1. Names of All Team Members

- Tsz Kwan (Bill) Lam (tszklam@seas.upenn.edu)
- Raymond Yang (rayyang@seas.upenn.edu)
- Lesedi Kereteletswe (lesedik@seas.upenn.edu)
- Cynthia Yee (cynthyee@sas.upenn.edu)
- Sarah Payne (paynesa@sas.upenn.edu)

2. Problem Statement

It is estimated that the average American throws away about 37kg/81 pounds of clothes every year. This waste and the resulting impact on the climate can be reduced by trading and donating unused items, thus extending their lifespan. It is our goal to increase the lifecycle of clothing items in order to reduce clothing waste. To do so, our app will provide users with the ability to match with other users to trade clothing items and find nearby donation centers to keep clothes out of the landfill. Since users will not have to pay for clothing items, the cost will be limited to shipping, transportation, and other means of exchange; this allows more people to get access to new (to them) clothing. Further, our app will provide information on nearby donation centers so that if users aren't able to find a trade, or if they wish to donate their clothing instead, it will be easy for them to do so.

Our application will provide a "Tinder-like" interface: people can select clothes they like, and if the person offering those clothes also likes something the first person is offering, then they will match and be able to exchange the clothing items. We will also allow donation centers to set up profiles so that users can find places in their area to donate used clothes if they do not match for a trade. Users will be able to message other users to set up a trade, unmatch if the trade is unsuccessful, and filter their feed based on what they're looking for (items, size, location/distance from them, etc.). The primary data being stored will be data about the clothes (size, images), as well as the user's location and preferences, and their message history and matches. We may also include features such as the ability to review users (e.g. if they reliably show up to trade items) and show the general location of the user (something like Airbnb's interface so you can tell the general area that they're in, but not specifically where they live).

3. Mobile App Features (15 story points total)

- **User Registration and Login (4 story points total):** on this page, users can login to the application, and take action if they have forgotten their username or password. They can also register and create a new account.
  - Account login (2 story points)
    - As a user, I want to login with a username/email and password pair so that I can proceed to the home screen.
    - As a user, I want to be able to recover my password if I forget it so that I can regain access to my account.
  - Account registration (2 story points)

- As a user, I want to register my account with minimum information (email, username, password, address) so that I can access the application easily.
- As a user, I want to have a unique username so that my account is not confused with others.
- **Account Information Page (1 story point total):** on this page, users can update information about their account, such as their username, bio, and profile picture.
    - As a user, I want to edit any information for my account, including age, location, contact information, description, profile pictures, etc so that this information is up-to-date. (1 story point)
- **Main Page (5 story points total)**: this is the page where the clothing items will be shown and users can interact with and filter items.
    - Likes/dislikes/superlikes (1 story point)
        - As a user, I want to be able to like or superlike a piece of clothing so that I can potentially match with its owner and make a trade.
        - As a user, I want to be able to dislike a piece of clothing so that similar items show up less frequently in my feed.
    - As a user, I want to view other user's clothes so that I can look for items I might like to trade for. (2 story points)
    - As a user, I want to apply filters to my home page so that items of clothing most relevant to my interests are prioritized on my feed. (1 story point)
    - As a user, I want to refresh my feed so that the newest items are shown first. (1 story point)
- **Message Page (3 story points total):** on this page, users will be able to message other users that they have matched with. The messages will update automatically, and be viewable on both the mobile and web-based versions.
    - As a user, I want to send a text/image message to another user that I matched with so that I can arrange a trade of our items. (2 story points)
    - As a user, I want to receive notifications about new messages when I am online. (1 story point)
- **Post Page (2 story points total):** on this page, users will be able to post an article of clothing which may then be matched by other users.
    - As a user, I want to upload information (size, picture, etc) about my article of clothing so that it will appear on other users' feeds. (2 story points)

4. Web App Features (14 story points total)

- **User Registration and Login (4 story points total):** on this page, users can login to the application, and take action if they have forgotten their username or password. They can also register and create a new account.
    - Account login (2 story points)

- - - As a user, I want to login with a username/email and password pair so that I can proceed to the home screen.
      - As a user, I want to be able to recover my password if I forget it so that I can regain access to my account.
    - Account registration (2 story points)
      - As a user, I want to register my account with minimum information (email, username, password, address) so that I can access the application easily.
      - As a user, I want to have a unique username so that my account is not confused with others.
- **Account Information Page (1 story point total):** on this page, users can update information about their account, such as their username, bio, and profile picture.
  - As a user, I want to edit any information for my account, including age, location, contact information, description, profile pictures, etc so that this information is up-to-date. (1 story point)
- **Main Page (4 story points total)**: this is the page where the clothing items will be shown and users can interact with and filter items.
  - Likes/dislikes/superlikes (1 story point)
    - As a user, I want to be able to like or superlike a piece of clothing so that I can potentially match with its owner and make a trade
    - As a user, I want to dislike a piece of clothing so that similar items show up less frequently in my feed.
  - As a user, I want to view other user's clothes so that I can look for items I might like to trade for. (1 story point)
  - As a user, I want to apply filters to my home page so that items of clothing most relevant to my interests are prioritized on my feed. (1 story point)
  - As a user, I want to refresh my feed so that the newest items are shown first. (1 story point)
- **Message Page (3 story points total):** on this page, users will be able to message other users that they have matched with. The messages will update automatically, and be viewable on both the mobile and web-based versions.
  - As a user, I want to send a text/image message to another user that I matched with so that I can arrange a trade of our items. (2 story points)
  - As a user, I want to receive notifications about new messages when I am online. (1 story point)
- **Post Page (2 story points total):** on this page, users will be able to post an article of clothing which may then be matched by other users.
  - As a user, I want to upload information (size, picture, etc) about my article of clothing so that it will appear on other users' feeds. (2 story points)

5. Data

Our databases will store the following information:
- Users
  - Username
  - Email Address
  - Nickname
  - Profile pic
  - Address
  - ZIP code or approximate location (e.g. for Google maps API)
  - Encrypted password
  - Created time
  - Associated items
  - Associated message threads
  - Associated matches
- Items
  - Location
  - Item id
  - Style
  - Description
  - Owner
  - Picture
  - Created time
- Message Strings
  - Content
  - Timestamp

6. Additional Considerations

The application proposed here may only be feasible in populous areas such as cities, where a large number of style and size options are represented. In rural areas, it may be necessary to ship items, in which case preventing scamming may become more of a challenge.