

University of South Carolina

Off Campus Housing Application

Software Requirements Specification



CSCE 247: Software Engineering

Daneatrian Robinson, Camila Pereira, Raymond Seas, and Sri Reddy

September 5th, 2020
Version 1.0

Table of Contents

University of South Carolina	1
Off Campus Housing Application	1
Daneatrian Robinson, Camila Pereira, Raymond Seas, and Sri Reddy	1
1. Introduction	3
2. Stakeholders	3
3. Constraints	6
4. Overall Description	6
9. Competitive Analysis	7

1. Introduction

Purpose

The University of South Carolina is home to 26,773 undergraduate students and 8,062 graduate students. With more than 70% of students living off campus, the demand for off-campus housing is always high. The search can sometimes be extremely difficult, time consuming, and taxing. That is why we want to create a website/application that takes some stress off of the search for off-campus housing. Our website will have an easy to use interface that allows users to see all options for housing and compare their features to find the options that's best for them. It will compare rent, amenities, walking distance, parking, roommate matching, and other features to compare and determine the best fit for the user.

Source: <https://www.usnews.com/best-colleges/university-of-south-carolina-3448/student-life>

Scope

This document will cover:

- The personas of potential users and stakeholders invested into this project.
- Any constraints that have been applied to this project.
- A description of the website/app along with its business use cases.
- Shows both the functional and nonfunctional requirements of the app.
- A competitive analysis to outline the purpose of the project.

2. Stakeholders

- University of South Carolina students
 - Undergraduate
 - Graduate
 - Exchange Students
- University Of South Carolina
- Leasing groups
- Off-Campus Student Housing Complexes
 - Property managers
 - Complex employees

Personas

Katie Smith

Age: 19

Hometown: Nashville, TN

Student: Undergraduate

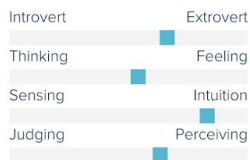
Work: Library Assistant

Character: Listener

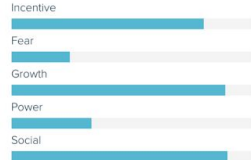


Bio: Katie is a rising sophomore at the University of South Carolina. She is majoring in Exercise Science and minoring in Spanish. In her free time she enjoys listening to music, taking pictures, and going on hikes. She is very involved on campus and likes to go to Corner Blend.

Personality



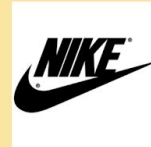
Motivation



Goals: Katie wants to find an apartment that is off campus but walking distance to classes, has roommate matching available, is fully furnished and has a pool and gym. She doesn't need a parking spot as she will not be bringing a car to campus. She also wants to stay in the range of \$550-\$650 per month.

Frustrations: Katie dislikes being isolated or far from shopping areas. She wants to find an apartment complex that takes safety seriously. Katie doesn't mind people having fun, but she wants to have some quiet on weekdays when she's doing homework.

Brands and Influencers:



Ken Scheer

Age: 23

Hometown: Philadelphia, PA

Student: Graduate

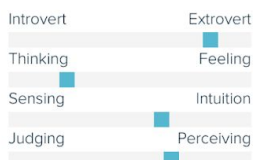
Work: Restaurant Manager

Character: Leader

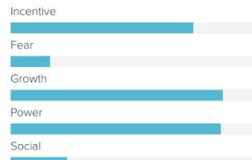


Bio: Ken is a born and raised Philadelphian who sought after his college education from the University of South Carolina. Ken is in his first year of Graduate school seeking to get his Master's in Computer Science. He enjoys spending time with his fellow Graduate students, attending Gamecock events, utilizing his spare time giving back to the community, and is a sport fanatic.

Personality



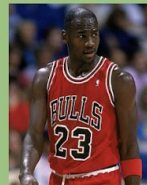
Motivation



Goals: Ken is searching for an apartment that is within 5 minute driving range of campus, preferably with a majority of Graduate level students, and must have parking available. Ken does not mind whether or not the building is furnished, but must be within a price range of \$800-\$1100.

Frustrations: Ken hates to be bored and is able to work with distractions, so a complex with a great social atmosphere is key. He has had problems in the past with roommates, so he must be able to choose them. Ken does not like having to travel up and down many flights of stairs, so he would like to be on a lower part of the building.

Brands and Influencers:



John Ortega

Age: 35

Hometown: Chicago, IL

Student: N/A

Work: The Hub at Columbia
Manager

Character: Leader



Bio: John is the leasing manager at one of the apartment complexes in Columbia. He was born and raised in the suburbs of Chicago and has been working for the Core Campus Realty group for five years now. He is very outgoing, motivated, and a people person.

Personality



Motivation



Goals: John is very goal oriented. He has been working for Core for some time now and he is working very hard toward reaching a promotion. He wants to ensure that every resident feels at home and has no complaints about the quality of their experience at The Hub. He wants to build a partnership with a website so that more students will look at living at The Hub

Frustrations: One of John's biggest frustrations is lack of communication and transparency. He dislikes how some apartment complexes are vague with their amenities and believes that being dishonest with your clients is one of the easiest ways to lose their trust and business.

Brands and Influencers:



3. Constraints

Time Constraints

- This project is to be completed within a time span of two weeks.

Monetary Constraints

- This project's development has been allocated a budget of \$0.

Technical Constraints

- The code must be done in Java.
- The website must be accessible on a variety of different devices including PC, laptops, and mobile devices.

4. Overall Description

This app must be accessible to users within the USC system. Users will be able to access this app from their mobile devices. The app will collect data on off campus housing located in Columbia SC. The user will be given several options to sort collected based on their preferences (price,distance,etc). The website will contain a database of reviews that have been left on the website, as well as other websites, so that students may read about other students' experiences.

9. Competitive Analysis

	Garnet Living
Strengths	<p>Initial search function is efficient and easily accessible. Allows the user to select filters from a header at the top of the screen, which remains available on all pages of the website.</p> <p>Simple, yet sleek design. The overall design is relatively simple consisting of a single header of buttons used to navigate the website, along with slideshows of housing, living recommendations, as well as a large map with pins showing the available housing surrounding the campus.</p> <p>The website also allows property managers to log on and post their property available for rent. This allows the website to keep up to date with booked leaseings as well as updates on the state of the properties.</p> <p>Endorsed on the University of South Carolina website. Students are pointed toward this website on the University's site which increases and verifies its reputation</p>
Weaknesses	<p>Lack of Student interaction. Students looking for housing do not have a true interaction with the website and the listings found on it. There is no way for students to pin or compare properties.</p> <p>The website also has some listings that are shallow and uninformative leading to suspect advertisement. Inefficient function, if any, to prevent said listings from being posted.</p> <p>Poor set structure for listings. The website does not require property managers to maintain a similar structure in their postings leading to difficulties in finding information for the student and distracting design flaws</p>
Audience/Focus	<p>The website was created largely for the students of the University of South Carolina and local property managers with the primary focus revolving around connecting students in search of housing with property managers who hold leasing opportunities for them.</p>

	UniLodgers
Strengths	<p>Interactive and very easy to use interface. The website is set up in a similar way to Airbnb in that it has an interactive map with available apartment/housing options. There are filters for property type, accommodation type, price range, university, pandemic shield and more so it is easy to filter through.</p> <p>The website allows you to click on available options and see pictures of the apartment complexes, their amenities and features, and it also gives some information about rent.</p> <p>Another strength this website has is the live chat feature which allows users to send messages to a “Personal Student Advisor.” This is a plus because it allows you to get insight from a student who is knowledgeable about off campus housing as a whole, and not just one apartment complex.</p>
Weaknesses	<p>One downfall about this website is that it does not have a designated area for reviews. When searching for a place to live, reviews are really helpful because you can read about other students’ experiences and see how the apartment complexes handled certain situations.</p> <p>Another problem with this website is that it doesn’t have all off-campus housing options. It only displays those complexes that have agreed to be included or have given the website permission to post their available units.</p>
Audience/Focus	<p>The targeted audience of this website is college students. The website is specifically designed with college students in mind so they can look at and compare their housing options. The website is for college students all over the country, not just the University of South Carolina, which means that it isn’t tailored specifically for our university.</p>

	ApartmentFinder
Strengths	<p>One strength the ApartmentFinder website has is that the website is very clean and easy to navigate. It shows how long an apartment listing has been up for, and it also shows if there has been a recent price drop. The website allows users to easily filter the options by price, number of beds and bathrooms, amenities and more.</p> <p>Another cool feature is the ability to draw a radius on the map so the only units shown are those within it. It's also very easy to click on the map, select a property, and quickly contact the property owner/landlord.</p> <p>This website, because it is designed for more general apartment searches, also has school system ratings/information, in addition to information about shopping centers, parks and recreation, and more. It also has a walk score, transit score, and bike score which gives the user a better idea of what it would be like living in that apartment.</p> <p>Most of the apartment results aren't the most popular off-campus housing options students live in, so if the user were looking to be roommate matched, this is something they would have to look into on their own.</p>
Weaknesses	<p>Because this website isn't made with just college students in mind, it takes a lot more time to filter through options. Since most students have already signed their leases for the year and there aren't many available units, the only options that come up when searching in Columbia, SC, are apartments that are either too far from campus or too expensive.</p>
Audience/Focus	<p>The audience of this website is broad. This website is a general apartment search website, so it is not targeting college students specifically.</p>

Summary

	Strengths	Weaknesses	Focus
Garnet Living	+Simple +Efficient	-Poor listing Structure -limited student interaction	Student-Property manager connection
Unilodgers	+Interactive +Ease of use +Live chat feature	-No reviews -Limited listings	Universal search for Student Housing
Apartment Finder	+Clean Design +Abundance of features	-General use (not Student oriented)	General housing search

Following the competitive analysis above, we have learned much about the successes and failures of similar housing websites that will greatly aid us in creating our product. We deduced that our product will have to have the opportunity for Student interaction as well as a simple, efficient and structured interface. Garnet Living had a simplistic design that was easy to use, but lacked greatly when it came to user interaction and structurizing the information given. Students do not want to add stress and waste time while trying to find a new home near campus, so having all the information laid out in a universal, simple format would benefit them immensely. Also, in order to aid the student in their decision making, increased user interaction will be of extreme use. Granting students the ability to interact with one another through reviews and providing an option to create an account to bookmark and compare listings will embody the best of the three products viewed. Therefore, our desire is to build off of the simple design of the Garnet Living site, giving it a stronger format, while granting the users another level of interaction, all of which will prevent confusion and frustration providing a better overall experience.