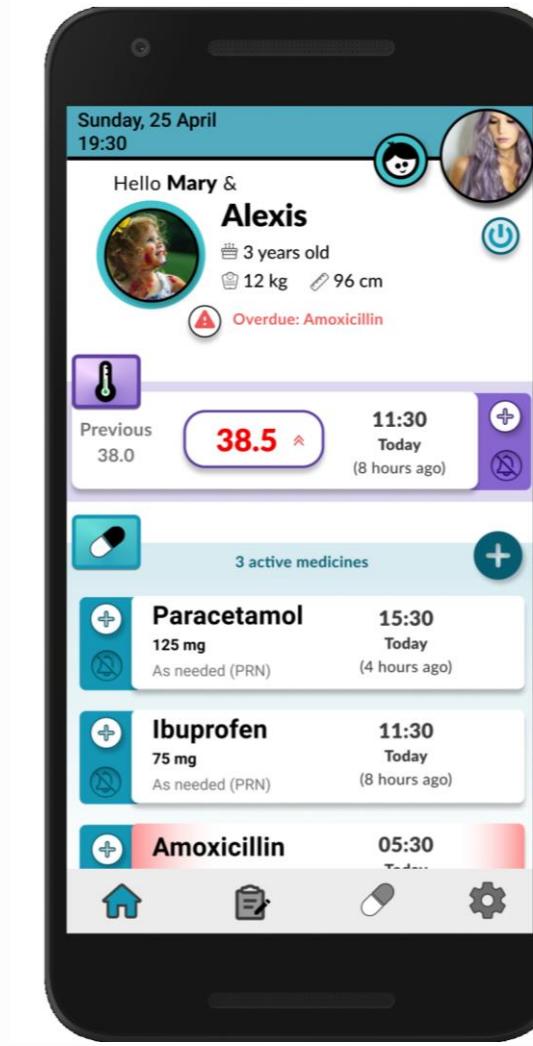




temp&med tracker

Keeping your child's health in check



Designer: Catarina Santos

Project Duration: 6 weeks

Tools: Miro, Figma, Zeplin, Zoom, Lookback

Challenge Overview

The context

A child with high temperature is very common to happen and, even though it is usually not due to serious conditions, it is a source of great anxiety for a parent and should be closely monitored. Failure in tracking the children temperature may be the cause for delay in early detection of health deterioration. In addition, failure to track medication given can lead to its misuse.

My goal

It was my goal to understand parents needs and behaviors regarding tracking their child's temperature and medication in order to produce a digital solution that would help them monitor their children easily and more reliably.

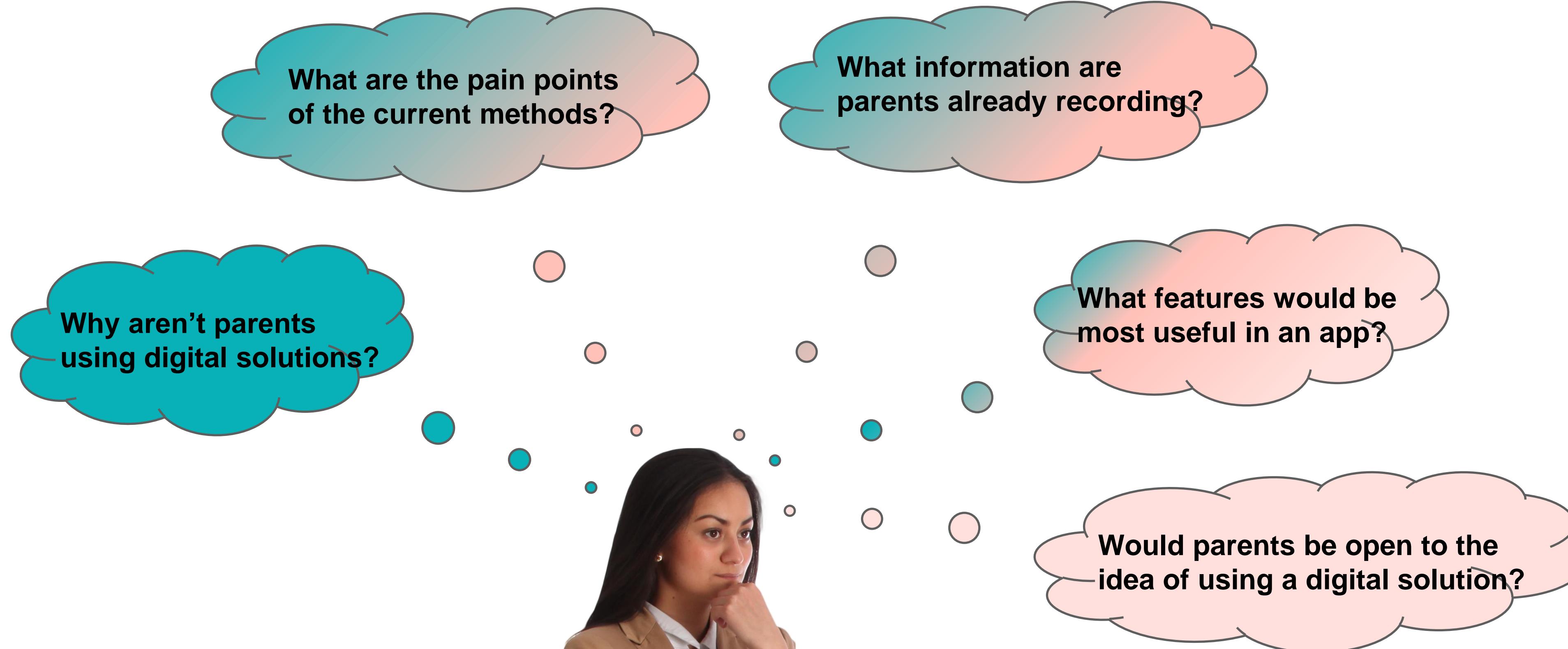
The current parent's behaviours

Most parents rely on memory and/or pen and paper methods to monitor the symptoms of their sick children, and very few ever tried or use a digital product.

Current methods are deemed forgetful and unreliable, and a digital solution could be helpful.

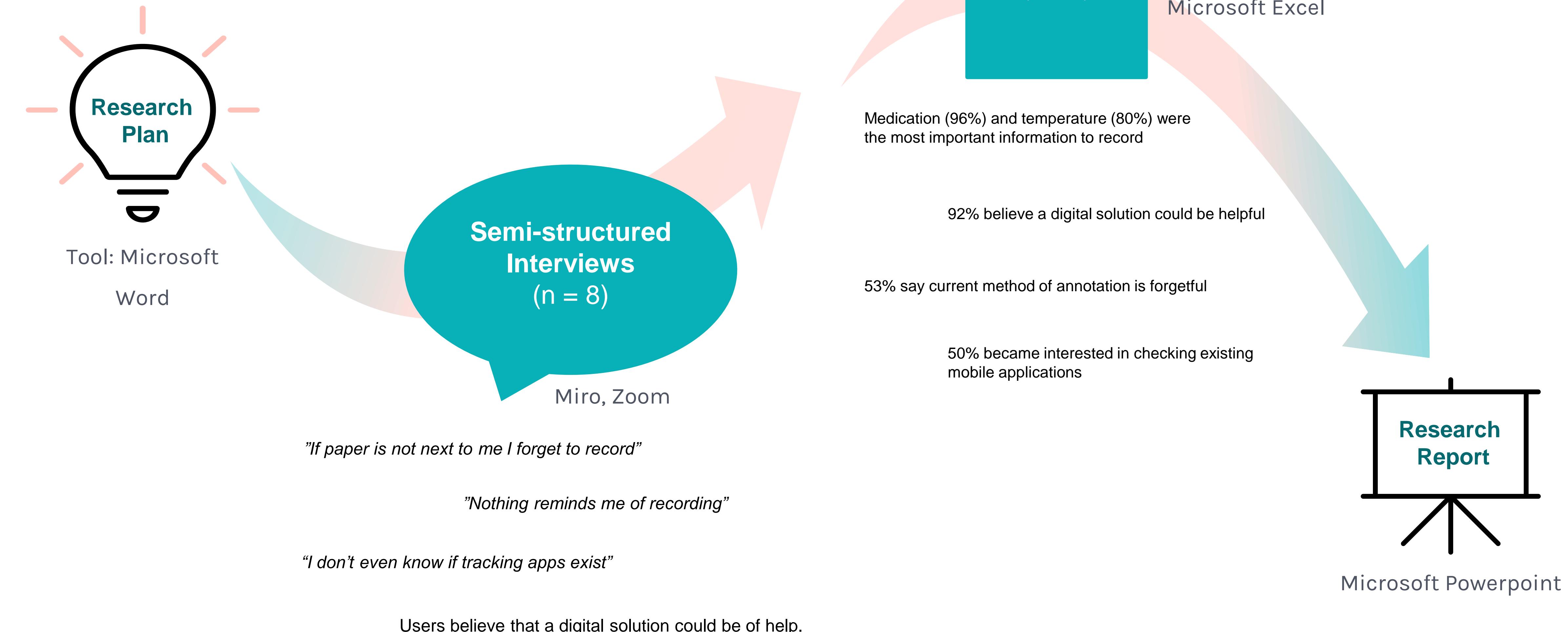


Discovery: Research Questions



Discovery: Research & Analysis

To answer those questions I have designed an initial research contemplating qualitative and quantitative studies.



Discovery: Research & Analysis

UX Research Plan in Temperature and Medication Tracking Mobile Application

STUDY 1: Semi-structured Interview

Parents who care/cared for children with fever and what they need to help them monitor it

Project background

High temperature is very common in young children. As a parent it can be extremely worrying if your child has a high temperature. Luckily, it usually clears by itself without treatment. During the period of illness parents have to assume the role of a healthcare provider for their children which can be overwhelming (gather clinical history, control and record vital signs - mainly temperature, occasionally heart rate, respiratory rate, administer and control medications). Failure to keep track of this information can cause a delay in noticing deterioration of the child's condition, medication misuse or delays in its administration. I am interested in creating a digital solution to help parents keep easy and clear records of body temperature and medication during their children's fever episodes that could be shareable between carers.

Research goals

I would like to understand:

- Which methods parents are using, if any, to keep track of temperature and medication given to their children?
- If parents feel satisfied with the currently method they use (and if not, why is that), and what else could be of help.
- I also want to determine if there is a need for an app that would help them record relevant information regarding their sick children and shape the app towards their needs, based on the findings.

Overarching research questions

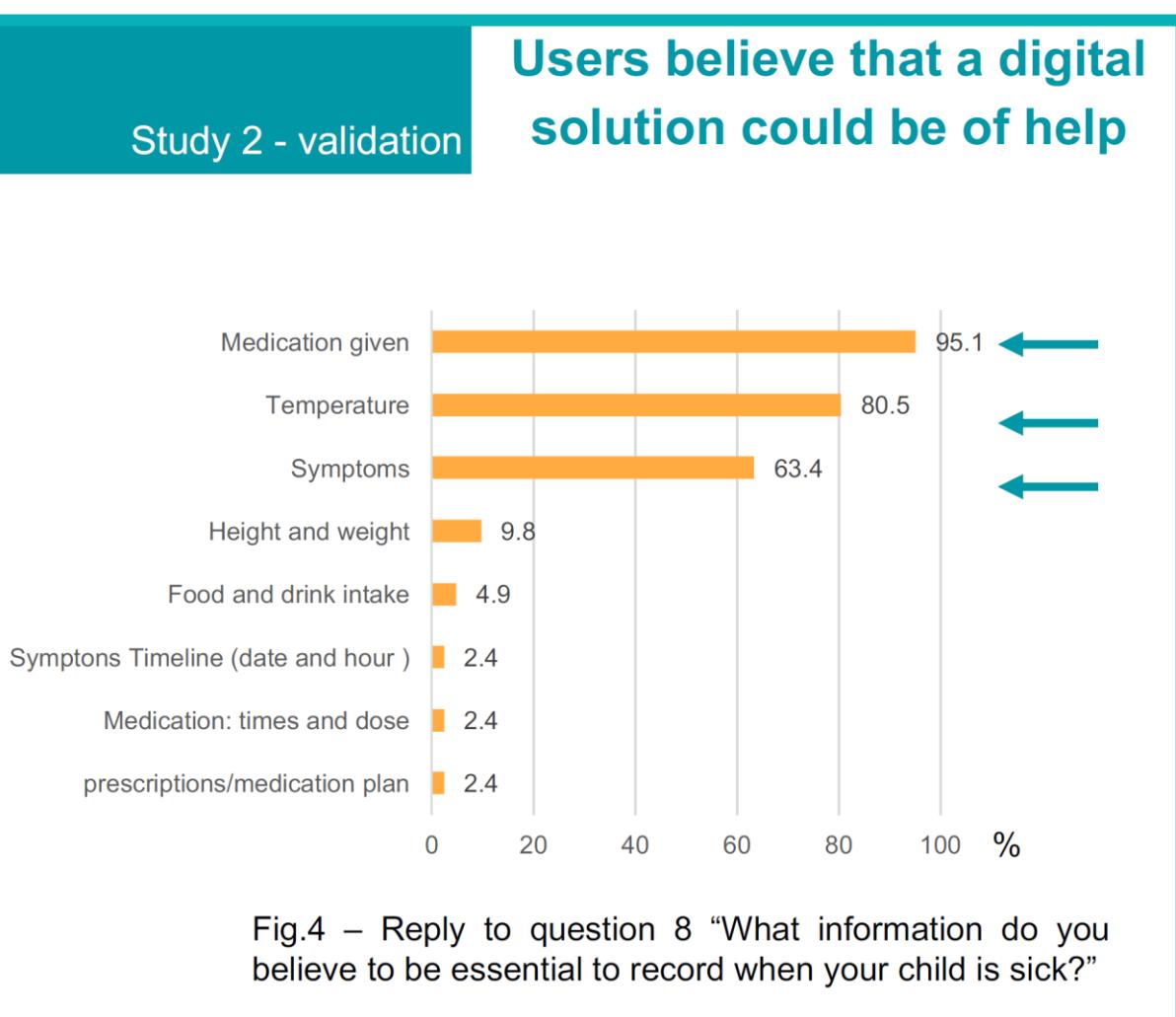
[Needs]

- What parents feel essential to keep track of during their children illnesses.
- What are the difficulties of doing so.

[Behaviour]



Relevant info to record	n	Temperature	N
Medication given	47	5 (Most relevant)	22
Temperature	39	3	13
Symptoms	32	4	12
Height and weight	4	2	2
Food and drink intake	3		1
Times the medication was give and when the next dose is due	1		
Medication	N		
5 (Most relevant)	27		
3	12		
4	10		
Record app preferred method?	N		
No	43		
Yes	3		
(blank)	3		
Grand Total	49		
Alerts medication	N		
5 (Most relevant)	17		
3	15		
4	14		
Why not?	N		
Didn't know it existed	3		
Happy with current method	5		
Never needed to search for it	7		
Never remembered to search for it	22		
Now that you mention I might search for it	24		
Tried but ... (please give reason in the 'Other')	5		
Lost info in the app	1		
never satisfactory (because of the display, etc)	1	5 (Most relevant)	9
Too anxious to remember logging things on a	1	1 (Not relevant)	7
Tried but too complex	1		
Don't like to install apps when you can do it w	1		
Alerts temperature	N		
3	14		
4	10		
2	9		
Symptoms	N		
5 (Most relevant)	7		
3	19		
4	14		
2	8		



Design: Concepts & Sketching

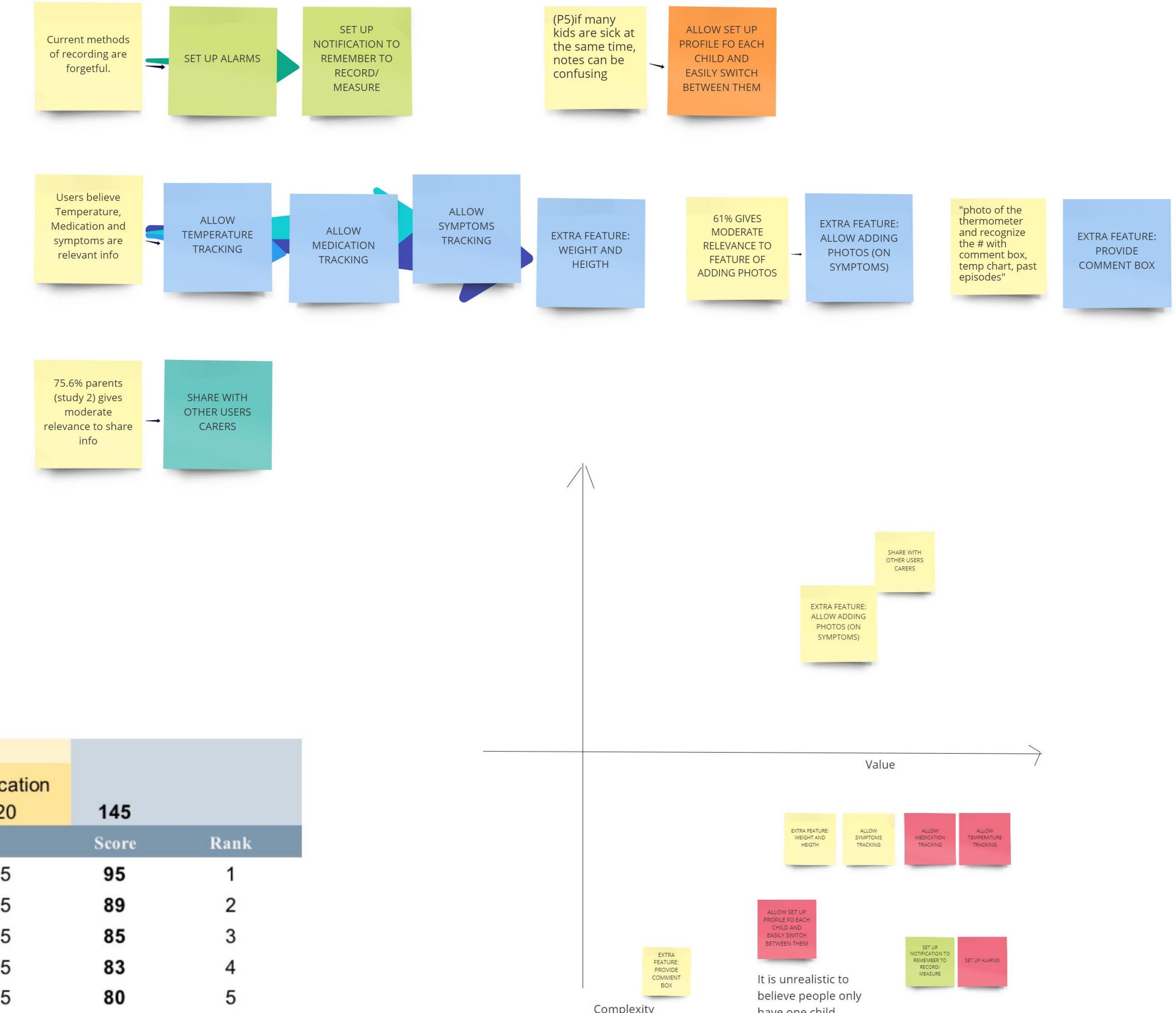
After analysing the data I went through a process of ideation to identify possible features of the app.

The **score matrix** and the **value vs. complexity quadrants** were used to prioritize the features of the minimum viable product.

Four features stand-out:

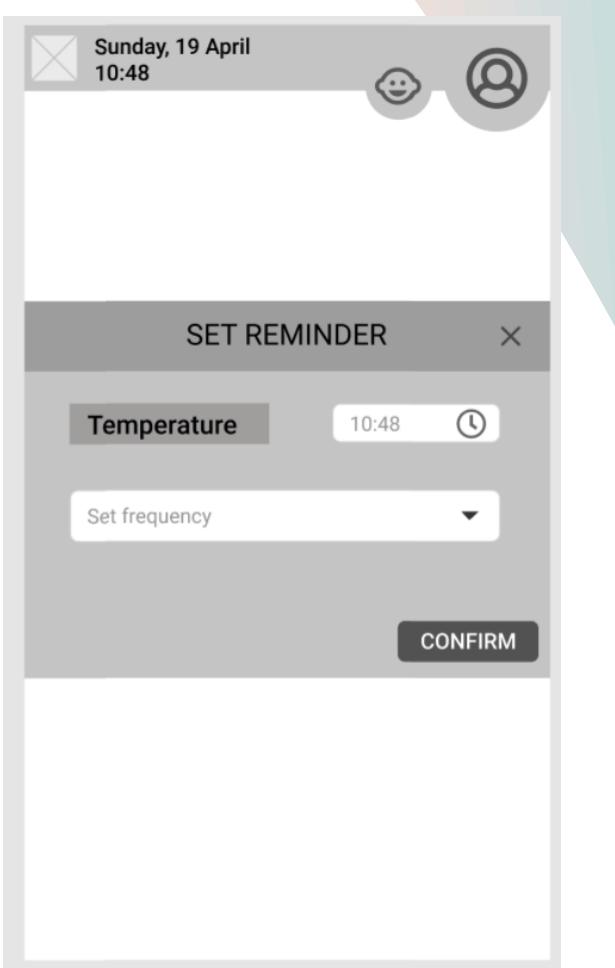
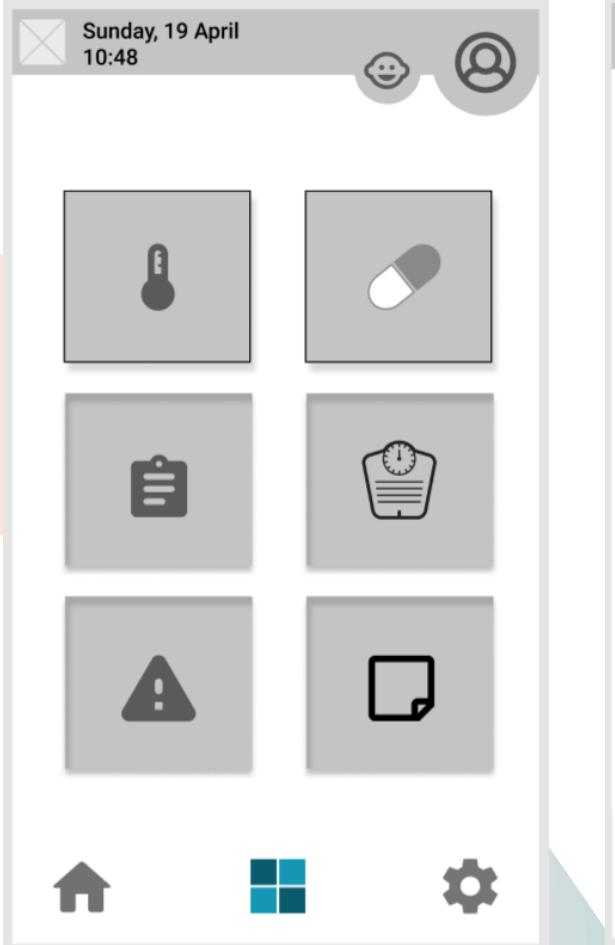
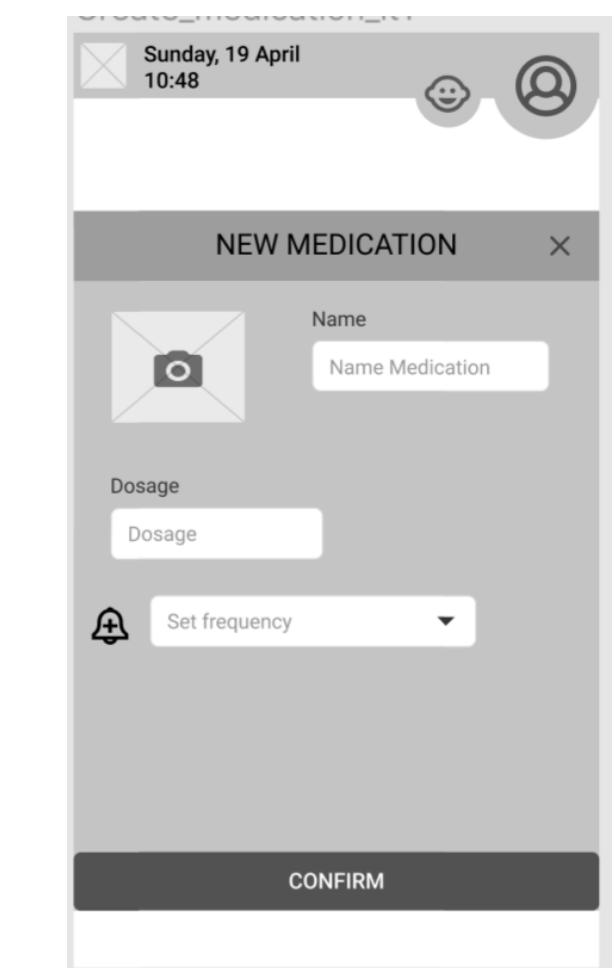
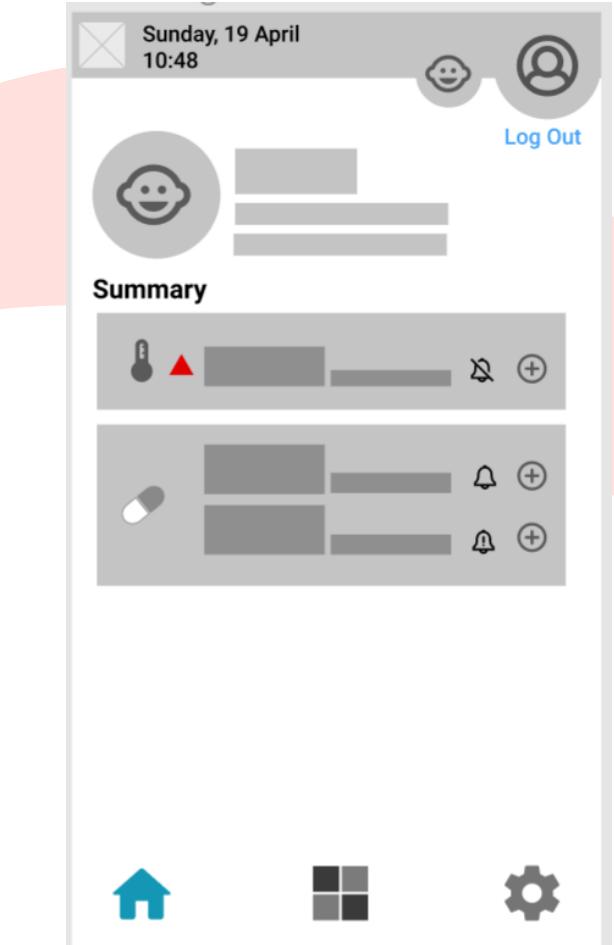
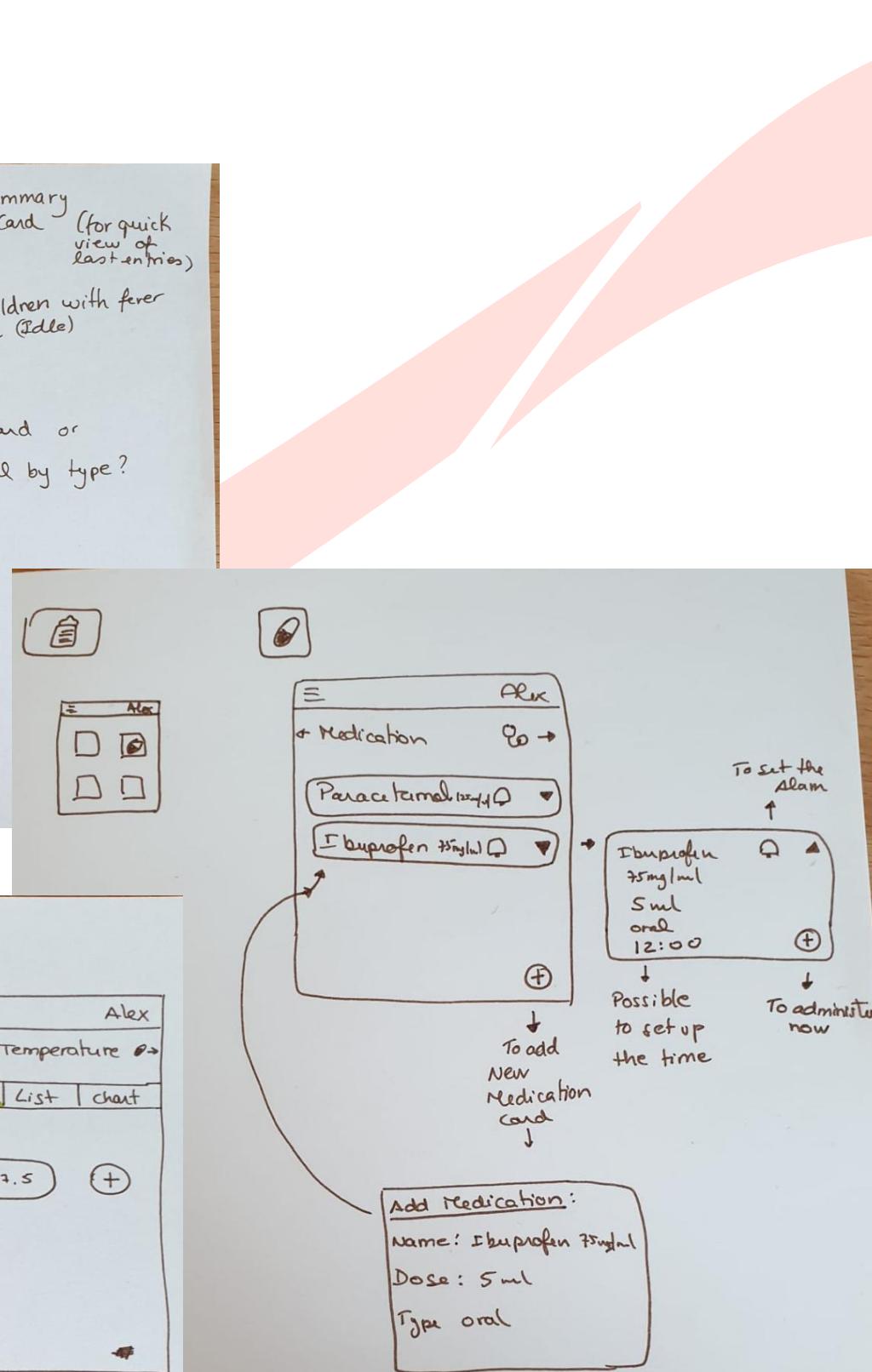
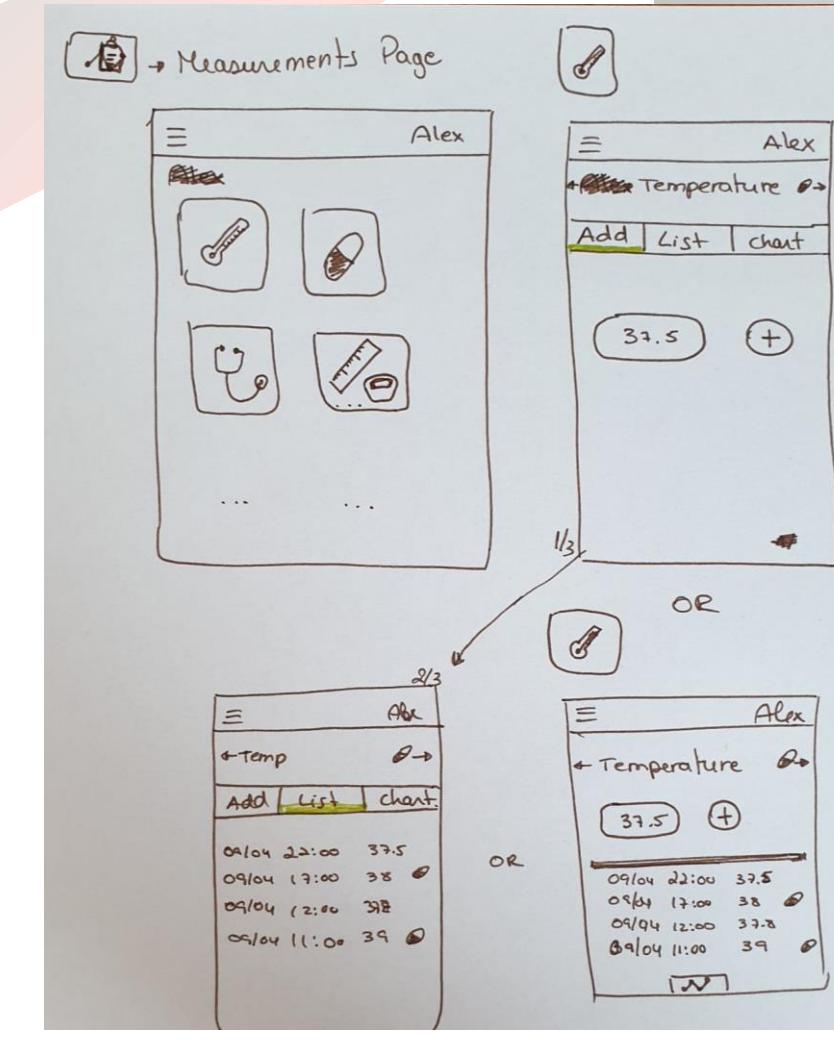
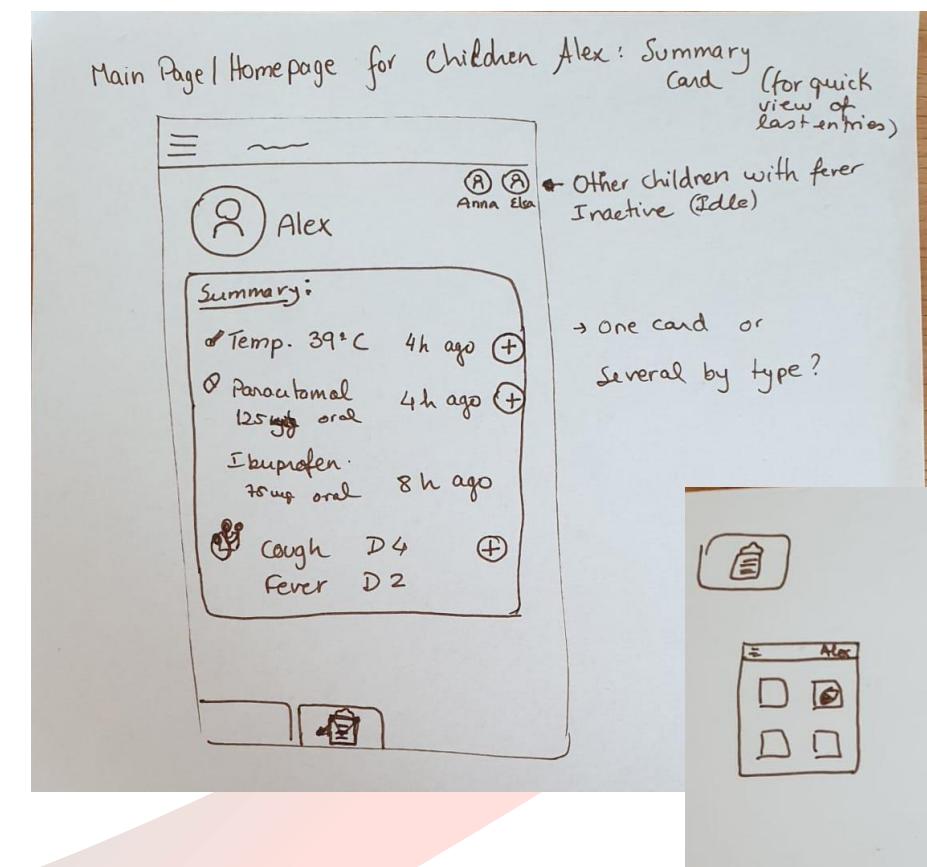
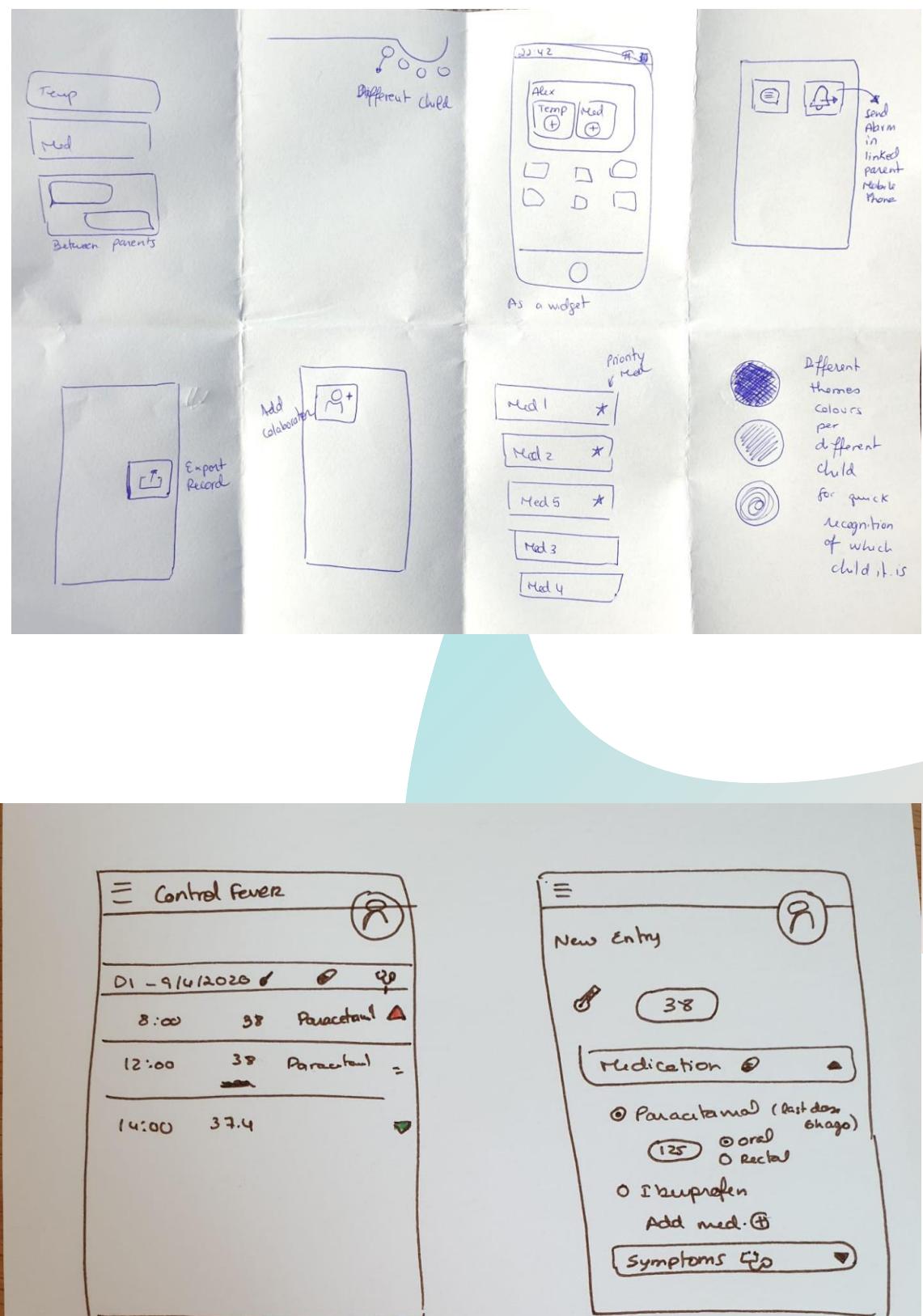
- set up reminders,
- track medication,
- track temperature,
- monitor multiple children.

Feature Title	WEIGHT	Value			Cost			Score	Rank
		Satisfaction	Revenue	Marketability	Engineering	Operational	Education		
Set up alarm	5	25	20	10	50	20	20	145	1
Track Medication	5	0	5	1	0	5	5	95	2
Track Temperature	5	1	5	2	0	5	5	89	3
Multiple Child Profiles	5	0	5	2	0	5	5	85	4
Track Symptoms	4	0	4	2	0	5	5	83	5
Comment box	3	0	0	1	0	5	5	80	6



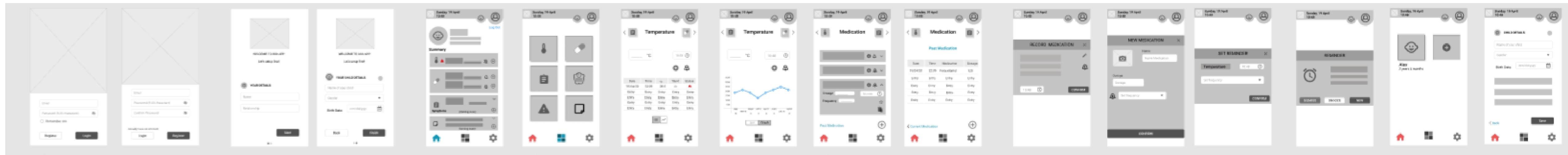
Design: Concepts & Sketching

With the key features in mind I have started sketching using the crazy-8 technique moving on to paper prototyping and later to digital prototyping in Figma.



Iteration 1

Develop: Prototyping

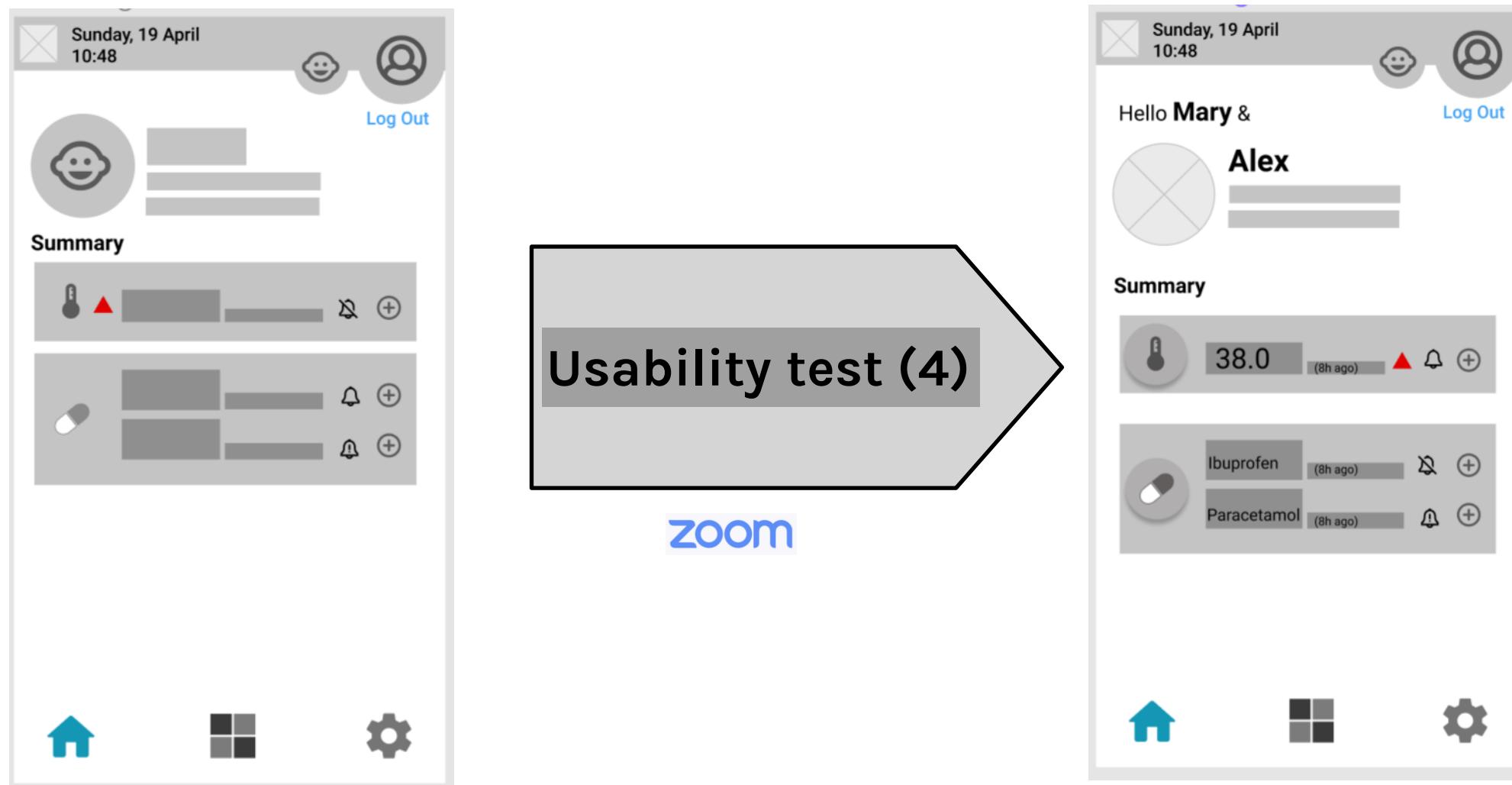


Soon enough I was able to put together the first iteration of **temp&med tracker** prototype that was then submitted to usability tests followed by several iterations.

Check the earlier stages of **temp&med tracker** prototype [HERE](#)

Test: Validation, Usability, Feedback

Since the beginning of the process potential users have been having an active role in steering and validating the direction of the design .



Low-fidelity prototype usability tests were done to close friends via Zoom. I was certain that they would be completely honest in their feedback.

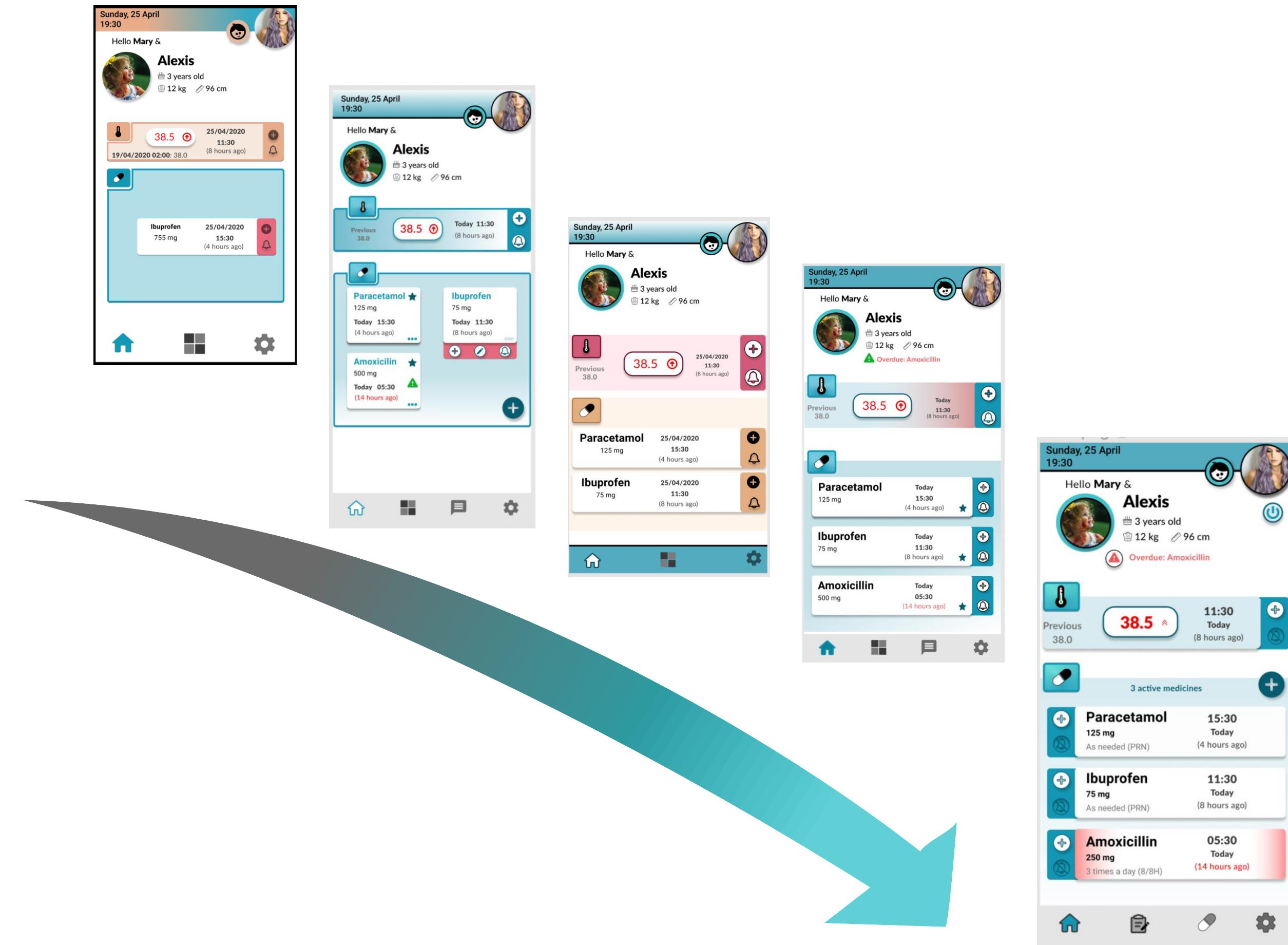
I prepared the prototype to be tested for 7 user flows. Testers were positively impressed and provided great review, e.g. improve lo-fi prototype by adding text, and improve discrimination of the buttons.

Overall, all users were able to perform all proposed tasks directly from main, not resorting to secondary flows to reach their goals.

These results supported one of the main goal of design: to be intuitive, easy and fast to use.

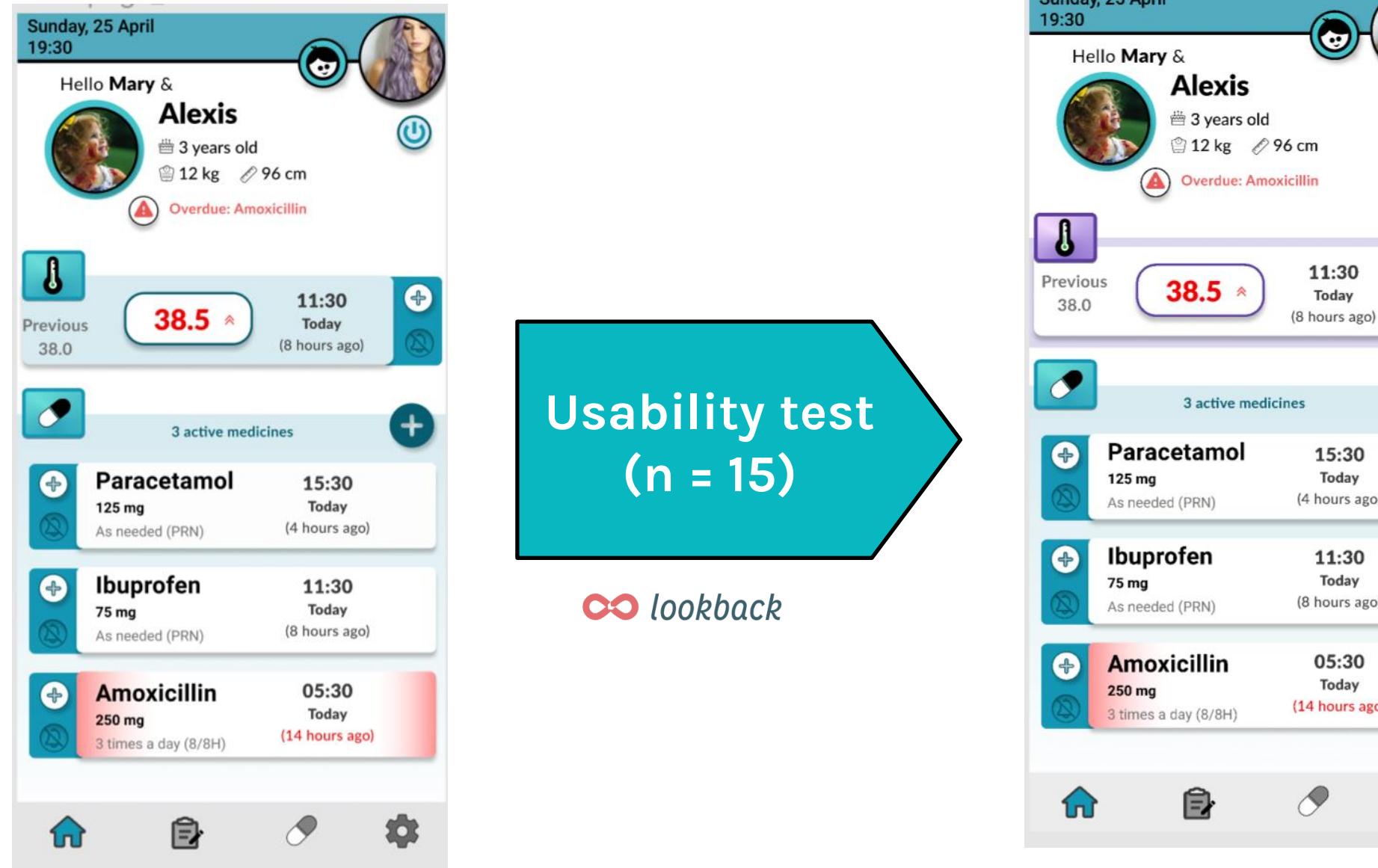
Design: Bringing Lo-Fi prototype to life

The transformation from lo-fi to hi-fi prototype required the creation of several styles that were being tested by friends to see which style they would be more acceptable. Deciding for a final style and creating its own style guide and pattern library took a whole dedicated week. The main challenge was to keep creative in check to develop feasible limit of different possibilities.



Test: Validation, Usability, Feedback

After deciding for a style based on users' preferences and practicality, it was time to put it to test again. I have used the Lookback platform and invited peer colleagues from Hub Udacity and friends to test the same 7 tasks.



“It is very intuitive” (several testers)

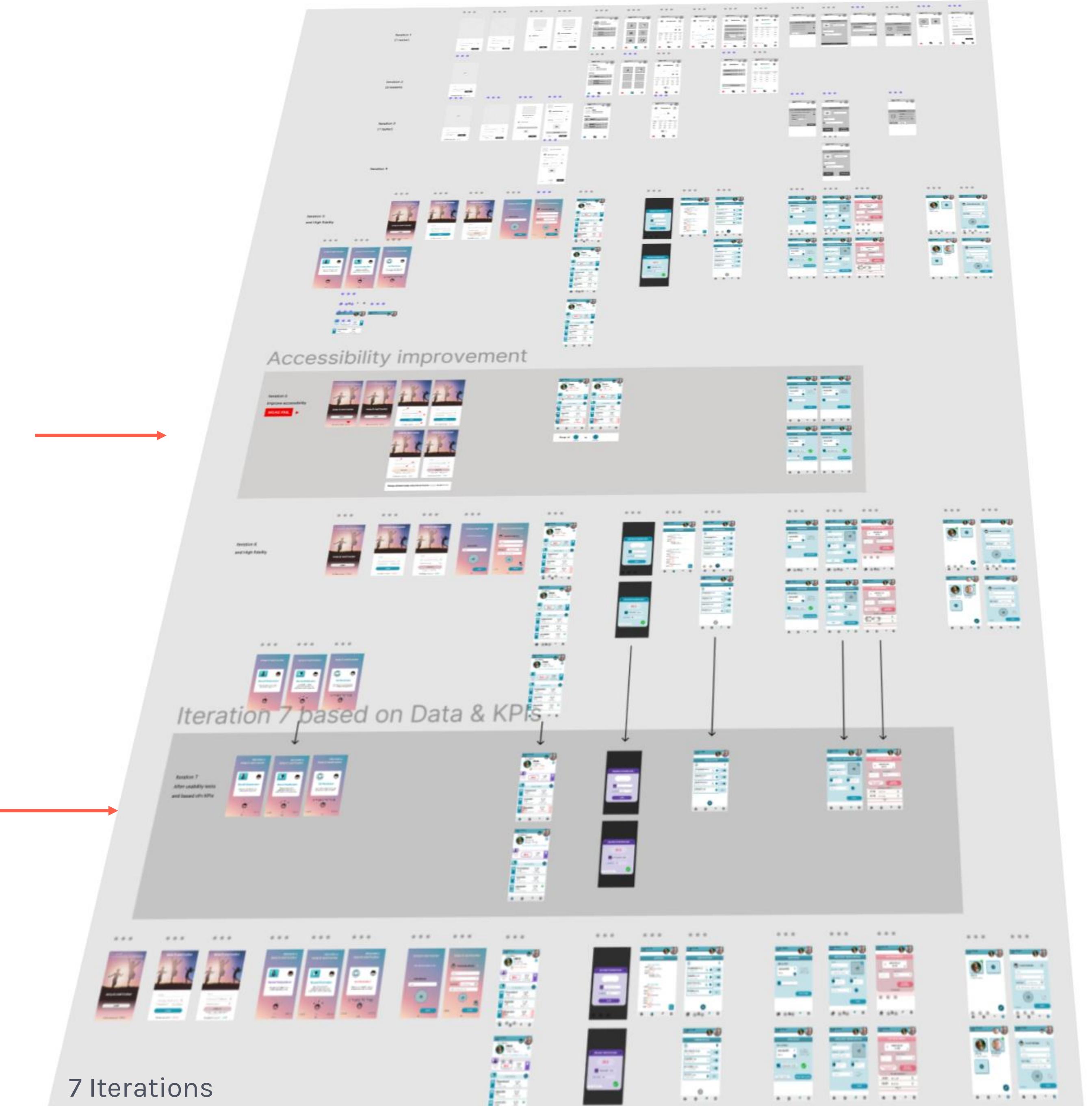
- Those who commented enjoyed the design.
- Those who followed the instructions could easily execute them mostly directly from the main page not needing to go through secondary flows.
- One user felt lost to the monochromatic theme (iteration 7).
- Others still reported some confusing over some buttons.

Design: Iteration

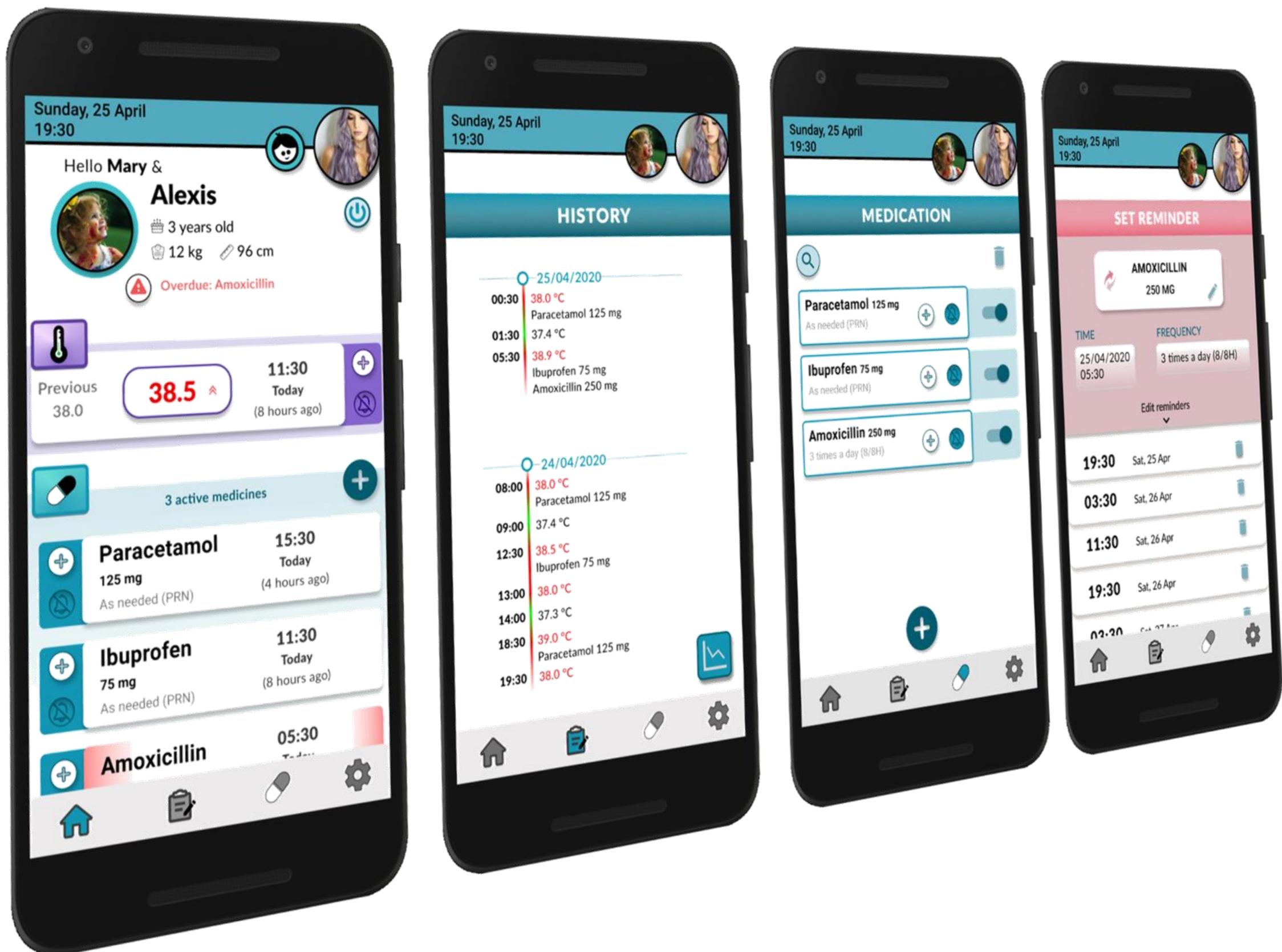
Designing is a dynamic process requiring constant iteration and user feedback.

Accessibility issues, mainly in the contrast of colors, were tested and corrected using WebAim.

I have also considered how to improve key performance indicators, namely, the decrease of time spent in the information screens, upon the hypothesis that this could cause future drop in the engagement and retention of users. I perceived this in the usability tests, e.g. I felt that the users were arriving to the main page frustrated and with lack of patience to test the rest of the design.



Solution & Impact Overview



The **temp&med tracker** design solution successfully addresses the 4 most requested features: record temperature, record medication, set up reminders and monitor multiple children.

temp&med tracker overcomes the forgetfulness of the current methods by resorting to individualized reminders. Moreover, it provides a timeline of the children's temperature measurements and medication, which helps to monitor their condition. This will also facilitate the doctor's review.

The design proved to be accessible, intuitive, easy and fast to use to match the advantages of the current methods used by the parents.

Being the only person in charge of the end-to-end process design of **temp&med tracker** during Udacity User Experience Nanodegree program was an incredible, challenging, yet smooth journey that made me gradually grow into UX design. I've acquired valuable skills and learned to use a wide variety of tools that are essential to perform well in this role.

About Me

Hi, I'm Catarina. I am a GP, data assistant specialist, and a soon-to-be UX designer.

My goal is to promote user's empowerment over their health through digital solutions. Healthcare is one of the areas that appeals me the most and where I can contribute with a broaden knowledge to the design.

My background career trained me to be a person-centred individual in everything I do which fits perfectly with the principle of UX design. Makes only sense to work closely with the user while I go through the whole design process, from discover, synthesis, prototyping, validation and iteration.

The data assistant experience in an AI company that is aiming to develop a complementary diagnostic tool for lung cancer has been honing my attention to details skills, teamwork, and managing data.

I am also a mother of 2 little girls which brings up a caring and nurturing personality that I transpose to every work I do.

