**QuickSpace Proposal**

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**Team**

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**GitHub**

<https://github.com/xinlei/QuickSpace>

**Description of Project**

QuickSpace is a simple mobile solution for booking quick and easy private spaces while on the go. While similar to Airbnb for overnight rentals, QuickSpace addresses the need for spaces of various sizes, amenities, and purposes. The types of spaces can include meeting, study, and storage spaces, which could all offer amenities such as WiFi access, bathrooms, and beds. The beauty of the product is that the combination of space, location, and service are endless. These private spaces serve as a focal point for navigating urban settings and doing business in a highly mobile work environment. Our application aims to provide flexibility, ease of use, and convenience for people to find their ideal place to study, work, and rest. We have identified three main tasks that our project will accomplish:

1. *Putting up a space for others to rent*. The process involves inputting space information (name, description, location, photos), approve a preview of the listing (otherwise make edits) and confirm their posting. Later on, the host might want to edit / cancel the listing.
2. *Renting a space*. In order for the guest to find a place, he/she inputs information regarding his/her location, date and time needs, type of space, and desired amenities. We then show a list of nearby availabilities. The guest views the detail of the place, requests the booking, and waits on confirmation from the host. The host receives the request, views the profile of the renter, and confirms the booking. Once the booking is confirmed, the guest receives instructions on how to access and use the space.
3. *Rating and reviewing a rental experience*. After the space is used, the guest provides a rating and optional review of their experience. Other potential guests can view this information while browsing for places.

**Need for Project**

We are seeing an “Uberization” of many things in today’s society. Uber and Lyft offers the private leasing of transportation; Airbnb offers private, short-term homespace leasing; LiquidSpace offers short-term meeting room spaces; etc. QuickSpace expands on this idea to offer even more, less niche spaces, on-the-go. For example, Airbnb only does overnight stays, and LiquidSpace only does corporate meeting rooms, which all take a lot of preparation. QuickSpace allows people to spontaneously search for a space for any immediate need they have. On the consumer side, a user might have an immediate need for a quiet study space or a last-minute place to sleep. This would not be possible with the aforementioned products due to the lack of preparations made. On the supplying side, users would lease out their spaces which would otherwise be vacant. We can see this possibility with Airbnb renters who still have vacancies that don’t seem like they would be rented out. In a way, they would short-sell their vacancy, so it’s a win for both parties. Other than that, people can rent out different spaces that they aren’t using, such as their kitchens, living rooms, tea houses at off-hours, etc. and make a profit for space that would otherwise be left unused.

**Potential Audience**

There are two different audiences that we are catering to: the space user and the space provider.

On consumer side, we are assuming potential audience consists of any individual who finds him / her self in need of a place that is geographically, personally and temporary appropriate for them - the space users. Initially our app is targeted more towards people who find themselves spontaneously in desire of a place to rest, work, host a party, or any of the other countless uses for free space. However, the product also has the capability to cater to any number of people interested in planning out an event, in need of housing or a meeting area, or other activities. Since we are focused on San Francisco and Bay Area at the moment, we can assume technological literacy, which may allow us to introduce some interface complexity without sacrificing the user experience. However, if we want greater adoption in the U.S. and beyond, then there is a need to make the interface simple and pleasure to use.

On the other hand, space leasers are the suppliers to the market. These are people or companies who own space that they’re willing to lease out for small amounts of time. Unlike something completely exclusive such as a whole meeting office or an entire home, this could be a small space in someone’s home or building - a space that isn’t used, which the owner could benefit off of. In addition, we could allow current home renters, such as those on airbnb, to “short sell” their last minute vacancies.

**Discussion of Competing Products**

* *LiquidSpace* is our biggest competitor which has the advantages of being the first-mover, having established partnerships, and being enterprise-focused. The company is founded in 2011 and currently has over 5,500+ bookable spaces (mostly meeting spaces) in the U.S. and Australia and 25,000+ transactions per month. Aside from organic growth, the company has partnered with Marriott to provide conference rooms on demand in major U.S. cities catering to business travelers. QuickSpace will differentiate on the consumer experience (vs. enterprise) by expanding the type of space to beyond meetings rooms and provide an intelligent and intuitive search interface for finding the ideal space.
* *Letsmake* provides temporary rental spaces for makers and hobbyists, which means their typical spaces are kitchens, photo studios, woodshops, etc. The niche market they serve also limited their growth to only 13 listings in San Francisco. However, this further validates our concept of temporary spaces to beyond meeting spaces. Their lack of mobile application allows QuickSpace to compete on a mobile-first strategy, which could address the needs of this market and additional use cases beyond hobbyists.
* *Airbnb* is our competitor if we expand our industry scope to the broader rental space, who has over 1,000,000+ listings worldwide. With the tagline “Rent unique places to stay from local hosts all over the world”, Airbnb’s emphasis is on the user experience, most noticeably through their mobile application’s ease of discovery, booking, and reviewing rental locations. QuickSpace will adopting a similar strategy for working with users while compete in the temporary rental space, which has different set of user needs (lower price point, repeated bookings, lower planning hurdles, etc.).
* Craigslist is an online classified website that connects buyers to sellers for a variety of services and products. Because Craigslist covers a wide range of listings, its filtering mechanism is broad and limited (prices, type of rooms, size). QuickSpace, to address Craigslist as a competitor, uses social media and a review system to add a layer of trust between buyers and sellers that do not exist on Craigslist. Our specific focus on quick and easy temporary space is advantageous for safely discovering and booking online listings with required amenities, as oppose to reading through individual listings.

**Major Technologies Used**

We plan to ultimately build our product using Swift for iOS. However, none of us currently have any Swift knowledge, so for the time being, we will code the app on Android using Java and eventually migrate over to Swift.

For the backend when we code in Swift, we will use Core Data to store important variables. Eventually, we will either use Heroku or Parse to utilize server storage, but we have not yet looked into them.

**Resource Requirements**

We would need a prototyping tool, such as Balsamiq or Proto.io. Additionally, we may need some Swift tutorial, since none of us currently know the language. If that doesn’t work out, we will either finish the code in Android or move it over to Objective-C.

**Potential Approaches**

As a general theme, our product allows people to rent spaces. Our approach is driven by the needs of our users, market, and team capabilities.

* Platform (Mobile-first vs. desktop). QuickSpace is mobile-first because of the nature of our users, who typically are on the move and are looking for a temporary place to stay. Being mobile-first offers the advantage of having access to the user’s geographical location, NFC technologies (for providing keyless entry, identity verification, etc.), and providing immediate needs, without the pain of planning. The downside to this approach is the fragmentation of the mobile device size, features, and operating systems and makes development more difficult. More example, some devices do not support NFC while most newer devices do.
* Focus (consumer vs. enterprise). The enterprise marketplace as demonstrated by LiquidSpace consists of pre-existing co-working spaces available for rent, and LiquidSpace serves as a primary distribution and marketing channel to connect the business owners to potential need for meeting spaces. In the consumer space, the problem is not solely distribution, but the fundamental availability of convenient spaces that needs to be created. We see a greater challenge in convincing everyday people to (1) see how their space could be valuable to others, and (2) worthwhile in terms of income to justify the potential downside (theft, damage, privacy, etc.). The implication for QuickSpace is that on the supply-side we need to satisfy both economic and emotional needs, and the demand-side to offer wide availability and delightful interface for locating spaces.
* Defensibility (organic vs. partnership). Creating partnerships to offer rentals (with hotel chains, coffee shops, incubators and co-working spaces) will quickly ramp up our adoption. The process may create certain complexity beyond the capability of the current team to manage. Instead, QuickSpace will focus primary creating features (easy location sharing for meetups, etc.) and growth hacks (group discounts, special rates for regular customers, etc.) conducive to organic growth and promote referrals and word of mouth adoption.
* Growth (Demand vs. supply-driven). To growth the marketplace, we need to scale both demand and supply relatively similar rates. Growing supply too fast would lead too many locations unbooked. Conversely, high demand relatively to supply decrease the availability of spaces, turn away potential first-time users and frustrate existing users. Our approach for scalability is put equal weight on both side of the market. That means making it incredibly easy for owners to uploading listings, highlight important features and amenity and feel protected from danger of making their place public.

**Assessments of Risks**

The largest potential risk is that users who are renting out space will damage property or steal from those providing the space. To combat this there will have to be some type of insurance for renters or a means for those who are purchasing space to be incentivized to behave themselves. It seems the simplest way to do this would be to have both parties fill out a damage agreement. Having renters submit a security deposit would be another way of addressing this issue.

The second risk comes from being in a competitive spaces, where we face companies like LiquidSpace which has an existing partnerships and presence in cities across the U.S. and Letsmake that addresses niche markets. With an already well-designed user interface, we could potentially see Airbnb entering the space as well. We could mitigate the competitive risks by offering innovative solutions that is specific to temporary rentals.

Additionally, if the space is not one that is frequently monitored, there is the risk of people squatting or otherwise staying past the time allotted. However, this is a risk inherent in all renters agreements and the onus is on the owner to ensure that the space is vacated. Perhaps in the future there could be some type of additional hardware involved in which the renter would have to “check out” of the space and would be subsequently locked out, much like Zipcar. However, that is beyond the scope of this class.

**Next Steps**

We already have an overall UI look from CS 147, but we’re changing the functionality of the application, because we realized how we could expand it to different areas. Mainly, we have to make sure that the specifications of each search and each space has enough information to accommodate different usages (resting space, study space, overnight stay, etc.) and amenities (wifi, tables, etc.) while maintaining a clean, easy-to-use interface, since that idea was not previously explored. We need to make sure that our redesign has full functionality, allowing the space-owner to input the space details and the space-renter to be able to search and filter for their desired accommodations. We already have a smooth and attractive general design, so we have to make sure our redesign maintains that look and the easy-to-use user interface. We will initially code it in Android until we understand enough of Swift to be able to migrate over to that.