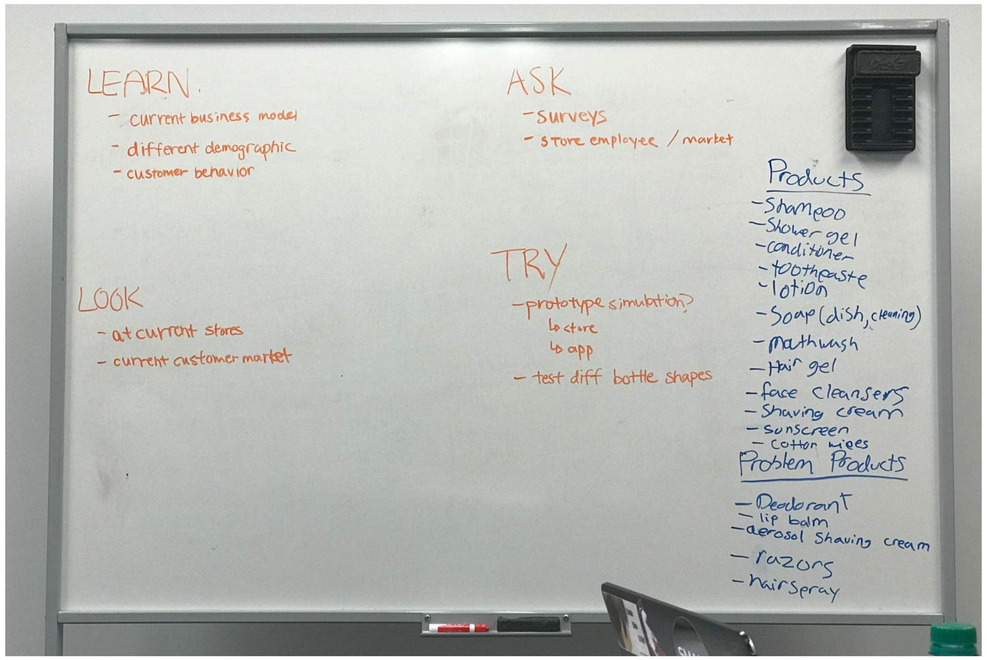
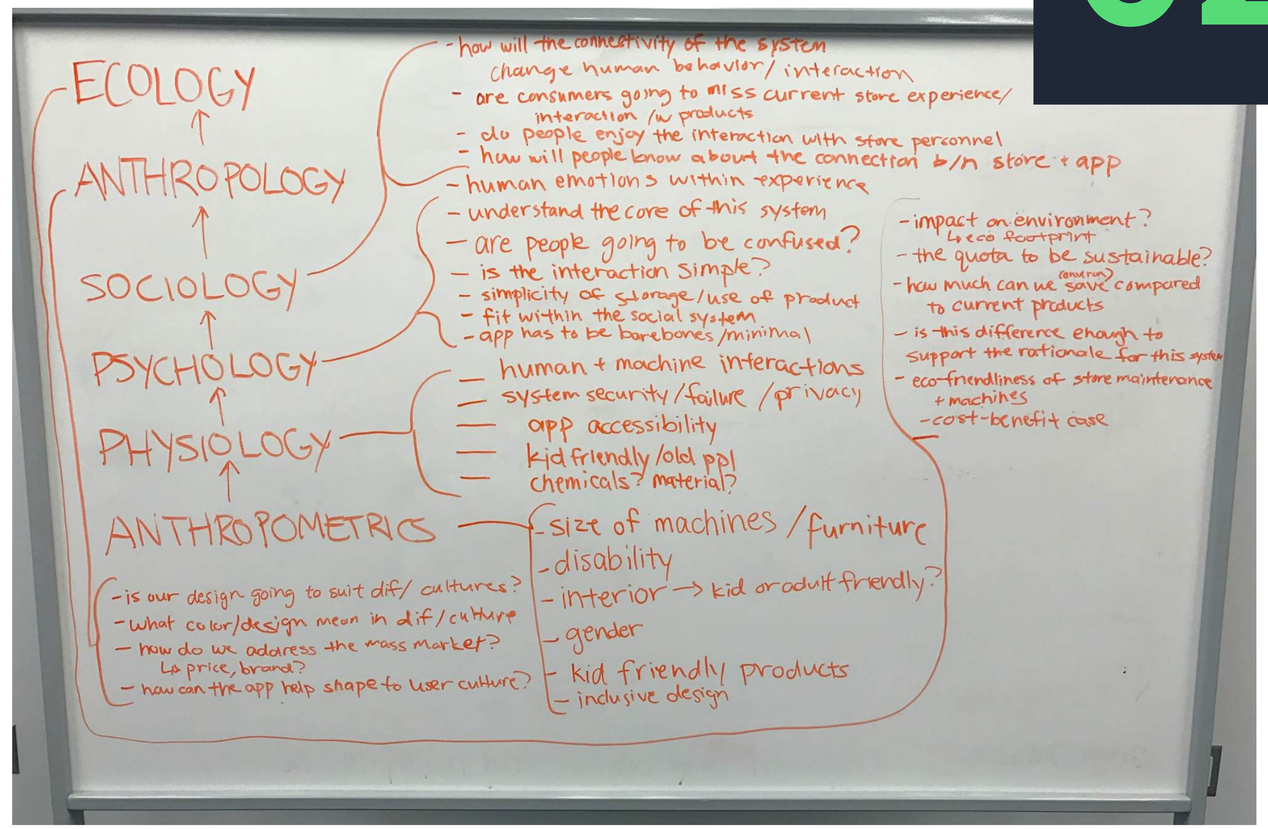
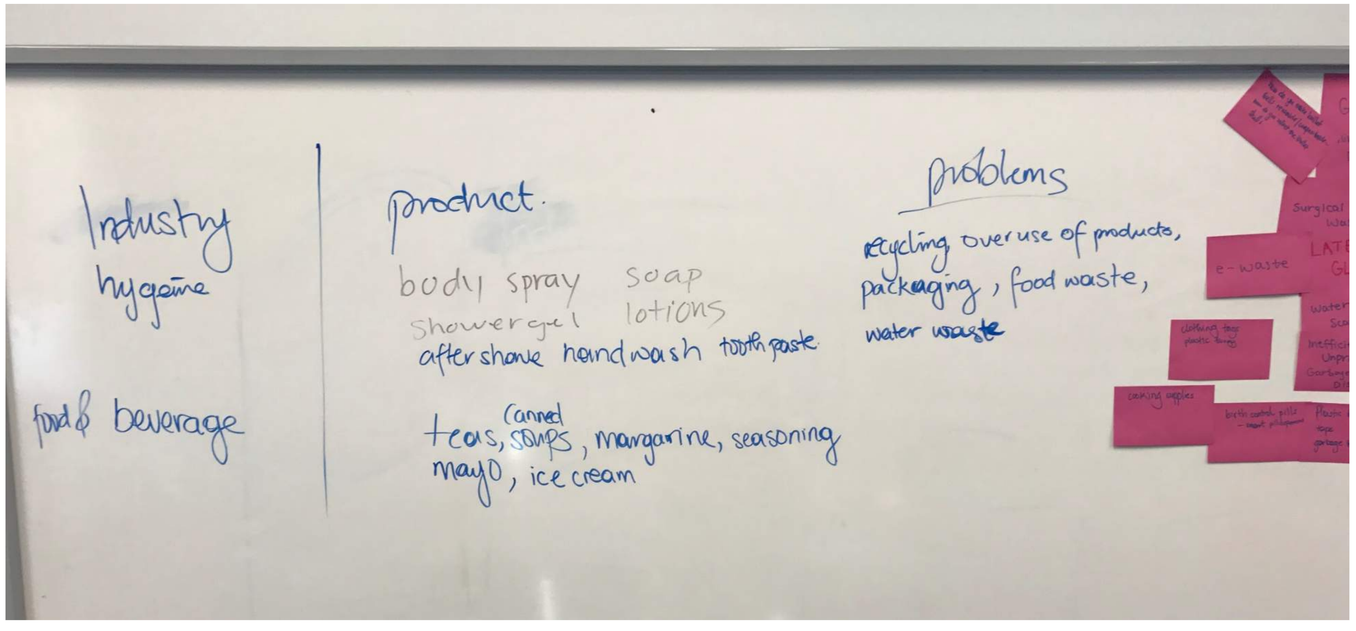

LEARN
- current business model
- different demographic
- customer behavior
ASK
- surveys
- store employee / market
LOOK
- at current stores
- current customer market
TRY
- prototype simulation?
↳ store
↳ app
- test diff bottle shapes
Products
- Shampoo
- Shower gel
- conditioner
- toothpaste
- lotion
- Soap (dish, cleaning)
- mouthwash
- hair gel
- face cleansers
- Shaving cream
- sunscreen
- cotton wipes
Problem Products
- Deodorant
- lip balm
- aerosol Shaving cream
- razors
- hairspray

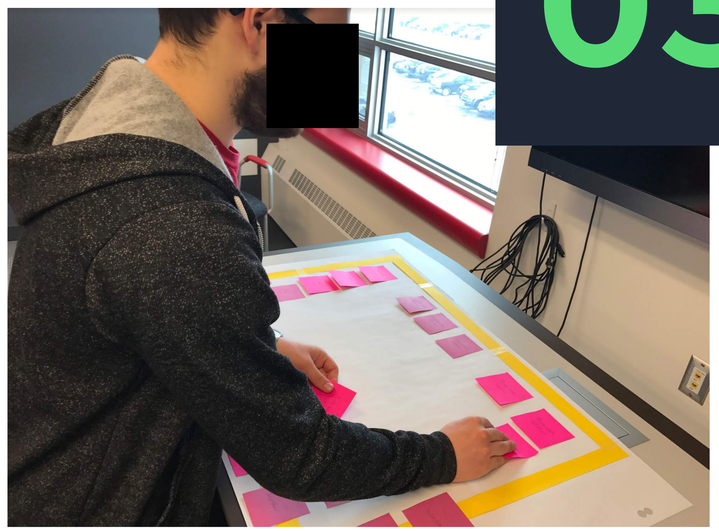

ECOLOGY
ANTHROPOLOGY
SOCIOLOGY
PSYCHOLOGY
PHYSIOLOGY
ANTHROPOMETRICS
- how will the connectivity of the system change human behavior / interaction
- are consumers going to miss current store experience / interaction /w products
- do people enjoy the interaction with store personnel
- how will people know about the connection b/n store + app
- human emotions within experience
- understand the core of this system
- are people going to be confused?
- is the interaction simple?
- simplicity of storage / use of product
- fit within the social system
- app has to be barebones / minimal
- human + machine interactions
- system security / failure / privacy
- app accessibility
- kid friendly / old ppl
- chemicals? material?
- impact on environment?
↳ eco footprint
- the quota to be sustainable?
- how much can we save (conserve) compared to current products
- is this difference enough to support the rationale for this system
- eco-friendliness of store maintenance + machines
- cost-benefit case
- size of machines / furniture
- disability
- interior → kid or adult friendly?
- gender
- kid friendly products
- inclusive design
- is our design going to suit dif / cultures?
- what color/design mean in dif / culture
- how do we address the mass market?
↳ price, brand?
- how can the app help shape to user culture?

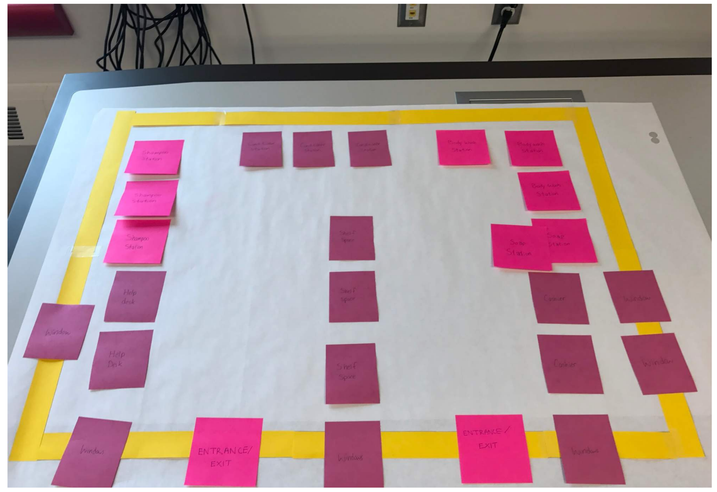

Industry
hygeine
food & beverage
product.
body spray
soap
shower gel
lotions
aftershave
handwash
toothpaste
teas, canned soups, margarine, seasoning
mayo, ice cream
problems
recycling, over use of products, packaging, food waste, water waste
e-waste

USER TESTING

Four different test sites were established in order to test different areas of the system. The first, tested the design of the machines and how the users interacted with the machines. Users were asked to draw out features they deemed ideal for the dispensers. The second, tested the layout and design of the store. Users were asked to create their ideal shopping experience including the store arrangements, and navigational flow through the store. At the third site, users were asked to look through different bottle designs and sketches to see what types of design consumers would be receptive to, and what types of expectations they would have for certain products. The last aspect of the product test was the app. For this test, users were asked to create the information hierarchy they believed the app should consist of. Additionally, a separate survey was given to develop a better understanding of our target demographic.

Users were asked to perform these tasks using whiteboards and sticky notes and were asked to verbally explain their thought process aloud. During these tasks, the team observed the participants' performance while being recorded by a digital camera accompanied with observational notes.





Key Positives
- Users are receptive and interested about the concept that would provide a unique shopping experience, but also like the feeling of the traditional shopping experience.

- Users are motivated to be a part of real environmental change when pressured by seeing others participate in change.

- Users are indifferent about self service stores, but like the convenience of them.

- Users are more likely to shop at stores that offer loyalty rewards program, which provides merit to our app solution.

- Users are thrilled at the possibility of saving money from the purchases of personal hygiene products.

Key Negatives
- Users have different opinions on bottle design that could influence their adoption of reusable bottles.

- When talking to business oriented users, the idea seemed interesting however expensive up front to implement.

- Dispenser interface could be difficult for people with accessibility issues. People in wheelchairs may have difficulties reaching the screen, and deaf/blind people may have trouble interacting with the dispensers.

USER JOURNEY

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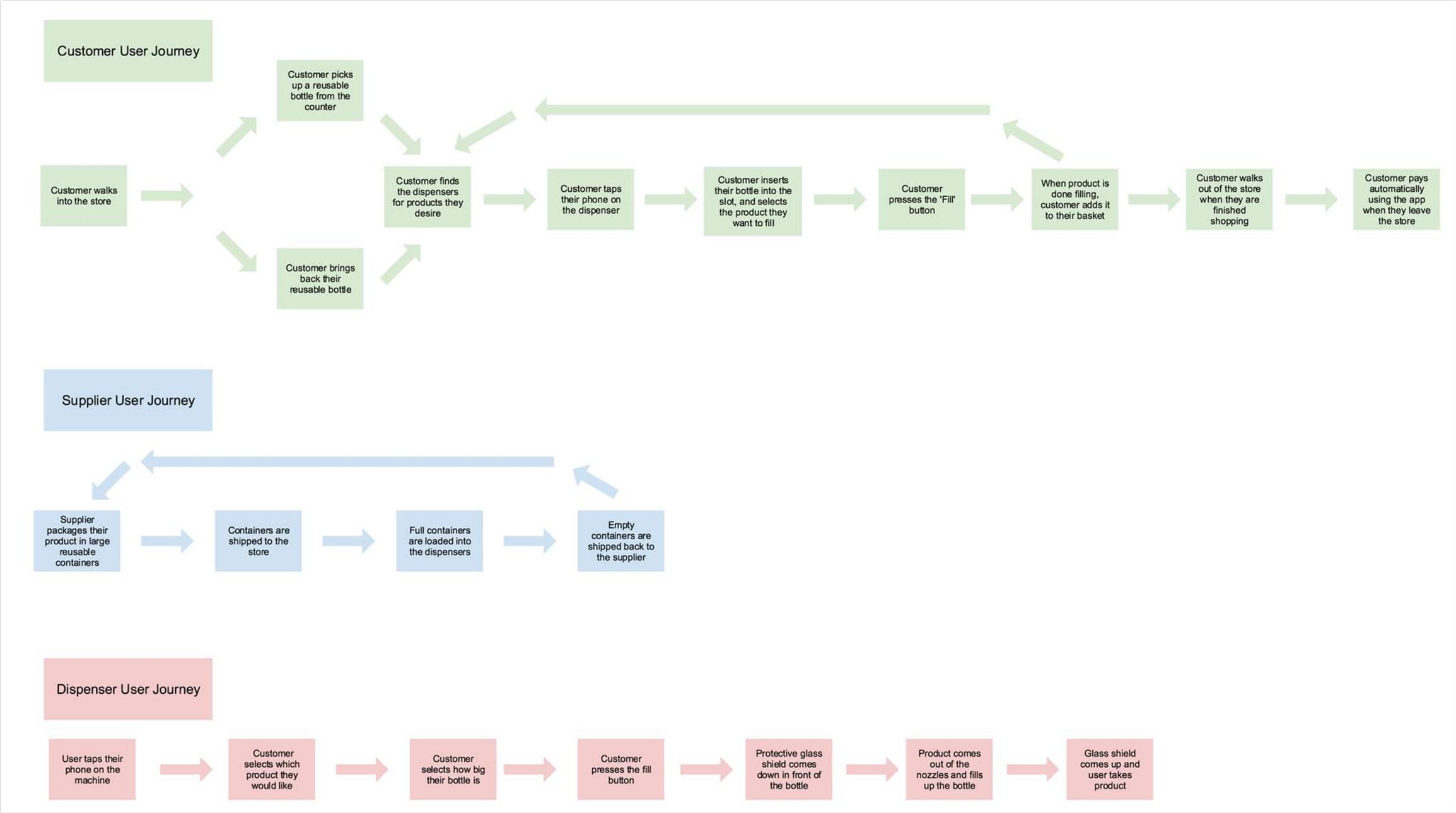
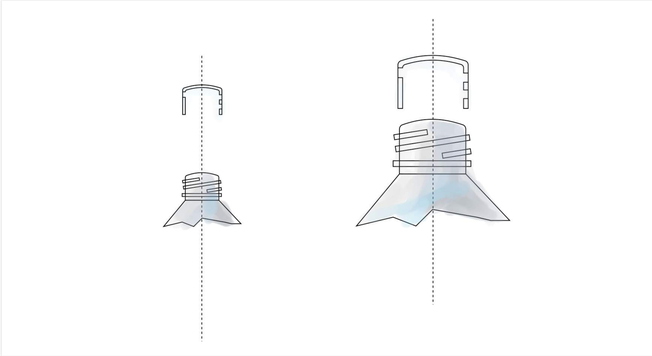
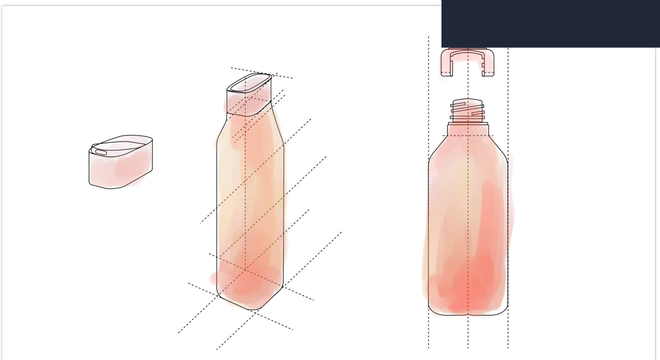


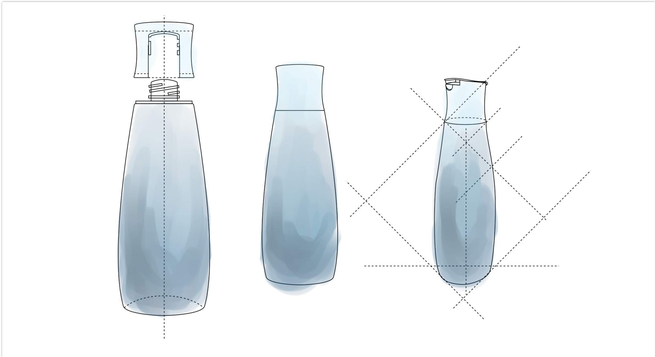
BOTTLE DESIGN

During user testing, we found that different users have different tastes in bottle design. In order to accomodate for different user tastes, we designed each bottle with a universal neck finish — a diameter of 13mm for the smallest size of 250ml and a diameter of 28mm for the largest size of 750ml.

The universal neck finishes allows the user to customize their bottle caps based on their preference. Users are also able to choose from a variety of bottle designs.







DISPENSER DESIGN

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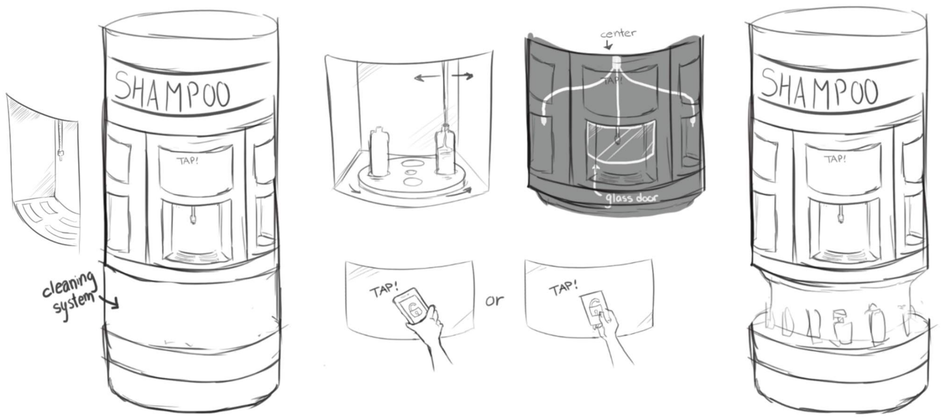

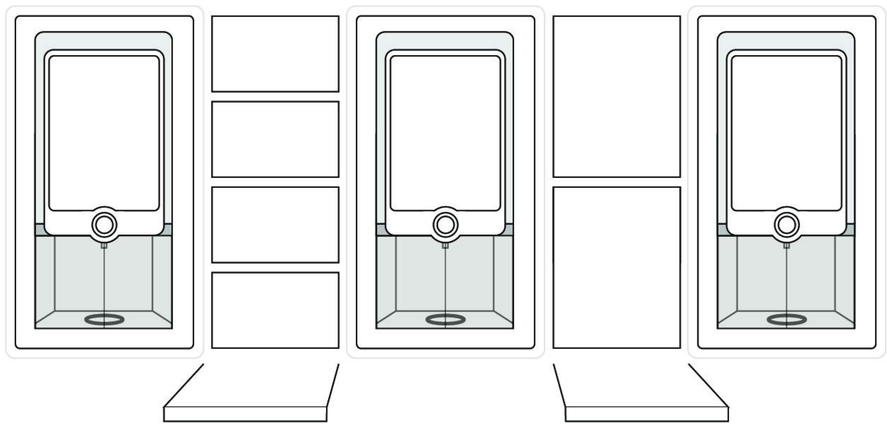

DISPENSER UI

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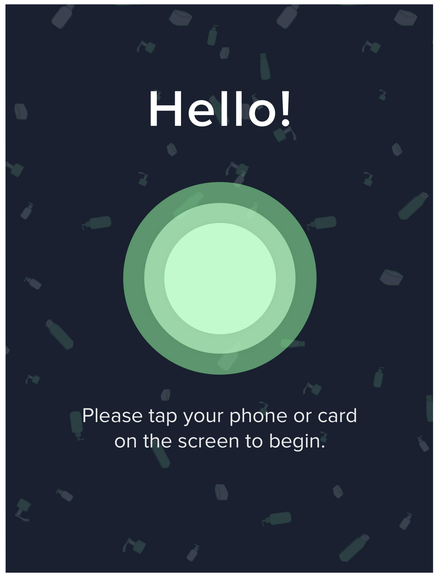
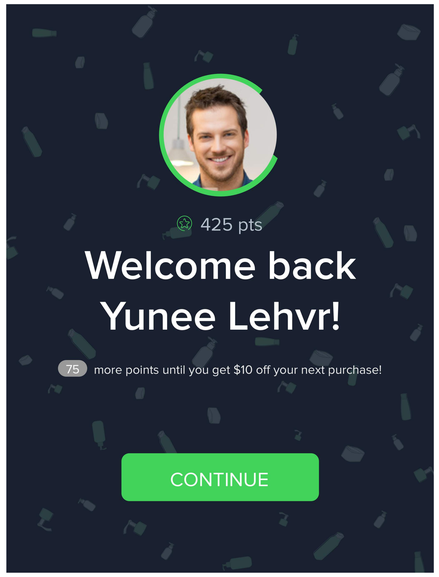
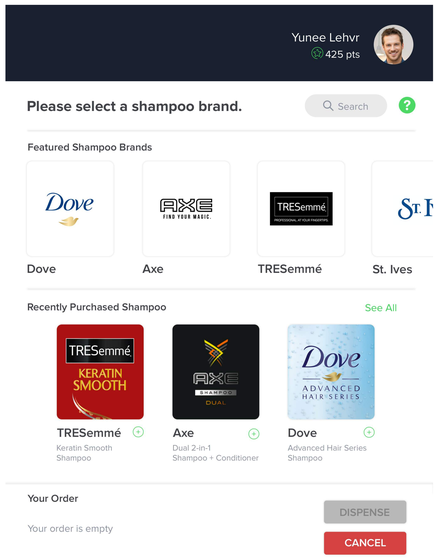


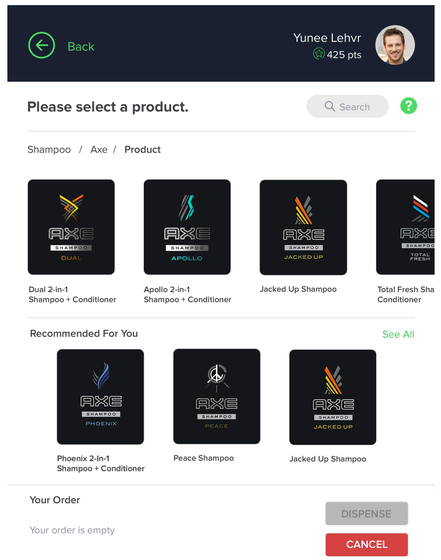
Users are prompted to tap their phones or cards to activate the dispensers



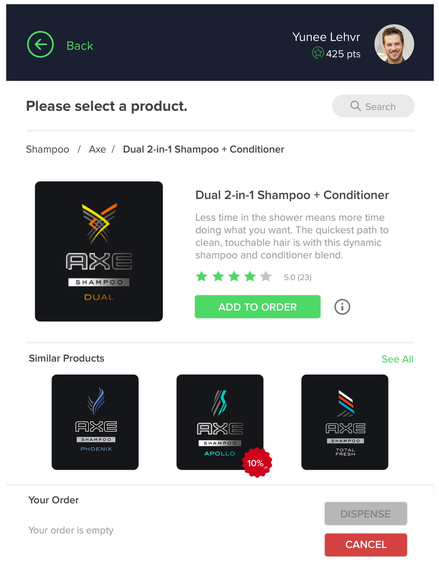
The dispenser screen activates showing profile of account owner



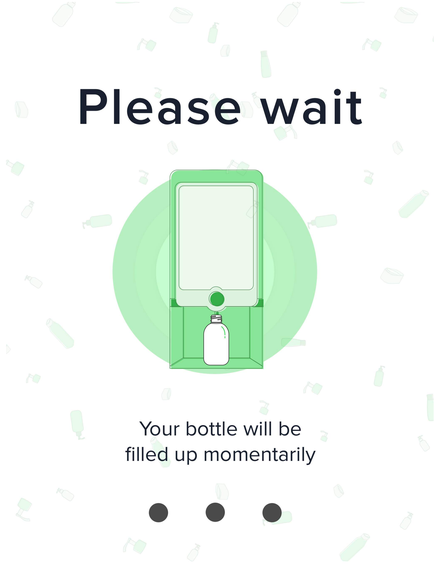
User is prompted to select a brand of shampoo



Once selected, users are prompted to choose the type of product the brand supplies

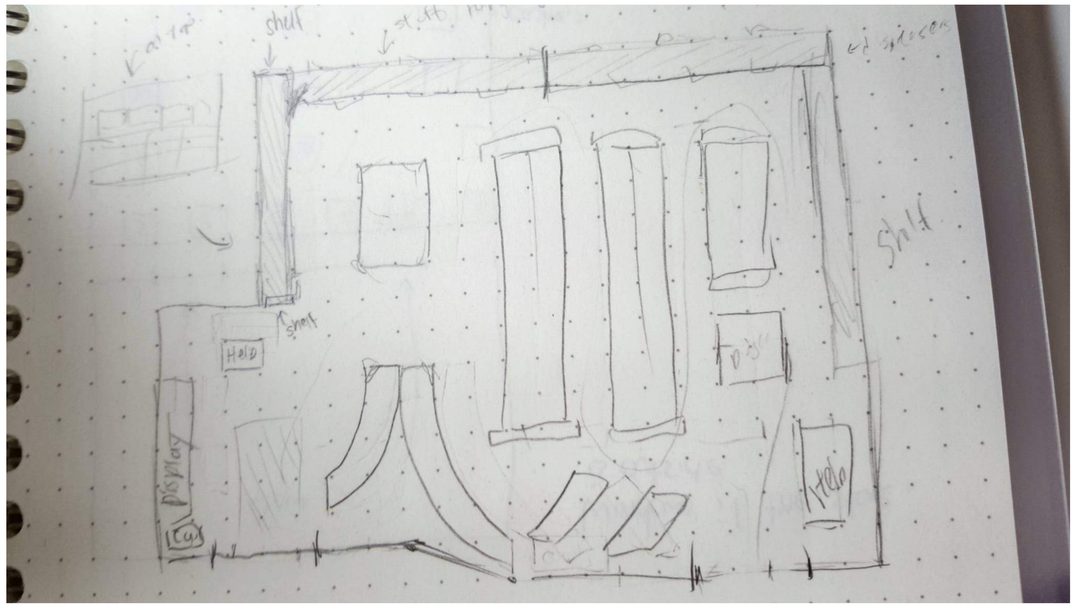


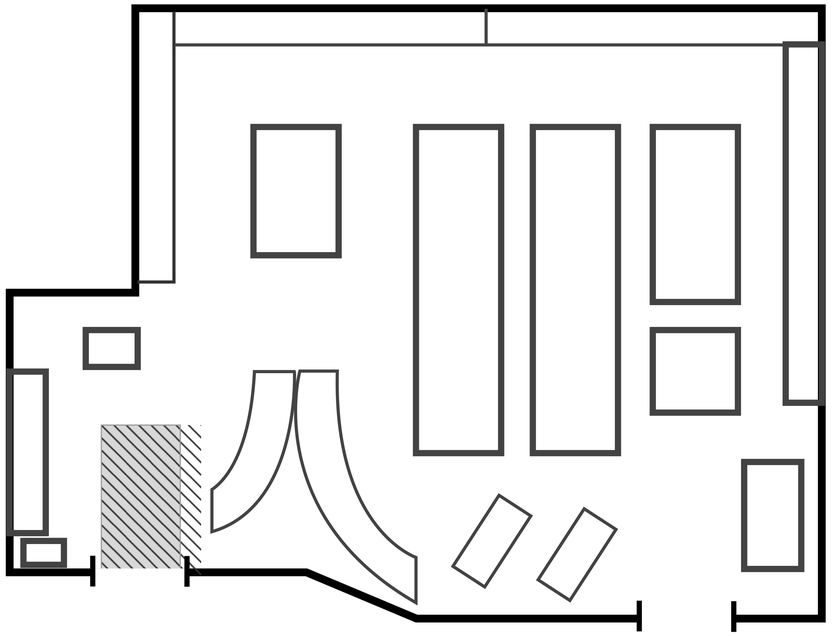
When a certain product is chosen, users are given the option to order and view product information

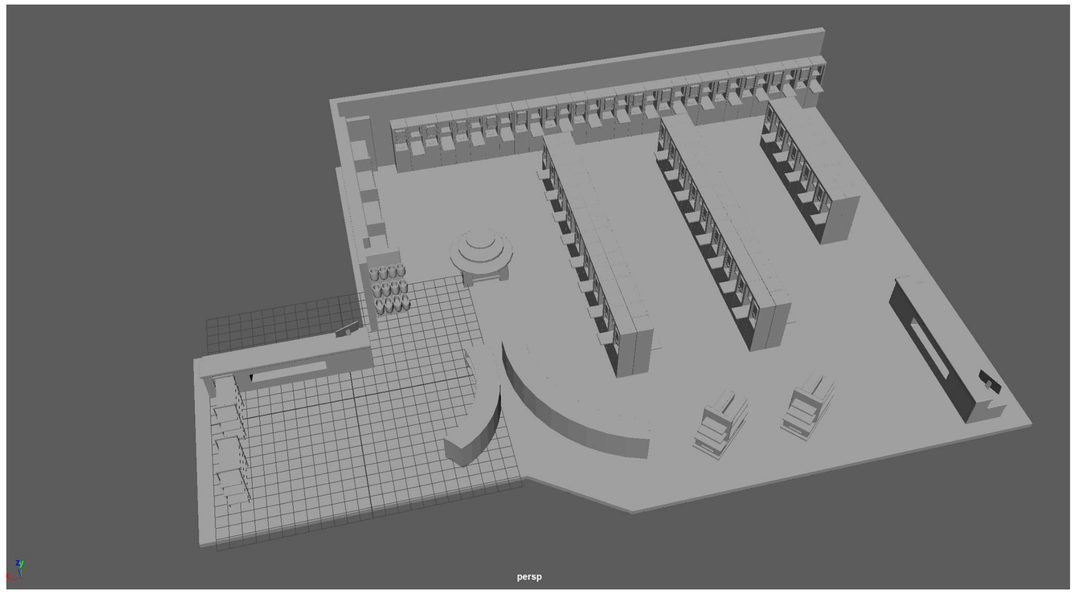


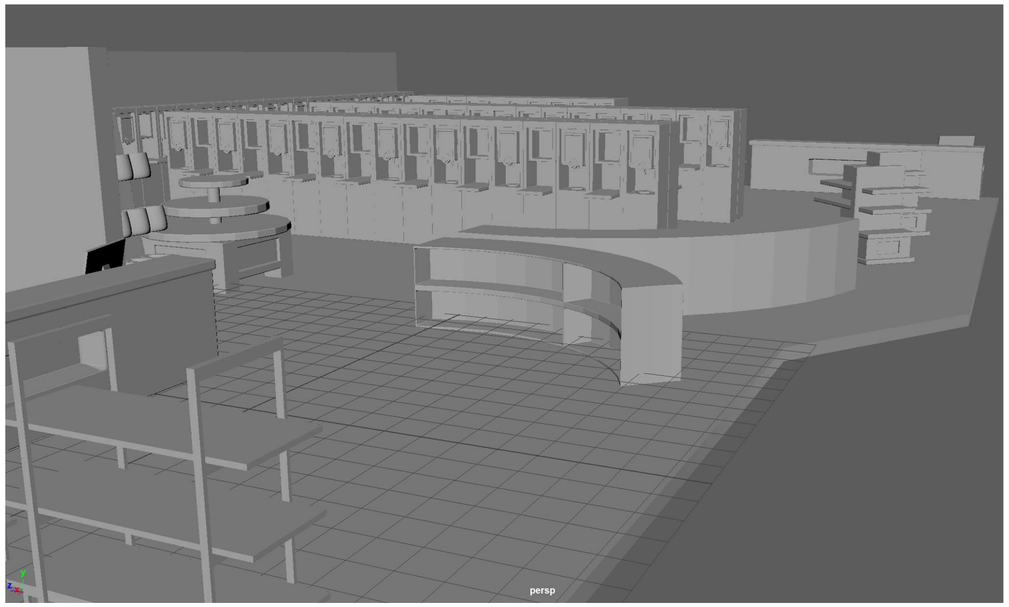
This screen is the buffer screen for when a product is being dispensed from the machine

STORE DESIGN









STORE DESIGN