

# **Final Project for SW Engineering CSC 648/848 Spring 2019**

## **Team 12**

### **Gator Housing**

**Andrew St. Germain (Team Lead)**

**Sunny Wong (Backend Lead/Github Master)**

**Steven Apicella (Frontend Lead)**

**David Adams (Backend Member/Document Master)**

**Sagar Pandya (Backend Member)**

**Ganzolboo Ayurzana (Frontend member)**

**Peter Lin (Frontend member)**

### **Milestone 5**

**May 21, 2019**

TEST URL: <http://ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/>

Team Lead's Email: [astgermain@mail.sfsu.edu](mailto:astgermain@mail.sfsu.edu)

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## **Product Summary**

As a group of students currently studying Computer Science at San Francisco State University, we all know how difficult it can be to look for the perfect place to live. Many factors come into consideration when deciding where to live, which is why we have decided to build and launch a website named “Gator Housing” to help students look for housing. Gator Housing is a website specifically tailored to the needs of students at San Francisco State University. The features that will be included at the launch of Gator Housing are as follows:

1. Text Search: Users will be able to use text search to search for postings with the same key words.
2. Sort by price: Users will be able to sort by the price of the unit.
3. Sort by number of bedrooms: Users will be able to sort by the number of rooms in the unit.
4. Registration: New users will be able to register to become a user.
5. Login: Registered users will be able to login to contact landlords.
6. Administrator: An administrator will be required to approve/remove posts.
7. Messages: Registered users will be able to send a message to the landlord.
8. Post: Registered users will be able to post their own listings and remove their listings.

On top of these included features, what makes Gator Housing unique is the fact that this website is designed primarily for SFSU students. The website is populated by users from within the community, which will make it a safer option to use. A safety feature is that users can contact each other through an internal messaging system, which only registered users can use. Therefore, users feel safer by not having to post their personal contact information on the web or worry about coming in contact with risky phone numbers, emails, etc. The website can be accessed using the following URL: <http://ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/>

# San Francisco State University

## CSC 648 - 848

### Milestone 0 Submission Form

#### Section 2 Team 12

Item	Credentials
<b>Website URL</b>	<a href="http://ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/">http://ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/</a>
<b>SSH URL</b>	ubuntu@ec2-54-153-63-128.us-west-1.compute.amazonaws.com
<b>SSH Username</b>	ubuntu
<b>SSH Password/Key</b>	<a href="https://drive.google.com/file/d/1UtTy95x2-Zi3g1JtQ2Ke93ZHUGPMgEYa/view?usp=sharing">https://drive.google.com/file/d/1UtTy95x2-Zi3g1JtQ2Ke93ZHUGPMgEYa/view?usp=sharing</a>
<b>Database URL</b>	team12db.ccdqjwmvzqxn.us-west-1.rds.amazonaws.com
<b>Database Username</b>	team 12
<b>Database Password</b>	Team12%!

Additional information, anything to help with executing or grading of the current milestone
<p>SSH port 22 Our backend had a little miscommunication before it was too late to fix. Our software stack has been changed slightly. Instead of Ubuntu 16.04 we are running Ubuntu 18.04.1 LTS Instead of MYSQL 8.0.15 we are running MYSQL 8.0.13 And lastly instead of Apache 2.4 we seem to be running Nginx 1.14.0 Please let me know if there are any issues and we will rectify.</p>

# **SW Engineering CSC648/848 Spring 2019**

## **Gator Housing**

### **Team 12**

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**David Adams (Backend Member/Document Master)**

**Sagar Pandya (Backend Member)**

**Ganzolboo Ayurzana (Frontend member)**

**Peter Lin (Frontend member)**

## **Milestone 1**

**March 7, 2019**

**Version history can be seen on Google Drive here:**

**<https://docs.google.com/document/d/15WIpiG261QIKrSNfnxkzKW34Oa0kJhicmv0PsLs-GDo/edit?usp=sharing>**

## **1. Executive Summary**

As a group of students currently studying Computer Science at San Francisco State University, we all know how difficult it can be to look for the perfect place to live. Many factors come into consideration when deciding where to live, which is why we have decided to build and launch a website named “Gator Housing” to help students look for housing. Gator Housing is a website specifically tailored to the needs of students at San Francisco State University. Users will be able to search by price, distance from campus, distance from closest Muni stops, etc. This platform would also allow students to easily compare the rates of housing to quickly get an idea of current market rates and from there, get a reasonable price for housing. The objective of building this website is to help students quickly find housing that fits within all of their criterias all while using a safe and secure platform.

Gator Housing will have three different types of users: Administrators, Landlords and Tenants. The landlords can post their listings which will include a title, type of housing, description, location and price range. The listing can include multiple photos but must include at least one photo. The listing will then go to the administrator for approval before being posted on the website. The site can be browsed by registered and unregistered tenants. Registered tenants can use the website to message the landlord to further inquire about the housing, set up a viewing, etc. This website is tailored specifically to students who attend San Francisco State University as it would provide a quick, secure way of browsing, viewing and leasing housing at competitive rates. While this website is mainly for the student body, there is potential for this website to attract more customers and therefore increase the traffic and usage of this website.

The student startup team behind the development of the “Gator Housing” website is composed of Team Lead Andrew St. Germain, Backend Lead Sunny Wong, Frontend Lead Steven Apicella, Backend Developers David Adams and Sagar Pandya and Frontend Developers Ganzolboo Ayurzana and Peter Lin. This team will work collaboratively to develop the website using Software Engineering methods.

## 2.1 Personas

**Pesona #1:** Anna, a freshman at San Francisco State University.

- Freshman
- Technologically literate
- Has access to smartphone and a laptop/desktop
- Busy with classes
- Very concerned about price and proximity to campus
- Does her research



**Persona #2:** John, a senior at SFSU who wants a change.

- Senior
- Technologically literate
- Has access to smartphone and a computer
- Does not have a car
- Needs to find a place ASAP

**Persona #3:** Mr. & Mrs. Smith, a retired couple on fixed income with a space to rent in their building/duplex.

- Landlord with a nice unit
- Technologically illiterate
- Prefers phone calls
- Has plenty of time to find the right tenant



**Persona #4:** David, an avid administrator.

- Website Administrator
- Highly experienced with technology/web applications
- Diligent in his work
- Computer Science major at SFSU

## 2.2 Use Cases

### **Use Case #1:** Student looking for new housing for the next year

Anna Smith is currently a freshman at SFSU. Her first year is winding down and she and her friends are looking to get a place off campus to live together. She uses Gator Housing to find an affordable place that is somewhat close to campus. At first, she browses most of the apartments that are currently available to rent to get a feel for the market. She then narrows down her focus based on prices to be more affordable because she knows money will be tight for her and her future housemates next year. Once Anna and her friends have made her decision on some apartment, she decides to contact the landlord, sending a message along with her email and phone number. Once her message is complete, she is then prompted to login in order to send the message, or register as a new user.

### **Use Case #2:** Desperate student looking for new housing

John is a Senior at SFSU and currently lives with 3 of his other friends in a house off campus. At the beginning of the year he thought living with his friends would be a great time, but after a few months into their lease, the habits of his roommates frustrated him greatly. Now, John wants to find a new place and move out as soon as possible. He goes onto the Gator Housing website to search for a new place to live. Unfortunately, John does not have a car and decides to sort apartments based on the distance from campus, which he finds is a unique attribute of the site. Once John found a place that is offering a single, he uses the Gator Housing messaging system to send a message to the landlord after registering as a user. Within a few days, John met with the landlord for a viewing, content with the fact that he is finally moving out of his current housing situation thanks to Gator Housing.

## **2.2 Use Cases cont.**

### **Use Case #3:** Landlord looking to rent

The Smiths are a retired couple with a fixed income who are planning to rent a space that is available in their duplex. They are not in a hurry to find a tenant because they are looking for great, responsible tenants. The Smiths use Gator Housing to create an account and make a posting with multiple photos along with a description of the unit. However, since they are not as technologically literate, they favor using Gator Housing as the simple and intuitive design make it straightforward to post their unit. Their posting will be shown as pending until it is approved by the administrator. After approval, the listing can then be seen by potential tenants. The Smiths go through dozens of students who are interested in their unit before finally settling on someone they like. After a brief exchange of information with the tenant by using the Gator Housing messaging system, the Smiths prefer to have a conversation over the phone to set up a viewing date.

### **Use Case #4:** Diligent Administrator

David is an diligent administrator for Gator Housing who is very serious about his job. He is a registered tenant on the website as well as an administrator. During his work hours, he continuously supervises the website for new postings and approve acceptable ones as they come in. He has the authority to approve of postings and the authority to remove any suspicious user or users who have been flagged too many times.

### **3. List of main data items and entities**

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:** Must 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(House, Apt, Room), 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.

## **4. List of functional requirements**

For all users:

1. Users shall be able to browse apartments.
2. Users shall be able to search for apartments.
3. Users shall be able to view the apartment location.
4. Users shall be able to view how far the apartment is away from campus.
5. Users shall be able to view the price of the apartment.
6. Users shall be able to become a registered user.
7. Website shall be easy to use.
8. Website shall have a registration form.
9. Website shall prompt login to be able to send message to landlord.
10. Website shall prompt login to be able to post new apartment information.
11. Website UI shall be responsive to desktop/laptop users.
12. Website UI shall be responsive for mobile users.
13. Registered users shall be able to post information about apartments.
14. Posts shall be pending until approved by the administrator.
15. Registered users shall be able to edit their own posts.
16. Registered users shall be able to contact the landlord.
17. Administrators shall review posted apartments before they go live.
18. Administrators shall be able to remove inappropriate posts.
19. Administrators shall be unable to edit posted information.
20. Administrators shall notify user if their post has been removed.

## **5. List of non-functional requirements**

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0.
2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of two major browsers.
3. Selected application functions must render well on mobile devices.
4. Data shall be stored in the team's chosen database technology on the team's deployment server.
5. No more than 50 concurrent users shall be accessing the application at any time.
6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
7. The language used shall be English.
8. Application shall be very easy to use and intuitive.
9. Google analytics shall be added.
10. No email clients shall be allowed.
11. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated.
12. Site security: basic best practices shall be applied
13. Before posted live, all content (e.g. apartment listings and images) must be approved by site administrator.
14. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development.
15. The website shall prominently display the following exact text on all pages "*SFSU Software Engineering Project CSC 648-848, Spring 2019. For Demonstration Only*" at the top of the WWW page.

## 6. Competitive analysis

Key Features	Craigslist	Zillow	Hotpads	Apartments	Gator Housing
Text Search	+	++	+	+	+
Browse	+	+	+	+	+
Filter by Categories	+	+	++	++	+
Local Landlords	+	+	+	+	++
Internal Organization	-	-	-	-	++

+ feature exists; ++ superior; - does not exist

Key Feature Definitions:

- Text Search: Searching by using text
- Browse: Users can browse freely or by category
- Filter by Categories: Users can filter based on different categories (distance, price, etc)
- Local Landlords: Landlords that are in close proximity to SFSU campus
- Internal Organization: Used mainly by SFSU students and landlords who have units within close proximity to SFSU campus

The goal of Gator Housing is to provide SFSU students a quick and easy way to find affordable housing that fit within their needs. This website is designed primarily for SFSU students because the website is populated by users from within the community, making it a safer option. A safety feature is that users can contact each other through an internal messaging system, which only registered users can use. Therefore, users feel safer by not having to post their personal contact information on the web or worry about coming in contact with risky phone numbers, emails, etc. Other advantages Gator housing provides includes the ability to sort from distance to campus and to see if there are nearby Muni stops. Similarly students will be able to filter by categories, which includes price and number of bedrooms.

## **7. High-level system architecture and technologies used**

Server Host: AWS 1 vCPU 1 GB RAM

Operating System: Ubuntu 16.04 Server

Database: MySQL 8.0.15

Web Server: Apache 2.4

Server-Side Language: Javascript 1.8.5

Additional Technologies:

Runtime Environment: Node.js

Support Chrome, and Safari latest version and one older

## 8. Team

- Andrew St. Germain (Team Lead)
- Sunny Wong (Backend Lead/Github Master)
- Sagar Pandya (Backend member)
- David Adams (Backend Member/Document Master)
- Steven Apicella (Frontend Lead)
- Ganzolboo Ayurzana (Frontend member)
- Peter Lin (Frontend member)

## 9. Check List

- Team found a time slot to meet outside of the class: **DONE**
- Github master chosen: **DONE**
- Team decided and agreed together on using the listed SW tools and deployment server: **DONE**
- Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on learning and practicing: **ON TRACK**
- Team lead ensured that all team members read the final M1 and agree/understand it before submission: **ON TRACK**
- Github organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.): **DONE**

# **SW Engineering CSC648/848 Spring 2019**

## **Gator Housing**

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**Sagar Pandya (Backend Member)**

**Ganzolboo Ayurzana (Frontend member)**

**Peter Lin (Frontend member)**

## **Milestone 2**

**March 22, 2019**

## 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**

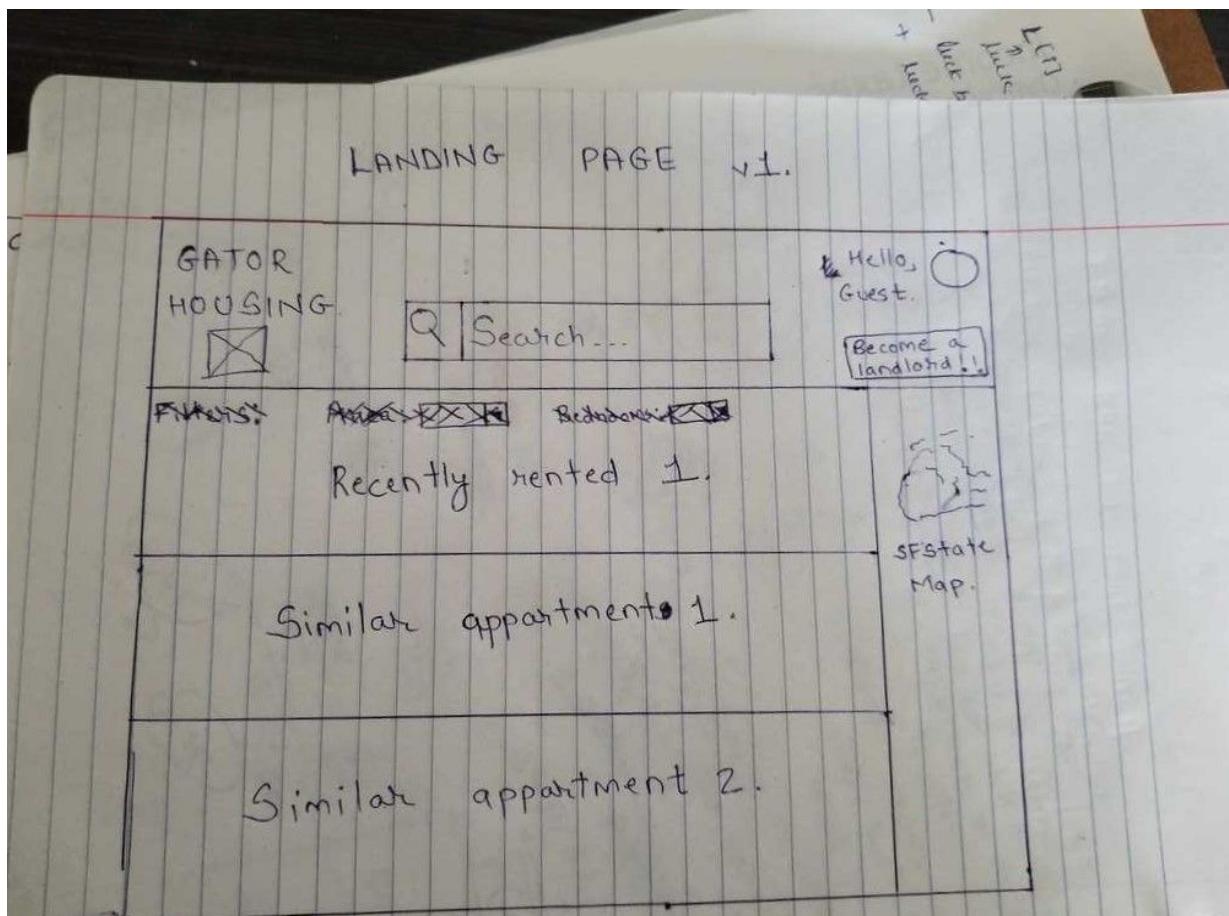
1. Registered users shall be able to contact the administrators.

### **2. Administrators**

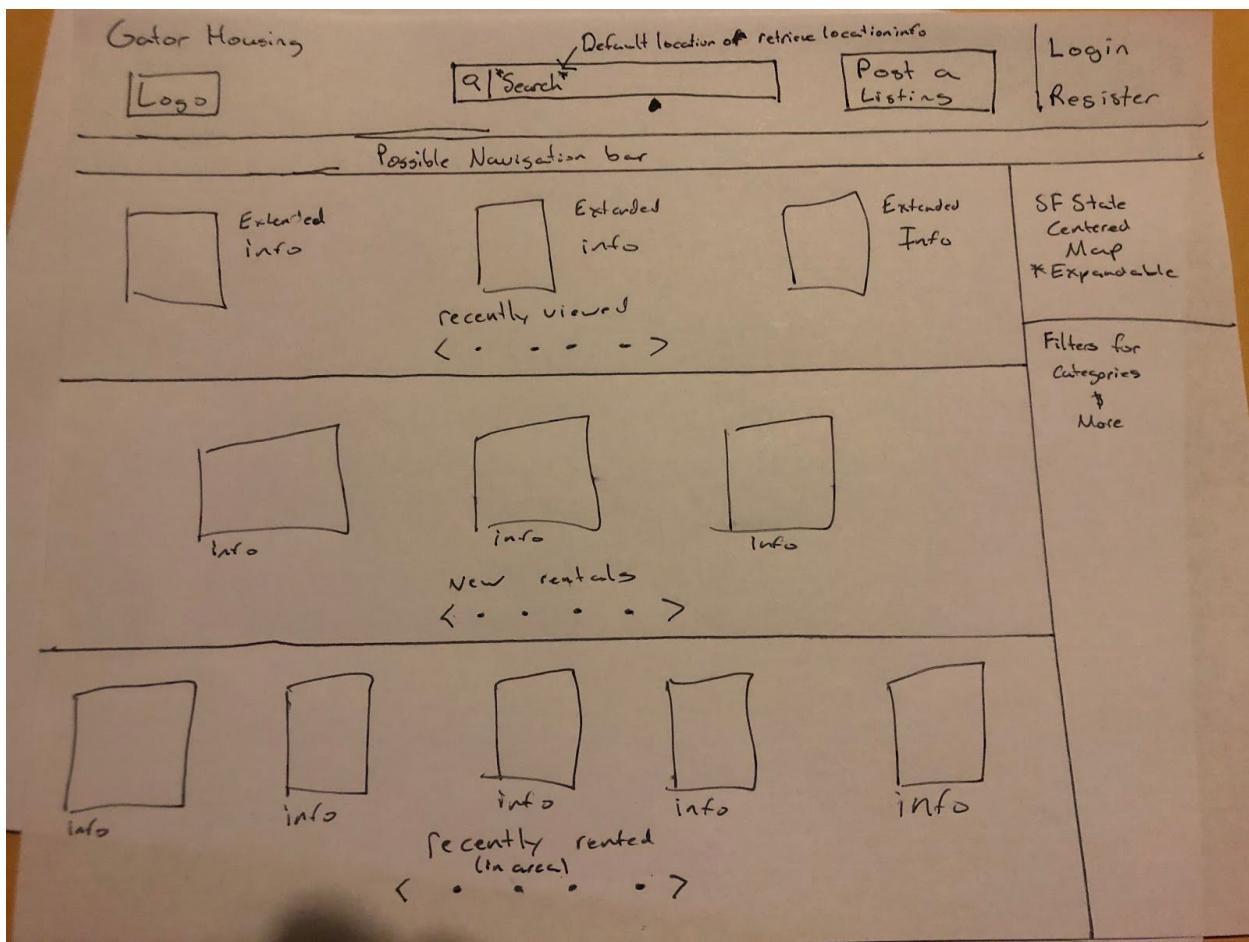
1. Administrators shall be able to send messages to registered users.
2. Administrators shall notify user if their post has been removed.

## **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 	<p>Category:</p> <p>All <input type="button" value="▼"/></p> <p><input type="text"/> Search</p> <p><input type="text"/> Username <input type="password"/> Password <input type="button" value="Login"/></p>			
Post Something!				
All Postings	 Lovely Suburban House 12345 Pleasant Lane, San Francisco, CA 94112 \$1500/month			
FAQ	<p>← Recently Viewed →</p>    			
	<p>← New Rentals →</p>    			
	<p>← Recently Rented →</p>    			

**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 	<p>Category:</p> <p>All <input type="button" value="▼"/></p> <p>Search <input type="button" value=""/></p> <p>Timothy Meadows' Profile <input type="button" value="Logout"/></p> <p>Sort By: Price: Lowest First <input type="button" value="▼"/> Filters: Any Price <input type="button" value="▼"/> 0+ Bedrooms <input type="button" value="▼"/> 0+ Bath <input type="button" value="▼"/> Distance <input type="button" value="▼"/></p> <td><p>Lovely Suburban House 1234567890.com Fremont, CA 94535 \$1,000 / Month</p></td> <td></td> <td></td> <td></td>	 <p>Lovely Suburban House 1234567890.com Fremont, CA 94535 \$1,000 / Month</p>			
Post Something!					
All Postings					
FAQ					
Favorites					
	<input type="button" value="←"/> 1 2 3 4 5 <input type="button" value="→"/>				

**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 	<p>Listing Type:</p> <p>All ▾</p> <p><input type="button" value="Search"/></p> <p><input type="text" value="Username"/> <input type="password" value="Password"/> <input type="button" value="Login"/></p>
Post Something!	
All Postings	
FAQ	
	<p>Lovely Suburban House</p> <p>This house is a wonderful suburban house with 4bed/2.5bath. Close to T-line and BART. Schools in nearby proximity.</p> <p>12345 Paradise Lane, San Francisco, CA 94112</p> <p>\$3,500 / Month</p>

**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.

<p>Gator Housing</p> 	<p>Category:</p> <p>All ▾</p> <p><input type="text"/> Search</p> <p><input type="text"/> Username <input type="password"/> Password <input type="button" value="Login"/></p>
<p>Post Something!</p> <hr/> <p>All Postings</p> <hr/> <p>FAQ</p> <hr/>	<p style="text-align: center;">Login Page</p> <p>Username:</p> <p><input type="text"/></p> <p>Password:</p> <p><input type="text"/></p> <p style="text-align: center;"><a href="#">Forgot your Password?</a> <a href="#">New? Register Here!</a></p> <p style="text-align: center;"><input type="button" value="Accept"/></p>

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

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

Gator Housing 	<p>Category:</p> <p>All ▾</p> <p>Search</p>	<p>Username</p> <p>Password</p> <p>Login</p>
Post Something!	<p>Hi, what would you like to know more about?</p> <p>Hi! I'd like to know more about your property.</p>	Conversations
All Postings		
FAQ	<p>Are pets allowed?</p>	
Favorites		
	Type a message here: "I'm interested in this listing"	

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

<p>Gator Housing</p> 	<p>Category:</p> <p>All <input type="button" value="▼"/></p> <p><input type="text"/> Search</p> <p><input type="text"/> Username <input type="password"/> Password <input type="button" value="Login"/></p> <p>Post Something!</p> <p>All Postings</p> <p>FAQ</p> <p>Favorites</p>
	<p>Title <input type="text"/></p> <p>Description <input type="text"/></p> <p>Address <input type="text"/></p> <p>Price <input type="text"/></p> <p>Add Images <input type="text"/> <input type="button" value="Submit"/></p> <p style="text-align: center;"><input type="button" value="Submit"/></p>

## 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.

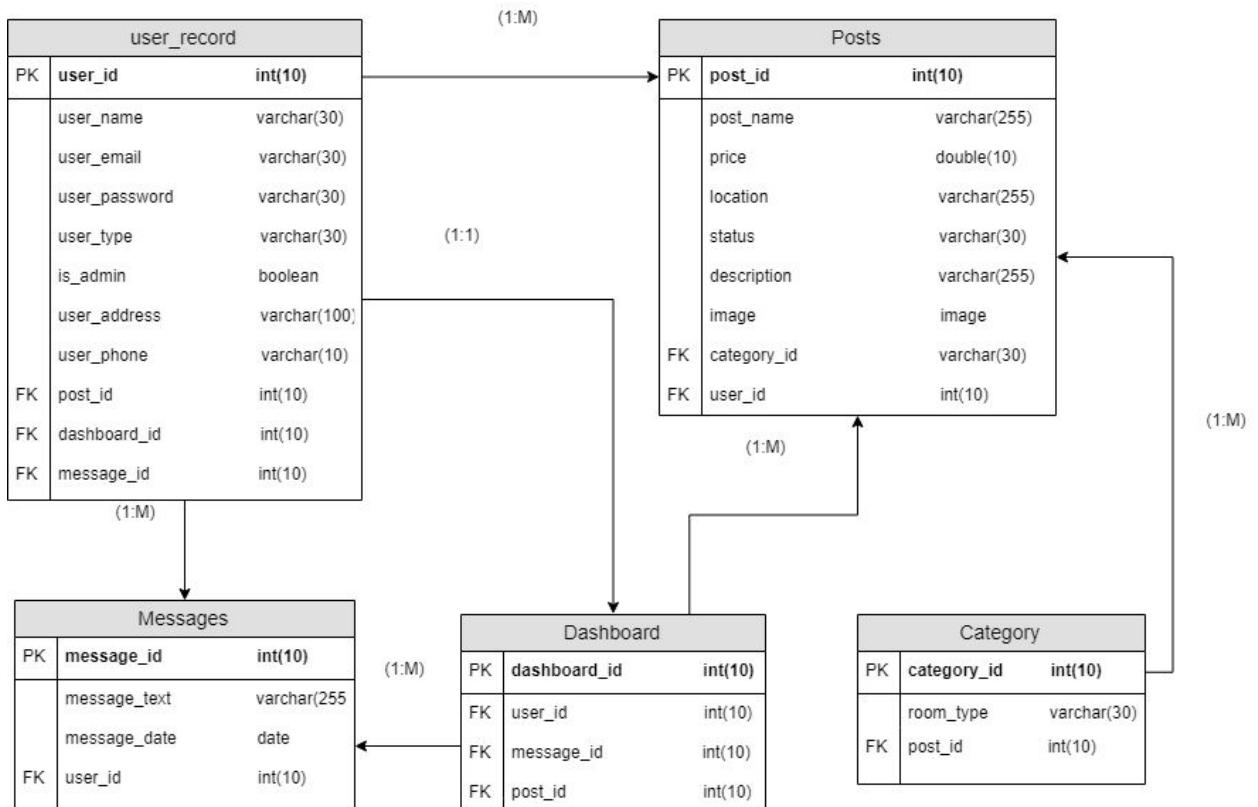
## c. Search/Filter Implementation

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.

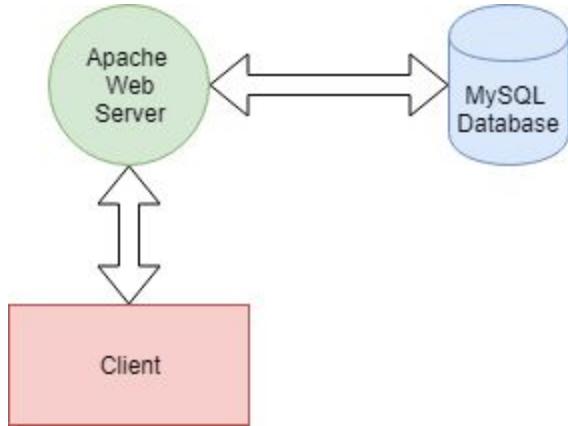
## d. Possible API usage

## 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.

# **SW Engineering CSC 648/848 Spring 2019**

## **Gator Housing**

### **Team 12**

**Andrew St. Germain (Team Lead)**

**Sunny Wong (Backend Lead/Github Master)**

**Steven Apicella (Frontend Lead)**

**David Adams (Backend Member/Document Master)**

**Sagar Pandya (Backend Member)**

**Ganzolboo Ayurzana (Frontend member)**

**Peter Lin (Frontend member)**

## **Milestone 3**

**April 30, 2019**

## **Summary**

We printed out the horizontal prototype with no back end connection for some general feedback by the professor about UI design. On the back end, we also received feedback about team contributions, code organization, code structure, security and efficiency.

## **Potential Changes For UI**

1. Remove SFSU Logo.
2. Add class name to all pages.
3. Encrypt passwords for registering users.
4. Have all team members on one about page.
5. Make login and register buttons smaller.
6. Add contact button on posting cards.
7. Make search bar bigger and center it.
8. Add ‘apply’ and ‘clear’ buttons for filters.
9. Add price and distance on top.
10. Add how many search results near top of page i.e. “1 out of xyz results”
11. Post/register forms should be aligned and columns should roughly fit the input size.
12. Say that there is only a one image max that can be uploaded.
13. Show text saying that a user must wait at least around 24 hours for their post to be approved.
14. Rename Get Post on admin dashboard to refresh.
15. Show how many posts the admin has to approve.
16. Add single way messaging from users to landlords.

# Backend Summary Report

Section: 02 Team: 12 Date: 05/03/2019

## Instructor to Check and comment below:

- Git/Github organization (e.g. organization of branches)

App.js will need some refactoring later, you do not want all the backend logic in this file.

What's the server folder for in your repo, its two months old?

Code structure of VP folder is fine,

Branch usage is fine could be better though

- Git/Github usage: Comments on posting; Number of posting to github; Appr. even distribution asdw asdawdawof submissions among team members (check github post stats for all members)

Git messages look fine, be careful when pushing from server these commits fall under ubuntu which counts towards no one.

40 Sunny Wong

17 Ubuntu

14 imcray

3 csc648848Instr

2 Anthony

2 TohKay

1 Anthony J Souza

1 David

- Code documented (header, in code) with good coding style

Little to no comments, no header comments coding style is fine

- MVC/OO patterns followed up

Framework followed

- Frameworks (back end front end) deployed correctly

Express and node deployed correctly

- Database organization (tables, naming...)

User table needs a new name, naming it users is sufficient, user\_record can be ambiguous, categories can be their own table to reduce data duplication

- Blobs being used? If so, is it working?

Image paths being used.

- Adherence to best practices of security (PW encrypted, search inputs verified etc.)

Not sure if password are encrypted, no logic for users is present in repo,

- Efficiency (proper use of image thumbnails, efficient search etc.)

No thumbnails used.

- Other

# **SW Engineering CSC 648/848 Spring 2019**

## **Gator Housing**

### **Team 12**

**Andrew St. Germain (Team Lead)**

**Sunny Wong (Backend Lead/Github Master)**

**Steven Apicella (Frontend Lead)**

**David Adams (Backend Member/Document Master)**

**Sagar Pandya (Backend Member)**

**Ganzolboo Ayurzana (Frontend member)**

**Peter Lin (Frontend member)**

## **Milestone 4**

**May 8, 2019**

**Version history can be seen on Google Drive here:**

**<https://docs.google.com/document/d/15WIpiG261QIKrSNfnxkzKW34Oa0kJhicmv0PsLs-GDo/edit?usp=sharing>**

## **1. Product Summary**

As a group of students currently studying Computer Science at San Francisco State University, we all know how difficult it can be to look for the perfect place to live. Many factors come into consideration when deciding where to live, which is why we have decided to build and launch a website named “Gator Housing” to help students look for housing. Gator Housing is a website specifically tailored to the needs of students at San Francisco State University. The features that will be included at the launch of Gator Housing are as follows:

1. Text Search: Users will be able to use text search to search for postings with the same key words.
2. Sort by price: Users will be able to sort by the price of the unit.
3. Sort by number of bedrooms: Users will be able to sort by the number of rooms in the unit.
4. Registration: New users will be able to register to become a user.
5. Login: Registered users will be able to login to contact landlords.
6. Administrator: An administrator will be required to approve/remove posts.
7. Messages: Registered users will be able to send a message to the landlord.
8. Post: Registered users will be able to post their own listings and remove their listings.

On top of these included features, what makes Gator Housing unique is the fact that this website is designed primarily for SFSU students. The website is populated by users from within the community, which will make it a safer option to use. A safety feature is that users can contact each other through an internal messaging system, which only registered users can use. Therefore, users feel safer by not having to post their personal contact information on the web or worry about coming in contact with risky phone numbers, emails, etc. The website can be accessed using the following URL: <http://ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/>

## **2. Usability Test Plan**

### **Test Objectives:**

The feature that we will be testing for usability is the search function. This feature will be tested for its effectiveness, efficiency and satisfaction.

### **Test Description:**

The user will be given a laptop with the homepage of Gator Housing loaded up on Google Chrome.

The starting point of the test will be the homepage of Gator Housing.

### **Usability Task Description:**

Please search for a house, apartment or a room as if you were an SFSU student. You may also search by location as well if you were to look for housing closer to SFSU. If price is a concern, you may search by price as well.

### **Questionnaire:**

1. I found the search function easy to use (circle one):  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
  
2. I found searching for housing is relatively fast (circle one):  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree
  
3. Overall, I am satisfied with the search function (circle one):  
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

Comments:

### **3. QA Testing**

#### **3.1 Test Objective:**

Stress test the search function with a basic search, search with a category selected and search with category selected plus price filter.

#### **3.2 Hardware and Software Setup:**

Software Setup: The server should already be running before beginning any search tests.

Hardware Setup: A laptop or desktop that can access the internet.

#### **3.3 Features to be Tested:**

Search bar, category selection and price filter.

#### **3.4 QA Test Table:**

Number	Test Title	Test Description	Input	Expected Output	PASS/FAIL
1	Basic Search	Test % like search in the search bar	Type “Parkmerced” into the search bar	Show 6 results, all with “parkmerced” under bolded post title	PASS
2	Search a keyword in a specific category	Test %like search with category selection	Type “park” into the search bar and select category “house”	Show only 2 houses having “park” under bolded title	PASS
3	Search a room under \$1000	Test %like search with category selection and price filter	Type “park” into the search bar, select category “room” and select price filter “under \$1000”	Show 3 apartments having “park” under bolded title and price less than \$1000	PASS

## 4. Code Review

Snippet of the code:

```
// General search for all users
function search(req, res, next) {
    // Need to do input validation here
    // User's search term
    var searchTerm = req.query.search;
    var searchCategory = req.query.category;
    var sortType = req.query.sortType;
    var priceFilter = req.query.pricefilter;
    var distanceFilter = req.query.distanceFilter;
    let query = null;

    {
        query = 'SELECT * FROM post';

        if (searchTerm) {
            query = query + " WHERE (post_name LIKE '%" + searchTerm + "%' + " OR location LIKE '%" + searchTerm + "%'" +
                " OR price LIKE '%" + searchTerm + "%'" + " OR category LIKE '%" + searchTerm + "%'" + " OR distance LIKE '%" +
                searchTerm + "%')");
        }
    }
}
```

Before review:

Code Review

Sunny Wong <wong.sunny96@gmail.com>  
to spandyā · 6:24 PM (1 hour ago) ⚡ ⏪ ⏴

Hello Sagar,  
Here is the link towards the refactored results page: <https://github.com/CSC-648-SFSU/csc648-sp19-team12/pull/10/commits/9c48518b0d67d3a8c6f549d1fdb8de59033003e6>

Towards the end is the results.js page, where the search function is located. Please review it and let me know if you have any questions.

Regards,

\*\*\*

Sunny Wong

## Post review:

Re: Code Review

Sagar Rajeshbhai Pandya  
Thu 5/9/2019 10:36 AM  
Sunny Wong <wong.sunny96@gmail.com>

Hello Sunny,

Thank you for sending the file to review. I have left a comment on the github and I am mailing you the same feedback as well.

Review:  
"The file is very well written by following the adopted coding style. The comments are done properly and wherever it is necessary. The queries are not getting bigger than required as it is checking individual field and then concatenating with the main query. This is smart way for formulating a query string. Try not to use the 'console.log' statement in the final deliverable code. Overall, it is recommendable piece of code."

Best,  
Sagar Pandya

---

From: Sunny Wong <wong.sunny96@gmail.com>  
Sent: Thursday, May 9, 2019 6:54 AM  
To: Sagar Rajeshbhai Pandya  
Subject: Code Review

Hello Sagar,  
Here is the link towards the refactored results page: <https://github.com/CSC-648-SFSU/csc648-sp19-team12/pull/10/commits/9c48518b0d67d3a8c6f549d1fdb8de59033003e6>

Towards the end is the results.js page, where the search function is located. Please review it and let me know if you have any questions.

Regards,  
Sunny Wong

## 5. Self-Check on best practice for security

- User table, Post table are being protected
- Passwords are encrypted
  - Using bcryptjs node module to encrypt all the passwords upon successful registration

```
bcrypt.genSalt(10, (err, salt) => {
  bcrypt.hash(password, salt, (err, hash) => {
    // Storing hash password in DB
    let query = ` INSERT INTO users (name, email, password)
      VALUES ('${userName}', '${email}', '${hash}')`;
```
- Posts input fields are validated
- Search input field is validated
- Registration input fields are validated
- Login input fields validated
  - Validation of any input fields are done using the express-validator node module and multer module for images

```
req.checkBody('password')
  .notEmpty().withMessage("Password cannot be empty")
  .isAlphanumeric().withMessage('Alphanumeric characters only')
```

- Login authenticated through passport node module using Local Strategy and this function

```
// Need to be authenticated to view user dashboard
module.exports ={
  ...
  ensureAuthenticated : (req, res, next) => {
    if(req.isAuthenticated()){
      return next();
    }
    req.flash('danger', 'Please log in to access the dashboard');
    res.redirect('/login');
  }
}
```

- Admin authenticated through LocalStrategy, with function above

- Checking for admin access after authentication

```
function checkAdmin(req, res, next){
  if(req.user!=undefined) {
    // req.user is an object, can call data using th
    // Checks if a user has admin access
    if (req.user[0].isAdmin != 1) {
      req.flash('danger', "Unauthorized access");
      res.redirect('/');
    } else {
      // If they do, then continue to the next
      next();
    }
  }
}
```

## **6. Self-check: Adherence to original Non-functional specs**

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0. DONE.
2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of two major browsers. DONE.
3. Selected application functions must render well on mobile devices. ON TRACK.
4. Data shall be stored in the team's chosen database technology on the team's deployment server. DONE.
5. No more than 50 concurrent users shall be accessing the application at any time. ONE TRACK
6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users. ON TRACK.
7. The language used shall be English. DONE.
8. Application shall be very easy to use and intuitive. DONE.
9. Google analytics shall be added. ON TRACK.
10. No email clients shall be allowed. DONE.
11. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated. DONE.
12. Site security: basic best practices shall be applied. DONE.
13. Before posted live, all content (e.g. apartment listings and images) must be approved by site administrator. DONE.
14. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development. DONE.
15. The website shall prominently display the following exact text on all pages "*SFSU Software Engineering Project CSC 648-848, Spring 2019. For Demonstration Only*" at the top of the WWW page. ON TRACK.

# Final Product Screenshots

## Home Page

The screenshot shows the 'GATOR HOUSING' website. At the top left is a cartoon gator logo. To its right is a search bar with a dropdown menu labeled 'All Categories' and a magnifying glass icon. Below the search bar are five navigation links: 'Home', 'About', 'Post', 'Login', and 'Register'. On the far right is a 'Menu' button. The main content area features a large heading 'Welcome to Gator Housing' and a sub-heading 'Number of Listings on Gator Housing: 12'. Below this are four listing cards:

Listing Type	Image	Description	Beds	Baths	Rental Price
Far away Room		Far away Room	1	1	\$550
Room for rent		Room for rent	1	1	\$500
Studio Apartment		Studio Apartment	1	1	\$600
Red House		Red House	2	1	\$600

## About Andrew

About Page

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/about/andrew

All Categories Search 

Menu

Home About Post Login Register

Sort by: Sort by Price: Low to high

Filters: Price filter: None

1+ bedrooms

1+ bathrooms



# Andrew St Germain - Team Lead

### Interests

- Dogs
- Games
- Sports
- Knitting
- Eating
- Sleeping
- Talking
- Listing

## About David

About Page

All Categories Search

Home About Post Login Register

Sort by: Sort by Price: Low to high

Filters: Price filter: None  
1+ bedrooms  
1+ bathrooms



# David Adams - Documenter / Backend

### Interests

- Dogs
- Knitting
- Games
- Eating
- Sports
- Sleeping

## About Peter

About Page    +

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/about/peter

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GATOR HOUSING

All Categories Search 

Home About Post Login Register Menu

Sort by: Sort by Price: Low to high

Filters: Price filter: None  
1+ bedrooms  
1+ bathrooms



# Peter Lin - Frontend

## Interests

- Dogs
- Knitting
- Talking
- Games
- Eating
- Listing
- Sports
- Sleeping

## About Sagar

GATOR HOUSING



All Categories ▾ Search  Q

Menu

Home About ▾ Post Login Register

Sort by:

Sort by Price: Low to high ▾

Filters:

Price filter: None ▾

1+ bedrooms ▾

1+ bathrooms ▾

**Apply Filter**



# Sagar Pandya - Back End

### Interests

- Dogs
- Knitting
- Talking
- Games
- Eating
- Listing
- Sports
- Sleeping

## About Steven

About Page    +

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/about/steven

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GATOR HOUSING All Categories Search Menu

Home About Post Login Register

Sort by:

Sort by Price: Low to high

Filters:

Price filter: None

1+ bedrooms

1+ bathrooms



# Steven Apicella - Front End Lead

## Interests

- Dogs
- Knitting
- Games
- Eating
- Sports
- Sleeping

## About Sunny

GATOR HOUSING



All Categories ▾ Search

Home About ▾ Post Login Register Menu

Sort by:

Sort by Price: Low to high ▾

Filters:

Price filter: None ▾

1+ bedrooms ▾

1+ bathrooms ▾



# Sunny Wong - Backend Lead / Github Master

## Interests

- Dogs
- Knitting
- Games
- Eating
- Sports
- Sleeping

## About Zolboo

About Page

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/about/zolboo

All Categories Search Menu

Home About Post Login Register

GATOR HOUSING

Sort by: Sort by Price: Low to high

Filters: Price filter: None

1+ bedrooms

1+ bathrooms



# Zolboo - Frontend

## Interests

- Dogs
- Knitting
- Talking
- Games
- Eating
- Listing
- Sports
- Sleeping

## Post Page

The screenshot shows a web browser window with the URL [ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/post](http://ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/post). The page has a header with a search bar and navigation links for Home, About, Post, Login, and Register. On the left, there's a sidebar with sections for Sort by (Sort by Price: Low to high), Filters (Price filter: None, 1+ bedrooms, 1+ bathrooms), and an Apply Filter button. The main content area contains fields for Title of Post, Price, Number of Beds, Number of Baths, Category, Street Address, City, and State.

**GATOR HOUSING**

Sort by:

Sort by Price: Low to high

Filters:

Price filter: None

1+ bedrooms

1+ bathrooms

Apply Filter

All Categories  Search

Home About  Post Login Register

**Title of Post \***  
Enter Title of Listing Here..

**Price \***  
Enter Price of Listing Here..

Number of Beds

Number of Baths

Category

**Street Address \***  
Enter Address Here..

**City \***  
Enter City Name Here..

**State \***

## Login Page

The screenshot shows a web browser window with the following details:

- Address Bar:** Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/login
- Toolbar:** Includes icons for back, forward, search, and other browser functions.
- Tab Bar:** Shows multiple open tabs including "Java Format Strings", "BeginnersBook.com...", "Intro to Algorithms...", "Part Deux of the To...", "Creating your first a...", "Unity Server Videos", "Arrow functions ex...", and "Introduction - Little...".
- Header:** A navigation bar with a cartoon gator logo on the left, followed by "GATOR HOUSING". It includes a dropdown menu "All Categories", a search bar with a magnifying glass icon, and links for "Home", "About", "Post", "Login", and "Register".
- Left Sidebar:** A sidebar titled "Sort by:" with a dropdown menu set to "Sort by Price: Low to high". Below it is a "Filters:" section with three dropdown menus: "Price filter: None", "1+ bedrooms", and "1+ bathrooms", each with a dropdown arrow. A blue "Apply Filter" button is at the bottom of the sidebar.
- Main Content:** The main area is titled "Login". It contains fields for "E-Mail" and "Password", both enclosed in input boxes. Below these fields is a checkbox labeled "Remember me". At the bottom of the form are links for "Forgot Your Password?" and "Register Here!". A large blue "Login" button is centered at the bottom of the form.

## Register Page

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/registration

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GATOR HOUSING



All Categories Search

Home About Post Login Register

Sort by: Sort by Price: Low to high

Filters:

Price filter: None

1+ bedrooms

1+ bathrooms

Registration

Username \*

E-mail \*

Password \*

Confirm Password \*

I agree to the Terms and Services

## Results Page

Search Results Page    +

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/results?category=&search=&sortType=ASC&priceFilter=&bedFilter...    [Star](#) [Bookmark](#) [Print](#) [Share](#) [S](#) [More](#)

Apps Java Format Strings BeginnersBook.com... Intro to Algorithms... Part Deux of the To... Creating your first a... Unity Server Videos Arrow functions ex... Introduction - Little...

**GATOR HOUSING**

All Categories Search

Home About Post Login Register Menu

Sort by: Sort by Price: Low to high

Filters: Price filter: None 1+ bedrooms 1+ bathrooms

Number of Listings on Gator Housing: 12

 <b>Room for single</b> Beds: 2 Baths: 2 \$400 <a href="#">Contact</a> <a href="#">More Info</a>	 <b>Room for rent</b> Beds: 1 Baths: 1 \$500 <a href="#">Contact</a> <a href="#">More Info</a>	 <b>Room for rent</b> Beds: 1 Baths: 1 \$500 <a href="#">Contact</a> <a href="#">More Info</a>	 <b>Green House</b> Beds: 3 Baths: 2 \$550 <a href="#">Contact</a> <a href="#">More Info</a>
---	---	--	---

## Info Modal

The screenshot shows a web browser window with a modal dialog box overlaid on a real estate listing page. The modal has a white background and a red 'Close' button in the bottom right corner. The title of the modal is 'Room for single'. Inside the modal, there is descriptive text: 'Description: 2 roommate, 2 shared bathrooms', 'Street Address: Parkmerced', 'City: San Francisco', and 'State: California'. Below this text, there are three grid items, each representing a different listing. The first item has a price of '\$400', the second '\$500', and the third '\$500'. Each item includes a 'Contact' and 'More Info' button. The background of the browser shows a search results page for 'GATOR HOUSING' with various filters like 'Sort by' and 'Filters' applied.

Search Results Page

All Categories

Search

GATOR HOUSING

Sort by:

Sort by Price: Low to high

Filters:

Price filter: None

1+ bedrooms

1+ bathrooms

Room for single

Description: 2 roommate, 2 shared bathrooms

Street Address: Parkmerced

City: San Francisco

State: California

\$400

\$500

\$500

Contact More Info

Contact More Info

Contact More Info

Close

Green House

Beds: 2 Baths: 1

Beds: 3 Baths: 2

Beds: 3 Baths: 2

Contact More Info

Contact More Info

Contact More Info

Room for single

Green House

Green House

Green House

Contact More Info

Contact More Info

Contact More Info

## Contact Modal

The screenshot shows a web browser window displaying a real estate listing page for "GATOR HOUSING". The main page features a search bar and a grid of property listings. One listing in the center is highlighted, showing a thumbnail image of a house, the title "Room for", and a price of \$400. Below the listing are "Contact" and "More Info" buttons. A modal window is overlaid on the page, titled "New message for Room for single". The modal contains fields for Name (John Doe), Phone (1234567890), Email (johndoe123@mail.com), and a Message area containing the text "I am interested in this listing". At the bottom of the modal are "Close" and "Send Message" buttons.

## Administrator Dashboard

Test

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/admin

Java Format Strings | BeginnersBook.com... | Intro to Algorithms:... | Part Deux of the To... | Creating your first a... | Unity Server Videos | Arrow functions ex... | Introduction - Little...

All Categories ▾ Search 

Menu

Home About ▾ Post Login Register

Sort by: Sort by Price: Low to high

Filters: Price filter: None 1+ bedrooms 1+ bathrooms

Pending Posts Messages Refresh

Image	Post Name	Price	Location	Description	Category	Status	User ID
	Room for single	400	Parkmerced	2 roommate, 2 shared bathrooms	room	Available now	 

## Administrator Messages

Test

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/admin

All Categories Search 

Menu

Home About Post Login Register

Sort by: Sort by Price: Low to high

Filters: Price filter: None 1+ bedrooms 1+ bathrooms

Image	Post Name	Name	Email	Phone	Message	Action
	Green House	test	admin@gmail.com	123123	I am admin	<button>Remove</button>
	Green House	refactored	admin@gmail.com	123123	qe	<button>Remove</button>
	Green House	test	admin@gmail.com	123123	hello there	<button>Remove</button>

## Administrator Post Removal



**GATOR HOUSING**

All Categories ▾

Menu

[Home](#)
[About ▾](#)
[Post](#)
[Login](#)
[Register](#)

**Sort by:**

Sort by Price: Low to high ▾

**Filters:**

Price filter: None ▾

1+ bedrooms ▾

1+ bathrooms ▾

**Apply Filter**

Pending Posts

Messages

Remove Posts

Image	Post Name	Price	Location	Description	Category	Status	User ID	
	Green House	1550	Parkmerced	Big green house	house	Available from May	1	<button style="border: none; background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">Remove</button>
	Nice Red House	1400	Merced Heights	2 bed 1 bath and its red	house	Available now	1	<button style="border: none; background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">Remove</button>
	Single Room	400	Parkmerced	2 roommate, 2 shared bathrooms	room	Available now	1	<button style="border: none; background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">Remove</button>
	2 Bed/1 Bath Apt	1800	Parkmerced	2 Floors, Dishwasher, Private Bedroom	apartment	Available June	1	<button style="border: none; background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">Remove</button>
	Room for rent	500	Parkmerced	1 roommate, private bathroom	room	Available now	1	<button style="border: none; background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">Remove</button>
	Green House	1450	Parkmerced	Big house, 3 rooms	house	Available from May	1	<button style="border: none; background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">Remove</button>

## User Dashboard

Dashboard For Site    +

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/userdash

Apps Java Format Strings BeginnersBook.com... Intro to Algorithms... Part Deux of the To... Creating your first a... Unity Server Videos Arrow functions ex... Introduction - Little...

GATOR HOUSING

All Categories Search

Home About Post Login Register

Sort by: Sort by Price: Low to high

Filters: Price filter: None 1+ bedrooms 1+ bathrooms

Postings Messages

Image	Post Name	Price	Description	Category	Status	Action
	Green House	550	Big green house	house	Available from May	<button>Remove</button>
	Red House	600	2 bed 1 bath and its red	house	Available now	<button>Remove</button>
	Studio Apartment	600	washer and dryer hookups	apartment	Available now	<button>Remove</button>
	Room for single	400	2 roommate, 2 shared bathrooms	room	Available now	<button>Remove</button>
	Green House	550	Big green house	house	Available from May	<button>Remove</button>
	Red House	600	2 bed 1 bath and its red	house	Available now	<button>Remove</button>

## User Messages

Dashboard For Site    +    -    X

Not secure | ec2-54-153-63-128.us-west-1.compute.amazonaws.com:3000/userdash

Apps Java Format Strings BeginnersBook.com... Intro to Algorithms... Part Deux of the To... Creating your first a... Unity Server Videos Arrow functions ex... Introduction · Little...

GATOR HOUSING

All Categories Search Menu

Home About Post Login Register

Sort by: Sort by Price: Low to high

Filters: Price filter: None 1+ bedrooms 1+ bathrooms

Image	Post Name	Name	Email	Phone	Message	Remove
	Green House	test	admin@gmail.com	123123	I am admin	<button>Remove</button>
	Green House	refactored	admin@gmail.com	123123	qe	<button>Remove</button>
	Green House	test	admin@gmail.com	123123	hello there	<button>Remove</button>

Team 12 CSC 648-848 Section 2

# Database Screenshots

## Post Table

This screenshot shows the MySQL Workbench interface with the database 'csc648' selected. The 'post' table is currently being viewed. The results grid displays 9 rows of data from the 'post' table, including columns such as post\_id, post\_name, price, location, status, description, category, user\_id, isLive, sold, and beds. The 'Result Grid' tab is active. The 'Output' pane shows the execution history of three SQL queries related to the 'post' table.

post_id	post_name	price	location	status	description	category	user_id	isLive	sold	beds
1	Green House	550	Parkmerced	Available from May	Big green house	house	1	1	0	3
2	Red House	600	Mered Heights	Available now	2 bed 1 bath and its red	house	1	1	0	2
3	Studio Apartment	600	Lakeside	Available now	washer and dryer hookups	apartment	1	1	0	1
4	Room for single	400	Parkmerced	Available now	2 roommate, 2 shared bathrooms	room	1	1	0	2
5	2 Bed 1 Bath Apt	1800	Parkmerced	Available June	2 Floors, Dishwasher, Private Bedroom	apartment	HULL	1	0	1
6	Room for rent	500	Parkmerced	Available now	1 roommate, private bathroom	room	HULL	1	0	1
7	Green House	550	Parkmerced	Available from May	Big green house	house	1	1	0	3
8	Red House	600	Mered Heights	Available now	2 bed 1 bath and its red	house	1	1	0	2
9	Studio Apartment	600	Lakeside	Available now	washer and dryer hookups	apartment	41	1	0	1

Output:

```

Action Output
# Time Action
23 17:41:38 SELECT * FROM db_gator_housing_v1.dashboard
0 row(s) returned
Duration / Fetch 0.016 sec / 0.000 sec

24 17:41:47 SELECT * FROM db_gator_housing_v1.users
6 row(s) returned
0.000 sec / 0.000 sec

25 17:42:05 SELECT * FROM db_gator_housing_v1.post
13 row(s) returned
0.015 sec / 0.000 sec
  
```

This screenshot shows the MySQL Workbench interface with the database 'csc648' selected. The 'post' table is currently being viewed. The results grid displays 9 rows of data from the 'post' table, including columns such as description, category, user\_id, isLive, sold, beds, baths, image, city, state, email, phone, and distance. The 'Result Grid' tab is active. The 'Output' pane shows the execution history of three SQL queries related to the 'post' table.

description	category	user_id	isLive	sold	beds	baths	image	city	state	email	phone	distance
1 roommate, private bathroom	room	HULL	1	0	1	1	room2.jpg	HULL	HULL	HULL	HULL	HULL
Big green house	house	1	1	0	3	2	room1.jpg	HULL	HULL	HULL	HULL	HULL
2 bed 1 bath and its red	house	1	1	0	2	1	room2.jpg	HULL	HULL	HULL	HULL	HULL
wesher and dryer hookups	apartment	41	1	0	1	1	house1.jpg	HULL	HULL	HULL	HULL	HULL
2 roommate, 2 shared bathrooms	room	HULL	0	0	2	2	house2.jpg	HULL	HULL	HULL	HULL	HULL
1 roommate, private bathroom	room	42	1	0	1	1	apt2.jpg	HULL	HULL	HULL	HULL	HULL
blah	room	42	1	0	1	1	room2.jpg	HULL	HULL	HULL	HULL	HULL
Good place to live.	house	60	1	0	2	3	image-155...	San...	Calif...	spa...	4157...	HULL
	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL

Output:

```

Action Output
# Time Action
23 17:41:38 SELECT * FROM db_gator_housing_v1.dashboard
0 row(s) returned
Duration / Fetch 0.016 sec / 0.000 sec

24 17:41:47 SELECT * FROM db_gator_housing_v1.users
6 row(s) returned
0.000 sec / 0.000 sec

25 17:42:05 SELECT * FROM db_gator_housing_v1.post
13 row(s) returned
0.015 sec / 0.000 sec
  
```

## Messages Table

The screenshot shows the MySQL Workbench interface with the database 'csc648' selected. The 'messages' table is currently selected in the Navigator pane. The SQL editor contains the query: `SELECT * FROM db_gator_housing_v1.messages;`. The Result Grid displays the following data:

	id	text	post_id	name	phone	email
1	1	I am admin	1	test	123123	admin@gmail.com
3	1	qe	1	refactored	123123	admin@gmail.com
5	1	hello there	1	test	123123	admin@gmail.com
12	13	hi	13	test	1234567890	admin@gmail.com
*	NULL	NULL	NULL	NULL	NULL	NULL

The Table Information pane shows the schema for the 'messages' table:

```

Table: messages
Columns:
  id      int(11) AI PK
  text    varchar(255)
  post_id int(11)
  name    varchar(100)
  phone   varchar(10)
  email   varchar(100)

```

The Output pane shows the following log entries:

#	Time	Action	Message	Duration / Fetch
24	17:41:47	SELECT * FROM db_gator_housing_v1.users	6 row(s) returned	0.000 sec / 0.000 sec
25	17:42:05	SELECT * FROM db_gator_housing_v1.post	13 row(s) returned	0.015 sec / 0.000 sec
26	17:43:25	SELECT * FROM db_gator_housing_v1.messages	4 row(s) returned	0.000 sec / 0.000 sec

## Users Table

The screenshot shows the MySQL Workbench interface with the database 'csc648' selected. The 'users' table is currently selected in the Navigator pane. The SQL editor contains the query: `SELECT * FROM db_gator_housing_v1.users;`. The Result Grid displays the following data:

	id	name	email	password	isAdmin	admin_password
1	admin	admin@gmail.com	admin	\$2a\$10\$AajZ9h4xb/ZP4x3/tjH4YuncWKFJlw1...	1	\$2a\$10\$AajZ9h4xb/ZP4x3/tjH4YuncWKFJlw1...
41	lazy3	lazy3@gmail.com		\$2a\$10\$fgm9k2VlbhELZ418..uub5s11Cp... 0	0	NULL
42	hello	hellothere@gmail.com		\$2a\$10\$AjZ9h4xb/ZP4x3/tjH4YuncWKFJlw1...	0	NULL
43	testtest	testest@test1235.com		\$2a\$10\$cukp3nuA7pSlubfyw8oRbOk2heo... 0	0	NULL
59	test	test@gmail.com		\$2a\$10\$eeT5kzMuNk8hZ3ncyaK7undhdT... 0	0	NULL
60	spandy	spandy@mail.sfsu.edu		\$2a\$10\$VOgnOAGN/5WJYWRWnP5wJ.JSYvgE... 1	1	\$2a\$10\$VOgnOAGN/5WJYWRWnP5wJ.JSYvgE...
*	NULL	NULL	NULL	NULL	NULL	NULL

The Table Information pane shows the schema for the 'users' table:

```

Table: users
Columns:
  id      int(11) AI PK
  name    varchar(100)
  email   varchar(100)
  password varchar(255)
  isAdmin  tinyint
  admin_password varchar(255)

```

The Output pane shows the following log entries:

#	Time	Action	Message	Duration / Fetch
20	14:42:18	SELECT * FROM db_gator_housing_v1.messages	4 row(s) returned	0.016 sec / 0.000 sec
21	16:03:27	SELECT * FROM db_gator_housing_v1.users	6 row(s) returned	0.000 sec / 0.000 sec
22	16:03:28	SELECT * FROM db_gator_housing_v1.users	6 row(s) returned	0.000 sec / 0.000 sec

# Google Analytics Plot

All accounts > Gator Housing

All Web Site Data ▾

Analytics

Right now

1 active users on site

DESKTOP 100%

Per minute

Per second

Top Referrals:

Source	Active Users
There is no data for this view.	

Top Active Pages:

Active Page	Active Users
1. /	1 100.00%

Top Social Traffic:

Source	Active Users
There is no data for this view.	

Top Keywords:

Keyword	Active Users
There is no data for this view.	

Top Locations:

Report navigation: Home, Customization, Reports, Realtime, Overview, Locations, Traffic Sources, Content, Events, Conversions, Audience, Acquisition, Behavior, Conversions. Filter: Try searching for "site content". Notifications: 2 notifications. User icon: ?

# Task Management Screenshots

## Slack Initialization

This screenshot shows the Slack interface after initialization. The left sidebar lists various channels, with **# general** selected. The main pane displays messages from users Peter Lin, Sunny Wong, Steven Apicella, and Zolboo. A message from Steven Apicella provides his availability: Mon/Wed 2-4:30, Tues 11-3:45, Thurs 11+, and Friday if needed. The timestamp indicates it's Tuesday, February 12th.

**#general**  
☆ | 8 | 0 | Company-wide announcements and work-based matters  
Peter Lin 5:41 PM joined #general along with Sunny Wong.  
Peter Lin 5:42 PM Hey guys  
Sunny Wong 5:42 PM  
Steven Apicella 5:42 PM joined #general.  
Steven Apicella 5:43 PM  
Steven Apicella 6:35 PM My availability:  
Mon/Wed 2-4:30  
Tues 11-3:45  
Thurs 11+  
Friday if needed  
Zolboo 6:35 PM Free on Mondays after 12  
Tues before 4

## Important Channel

This screenshot shows the Slack interface for the **# important** channel. The left sidebar lists various channels, with **# important** selected. The main pane displays messages from users Sagar Pandya, Andrew St Germain, and Steven Apicella. A document shared by Peter is mentioned as being good for idea generation. A file attachment named **IMG\_20190322\_150848.jpg** is shown, which is a photograph of a handwritten document page.

**#important**  
☆ | 8 | 0 | Add a topic  
Sagar Pandya 2:29 PM Are we going to use any software for drawing ??  
Andrew St Germain 2:31 PM Just use paper  
Sagar Pandya 2:32 PM Alright, I will check after 4  
Document shared by Peter is pretty good - we can get ideas from there  
Steven Apicella 2:58 PM I can work on some stuff in a few hours  
Andrew St Germain 3:07 PM Cool  
Sagar Pandya 3:09 PM  
IMG\_20190322\_150848.jpg

## Front End Channel

#frontend

☆ | 8 5 | 0 | Add a topic

Steven Apicella 11:40 AM

Monday, May 6th

Untitled ▾

```
1 - Home Page (Zolboo)
2 o Add to title
3 □ Gator Housing: Place for SFSU students to rent and for you to post.
4 o Put class name at top of page
5 □ CSC 648 Software Engineering
```

@Peter Lin

Untitled ▾

```
1 - Change Registration page (Peter)
2 o Input boxes should be in one column
3 o Shrink text boxes to appropriate sizes.
4 □ Phone number box doesn't need to be 50 char wide
5 o Put how many images you can add
```

I'm going to work on his suggestions for changes to the About page and User/Admin Dashboard pages  
If you guys could work on that stuff it'd be great

Peter Lin 2:51 PM

ok ty

Wednesday, May 8th

Andrew St Germain 10:28 PM

Sagar Pandya | PDF ▾

CSC 648 MILESTONE 4.pdf

## Back End Channel

backend | CSC 648-848 Team 12

https://csc648-848team12.slack.com/messages/CG5EJ7XU2/

Apps Java Format Strings BeginnersBook.com... Intro to Algorithms:... Part Deux of the To... Creating your first a... Unity Server Videos Arrow functions ex... Introduction - Little...

# backend

Sunny Wong

Jump to... Threads Channels # backend # development # feedback # general # important # questions # random + Add a channel

Direct Messages Slackbot Sunny Wong (you) Andrew St Germain David Adams Peter Lin Sagar Pandya Steven Apicella

Sunny Wong 12:40 AM I'm trying to follow it as much as possible Just tweaked the database a little

Andrew St Germain 12:40 AM ok just make sure that's followed if not I have to change things. Finish the user dashboard don't worry about anything else We never had a user dashboard mockup tho, so what are you basing it off?

Sagar Pandya 12:44 AM I am trying to list the posts by the individual user which will be logged in And his/her messages

Andrew St Germain 12:45 AM yup link the messages to the post individual posts and the first thing to show up should be posts which they can then click on ill finish the front end for that

Sagar Pandya 12:45 AM For example, if I am a user and I have an apartment which I am putting to rent out - then that should be displayed with messages

Sunny Wong 12:45 AM It's just simple tabs for the admin dashboard

Image from iOS ▾

+ Message #backend @ 😊

backend | CSC 648-848 Team 12 X +

https://csc648-848team12.slack.com/messages/CG5EJ7XU2/

Apps Java Format Strings BeginnersBook.com... Intro to Algorithms:... Part Deux of the To... Creating your first a... Unity Server Videos Arrow functions ex... Introduction · Little...

CSC 648-848 Te... Sunny Wong

Jump to... Threads Channels # backend # development # feedback # general # important # questions # random + Add a channel

Direct Messages Slackbot Sunny Wong (you) Andrew St Germain David Adams Peter Lin Sagar Pandya Steven Anicella

#backend

☆ | 5 | 0 | Add a topic

@David Adams can you try to make the bed/bath filters work? — Tuesday, May 14th

David Adams 7:19 PM I will. I will begin working on it tonight

1

Sunny Wong 6:19 PM @David Adams I accidentally removed the distance filter, because we don't need but it broke the query. Sorry if I caused any issues

Friday, May 17th

David Adams 10:37 AM No problem for me. I will have something for you by Monday for sure. I will be changing the .is files with SQL query builder and variable declarations. I will change the .ejs to have correct drop down options and variable names. Getting rid of distance should be simple. I am busy this weekend. If I'm lucky I will finish Sunday instead. Thanks

.is = .js

Sagar Pandya 3:14 PM What's left to do ??

Sunny Wong 3:51 PM Input validations for posting and sending a message. And making the post clickable to show only that post. I can get that done in a bit though cause I already have the code for it but just need to change the form tag to take you there.

+ Message #backend

# Team Member Contributions



**Andrew Arthur St Germain**

to Sagar, Steven, Ganzolboo, David, Peter, David, Sunny ▾

May 21, 2019, 1:45 PM (2 days ago)



Hello Team 12,

My contributions:

- Team Lead: planned, coordinated, and oversaw project.
- Oversaw and contributed to all Milestone documents
- Maintained communication with all team members, class CEO, and class CTO
- Encouraged and answered technical and non-technical issues and questions
- Contributed greatly to both front-end and back-end code
- Setup and ensured software was correct and maintained
- Encouraged proper coding style
- Encouraged proper coding techniques
- Created and maintained an Agile/Scrum development environment

Git Hub Commits Count: ~40 (without merges)

Regards,  
Andrew St Germain



**David Adams**

to Peter, Andrew, David, Sunny, Ganzolboo, Sagar, Steven ▾

Tue, May 21, 12:21 PM (2 days ago)



My Contributions:

- Minor contributions to Milestone 1
- Minor contributions to database management
- Expanded search function, filters, and sort from vertical prototype
- Delivered what was asked for from Backend Lead and Team Lead
- Debugging at various stages

Git Hub Commits Count: 1 branch

Respectfully,

David Adams

\*\*\*

## Team Member Contributions Inbox x



 **Peter Lin** <plin1@mail.sfsu.edu>  
to Andrew, David, Sunny, Ganzolboo, Sagar, Steven ▾

May 20, 2019, 5:37 PM (3 days ago)



My contributions:

- Milestone 1
- Milestone 2
- Milestone 4
- Showed up to all team meetings
- Did what front end/team lead asked
- Some debugging
- Presentation

Git Hub Commits Count: 3

Thank you for your time,

\*\*\*

---

 **Sagar Rajeshbhai Pandya**  
to David, Steven, Ganzolboo, Peter, Andrew, David, Sunny ▾

May 21, 2019, 1:52 PM (2 days ago)



My contributions:

- Helped in deciding the back end stack of technology initially in Milestone 1
- Set up AWS instance and made the milestone 1 live on the server
- Monitored AWS throughout the semester
- Contributed in Milestone 2 for the vertical prototype
- Created wire frame for the home page of the website
- Helped in the documentation of different milestones
- Created the user dashboard for the milestone 3
- Did QA testing and code review as a part of milestone 4
- Proof read the document for milestone 4
- Submitted some code to the team lead in milestone 3

Thank you for being a good team.

Best,  
Sagar Pandya

---



**Steven Christopher Apicella**

to Ganzolboo, David, Peter, Andrew, David, Sunny, Sagar ▾

Tue, May 21, 1:51 PM (2 days ago)



---

My contributions:

- Frontend Lead: Distributed Frontend Tasks
- Created Initial About Page for Milestone 0
- Created Figma Mockups
- Created Initial Search Results Page
- Created Initial House Listing Page
- Created User Dashboard
- Created Messaging Modal
- Other Minor Contributions as asked by Team Lead
- Attended Team Meetings

Github commit count: 3

Thanks,

Steven Apicella

---



**Sunny Wong** <wong.sunny96@gmail.com>

to Andrew, Sagar, Steven, Ganzolboo, David, Peter, David, Sunny ▾

Tue, May 21, 1:52 PM (2 days ago)



My contributions:

- Back End Lead
- Proofread Milestone 1
- Designed database tables and network diagrams for Milestone 2
- Created vertical prototype for Milestone 3
- Security detail checks for Milestone 4
- Created results, home, login, admin, message, post, and registration routes
- Created partials for html pages
- Implemented admin remove/approve post
- Implemented viewing/deleting of messages
- Implemented image upload
- Implemented basic %like search, message function, post function, registration function
- Implemented login/logout
- Implemented password encryption
- Implemented lazy registration
- Authenticated user to be able to post/message
- Created and implemented admin dashboard
- Refactored functions/routes into different folders
- Validated all necessary input fields

Git Hub Commits Count: ~68 (without merges)

---

Regards,



**Ganzolboo Ayurzana**

to David, Peter, Andrew, David, Sunny, Sagar, Steven ▾

May 21, 2019, 12:25 PM (2 days ago)

---

My Contributions

- Minor contributions Milestone 1.
- Minor contributions Milestone 2.
- Minor contributions / Updated Milestone 4 using the feedback.
- Front end.
- Attended meetings.

\*\*\*

Ganzolboo Ayurzana.

## **Post Analysis (sent by team lead to everyone)**

### **Main Challenges:**

- Too many people in team with numerous other responsibilities making scheduling and teamwork often difficult including(but not limited to): Other classes, work, & personal life
- Lack of knowledge of software stack among some members
- Distribution of work due to prioritization of other responsibilities
- Lacking task management due to issues above
- Lack or differences of overall vision of project

### **Future Corrections of Main Challenges:**

Hopefully in work environment many of these issues can be fixed, however there are some things that can be improved as follows:

- Stricter enforcement of learning software stack so that issues can be self diagnosed rather than waiting for a reply for help
- Better overall communication, verbal and visually, while deciding on an end product during the early stages of development
- Developing better ways to work together remotely
- Better understanding of each members priorities and more careful oversight on when tasks can be assigned and completed in an acceptable time