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User Experience Designer

Case Study

Application: Reminder for people with Dementia.

Problem:

A need for a system to assist people with Dementia in everyday care, enabling their dear ones to be able to monitor daily progress and have a little less to worry.

Roles:

User Experience Researcher, User Interface Designer.

Time:

25 weeks

Solution:

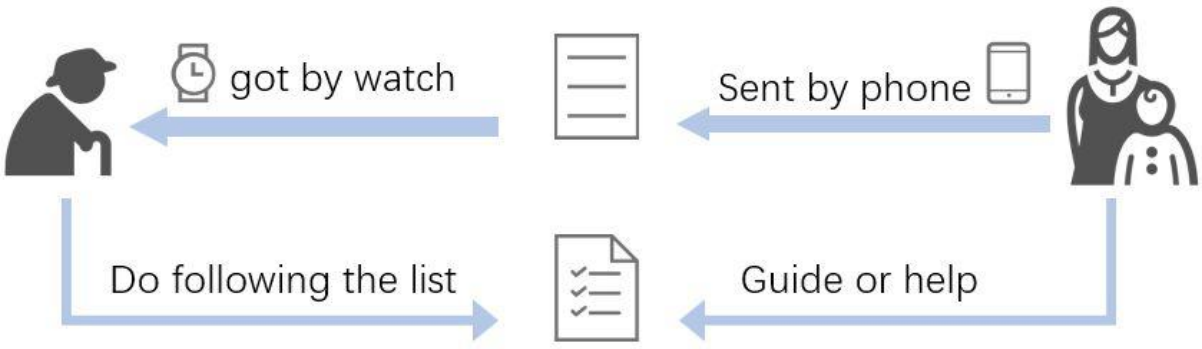
Our team did intensive user research with the help of published data and verified sources of academia.
We came up with an idea of enabling the care givers with a mobile based application and the PwD with a wearable as a gift so that a positive environment can be observed.

Activities:

Interview and User Research.

Process:

Understanding the flow.



Personas:

With the goal feature in mind, we needed to understand how users could approach this application. How would they interact on a mobile device? We developed and used a primary persona: Oscar as a caregiver and Mr.X as tools for this process.
A main takeaway from this was the minimum required events we would need for our first prototype.

Care giver Oscar

"serving with a smile."

Age: 22
Work: student
Family: Single.
Location: Uppsala, Sweden
Character: Positive

Goals

- Taking care of his Uncle.
- Becoming a successful kindergarten teacher.
- Likes to do gardening and beer tasting.

Frustrations

- Having a loved one who forgets.
- Cannot be there, studying in different city.
- Physical presence is much appreciated over digital presence.

Personality

Introvert	Extrovert
Thinking	Feeling
Sensing	Intuition
Judging	Perceiving

Story

Oscar is a sweet guy who likes to take care of his uncle age 40.
His uncle is having signs of dementia and oscar wants to help him with all his heart but cannot as he is studying in a different city.
he is using some applications like Facebook, whats app and Instagram but they aren't sufficient.
sometimes his uncle doesn't like to message him over social media as he feels it's not secure but they are happy to use something secure and just task specific.

Person suffering with dementia

Start each day with a grateful Heart

Age: 80
Gender: Male
Stage of Dementia: middle stage
Residence: Live with caregiver
Relationship with the caregiver: father and son

Methods of reminding

Talk to them every hour.

Guide them by steps to do an activity.

Goals

- Assisting him to do daily activities independently.
- Help him to shape their daily habits.
- help him to remember his dear ones and his personal history.

Frustrations

- Forgetfulness of events or about one's own personal history.
- An increased risk of wandering and becoming lost.
- Personality and behavioral changes.

Pattern in Daily life

Time	Activity	Place
8:00 am	Fresh up and eat breakfast and medicines	House
11:00 am	watching television, working	In house or workplace
2:00 pm	lunch and medicines	house or workplace
3:00 pm	Resting	house
5:00 pm	eating	house
6:00 pm	walk to park or taking with relatives and friends	house or park
8:00 pm	dinner and medicines	house
10:00 pm	sleep	house

Degree of Difficulty

Eating medicine
Dressing
toileting
Remembering events
Social

Degree of Easy to forget

Personal History
Eating Medicines
Address
relatives

Tools Used:

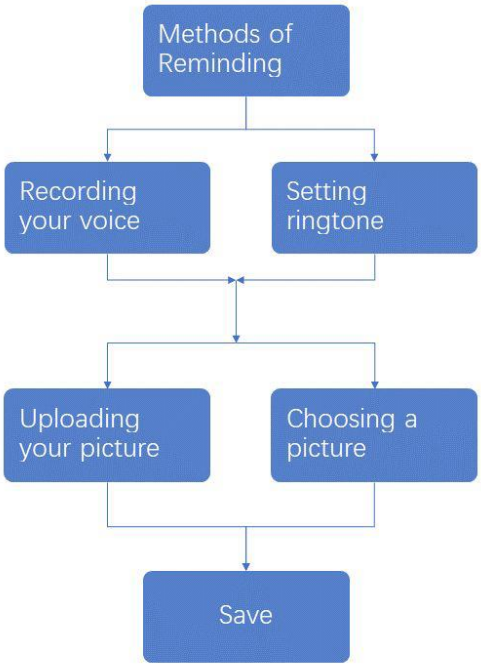
- Interview
- inVison

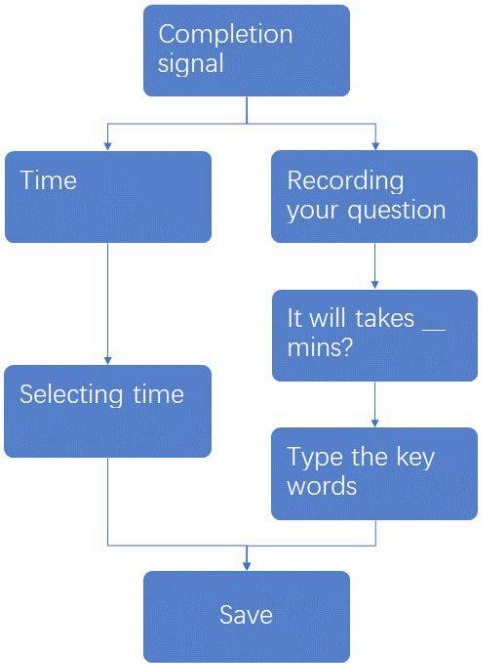
Requirements gathering and Research

- Research Data from Academia
- Research Interviews
- Requirement's elicitation

Define & Execute

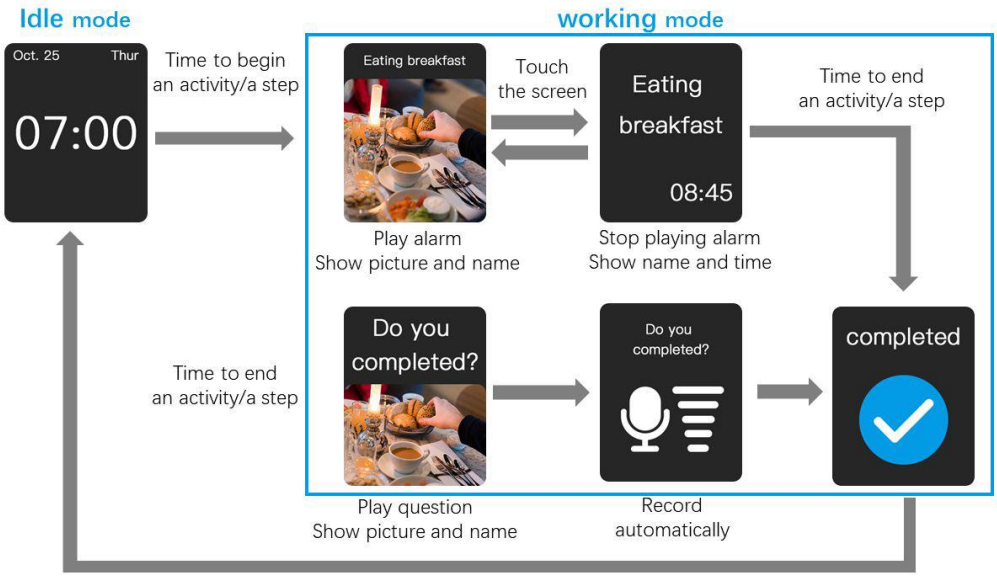
- Information Structure.
- Wireframe for mobile application
- Hi-Fi prototype for mobile application
- Hi-Fi prototype for watch application





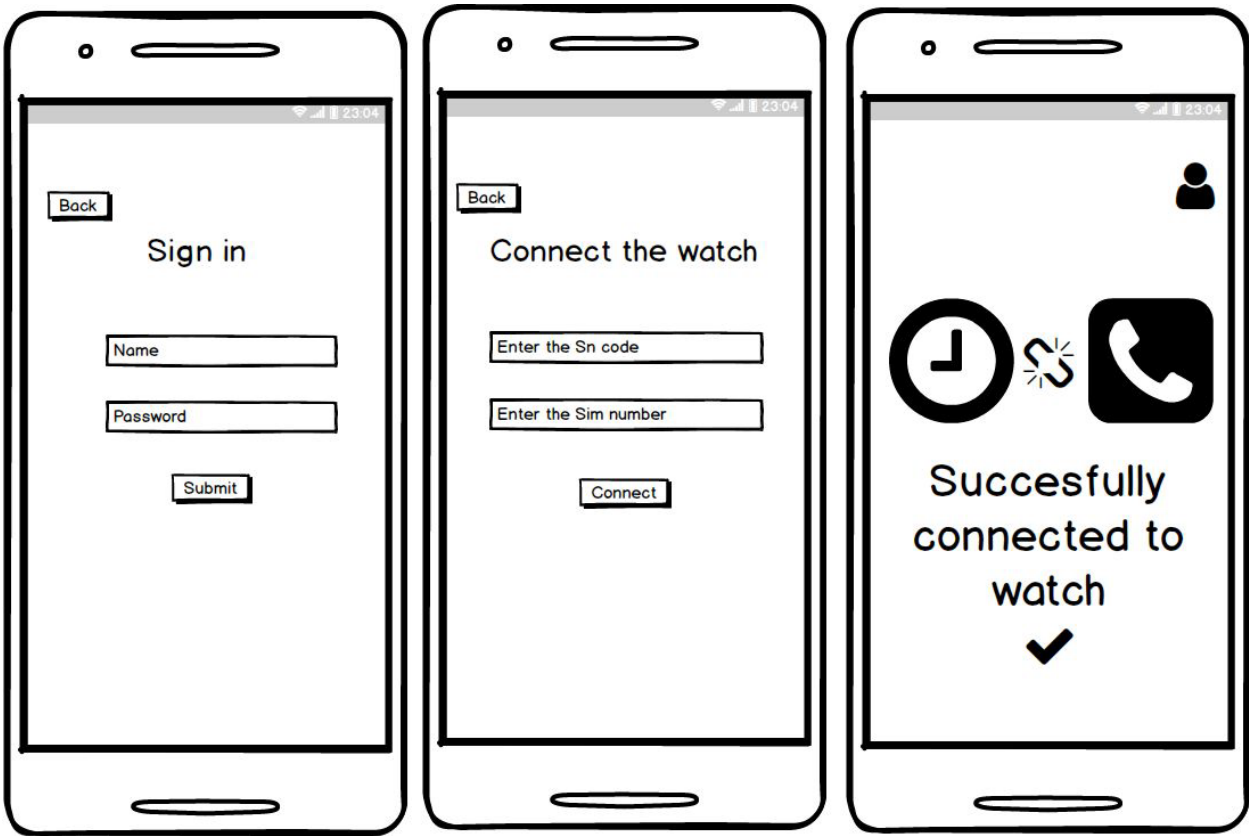
Prototypes:

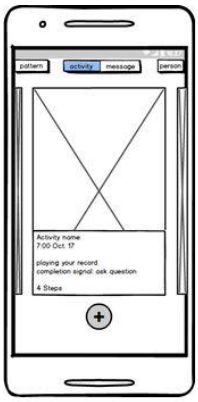
Watch application:

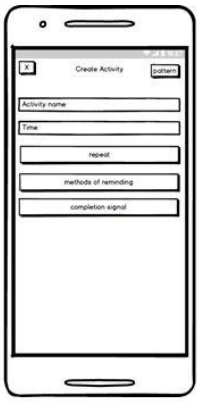


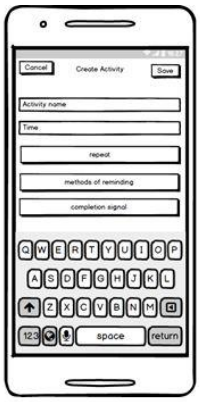
Lo-Fi Prototype for mobile application:

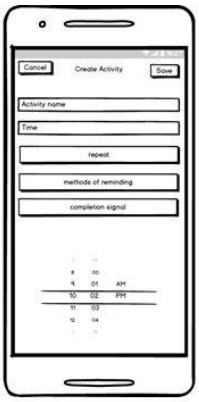
Tools Used: Balsamiq

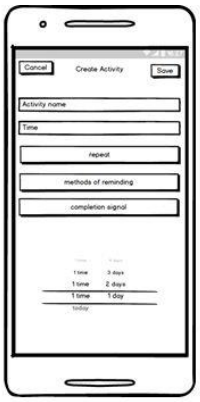


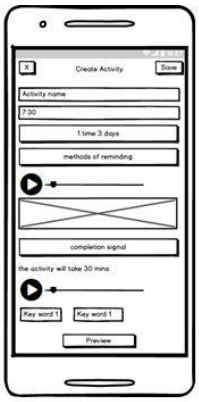

pattern
activity
message
person
Activity name
7:00 Oct. 17
playing your record
completion signal: ask question
4 Steps

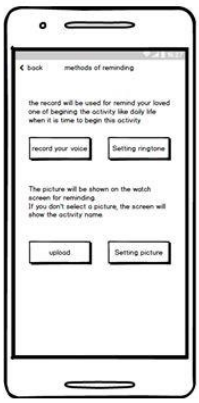

X
Create Activity
pattern
Activity name
Time
repeat
methods of reminding
completion signal


Cancel
Create Activity
Save
Activity name
Time
repeat
methods of reminding
completion signal


Cancel
Create Activity
Save
Activity name
Time
repeat
methods of reminding
completion signal


Cancel
Create Activity
Save
Activity name
Time
repeat
methods of reminding
completion signal


X
Create Activity
Save
Activity name
7:30
1 time 3 days
methods of reminding
completion signal
the activity will take 30 mins
Key word 1
Key word 1
Preview

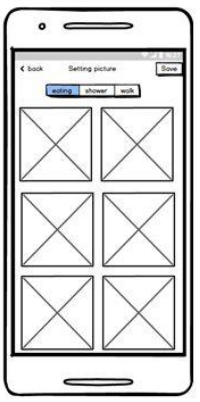

back
methods of reminding
the record will be used for remind your loved one of begining the activity like daily life when it is time to begin this activity
record your voice
Setting ringtone
The picture will be shown on the watch screen for reminding.
If you don't select a picture, the screen will show the activity name.
upload
Setting picture

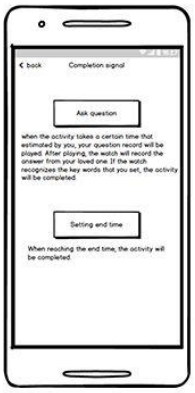

back
record your voice
Press the button to record


back
record your voice
Save
record again

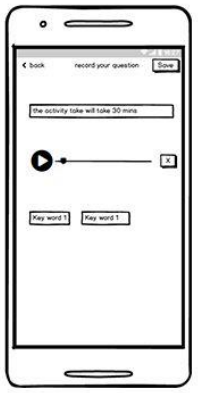

back
Ringtone
Save
Item One
Item Two
Item Three
Item Four
Item Five
Item Six
Item Seven
Item Eight
Item Night

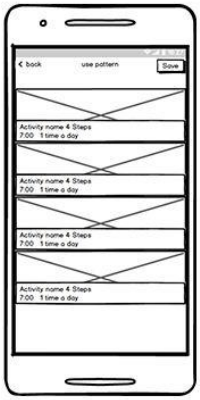

Cancel
methods of reminding
the record will be used for remind your loved one of begining the activity like daily life when it is time to begin this activity
record your voice
Setting ringtone
The picture will be shown on the watch screen for reminding.
If you don't select a picture, the screen will show the activity name.
upload
Setting picture
upload from album
take a photo

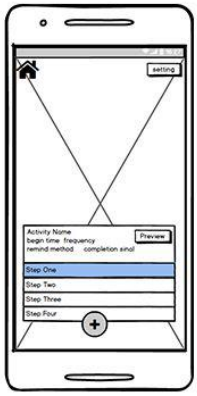

back
Setting picture
Save
eating
shower
walk


back
Completion signal
Ask question
when the activity takes a certain time that estimated by you, your question record will be played. After playing, the watch will record the answer from your loved one. If the watch recognizes the key words that you set, the activity will be completed.
Setting end time
When reaching the end time, the activity will be completed.

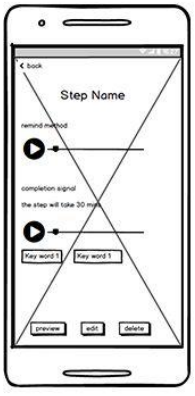

back
record your question
How long will the activity take?
Press the button to record
Key word 1
Type the key words that your loved one will answer your question when he/she complete the activity.


back
record your question
Save
the activity take will take 30 mins
Key word 1
Key word 1

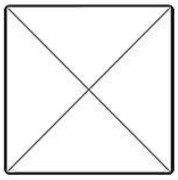

back
use pattern
Save
Activity name 4 Steps
7:00 1 time a day
Activity name 4 Steps
7:00 1 time a day
Activity name 4 Steps
7:00 1 time a day
Activity name 4 Steps
7:00 1 time a day


setting
Activity Name
begin time frequency
remind method completion sinal
Preview
Step One
Step Two
Step Three
Step Four


X
Create Step
Step name
methods of reminding
completion signal


back
Step Name
remind method
completion signal
the step will take 30 mins
Key word 1
Key word 1
preview
edit
delete


message
activity
1. helping message
2. the next activity is going to begin, but the last one has not completed.
Do you decide to move to the next one?
3. your loved one didn't complete the activity, do you need to modify the activity?
4. your loved one has completed the third step in eating activity




Activity
Yes
No

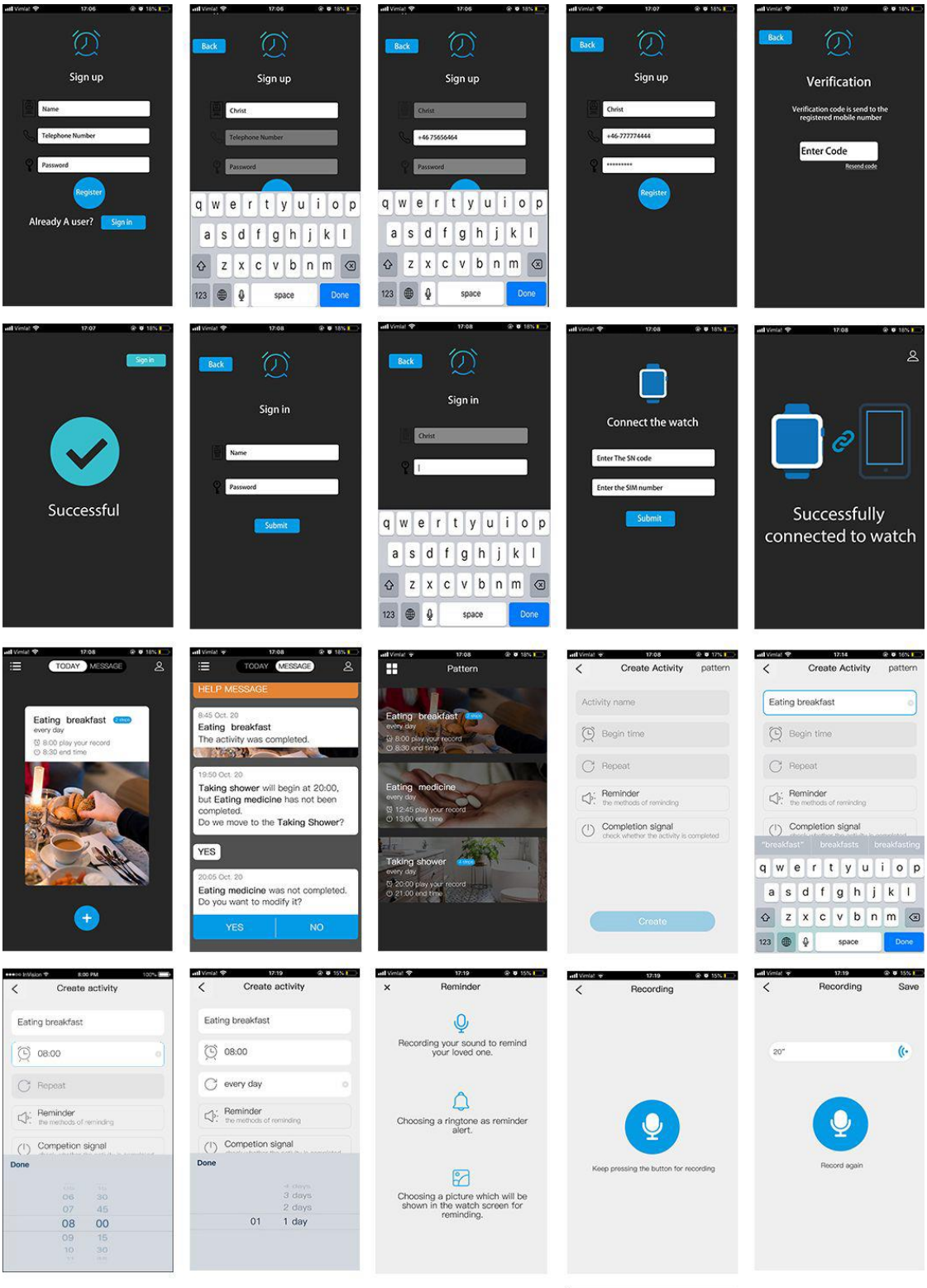

well done,
task done
successfully.

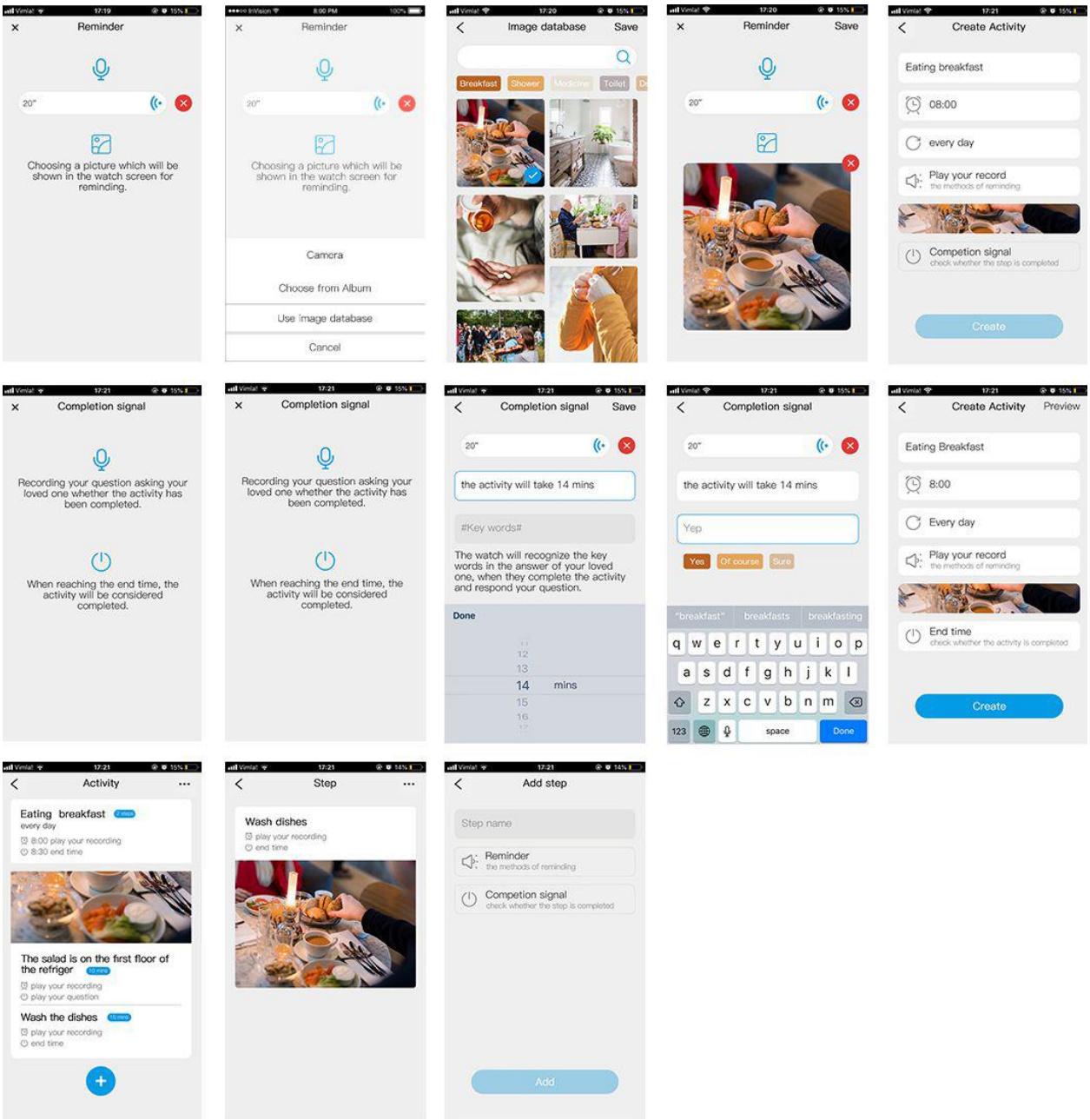

next task?
Yes/No


snooze ›

HI-Fi Prototype for mobile application: https://invis.io/DVOO9VXCQKH

Tools Used: inVision





Design highlights

The UI design was made to make it interesting and attractive for the caregiver as well as the PwD. With the primary focus being on functionality and efficiency of the system co-dependant of a condition, we included voice and images to enhance the PwD's experience.