

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

## **GatorState**

### **Team 6**

#### **Team Members:**

**Team Lead:** Rowvin Dizon (email: rdizon1@mail.sfsu.edu)

**Front End Lead:** Jonathan Gurdal

**Front End:** Daisy Sun

**Back End Lead:** Marlon Johnson

**Full Stack:** Minh Cha

**Full Stack:** Rene Elias

**GitHub Master:** Kayla Musleh

#### **Milestone 1**

**March 7<sup>th</sup>, 2019**

#### **History Table**

<b>Date Submitted:</b>	<b>3/7/19</b>
<b>Date Revised:</b>	<b>N/A</b>

## **1. Executive Summary**

Tired of endlessly searching for the right apartment? Looking for your perfect home while attending college can be tedious and difficult; especially for those living in San Francisco. Unlike any other housing websites, GatorState offers multiple unique features that are specifically centered towards students and locals. With its easy and simple to use constitution, GatorState gives students access to not only student-exclusive apartments, but also any available local apartments that are located all around the city. GatorState's mission is dedicated to giving students the opportunity to form connections with locals who can provide them with what they are looking for. GatorState also has an important goal to enable locals easy access to directly reach out to the student community. Whether you are a student looking for a new home, or a local hoping to provide that home, GatorState is the ideal place to help form connections on either side.

GatorState provides a convenient place to browse for potential apartments or houses. Users can filter their search to match their desired location, budget and much more. Any property owner can post and edit a listing about their property, by using our simple and easy to use interface. GatorState can be easily used by anyone, regardless of their experience. One feature uniquely serves students by recommending ongoing activities and events nearby SFSU. GatorState also conveniently provides information about available public transportation near apartment listings. Another special feature that GatorState features is the fact that students are able to view reviews made for any forms of housing they may try to search for. Users are able to read honest reviews left by previous tenants--ideally for further information on popular apartment complexes, and student dormitories. Landlords and property owners of the locations may also respond to reviews if they wish. On top of that, GatorState has an exclusive direct messaging feature that allows for a streamlined and efficient way of holding discussions about housing between two parties so they can have a simple way to communicate. At GatorState, our specialty is offering students more freedom and convenience when looking for the right home.

GatorState's startup group is a diverse group of students coming from different areas, but all based in San Francisco. As students ourselves, GatorState is a housing site made specially with students' individual circumstances in mind. In hopes of simplifying the tedious housing process that most students are forced to struggle with, GatorState's unique and convenient features were created to help students find housing in the simplest and most convenient way possible.

## **2. Personae and Main Use Cases:**

### **Case 1:**



Jane Doe is a full-time third year student at SFSU who also has a part-time job. As a result of her very busy schedule, Jane Doe is always on the move using public transportation. Because of this, Jane Doe spends her bus time by using her mobile smartphone to get certain tasks done, such as emails, appointments, scheduling, etc. Using her phone, Jane hopes to find a new convenient apartment to lease for the following year. On the GatorState website, Jane can easily browse by locations near her ideal zip code, message landlords directly as well as book an appointment. Jane filters through her search results so that she can quickly view apartments that are within her budget. At the end of her bus ride, Jane bookmarked and contacted five potential apartments through the website.

### **Case 2:**



Matt Den is a freshman at SFSU. Freshly moved from his hometown in Ohio, Matt is beginning his new life in a big city for the first time. Matt hopes to find the ideal dorm room that will help him meet new people and make college friends. By going on GatorState on his laptop, Matt quickly finds all the different dorms that SFSU has to offer. Unsure of which dorm to choose, Matt peruses the top reviews of each dorm left by previous SFSU students and figures out which dorm suits his needs. From the reviews, Matt has an idea of the atmosphere of each dorm, as well as additional pictures provided by some of the reviews. After finding his ideal place, Matt then browses the nearby events and restaurants that GatorState suggests to him.

**Case 3:**

Pablo Escobar is an international student who recently moved countries to study at SFSU. New to the city, Pablo hopes to find any local apartments that are conveniently located near school and any interesting city spots. Because English is his second language, Pablo also wants to live near Spanish speaking communities to help him feel at home. He then looks for apartments and their nearby events and restaurants. Pablo finds a few potential apartments close to the school that also have Spanish markets and restaurants nearby. After finding his ideal apartment, Pablo browses the nearby available public transportation that GatorState recommends to him.

**Case 4:**

Maya Ishi is an old retired grandmother who recently moved in with her children. With her previous house not being used, Maya wants to rent it out. Her daughter suggests her to use GatorState because it is easy to use and has a convenient way to communicate with potential renters. Because of her limited experience in computers, Maya feels apprehensive in using an unknown website to her. However, Maya was able to navigate the website using the helpful tutorial tips on the website and uploaded her first listing. She wrote a description and dragged pictures of her house onto the forum to upload everything she wanted. Before the end of the day, Maya had already received messages from people interested in viewing her property. When requested for a viewing appointment, she was able to accept or decline.

### Case 5:



Cassidy Robinson is a busy career woman with a vacant condo to rent out. With a tight schedule, Cassidy does not have a lot of time to take phone calls or assist in showing her condo to potential renters. However, after coming across GatorState, Cassidy was able to post her listing about her condo and wrote a description that included answers to frequently asked questions--saving her a lot of time. Cassidy also added in restaurants and markets that are nearby the condo. Once the messages started to roll in, she was able to view the profiles of interested renters and get a sense of how each person is. After viewing their profiles, Cassidy got to know a little more about the potential renters before scheduling a viewing appointment that fit in her busy schedule. Within a week, Cassidy found her perfect renter. By using GatorState's direct messaging, updating the condo's FAQs and having access to renter profiles, Cassidy got right to the point and saved a great deal of time in finding her ideal renter.

### **3. List of Main Data Items and Entities:**

#### **Unregistered Users:**

Able to see basic info of listings, but cannot leave reviews or send messages to listers.

#### **Registered Users:**

Able to see basic info of listings, as well as create own listings and leave reviews for current listings. Messaging and favoriting are enabled.

#### **Listing:**

Holds the information of a home, including: address, images, general description. Must be created by Registered User.

#### **User Profile:**

Users can view their profile, create listings, view liked listings and can access direct message threads with other listers.

#### **Login Page:**

Page where Registered Users can log in.

#### **Register Page:**

Page where Unregistered Users can sign up and register for an account on the site.

#### **Saved Listings:**

See listings saved and compare.

#### **Post Listing:**

Fill in the details for the listings and upload photos for it.

#### **Homepage:**

Features large search bar for quick search. Quick access to latest viewed/bookmarked listings as well as the user's own listings.

#### **Direct Messaging:**

Allows for easy communication between buyers and sellers.

#### **Compare Page:**

Select multiple listings to compare different attributes side-by-side.

#### **User's Listing Page:**

The user can view all the postings he/she currently has available and had previously listed.

#### **4. Initial List of Functional Requirements:**

1. Post a listing
  - Add listings that you wish to rent out, including: the address, description, and images of the listing.
2. Save a listing
  - Listings are able to be saved to user profiles to be able to be viewed later.
3. View personal listings
  - See all the listings that you have posted.
4. Listing page
  - General page for a listing.
5. Commute routes to SFSU
  - Listings will provide a quick and easy way to commute to san francisco state university via muni, bart, and shuttles offered by SFSU.
6. Things to do in the area
  - Recommendations of activities to do in the nearby area, this includes: interesting city locations, school activities, and social venues.
7. Review Page
  - View reviews you have left for listings and view reviews left by other members.
8. Direct Messaging
  - Page where you can access direct messages to other users.
9. Tutorial for posting
  - Provide a tutorial for how to fill out the forms required for posting a listing. It gives step by step instruction and explanation for each form required to be filled.
10. Places to eat
  - Gives multiple locations for places to eat in your neighborhood and by SFSU.
11. Compare Listings
  - Select multiple listings to compare different attributes side-by-side.
12. Home page hub
  - Quick access to all parts on our website as well as the ability to search for new listings. Additionally, new and popular locations will be shown.
13. Search for listings
  - Gives a wide range of listings and options that provide students an array of choices
14. Filters
  - With having an array of options, giving students the ability to make use of filters allows them to simplify their process when searching for a dorm.
15. Account
  - Can adjust personal account settings, such as notifications, email, passwords.

#### 16. Registration

- Prompts user for information such as name, email and password to create an account.

#### 17. Profile Page

- Displays an image and a short description about the user. Other users can also choose to message or block through the profile page.

#### 18. Appointments

- Displays a list of upcoming appointments. Allows the ability to create a new appointment or edit an existing one.

#### 19. About Page

- A description entailing what GatorState is, as well as explains key features and functions

#### 20. Contact

- Allows users to contact GatorState developers directly with feedback, questions or problems.

#### 21. Listings Archive

- See all the listings that were bookmarked to be viewed later



## **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 (some may be provided in the class, some may be chosen by the student team but all tools and servers have to be approved by class CTO).
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 (as covered in the class)
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. (Important so as to not confuse this with a real application).

## 6. Competitive Analysis:

Features	Zillow	Trulia	Redfin	Realtor	SFSU
Review Page	-	-	+	-	+
Profile Page	+	+	+	+	+
Commute to sfsu	-	-	-	-	+
Things to do neary	-	+	-	-	+
Saved Listings	+	+	+	+	+
Rate Listings	-	-	-	-	+

+ exists

++ superior

- Does not exists

Our GatorState site has the advantage compared to other competitors when it comes to the novelty and convenience that it has for students. One unique feature is having a review page for each listing, allowing users to read previous tenant's experiences. The GatorState site also provides available public commutes from the listings location to SFSU that include bus routes, Bart routes and shuttles. GatorState also offers nearby ongoing activities in the area, and nearby SFSU.

## **7. High-level System Architecture and Technologies Used:**

- Ubuntu and Version Number -----Ubuntu 16.04
- Postgres and Version Number -----Postgres v11.2
- Nginx and Version Number -----Nginx v1.14.2
- Javascript and Version Number ----Javascript v1.8.5
- Express and Version Number -----Express v4.16.4
- React and Version Number -----React v16.8.2
- Node and Version Number -----Node v10.15.1
- Bootstrap and Version Number -----Bootstrap v4.3

## **8. Team:**

**Team Lead:** Rowvin Dizon

**Front End Lead:** Jonathan Gurdal

**Back End Lead:** Marlon Johnson

**GitHub Master:** Kayla Musleh

**Document Master:** Daisy Sun

**Full Stack:** Minho Cha

**Full Stack:** Rene Elias

## **Front/Back End Roles**

Back End

Front End

Back End

Front End

Front End

Front & Back End

Front & Back End

### **9. Checklist:**

Team found a time slot to meet outside of the class	<b>DONE</b>
GitHub master chosen	<b>DONE</b>
Team decided and agreed together on using the listed SW tools and deployment server	<b>DONE</b>
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	<b>ON TRACK</b>
Team lead ensured that all team members read the final M1 and agree/understand it before submission	<b>DONE</b>
GitHub organized as discussed in class (e.g. master branch, development branch, folder for milestone documents, etc.)	<b>DONE</b>