Team Name : Rental Central

Application Name : Sturents

Members:

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Our project is an application that will scape listings for student rentals from the internet. It will then store these listings in a database that will be queried by the application. Our application will give users the ability to go through the listings in a style similar to the application *'tinder'*. If a user is interested in one of the listings they can *'swipe right'* on it, which will then add it to their list of *'liked'* listings. Through this list, the user will then be able to directly send an email to the original poster, or if an email could not be scraped from the original listing, then the user will have the ability to go to the web page of the original listing.

Our project is interesting because it provides a centralized way for students to find housing accommodations, in an easy to use, modern application. As most platforms cater to all types of rentals. It can be hard at times to find student friendly listings. Our application aims to provide a streamlined experience where users are able to easily find rentals specifically for students. The application will be useful to a large number of university / college students, that have to go through the process of finding a place to rent. This process is not always straightforward and it can be difficult for students to take the time out of their busy schedules to find a rental that is catered towards students. The main goals of our application are to create an easy to use application that will save students time and effort on finding places to rent.

This project makes sense in a mobile form factor as one of the main goals of the application is to save students time when looking for a place to rent. This is better accomplished through a mobile application as users will be able to quickly swipe through a large amount of listings on their phone. This will be more efficient than browsing through listings a website. Users will also be able to look through rental listings no matter where they are, and are not limited to searching for them using a computer and web browser. The action of swiping through listings, will also feel more natural on an application compared to a website.

Functional Properties :

1. Crawler
 - 1.1 Scapes listings from internet
 - 1.2 Parses information from each listing
 - 1.3 Sends parsed information to the database

2. Database
 - 2.1 Stores the parsed data from each listing
 - 2.2 Sends the data to the application depending on the users parameters (range, price, etc...)

3. Application
 - 3.1 Right / left swipe ‘cards’ on the main user interface
  - 3.1.1 Ability to click on a listing to view more information and or more images
 - 3.2 Ability to view a list of all right swiped listings
  -3.2.1 Stores all listings locally on the users phone
 - 3.3 Send an email to the poster of a listing or go to webpage if no email was found
 - 3.4 Ability to change location, range, and price depending on the users requirements

User Scenarios :

As ease of use and efficiency is our goal with sturents, once a user has saved listings after using the swipe left / right functionality, they then have the choice to send an email to the landlord of that specific property. Given that we will be pulling listings from multiple sources, using email is the most efficient form of contact between the two parties (as providing our own messaging system would not be feasible). When selecting the email option, users will be presented with an option to change what email they would like to send from, change the subject header, as well as view the landlords email. Making finding and contacting renters as easy is possible is one of the main focuses of this app, because of that we will be providing users with a generic email template that will get the conversation going between them and those that are looking to have their house rented and indicate that they may be interested in their property.

The user will swipe life or right depending on there interest in the house provided, with right being interested and left being uninterested. The interface shown will have pictures and a

summary of the house and its amenities. If they swipe right, this will lead to the email of the listing or link to page of listing.

A benefit to the user being able to swipe left or right depending on if they like the house advertised, is that they don't need to search it up online as we found it for them. If they don't like the house advertised, they could just move on. This will increase their efficiency in finding a house, as they only have to swipe right or left to go to the next option. Whereas normally people will have to go from site to site looking for houses.

Non functional Properties :

- **Reliability** : Uses Amazon AWS to host the database.
    - By using cloud technologies through Amazon Web Services we can maintain reliable service. This is important as without the database, the application would not function. The application needs a reliable database in order to serve listings to the users.
- **Cost** : The price of Amazon web servers are relatively low.
    - Our only cost for the application will be running the database. This cost needs to be low as we are students and our budget is virtually non-existent.
- **Usability** : The application must be easy to use, with an intuitive design.
    - We want users to have the fastest and simplest possible experience so that they can move on to more important things in their day. The goal of the application is to provide a solution that will save time and effort on finding student rentals, so the application needs to be easy to use, in order to not add unnecessary complication to the process.
- **Capacity/Scalability** : Should be able to handle large amount of users.
    - We expect that usage of our application will peak during certain times of the year as students look for rentals usually in the winter or in the summer. Thus we have to make sure our database can handle a large number of queries at the same time or the users will not have a smooth experience, and we could face downtime which would cause problems for all users.

Mockup of the main screen