dr.Dom

- A digital tool to improve home Wi-Fi

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Abstract

Wi-Fi issues can be annoying and hard to solve for ordinary people. When they experience Wi-Fi issues,they need the help of their internet service provider(ISP) to solve these problems. Currently, this is mostly done by calling them or googling it.

Domos is a Norwegian ‘business-to-business’ company.They provide an advanced in-home Wi-Fi service tool. This tool can be used for monitoring Wi-Fi data, improve customers’ Wi-Fi connection speed, and so on. It identifies and resolves issues with AI technology in the cloud.

One of their most useful products is Domos self service app. In this app, customers solve their Wi-Fi issues by themselves.That improves the customer experience.

However, language and steps are the biggest challenges for this app.In this project, I work with Domos to solve those problems and make the Wi-Fi issues understandable and easy to solve for ordinary people.

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Executive summary

What

dr.Dom is a digital tool provided by Domos to help people fix their Wi-Fi issues at home.
dr.Dom makes Wi-Fi issues understandable for ordinary people, provides AI service and gives suggestions about Wi-Fi issues. Besides, dr Dom also teaches people Wi-Fi knowledge and helps the users communicate with their internet service providers easier.

How

Because Domos app already exists, the research part mainly consisted of interviews, user tests for existing app and an app analysis.
Based on the findings of the research, a concept for redesigning the app was developed, and the process adopted interaction design methods through the whole user experience.

Why

My personal design theory basically is about using design skills to make complicated technical stuff understandable for ordinary people.. For me, designing is to solve problem, helping people and improving experience.

1. Design skill
This project belongs to the field of interaction design (screen design).
Even though I have more experience with product design, I have a bigger interest in interaction design and I have good skills in graphic design. This diploma project will be a transition for me from a product design student to an interaction designer.

2 Partner
In the screen design studio, I chose to work with Domos for the last project, which was about the WiFi coverage part in their app. We had a great cooperation.
Besides, I also did internship in Domos as an interaction designer for half a semester, and that made me more familiar with the company. We would like to cooperate further with each other.

3 Benefit
For Domos, they can provide their users better service and improve user experience. They also also connect brand value (smart, fun, helpful) with the app.
For users of Domos app it will be easier to understand Wi-Fi issues and how to solve some wifi issues with the app at home. They can also learn Wi-Fi knowledge from the app and understand Wi-Fi information.
For Internet providers (customers of Domos), the calling time will be decreased, because users can solve some Wi-Fi issues by themselves.
For me, in this project, I can also expand my knowledge of Wi-Fi by working with experts. Besides, I cooperate with company, will help me understand marketing better and it improves my job perspective.

Conclusion

This resulted in "dr. Dom", a digital tool for users to understand what happened to their Wi-Fi if they experience Wi-Fi issues and fix those Wi-Fi issues by the solutions in this app. They can also use this app to learn Wi-Fi knowledge, see the historical trend of Wi-Fi and be more professional in it.
Because this is a redesign project, some original functions, like basic and device organization, still need to be done.

Introduction

In this chapter, I present the background and basic information of my partner Domos and on what I worked.

Content

Background
Understanding Domos
.The Company
.Customer Journey
.The Identity
.The App

Introduction

Background

Wi-Fi issues can be annoying and hard to solve for ordinary people. When people experience wifi issues, they need help of their internet service provider (ISP) to solve these problems. Currently, this is mostly done by calling them or googling it.

There can be various problems with one's Wi-Fi connection, such as Wi-Fi congestion, Wi-Fi coverage, WiFi air time in-efficiency, radio noise interference, device issues and so on.

However, Wi-Fi issues are difficult to solve for ordinary people. The most common reason is that they lack the professional knowledge to fix it. For example, they do not understand some terms (like radio noise, latency, bandwidth and so on), they do not know what specific movement they should do when they have problem.

For this project, I mainly worked on the Domos app. I explored how the interaction design could be used to make ordinary people understand Wi-Fi issues and solve them by themselves easily. The biggest challenge for me is to how to make complicated terminology easier to understand and really help people to solve Wi-Fi issues with the Domos solution.

Domos is my partner in this project and they provided technological knowledge and suggestions for the design.

Introduction

The Company

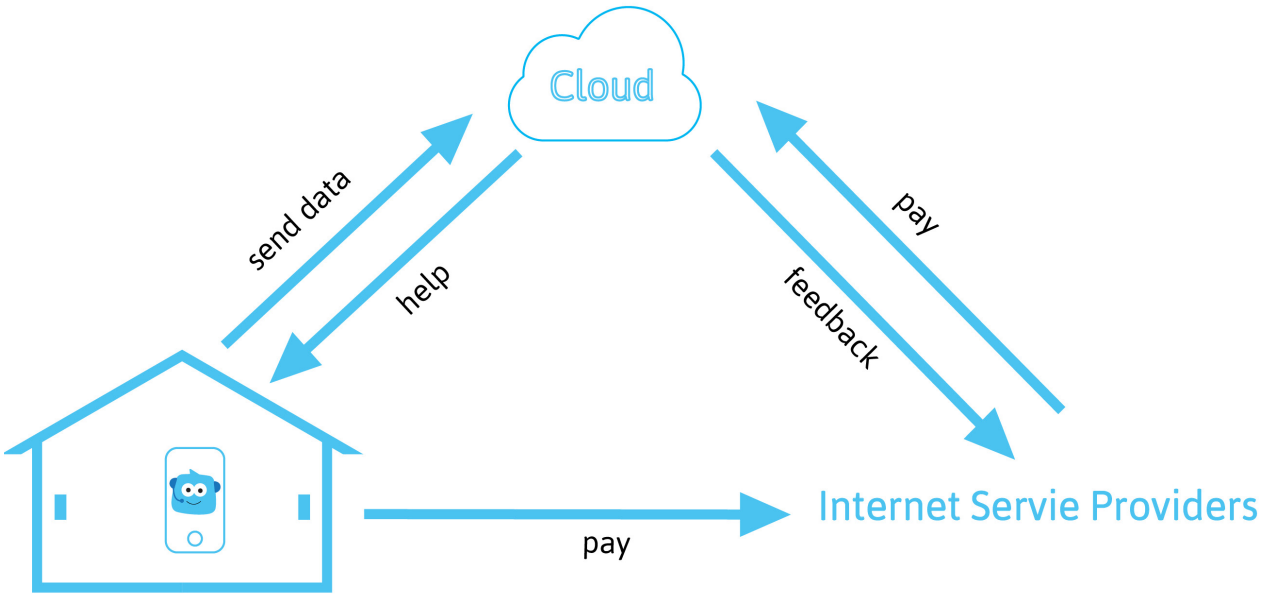
Domos is a Norwegian 'business-to-business' company. They provide an advanced in-home Wi-Fi service tool to monitor Wi-Fi data, optimize customers' Wi-Fi connection speed, and so on. With AI technology in the cloud, it identifies issues and resolves them.

Besides that, Domos also delivers significant visibility and cost saving for internet service providers (ISP). In addition, they enhance customer experience.

Products:
Diagnostics
Domos Diagnostics delivers a complete overview of live and historical data from the cloud and router. It also suggests fixes for any highlighted problems, so the customer service representatives can resolve their customers' Wi-Fi issues faster and more efficiently. This improves customer experience.

Artificial intelligence
AI is used to proactively optimize customer's home Wi-Fi network. When a Wi-Fi issue is identified, the solution automatically applies fixes to the router. It thus increases the average home Wi-Fi speed and it reduces cost-effectively the number and length of support calls.

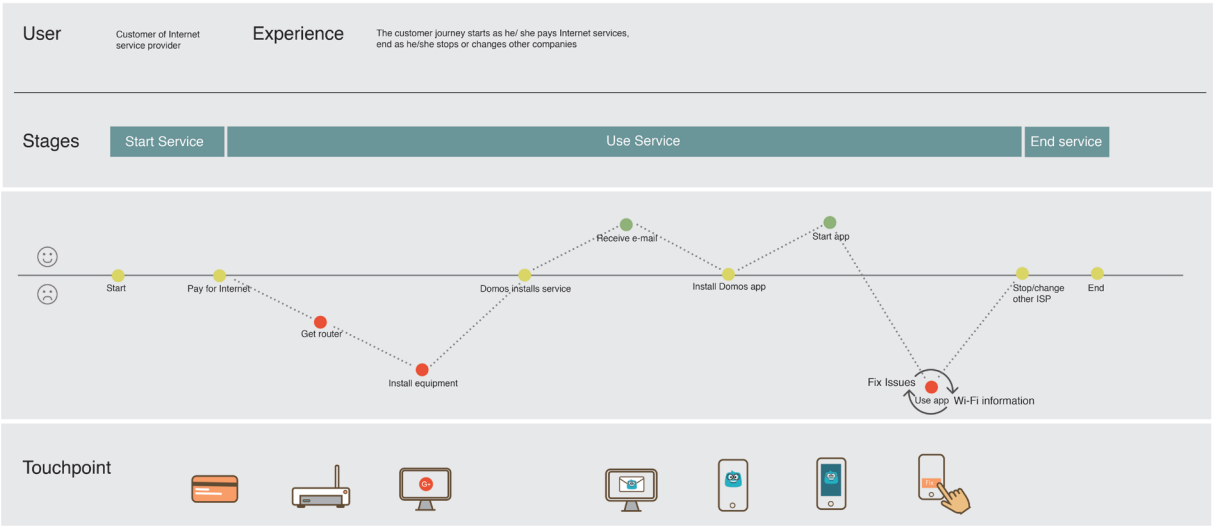
Customer Self Service App
Domos self service app is an optional element of the Domos Solution to provide customers with self-service options to optimize their Wi-Fi experience.



Introduction

Customer Journey

The customer journey can be divded into three steps: start service, use service and end service. In addition, the ‘use service’ part requires using internet and Domos app.
Because this project is an interaction design project, I mainly worked on the app part.



The Identity

The Logo

DOMOS

The character- Dom

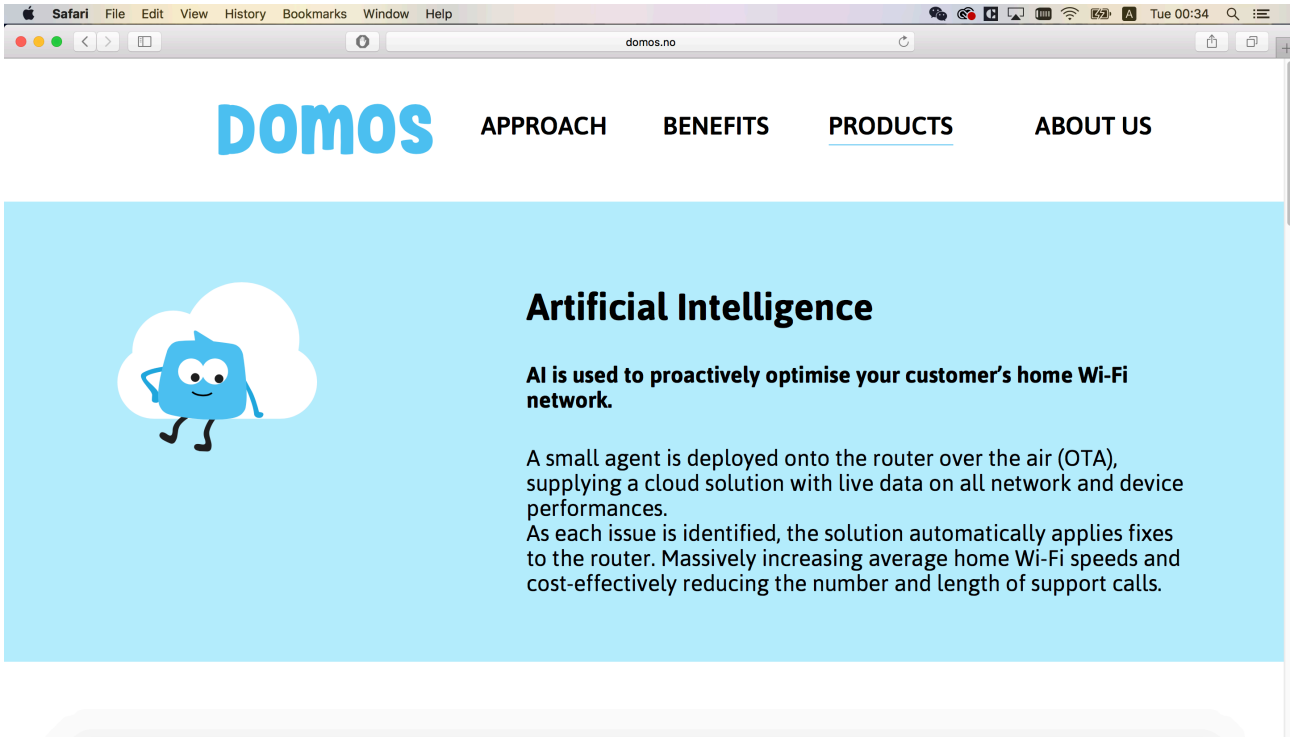
There needs to be a way for users to communicate with the AI in the cloud to help them find and fix Wi-Fi issues. So, Domos created a character named "Dom" to make the service more friendly. Besides, the design of "Dom" character is simple and connects to brand value (Smart, fun and helpful).

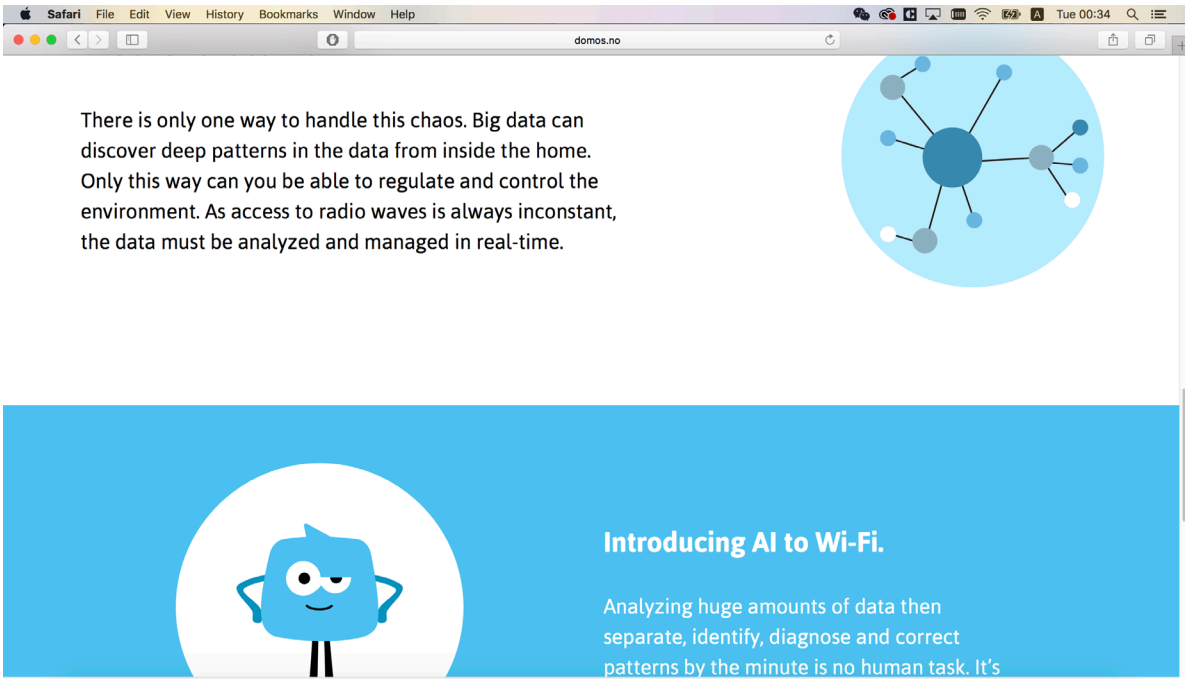
Brand Value

According to the brand manager Odin Berntsen, the brand value of Domos is:
Smart: The AI solution for fixing Wi-Fi issues is smart.
Fun: They do not want to be boring, that is why they created "Dom" character.
Helpful: They really want to help users to solve Wi-Fi issues.

Website

http://www.domos.no





The Indentity

Current color board

This is the current color board Domos mainly used for the app and website.

Primary Dark Blue *#0092BE*

Primary Blue *#4AC3F1*

Primary Light Blue *#86F6FF*

Primary Dark Text *#000000*

Primary Light Text *#FFFFFF*

Secondary Dark Blue *#87BACC*

Secondary Blue *#B9ECFF*

Secondary Light Grey *#EEEEEE*

Secondary Dark Text *#626970*

Secondary Light Text *#9B9B9B*

The App

Domos app is designed for the following purposes:
1. A communication channel between the Domos Cloud and customer
2. A home management tool

The app is available once the Domos Agent is installed on the router. The customer can then connect to the router's Wi-Fi network and run the app onboard. This connects the app to the router through the cloud giving access to the router even when outside of the home.

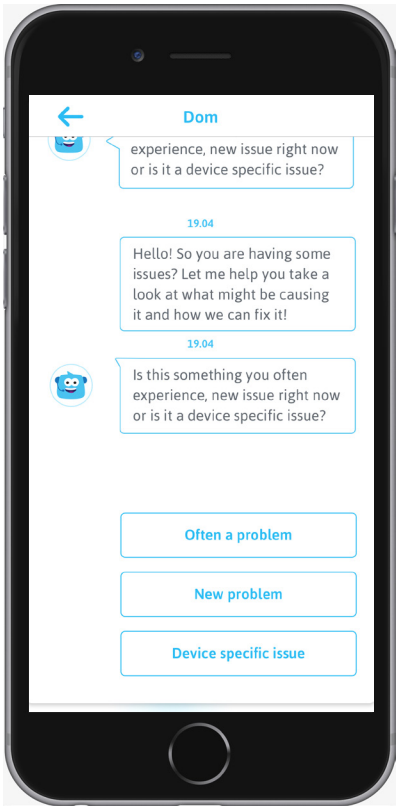
Data from the router is always sent to the app through the Domos Cloud and therefore requires the router to be connected to the Domos Cloud for the app to work. Access to the app is also restricted and controlled by the first person installing the app in the home.

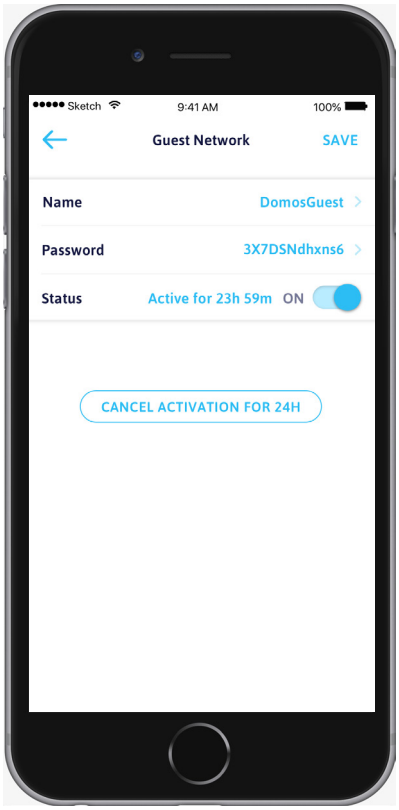
For all secondary apps installed, a verification code is sent to the phone number registered during the first app installation to make sure access is controlled by the customer.

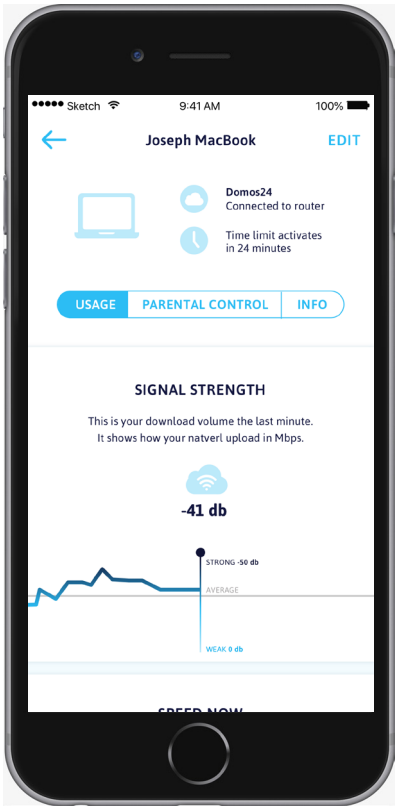
Via the app, the customer can manage his or her home network, can manage their home network, change simple Wi-Fi settings and control their connected devices with features like parental control. Described below are some of the most important features of the app and how they are linked to the AI solution in the Domos Cloud.

If the customer experiences issues or something abnormal on their network, they can trigger the self-service troubleshoot mechanism. This can be access from several places in the app. It works the same way as the dialogues initiated by the Domos Cloud, namely with scripted conversations to diagnose the problems so that remedies can be initiated by the user to solve them.

This app is the bridge between Domos and users and this is also the project I work on for this diploma.







Research

After I decided what I am going to do, I started the research. In this chapter, I present the research framework, how I explore the app and involve users, and my main findings.

Content

Interview
App Analysis
User Test

Research

Interview

What

Firstly, I had several interviews with people of different age groups.

How

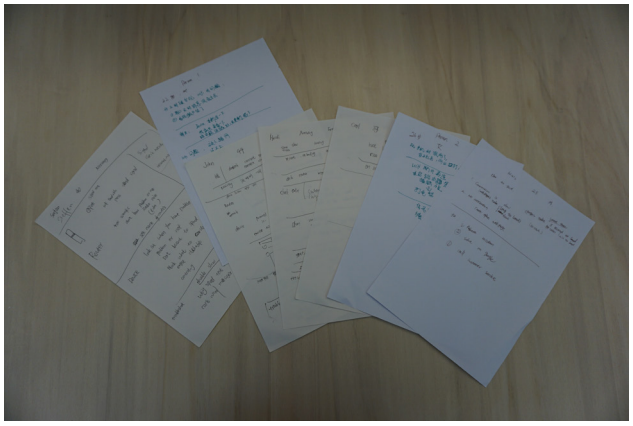
I asked what kind of Wi-Fi problems they experience and what did they do when they have it.

Why

Because a lot of users are not experts, and they do not have professional knowledge of Wi-Fi. However, Wi-Fi problems are complicated and occur in many forms, such as Wi-Fi congestion, WiFi coverage, radio noise interference, device issues and so on. So it is important to know their behavior and what specific problems they had. For further ideation development, I paid attention to that.

Conclusion

After interviews, I found most Wi-Fi issues involve either speed or connection.
When users have Wi-Fi issues, they mainly have four simple steps to solve wifi problems: waiting or reconnect wifi on device. If it does not help they normally restart router. Then Then they google or ask other people for help. In the end, they call customer service.
However, even after performing the first three steps, some problems cannot be fixed. Besides, calling customer service costs time and money from both sides.



Research

App Analysis

What

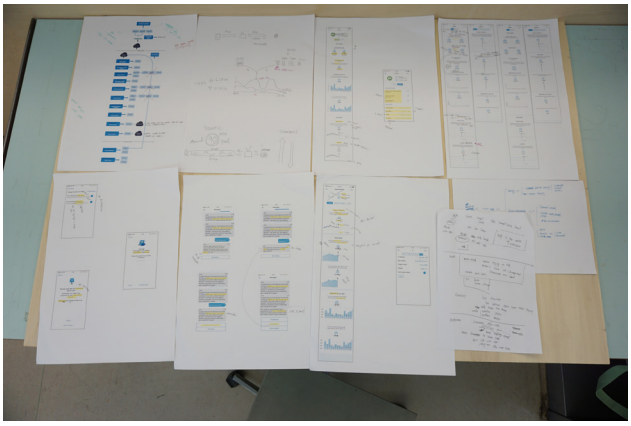
After the interview, I did an app analysis of the existing Domos app.

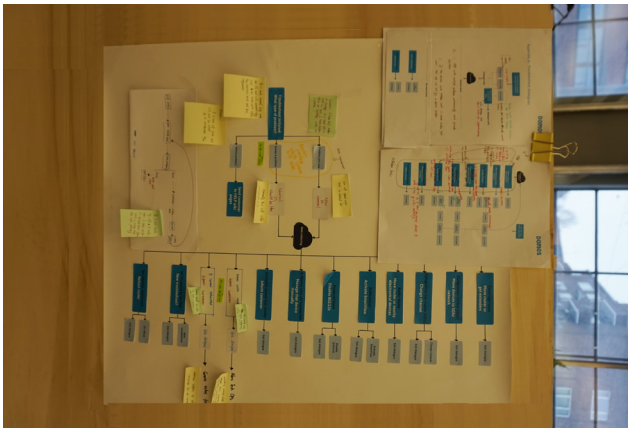
How

I printed each screen of the app and figured out the structure, content, process of the app.
I also marked the terms in the app I did not understand and asked experts what those terms mean.

Why

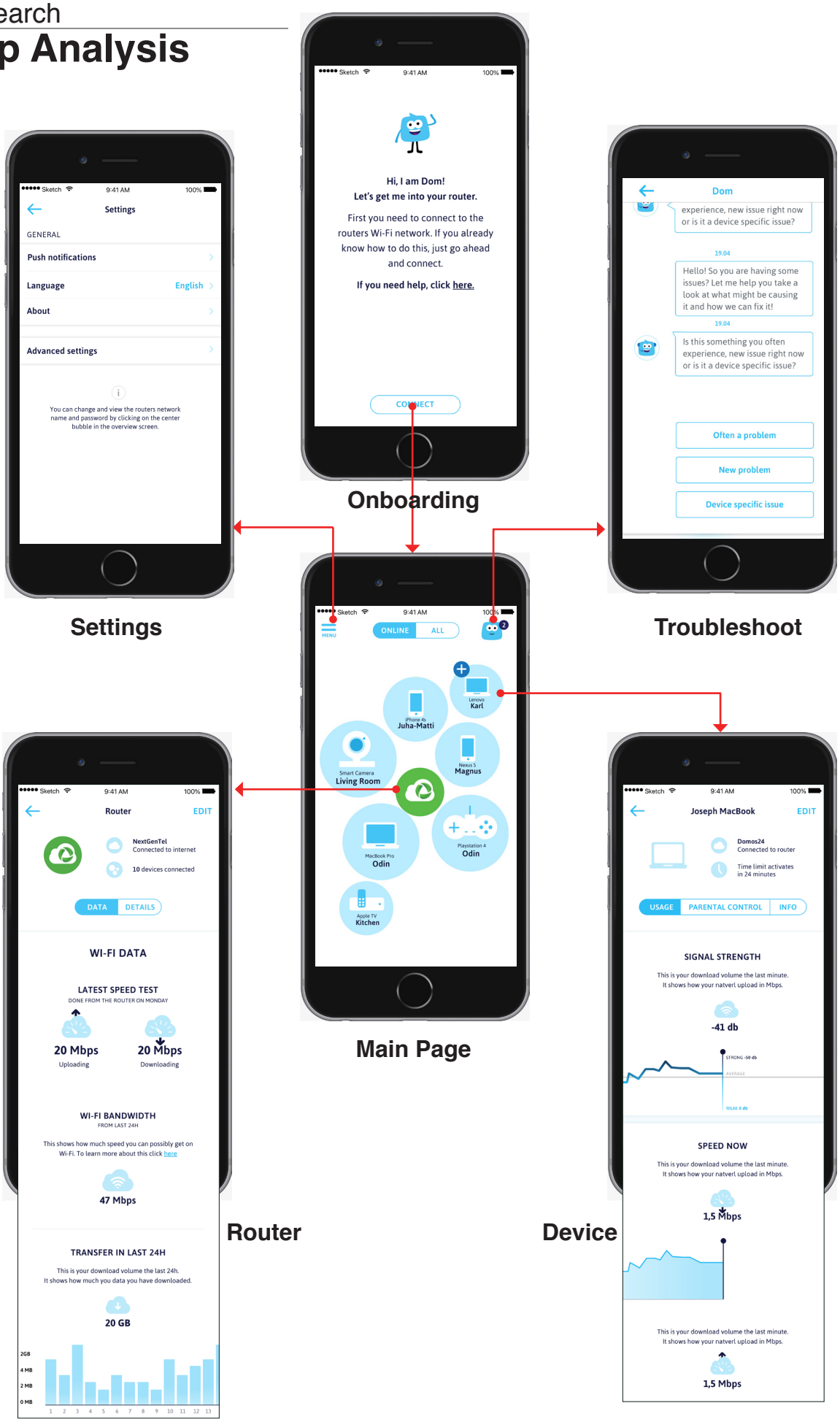
To solve the main design problem of this project, it is important for me to know the structure of the app, how it works and figure out technical tterms. Then I can put myself in the users' perspective to consider their needs.





Research

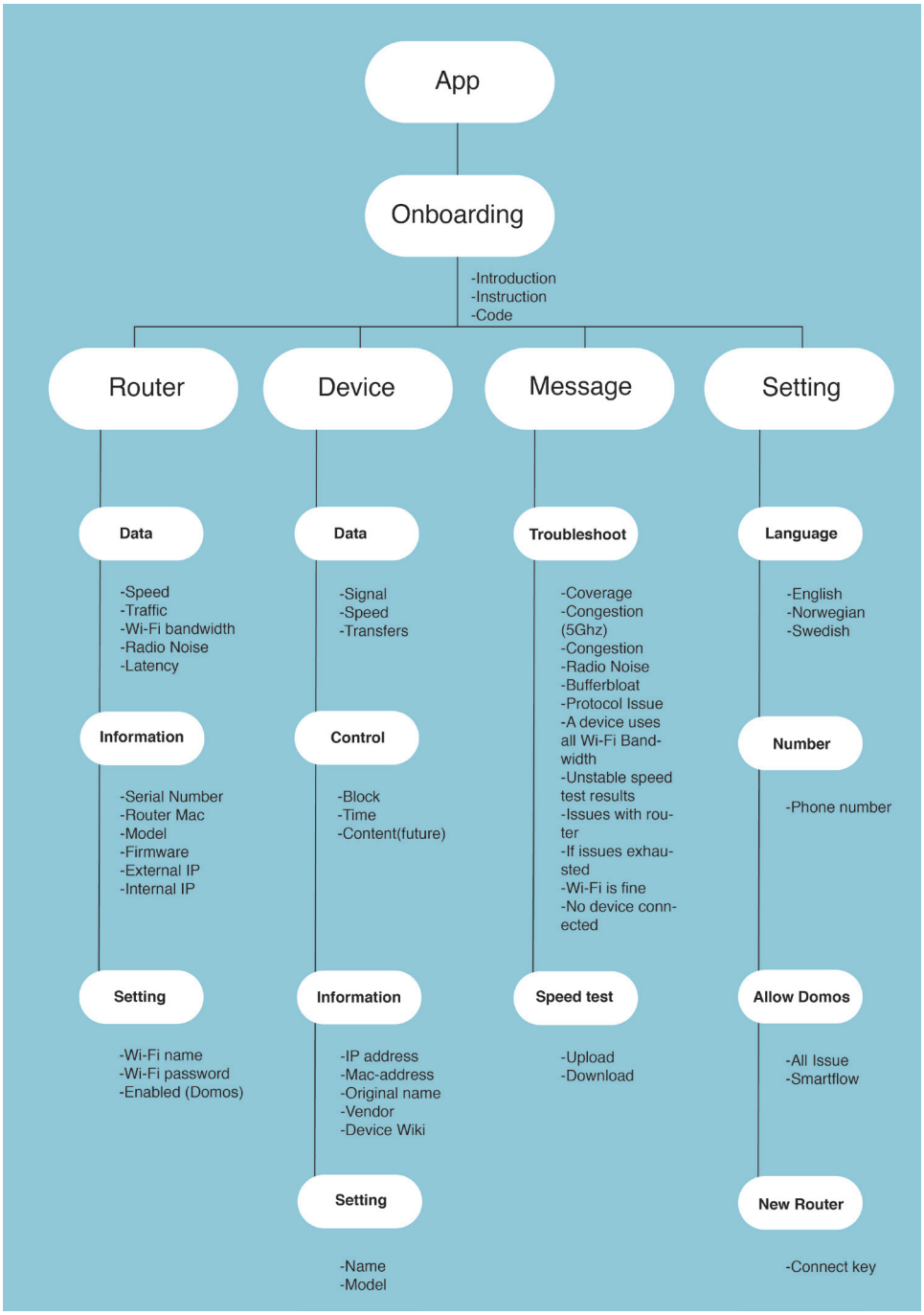
App Analysis



App Analysis

Content of Each Part

The main structure of the app contains six parts: onboarding, main page, settings, device page, router page and troubleshoot.
The main page presents connected devices.
The settings page is about basic settings like Wi-Fi name, passwords, and so on.
The device page is mainly about Wi-Fi information such as speed, signal of devices and control the time of specific devices online.
The router page mainly presents information about the factors influencing Wi-Fi quality at home.
The troubleshoot page is about helping users solve Wi-Fi issues.



Conclusion

After analysing the current app, the most occurring problem I found, is that the words, especially in the troubleshoot part, are too scientific and too hard to understand . However, troubleshoot part is the core function of this app. If people do not understand the Wi-Fi issues, how can they fix them by themselves?
Besides, the whole aesthetics of the app does not fit the brand value: smart, fun and helpful.
In addition, it is important to ask the user's opinion about this app, so, I also did a user test.

Research

User Test

What

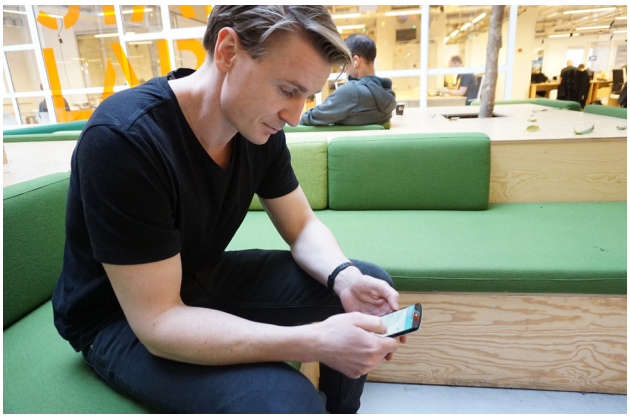
I did a user test for existing Domos app.

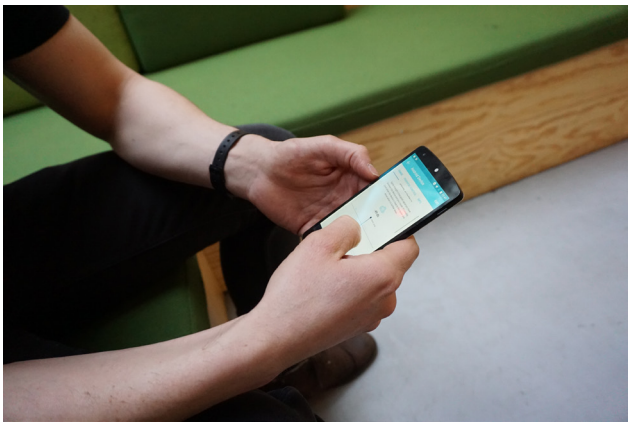
How

I downloaded Domos app and asked around fifteen people around 30-50 (9 are males and 6 are females) to test the app. I also gave them some tasks such using the troubleshoot mechanism to solve Wi-Fi issues or to find Wi-Fi information data to observe what they did, and asked what they thought of this app and whether they understand the Wi-Fi information inside.

Why

This project is about an app used in practice solving actual issues of users. So, to find the problems in the app, it is important to get the feedback with users' behaviors and comments.

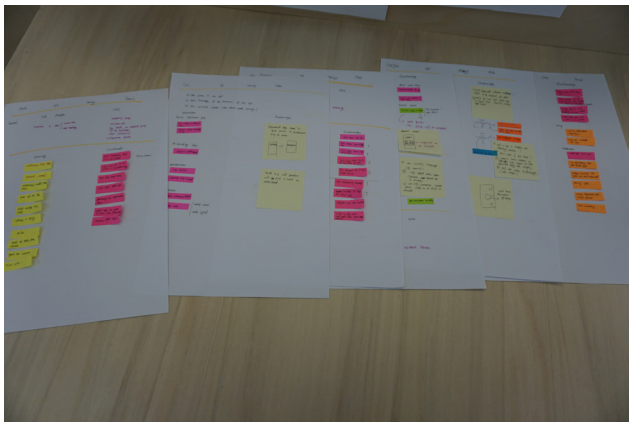


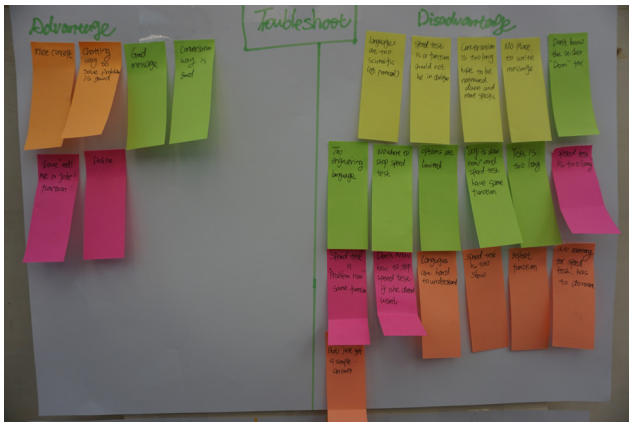


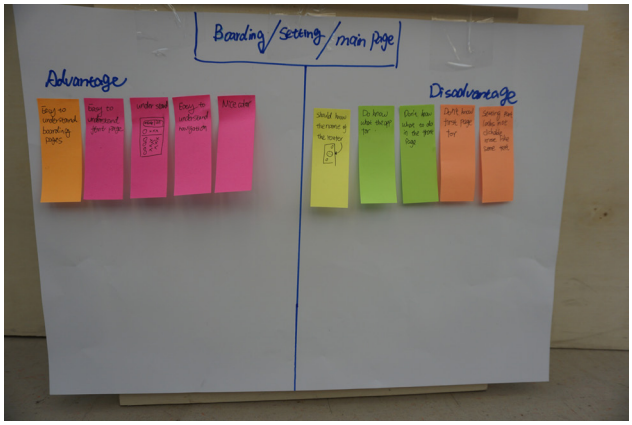
User Test

Conclusion

The biggest problems according the the users' feedback in the the test are:
1. The terms are too scientific.
2. Some functions are the same and repeated.
3. Too many steps to get the solution.
4. The information pages do not make sense to them.
5.There is no place for contacting customer support if the app cannot help them fix the issues.
6. Some of the users want to learn some knowledge of Wi-Fi, but they find it is hard to start from those information from the app.







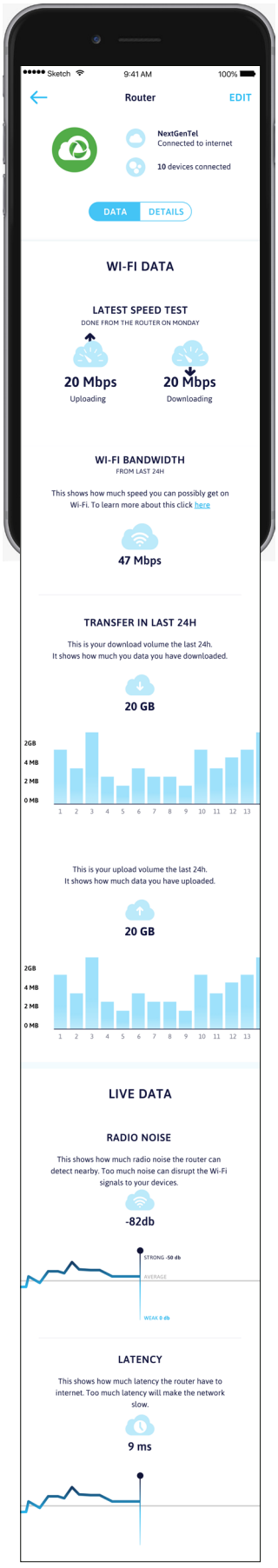
Findings

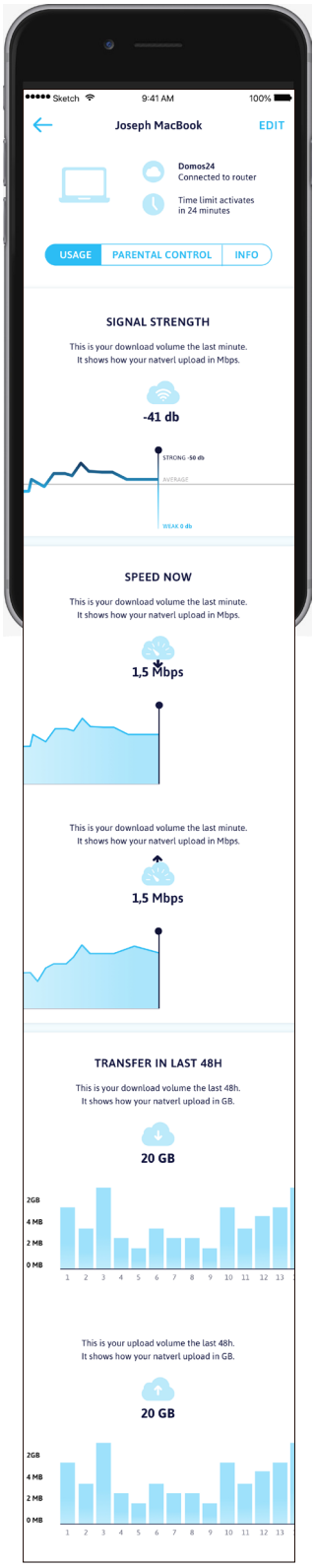
After the research, I have some findings. In this chapter, I presentpresent my findings and design opportunities.

Content

Language
Steps
Branding
Redefine

Language





Visual Language

There is a lot of data and charts on the screens, but, based on my research, they do not make any sense to the users. Then the users do not know what to do and what happens to their Wi-Fi when seeing this information.

> “Here are a lot of information, but they do not make sense to me.”

- Olav, 43, Norway

> “When I see those data, I do not know whether my Wi-Fi has problems.”

- Heidi, 37, Norway

Language

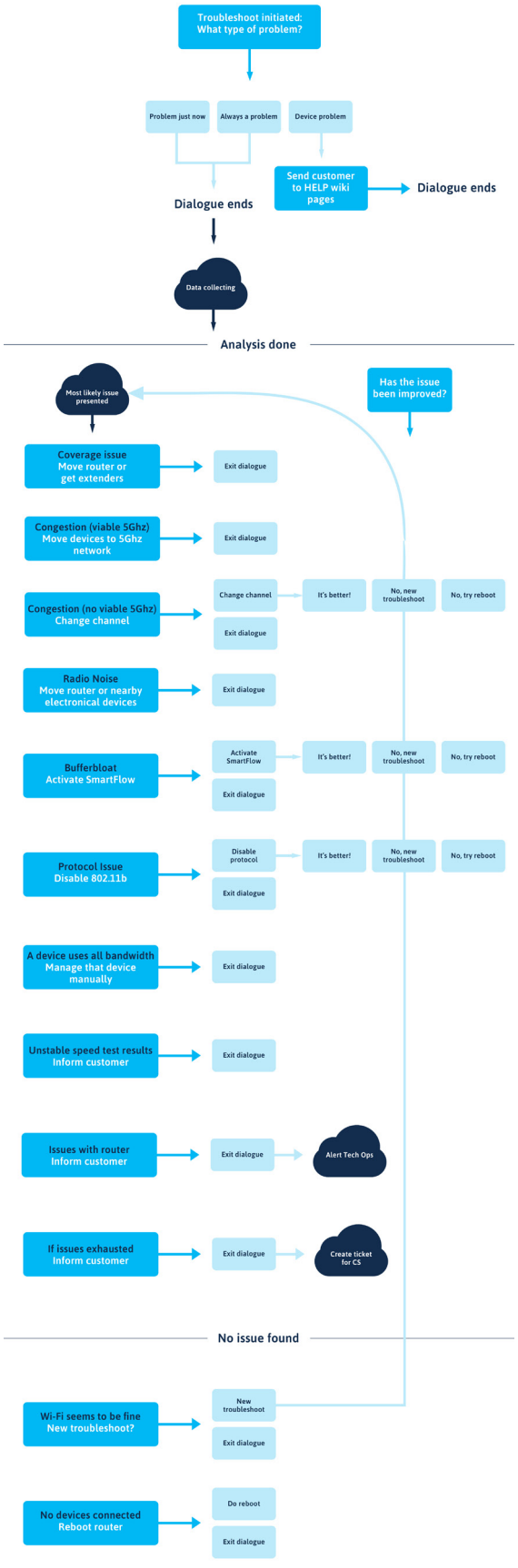
Insight-Visual Language

Information pages do not make sense.

When users did the test of previous Domos app, some of them wanted to explore more and learn some knowledge of Wi-Fi. However, when they tried those pages, they did not understand what the information was about. Even the previous app presented a trend and data, but it was not understandable.
The users who just want to use the app to fix Wi-Fi problems, did not want to see that information. However, the information buttons in the main page were much more visible than the troubleshoot button. Even though those users tried to avoid to exploring, their first click was still on those pages.

Findings

Language

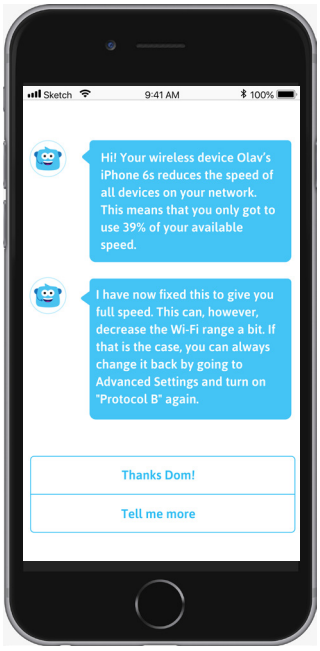


Words

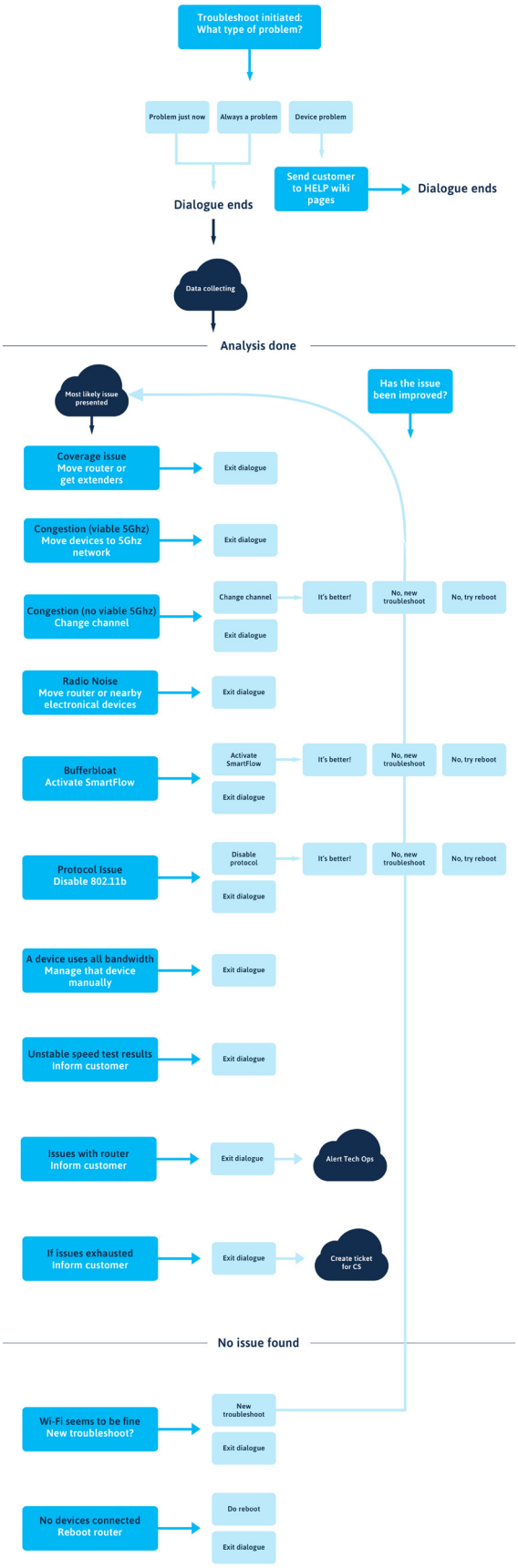
Here are the Wi-Fi issues in troubleshoot mechanism and a screenshot for troubleshooting in Domos app.
Not only the users, but also I feel the language on this page is too scientific and hard to understand. For example, especially in the troubleshoot part, some terms like protocol are difficult. People barely have knowledge about that.
Besides, the texts are too long to read and do not have highlighted words.

> “I think they should use a natural language.”

- John Antonio, 41, Norway



Language

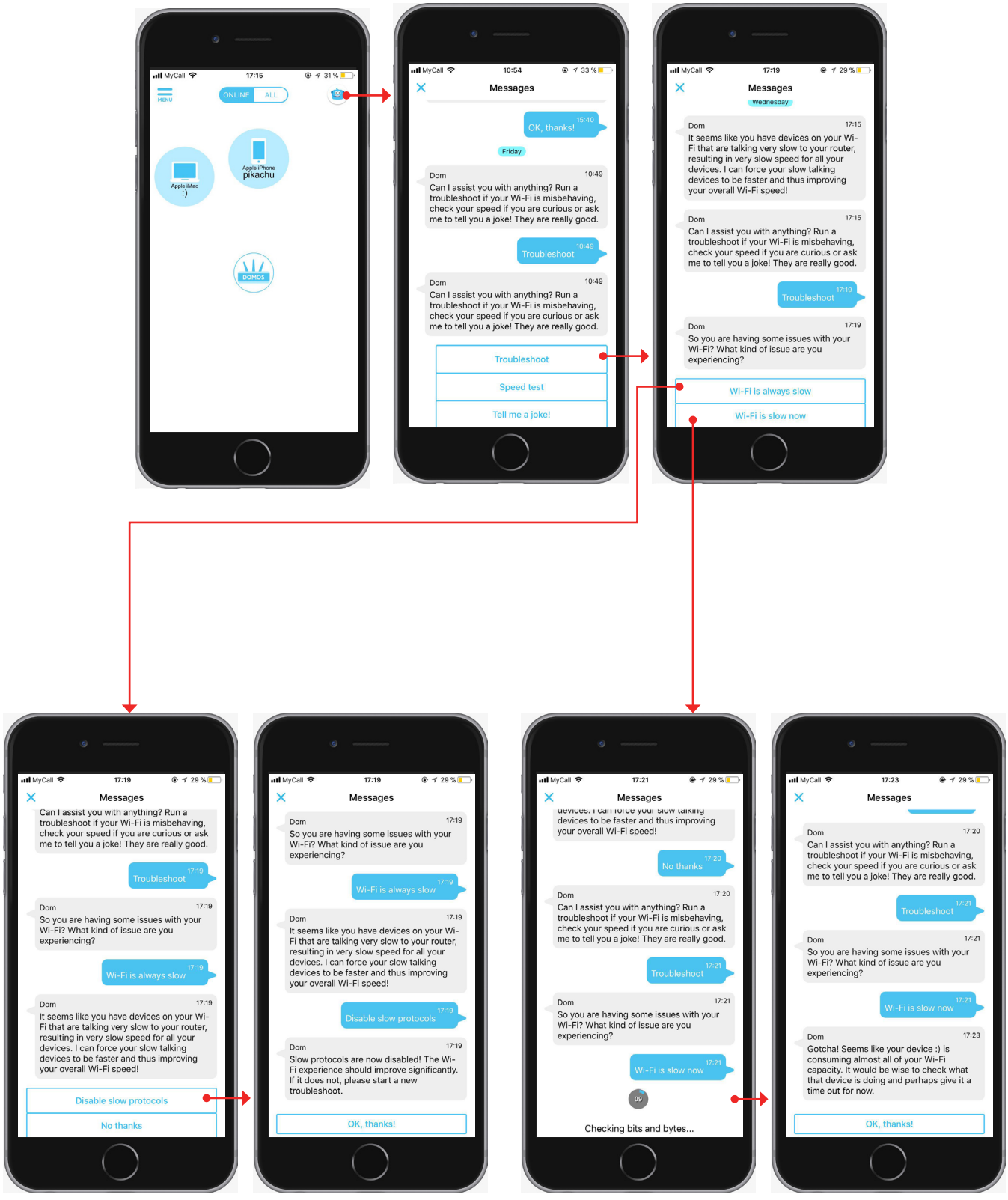


Insight-Words

Terms are hard to understand

Most users are no experts in Wi-Fi even though some of them have basic knowledge of Wi-Fi. Most users think the words in the app are on expert level, because they are really technical and they are really hard to understand for them without any explanation even if they want to learn.
The users who just prefer to use the app to fix Wi-Fi issues, found it hard to understand the issues they have.

Steps


MyCall 17:15 31 %
MENU
ONLINE ALL
Apple iMac :)
Apple iPhone pikachu
DOMOS
MyCall 10:54 33 %
Messages
OK, thanks! 15:40
Friday
Dom 10:49
Can I assist you with anything? Run a troubleshoot if your Wi-Fi is misbehaving, check your speed if you are curious or ask me to tell you a joke! They are really good.
Troubleshoot 10:49
Dom 10:49
Can I assist you with anything? Run a troubleshoot if your Wi-Fi is misbehaving, check your speed if you are curious or ask me to tell you a joke! They are really good.
Troubleshoot
Speed test
Tell me a joke!
MyCall 17:19 29 %
Messages
Wednesday
Dom 17:15
It seems like you have devices on your Wi-Fi that are talking very slow to your router, resulting in very slow speed for all your devices. I can force your slow talking devices to be faster and thus improving your overall Wi-Fi speed!
Dom 17:15
Can I assist you with anything? Run a troubleshoot if your Wi-Fi is misbehaving, check your speed if you are curious or ask me to tell you a joke! They are really good.
Troubleshoot 17:19
Dom 17:19
So you are having some issues with your Wi-Fi? What kind of issue are you experiencing?
Wi-Fi is always slow
Wi-Fi is slow now
MyCall 17:19 29 %
Messages
Can I assist you with anything? Run a troubleshoot if your Wi-Fi is misbehaving, check your speed if you are curious or ask me to tell you a joke! They are really good.
Troubleshoot 17:19
Dom 17:19
So you are having some issues with your Wi-Fi? What kind of issue are you experiencing?
Wi-Fi is always slow 17:19
Dom 17:19
It seems like you have devices on your Wi-Fi that are talking very slow to your router, resulting in very slow speed for all your devices. I can force your slow talking devices to be faster and thus improving your overall Wi-Fi speed!
Disable slow protocols
No thanks
MyCall 17:19 29 %
Messages
Dom 17:19
So you are having some issues with your Wi-Fi? What kind of issue are you experiencing?
Wi-Fi is always slow 17:19
Dom 17:19
It seems like you have devices on your Wi-Fi that are talking very slow to your router, resulting in very slow speed for all your devices. I can force your slow talking devices to be faster and thus improving your overall Wi-Fi speed!
Disable slow protocols 17:19
Dom 17:19
Slow protocols are now disabled! The Wi-Fi experience should improve significantly. If it does not, please start a new troubleshoot.
OK, thanks!
MyCall 17:21 29 %
Messages
devices to be faster and thus improving your overall Wi-Fi speed!
No thanks 17:20
Dom 17:20
Can I assist you with anything? Run a troubleshoot if your Wi-Fi is misbehaving, check your speed if you are curious or ask me to tell you a joke! They are really good.
Troubleshoot 17:21
Dom 17:21
So you are having some issues with your Wi-Fi? What kind of issue are you experiencing?
Wi-Fi is slow now 17:21
09
Checking bits and bytes...
MyCall 17:23 29 %
Messages
Dom 17:20
Can I assist you with anything? Run a troubleshoot if your Wi-Fi is misbehaving, check your speed if you are curious or ask me to tell you a joke! They are really good.
Troubleshoot 17:21
Dom 17:21
So you are having some issues with your Wi-Fi? What kind of issue are you experiencing?
Wi-Fi is slow now 17:21
Dom 17:23
Gotcha! Seems like your device :) is consuming almost all of your Wi-Fi capacity. It would be wise to check what that device is doing and perhaps give it a time out for now.
OK, thanks!

Steps

Steps

Here is an example of fixing one of the Wi-Fi issue. As you see, to fix a small issue, you need more than five steps.
From the users' perspective, the process is time consuming and complicated even though they got solution.

"I did get the solution, but did a lot of operations."

- Daniel, 39, Norway

"The steps should be less."

- Ingrid, 47, Norway

Insight-Steps

Complicated Steps

This app actually gave solutions or fixed Wi-Fi issues several times.
However, it took a lot of time to read the suggestions, to perform the steps and the user went through many screens.

Branding

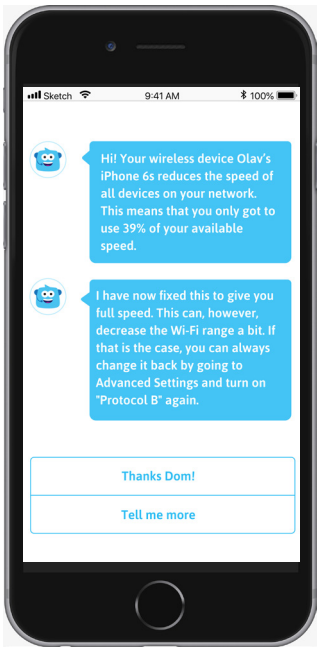
Branding

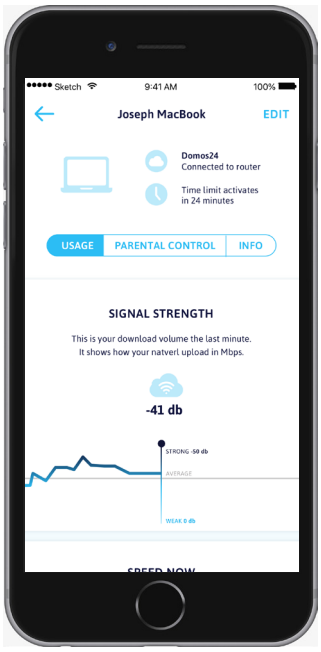
The brand value of Domos is smart, fun and helpful. Here are some screenshots of the present app.
Because of the difficult words, users found it hard to understand Wi-Fi issues, so it is not so helpful for this part.
For fun part, the whole aesthetics of the app is simple and technical. It is not close to the brand value.

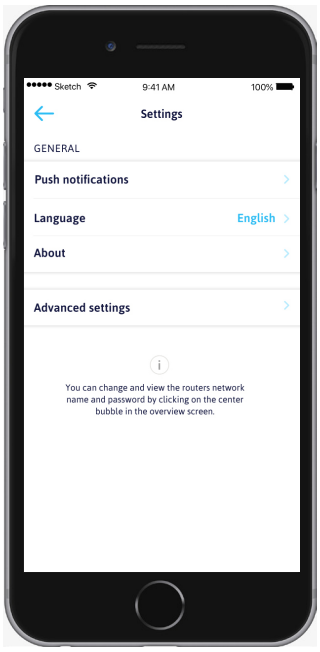
Insight-Branding

Not close to brand value

Domos wants the design to be closer to their brand value. However, they did not consider the user needs and aesthetics a lot.







Findings

Redefine

I redesigned the Domos app from both an operational and a visual perspective to help ordinary people who use the Domos app, to understand Wi-Fi issues, information and give solutions to the users to fix Wi-Fi isses. I also built the app closer to the brand value of Domos (smart, fun and helpful).

Ideation

After presenting findings, I started developing concept. In this chapter, I go through how I worked on this project. I summed up ideation part in this chapter to have a connection between research and solutions.

Content

Workshop
Story about Wi-Fi
Case Study
Words
Sketches
Sketches-Concepts
Evaluation of Concepts
Information Architecture
Scenario
Identity
App Visions Overview
Expert Test
User Test
Conclusion

Ideation

Workshop

What

I had a workshop with experts in Domos.

How

I invited experts and asked them to explain the words in the app and how routers work as simple as possible to me.

Why

This project is really practical from the user's perspective, because understanding Wi-Fi issues and fixing them is the important and it is also the core value of this project. To make it easier for ordinary people to understand how Wi-Fi works and Wi-Fi issues, as a designer, I should understand those terms.

Conclusion

After the workshop, we ended up with a story about how Wi-Fi works and Wi-Fi issues.

Ideation

Story about Wi-Fi

What

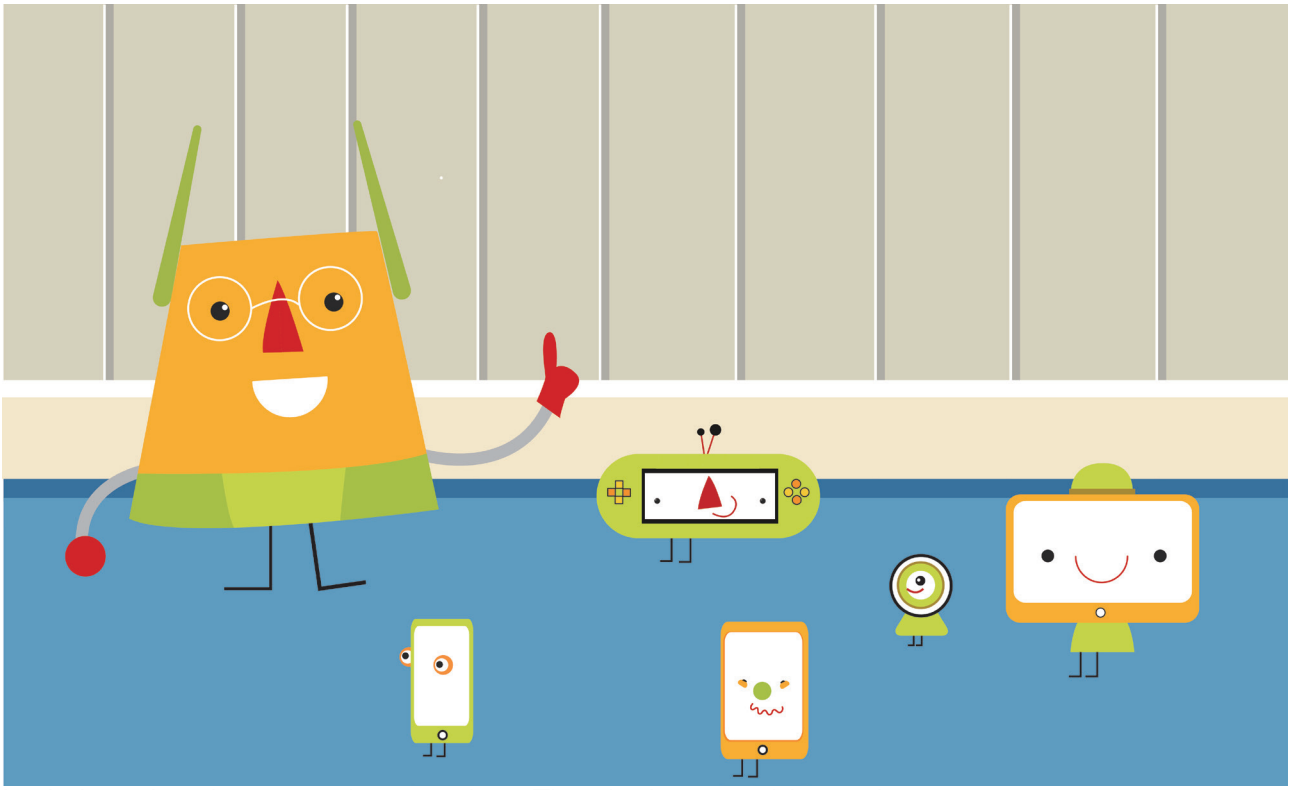
This story, about how Wi-Fi works and Wi-Fi issues, has the router as a teacher.

How

After the workshop with experts, we made this metaphor and I made illustrations to present the story to people.

Why

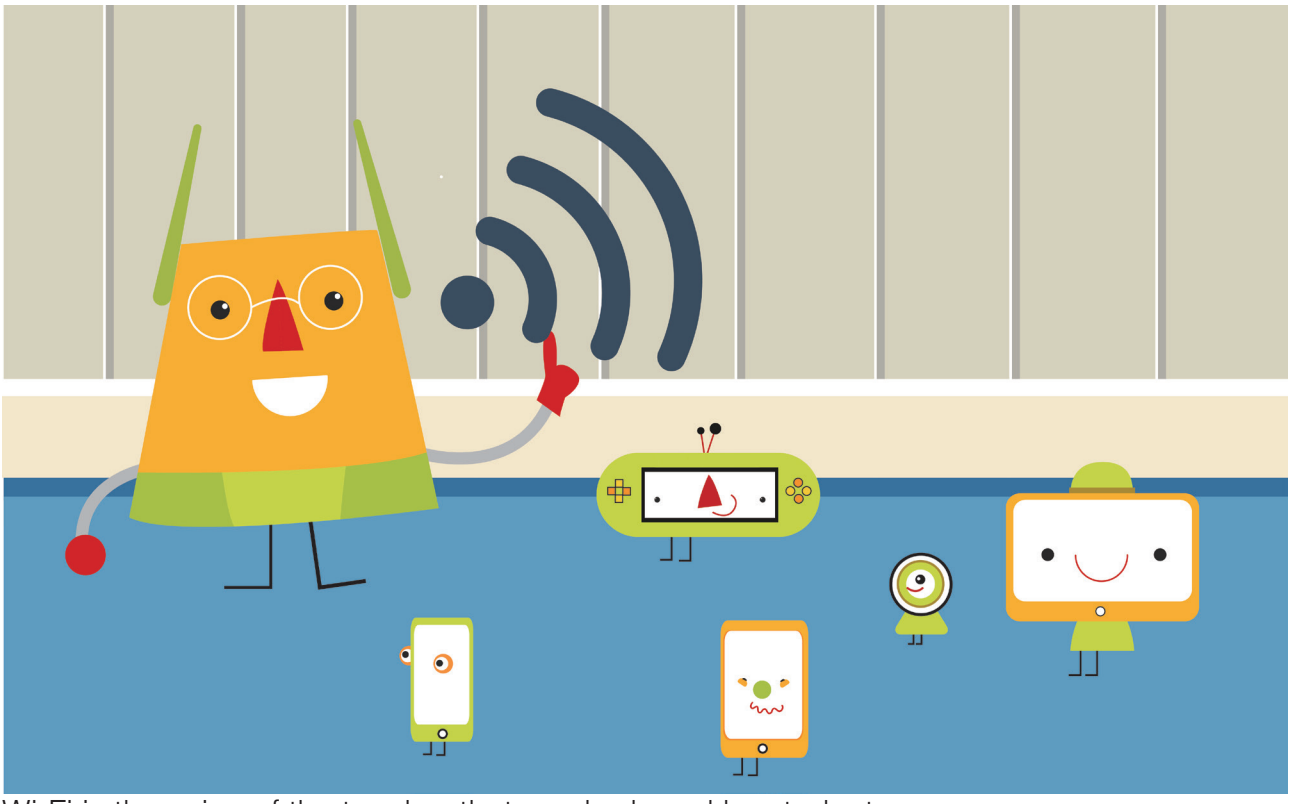
I drew this story to make the users and me understand professional Wi-Fi knowledge and to make the explanation more vivid.



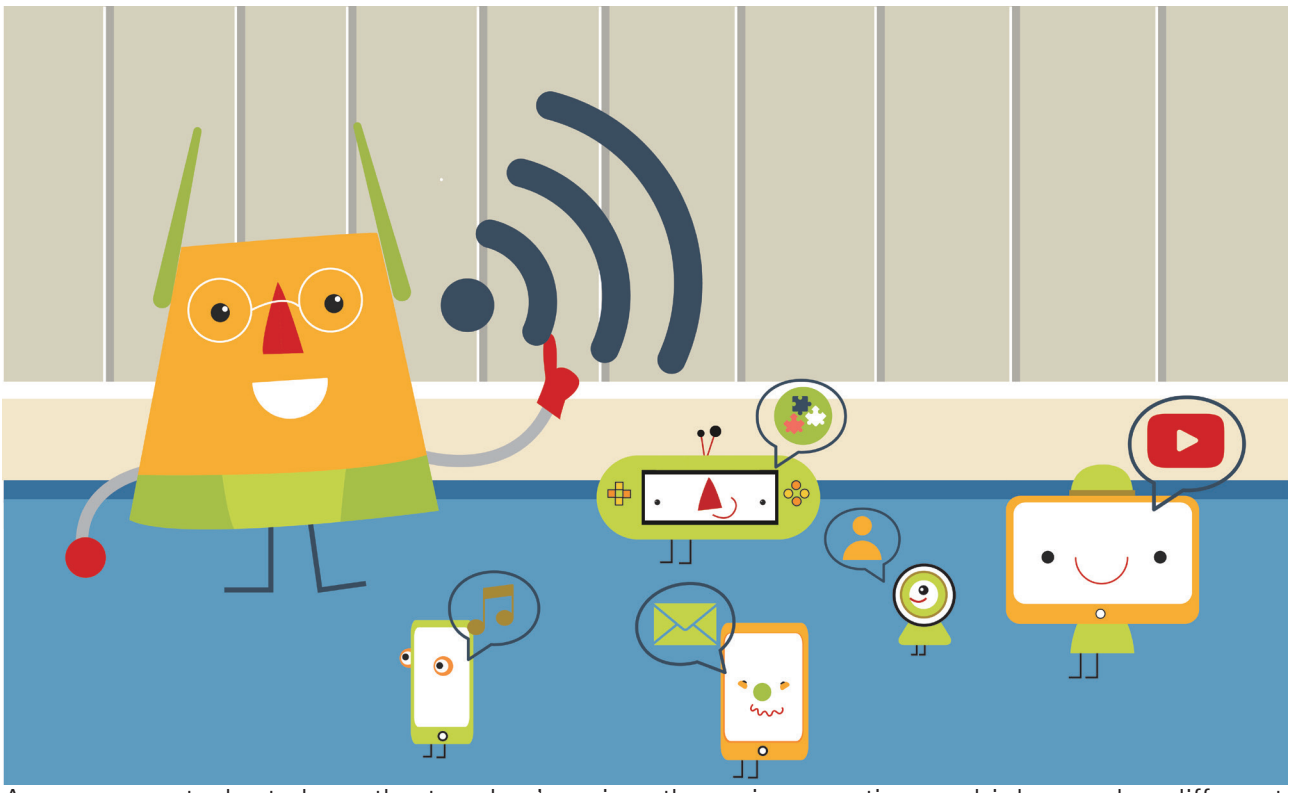
Let's imagine the router is a teacher. The devices are his students.

Ideation

Story about Wi-Fi

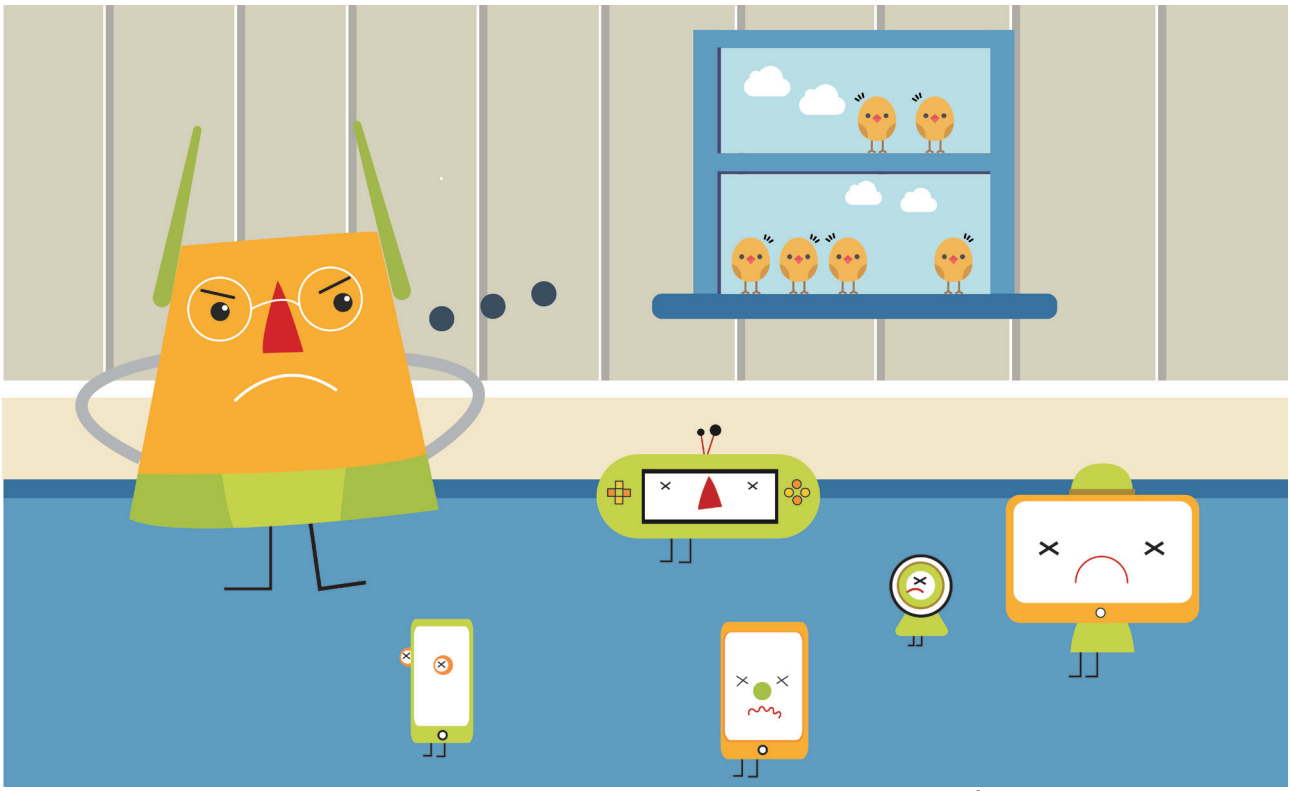


Wi-Fi is the voice of the teacher that can be heard by students.



As soon as students hear the teacher's voice, they give reactions, which are also different activities from different students. However, sometimes, the teaching process cannot work well by different issues.

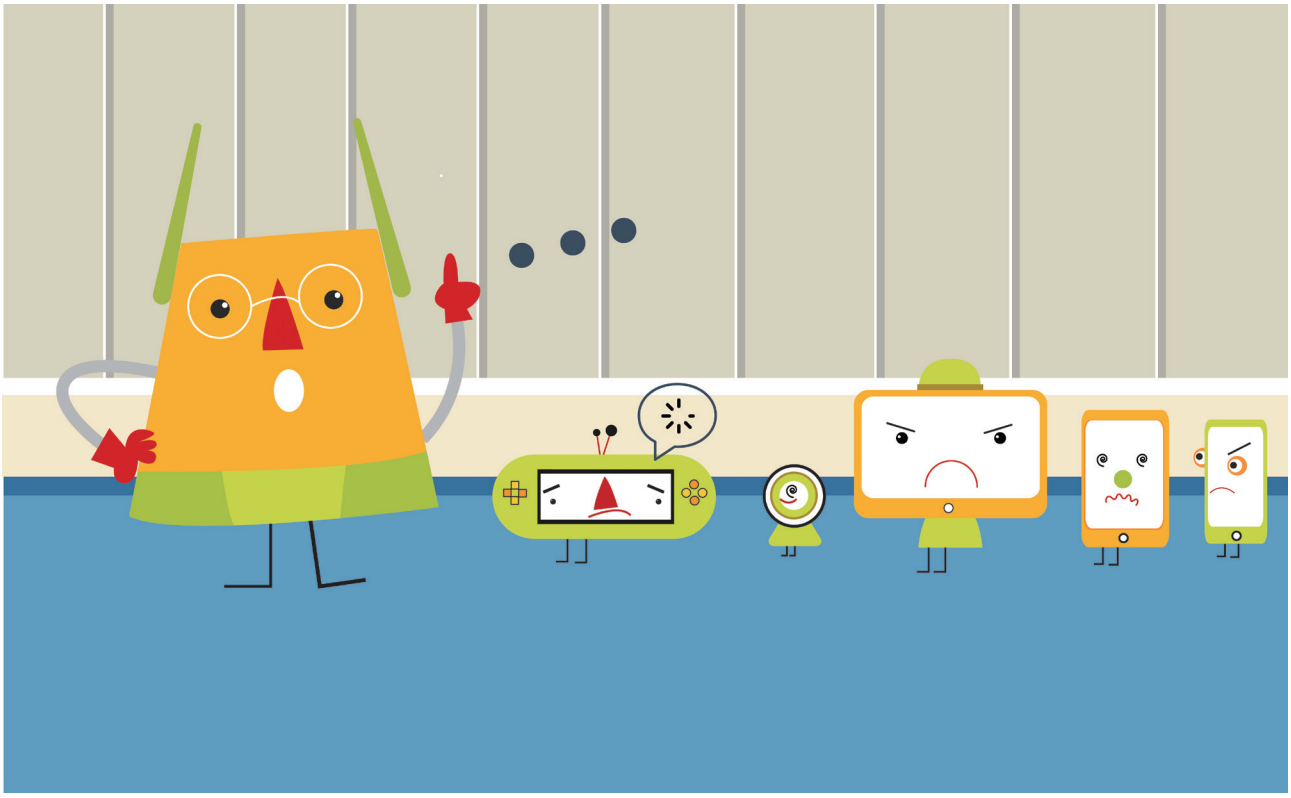
Story about Wi-Fi



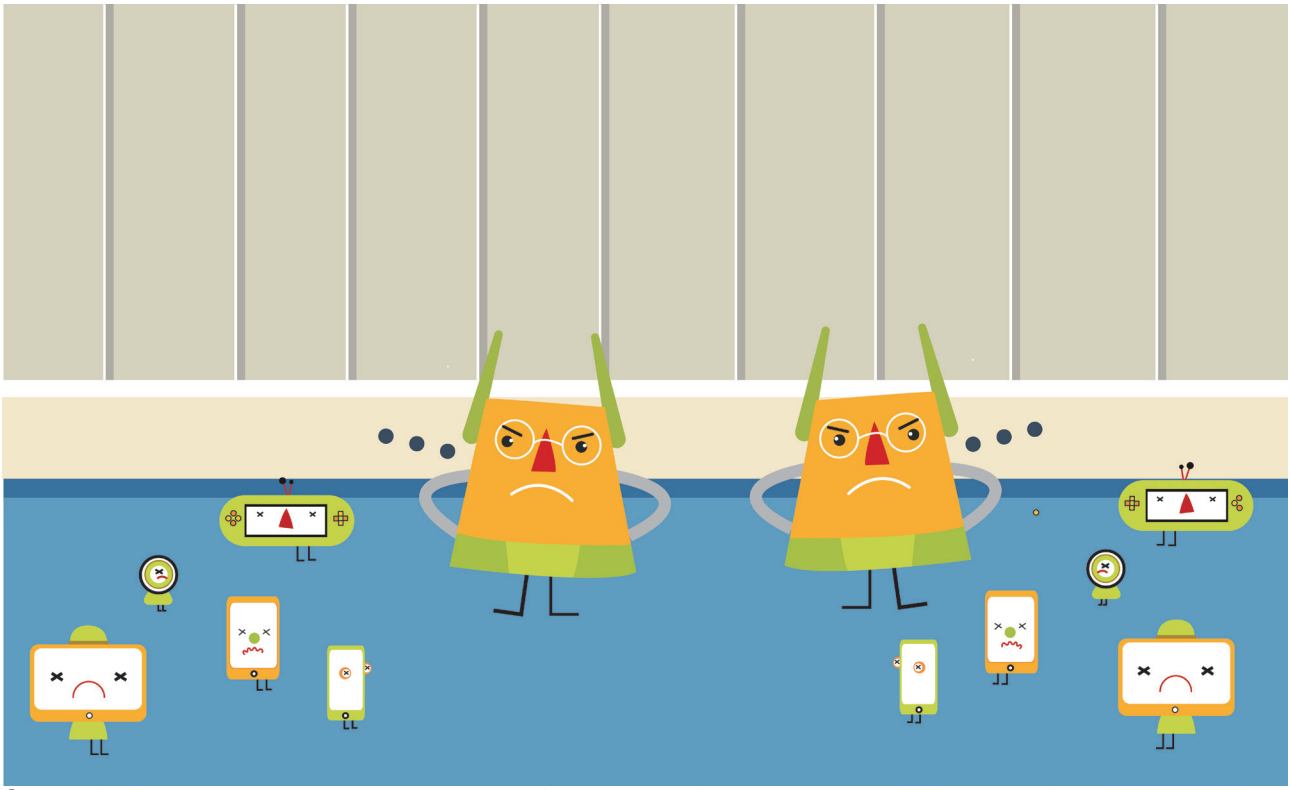
For example, sometimes the teacher will be bothered by the noise of birds, which is the radio noise.

Sometimes, some students sit far behind the classroom and they cannot hear the teachers voice, which is a Wi-Fi coverage problem.

Story about Wi-Fi

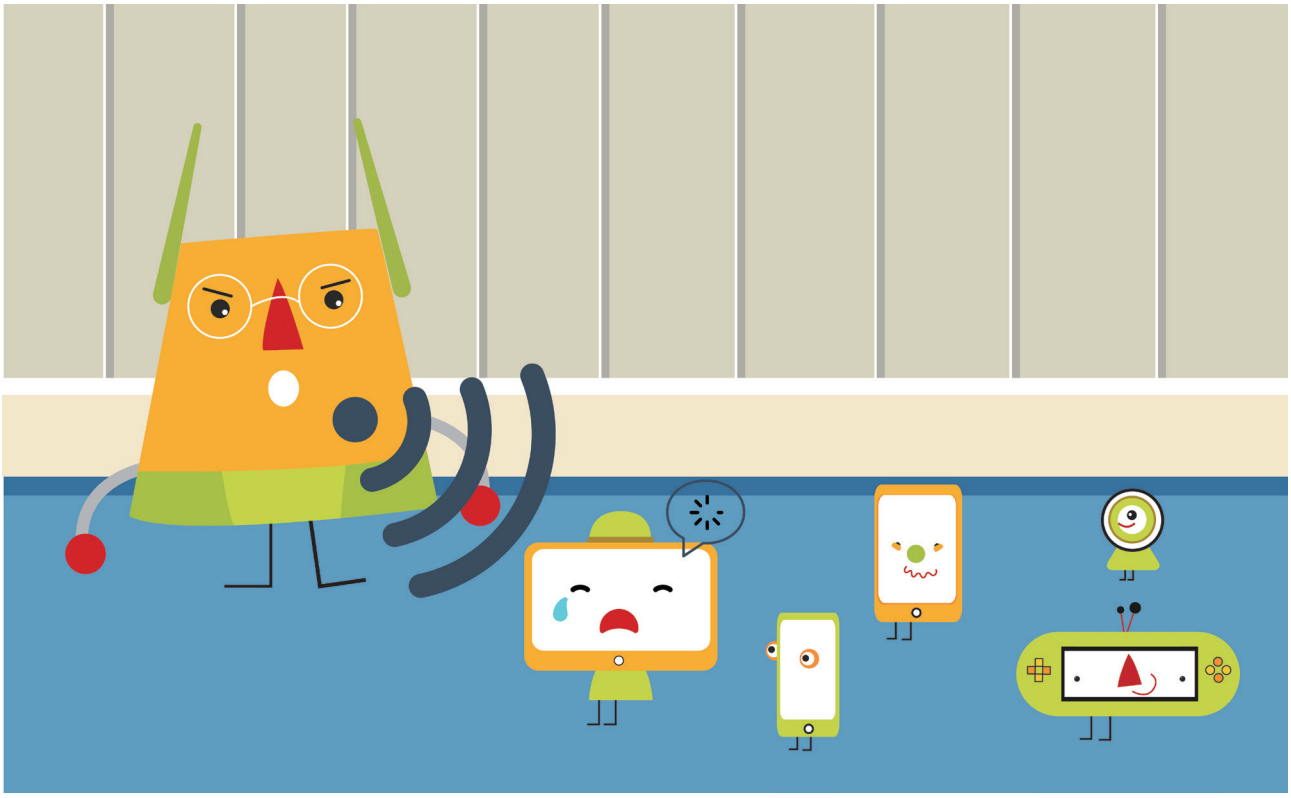


And sometimes, a student talks so slow, that others have to wait for him, which is a protocol issue.



Sometimes, the headmaster makes mistakes and there are two classes with two teachers in a classroom. They are affecting each other, which is a congestion issue.

Story about Wi-Fi



And sometimes, a student cries and the teacher has to look after him. He gets all the attention from the teacher, which means a device uses all bandwidth.

Conclusion

After presenting this story, which is the domain of this project, I acquired a better understanding of Wi-Fi, which I used to obtain a better ideas for the design.
The users's feedback was that they found it understandable and that Wi-Fi is not as boring as they imagined.

Case Study

How

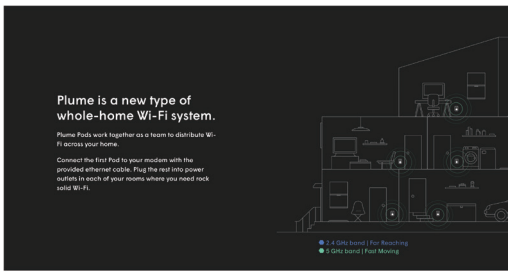
I did some case studies of competing companies and existing apps.

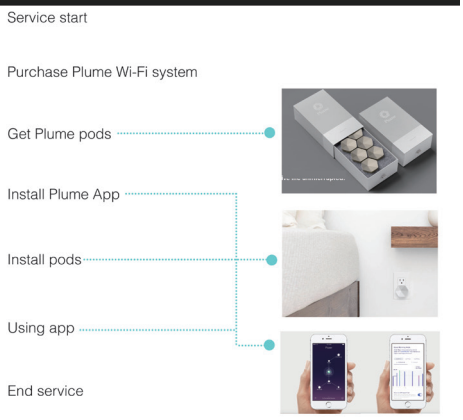
Why

To get inspiration for my design from both a visual and functional perspective, I looked at some existing apps.

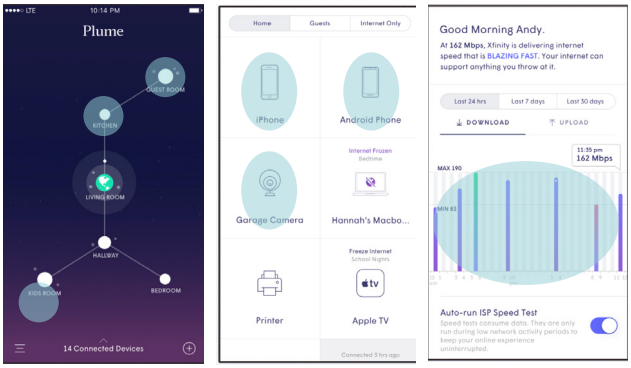
What

Plume





This company is called Plume. Plume mainly sells pods which enhance Wi-Fi in a big house. The user journey of Plume is first buying the system, then obtaining pods and finally installing the app and pods. Then you can use the app to see Wi-Fi condition at home and the pods in the room improve your Wi-Fi.



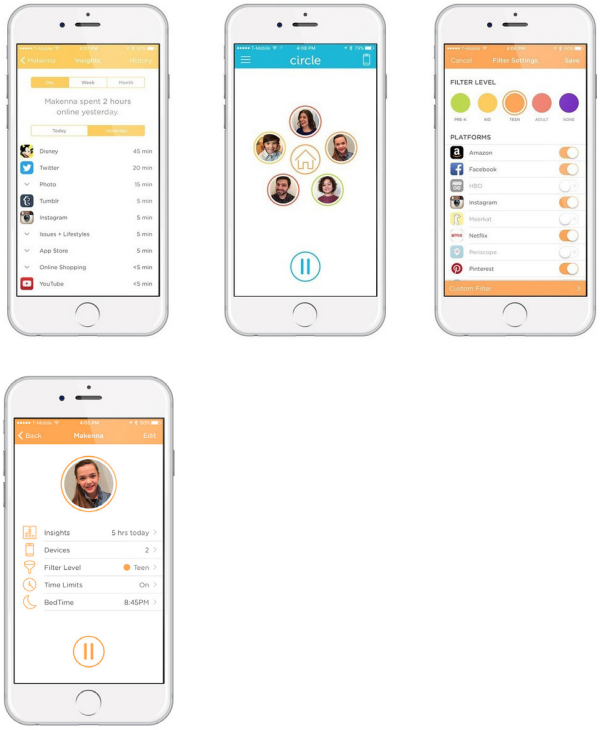
Here are some screenshots of Plume app. This app mainly shows Wi-Fi information, device information and controls.
From the app you can see a clear connection to the pods.

Findings of Plume

It is really easy to find which device connects the internet and how to get further information. This app gave a great inspiration and insight for my project.
It is easy to see when the Wi-Fi speed is high and when it's low. It makes more sense for users to to know the speed.

Case Study

Circle

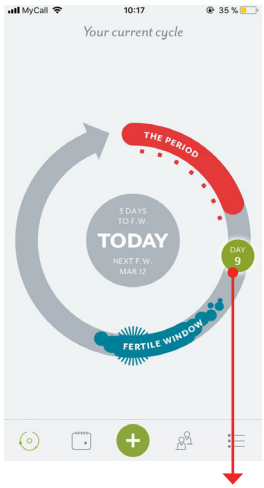


Circle is the app mainly for parents to control how much time their children spend online and to block harmful content.

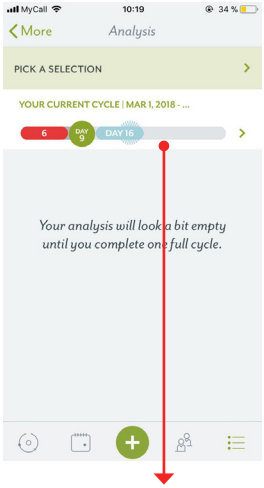
Findings of Circle

Using the Circle app, families can create unique profiles of devices for each family member.
It is easy to see which devices belongs to who. It is easy to pause devices and it can block content for devices.

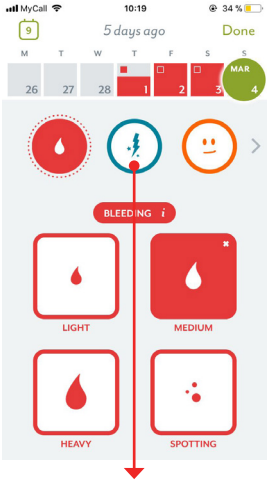
Clue



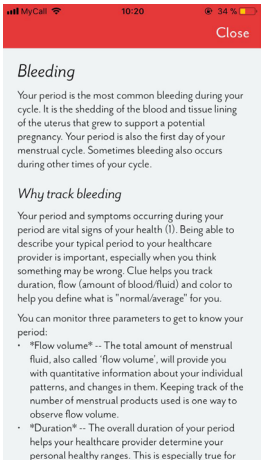
Where you are



Trend



Factors of period time.



Explanation

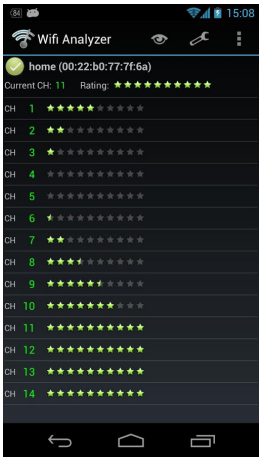
Clue is the app mainly for recording different data relating to period times.

Findings of Clue

Clue gives a good inspiration for data record and trend. It also gives an explanation of factors connected to the period time.

Case Study

Wi-Fi Analyzer



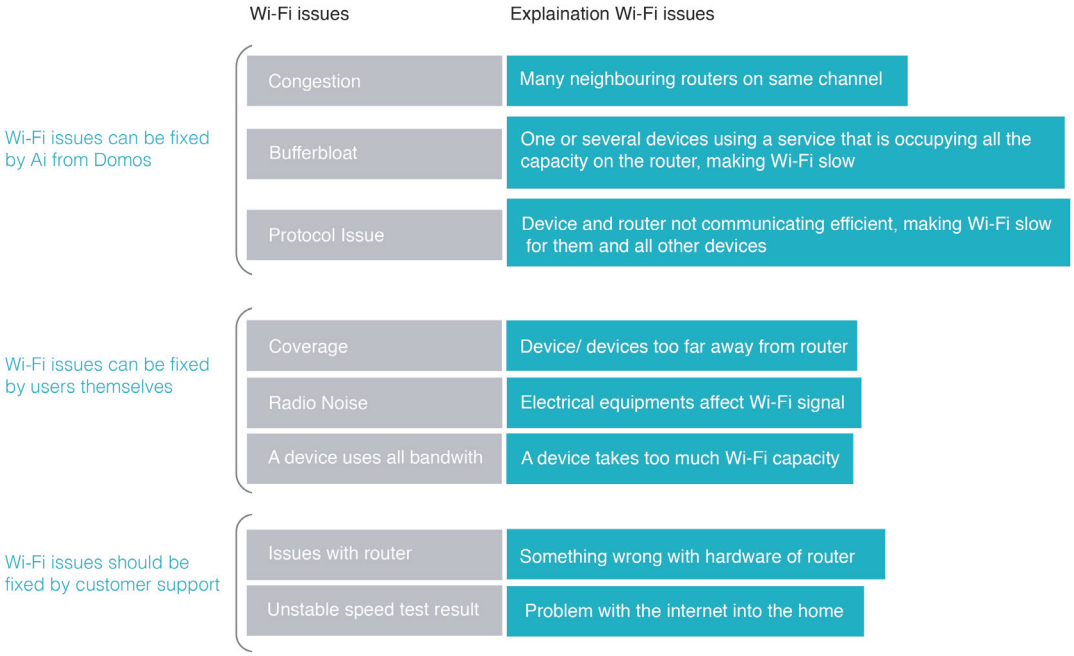
Wi-Fi Analyzer is a tool for checking what's going on in the neighborhood Wi-Fi and to find the best available channel.

Findings of Wi-Fi Analyzer

This app mainly offers information of different Wi-Fi signals, but it does not give a solution when you have Wi-Fi issues.

Ideation

Words



What

This form is the explaination of all the Wi-Fi issues the users might experience. They are in three groups.

Why

To have a better understanding of Wi-Fi issues and to translate them to the user clearly, figuring out the meaning of each Wi-Fi issue is of great importance.

How

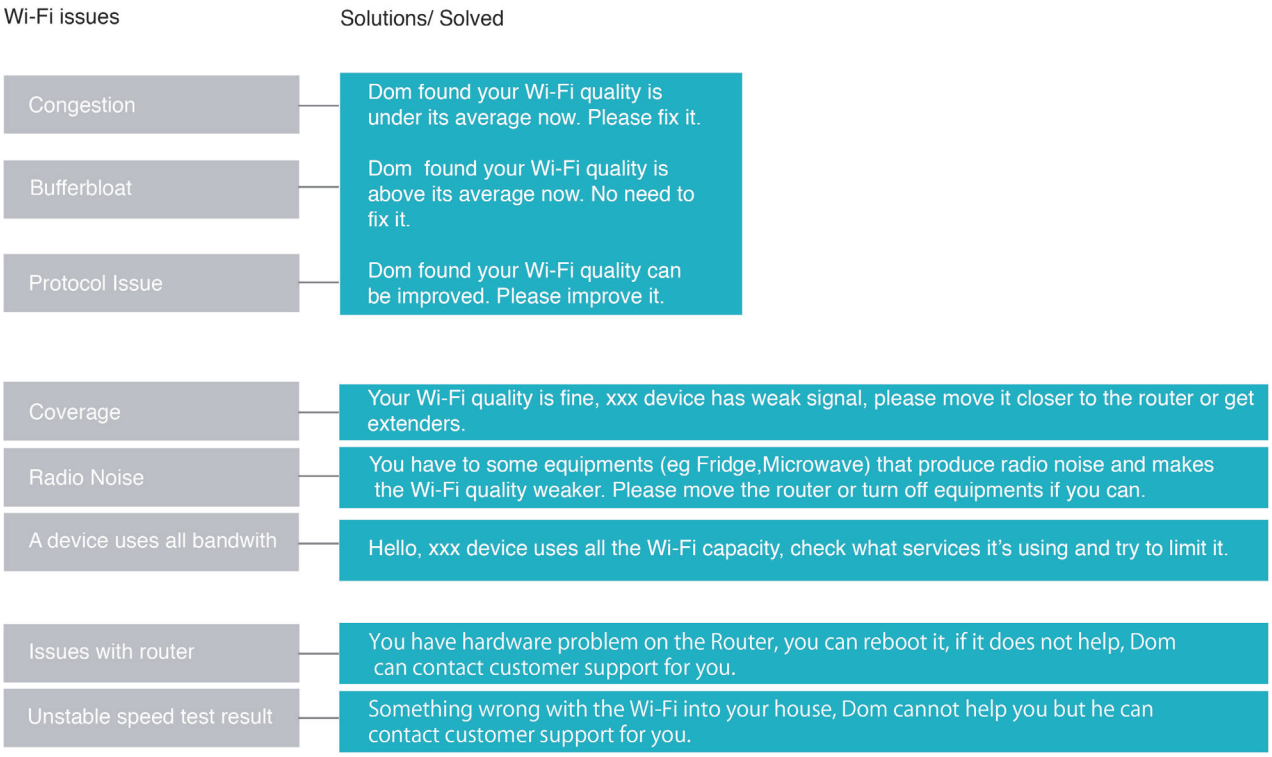
I did a Skype interview with an expert in Domos asked him the explaination of each issues.
From this, I learnt that Wi-Fi issues can be divided into three groups based on their solution: Wi-Fi issues that can be fixed by the AI technology from Domos; Wi-Fi issues that can be fixed by users themselves with instructions; Wi-Fi issues that should be solved by customer support.

Conclusion

After translating those Wi-Fi issues, I also figure out the solutions for each Wi-Fi issues.

Ideation

Words



What

This form presents the solutions of the Domos app to guide users to fix their Wi-Fi issues and the message to the user about the Wi-Fi quality after the issues are fixed by the AI tool.

How

After translating the meaning of each Wi-Fi issue, I made this solution form by
1 Asking experts from Domos which solutions belongs to which problem for specific Wi-Fi issue.
2 Findings from the previous app. Even though the solutions in the previous app are not clear enough, they still provide insight for solutions.
3 User's feedback when they did test for the existing app. For example, users always complain about Wi-Fi issues which can be fixed by AI tool, because they do not want to know what happened. They just want to fix it and get feedback after their Wi-Fi is fixed by AI tool.

Why

To give users the right and useful solution for fixing their Wi-Fi issues, it is important combine them with experts to build the solution based on the users' needs.

Conclusion

The solution form of Wi-Fi issues is the draft solution for the app's troubleshoot part and it is the direction for concept development.

Ideation

Sketches

Why

To get quality ideas for the inspiration of the design, a massive amount of sketches is needed.

How

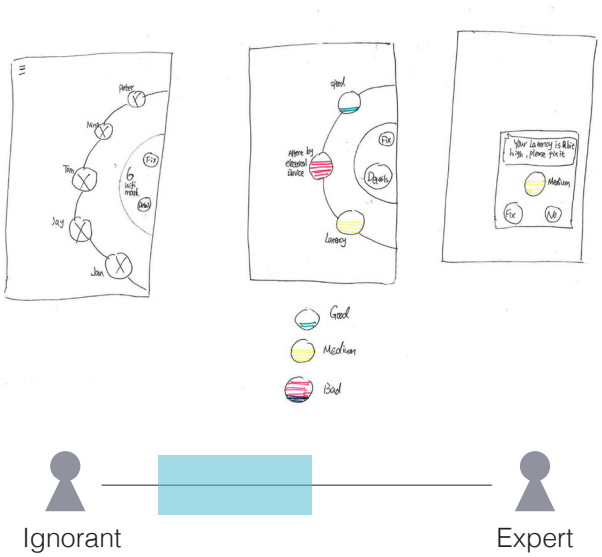
I made a massive amount of sketches and grouped them in different topics: analyse the required level of knowledge for uses and the advantages and disadvantages of each sketch.

Ideation

Sketches

Visualization

1

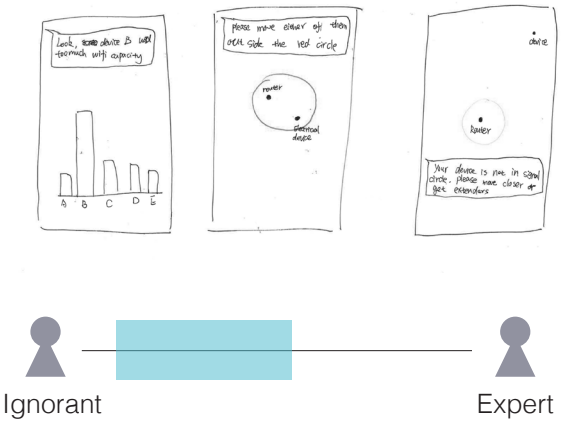


What is it?
An app to present Wi-Fi information and fix issues.

What is special?
It uses a single chart to present information. Instead of taking many steps, you just need 3 or 1 steps to fix your Wi-Fi issues.

+: It is easy for users to see the Wi-Fi quality by the statistic in the circle.
-: Same way to present Wi-Fi and the facts. The way the mark is used, will confuse people, because they do not know the maximum and minimum mark.

2



What is it?
Make the conversation text, used in the troubleshoo part, into a graph/pictures

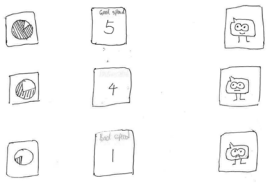
What is special?
Easy to understand the problem instead of showing text, using graph/pics instead.

+: It is easy for users to see the problem by graphic way instead of text.
-: The circle area in the cellphone and reality is different. Users do not know the exact distance they should move.

Ideation

Sketches

3



What is it?
Three different types of app icons to present Wi-Fi quality.

What is special?
Instead of opening the app to see Wi-Fi information, users can see immediately from the icon and know how good/bad the Wi-Fi is.

+: It showed users Wi-Fi quality without opening app.
-: Because the icon is small. users will not notice the details.

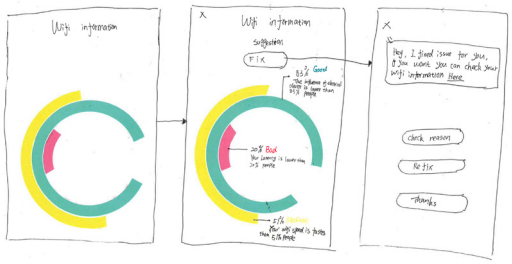
4

What is it?
A app to solve your Wi-Fi issues and presents Wi-Fi information.

What is special?
It is easy to see (in the front page) your Wi-Fi information and see whether your Wi-Fi is good or not. The way to find solution is easy.

+: Present Wi-Fi information in the first page, users can find all the information easily.
-: It will be better if users can see in the data that their Wi-Fi improves after fixing.

5



What is it?
Current Wi-Fi information and suggestions.

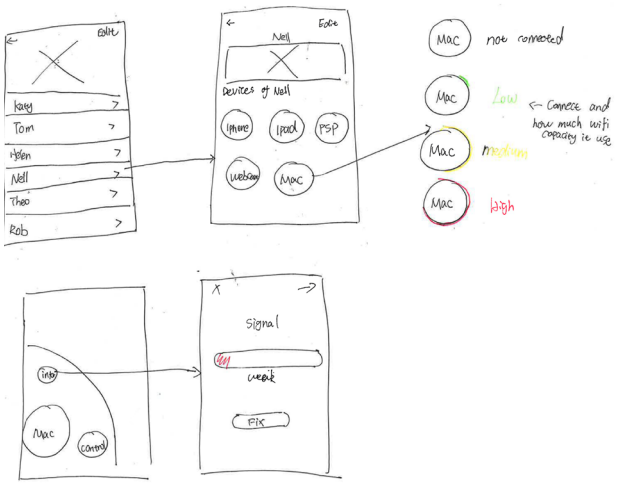
What is special?
Use color to show issues and quality of and Wi-Fi information, tell people how good/bad their Wi-Fi compared to others and gives suggestions to people whether fix or not.

+: Put the three main factors of Wi-Fi in one graph.
-: It is difficult for users to understand the chart.

Ideation

Sketches

6



Ignorant — Expert

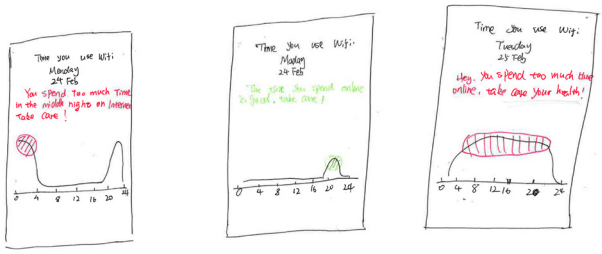
What is it?
Function about connected devices using Wi-Fi capacity related to family members.

What is special?
This function organizes devices into groups by person, it shows information of a single device and you can find quickly how to fix it if you see the problem the graph.

+: Easy to understand the capacity devices used by different colors, good way to group devices
-: It is annoying for users to see the devices by opening each number.

Combination

1



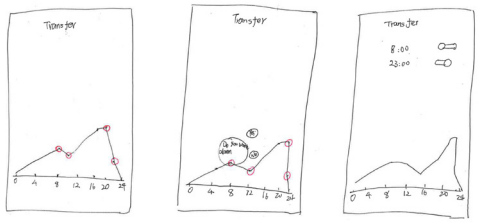
Ignorant — Expert

What is it?
An app that combines data and health.

What is special?
It gives information connecting to people's health and it gives warning and tips to people by analyzing the time they spend online.

+: Combines user behaviors.
-: Should be customized for different users.

2



Ignorant — Expert

What is it?
Function about alarm clock of Wi-Fi usage over time.

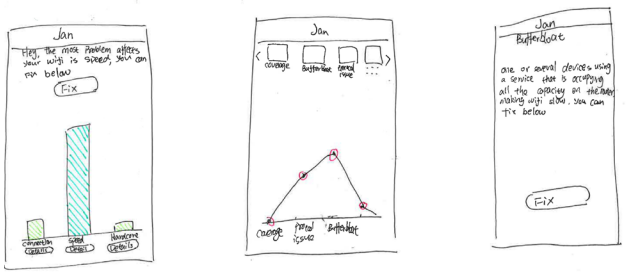
What is special?
By analyzing how much data you use online time, it suggest whether you need to set an alarm based on your time spent online.

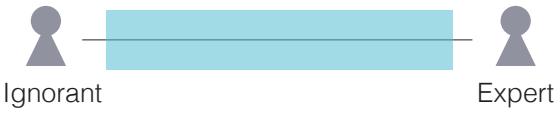
+: It combines user behavior.
-: If you use W-Fi, you already got up, so this is the wrong analysis.

Ideation

Sketches

3



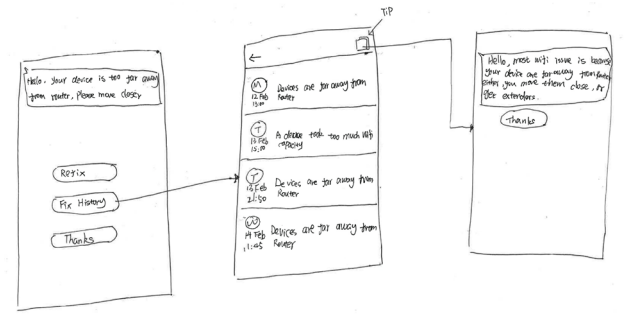


What is it?
Function about Wi-Fi issues people have monthly behavior pattern.

What is special?
It divided issues into three biggest then it groups specific issues to let people know the most occurring issues they have.
It also explains scientific terms which is also easy for ordinary people to understand.

+: Showed the data for Wi-Fi problem which occurred most in a month.
-: Will confuse people with irrelevant information for some users.

4



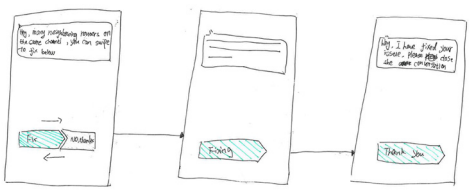
What is it?
Function with history memory.

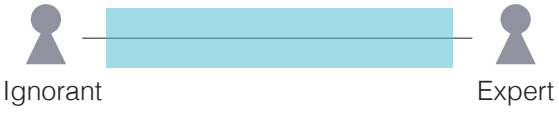
What is special?
This function is mainly for people with some professional knowledge to see the history of their Wi-Fi issues and give tips based on the most occurring issues.

+: Inform users the most occurring Wi-Fi issue user has.
-: It is not an important function.

Gamefication

1





What is it?
Function for fixing Wi-Fi via interaction.

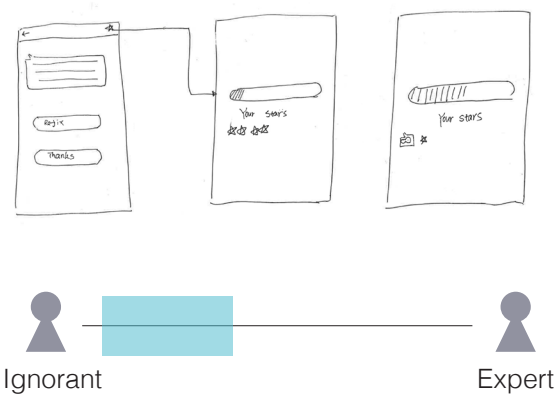
What is special?
Instead of tapping, the user can swipe to make choice, which makes the interactive way more fun.

+: New way for interact

Ideation

Sketches

2

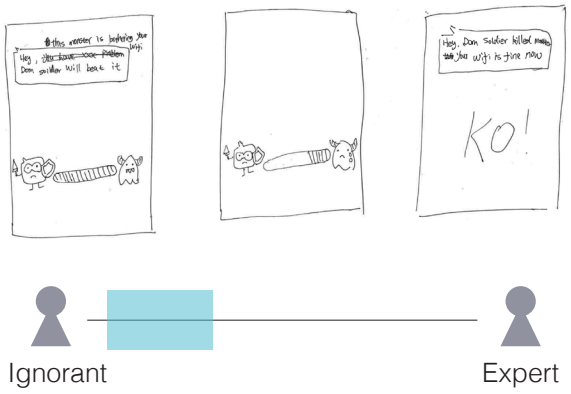


What is it?
A function for obtaining stars when using the app to fix Wi-Fi.

What is special?
Making it interesting for people to fix Wi-Fi. When you use the app once, you get a process in bar chart. When it is full, you get a star. When you have five stars, you can change a “Dom”sticker.

+: Encourage people to use app more often.
-: Some people think “collecting stars” make no sense.

3

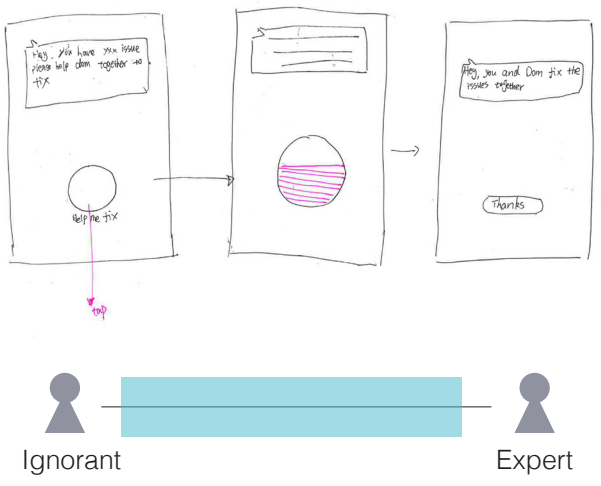


What is it?
Function for waiting while fixing Wi-Fi issues.

What is special?
Instead of telling users the problem they have, use monster instead of issues. When Dom “ko” the monster, the problem is being fixed. It makes the process vivid and interesting.

+: Interesting way for waiting while fixing.
-: Too childish.

4



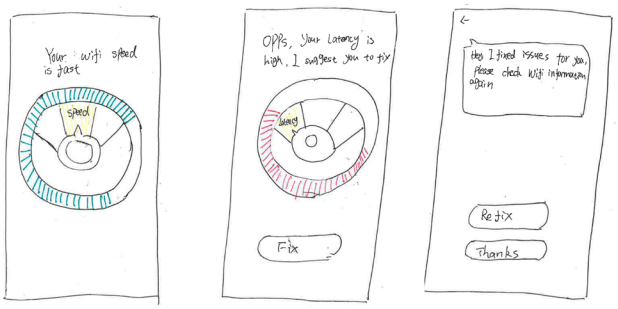
What is it?
Function when waiting for fixing Wi-Fi issues.

What is special?
Make the waiting process more interesting and using gaming to fix it. It engages users together to fix Wi-Fi problems.

+: Interesting way for waiting while fixing and involve users.
-: The user actually does not fix it, so it is a lie.

Sketches

5



Ignorant Expert

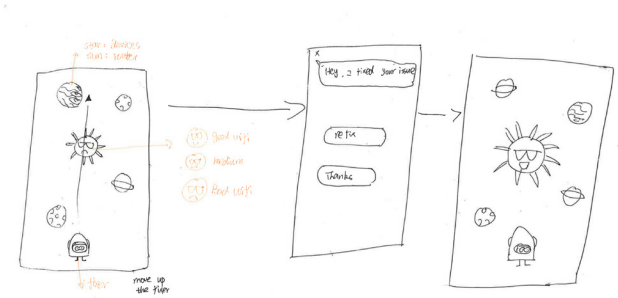
What is it?
An app which presents information, with a fixing function.

What is special?
Use turntalism to let users choose which specific information they want, and to make the interaction more fun.

+: Different way for present different Wi-Fi information.
-: Not interesting.

Metaphor

1



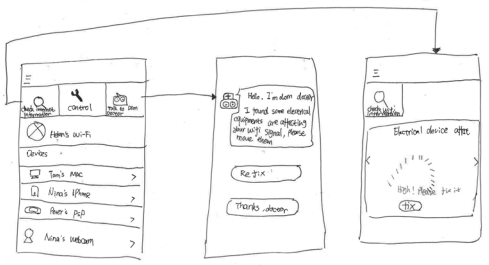
Ignorant Expert

What is it?
The stars are connected devices, the sun is the router and how good your Wi-Fi is depends on the face of the sun. Dom acts as a fixer to fix Wi-Fi problems.

What is special?
The app used gamefication way to help people fix Wi-Fi problem and to make it more fun and vivid.

+: Interesting metaphor for the app.
-: Too childish.

2



Ignorant Expert

What is it?
An app acts like a doctor to look after internet.

What is special?
I used the concept that the app is a doctor, to organize the three main parts of the app based on the function and contents.
Seeing doctor=ask Dom
Check body= check internet info
Prevent sickness= control

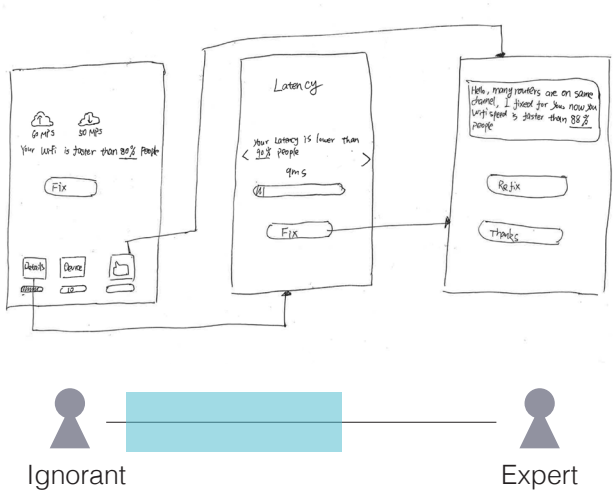
+: Interesting metaphor for the app
-: The visual part is too boring like a health app. It does not fit the brand value.

Ideation

Sketches

Satisfactory

1

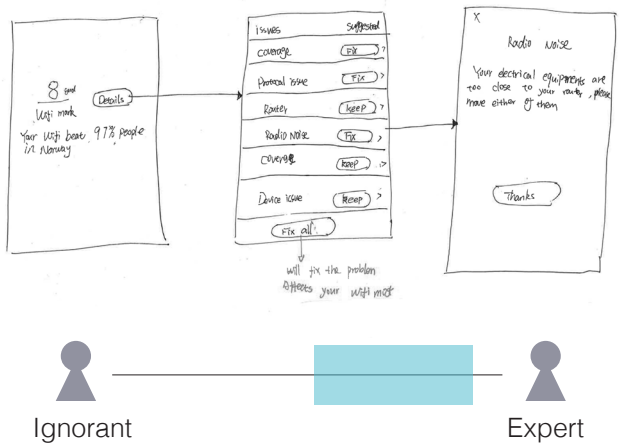


What is it?
An app to tell people their Wi-Fi condition, and to fix their Wi-Fi issues.

What is special?
It gives people data of how good/ bad their Wi-Fi is compared to others, make them feel safe and that their Wi-Fi is good, and that Dom really helps them.

+: Showing people their Wi-Fi quality compared to others.
-: People will never satisfied, they always want to be the best.
In some areas, people can get the best Wi-Fi they have but compare with others it is still slow so it will frustrate people.

2



What is it?
A function for people to fix multiple Wi-Fi problems.

What is special?
This function shows people how many issues they have, they can fix one by one or fix the one affect internet most.

+: Showing marks for people and all the issues they have.
-: Confuse people that they might fix one by one.

3

What is it?
A app to fix Wi-Fi issues.

What is special?
Instead of showing charts, this app tells the mark of how good/bad your Wi-Fi is, makes it more direct.

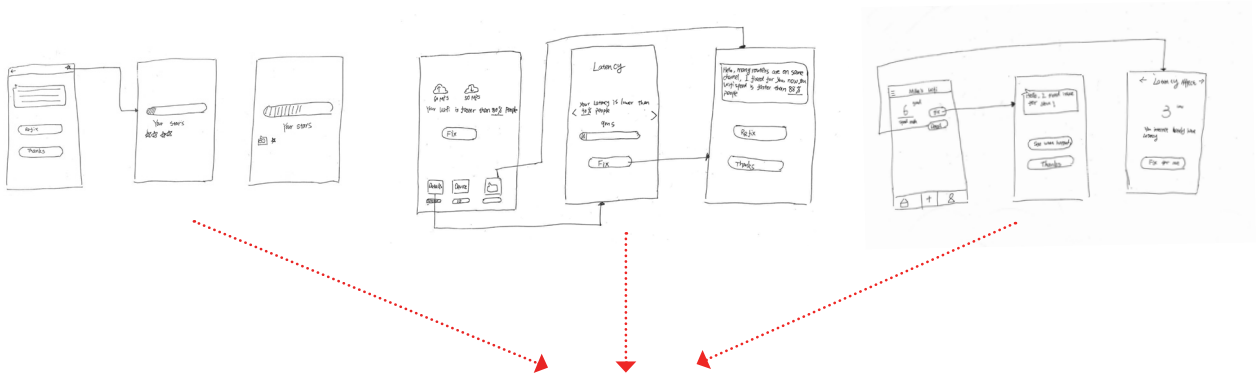
+: Showing marks to present Wi-Fi quality.
-: Different people have different level of mark, people do not know the highest mark and lowest.

Ideation

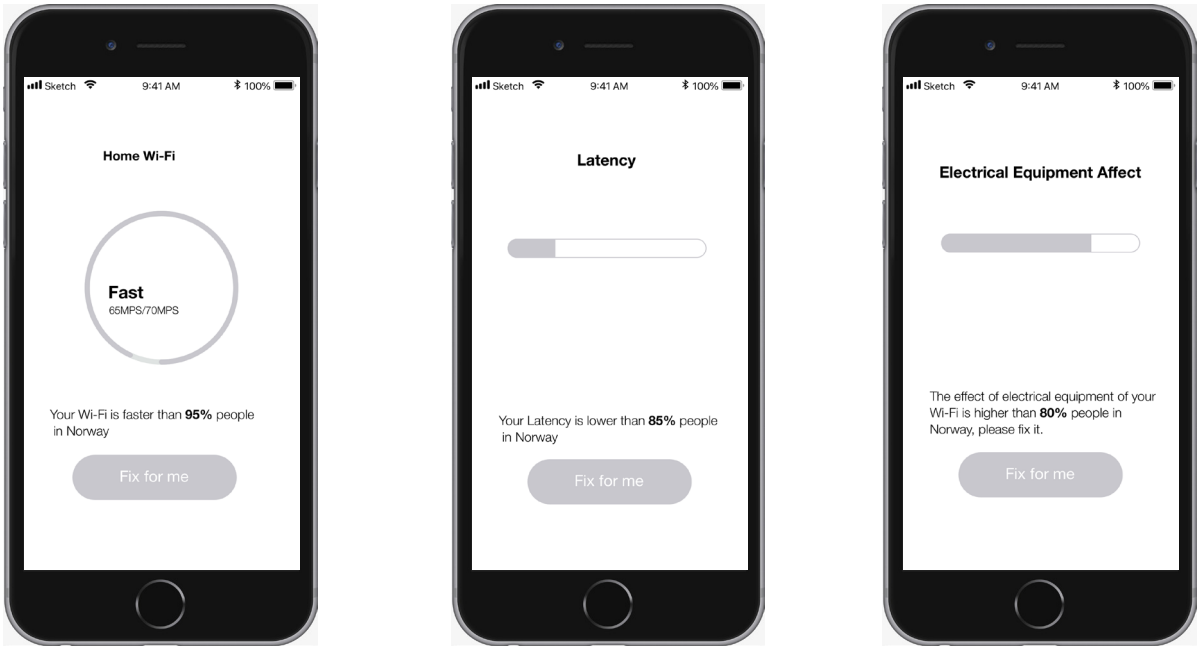
Sketches-Concepts

Conclusion of Sketches

After analysing the sketches, I ended with three concepts based on them.



Concept One



What

This concept focusses on user performance: it gives people an idea of how good/bad their Wi-Fi is compared to others.

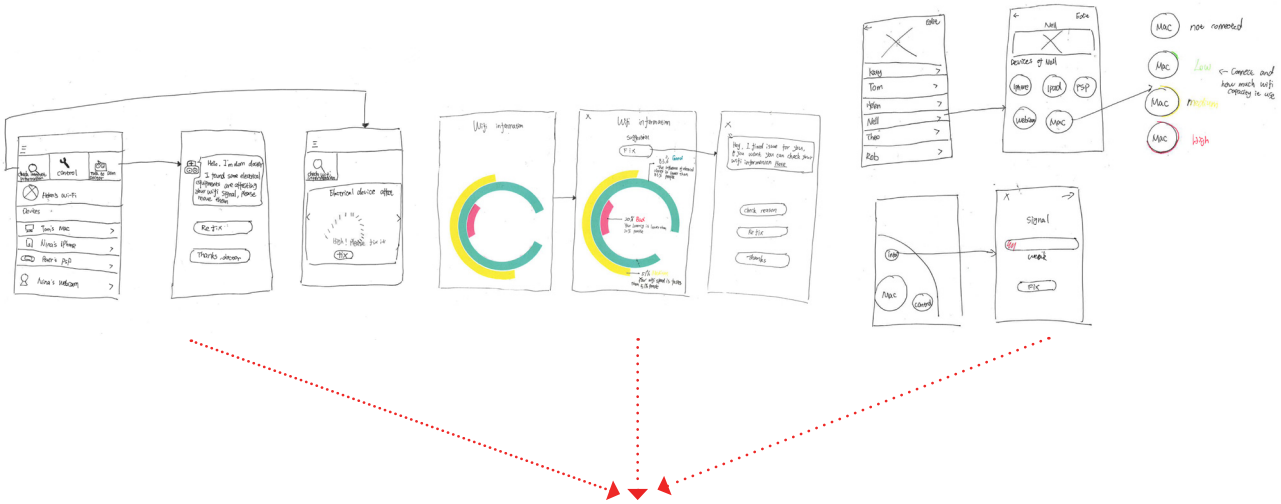
Who

+: When people see their Wi-Fi quality is better than most people they feel safe, that their Wi-Fi is good, and the app really helps them.

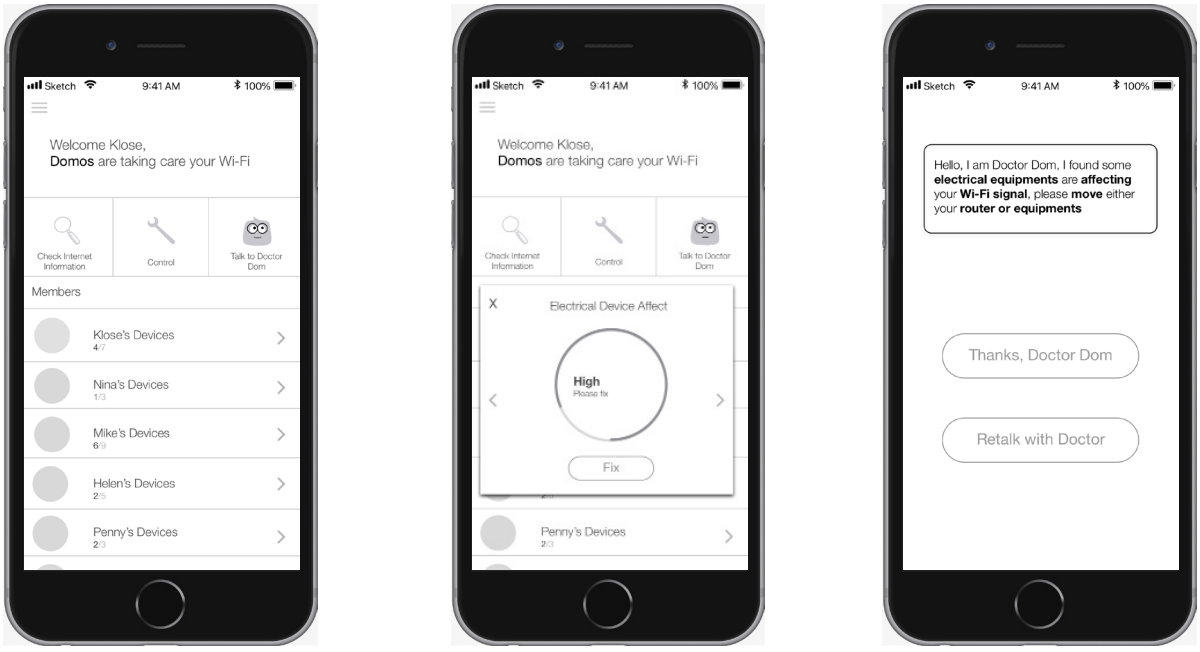
-: People will never satisfied. They always want to be the best . In some places, even though people they already achieved their best Wi-Fi speed, it still can be slow compared to others. Since it is still slow, it will frustrate them.

Ideation

Sketches-Concepts



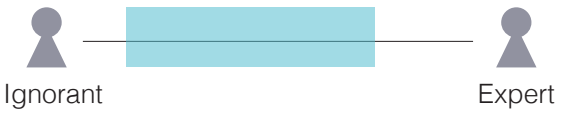
Concept Two



What

This concept focuses on a story. For the story, I used metaphor that the Dom character in the app is a doctor who looks after your Wi-Fi.
For the metaphor: seeing doctor means your Wi-Fi is sick (has issues), so you should ask Dom for help.
Checking Wi-Fi information is like da doctor checking the body to see whether it is healthy or not.
Controlling the time spent online is like prevent sickness in the doctor metaphor.

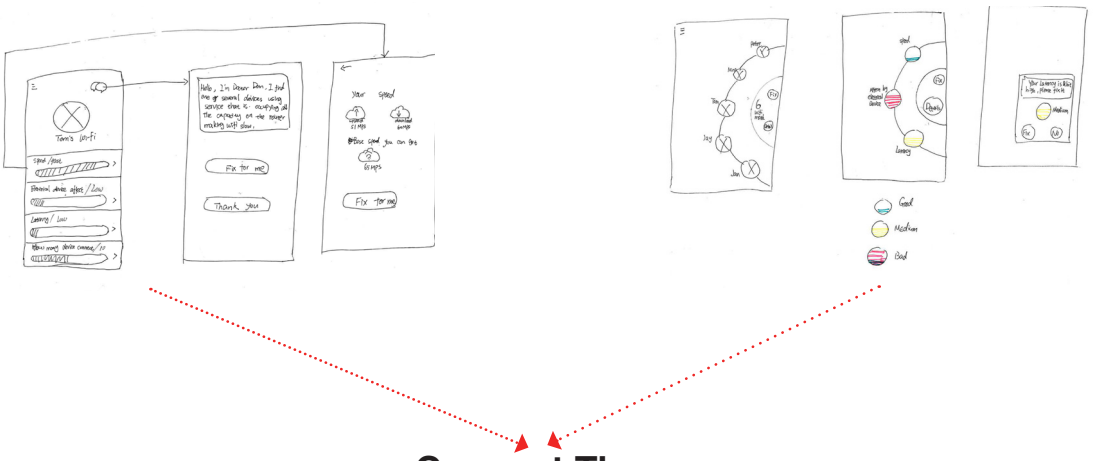
Who



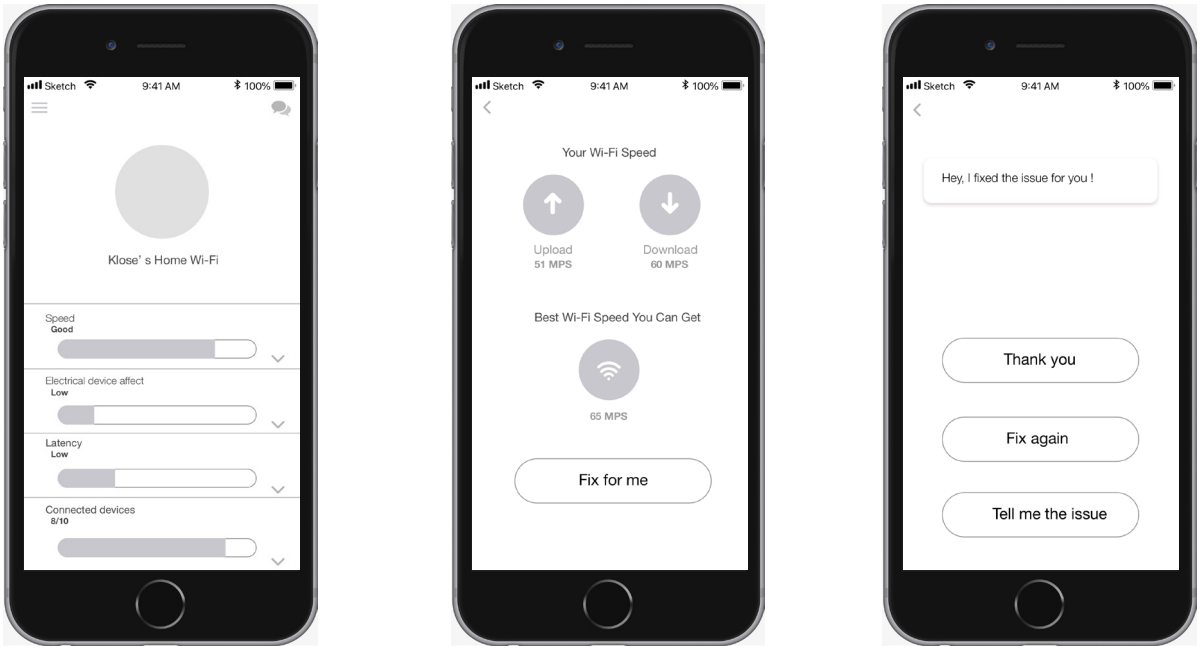
+: This concept gives the charactor Dom more personality and it makes Wi-Fi more interesting and easier to understand.
-: To balance medical words and Wi-Fi words is a big challenge.

Ideation

Sketches-Concepts



Concept Three



What

This concept is focusses on visualization. It is easy to see (in the front page) your Wi-Fi information and whether your Wi-Fi is good or not.

Who

+: Users can learn more about Wi-Fi information and get to know Wi-Fi quality by seeing the dashboard. Finding solutions is easy. It solves Wi-Fi issues immediately instead of telling people what happens. If they want to know and learn more, they can choose “tell me the issue”. Otherwise, they can just end the conversation.
-: Choosing which specific information and how to present (for example, dashboard, color and so on) is a big challenge.

Evaluation of Concepts

What

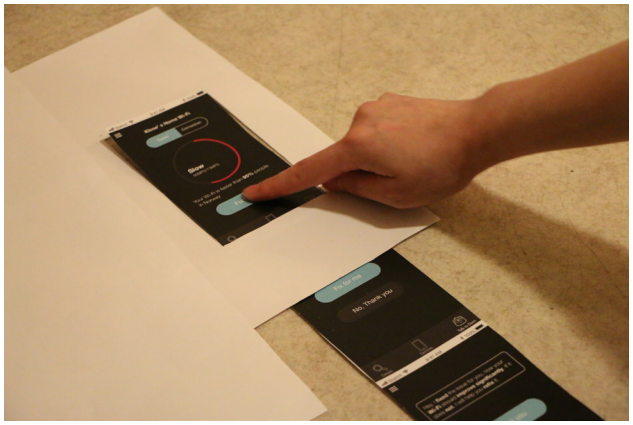
After analysing the three concepts, I decided to do a test.

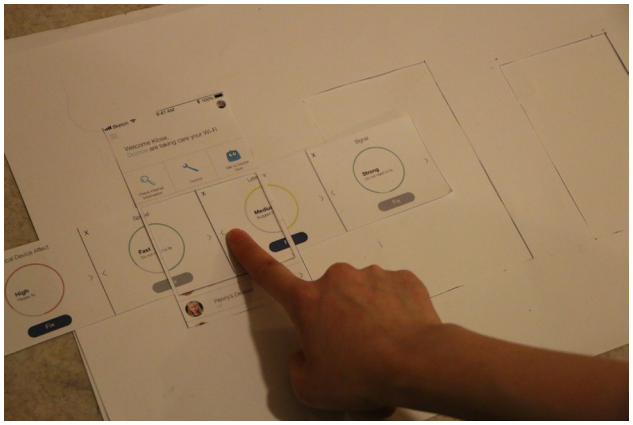
How

I made some paper prototypes and invited some users to to test them and give feedback.

Why

To choose the concept, it is not sufficient to analyse advantages and disadvantages. Since the project is relevant to the users, the users' needs and feedback are of great importance for evaluating the concepts.





Conclusion

Advantages:

"I like the pages presents the most information about Wi-Fi in the first page."

Unknown User, Norway

"It is good that in this concept, It can just fix my problem without telling what happened, I do not care it anyway."

Unknown User, Norway

"I think showing pictures to tell what happened is good, simple texts are too boring."

Chao, 48, China

Evaluation of Concepts

Conclusion

Disadvatages:

"I do not have any interest in Wi-Fi, but I know some people want to know more, maybe I can choose which information I like to read."

Bent, 45, Norway

"I want see the process of fixing my Wi-Fi"

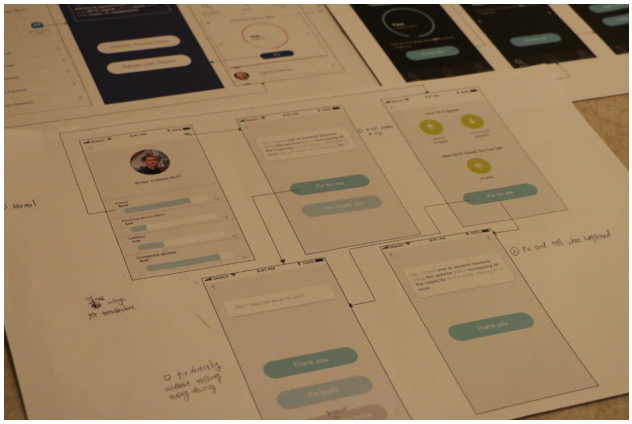
Inger, 42, Norway

"I hope this app can sometimes suggest me whether I should do something or fix, I am not an expert."

Unknown User, Norway

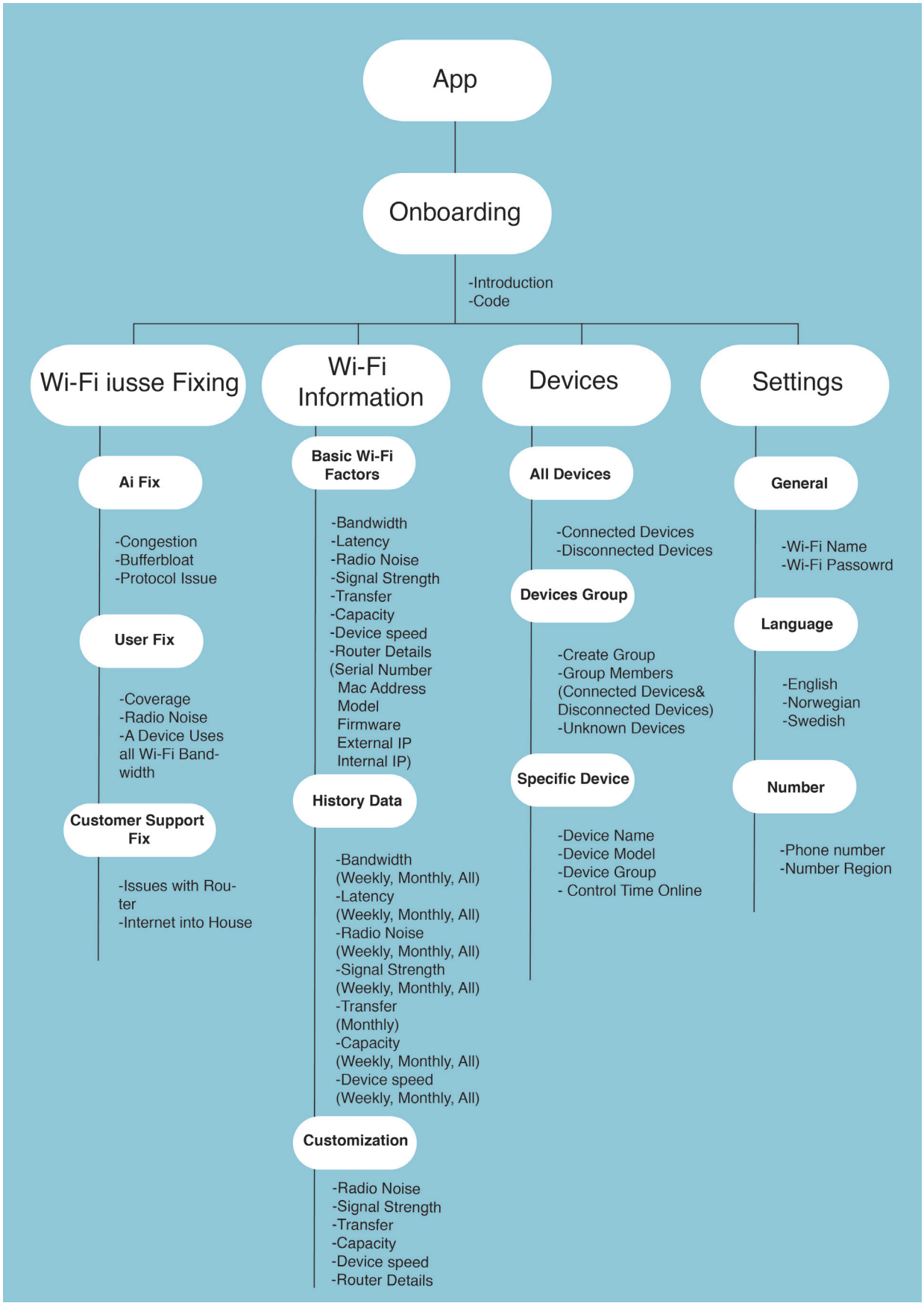
Sum Up

From the users' feedback, I had some insights:
1 Users prefer to use the app to fix Wi-Fi issues quickly.
2 When the app gives instructionon what to do, they prefer seeing picures rather than just text.
3 If they have time, they do not mind to learn some Wi-Fi knowledge.
4 They prefer to see the feedback and process when their Wi-Fi issues can be fixed by the AI.
5 They would like notifications.
Based on my analysis and paper prototype test, I decided to take the doctor metaphor concept and focus on visualizing Wi-Fi issues and information.



Ideation

Information Architecture



Ideation

Information Architecture

What

This is the new information archtecture for my project .

How

Based on the scope and direction of my research, I chose from three concepts.
I divided this app as four part: Wi-Fi fixing, which is the most important function in the app; Wi-Fi information, which is mainly for users who want to learn Wi-Fi knowledge; device (I kept the functional content, which is the control part, and add group function to help users find which device belongs to whom easily) settings. To complete the app, settings are belong to it.

Why

To give users the right solution for fixing their Wi-Fi, it is important to listen their suggestions, feedbacks and combine it with experts to build the solutions on user needs.

Conclusion

This information architecture is the guide for the user flow and details for the app.

Ideation

Scenario

What

This is a scenario story including users.

Why

To understand the whole process of the Domos service including the app.
It also present a real situation for using the app, because this app is a practical digital tool.

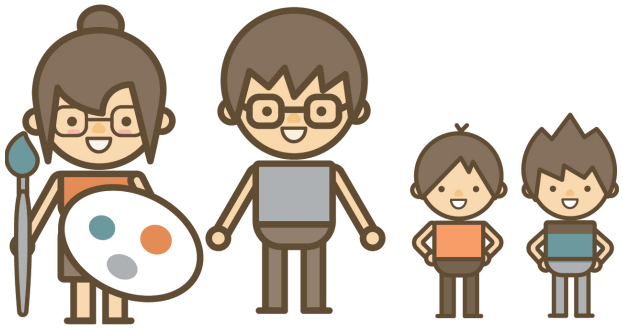
How

After I asked the expert what is the most commen Wi-Fi issues the user experience, I got the answer: ccongestion. This can be solved by the AI tool of Domos.
I did those illustration to present the situation.

Conclusion

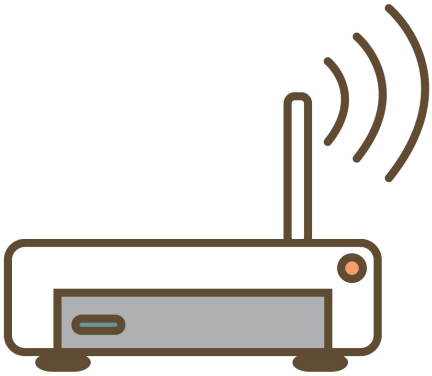
After presenting this scenario, I have a better understanding of the user flow in real situations.

Scenario

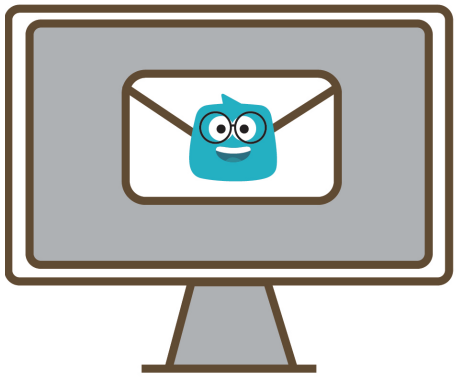


1 Ida is 43 years old. She is an art teacher in a primary school and she lives in a house with her husband and two sons in Oslo.

2 Ida and her husband chose an internet service, registered their personal information and paid.

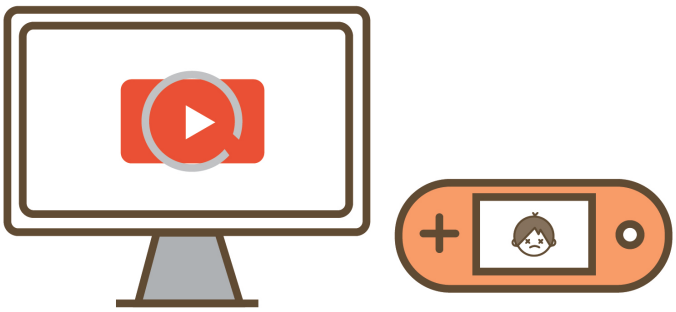


3 After several days, they got a router by post and then they installed it.

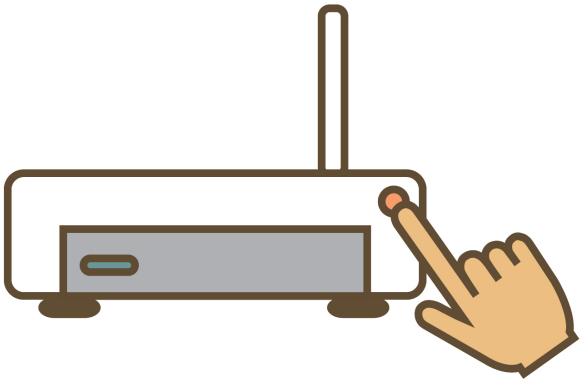


4 Ida received an email from Domos that she can download an app called dr.Dom to solve her Wi-Fi issues if she has some, but she ignored it.

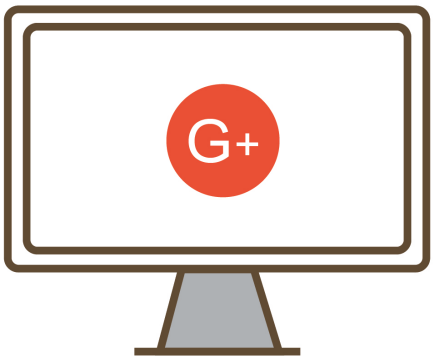
Scenario



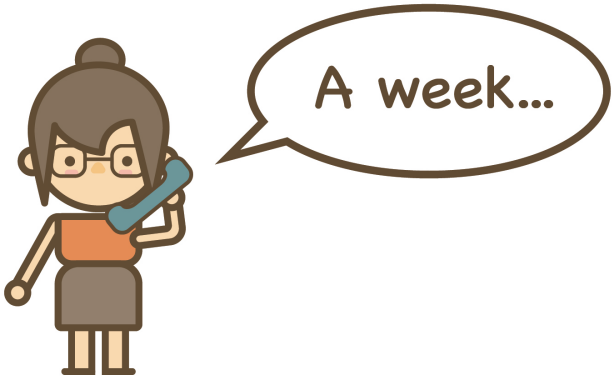
5 One day, around 8pm, Ida was watching a Youtube video and suddenly, the video stopped. At the same time her son died in the online game he was playing. She found out their Wi-Fi has a problem.



6 They rebooted their router, but it did not help.

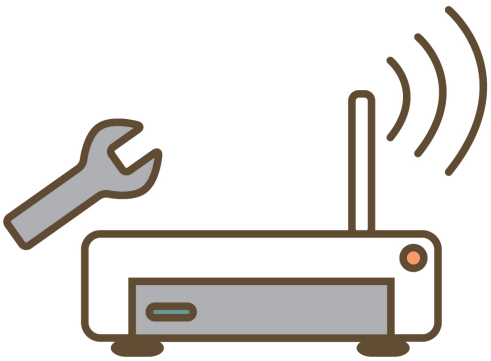


7 Then they tried to Google what happened, but most answers say that in the rush hour, the Wi-Fi will be slow and you just need to wait



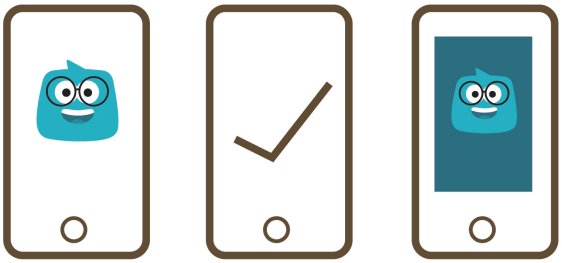
8 This problem kept on for several days, so Ida had to call customer support for help, but she had to wait for a week for the caretaker.

Scenario

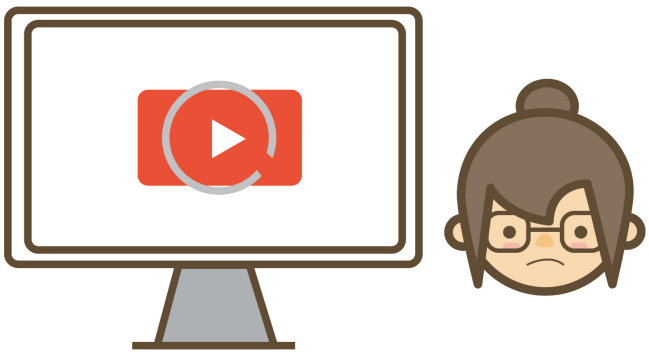


9 After one week of waiting, the caretaker of customer support helped Ida's family to fix the problem.

10 However, everyone was unhappy due to the long waiting and the unstable Wi-Fi they had.

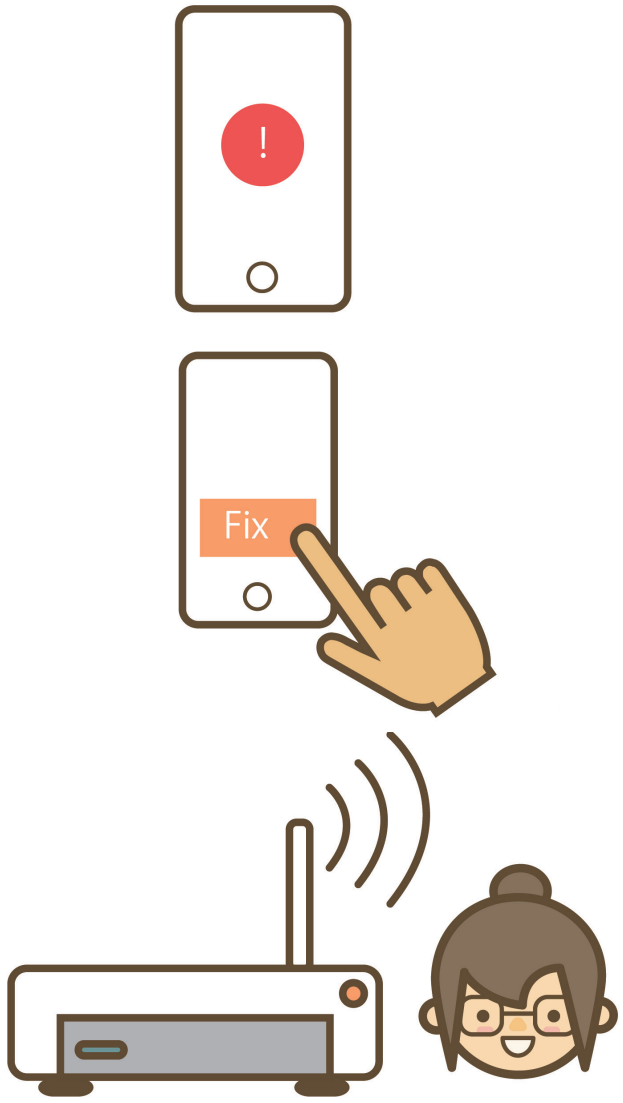


11 Ida suddenly remembered the email from Domos, so she wanted to try it. So, she downloaded dr.Dom, registered and chose the "Just Fix" mode, because she preferred just fixing her Wi-Fi issues.



12 One day, when Ida was watching a video, the video stopped again and Ida was annoyed about that.

Scenario



13 Then Ida found dr.Dom sent her a notification suggesting her to fix her Wi-Fi.

14 She opened the app, which told her Wi-Fi quality was bad. So, she pressed “Fix it”.

15 After several seconds, Ida’s Wi-Fi became good again and she was happy about that.

16 After that, Ida’s Wi-Fi quality improved a lot. If she has Wi-Fi issues, she just goes to dr.Dom to fix them. Everyone in her family now enjoy good Wi-Fi.

Ideation

Wireframe

What

This is Wireframe Sketch.

How

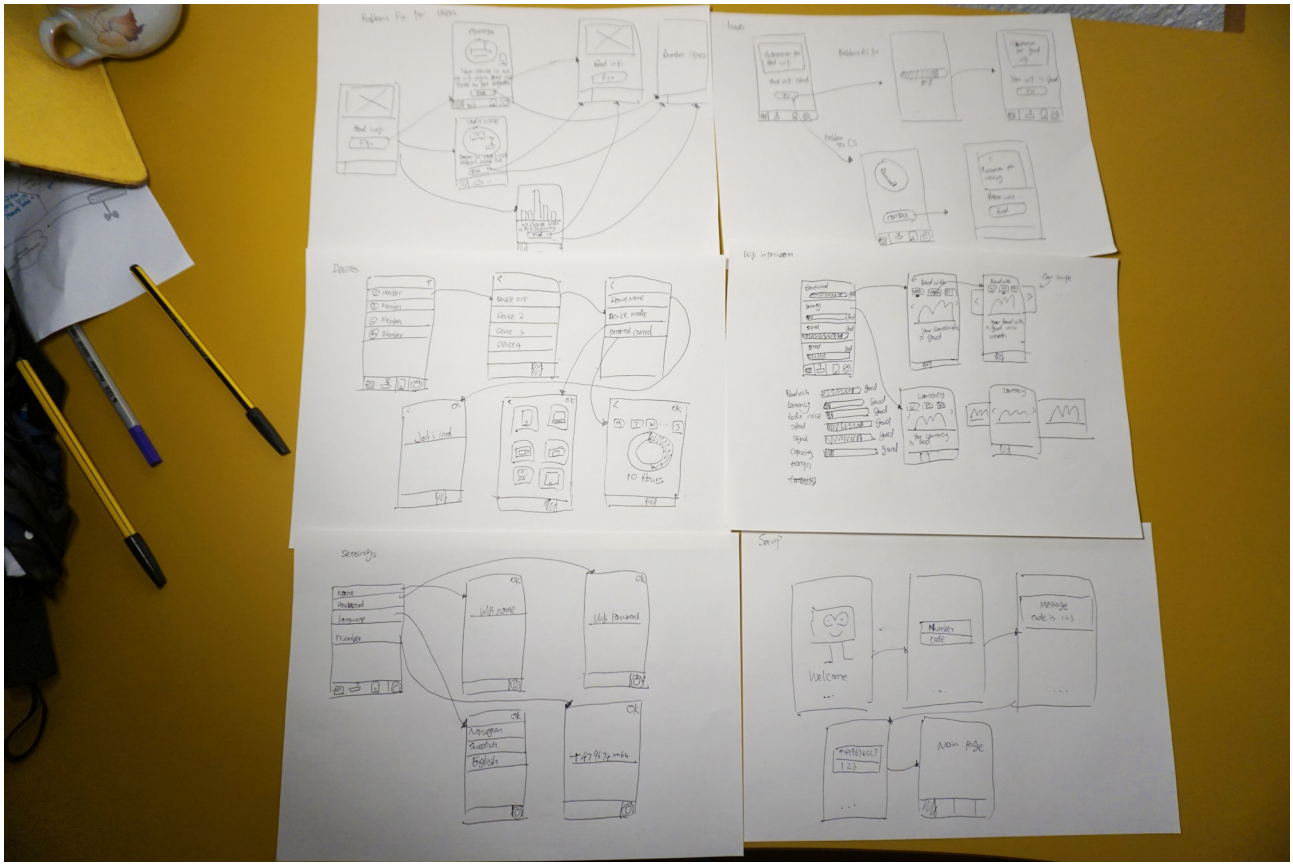
Based on the information architecture and scenario, I made the wireframe from the rough sketches to the digital one.

Why

Because the wireframe is the insight of the app's final user flow I and how the app works and operates, it is the skeleton of the app.

Conclusion

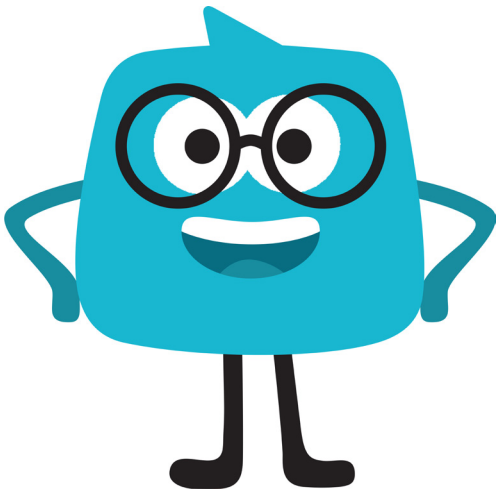
The wireframe is used in the final prototype of the user flow.
After making the wireframe I decided to make identity of the app then get into the final prototype.



Identity

What

dr.Dom



Why

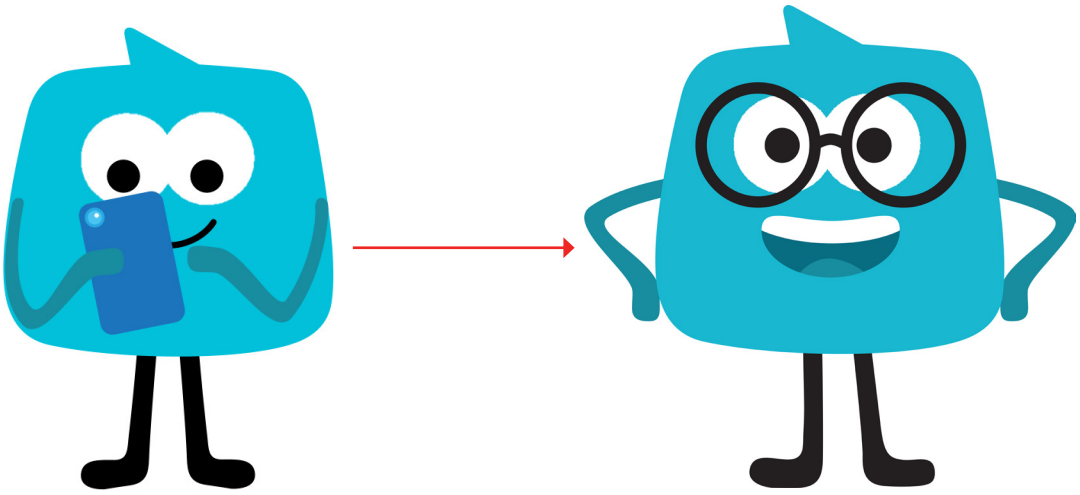
Because this project in cooperation with Domos and Dom is the character used for communication and giving solutions to users when they have Wi-Fi issues.
When Dom became "dr. Dom", the users will feel it is like a doctor who helps recovering “sick Wi-Fi”.
Besides, the brand value is smart, fun and helpful. Eeven in previous app, Dom has the role for "fun". So I decided to use "dr. Dom" with the letters “dr” to make it fit closer to fun part.

How

To use the "doctor" metaphor and because this character is the helper for Wi-Fi issues, I decided to make the character ”Dom" become like a doctor- "dr. Dom".

Conclusion

"dr. Dom" will be the domain for Wi-Fi issues. He informs users when they have Wi-Fi issues and helps them with fixing.



Identity

What

New color board attempt.

How

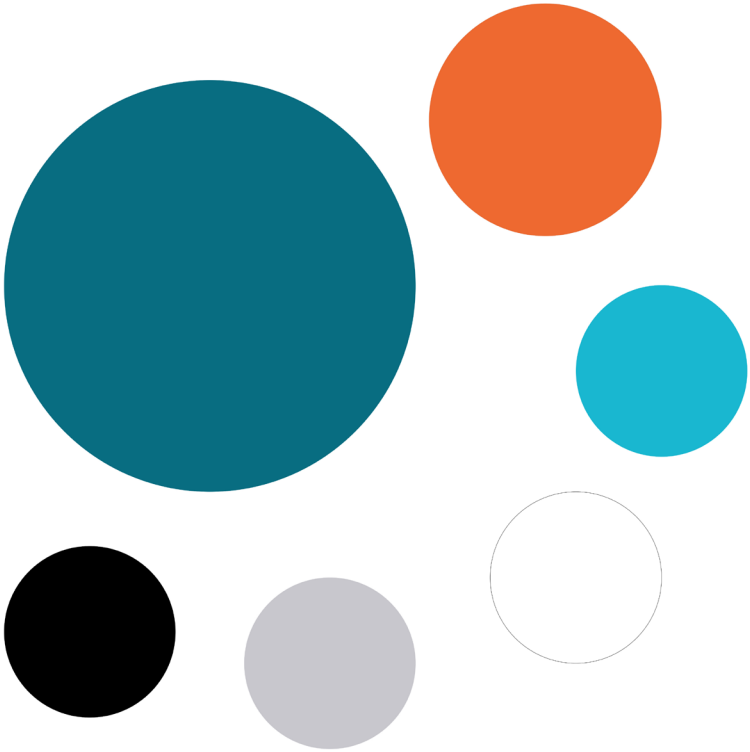
Keeping the orignal blue color of Domos, I made a new color board basic on the words of brand value: smart, fun and helpful, to have a radical test.

Why

To make the app closer to the brand value of Domos (smart, fun and helpful), I decided to use the warm color orange to make it more fun and energentic. I also involved dark blue together with orange to make it highly contrasting to catch the user's attention when highlighting information .

Conclusion

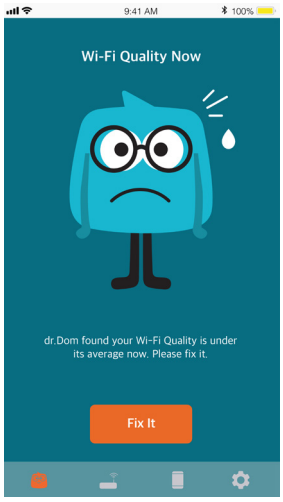
This new color board is just an attempt for aesthetics of the appapp. I will test it on on both experts and users to get the final solution.

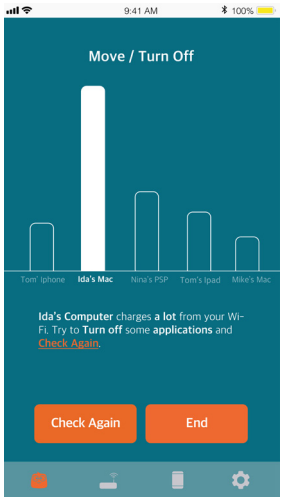


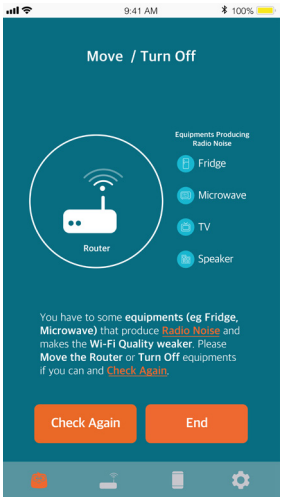
Ideation

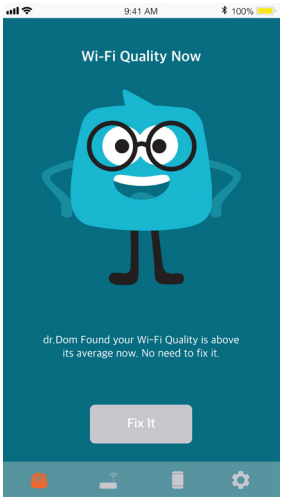
App Visions Overview

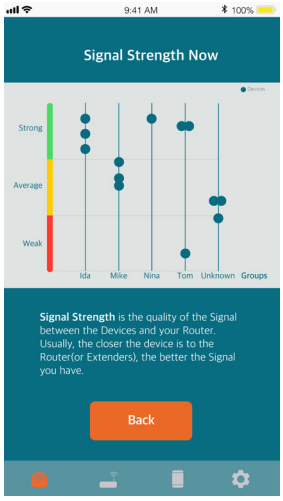
Vision of Attempt Color Board

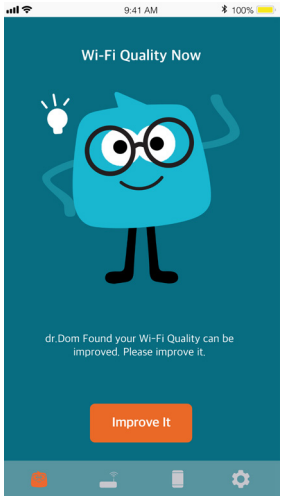


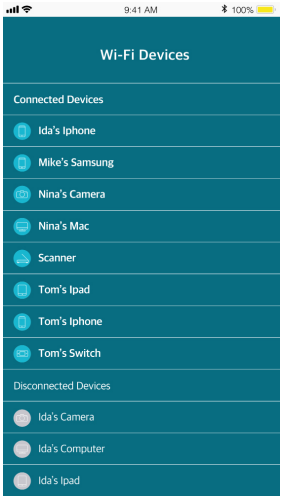


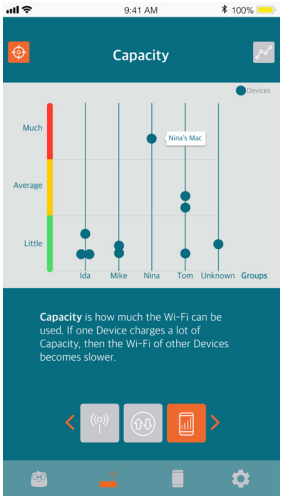


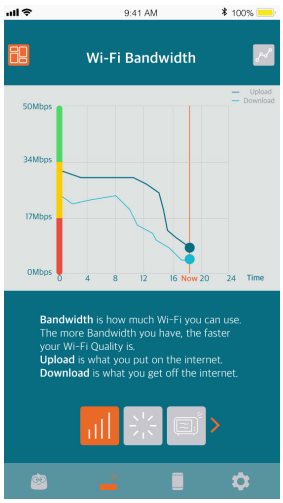


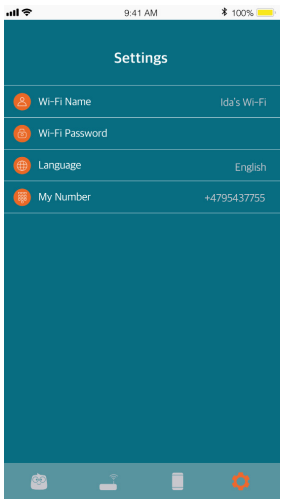


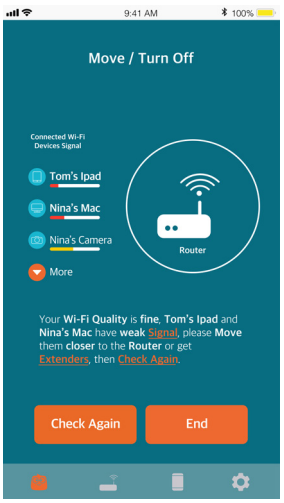


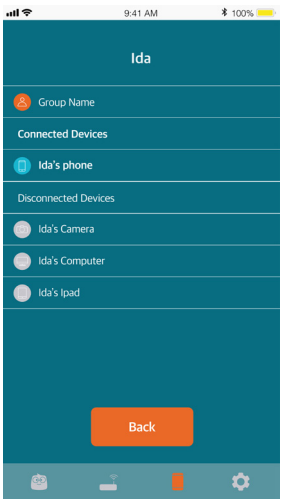








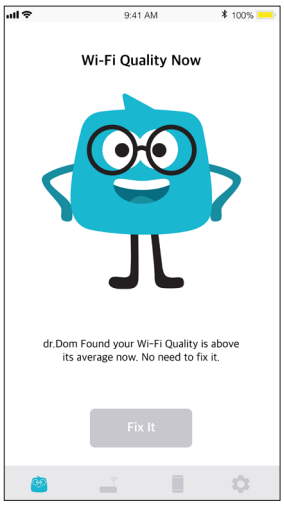


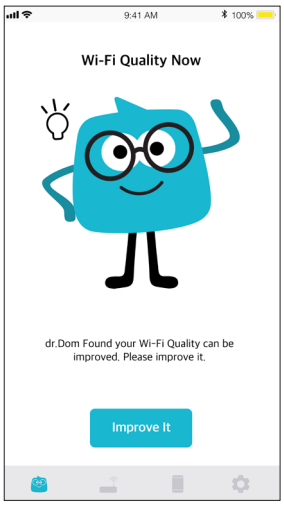


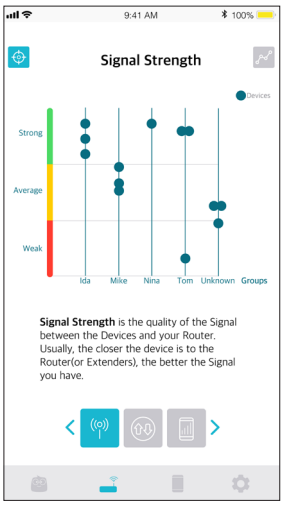
Ideation

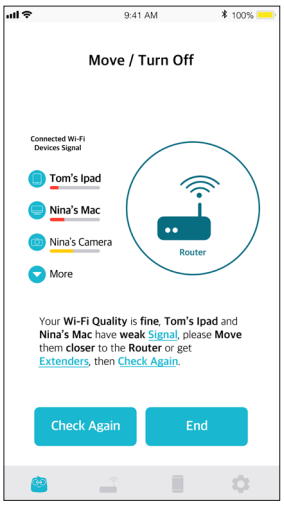
App Visions Overview

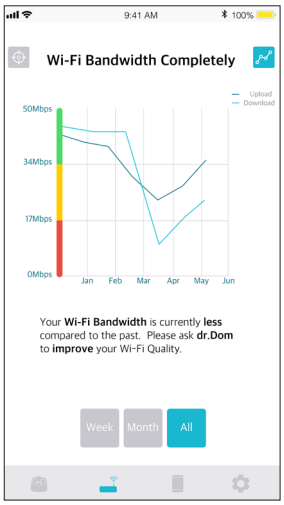
Vision of Domos Color Board

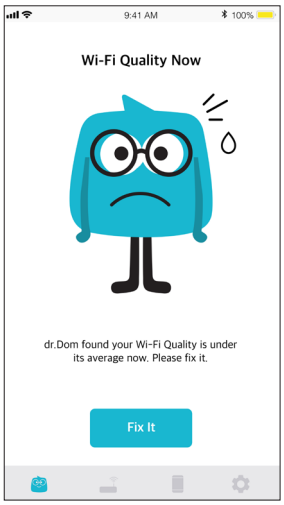


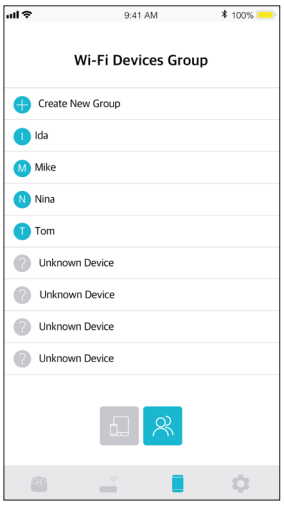


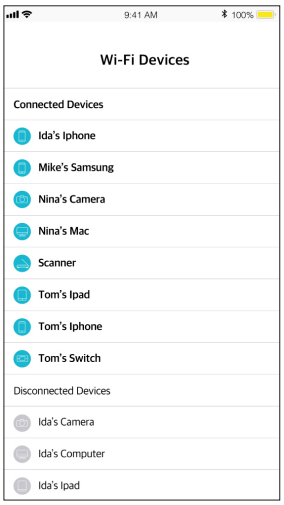


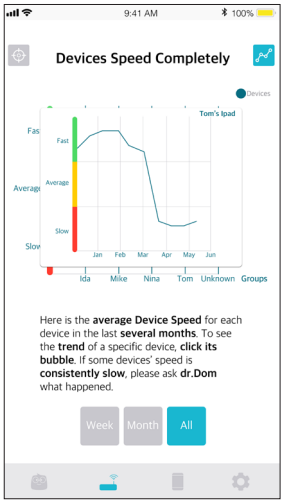


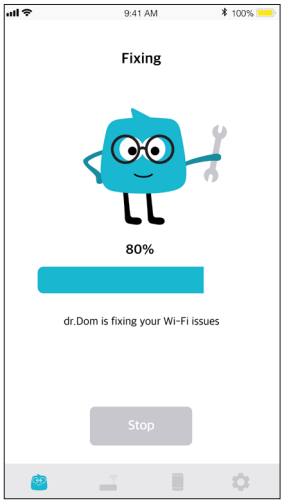


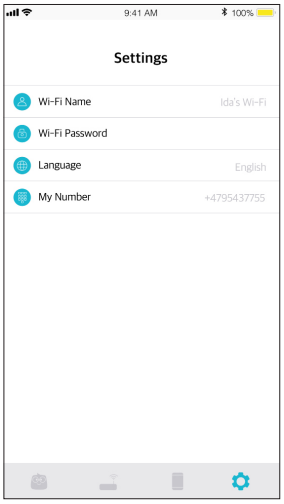


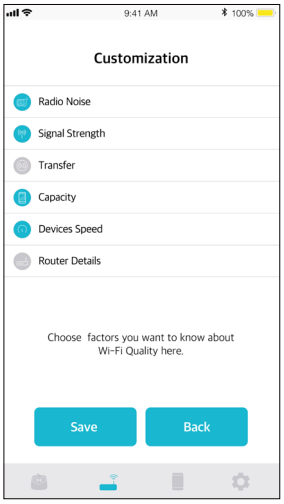












Ideation

Expert Test

What

I did a pre-test with the experts in Domos, and showed two different visions of app.

How

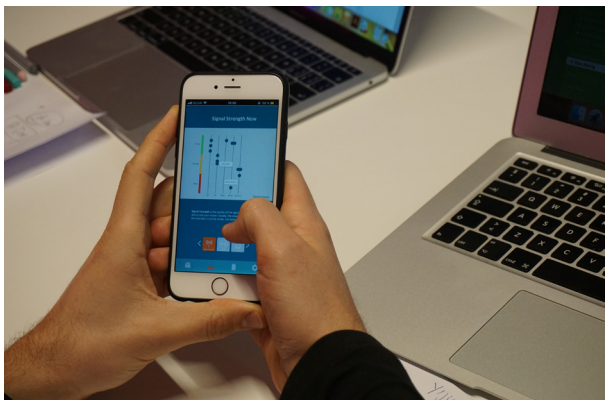
I uploaded the app I made into invision and ask experts to to try it and to check whether the information explaination and present are correct.
I also showed two different visions of the app to ask which they prefer.

Why

For functionality part, the experts are professional enough to give feedback and corrent the words explaination.
For aesthetics part, even through the experts is not professional of design, they have a right to choose their preference, because this project is cooperated with them.

Conclusion

After testing the app, the experts think the explaination of Wi-Fi issues, solution and Wi-Fi knowledge is correct, clear and much easier for ordinary people to understand.
However, the experts also suggest to fix some details. For example, some texts for Wi-Fi information are too small to read.
For aesthetics, they prefered the second vision (with Domos previous color board), because they think it is more close to their brand.



Ideation

User Test

What

After the pre-test with experts in Domos, I also did user test with two visions (same content) of the app .

How

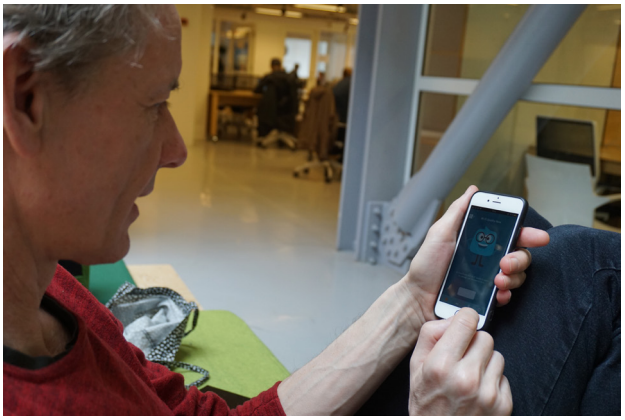
I invited 7 people to to try the app I made so far. I asked them whether they understand the Wi-Fi issues and solutions in the app, and whether they understand the information presented in the app.
I also asked them to fix different Wi-Fi issues in the app and observed what they did.
Besides, I asked their opinions of the two different visions of the app.

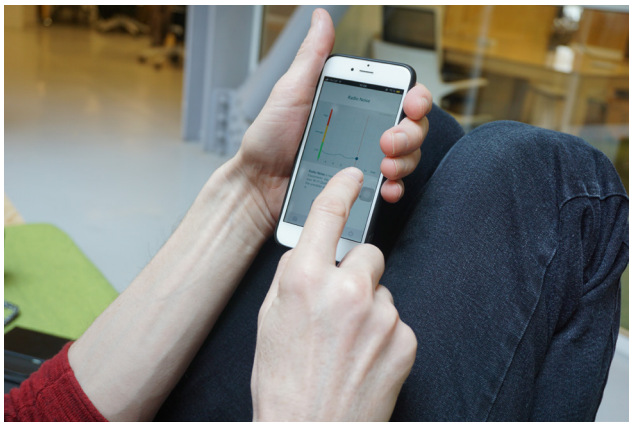
Why

Whether the app is successful or not, is mostly decided by the users. Ultimately, they need to understand and fix their Wi-Fi issues with the app. With the users' feedback, I can also evaluate the app better.

Conclusion

During the user test, all of the users were able to understand the Wi-Fi issues and solutions. They also felt it is convenient and easy to operate and find navigation. Besides, for functionality part, most users prefer the second visions of the app, because it is more clearly to see the information in white screen. Moreover, some of them found it physically uncomfortable when to see the orange color in the blue background in menu bar.



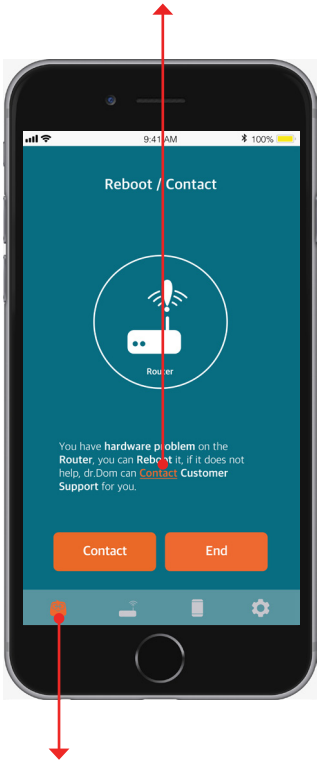


Ideation

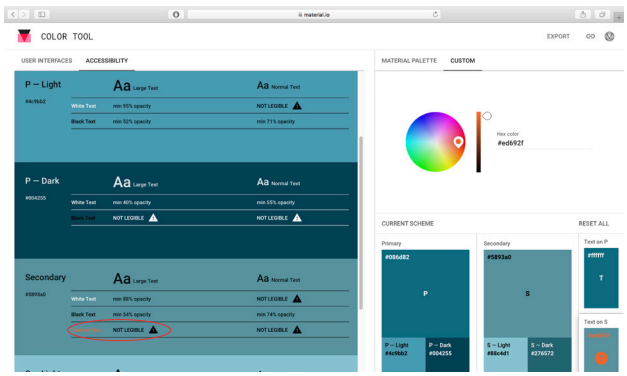
Conclusion

Why

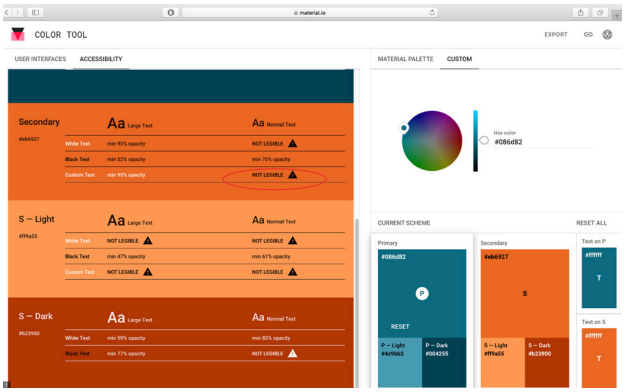
1 For the functionality: orange text on a dark blue background is hard to read and especially when the letters are small.



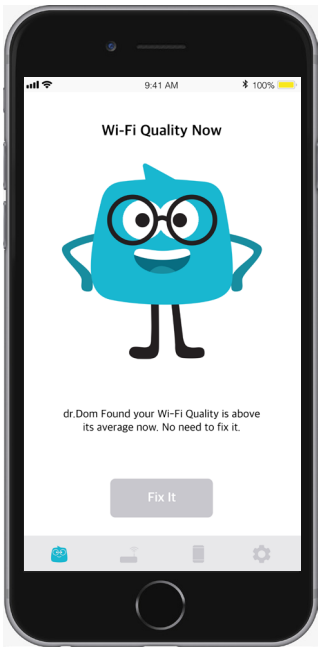
2 For the physical reaction: in the menubar, orange on a dark blue background is uncomfortable.

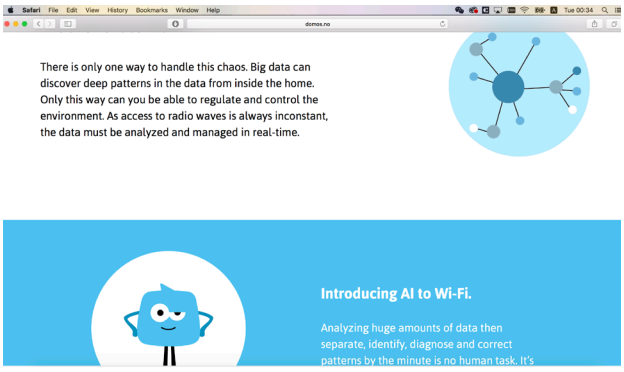


3 For the color rules in interaction design design, those colors are a fair match.



4 For my client Domos: the second vision fits their identity and the first one went too far away.





Since both the users and experts prefer the second version, I decided to choose this one (with Domos' original color) as my direction.

Solutions

This chapter presents the final design solutions and arguments.

Content

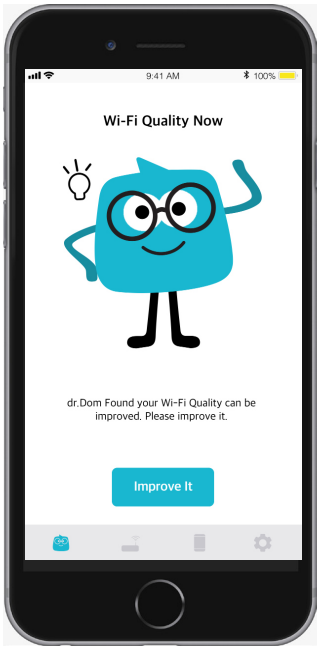
Components
Troubleshoot
Wi-Fi Information
Wi-Fi Devices
Settings
Setup
Identity
Feedback
Prototype

Click to try"dr.Dom": https://invis.io/TGINWK1DZVB#/296823231_set1

Solutions

Components

Troubleshoot



What

Troubleshoot is the home page for the “dr Dom” app. These pages are mainly for users to fix Wi-Fi issues at home.

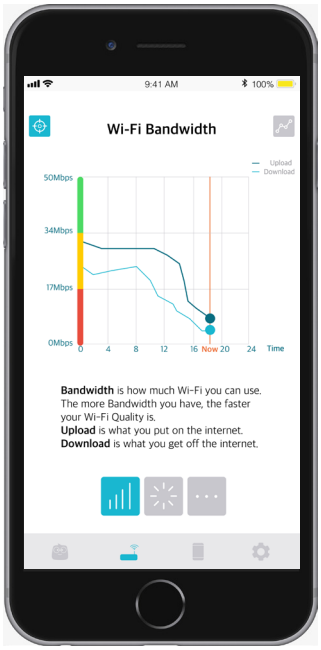
How

I put all the solutions for Wi-Fi issues inside. If the users experiences issues, the app gives the solution for that specific problem.

Why

The troubleshoot menu has the the most important function in "dr.Dom". Making it as the homepage allows the users to have a clear understanding of their Wi-Fi quality and decide whether to improve or not.

Wi-Fi Information



What

Wi-Fi information menu is mainly for users who wants to learn about Wi-Fi information.

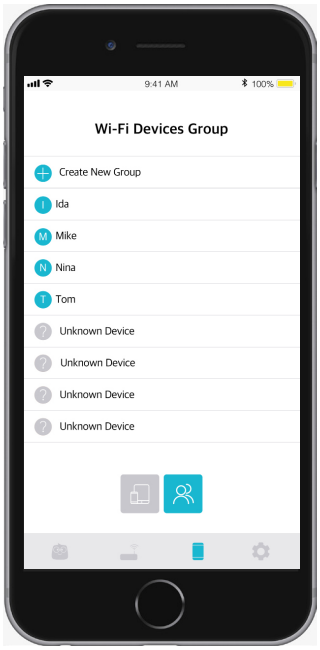
How

By working with experts in Domos, I devided it into two parts: basic Wi-Fi information and history trend information.

Why

This depends on the user’s behavior. For people who want to leran bout Wi-Fi, they can have a better commnunication with customer support in the future by learning.

Wi-Fi Devices



What

The devices menu gives an overview of all the Wi-Fi devices connected to a router.

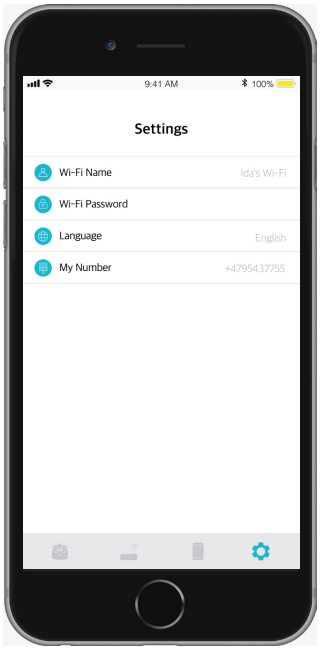
How

I kept functionality like control the device online time, but I grouped devices into members in this menu.

Why

Because this app is for Domos, keeping basic functions is necessary. Besides, grouping devices in members makes it easier for users find devices to control and set.

Settings



What

This is the settings screen in "dr. Dom".

How

I kept the same content as in the previous app, but I added icons to make it clearer.

Why

For the completeness of the app, the settings menu is indispensable.

Solutions

Troubleshoot

Identity

What

Screens about different levels of Wi-Fi quality with dr.Dom identity.

How

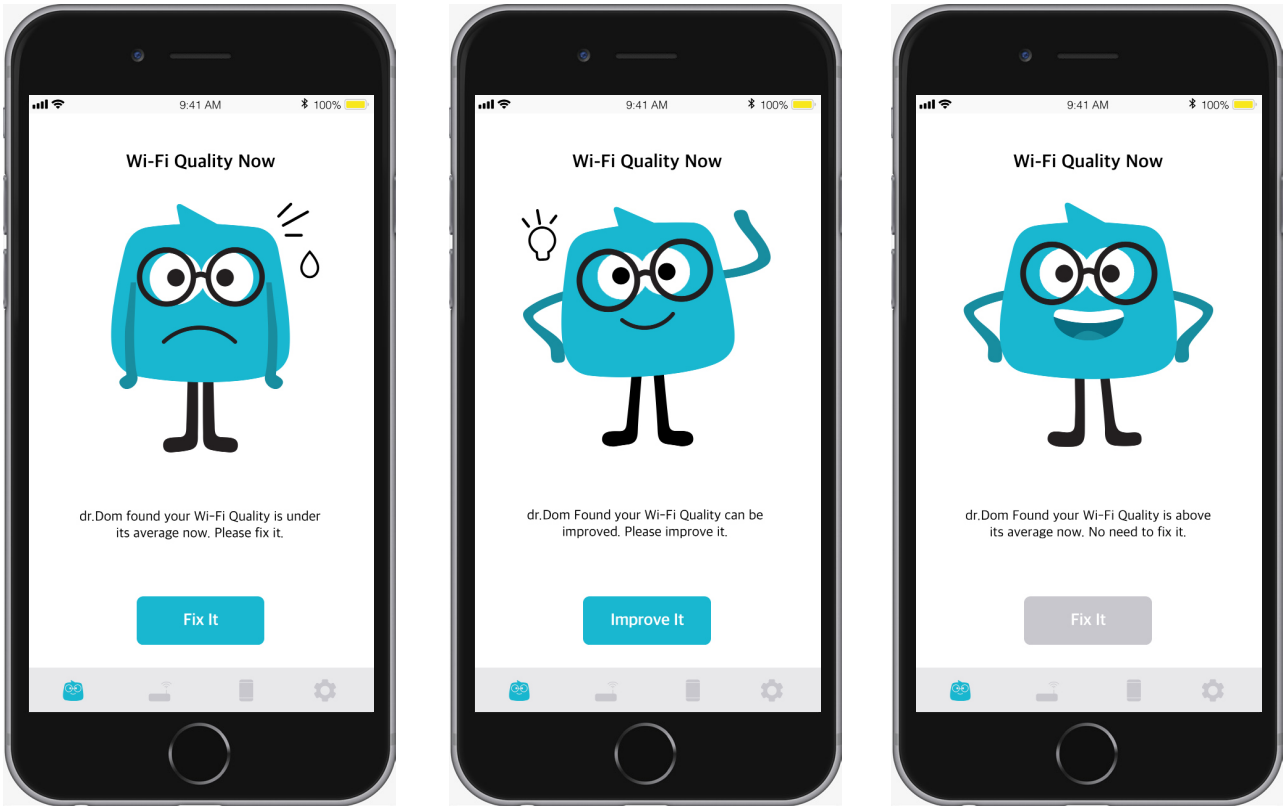
I mainly used illustrations of dr. Dom's face to present different Wi-Fi qualities. This makes it more identifiable and easier for the user to see how good or bad their Wi-Fi is.
If the Wi-Fi is pretty bad, I used a concerned face and sweat to represent "concern" and "worry".
If the Wi-Fi quality is around average, but it can be improved, I used the smiling face and bulb to represent "average level" and "suggestion" respectively.
If Wi-Fi quality is pretty good or the Wi-Fi issues are solved, I used a happy face to represent that.

Why

Firstly, dr. Dom is the character created by Domos to communicate with users and help the user fix Wi-Fi issues in the app.
Secondly, according to brand value(smart, fun, helpful), it pointed fun part with different emotions.
Thirdly, when seeing the "concern" face of dr.Dom, users understand that their Wi-Fi has issues and that dr.Dom is concerned about it. When seeing "suggest" face of dr. Dom, the user will find that dr.Dom has a suggestion to improve the Wi-Fi and that he give advice if desired. When seeing the "happy" face of dr. Dom, the users knows the Wi-Fi is good and that the problems are solved. Dr. Dom is happy about that.

Conclusion

So, I ended up with these three screens to show different levels of Wi-Fi quality.



Troubleshoot

Troubleshoot-Wi-Fi issues Fixed by AI

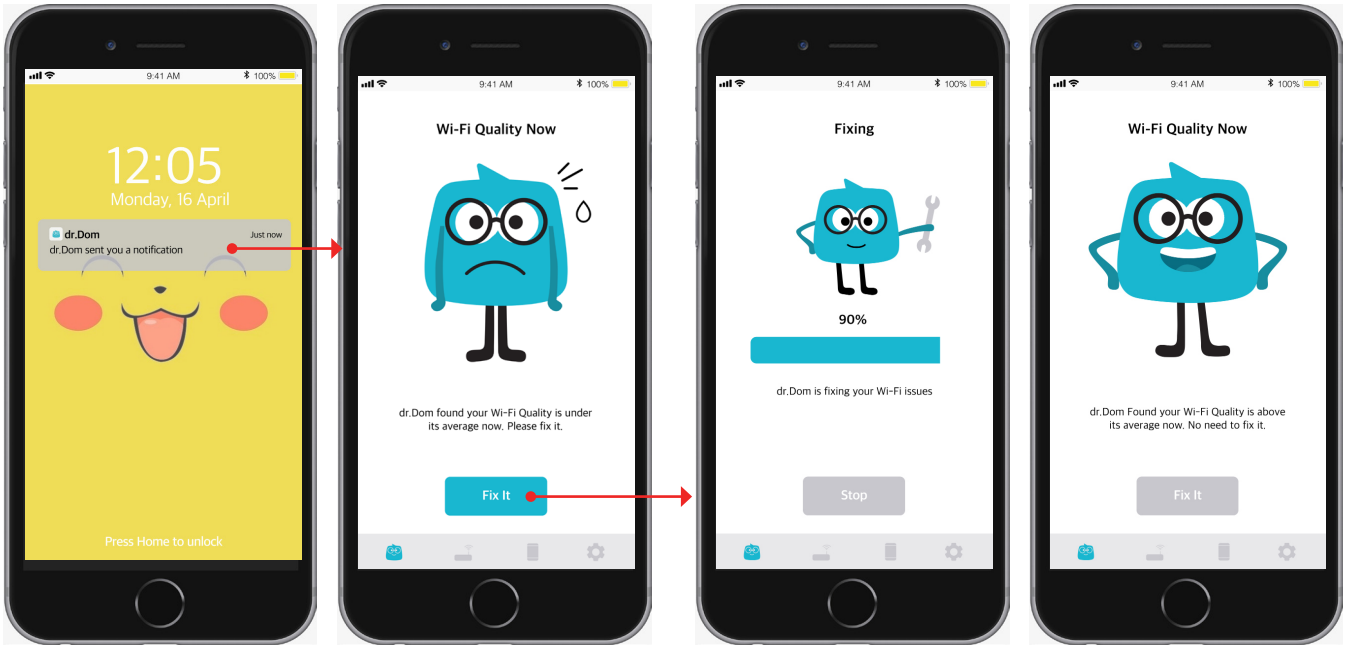
Why

Wi-Fi issues are different in different situations. If an issue can be fixed by the AI tool from Domos, the user only needs to understand that there is an issue. It's solved by pressing the "Fix it" button. Then the AI technoloy gets an order and starts to fix the issue.
To make the users understand that their Wi-Fi issues are fixed, the app presents the process and information about the improved Wi-Fi quality.

What

Screens about Wi-Fi issues that can be fixed by AI tool.

How



Firstly, if the Domos technology finds out your Wi-Fi quality is too low before you do, the app will immediately sent a notification.

After entering the app, you can find your Wi-Fi quality situation.

The fixing takes a short while, but you can still stop it if you have an emergency.

If you think your Wi-Fi quality is still not good enough, you can press "Fix it" again.

Interaction video: https://vimeo.com/269750257

Troubleshoot-Wi-Fi issues Fixed by Users With Instructions

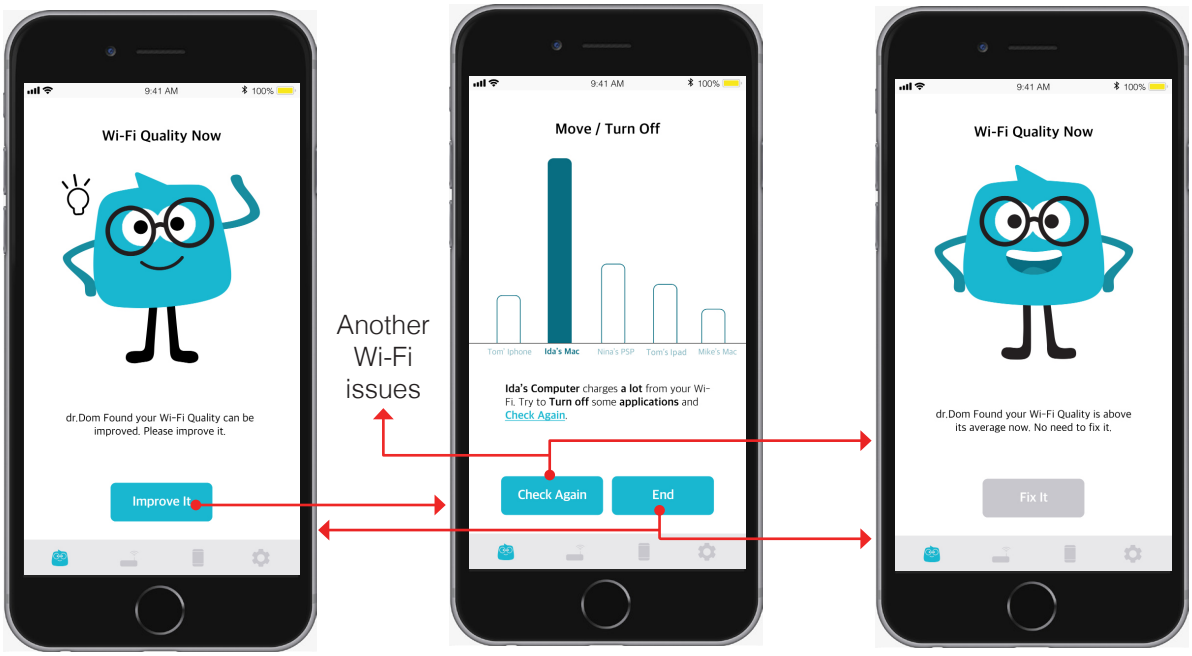
What

Screens about Wi-Fi issues when one device uses a lot Wi-Fi capacity.

Why

For Wi-Fi issues that should be solved by the user, the heading tells what actions the users has to take. Either move or turn off some applications. It is also clearer to show a graph combined with an instruction, because at the first time, users do not know what to do. After reading the text, they remember how to do it. So, if they experience the same issue again, they just need to see the graph and then help themselves.

How



If the user presses "Check Again", the app goes to another issue if he has another issue. If there is nothing wrong with his Wi-Fi, the app goes to the good Wi-Fi quality screen. If user presses "End", he will get the fix screen if he still has problem.

Interaction video: https://vimeo.com/269735074

Troubleshoot

Troubleshoot-Wi-Fi issues Fixed by Users With Instructions

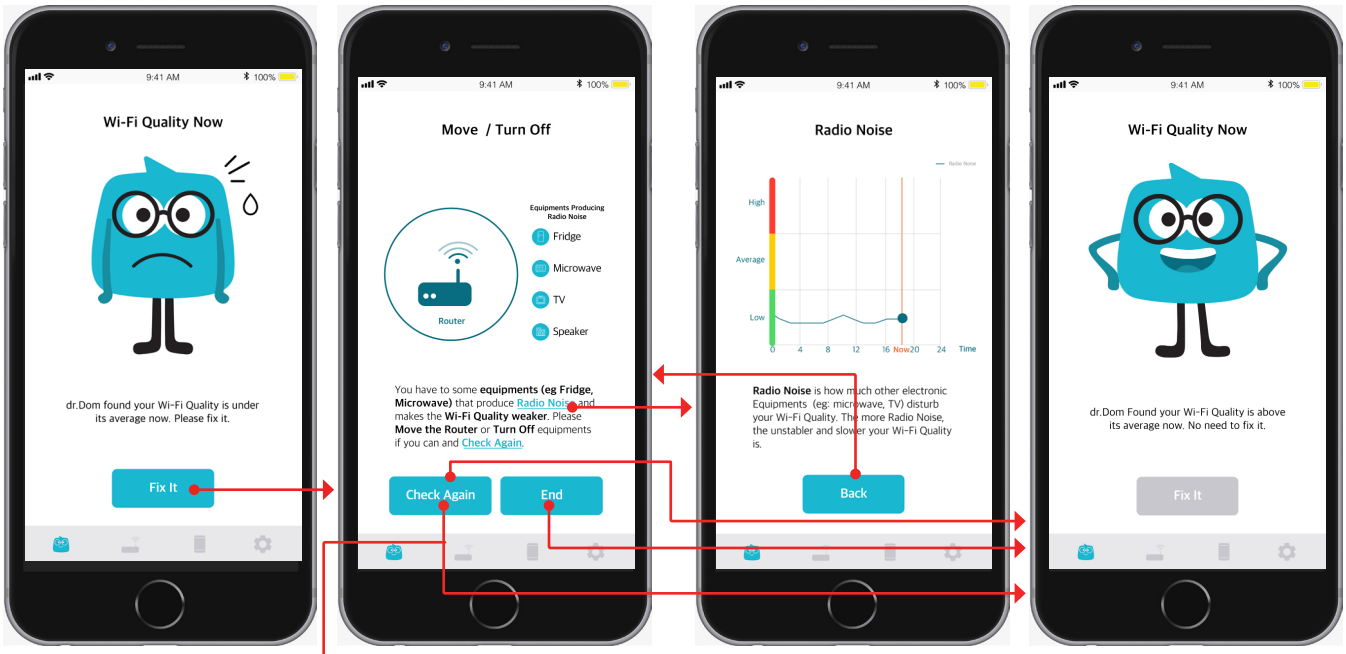
What

Screens about radio noise. When some electronical equipments produce radio noise, the Wi-Fi becomes unstable and slow. So, in this situation, the app tells the user to either move router or some equipment a bit further away, or to turn off some equipments.

Why

I designed it this way to guide the users' behavior. When they have radio noise issues the first time, they do not know what is radio noise. They can click text to learn it. Furthermore, If they do not know what to do, then they read the heading, instruction texts and learn how to do it. So, if they experience radio noise again, they can fix it quickly by themselves.

How



Another Wi-Fi issue

In this screen, the user can see an example of equipment producing radio noise if he does not understand what is meant.
If the user first wants to know what is radio noise, he can click the text.

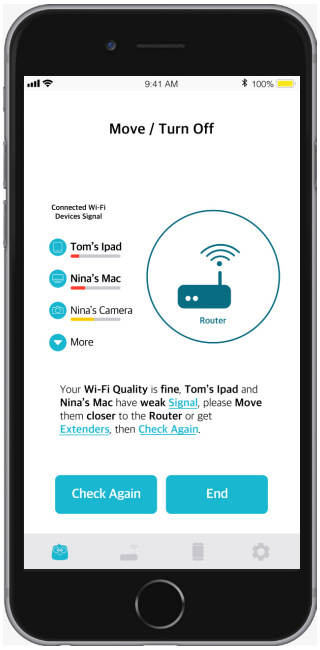
In this screen you can see whether your radio noise is high or low and understand what it is

Interaction video: https://vimeo.com/269735924

Troubleshoot-Wi-Fi issues Fixed by Users With Instructions

What

Screens about signal. Sometimes devices have a bad signal, In this situation, the app tells the user which devices have weak signal and suggests the user to move them closer to the router or get extenders next to the devices.



Why

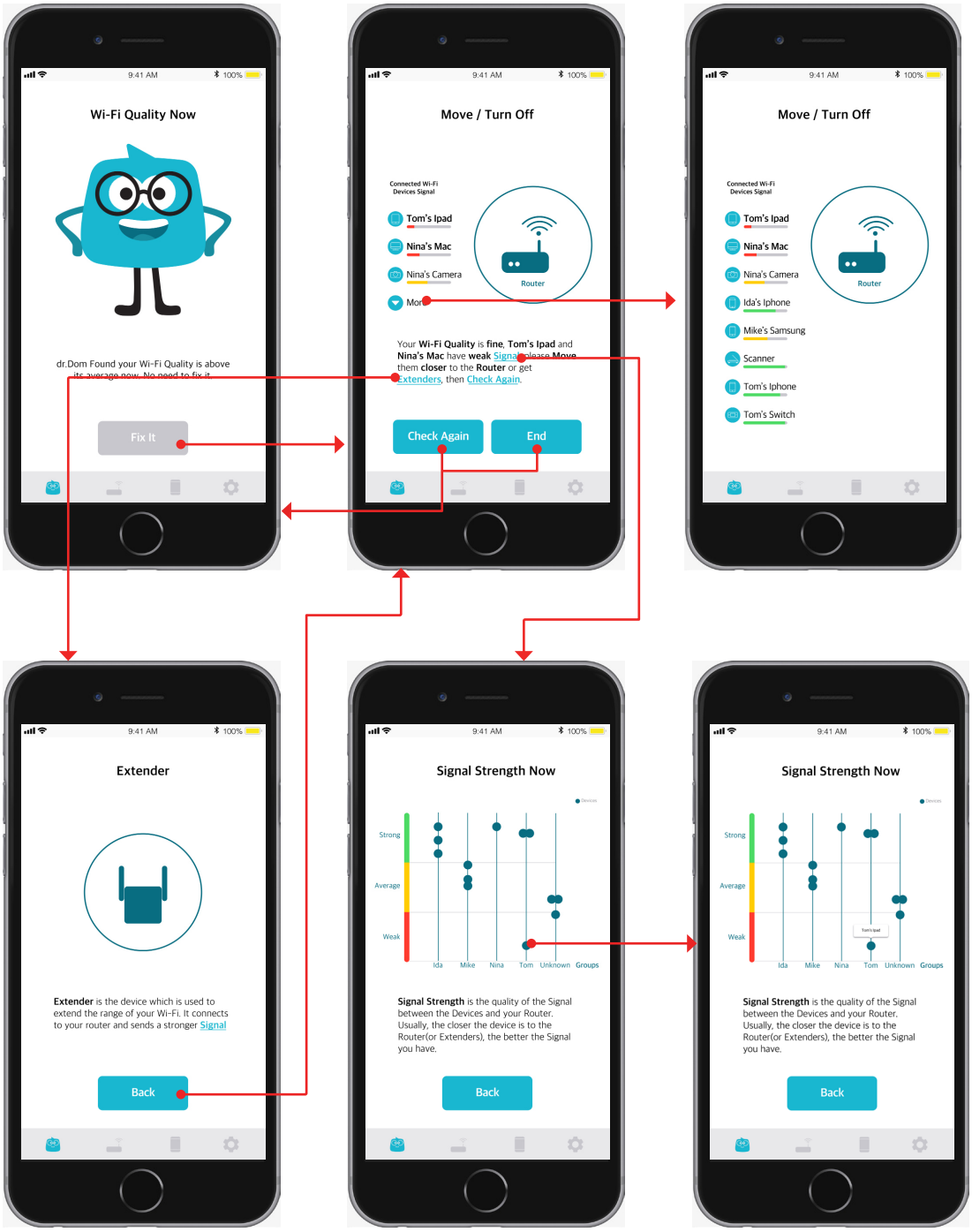
Sometimes, the Wi-Fi is fine, but users still feel their internet is slow, because their device signal is weak. For this issue, users can clearly find which specific device has a bad signal from the bar next to device name.
If the user wants to learn more, for example, what is signal, he can go to the signal page by clicking the text to see the explanationand signal situation of all the deivces.

Troubleshoot-Wi-Fi Issues Fixed by Users With Instructions

How

In this screen, you can see the top three connected devices have weak signal. If you want to see more devices' signal, press "More".

In this screen, you can see all the connected devices pages with their signal strength.



Interaction video: https://vimeo.com/269737500

Troubleshoot-Wi-Fi issues Fixed by Customer Support

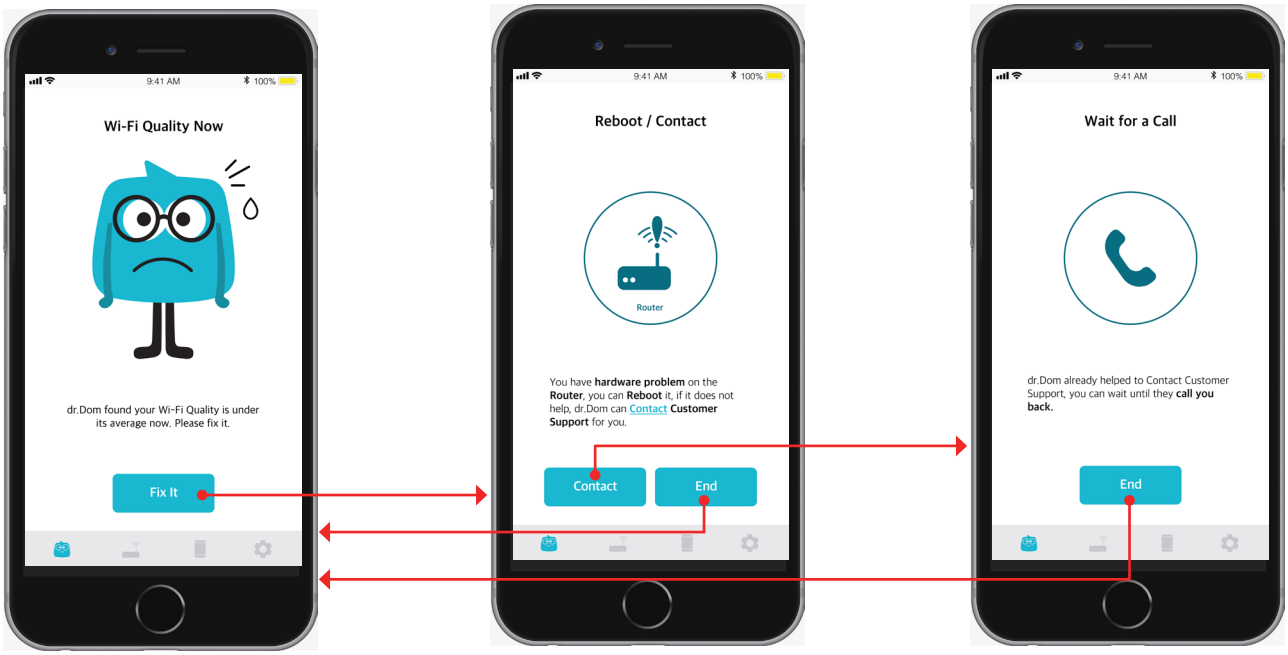
What

Screens of hardware issues of router.

Why

Because the technology behind the app is AI, it cannot solve the hardware issues. If the user experiences hardware issues(normally on the router) the app suggests the user to reboot the router. If it does not help, the router is broken. So the user can contact customer support and wait for a call to get help from the people in customer support later.

How



Interaction video: https://vimeo.com/269738408

Troubleshoot-Wi-Fi issues Fixed by Customer Support

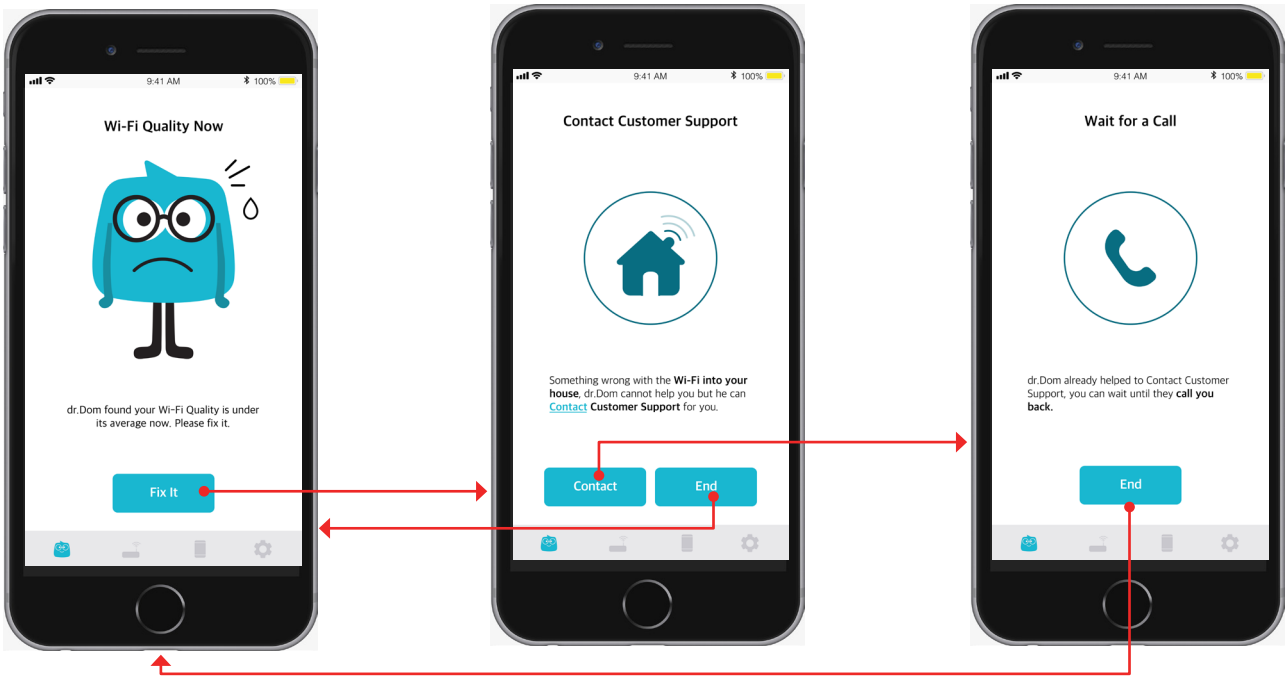
What

Screens of issues of Wi-Fi into the house.

Why

Because the technology behind the app is AI, the app cannot help the user fixing if there is something wrong with the Wi-Fi in the user's house. Instead it tells the user the problem and it helps the user contacting customer support to fix the problem later.

How



Interaction video: https://vimeo.com/269738807

Wi-Fi Information

Functionality-Customization

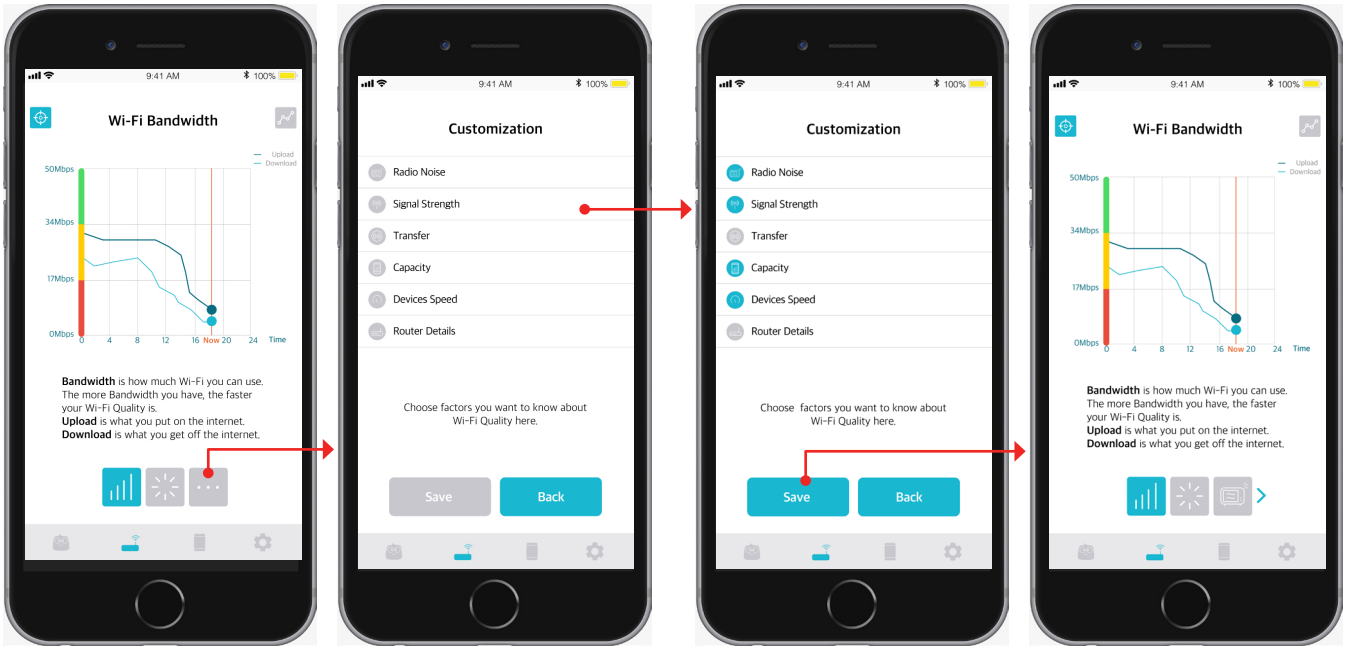
What

Screens on how to choose to see more factors of Wi-Fi quality if you want to learn.

Why

The reason for this is that different users have different needs. Users who want to learn more about Wi-Fi, can customize basic Wi-Fi factors to learn about Wi-Fi information.
Wi-Fi bandwidth and latency are the most important factors which reflect Wi-Fi quality. That's why these two factors are presented directly. The user can choose which other factors need to be presented based on

How



At first, you just have the two factors which are the most important factors for Wi-Fi quality (bandwidth and llatency). If you want to know more, you can choose other factors by press the "more" icon.

You can choose which factors affecting Wi-Fi quality you want to know about in this screen.

After choosing you can press "save".

You can find the information of factors about Wi-Fi quality here.

Interaction video: https://vimeo.com/269739399

Solutions

Wi-Fi Information

Red,Yellow, Green a Common Language for Wi-Fi Quality

What

Here are some examples of Wi-Fi information dashboards with "red, yellow and green" representing their levels

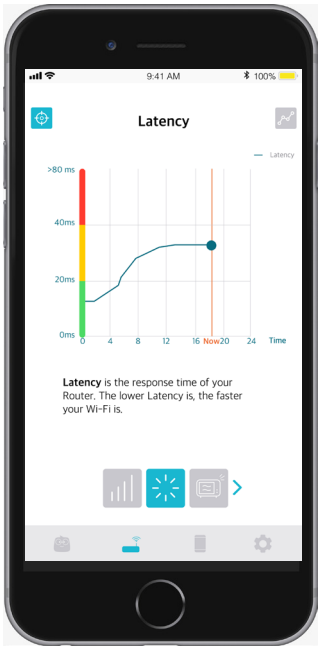
How

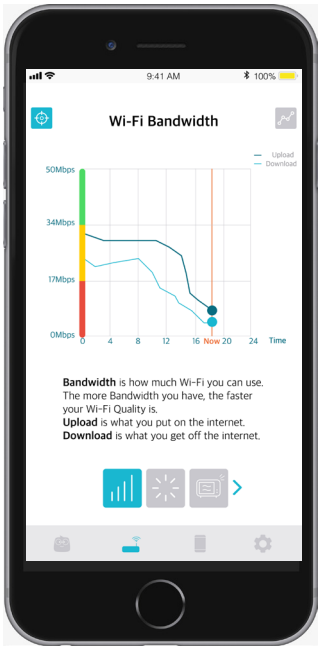
I used red, yellow and green to represent different levels of quality in the information menu.

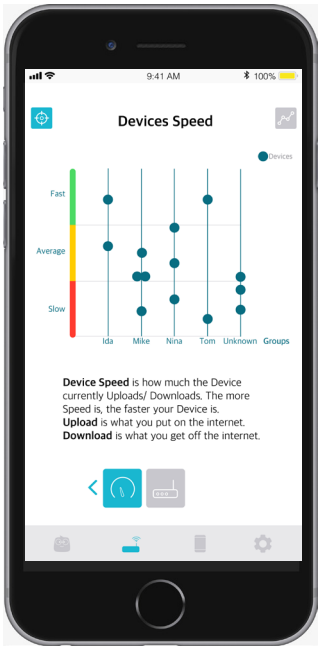
Why

In common language, red means bad and pay attention, yellow means average, green means good. This can be an obvious way for users to find which level they are in. Also during the user test, the feedback was positive. They can understand their Wi-Fi quality is good or bad by seeing the level.

Examples







Solutions

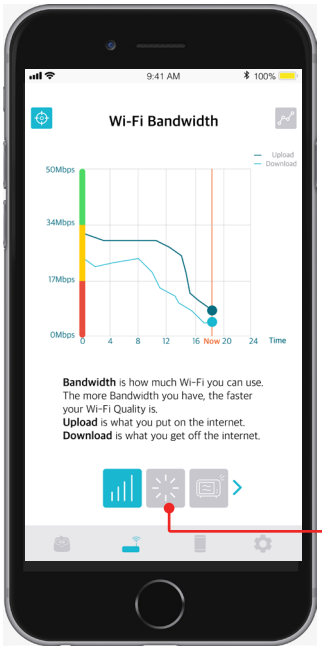
Wi-Fi Information

Wi-Fi Bandwith

What

This is the information screen for Wi-Fi bandwidth.

How



Why

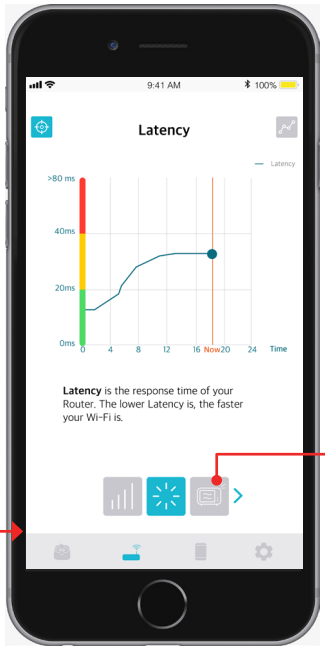
The more Bandwidth you have, the faster your Wi-Fi is. So used green part for the high bandwidth level, yellow for average and red for low level. Users can see their bandwidth quality from the level.

Latency

What

This is the information screen for latency.

How



Why

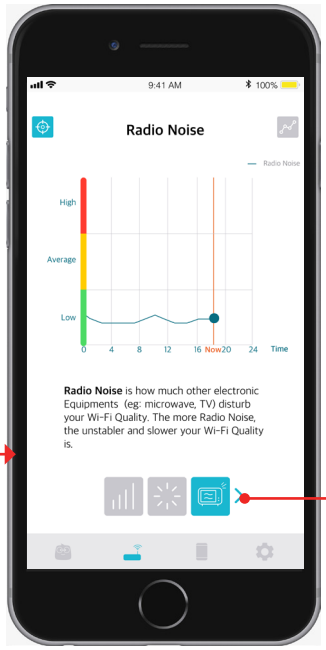
The more latency you have, the slower your Wi-Fi is. So used red for high latency, green for low latency and yellow for average. Users can see how high their latency is, from the color.

Radio Noise

What

This is the information screen for radio noise .

How



Why

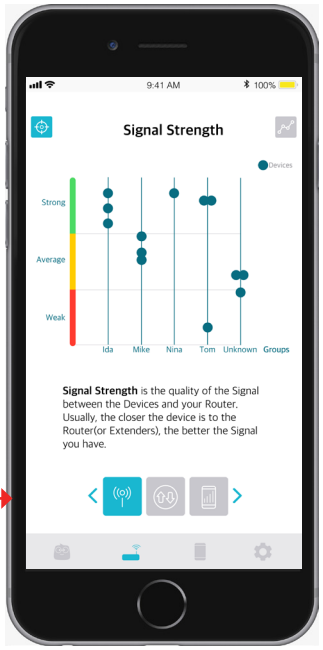
The more radio noise you have, the worse your Wi-Fi quality is. So used the red part for high level, green for low level and yellow for average. Users can see how high their radio noise is from the color.

Signal Strength

What

These are the information screens for devices signal strength.

How



Why

The stronger sigal your device has, the better Wi-Fi your devices has. So used green for strong signal, red for week signal. Users can see which device have a strong/weak signal.

Interaction video: https://vimeo.com/269741310

Solutions

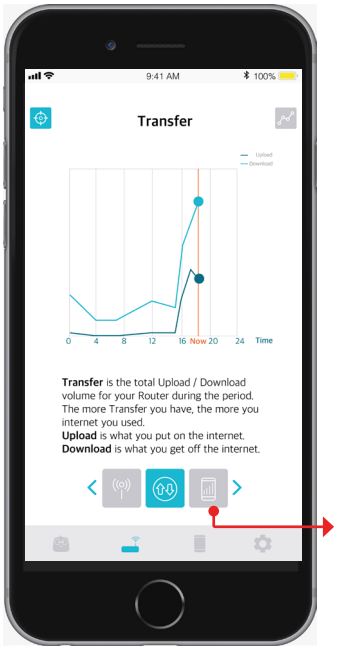
Wi-Fi Information

Transfer

What

This is the information screen for Wi-Fi transfer.

How



Why

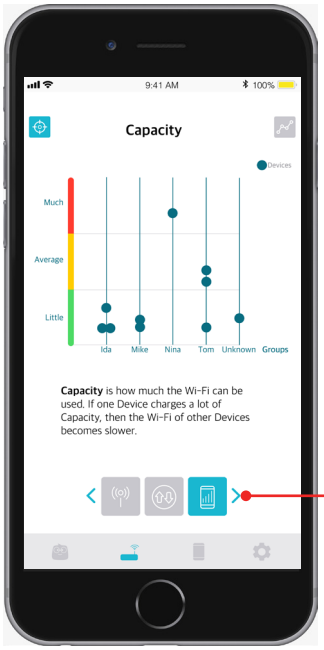
The transfer is about how much you used of internet. So, it does not affect the quality level like other factors.

Capacity

What

This is the information screen for capacity.

How



Why

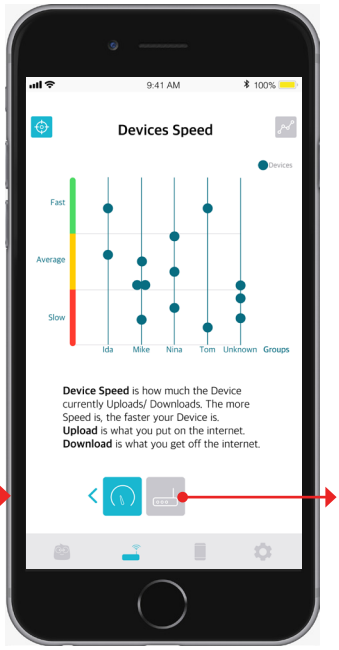
The more capacity one device charges, the slower other devices become. So used red to show much capacity, green for little capacity and yellow for average. Users can see which devices belong to whom and which charges more capacity. So, they can limit the usage on those devices if desired.

Devices Speed

What

This is the information screen for devices speed.

How



Why

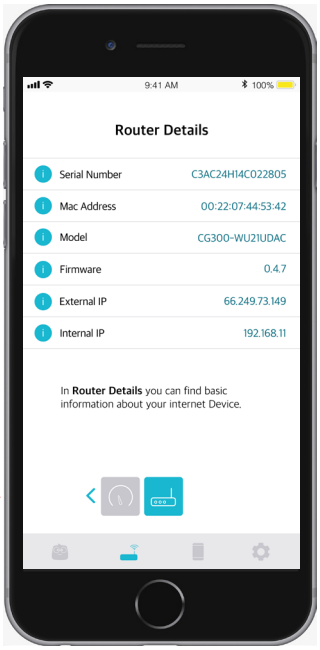
The more speed your device has, the faster your device is. So, I used the red part for low speed, green for high speed and yellow for average. Users can find how fast their devices are by seeing this graph.

Router Details

What

This is the screen for router detail.

How



Why

This information cannot be changed. If the user wants to see the explanation, he can press the information icon.

Interaction video: https://vimeo.com/269741310

Wi-Fi Information

Functionality-Two Modes for Diverse Users and Use Situations

What

Screens of two models of Wi-Fi information. One is current data and the other one is the historical trend for weekly, monthly and all.

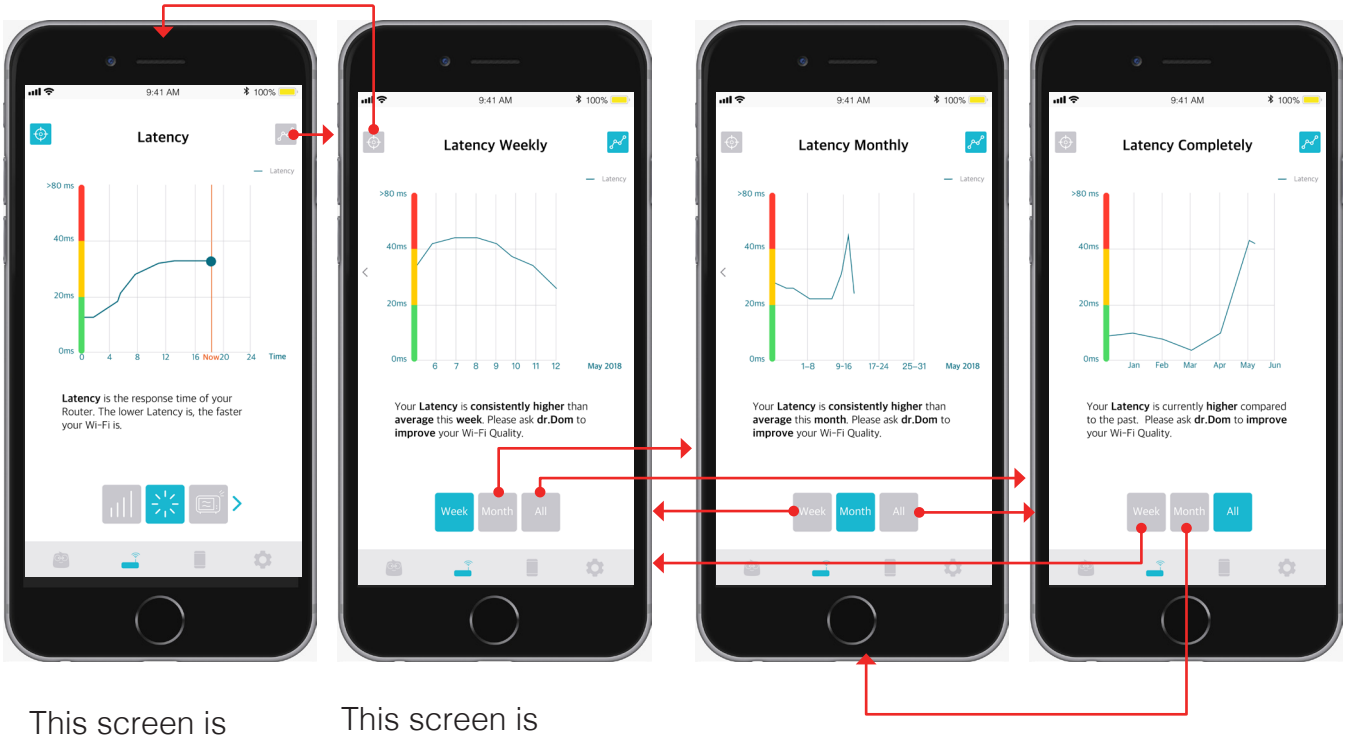
How

In the information menu, there are two options, the user can choose: current and historical trend. The text of current explains what the factors are. The test of historical gives a description of the trend and suggestions.

Why

Users can be devided into two groups by their behaviors. One group wants to have a better communication with their internet service provider and to learn something about Wi-Fi and fixing Wi-Fi issues. Experts can give a solution when they know whether the Wi-Fi quality is good depending on the trend.
To make the user understand more, the historical trend of factors reflecting Wi-Fi quality is presented.

Example



This screen is latency trend from 0 am until now.

This screen is latency trend weekly, If latency is consistenly high, the app will suggest you to fix Wi-Fi issues. You can also see the trend of other weeks by swiping.

This screen is latency trend monthly. You can also see the trend of other months by swiping.

This screen is latency trend from January until now (this month). It show the historical trend for six months.

Interaction video: https://vimeo.com/269742139

Wi-Fi Information

Exception

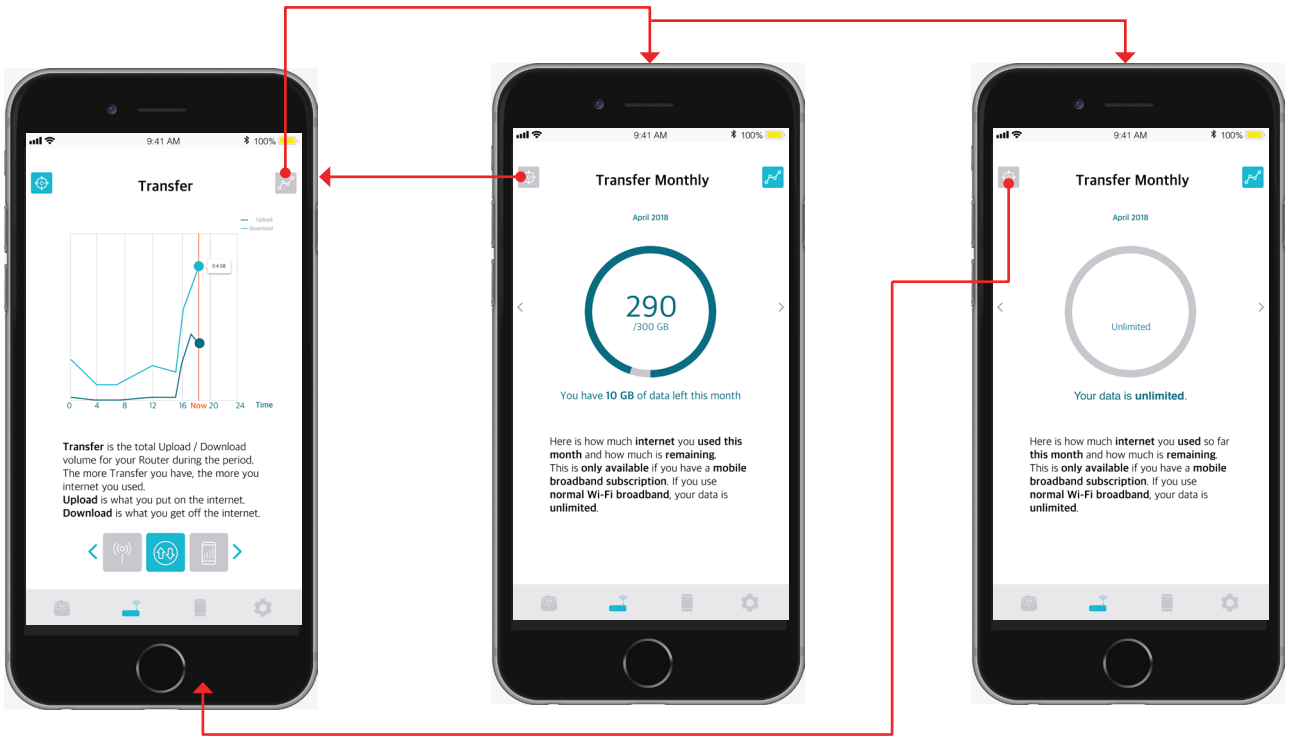
What

Here are screens for transfer information.

Why

Because transfer is the amount of internet people use, so it has nothing to do with Wi-Fi quality.
If you choose a normal Wi-Fi subscription, you can use as much you want before it expires. However, people who live in certain areas, like in the mountains, need to use a mobile broadband subscription and their usage is thus limited.
These users can see their transfer history and how much they used every month.

How

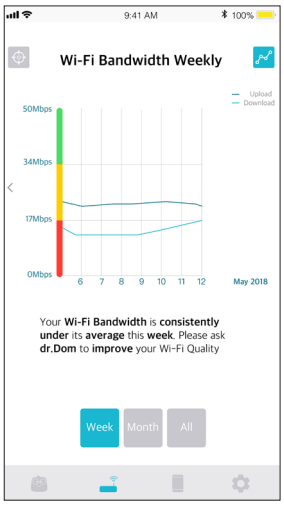


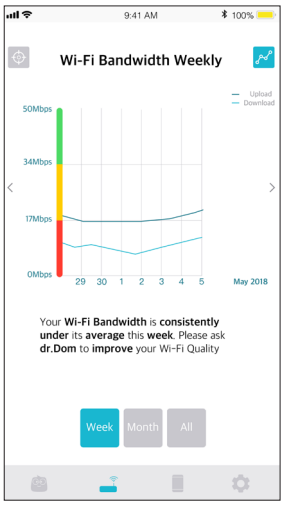
For users who use mobile broadband subscription.

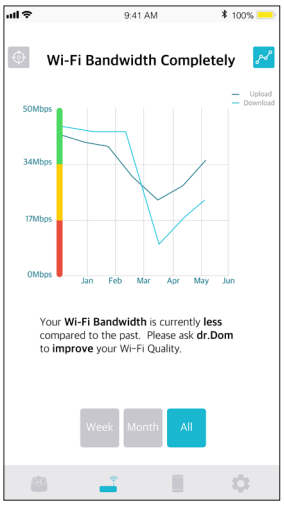
For users who use normal Wi-Fi subscription.

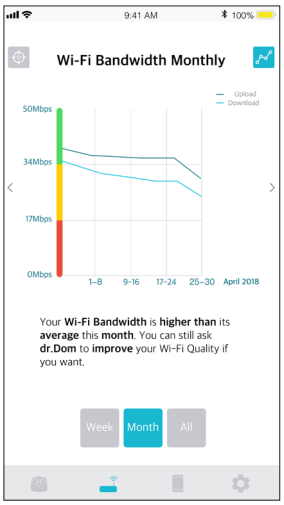
Wi-Fi Information

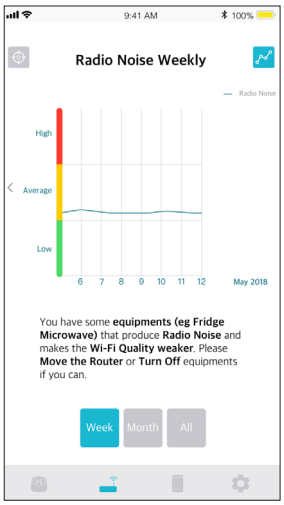
Screens overview for Historical Trend of All the factors

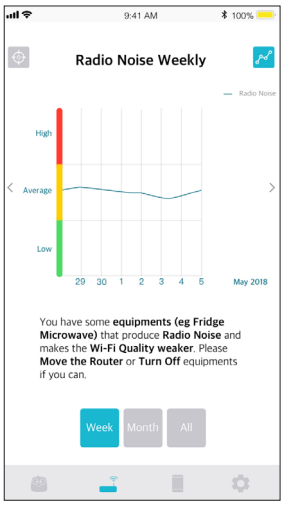


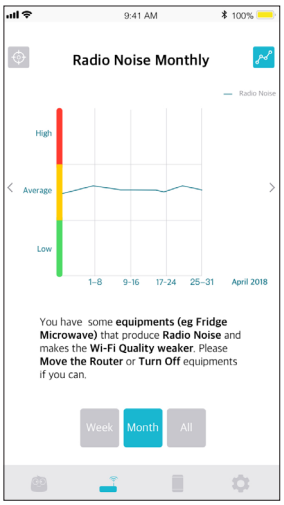


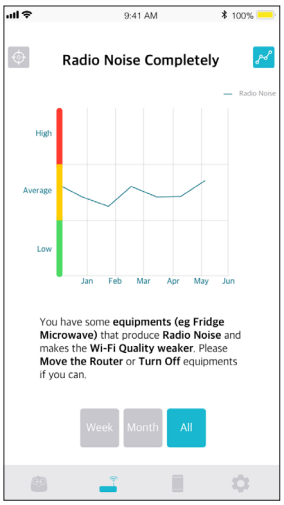


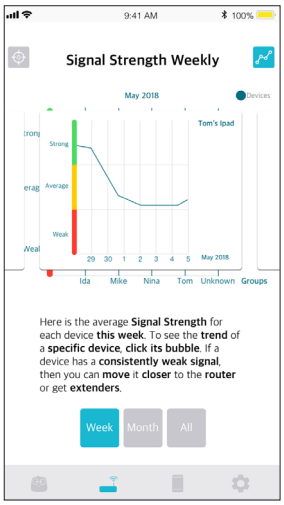


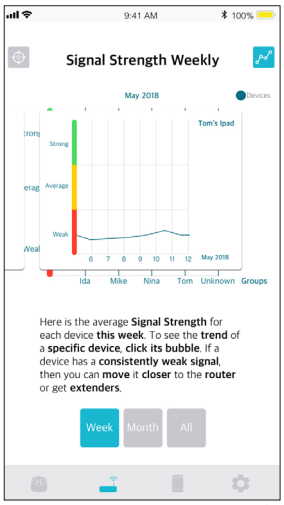


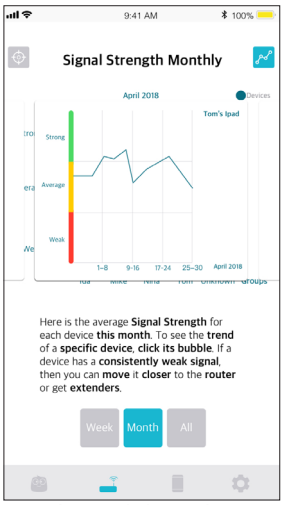


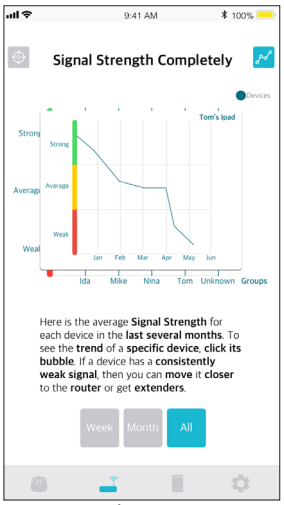








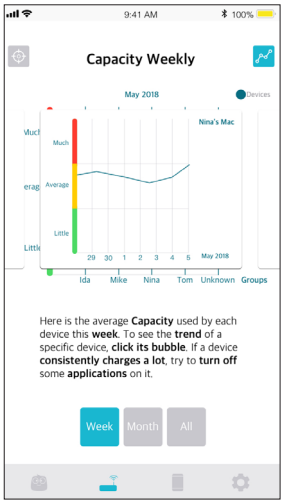


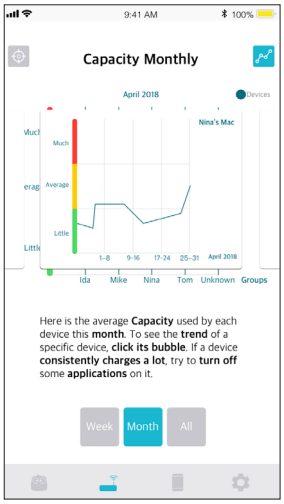


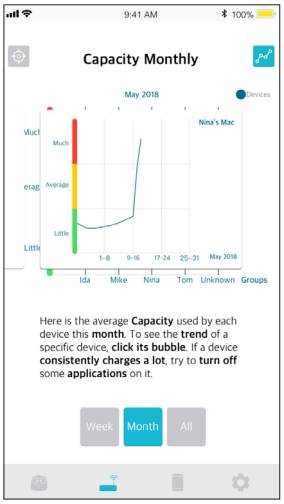
Interaction video: https://vimeo.com/269752170

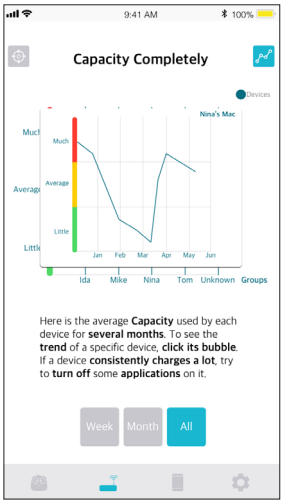
Wi-Fi Information

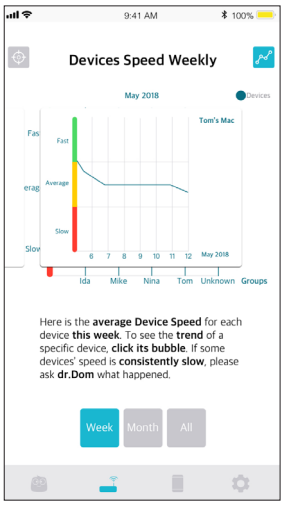
Screens overview for Historical Trend of All the factors

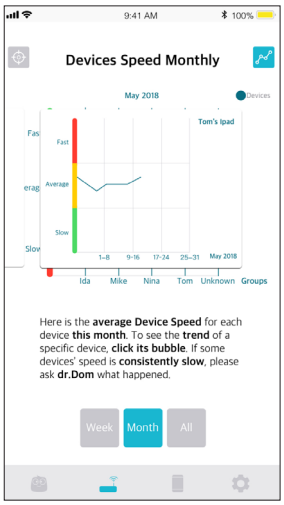


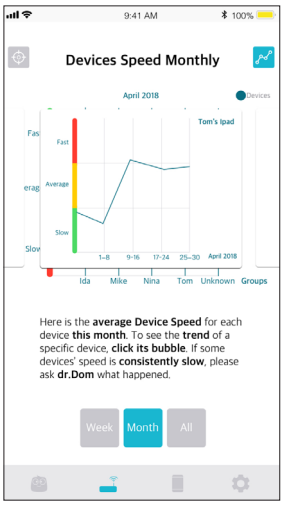


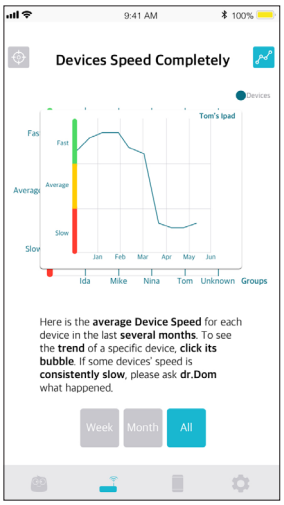


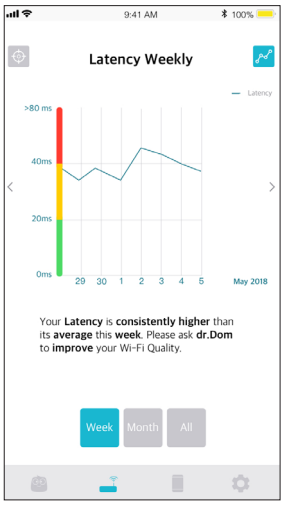


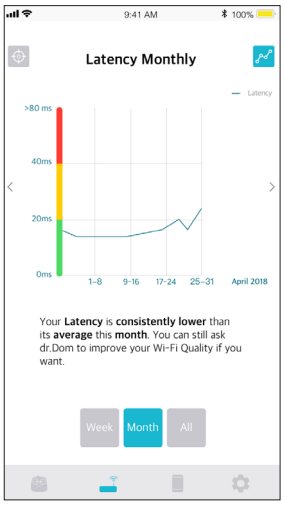


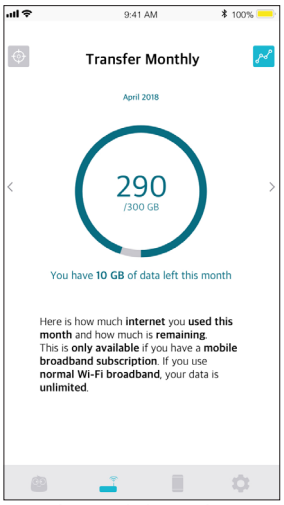


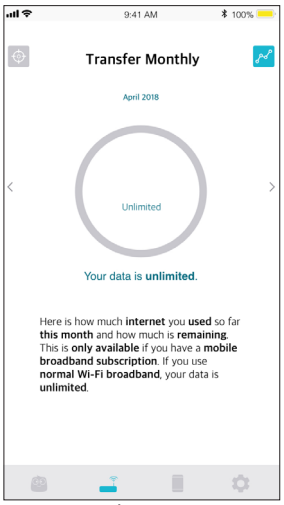












Interaction video: https://vimeo.com/269752170

Solutions

Devices

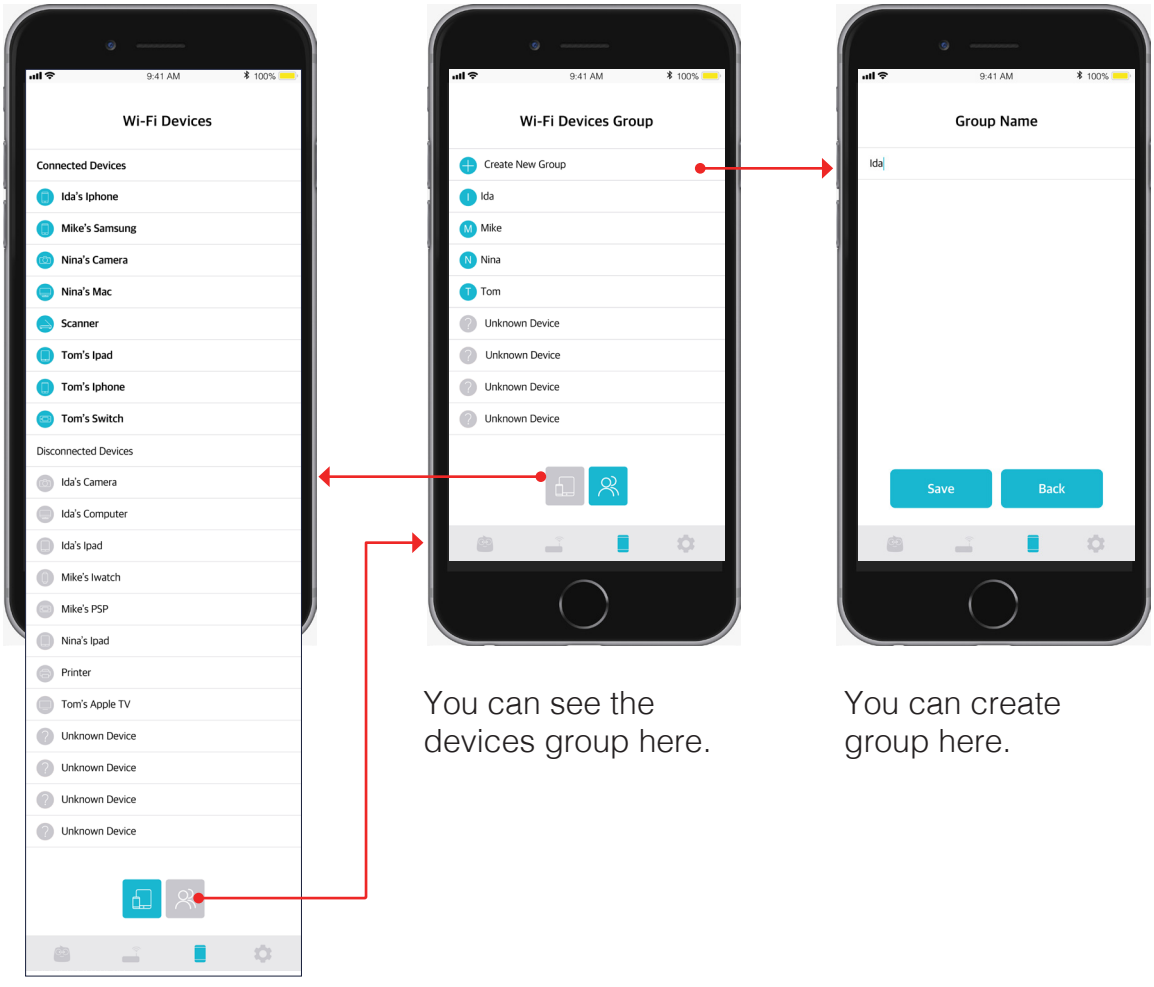
What

Here are two screens for Wi-Fi devices. The first one is for all the Wi-Fi devices, the second one is for devices in some groups.

Why

For the first screen, all devices are shown and it is made easier for user to see which specific Wi-Fi devices are connected and disconnected. So, I used different colors and bold text to distinguish them.
To make finding devices for users easy, I also made model icons for different kinds of devices.
For the second screen, it is convenient in a family to organize the devices into groups by family members. Then finding a specific devices becomes easier.

How



You can see all the Wi-Fi devices here.

You can see the devices group here.

You can create group here.

Solutions

Devices

What

Here are the icons for all the Wi-Fi devices in the "Devices" Menu.

How

Why

To make recognizing specific devices easier, I made icons based on the shape of devices.
I also used different color to distinguish connected and disconnected devices.

Devices

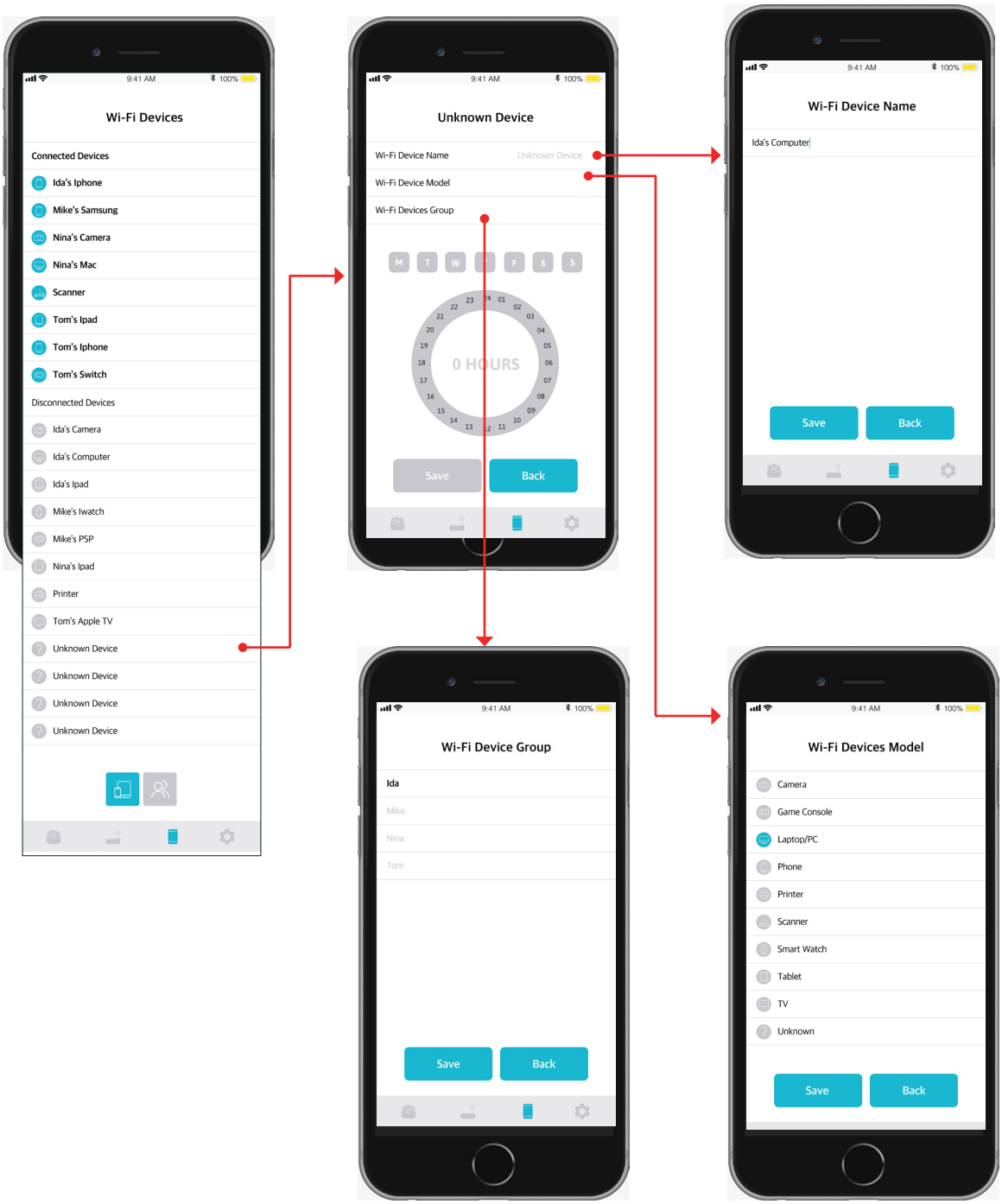
What

Here are the screens for device organization.

Why

The first time the user uses the app or when he gets a new device, there is an “unknown” device. So, the user needs to name it and put it in a group if desired.

How



Interaction video: https://vimeo.com/269743039

Solutions

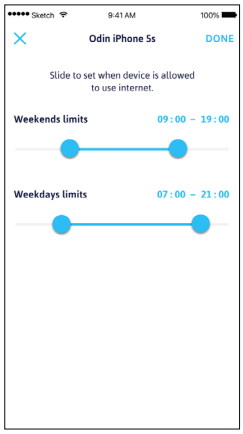
Devices

Why

Time control is also called "parental control". It is one of the function in previous Domos app. For the sake of completeness, I decided to keep this function.

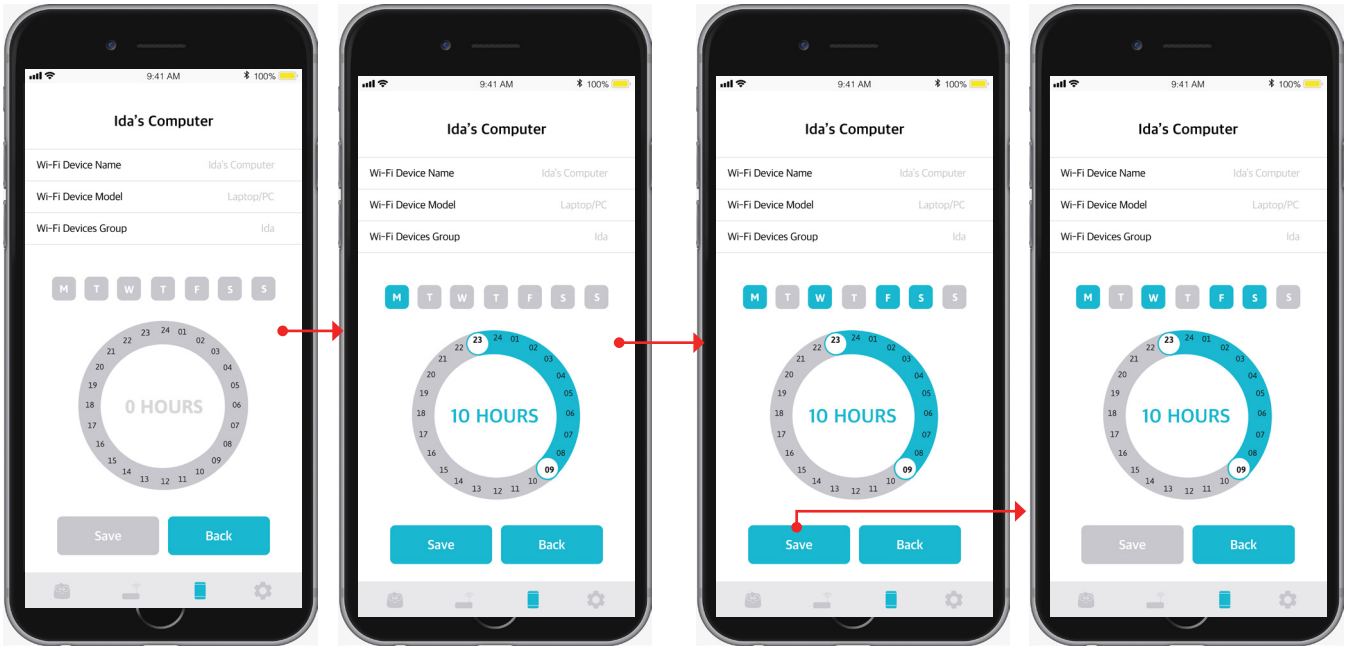
What

Here are screens for time control for a device.



On the interactive side, during the user test, some men with big hands found it hard to move the button accurately on a small screen.

How



Inactive screen

If you tap day button above the circle, it will be actived. You can set the how much time time a device is blocked, by rotating the circle.

You can also set it to mutiple days.

Interaction video: https://vimeo.com/269743704

Solutions

Settings

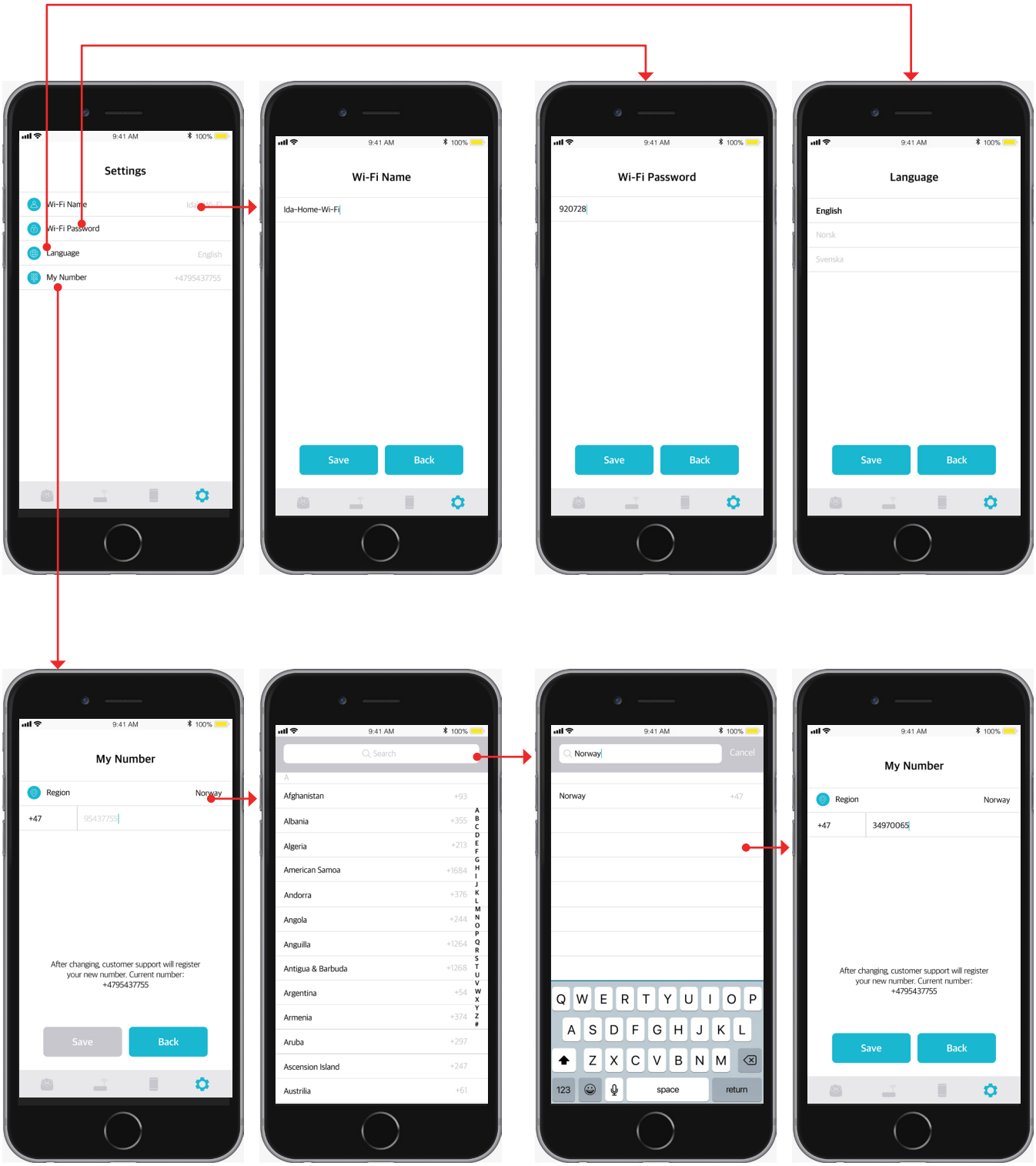
What

Here are screens for settings.

Why

To finish the whole system of the app, settings are an important menu.
The content of settings is taken from the previous app.

How



Interaction video: https://vimeo.com/269743927

Setup

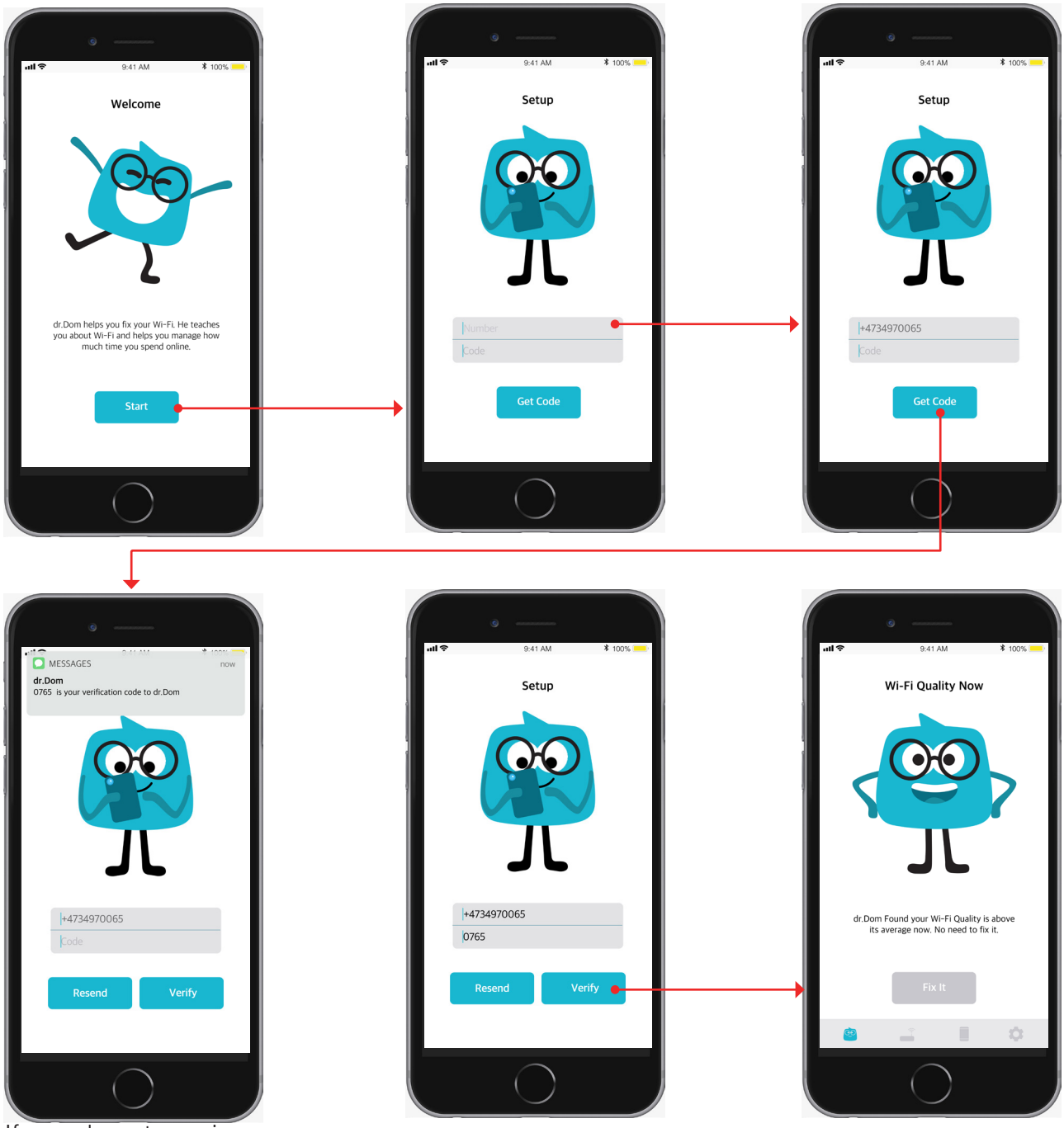
What

Here are the screens for setting up.

Why

In practice, users start using the app by setting it up with a verification number.

How



If you do not receive the verification code, you can press "Resend" to get a new code.

Interaction video: https://vimeo.com/269744057

Identity

Layout

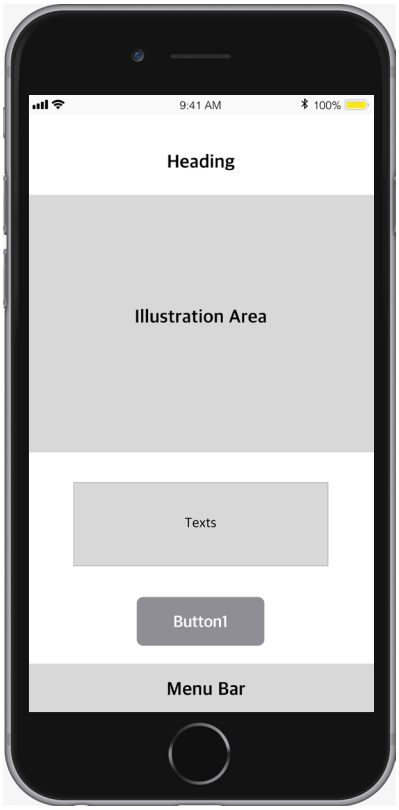
What

Here are the two main layouts for the app, each for a different part of the functionality. Most screens follow this layout.
Different elements (headings, illustrations, texts and buttons) are presented with different content on the screen.

Why

To make the app consistent, layout is essential.
The core meaning of the app is to make Wi-Fi issues understandable for ordinary people and help them to fixing. So using illustrations conbined with texts explanation makes it easier for users to understand.

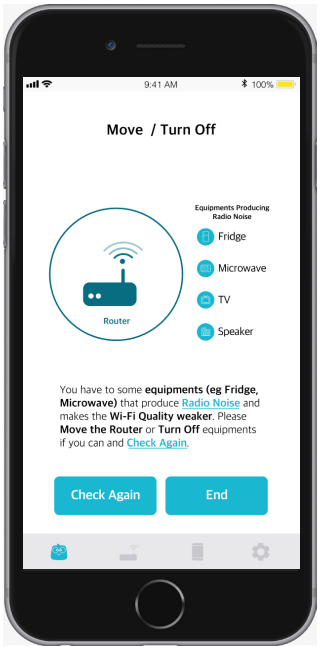
How



Words

What

Here is an example of how words beings used in troubleshoot screens.



Why

The main point of this app is making users understand Wi-Fi issues and fix them. So, the words in the content should be easy to understand.
Highlighting important content makes it easy for users to find what kind of issues they have and what they should do. Using another color (blue) for hyperli allows users to distinguish clickable and unclickable texts.
Besides the mainly user group for this app is people from 35-50, so the font size for contents should be big enough for users to read. I used 30 point, which makes the content comfortable to read according to the users' review.

Font

What

ABCDEFGHIJK
abcdefghijk

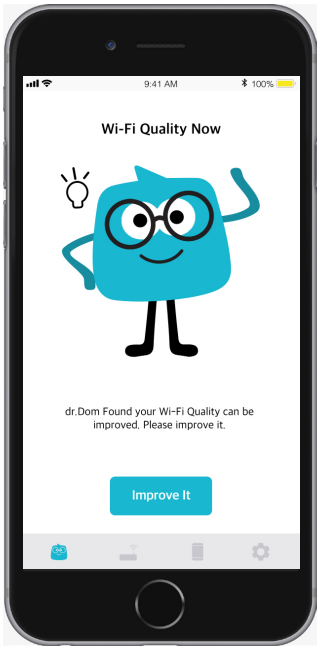
ABCDEFGHIJK
abcdefghijk

ABCDEFGHIJK
abcdefghijk

Why

The font I chose is "Apple SD Gothic Neo", because the brand value of Domos is smart , fun and helpful. So, the font should not be too serious like Helvetica , but it should be easy to read and not too exaggerated.

Colors

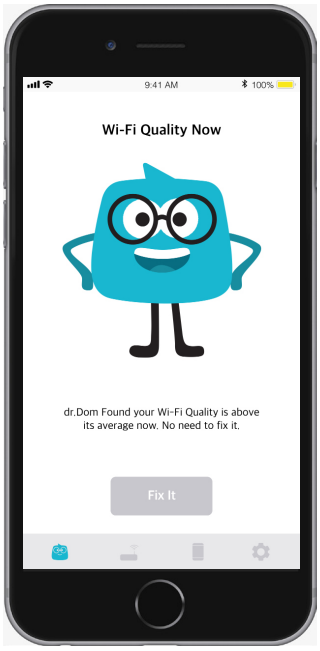


Light blue, an active color for actions

I used a light blue color for active buttons, active icons and hyper texts, because blue on the white screen can catch users attention. It also fits the brand color board of Domos.

Gray, an active color for actions

I used gray color for passtive buttons, icons and hypertexts, because compared with light blue, grey is more calmer. Besides, it also has a big contrast with the active color (light blue).

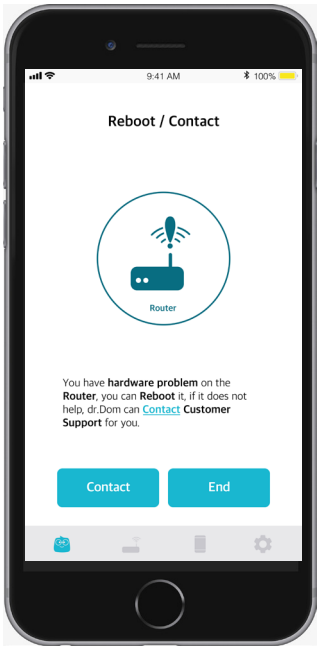


White, a backgroud color

Using white color as background, makes the app look clearer, especially in information part.
It also respects Domo's identity, since white is also the background color of the website, previous app and documents.

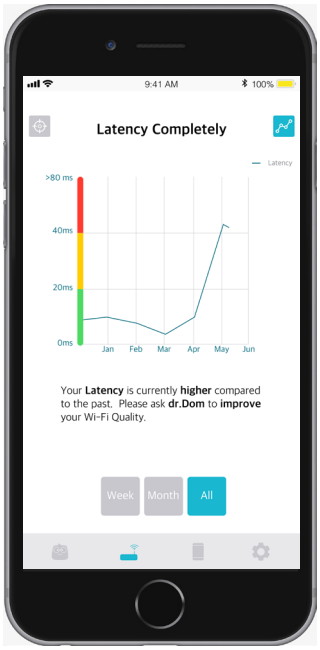
Identity

Colors



Black, a color for words

Black colored text is clear to read, especailly on the white backgroud, and black it is the commen color for text.



Other colors

Red, yellow and green are mainly in information menu to show different levels of factors which reflect Wi-Fi quality.

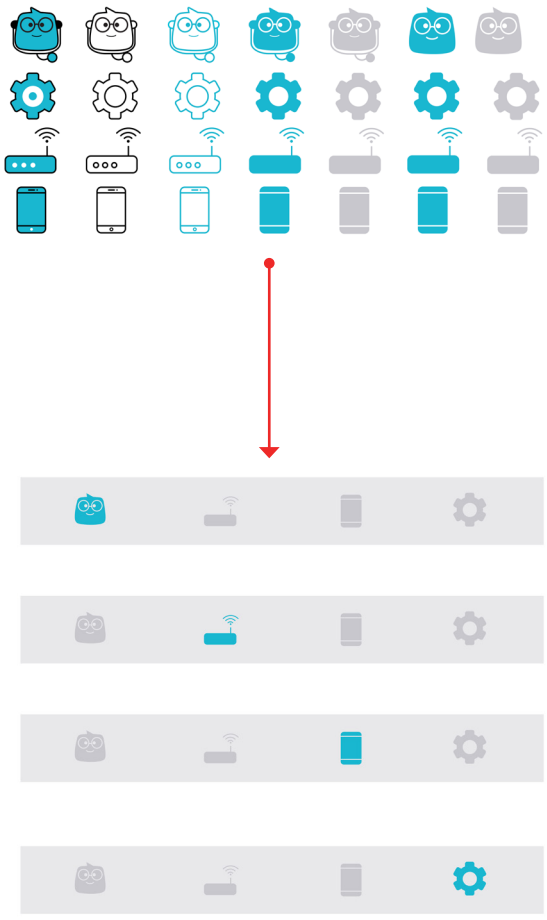
The only color I kept from the colorboard I made, is this dark blue for Wi-Fi issues illustration, because it is close to light blue, and it will not go far away from the brand identity if used for using

Menu Icons

What

Here is the evolution of icons in menu bar.

How



Why

Based on the user needs and the information architecture , the menu is divided into four parts : Troubleshoot, Wi-Fi information, Devices and Settings.
For the “troubleshoot” menu, I used dr. Dom's face to fit the brand and the metaphor. The meaning of this part, is that dr.Dom helps users to fix their Wi-Fi issues.
For the "Wi-Fi information" menu, the information data of Wi-Fi mainly collected from router, so I used the symbol of router for it.
For the "devices" menu, I used the shape of a cellphone to present because it is clear and understandable.
For the "settings" menu, I used normal setting iicon, but I tried to make it have the same aesthetic as other icons
Because the menu icons are small in reality, I tried to simplify them as possible.
Icons in light blue are active, icons in gray are passive.

Buttons

What

Here is presentation of all the action buttons in the app

How

To guide user with making a better choice, I used light blue for active buttons and gray for passive buttons.
For the right tone of buttons, it should start with verb.

Why

As the most important interactive icons in "dr. Dom", the action buttoms mainly give instruction on what the user should do, so it is important to make the tone of the voice as simple as possible. It should not be more than two words and it should start with a verb, because then it sounds more convincing.

Identity

Selective Buttons

What

Here is all the selective button. The blue ones are selected, the gray ones are unselected.

How

Why

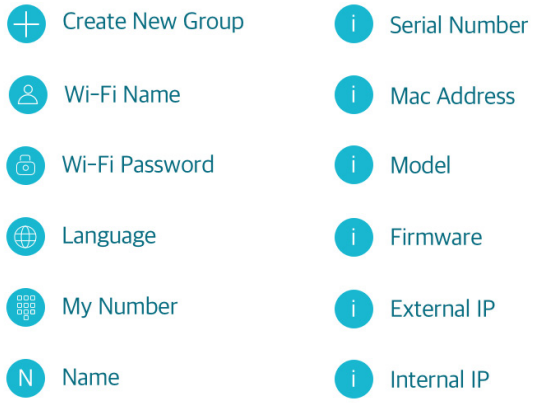
For consistency, I used the same colors for the selective buttons. Light blue stands for selected and gray for unselected buttons. To distinguish the main buttons and the select buttons, I used icons in the square instead of texts.

Other Buttons

What

Here are the other buttons.

How



Why

To make user feel which content can be clicked visually and to understand what is the content about, I designed the icons together with the texts.

Solutions

Feedback

During the final usability test, I tested the app after I gave a short introuction of what is app about and I stayed silent to observe what they did and how they interacted. I also recorded their comments. After the test, I asked them whether they understood the issues they had and how to fix them. They understood them perfectly. I also asked whether they understand information part. Even though they are not experts in Wi-Fi, they still could understand. So, the results and comments are positive.

“I think it's really helpful would like to use it. ”

Jonas, 49, Norway

“Did you design that? Wow, really cool !”

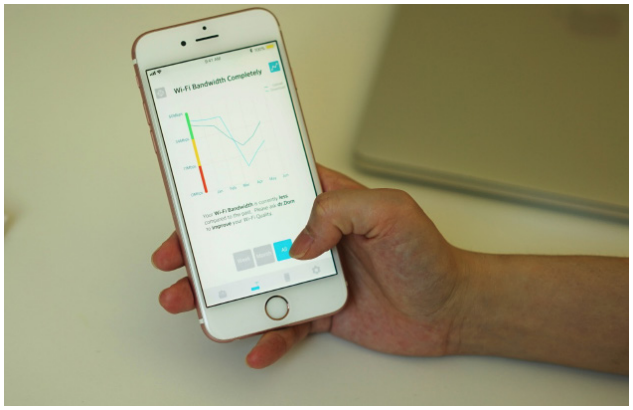
Klaus, 37, Norway

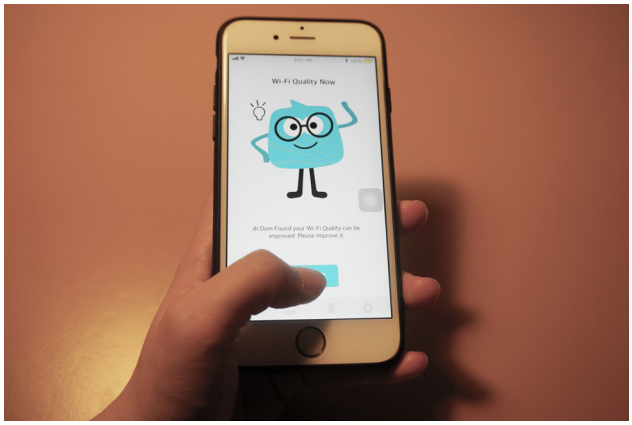
“I think it really helps me when I have Wi-Fi problems. ”

Espen, 43, Norway

“The drawing of solutions are fantastic, I totally understand. ”

Anita, 46, Norway





Prototype

Scan to try "dr. Dom"

Click to try "dr. Dom" here:
https://invis.io/TGINWK1DZVB#/296823231_set1

Reflection

This chapter will present the reflection of this project.

Content

Project Conclusion
Users' Perspective
Potential
Letter of Thanks

Reflection

Project Conclusion

The main goal of this project is to make Wi-Fi issues understandable for ordinary people and to give them solutions for fixing those problems. In my cooperation with my partner Domos for redesign this app, I was totally charging for this project.
In my design process, I highly involved users to get insight for my concepts.
Now I am quite satisfied with the solutions to the findings, because of the positive feedbacks from experts in Domos and users.

User's Perspective

During this project, always thinking about the users, is what I learned the most.
To be honest, when I made the prototype, I got lost by focussing too much on the graphic part and I did not consider users' needs.
During the user test in the beginning, a lot of users said the information part in previous app did not make sense to them. So, using visualization to combine functionality and making sense to the users, is of great importance.
The main lesson: as an interaction designer, always put users in the first place.

Potential

Both Domos and I were happy with the collaboration. Presently, the template of this project is on IOS and we would like to make it for Android in the future as well.

Letter of Thanks

Special thank you for all my supervisors:

Natalia Lucia Agudelo Alvarez

Birgitta Cappelen

Thank you for experts in Domos, especially Odin Berntsen for providing knowledge, information and the working opportunity !

Thank you for all the users for the tests and useful feedback!

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