

USER INTERFACE DEVELOPMENT (INFO20005_2025_SM1)
SUPPLY. STREETWEAR WEBSITE REDESIGN

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ASSIGNMENT 3 -
UI IMPLEMENTATION

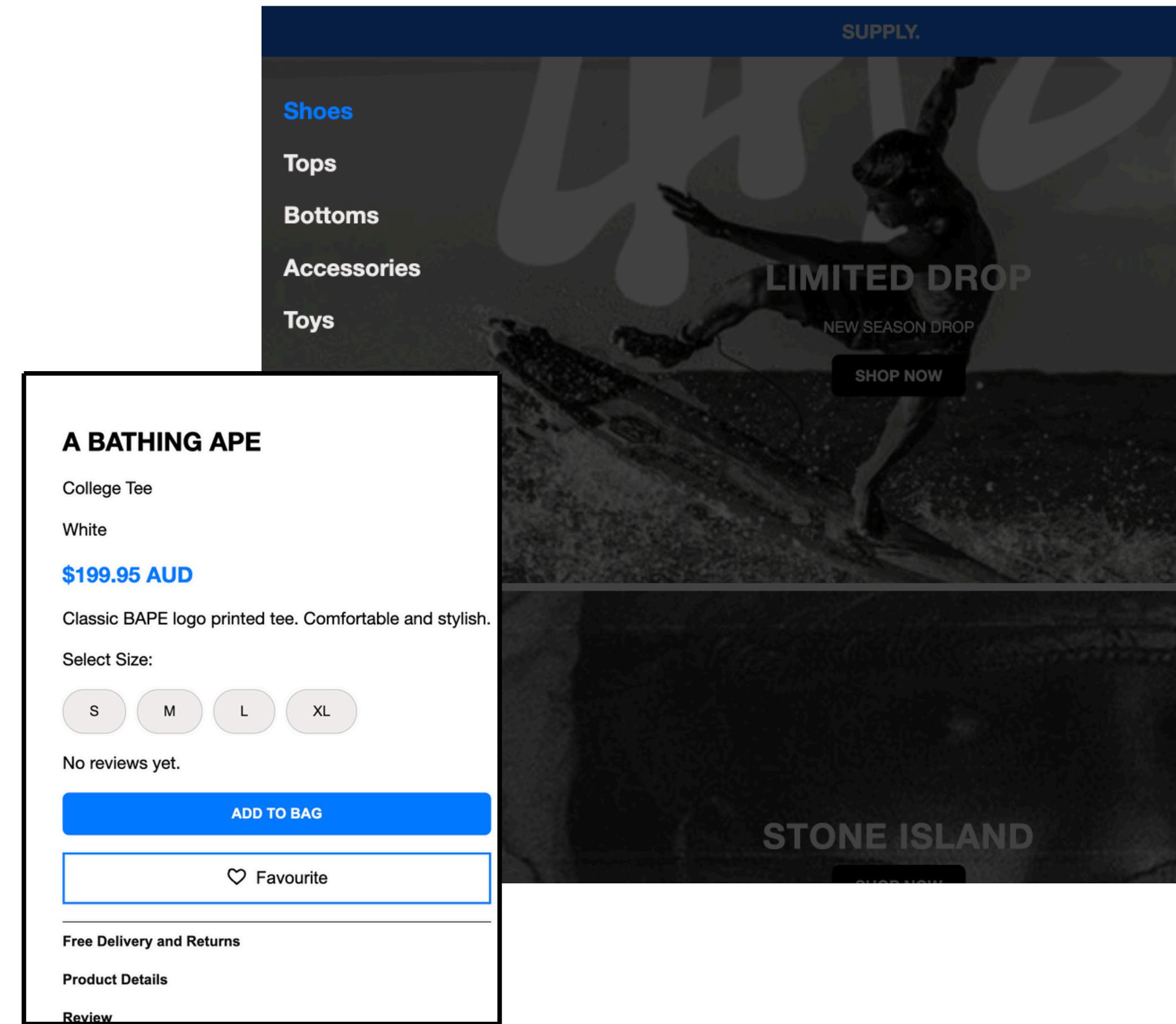
Live Website: <https://jiexxxxx11.github.io/assignment-3/>

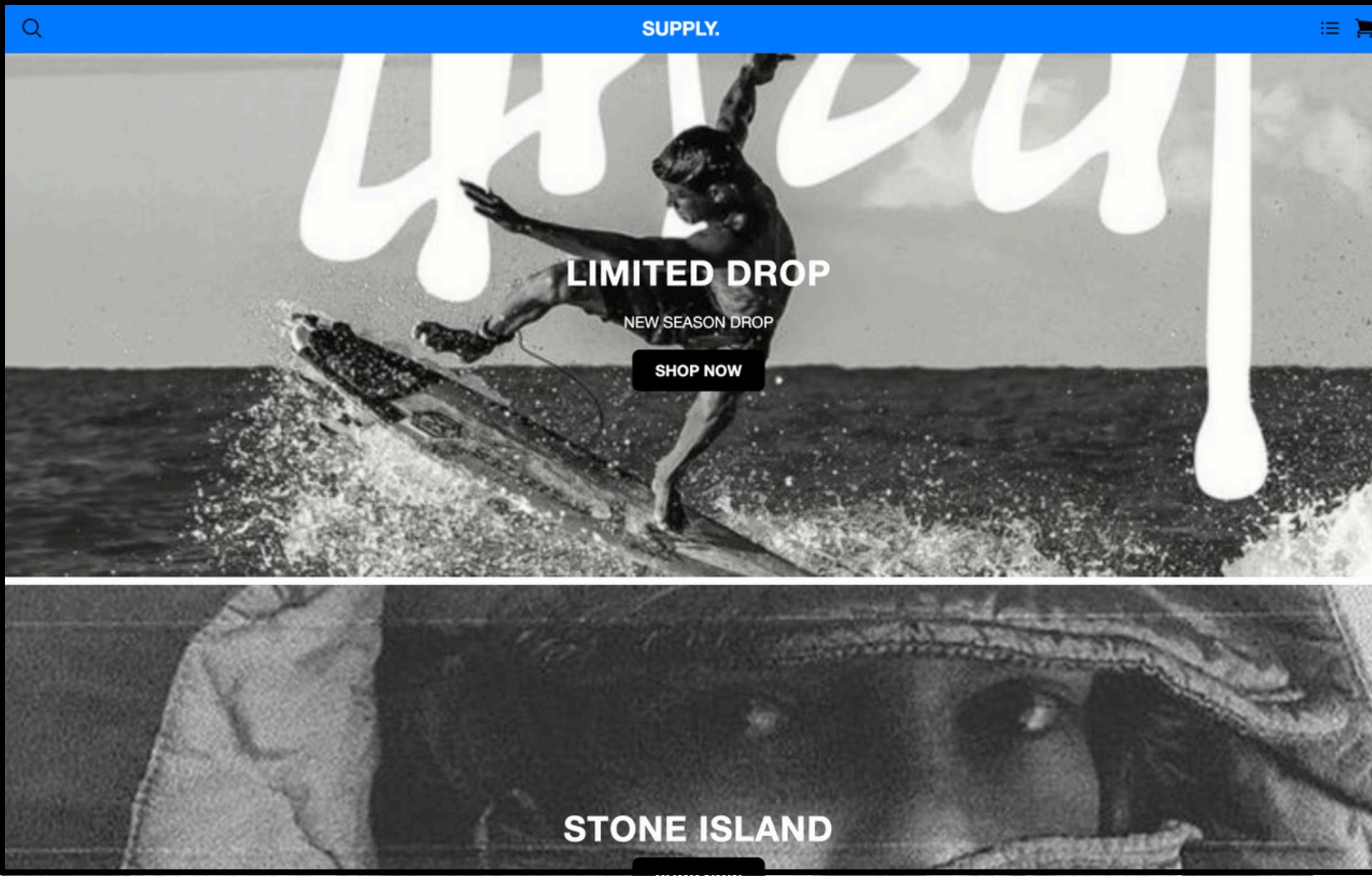
GitHub Repo: <https://github.com/Jiexxxxx11/assignment-3>

PROJECT GOALS

This project introduces the design and front-end development of SUPPLY. a modern streetwear e-commerce site from local Australia. The aim was to create a responsive and visually striking digital storefront that effectively showcases limited edition products, encourages user engagement, and enhances the user shopping experience on computers and mobile devices.

Aimed at the fashion forward consumer, the site emphasises a minimalist layout, bold imagery and efficient navigation. Key features include category-based product filtering, interactive product pages with size selection and review display, a functional shopping cart and checkout process, and an order system powered by localStorage logic. Final deliverables included a fully coded HTML/CSS/JavaScript website and a design report outlining key decisions.





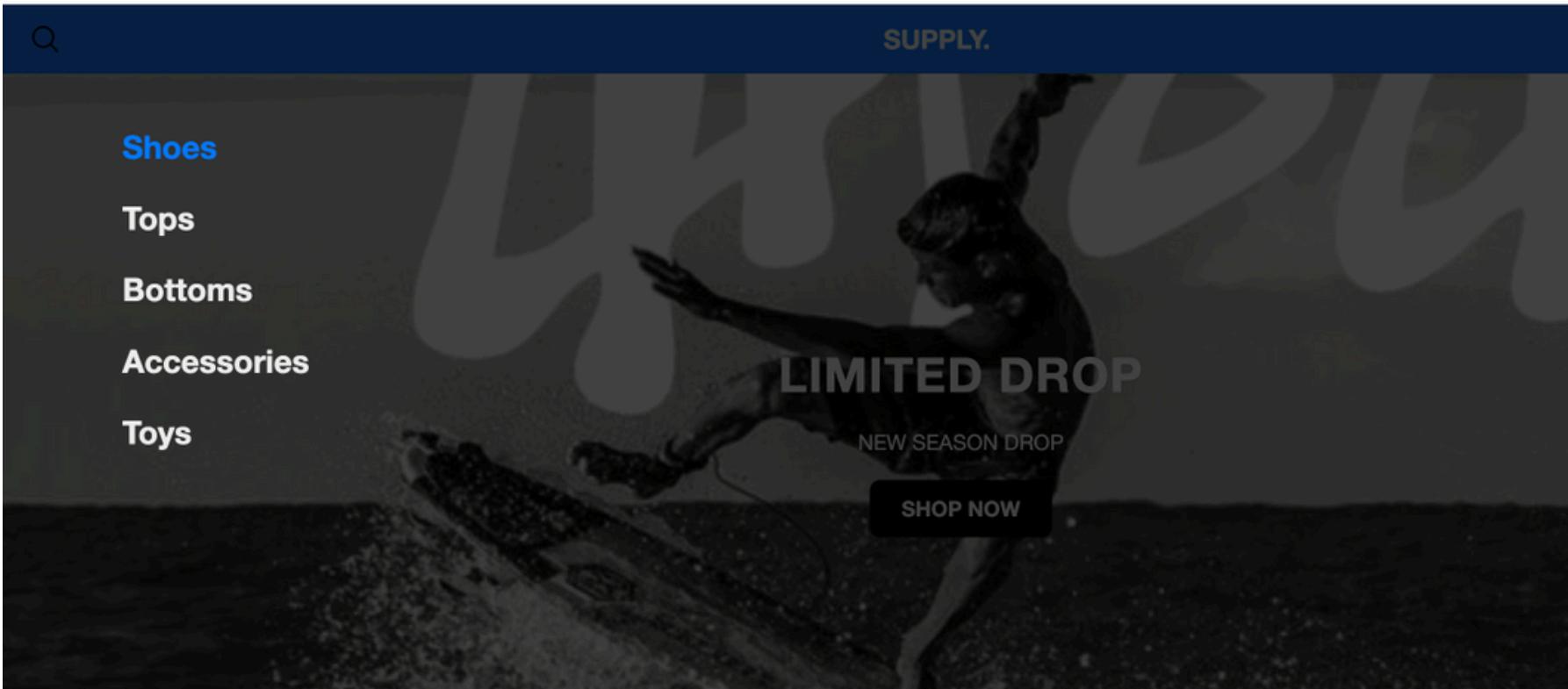
Homepage

The homepage uses a full-width banner to highlight key collections. Black and white visuals create a strong brand tone, while the Shop Now button draws attention to each section.

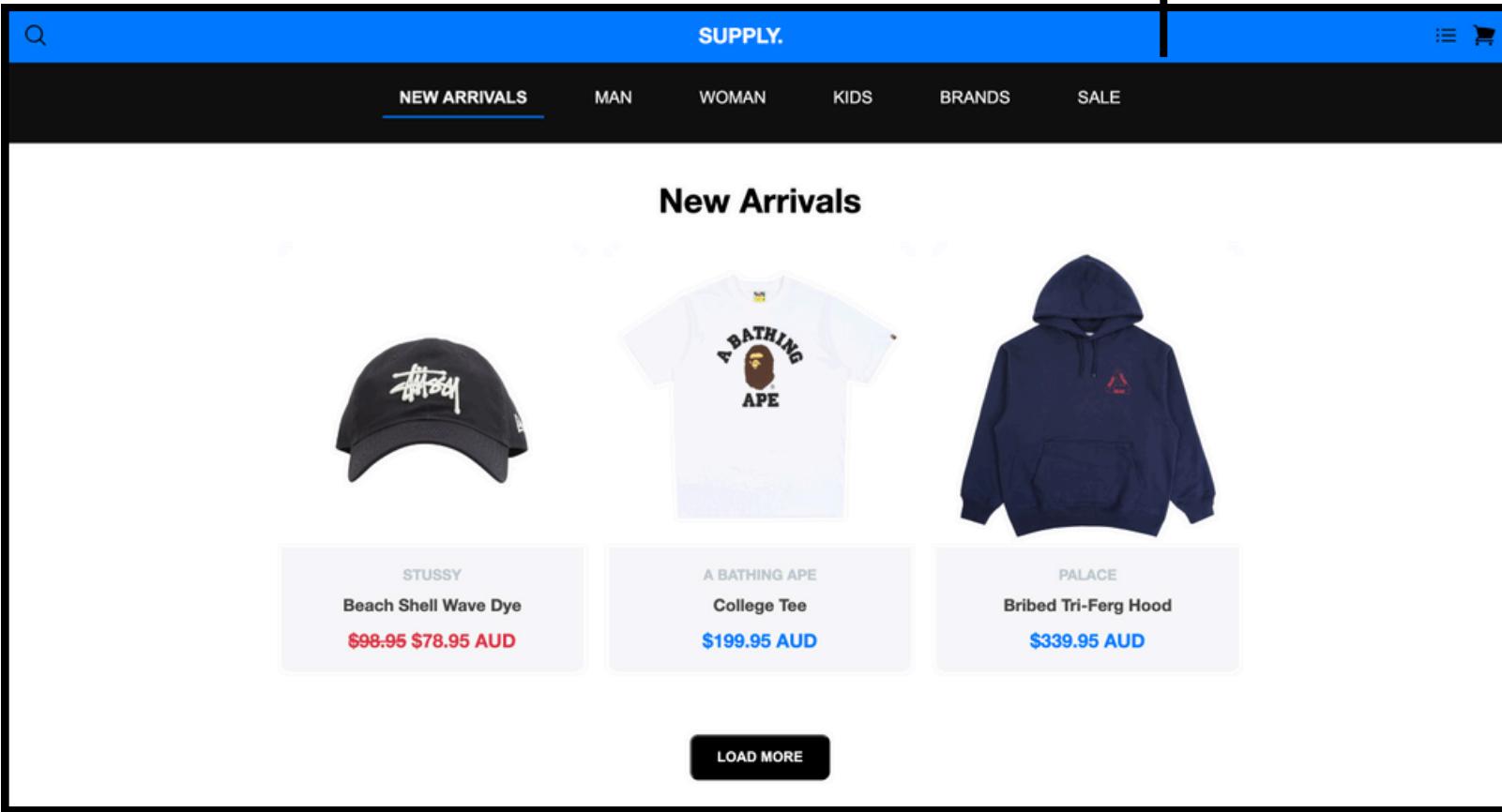
The fixed top bar includes search, shopping cart and category icons. This adds to the overall functionality and can reduce the time it takes users to find their favourite products.

The layout balances visuals and functionality, reinforcing the brand image while guiding the user.

Users can click on the category button to open a side panel to browse by category with quick access to specific categories such as shoes, tops, bottoms, and more.



PRODUCT LIST

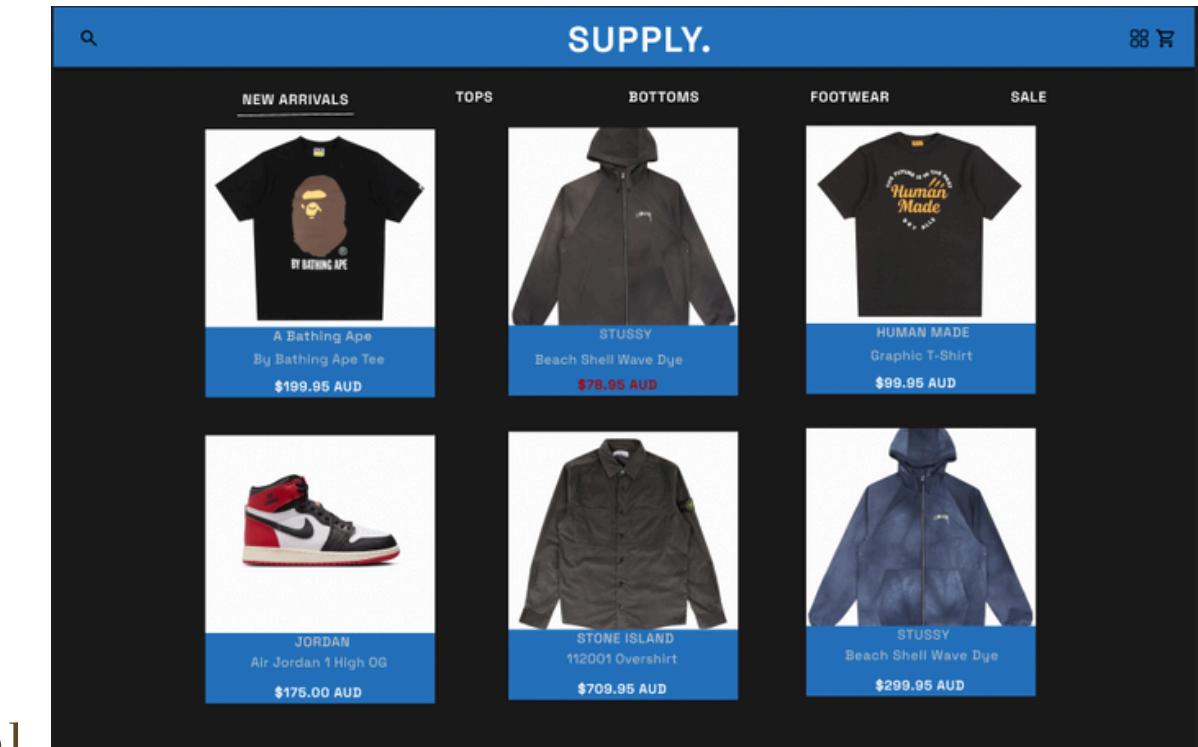


Layout update: from Grid → Flex-row:

- Now with decentralized layout, each row of products is more prominent, which is conducive to product display.
- Adding the "Load More" function improves loading efficiency and user control, and reduces the performance burden of loading all contents at once.

Top category bar:

- The new design is more in line with the mainstream cognitive habits of users (the blue bar at the top is the brand, and the black bar is the functional categories);
- The search bar and filtering controls are more conspicuous, which improves users' exploration efficiency.



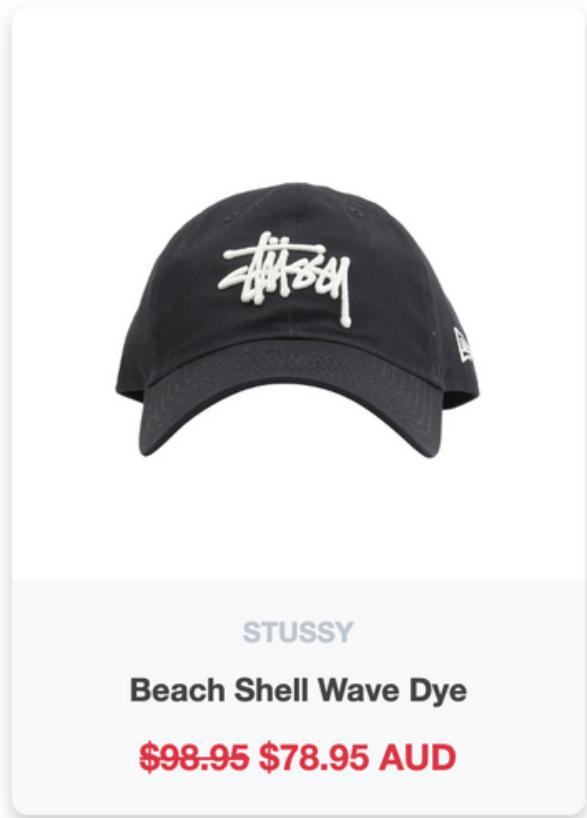
Figma Prototype

Background reversed to white:

- Improves reading clarity and reduces visual burden on mobile devices. The final project takes into account the user's long-term browsing comfort and adopts a modern lightweight style to enhance the brand's versatility and visual consistency;
- The white background design enhances the clarity and attractiveness of the image itself.

PRODUCT LIST

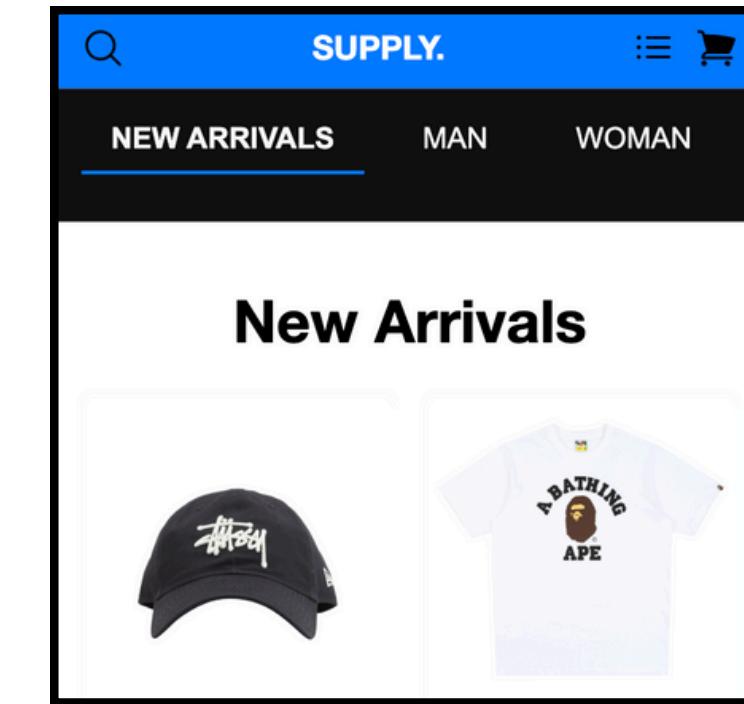
Interactive button style optimization



- Highlighting red color for special products is more eye-catching and improves conversion;
- Avoid visual fatigue caused by too many blue buttons.

Hover:

- After adding hover highlighting, light change and other styles to the final project, users can intuitively perceive the current operation object.
- Improve the click conversion rate and enhance the interaction between the user and the page.
- Provide layers and movement to the visual layer



Product List Page (mobile)

Top navigation optimization:

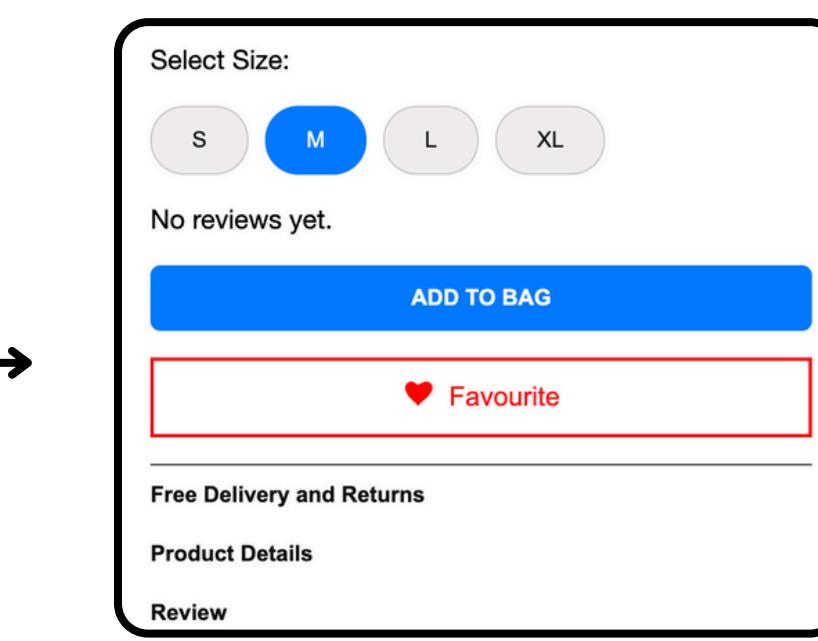
- Improved maneuverability on mobile and other devices with gesture swipe support.

PRODUCT PAGE

In the final version, I systematically increased the spacing between paragraphs and between buttons and text. The goal of this change is to improve the user's visual comfort and focusing efficiency, it is easier for users to recognize the module hierarchy and avoid cognitive interference. The white space also enhances the brand's modernity.

The screenshot shows a product page for a white A Bathing Ape t-shirt. At the top, there's a blue header bar with a back arrow and the word "SUPPLY". Below the header, the product title "A BATHING APE" is displayed in bold black font. To the left of the main image, there are five smaller thumbnail images of the same t-shirt from different angles. The main image shows the front of the t-shirt with the "A BATHING APE" logo. Below the main image, the text "College Tee" and "White" is shown. The price "\$199.95 AUD" is prominently displayed in blue. A brief description follows: "Classic BAPE logo printed tee. Comfortable and stylish." Underneath the description is a "Select Size:" section with size buttons for S, M, L, and XL. Below the size buttons, a message says "No reviews yet." Two large blue buttons are at the bottom: "ADD TO BAG" and "Favourite".

- Use SVG heart icon (hollow/solid) toggle;
- Enhance the recognition of "Favorite" status by visual feedback.



Example of stuff be added to favourite

The screenshot shows a product page for a black Human Made t-shirt. The header "SUPPLY." is visible. The product title "HUMAN MADE Graphic T-Shirt Black" is shown with the price "\$189.95 AUD". A "Select Size:" section with buttons for S, M, L, and XL is present. To the right, there's a "Size Guide" note: "- size down for a slimmer look". Below the size buttons are two large blue buttons: "ADD TO BAG" and "Favourite". A "Free Delivery and Returns" link is also visible. The main image of the t-shirt features the text "THE FUTURE IS IN THE PAST Human Made DRY ALLS". Below the main image, there are three smaller thumbnail images of the t-shirt. A "You might also like" section with three dots is at the bottom.

Figma Prototype

In the first draft, the "Add to Bag" button lacked status changes and there was no obvious feedback after clicking it, which made users wonder "whether it was successfully added". So I added,

- When clicked, it changes to "Added!" and is disabled briefly;
- Clearly inform the user that the product has been successfully added, reducing uncertainty.

CARTPAGE

The original Cartpage design features a blue header bar with the word "SUPPLY." in white. Below the header, there's a "BAG" section containing a white A Bathing Ape t-shirt at \$199.95. A "Favourites" section follows, showing a pair of Air Jordan 11 Retro Low sneakers at \$189.95. At the bottom of the main content area, a sidebar displays two more items: a Human Made Graphic T-Shirt at \$189.95 and a Stussy Beach Shell Wave Dye hoodie at \$78.95.

BAG
2 item | \$268.90

Favourites

BAG

SUMMARY

Promo Code
Enter your promo code Apply

Subtotal \$199.95 AUD
Shipping Free

Total \$199.95 AUD
Inclusive of 10% GST

Go To Checkout

HUMAN MADE
Graphic T-Shirt - Black
Size: M
\$189.95

STUSSY
Beach Shell Wave Dye
Size: M
\$78.95

Just a few left. Order soon.

Layout Structure Optimization: The original design had compact content stacking and lacked a sense of contrast and space.

Interaction button optimization: Hover and active state feedback is added to Remove and Checkout buttons to improve operation perception.

The optimized Cartpage design uses a black header bar with the word "SUPPLY." in white. The "BAG" section is now white with black text, stating "There are no items in your bag." It includes a "Start Shopping" button with a black arrow pointing back to the main content area. The "Favourites" section is also white with black text, stating "There are no items in your favourites."

BAG

There are no items in your bag.

Go to get something !

Start Shopping

Favourites

There are no items in your favourites.

Compared to the "silent" approach of the original design, the new version provides clear feedback and a path to restart, so that users are always guided by us, effectively increasing retention and conversion rates.

CHECKOUT PAGE

The Checkout Page was reorganised to reduce the number of user steps and improve the clarity and visual efficiency of the checkout process. I integrated the original scattered address forms into a card-like display to reduce the cognitive burden on users. At the same time, the payment methods were optimised as icon buttons to enhance recognition. In addition, the submit payment button is placed after the order, which is more in line with the user's logic, implying that the customer reconfirms the order content before submitting.

BAG

Delivery Options

First Name Last Name

Street Address

Suburb City

State Postcode

Email

Phone Number

Payment
Select payment method
 Apple Pay PayPal Afterpay

Add Card
 Card Number

Summary

Promo Code
 Enter your promo code Apply

Subtotal \$199.95 AUD
Shipping Free

Total \$199.95 AUD
Inclusive of 10% GST

A BATHING APE
College Tee
Size: M
Colour: Black
QTY: 1
\$199.95

Submit Payment

BAG
2 item | \$268.90

Delivery Options ✓

Jesse
157 A'beckett St
VIC 3000
Australia
xiaojx0307@163.com
0416132703

Delivery Speed
Free
Arrives by Tue, 24 Apr

Payment
Select payment method
 Apple Pay PayPal Afterpay
Add Card
 Card Number
 MM/YY CCV

Submit Payment

Summary

Do you have a Promo Code? ▾

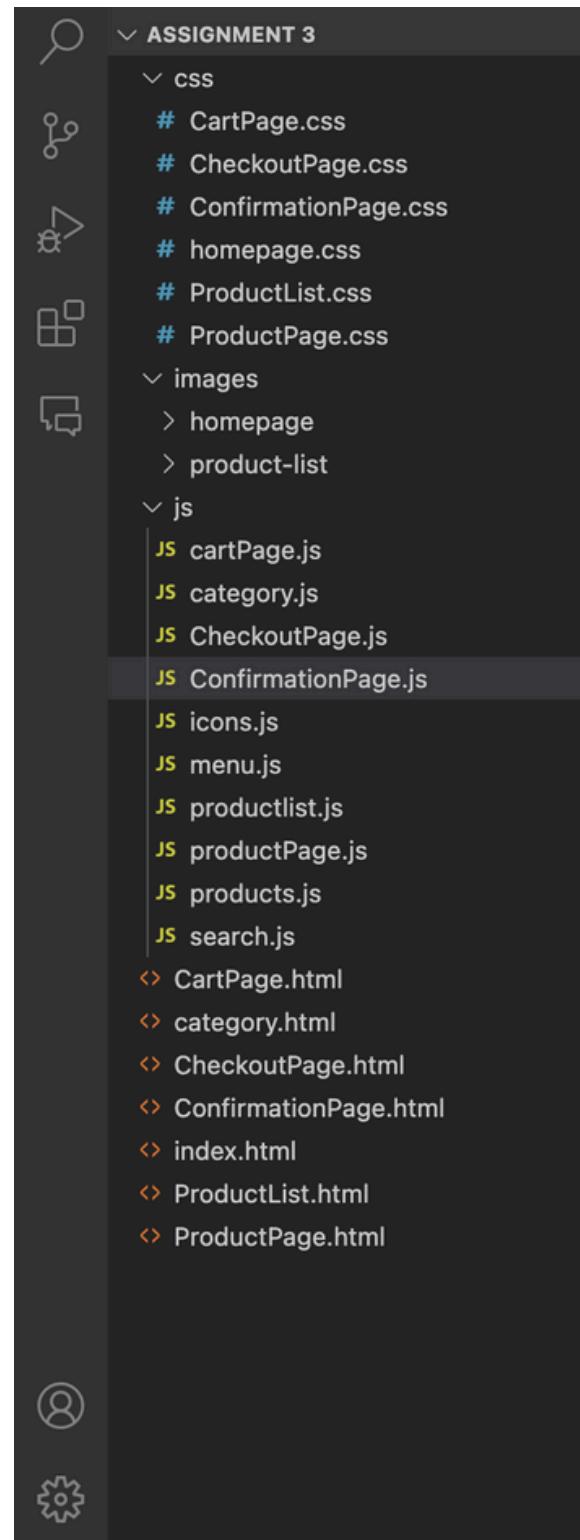
Subtotal \$268.90 AUD
Shipping Free

Total \$268.90 AUD
Inclusive of 10% GST
Arrives by Tue, 22 Apr

Human Made
Graphic T-Shirt
Size: M
Colour: Black
QTY: 1
\$189.95

STUSSY
Beach Shell Wave Dye
Size: M
Colour: Black
QTY: 1
\$78.90

CODE FILE STRUCTURE AND DESCRIPTION



- homepage.html - The homepage of the website, as a starting point for product browsing.
- ProductList.html - Product list page with category switching and dynamic product loading.
- ProductPage.html - Product detail page, contains product detail image, size selection, favourites and add to cart button.
- CartPage.html - Shopping cart page, show user added products and collection function.
- CheckoutPage.html - Checkout page, contains shipping address and payment method selection.
- ConfirmationPage.html - Confirmation page, reads and displays order information from localStorage.
- category.html - Category page, click on the category to switch and load the corresponding specific category products.

- homepage.css - homepage style, including navigation bar
- ProductList.css - product card style, including discount style and layout.
- ProductPage.css - product detail page style, including product image, size button, interactive button, etc.
- CartPage.css - Shopping cart style, including left and right layout structure and empty status display.
- CheckoutPage.css - checkout page style, define form, payment method area and responsive adjustment.
- ConfirmationPage.css - Order Confirmation page style, including product information card and status indication.

- products.js - product data source, contains all product information.
- productlist.js - dynamic rendering of product cards, support for category filtering.
- productPage.js - size selection, image switching, favourites and add to cart functionality.
- cartPage.js - cart management logic: rendering products, delete button, empty status alert, total price calculation, etc.
- checkoutPage.js - collects user information and handles payment method selection.
- confirmationPage.js - Render order completion page, read user order information from local storage.
- category.js - Logic of category page, switch to display corresponding products according to different buttons.
- search.js - Simple search function.
- icons.js - Handle shopping cart icons.
- menu.js - expand menu.

CRITICAL ANALYSIS

Achievement of project objectives

The core objective of this project was to transform the high-fidelity UI design in INFO20003 Assignment 2 into a complete, interactive and responsive web platform that supports the complete process of browsing products, viewing details, adding shopping cart and checkout. In terms of functional completeness and user experience, this project successfully achieved its goals by firstly improving core functions such as product category switching, dynamic rendering of detail pages, shopping cart logic, checkout forms and order confirmation. Secondly, the visual style is consistent and maintains the colour characteristics of the original website. Finally, the basic corresponding layout was achieved, both on the mobile and computer side.

Difficulties and challenges encountered

1. *At the beginning, I didn't consider collecting all the commodities through the form of database, but wrote all the commodity information into the html file. Later, when I was writing the code related to the shopping cart, I found that it was difficult to synchronise the commodity information, so it took me a long time to start again.*
2. *In the final debugging stage, the code which was running normally in the local Live Server was uploaded to GitHub and some pages showed 404 errors. The main reason is that the case paths are inconsistent or the files are not pushed in time, and I didn't put the html in the root file, but in a folder, so I need to rewrite the paths in all the html files. So in the end, all html files need to be rewritten. This means that we need to pay extra attention to the file path specification when deploying.*
3. *Although the design takes into account the sliding and clicking behaviours of the mobile terminal, there are still interaction inconsistencies in the actual implementation, for example, the navigation bar menu is blocked on some screens.*

CRITICAL ANALYSIS

Deviation between design and realisation

- In the initial design, the ‘Start Shopping’ prompt was not designed to be displayed when the shopping cart was empty, but in the later practice, it was found that this would help to improve the purchasing efficiency of users.
- The overall proportion of the product detail page is not coordinated: for example, the collection button is over-enlarged in the design, affecting the balance of the layout, which shows that the visual elements need to be flexibly adjusted in practice.
- Adjustment of visual hierarchy and spacing: the layout between some text and images in the original design was too compact, and it was eventually found in practice that the spacing of the components was widened to improve readability and the sense of visual respiration.

Future Improvement Direction

1. *Introduce data validation mechanism in the payment settlement interface: the current checkout page is not set up with input validation logic (e.g. email format verification, card number restriction), and the front-end validation logic can be introduced in the future to enhance reliability and professionalism.*
2. *Enhance mobile experience: Optimise some animations and button touches on the mobile side to make the interface closer to real users' operating habits.*
3. *Add related product recommendation function to improve user conversion rate.*