

SW Engineering CSC648/848 Spring 2019

Gatorbnb

Team 5

Peter Le - team lead (ple2@mail.sfsu.edu) local

Jay Sunga - front end lead

Wesley Goldfisher - back end lead

Franky

Mehi Ledwon

Tanya Wong

Anthony Owyong

Milestone 2

Date	Description
3/13/19	Draft Created
3/21/19	Submitted Version
4/2/19	Frozen Version

1. Data Definitions V2

- **Unregistered User:** any person utilizing the website application who does not hold an account on the website or is not logged in at the moment
- **Registered User:** a person who is logged in via an authentication method to utilize the website application and whose main purpose is to browse among listings as well as contact sellers or post possible listings for users to browse among
- **Site Administrator/Admin:** a person utilizing the website application to review listings and to be able to view as well as remove potentially unwanted listings, users, or content
- **Filter/Filter Option:** specifies a user-defined preference about what listings are to be displayed by the following possible guidelines: price, home type, bedrooms, bath distance, and/or type
- **Listings:** a reference to a house, apartment, or property for sale that contains the following detailed information: address, image(s) of location, price, home type, how many bedrooms and bathrooms, and seller contact materials
- **Log in:** references the action of authenticating yourself as a registered user to use the registered user functions of the website
- **Log out:** references the action of signing out of your logged in account to go to a basic unregistered user function of the website
- **Registration:** allows a user to fully utilize the website application and contains a username, email, and password
- **Favorites:** allows a user to access bookmarked listings.
- **Post:** allows a user to create a listing for rent.
- **Messages:** allows a registered user to contact another registered user to inquire about a listing.

2. Functional Requirements V2

Priority 1:

1. Unregistered Users:

- a. Unregistered users shall be able to register
- b. Unregistered users shall be able to browse through all of the listings
- c. Unregistered users shall be able to view the public details of any listing
- d. Unregistered users shall be able to filter the listings by price, distance, and home type

2. Registered Users:

- a. Registered Users shall be able to do everything an unregistered user is allowed to do besides part 1a(register).
- b. Registered Users shall be able to log in and log out of an account
- c. Registered Users shall be able to post listings
- d. Registered Users shall be able to view listings they posted and related messages

3. Site Administrators:

- a. Site Administrators shall be able to view all Registered Users on the database
- b. Site Administrators shall be able to remove the account of a Registered User
- c. Site Administrators shall be able to view all listings on the database
- d. Site Administrators shall be able to approve or reject listings for posting
- e. Site Administrators shall be able to remove any listing on the site

Priority 2:

1. Unregistered Users:

- a. Unregistered users shall be able to filter the listings by beds, baths, and pets

2. Registered Users:

- a. Registered Users shall be able to edit their listings
- b. Registered Users shall be able to remove their listings

3. Site Administrator:

Priority 3:

1. Unregistered Users:

2. Registered Users:

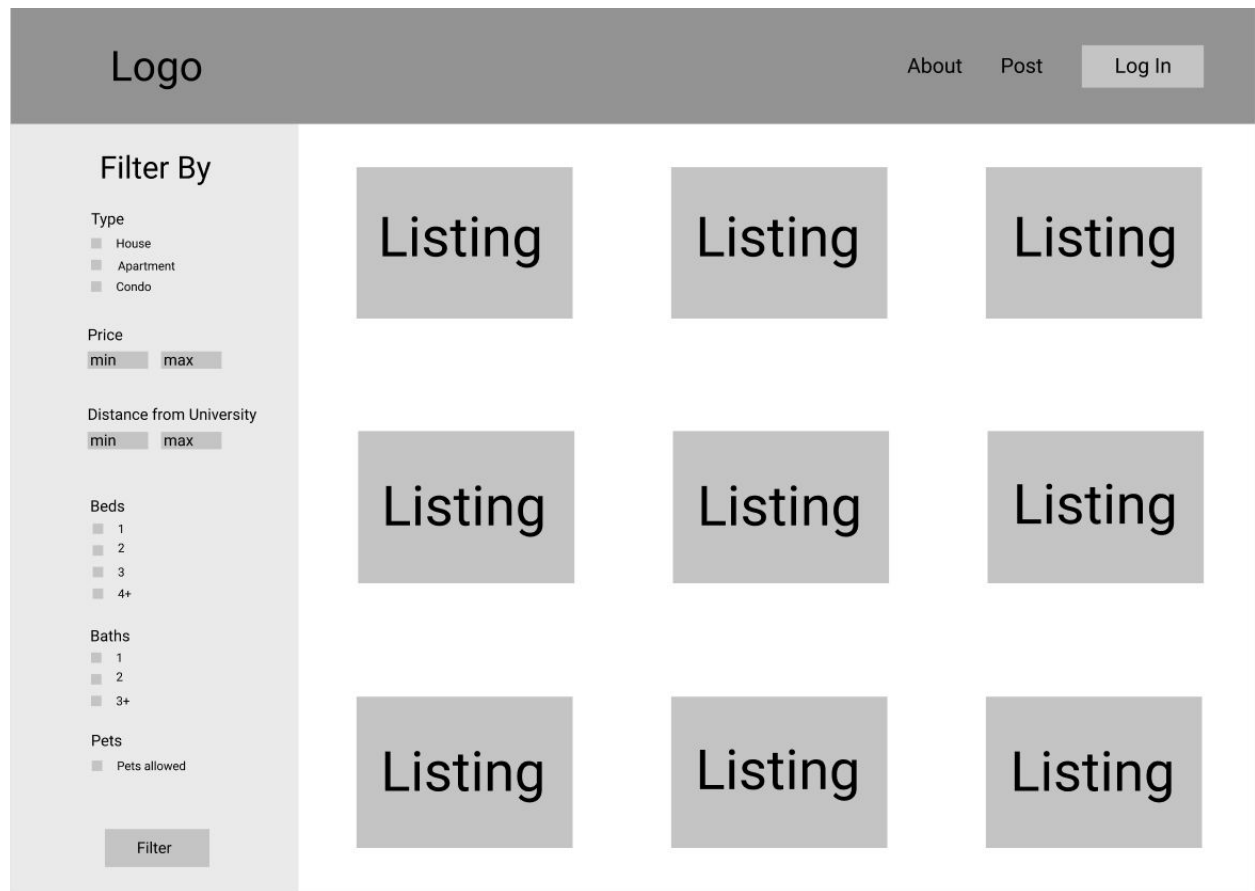
- a. Registered Users shall be able to save listings in the website

3. Site Administrator:

- a. Site Administrators shall be able to view all messages between Registered Users and Sellers

3. UI Mockups and Storyboard

Unregistered Home Page -



Login/Register (Pop up/Modal on Unregistered Home Page) -

Welcome to Gatorbnb

Log In

Register

Email

Pasword

Log In

Welcome to Gatorbnb

Log In

Register

First Name

Last Name

Email

Pasword

Submit

Registered Home Page

- Users shall be able to navigate to post, my listings, and messages at all times

The wireframe illustrates a real estate website layout. At the top is a dark gray header bar containing a 'Logo' on the left and navigation links 'Post', 'My Listings', 'Messages', and a 'Log Out' button on the right. Below the header, the page is divided into a sidebar on the left and a main content area on the right. The sidebar, titled 'Filter By', contains several filter sections: 'Type' with radio buttons for 'House', 'Apartment', and 'Condo'; 'Price' with 'min' and 'max' input fields; 'Distance from University' with 'min' and 'max' input fields; 'Beds' with radio buttons for '1', '2', '3', and '4+'; 'Baths' with radio buttons for '1', '2', and '3+'; and 'Pets' with a radio button for 'Pets allowed'. A 'Filter' button is located at the bottom of the sidebar. The main content area features a 3x3 grid of gray rectangular cards, each labeled 'Listing', representing individual real estate listings.

Logo

[Post](#) [My Listings](#) [Messages](#) [Log Out](#)

Address

State

City

Zipcode

Type

Price

Beds

Baths

Sqfoot

Images

Browse

Upload

Submit

Listing -

Logo

PostMy ListingsMessagesLog Out

HeaderMessage

ImageImageImageImage

Overview

Details

Message

Map

Messages

- Users shall be able to access message at all times through the navigation bar.
- Contacts and messages are grouped by apartments. They are identified by ID for now.
- Users shall be able to view all messages from users associated by apartment.

The screenshot displays a web application interface. At the top, there is a navigation bar with a 'Logo' on the left and links for 'Post', 'My Listings', 'Messages', and a 'Log Out' button on the right. Below the navigation bar, the main content area is divided into two sections. On the left, there is a sidebar titled 'Contacts' which contains two expandable sections, each labeled 'Apartment ID #'. Each section lists 'User 1', 'User 2', and 'User 3'. On the right, there is a chat window titled 'Apartment ID #'. The chat window shows a conversation between a 'User' and 'You'. The 'User' has sent two messages, represented by gray rectangular blocks. 'You' has responded with two messages, also represented by gray rectangular blocks. At the bottom of the chat window, there is a text input field and a 'Send' button.

My Listing

- Users will be redirected to the corresponding apartment messages

Logo				Post	My Listings	Messages	Log Out
Image	Details		Messages	Under Review			
Image	Details		Messages	Approved			
Image	Details		Messages	Rejected			

4. High-level Architecture, Database Organization

Database Schema:

Users:

Name	Data Type	Default Value	NULL
user_id	uuid	Auto Increment	No
first_name	varchar(30)		No
last_name	varchar(30)		No
email	varchar(30)		No
password	char(32)	This will take in a MD5 encryption hash	No

Listings

Name	Data Type	Default Value	NULL
listing_id	uuid	Auto Increment	No
user_id	uuid		No
address	varchar(255)		No
state	varchar(2)		No
city	varchar(30)		No
zipcode	int(6)		No
date_created	date	Current Timestamp	No
description	text		Yes
bedroom	int(2)		No
bathroom	int(2)		No
distance	float		No
squarefoot	int(10)		No

price	decimal(7,2)		Yes
image	varchar(255)	NULL	Yes
confirm_listing	boolean	FALSE	NO

Filter_Tags_Relation:

Name	Data Type	Default Value	NULL
listing_id	uuid		No
tag_id	uuid		No

Filter_Tags:

Name	Data Type	Default Value	NULL
tag_id	uuid	Auto Increment	No
tag_name	varchar(255)		Yes

Favorite_listings:

Name	Data Type	Default Value	NULL
user_id	uuid		No
listing_id	uuid		No

Message:

Name	Data Type	Default Value	NULL
message_id	uuid	Auto Increment	No
sending_user	uuid		No
listing_id	uuid		No
message	varchar(255)		No

Media Storage:

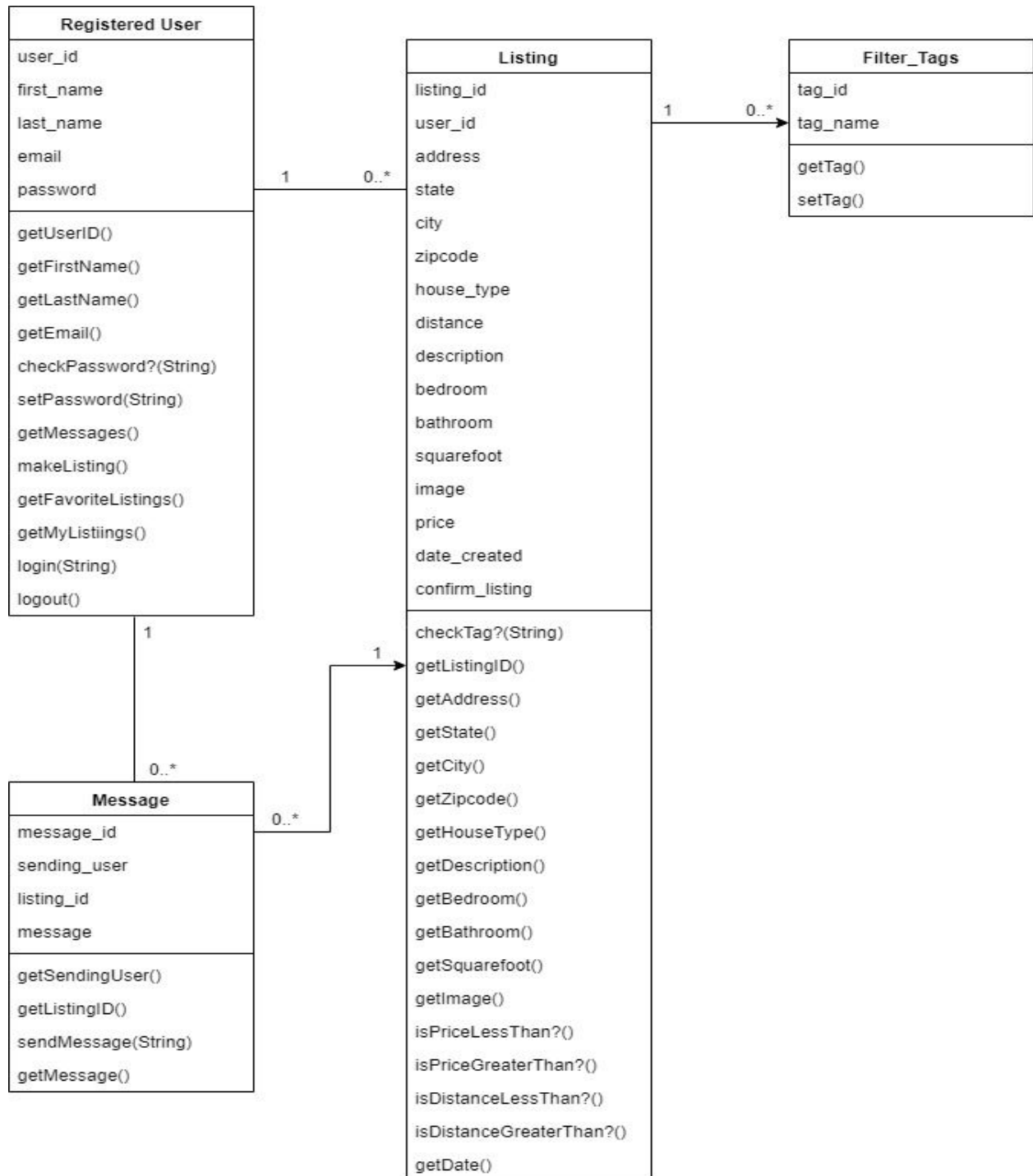
All images and video/audio will be kept in file system format with the database containing the file pathname pointing to the raw media.

Search/filter Architecture and Implementation:

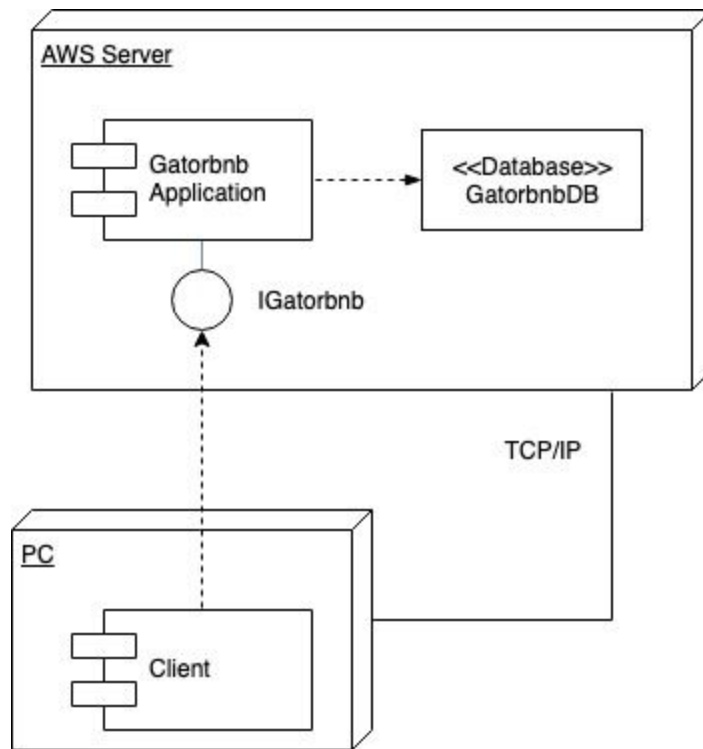
- In the event that the user has not specified any search filters, the page will display all listings organized by the most recent
- If the user enters a location like address, state, city, or zip code then all database listings will be returned with a like value to these locations. This will be implemented using the “LIKE%” operator to return all search results of the search for a specified location.
- If the user wants to filter tags like the number of bedrooms, the number of bathrooms, the type of house, or any other miscellaneous filter tags than all the listings will be sorted and filtered according to the precise equality of the columns values that the listings have in the database
- If the user enters in max price then all the listings that are less than or equal to that price will be returned and if the user enters in the minimum price then all listings greater than or equal to that price will be returned
- If the user enters in the max distance then all listings that are less than or equal to that distance from SFSU will be returned and if the user enters in the minimum distance then all listings that are greater than or equal to that distance from SFSU will be returned
- If no options are found given the user-defined search parameters than an error message will be displayed and they will be directed to search for a different category

5. High-level UML Diagrams

a) High-level UML class diagram



b) UML component and deployment diagrams



6. Key Risks:

Current skill risks the team has been getting familiar with node js/express js and javascript. Some of the team members have basic knowledge of node js and express js but most have little or no knowledge at all. To solve this risk early the team has decided to find tutorials and research on our own individual time to familiarize ourselves, along with reviewing the tutorial that the TA provided. With javascript, the team members who aren't proficient in it will practice when they have time, and .

There is a schedule risk because we have to create the Gaterbnb website within the given amount of time provided. Within the few months remaining, not only will the website need to be created but it must also be functional with the services promised. With all of us being students with other classes we must juggle familiarizing ourselves with the current skill risks, other homework from different classes, working on our website and also other extracurricular activities or our jobs. To address this issue we must work on time management, where we each dedicate enough time for each particular activity. Each day we will work a certain amount of hours on each task to ensure procrastination doesn't happen. Also with the help from Trello, we can focus on a particular task first rather than just absent-mindedly working on everything.

Technical issues may appear while working on the website such as not knowing how to implement a certain segment. With everyone working on their own part of the website, it'll be difficult trying to fix bugs that may appear. To solve this as soon as possible, we will ask each other for help after trying to find the solution by ourselves first. An answer to this would be communication. Constant updates from every team member will give everyone a sense of where they're at and how close they are to completing their own tasks. Unresolved issues will be fixed first before moving on.

Along with the technical issues, a possible legal risk that may occur is finding examples online when stuck on a certain segment. With the internet being a great source for help when stuck, it provides a risk of legal consequences. To prevent any illegal misuse, we will use the examples we find as guidance and give credit when credit is due. To prevent any copyright issues with images, we'll use what is given to us by the professor and find free images from Google's advanced filter.

7. Project Management

Starting with milestone 2, the front end and back end could start to work independently from each other because the planning stage is nearly done. There are still dependencies between the front end and the back end, however, there is far less as we move forward to this situation. The way that we managed milestone 2 is that each person would take a section that would be related to their position in the group. Another thing that was implemented was the use of Trello, since it made it easier to see where people are at and what they need to do. Tasks that involve the front end also now gets assigned to the front end lead who will distribute the work and check the status of the work. The same thing applies to the back end and the back end when it involves the structure of the project.