Matchfolio

Team: MatchFolio

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Introduction

The process of finding an appealing living situation is needlessly inefficient and costly. Property rental applications involve very similar application forms with fees for processing and background checks administered per property management company. MatchFolio addresses this problem by providing tenants with a user-friendly interface that will simplify the application process by filtering only for desirable properties that tenants are qualified for and reusing background check results, thus cutting costs and time expenditure for tenants and allowing property management companies to only get involved with qualified candidates.

We will compile common rental application questions from vacant properties into a form that will be filled out a single time in order to reduce redundancy and ensure consistency in application responses. Users will be able to set preferences for property listings and listings will be displayed accordingly to users. By filtering the properties based off their preferences, users will be allowed to efficiently comb through properties they qualify for, along with critical property information, such as cost, number of rooms, and amenities, and seamlessly show interest or disinterest in properties that fit criteria that they specify upon account creation. If users want to look at more information about the property, they can view the listing in more detail before deciding whether to accept or reject the property listing.

In order to indicate interest in a property, users will swipe the card right or press the "interested" button. When a user indicates interest, we will notify the property manager about the new lead. In addition, users may be able to look at their history of interested properties to compare listings. To reject a listing, the user will swipe left and will no longer see the
property listing when swiping through the cards. After swiping left or right on a property listing, the user will be shown a new property listing card.

We may also offer additional features that will help make leasing a bit easier. We may provide a roommate matching service that will help connect users who are interested in the same property. In this case, potential tenants wouldn’t have to worry about paying more than what they’re getting out of their property due to lack of a room- or house-mate. Users may be able to chat with potential roommates via our platform. We may also provide a simple map that will inform users of the geolocation of all the properties that they have matched with. We may also provide functionality for password recovery and Facebook integration.

Matchfolio will be a mobile application for iOS and Android devices, implemented in the React Native language.
System Architecture Overview

High Level Overview

Diagram:

- **START**
- **Log In/Sign Up**
  - user inputs: 1) email address, 2) password
  - IF NOT LOGGED IN
  - IF LOGGED IN
- **Property Preferences**
  - user inputs: 1) desired amenities, 2) desired location, 3) desired housing type, 4) desired square footage and more
  - IF PROPERTY PREFERENCES NOT FILLED
- **Rental Application**
  - user inputs: 1) driver's license, 2) birthday, 3) social security number and more
  - IF RENTAL APPLICATION NOT FILLED
- **Property Cards**
  - possible interactions: 1) like/dislike buttons, 2) edit account info/prefs, 3) click card, 4) address, 5) monthly rent price, 6) # bed and bath, 7) square feet
- **Property Card More Info**
  - info displayed: 1) amenities, 2) pet policy, and more
A. User Interaction and Design

1. Upon opening the app the login screen is shown to the user. This screen has a username and login text input field as well as a button for signing in with the user input and another for signing up for a new account with the user input. Upon a successful login, the user will be taken to the 'swiping' page (given that they've previously filled out their preferences and personal information). Upon successful sign up, the user will be taken first to a page to fill out their rental preferences, then their personal information, then to the swiping page. Once at the swiping page, users will be presented with a stack of cards (or no cards if there aren't any listings that they haven't already seen that they're qualified for and aren't filtered out based on user preferences). Each card contains zero to many pictures of the listing, address, number of beds and bathrooms, and the monthly rent price.

Requirements

I. User Stories and Use Cases (20 of them)

1. As a user I want to be able to update my preferences for housing so that they can reflect my change in preferences or if I want to make them less restrictive so I can see more properties.
2. As a user I want to be able to change my password in case I forget it or I suspect it's not secure.

3. As a user I want to be able to update my rental application information so if something substantial in my background changes I'll still be seeing the right properties.

4. As a user I can input my basic personal (account) information so that my profile is set up and ready to use for the app.

5. As a user I want to be able to fill out a generic rental application so that I do not have to answer the same question multiple times for different properties.

6. As a user I want to have a universal background check to send to all properties so that I will not have to pay for multiple background checks for multiple property managers.

7. As a user I can see if my background check has been approved so that I can swipe on properties that require a background check.

8. As a user I want to be able to specify my property preferences so that the application filters the listings that would suit my preferences.

9. As a user I can edit my property preferences and save them so that it applies to cards I will swipe on later.

10. As a user I want to be able to login to the app and retrieve saved information.

11. As a user I want to be able to sign up for the app if I do not already have an account, and be able to later login with this information.

12. As a user I want to be able to show my interest in a property so that my information can be forwarded to property managers.
13. As a user I want to be able to click a drawer on the top left for navigation that shows me all the pages I can navigate to.

14. As a user I want to be able to show my disinterest in a property so that I will not be shown a property again.

15. As a user I want to be able to click on property cards to view more information.

16. As a user I want to be able to see multiple pictures of the properties I am interested in.

17. As a user I want to be able to see all available information for a given property.

18. As a user I want to be able to see the properties that I have shown interest for, so that I can apply to specific properties.

19. As a user I want to be able to chat with other people that have shown interest in the same properties as me, so that I can find potential roommates.

20. As a user I want to be able to contact property managers so that I can find out more information about a property.

21. As a user I want to be able to schedule a property visit with a property manager so that I can view the property in person.
Appendices

A. Technologies Employed

- React
  - React Native
  - React Navigation
  - React Base
- Mobx-State-Tree
- Flask
- Postgres
- Android Firebase