CSC309 Donation Web Application Project Proposal

Team 2

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I. Introduction

Our team aims to build a donation web application for people to easily give away their used products to those who are in need. This initiative will bring convenience to both donors and donees, which encourages mutual help, benefits the environment, and empowers the local community.

Registered users of the website can either post a donation as a donor or request a donation as a donee, and the platform will quickly match them up upon clicking. All user accounts have a credit score calculated from their transaction history, which reflects ratings from past transactions, in order to foster a culture of safety, honesty, and harmony. Successful matches take factors like delivery option, target receiver group (e.g. parents of young children), and other user preferences into consideration. The site is security assured as the terms and conditions are agreed by users, and all activities are monitored by administrators. In case of conflicts and inappropriate content, users are able to file complaints, and administrators will act as the intermediary to negotiate between users, delete the posts or disable the accounts if needed.

II. Features & Views

The following paragraphs and pictures explain the user profiles, user functionality, data, admin functionality, exceptions, and other additional features of the website in detail. User functionality consists of functions that are fundamental to the user flow in the website, such as login, request for products, and view transaction history. Admin functionality consists of functions that are exclusively for admins, such as blocking accounts and removing posts. Exceptions provide details about the error page, terms & conditions, and FAQ; while data describes the datasets for this project. Lastly, additional features consist of functions that are not part of the usual user flow and thus are nice to have, such as direct message and group chat.

User Profiles

In this project, there are two levels of users which are regular users and admins.

Regular User

Regular users are able to both donate and request donations from other users. Several fields of personal information are required prior to becoming a member. A username and a password are required for signing up. They are also required to provide a date of birth since our websites are intended for 18+ adults. They will also have an address book, email address, and phone number for delivery of items. Users can also select a set of preferences/filters for their interested categories, location, and ideal delivery options. Users can also add gender, profile pictures for their profile. Users also possess a donation or transaction history with links directed to individual post pages. Besides, a biography is contained with each user demonstrating their interest, hobby in free text. What's more, users can have a wish list containing items for which they plan to request. In the profile, users also have a transaction history, a donated history, and a credit score. A user may be at risk of being declined or diabled if they fail to act according to user agreement.

The score starts from 100, and will be deducted for failing transactions or other suspicious acts, but users can also increase their score by donating items.

Admin

Admins have their own username and password plus other unique information. Admins are capable of viewing all user information, managing account blocklist, editing and deleting inappropriate posts and resolving complaints between users.

User Functionality

The website will support a variety of user functionality. The main functionality includes login, create an account, view and manage profile, search/view/create posts, request a product, add a product to wish list, view donation and transaction history, track delivery, rate an order, and submit feedback. As shown below, specific user interactions are described for each function.

Login

First and foremost, the website will have sign in functionality to authenticate users based on their unique username and password. The sign-in window could be found at the right hand side of the website homepage (Figure 1). Users will have to input the correct username and password and hit the "Sign-In" button. If the login is successful, users will be directed to their homepage (Figure 2). If the login failed, an error message "Incorrect username or password!" in red will appear below the "Sign-In" button (Figure 3). Users can also choose to create an account through the "Create an Account" hyperlink.

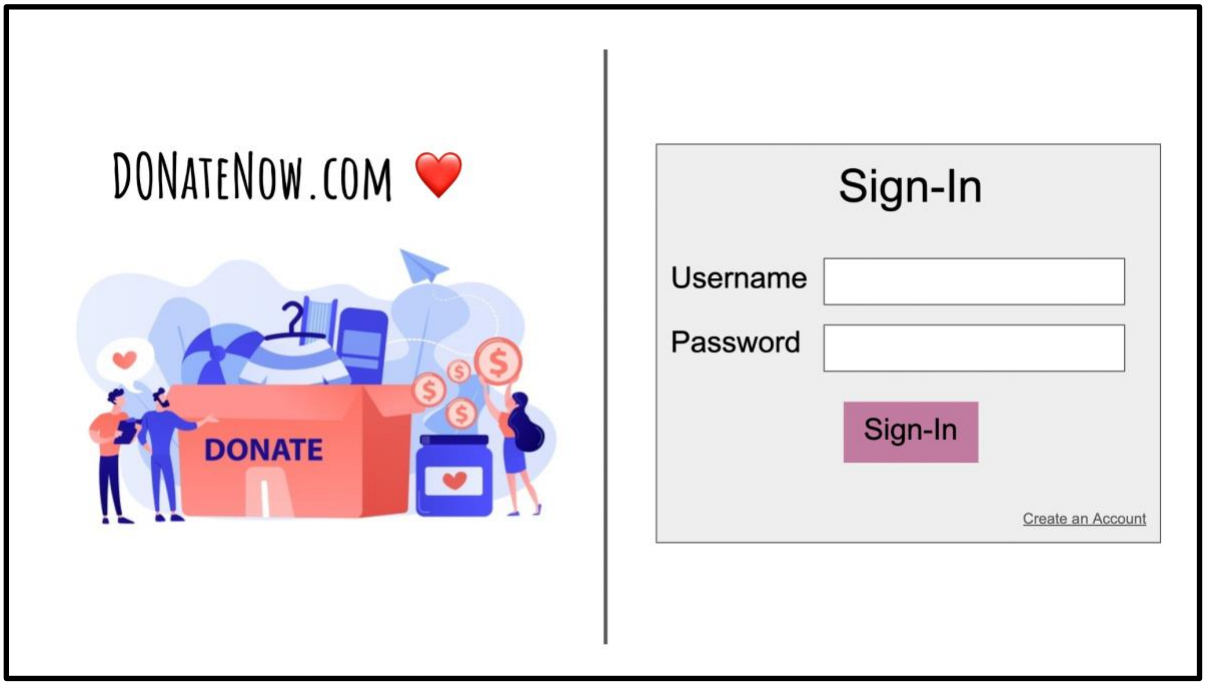

Figure 1. Sign-In Default View

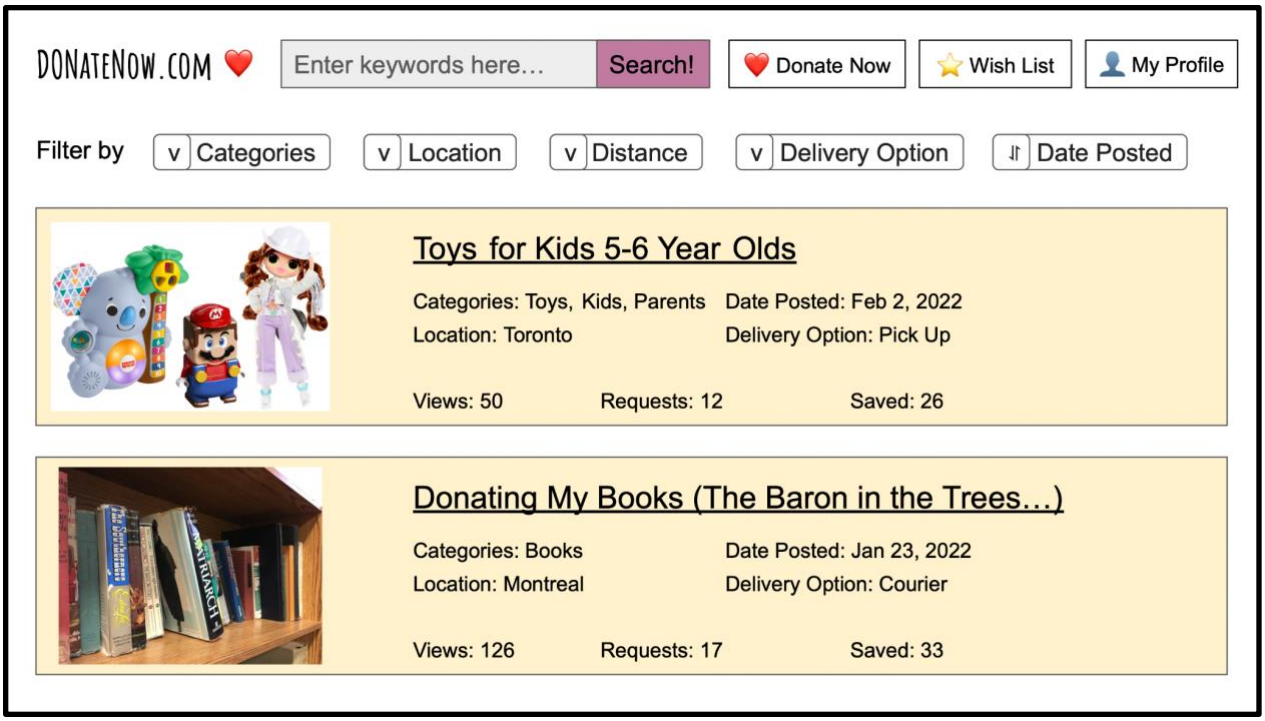

Figure 2. Sign-In Success View

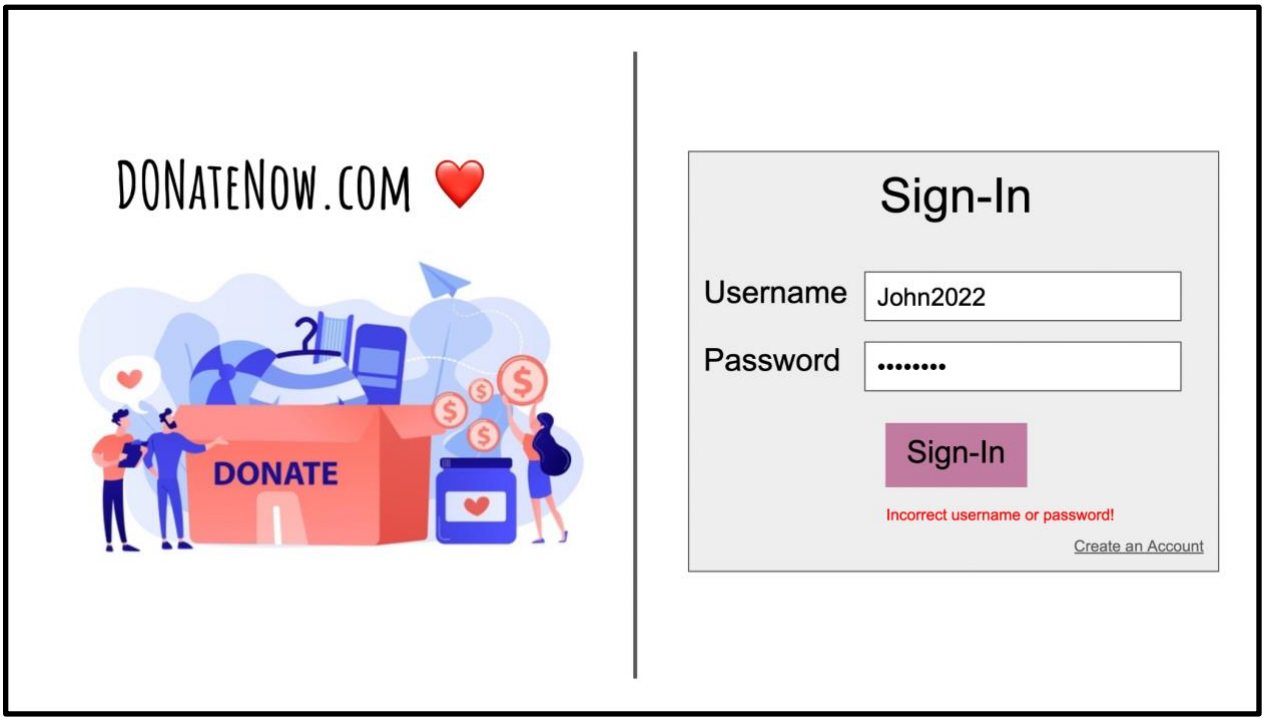

Figure 3. Sign-In Error View

Create an Account

New users to the website may choose to create an account by clicking on the “Create an Account” hyperlink on the login web page. They will be directed to a new view to create a unique username and come up with a password (Figure 4). If the username is not unique, an error message “Duplicate username!” in red will show up under the “Submit” button (Figure 5). The password will have to be entered twice to be identical, thus preventing potential user mistakes. If the two passwords do not match, an error message “Passwords do not match!” in red will show up under the “Submit” button (Figure 6). Finally, users will have to hit the “Submit” button to complete the account creation. If the account is successfully created, a success window will show up and users can click on the “Back to Sign-In” hyperlink to login the website (Figure 7).

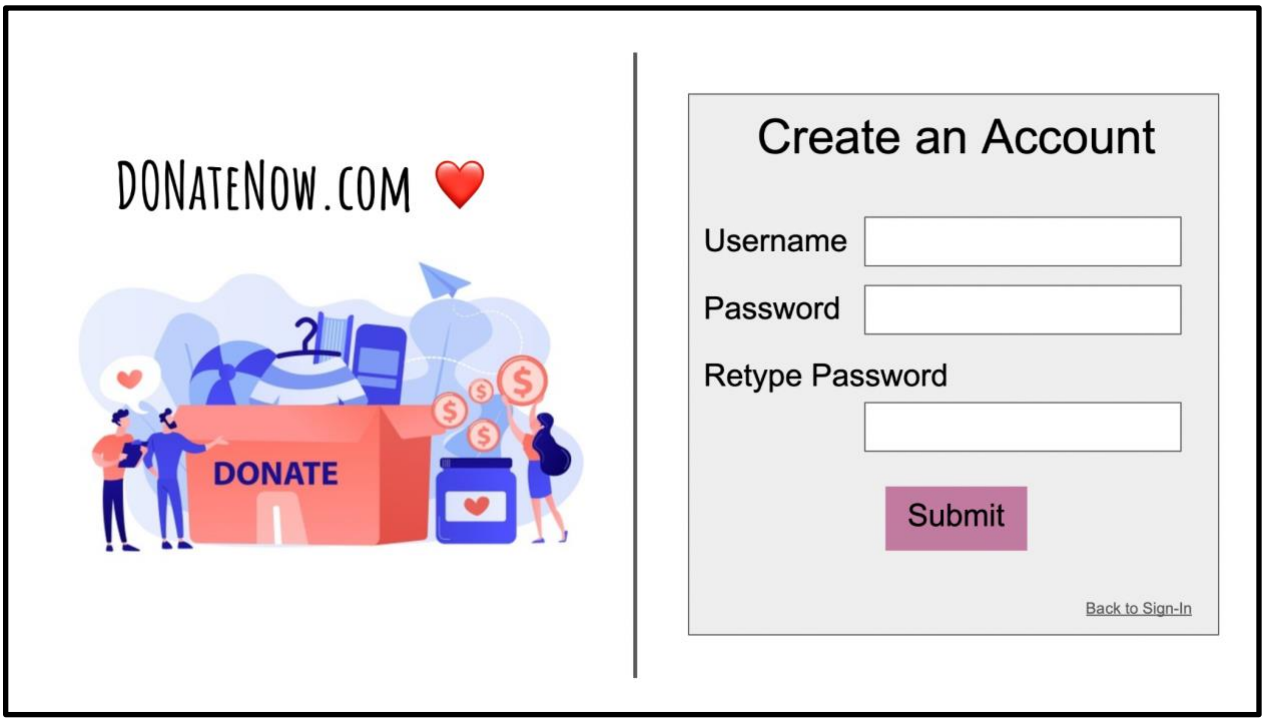

Figure 4. Create an Account Default View

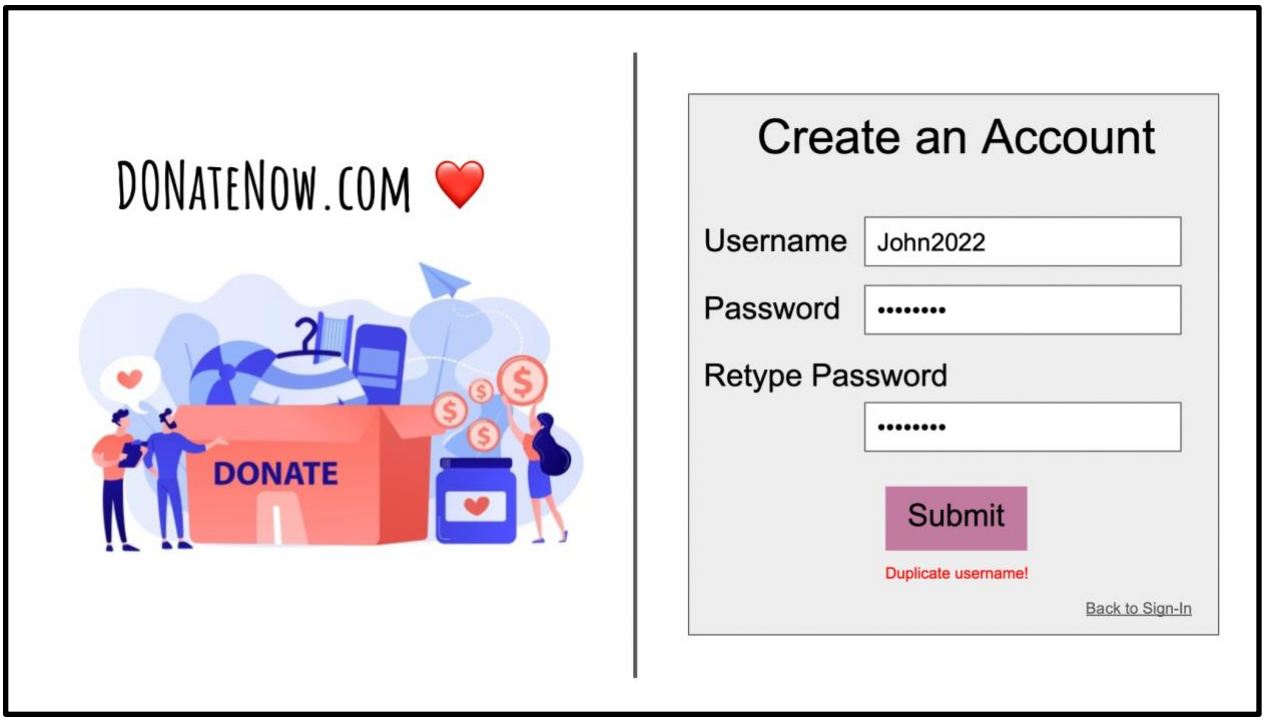

Figure 5. Create an Account Error View - Duplicate Username

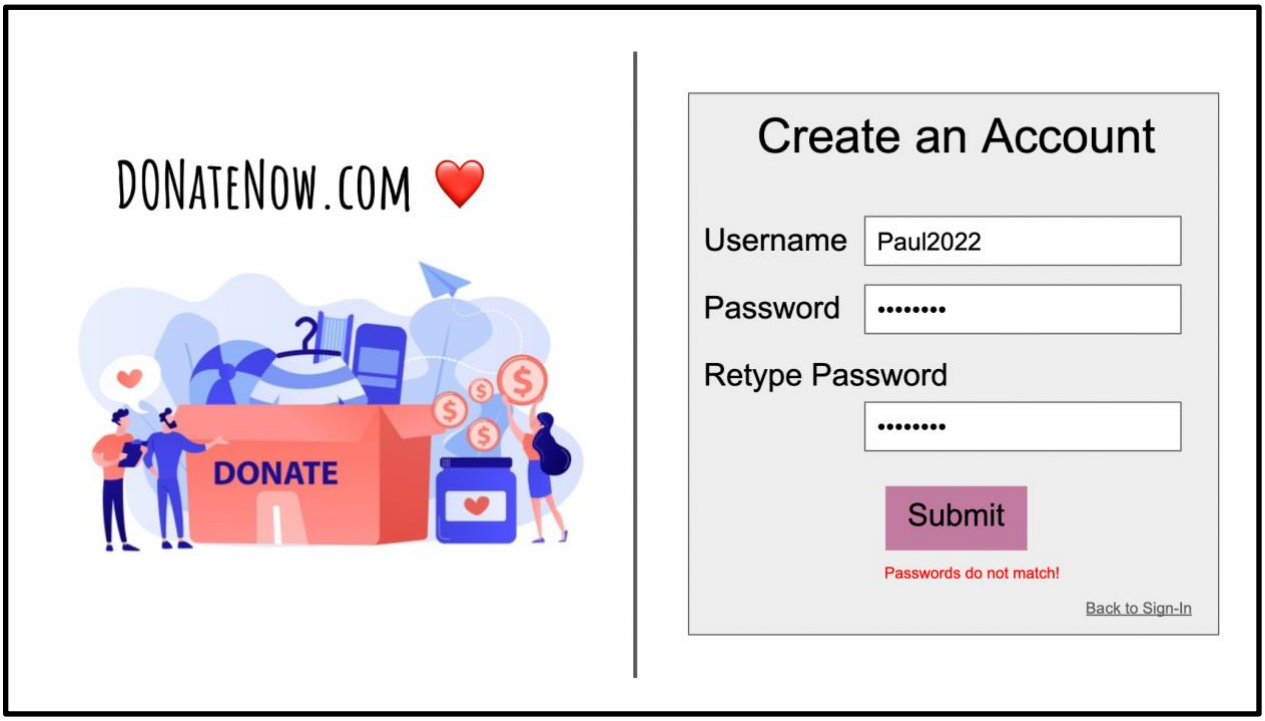

Figure 6. Create an Account Error View - Passwords Do Not Match

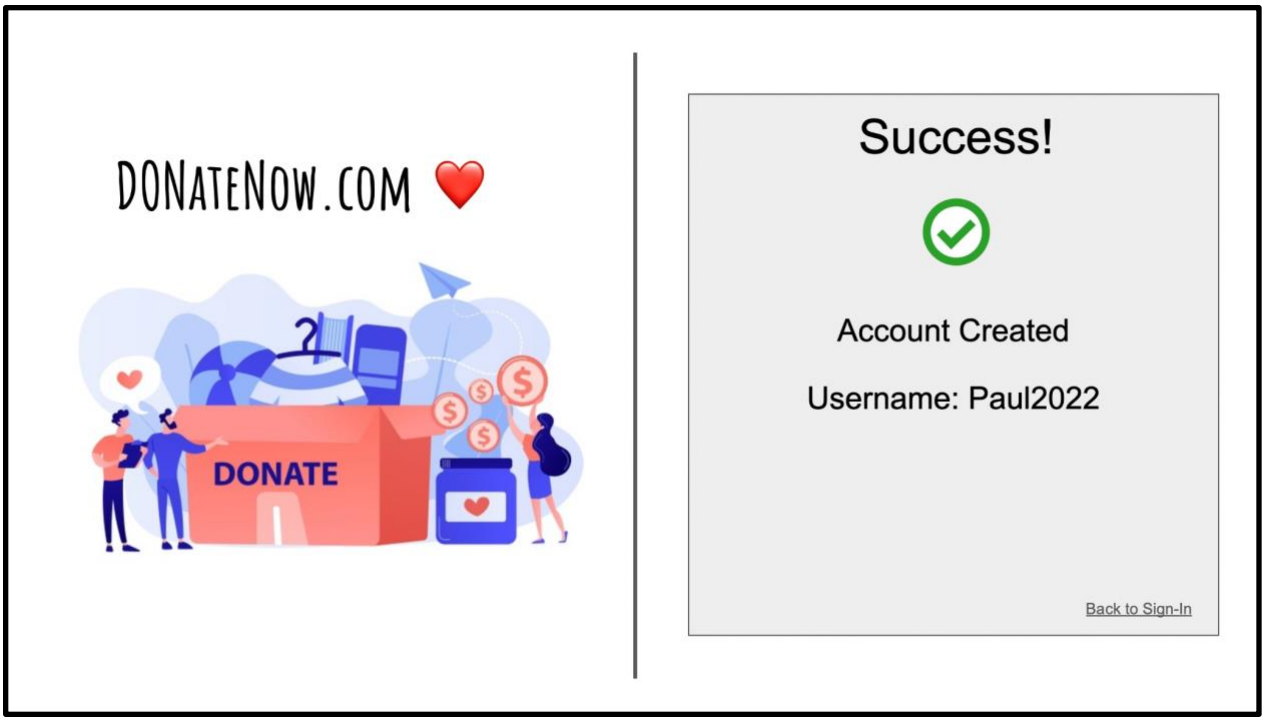

Figure 7. Create an Account Success View

View Profile

Users may choose to view their own profile (data retrieved from a web server). Besides all the personal information provided, they could find their wish list, transaction history, donated history, and credit score (based on ratings from other users who had rated a product this user donated) in their profile. They could also submit feedback about the website from their profile (Figure 8).

Users may also choose to view one another's profile by clicking on any user's profile picture, for example, from a post. Only certain fields (username, preferences, biography, and credit score) will be available to the public (Figure 9).

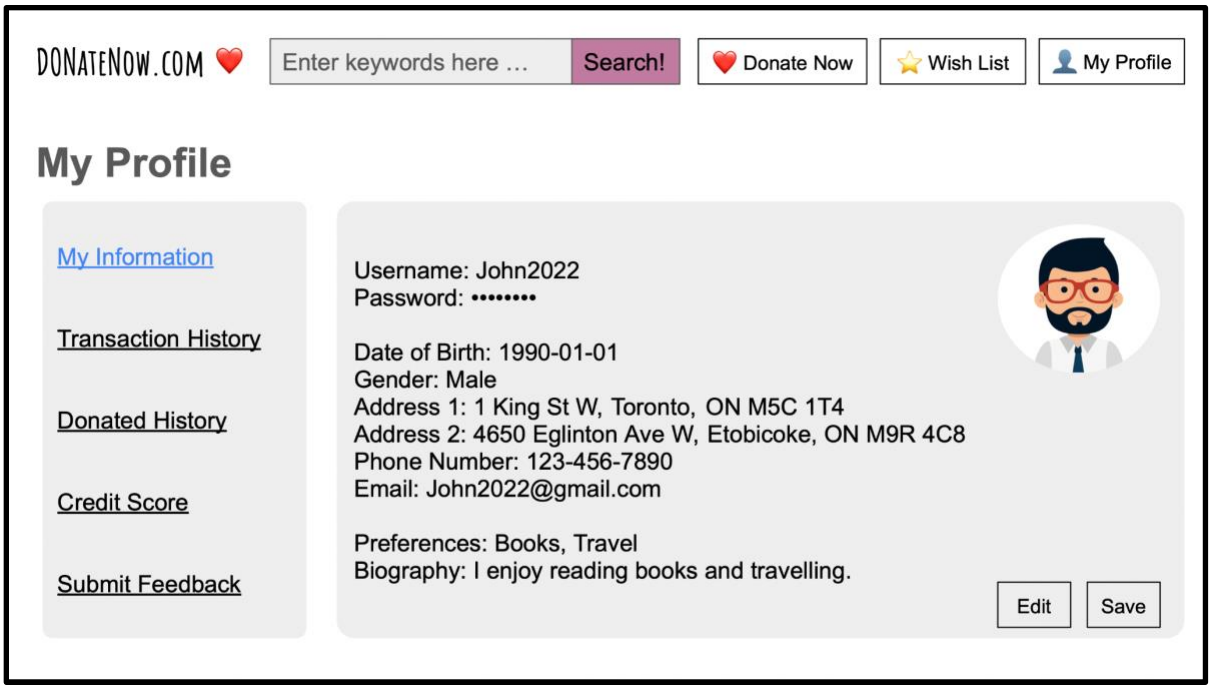

Figure 8. My Profile Default View

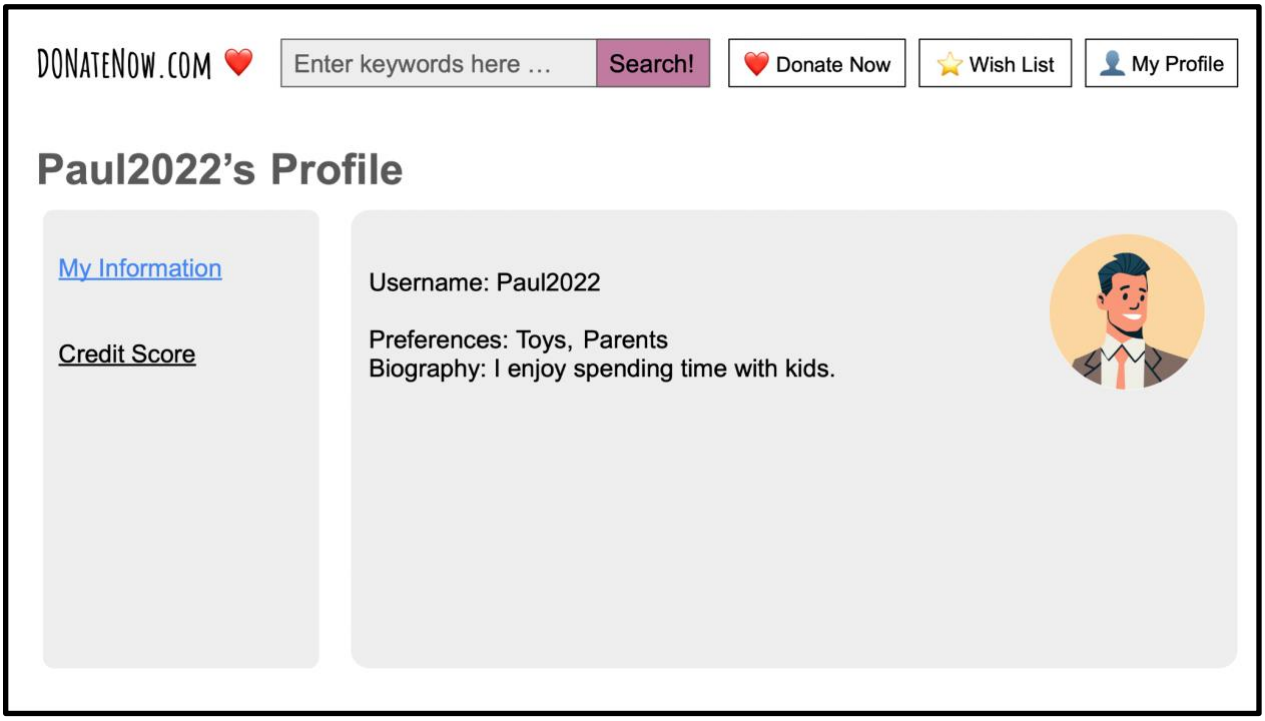

Figure 9. Viewing Other Users' Profile

Update Profile

Logged in users may choose to update or complete their profile information in their profile page. They may choose to update or provide information such as their date of birth, gender, address(s), phone number, email, profile picture, preferences, and biography by clicking on the "Edit" button. After editing the fields, they will have to hit the "Save" button to save the changes (Figure 10).

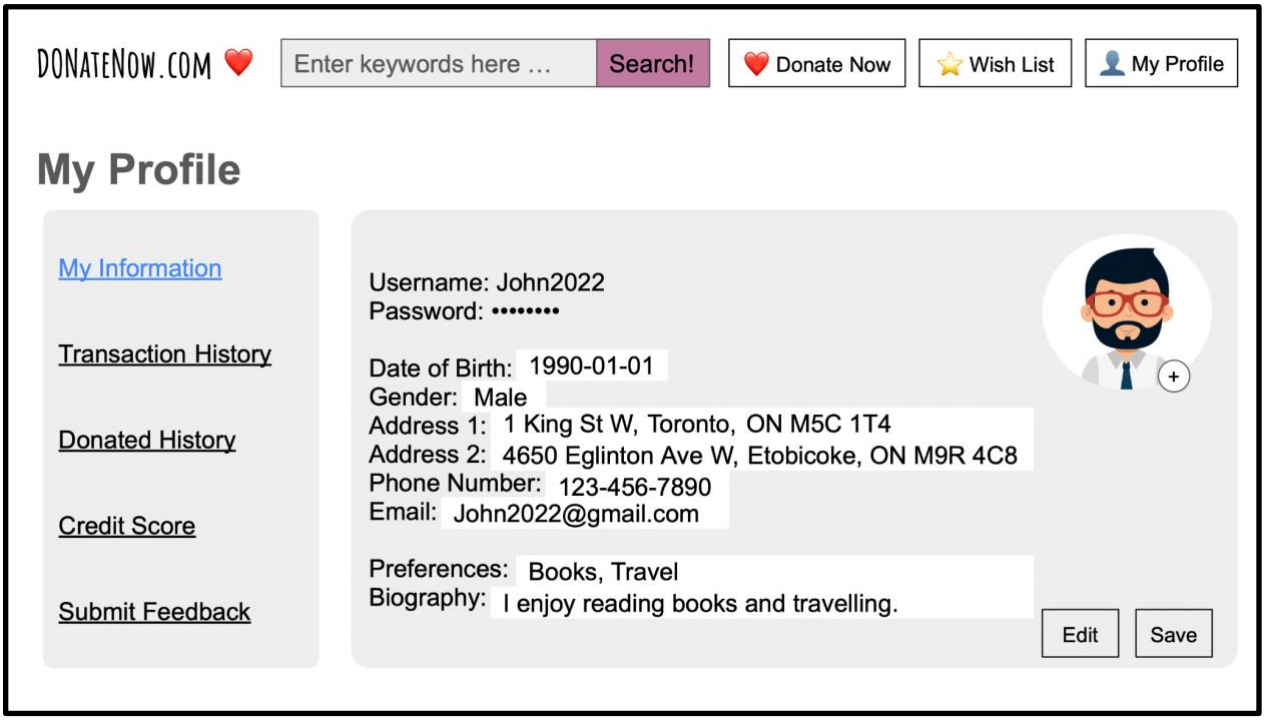

Figure 10. Updating or Completing Profile View

Search for Posts

Users may search for donation products by typing in keywords in the search bar situated at the top of the website and hitting the "Search!" button (Figure 11). Selecting from the filter dropdown lists, users could also filter the search results by categories, location, distance, delivery method, and date posted. The website will return all relevant posts (retrieved from a web server) and display one post per row. Each post will show a summary of the product, which includes a photo, a header, location, delivery option, relevant categories of the product, number of views (how many users have clicked on the post), number of requests (how many users have requested the product), and number of users who have saved the product to their wish list.

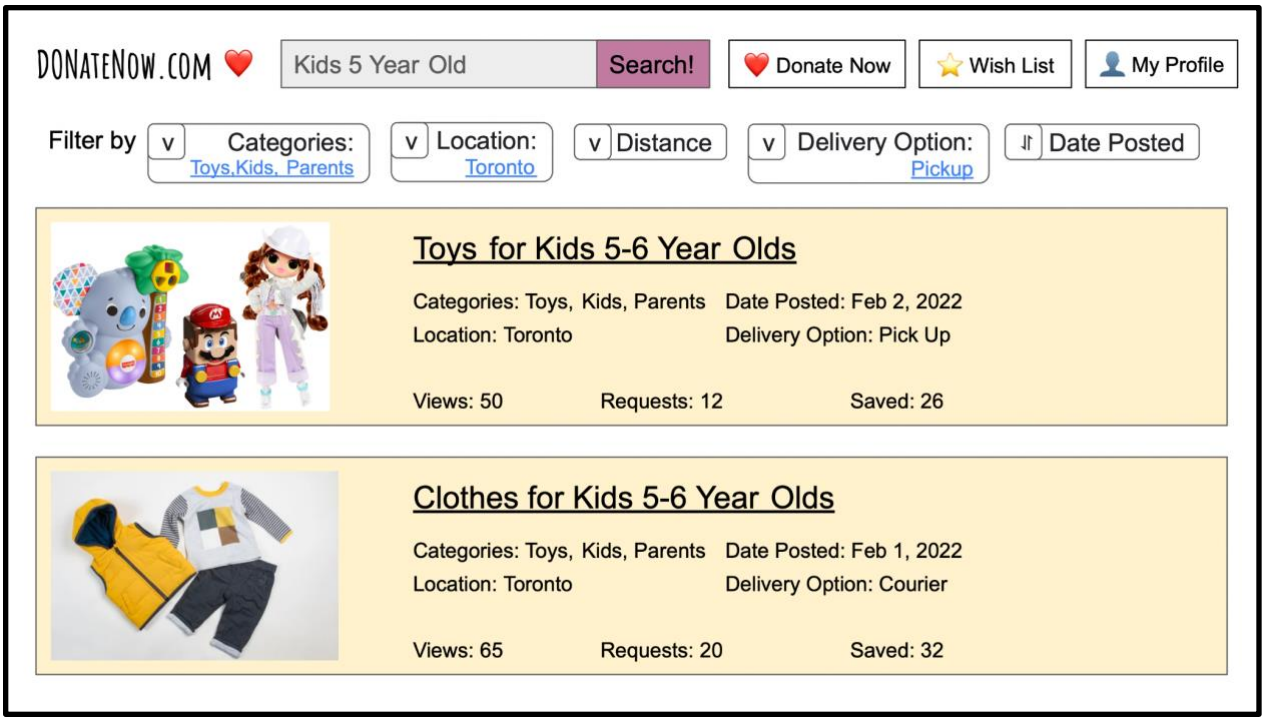

Figure 11. Search View

Create a Post

Users may choose to create a post and donate some used products. They will be directed to a post creation page (Figure 12). They will have to provide photo(s), a header, location, and a description of the product, and attach relevant categories of the product to the post. They will also have to specify the location (e.g. city) of the product and whether it is available for pick up or delivery. After filling in all the above required fields, they will have to indicate their awareness of donation policy by checking the terms & conditions box before being able to click on the "Publish" button to publish the post. A success message will pop up if the post is published successfully; otherwise, a failed message will pop up asking users to fill out all the fields in red (Figure 13).

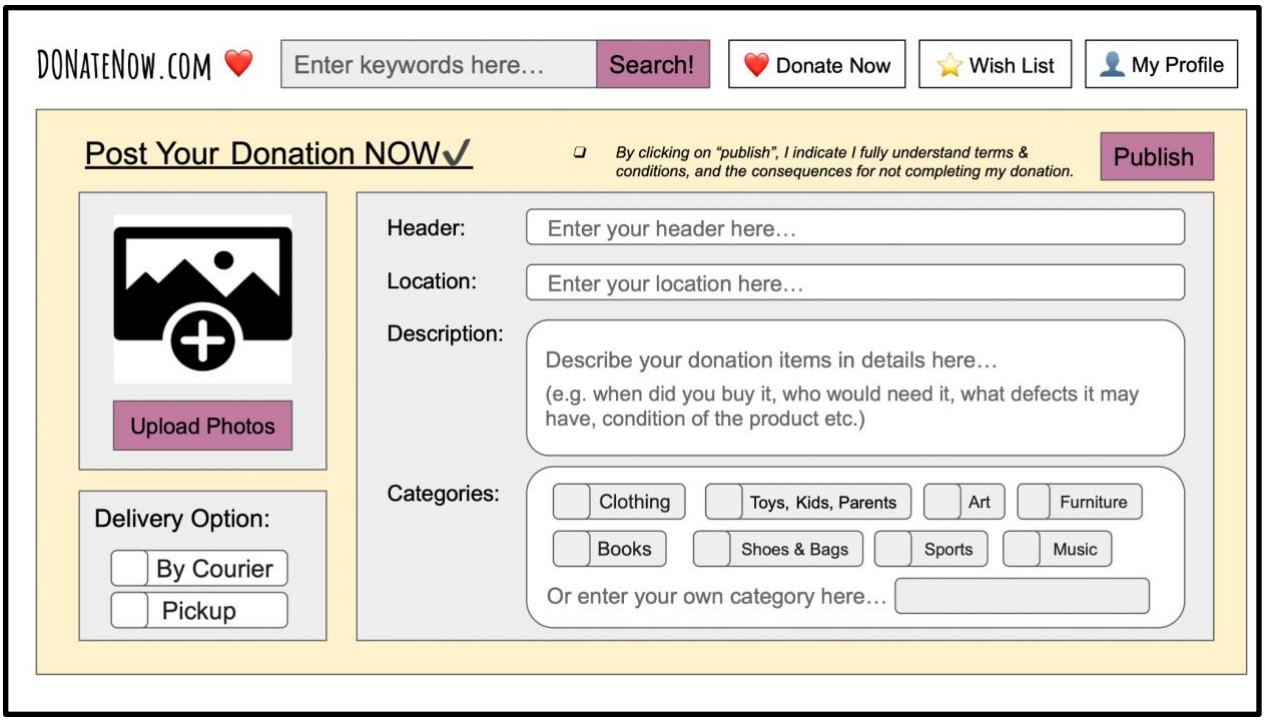

Figure 12. Create a Post View

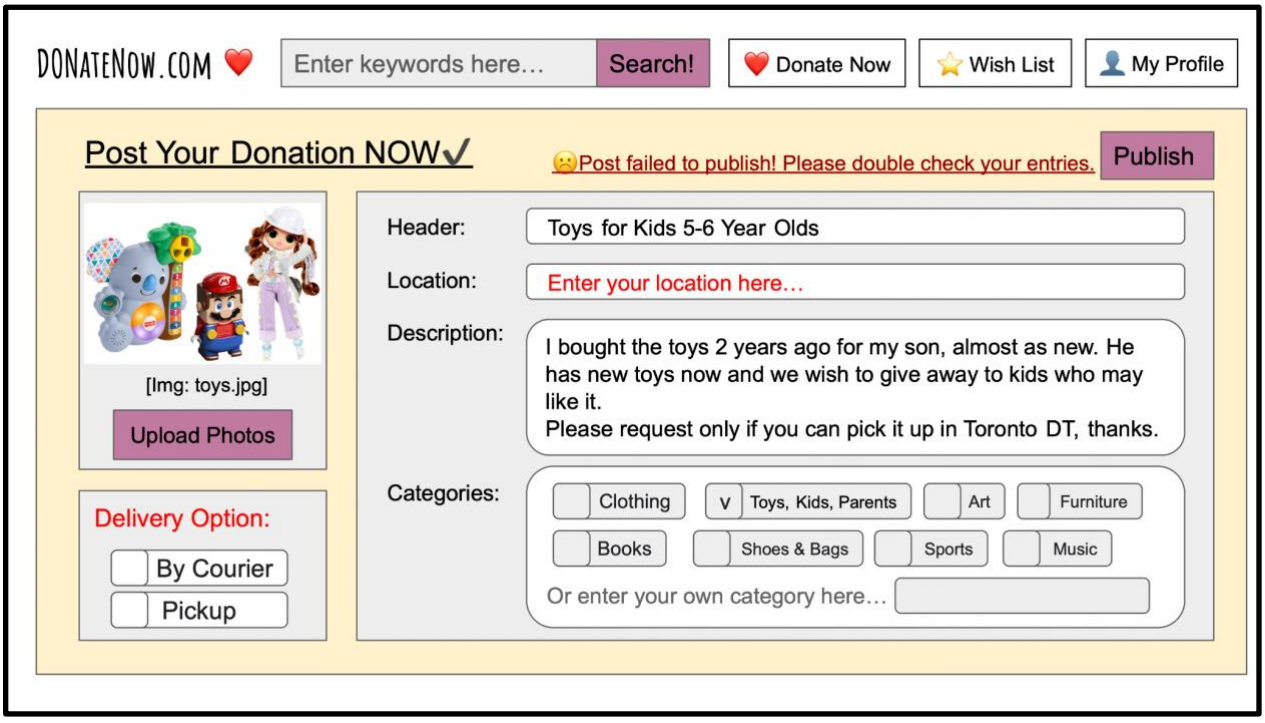

Figure 13. Create a Post - Fail View

Figure 13. Create a Post - Success View

View Post

Users may choose to click on a post and learn more about the details of the product. They will be directed to a new view showing the details of the post (Figure 14). Besides the summary of the product (a photo, a header, location, donor username, delivery option, relevant categories of the product, number of views, number of requests, and number of users who saved the post to their wish list), users would be able to see more photos of the product as well as a more detailed description of the product.

If the product fulfills users' needs, users could request the product immediately by clicking on the "Request Now" button or add the product to their wish list by clicking on the "Save to Wishlist" button.

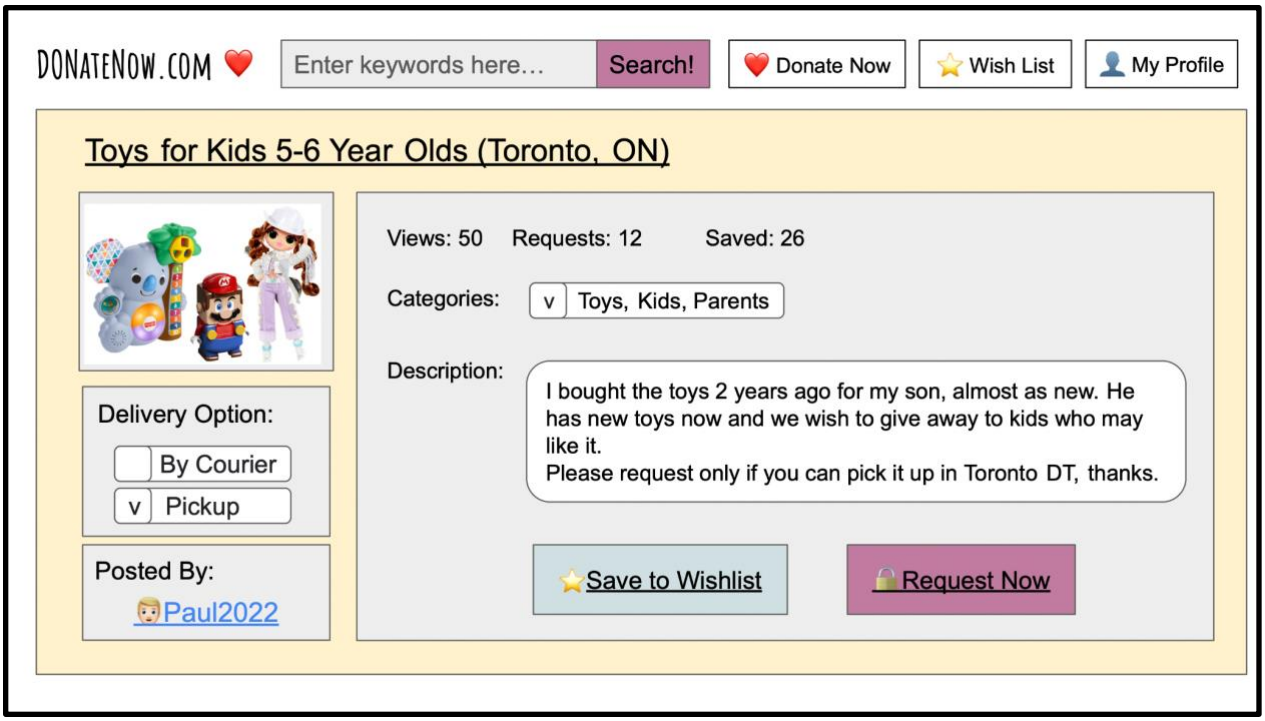

Figure 14. Detailed Post View

Request Now

Users may choose to request the product by clicking on the "Request Now" button and will be directed to a new view (Figure 15.1, Figure 15.2). Depending on the delivery option specified by the donor in the post:

1. If delivery, users will be asked to select an address and phone number from their address book. After that, users will be given an estimated delivery cost before proceeding.
2. If pickup, users will be asked to select a phone number from their address book by checking the option button, or enter a new phone number/address in the text box and hit "save". After that, users will be given an estimated distance from the users' current location to the pickup location.

Finally, users have to confirm their provided information is correct and click on the "Confirm" button to successfully submit their request for the item.

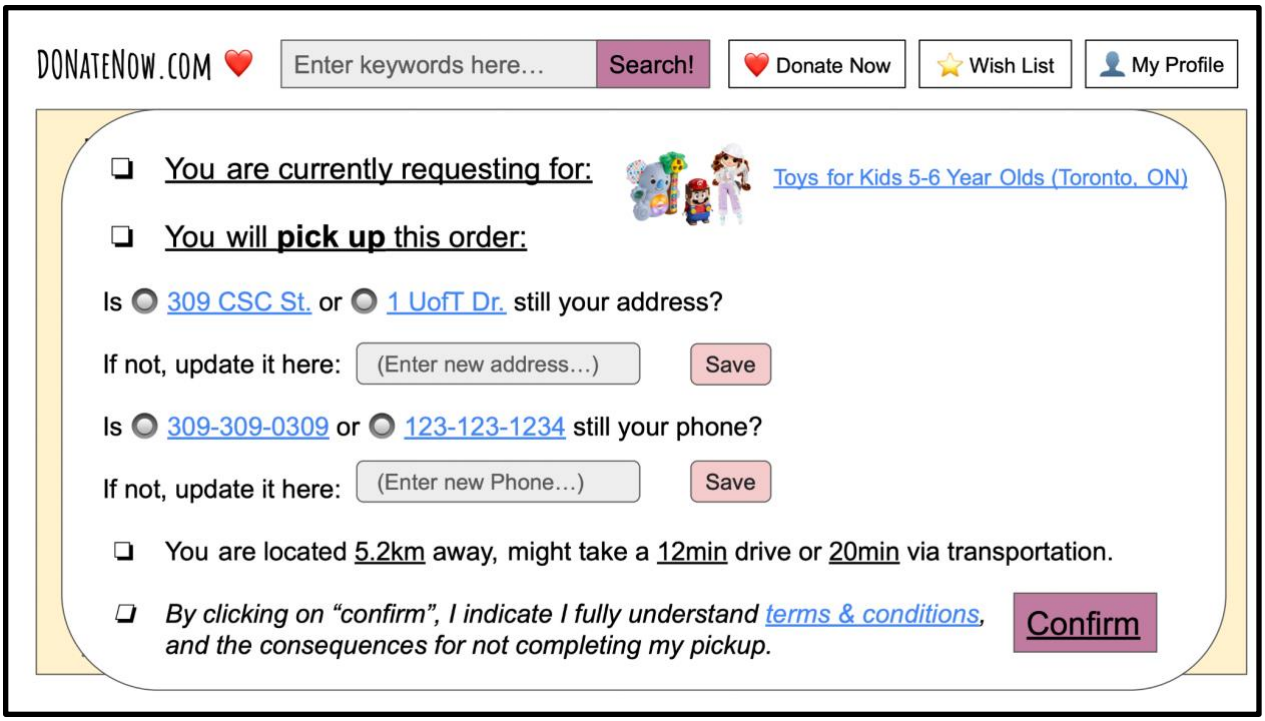

Figure 15.1 Request Now View - Pick up

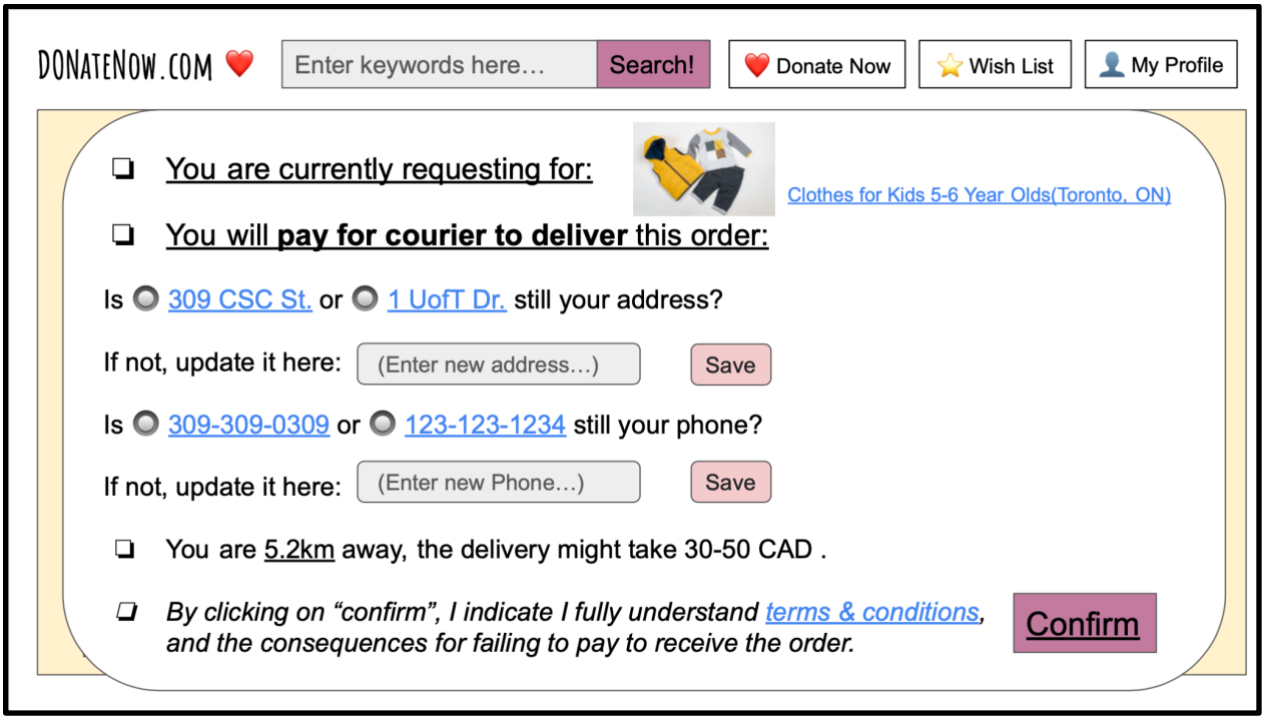

Figure 15.2 Request Now View - Courier Delivery

Save to Wishlist

Users may choose to add the product to their wish list by clicking on the “Save to Wishlist” button and request it later. A success window will pop up if the product is added successfully (Figure 16).

Figure 16. Save to Wishlist View

View Wish List

Users may choose to view their wish list by clicking on the “Wish List” button at the top right of the website. They will be directed to a new view that displays a list of posts in the wish list (Figure 17). Each post will contain a summary of the product (a photo, a header, location, delivery option, relevant categories of the product, number of views, number of requests, and number of users who saved the post to their wish list), similar to that of the search result.

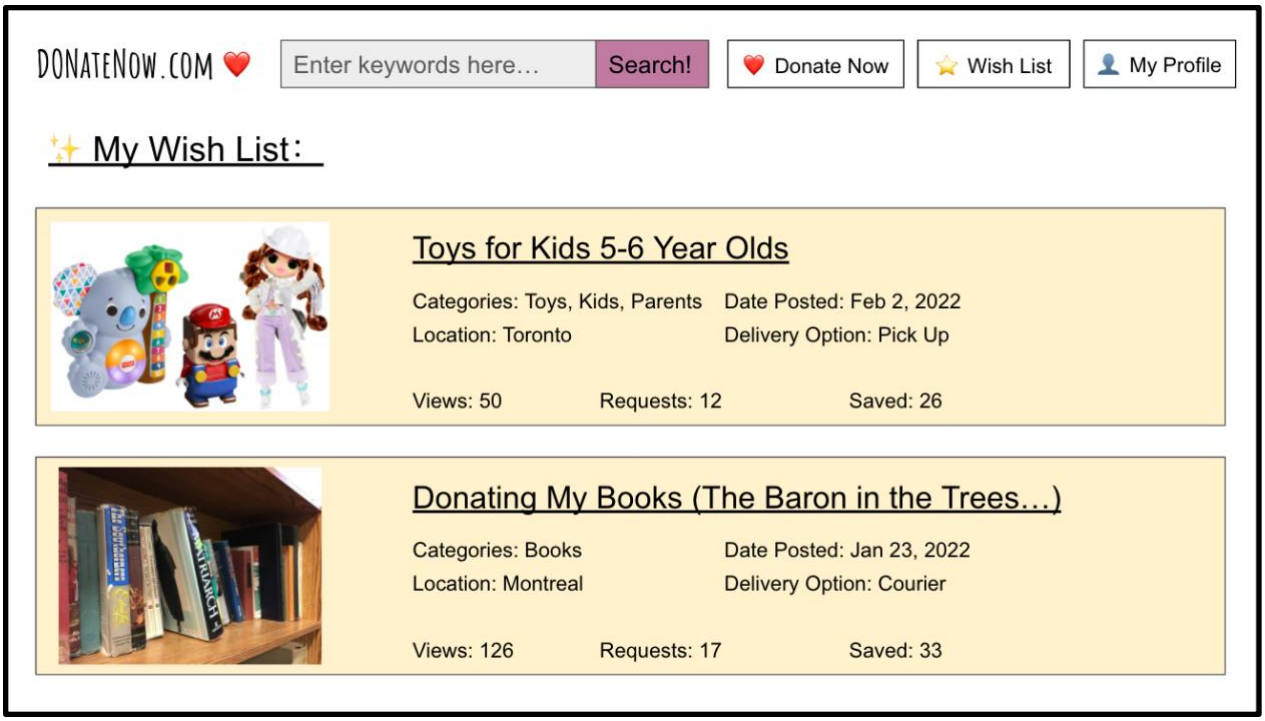

Figure 17. Wish List View

View Transaction History (for Donee)

Users may choose to view their transaction history in their profile by clicking on the Transaction History hyperlink in the left menu. Data will be retrieved from a web server. A transaction has four possible statuses: pending, request accepted, received, and failed. Each status is defined below (Figure 18 and 19):

I. As Donee (Transaction History)

1. Pending: the donor has not made a decision whether to accept or reject the donee's request for the product.
2. Request Accepted: the donor has accepted this donee's request for the product. According to the delivery option specified in the post, the donor will either deliver the product to the donee by courier, which has the option to track delivery, or pickup.
3. Received: the donated product has been received by the donee and the donee can rate the donor.
4. Failed: the donor has rejected the donee's request for the product.

Different statuses have different buttons, such as "Rate order", at the upper-right corner of each item. The specification of each button will be explained in the following user functionality.

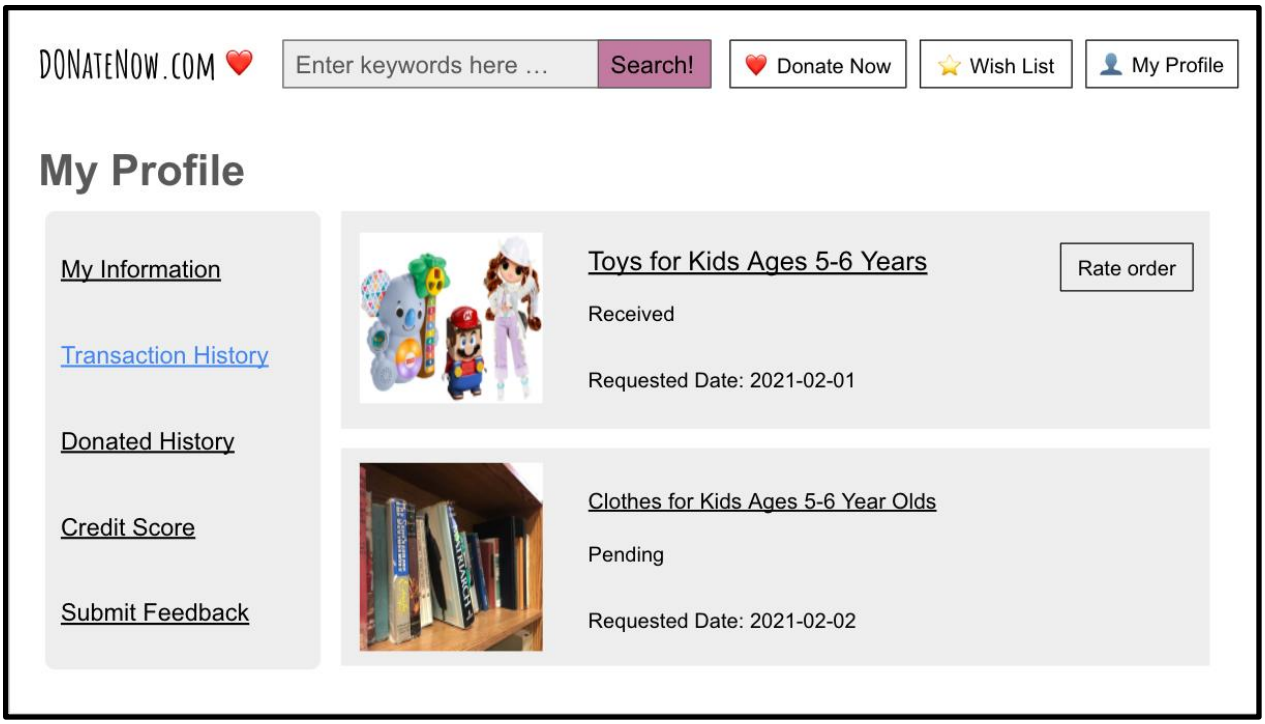

Figure 18. Transaction History I

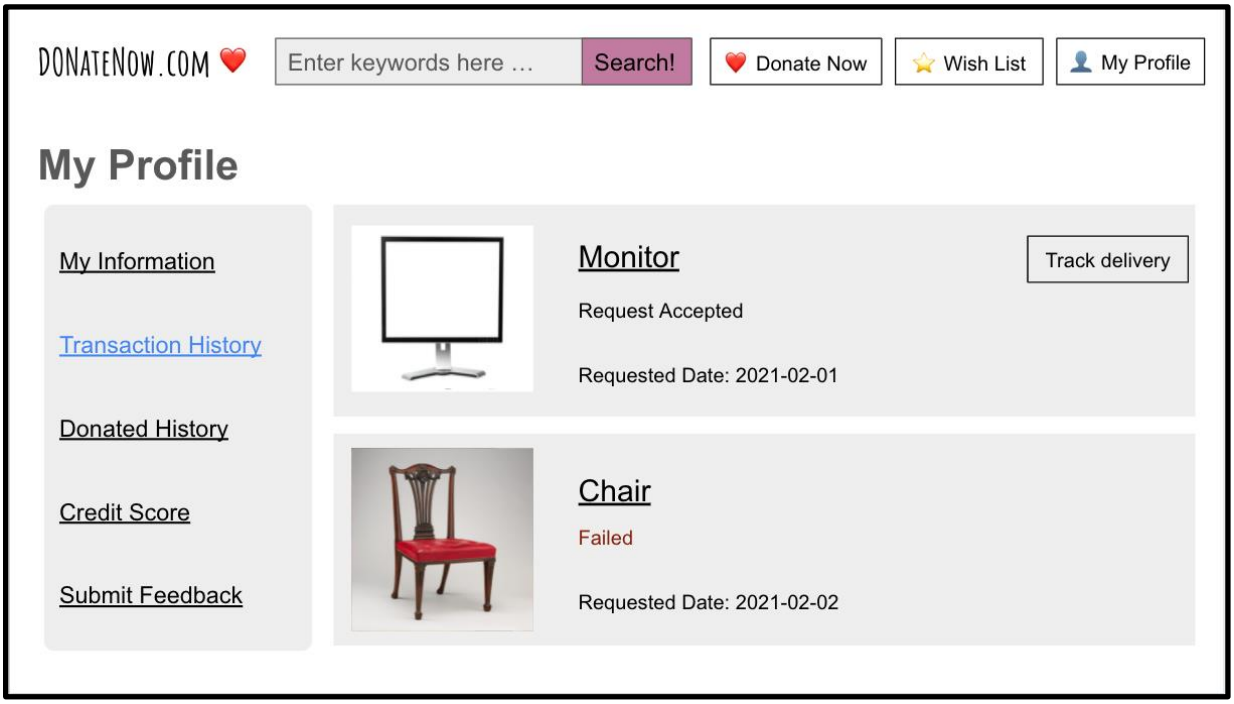

Figure 19. Transaction History II

View Donated History (for Donor)

Users may choose to view their donated history in their profile by clicking on the Donated History hyperlink in the left menu. Data will be retrieved from a web server. A transaction has five possible statuses: posted, requested, order placed, completed, and failed. Each status is defined below (Figure 20 and 21):

II. As Donor (Donated History)

1. Posted: the donation post is successfully published.
2. Requested: at least one user requested this donation, but the donor has not made a decision.
3. Order placed: donor has chosen a donee and confirmed the donation.
4. Completed: donation is completed, and the donor can rate the donee.
5. Failed: no requests received within 3 months or transaction cancelled.

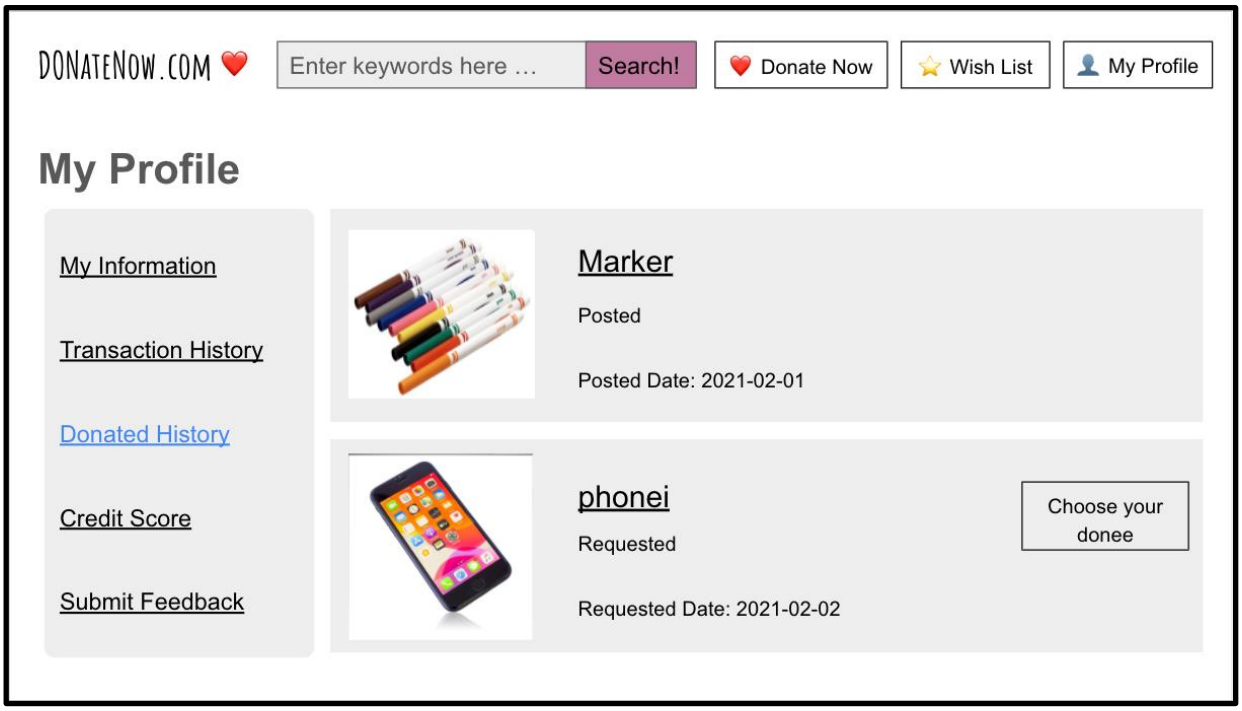

Figure 20. Donated History I

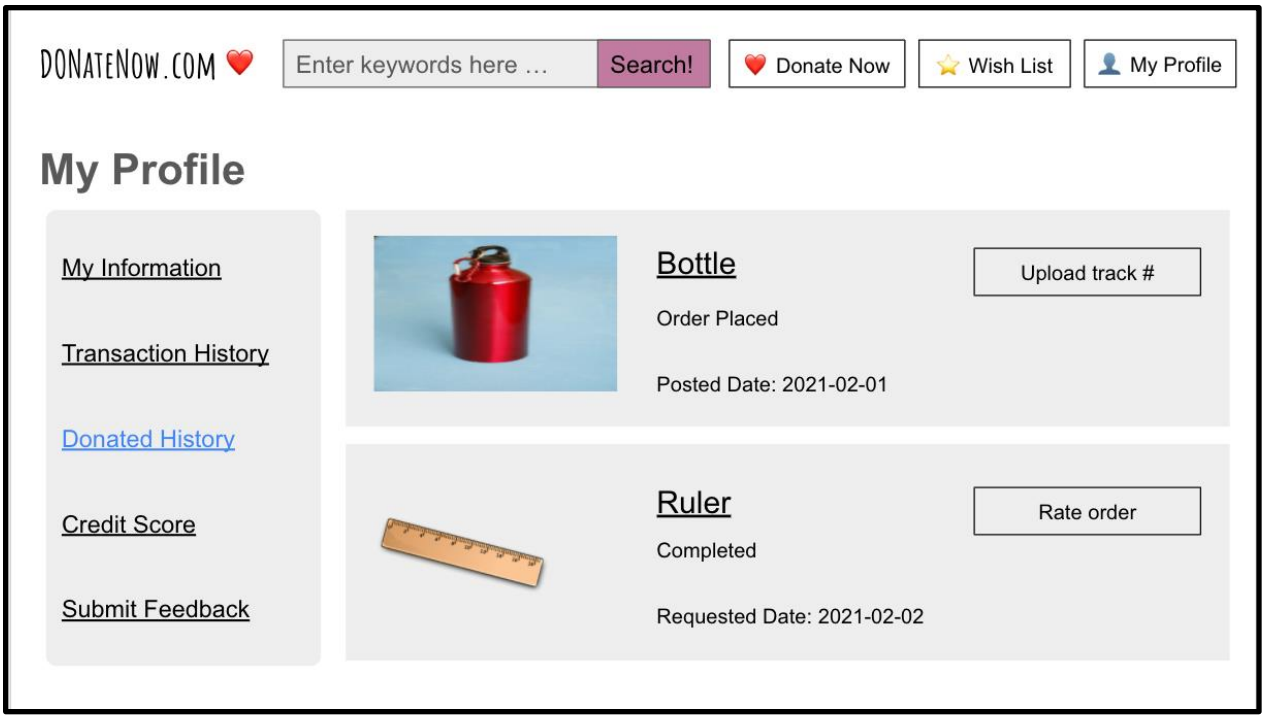

Figure 21. Donated History II

Track Delivery (if delivery is by courier)

Donors may choose to upload the tracking number if the delivery option specified in the post is by courier. They could click on the "Upload track #" button in the donated history and a panel will pop up for uploading the tracking number to the post's transaction details accordingly (Figure 22 and 23).

Donors and donees may choose to track delivery after the tracking number has been uploaded by clicking on the "Track Delivery" button on the Transaction History / Donated History page (Figure 24). This action will direct the user to a new page showing the delivery tracking (Figure 25).

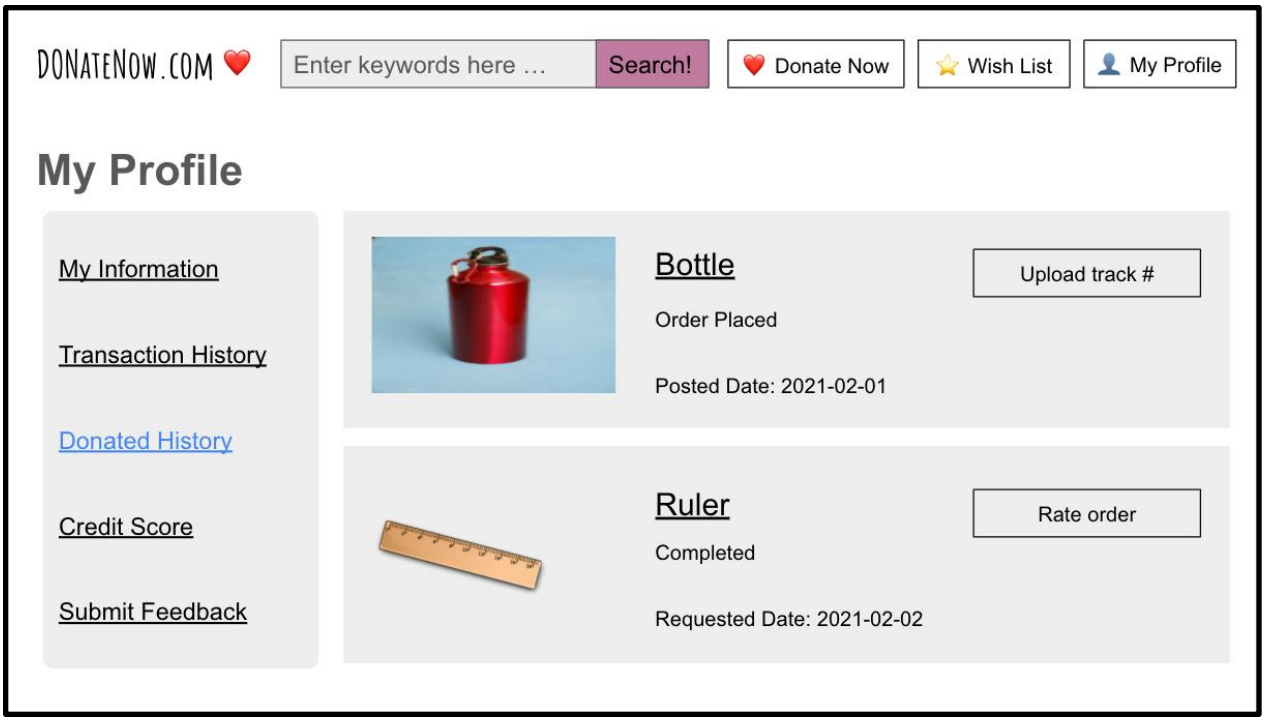

Figure 22. Uploading Track # Button

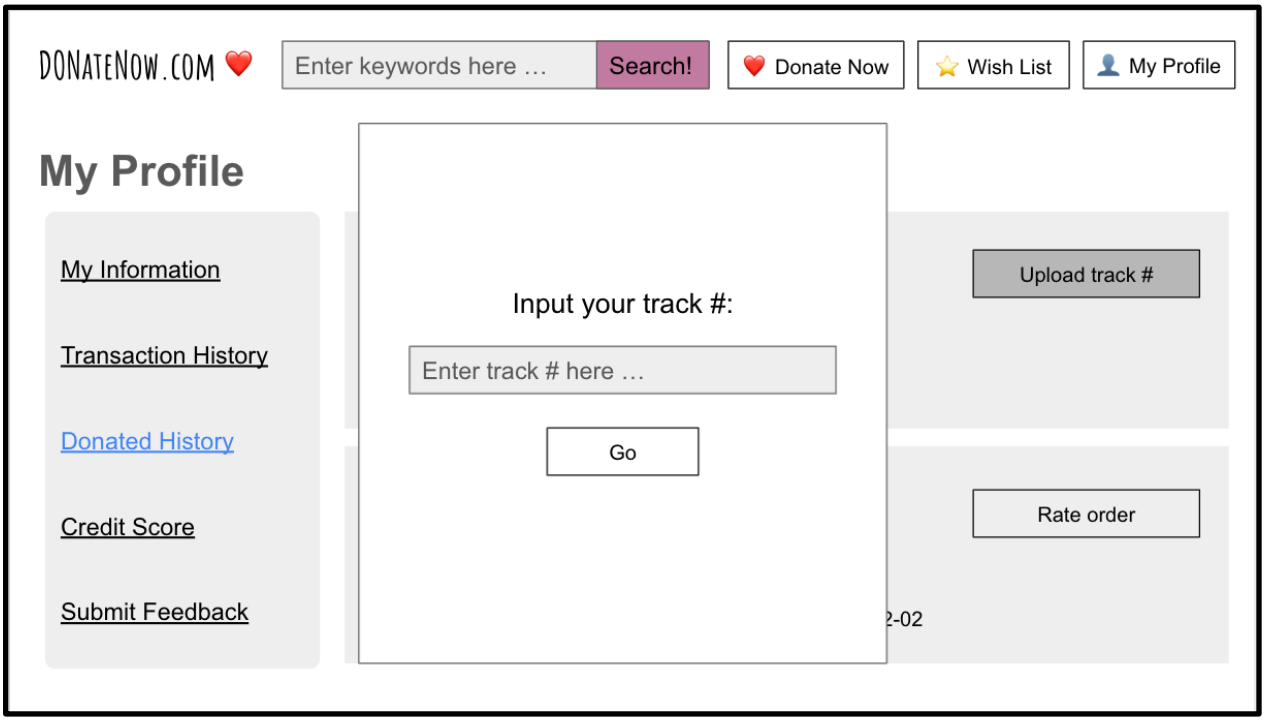

Figure 23. Uploading Track # Panel

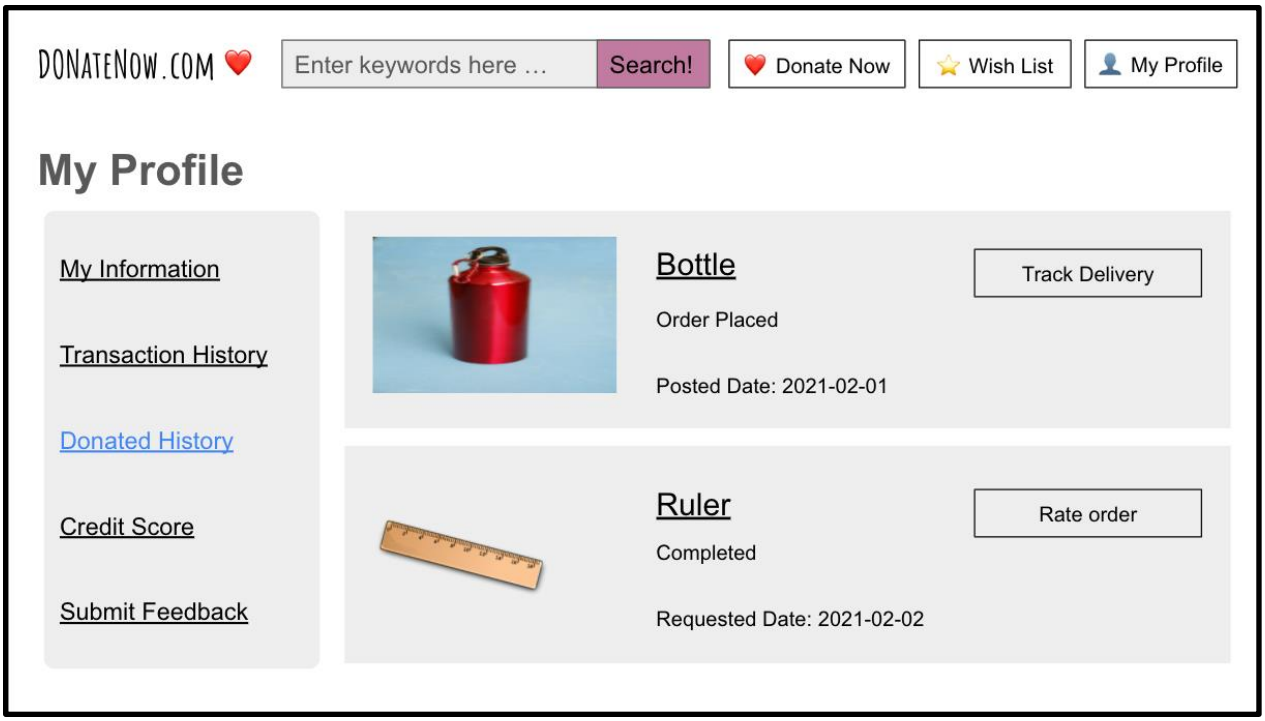

Figure 24. Track Delivery Button

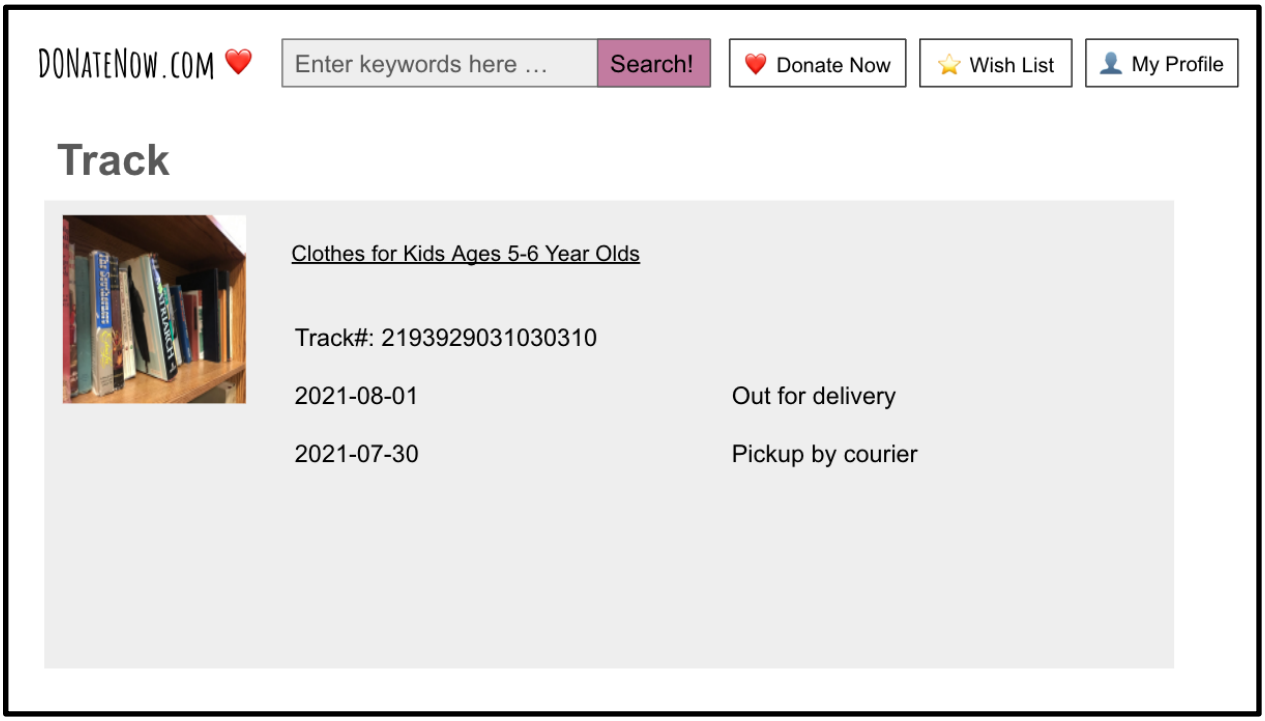

Figure 25. Track Delivery View

View a List of Donees for a Post (Donor's Decision Page)

After potential donee(s) have requested this item, these donees' information will be added to the "Choose your donee" page. Donors can click the "choose your donee" button in this post page (Figure 20). After clicking on this button, it will take the donor to a list view of potential donnees (Figure 26). This list contains their profile picture, username, requested post, requested date, and their credit score. The data will be retrieved from a web server. They also have a checkbox input at the last column for the donor to decide the most suitable donee.

Donors can also click on each donee's profile picture, which will direct them to that donee's profile page to get more information about the donee.

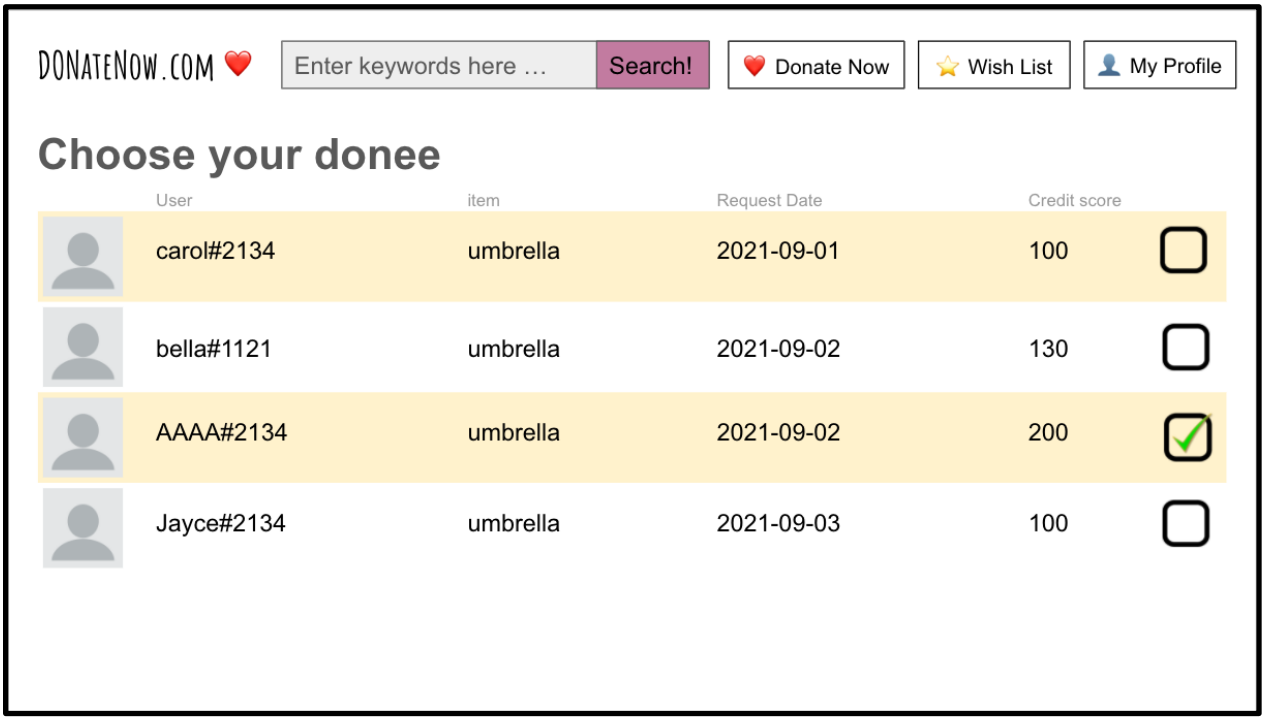

Figure 26. View a List of Donees

Rate an Order

After the order is completed, both the donor and the donee can rate this experience. The rating will be available in the Transaction History / Donated History page and will contribute to the credit score of both users.

Users can click on the "Rate Order" button when order status shows "Completed" (Figure 27). Then a panel will pop up for rating, where users can select the number of stars (Figure 28).

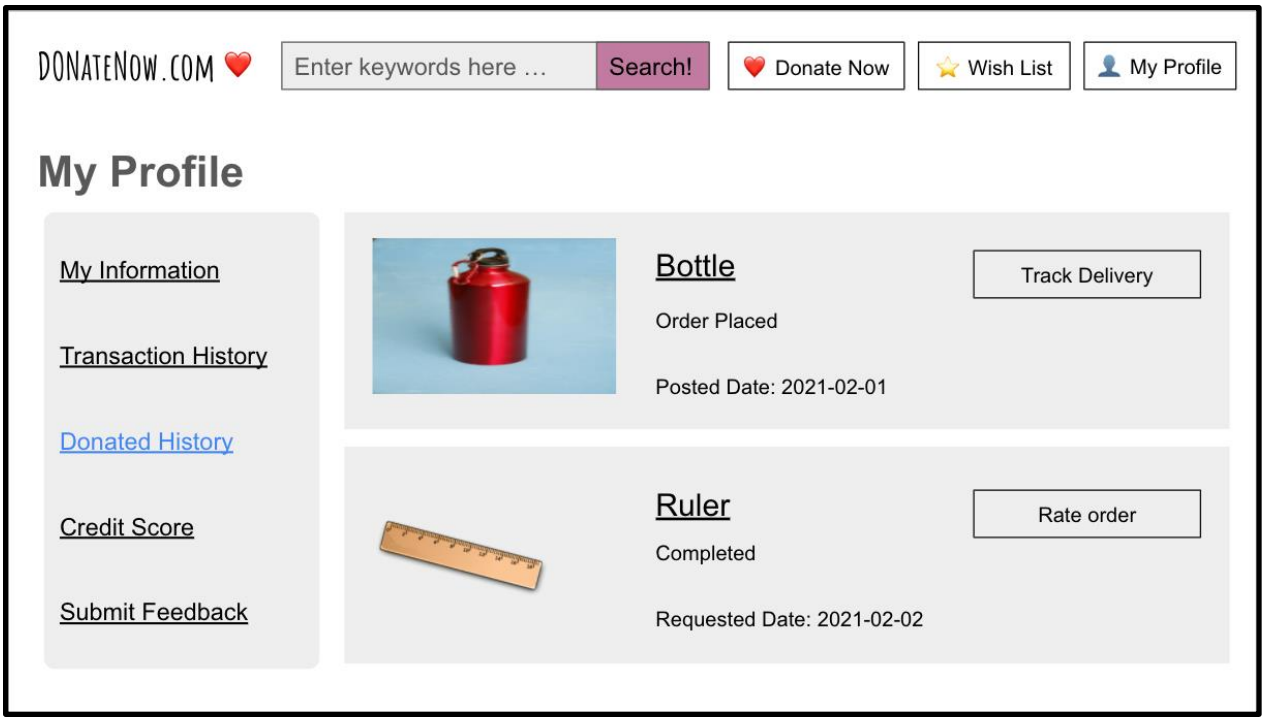

Figure 27. Rate Order Button

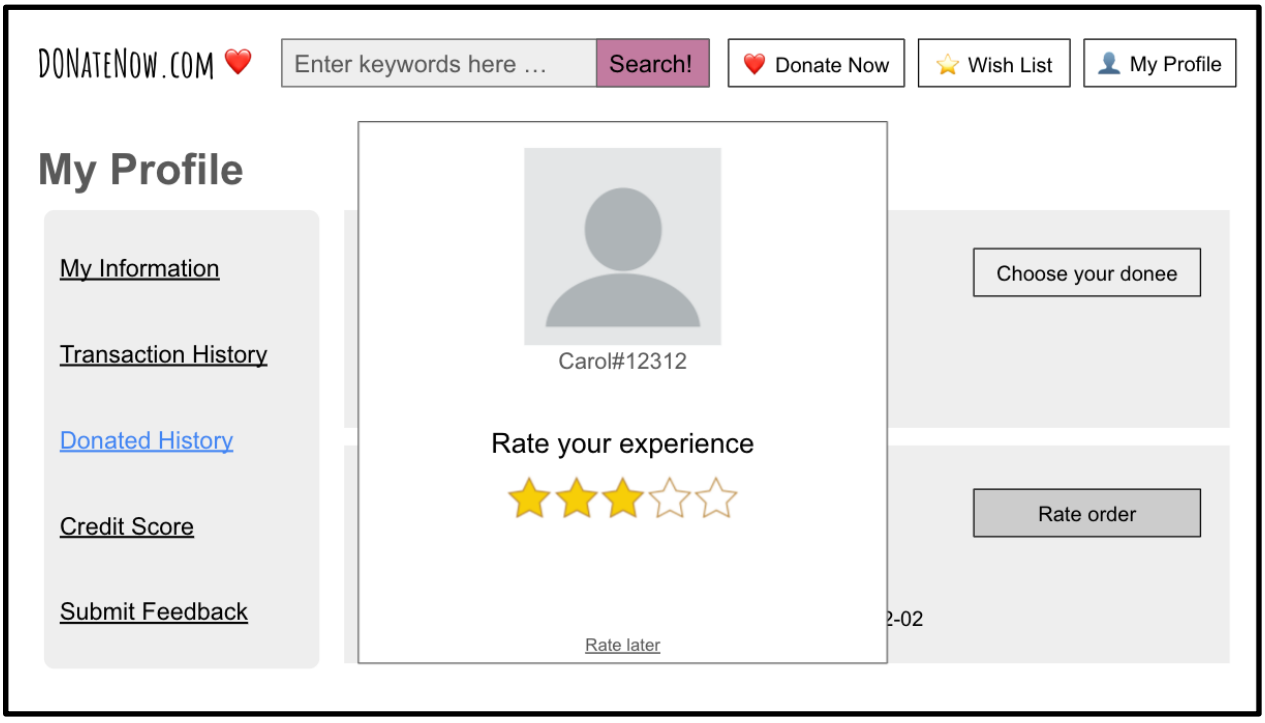

Figure 28. Rate Order Panel

Submit Feedback

Users may wish to submit feedback to outline their complaints from their profile by clicking on the "Submit Feedback" hyperlink (Figure 29). They must input a header and a description, and optionally upload photos. After hitting the "Submit" button, the submitted feedback will appear under the View Feedback page in admin view.

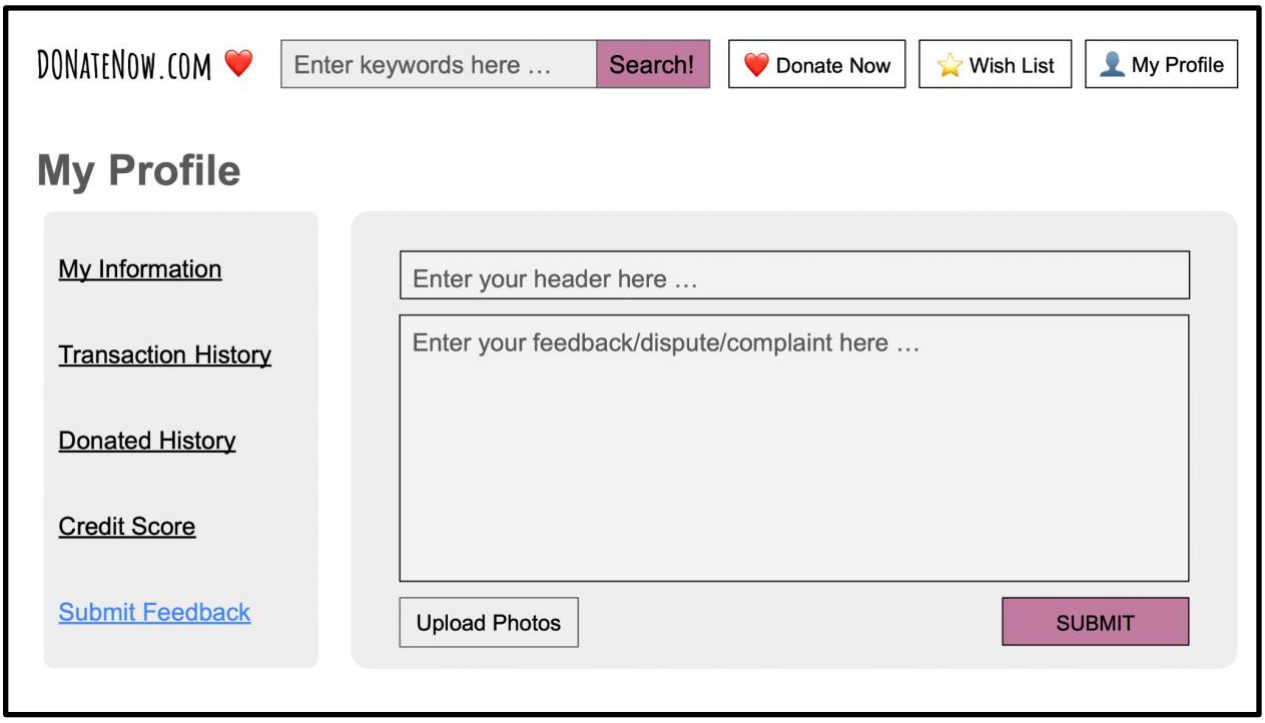

Figure 29. Submit Feedback View

Admin Functionality

Admin accounts do not have user profiles, but they can access "block list" and " feedbacks" using the buttons in the webpage ribbon, as well as all posts and user profiles.

View/Manage Block List

An admin is able to view blocklist of the website and manage it. For each user, their number of complaints and credit score are shown, and the admin can hit the "Unblock" button to release a blocked user (Figure 30).

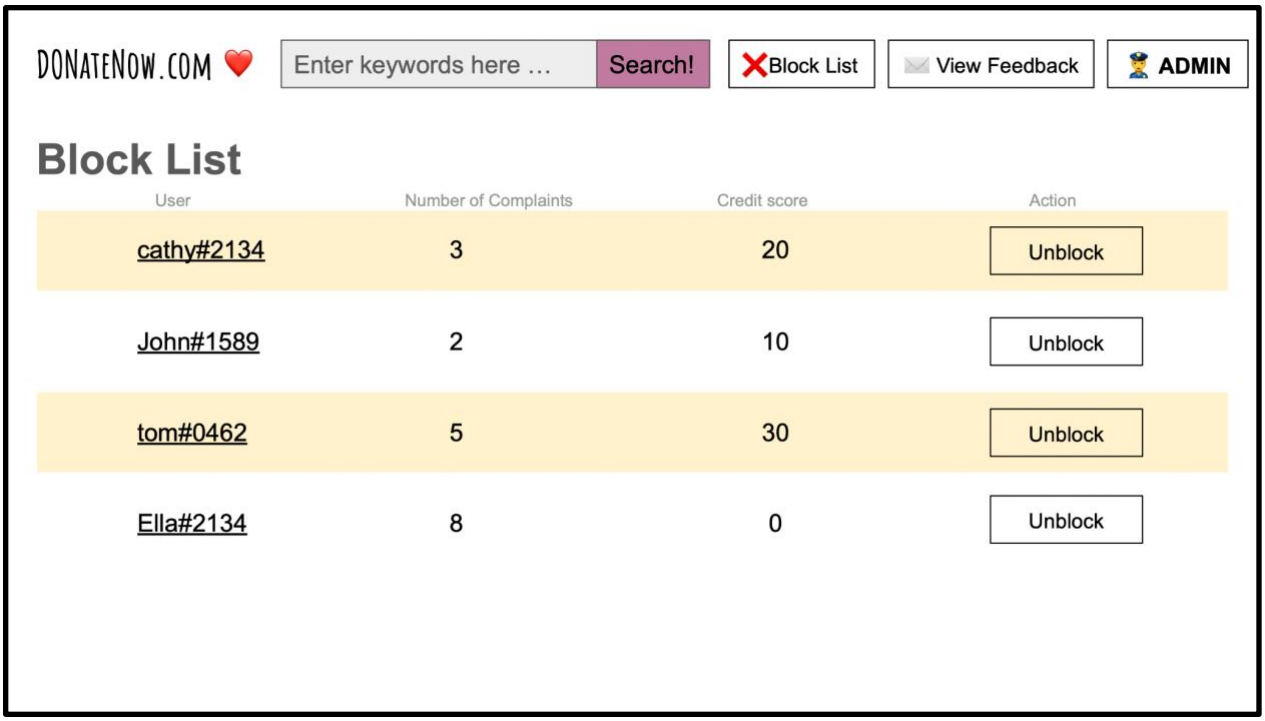

Figure 30. Admin - Block List

Block a User Account or Delete a Post

The admin panel would be able to delete an account or a post. If an account has a very low credit score or has received many complaints, the admin could delete this account according to terms & conditions to maintain the website's order. The admin can hit the "Block Account" button if an account needs to be blocked (Figure 31). In addition, if a post contains inappropriate content or product, the admin could remove the post from the website by clicking on the "Delete" button on the top-right of the post (Figure 32).

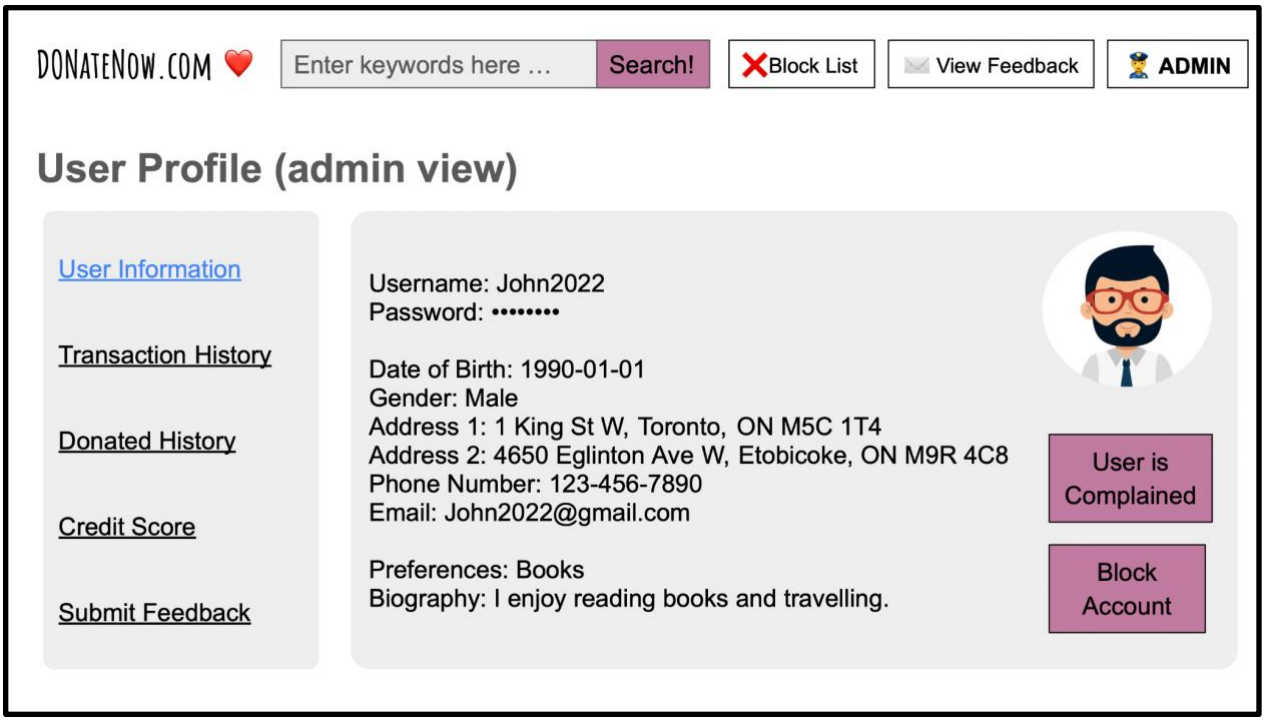

Figure 31. Admin - Block Account/User is Complained

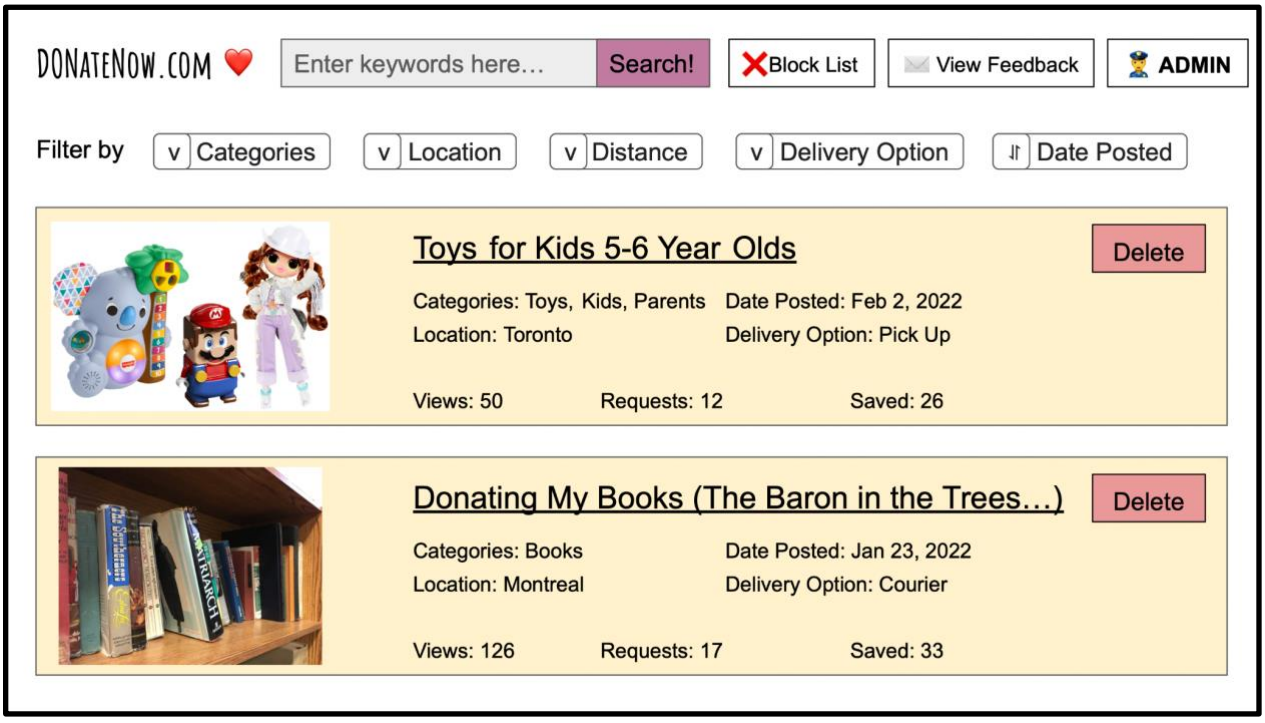

Figure 32. Admin - Delete Inappropriate Post

View/Manage Feedback

The admin could view and manage any feedback, disputes or complaints submitted by any user by clicking on the “View Feedback” button. The admin has access to all user feedback/ complaints from the “View Feedback” page, where he can click on the “View More” button to expand each feedback and see the details, the “Mark As Resolved” button to indicate that the problem has been solved, or the “Delete” button to remove meaningless feedback (Figure 33).

If some users are complained, the admin can hit the “User is Complained” button in their profile page to indicate that they are being reported (Figure 31).

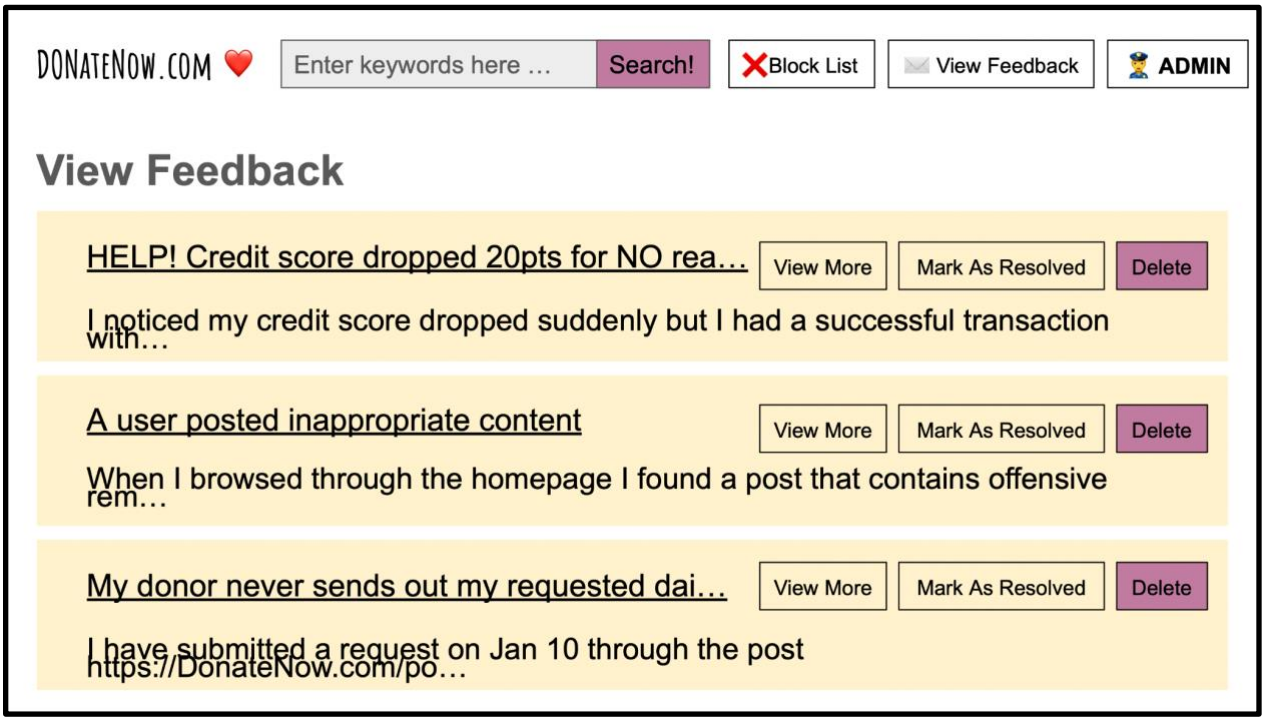

Figure 33. Admin - View/Resolve/Delete Feedbacks

Exceptions

Error Page

Our website aims to account for all exceptions that a user might encounter while using our product. An error page will be displayed when the user's inputted URL is incomplete or contains faulty information that leads to a failed navigation (Figure 34). This page provides guidance to the user and kindly notifies the user to recheck the correctness of the URL.

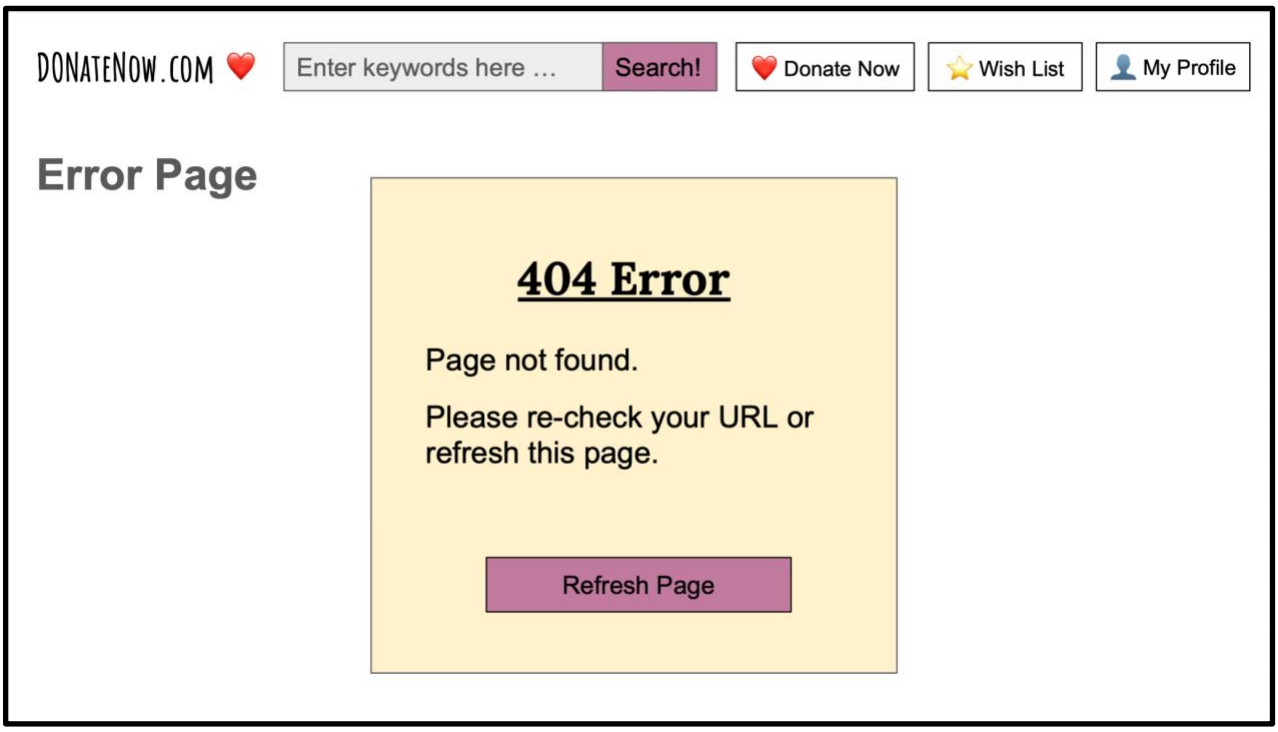

Figure 34. Error Page

Terms and Conditions

To encourage an atmosphere of safety and mutual trust, our website requires each new user to provide consent to our terms and conditions prior to creating an account. This page aims to inform new users the regulations and restrictions of using our website and the consequence of violation (Figure 35). For example, a sample regulation would promote all users to act responsibly and show respect to all other users, while sample restrictions would ensure all users are above 18 years old.

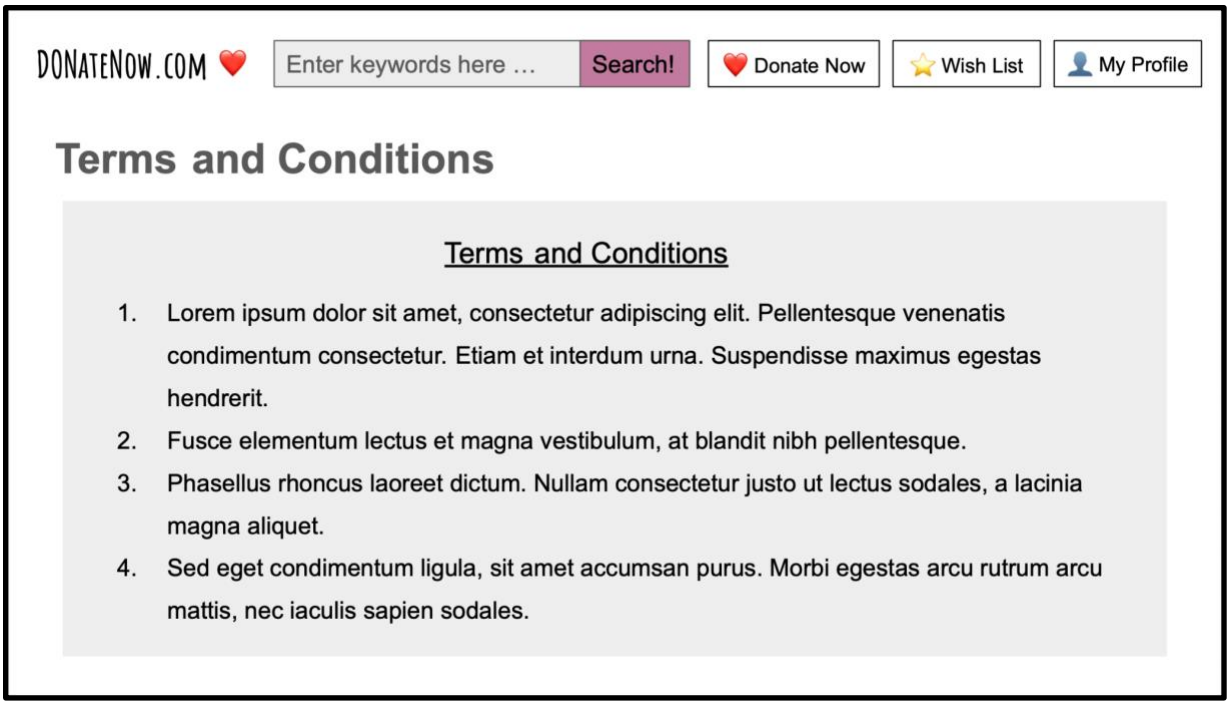

Figure 35. Terms & Conditions

Frequently Asked Questions (FAQ) Page

In addition to the user functionalities, a FAQ page provides further guidance and clarification to users who are yet unfamiliar with our website (Figure 36). The FAQ page contains a list of Q&As that extensively outlines the operation of our website. A hyperlink to the FAQ page is to be placed constantly at the bottom of the webpage so it is easily viewable when a user reaches the end of a certain webpage.

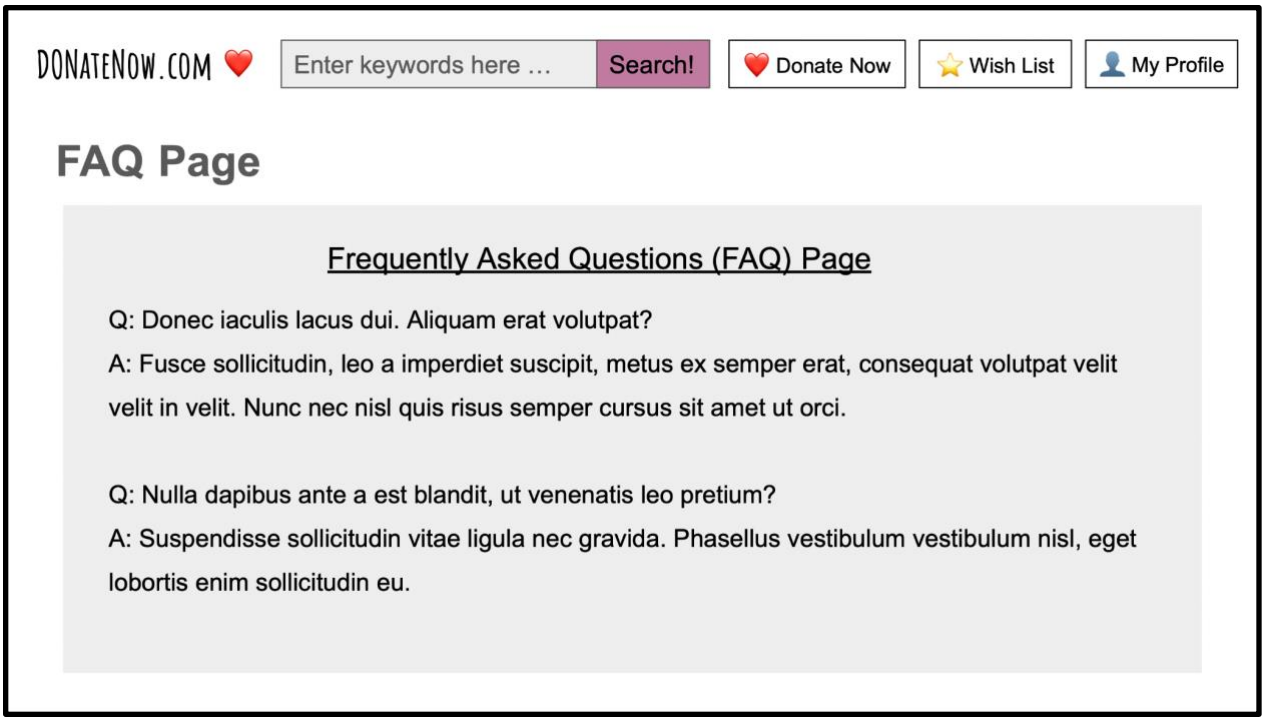

Figure 36. FAQ Page

Data

User Information

User information contains all information from the user profile and their history on this website. Specifically, it can be personal information like account username/password, profile picture, phone number, email, address(s), date of birth, gender, biography, preferences; or user record like transaction history (pending, request accepted, received, and failed), donated history (posted, requested, order placed, completed, and failed), credit score, ratings, wish list, as well as their number of complaints and if they get blocked.

Users can also update their personal information. Transaction history, donated history, credit score, and ratings are constantly updated according to user interactions on the website.

Post Data

A donor can upload their donation details when posting it, which might include headers, descriptions, pictures, associated categories, location, owner/user of the post, as well as view counts, requests counts, and saved counts for the post.

Transaction Data

Transaction data needs to contain all post information and user who donated it, as well as requesters of the product where the donor can choose a donee from. Transaction status for donors can be posted, requested, order placed, completed, and failed, and transaction status for donees/requesters can be pending, request accepted, received, and failed. Once the two sides matched, further transaction data like delivery tracking and ratings might be stored here too.

Preferences/filter

Users can specify their preferences or search using these filters from these five ways: categories, delivery options, locations, distance, and whether the data posted will be displayed in ascendant or descendant order.

Exceptions

Some exceptions can be feedback/complaints/disputes and blocklist. This information is admin viewable, and will consist of the user who files the complaint, who was reported, and the issue description. Blocklist, however, is a list of disabled user accounts managed by admin if they are at extremely low credit scores or violated agreed terms and conditions.

Additional Features

Direct Message & Group Chat

Our website also allows direct messaging between users. After donation is placed, donors and donees have the option to directly communicate between them. It will be useful especially when donee decides to pick up the item. Information like address and time would be much easier to be exchanged in this way and changes are adapted. Also, donee can ask for further information about the item. After a user clicks the "dm" button, a dm window will pop up on the top-right corner. Here, users can send and receive messages with donors. What's more, we also have group chats where donors can share their items and discuss. Here, users can quickly obtain information about the latest information of donation (Figure 37).

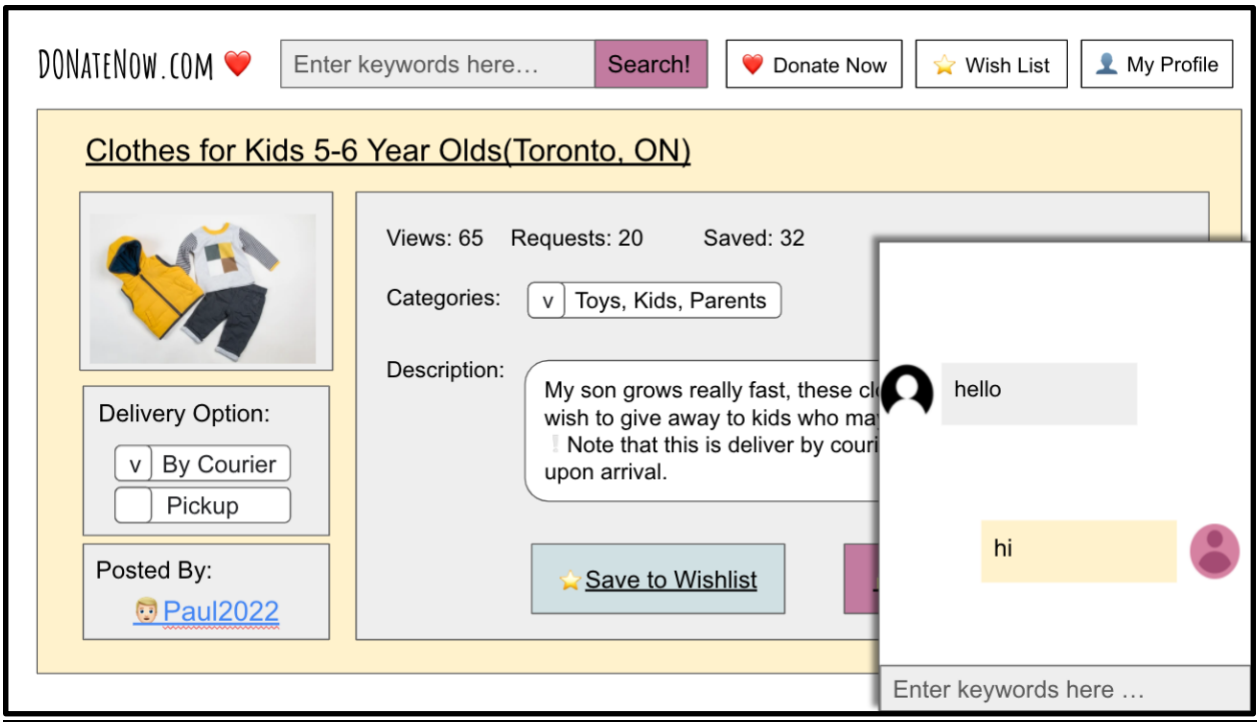

Figure 37. DM

Exclusive reward

Frequent donors of the website are rewarded. Users with high numbers of donations would have a special decoration in their avatar (figure 38).

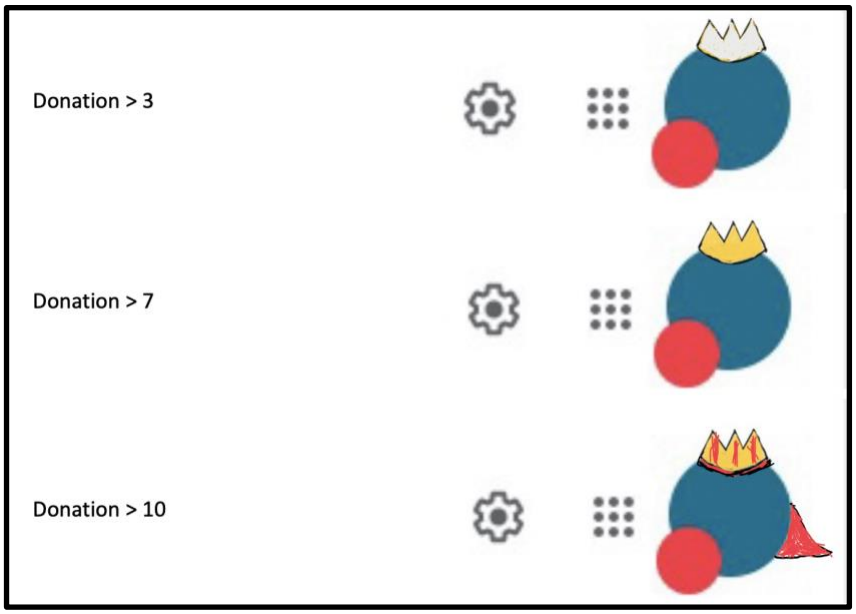

Figure 38. High rating users

Chat Box

Our website also has a chatbox. When users have issues such as transaction failure, connection issues, they can either ask help from this chatbox or ask the admin directly. This chatbox has the ability to answer basic information about a transaction, functions of our website (figure 39).

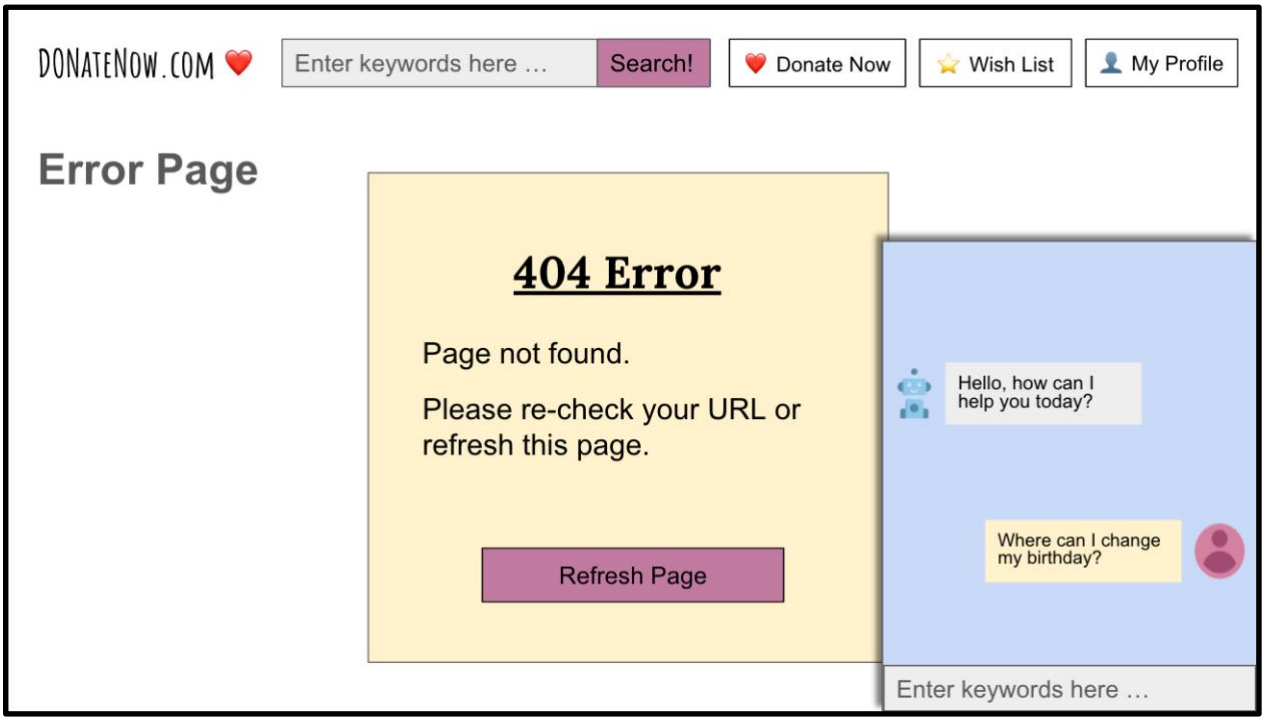

Figure 39. Chat box

User Rights Management

The rights of our app users, donors or donees, are protected on three different levels: user agreement, feedback collection, credit history. All users are required to confirm they have read and understand the terms and conditions, as well as their duties of their role in the transaction. Both donors and donees can withdraw from the transaction if they cannot reach consensus or an unpleasant situation happens. Credit score is a crucial index for every user of the website, which can provide a brief of transaction history to the other party in the trade. In addition, feedback, disputes, and complaints, are collected from users, and will affect their credit scores. All above practices preserve user rights.

Location, Distance, and Tracking

Users can enter their location and get an estimation of their distance to the donor/donee, as well as possible transportation cost. Also, we provide a tracking function for deliveries by courier. This feature makes all transactions cost efficient for both delivery and pickup orders.