University of Calgary Fall 2017

CPSC 471: Database Management Systems Final Report

Group 8

Property Rental Website

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Appendix: List of Relational Instances

1 Summary of System Requirements

Overview and definitions

Definitions. The following terms may be used throughout this final report and are used with regard to our project. They are defined as follows:

- *Rent:* the act of the user paying someone for the use of their place.
- Owners/landlords: Whoever owns the piece of property to rent.
- *Post:* Advertisement of property given by the owner.
- *Renters/tenants:* Whoever is interested in renting a property from an owner/landlord.
- Budget: The user's willingness to pay when renting out a place.
- Convenient: A spot with amenities which perfectly fits with the user's needs or wants.
- *Housing/place/spot/property:* Refer to a particular rental location on the market
- Lifestyle: The user's favorite leisure activities or pastimes in which significant time and money is spent.
- *Need/necessity(s)*: When the user requires essentials amenities for survival
- Want/desires(s): When the user wishes to have non-essentials amenities to incorporate into their lifestyle.

It's difficult to find an organized and cost-effective implementation where both owners can post their ads regarding their property, and that renters can effectively browse through those ads. Thus, our group has chosen to work on a database system that will assist its users(tenants/landlords) in being able to find or post a place to rent, while using clever searching criteria which will satisfy user necessity and desires. With this project, we plan to help any users search for any specific type of spot to rent or advertise in any particular convenient area. As such, we aim to create a website where renting users can quickly access an extensive database from which they can easily choose between numerous rental property of their liking and budget. Our website will also incorporate an extensive database for property landlords where they can efficiently upload and update their place for the renters to see. Since it's very difficult to either post or find a lower budget and reasonable rental spot using local methods, our implementation will provide an extensive interface to create a convenient and user-friendly environment where they can easily decide or post any relevant property.

Problem description

Our project's purpose finds its problem in the notion that all renters and landlords are very restricted with the resources and assistance to being able to, easily and quickly, find or post a rental with their specifications. Furthermore, most sources of help are offered on back ended sites with very poor detailing and usually in brochures which takes too much time, and is limited in rentals offered. Interestingly, the market is over-saturated with countless properties that are often priced higher than most spots, and users are limited to what they can choose during time to time. Despite that setback, naturally there will be people who are very specific in spot rentals and want one that meets their needs but often compromise. Also, for property owners, the procedure of putting up their investment rental spot is a tedious and risky endeavor because it's not always clear as to what exactly needs to be prepared. Furthermore, scammers reduce the efficiency of users who wants valid and reliable information posted. As such, we find that its very intimidating task to look or publish for a rental place, and those who gives an attempt usually want one where they can specify some legit and definite criteria and have an extensive search option. The problem occurs when users are searching different websites in order to find or report a housing rental that fits their necessities. Currently, there are many different sites that offer housing rental. They will provide a list of rentals offered in a specific area. However, there are very limited websites that provide such users with detailed and accurate search engines, including the option for landlords to conveniently advertise their rental property. In particular, we have found a website that is quite similar to our proposed project, which is "rentfaster.ca". That website contains a system where housing seekers find legitimate postings, and owners can display their ads with a fee; yet the website can be improved such as removing the costs.

Solution (and system requirements)

The aim of this project is to be able to build a functional and user-friendly website that will provide users who are willing to find a housing or other spot rental, which also has an accessible database with lots of options to choose from to satisfy their needs. Also, a platform for landlords to post advertisements and details about their property which will be available to be viewed and searched by seeking rentals, including an in-depth search criterion (Area, community, No. Of rooms, budget and so forth). We will deliver to users an informative, organized website where they will be able to navigate throughout any pages with relative ease and satisfaction. We will have many different features of this website and its accompanying database will be as follows:

Relational Database:

- User profiles
- AD details or House/apartment info(No. Of rooms, Bathrooms, square footage)
- Amenities details
- Geographic info(Address, Community)

GUI/User Friendly Interface:

- Post ads for rental property
- View or search House/Apartment listings
- Ability to filter listings
- Check availability
- Set favorites
- Contact landlord

We couldn't finish most part of the project. Namely the review/rate, favorites and images for listings

Motivation

Our group strives to provide our users with the best and most convenient access to a database full of properties whether that's condos, apartments, rooms, and offices, etc. Both renter and landlord users would be able to select and choose spots according to their specific preferences, needs and lifestyles. We believe our group proposed project is unique and very much needed in this area of property rentals and postings as it will be of help towards users of all around the world. We aim to produce a simple yet comprehensive website that will make a straightforward, effortless and orderly contribution towards our renting and posting property users. We will ensure that we accommodate our user's preferences according to their needs whether it's pricing, amenities, lifestyle, or location. Our planned project will aim to give users an extensive resource

Conclusion

It's a necessity for humans to have a place to live. While there are resources available on the internet we decided to make something similar and hopefully better. The site that caught our eyes was a website called Rentfaster.ca which we want to create a similar site. As such, we aim to build a website that will help individuals find a place to rent. We plan to meet deadlines and have work done weekly to meet requirements and specification for this project. Most importantly we plan to at least work early and efficiently so we have accurate and a complete project. Our website and its accompanying database will indeed be able to create a good experience for our users and stakeholders.

2 Various Models/Diagrams

Entity-relationship diagram



Relational model

LUser id username Name Password Contact_no Legal_Documentations Renter Ruiser id username Name Password Contact_no Age Gender Relationship_status Background_check Credit_report Itile price Availability Description Listing Itile price Availability Description Unit_no street city Postal Parking Legal_Documentations Contract Images Itist id Images Images	Landlord									
Renter Ruser_id username Name Password Contact_no Age Gender Relationship_status Background_check Credit_report Listing Images Images Images List_id Property_type Ad_title price Availability Description Images List_id Postal Parking Legal_Documentations Contract Images List_id Images Images Images Images Images List_id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Office Isit_id Size Floors Amenities Parking Capacities Unit_type Others Review_Landlord	LUser id userna	me Name F	Password	Contact	no Leg	al_Docum	nentation	5		
Renter Renter RUser id username Name Password Contact_no Age Gender Relationship_status Background_check Credit_report Listing Images Itist Images List id Images List id Postal Parking Legal_Documentations Contract Images	_									
RUser id username Name Password Contact_no Age Gender Relationship_status Background_check Credit_report	Renter						-	-		
Background_check Credit_report Listing	RUser id	username	Name	Password	Contact_	no Age	Gender	Relations	hip_status	;
Listing LUser id List id Property_type Ad_title price Availability Description Unit_no street city Postal Parking Legal_Documentations Contract Images List id Images List id Images List id Images List id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Office List id Size Floors Amenities Parking Capacities Unit_type Opportunities Others Review_Landlord Ruser id LUser id Comment Rate	Background_check Credit_report									
Listing List_id Property_type Ad_title price Availability Description Unit_no street city Postal Parking Legal_Documentations Contract Images										
LUser id List id Property_type Ad_title price Availability Description Unit_no street city Postal Parking Legal_Documentations Contract Images	Listing									
Onte_no Steet City Tostal Taking Legar_bocanicitations Contract Images List id Images List id Images E List id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Office Comment E Capacities Unit_type Others Review_Landlord Comment Rate	<u>LUser id</u> <u>List id</u>	Property_typ	e Ad_tit Postal I	tle Parking	pric	e A	vailability	Descrip Contract	tion	
Images List id Images Residential Ist id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Images Images Review_Landlord Review Landlord Review Landlord Review Landlord Review Landlord Rate			code	unking	LeBai	bocument		contract		
Images List id Images Residential Item id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Images Review_Landlord										
List id Images Residential Images Ist id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Office Ist id Size Floors Amenities Parking Capacities Unit_type Opportunities Others Review_Landlord Ist id LUser id Comment Rate Saved/Favorite	Images									
Residential	<u>List id</u>	Images								
Itestidentia Itestidentia Ist id Unit_type Bedrooms Baths Under_18 Pets Utilities Parking Size Office	Residential									
List id Onte_type Bedrooms Baths Onder_18 Pets Othities Parking Size Office		De due even	Datha	Lundan	10 0-		La:12.4.	Daulind	Cina	_
Office List id Size Floors Amenities Parking Capacities Unit_type Opportunities Others Review_Landlord	<u>List ia</u> Unit_typ	e Bearooms	Baths	Under	_18 Pe	ts U	tilities	Parking	Size	
List id Size Floors Amenities Parking Capacities Unit_type Opportunities Others Review_Landlord	Office									
Review_Landlord RUser id LUser id Comment Rate	List id Size F	loors Ame	nities P	arking Ca	apacities	Unit_ty	pe Oppo	ortunities	Others]
Review_Landlord RUser id LUser id Comment Rate		I	I							1
RUser id LUser id Comment Rate Saved/Favorite	Review_Landlord	-								
Saved/Eaverite	RUser id	LUser id	C	Comment		Rate]		
Saved/Eaverite										
Saved/Favorite	Saved/Favorite									
RUser id List id	<u>RUser id</u>	<u>List id</u>								

Hierarchy input process output model



Functions and pseudocode:

ADD ACCOUNT LandLord:

Inputs: @name, @username, @password, @contact_no, @legaldoc

Outputs: None

Pseudocode: Connect to the database

Query = INSERT INTO Landlord values(@name, @username, @password, @contact_no, @legaldoc);

Parse Query

Execute Query

Close connection to the database

ADD ACCOUNT Renter:

Inputs: @name, @username, @password, @contact_no, @age, @gender, @relationship, @background_check, @credit_report

Outputs: None

Pseudocode: Connect to the database

Query = INSERT INTO Renter values (@name, @username, @password, @contact_no, @age, @gender, @relationship, @background_check, @credit_report);

Parse Query

Execute Query

Close connection to the database

EDIT ACCOUNT Landlord:

Inputs: @ Luser_id, @name, @username, @password, @contact_no, @legaldoc

Outputs: None

Pseudocode: Connect to the database

Query =

UPDATE Landlord

Set name=@name, username =@username, password=@pasword, contact_no=@contact_no, legaldoc=@legaldoc

where Luser_id=@Luser_id;

Parse Query

Execute Query

Close connection to the database

EDIT ACCOUNT Renter:

Inputs: @Ruser_id,@name, @username, @password, @contact_no, @age, @gender, @relationship, @background_check, @credit_report

Outputs: None

Pseudocode: Connect to the database

Query =

UPDATE Renter

Set name=@name, username =@username, password=@pasword, contact_no=@contact_no, age=@age, gender=@gender, relationship=@relation, credit_report=@creditreport

where Ruser_id=@Ruser_id;

Parse Query

Execute Query

Close connection to the database

VIEW ACCOUNT LANDLORD:

Inputs: @ username, @password

Outputs: @name, @username, @password, @contact_no, @legaldoc

Pseudocode: Connect to the database

Query =

Select *

From Landlord

Where (username =@username) And (password=@password);

Parse Query

Execute Query

Close connection to the database

VIEW ACCOUNT Renter:

Inputs: @username, @password

Outputs: @name, @username, @password, @contact_no, @age, @gender, @relationship, @background_check, @credit_report

Pseudocode: Connect to the database

Query =

Select *

From Renter

Where (username =@username) And (password=@password);

Parse Query

Execute Query

Close connection to the database

ADD Residential Listing:

Inputs: @username, @Luser_id, @property_type, @Ad_title, @price, @availability, @Description, @street, @city, @postalcode, @legaldoc, @contract

@unit_type,@bedroom, @baths, @under_18, @pets, @utilities, @parking, @size

Outputs: None

Pseudocode: Connect to the database

Query =

Begin

INSERT INTO Listing Values ((select Luser_id from Landlord where username=@username), @property_type, @Ad_title, @price, @availability, @Description, @street, @city, @postalcode, @legaldoc, @contract)

Select Last_Insert_id() INTO @Var

INSERT INTO Residential values (@var, @unit_type, @bedroom, @baths, @under_18, @pets, @utilities, @parking, @size)

End;

Parse Query

Execute Query

Close connection to the database

ADD Office Listing:

Inputs: @username, @Luser_id, @property_type, @Ad_title, @price, @availibilty, @Description, @street, @city, @postalcode, @legaldoc, @contract

@size, @floor, @amenities, @parking, @capacity, @unit/-type, @others

Outputs: None

Pseudocode: Connect to the database

Query =

Begin

INSERT INTO Listing Values ((select Luser_id from Landlord where username=@username), @property_type, @Ad_title, @price, @availibility, @Description, @street, @city, @postalcode, @legaldoc, @contract)

Select Last_Insert_id() INTO @Var

INSERT INTO Office values (@var, @size, @floor, @amenities, @parking, @capacity, @unit/-type, @others)

End;

Parse Query

Execute Query

Close connection to the database

ADD Images:

Inputs: @ List_id, @image

Outputs: None

Pseudocode: Connect to the database

Query = INSERT INTO Images Values(@List_id, image);

Parse Query

Execute Query

Close connection to the database

Search Residential Listing:

Inputs: @minprice, @maxprice, @availibility, @street, @city, @unit_type, @bedroom

Outputs: @property_type, @Ad_title, @price, @availibility, @Description, @street, @city, @postalcode, @legaldoc, @contract

@unit_type,@bedroom, @baths, @under_18, @pets, @utilities, @parking, @size

Pseudocode: Connect to the database

Query =

Select * From Listing as L, Residential as R Where <u>L.availibilty=@availibility And</u> <u>L.street=@street And</u> <u>L.city=@city And</u> R.uniy_type= @unit_type And R.bedroom=bedroom And (L.price <= @maxprice And L.price >= @minprice));

Parse Query Execute Query Close connection to the database

Search Office Listing:

Inputs: @minprice, @maxprice, @availibilty, @street, @city, @unit_type,

Outputs: @property_type, @Ad_title, @price, @availibilty, @Description, @street, @city, @postalcode, @legaldoc, @contract

@size, @floor, @amenities, @parking, @capacity, @unit/-type, @others

Pseudocode: Connect to the database

Query =

Select *

From Listing as L, Office as O

Where <u>L.availibility=@availibility And</u>

L.street=@street And L.city=@city And O.uniy_type= @unit_type And (L.price <= @maxprice And L.price >= @minprice));

Parse Query

Execute Query

Close connection to the database

Save/fave Listing:

Inputs: @ List_id, @Ruser_id Outputs: None Pseudocode: Connect to the database Query = INSERT INTO Fave Values(@List_id, @Ruser_id); Parse Query Execute Query Close connection to the database

Review/Rate:

Inputs: @ Luser_id, Ruser_id, Rate, Comment Outputs: None Pseudocode: Connect to the database Query = INSERT INTO Review_Renters Values(@LUser_id, @Ruser_id, @Rate, @comment); Parse Query Execute Query Close connection to the database

Data flow diagram

Context Diagram:



Level 0 Diagram:



Previous Diagrams:

ERD:



RM

	L-User_id Ema	all_id Name Pass	word Contact_no Leg	al_Documentations	
1-	Renter				
	R-User_id	Email_id	Name	Password	Contact_no
	Age	Gender	Relationship_status	Background_chec	ck Credit_repo
	Listing	1111			
	L-User_id	List_id	Property_type	Ad_title	Price
	Availability	Description	Address	Legal_Documentat	ions Contracts
	Residential				-
	to the state of th	List id	Unit type	Bedrooms	Bathe
	L-User_Id	LIST IU	onic_ope	Bearbonns	Datiis
	Under_18	Pets	Utilities	Parking	Size
-	Under_18 Office	Pets	Utilities Size	Parking	Size
-	Under_18 Office	Pets List_id Capacities	Utilities Size Unit_type	Parking Floors Opportunities	Size Amenities Others
-	L-User id Under_18 Office L-User id Parking Review_Listing	List id List id	Utilities Size Unit_type	Parking Floors Opportunities	Amenities Others
-	L-User id Under_18 Office L-User id Parking Review_Listing Review_Listing	List id List id	Size Unit_type Comment	Parking Floors Opportunities Rate	Amenities Others
-	L-User in Under_18 Office L-User id Parking Review_Listing <u>R-User id</u> Review_Landlord	List id Capacities	Size Unit_type Comment	Parking Floors Opportunities Rate	Amenities Others
	L-User in Under_18 Office L-User id Parking Review_Listing Review_Landlord <u>R-User id</u>	List id Capacities	Size Unit_type Comment Comment	Parking Floors Opportunities Rate Rate	Amenities Others
	L-User in Under_18 Office L-User id Parking Review_Listing Review_Landlord <u>R-User id</u> Review_Renters	List id Capacities	Size Unit_type Comment Comment	Parking Floors Opportunities Rate Rate	Amenities Others
	L-User in Under_18 Office L-User id Parking Review_Listing Review_Landlord Review_Landlord Review_Renters L-User id	List id Capacities	Size Unit_type Comment Comment	Parking Floors Opportunities Rate Rate Rate	Amenities Others
-	L-User in Under_18 Office L-User id Parking Review_Listing Review_Landlord Review_Landlord Review_Renters L-User id Saved/Favorite	List id Capacities	Size Unit_type Comment Comment	Parking Floors Opportunities Rate Rate Rate	Amenities Others

3 User Manual

1. Main page: Home

- Before login

All users will be greeted by this main page. It has a simplistic design with 5 buttons on the top left corner. The buttons are "Home", "Listing", "Register", "Search" and "Login". From any page, user can return to this page by clicking on the "Home" button.



Rental Housing/Office Find your next housing or office or whatever you're looking for here!

- After user login

After user login, they will be greeted by this main page. It is the same, except there's an additional "Profile" button in between the Listing and Search button. A user welcome will be displayed on top of the buttons as well. Also, "Login" button is now a "Logout" and "Register" is gone. From any page, user can return to this page by clicking on the "Home" button.



Rental Housing Find your next housing or whatever you're looking for here!

2. Signing into user account

- Login

By accessing the login page from the main page, the user will be presented by this login page as shown below. This page contains 2 input fields for Username and Password respectively, along with a submit button. All landlords and renters have to use this login.

$\leftrightarrow \ \ominus \ G$	(i) Not secure masih.cpsc.ucalgary.ca/login.php
Login	
Username :	
Password :	
Submit	

- Wrong submit

In the case that either the Username or Password, or both, is not properly entered, then an incorrect feedback will be displaying to be user.

$\leftrightarrow \Rightarrow {\tt G}$	(i) Not secure masih.cpsc.ucalgary.ca/login.php
Your Login N	ame or Password is invalid
Login	
Username :	
Password :	
Submit	

- Logout

The login-in user can logout by simply clicking on the "Logout" button from the main page. It will display the user with a separate logged out page. Press the "Home" button to return to the main page.

←	\rightarrow	С	(i) masih.cpsc.ucalgary.ca/logout.php
Log Ho	ged me	Out!	

3. Registering an account

- Landlord or Renter?

From the main page, any new landlord or renter user can create a new account by clicking on the Register button. Then the page below will show up. It will prompt a user to create either a landlord or renter account by clicking on the respective button.

$\leftrightarrow \Rightarrow {\tt G}$	(i) masih.cpsc.ucalgary.ca/registeration.php							
Are you a Landlord? LandLord								
Are you a Rei	nter? Renter							

- Landlord account

By clicking the "LandLord" button, this page will show up. Landlord registration requires user Full name, Username, Password, Contact No and Legal Documents. Click "Submit" button to create landlord account. User will be transferred to the main after-user login page.

Registration for Lanc	llord
Full Name	
Username	
Password	
Contact NO	
	Columb

- Renter account

By clicking the "Renter" button, this page will show up. Renter registration requires user Full name, Username, Password, Contact No, Age, Gender, Relationship Status, Background Check and Credit Report. Click "Submit" button to create renter account. User will be transferred to the main after-user login page.

Registration for Renter	
Full Name	
Username	
Password	
Contact NO	
Age	
Gender	
Relationship Status	
Background Check	
Credit Report	

- Wrong registration submit

In the case that anything is not properly entered, then an incorrect feedback will be displaying to be user.

Error need to fill

4. Profile – Adding/Edit listings

- Main Profile page

Any logged-in user can click the "Profile" button from the main page in order to view their profiles. Then the page below will show up. It will prompt a user to either post a listing or to edit listings by clicking on the respective button. In the event a renter wants to become a landlord, that renting user will simply have to click on the "Post" button.



- Posting a listing

By clicking the "Post" button, this page will show up. It will prompt a user to either post a residential or office listing by clicking on the respective button.



- Posting a Residential listing

By clicking the "Residential" button, this page will show up. The user is to add the Ad-tile, property type, price, availability, Description, Unit no, Street, City, Postal code, legal documentation, Contract, Unit Type, Bedrooms, Bathrooms, Under 18 allowed, Parking and Size of a particular residential listing. Then click on the "Submit" to create a residential listing.



- Posting an Office listing

By clicking the "Office" button, this page will show up. The user is to add the Ad-tile, property type, price, availability, Description, Unit no, Street, City, Postal code, legal documentation, Contract, Size, Floors, Amenities, Opportunities, Unit Type, Capacity, Parking and Other of a particular office listing. Then click on the "Submit" to create an office listing.

$\leftrightarrow \ni G$	() masih.cpsc.ucalgary.ca/office.php
	Add Office Listing
	Property Type
	Ad-Title
	Price
	Availibility
	Description
	Unit NO
	Street
	City
	Postal Code
	Legal Documentation
	Contract
	Size
	Floor
	Amenities
	Oppurtunities
	Unit Type
	Capacity
	Parking
	Other
	Submit

- Wrong listing submit

In the case that anything is not properly entered, then an incorrect feedback will be displaying to be user.

Error filling in fields

- Editting a listing

By clicking the "Edit" button from the main Profile page, this page will show up. It will display all of the user postings and it will have two buttons "Continue" and "Edit". The "Continue" button is used whenever any user postings editing is completed. In the case when a user wants to edit their listing, click on the "Edit" button. **The editing function has not been completed yet. Another option is to correctly resubmit that listing as a new listing.

$\leftarrow \rightarrow C$	i masih.cpsc.ucalgary.ca/view.php
----------------------------	-----------------------------------

Ad-title	Property Type	Price	Availibility	Description	Unit NO	Street	City	Postal Code	Legal Documentation	Contract
Nice big House	House	1000.00	Yes	A big Beautiful Home	150	100 John road	Calgary	T3QQQQ	I have all of them.	Yes
Clean Apartment	Apartment	5000.00	Yes	Beautiful	500	40 None of your business	Edmonton	9t9e9r	No	No
SOmething	Other	200.00	No	Small	800	777 road	Toronto	555555	Yes	Of course
In this Correct? C.	antinua Do vou	mont to c	ado? Edit							

Is this Correct? Continue Do you want to redo? Edit

5. Viewing Listings

Main Listing page

Any user can click the "Listing" button from the main page in order to view the listings. Then the page below will show up. It will prompt a user to either view residential or office listings by clicking on the respective button.

$\leftrightarrow \Rightarrow {\tt G}$	(i) masi	masih.cpsc.ucalgary.ca/listing.php						
Residential I	isting	Office Listing						

- View Residential listings

By clicking the "Residential Listings" button, this page will show up. The user can now view all residential listings within the database. The table has Ad-tile, property type, price, availability, Description, Unit no, Street, City, Postal code, legal documentation, Contract, Unit Type, Bedrooms, Bathrooms, Under 18 allowed, Parking and Size in that order.

← → C (0 masih.cpsc.ucalgary.ca/alllisting.php																
Ad-title	Property Type	Price	Availibility	Description	Unit NO	Street	City	Postal Code	Legal Documentation	Contract	Unit Type	Bedrooms	Bathrooms	Under 18 allowed?	Parking	Size
Nice big House	House	1000.00	Yes	A big Beautiful Home	150	100 John road	Calgary	T3QQQQ	I have all of them.	Yes	4	4	4.0	y	4	55 ft ^2
Clean Apartment	Apartment	5000.00	Yes	Beautiful	500	40 None of your business	Edmonton	9t9e9r	No	No	5	5	5.0	n	5	700 £ ^2
SOmething	Other	200.00	No	Small	\$00	777 road	Toronto	555555	Yes	Of course	4	5	1.0	n	5	\$00ft^2

- View Office listings

By clicking the "Office listings" button, this page will show up. The user can now view all office listings within the database. The table has Ad-tile, property type, price, availability, Description, Unit no, Street, City, Postal code, legal documentation, Contract, Size, Floors, Amenities, Opportunities, Unit Type, Capacity, Parking and Other in that order

\leftarrow \rightarrow C \bigcirc n	← → C ① masih.cpsc.ucalgary.ca/officelisting.php											\ ☆						
Ad-title	Property Type	Price	Availibility	Description	Unit NO	Street	City	Postal Code	Legal Documentation	Contract	Size	Floors	Amenities	Oppurtunities	Unit Type	Capacity	Parking	Other
A big building	Building	100000.00) Yes	A whole building	150	100 John road	Calgary	T3QQQQ	I have all of them.	Yes	500x500	6	Shopping Mall	Yes	Big Building	200	6	Yes
A new refurbished offi	e Apartment	5000.00	Yes	Beautifu1	500	40 John	Edmontor	9t9e9r	No	No	1000x1000	99	None	None	Law	1000000	No	No
A new shopping mall	Shopping Distract	1000.00	No	Small	800	777 road	Toronto	555555	Yes	No	1x1	0	Yes	Maybe	Maybe	Something	Yes 2	Nope

- Images to come

6. Rating/Favorites

To come

Appendix: List of relational instances

The following are possible lists of the relation instances that can be used to populate the database of our Property website. Since we couldn't implement everything for our website, we listed here as an example.

Landlord

LUser_id	username	Name	Password	Contact_no	Legal_Documentations
1	BenT	Ben True	Hi	403-111-	Included
				1111	
2	Asdf	Mat Parker	Yo	403-111-	Included
				1112	
3	username	Sasha Kidd	1234	403-111-	Included
				1113	
4	Afk	Luca Hell	Qwerty	403-111-	Included
				1114	
5	CC	Curtis Cent	Yolo	403-111-	Included
				1115	
6	Dogg	Snoog Dogg	Lol	403-111-	Included
				1116	
7	Lamar	Lamar Silva	Name	403-111-	Included
				1117	
8	Nitrogen	Niroojen Tuna	User	403-111-	Included
				1118	
9	Soccer	Maaasih Mesih	House	403-111-	Included
				1119	
10	VVVVV	Violin Violet	help	403-111-	Not Included
				1130	

Renter

RUser	username	Name	Password	Contact_no	Age	Gender	Relationship_sta	Background_	Credit_rep
id							tus	check	ort
11	VICE	Vanilla ice	Сору	403-111-2222	20	F	single	No record	650
12	TPAIN	T Pain	Delete	403-111-2223	21	F	Complicated	Crime lord	800
13	СТ	Ct Desk	Add	403-111-2226	22	F	Widowed	No record	700
14	HELPPP	Help me	Why	403-111-2225	21	F	Single	Drug Deal	650
15	HP123	Dell Hp	How	403-111-2228	50	F	Single	No record	320
16	Middle	Name Last	123456	403-111-2229	89	F	Single	Murdered	0
17	User	Last First	Zxcvbn	403-111-2227	56	F	Single	No record	100
18	Tare	Truth dare	Qwery	403-111-2221	100	Μ	Single	No record	250
19	HAT	Hate Hater	Football	403-111-2224	18	Μ	Married	No record	800
20	SMY	Smart guy	edit	403-111-2220	32	m	Divorced	No record	900

Images

<u>List_id</u>	Images
5	1
<u>5</u>	1
5	1
6	1
7	2
7	1
<u>7</u>	1
7	2
8	1
9	1

Office

List_id	Size	Floors	Amenities	Parking	Capacities	Unit_type	Opportunities	Others
<u>5</u>	500x500	1	Mall	100	100	Mall room	Yes	n/a
<u>6</u>	1000x1000	23	Hotel	200	200	Hotel	None	n/a
<u>7</u>	520x750	45	Pool	No	15	School	None	n/a
<u>8</u>	1500x300	89	Buffet	5	100	School	Yes	n/a
9	5000x8000	89	none	200	500	Hell	maybe	For sale

Review_Landlord

<u>RUser_id</u>	LUser_id	Comment	Rate
11	1	Good	5
12	2	Good	5
13	3	Good	4
14	4	Good	3
15	5	Good	4
16	6	Good	5
17	7	Good	4
18	8	Bad	3
19	9	Bad	2
20	10	Bad	2