Title of Project – ENSF 607/608 Real Estate Database Web Application

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Project Abstract

The project is a web application simulation of the real estate database to guide a buyer through viewing property listings currently in the market. The buyer will create an account through the web application to view listings features, add listings to favorites for future viewing, and make contact with the real estate representative to proceed with their next step in becoming a new homeowner. This application is useful because all the information needed to make an informed purchase is all in one marketplace.

Project Scenario and Goals

City of Calgary, a rapidly growing city for the software industry, needs a database web application to organize the listing and realtor information that the city has to offer to current and future residents.

Calgarians are excited to boost their real estate portfolio during the pandemic and lock in the low interest rates. Future residents moving to Calgary to pursue their software engineering careers are excited to find a home to build a family. As you can tell, there are many people looking to purchase homes in Calgary. This is why the real estate database web application might be useful for these individuals.

Website users such as the buyer and real estate agent need information such as email address, name, phone, and password to register. Buyer may have additional attribute such as screen name. Real estate agent may have additional attributes such as rating, language, company, and multiple listings.

Ultimately, real estate agents are the individuals responsible for listing the properties onto the websites. They may remove the listing when appropriate. The property have many attributes that provide further information about the property, such as lot size, age, no. bedrooms, no. bathrooms, price, date listed, property type, address, and its unique MLS number.

All properties are located in a neighborhood. A neighborhood has additional key information that the buyer may wish to see on the website, such as average property price, amenities, bike score, and walk score. Buyer can choose to see the price history of all the listings as well, which shows the prices changes on different dates.

Design Strategy

The overall design will involve the web application acting as the main server in the front end using html, CSS, and JS. Different buyers and real estate agents are the clients of the web app, that could sign up to either list properties, remove listings, and/or view the listings for information.

Design Unknowns/Risk

First and foremost, building the front end web app part of the design is new to all group members. So this feature of the design that involves html, CSS, and JS is least familiar with no prior experience.

Implementation Plan and Schedule

Step 1: Create a ERR diagram to understand the database architecture

Step 2: Create a Relational schema to understand the relationship between the data

Step 3: Design the back-end using MVC concept.

Step 4: Tie the database to the View using JDBC.

Step 5: Design the client-server model. Test using command-line interface or GUI throughout.

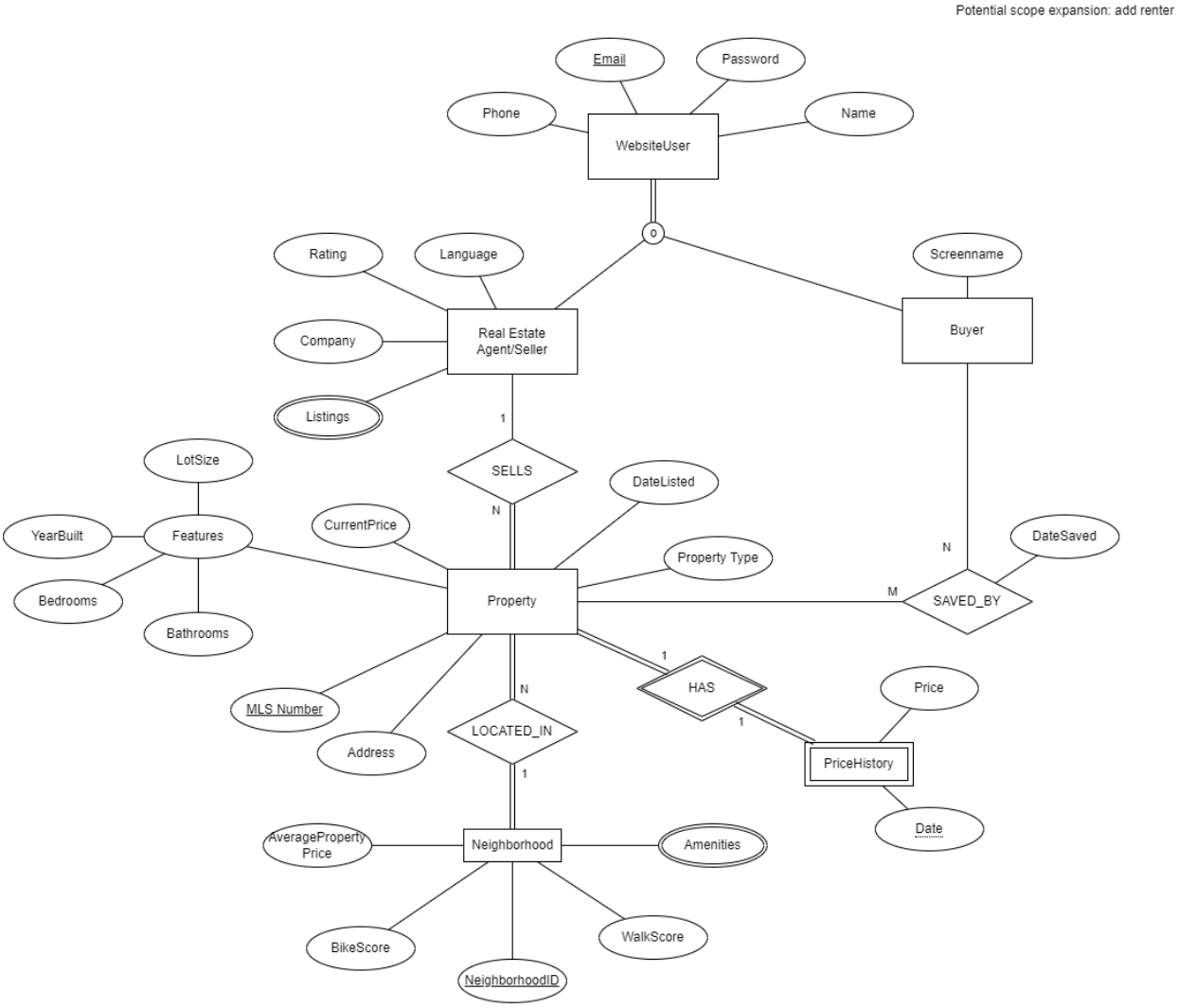
Step 6: Design the front-end using html, CSS, and JS.

Step 7: Tie it all together.

Evaluation

We will evaluate success by brilliantly demoing the finished web application to the professors and TAs. Milestones will be celebrated as work in progress pick away at the project requirements. The final report will display diagrams and descriptions of the modules and how it came all together as a final product. Tradeoffs of additional website features will need to be evaluated as this is a mini-project of a real world web application.

EER Diagram


Potential scope expansion: add renter
Email
Password
Phone
Name
WebsiteUser
0
Rating
Language
Screenname
Company
Real Estate Agent/Seller
Buyer
Listings
1
SELLS
LotSize
DateListed
N
YearBuilt
Features
CurrentPrice
Property Type
N
DateSaved
Bedrooms
Property
M
SAVED_BY
Bathrooms
1
HAS
Price
MLS Number
N
LOCATED_IN
1
Address
PriceHistory
1
Date
AveragePropertyPrice
Neighborhood
Amenities
BikeScore
WalkScore
NeighborhoodID

Relational Schema