CPSC 471 Group 64 Project Proposal

Dora Tan - 30045844 - Tutorial T06
Sydney Kwok - 30073206 - Tutorial T07
Shavonne Tran - 30041912 - Tutorial T07

Introduction

Moving out can be a very daunting process, especially if you have no knowledge of where to begin. Purchasing a new home is a huge financial commitment and it can be difficult to know where to start looking. There is a lot to consider when trying to find a house that accommodates all your spatial needs or precious pets, to finding a house within your preferred neighbourhood, or simply trying to find a house within your budget range. With the addition of the current ongoing pandemic, the whole process can be even more confusing and intimidating. It would be useful to have a system that can make the real estate process less challenging for buyers.

With our convenient and simple application, we aim to ease some of these anxieties. We will develop a database to store related real estate information and provide a straightforward interactive interface that will cater to the user's specific needs, wants, and perhaps dreams to assist them in their journey to find their perfect home. The motivation behind this project is to provide a simple, personalized, and safe solution for potential home buyers in hopes to alleviate their uneasiness and match them to their ideal homes.

The format of this project proposal will include several sections including a description of the problem, proposed solution, motivations for the project, a conclusion, and a list of references.

Problem Definition

In the past, it was difficult for those on the search for a new home to find properties that fit their criteria. It is very inconvenient to look at every single property that is for sale since that would take a long time. Buying a home can be a very meticulous and overwhelming task, and finding the right house often takes much longer and costs much more than expected. In addition, the recent pandemic, and the restrictions that come with it, add new levels of complexity to the problem. Fortunately, through the internet, it is possible for people to find real estate websites that browse for home listings according to the preferences of customers. Such systems provide a basic skeleton for customers to get a better envision for what they are interested in having in their homes, making the search much easier.

This problem is interesting because most people will have to go through the process of searching for the perfect home at some point in their life so it is very applicable. The problem occurs when there are customers who are looking to find a new house and have troubles finding exactly what they are looking for. Buyers may need help to discover new listings of houses they suit their tastes in a simple manner.

Many customers who are looking to buy a home often face the problem of not being able to find exactly what they're looking for. To combat this problem, many real estate websites have been created that allow users to quickly search through online databases of listings by simply specifying their preferences such as location, home type, price, etc. For example, a similar solution to the one we propose would be the real estate website *Zillow*. On Zillow, users simply enter an address and are directed to another page where they can specify many parameters including the price, number of beds and baths, and the lot size. The site then presents a map which displays all the listings in the user's desired location that satisfy the specified requirements. Another website called *Realtor* uses a similar format where users specify their preferences and can search through all possible listings.

The general problem with a lot of existing systems is that the websites are very messy and unpleasant to look at. There are some possible improvements that could be done to current solutions. The user experience could be improved by providing a cleaner looking interface. For example, adding videos of the house and providing commentary along the way could enhance the experience for buyers because they can get a more detailed glimpse at their potential new home. The commentary in these videos could include discussion of local restaurants and schools as well more information on the neighbourhoods. Another improvement could be to optimize sites for mobile users since many buyers use their phones to search for listings. Having a system that functions on mobiles could be an advantage.

Proposed Solution

We aim to design a project that simplifies the house hunting process and narrows down the house listings to satisfy the customer's needs. Our proposed solution provides a mobile friendly Web-based interface that makes it easy for real-estate companies to post listings and for customers to search and browse them (allowing users read and write access to the database supporting the backend). Users can search the database of listings by indicating search parameters such as price range, location, number of rooms, etc. They can then view details of homes that satisfy the user specified criteria and select houses that they are interested in visiting with a realtor. At this time, the user can schedule a walkthrough or meeting with an agent through the system.

Motivation

The motivation for this project is to provide a convenient application for users to find homes that best satisfy their preferences without needing to visit in person. Customers will be able to indicate specific properties and details that they are interested in. The application will then provide the customer with all the properties that satisfy those details. Such a feature helps to narrow down listings that are suitable to the buyer's needs so that they will only be searching through homes that interest them. This solution can be useful for situations in which a customer does not want to or cannot visit in person to look at properties. For example, with the current COVID-19 situation, people are not allowed to be in close distance with others so it would be very useful to have an application where users could browse through properties directly from their home while following COVID-19 restrictions. This application is unique because it will provide users with the option to schedule an online meeting with real estate agents. During these meetings, users can ask questions directly to the agents, and get a tour of the property they are interested in.

Conclusion

We will strive to both provide and improve the real estate browsing system to better aid home buyers in their journeys to find their perfect homes. We will do so by presenting each task in a simple and easy to use manner so that users will be able to quickly narrow down their potential future homes and be able to contact an agent right at their fingertips without the need to visit in person which will save time and protect you and/or your families' health from to the ongoing COVID-19 pandemic.

Our real estate browsing system will be delivered with an interactive and intuitive interface that covers every necessary task that a professional real estate browsing platform should have such as systems developed by *Realtor* with additional touches of our own such as the option to schedule a virtual meeting with our real estate agents. We will be providing an extended ERD by February 20, 2021, and a relational model by March 4, 2021. Next, we will aim to implement the API and programming parts of the system by March 25, 2021. The goal is to complete the system by April, with all of the main features working properly.

References:

[1] https://www.zillow.com/

[2] https://www.realtor.ca/en