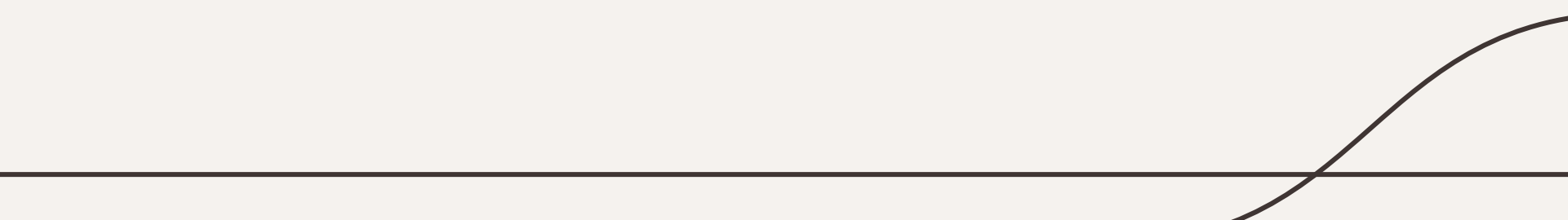




A5: kin

Team 3 – Jack Clark, Shuvi Jha, Jasmine Narine, Steven Pu



The team



Jack Clark

MS CS (HCI)
BS MS&E



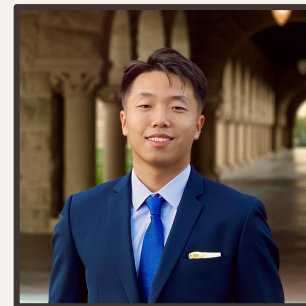
Shuvi Jha

CS (HCI); Feminist, Gender,
& Sexuality Studies
Senior



Jasmine Narine

SYMSYS (HCI)
Senior



Steven Pu

SYMSYS (HCI)
Senior

kin

“Weave your family story
one thread at a time”

Value Proposition

“kin seeks to make the uncovering of family stories inviting by initiating daily, bite-sized conversations that facilitate and chronicle our familial connections”

Problem and Solution

Problem

It can be difficult for people to learn, share, discuss, and preserve family stories in a way that feels engaging and rewarding, especially across generations – specifically, young people and the elderly.

Solution

An tool focused on helping family members share memories through prompts and collaboration. Users can engage with prompts, read family prompts, and add their own prompts to the system to facilitate family interactions and preserve memories.

01

**Concept
Sketches**

02

**Chosen
Realizations**

03

**Selected
Interface**

04

**Low-fidelity
Prototype**

05

**Three Task
Flows**

06

**Testing
Methods &
Results**

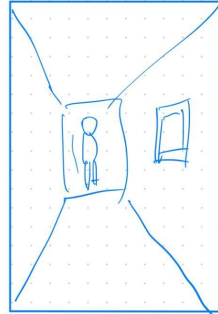
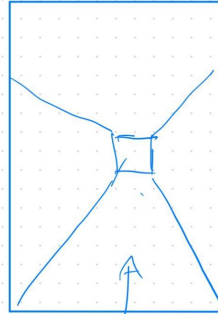
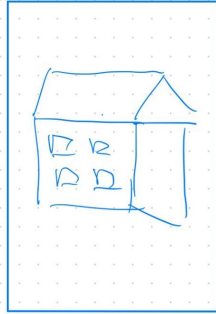


01

Concept Sketches

Concept 1: VR

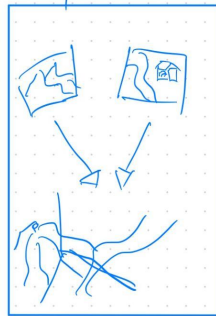
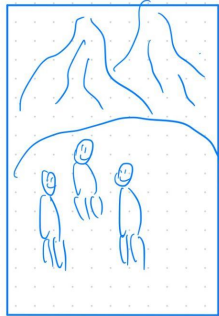
Enters
the
VR
memory
palace.



exploring
the memories
you recreated.

recreating memory scenes in VR.

Collaborate
with
friends.

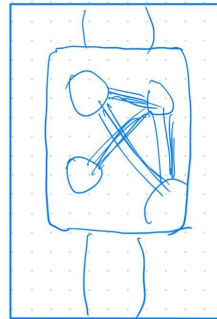
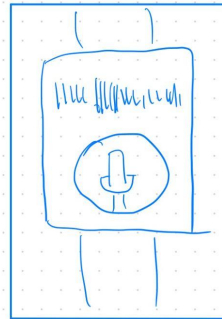
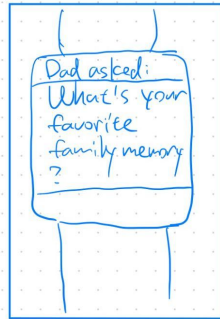


recreating
past memories
with photos.

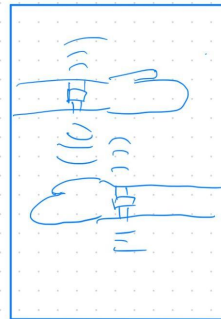
Key feature:

Recreating and generating experiences/memories from voice descriptions and past photos from scratch.

Concept 2: Wearable (Apple Watch)



Shows the story collaborator on your watch.

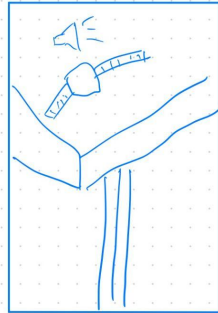
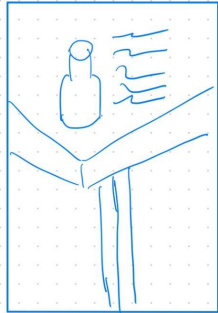


Vibrates when someone responded to the same prompts.

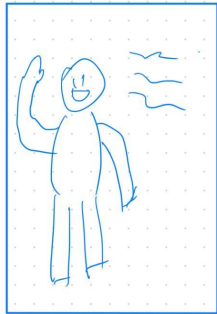
Key feature:

Convenient and timely notifications when family member responds to prompts - allowing inspirations at the speed of thought.

Concept 3: AR



incorporate
multiple
types
of
medias
into the
daily
object

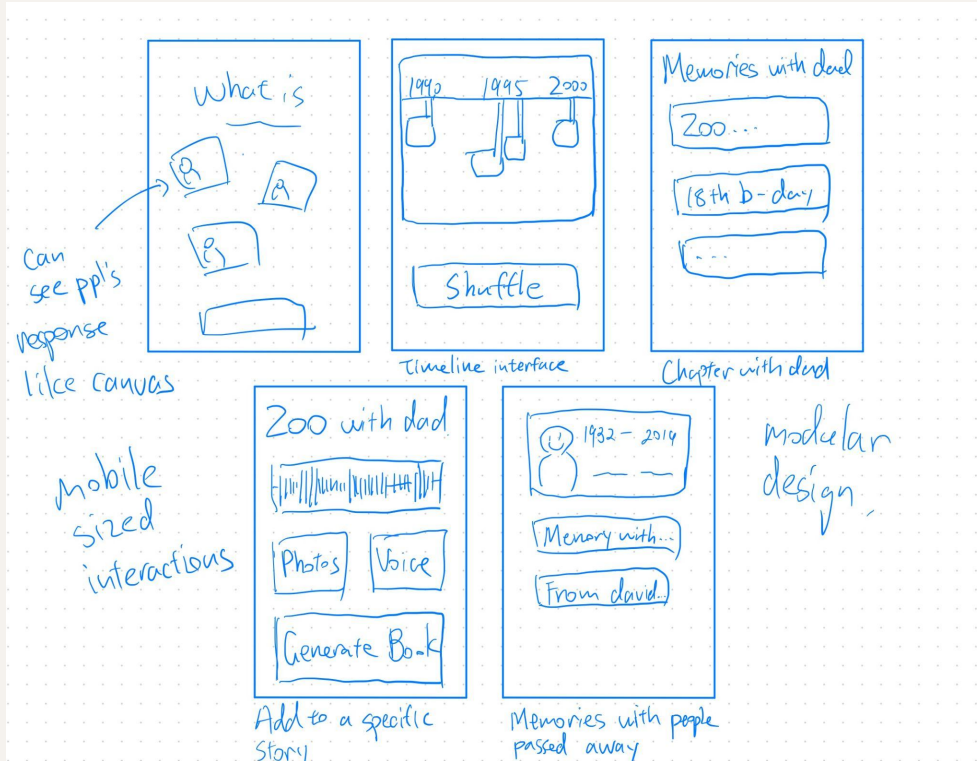


displays stories related to
someone when they're
around.

Key feature:

Making certain real world objects memorable by incorporating live stories and meanings to them in the AR world.

Concept 4: Mobile Application

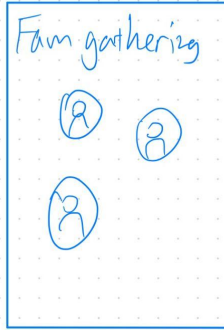
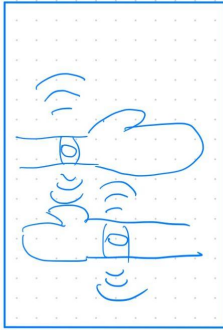


Key feature:

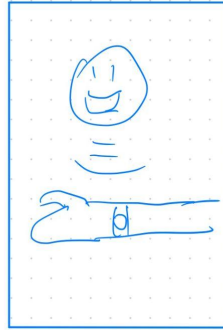
Wide range of functionalities and visualization make the process of documenting family stories fun and collaborative.

Concept 5: NFC Tags

NFC gets transmitted during family gathering

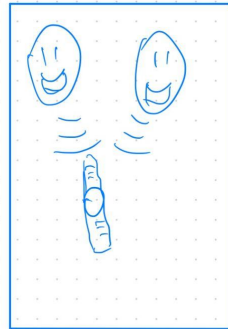
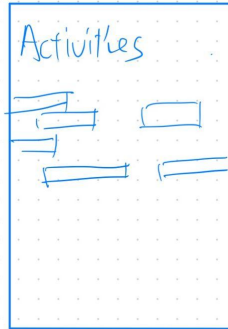


sees fam's location



talks to the band to record

see the time spent together on the



serves as memos to treasure important moments

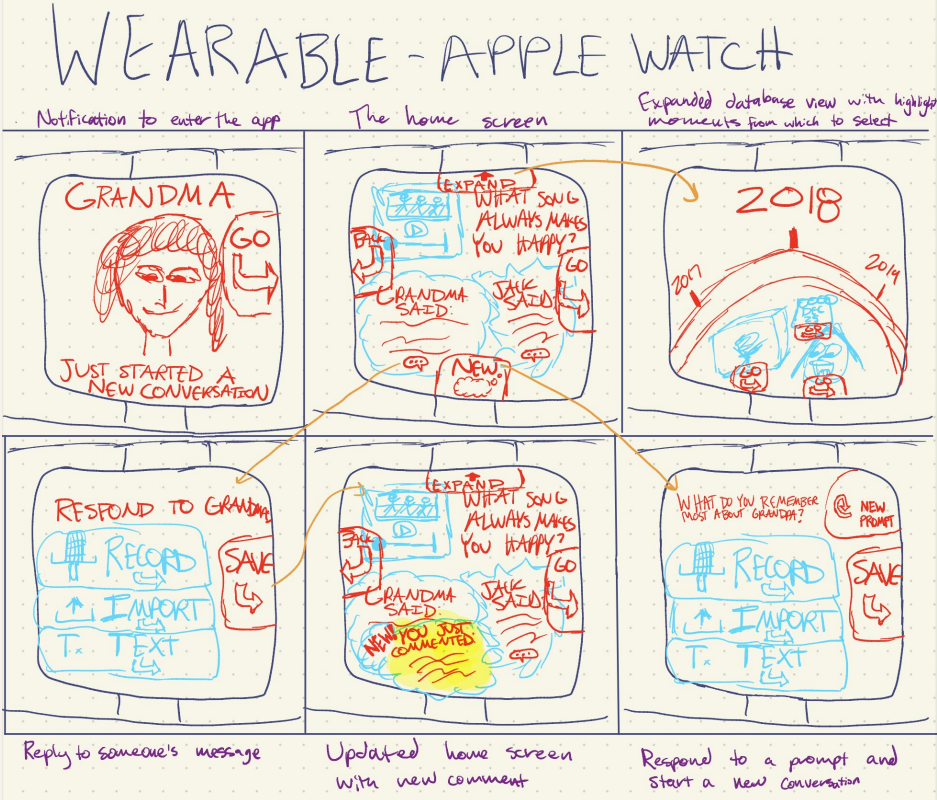
Key feature:

Makings documenting family gathering more spontaneous and fun with NFC capabilities.

02

**Top 2 Diverse
Realizations**

Wearable Walkthrough



Wearable: Pros and Cons

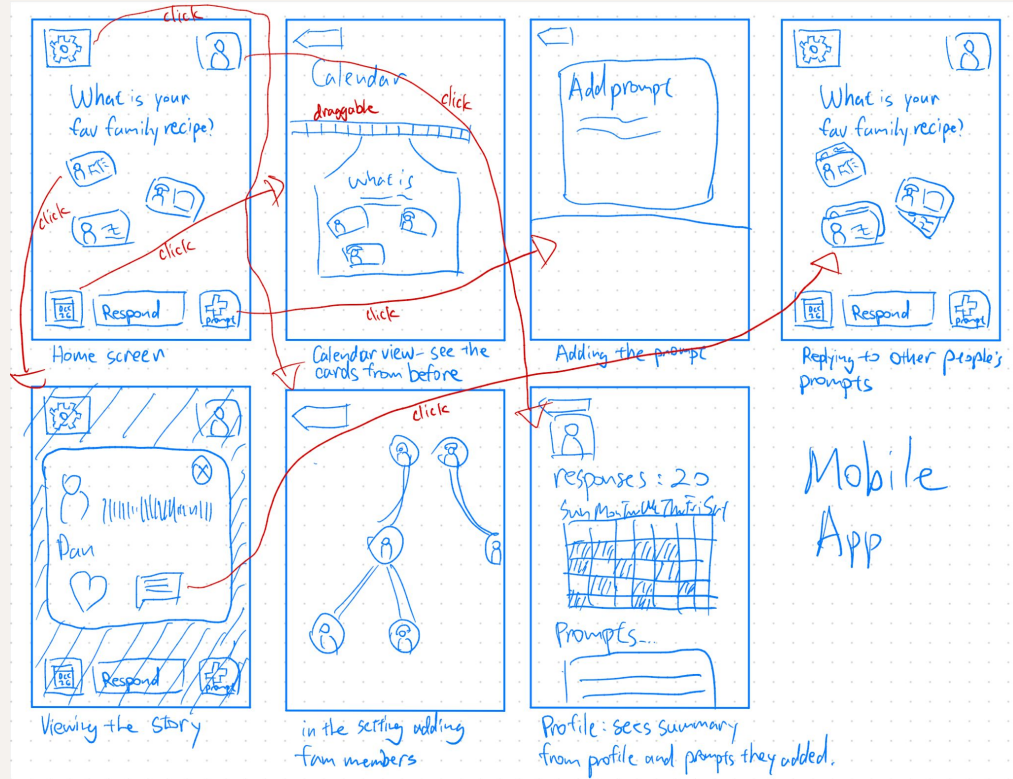
Pros

- **Simple movement-focused UI** displaying one “conversation” at a time
- **Promotes UI familiarity** as multiple screens share same frameworks
- **Apple Watch notifications offer improved visibility** compared to iPhones due to their full-screen and bold design

Cons

- **Congested views** may occur as conversations expand
- **Implicit drawback of the Apple Watch:** limited storage capabilities and absence of a camera
- **Potential device unfamiliarity**, particularly among older users

Mobile App Walkthrough



Mobile App: Pros and Cons

Pros

- **More reach** into all kinds of audience since mobile platforms are still extremely popular
- **Easier to realize** since there are many mobile development tools to help us realize our vision
- **Scalable functionalities:** We can make changes and add various functionalities to mobile apps

Cons

- **Potential complex interfaces** can make it confusing for older people to use
- **Could potentially contribute to more screen time,** which is not helpful for people who are trying to be off their phones in recent days
- **High friction to start:** Users might have trouble using the platform if they have to put in a lot of information in the beginning

03

Selected Interface:

Mobile App

As a reminder, here are our values...

Inclusive

Making sure all groups and communities, including elderly folks with disabilities, feel that they can use the app

Engaging

Pleasant and enjoyable to use for all age groups, feels fun to engage with prompts

Intuitive

Making sure that generating content in all its various multimedia formats and engaging with existing content is easy to understand

Community

Making sure that prompts and active engagement with content help family members feel closer

In line with our values, our rationale:

- **Larger screen size of smartphones** provides more real estate for displaying family prompts, responses, and other content; also makes it easier to physically read (disability and age access)
 - **Versatile interaction methods**, such as touchscreens & voice input, enable various input methods (tapping, swiping, typing, & voice commands)
 - **Robust notification system** on mobile devices is essential for Kin, where timely reminders about prompts is meant to drive user engagement
 - **Widespread adoption of mobile devices**, spanning different age groups and demographics, makes Kin more accessible to a broader use base including the elderly
-

04

Low-fidelity Prototype

Kin

LOG IN

SIGN UP

Kin

LOG IN

Email

Password

DONE

Kin

SIGN UP

START GROUP

JOIN GROUP

Kin

SIGN UP

MY INFO

YOUR NAME

EMAIL

PASSWORD

GROUP NAME

INVITE PEOPLE

Plan (one) 0123456789

Email 1

Email 2

Email 3

SUBMIT ALL

Kin

SIGN UP

MY INFO

YOUR NAME

EMAIL

PASSWORD

ENTER GROUP CODE TO JOIN A GROUP

CODE

SUBMIT ALL

Kin

LOADING..

Kin

UNDER CONSTRUCTION

Kin

TODAY'S QUESTION

WHAT IS YOUR GO - TO RECIPE?

NOBODY HAS RESPONDED YET. PLEASE BE THE FIRST!

RESPOND

Kin

WHAT IS YOUR GO - TO RECIPE?

CHOOSE AN OPTION TO RESPOND TO THE PROMPT

T.

J&

↓

Kin

WHAT IS YOUR GO - TO RECIPE?

BEGIN TYPING YOUR TEXT RESPONSE

TEXT GOES HERE

SUBMIT

Q	W	E	R	T	Y
.	,	!	?	~	^
0	1	2	3	4	5
6	7	8	9	*	#

Kin

TODAY'S QUESTION

WHAT IS YOUR GO - TO RECIPE?

RESPOND

Kin

TODAY'S QUESTION

WHAT IS YOUR GO - TO RECIPE?

RESPOND

Kin

TODAY'S QUESTION

WHAT IS YOUR GO - TO RECIPE?

RESPONDED WITH AN IMAGE!

RESPONSE

RESPOND

Kin

SUBMIT A NEW PROMPT

TEXT GOES HERE

SUBMIT

Q	W	E	R	T	Y
.	,	!	?	~	^
0	1	2	3	4	5
6	7	8	9	*	#

Kin

TODAY'S QUESTION

WHAT IS YOUR GO - TO RECIPE?

THANK YOU FOR SUBMITTING A PROMPT

COME BACK TOMORROW TO SEE IF YOU'VE BEEN ANSWERED!

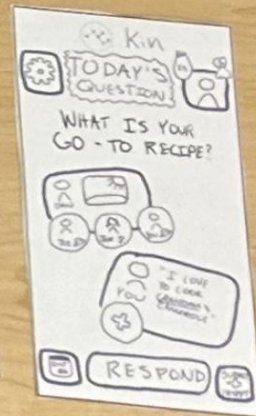
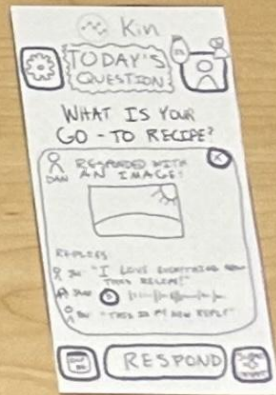
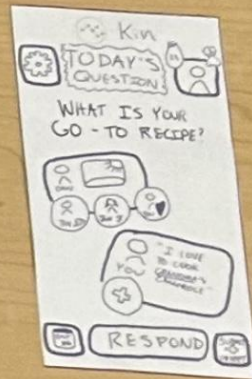
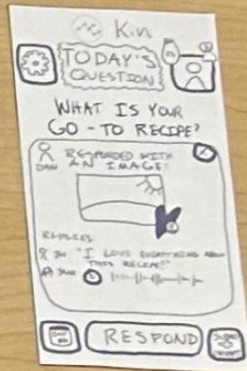
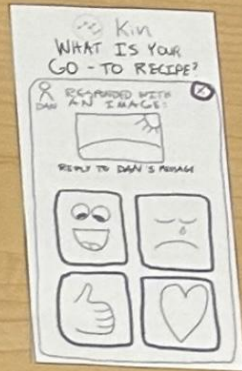
RESPOND

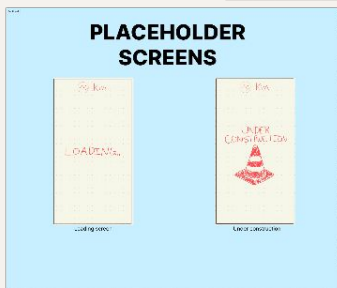
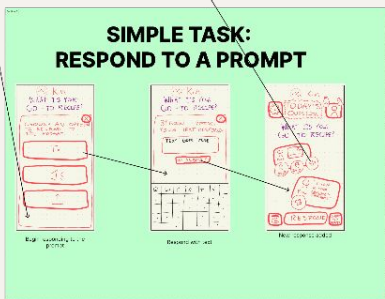
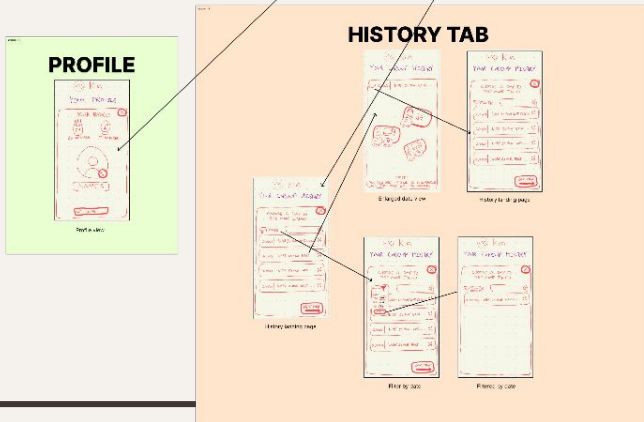
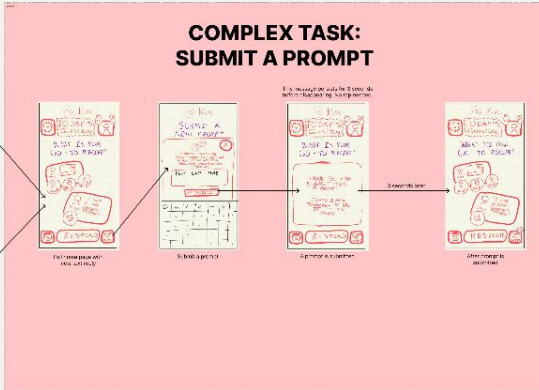
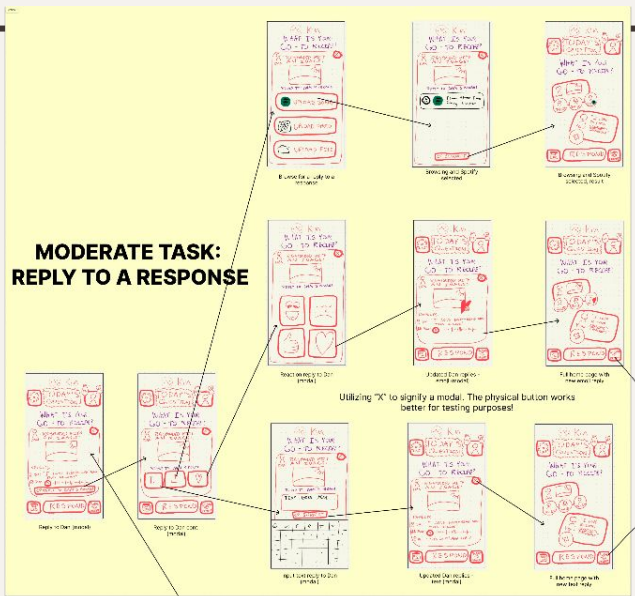
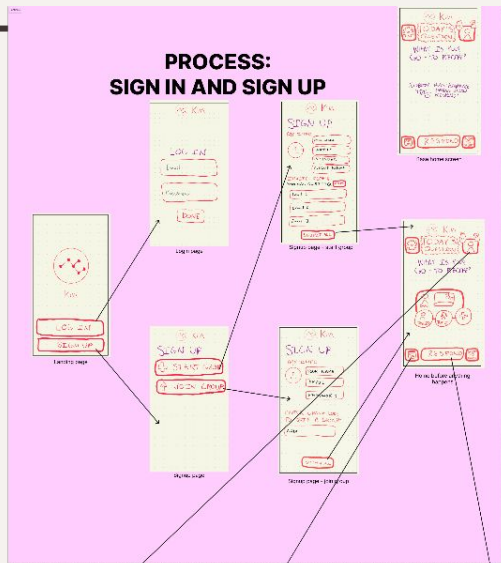
Kin

TODAY'S QUESTION

WHAT IS YOUR GO - TO RECIPE?

RESPOND





Screen Name	Brief description	User functionalities
Home	The nexus point for users to get anywhere on the app	<ul style="list-style-type: none"> ● Navigation to each of the other pages ● See own responses, responses of their family members, and brief previews of conversation between family members
Respond	Where the user goes to respond to a prompt	<ul style="list-style-type: none"> ● Choose between a text, audio, or file response ● Input the response via any of the 3 modalities ● Submit the response
Reply	Where the user goes to reply to someone's prompt response (e.g. comment section)	<ul style="list-style-type: none"> ● See family members' comments in full detail ● Choose between a text, file, or reaction reply ● Input the reply of any of the 3 modalities ● Submit the reply
Submit prompt	Where the user goes to submit their own prompt to be asked on a future day	<ul style="list-style-type: none"> ● See a description of how the prompt system works within the app ● Input a prompt of their own
History	Where the user can see previous days' conversations	<ul style="list-style-type: none"> ● See responses to previous prompts ● See replies to previous responses ● Filter by date to find more specific conversations ● Search by keyword to find more specific conversations
Profile	Where the user can see more information and edit their profile	<ul style="list-style-type: none"> ● See badges and assess progress towards goals ● Edit profile photo or name

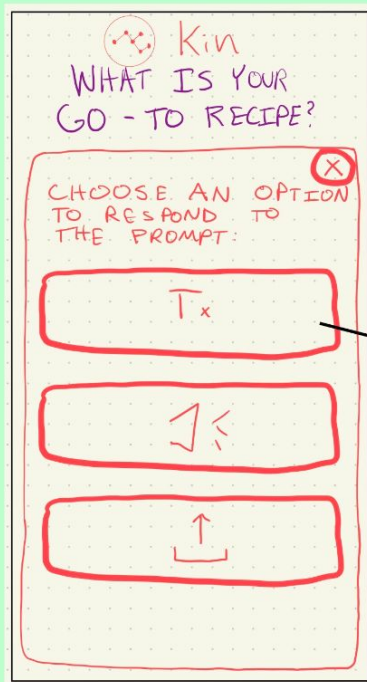


05

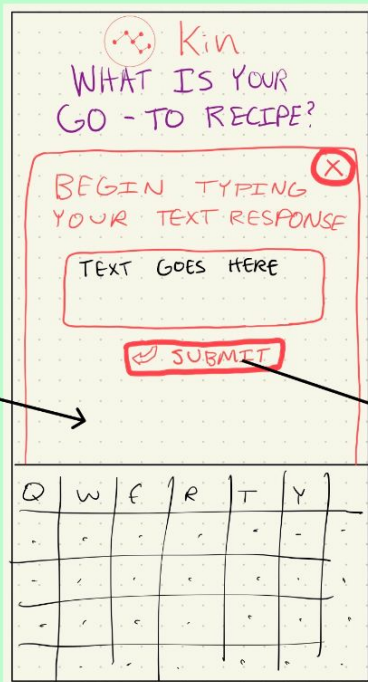
Three Task Flows



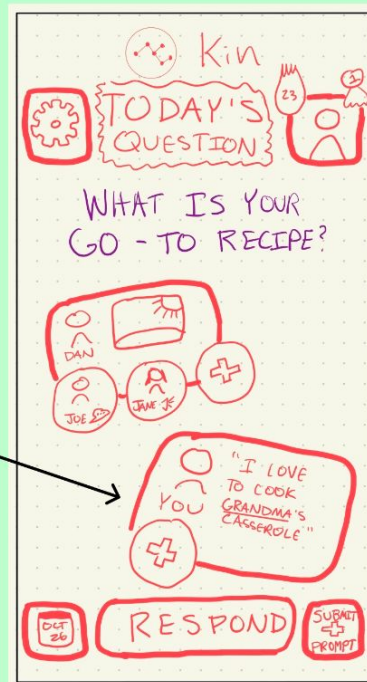
SIMPLE TASK: RESPOND TO A PROMPT



Begin responding to the prompt

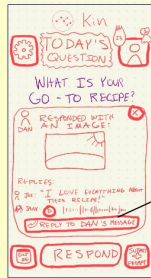


Respond with text

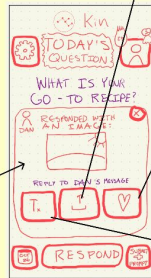


New response added

MODERATE TASK: REPLY TO A RESPONSE



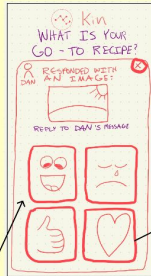
Reply to Dan (modal)



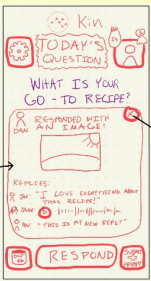
Reply to Dan cont. (modal)



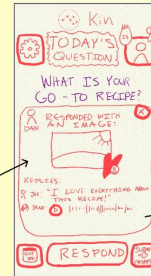
Input text reply to Dan (modal)



Reaction reply to Dan (modal)



Updated Dan replies - text (modal)



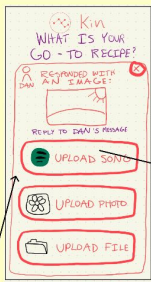
Updated Dan replies - emoji (modal)



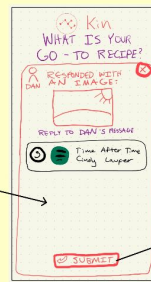
Full home page with new text reply



Full home page with new emoji reply



Browse for a reply to a response



Browsing and Spotify selected



Browsing and Spotify selected, result

Utilizing "X" to signify a modal. The physical button works better for testing purposes!

COMPLEX TASK: SUBMIT A PROMPT

This message persists for 3 seconds before disappearing. No tap needed.



Full home page with new text reply



Submit a prompt



A prompt is submitted

3 seconds later



After prompt is submitted

06

Testing Methodology

Participants

Heather Jugath

Middle aged woman, visiting from India

Martin Fossun

White Male in his 60s
Lives in Palo Alto



Zarai Tun

Student at Palo Alto HS



Clemente Antuna

Senior at Columbia

Environment & Apparatus

Paper prototype, **manually** swapped “screens” to respond to user action.

These paper prototypes were laid out on a table in front of our participants as we consulted our script and began testing.



Team Member Roles



Jack Clark

Computer



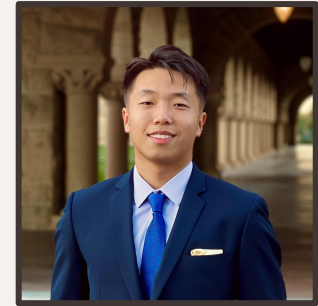
Shuvi Jha

Note-Taker



Jasmine Narine

Note-Taker



Steven Pu

Facilitator

Procedure & Process

- 1.** Introduce + Provide Project Overview
 - 2.** Consent + Pictures
 - 3.** Prompted user to “onboard” onto app
 - 4.** Explain goal and context for current task (simple, moderate, complex)
 - 5.** Asked users to evaluate their experience on 1-10 scale across 5 criteria
-

Usability Goals & Key Requirements

Goal #1:
Efficiency

Measurement: Task Error Rate

We will count the number of errors made per tasks (onboarding, responding to prompts, reading family responses, adding personal prompts).

Goal #2:
Enjoyable

Measurement: System Usability Scale (SUS) Score

After the testing session, participants can provide ratings and comments related to various usability aspects. A higher SUS score suggests that users find the app easy to use – important for our elder users.

07

Results

Process Data

Simple task

- 75% of participants found responding to the daily task intuitive
- 100% of participants were easily able to choose the medium of their response, without confusion

Moderate task

- 75% of participants found replying to other people's posts confusing
 - Unclear respond vs. reply button

Complex task

- 100% of participants had major trouble finding the submit prompt button
-

Usability Goals: Revisited

Efficiency:

- Average of 3 “mis-clicks”
- Confusion about placement, or *content* of a particular feature of the app

Enjoyability + Usability:

- I think that I would like to use this system frequently **5.75**
 - I found the system unnecessarily complex **4.75**
 - I found the various functions in the system were well-integrated **8**
 - I thought there was too much inconsistency in this system **2**
 - I felt very confident using this system **7**
-

Other Observations + Discussion

- “I would use it with my friends, not really my family”
 - “I don’t really play around with my phone too much”
 - “What is the relevance of the logo?”
-

Implications

- Persisting generational divide in interaction with app
 - Need to prioritize **intuitive** interface for all age group
 - Confusion on where to submit the daily prompt & how the prompt system works
 - Need to make sure that the prompt mechanism **is clear and easy to conceive** for the users
 - During testing, the users were confused about who their “testing family members are”
 - Need to make sure that we **explain it well/have good onboarding** in our future testing
 - One of our testers said that they would be interested in using this system for friends and not families
 - The system could also be used to **increase ties between friends**
-

Changes

- Respond and reply no longer on screen together
 - Reply feature becomes largest (and only) button on screen
 - Make an onboard screen that explains key features - submit prompt button, etc...
 - Include mechanisms that allows for adding and managing different members more easily
-

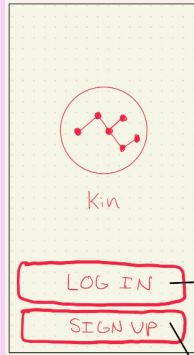
What Testing Couldn't Reveal - Shortcomings

- Authentic sense of how likely users are to revisit our app
 - How likely users are to interact with the calendar functionality on their own
 - How likely users are to invite their own family/friends onto the app
 - How enthusiastic users were about the concept of a streak/badges -> daily use incentivized?
-

0#

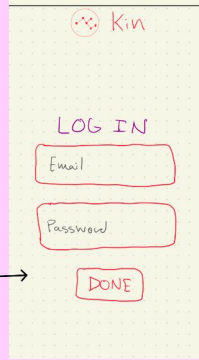
Appendix

PROCESS: SIGN IN AND SIGN UP

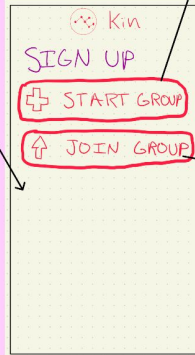


Landing page

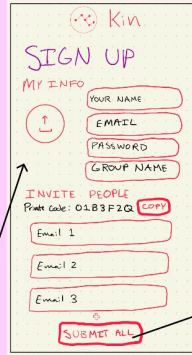
When signing up, a user can choose to either "Start" a group or "Join" a group.



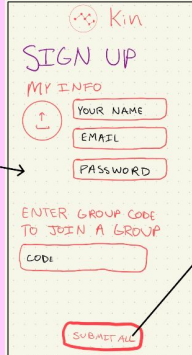
Login page



Signup page

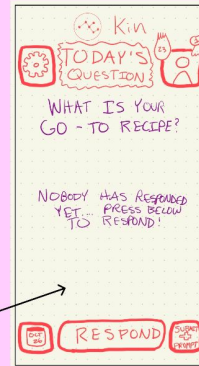


Signup page - start group



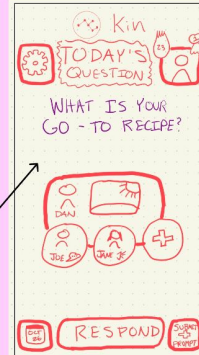
Signup page - join group

A user, upon signing up, can choose to join an already existing group.



Base home screen

The user started a new group, so there are no responses (or people, apart from them) yet. In our testing, we ignored this case and instead let interviewees interact with an already-populated group regardless of which Sign Up page they chose.



Home before anything happens

We plan on developing a system of streaks and badges, but have not yet fleshed this out further

The user now has access to an already-existing group

Starting a group allows the user to enter all the usual personal information, and then also to set a group name.

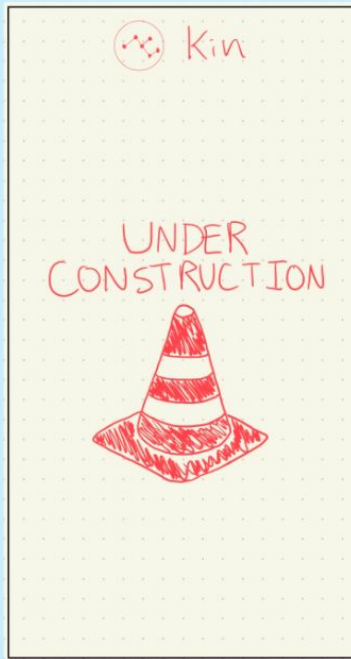
Starting a group also gives a "Private Code" that can be shared with potential group members for them to input when they enter the app. This private code, we feel, is simpler to use than a link. All you have to do is log onto the app and enter the code if someone has already created the group.

The group creator can also enter emails to be send invite links to the group that would bring a potential user to the "Join Group" version of the Sign Up page.

PLACEHOLDER SCREENS



Loading screen



Under construction

We utilized these screens during testing to signify that we were finding a specific card or that a user pressed a button we hadn't yet "coded"

PROFILE



Profile view

From the profile, the user can edit their profile picture and name, as well as view their badges.

Badges are awarded for activity-based behaviors like daily usage streaks, responses, or replies.

We see badges as another dimension to promoting daily app usage and interacting with others while in the app.

Wearable: additional pros & cons

Pros

- **Simple movement-focused UI** showing one “conversation” at a time
- **Wholly customizable** and unique conversation spaces
- **Fosters UI familiarity** as multiple screens share same frameworks
- **Apple Watch notifications have better visibility** than iPhones due to their full-screen and bold nature
- **Potential for immersive haptic feedback** that feel closer than that of an iPhone

Cons

- **Congested views** are a distinct possibility as conversations expand
- **Significant zooming** in and out to navigate is a likely necessity, creating extra movement for the user
- **Implicit negatives of the Apple Watch**, regarding storage capabilities and lack of camera
- **Device unfamiliarity** is a possible issue for many users, especially older ones
- **Limited user accessibility and equity** derived from fewer Apple Watches existing than iPhones

Mobile App: additional pros & cons

Pros

- **More reach** into all kinds of audience since mobile platforms are still extremely popular
- **Easier to realize** since there are many mobile development tools to help us realize our vision
- **Scalable functionalities:** We can make changes and add various functionalities to mobile apps
- **Interactive features:** Mobile app has in-built support and features such as touchscreens, cameras and voice input
- **Personalization:** can tailor user experience based on user preferences and usage patterns

Cons

- **Potential complex interfaces** can make it confusing for older people to use
- **Could potentially contribute to more screen time,** which is not helpful for people who are trying to be off their phones in recent days
- **High friction to start:** Users might have trouble using the platform if they have to put in a lot of information in the beginning
- **Screen Size Limitations:** could be challenging to present complex information or engage in detailed collaborative activities
- **Security Concerns:** mobile apps need to address security and privacy concerns

Script

Today, you'll be helping us to test Kin, a platform designed to facilitate the sharing of memories among family members through prompts and collaboration. We are excited to have you participate in this testing session, and your feedback will be incredibly valuable to us.

During this session, we will present you with some paper interfaces that we have prototyped, and we'll ask you to complete a series of tasks. As you perform these tasks, we encourage you to think out loud and share your thoughts with us. Don't hesitate to let us know if you find anything confusing or if you have suggestions for improvement.

Now, let's immerse ourselves in the experience. Imagine you're using the Kin app with your family. You might see some of your family members engaging with the prompts and sharing their thoughts.

Script, continued

First, we'd like you to onboard yourself into the app. This is a simple task to familiarize yourself with the initial steps of using Kin.

Next, we'll ask you to respond to today's prompt. This is a simple task that will give you a feel for what participation looks like in the app.

Following that, we'd like you to read your family's responses for today and reply to one of your family member's responses. This task is of moderate complexity and will help us understand how users engage with the content shared by their family members.

Finally, we'd like you to add a personal prompt to the system. This task is more complex and will test the app's functionality for creating and sharing your own prompts.

As you go through these tasks, remember to think out loud and express your thoughts, concerns, and any ideas that come to mind. Your insights will greatly assist us in improving Kin's platform. Thank you for your participation!

System Usability Scale Questionnaire

Participants are asked to score the following 10 items on a scale of 1-10 where 1 indicates Strongly Disagree and 10 indicates Strongly Agree.

1. I think that I would like to use this system frequently.
 2. I found the system unnecessarily complex.
 3. I found the various functions in this system were well-integrated.
 4. I thought there was too much inconsistency in this system.
 5. I felt very confident using the system.
-

SUS - Participant 1 - Misclicks: 4

I think that I would like to use this system frequently.	5
I found the system unnecessarily complex.	5
I found the various functions in this system were well-integrated.	8
I thought there was too much inconsistency in this system.	2
I felt very confident using the system.	6

SUS - Participant 2 - Misclicks - 3

I think that I would like to use this system frequently.	5
I found the system unnecessarily complex.	6
I found the various functions in this system were well-integrated.	8
I thought there was too much inconsistency in this system.	2
I felt very confident using the system.	7

SUS - Participant 3 - Misclicks 2

I think that I would like to use this system frequently.	6
I found the system unnecessarily complex.	6
I found the various functions in this system were well-integrated.	8
I thought there was too much inconsistency in this system.	2
I felt very confident using the system.	8

SUS - Participant 4 - Misclicks:

3

I think that I would like to use this system frequently.	7
I found the system unnecessarily complex.	6
I found the various functions in this system were well-integrated.	8
I thought there was too much inconsistency in this system.	2
I felt very confident using the system.	7