QuickRental

Project Proposal

INFO 3604 Final Undergraduate Project

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Introduction

Finding the right apartment near the University of the West Indies has been an ongoing problem for many years. Many students go through unnecessary stress looking for apartments. Many can be found, but are never as advertised or fully trustworthy. Features, especially the walking distance, are not always mentioned and the landlords are hard to reach. We, as UWI students, can attest to this. Thus, we aim to develop a mobile application to ease the finding of apartments near UWI for students, staff, employees and anyone that wants to rent an apartment near UWI. It also aids the landlords in advertising their apartment to a wider audience and hence, gaining them more revenue.

With the cooperation of landlords, this app is guaranteed to aid students and staff that are looking for apartment near U.W.I. They will be able to find their ideal apartment with just a few clicks and will have more time to cater to their business instead of wasting time looking for apartments they are not satisfied with.

This proposal is made to collect, analyse, and define the high-level needs and features of a U.W.I apartment finder mobile application called QuickRental. The product is developed by Group 3.

Positioning

Problem Statement

At the University of the West Indies, finding the right apartment as a student or staff is extremely difficult and time-consuming. Many students/staff normally find apartments via word-of-mouth or facebook. However, they are usually not as pictured, walking distance is never obvious and contacting the landlords can be a chore; landlords may appear rude and abrupt since they do not have much time to dedicate to responding to calls and organising visits. This confirms that existing methods of advertisement are not effective. Therefore, students/staff must take great care and effort to locate an apartment that fits within their budget and level of comfort.

To solve this we have endeavored to develop a mobile application, QuickRental, allowing users to search for apartments that suit their liking in the UWI St Augustine area. It will be useable on both iOS and Android devices. In addition, users will be able to directly message the landlords, providing greater convenience for both parties and potential revenue for the landlords.

Product Position Statement

This is for U.W.I students and staff or anyone that is looking for an apartment near U.W.I, as well as the landlords. Poor advertisement can leave landlords with empty rooms, as well as unsatisfied students and staff. Therefore, an apartment rental application that encourages more apartments to be rented, where students and staff can find the right apartment that suits their needs would be most beneficial.

Unlike competitors such as Oasis.com and other apartment rental applications, QuickRental will list all features, is free, will include a virtual tour, a map and reviews and have a social network among students and staff, in addition to specifically targeting universities. Therefore, it should be able to adapt to any university and locale.

Stakeholder Descriptions

Stakeholder Summary

User Stakeholders

Our target audience for the apartment rental application would be anyone that rents an apartment at or or near to the University of the West Indies (UWI); students, parents, staff and employees. Furthermore, the landlords will also be a target audience as they will be the ones advertising their apartments within the mobile application.

Non-user Stakeholders

The non-user stakeholders are those that have interest in developing the application. This includes the team members and the course coordinator that will be overseeing the development. The team members will each take on the role of the product owner and scrum master at each increment where we will have at least four increments. The product owner will be in charge of the product backlog and retrospective meetings, as well as planning meetings. The scrum master will be the team leader and developer that identifies the business goals, communicates with the product owner to ensure everything is up to scratch and the team members are doing their tasks. They will also be in charge of planning the scope of the increments with the product owner. Team members will be responsible for developing the application and ensuring the product conforms to software engineering principles. It must be maintainable, well-documented, and efficient. Lastly, the course coordinator will oversee deliverables and provide guidance in cooperation with the supervisor, who will oversee each increment.

User Environment

Users will navigate to the Android Play Store or the Apple App Store and download the app, where it can then be used at their convenience on their smartphone. By developing and

hosting the app for both Android and iOS devices, the majority of smartphone users can fully use the application.

Product Overview

The product is a mobile application that works on both iOS and Android that allows users to browse for their ideal apartment and roommates.

Product Perspective

The app has no special requirements relating to integration, aside from the initial download from Google Play or Apple App Store. However, it must be developed and compatible with both Android and iOS devices and is dependent on a steady internet connection.

Needs and Features

The focus of this project is to allow users to find their ideal apartment, hassle-free. Incremental releases will be paramount to obtaining stakeholder feedback, ensuring the application is developed according to the customer needs.

ID	Need(s)	Priority	Feature
QR1	Allow users to create an identity as either a Landlord or student/staff on the application	High	Login and Sign Up
QR2	Apartments with the most hearts, will be sorted higher.	High	Featured
QR3	Browse apartments through a filter that suits the user's chosen criteria.	High	Filter and Results Page

QR4	Leave and view Comments for apartments	High	Comment Page
QR5	Allow users to save their favourite apartments, for later viewing and to be notified on changes for that particular apartment.	High	Bookmarks
QR6	Push notifications will be received, if bookmarked apartments have been modified.	High	Notifications
QR7	View the apartment on a map	High	Map Page
QR8	View an apartment through a virtual tour	Medium	Virtual Tour Page
QR9	Connect and Communicate with the landlords via a messaging platform.	Medium	Chat
QR10	Ban Inappropriate Users	Low	User Banning
QR11	Report Inappropriate Comments	Low	Reporting

Table 1 showing: The needs and features of QuickRental ranked by priority.

Alternatives and Competition

Many apartment rental applications exist, such as PadMapper (Dailey et al. 2018) . However, they were not applicable to university students, many of them did not have the features that students want, such as walking distance to their university and they were not designed for our country Trinidad and Tobago.

We also looked at local rental apps only to discover just how outdated and user-unfriendly they were, and just plain unsuitable for students. OASIS is a prime example of the pre-CSS internet and older than most students.

A possible solution would be a realtor who specializes in student apartments. However, it will not be effective because a single individual or agency that handles accomodations in person cannot handle large volumes of persons, and will be limited by appointment times, since they will not be available to meet every hour of every day.

Other Product Requirements

Smartphone Compatibility

The application should be developed for compatibility with both iOS and Android devices, since these consist the largest smartphone market share.

Usability

The app should have a simple user interface that can be effective to users of various age and technical backgrounds. It should necessitate a complex user manual aside from a basic FAQ.

Responsiveness

The app should feel responsive to the user, and not demonstrate any noticeable lag or hitches under normal use and on compatible devices. Actions the user takes with the app, should happen within a reasonable amount of time, and feedback should be given almost instantaneously.

Visual Design

The app should be pleasing to the eye and provide a clean and readable interface. The design should not impact readability or usability. A night mode, to reduce eye strain should also be provided.

Long-term Scalability

As the app becomes more popular, the server backend should be able to handle the extra load.

Security

The app should demonstrate two-factor authentication to prevent unwanted access to a user's account.