

Home security and key management app

MS Vishnu

Project overview



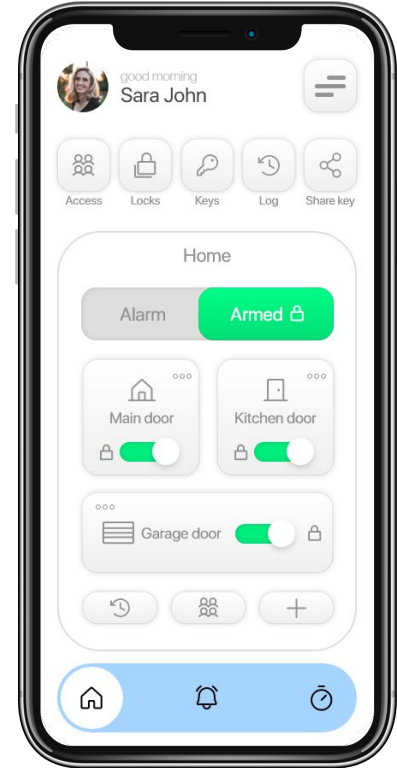
The product:

The aims to easily lock/unlock IOT enabled locks and also to provide an easy way to share virtual keys with friends or family



Project duration:

5 aug - 7 aug



Project overview



The problem:

Users had difficulty in sharing keys and remotely ensuring that all access points were locked.



The goal:

To build an easy to use home security app that offers locking/unlocking option and also the ability to share and manage keys.

Project overview



My role:

Generalized UX Designer



Responsibilities:

Empathizing with users

Ideating

Wireframing

Prototyping

User testing

Iteration of designs

Understanding the user

- User research
- Personas
- Problem statements
- Competitive audit
- Ideation

User research: summary



The initial user research conducted was to understand the needs of the users and what they would expect from such an app. Through the research it was found that users wanted to be able to use the app frequently, however would prefer minimum interaction to perform lock/unlock function.

The ability to share keys would be a secondary user flow. Existing apps and concepts were researched from popular platforms like behance to understand the expectations of current consumer market.

Persona : Sara

Problem statement:

Sara is a civil engineer who leads a busy lifestyle, she lives alone far from her hometown. Often she would have friends come over to her place but are left locked out, because she'll be at work.



Sara

Age: 28

Education: B.tech in CE

Hometown: Oldville

Family: Husband and parents

Occupation: Civil Engineer

“I need peace of mind while sharing my apartment’s access to my friends and family”

Goals

- To share her keys with friends and family when they are visiting her apartment.
- To ensure that the physical key doesn't end up in wrong hands.
- To check lock status.

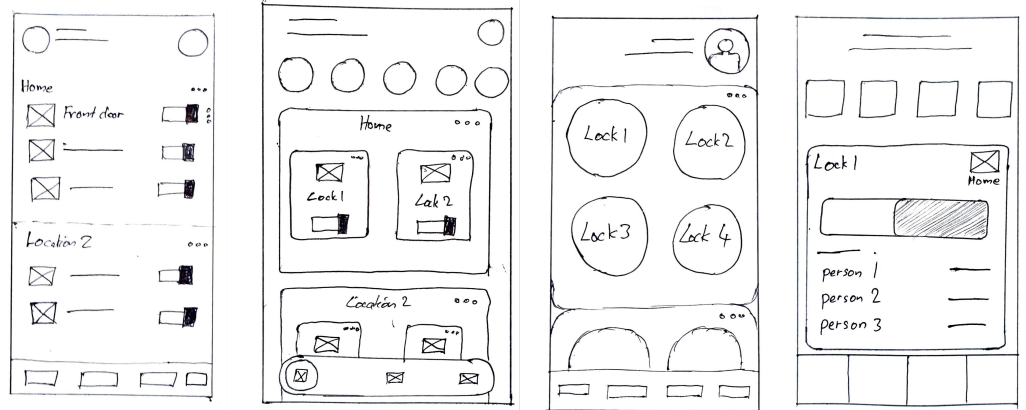
Frustrations

- Has to hide key somewhere outside the house so that friends can use it.
- Forgets whether the door was locked or left open.

Sara is a busy civil engineer who spends most of her weekdays at the office. She would occasionally have friends come over but sometimes would have to cancel plans because of work timings. While leaving in a hurry, she'd often doubt whether all doors were locked.

Ideation

Using the crazy-8 and how might we approaches, I came up with quite a lot of ideas for each aspect of the product.



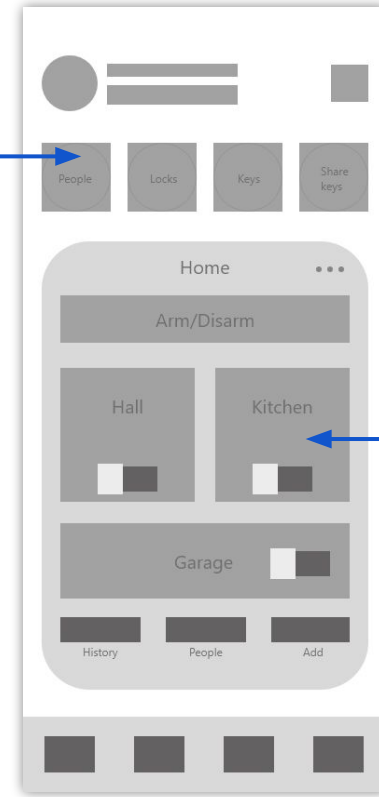
Starting the design

- Digital wireframes
- Low fidelity user flow
- Usability studies

Digital wireframes

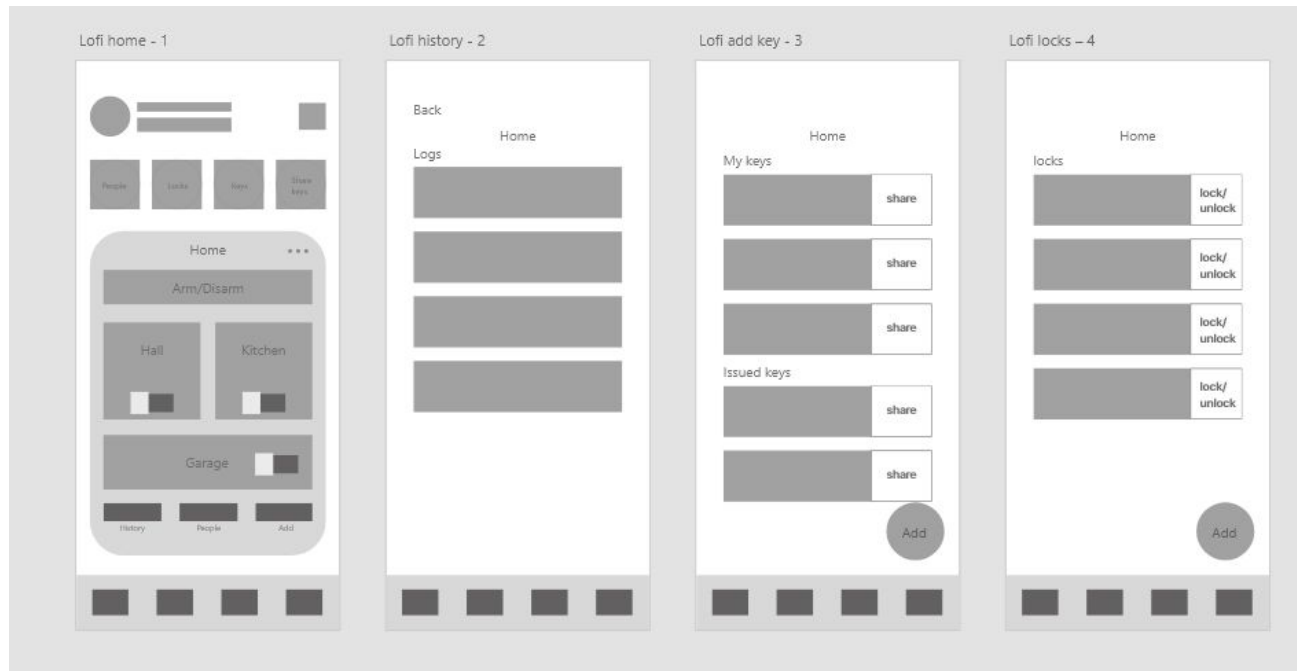
While designing the digital wireframe, each component were carefully selected from different paper wireframes and combined.

Access management



Quick toggles

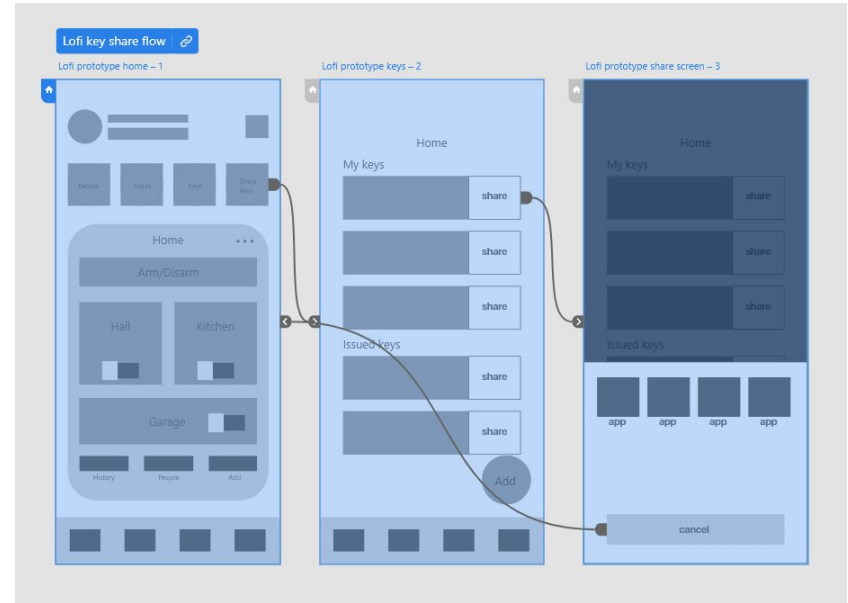
Digital wireframes



Low fidelity user flow

The low fidelity mockups were linked together to form a basic user flow in sharing the key.

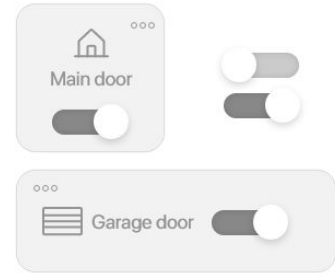
[View low fidelity prototype](#)



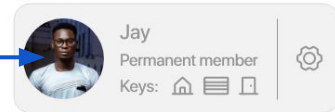
Initial design choices

The components of the initial design were designed keeping minimalism and to appear 2 dimensional

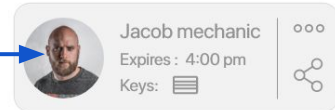
The card design of key and users also followed the minimal approach.



Permanent key



Temporary key



Usability study

(moderated, remote, 3 participants)

The components and basic design were presented for usability study and the following findings were observed

1

The switch cards didn't feel clickable and the switch toggle wasn't evident.

2

Permanent key and temporary key were not visibly different from each other.

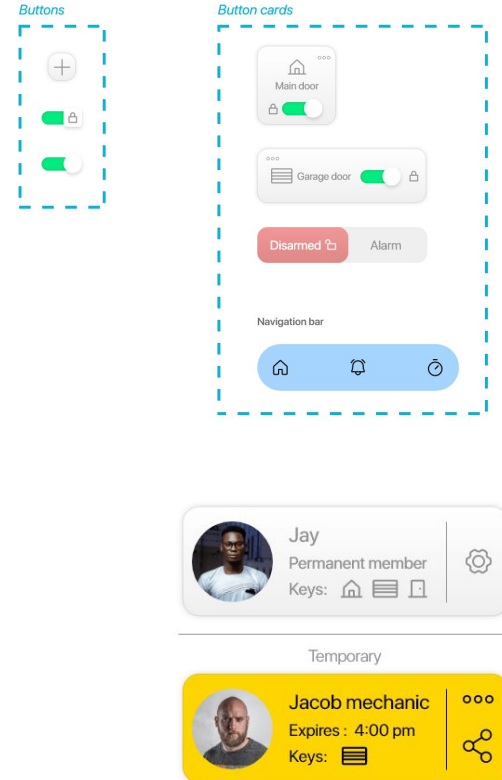
Refining the design

- Iteration
- Mockups
- High-fidelity prototype
- Accessibility

Iterating on basic design

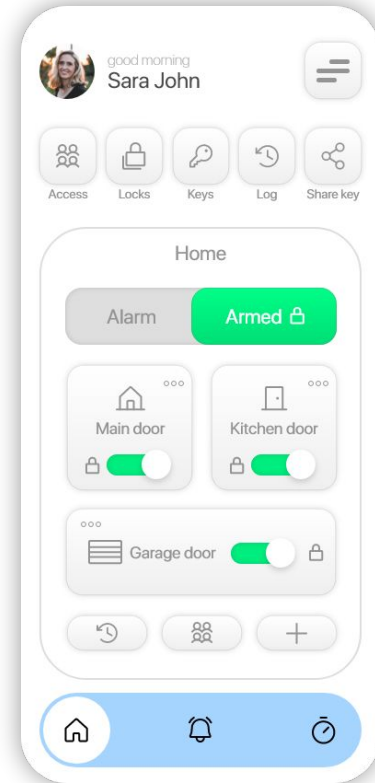
Components were redesigned to include depth, color and icon to indicate state of lock and these elements were organized to be a part of the design system.

The card design of key and users also were redesigned to better distinguish and draw attention to temporary keys.

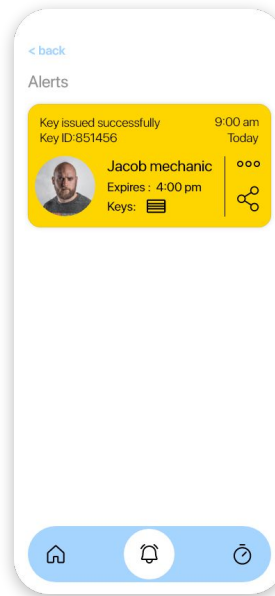
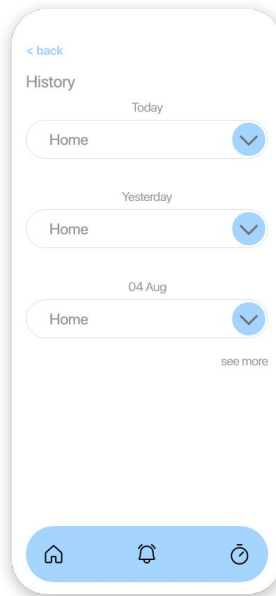
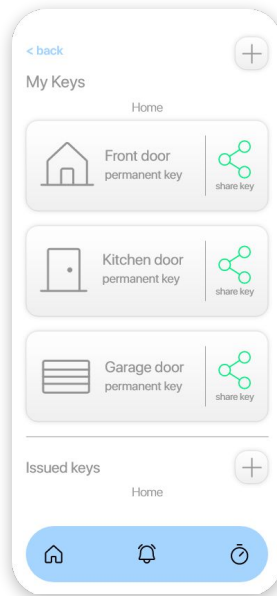
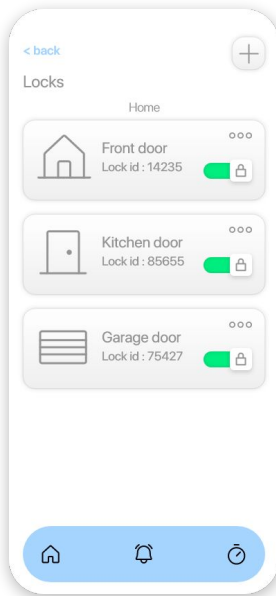
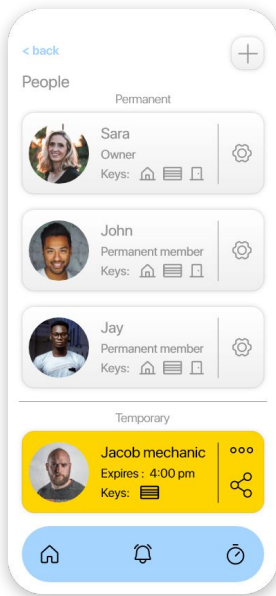
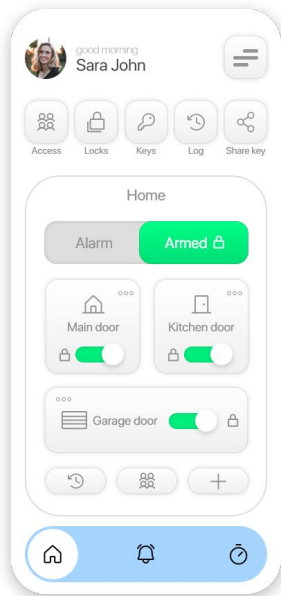


High fidelity mockup

Building on the low fidelity mockups, navigation cues and colors were added to develop the high fidelity mockup.



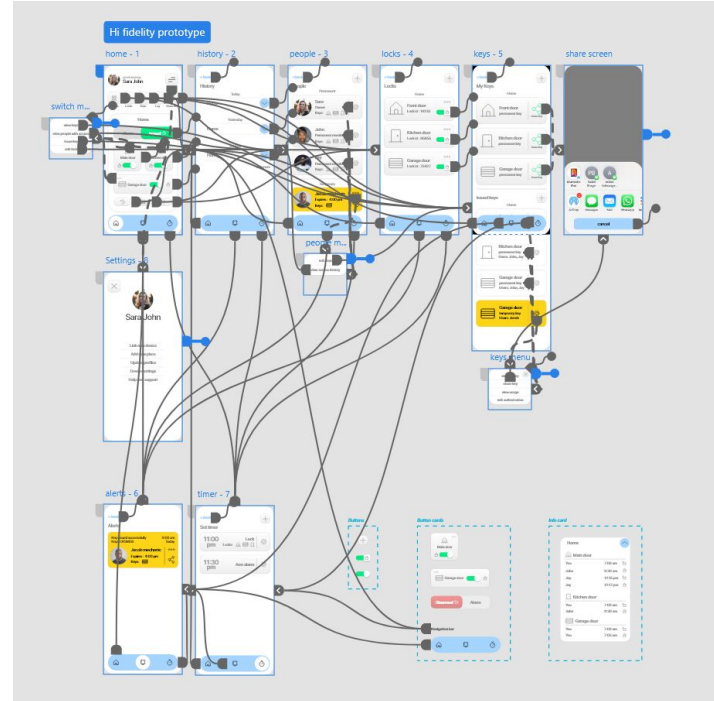
Mockups



High-fidelity prototype

The high fidelity prototype shows the user flow in completing various tasks like sharing of keys, access management and viewing lock status.

[View high fidelity prototype](#)



Accessibility considerations

1

The color scheme of the app conforms with the WCAG guidelines and ensures proper contrast.

2

The primary action buttons include an icon to easily understand

3

The typography includes hierarchical sizing and font variation.

Going forward

- Takeaways
- Next steps

Takeaways



Impact:

The project has surely achieved what it set out to do initially. The feedback received from participants is truly overwhelming.

"I can definitely see myself regularly using the app, the easy to understand interface and straight forward interactions adds to the overall user experience."

-Study participant



What I learned:

The project helped in understanding and designing to fulfil user needs. It helped me learn about the requirements and expectations of users that need a reliable home security solution.

Next steps

1

I hope to hand over this project to development along with the design system to aid in product development

2

The copy writing in the app can be improved to make it even more understandable.

3

Additional features can be designed without affecting the minimal user flow.

Let's connect!



Hi I'm MS Vishnu. You can connect with me via:

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