

Search4House

Team 35
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Proposal:

Our idea is a website for affordable housing for college students. It would allow people to post their rooms near college campuses and provide the college student users so search through these posts, filtered based on college and/or city. Each room may have some extra features like amenities, roommates, discounted rent, etc.

Project Overview

Search4House is a web-based application that allows people who are looking for housing or people who have housing to rent out to add, remove, search for, and select listings of housing from other users. The web application would allow users to be able to list out their rooms and houses for other users to rent with a lease. Users would be able to choose how long the lease would last: starting from a single night up to a full college experience of four years and would have multiple categories that the user can search through such as the location, type of room, amenities, roommates, and more. A typical user of this application would either be someone looking to make some money and rent out a space, or someone, usually a college student, looking for housing near a university, or in a large city. A rentee could be anyone who has any extra rooms in there place and does not know what to do with it, to a group of college students who need another to help split the rent in order to afford it. On the other hand, a renter could be a homeless (or at risk of homelessness) person who just got a job, but does not have enough money saved to get their own place, or an international student who needs nearby housing for the time period of their student visa, or just a teenager looking to move out of their parents' or family's house and start living their life independently and on their own. These are all potential combinations for users to be matched up for housing with our application.

The stakeholders are the users that require a platform to rent out their living spaces and users who are looking for a living space to rent. This list may also include other homeowners in the areas near colleges, neighbors of the living spaces being rented out, and the families of the renters.

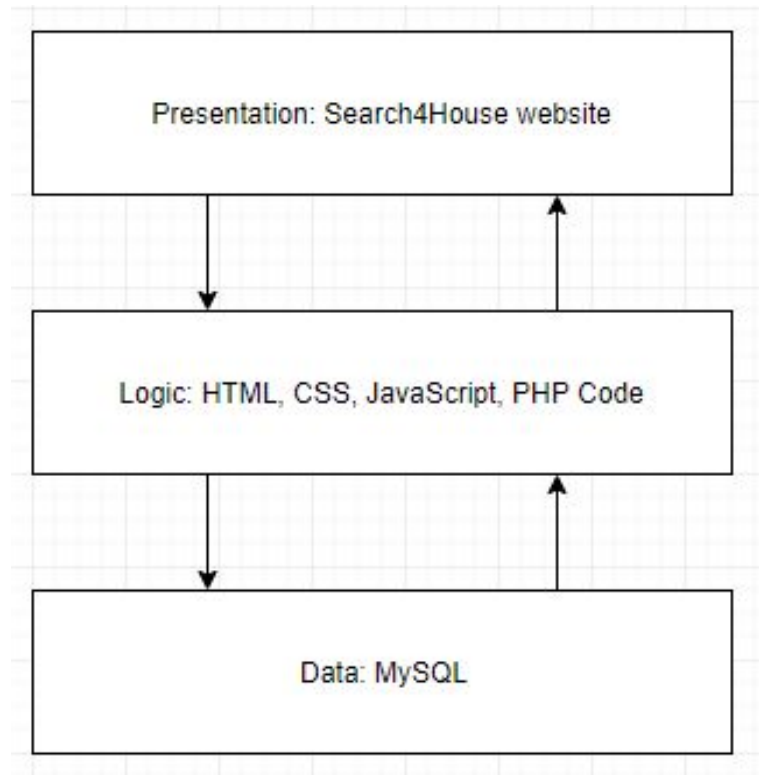
Currently, our community is able to list and search for rooms and homes for rent through multiple platforms such as Facebook, Craigslist, or other applications that may not be as popular. However, it may be hard to be able to search due to the fact that it is mixed with listings of other products that users are trying to sell, descriptions of the homes may not always be accurate, and scammers use such platforms to try to get information out of you. Having one platform that both renters and rentees can use primarily for this one function will minimize confusion, maximize the chances of a listing being rented out, and bring the best options forward to be portrayed to any related stakeholders.

System Environment:

This is our three-tier architecture. It consists of the clients using our GUI presented through the Search4House website, a database created with MySQL to organize all of the listings, and some logic made of several languages including HTML, CSS, JavaScript, and PHP Code to connect the two of those components together and to the cloud, completing our program. Having these elements together make up the three-tier database application.

Software/Hardware Components:

For the software components of our application, we will implement the application through the use of Apache, GitHub, MySQL, PHP, HTML, CSS, and JavaScript. For the hardware components, we will be using our laptops and possibly our mobile devices to test out the adaptivity of our application.



Functional Requirements

The functionality of the application would be using a device that can access the internet, and using a browser to access the website where our project is located. On this website, users can search for listings that have already been posted, connect to the rentee and get to know the area first beforehand, and rent the space out. When users are ready to proceed with the lease, they would require an account to continue. Users would be able to log in; otherwise, they would be able to create an account. Other features that are also included after creating an account are putting a listing on a watch list for viewing at a later time or instead posting a housing option of their own. They can also choose to compare two or more different listings to find the room that works best for them, but this will be a feature in a future update.

If the person is not browsing to view what is on the site, but rather to put one up on the website themselves, then using the account they created, they can list the vacant room with all the information needed for the potential renter like the price, the type of listing location, some extra information about the lease, and contact information to be able to talk to the potential renter, and possibly communicate any extra deals to help each other out. Users will be able to edit their listings as well; all descriptions of the listing can be edited: price, location, lease duration,

images, amenities, roommates, and rules (pets, parking, guests). Users would be able to both edit and delete listings, but may only be able to if the listing(s) have not been leased out.

Non-functional Issues

Some issues that we may encounter would include the portability between laptop screen sizes and mobile devices: the website may not be able to adjust accordingly to the user's screen size correctly. Another issue that we are considering would be real-time access of the database: our servers may not be able to access the database as fast as the user sends a request. Security is an issue within our team due to our lack of knowledge of it; users would need to have a secure way of entering and saving their purchase information if they wish to do the transaction through our application.