# Screen Sketches

TA_128

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## Actors

**Riders** have the privilege to

- View profile and settings
- View past rides
- View favorite rentals
- View rental history

**Renters** have the privilege to

- View profile and settings
- View and manage inventory
- View past reviews and comments
- View past rentals
- Review past riders

**Admins** have the privilege to

- Delete bad or outdated bike rentals
- View profile and settings

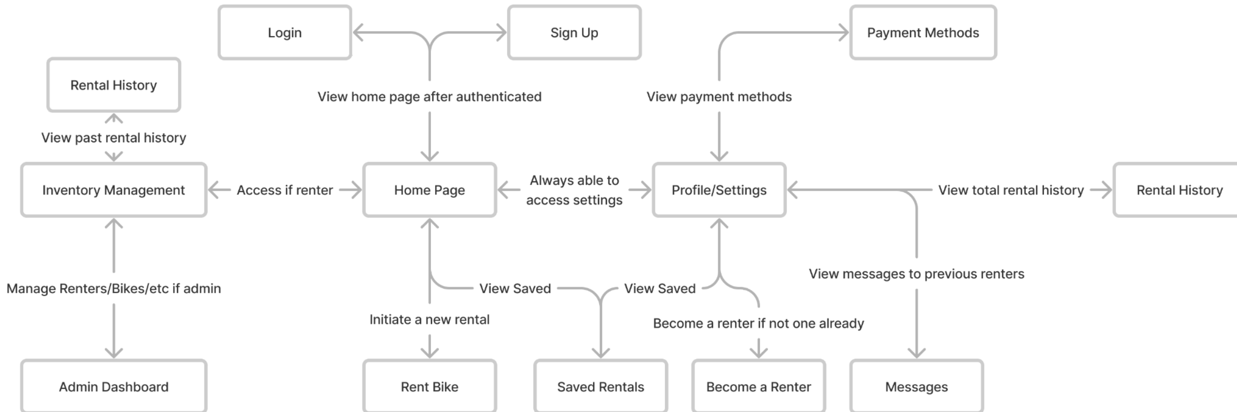
## Non-Functional Requirements

- The application needs to be highly responsive, with a maximum of 1 second delay for any UI element to respond, ensuring a smooth and satisfactory user experience.
- The application must have a robust secure system, ensuring the privacy and security of users' data and preventing unauthorized access to sensitive information.
- The application needs to allow multi-user access to bike inventory management for renters, but prevent multiple users from editing the same inventory item simultaneously.
- The application should allow transactions in a variety of ways including credit card, debit card, mobile wallets, ensuring flexibility and user convenience.
- For future scale-up, the application code must be written in a way that supports the extension of rental items, from bikes to potential electric scooters, motorbikes etc.
- The application should be designed with efficient error handling capabilities to prevent crashes and ensure continuous, uninterrupted service.

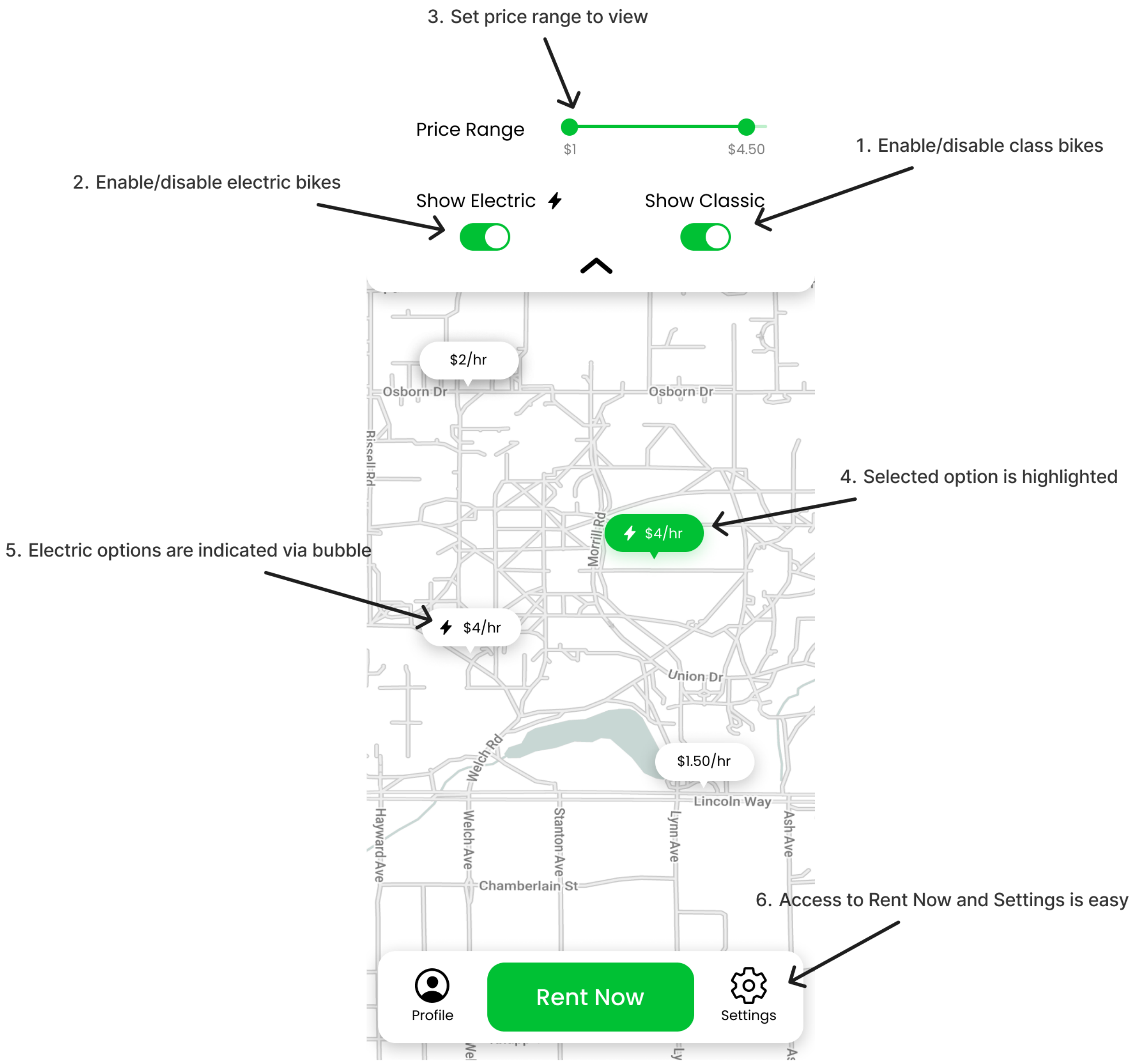
## Tables and Fields

- **User**: Tracks information related to a user's account
    - User Id - Primary Key
    - Name
    - Email
    - Hashed password
    - Notification settings
    - IsRenter
    - IsAdmin
    - Rentals - Array of available rentals (disabled if not renter)
    - RentalHistory - Array of rental history
- **Rental Record**: Tracks information related to a rental
    - Rental Id - Primary Key
    - Start Date
    - End Date
    - RenterId - User Id of who rented the bike
    - Cost
    - Type
    - Payment Method
    - Rating
- **Message**: Tracks information related to a message between users
    - Message Id - Primary Key
    - Message content
    - Message Sender - Id of who sent the message
    - Message Recipient - Id of who received the message
- **Available Rental**: Tracks information about available rentals
    - Bike Id - Primary Key
    - Renter Id - User Id of who is renting out the bike
    - Available - Whether or not a bike is currently rented

# Screen Flow Diagram

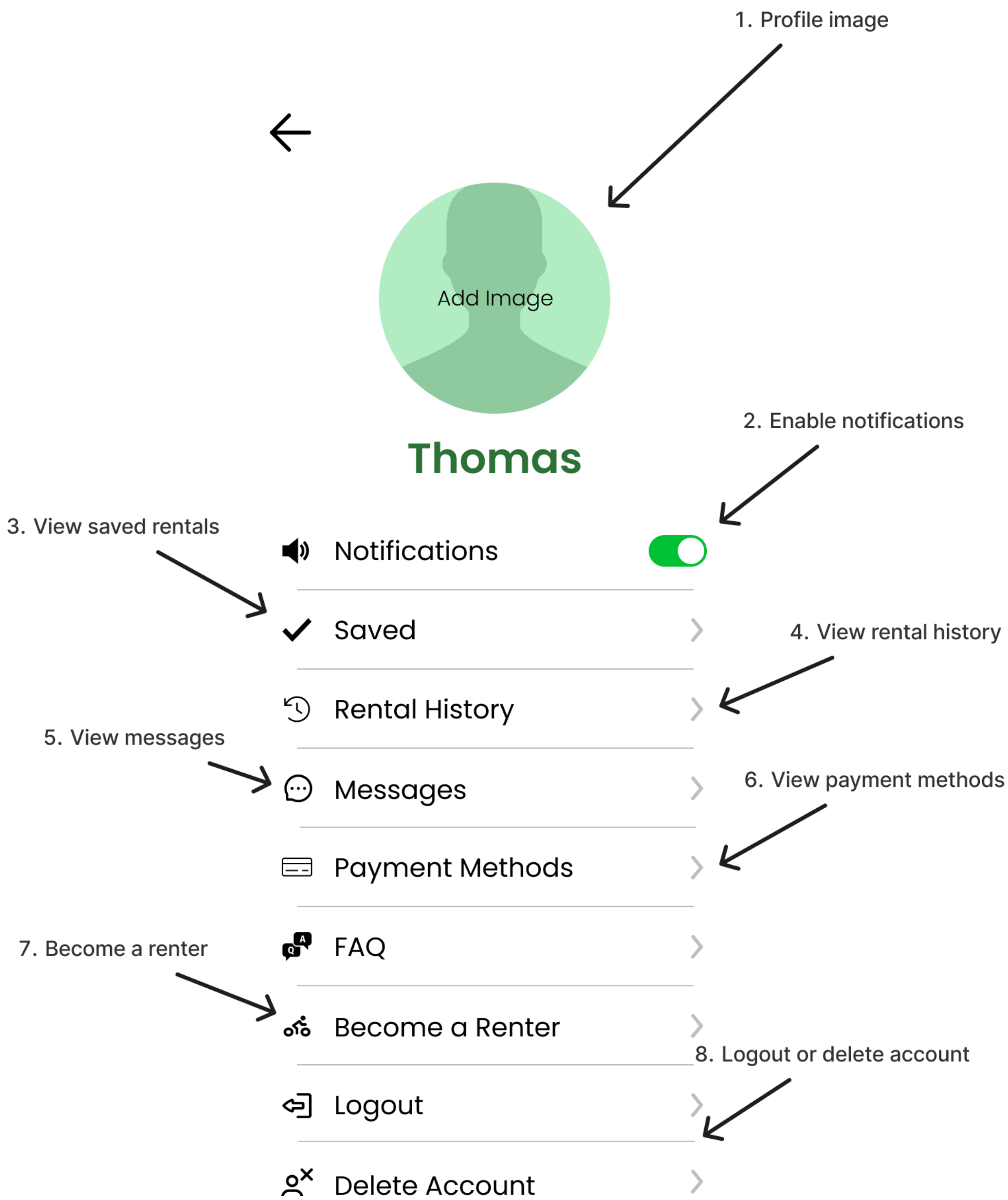


## Figure 1: Home Page - Payton



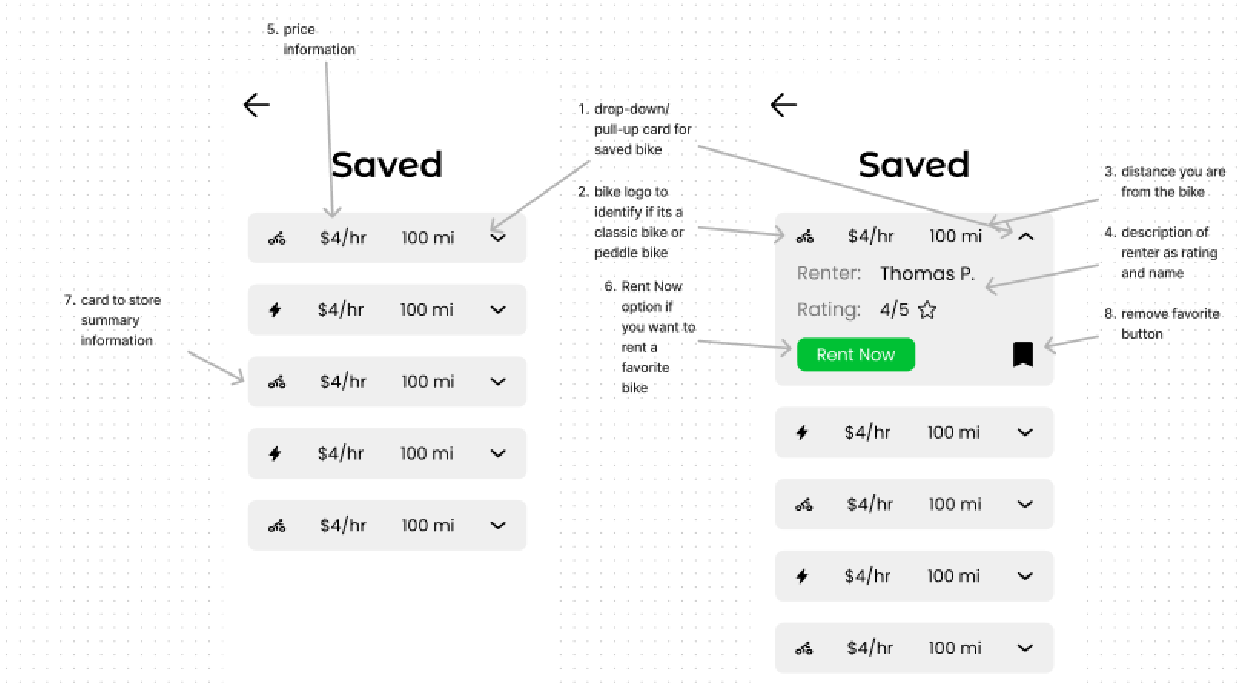

This screen allows the user to find a bike rental. It has several options to filter their selection so they can find the perfect bike for their needs. It is intuitively organized with the filters (1), (2), and (3) at the top which can be hidden via a drawer. The main content is a map with bubbles indicating where bikes are. The selected bike (4) is highlighted in green and other bubbles (5) indicate whether or not the bike is electric and the price, since these are most likely the two most important factors for someone searching (besides proximity which is built in since it's a map view). Once a selection has been made, the user can easily Rent via (6) the card at the bottom with a big button for Renting. Additionally, the user can access the settings with ease from the card.

Figure 2: Profile Page - Payton



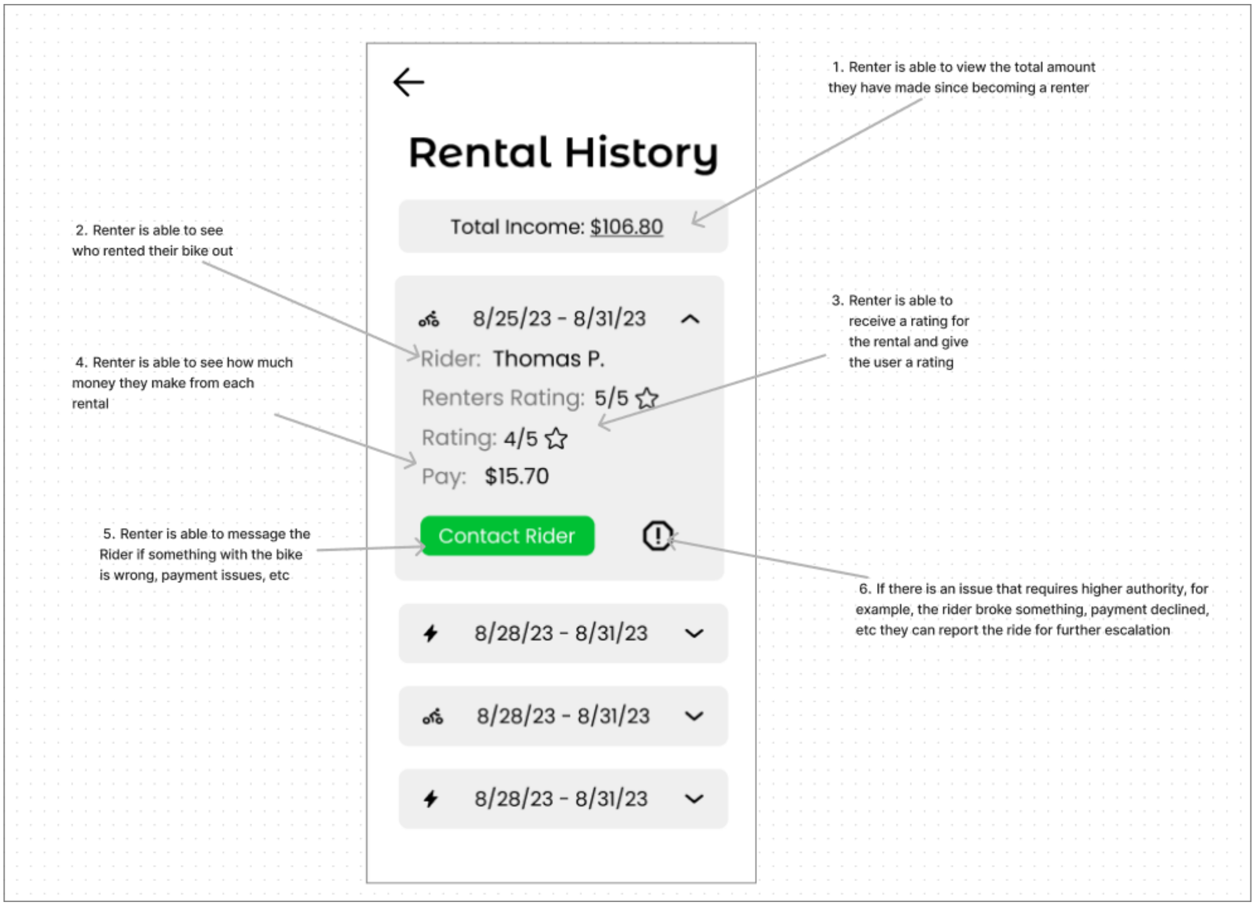

This page is the main screen for controlling the settings and profile relative to the user. The visible profile for a user is mostly (1) an image and a name. Additionally, the settings has a basic list of menu items for the user to visit. This includes, (2) the option to enable notifications, (3) view saved rentals, (4) view rental history, (5) view messages with previous renters, (6) view payment methods, (7) become a renter, or (8) logout or delete account. Delete account is an option to comply with privacy and security standards and logging out is an essential part of any app. Become a renter won’t be an option once the user actually becomes a renter.

Figure 3: Saved Page - Holden Brown



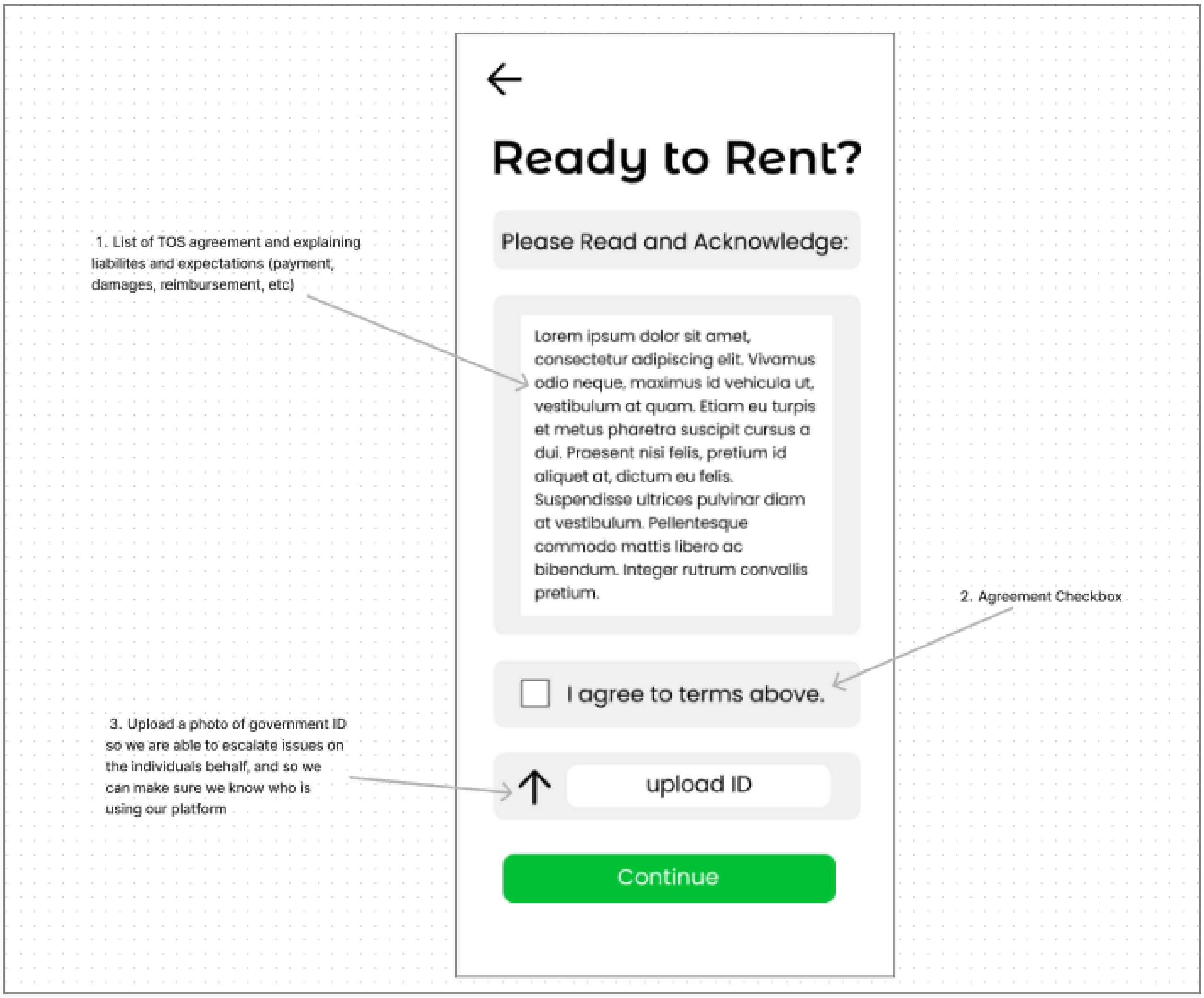

This page is the main screen for viewing bikes that you favorited. The first view is of the saved cards(7) which show little information about saved bikes mainly what type of bike it is(2), price(5), and distance from you(3) when the down arrow is pressed (1) a new menu is opened that shows more indepth information about the rental. The dropdown menu shows information about the bikes rating(4) and the renters name it also gives the option to unfavorite(8) and Rent Now(6).

Figure 4: Rental History for Renters - Neil Choromokos



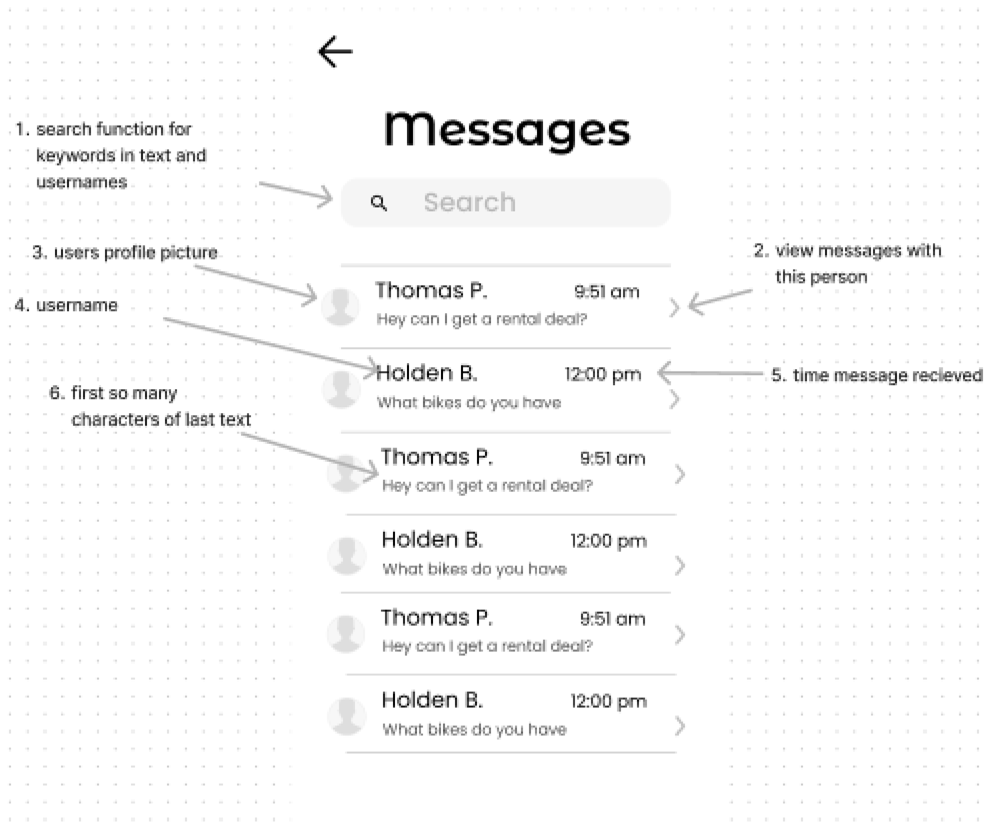

The Renter history is similar to the Rider history, with some extra information retaining to their experience & pay. They are able to 1) see the amount of total income they have made from all their bike rentals. When they expand an individual rental they are able to see 2) who rented the bike out, 3) what the rider rated them and what they rated the rider, and 4) how much money they made from that rental. They are also able to handle their own issues: they can 5) message the rider about anything, if the bike is damaged, how the ride was, if they want to rent it again, etc. If there was an issue with the payment or bike, and the rider isn't willing to work with the renter, then they can 6) report the rental for further escalation where a higher up can review the rental and determine course of action (payment reimbursement, bike damage reimbursement, etc).

Figure 5: Become a Renter - Neil Choromokos



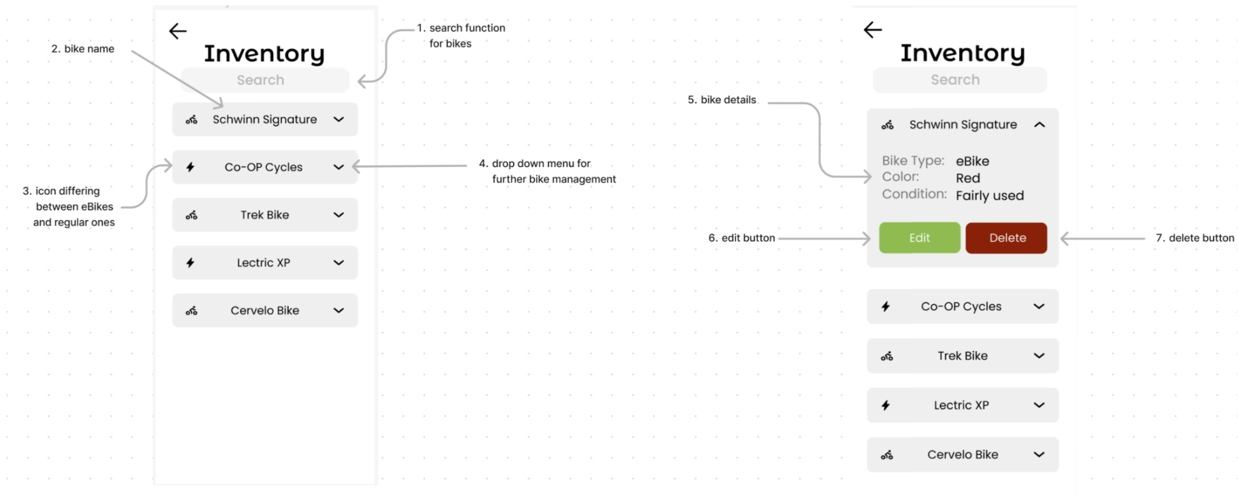

Because we already have the majority of the user information from account creation, there is little to be done inside of the 'become a renter' screen, besides getting user ID and letting them know what being a renter entails. We do this by having them 1) read a terms of service (TOS) agreement to understand the liabilities, payment, reimbursement, etc. We have them agree to it, and then 3) upload a photo of their government issued ID. This is for safety for us, and the users– We know who is renting bikes on our platforms, and if a legal issue arises from the use of this platform, we know who we are dealing with and can escalate the issue as necessary.

Figure 6: Saved Page - Holden Brown




This is the main page to view recent messages from either renters or riders. At the top there is a search function (1) that allows you to search for keywords or usernames you have messaged. The arrow on the right (2) symbolizes that if you click anywhere on the card it will redirect you to the messages between you and that person. The profile picture (3) will be displayed to the left so the user can be easily identified by other means than their username. The username (4) is displayed in bold larger text in order to be easily seen. The time of the last message (5) is displayed and messages will be sorted in descending order. In order to give the user a better understanding of whats going on in that message a preview of the characters is displayed (6).

Figure 7: Inventory Management - Caleb Lemmons

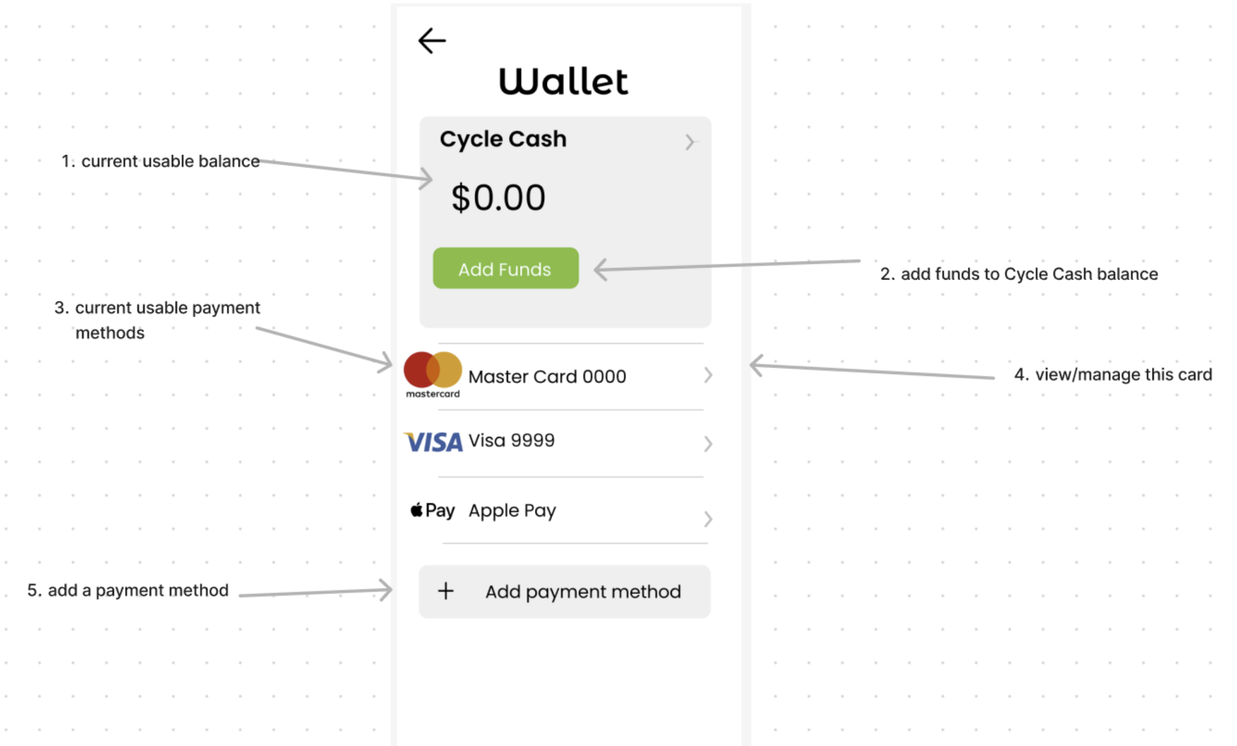



The Inventory Management page is designed to allow renters to efficiently manage their bike inventory. At the top of the page, a search bar (Arrow 1) enables renters to quickly locate specific bikes by entering relevant details. The main area of the page displays a list of bike names (Arrow 2), each accompanied by an icon (Arrow 3) that differentiates between e-bikes and regular bikes.

Adjacent to each bike name, a dropdown menu (Arrow 4) provides bike-specific management options. When this menu is activated, further information about the selected bike is displayed (Arrow 5). This includes all pertinent details such as the bike's type, model, condition, and more.

Within the dropdown menu, renters have the option to edit the bike information (Arrow 6) to ensure the inventory stays up-to-date. Additionally, if a bike is no longer available for rent, it can be removed from the inventory using the delete option (Arrow 7).

Figure 8: Payment Method - Caleb Lemmons




The Payment Method page is designed to allow riders to manage their payment methods. At the top of the page, the current usable balance in the Cycle Cash wallet is displayed (Arrow 1). This gives riders a quick overview of their available funds. Under the balance, there's an 'Add Funds' button (Arrow 2) which riders can use to add funds specifically to their Cycle Cash wallet. This makes it easy for riders to ensure they always have enough balance for their rides.

The page also displays a list of current usable payment methods like credit/debit cards, Apple Pay, or PayPal (Arrow 3). This gives riders the flexibility to choose their preferred payment method. Each payment method in the list has a button (Arrow 4) that, when pressed, takes the rider to another page to view or manage that specific payment method. This allows riders to easily update their payment details as needed.

Finally, at the bottom of the page, there's an 'Add Payment Method' button (Arrow 5). Riders can use this button to add new payment methods to their account, ensuring they always have a backup payment option available.