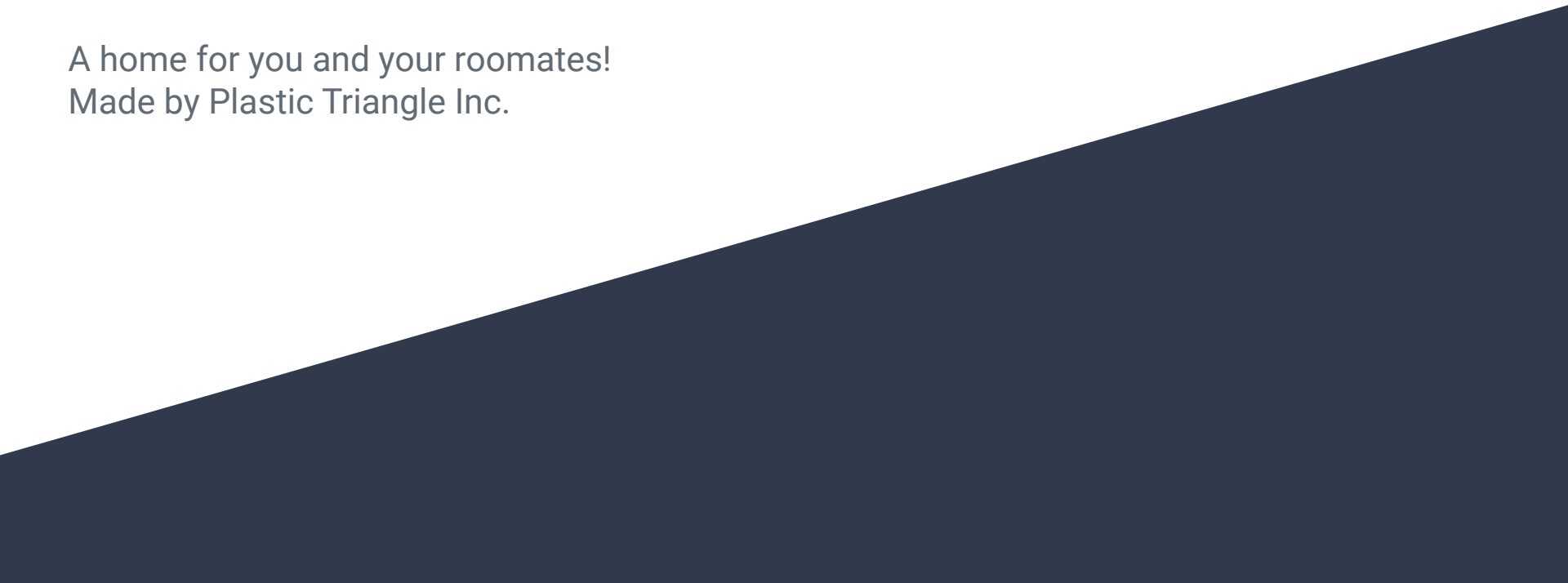


Roommate Hub

A home for you and your roommates!
Made by Plastic Triangle Inc.

A large, dark blue, diagonal shape that starts from the bottom left and extends towards the top right, covering the lower half of the image.

Statement of Purpose

“Troubled by the dishes that no one washes?
Confused by the receipt that no one knows how to split?
Even worse, doomed by the bill that no one remembers to pay?!

Sure, We all want to be good pals with our roommates. But sometimes, it takes a little bit of trouble to figure out a pattern for all the trivia in life.

Roommate Hub got you covered. By putting all the functionalities you need on neat display, you and your roommate can solve all the problems in front of a little board. Cool roommates make a cozy home, a cozy home makes a happy life.”

- Plastic Triangle Inc. 2022

What problems we are trying to solve

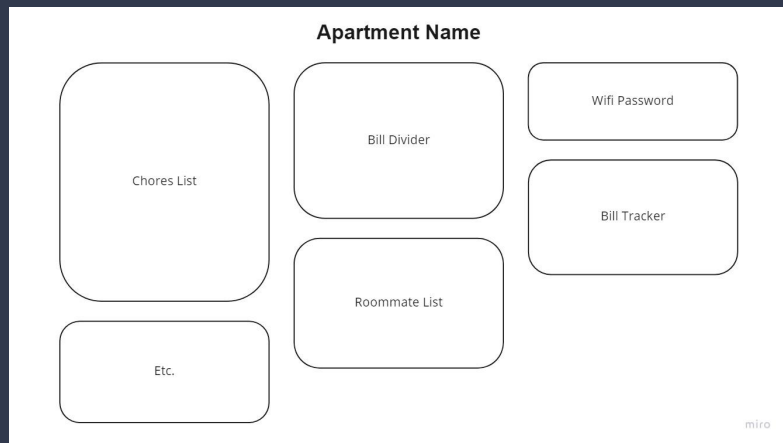
The overarching problem Roommate Hub aims to solve is the struggle of keeping track of tasks, expenses, and details pertaining to those living with you.

These problems can include

1. Losing track of chores that are completed or need to be completed, as well as who needs to do them.
2. Losing track of paid and unpaid bills, as well as when they are due.
3. Struggles of splitting cost of various expenses between roommates.
4. Forgetting the wifi details.
5. Misremembering important dates like roommates' birthdays.

Roommate Hub also addresses the problem of needing multiple apps (calculator for bills, notepad for chores list, etc.) to keep track of multiple details by keeping everything in one place.

Product Description



A hub/homepage for shared living spaces that will hold multiple features to make life easier for the manager of a household. Features are mostly contained within individual modules that will be developed individually to make expansion of the application easier over time.

Features include:

- Chore List - displays chores and their assignees
- Bill Divider - input expense, evenly split costs
- Wifi Password Holder - Easy password reminder
- Bill Reminder - shows bill deadline and urgency
- Roommate List - shares roommate information

Features to be added and subject to change

Pros/Cons

Pros:

- Functions are explicitly display on the main page, allowing intuitive viewing and operation
- The simplicity of the design allows users to have complete access to full functionality

Cons:

- Due to the limitation of local-first development, the collaboration between different roommates can be an inconvenience.
- Without encryption and safeproof, there could be possible corruption of sensitive data like bills and passwords

Rabbit Holes in Development



- Due to only having around 5-6 weeks to develop our product, there are 3 Major Rabbit Holes to consider:
 1. Finalizing the design of UI elements
 - 1.1. With 5 weeks of development time, it is hard to come up with a finalized wireframe, therefore can be very open ended.
 2. Having a large scope in terms of additional features outside of the core functionality
 - 2.1. With 4 features planned outside of the core chores list functionality, we could spread our resources thin
 3. The amount and types of data we will need to collect and operate on
 - 3.1. Each feature requires a lot of data and CRUD applications on each type, which can cause unforeseen development time when building the application

Solution To Our Risks



The main constraining factor explained by the rabbit holes is time. How do we ensure those three risks identified do not eat up too much of our time. In response to the three stated, these are our solutions:

1. With the use of diagrams and basic wireframing, Front End team works on creating template page with appropriate styling, so everyone has a guide to refer to in terms of UI/UX design
2. Prioritize...we are performing an Agile solution, core functionalities come first and will be built as such, others can come in the next sprint
3. Make a detailed table for each feature with what groups of data we are collecting, and what functionality we perform on that data

Kathleen

Kathleen is looking for a tool that will allow her to keep track of chores and other important tasks around the house to build a better environment for her roommates



Brief Description

Kathleen is a 23 year old woman, who lives in San Diego, she lives in a shared house with 6 of her friends. She is the head of Household and loves organizing everything to make sure work gets done.

Persona Main Job(Main Goals)

Kathleen's main job she wants to get better at managing important information around the house and taking assigning chores.

Personality

- **Confident**
- **Thoughtful**
- **Responsible**

Interests

- **Writing**
- **Cooking**
- **Pottery**
- **Music**

Kathleen's App experience

- **Trello**
- **Slack**
- **Todoist**

Gains

- **People are more likely to get chores done**
- **People are more responsible for their work around the house and**
- **Feel a connection with making the house better**

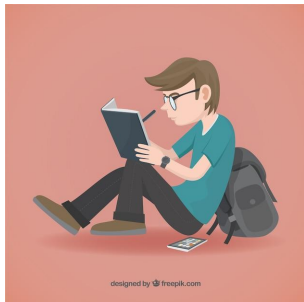
Pains

- **It takes a lot of time to organize everyone**
- **It's hard for people to know which chores they should be doing**

Caleb

Caleb is looking for a way to let his housemates complete routine work. Since he's dealing with rent, he hopes his housemates pay rent on time.

Picture Persona



Brief Description

Caleb is a 21 year old college student, who lives in La Jolla, he shares an apartment room with 3 of his best friends. He majors in Business Economics and minors in accounting. He loves researching economic information online, driving and hanging out with friends, playing Valorant, and playing volleyball.

Persona Main Job(Main Goals)

Caleb's main goal is to have an organized and stable life. Since he is in his 20s, he is still pondering about his goals, but he is set to go in the accounting path for now.

Personality

- **Methodical**
- **Caring**
- **Analytical**

Interests

- **Researching Market**
- **Baseball watching**
- **Volleyball**
- **PC games**
- **Food hunting**

Apps used by Caleb

- **Instagram**
- **Messenger**
- **iMessage**
- **Safari**
- **Facebook**

Gains

1. **Better security: pays on time.**
2. **Maximizing value of his rental payment**
3. **Better accuracy: able to check amount of money given.**

Pains

- **Lazy to give reminders**
- **Forgets to give reminders sometimes as other responsibility comes up**
- **Needing to worry when his housemates' payment is incomplete**

Jackie Chen

Jackie is looking for a tool that clearly sees each roommate's responsibilities such as chores and paying rent.

Picture of Persona



Brief Description

Jackie is a 21 year international undergraduate student, who lives in La Jolla, he lives in a shared apartment with her best friend. His major is computer science. He especially enjoys sports and outdoor activities.

Persona Main Job(Main Goals)

Jackie's main job to learn more computer science and become a good hacker.

Personality

- Outgoing
- Sunny
- Fun

Interests

- Swimming
- Cooking
- Camping

Apps used by Jackie Chen

- Doordash
- Uber Eats
- Instagram
- Youtube

Gains

1. Have a clear understanding of each roommate's responsibilities.
2. Stay in touch with roommates even when not at home.

Pains

- Waste time assigning chores with roommates.
- Remind roommates to pay rent.

Monica

Monica is looking for time & energy saving ways to deal with daily tasks, such as cooking, shopping, paying housing fees



Brief Description

Monica is a 20 year undergraduate student, who lives in a big townhouse in SD suburban area with her 4 friends. She majors in biological science and she is usually busy with her classworks and research projects.

Persona Main Job(Main Goals)

Monica's main job to be done is to devote herself to studying and research and apply to graduate schools .

Apps used by Monica

- Notability
- SDG&E
- Google Drive
- Google Calendar

Pains

1. Has little time for shopping & cooking
2. Sometimes forget to pay her share of housing fees

Gains

1. Share groceries bought by roommates and pay her part of price easily
2. Housing fee ddl reminders, quick and easy payment, gas, electric, wifi & rent
3. More time & energy devoted to professional path

Personality

- studious
- scrupulous
- dedicated

Interests

- medicine
- biology
- grad school

Tech Stack

Front End

- Handling of the UI/UX experience
- Tech Used:
 - JavaScript
 - CSS
 - Bootstrap 5
 - HTML

Back End

- Handling of all CRUD and other functional operations
- Tech Used:
 - Java

Build/Database

- Handles storing our application data and ensuring CI/CD development
- Tech Used:
 - SQLite3
 - GitHub Actions

Bill Reminder

bill:rent

bill type:	rent
due date:	10th
amount:	\$x
link:	xxxxxxx

delete update paid






bill:gas

bill type:	gas
due dates:	18th every month
amount:	\$y
link:	yyyyyyyyy

delete update pay

Stores bills, their due dates, their links, and allows the user to check off whether they've been completed.

today: mm/dd/yyyy

<input checked="" type="checkbox"/>	 rent bill total price	due mm/dd/yyyy
<input checked="" type="checkbox"/>	 electric bill total price	due mm/dd/yyyy
<input type="checkbox"/>	 gas bill total price	due mm/dd/yyyy 2 days left !
<input checked="" type="checkbox"/>	 Card Title Secondary text	
<input checked="" type="checkbox"/>	 Card Title Secondary text	

Wifi Password

Stores the wifi network name and password with a hide/show button.

WiFi

NETWORK ID

Blue Triangle

PASSWORD

Cancel Update

miro

Roommate List

New Roommate

Birthday:

Hobbies:

Extra facts:

Cancel


Confirm

Delete?

Cancel

Confirm

Shows the roommates, their birthdays, and other information. Info here will be connected to the other modules.

+	-	+	...	-	+	-
Roommate 1	Roommate 2	Roommate 3	Edit 			
Birthday - June 7	Birthday - August 1	Birthday - December 22				
Hobbies - Basketball, video games, reading	Hobbies - Cooking, golf	Hobbies - going to school, rewatching lectures				
Extra fun facts - some random stuff cannot think of examples	Extra fun facts -	Extra fun facts -				

Chore Tracker

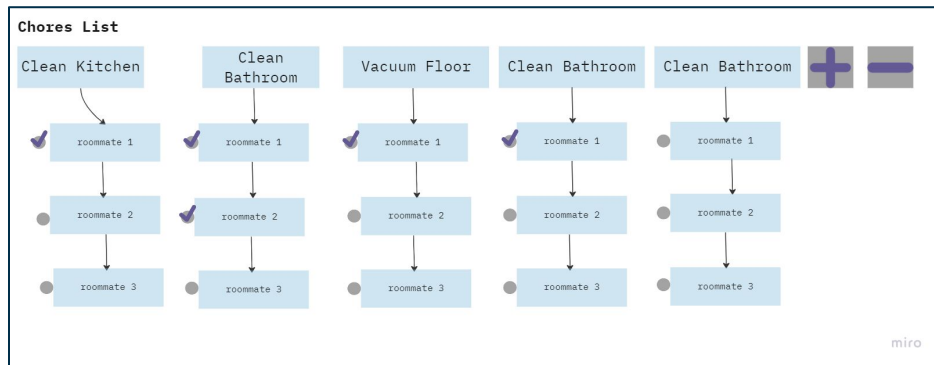
Chore name?

Cancel Confirm

Delete?

Cancel Confirm

Tracks household chores and their assignments to roommates, and also works as a checklist for those chores.



Bill Divider

- ☐ Roommate 1 paid \$45 for X, Y, Z.
- ☐ Roommate 3 paid \$20 for X, Y, Z.
- ☐ etc.

Delete

Roommate 2

Owes \$22.50 to Roommate 1
Owes \$7.50 to Roommate 3

Roommate:

Cost:

Description:

Add

Tracks payments for the living space and shows who's in debt and how much they need to pay.

Bill Divider

Roommate 1 \$60

Roommate 2 -\$30

Roommate 3 \$20

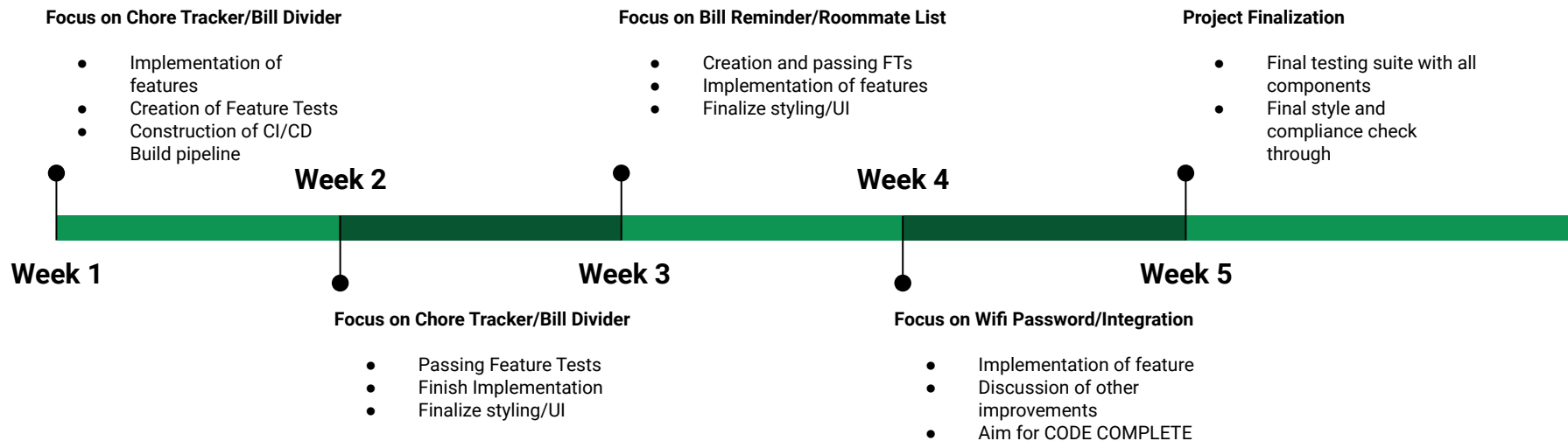
Roommate 4 -\$50

History

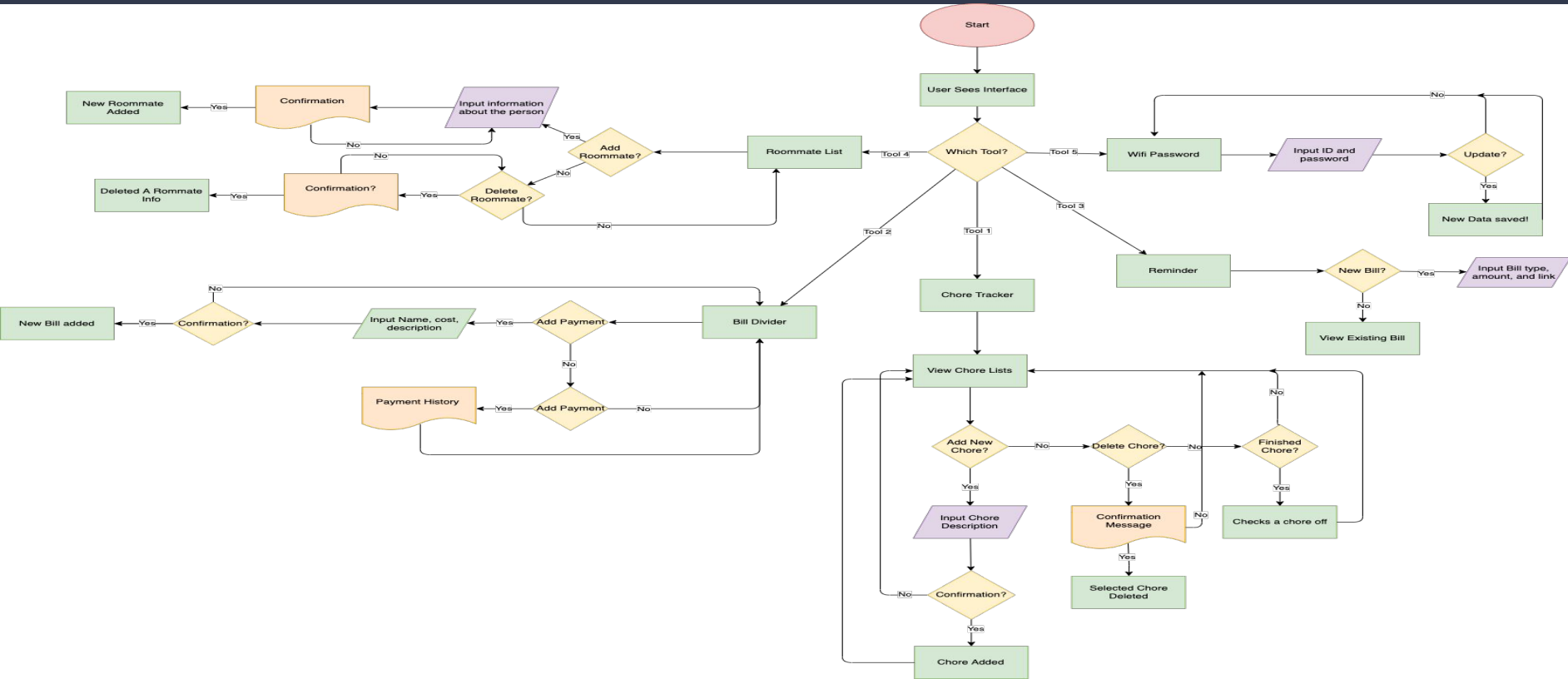
Add Payment

miro

Project Roadmap



System Diagram



Thank you