WEB701

Stuff and Things
Clothing Charity

DESIGN, EVALUATION AND DEVELOPMENT

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Executive Summary/ Abstract

This report is presented as a document. The document not only illustrates the creation of a charitable clothing website, called Stuff and Things but also shows the importance of having a functional website created using the latest technologies in software development. This report covers a set of recommended steps that are documented as a template for creating an effective and functional website. The overall goal is to produce and showcase a prototype website that meets the users' requirements and needs on a functional platform with up-to-date modern web technologies.

To achieve this goal the recommended set of modern web development technologies used should be a M.E.R.N stack. M.E.R.N stands for MongoDB, Express JS, React and NodeJS. These technologies together form a strong foundation upon which the website will be fully customisable and cater specifically to the needs and requirements of the organisation/charity.

More information about the project can be found here at GitHub: https://github.com/Kenny-WilliamsStockdale/WEB701-Project.git

Contents

Introduction

Designing the website.

This document's aim is to define the step-by-step process to create a functional website using modern web technologies. The modern web technologies will help showcase a working prototype website that meets the requirements of Stuff and Things charity.

This report is prepared following to an industry standard known as Information Architecture. It is a recommended best practice that will help define and to promote the values, vision, mission, and goals of the organisation known as Stuff and Things clothing charity

There are specific sections of this report that focus on areas required of the site as well as those that will be potential visitors to the site; from the public needs through to other organisations wanting to donate items on to the platform.

Website Brief

The members of the Stuff and things charity are interested in having a website of their own. The following is brief description on the proposed website:

The Stuff and things Charity are is a "clothing assistance style" charity in the Nelson region who offer their donated clothing items to the local community.

We need a website for the Nelson region for members of the charity to provide items of clothing.

The purpose of the new website is to help with the distribution of the service or product by members of our charity to customers. Like a "clothing bank", the website lets members register and describe the service or products they are providing, the number and frequency of the offerings.

The website lets members of the community (beneficiaries) access the service, by providing tokens that can be "spent" in the service. To achieve our goal, we would like to have an online token function on our website that let a beneficiary access a limited number of tokens, for example the system needs a mechanism that verifies that a member of the community is accessing the service and that the token belongs to a particular community member. The website needs some homepage text about general information of our products and services such as: types, characteristics, quality factor, usage, and benefit.

We require the following features on the website:

Charity members and beneficiaries can register, log in and administer their own accounts.

Members use the website to register their products and services, and beneficiaries use the system to acquire tokens.

Interactive element(s) that engages the website user.

The system provides an interface that the members can use to accept a token in a transaction.

Site Goals

To bring the availability of donated clothing items to those in need to be more accessible by digital and physical services. By providing these services in both spaces this will lead to being able to reach and connect generous organisations to beneficiaries and help people in the long term.

Mission or purpose of the website.

To provide donated clothing items from organisations/members to beneficiaries via an online platform/website. Visitors/beneficiaries who are in need within the community can now visit Stuff and Things online to browse for clothing items they need. This brings availability of a clothing charity to the local area in the hopes of boosting, response rates, service solutions and raising awareness by growing the charity regionally and nationally.

The webstore should have straight forward, accessibility, quick navigation and be engaging which is incredibly important for users to get key information on the webstore quickly and efficiently.

Short- and long-term goals.

The short- and long-term goals are to provide a web service to people in need locally and eventually scale/expand on this service to grow awareness. This will help add more solutions to help those people in need with the Stuff and Things website platform.

Intended audiences

Stuff and Things clothing charity is aimed at anyone who needs clothing (a beneficiary) this will predominately be from the ages of 5+. Also, it is aimed at organisations or individuals that are generous and wanting to donate any unused clothing items to the website. Using this platform will allow organisations and beneficiaries to connect at a variety of age levels/groups. This will help influence and spread awareness of the charity and help people in need on a larger scale.

Why will people come to the website?

By recognising the correct target audience, having clear goals and objectives, this will make it achievable to better reach and inform the interested parties about Stuff and Things clothing charity.

A clean, engaging, and easy to navigate web site with friendly organisations/members that donate items are all key aspects. This will have people in need feel like they have made a secure fulfilled decision to seek and obtain items on this platform. Which in turn will grow a good reputation and have new and returning beneficiaries prefer to use the charity.

Define the User experience

The Audience

A clean, engaging, and easy to navigate web site that members and beneficiaries can use to donate and obtain clothing items.

Below are the audience types and some typical scenarios that help to describe their common reasons for wanting to visit the site.

First type of audience

Members. This type of audience will interact in such a way with the website that allows them to put clothing items up for donation. They provide the product.

Second type of audience.

Beneficiaries interact with the web site that allows them to obtain clothing items donated through the web platform. They receive and use the product.

Stories, Scenarios and Personas
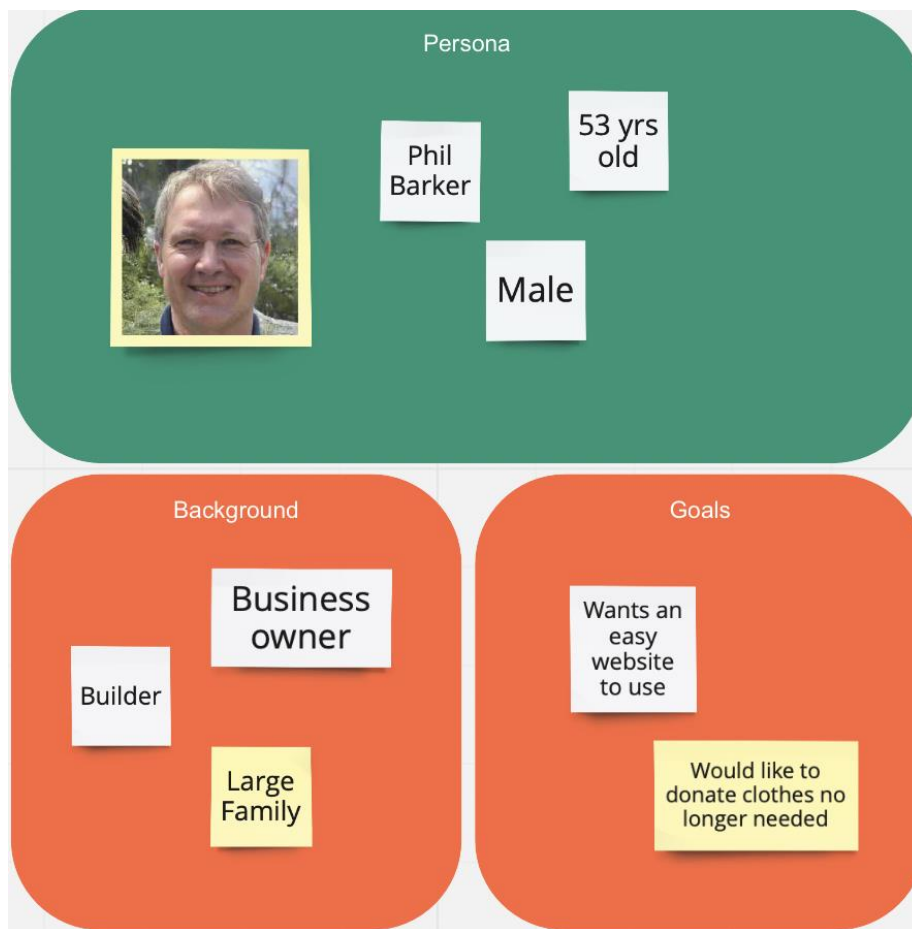
Phil is a local business owner in the construction industry. He's lived in the area for the past 20 years with his large extended family. Due to his large family, Phil has taken it upon himself to gather many of the family's unused clothes and instead of throwing them out he would rather donate them to those in need. Due to Phil's age and limited understanding of modern technology he would like the website to be as intuitive to use as possible so he can list his family's clothing items online.

- Phil would like to register as a member and list products on the website.
- Phill needs to view and manage the donated items he provides.
- The site needs to be intuitive and easy to use.
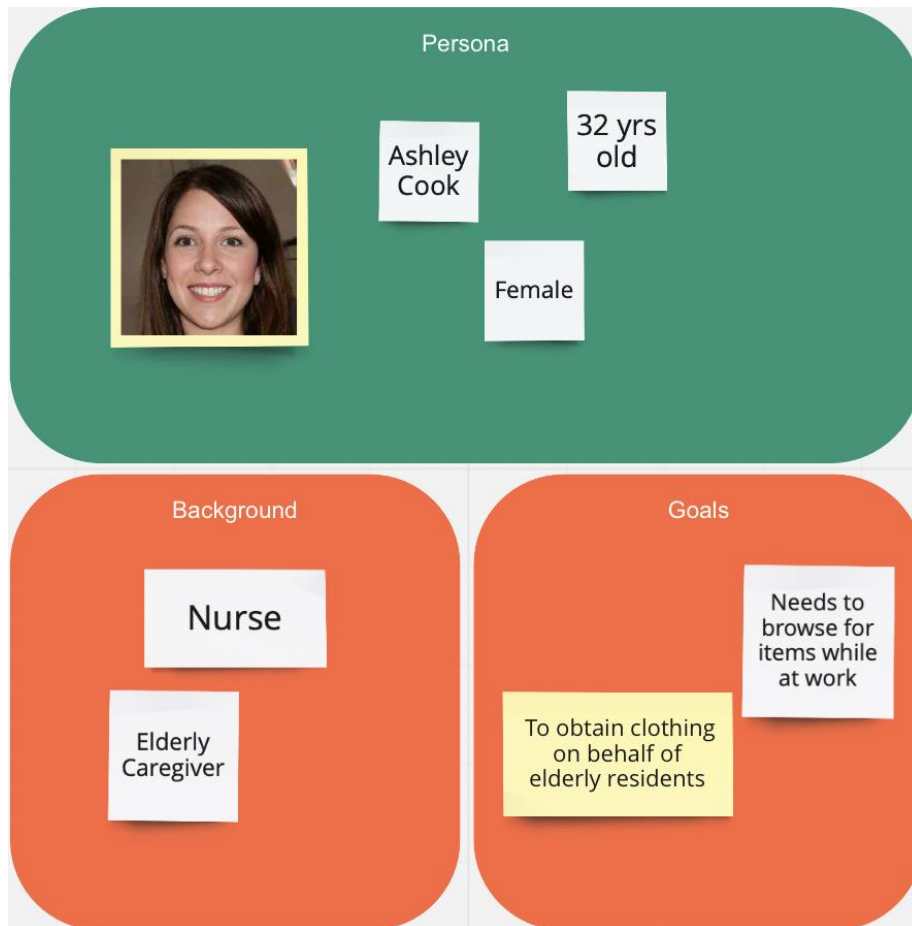
Ashley is a nurse at an aged care facility. While looking after the residents of the facility she spends a small amount of allocated time looking for clothing on behalf of the residents. Often, she finds it more affordable to find donated clothing. This clothing can be used as replacement clothing in the facility or when residents are out on trips. When Ashley is browsing for donated clothing, she has a limited amount of time so preferably she likes websites that have quick navigation, as few clicks as possible and that present information quickly and efficiently.

- Ashley would like to use the website as a beneficiary who obtains clothing items.
- The website needs to be minimalistic and informative for quick access to items, Ashley's access to the site is time sensitive due to her current job.
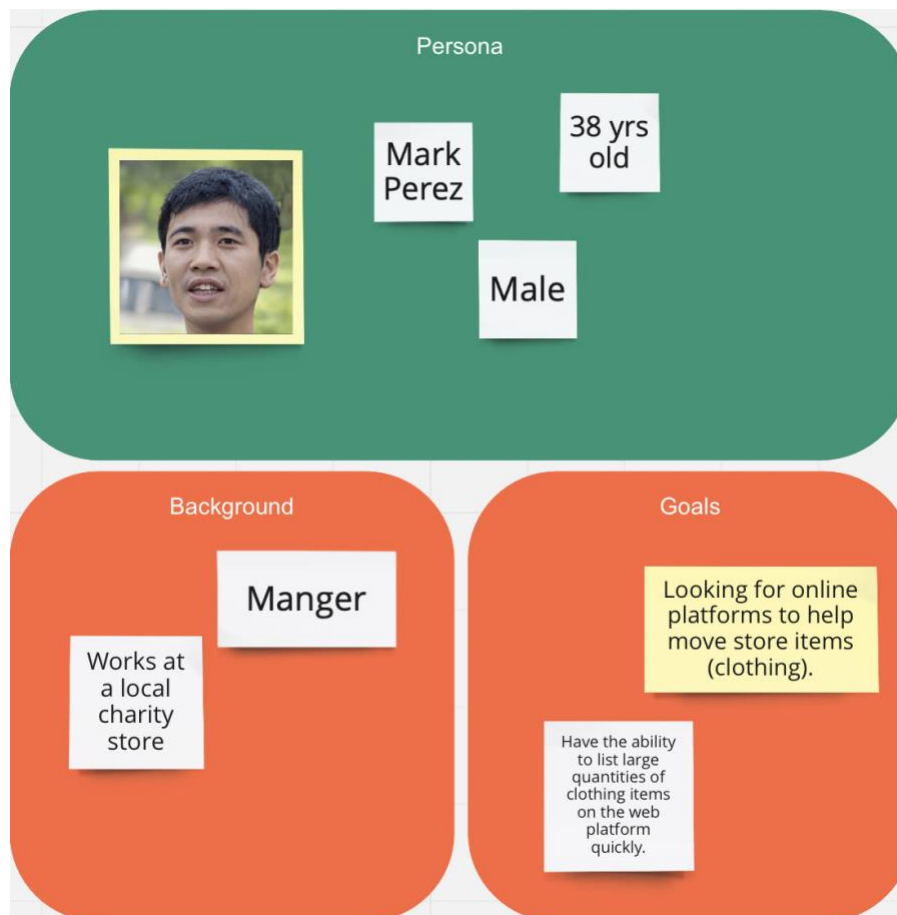
Mark is works as a manager at a local charity store. They currently have an influx of a lot of clothing items coming into the store, more than what they can shift on to those in need. As part of management Mark has made the decision to look for an online platform that will help in reaching out to people in need to shift some of the clothing items out of the store and free up some space. One of Mark's requirements for the website is that it must be able to list large quantities of clothing items quickly and easily.

- Mark needs to use the site as a member suppling a large amount of clothing items.
- Mark is looking for a modern web application that allows for large quantities of items to be listed quickly. He also needs to manage these items so he can see what and how many items have been obtained by a beneficiary.
- Mark needs to be able to accept tokens efficiently.
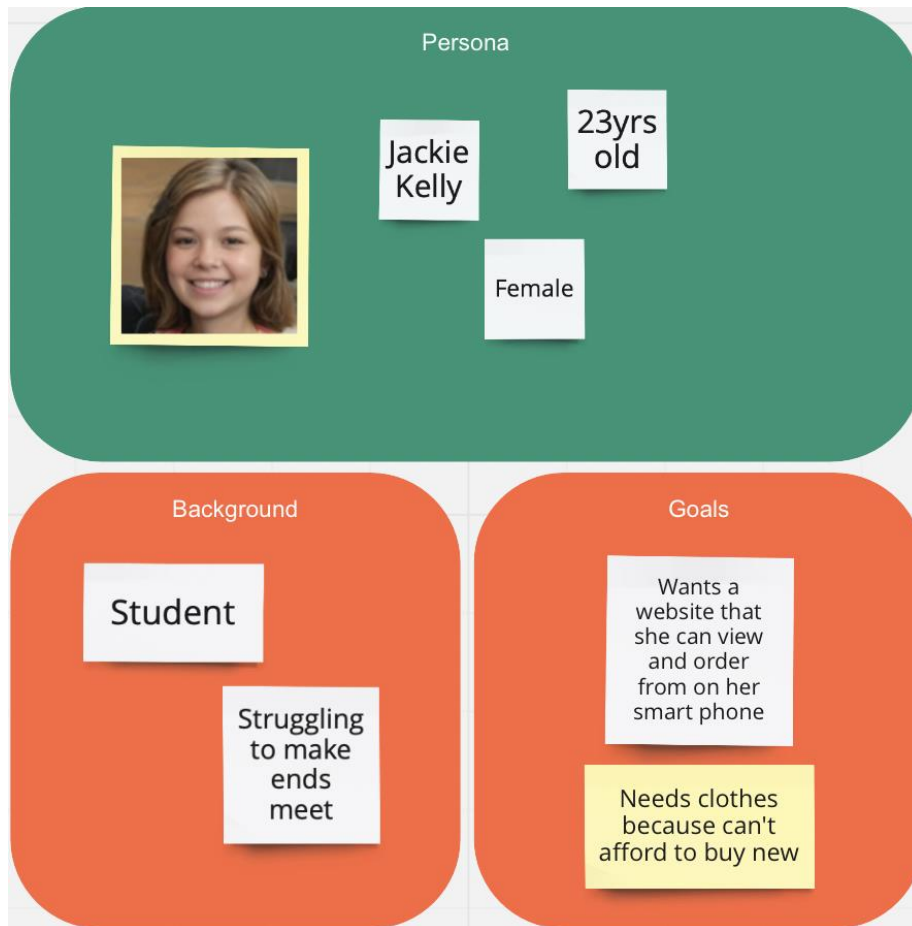
Ashley is a student who is currently struggling to make ends meet financially. She needs some new clothes to attend her classes in a proper manner. Ashley is always on the go as a student, so she uses her mobile phone a lot to search for charity stores and online shops. Her preference would be an online store so she ahead of time can search and look for clothing items of interest to her and then pick them up. Because of this the website must be responsive and mobile friendly for a range of devices.

- Ashley needs to use the web app on her phone so it must be responsive for her device and all features must be accessible just the same as the desktop version of the web app.
- Ashley needs to use the website as a beneficiary.
- Information must be in-depth so she can be happy and sure of any clothing items she obtains.

Competitive Analysis

During the design phase it's important to analyse other web applications to compare functional and visual layouts. This can showcase what the web sites have in them, what is useful and what is not useful.

Competitive Analysis 1
https://www.heartfoundation.org.nz
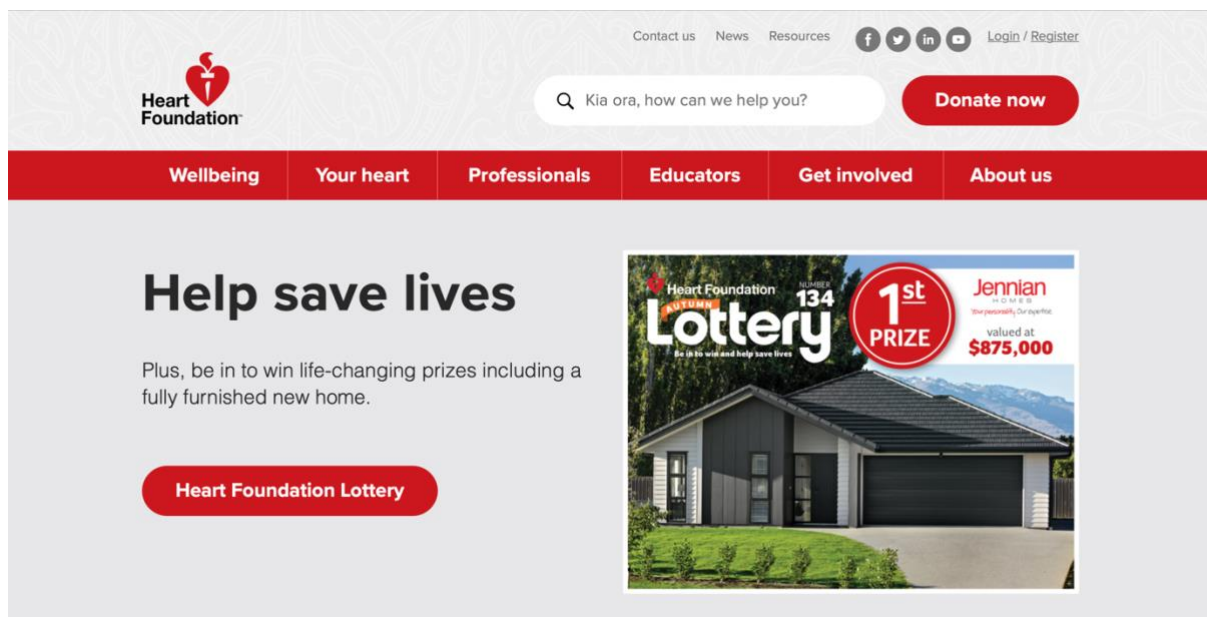
- The nav bar is clean and simple. It's obvious for the user to read, use and see.
- A search bar is easily accessible and simple to see.
- Call to action buttons are bold and eye catching. Allowing the user quick visual access to information.

- The design of this information is unique and bold to be eye catching. Some pieces of information catch the eye more than others.
- The circles are broken up into sections visually which helps break up the information and make it easily readable.
- Good use of titles and headings which gives a good hierarchy of information to be read in a particular order.
- The colour scheme can make the hierarchy of reading order out of place at first glance.
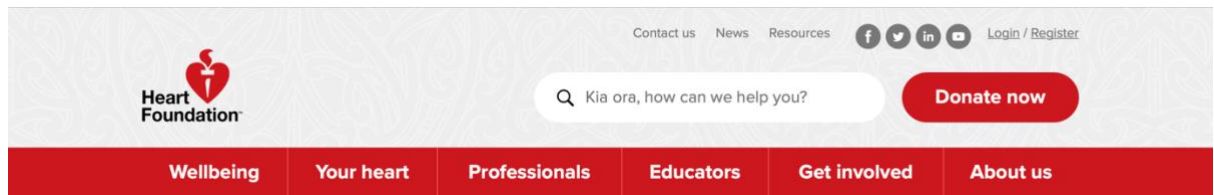
- The navbar is clear and concise. I feel it has just enough by not too many overwhelming options for a user.
- Seems a bit odd to have a multitiered navbar and the social media icons/ other navigation links are hard to see and not very noticeable.
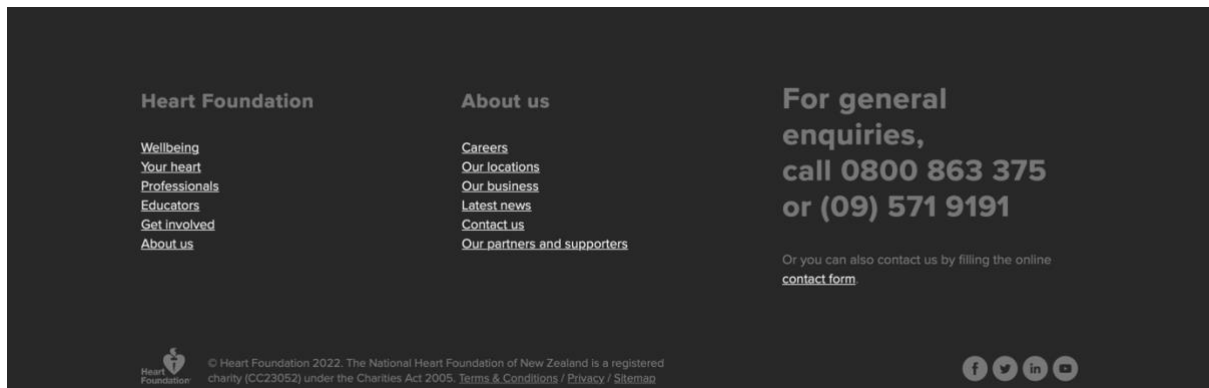
- The colour scheme here is hard on the eyes to get information quickly and efficiently.
- Layout is sectioned in a visually pleasing way. But there is a lot of information and links here for the user to process.
- The socials here are again too small and unnoticeable.
- The contact numbers are large and catch the user's attention quickly.

Pros

- Simplistic nav bar.
- Eye catching landing page.
- Call to action buttons clear and easily accessible.
- Clear and concise information

Cons

- Socials are small and not clear and are mentioned twice on the home page.
- Multi-tiered nav bar makes top links very hard to see or miss able at first glance.
- Footer contains many links and has bad colour scheme.

Competitive Analysis 2
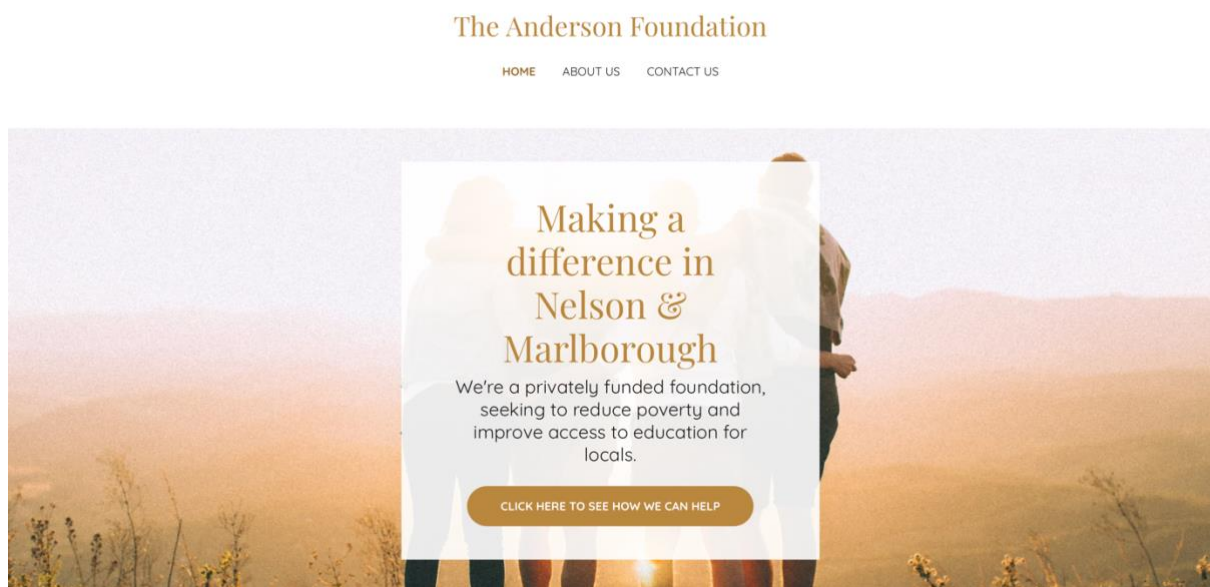
- Great use of colours and theme.
- White space makes the site look minimalistic, clean, and well structured.
- Simplistic navbar
- Good use of a picture that is not overwhelming.
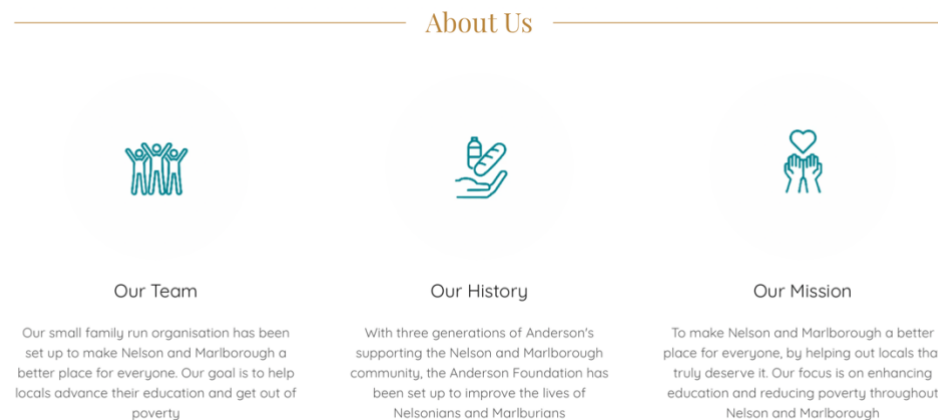
- Simplistic design and great use of colours. Not too many elements to look at and has a good balance of images to text from the way its segmented.
- Good use of headings and information to have correct hierarchal reading
- Good use of space.

Stay in Touch

Sign up to hear about our events and community projects

| Email Address | SIGN UP |

We're a self funded private charitable trust, but not a registered charitable trust yet.
So we don't take donations from the public but we can still help out with our
scholarships and grants for those in need.

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- Minimal and simple.
- Missing some more call-to-action buttons or socials.
- Excellent picture matching the colour scheme and them of the page.

Pros

- Excellent layout.
- Good use of colour scheme and theme.
- Simple, clean, minimalistic.
- Information clear, concise, and accessible quickly.

Cons

- No socials

Competitive Analysis 3

https://www.topsouthfoundation.org.nz

- Lots of white space everything is structured well.
- The nav bar is simplistic. Although a bigger font size would help it gain more attention.
- Lot of colours but not sure if it ties in with the pages colour scheme well or compliments it.

- Great use of media here.
- Complimentary colour on the pictures to make important messages stand out.
- Would be nice if the call-to-action buttons had the same red colour to also stand out.
- Good structure and spacing. It is not overwhelming for the user.
- The header logo oddly shrinks upon scrolling down the page more.
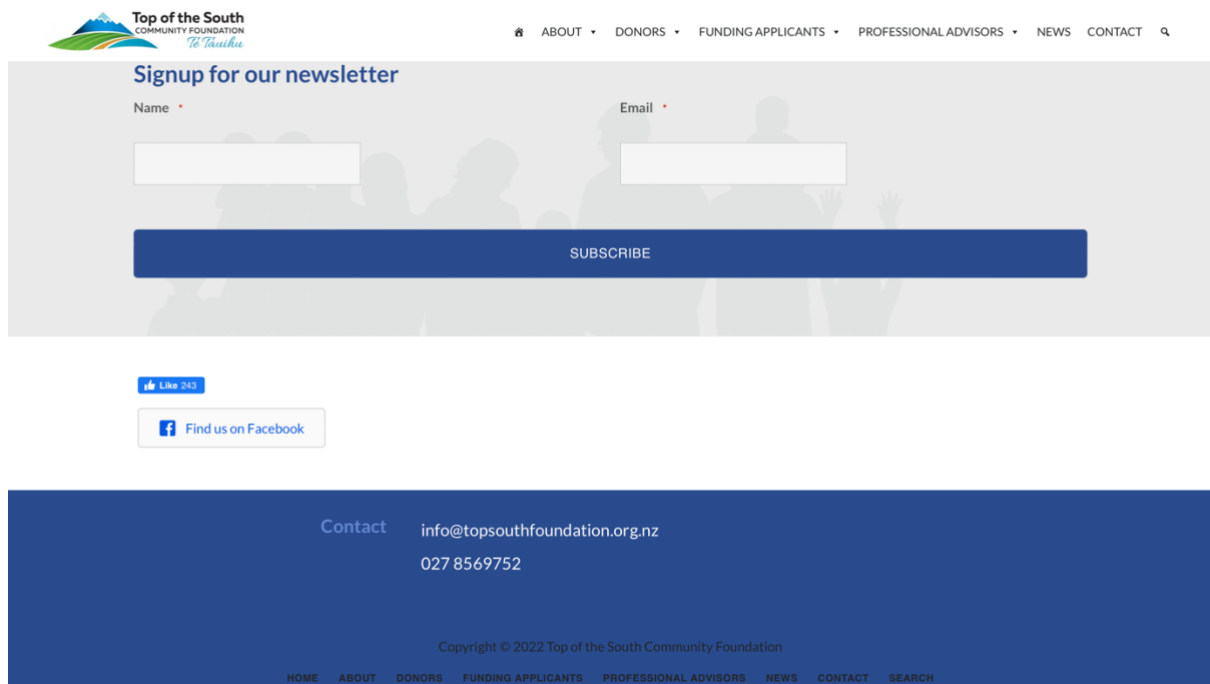
- Great use of colour here that ties in with the overall theme.
- Good use of white space and layout.
- Good structure.
- Footer is minimalistic. But black font colour is hard to read.

Pros

- Overall good structure and layout.
- Great use of media content that's not overwhelming.
- Information is accessible along with some good call to action buttons and descriptions.

Cons

- Nav bar font to small.
- Logo shrinks upon scrolling down the page.
- Colour scheme and theme doesn't match at the top of the page.
- Font colour in footer is hard to read

Competitive Analysis Summary

- In these examples there is some great features and to draw and get some inspiration from. I liked the minimalistic design of the Anderson foundation and the colour scheme from the heart foundation.
- Listing all the pros and cons helps to differentiate between features that would be useful in the design of the purposed web application. These are features like, colours, use of white space, layout of content, use of media, hierarchy, and useability.
- I like the hero images of both the heart and Anderson foundation I like the simplistic design of the heart foundation's as it doesn't attract away from the call-to-action buttons.
- The colour pallets are also impressive on both heart and Anderson foundations. It is important to have good white spacing between content helps the application feel open, quick, and smooth.
- Having a clean layout is important and it gives a simplistic look that is quick and efficient for the user to obtain and search for information. Overall, this will leave the web app feeling intuitive for the user.
- Of course, the website must be responsive, so it is useable with most users' devices and needs.

Site Content

Content and Functional Experience

Content List

Home page

- The home page will contain a hero image and text. The usual navbar, header and footer. More information will be present with in structured tiles. Call to action buttons will be present to allow access to clothing items quickly.

Login/signup Page

- There will be a button on the nav bar for users to login/signup. When the user tries to obtain a clothing item they will be prompted to login if they have not already. The same will go for users that are wanting to list items for donation to beneficiaries. If users do not have account, they must register.

Category page

- This will be a simple page that has content cards that contain a picture of the different categories of clothing items users can browse. Clicking on one will direct a user to a product list containing only those items.

Product page

- Like the catalogue page this page will have content cards that contain pictures of different clothing items users can browse. Clicking on the product/clothing item card will redirect the user to that specific product with more details presented.

Cart page

- This page will contain information from users that are looking to obtain clothing items. It shows which items they have gathered and how many of them are there in the possible order. Users can add or remove items as needed before confirming order.

Functional requirements

- The website needs a homepage that has general information of the products.

- Login/signup
  Login will allow the users to sign into an account with their credentials being a username and password. There will be two types of accounts, one being a user that is termed as a beneficiary who can obtain clothing items and the other being termed as a member who can offer/ donate clothing items. Users can also browse the website without the need to register or login but if they would like to obtain or offer clothing items then they must login or register. Both types of users can administer their own accounts.

- Members use the website to register their products and services, and beneficiaries use the system to acquire tokens.

- Interactive element(s) that engages the website user.

- The system provides an interface that the members cans use to accept a token in a transaction.

Group and label content

Home page	Login/Signup	Category	Product	Cart
Image	Username Inputs	Content cards	Content cards	List of items
Call to action Buttons	Password Inputs	Search bar	Gallery	Quantity
	Email inputs		Search bar	

Site Structure

Metaphors

Organisational metaphor

Charity clothing stores are often known for being unorganised, having no order and items generally randomised, cluttered. The words withered, antique and tired come to mind. To flip the notion of these words into something positive, it's important to use words that are positive, put a new look on something established, vibrant and feel of new quality. Upcycle, vintage, distinguished and

quintessential are great words. It's important to use a structure and layout that has open space and can let the clothing items stand on their own and with class and attractiveness. It should not be cluttered or overwhelming for the user.

Functional metaphor

Clothing as a metaphor examines clothing as art that symbolises power and identity. It's also functional and aesthetic. The proposed website should be the same it should show power and identify of the brand. It should also be functional and enhance the experience for the user.

Visual metaphor

In the case of the aforementioned metaphors and the proposed website. The colours and styling that comes to mind is something powerful/distinguished and with a hint of quintessential class. For the colours a pillar yellow to represent the power of the brand and a hint of red promote excitement. A mix of lighter blues for peace and calmness. A splash of something dark for highlights to represent authority. With white space to give a sense of structure and order.

Site structure listing

- Home Page
  - Nav Bar
    - Home
    - Login/signup
    - Category
    - Product
    - Cart
  - Image
  - Call to action button
  - Description of service and web platform
  - Footer
- Login/signup Page
  - Nav Bar
    - Home
    - Login/signup
    - Category
    - Product
    - Cart
  - Register account
    - Username
    - Email
    - Password
    - Confirm Password
  - Login inputs
    - Username/Email
    - Passwords
  - Footer
- Category Page
  - Nav Bar
    - Home
    - Login/signup
    - Category

- - - Product
    - Cart
  - Search bar
  - Smaller grid like content cards with a name as description underneath.
    - Clicking one of these cards will take the user to that category's products
  - Footer
- Product Page
  - Nav Bar
    - Home
    - Login/signup
    - Category
    - Product
    - Cart
  - Content cards set up as a gallery with images of clothing items
    - Click on one of the cards takes the user to that products page. Revealing more information
  - Search bar
  - Footer
- Cart Page
  - Nav Bar
    - Home
    - Login/signup
    - Category
    - Product
    - Cart
  - List of items in user cart
    - Cart shows what items the user has selected to obtain.
  - Quantity of items
    - User can adjust the amount of each item they are wanting to obtain.
  - Footer

Architectural Blueprint
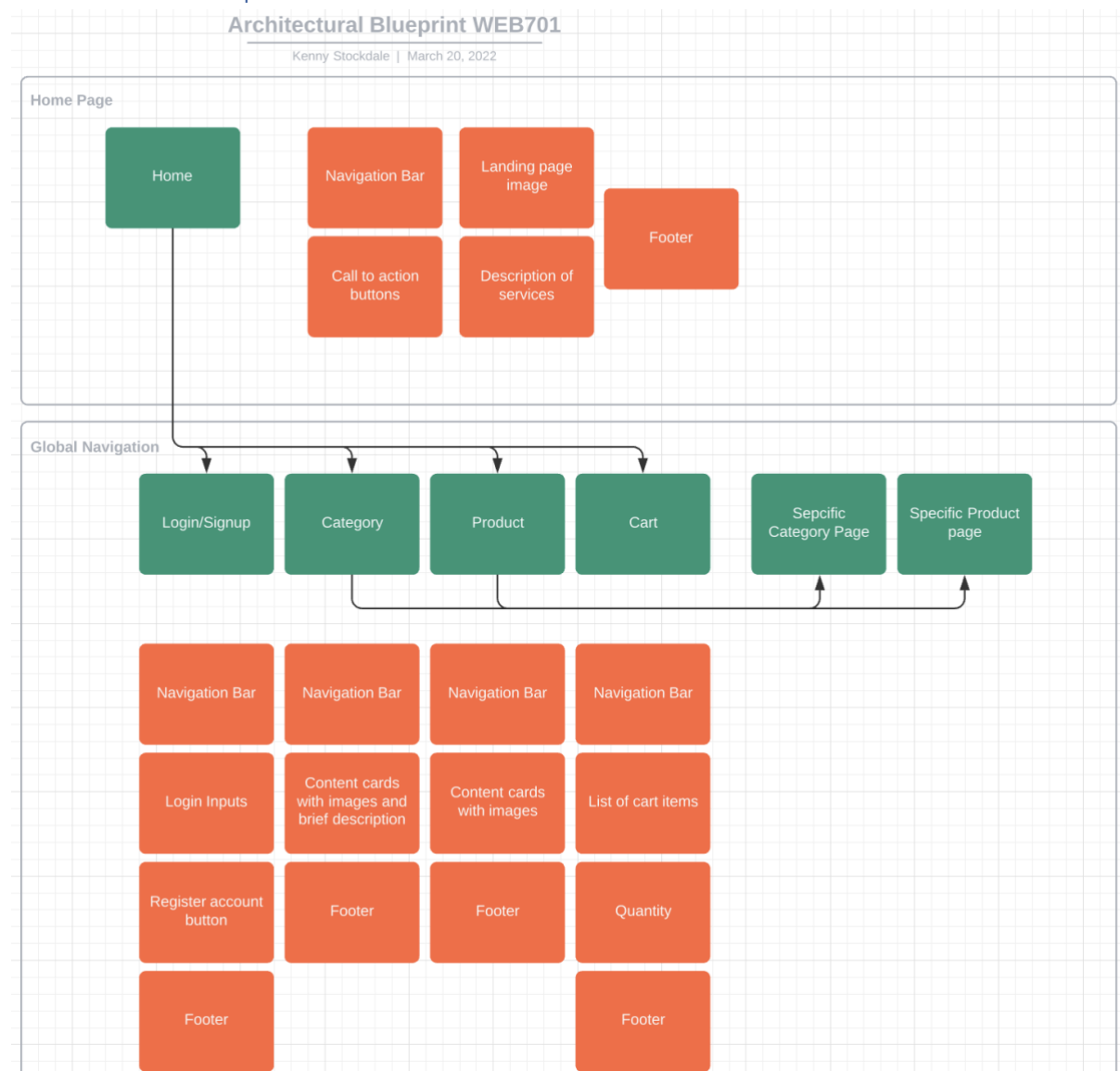
Define navigation

Global navigation

Global navigation allows the user to navigate through the many different areas of the website within the global navigation area. It contains the following areas:

- Home
- Login/Signup
- Category
- Product
- Cart

The global navigation will have to be simplistic as to not confuse and or overwhelm users with too many choices. This matches the aesthetic design of the proposed web application being minimalistic and concise. There should be no sub nav bar elements. Instead, the specifics of category pages and product pages should be accessed through the parent pages as a re direct for the user.

As per the visual metaphor it's important that the navigation match the themes and colours mentioned.

Local navigation

This should be the mentioned specifics of the category and product pages. Where they will re direct the user from both category pages and product pages to more detailed pages pertaining to those subjects.

Visual Design

Wireframes

Company Logo

Category   Product   Cart   Login   Q   P a g e

Login

Username

Password

Login

Mockup Company

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adipiscing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.

Privacy Policy   Terms of Service

Company Logo

Category   Product   Cart   Login   🔍

Register

Email

Username

Password

Type of account

Type ▾

Register

Mockup Company

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Privacy Policy   Terms of Service

Company Logo

Category   Product   Cart   Login

Category

Label	Label	Label

Mockup Company

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Company Logo

Category   Product   Cart   Login

Product

Label

Label

Label

Mockup Company

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adipiscing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.

Privacy Policy   Terms of Service

Company Logo

Category   Product   Cart   Login   User   🔍

Cart

Order summary   Remove all

Item name here   ⊖ 1 ⊕ 1 Voucher 🗑
Sub information

Item name here   ⊖ 1 ⊕ 1 Voucher 🗑
Sub information

Confirm

Mockup Company

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adipiscing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.

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Mock ups

Category   Product   Cart   Login   Q

Login

Username

Password

Login

Stuff and Things

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incididunt ut labore et dolore magna aliqua.

Privacy Policy   Terms of Service

Stuff and Things Clothing Charity

Register

Email

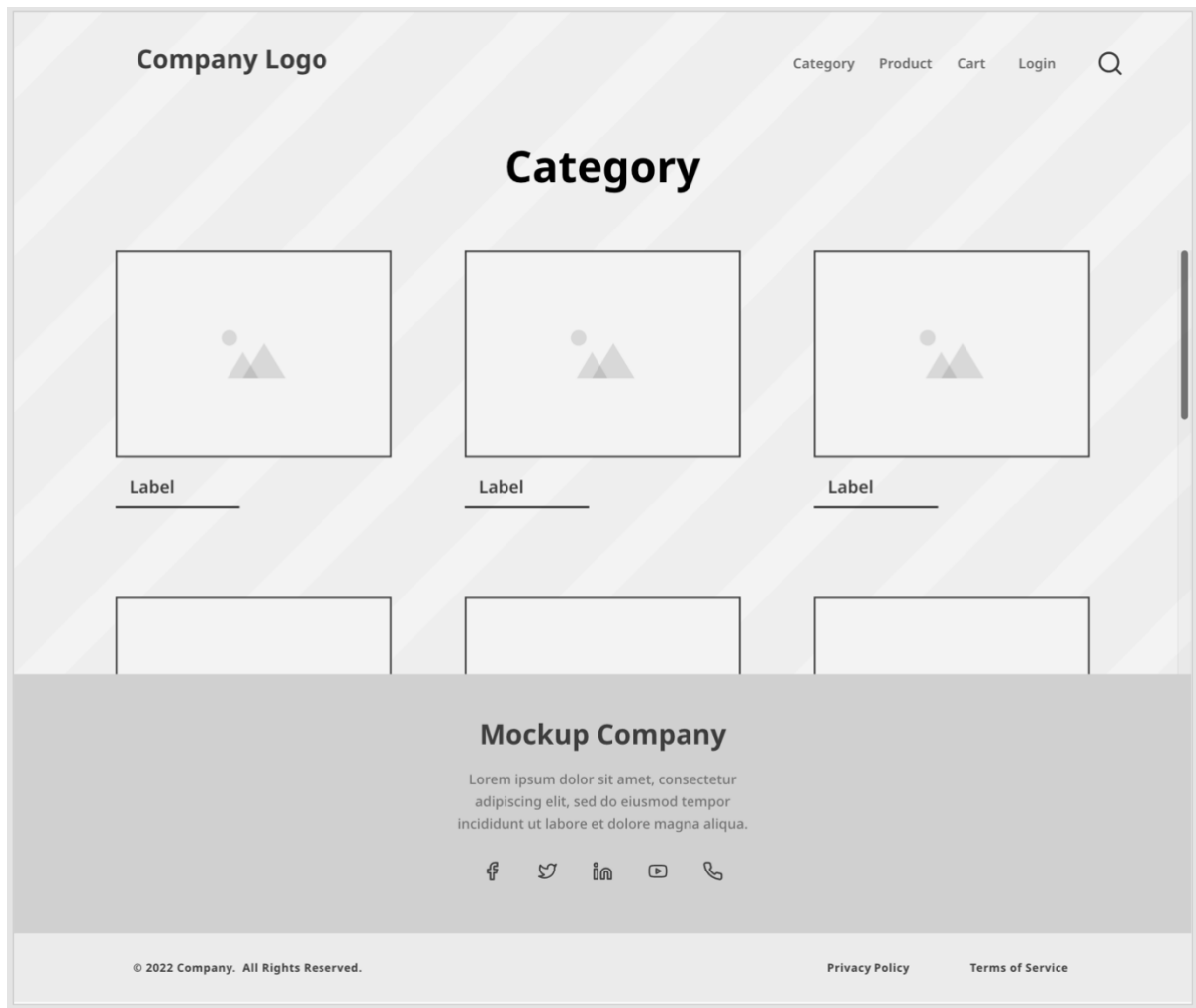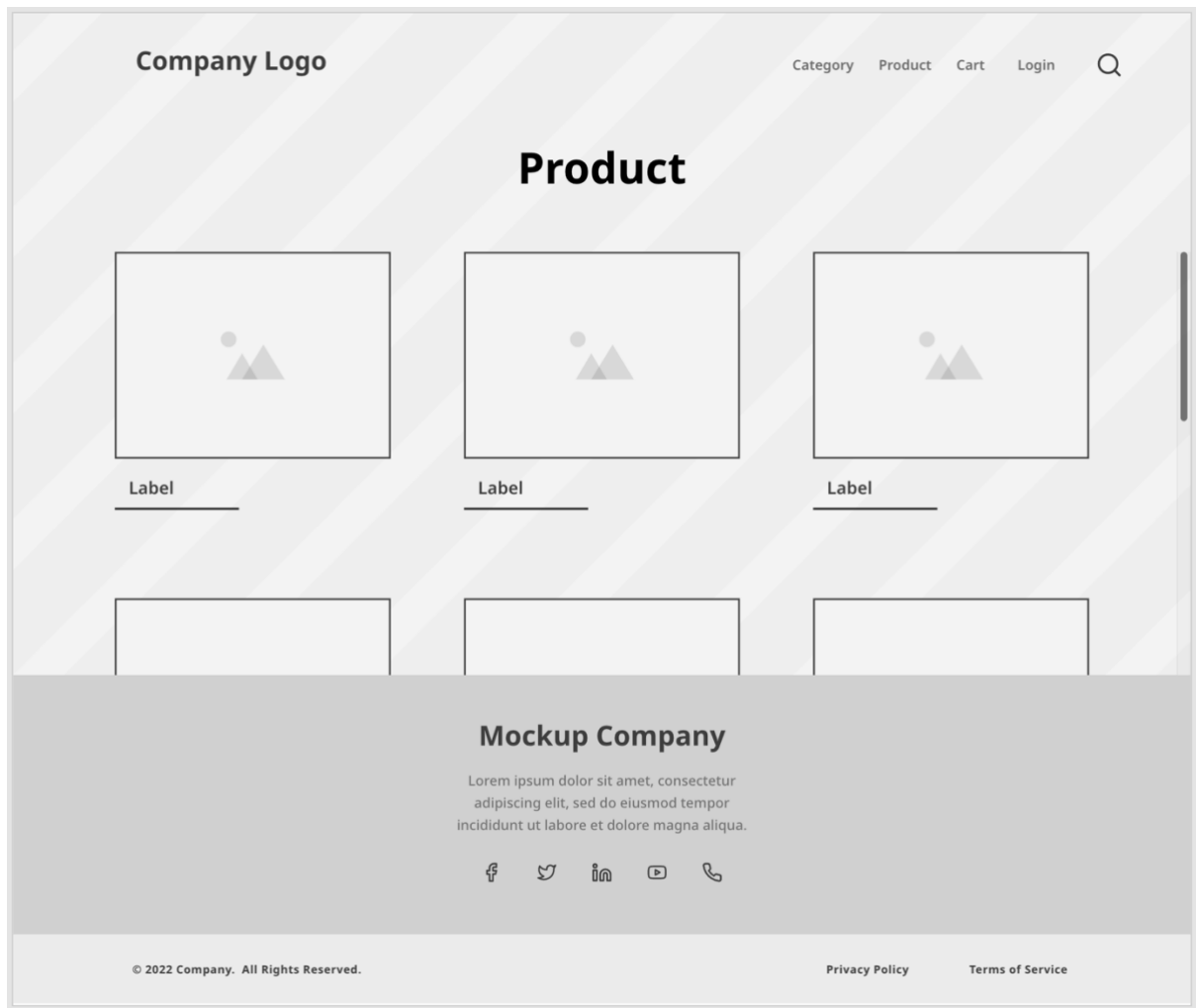Username

Password

Type of account

| Type ▾ |

Register

Stuff and Things

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adipiscing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.

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Privacy Policy   Terms of Service

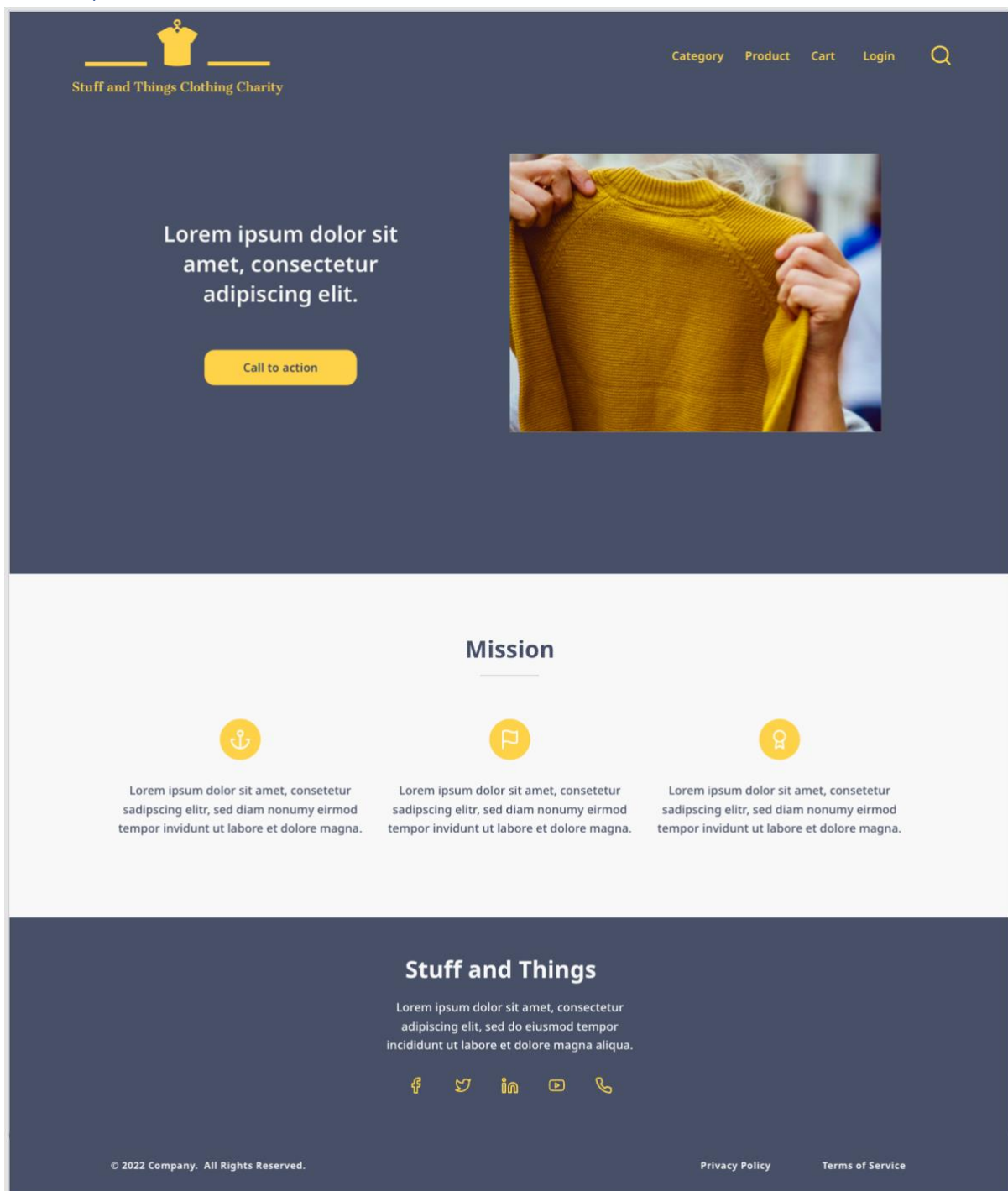Category   Product   Cart   Login   Q

Category

Pants

T-Shirt

Hats

Stuff and Things

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Privacy Policy   Terms of Service

Stuff and Things Clothing Charity

Category   Product   Cart   Login

Product

Red T-shirt

Jean Shorts

Jacket

Stuff and Things

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adipiscing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.

Privacy Policy   Terms of Service

Stuff and Things Clothing Charity

Category Product Cart Login

Cart

Order summary   Remove all

Item name here
Sub information

− 1 + 1 Voucher 🗑

Item name here
Sub information

− 1 + 1 Voucher 🗑

Confirm
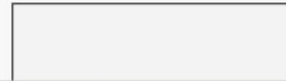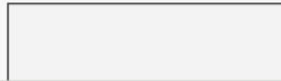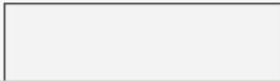
Stuff and Things

Lorem ipsum dolor sit amet, consectetur
adipiscing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.

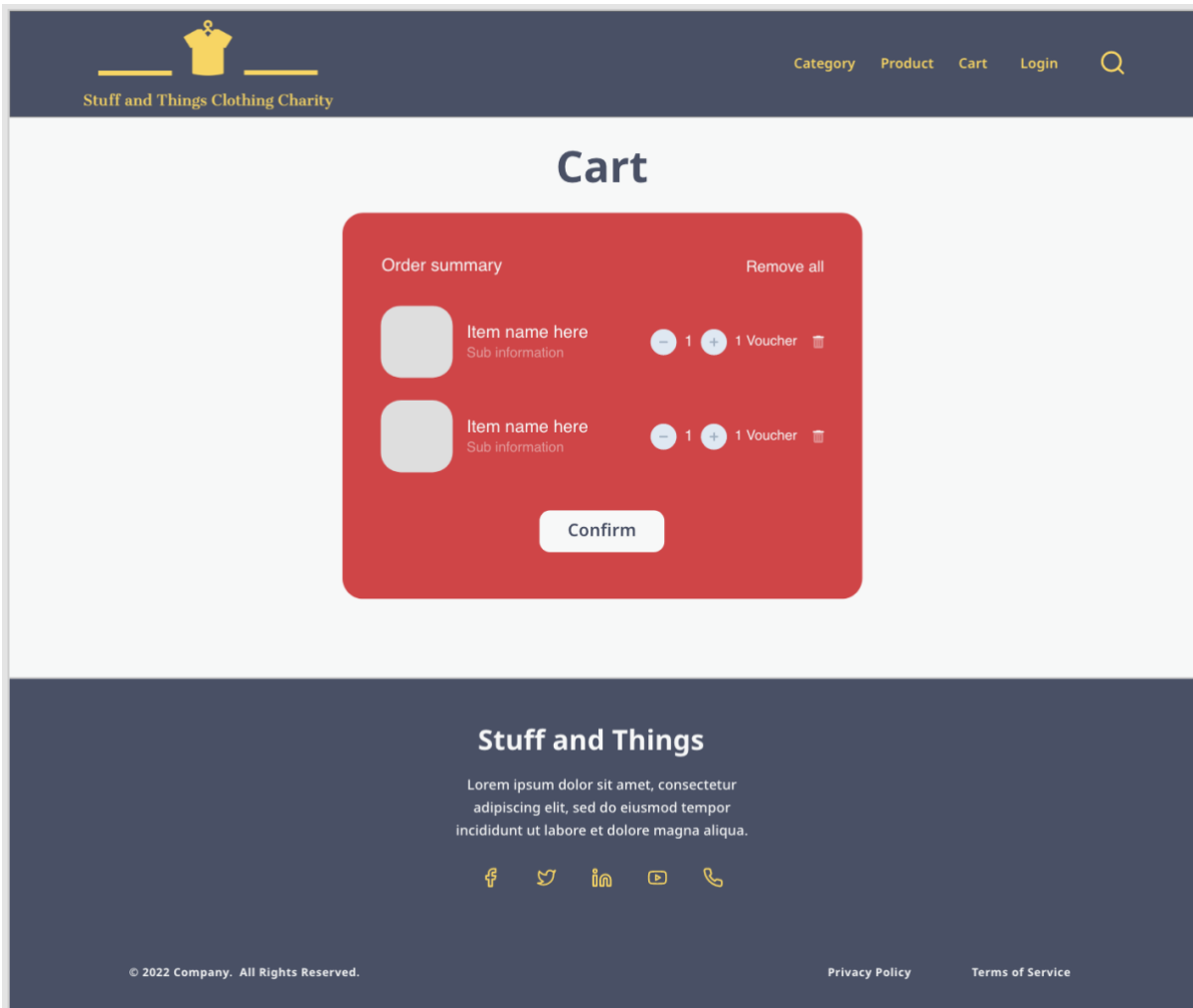Privacy Policy   Terms of Service

CRUD analysis – API prototype

CRUD for Stuff and things clothing charity website.

Legend		
C = INSERT (Post)	R = SELECT (Get)	U = UPDATE (Put)
D = DELETE (Delete)	R/U = SELECT and UPDATE	R/D = SELECT and DELETE

Table →	User					Product					Cart		Tokens			Order		Cateogory	
Process	User Email	User Name	User Password	Type	User Voucher	ID	Name	Description	Image	Quantity	User Email	ProductID	ID	User Email	Order ID	ID	Product ID	ID	Name
Add / register a user	C	C	C	C	C						C	C							
Log in user	R	R	R	R	R														
Log out user	R	R	R	R	R														
Edit User	R/U	U	R/U	R	U														
Delete User	D	D	D	D	D						R/D	D							
View account	R	R	R	R	R														
Add a product						C	C	C	C	C									
Edit a product						R/U	U	U	U	U									
Delete a product						D	D	D	D	D									
View product						R	R	R	R	R									
Add to cart											C	C							
Edit a cart											R/U	U							
Remove from cart											D	D							
View cart											R	R							
Add token													C	C	C				
Edit token													R/U	U	U				
Remove token													D	D	D				
Create order	R				R/U	R					R/U	R	R/D		C	C	C		
Edit order																R/U	U		
Delete order					R/U										D	D	D		
View order															R	R	R		
Claim order	R												R/D	R	R	R/U	R		
Create category																		C	C
Edit category																		R/U	U
Delete category																		D	D
View category																		R	R

This CRUD table was built off the user requirements above.

Trello – Project planning board

See GitHub: https://github.com/Kenny-WilliamsStockdale/WEB701-Project.git

or

Trello: https://trello.com/b/WsMGDNlb/web701-project

Revisions

- After thinking about any changes that could benefit the current design. One change is that instead of having a persistent cart that is stored to the database and used for CRUD purposes, another cart will be designed that will instead hold items in the local storage of the browser. This will eliminate the need for extra data passing through the database and less coding as well as adding a smoother experience for the user.
- A pop-up cart will instead be implemented that will accompany the beneficiary user as they shop. The beneficiary user can use the cart in a traditional sense with all the related features. When the beneficiary user has decided on their items, they will confirm the order. A token is generated for the order as per normal.