

## A. Introduction

This document describes the features of the OldEgg web application, which is a computer focused e-commerce website.



Figure 1. Old Egg Logo

## B. Technology Used

- React JS (Frontend Library)
- Typescript (Frontend Language)
- SCSS/SASS/CSS (Styling)
- Go (Backend Language)
- PostgreSQL (Database)

## C. Requirements

You need to make an application with this following criterion. You can also use a logo below for making the application.

### I. Footer



Figure 2. Footer

- Display Footer (at least 10 useful links).

## II. Navbar

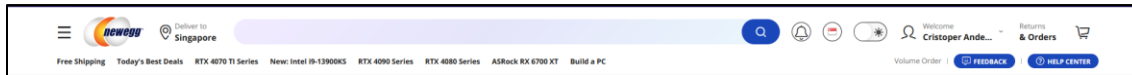


Figure 3. Navigation Bar

- Display user that is currently signed in or show sign in or register button.
- Change themes to light or dark.
- Change languages (either English or Indonesian) as a dropdown.
- Display current delivery location. Location is automatically determined by the current user's location if location is not chosen.
- Display notifications as a dropdown.
- Display product categories and sub-categories as a dropdown.
- Search (search by keywords and brands). Search results will be fetched in real time.
- Display total cost of items inside the cart if there are currently items within the cart.

## III. Sign In

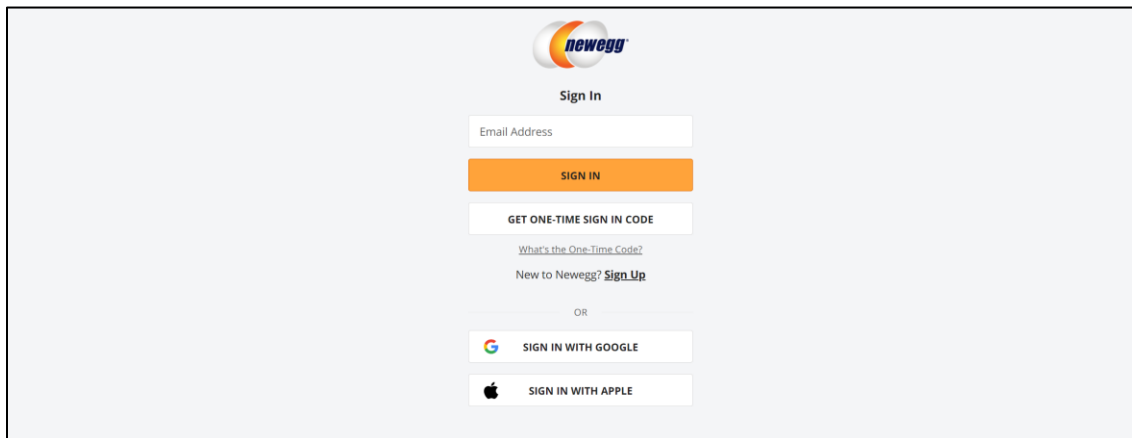
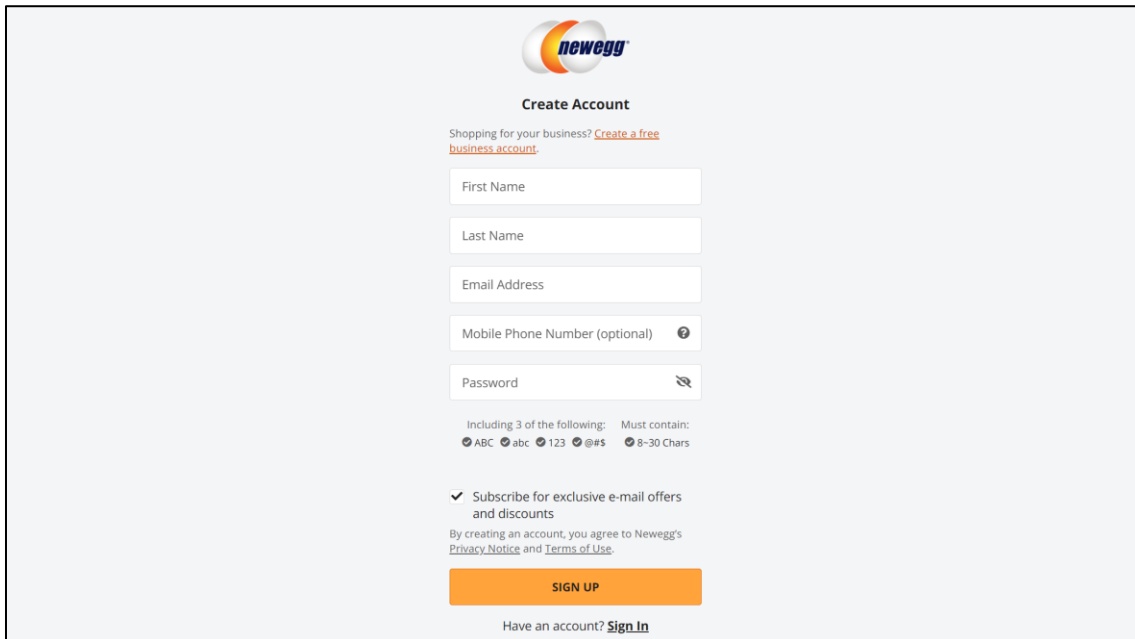


Figure 4. Sign In

- Prompt user to enter email address and password.
- Display error message if the user credentials are invalid.
- User can also login using a one-time sign in code that will only be valid once, and only for 15 minutes. If the user chooses to login using this method, send a 6-digit code to their email.

- Redirect the user to the home page if the credentials are valid.
- If the user is banned, show a warning to the user.
- Display signs up button that the user may use to register an account.
- Display forgot password button that the user may use in case that the user forgot their password.

#### IV. Sign Up




The image shows the Newegg 'Create Account' form. At the top is the Newegg logo. Below it is the title 'Create Account'. A link for business accounts is provided. The form contains five input fields: First Name, Last Name, Email Address, Mobile Phone Number (optional), and Password. The password field has a visibility toggle icon. Below the fields, there are requirements for the password: 'Including 3 of the following: ABC abc 123 @#\$' and 'Must contain: 8-30 Chars'. A checkbox for subscribing to e-mail offers is checked. A disclaimer about agreeing to terms of use is present. An orange 'SIGN UP' button is at the bottom, followed by a link for existing users to 'Sign In'.

Figure 5. Sign Up

- Prompt user to enter first name, last name, email address, phone number, and password.
- Validate all fields cannot be empty.
- Validate email must be a valid email.
- Validate the phone number must be a valid phone number.
- Validate that the password must contain capital letters, lower-case letters, numbers, and special symbols, and has a length of 8 – 30 characters.
- Validate that two users cannot have the same email address.
- If the option to subscribe to the newsletter is checked, then add the user to the newsletter list.

- Display a sign in button for the user to log in.

## V. Sign In Assistance (Forgot Password)



**Sign in Assistance**

Enter the email address and we will send you a verification code for you to enter before creating a new password.

Email Address  
cristoper.anderson@gmail.com

**REQUEST VERIFICATION CODE**

Need Help? [Contact Customer Service](#)

Figure 6. Sign in Assistance

- Prompt the user to enter the email address.
- The entered email address cannot be empty and must belong to a registered user.
- Send a 6-digit code to the user's email address to verify the user's ownership of the account. The code will only be valid for 5 minutes.
- Display a request new code button that the user may use to request a new code. Validate that the user cannot request a new code for 2 minutes.

## VI. Home

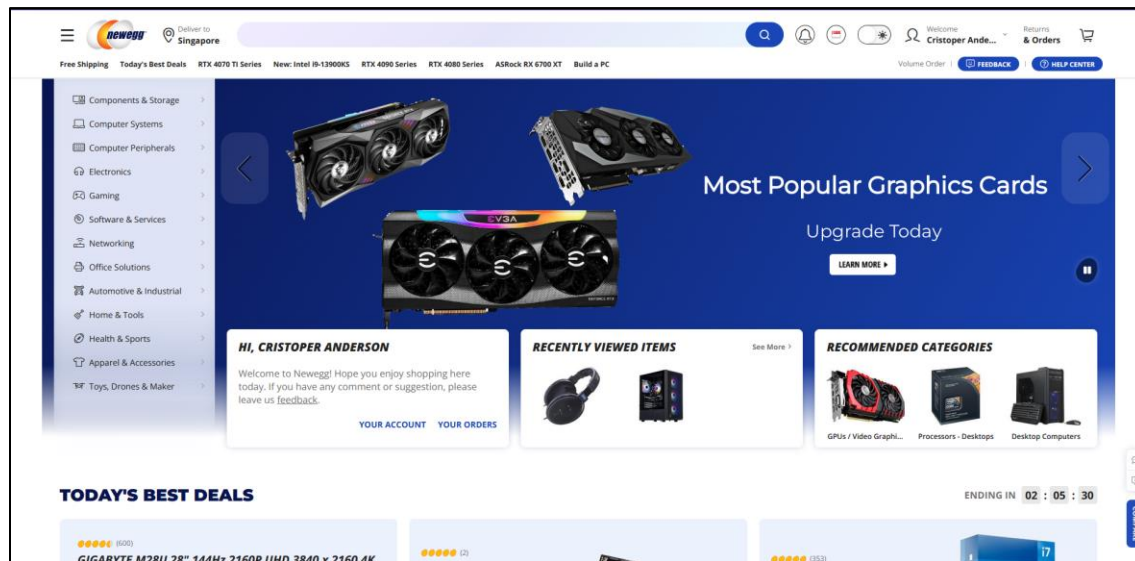


Figure 7. Home Page

- Display carousel containing ongoing promotions.
- Display product recommendations with infinite scrolling per 20 items, and popular categories.
- Display featured brands (display top 10 brands with most items sold).
- Display top 3 shops.
- Display popular search queries.
- Subscribe to email newsletter.

## VII. Search

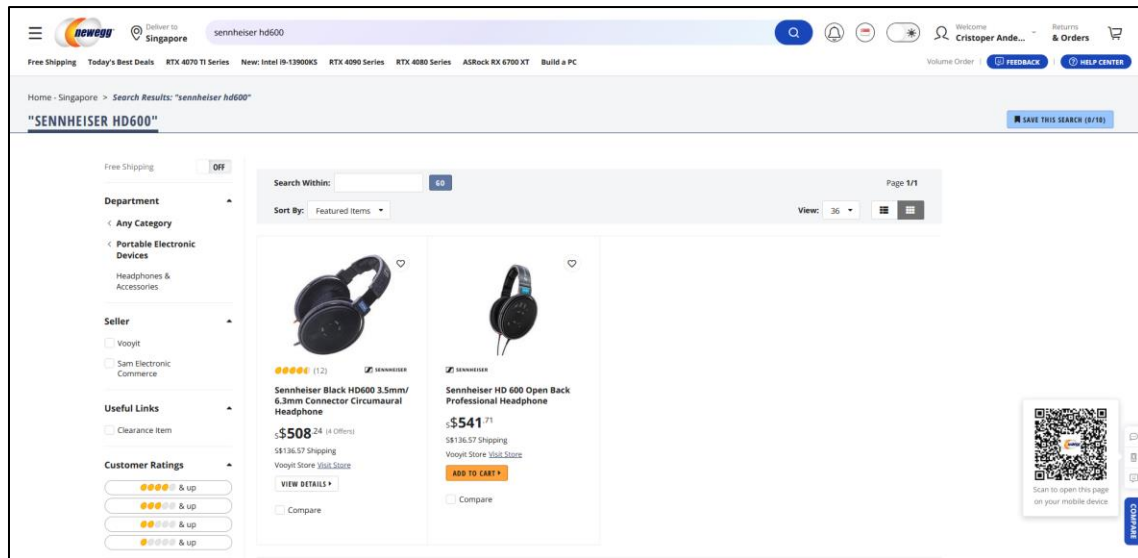


Figure 8. Search Page

- Display search queries related to current keyword.
- Search within search results (multiple keywords may be used).
- Paginate search results.
- Display filters (each category may have a different filter) and filter items by it.
- User can save a search query. Validate that a user can only have 10 saved searches.
- Sort items by price, rating, number of reviews, and number bought.
- Display Quick View for items (display details of item in modal).



## VIII. Shop Home Page

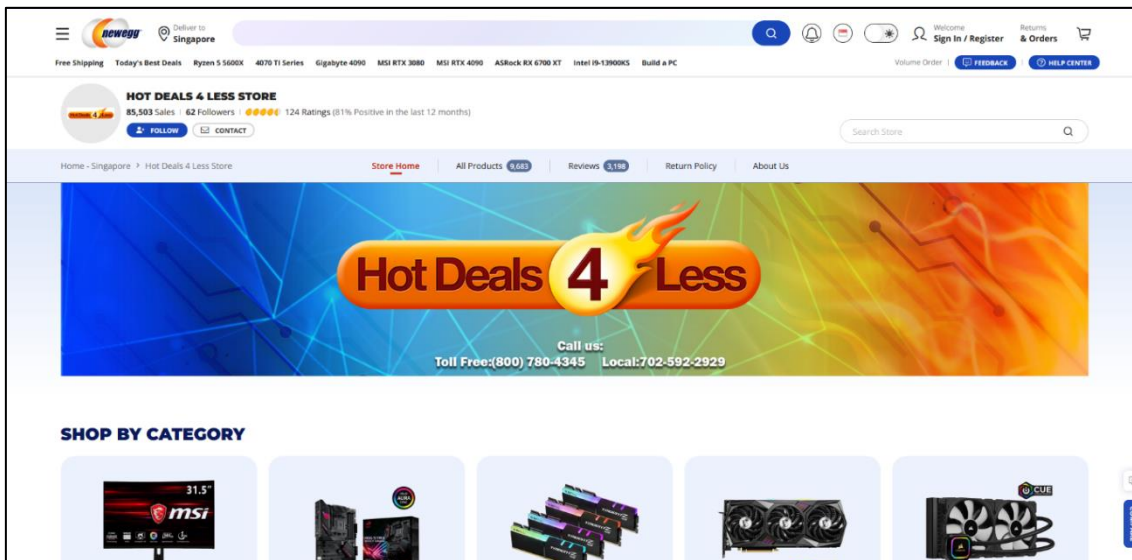


Figure 9. Shop Home Page

- Display the shop's banner.
- Display all categories sold by the shop, clicking at this will redirect the user to the product page, where only the products that have the chosen product category will be displayed.
- Display recommended products (can choose to display by number of items sold or by best average rating)
- Do not show the shop if the shop is banned.

## IX. Shop Products Page

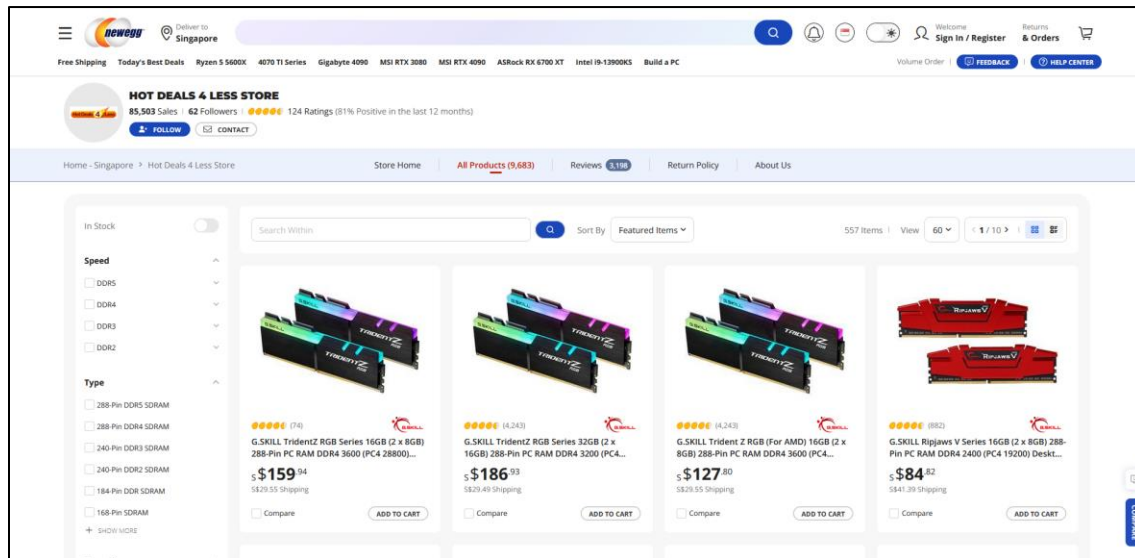


Figure 10. Shop Products Page

- Show all products and product count (paginate 50 items)
- Display filters and filter items by it.
- Search within search results (multiple keywords may be used).
- Sort items by price, rating, number of reviews, and number bought.

## X. Shop Review Page

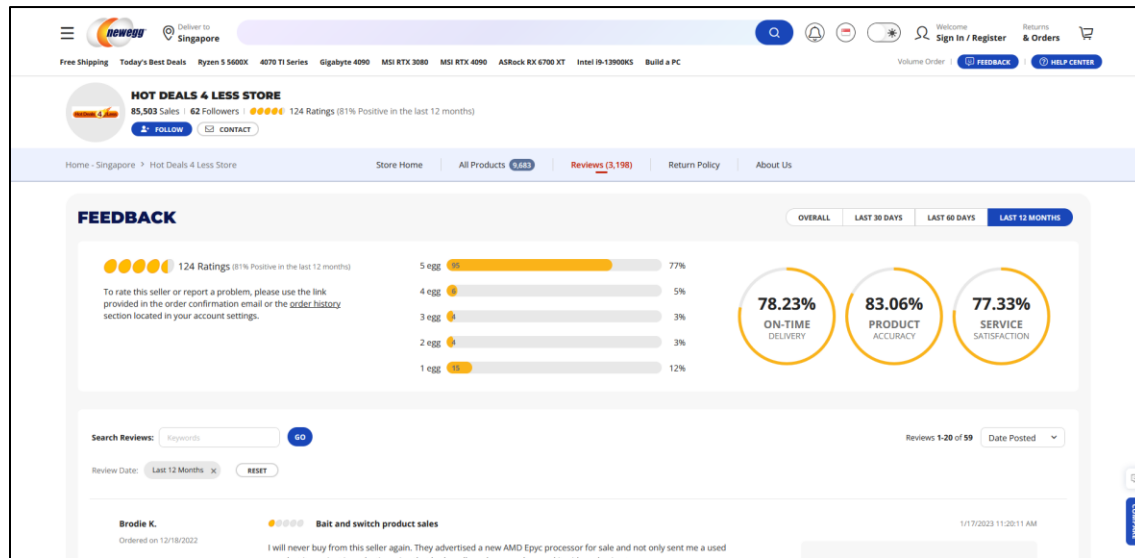


Figure 11. Show Review Page

- Display reviews for shop with questionnaire results and statistics for delivery, product accuracy, and service satisfaction.
- Tag review as helpful/unhelpful.
- Filter Reviews by time.
- Search within all the reviews in the shop.
- Display number of ratings, average rating, and percentages for each rating.

## XI. Shop About Us Page

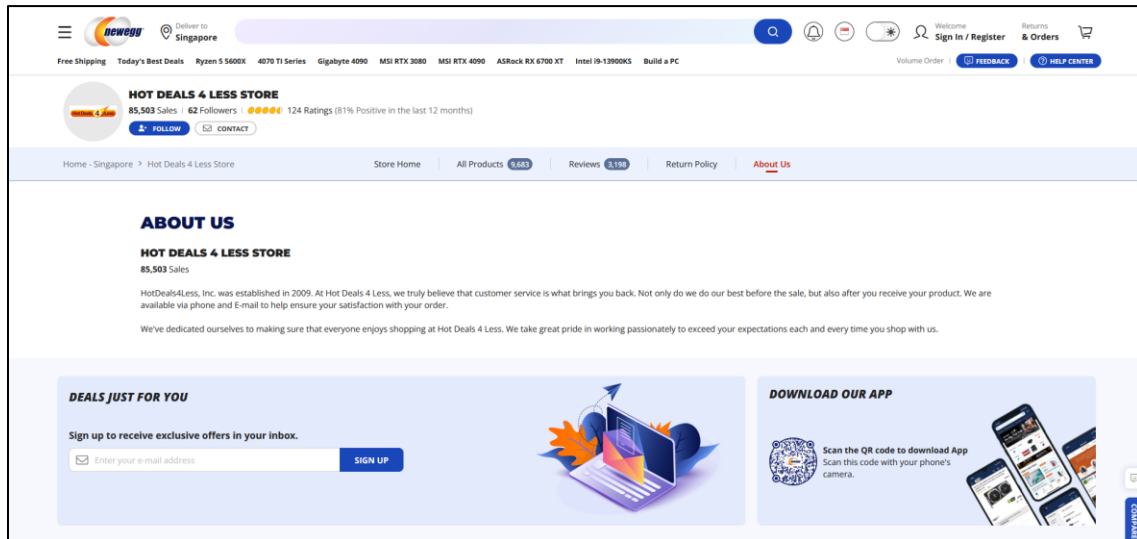


Figure 12. Shop About Us Page

- Display information about the shop (About Us, Average Rating, Number of Sales).

## XII. Wish List (My Lists)

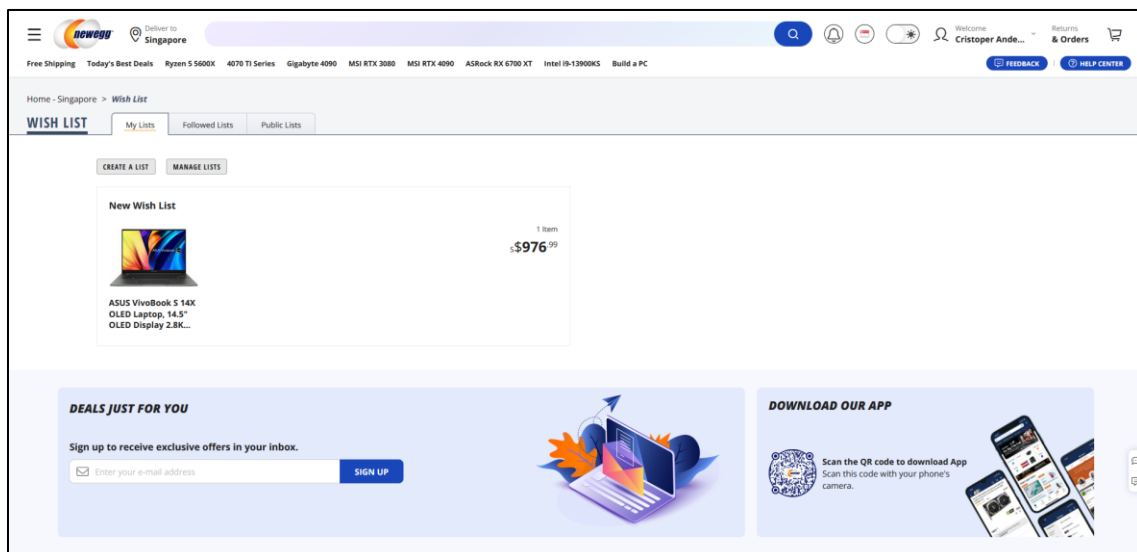


Figure 13. My List Menu

- Display all wishlists created by the user.

- Display number of ongoing promotions of the items in the wishlist.
- Create a wishlist (with privacy option, can be set either to public or private), privacy can be updated.
- Update a wishlist's name or privacy.

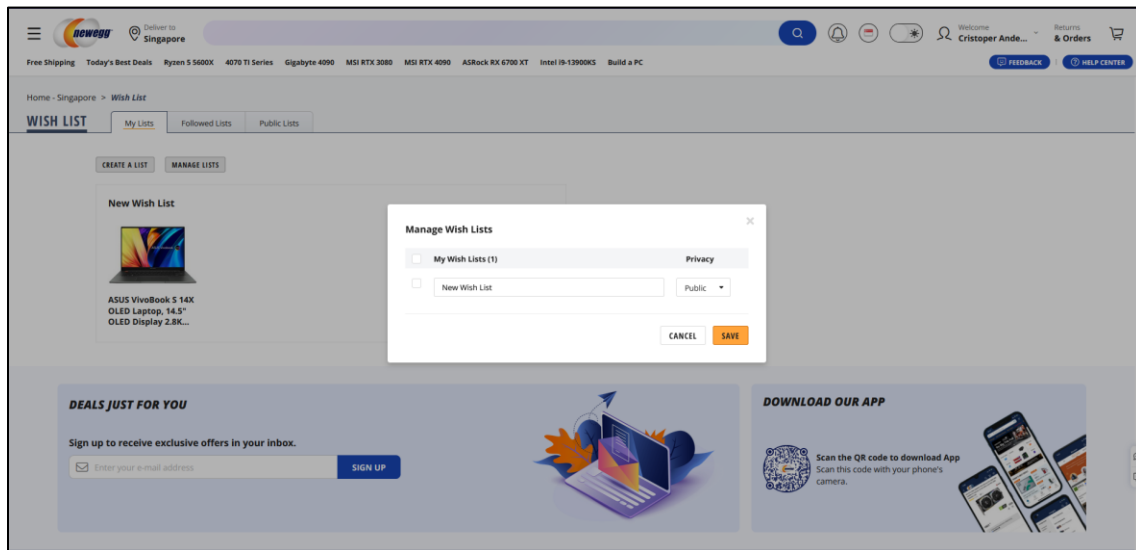


Figure 14. Manage Wish List Modal

### XIII. Wish List (Public Lists)

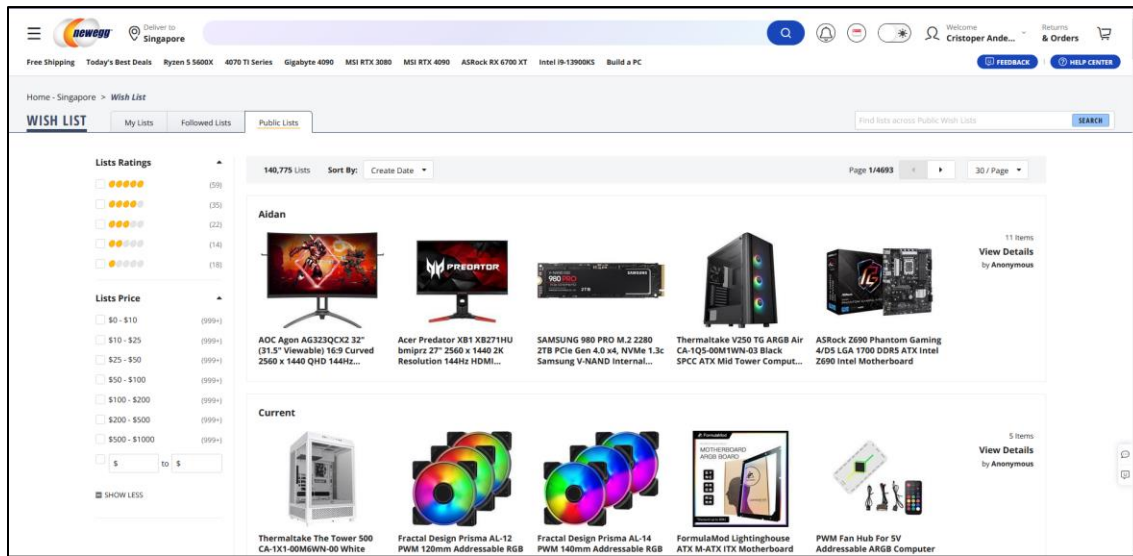


Figure 15. Public List Menu

- View all wishlists paginated. The number of items per page can be changed, either to 15, 30, 60, or 90.
- The user can sort the wishlists by created date, rating, price, reviews, and number of followers.
- Filter wishlists by total price and rating.
- Follow a public wishlist (the wishlist will be added to the user's Followed Lists menu).
- Duplicate a public wishlist (the wishlist will be added to the user's My Lists menu).

#### XIV. Wishlist Detail:

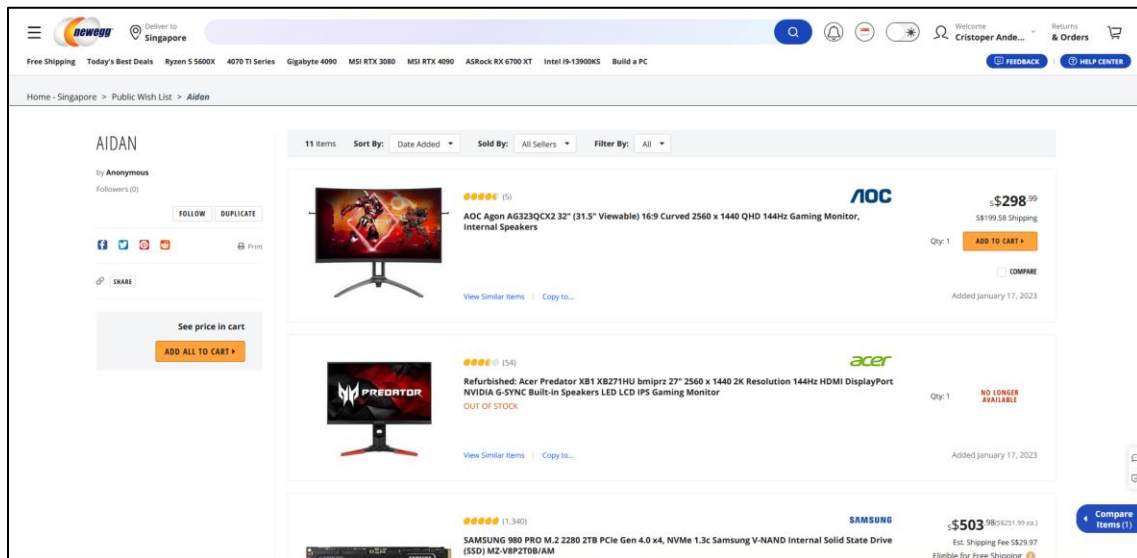


Figure 16. Wish List Detail Page

- Display all items inside wishlist.
- Display average reviews, number of reviews, and number of reviews for each rating.
- Display all comments in wishlist.
- Add new comment (consisting of title and contents) to wishlist. User can rate the list as an anonymous user or as a user with a custom username.
- Add all items to cart.

## XV. Wishlist Detail (owned by self):

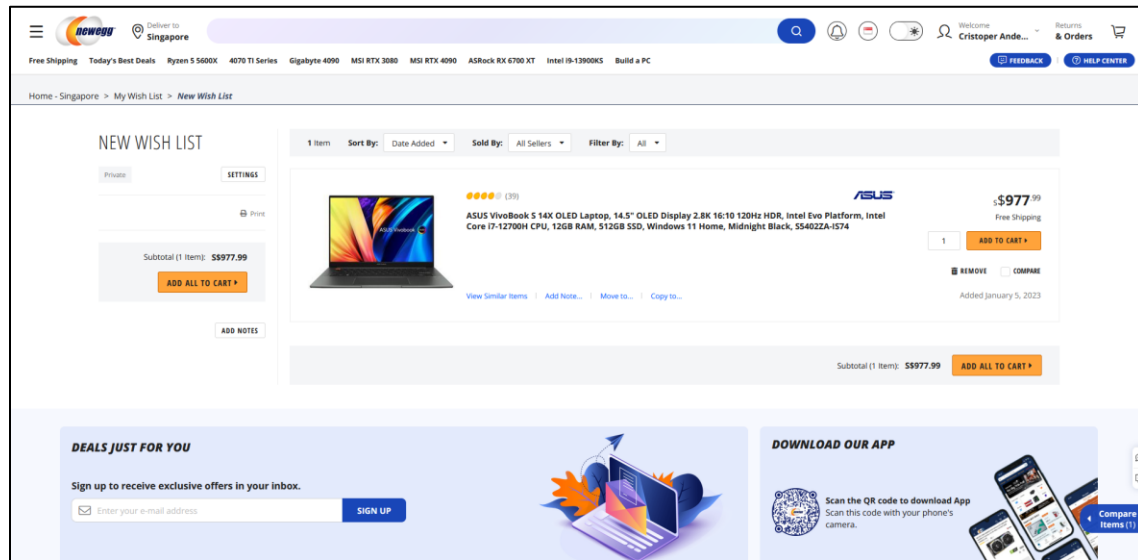


Figure 17. Wish List Detail Detail

- Display all items inside wishlist.
- Update wishlist name and visibility.
- Add notes to the wishlist.
- Add all items to cart.
- Update list items quantity.
- Delete items from the list.



## XVI. Followed Lists

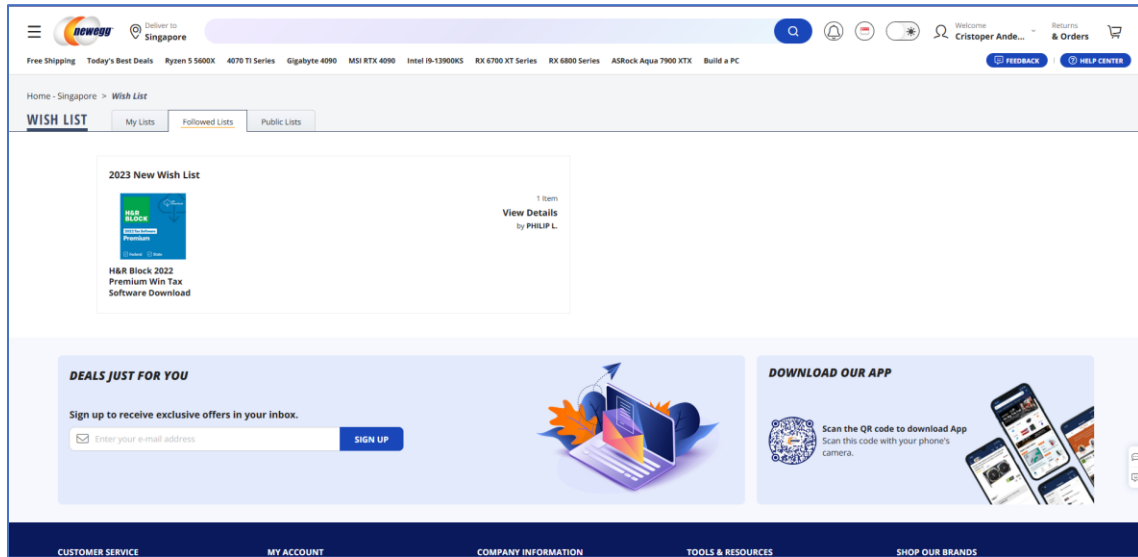


Figure 18. Followed List Menu

- Show all followed wish lists.
- User may unfollow or duplicate the wish list.

## XVII. Item Detail Page

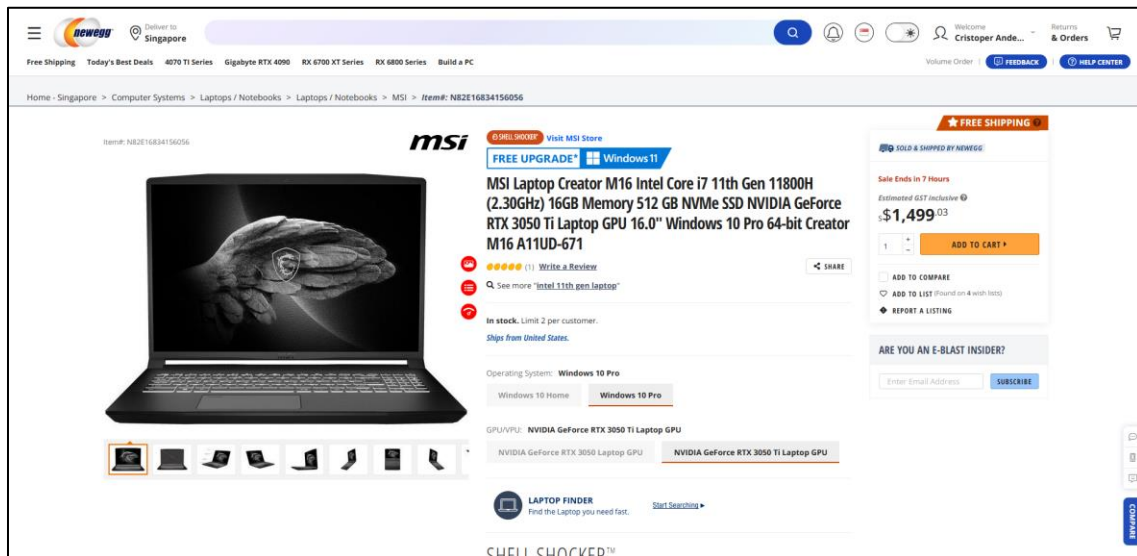


Figure 19. Item Detail Page

- Display images and information, such as specs and overview of product.
- Display options for item.
- Show product as out of stock if the product's stock has run out.
- Display alternate sellers for items (can be used or new items), and filter.
- Display similar products to the current item.
- Add item to cart.
- Do not show the page if the item is owned by a banned shop.
- Validate product's stock is not 0, or not more than the product's current stock.
- Add item to wishlist, user may choose which wishlist to add the item to.
- Display items frequently bought with the current item, can be filtered by category.

## XVIII. Account Settings Page

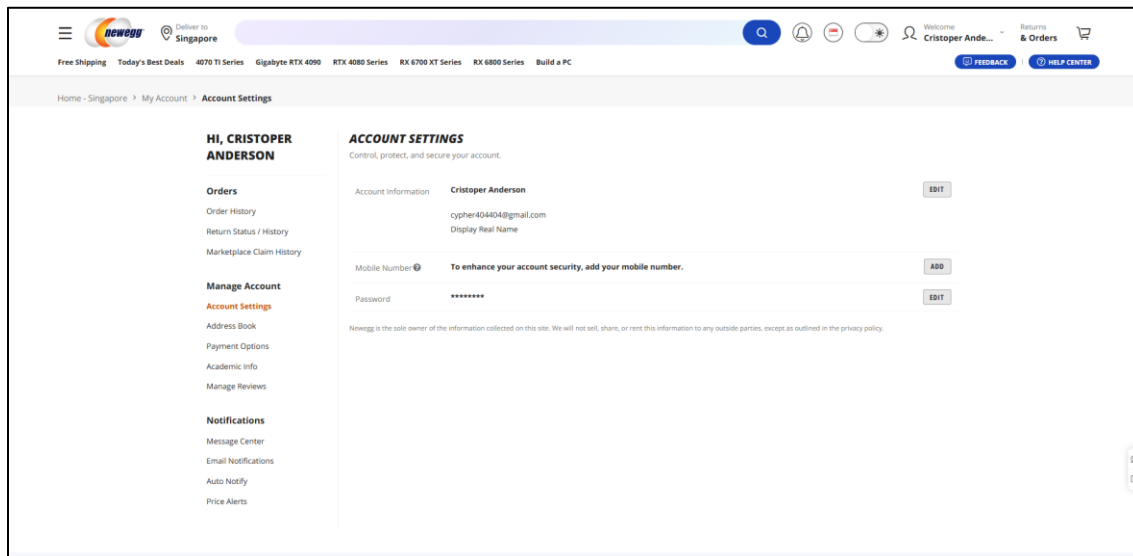


Figure 20. Account Setting Page

- Display account information, such as email and phone number.
- Enable 2FA (send using email).
- Update phone number.
- Update password, prompt the user to enter their current password.

## XIX. Orders Page

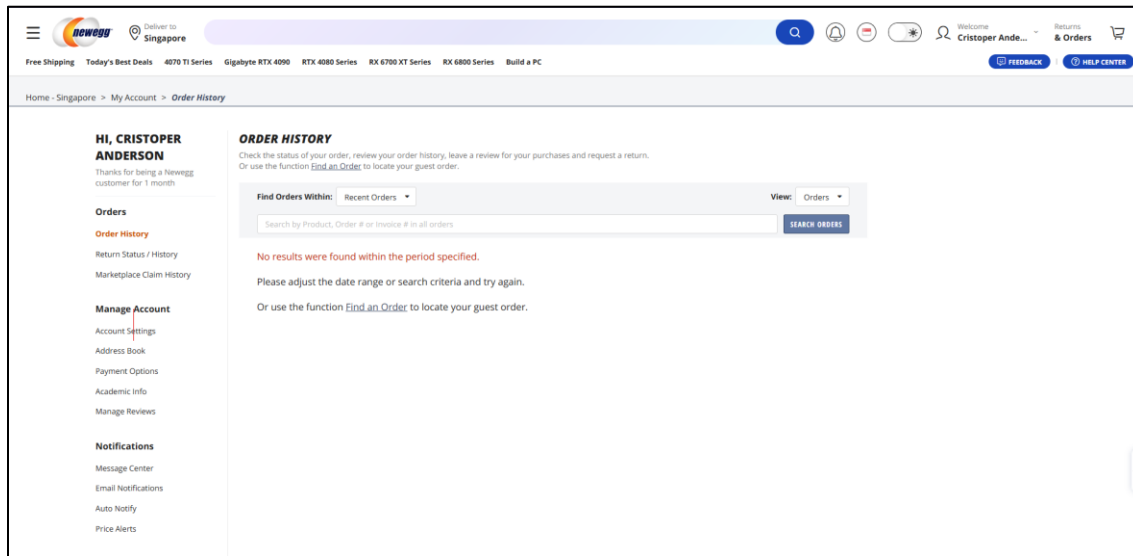


Figure 21. Orders Page

- Filter orders by open/cancelled.
- Filter orders by day, user can display recent orders (Recent orders will only display orders purchased 7 days ago), or change.
- Search orders by product name, order number, or invoice code.
- Buy order again (add previously ordered items to cart)
- Display warning if there are no orders.

## XX. Build PC:

- Choose budget for PC build (entry level, mainstream, enthusiast, or choose a prebuilt pc that fits in the budget, taken from the most bought PC that fits the budget) or choose component to be chosen first (prompt choose AMD or Intel motherboard, if user chooses motherboard component).
- If user chooses a budget, then add a default component list that fits into the budget.



Figure 22. Build PC Main Page

- Validate that the total power usage of each component cannot be more than the wattage of the power supply (when choosing power supply only display power supplies that have more power than the PC's current power usage).
- If the total power usage of all the components is more than the power supply's output, than display a warning.
- Display list for a component, filter, and sort for each of the components.

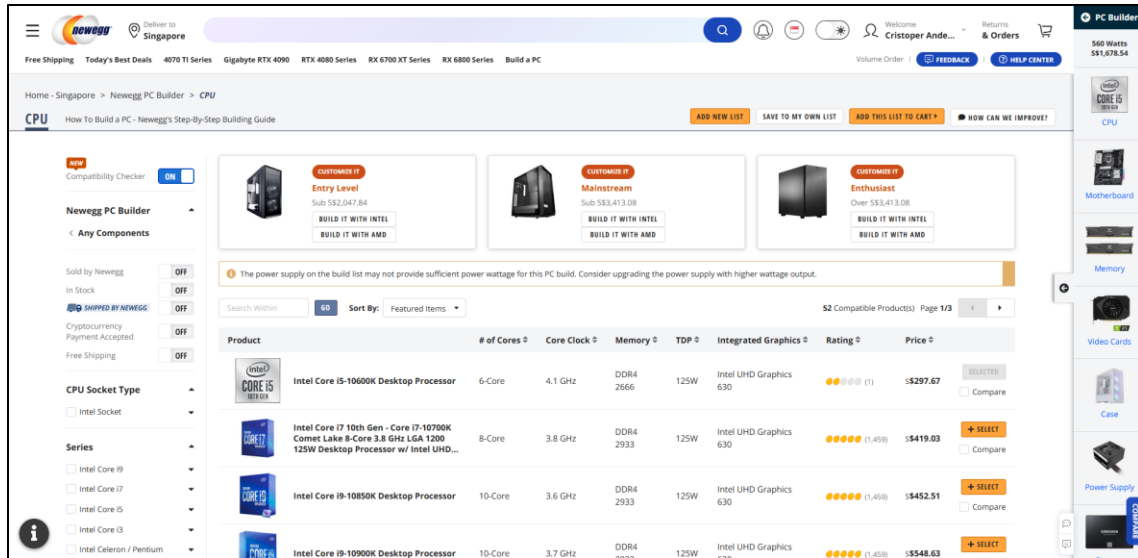


Figure 23. Build PC Page

- User can insert the components into a PC parts list.
- User can update the quantities of each component.
- User can create more than one PC parts list.
- User can update the name of a PC parts list.
- User can add all components to cart.



## XXI. Message Center (Customer Service)

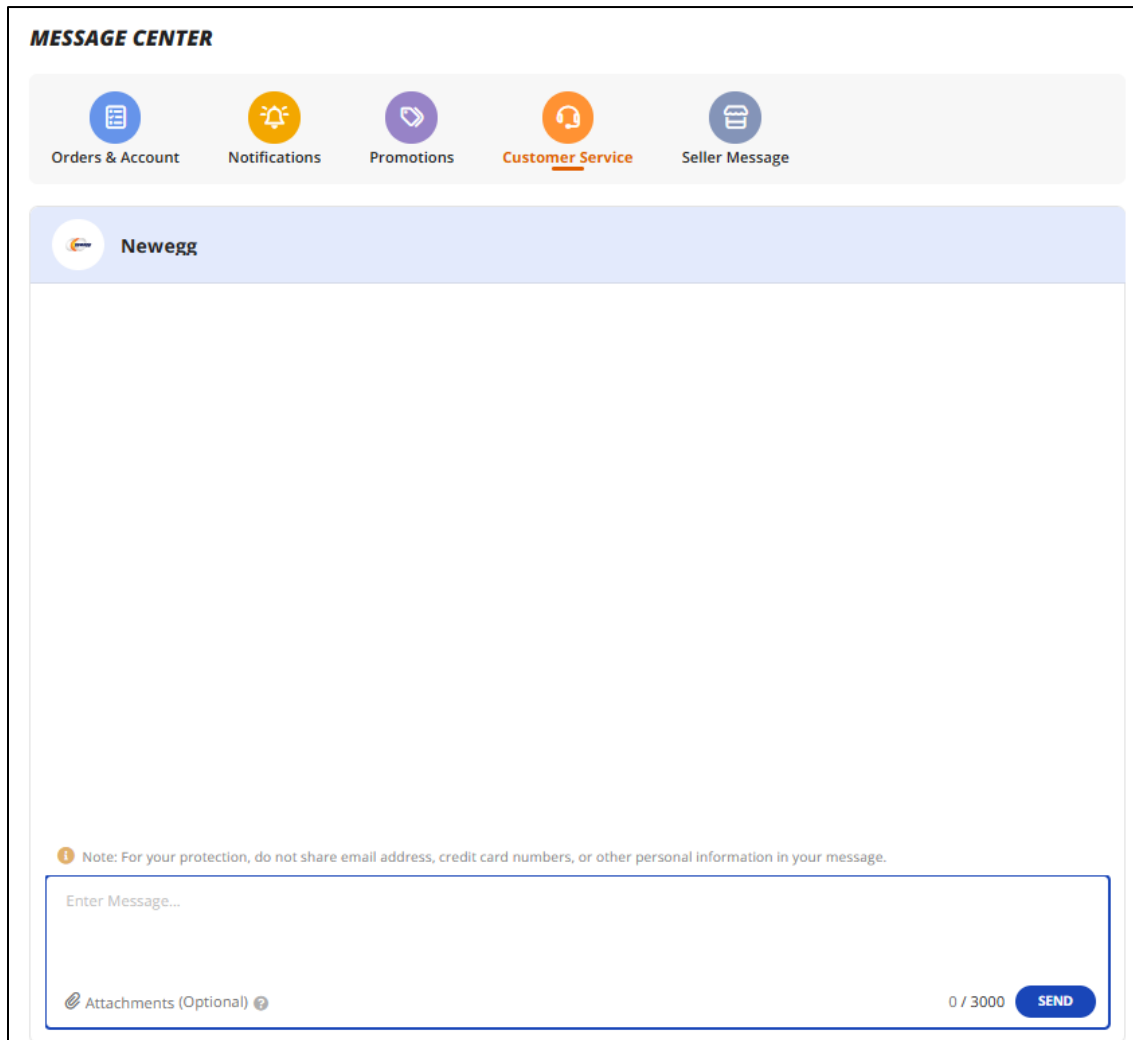


Figure 25. Message Center

- User can chat with customer service staff, the chat will be done in real time.
- User can send image to customer service staff.
- User may give review to customer service staff when the chat is closed.

## XXII. Message Center (Seller Message)

- Show all sellers and order ID that has an ongoing order with the customer.
- User can chat with the seller that is handling the order. The chat will be done in real time.
- User can filter by time or show all messages.

## XXIII. Message Center (Notifications)

- Show ongoing events/announcements.



#### XXIV. Reviews

- Show all reviews made by the user.
- User may delete a review.

#### XXV. Review Detail

- User may update a review and update questionnaire.

#### XXVI. Voucher

- Input voucher code which will add the user's currency.
- Update user currency.

#### XXVII. Shopping Cart

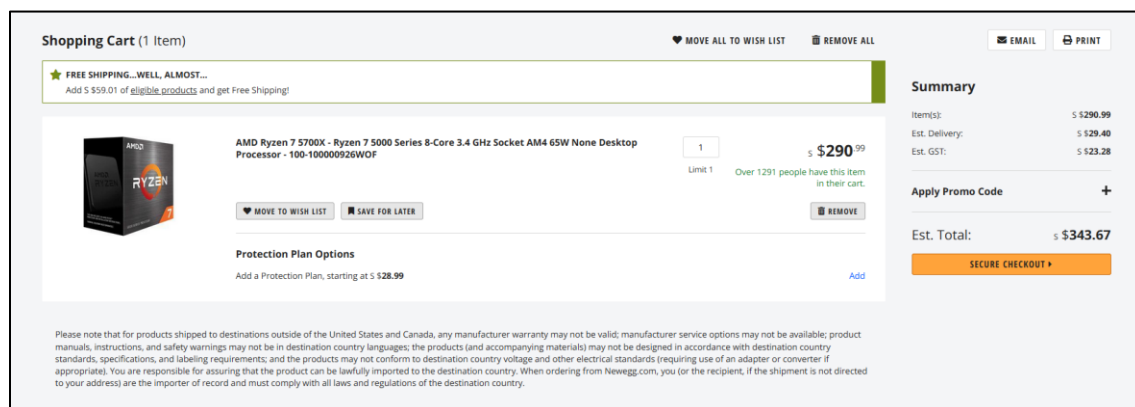


Figure 26. Shopping Cart List

- Show all items in cart.
- Show order summary.
- User may update the items quantity.
- Add the item to a wishlist (user may choose which wishlist to add the item to).
- User can save the item for later (item will be shown in Saved for later section).
- User may remove the item from the shopping cart.

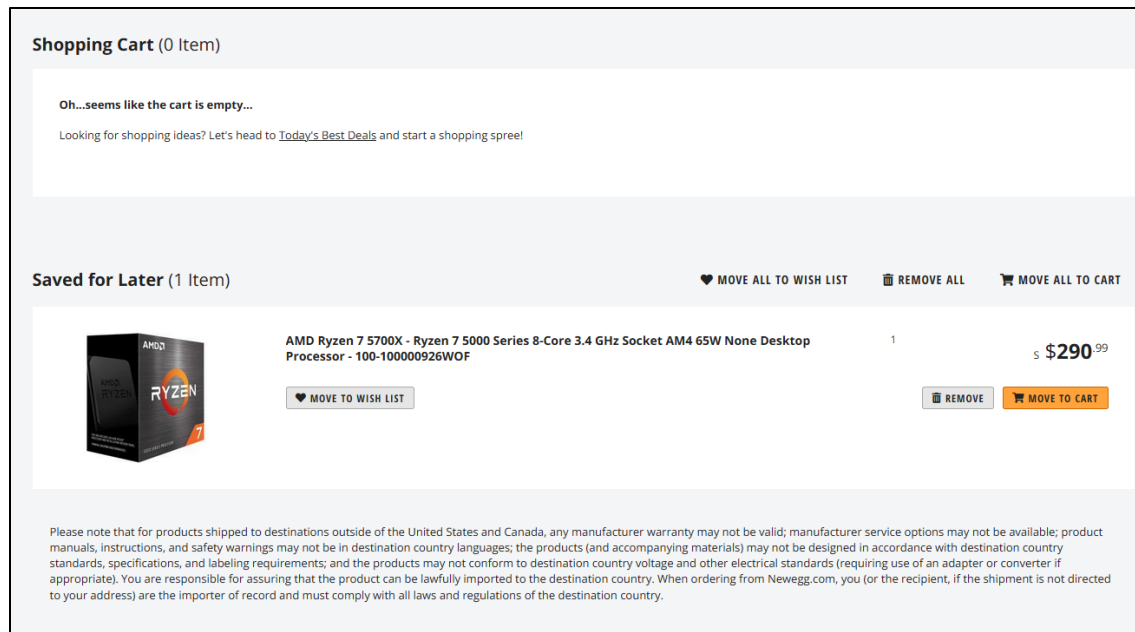


Figure 27. Saved for Later Item List

## XXVIII. Check Out

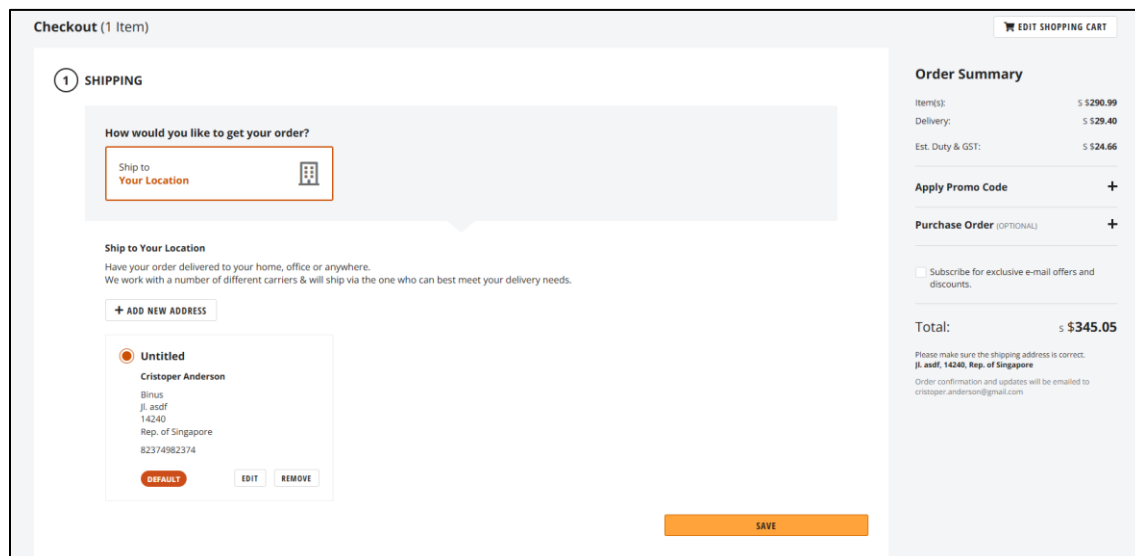


Figure 28. Checkout Page

- Show all addresses owned by the user.
- User may add or remove addresses.
- Choose delivery provider.

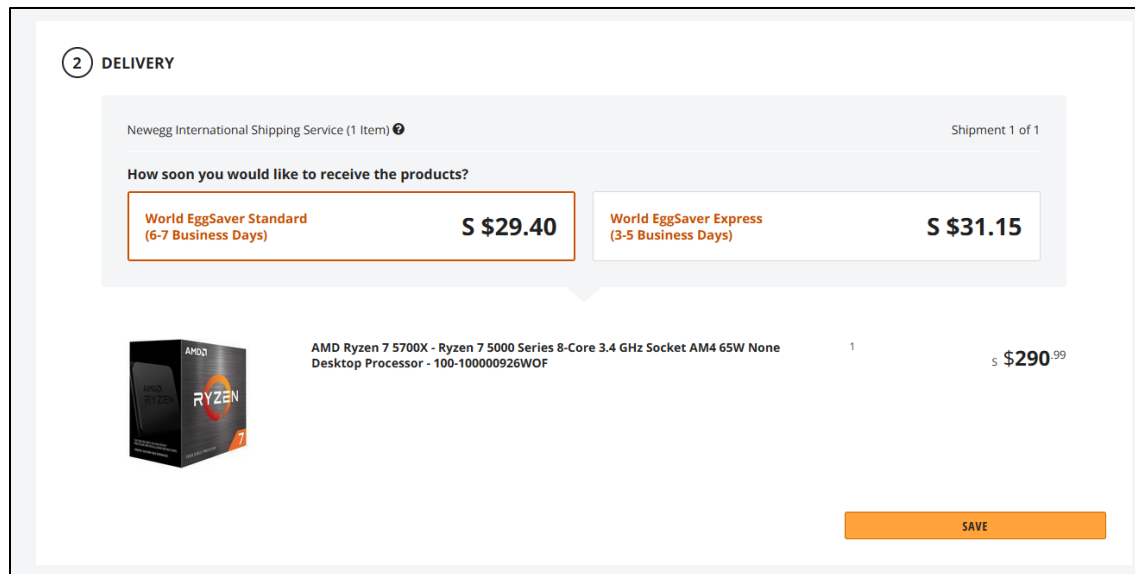


Figure 29. Delivery Page

- Choose payment method, If the user chooses to use their account's currency, then reduce the user's currency according to the order.
- Show a warning if the payment fails.
- Show order summary.
- Insert cart items into orders.

## Store

### I. Shop Page

- Show a warning if the shop is banned by the admin.
- Show all products and product count (paginate 50 items).
- Display filters.
- Display reviews for shop with questionnaire results and statistics for delivery, product accuracy, and service satisfaction.
- Filter reviews by time.
- Search within reviews.
- Display information about the shop (About Us, Average Rating, Number of Sales).
- Update information about the shop (About Us, Average Rating, Number of Sales).
- Update shop's name and display picture.

- Insert a new product, which consists of:
  - Product Name
  - Product Category
  - Product Images
  - Product Description
  - Product Price
  - Product Stock
  - Product Details
- Product details consists of the product's specs that the shop might want to add, for example this could be the size of a computer case, or the power output of a power supply.
- Update a product.
- Update the shop's password.

## II. Message Center (Notifications)

- Show ongoing events/announcements.
- Show new orders by customers.

## III. Message Center (Orders & Account)

- Show all customers and order ID that has an ongoing order with the seller.
- Seller can chat with the customer that made the order. The chat will be done in real time.
- Seller can filter by time, search by customer name/order ID, or show all messages.

## IV. Orders page:

- Filter orders by open/cancelled.
- Mark order as finished.

## Admin

### I. View Report

- Admin can view at least 2 visualizations for business intelligence. Make sure that the visualizations are useful.

### II. Management Menu

- Add new voucher code.
- Show the list of all users, paginated.
- The admin can ban/unban users.
- Send a new newsletter to all the email registered to a newsletter.

- Insert a new shop, which consists of:
  - Shop Name
  - Shop Email
  - Shop Password (Use a placeholder password)
- After inserting a new shop, send an email to the shop notifying that their shop has been created.
- Show all shops, the admin may filter the shops by its status (banned/unbanned).
- The admin can ban or unban a shop.
- View all reviews from customer for customer service.
- Manage ongoing promotions (the admin can add or remove images that will be displayed in the user's home page carousel).

## Customer Service

### I. Message Center

- View all ongoing chats with customer.
- Customer service admin can search for a chat room using a customer's name or order ID.
- Tag chat with topics (ex: refund, payment).
- Customer service admin can chat with a customer and send attachments.
- Customer service admin can mark a chat as resolved.

## Notes

- You should use JWT Authentication to log in the user.
- You should pay attention to performance in all aspects of the application.
- Make sure to secure the backend of the application to prevent unauthorized access.