

SW Engineering CSC648/848 Spring 2019

Gator Housing

Team 12

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Milestone 2

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1. Data Definitions v2

1. **Users:** Anyone who uses Gator Housing is a User
 - a. **Unregistered users:** Users that are only allowed to browse the website, but are not able to send messages or get contact information
 - b. **Registered users:** Users that are registered have the permissions of unregistered users but also the following:
 - i. **Tenants:** Registered Tenants can message landlords, favorite postings
 - ii. **Landlords:** Landlords can put up postings of their unit for other users to see. They can also edit their posts.
 - c. **Administrators:** Can review and delete posts before they go live. They are unable to edit posts.
2. **Registration Form:** Required for users to register. Contains name and email, and optionally address, phone.
3. **Postings:** Postings are posted by Landlords and are reviewed by an administrator before it is posted onto the website. A posting consists of the Name/Title, Posting ID, Category, Price, Images(s), Location, Status and Description about the item.
4. **Messages:** The in-house form of communication between tenants and landlords. Once the tenant sees a posting they like, the tenant has to contact the landlord first through the message system. Both the tenants and landlords can check for new messages.
5. **Landlord Dashboard:** A dashboard for the landlords after they log onto the Gator Housing website. From here the landlord can post a new posting, check on the status of existing postings, edit existing postings, remove existing postings and check and reply to their messages.

6. **Tenant Dashboard:** A dashboard for the Tenants. After logging into the website the tenant can view their messages and send new messages to landlords.
7. **Administrator Dashboard:** A dashboard for the administrator. After logging onto the website, the administrator has access to special privileges. These privileges include approving postings to be posted onto the website, removing postings from the website that are deemed inappropriate or ones that don't follow the website guideline and removing suspicious users.
8. **User Record:** The user record is created when an unregistered user becomes a registered user. The user record contains information relevant to that specific user including username, user ID, user type, permissions, password, etc.

2. Functional Requirements v2

Priority 1:

1. Unregistered Users

1. Unregistered users shall be able to browse apartments.
2. Unregistered users shall be able to search for apartments.
3. Unregistered users shall be able to view the apartment location.
4. Unregistered users shall be able to view how far the apartment is away from campus.
5. Unregistered users shall be able to view the price of the apartment.
6. Unregistered users shall be able to become a registered user.
7. Unregistered users shall not be able to contact the landlord.

8. Unregistered users shall be prompted to be logged in when using registered user services.

2. Registered Users

1. Registered users shall be able to browse apartments.
2. Registered users shall be able to search for apartments.
3. Registered users shall be able to view the apartment location.
4. Registered users shall be able to view how far the apartment is away from campus.
5. Registered users shall be able to view the price of the apartment.
6. Registered users shall be able to post information about apartments.
7. Registered users shall be able to edit their own posts.
8. Registered users shall be able to contact the landlord.
9. Registered users shall have access to their dashboard.
10. Registered users shall be able to see messages received.
11. Registered users shall be able to send messages.

3. Administrators

1. Administrators shall review posted apartments before they go live.
2. Administrators shall be able to remove inappropriate posts.
3. Administrators shall be unable to edit posted information.
4. Administrators shall be able view their dashboard with pending posts.
5. Administrators shall be able to browse apartments.
6. Administrators shall be able to search for apartments.

Priority 2:

1. Registered Users

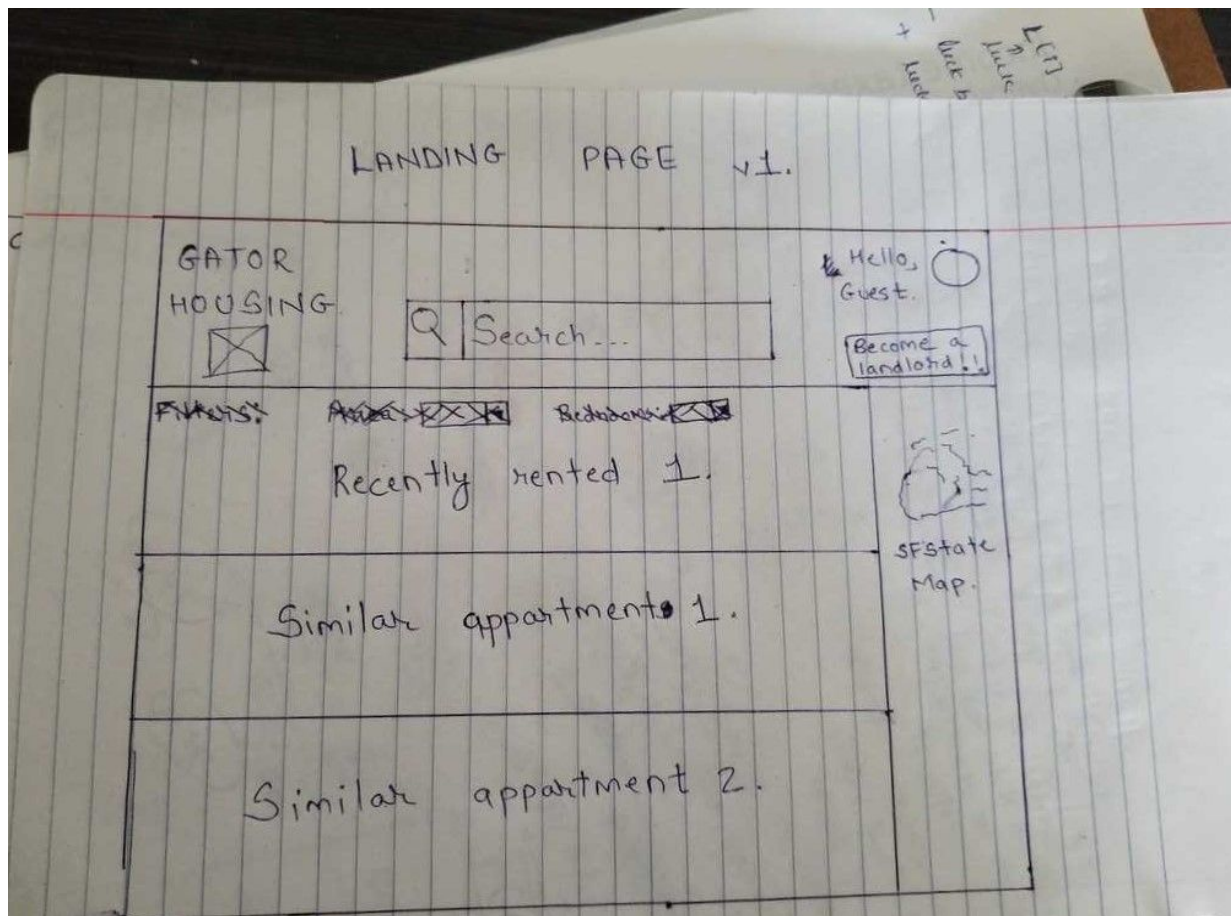
1. Registered users shall be able to contact the administrators.

2. Administrators

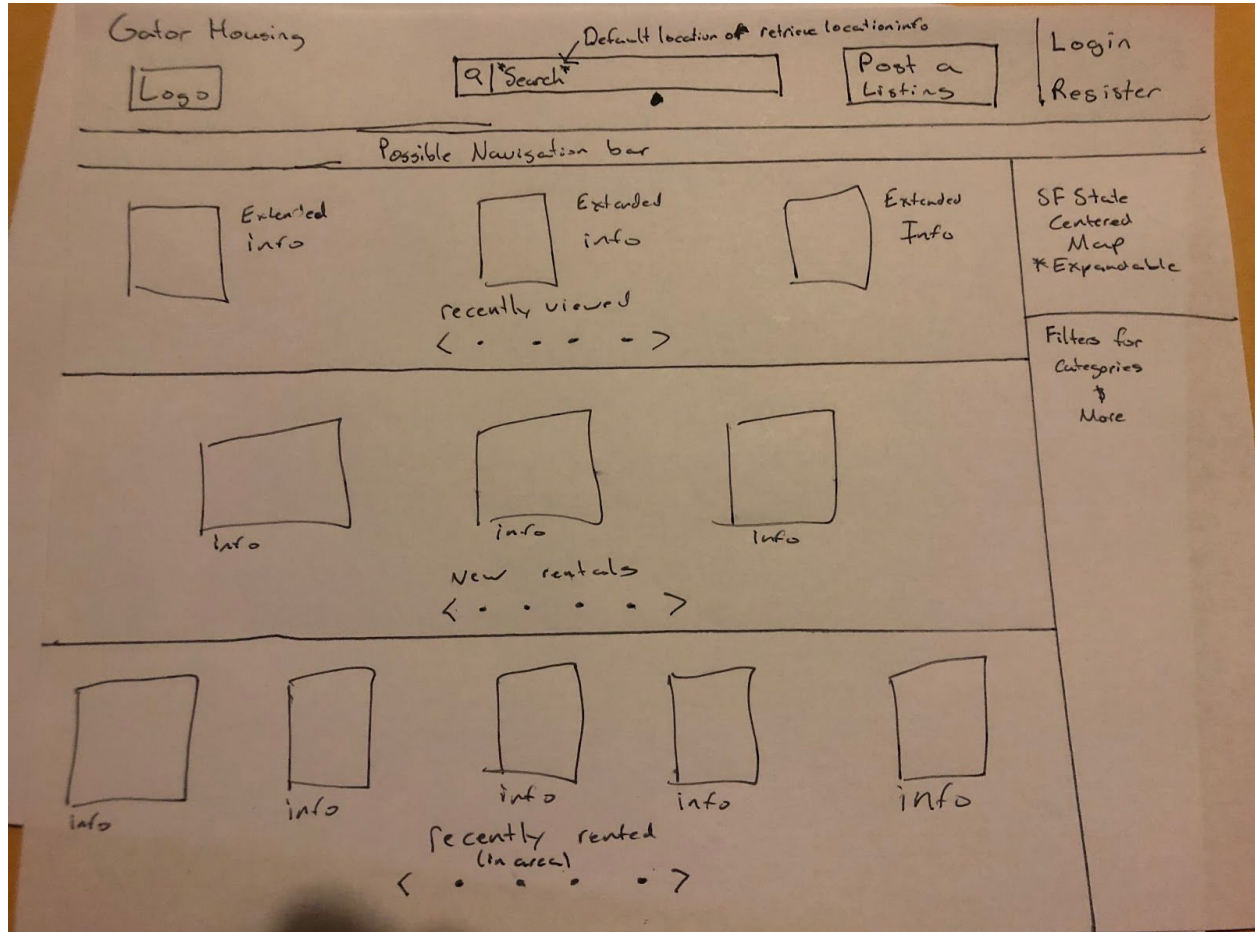
1. Administrators shall be able to send messages to registered users.
2. Administrators shall notify user if their post has been removed.

3. UI Mockups

Version 1 Mockup-





Version 2 Mockup-



Still in the process of finalizing a design.

Version 3 Mockup-



Landing Page - This will be the home page for the website. You can do a basic search in any housing category from here.

Gator Housing	Category:		
	All ▾		Search
	Username Password Login		
Post Something!			
All Postings	 <div>Lovely Suburban House 12018 Paradise Loop, San Francisco, CA 94132 \$2,500 / Month</div>		
FAQ	<div>← Recently Viewed →</div> <div>← New Rentals →</div> <div>← Recently Rented →</div>		

Search Page - This page will be used to search more in depth for registered users. You can sort and filter the results on this page.

Gator Housing	Category: <div>All <input type="text"/></div> <div>Search</div>			
	Timothy Meadows' Profile			<div>Logout</div>
Post Something!	Sort By: <div>Price: Lowest First</div>	Filters: <div>Any Price</div>	<div>0+ Bedrooms</div>	<div>0+ Bath</div>
All Postings	 <div>Lovely Suburban House</div> <div>17245 Hawks Lane, Gator Meadows, GA 30117</div> <div>\$3400 / Month</div>			
FAQ				
Favorites				
	<div>← 12345 →</div>			



Listing Page - This will be the page you see once you click on a listing from the search page. It will give the rest of the listing information not shown from the previous page.

Gator Housing	Listing Type:	
	All ▾	Search
	Username Password Login	
Post Something!		
All Postings		
FAQ		
	Lovely Suburban House	12345 Paradise Lane, San Francisco, CA 94112
	This house is a wonderful suburban house with 4bed/2.5bath. Close to T-line and BART. Schools in nearby proximity.	\$3,500 / Month

Login Page - This will be the page where you log into your account. You may also use the other links to register if you are a new user or if you forgot your password as an existing user.

Gator Housing	Category:
	<div>All <input type="text"/></div> <div>Search</div>
	<div>Username</div> <div>Password</div> <div>Login</div>
Post Something!	<div>Login Page</div> <div>Username:</div> <div><input type="text"/></div> <div>Password:</div> <div><input type="text"/></div> <div>Forgot your Password?</div> <div>New? Register Here!</div> <div>Accept</div>
All Postings	
FAQ	


Registration Page - This will be the page where you register to be a user on the website. In order to register you must agree to the Terms of Service and prove you aren't a robot with the captcha.

Gator Housing	Category:	
	<div>All ▾</div>	<div>Search</div>
	<div>Username</div>	<div>Password</div>
	<div>Login</div>	
Post Something!	Registration Form	
	Required Fields = *	
All Postings	Name:	<input type="text"/>
	Email:	<input type="text"/>
FAQ	Username:	<input type="text"/>
	Password:	<input type="text"/>
	Address:	<input type="text"/>
	Phone Number:	<input type="text"/>
	<input type="checkbox"/> Do you agree to the Terms of Service?	<div><input type="checkbox"/> I'm not a robot  reCAPTCHA Privacy - Terms</div>
		Accept

Messaging Page - This is the page where potential tenants and landlords can communicate about listed properties.

Gator Housing	Category:				
	All ▾	<input type="text"/>			
	<input type="button" value="Search"/>				
		<table border="1"><tr><td>Username</td><td>Password</td><td>Login</td></tr></table>	Username	Password	Login
Username	Password	Login			
Post Something!		Conversations			
All Postings	<div>Hi, what would you like to know more about?</div>	<div>Hi! I'd like to know more about your property.</div>			
FAQ		<div>Are pets allowed?</div>			
Favorites					
	<div>Type a message here: "I'm interested in this listing"</div>				

Make A Post - This will be the page where you can post a listing to the website.

Gator Housing	Category:
	<div>All <input type="text"/></div> <div>Search</div>
	<div>Username</div> <div>Password</div> <div>Login</div>
Post Something!	
All Postings	<div>Title</div> <div><input type="text"/></div>
	<div>Description</div> <div><input type="text"/></div>
FAQ	<div>Address</div> <div><input type="text"/></div>
	<div>Price</div> <div><input type="text"/></div>
Favorites	<div>Add Images</div> <div><input type="text"/> <div>Submit</div></div>
	<div>Submit</div>

4. High Level Architecture

a. Database Organization

Note: PK stands for primary key. FK stands for foreign key.

1. User Record:

user_record		
PK	user_id	int(10)
	user_name	varchar(30)
	user_email	varchar(30)
	user_password	varchar(30)
	user_type	varchar(30)
	is_admin	boolean
	user_address	varchar(100)
	user_phone	varchar(10)
FK	post_id	int(10)
FK	dashboard_id	int(10)
FK	message_id	int(10)

The user record will keep track of all the information that is required or optional when an unregistered user decides to register. We will be able to keep track of their posts and assign a dashboard to them as well.

2. Posts:

Posts		
PK	post_id	int(10)
	post_name	varchar(255)
	price	double(10)
	location	varchar(255)
	status	varchar(30)
	description	varchar(255)
	image	image
FK	category_id	varchar(30)
FK	user_id	int(10)

This table requires that all users who may want to post to fill out each of these fields to be able to complete the post. All posts will be linked to an ID to identify who posted the apartment information.

3. Messages

Messages		
PK	message_id	int(10)
	message_text	varchar(255)
	message_date	date
FK	user_id	int(10)

The messages table is used to keep track of the messages sent and received by registered users.

4. Dashboard

Dashboard		
PK	dashboard_id	int(10)
FK	user_id	int(10)
FK	message_id	int(10)
FK	post_id	int(10)

Depending on the user ID, a dashboard will be assigned. This will change depending on whether a user is a tenant, landlord, or an administrator.

5. Category

Category		
PK	category_id	int(10)
	room_type	varchar(30)
FK	post_id	int(10)

Posts will be categorized as either some type of house, apartment, or room. This will enable registered users to be able to sort places by category as well.

b. Media Storage

We will be using files to store our images for the website.

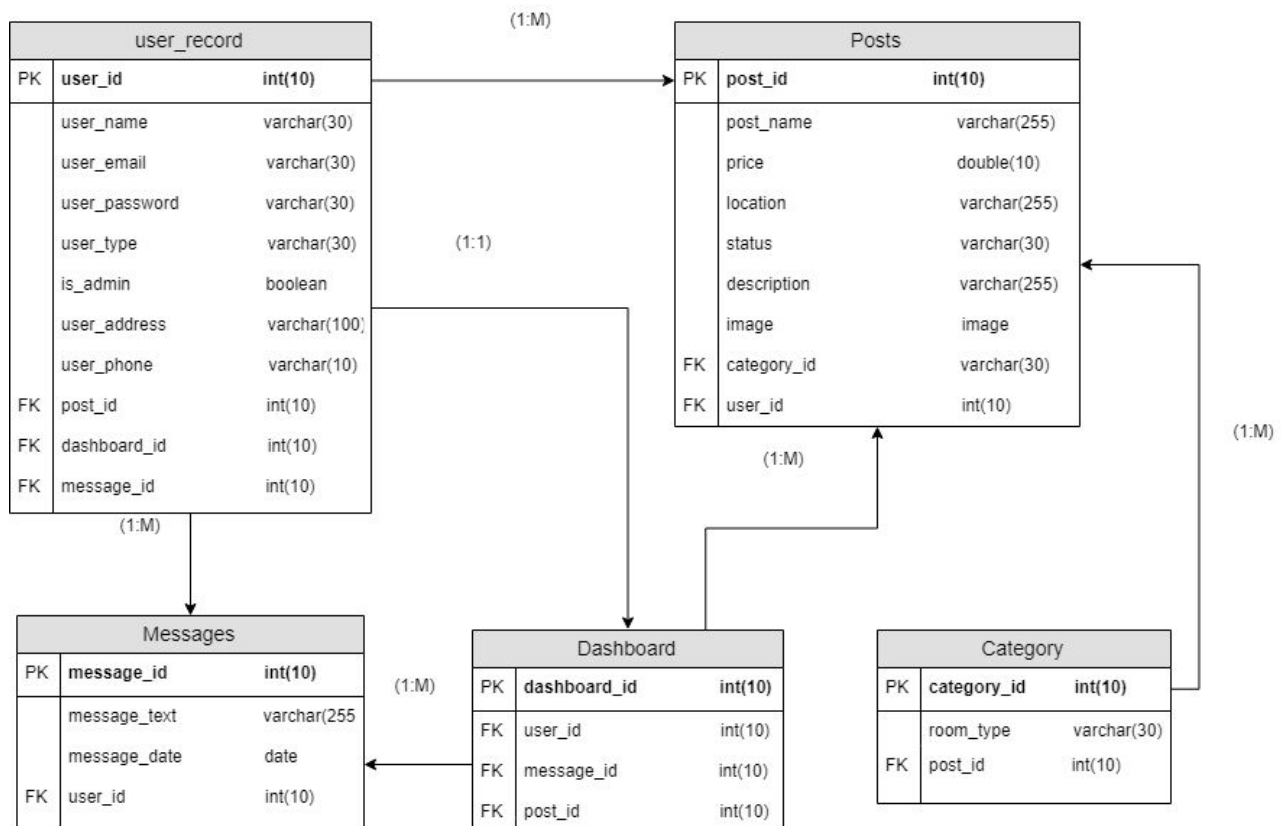
c. Search/Filter Implementation

There will be a small drop down menu near the search bar to filter posts by category such as a house, apartment or room, which will send a query to the Category table to our database and return each type. The end user shall be able to search using keywords to find an apartment, such as Daly City as an example, to find a place by location by using the %LIKE Mysql query.

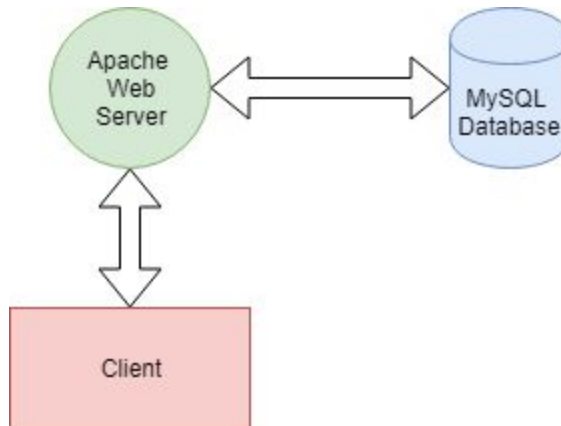
d. Possible API usage

6. Diagrams

UML:



Deployment:



7. Key Risks

a. Skills Risks

Our back end team is inexperienced with working with Node, but will try to work to the best of their abilities while still learning Node independently on the side.

b. Schedule Risks

A few members have a tight schedule to work around. Coordinating within teams may prove more difficult to get things done in a timely manner. Trello will still be useful to solve this along with help by other teammates in case unexpected events occur.

c. Technical Risks

Not everyone in our team is familiar with GitHub usage. However, a member uploaded an easy to read and follow documentation with pertaining to git push/pull/merge and branching. Whenever a member is unsure of how to use Git, they can refer to the documentation for a smoother process. Still, if any merge errors occur it will be handled by the Git master to resolve issues before pushing to prevent further errors.

8. Project Management

We will be using Trello to keep track of what each side is doing. We will assign cards for specific features for front end members and back end members to work on in a timely manner. Task distribution will be assigned as equally as possible and also based on the strengths and weaknesses of front/back end team members. Each end will work on their parts independently from each other, merging pieces together slowly as features are being finished. This will allow our team to steadily build the product until it is complete.