

# **R8MyApartment Screen Sketches**

## **BY 4\_kabir\_2**

**Contributors:**

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## **Actors:**

1. System Administrator: Needed to ensure security(Most privilege).
  - a. The system admin will have the ability to be able to ssh into a secure terminal in order to obtain log files and make patches if necessary.
  - b. System admin will also have the ability to block/remove a user if they break the code of conduct or the TOS.
  - c. Has access to all databases in order to troubleshoot any database issues
  - d. Has the ability to view and change permissions of users
2. Viewers: Anyone who is not signed into an account that is viewing the page
  - a. Have the ability view apartments but not the ratings, has to make an account to view those
  - b. Other than this, someone without an account can't do anything else
3. Users/People with created accounts
  - a. Have the ability to view apartments and search for apartments.
  - b. Have the ability to view their credentials and change any if they feel necessary.
  - c. Have the ability to create, edit, and delete reviews.
4. Review Administrator
  - a. This person has access to all of the reviews that have been published on this page (ie database access).
  - b. This person has the ability to delete any review they feel necessary (harmful, malicious, or breaks code of conduct).

# Non-Functional Requirements

## 1. Performance:

- Response time: The app should load search results within 2 to 3 seconds.
- Scalability: The system should support up to 25000 concurrent users.

## 2. Security:

- Data encryption: All user data and communications should be encrypted.
- Authentication: Implement 2FA for user accounts.

## 3. Usability:

- Intuitive interface: Users should be able to navigate the app without prior instructions(easy)
- Accessibility: The app should comply with WCAG 2.1 guidelines(Optional)

## 4. Reliability:

- Uptime: The app should have 99.9% availability.
- Data backup: Implement daily backups with a 30-day retention period.

## 5. Compatibility:

- Single-platform: The app should work on Android at minimum

## 6. Privacy:

- GDPR compliance: Implement features to comply with data protection regulations.
- User consent: Obtain explicit consent for data collection and sharing.

## 7. Localization:

- Multi-language support: Offer the app in at least 2 major languages.

## 8. Maintainability:

- Code documentation: Maintain up-to-date documentation for all major components.
- Modular design: Use a modular architecture to facilitate future updates.

## 9. Scalability:

- Horizontal scaling: Design the backend to allow easy addition of new servers.
- Database performance: Optimize for handling large datasets efficiently.

## 10. Legal compliance:

- Terms of service: Clearly display and regularly update terms of service.
- Fair housing laws: Ensure the app complies with relevant housing regulations.

# Database Schema for Housing and Roommate Finder App

## Users Table

- user\_id (Primary Key)
- username
- email
- password\_hash
- first\_name
- last\_name
- date\_of\_birth
- gender
- bio
- profile\_picture\_url
- created\_at
- last\_login

## Properties Table

- property\_id (Primary Key)
- owner\_id (Foreign Key to Users)
- property\_type (apartment, house, room)
- address
- city
- state/province
- country
- zip\_code
- number\_of\_bedrooms
- number\_of\_bathrooms
- total\_area
- rent\_amount
- deposit\_amount
- is\_furnished
- pets\_allowed
- smoking\_allowed
- available\_from
- description
- created\_at
- updated\_at

## Amenities Table

- amenity\_id (Primary Key)
- name (e.g., WiFi, parking, gym)

## Property\_Amenities Table (Junction table for many-to-many relationship)

- property\_id (Foreign Key to Properties)

- amenity\_id (Foreign Key to Amenities)

#### Images Table

- image\_id (Primary Key)
- property\_id (Foreign Key to Properties)
- image\_url
- caption

#### Listings Table

- listing\_id (Primary Key)
- property\_id (Foreign Key to Properties)
- title
- description
- is\_active
- created\_at
- updated\_at

#### Roommate\_Preferences Table

- preference\_id (Primary Key)
- user\_id (Foreign Key to Users)
- gender\_preference
- age\_range\_min
- age\_range\_max
- smoking\_preference
- pet\_preference
- cleanliness\_level
- shared\_expenses\_policy

#### Applications Table

- application\_id (Primary Key)
- listing\_id (Foreign Key to Listings)
- applicant\_id (Foreign Key to Users)
- status (e.g., pending, approved, rejected)
- message
- created\_at

#### Reviews Table

- review\_id (Primary Key)
- reviewer\_id (Foreign Key to Users)
- reviewed\_id (Foreign Key to Users)
- property\_id (Foreign Key to Properties, nullable)
- rating
- comment
- created\_at

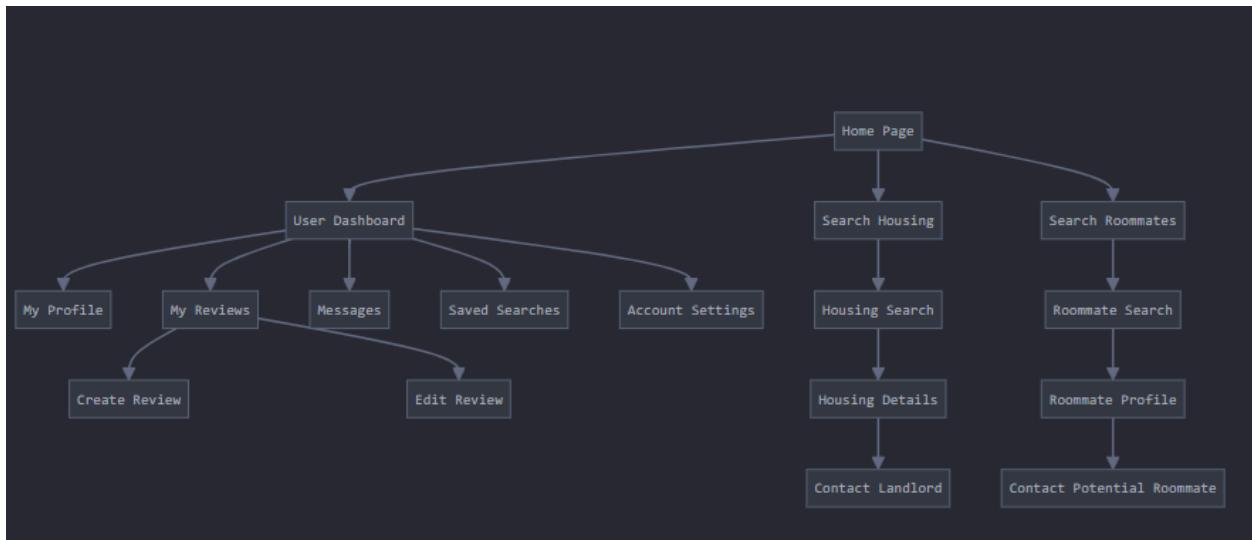
#### Messages Table

- message\_id (Primary Key)
- sender\_id (Foreign Key to Users)
- recipient\_id (Foreign Key to Users)
- content
- sent\_at
- read\_at

#### Saved\_Listings Table

- user\_id (Foreign Key to Users)
- listing\_id (Foreign Key to Listings)
- saved\_at

# Screen Flow Diagram



# User Profile Page by Anish Nag

The screenshot shows a user profile page for 'AptRater2024'. At the top, there's a navigation bar with tabs for 'My Reviews', 'Saved Apartments', and 'Messages'. A blue button labeled 'Edit Profile' is also visible. Below the navigation, there's a placeholder image for the user's profile picture with dimensions '150 x 150'. To the right of the image, the user's profile information is displayed: Email: aptrater2024@email.com, Name: Alex Johnson, Gender: Non-binary, and Date of Birth: 1990-05-15. A section titled 'About Me' contains a bio: 'Apartment enthusiast and honest reviewer. Always on the lookout for great living spaces!'. Below this, there are two sections: 'Review Statistics' (Total Reviews: 15, Published Reviews: 12) and 'Account Information' (Member Since: 2023-01-01, Last Login: 2024-09-28). At the bottom, there are buttons for 'Change Password' and 'Delete Account'.

AptRater2024's Profile

Email: aptrater2024@email.com

Name: Alex Johnson

Gender: Non-binary

Date of Birth: 1990-05-15

About Me

Apartment enthusiast and honest reviewer. Always on the lookout for great living spaces!

**Review Statistics**

Total Reviews: 15

Published Reviews: 12

**Account Information**

Member Since: 2023-01-01

Last Login: 2024-09-28

**Account Management**

[Change Password](#) [Delete Account](#)

(1) The page header features the R8MyApartment logo, which links to the user dashboard. (2) A navigation bar allows users to access other key areas of the app, such as their reviews and saved apartments. (3) The main profile section displays the user's review statistics, including total reviews and published reviews. (4) Users can edit their profile information directly from this page. (5) The page shows the user's username, email, and other personal details. (6) A bio section allows users to share information about themselves as apartment reviewers. (7) Account management options are provided, including the ability to change password and delete the account.

This description captures the key elements and functionality of the R8MyApartment user profile page, highlighting its purpose for information display, profile editing, and account management in the context of an apartment rating platform.

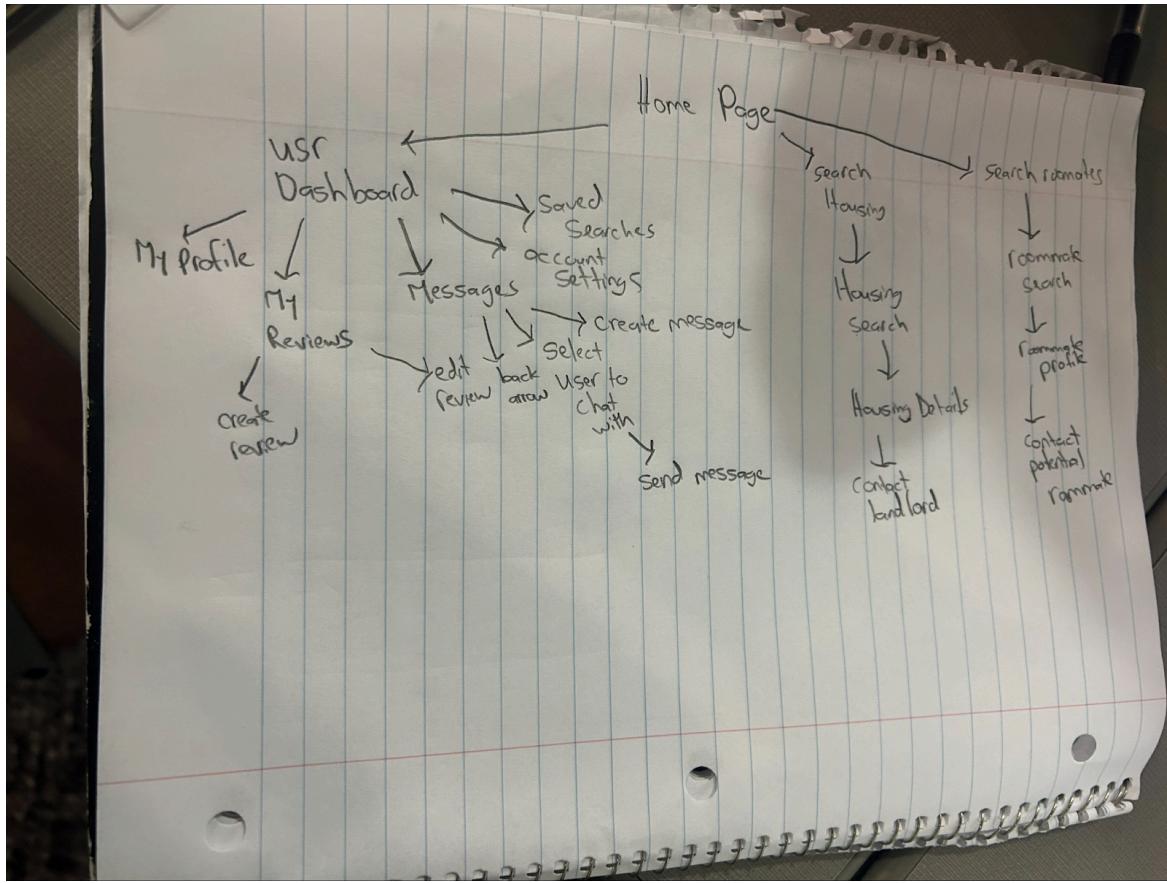
## Housing Search Page by Anish Nag

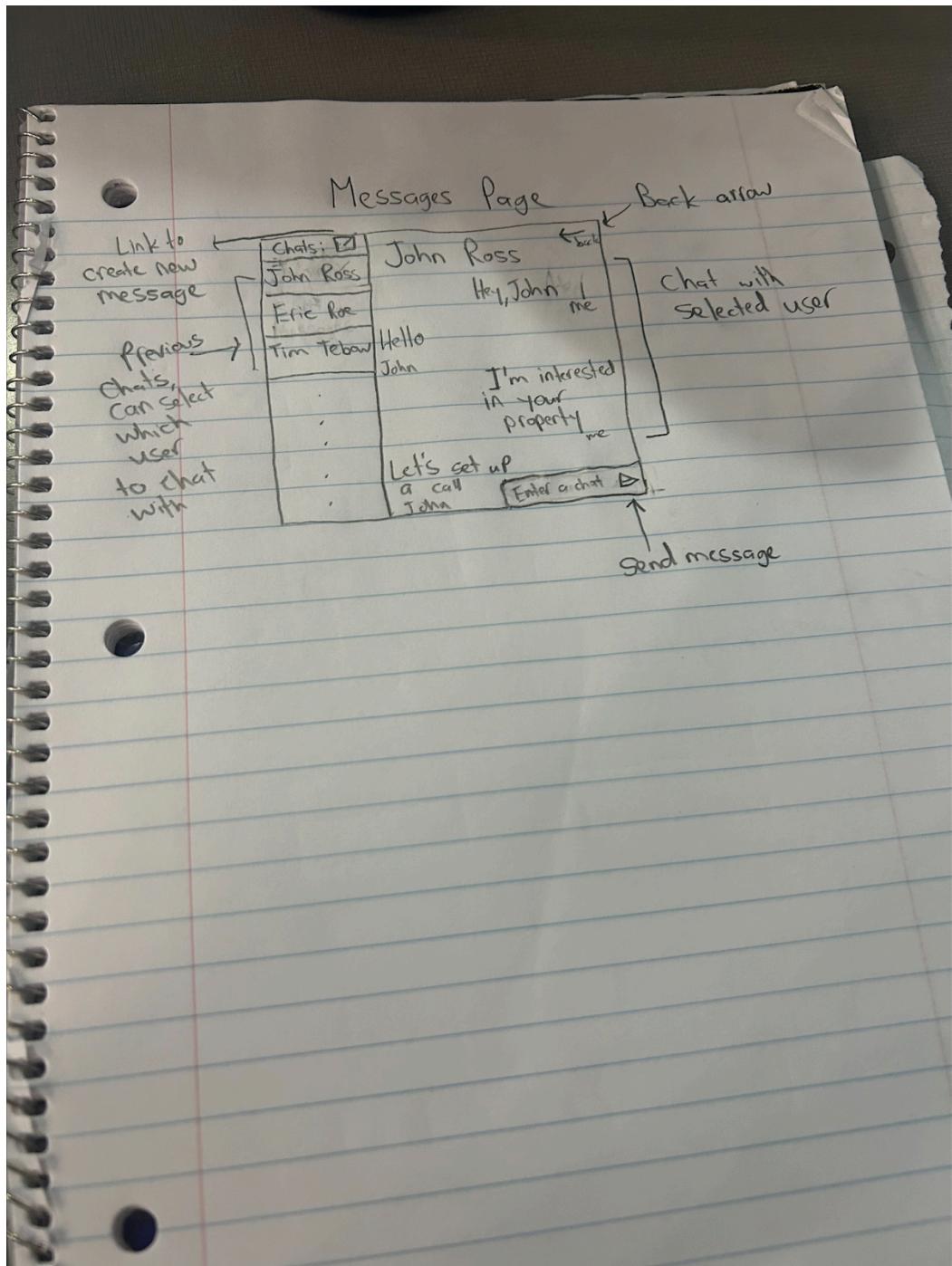
The screenshot shows a clean, modern web interface for a housing search. At the top left is the R8MyApartment logo, which includes a small house icon and the text "R8MyApartment". Below the logo is a large, rounded rectangular search form. Inside the search form, the text "Find Your Perfect Home" is centered at the top. Below this, there are three input fields: a "City" field containing the placeholder "City", a "Any Property Type" dropdown menu currently set to "Any Property Type", and an "Any Bedrooms" dropdown menu currently set to "Any Bedrooms". Below these fields is a blue button labeled "Search" with a magnifying glass icon. At the bottom of the search form is a section titled "Search Results", which is currently empty.

(1) The page header displays the R8MyApartment logo, providing consistent branding and navigation. (2) A prominent search section offers basic filters such as city, property type, and number of bedrooms for quick searches. (3) An expandable "Advanced Filters" section allows users to refine their search with additional criteria like rent range, number of bathrooms, and specific amenities. (4) The search button triggers the property search based on selected filters. (5) Search results are displayed in a clear, easy-to-read format, showing key information about each property including title, type, size, rent, and location. (6) Each search result provides a snapshot of the property, allowing users to quickly assess if it meets their needs before viewing more details.

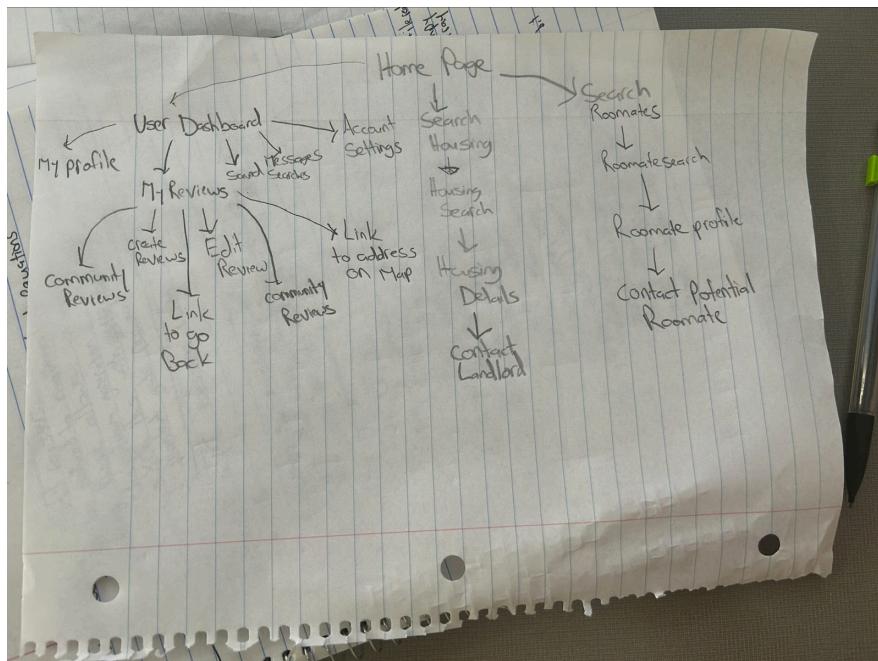
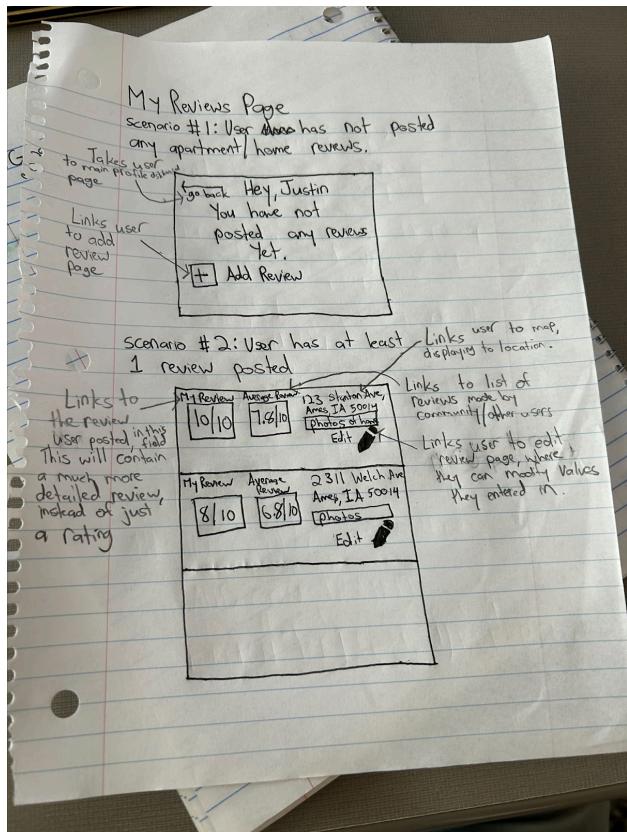
This housing search page serves as a central hub for users to find their ideal living space, combining powerful search functionality with a clean, intuitive design to enhance the apartment hunting experience on R8MyApartment.

## Message Page by Justin Rohde



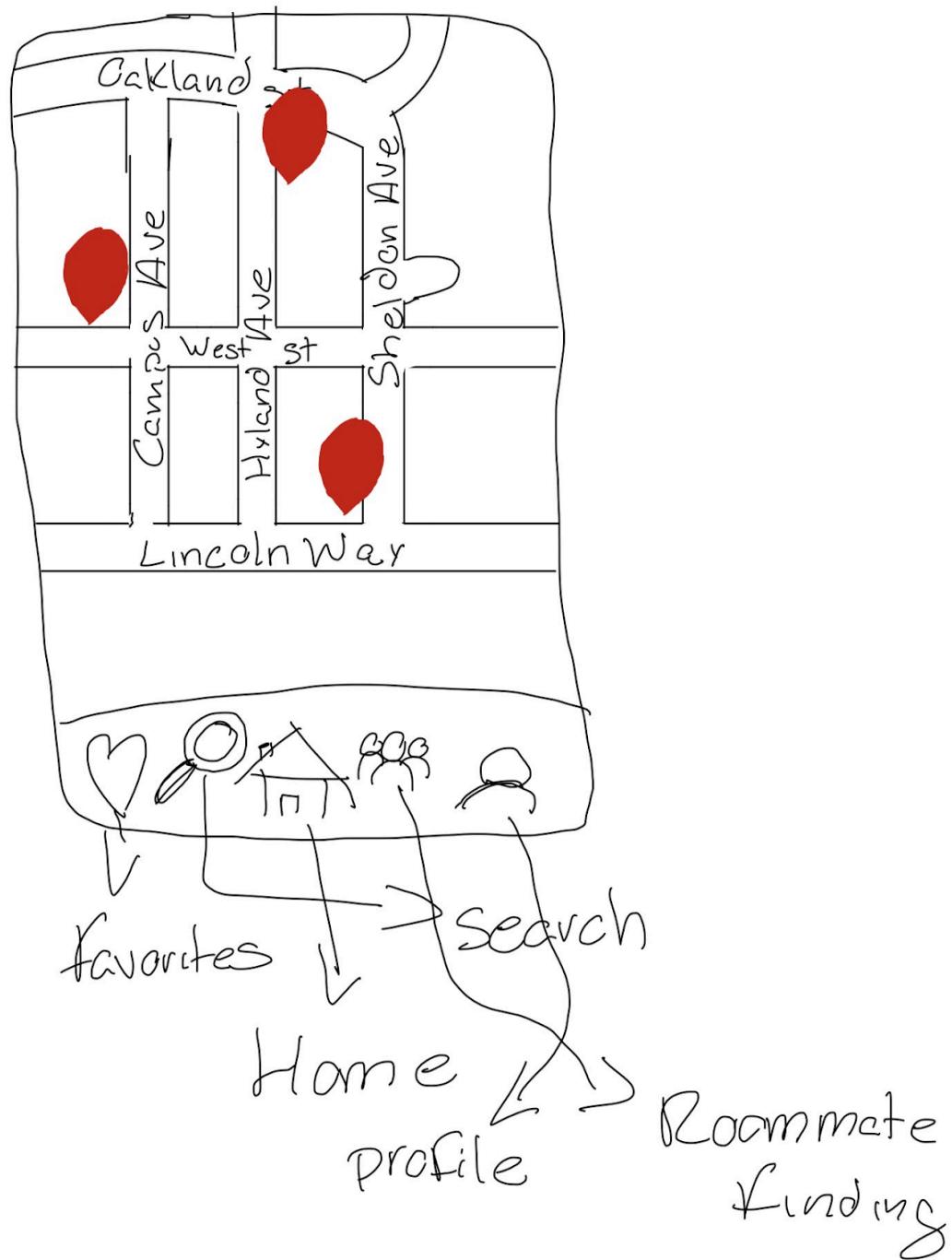


# My Reviews Page by Justin Rohde



Main page sketch by Vinicius Malaman Soares

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The main page will be a map showing a couple of "hot" apartments on the app.

## Admin Dashboard Sketch Vinicius Malaman Soares



The admin dashboard counts with a counter of total number of users in the data base and the number of user that are using the app at the moment, it also has a statistics tab with entries by day, a option go see the app as an user, a number of reports file by users on the app, and finally a tool to search a user to get his information.

# Roommate Discover Page by Declan Creadon

## Find Roommates

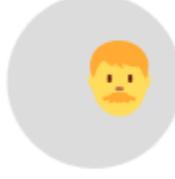


🔍

Age 17Budget \$Lifestyle ⭐



**Emma, 24** Chat  
Grad Student • Non-smoker  
Budget: \$800-1000/mo  
95% Match



**Alex, 27** Chat  
Software Dev • Early riser  
Budget: \$1000-1200/mo  
80% Match

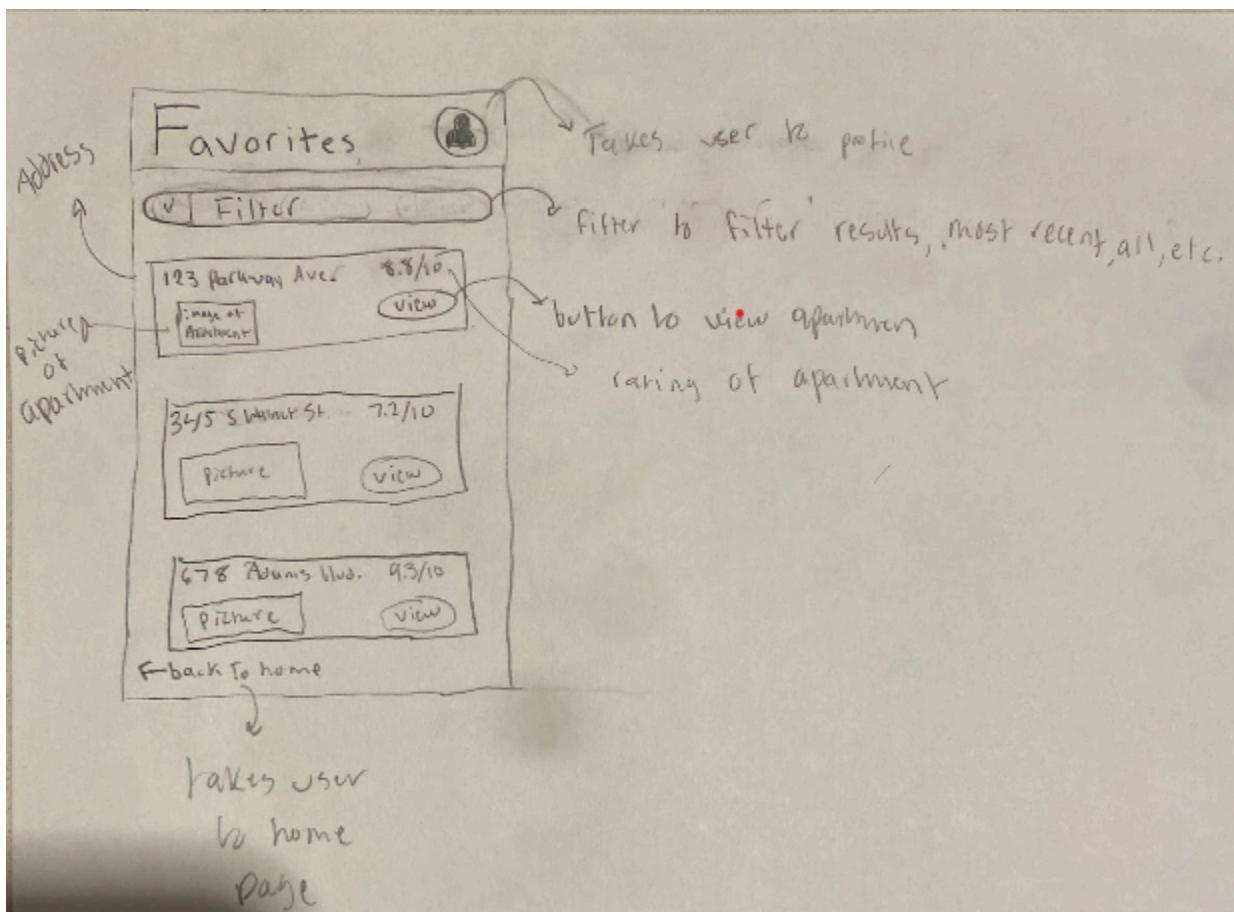


**Sarah, 25** Chat  
Artist • Night owl  
Budget: \$700-900/mo  
75% Match

**Purpose:** The purpose of this page is for users to discover potential roommates if they need to find one or multiple. This page shows potential roommates based on their hobbies and how well

they match yours. When you put yourself on the “roommate board” your profile will be visible for other users to chat with. The search bar takes in input and finds roommates based on certain criteria. For example, you can search by specific hobbies, interests, and age. In all, this roommate page allows users to find potential roommates and gives users the ability to put themselves on the roommate board for people to find.

## Favorites Page by Declan Creadon



**Purpose:** The purpose of this page is to show the apartments that users have favorited. From the home page, there is a heart button to direct users to their favorited places. This page is where users will be directed when that button is clicked. On this page, users can view the places they favor and will be redirected to that apartment upon their click. Users also have a back button on the top to return them to the home page. The address, rating and a picture of the apartment are all shown for each “favorite”.

