**WeCasa**

Request for Proposal

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*Project Code Repository*: https://github.com/githelsui/WeCasa

# **RFP Version Table**

|  |  |  |
| --- | --- | --- |
| **Version** | **Description** | **Date** |
| **1.0** | Initial Request for Proposal Submission   * Overview * Target Audience * Value * Competitors * Project Scope * Product Features * References | 09/07/2022 |
| **1.1** | Formatting Adjustments   * Added Artifact Names (e.g. RFP) * Added Table of Contents * Added Code Repository * Added Version History Table * Added Glossary of Terms * Added FAQ * Added Project Projections * Added Product Vision * Added Core Components   Content Improvements   * Quantifiable Product Goals * Feature Scope * Feature/Product Value Alignment * Vision - Future Scope & Future Features | 09/17/2022 |
| **1.2** | Content Improvements   * Core Components * Added Features   + File Uploads | 09/19/22 |
| **1.3** | Content Improvements   * Core Components * Removed Features   + Availability | 9/22/22 |
| **1.4** | Content Improvements   * Features (User Feedback, UAC, User Management, Analytics, Photo/Documentation Uploads) | 9/29/22 |
| **1.5** | Content Improvements   * Added Feature (Rent Calculator) * Future Features | 10/3/22 |
| **1.6** | Content Improvements   * Removed Feature (Rent Calculator) * Future Features | 10/3/22 |

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# **Overview**

Our project proposal is WeCasa, an invite-based web application that allows users to manage their shared living spaces. Our goal is to streamline the communication pipeline amongst roommates and build an all-in-one app geared towards prioritizing organization and communication in an effort to alleviate stress and strengthen the relationships amongst shared living partners.

Upon registration as an administrator, you will initialize your dashboard and receive a unique invite code to send to your roommates. From here, you can personalize your dashboard to fit the needs of your living space - our application boasts features such as a budget tracker for monthly bills and miscellaneous expenses, shared grocery lists for meal prepping, weekly rotating chore lists for task management, shared calendars, and reminder notifications via email and SMS.

WeCasa is the all-encompassing solution for a growing population of U.S citizens opting to live with roommates and/or family members as a means to combat nationwide increases in the average cost of living - automate day to day tasks, optimize a workflow tailored to fit your needs, and take control of your shared living space with WeCasa!

# **Target Audience**

WeCasa is designed to make the entire roommate experience go as seamlessly as possible. Anyone from students, to working professionals, to even family members can utilize the app to help streamline daily tasks. Whether or not one feels like their roommates work well with each other, our app will help strengthen weak points in communication. The app is designed for anyone with roommates, but it is especially helpful to those who feel like they live in a disorganized home and could use a third-party to help with that.

### **Target Audience Pain Points**

Several core problems and issues exist for those living with roommates that our app will address:

* **Disorganization:** Roommates often share lists of chores, maintenance dates, and many other items to be managed. For example, it can be difficult to manage whose turn it is to do a specific chore or when to complete it by.
* **Miscommunication**: Roommates will create assumptions that may result in future disagreements unless properly handled with transparency. Therefore, the app’s features aim to encourage compromise and communication between roommates.
* **Aversion to Confrontation:** Roommates will run into disagreements and have trouble effectively mitigating the situation, due to an ability to initiate the confrontation. The app will have features that incentivize users to initiate confrontation.
* **Burden of Managing Multiple Apps:** Several task and home management apps exist on the market to help roommates. However, it is overwhelming for the user to sign up and keep track of multiple accounts.

# **Value**

Our proposed app is valuable to a target audience of people living with roommates. With this single app, it will solve the problem of stress and tension between roommates that may be brought on by the disorganization of their shared-housing management.

### **Problem Scope**

More people than ever live with roommates in California due to an increase in rent and a decrease in availability for affordable housing. According to a report by Our Weekly LA, approximately 49% of California residents live with roommates. This increase is directly correlated with a national average rent increase of 18% over the last five years (Schaeffer, 2022). Furthermore, the average Los Angeles resident spends 50% of their income on rent (Lee, 2017). Out of financial necessity and several other straining factors, many people live with roommates to offload these concerns. However, living in a shared housing situation opens up further issues such as roommate disagreements and disorganization that we will further explore.

### **Problem Statement**

Roommates do not have a designated one-stop app that can manage all the necessary organization required in their shared housing situation, resulting in problems of stress and tension due to a lack of coordination and miscommunication.

### **Our Solution**

The value of our app is its ability to effectively solve the mentioned pain points that arise from living with roommates.

As a solution to these problems, our app is a dependable toolbox for organizing all aspects of shared housing management to relieve the stress and tension of living with roommates.

# **Competitors**

Our main competitors are divided into three different groups: each group representing a core aspect/feature of our app. While one of the primary goals of our app is to combine features of several existing apps into one, there are some differences and/or disadvantages in using each of the following that distinguish our app from the rest.

### **Home Organization Apps**

* OurHome, Nipto
  + Gamified household chore/task management apps for families.
  + **Audience/Purpose:** The target audience is families with children, mainly to motivate kids to complete their chores using a point/reward system. Our app does not focus on motivating housemates to complete chores, but rather organize all aspects of living with other teens/adults under the same roof.
  + **Budgeting:** Due to the majority of users being children, these apps have no feature to track expenses. Since our app is geared toward adult shared housing where each individual in the home is responsible for paying bills and purchasing necessities, it is critical for household expenses to be a main organizational feature.
  + **Metrics:** For Nipto, the only metric being tracked is the completion of chores. There is no scheduling feature, post-it board, grocery list, or expense report. While OurHome includes more features than Nipto (tracks user schedules, pet feeding, and shopping lists), it does not track the household budget. The initial scope of our app will include all of these features without the reward system in order to maintain simplicity, organization, and a more mature interface.
* RoomMate
  + Management app for people sharing living spaces.
  + **Usability:** Features are similar to our app, but according to reviews, the UI is unintuitive and prone to issues. There are also backend/loading issues for Android users that reduce functionality and render the app unusable. (source: <https://play.google.com/store/apps/details?id=com.roommate.android&hl=en_US&gl=US>). The app also does not include a notification feature or the ability to share chores. While some of these bugs and features would be relatively easy to implement and/or fix, it seems that Android users as a whole experience significant issues with using the app.
  + **Not up to date:** Additionally, the website for the application (<https://www.the-roommate.com/en/>) seems to describe a completely different application than what is shown on the Google Play store; more like a business dashboard for landlords. Since the last update for the app was April of 2022, it seems that this project has been shelved by the developers, who are now focusing on developing solutions for landlords managing several properties.

### **Social Media Groups/Community Apps**

* Facebook Groups, WhatsApp, GroupMe, Slack, Discord
  + Group forums and chat rooms that allow users to share information, events, and other content.
  + **Audience/Purpose**: These apps are not specific to housemates/shared-living situations, therefore they are not equipped with features that would be utilized by these groups. These apps aim to reach the general audience of people who want to communicate, regardless of what the topic of conversation is. Implementing all of the features highlighted in our proposal would not align with the mission of these applications, as it would only be used by a small percentage of the audiences targeted by these products.
  + **Organization:** Maintaining an organized interface for our users is a high priority. Rather than navigating through text messages, calendar apps, checklist/task management apps, our app presents everything with minimum effort (clicks, scrolling, etc). One of the main differences from our application to a group/community app like Facebook Groups or WhatsApp is that there is no organization in the message boards. Important posts get lost under everyday comments and messages. Some apps like Slack and Discord have “channels” that serve specific purposes like general chats, announcements, and resources as well as threads that clean up the forum by keeping conversations limited to one post (with comments and replies hidden). However, even with all of these features, users can still misuse the app and create a disorganized feed. For example, users can still post in the wrong channel, not reply with a thread, or pin too many posts (which defeats the purpose of pinning messages). Our app will make it much more difficult to misuse the interface by separating communication channels into interactive, organized containers on one single page (no need for endless scrolling looking for one single message).

### **Task Management Apps**

* Trello, Notion
  + Project management, organization, and note-taking software.
  + **Audience/Purpose**: These apps are not specific to housemates/shared-living situations, therefore they are not equipped with features that would be utilized by these groups. These apps aim to reach the general audience; whether they are students, working individuals, or a small group working on a project, these apps are designed to fit the use case. In contrast, our app will be created specifically with roommates in mind, which allows our features to be more defined and useful. It also allows the users to separate work/school applications from home responsibilities. Implementing all of the features highlighted in our proposal would not align with the mission of these applications, as it would only be used by a small percentage of the audiences targeted by these products.
  + **Budgeting**: While they do allow for task-based assignment, shared lists, and scheduled reminders, they do not have budgeting features that do not include a spreadsheet interface (source: <https://www.notion.so/templates/budget-planning>). While spreadsheets can be useful for personal expenses, they are not best suited for a quick-glance overview. Being able to easily check the status of 5-6 contributors to household expenses is a core component of our app that differentiates it from other management/productivity software.
  + **Premium plans:** Features like shared calendar, spreadsheets, and dashboards are only available in Trello with the premium subscription, which comes out to $6 per month ($72 per year since most leases are at least 12 months). For Notion, the premium plan allows you to share pages (not entire workspaces) with more than 5 people and upload an unlimited amount of files (free plan only allows 5MB). Notion Personal Pro is priced at $4 per month ($48 per year). For adults with shared living situations, paying a premium for organization is not ideal, and we hope to provide a solution at no cost.

# **Project Scope**

Our single-page-application is targeted initially to the US market. As such, it will only support American English at launch and comply with California privacy laws. And as our app grows, we would like to expand this to other markets such as Canada and Europe. However, this will not initially be supported.

Currently, our reference browser for this app will be Chrome Version 104. We chose to target Chrome because this is the most popular browser.

# **Product Scope**

### **Product Goals**

In order to effectively gauge whether our app is targeting the project scope we set, the following are quantifiable goals with its respective success metric:

* **Activity**: Increase usage of application between roommates
  + **Success Metric**: Daily Active Users, Sessions per User
* **Invites**: Increased number of users joining application
  + **Success Metric**: Referral Rate
* **Retention:** Rate at which roommates continuously use the app or renew their accounts
  + **Success Metric**: Retention Rate

# **Features**

WeCasa showcases budgeting, and planning features aimed to improve organization, productivity, and communication for those living together.

* **Budget Sharing Bar**:A budgeting system that allows roommates to keep track of shared expenses and balances. Expenses and receipts can be added easily.
* **Bulletin Board**:A space for roommates to pin common information that remains static (e.g., Wi-Fi name and password).
* **Calendar**: A visual representation of scheduled events. This is especially handy for trash pickup day, rent due dates and appliance maintenance dates.
* **Group Lists**:A page dedicated to two types of lists: Chores List and Grocery List. The Chores section will split up chores amongst housemates. While the Grocery List, will be a shared list designed to efficiently complete grocery shopping.
* **Reminders**: An easy way to get notified of scheduled events labeled on the calendar.
* **Nudging**: A friendly reminder which is sent to roommates who haven’t completed their assigned tasks in time. This notification is personalized and uses friendly diction to encourage the roommate to complete the ask
* **Incomplete Task Summary**: A notification sent at the end of the week to all roommates detailing which task(s) haven’t been completed and who was assigned the task(s).
* **Round Tracking Bar**: A system that tracks the percentage of assigned chores a user completes.
* **User Feedback:** A medium in which a user can submit feedback to the development team.
* **Photo/Documentation Uploads**: Upload photos to track property damage with timestamps along with lease documentation, rental agreements, etc.
* **Login:** Users can access their accounts using their email address and a password.
* **Logout:** Users can log out of their accounts using a log off option.
* **User Access Control:** Controls which users have access to other user information as well as WeCasa spaces.
* **User Management:** Features to manage user data and link users to spaces. This feature allows users to create/delete/recover their accounts, update their profiles, and edit group spaces.
* **Logging:** This internal tool logs data from all users into a database.
* **Dashboard:** An internal tool for visualizing WeCasa usage and success scores.

### **Feature Scope/Business Rules**

* **Budget Sharing Bar**
  + The budget bar will be variable with no set budget for each month
  + Anyone can add their spending/transactions to the budget bar
  + There will be an option for weekly, bi-weekly, or monthly projections on the bar
  + When a user clicks on a section of the bar, the corresponding user’s transaction list will show below
  + The number of sections corresponds with the number of users in the group
  + Sections will be color coordinated
  + Users can add bills to the budget bar by:
    - Input name of bill
    - Input how much is the bill
    - Check a box if the bill will be repeated in the next period (optional)
    - Input who it should be split between and in what percentage (defaults to 1 user and assigned the user inputting the bill)
    - The bill will be calculated split accordingly
  + All transactions will be reflected in the bar and the transactions list

*Authentication*

* + Only users with an active authentication session and access to the space can view and edit the Budget Sharing Bar.

*Authorization*

* + Only users with access to a space can utilize this feature.

*Logging*

* + Changes to the budget sharing bar will be logged to a database in the form of activity and/or errors (if any).

*Authentication*

* + Only users with an active authentication session and access to the space can add and view bills.

*Authorization*

* + Only users with access to a space can utilize this feature.

*Logging*

* + Changes to the budget sharing bar will be logged to a database in the form of activity and/or errors (if any).
* **Bulletin Board**
  + The Bulletin Board will display as a cork board themed space for static information.
  + If the user double clicks onto the board, they can edit the contents of it
  + The board can hold text, and images.

*Authentication*

* + Only users with an active authentication session and access to the space can view and edit the Bulletin Board.

*Authorization*

* + Only users with access to a space can utilize this feature.

*Logging*

* + Changes to the budget sharing bar will be logged to a database in the form of activity and/or errors (if any).
* **Calendar**
  + The Calendar will display the current month.
  + The current day will be outlined, and its tasks will be displayed chronologically on a sidebar by default
  + All dates that have events will have a dot under the date
  + Users can add events to the calendar by:
    - Inputting a name for the event
    - Choosing a category for the event (each category will have a corresponding color)
    - Inputting a time of occurrence for the event
    - Checking if event will be repeated daily, weekly, annually (optional)
    - Checking if the event will be private or public (defaults to public)
    - Inputting a time before the event for reminders via SMS (Twilio?) and/or email (free)
    - Inputting description for event (optional)
  + Events can be created, edited, and deleted

*Authentication*

* + Only users with an active authentication session and access to the space can view and edit the calendar.
  + Only users with an active authentication session can add events to the calendar.

*Authorization*

* + Only users with access to a space can utilize this feature.

*Logging*

* + Changes to the calendar via adding/removing events will be logged to a database in the form of activity and/or errors (if any).
* **Group Lists**
  + The Group Lists page is dedicated to two sections: The Chore List and the Grocery List
  + The Chore List section will display as a weekly list of chores separated by dates. This list will start on Monday.
    - There will be a TO-DO and History button.
      * If the user clicks on the History button, a list of their completed chores will display
      * If the user clicks on the TO-DO button, a list of their current chores will display
    - This feature will prompt the user to:
      * Input time to reset
      * Input Optional notes
      * Input assignments to a specific person
      * Check if the chore is repeated?
    - When the user checks a task as completed:
      * The task will be removed from TO-DO and added to History
      * The color bar will reflect its status and change from red to green (green for complete, red for incomplete)
    - If a chore isn’t done by the due date, it is added to the assigned user’s next chore list
    - Chores are unassigned if someone is uninvited from the group
    - Every week, an even number of tasks are randomly split between each user
  + The Grocery List section will allow the user to be able to add grocery item names to a shared list
    - When the user wants to delete an item:
      * They will check the box next to the item
      * The item will be crossed out but will remain in list
    - Clearing the list will clear all crossed and uncrossed items
    - Each item can be removed by clicking the ‘More Options icon’
    - The list instantly syncs up changes across all user accounts

*Authentication*

* + Only users with an active authentication session can edit the Group Lists sections.

*Authorization*

* + Only users with access to a space can utilize this feature.

*Logging*

* + Changes to the chore list will be logged to a database in the form of activity and/or errors (if any).
* **Reminders**
  + If users want reminders about an event, they would configure that setting when creating/editing the event.
  + Users can choose when they want a reminder sent to them
  + Reminders will be sent via text and/or email
  + Reminders will be integrated with Google and Apple calendar notifications

*Authentication*

* + Only users with an active authentication session can configure reminders. Users do not have to be logged in to receive Reminders.

*Authorization*

* + Only users with access to a space can utilize this feature.

*Logging*

* + Adding or changing reminders will be logged to a database in the form of activity and/or errors (if any).
* **Nudging**
  + The nudge button will be located on all task cards other than the current user’s
  + If the user clicks on the nudge button, it will send the assignee a friendly notification to complete that task

*Authentication*

* + Only users with an active authentication session can send a Nudge. Users do not have to be logged in to receive a Nudge.

*Authorization*

* + Users must have access to a space to utilize this feature.

*Logging*

* + Sending a nudge will be logged to a database in the form of activity and/or errors (if any).
* **Incomplete Task Summary**
  + This is an automatic notification that is sent out at the end of every week
  + It will include a list of users that haven’t finished their tasks
  + A list of the unfinished tasks will be included under each user’s name

*Authentication*

* + Only users with an active authentication session can edit this feature. Users do not have to be logged in to receive the Incomplete Task Summary.

*Authorization*

* + Users must have access to the space to edit the feature and receive the notification.

*Logging*

* + This feature will be logged to a database in the form of errors (if any).
* **Round Tracking Bar**
  + If a user doesn’t complete their tasks by the due date, it will negatively impact their scores on this bar
  + If the user completes their tasks, the bar will progress
  + The scores will be updated whenever a task is complete or a task is overdue

*Authentication*

* + Only users with an active authentication session and access to the space can view/edit this feature.

*Authorization*

* + Any type of user can use this feature.

*Logging*

* + Changes to the tracking bar will be logged to a database in the form of activity and/or errors (if any).
* **User Feedback**
  + If a user wants to submit a piece of feedback, they can write a 200-character message to the team through the application, and the team can respond back with an email sent to that user’s email.

*Authentication*

* + Users do not have to be logged in to utilize this feature.

*Authorization*

* + Any type of user can use this feature.

*Logging*

* + Feedback submission will be logged to a database in the form of activity and/or errors (if any).

*Analytics*

* + Satisfaction scores obtained through follow up emails are used for monitoring and assessing WeCasa customer service.
* **Photo/Documentation Uploads**
  + Able to configure valid file types
    - Photo File Type: PNG, JPEG, and GIF
    - Document File Type: PDF, DOC, DOCX, HTML, TXT
  + Able to configure valid file size limit
    - 10 MB File Size Limit
  + Uploader will have full access to all uploaded files
    - Dashboard portal where entire group can access files
  + All members of the group will have read access to all of the files, but only the uploader of a file can delete the file.

*Authentication*

* + Users must be logged in to utilize this feature.

*Authorization*

* + Only users with access to the space can utilize this feature. Only the user who uploaded the file has permission to delete it.

*Logging*

* + Adding and removing a document will be logged to a database in the form of activity and/or errors (if any).
* **Login**
  + The login prompt will be the first window that appears when the user opens the app and they are not already logged in
  + Two text boxes will be shown prompting the user to enter their email and password associated with their account

*Authentication*

* + Users do not have to be logged in to utilize this feature.

*Logging*

* + All successful and failed login attempts will be logged to a database in the form of user activity or errors.
* **Logout**
  + Once logged in, the user can choose to log out of their account on their device using a logout option on the screen

*Authentication*

* + Users must be logged in to utilize this feature.

*Logging*

* + All logouts will be logged to a database.
* **User Access Control**

*Types of Users*

* + Three types of users:

(1) System administrator

(2) Generic users

* + The system administrator has the same functionality and access as generic users with additional access to logs and analytics.
  + System admin can also manage information from generic users (see User Management)

*Access to Features*

* + Only users with access to the link of the shared space can join, view, and interact with the space. Once they have joined the space through the link once, they will be able to see and interact with the space in the app.
  + Any member within the shared space can add and remove users.
  + To add users, a member of the shared space clicks a + button when editing the member list to invite users. This generates a link to join the space. This link can be copied/pasted to share with members that want to join. This link expires after 24 hours or after it is used (whichever happens first).
  + To remove users, members of a space can click on the user they want to remove when editing the member list. This user will no longer have read or edit access to the space, and they will no longer receive notifications from that space.

*Logging*

* + All changes to user permissions and members of a space will be logged to a database in the form of user activity or errors (if any). Any errors in generating links will also be logged.
* **User Management**
  + Account Creation
    - Users add their email and provide a password to use when logging into their account.
  + Account Recovery
    - Users can get an email with a secure link to reset their passwords.
    - If this feature does not unlock their account, users can reach out to the WeCasa team through the User Feedback feature and the System Administrator can edit the account information
      * The system administrator can also disable or enable other WeCasa accounts.
  + Update Profile
    - Users logged into their account can change their public information (profile picture, username) or personal (private) information (email)
    - Only the System Administrator can view/edit the personal and private account information of other users.
  + App Settings
    - Configure notification settings
  + Creating Groups
    - Users can create groups or spaces on the home page
    - This will generate a shareable link that the creator of the group can use to add members
  + Customizing Groups
    - Each user in the group receives the same permissions and can modify:
      * The name of the group
      * The people in the group
      * Users are added to a group by clicking on a link generated by a user within the shared space
      * The functionalities/features being shared
    - Only users with access to the space can customize groups.
  + Deleting Groups
    - Deleting a group will erase all files, settings, and notifications
    - Only the creator of a group can delete a group.

*Authentication*

* + With the exception of creating or recovering an account, users must be logged in to utilize these features.

*Logging*

* + All features within User Management will be logged to a database in the form of activity and/or errors (if any). Logs for deleted groups will be maintained.
* **Logging**
  + This feature handles the recording of user activity and application errors for the purpose of monitoring and analytics.
  + Logs will appear in a secure database and can be accessed only by the system administrator through the WeCasa app.
* **Analytics Dashboard**
  + Daily Active Users (DAU): Metric for number of active users per day
  + Sessions Per User (SPU): Metric for how long a user session stays persisted
  + Most Used Features: Uses activity data from logs to define the top 3 features that users interact with the most.
  + Error Rate: Metric for how many requests result in an error compared to the total number of requests.
  + Referral Rate: Metric for how many invites get sent out for new users
  + Retention Rate: Percentage of users who continue engaging with the app over time
  + Customer service ratings: Optional satisfaction score (1-5) given by users after reaching out to the WeCasa team through the User Feedback feature.

*Authorization*

* + Only users logged into the WeCasa administrator account can utilize this feature.

*Logging*

* + These metrics use data from the WeCasa logs.

### **Feature Values**

Aside from WeCasa’s “core features”, or the common components that are present in every modern application, the following extra features that we have added all promote WeCasa’s objective and support our app’s value.

* **Budget Sharing Bar**:The budget bar allows for an easy way to organize all shared living expenses preventing miscommunication and escalation due to financial frustrations. It’s also an easy way to organize each user's weekly/bi-weekly/monthly bills.
* **Bulletin Board**:The board is a one-stop place for users to reference/update static common information.
* **Calendar**: This allows users to clearly see important dates that are related to the shared living space.
* **Group Lists**:The Chore List is a foundational feature which contributes to organization, accountability, and unambiguity. It creates certainty about what tasks need to be fulfilled and who needs to complete them. The Grocery List feature allows users to buy only what is essential and avoids double purchasing if roommates are sharing groceries.
* **Customize Group**: This feature allows each WeCasa “space” to be invite-only.
* **Reminders**: This feature helps the calendar feature to be more integrated and helps users to be notified of events.
* **Nudging**: This feature is a friendly substitute for users to encourage their roommates to finish chores.
* **Incomplete Task Summary**: This feature is a friendly reminder for users to see what is undone but is also to encourage users to finish tasks.
* **Round Tracking Bar:** This tracker keeps users accountable for their workload and prevents roommates from neglecting their responsibilities within the household. The pressure to uphold their scores will also keep users from abandoning the application.
* **User Feedback:** This feature allows users to communicate with the WeCasa team in the case of failed and/or non-functional features as well as a medium for positive feedback to guide future development.
* **Photo/Documentation Uploads:** File uploads allow users to organize and share important documents to prevent against lost and accidental destruction.

# **Project Projection**

### **Timeline**

***Fall 2022*** will mainly be dedicated to project planning with three major milestone dates:

* Milestone 1 (Business Requirements Document, High Level Design, Project Plan) & Team Review 1: October 2, 2022
* Milestone 2 (Network Diagram, Low Level Design, Registration, Logging) & Team Review 2: November 6, 2022
* Milestone 3 (Authentication, Authorization, Account Recovery, Bill of Materials) & Team Review 3: December 11, 2022

***Spring 2023*** will be dedicated primarily to project development. Our goal is to launch by mid to late May. Sprint planning is currently being carried out to fulfill project documentation needs.

### **Resources**

The development team will use software packages and solutions that are free and open source. This includes the front-end/back-end framework, data store, development environment, web server, and testing framework. Computers and other devices that will be used to develop and test code, document the project, and connect with team members will be the personal computers already owned by each team member.

### **Cost**

|  |  |
| --- | --- |
| Resources   * Software (Google Docs, IDE) * Computers | $0 |
| Labor   * Average salary of Jr. Developer in Long Beach, California: $60,033 per year (ziprecruiter.com) | $60,033  X 6 =  $396,198 |
| **Total** | $396,198 |

### **Risk**

Unanticipated events that can occur during the development of this project include:

* Lack of hours/people to accomplish tasks
* Technology failure
* Schedule/deadline changes

### **Mitigation**

To mitigate the risks mentioned in the previous section, we will ensure that every team member has a backup computer in the event that their device fails. This backup includes a Windows laptop loaned through the CSUCCESS program provided by California State University, Long Beach. These are free for students and will therefore have no effect on the overall cost of the project. To account for deadline changes in project milestones, the team will aim to budget time (approximately 2 days) before the initial due date to complete the milestone deliverables. For instance, if a milestone is due on Wednesday, the team will ensure that all aspects of the project milestone are within the domain of submission quality (all components are completed) by Monday of that same week. To ensure that all team members are in sync, work is assigned appropriately, and adhere to busy schedules, we will be implementing an agile software development method.

# **Product Vision**

### **Future Scope**

As our app grows, we would like to expand to other markets such as Canada and Europe, and broaden our target audience towards family spaces. We would also like to integrate seamless integration for expense payments via Venmo, PayPal, Google/Apple Pay, Online Banking Portals, etc. in order to truly make WeCasa into a one-stop app for roommates.

### **Future Features**

* **In-app expense payments**: Currently, WeCasa has no function to send money through the app to pay bills. In the future, we want to achieve seamless integration for expense payments via Venmo, PayPal, Google/Apple Pay, and Online Banking Portals. This will reduce the number of apps that users have to manage for shared living situations.
* **Parent/Child Version:** This control will allow for a stripped-down version of the app that would be tailored towards a family environment (parent/child relationship). This version would focus on to-do lists and family schedule planning. For this version, the budget bar will be replaced with an allowance tracker. Having this option when creating a space will allow WeCasa to reach new audiences and help other forms of shared living spaces manage domestic work.
* **Advertising Vacancy:** If a roommate leaves, then your household would need to find a replacement, thus being able to advertise to existing users of the application would allow you to find a replacement roommate easier. The advertisements would show up on a new section of the home page when a user logs in, and the location of the homes advertising for roommates would be configurable from the user side. All addresses and names of the users advertising would be private, and users could respond to advertisements through email. Being able to search for ideal housing on both sides of the exchange will further reduce the number of apps one has to manage when dealing with shared living situations.
* **Reputation Stats**: This feature provides an incentive for users to continue using the features of the app by using an algorithm to track each user’s task Completion rate, bill payment rate, and roommate reviews after leaving a WeCasa space. Users that have a reputation stat history associated with their account profile can connect with shared living spaces advertising vacancy, aiding in the screening process for new roommates. This feature adds longevity to our app’s value, as users are incentivized to maintain high reputation stats in the event that they move out of their current living space. Furthermore, this feature adds additional value for living spaces advertising vacancy and optimizes the screening process for new roommates.

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# **Glossary**

|  |  |
| --- | --- |
| **Term** | **Definition** |
| CSUCCESS | California State University Connecting to Equity and Student Success is a technology loan program for students enrolled at CSULB. |
| DAP | Daily Active People |
| DAU | Daily Active Users |
| IDE | Integrated development environment |
| Nudge | A directed message sent to a member of a space by another member of the same space to kindly and confidentially remind them to complete their assigned tasks. |
| RFP | Request For Proposal |
| Shared living | Also referred to as “shared housing”; defined as two or more people who live in one permanent housing unit that share costs associated with maintaining housing such as rent and utilities |
| SMS | Short Message Service |
| Success Metric | Quantifiable data serving as key performance indicators. |
| Task | Any chore that can be assigned to one or more house members. |
| WeCasa | Web application allowing users to organize and manage shared living spaces. |

# **Frequently Asked Questions (FAQ)**

**What happens if roommate(s) don’t comply with the app or abandon it altogether?**

WeCasa is meant to serve as a tool to help roommates organize their co-living situations. Our app is not responsible for requiring users to comply and it is recommended to establish ground rules before setting up the app.

**How does WeCasa differ from other roommate apps in the market?**

WeCasa is a one-stop organization application for shared living spaces and targets college students. Unlike other applications, which uses incentivization and targets families, WeCasa aims to organize co-living by implementing scheduling, budgeting, and to-do lists.

**How does assigning chores work in WeCasa?**

Users are able to input chores and assign them to people within their group. These chores are then recycled with the same people the following weeks. Chores could also be randomly assigned or switched between users.

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