



A HUMAN-CENTERED APPROACH TO ROOMMATE LIVING

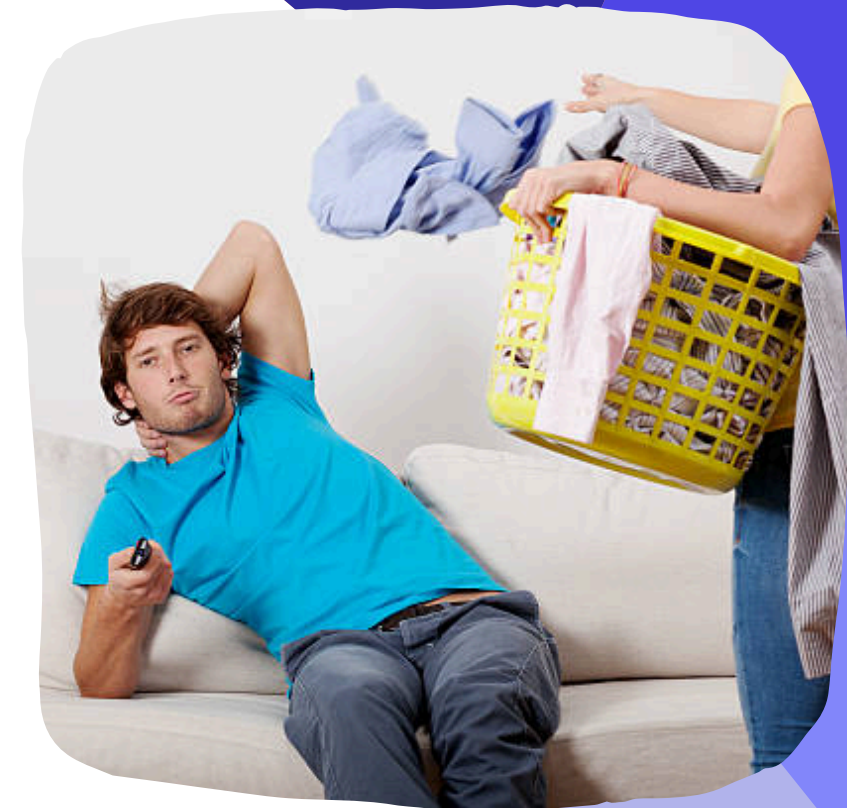
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PROBLEM SPACE

- Roommates often struggle with keeping chores balanced and consistent
- People aren't always sure who should do what or when tasks were last completed
- Small issues build up over time and turn into frustration or conflict
- Most groups rely on verbal reminders or text messages, which are easy to forget and not very structured
- Our goal was to understand why these problems happen and how design can reduce tension
- "I don't mind doing chores, I just hate when I'm the only one who does them." – Study Participant, Usability Testing



TARGET USERS & CONTEXT

- Designed for college students and young adults living with roommates
- Users have busy schedules, inconsistent routines, and shared spaces
- Current tools split responsibilities across multiple apps (chores in one place, budgeting in another)
- This makes coordination harder because nothing is centralized
- A combined, simple system fits this audience better than multiple separate apps



DESIGN QUESTION & GOALS

How can we help roommates communicate responsibilities and divide tasks in a way that feels fair and consistent?

01

CLARITY: MAKE SHARED RESPONSIBILITIES CLEARER

Roommates should clearly see what needs to be done and who is responsible for each task.

02

COMMUNICATION: CUT DOWN ON MISCOMMUNICATION

Clear expectations and simple reminders help avoid confusion or missed responsibilities.

03

ORGANIZATION: KEEP HOUSEHOLD TASKS IN ONE PLACE

Provide a central spot where roommates can view, add, and manage chores together.

HCDD PROCESS OVERVIEW

- **Contextual Inquiry:** Interviewed users to understand real roommate challenges
- **Interpretation:** Looked for patterns in behaviors, frustrations, needs, etc.
- **Early Concepts:** Sketched ideas and explored different ways to organize chores
- **Prototype:** Built an initial version to test layout and task flow
- **Usability Testing:** Observed where users struggled or hesitated
- **Iteration:** Refined features like adding chores, setting frequency, and icon updates based on testing
- ★ **Final Design:** Created a more organized and predictable system for managing tasks



CI METHODS

- We Conducted sessions with around 12 individuals living in shared housing
- Included a mix of:
 - Students
 - Off-campus apartment roommates
 - Young adults who manage shared chores, bills, or schedules

How Sessions Were Conducted

- Semi-structured interviews: Asked participants how they currently manage chores, bills, cleaning, communication, and conflict resolution.
- Observations: Watched how roommates use tools like group chats, whiteboards, Venmo, calendars, or habit trackers to coordinate tasks.
- Contextual note-taking: Captured real examples of frustration, workarounds, miscommunication, and breakdowns in shared-living routines.
- Environment-focused insights: Observed how physical spaces (kitchen, bathroom, living room) impact shared responsibilities.

CI METHODS CONT.

What We Hoped to Uncover for Roomeo

- Task breakdowns: How roommates assign tasks, track chores, discuss issues, and split expenses.
- Pain points:
 - Miscommunication about chores
 - Uneven task distribution
 - Forgotten cleaning duties
 - Tension around overdue payments or unclear expectations
- Behaviors & workarounds:
 - Using group chats as informal task systems
 - Avoiding conflict instead of discussing issues
 - Relying on memory instead of structured tools

Opportunities: Identify where Roomeo can reduce conflict, increase fairness, and simplify shared-living logistics.

FINDING SUMMARY POSITIVES

Category	Task 1	Task 2	Task 3	Task 4
Clear navigation to correct tab	✓	✓	—	✓
Strong icon recognition	✓	✓	—	✓
Understandable visual layout	✓	✓	—	✓
Low difficulty completing task	✓	✓	—	✓
High completion rate	✓	✓	—	✓
Positive design impressions	✓	✓	✓	✓

FINDING SUMMARY NEGATIVES

Category	Task 1	Task 2	Task 3	Task 4
Navigation Confusion	—	—	✓	—
Unclear Labeling	✓	—	✓	—
Feature Didn't Respond	—	—	✓	—
Inconsistent Interaction	—	—	✓	—
Unclear Icon Meaning	—	—	—	✓
Difficult to Notify Roommates	✓	—	—	—

KEY INSIGHTS FROM CI

1. Roommates avoid direct confrontation

- Participants frequently reported avoiding tough conversations about chores, cleanliness, or late payments.
- Implication: Roomeo should provide neutral, automated prompts that reduce emotional friction.

2. Chores become uneven due to forgetfulness, assumptions, and inconsistent routines

- Many participants assumed “someone else will do it” or forgot whose turn it was.
- Implication: Roomeo needs structured task rotation, reminders, and progress tracking.

3. Lack of clear structure leads to resentment and silent frustration

- Without agreed-upon systems, small issues grow into long-term tension.
- Implication: Roomeo should introduce shared expectations, templates, and proactive alerts.

4. Roommates want transparency but not micromanagement

- Participants want visibility into who is doing what—but they do not want to feel watched or judged.
- Implication: Roomeo should balance accountability with autonomy, using gentle language and optional check-ins.

5. Single-purpose apps fail because shared living involves multiple overlapping tasks

- Users currently piece together solutions (Venmo + Notes + whiteboards + group chats).
- Implication: Roomeo should integrate chores, expenses, schedules, and communication into one cohesive platform.

OPPORTUNITY AREAS

1. How might we make task division more transparent?

- Roommates need clear visibility into responsibilities and deadlines.
- *Opportunity:* Shared dashboards, visual calendars, and automated rotations.

2. How might we help roommates communicate expectations?

- People avoid confrontation, which leads to confusion.
- *Opportunity:* Neutral messaging tools, templates, and gentle reminders.

3. How might we support recurring responsibilities with less friction?

- Tasks get forgotten or unevenly split without a routine.
- *Opportunity:* Recurring reminders, auto-scheduled tasks, and adaptable routines.

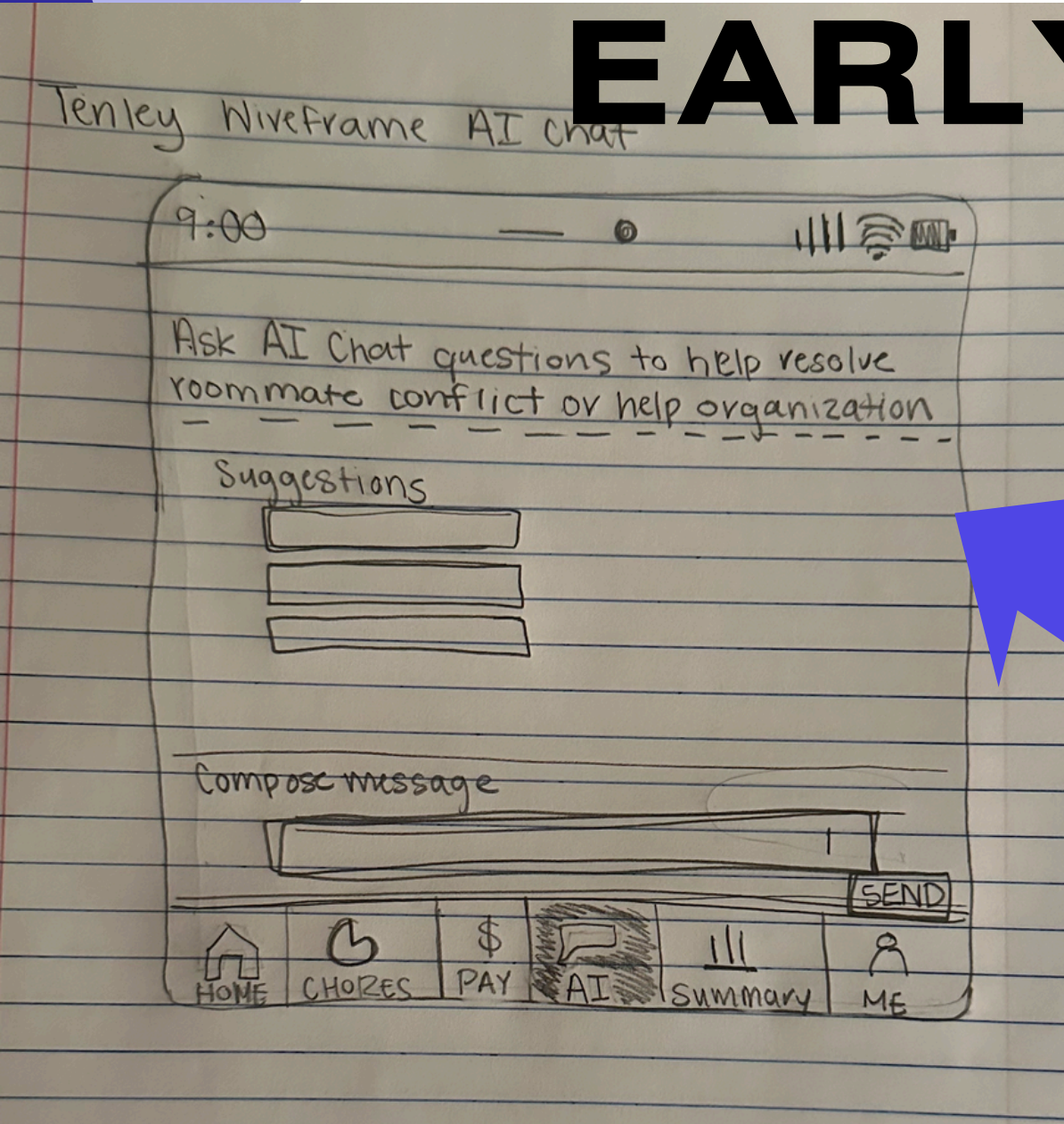
4. How might we balance accountability with autonomy?

- Users want visibility without feeling monitored.
- *Opportunity:* Lightweight check-ins, positive feedback, and customizable privacy.

5. How might we streamline shared living needs?

- Roommates juggle multiple apps to stay organized.
- *Opportunity:* Build Roomeo as an integrated system for chores, expenses, and schedules.

EARLY DESIGN CONCEPTS

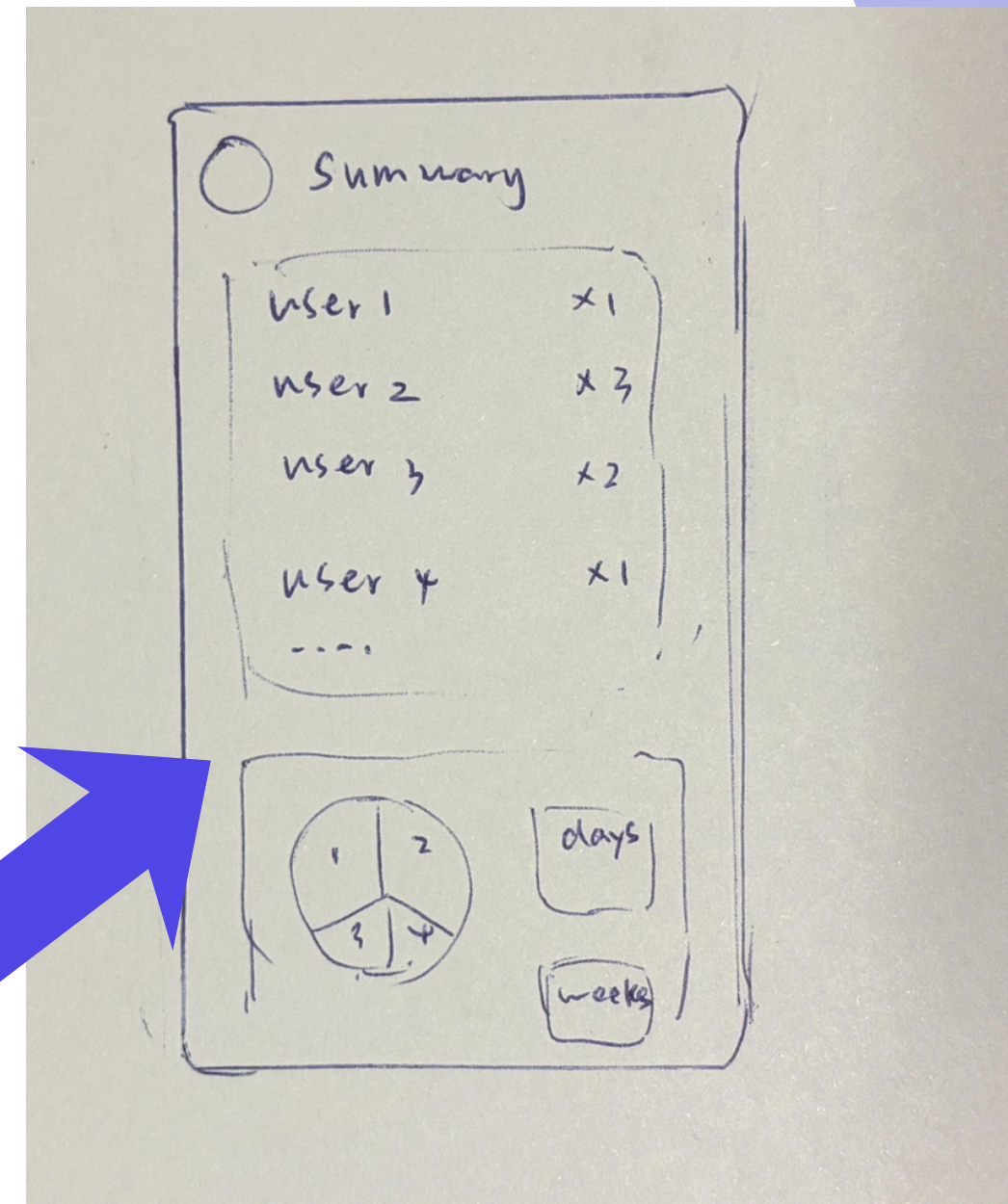


IDEA: AN AI-POWERED CHAT THAT GIVES NEUTRAL SUGGESTIONS AND HELPS ROOMMATES RESOLVE CONFLICTS OR ORGANIZE TASKS.

WHY IT ADDRESSES CI INSIGHTS: THIS PROTOTYPE RESPONDS TO THE INSIGHT THAT ROOMMATES AVOID CONFRONTATION AND NEED NEUTRAL PROMPTS TO COMMUNICATE EXPECTATIONS SAFELY.

IDEA: A SUMMARY SCREEN THAT DISPLAYS HOW MANY CHORES EACH ROOMMATE COMPLETED, PLUS A VISUAL PIE CHART TO SHOW DISTRIBUTION OVER TIME.

WHY IT ADDRESSES CI INSIGHTS: THIS EXPLORES TRANSPARENT TASK DIVISION AND PREVENTING UNEVEN WORKLOADS, BOTH MAJOR THEMES FROM CI.



USABILITY TESTING METHODOLOGY

Moderated Testing:

- Conducted 4 moderated tests
- Participants completed four tasks:
 - Determine what each roommate owes for rent
 - Check off dishes in the Chore Wheel
 - Add new chores to the Chore Wheel
 - Find the monthly summary
- Some users were confused by the Chore Wheel and how to check off tasks
- Since our Figma prototype was fully developed, this was an ideal time to observe interactions
- Feedback directly informed our next iteration, especially improving the Chore Wheel's clarity and usability

Unmoderated Testing

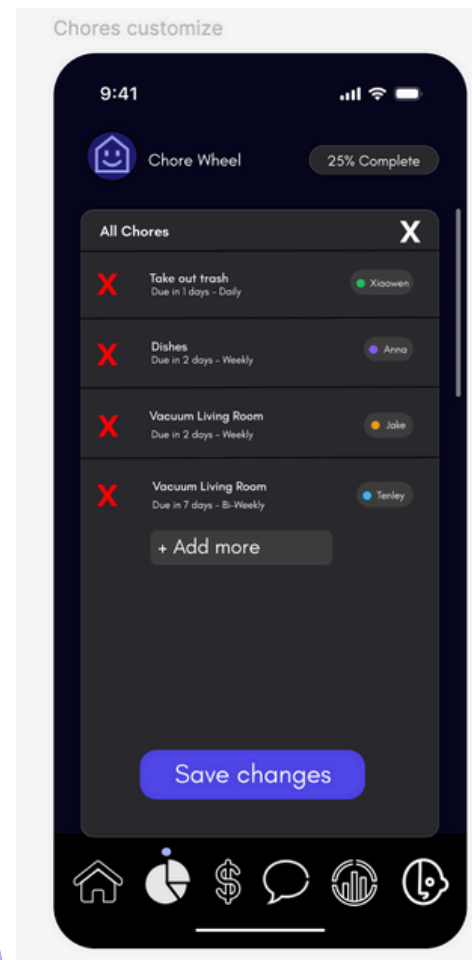
- Conducted 8 unmoderated tests
- Participants completed the same tasks as in moderated testing
 - Ensured consistent and comparable data
- Several users felt the language needed to be clearer, especially for less tech-savvy users
- Some tasks were confusing because they were not fully achievable in the Figma prototype
- Helped us identify where wording and instructions needed improvement
- Highlighted unclear or incomplete tasks, allowing us to refine them before the next iteration

KEY USABILITY FINDINGS

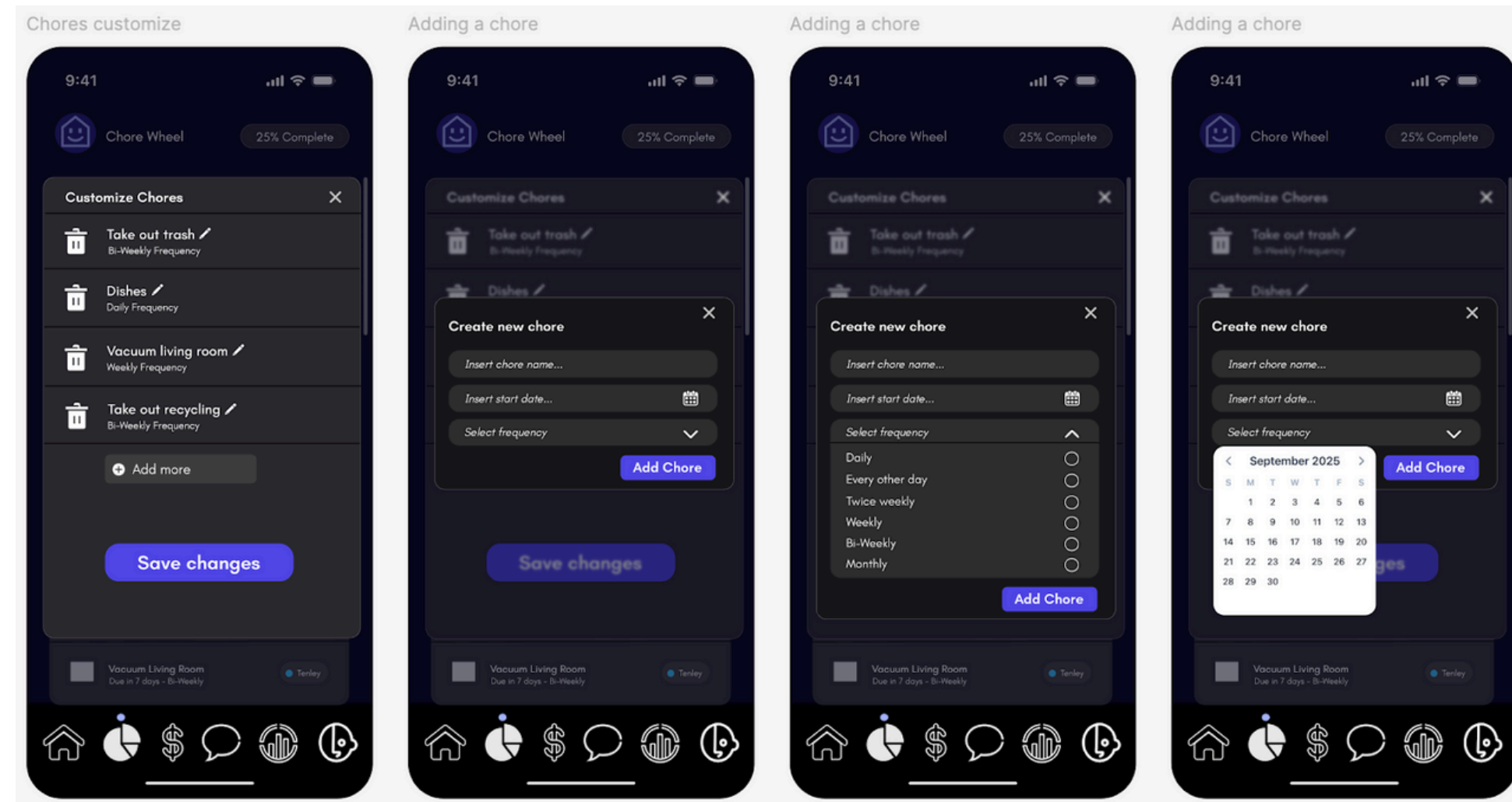
- Navigation and interaction clarity needed improvement
 - Users were unsure what elements were tappable, especially within the Chore Wheel
- In the Chore Wheel, only the checkbox was clickable, which led to repeated errors and incorrect taps
- Some icons were unclear, causing hesitation and slower task completion
- The Add-Task button appeared non-functional, making parts of the interface feel broken
- Wording was sometimes too technical or confusing, creating issues for some users
- Some tasks felt incomplete due to prototype limitations, which created uncertainty
- Users wanted more feedback after actions to ensure they were completed

ITERATION OVERVIEW

Old:

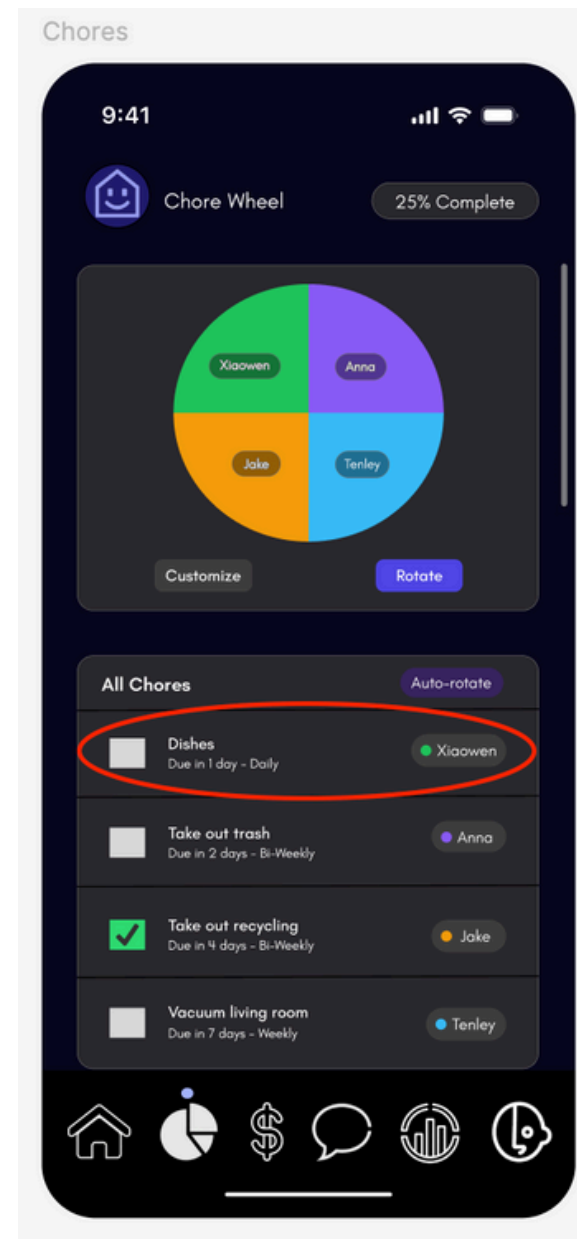


New:



- Adding a chore is now clear and functional
 - Users can successfully add tasks without confusion

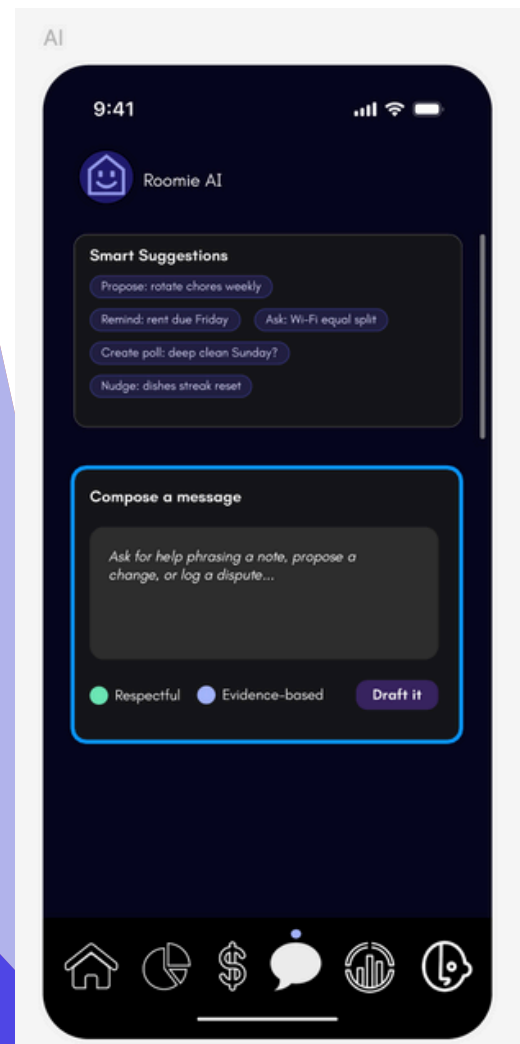
ITERATION OVERVIEW



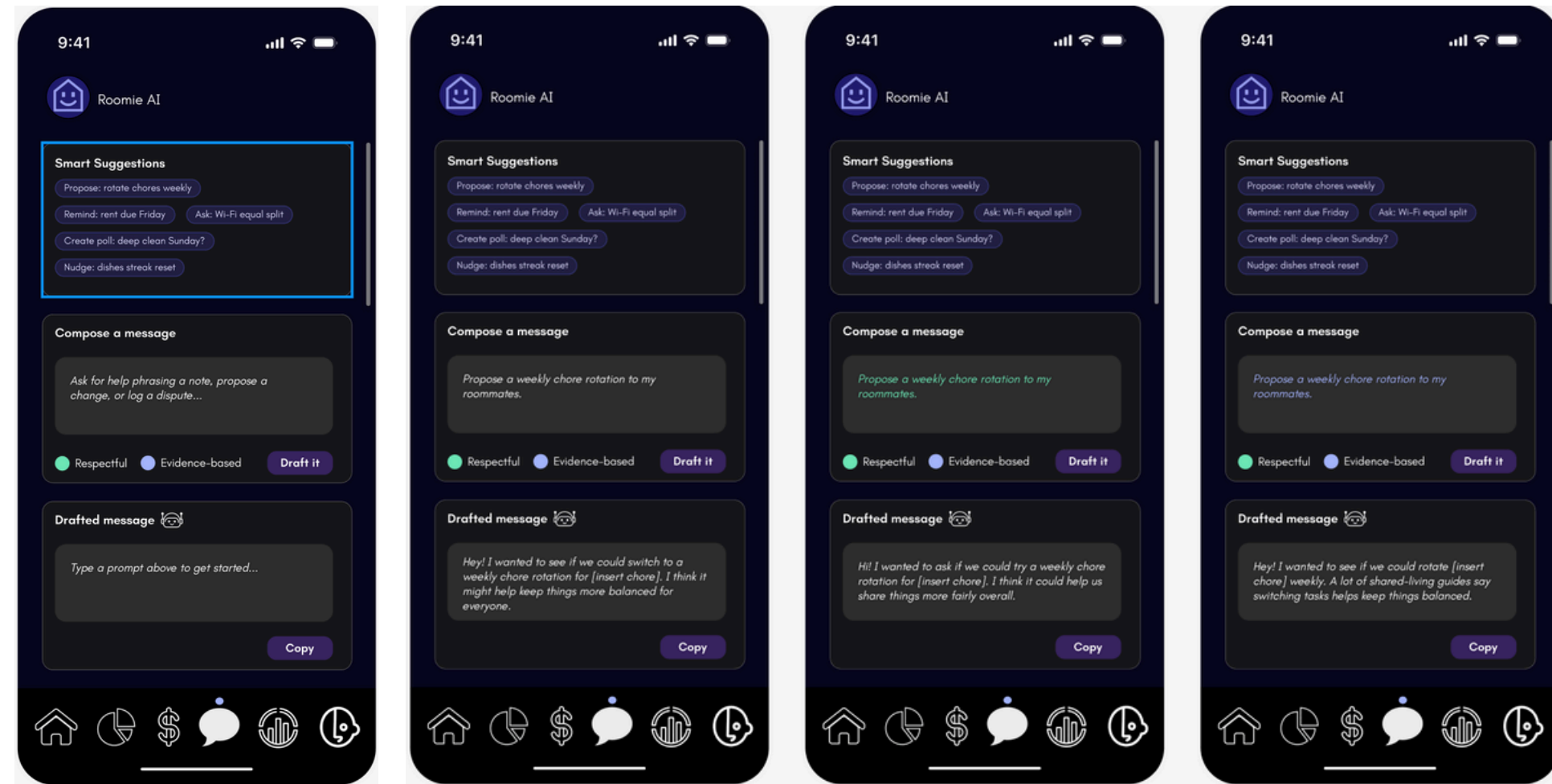
- The entire chore box is now clickable, improving accessibility and reducing user errors for users

ITERATION OVERVIEW

Old:



New:

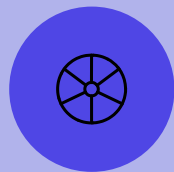


- Our AI messaging was non-functional and felt unfinished
 - Therefore, we added a draft message box with clickable prompts, adjustable tone, and copy option

WHY THESE CHANGES IMPROVED THE DESIGN

- Clearer feedback: Users now see the result of their actions, reducing confusion
- Improved usability: Larger clickable areas and functional buttons make interactions easier
- Aligned with expectations: Actions like adding chores or drafting messages behave as users anticipate
- Fewer errors: Clearer icons, labels, and instructions help users complete tasks correctly

CORE FEATURES



Chore Wheel

Organizes household tasks fairly and visually, making shared responsibilities a breeze.



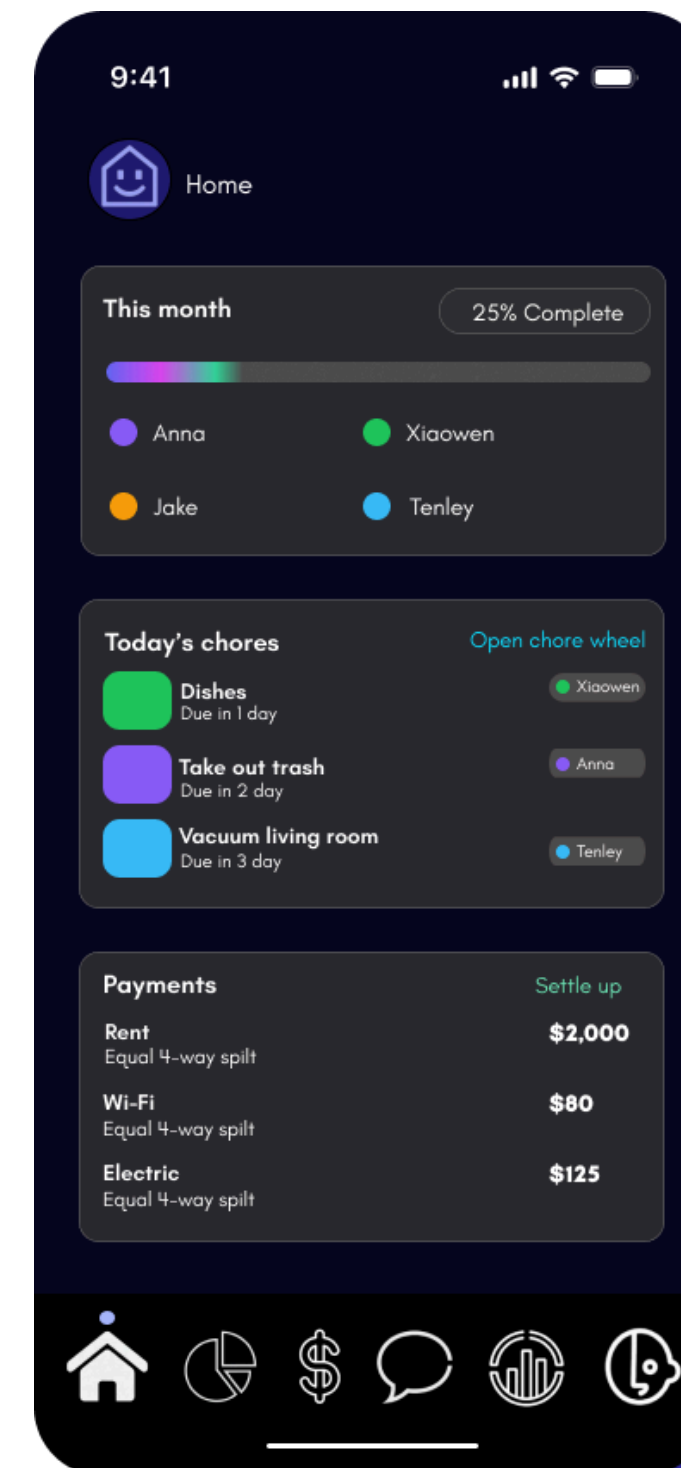
Payments Settle Up

Simplifies tracking and settling shared expenses with transparency and ease.

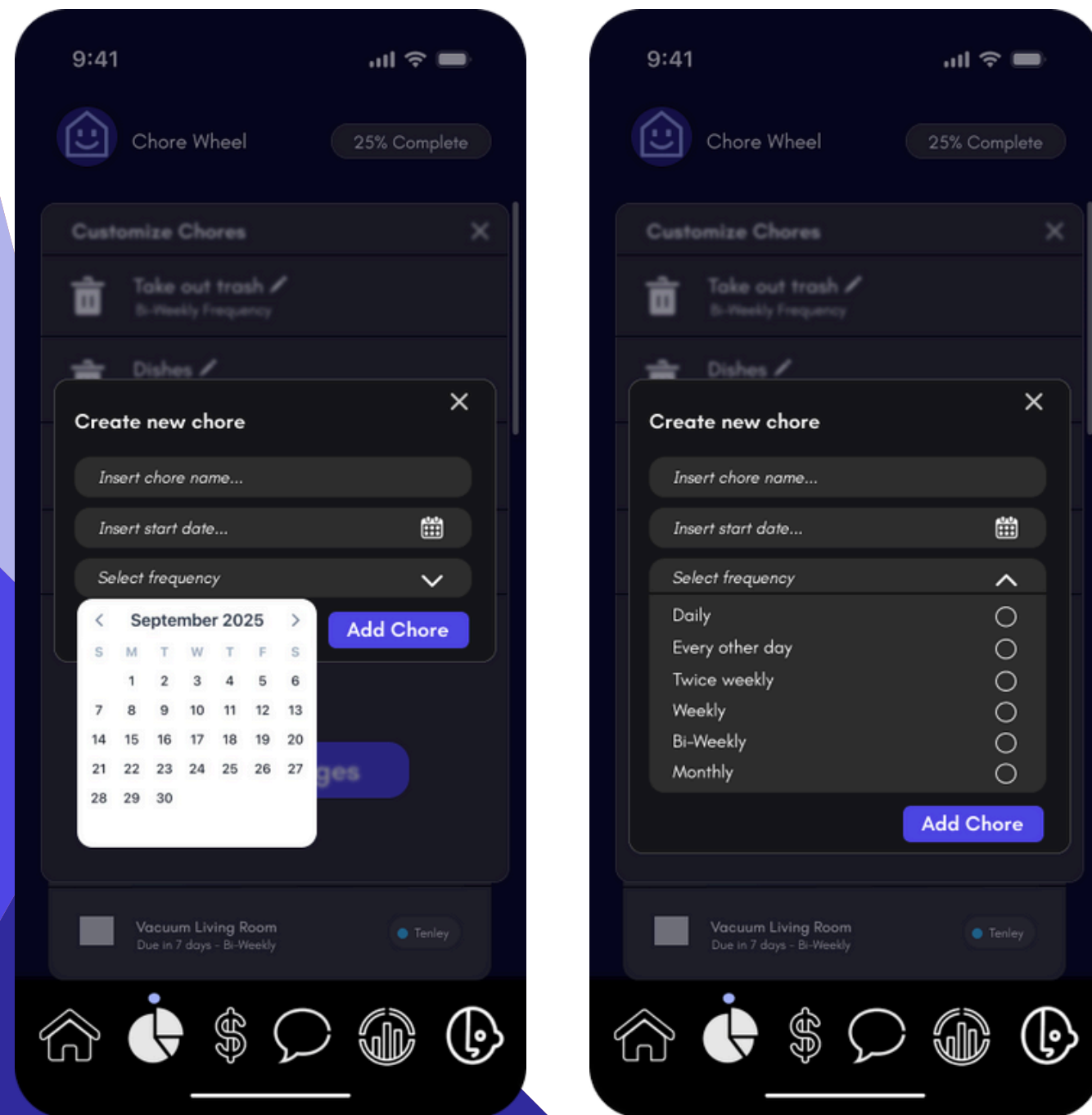


Messaging

Enables seamless communication among users, fostering clear and polite interaction.



CHORE WHEEL WALKTHROUGH



Add a Chore

Clear input fields ensure no confusion, promoting clarity in task assignment.



Choose Start Date

Flexibility in scheduling supports fairness and smooth task rotation among users.



Select Frequency

Customizable schedules boost efficiency and establish consistent routines.



View on Dashboard

Immediate visual confirmation ensures clarity, showing tasks are successfully added and visible.

PAYMENTS SETTLE UP

Real-time Tracking

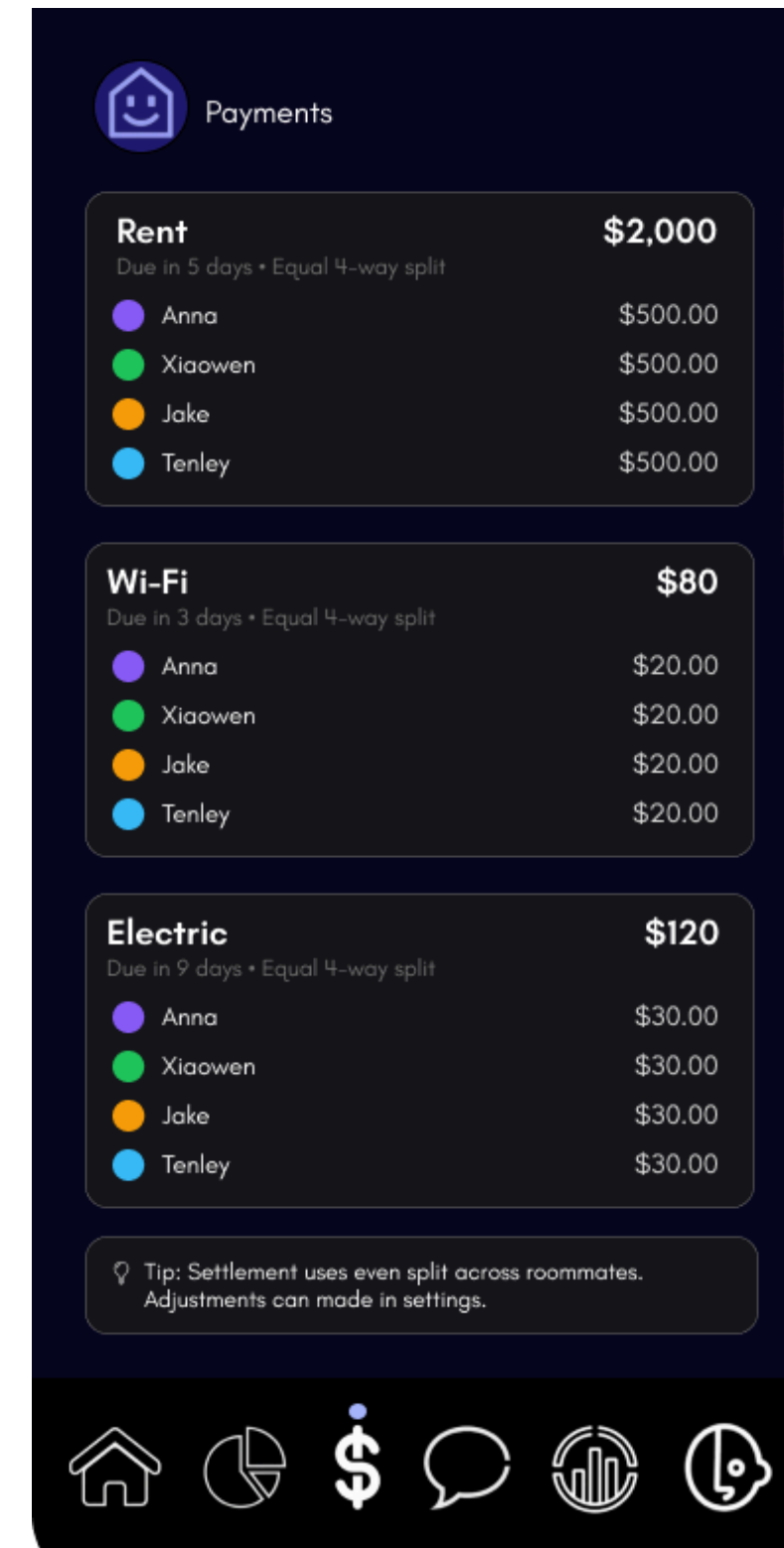
Effortlessly monitor who owes what, preventing disputes and ensuring everyone is on the same page.

Quick Settlements

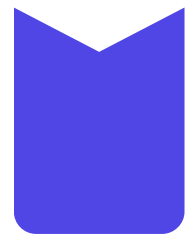
Send reminders and settle balances rapidly, streamlining financial interactions and saving time.

Transparent History

Access a complete record of all transactions, building trust and fairness among users.



AI CHATBOX WALKTHROUGH



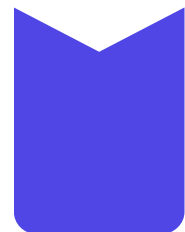
Input a Prompt

Start with your idea or need, guiding the AI to generate tailored content.



Select Tone

Choose from respectful or evidence-based to match your communication style.



Draft the Message

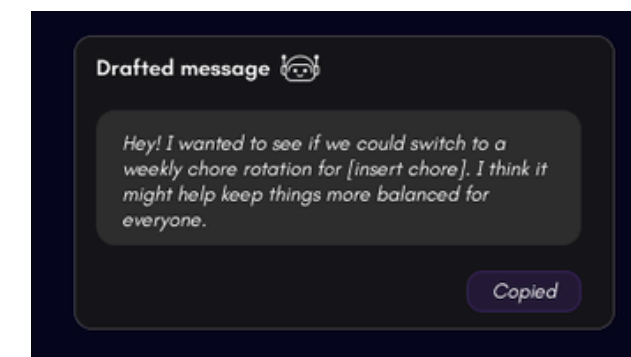
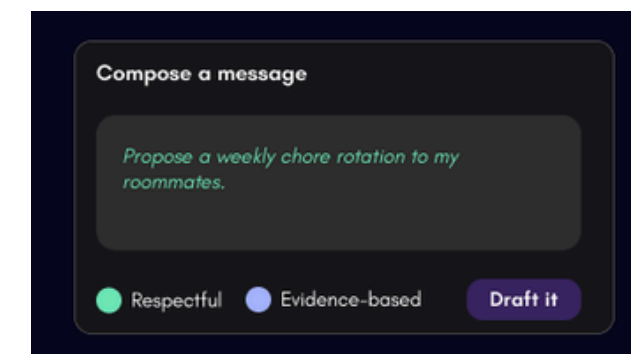
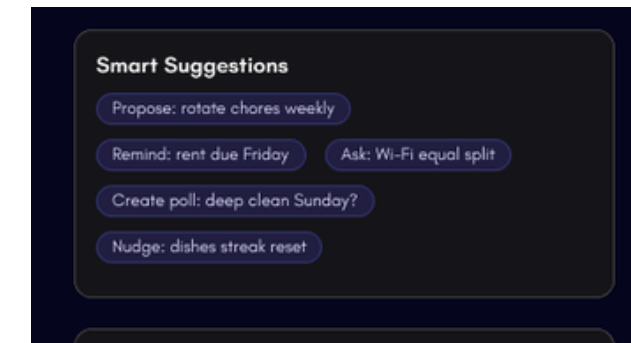
The AI instantly generates a polished message, ready for review or use.



Copy Results

Easily share or edit the message for quick and effective communication.

Our AI chatbox revolutionizes communication by helping you articulate thoughts perfectly, ensuring every message is clear, appropriate, and effective.



REFLECTION



Reduced Conflicts

Minimizes disputes by clarifying expectations for responsibilities, fostering a harmonious living space.



Comfortable Coexistence

Empowers users to navigate shared responsibilities with greater ease, enhancing overall living comfort.



Transparent Finances

Boosts financial clarity and budgeting, ensuring everyone understands and contributes fairly to shared expenses.



Equitable Living Habits

Cultivates habits that lead to a less stressful and more equitable communal living experience for all residents.

FUTURE WORK



Overdue & Urgent Alerts

Automated notifications to highlight payments and chores that are overdue or require immediate attention, ensuring no one misses a deadline.



Usage-Based Splitting

Dynamic adjustment of payment splits based on actual usage or agreed-upon proportions, promoting ultimate fairness.



Monthly Spending Trends

Visual charts providing insights into monthly spending patterns, helping users better understand and manage shared finances.

CONCLUSION

Roomeo turns shared living from a guessing game into a coordinated routine.

It gives roommates the clarity they have been missing and cuts down the tension that usually builds around chores and expectations. Instead of juggling scattered apps and uncomfortable conversations, households get one system that keeps everything moving smoothly. Roomeo is not just a tool for chores. It helps make living together feel easier, more respectful, and more balanced overall.



THANK YOU

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