

Redesigning the home buying process:

A socially engaging
experience for
young adults.



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Executive Summary

The banking industry has been experiencing radical change for the last years (Wingard, n.d.). Due to digitalisation a new type of user has arisen. This user is characterised by always being connected while operating on multiple devices. This segment likes to be informed and expects answers, immediacy and transparency. They compare options before making important decisions and they are demanding with the companies they interact with (Rowe, 2019).

To operate in this environment, where customers demand proximity, quality and transparency, Banc Sabadell has summarised its strengths in the following strategy “*Estar donde estés*” (To be where you are). This strategy aims to create a user-centered mindset, creating excellent services that show social responsibility and transparency. All of that will result in a long-term relationship with its customers (Quienes Somos, 2015).

Banc Sabadell, with 135 years of history, is one of the largest banking groups in Spain, with international presence (Quienes Somos, 2015). For Banc Sabadell, mortgage loans are one of the products that generate the greatest customer loyalty and commercial margin. And for its customers, buying a house is one of the biggest milestones in their lives. This project is born from the gap identified in which the strategy of Banc Sabadell is not sufficiently perceived in the home buying process. In general, the process of buying a house or getting information about the different steps is most of the time a hassle for the users (Parrin, 2019).

This project aims to provide a tangible strategy for Banc Sabadell to increase customer engagement while offering a smooth and remarkable home buying process. Through user research, this project explores the user needs, behaviours and expectations throughout the home buying process. A need is identified to offer a smooth and socially engaging home buying process to young adults which allows them and their relatives to feel reassured and experience the process together.

As a result, Doyle is borned. Doyle is a mobile service application that offers adults independence in the purchasing process through providing the tools and information that users need. As part of this strategy, other three elements that play an important role are also proposed.

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Chapter one

Project

In this chapter, the relevant context and background of the project are described. It provides a clear picture to understand the motivation behind the chosen topic. Furthermore, the approach chosen to tackle the project is described as well as the reasons for choosing it. Finally, an overview of the project is provided through phases and outcomes, with a detailed explanation of each phase.



Introduction

The banking industry has been experiencing radical change for the last years (Wingard, n.d.). Due to digitalisation a new type of user has arisen. This user is characterised by being always connected while operating on multiple devices. This segment likes to be informed and expects answers, immediacy and transparency. They compare options before making important decisions and they are demanding with the companies they interact with (Rowe, 2019).

Here is where Fintechs are taking competitive advantage towards traditional banks. The term Fintech, Financial Technology, refers to startups or tech companies that use innovative technologies to offer financial services (PWC, 2016). Fintechs and other challengers are taking part of bank's revenues (Bambrough, 2018). This is due to the fact that they deliver user-centered services that satisfy customer needs (PWC, 2016a).

For example, N26 is a German fintech that allows new customers to sign up through a video, making it more accessible (Follow These 6 Simple Steps To Open An N26 Account, n.d.). Offering targeted solutions to their customers and providing them a feeling of personalisation, that is what customers are looking for (PWC, 2016a).

This graduation project focuses on Banc Sabadell. Banc Sabadell, with 135 years of history, is facing this challenge. It is struggling to adapt to these changes triggered by fintechs. Banc Sabadell is one of the largest banking groups in Spain, with international presence (Quienes Somos, 2015). To operate in this environment, where customers demand proximity, quality and transparency, they have summarized their strengths in the following strategy "*Estar donde estás*" (To be where you are). This strategy aims to create a user-centered mindset, creating excellent services that show social responsibility and transparency. All of that will result in a long-term relationship with its customers (Quienes Somos, 2015).

However, Banc Sabadell is struggling to adapt to this new change triggered by digitalization. Customers usually do not get what they want and even more when thinking about the home buying process. Buying a house in one of the major milestones in our lives, but why do users lack of information in this topic? The process of buying a house or getting information on the different steps is most of the times a hassle (Parrin, 2019).

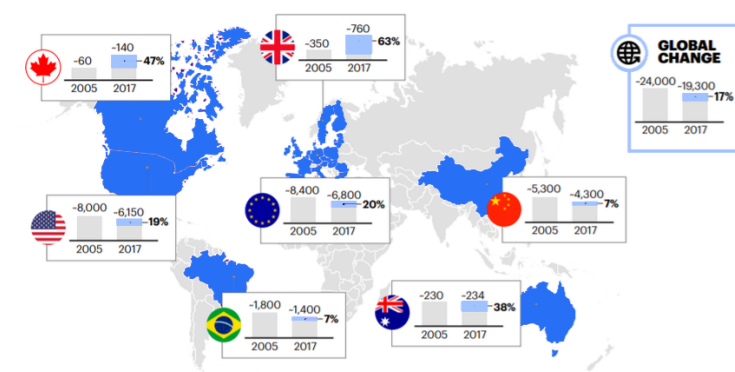


Figure 1: New entrants to the banking market.

Approach

“When you have two coffee shops right next to each other, selling the exact same coffee at the exact same price, service design is what makes you walk into the one and not the other, come back often and tell your friends about it.”

31 Volts, 2008

The sentence on the left is the definition of service design by the 31 Volts service design studio in The Netherlands (Stickdorn & Schneider, 2011, pp. 1–3). This analogy represents why service design is chosen as an approach to tackle this graduation project.

The mortgage market in Spain is regulated by the Regulating Law of Real Estate Credit Contracts (LCCI) (Derechobancario, 2019). This law is the new legal framework that will regulate all mortgage loan contracts; commercialization, contracting, granting and execution of contracts related to credits or loans that are either guaranteed by a mortgage or other real right on real estate for residential use (Derechobancario, 2019). For this reason, there are few differences between the conditions offered by each entity, as the offer of Spanish banks must be governed by the same criteria.

Currently, Spanish banks offer mortgages with a maximum financing of 80%. This is due to the high risk of non-payment, and affects both the entity and the mortgaged who endangers their assets (Zapatero, 2020).

Thus, banks are offering the same product at a similar price, as the coffee shops from the service design definition offer the same coffee at the same price. This explains why service design has been chosen as an approach to this project. It aims to make users enjoy a seamless experience and engage them throughout the process. And make sure that they tell their friends about it.

As Schneider states in his book “This is service design thinking”, there are five principles that define service design (Stickdorn & Schneider, 2012, pp. 1–3) and have be taken into consideration when developing the project.

- **User-centered:** Experiencing the service from the eyes of the customers is essential to gather unique customer insights.
- **Co-creative:** Participants have been involved throughout the process as a way to understand their perspective and experiences and iterate when needed.
- **Sequencing:** A service is a connection of processes that take place over a certain period of time (Stickdorn & Schneider, 2012, pp. 1–3). In order to service design the home buying process three different timelines have been explored: Before buying the house (pre-service), buying the house or applying for a mortgage (service), after buying the house (subsequent service).
- **Evidencing:** During this process several tangible elements have been designed as a way to increase customer loyalty and improve the experience.
- **Holistic:** The physical environment of the home buying process has been considered during the process in order to get the whole picture. Different factors as stakeholders, feelings and touchpoints have been analysed.

Along with the five principles of service design there is another element that has been considered crucial for the development of this project. The design process is **iterative**: After the completion of each phase, a reflection of the process and outcomes has been conducted. This has been a way to identify potential improvements, to learn from failure, and to adjust the process along the way.

By adopting a service design approach, this graduation project aims to help Banc Sabadell understand their home buying process from a user perspective.



Figure 2: Principles of service design by Schneider.

1.3

Process

This section presents the process followed during this project as well as the relevant outcomes that resulted from each phase.

Every phase will be explained in more detail during the next chapters.

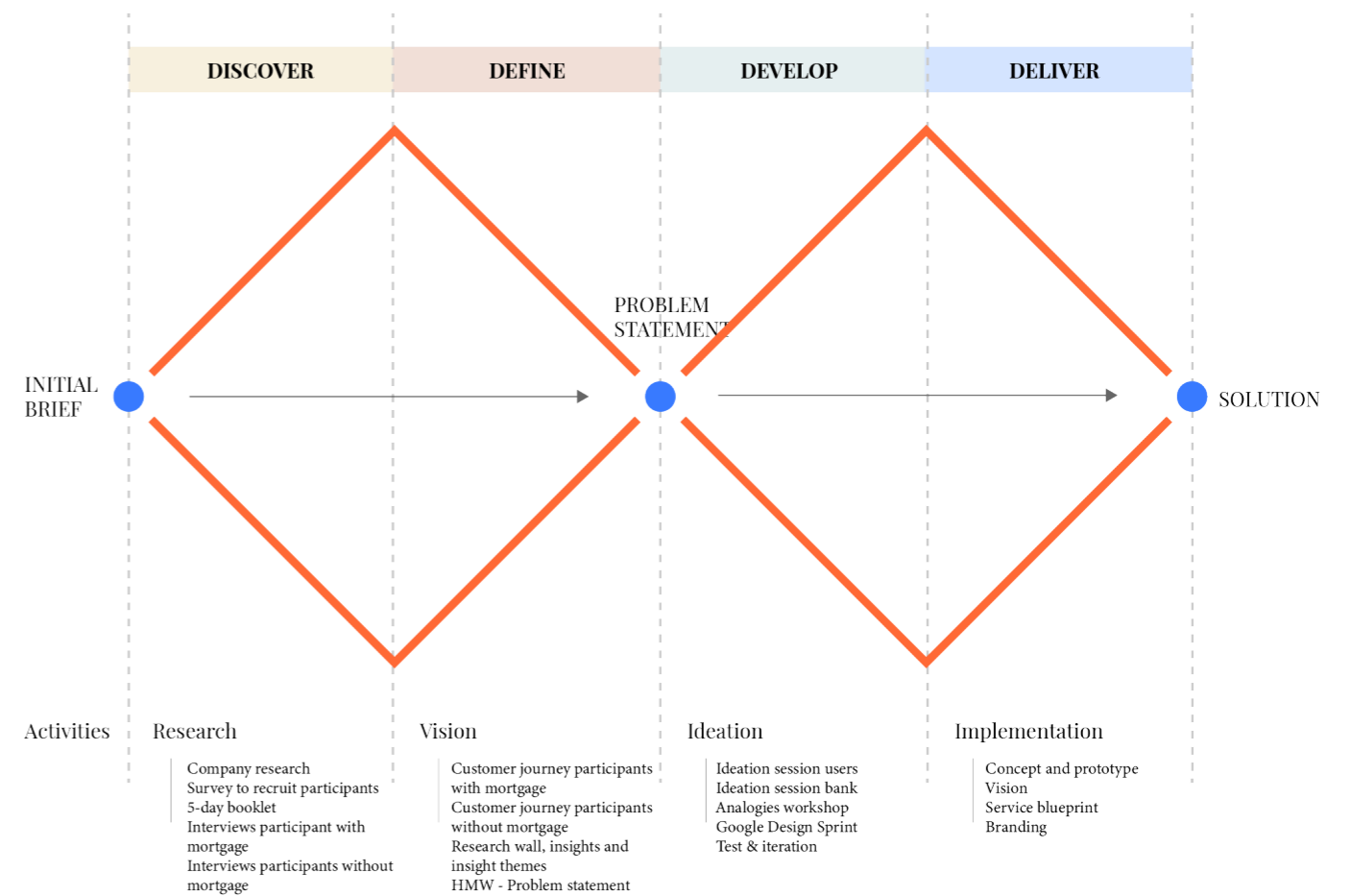


Figure 3: Graduation process, phases and outcomes

This graduation project has been carried out during the Covid-19 pandemic of 2020. This event has affected the initial plan and course of the thesis. The pandemic started during the research phase. During that time social gatherings were not allowed, so the user research had to be conducted remote, and therefore adjusted to this new situation. However, nowadays there is a great amount of digital tools that facilitate remote collaboration.

The process followed during this project has been divided in four different phases, following the Double Diamond approach. The Double Diamond has been chosen as it helps to explore and understand the problem using two different types of thinking: divergent thinking and convergent thinking (Heffernan, 2017). Divergent thinking is about thinking broadly and exploring many possible solutions. On the other hand, convergent thinking aims to narrow down the information, getting back the focus and identify one problem and solution (Heffernan, 2017). As mentioned before, the Double Diamond is divided in four phases; discover and develop are the divergent phases, whereas define and deliver are convergent phases (Stickdorn & Schneider, 2012, pp. 1-3). These phases are now explained in more detail:

Discover

The research took place during this phase. First of all, desk research was conducted to understand the company, context and scope of the project. Besides, user research was conducted, which was given great importance during this project. Participants were considered experts on the topic. The user research phase started with a sensitising tool; a 5-day diary that participants had to complete every day to become familiar and immerse themselves in the topic before the interviews. Finally, twelve qualitative interviews were conducted to both participants with mortgage and participants without mortgage.

Define

During this phase the analysis of all the information gathered during the research was analysed. A research wall was created to get an overview of all the data. It also helped to have freedom to move the data around and observe it in detail. This research wall helped to better understand the content, compare the data and empathise with the users. The outcome was a group of insight themes that would later trigger the problem statement.

The data was also used to define two customer journeys: users with mortgage and users with no mortgage. This customer journey helped to identify the assumptions and expectations that users had during the process. Finally, the problem statement was defined through a workshop where the insight themes were analysed.

Develop

Once the problem statement was identified, three ideation sessions with participants and bank employees were conducted. The outcome of this ideation sessions were two design directions. One of them was further developed through a Design Sprint. The concept was already tested during the last part of the Design Sprint.

The outcome of this phase was a new strategy for Banc Sabadell, combining both physical and digital media.

Deliver

During this last phase, the digital application was developed through wireframes and prototypes. It was tested and iterated with users, and improvements were made with the feedback received. Finally, a strategy was developed to support this concept.



Chapter two

Banc Sabadell

This chapter gives an overview of the context of Banc Sabadell. An analysis of the company and its mortgage service is conducted.

In the first place, the history and market positioning of the company are analysed to understand the background of the project. Secondly, a deep analysis of Banc Sabadell's strategy is conducted to understand the company's vision and positioning in a market where competitors' offers are similar to each other.

Finally, to understand the service itself, a service safari is carried out. The goal is to experience the service first hand as a way to empathise with the users and understand their motivations and needs.



Banc Sabadell

Banc Sabadell, with more than 135 years of history, is one of the largest private banking groups in Spain. The leading financial group, Grup Banc Sabadell, includes banks, subsidiaries, investees and networks that bring a distinctive value proposition, focusing on service excellence, competence and international presence (Quienes Somos, 2015).

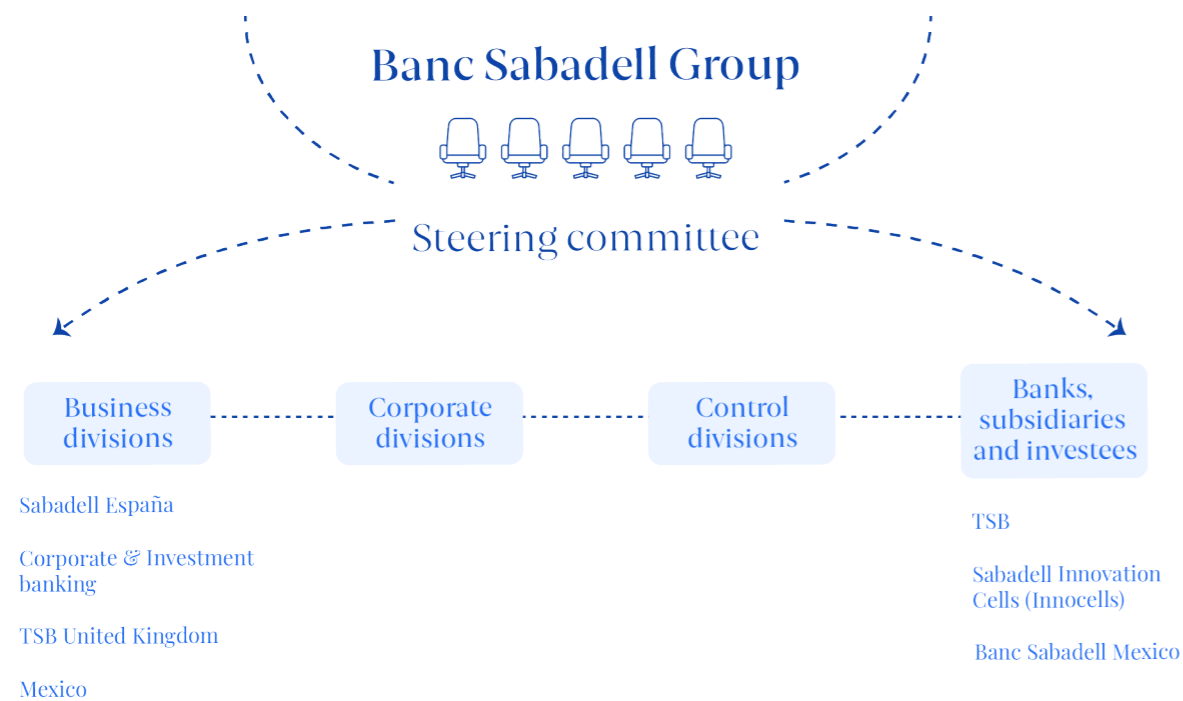


Figure 4: Organizational chart Banc Sabadell Group.

2.1.1 History

Banc Sabadell was founded in 1881 by a group of merchants and businessmen from Sabadell (Barcelona). It was founded with the aim of financing the local industry and providing it with raw materials. It was not until 1907 when the bank focused its activity on commercial banking. The entity started its territorial expansion in 1965. Thirteen years later, in 1978, Banc Sabadell began its international expansion by founding an office in London (Historia, 2020).

Banc Sabadell was a pioneer in the computerisation of their accounting processes in 1968. Finally, in 1998, Banc Sabadell launched BancSabadellNet; its first Internet banking service. Since 1996, Banc Sabadell has been expanding nationally and internationally, by acquiring and integrating several banks to its group (Historia, 2020).

Banc Sabadell, with more than 135 years of history, is one of the largest private banking groups in Spain.

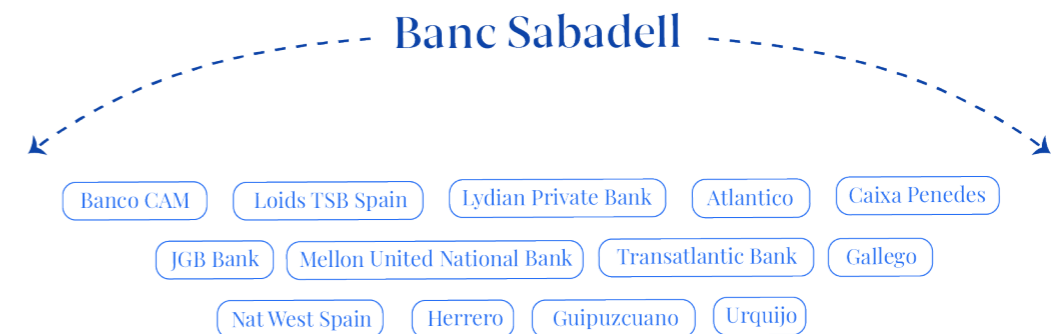


Figure 5: Acquisitions by Banc Sabadell.

2.1.2 Market positioning

The banking industry has been going through a transformation process due to digitalisation (Wingard, n.d.). The digital revolution has shaped a new type of user. This user segment is characterized by being always connected while operating on multiple devices. They demand for excellent experiences; immediate, transparent and cross-channel (Rowe, 2019).

Banc Sabadell is also part of this transformation process due to digitalisation. By taking advantage of technology development, they have adapted their business model. They look for profitability by closing branches and reducing the number of ATMs. In 2020, Banc Sabadell plans to reduce their number of branches by 10% (“El Sabadell Anuncia El Cierre de 200 Oficinas En 2020,” 2019). In this way, the entity continues with its progressive reduction plan of branches that began two years ago.

Less branches, more hours.

Banc Sabadell focuses on offering a personalised service to its customers, whenever they need it. This can be achieved through their digital platform, such as Banc Sabadell App or website.

However, offering digital services is not an easy task for Banc Sabadell, since some services are still physical and require going to a bank branch,

such as applying for a loan/mortgage. Here is where Fintechs are taking competitive advantage towards traditional banks. The term Fintech (Financial Technology) refers to startups or tech companies that use innovative technologies to offer financial services (PWC, 2016). Fintechs and other challengers are taking part of bank’s revenues (Bambrough, 2018). This is due to the fact that they deliver user-centered services that satisfy customer needs.

The new generations trust neobanks, such as Revolut, N26, Bnext or Monzo, which come with very attractive proposals for users. Neobanks are a type of bank that offer financial services that are 100% digital. (Pritchard, 2020). The customer base of neobanks across Europe has grown by more than 15 million since 2011. Furthermore, it is estimated that by 2023, Europe’s neobanks could have up to 85 million customers, which represents about a 20% of Europe’s population over fourteen (Kearny, 2019) (see Figure 6). Besides, by taking advantage of Open Banking, neobanks offer personalised solutions thanks to combining data from multiple sources (Pritchard, 2020). For instance, N26 is a German fintech that allows new customers to sign up through a video, making it more accessible (Follow These 6 Simple Steps To Open An N26 Account, n.d.). Offering targeted solutions to their customers and providing them a feeling of personalisation, that is what customers are seeking after (PWC, 2016a).

However, Banc Sabadell is also focusing its efforts on the customer. Josep Oliu, president of Banc Sabadell, is aware of the value of combining technological innovation together with the human factor; “Technology facilitates customer access to the bank and the human factor helps to strengthen relationships and increase trust”, Josep Oliu declares (Torres, 2018).

Banc Sabadell’s management model focuses on establishing long-term relationships with its customers. Banc Sabadell aims to achieve that by increasing customer engagement through taking initiative and anticipating customer needs. Other factors that support the establishment of a long-term relationship with the customers are a global offer of products and services, a qualified advisory team and the pursuit of quality (Misión y Visión, 2020). All previously mentioned is reflected on Banc Sabadell’s strategy (see Section 2.2).

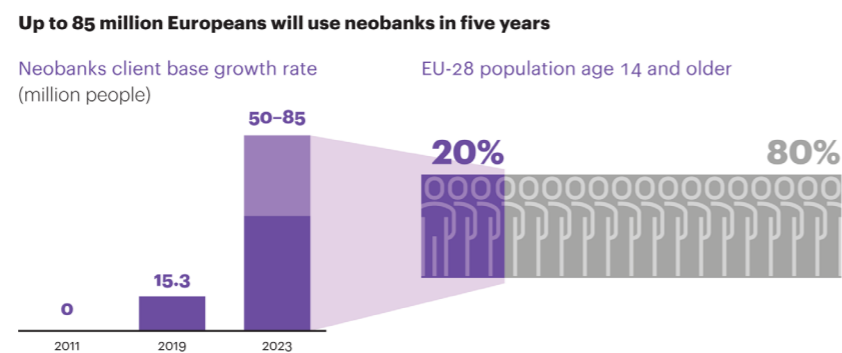


Figure 6: Neobanks client base growth rate.

Less branches, more hours.



Strategy

To be where you are Estar donde estés

Banc Sabadell has grown without losing the proximity to its customers. Their goal is to anticipate and meet customer financial needs. To operate in this environment, where customers demand proximity, quality and transparency, they have summarised their strengths in the following strategy “Estar donde estés” (To be where you are). *Estar donde estés* is the Spanish translation of “To be where you are”. By means of this strategy, Banc Sabadell wants to highlight that Banc Sabadell is where its customers are “We are where you are”. This slogan summarizes Banc Sabadell’s strengths, which are explained as follows:

Establishing a long-term relationship.

Banc Sabadell believes that a bank should be where its customers are. Customers are able to choose when, where and how they want to contact the bank. Being transparent, close and rigorous is essential to establish a relationship that will last throughout the years.

Receiving an excellent quality of service.

Banc Sabadell has included innovative products to their portfolio, such as: Banc Sabadell App, Sabadell Wallet, Instant Money and Bizum (see Figure 7). They strive to offer the best solutions and provide decisive, agile and convenient customer service.

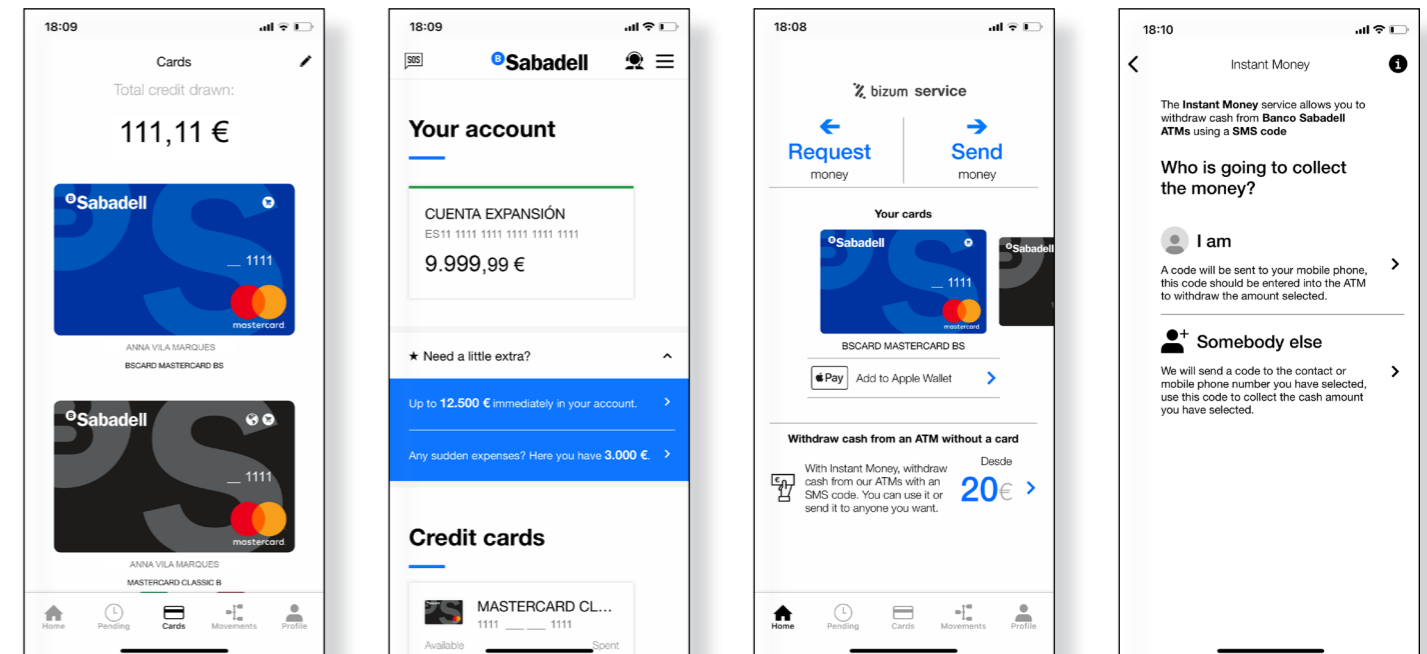
Growing with a bank that grows.

Banc Sabadell has been expanding nationally and internationally. This allows them to offer trust and solidity to its customers.

Being part of a socially responsible and transparent entity.

Bringing value to all the different social groups: customers, employees, providers, society and the activities of Banc Sabadell Foundation.

Figure 7: Banc Sabadell Portfolio.



Sabadell Wallet

The app to pay for purchases via mobile and send or request money to contacts on the contact list.

Sabadell App

Digital banking app for remote banking, to contract products or manage accounts.

Bizum

Spanish service provider for instant payment.

Instant Money

Send money through an SMS message. Allows users to collect the money, without a card, at any of Sabadell’s ATMs.

Banc Sabadell's strategy "Estar donde estés" (To be where you are) has been reproduced in a web platform (estardondeestes.com) (see Figure 8). This platform consists of two main sections: Business and Family, which are explained in more detail as follows.

[Home](#)

Business

- Competition and Markets
- Investments
- Partners and Employees
- Sustainability
- Digital transformation
- Small company

Podcast

Pulse

Family

- living place
- Saving
- Personal Investments
- Retirement

Q Seeker

Search suggestions:

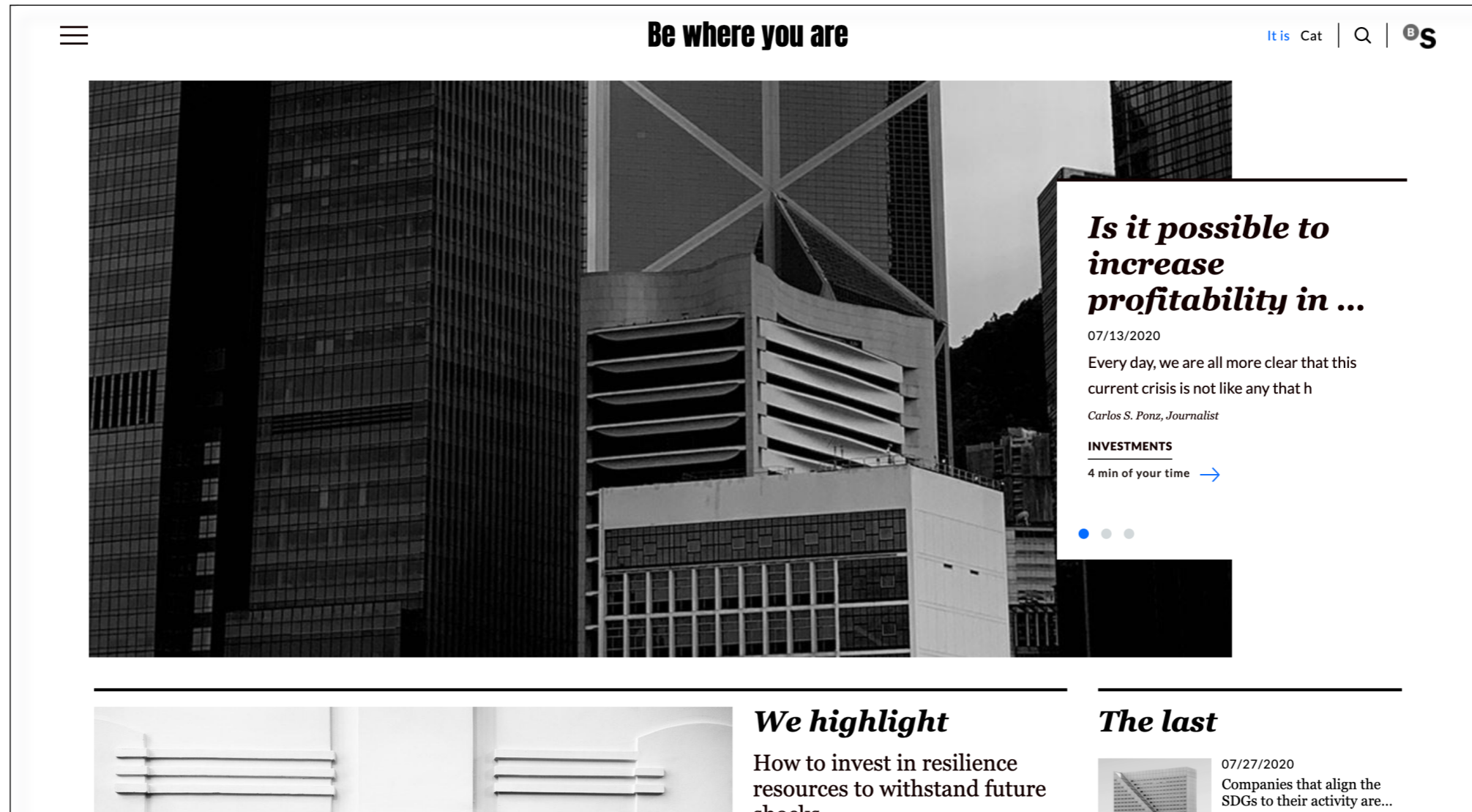


Figure 8: estardondeestes.com - home page.

Living place.

This section is the most relevant one to the topic of this graduation project. Living place provides information through a map, where users can explore: distances, leisure and shops, house rental, house purchasing and live good (green areas, number of inhabitants, etc.). In this section users can also interact with several calculators to find out the answers to "How much should I pay for my housing?", "Fixed or variable mortgage?", "Expenses associated with the purchase of a housing?", "Buy or rent"? "Get the best out of your mortgage". This section also contains articles regarding the housing market.

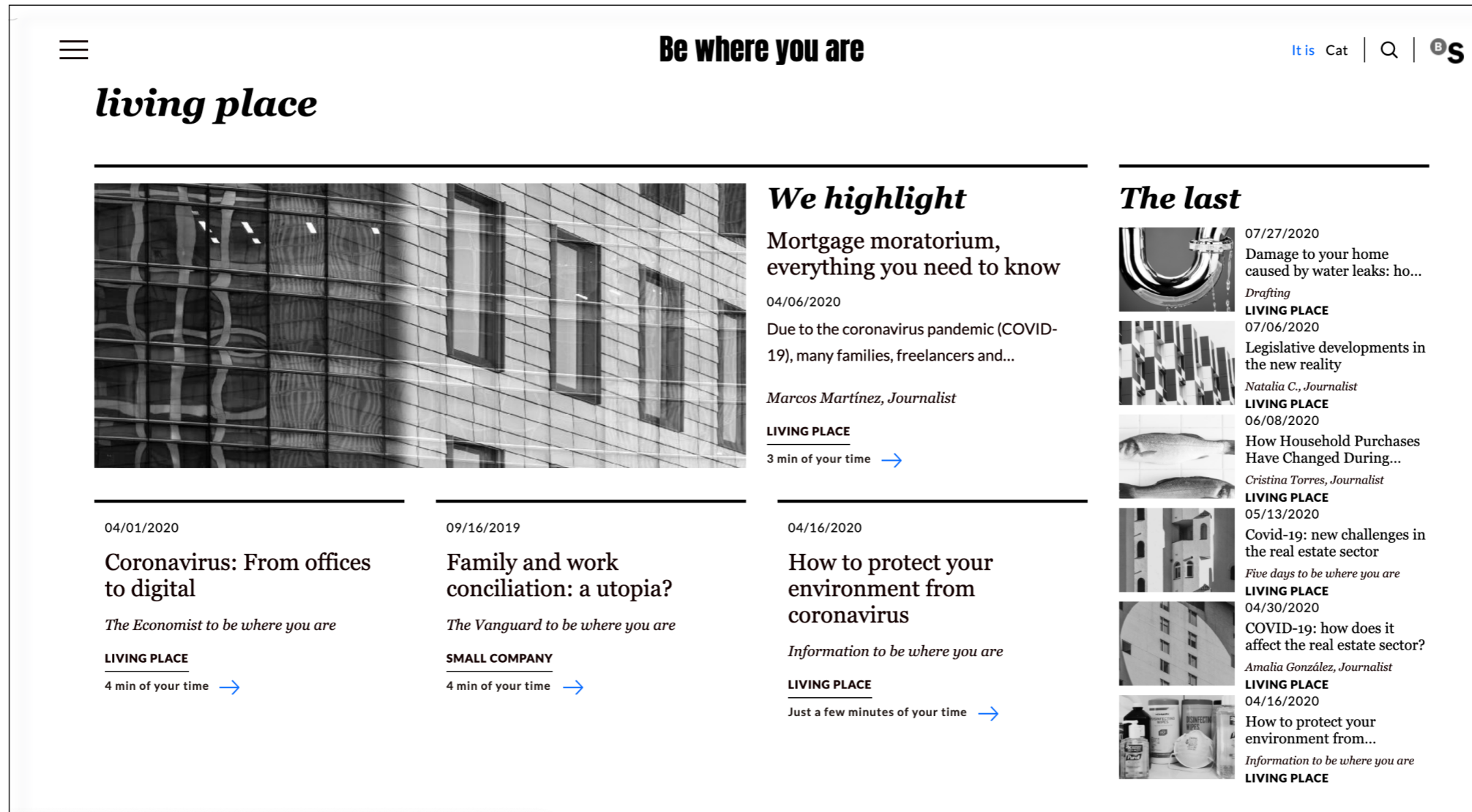
Business.

In this section users can explore all companies through a map. The map allows them to analyse companies according to the number of employees, opening dates, distances and billing. It also includes articles related to business: competition and markets, investments, partners and employees, sustainability, digital transformation and SMEs (Small and Medium Enterprises).

Calculators.

Estarondeestes.com also offers several calculators to the users where they can analyse what is best for them: *buy or rent, how much should I pay for my mortgage?, amortice your mortgage, expenses associated with the purchase of a home and fixed or variable mortgage type.*

The images below show the calculator to help the user analysing the option that best suits him/her: buy or rent?

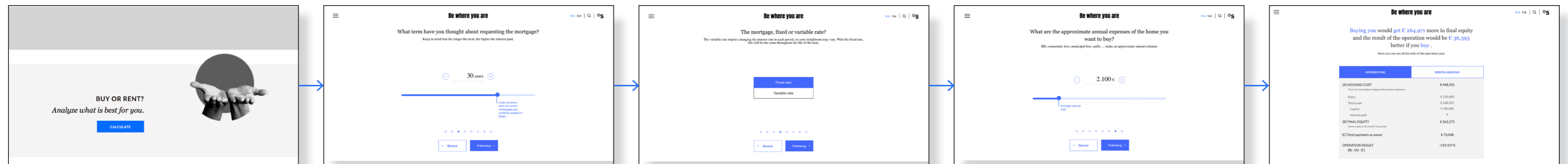


Living place.

As mentioned before, in this section users have access to a great number of articles related to housing. These articles are written by experts or journalists from several Spanish newspapers, such as: *El Economista* and *La Vanguardia*.

Figure 9: estarondeestes.com - living place.

Figure 10: Simplified user flow for buy or rent calculator.



Mortgage

This project focuses on the home buying process. However, as this project is carried out together with Banco Sabadell, the mortgage process is considered of great importance.

A service design approach was taken in order to analyse the current process of applying for a mortgage at Banc Sabadell. A service safari was the starting point of this project. A service safari is a research method used to understand a service. Through this method, researchers go into the wild and experience the service first hand (Design Council, n.d.). This means that the researcher goes to the location where the service takes place and experiences it as if the researcher was a user. This tool is very relevant at the beginning of the design process, as it provides a deep understanding of the service from a user perspective.

In this case, this tool was chosen because the researcher lacked information about the mortgage process. This information could have been obtained through Banc Sabadell. However, it was desired to avoid being influenced by the bank's perspective in order to get the customers' perspective in more detail. For this reason, service safari was considered to be the right tool to understand the service and help the researcher to empathise with the users, understanding their needs and motivations. The output of the service safari is a customer journey that highlights the different touchpoints, experiences and feelings throughout the service (see Figure 11).

The service safari started with the researcher looking on Banc Sabadell's website to gather some information about the home buying process.

As a surprise, the only content that was found was a mortgage calculator. Nonetheless, general information about the process could not be found. At that time, the researcher decided to interact with the mortgage calculator. However, the feeling was that it was just showing a general estimation and it did not represent the real value of the mortgage. In simple terms, the results of the calculator did not feel personalised to the user.

Due to this reason, the researcher decided to call the customer service. The customer service's phone number was displayed next to the mortgage calculator. The goal of this call was to get an overview about the home buying process, as for example, average time that it usually takes, important steps and milestones and requirements to meet before applying for a mortgage.

After queuing on the phone for several minutes the researcher introduced herself: *"Hi, my name is Marina. I am a customer of Banc Sabadell. The reason for the call is because I am thinking of buying a house by the end of the year. Currently, I am not sure how the process looks like and I would like to get some general information about it. As for example, which requirements should I meet to apply for a mortgage... I would really appreciate, if you could give me some information about it"*.

Surprisingly, the agent on the phone informed the researcher that this procedure requires going to the bank branch. This is the reason why the agent refused to give any kind of information regarding this topic.

After discussing this situation with the company, it was found out that the reason behind this is a matter of efficiency. Interactions with the call center are expensive, so it is a way for Banc Sabadell to save money.

After this first interaction, the researcher decided to keep on experiencing the process first hand. However, due to the Covid-19 pandemic, all the

bank branches were closed. For this reason, this event marked the end of the safari service.

The findings of the service safari are visualised on a customer journey map. The customer journey provides an overview of how the researcher experienced the process of getting information about the home buying process at Banc Sabadell. It is important to highlight that this customer journey is not representative for the entire client portfolio of Banc Sabadell, but serves as a motivation towards the project approach.

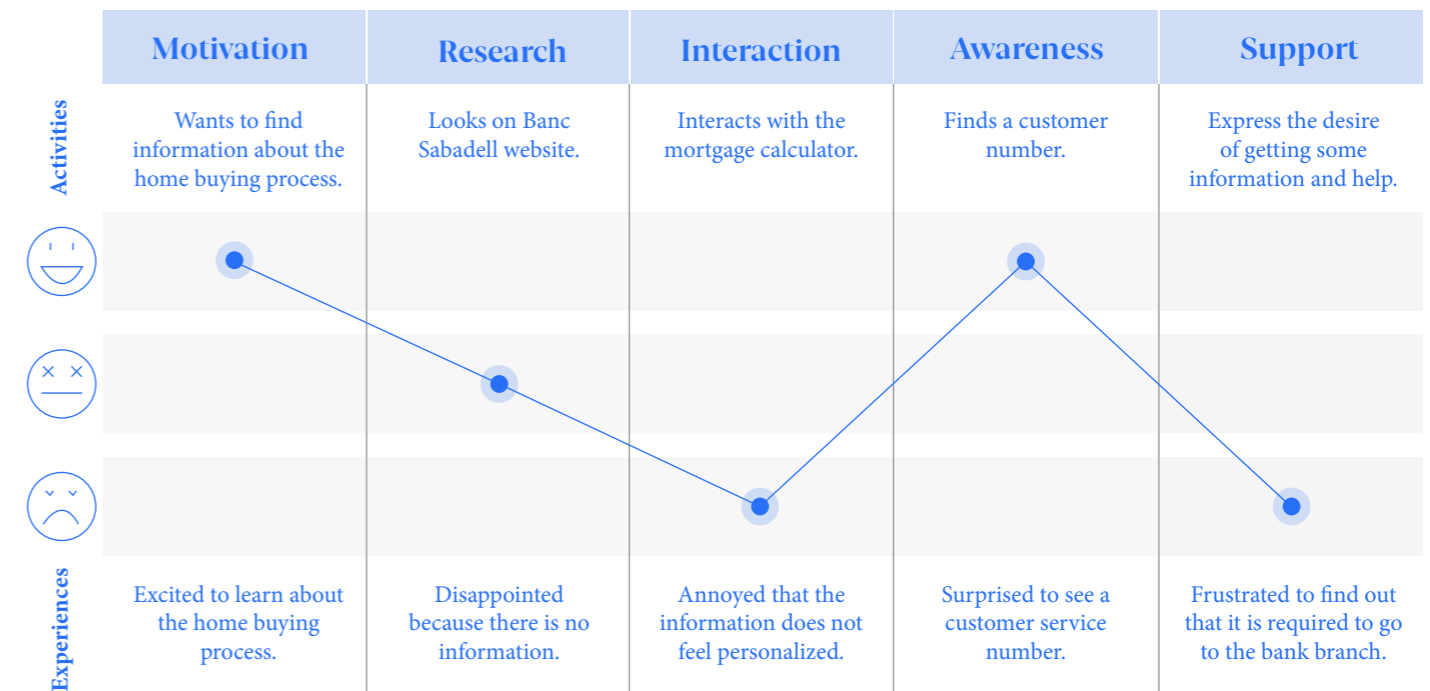


Figure 11: Customer journey that visualizes the results of the service safari.

Conclusion

After analysing Banc Sabadell's context, strategy and its mortgage service, several conclusions were made that triggered the next step in the process, the research phase.

As a result of how the banking industry is changing due to digitalisation and the presence of neobanks and fintechs, users are demanding transparent, personalised and digital services. Banc Sabadell is aware of this trend and it is trying to shape towards a user-centered strategy.

It is clear that Banc Sabadell is focusing its efforts towards the customer through its strategy, claiming that Banc Sabadell is where its customers are. However, the results of the service safari show that these efforts are not perceived in the home buying process, where the digital offer is currently non-existing. The results show that Banc Sabadell has yet to put its efforts on providing a better experience in the process of buying a house, as currently it forces users to go directly to the bank branch.

Providing a better user experience would allow Banc Sabadell to successfully accomplish its strategy. This would result in Banc Sabadell taking competitive advantage towards fintechs and neobanks. However, in order to achieve this, Banc Sabadell needs to better understand its users to be able to satisfy their needs.

In conclusion, by looking at the current experience of the mortgage process and Banc Sabadell's strategy it is clear that the current process is not aligned with its strategy. For this reason, there is a need for Banc Sabadell to understand its customers in order to better satisfy their needs and achieve their ultimate goal: providing an excellent quality of service while establishing a long-term relationship. This observation triggers the next step in the process, the user research. Through user research, the needs of the customers will be uncovered in the next chapter, which aims to explore the home buying process from a user perspective. This will provide an understanding of their needs, wishes, motivations and concerns, which will uncover the right problem to solve.



Chapter three

User Research

The user research chapter is of great importance for the development of the project. A detailed description of the user research set-up, methods and procedure is provided in this chapter. This chapter aims to understand user motivations, needs and concerns in the broad topic of the home buying process.

Expectations influence the way users experience a service. On the one hand, if expectations are high and the service does not meet them, users will be disappointed. On the other hand, if expectations are low and the service goes beyond them, users will be delighted. This factor triggered the researcher to involve two different target groups in the research phase.

Finally, this chapter provides a detailed description of the two phases into which the research has been divided. It aims to immerse participants in the topic of exploration and encourage them to share their feelings, motivations and concerns around the topic.

Set up

3.1.1 Approach

User research is considered one of the core aspects of service design (Stickdorn & Schneider, 2012, pp. 1–3). Through user research, users are placed at the center of the service and design process (Mortensen, 2019). User research has been considered of great importance for the development of this project. It is essential to understand how users experience the current home buying process in order to design the best user experience. Thus, the researcher needs to uncover user needs, motivations and concerns throughout the service. This section describes the methodology used to explore and gather user data.

A qualitative approach has been chosen to explore and understand the home buying process from a user perspective. The main goal of qualitative research is to understand users' experiences, beliefs, feelings, interactions and behaviours towards the service of exploration (Gibson et Al., 2004). Furthermore, it enables the researcher to gather in-depth insights about the topic of the research. Thus, it involves collecting and analysing non-numerical data

(Bhandari, 2020). Moreover, a qualitative research approach gives freedom to the researcher to explore the topic of the research. Therefore, participants of the study are considered experts on the topic.

The goal of the researcher is to help and enable participants expressing their motivations and concerns to finally gather meaningful data (Bhandari, 2020). Finally, qualitative research enables the researcher to deal with complexity and the multiple factors involved in the object of study (Gummesson, 2006, p. 169). This is the reason why a qualitative approach has been chosen, as the home buying process embraces high complexity. There are several stakeholders involved, a lot of paperwork in between and high amounts of money on the table. In addition, users start the process with their own expectations and assumptions.

The user research is structured in two phases: immersion and exploration. The reason why the user research has been divided into two phases is because the topic to be explored is very broad and complex. Therefore, dividing it into two phases allows firstly to raise awareness and immerse users in the subject to be explored, and secondly, to analyse the subject in more detail through the second phase. Finally, the two phases allow the researcher to conduct a small analysis after the first phase with the aim of redefining the next phase according to the insights gathered, if needed.

Two different methods are selected to collect data in the user research. These methods are used to collect, visualise and synthesise the research data gathered (Stickdorn & Schneider, 2012, pp. 1–3). Below, a short introduction to these methods is given. However, a more detailed description can be found in the coming sections.

Phase 1: 5-day diary - Immersion.

A research diary is a method used to collect user data, activities, behaviours and experiences, over a period of time. During a diary study, participants are asked to provide several information during an extended period of time (Salazar, 2016). The information is provided by answering questions or completing several tasks. The goal of the phase one is to immerse participants in the broad topic of the research, financial behaviour.

The research diary has been chosen as it allows users to be immersed in the topic of exploration through an extended period of time. This way, users are slowly immersed in the topic and can prepare themselves for the second phase. In this case, the diary will last 5 days, as it is considered a long time enough to immerse the participants, but short enough to ensure that they feel engaged and complete the information. Finally, the 5-day diary allows the researcher to understand the personality of the user as well as identifying relevant insights that could influence the second phase.

Phase 2: Qualitative interviews - Exploration.

Participants from phase one are invited to the second phase. The goal of this phase is to dive deeper in the topic of the home buying process. The method used during this phase is qualitative interview. This method allows the researcher to gather data in a semistructured way. During a semistructured interview the researcher prepares an interview guideline with open-ended questions. Therefore, the participants have freedom to express their thoughts ("Semi-Structured Interview," 2008, p. 100).

In the interviews, several topics are covered such as housing, financial habits, the home buying process experiences and wishes. In order to dive deeper in the topic, generative tools are used. Generative tools are a collection of exercises that enable participants to imagine and express their future needs. This is achieved first by immersing themselves in the present and later recalling experiences from the past (Sanders, 2000, pp. 1–3). Thus, the interviews start with the researcher asking questions to place the participant in the present. After this, several questions are asked regarding the past experiences of the users. Finally, the interviews finish with a set of questions regarding the future of the home buying process. During this part, participants are encouraged to imagine their future needs or potential improvements in the current process.

The user research phase was initially planned to be conducted onsite. First, the researcher would send the diary to the participants. The day after the user had completed the diary, the researcher would meet the participant face-to-face for the qualitative interview. However, by the time the user research planning was finished, the Covid-19 pandemic had started. Thus, all the methods mentioned had to be conducted online. However, it was considered that the selected methods were suitable for an online setting, as there are several online tools that facilitate this work. Therefore, the user research methods were maintained and only the physical setting was changed for a remote setting.

User research process



Figure 12: User research phases.

In order to conduct the user research phase, several online tools are used. The 5-day diary is conducted through Airtable (see Appendix C). Airtable is an online tool that allows the researcher to create a questionnaire and send it to participants via a link. Furthermore, it allows to write extended answers, and attach different types of documents such as pictures, word documents and pdfs. Finally, the interviews are conducted via Skype, which enables the participant and the researcher to have an interview via video call.

Day 4: A love letter to your bank

Imagine that you are in a love relationship with your bank, so your bank is your partner. ❤️

Now, write a love letter to your bank. 📝 Tell him/her how long have you been together, the good things it brings you, how happy it makes you, etc.

If it is helpful, you can imagine that you are writing it due to Valentine's day, or because you are celebrating your anniversary. Be as creative as you can, there are no limits. 🥰 The more you put your self in the role, the better results you will get. ✍️

What is your name? *

Name and surname

Write here your love letter ❤️ *

Submit

Never submit passwords through this form. Report malicious form

Figure 13: Example of a task of the 5-day diary.

3.1.2 Participants

This project focuses on young adults or millennials living in Spain. This generation was born between 1981 and 1996. Currently, they are between 24 and 39 years old (Dimock, 2019). Millennials represent 18,7% of the total population in Spain (Quiénes Son y Cómo Son Los 'Millennials'. Radiografía de Una Generación, 2018). This young adult generation has been shaped by digitalisation. They have a multitasking behaviour and they are extremely social, demanding and critical with new services (Gutierrez-Rubi, 2014).

Young adults are the generation that is experiencing or soon will experience the home buying process. Understanding their habits and previous experiences has been considered essential for this project. For this reason, the sample for the research has to be representative for young adults or millennials living in Spain. However, one of the concerns that arose is that users who have already experienced the home buying process might be biased. Moreover, since it is a long and complex process, it could be the case that participants are not able to remember the details or the way they felt. For this reason, another target group is defined, participants who have not experienced the home buying process. Another argument in favor of participants who have not been through the process is that expectations influence the way that users experience a service (Marlene & Bürglen, 2014, p. 4). If expectations are too high and the service does not meet them, the experience will be disappointing, and vice-versa.

In conclusion, two different target groups are defined: participants who have experienced the home buying process and participants who have not experienced it.

Besides these two samples, different criteria is defined to select participants:

- People with a different level of education. The level of education helps to understand their financial education, which could influence how they experience the process.
- People who are living in different places in Spain, because the real estate market varies in each city.
- Customers from different banks, to make sure that they describe their experiences from a variety of banks to uncover the most differential factors.
- The marital status, age and gender is also considered.

In order to find the participants that meet the previous criteria, a survey is created (see appendix B). This survey includes six questions that cover the defined criteria. In order to get more engagement, the selected participants would get a \$20 Amazon voucher.

The survey is spread across the researcher's network. Finally, among all the respondents, 12 participants are selected; 6 participants who have experienced the home buying process and 6 participants who have not experienced it.

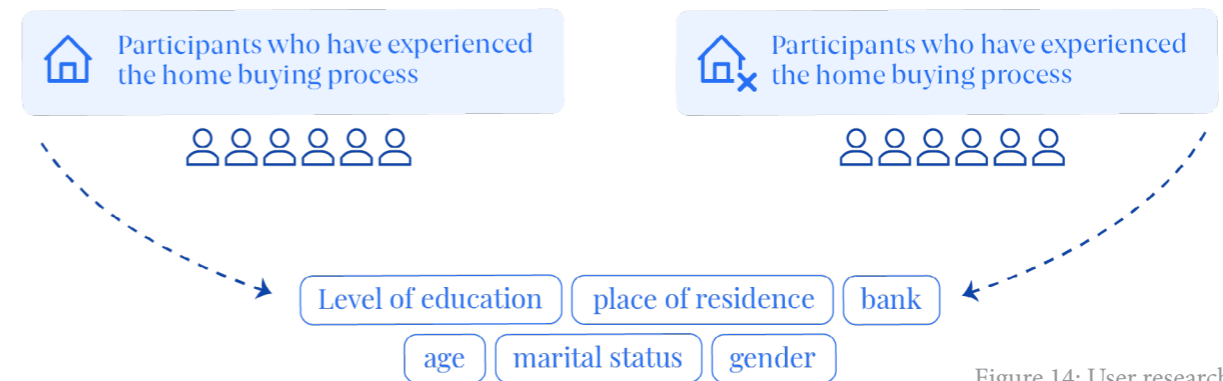


Figure 14: User research sample.

Participants who have experienced the home buying process.

Participants who have not experienced the home buying process.



Participant 1
Female, 28



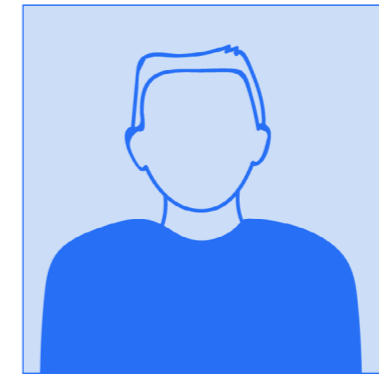
Participant 2
Male 35



Participant 3
Female, 27



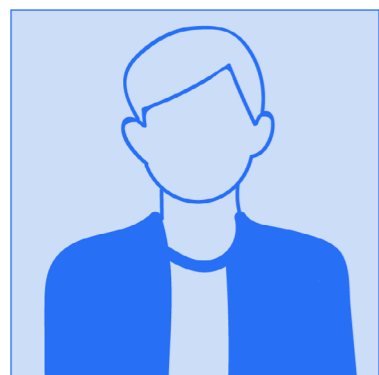
Participant 7
Female, 26



Participant 8
Female, 25



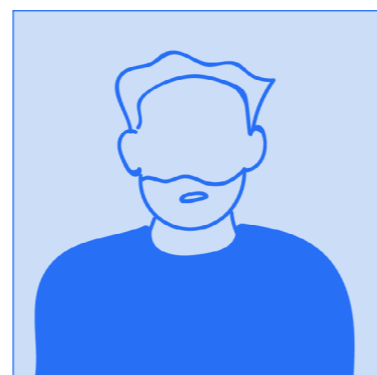
Participant 9
Female, 26



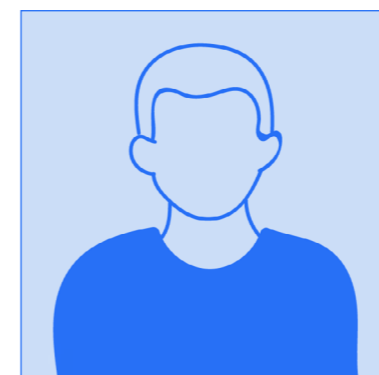
Participant 4
Male, 27



Participant 5
Female, 29



Participant 6
Male, 33



Participant 10
Male, 28



Participant 11
Female, 28



Participant 12
Male, 26

5-day diary

The user research starts with phase one: immersion. The main goal of this phase is to immerse participants in the topic of exploration. This phase aims to get a holistic picture of participants' thoughts around the banking experience as a whole. In order to do so, a research diary has been selected as the method for this phase. As already mentioned, a research diary is a method used to collect user data, activities, behaviours and experiences, over a period of time. Through a diary study, participants provide information on a daily basis during an extended period of time (Salazar, 2016). The information is provided through completing different tasks and answering written questions. This encourages the participant to think deeply about the topic. This method has been chosen as it allows participants to immerse themselves in the topic. Through a diary study participants are encouraged to think about the topic during several consecutive days, which results in a deeper immersion in the topic (Salazar, 2016).

In this case, the diary study has been designed to take five consecutive days. This period of time is considered long enough to immerse the participants, but short enough to ensure that they feel engaged throughout the diary. During the 5-day diary, a daily task is sent to each participant six days previous to the interview. This means that every participant is going to be interviewed the day after completing the diary. In this way, the participants are immersed in the topic and ready for the interview.

3.2.1 Goal

As already mentioned, the diary aims to immerse participants in the financial topic. This will be achieved by completing several tasks and answering a set of questions during five consecutive days. By doing this, users are encouraged to reflect on the topic during five days, previous to the interview.

An exploratory approach was adopted when defining the 5-day diary. An exploratory approach enables the researcher to understand more about a topic without defining previous assumptions. (Stickdorn & Schneider, 2012, pp. 1-3). As the 5-day diary is the starting point of this project, there are not initial assumptions to base the research on. Thus, an exploratory approach is key to understanding participant's motivations and thoughts about banking itself.

As previously mentioned, during the research phase participants are considered experts on the topic. However, the home buying process might feel unfamiliar to participants who have not experienced the process. It could be the case where participants do not want to join the interview because they might think that they do not know enough about it. The diary is a way to make them feel confident and assured in the topic. This is achieved by defining broad questions that do not require a lot of effort for participants to answer. A detailed overview of the information that is contained in the diary can be seen in Figure 15. Finally, the 5-day diary aims to understand the relationship that participants have with their banks. It also aims to help participants feeling confident when later joining the interview.

3.2.2 Content & structure

In the next page the content of each day of the diary is shown. The topic, questions and tasks are also shown (see Figure 15). The diary that was sent to participants can be found in the Appendix (See Appendix C). Five different topics, one per day, are chosen to immerse participants in the topic of exploration.

My personal life

Day one is about answering personal questions, such as *Where would you like to be in your life five years from now? How can you achieve it?* This helps the researcher to understand the personality, motivations and future dreams of the participants. It also helps the researcher to establish a connection with the participant.

My life with technology

Day two is about technology habits. This topic has been introduced in order to understand user behaviour towards technology and digital devices. When analysing the context of the project (see chapter 1), it was identified that neobanks and fintechs are taking advantage towards banks due to the fact that they provide digitalised and personalised solutions to users. Currently, Banc Sabadell is not offering a digital experience towards the home buying process. However, Banc Sabadell's strategy aims to place Banc Sabadell where its customers are. Thus, it is essential to understand user needs, habits and behaviours. For this reason, "My life with technology" aims to explore users behaviours towards technology.

My banking habits

Day three aims to explore users' banking experiences, interactions with their banks, likes and dislikes. Following the same reasoning as "My life with technology", this section aims to understand users financial behaviours. "My banking habits" aims to immerse the participant in the financial topic in a smooth way. Thus, the questions that participants are asked here does not require a lot of effort and thinking. The reason behind it is because the next two days will require more time and effort to complete. So this exercise is considered a warm-up exercise for the next two days.

A love letter to your bank

This exercise consists of asking participants to write a love letter to their bank. This exercise is based on the belief that the relationship users have with companies and brands is similar to the one users can have with people. Thus, when users like a brand, they feel a connection with it, where they trust the brand and become loyal to it (Crawford, 2020). Therefore, this exercise aims to encourage users to treat their banks as people. This exercise helps to uncover the emotional connections that users have with their banks. Finally, this will help the researcher to identify users' favourite attributes.

A break up letter to your bank

This exercise consists of asking participants to write a break up letter to their bank. This exercise is based on the same belief as the love letter, where users have relationships with brands similar to the ones with people (Crawford, 2020). Thus, by writing a break up letter, this exercise aims to uncover emotional connections and identify attributes or features that could be improved.

3.2.3 Procedure

The 5-day diary was sent to sixteen participants that met the criteria. The reason for sending it to more participants than needed was in case some participants failed to respond. As already mentioned, the diary was created on a digital format through Airtable. Thus, it was sent to participants digitally through a link via email or WhatsApp, as they preferred.

Initially, it was considered to send it to participants in a printed format. However, since the participants were asked to attach pictures and write a letter, the digital format was considered to best suit this situation.

As previously mentioned, the diary was sent to participants six days prior to the interview. The diary was sent on a daily basis. Thus, every day the researcher sent the link of the corresponding day of the diary to the participant. This means that the researcher sent every day the task individually. In this way, the researcher ensured that participants filled in the information during five consecutive days. In other words, the researcher wanted to prevent the participant from completing the whole diary in one day. If that was to happen, then the whole purpose of the diary would be lost.

Day 1 - My personal life

In which area do you live?
With whom?
What do you like to do in your spare time?
What do you enjoy the most about this activity?
Please, post a picture of this activity.
Where would you like to be in your life 5 years from now?
How can you achieve it?

Day 2 - My life with technology

How much time do you spend online?
How do you spend your time online?
When being online but not performing work related activities, which device do you use more often? Why?
Upload a screenshot of your mobile's home screens to see the apps that you have.
Which apps do you enjoy using the most? Why?
Which website do you enjoy using the most? Why?

Day 3 - My banking habits

What's the name of your bank?
How do you check your finances?
How often do you interact with your bank?
What do you like the most about your bank's app?
What do you dislike the most?
If your bank would be a character from a movie? Which one would it be? Why?
Post a picture from this character in the movie.

Day 4 - A love letter to your bank

Imagine that you are in a love relationship with your bank, so your bank is your partner. Now, write a love letter to your bank. Tell him/her how long have you been together, the good things it brings you, how happy it makes you, etc.

Day 5 - A breakup letter to your bank

Following the exercise that you did yesterday, now I want you to imagine the opposite situation. It is time to break your relationship with your bank. Write a breakup letter to your bank. Remember to give your bank all the reasons why you don't want to be with him/her anymore.

Figure 15: Content of the 5-day diary.

3.2.4 Conclusion

As previously mentioned, this project is approached from a service design perspective. This means that it is iterative by nature. So, after each step of the process, a step back is taken to reflect on it and identify potential improvements, or even repeat the exercise if it feels necessary.

After analysing the results of the diary, it was surprising the good quality of the answers provided by the participants. It was gratifying to see the effort and time that the participants used to complete the task. However, not all the participants engaged on the diary, and two of them stopped on day three. Besides, the researcher had already thought of this possible situation, and sent the diary to more than 12 participants. This was a way to ensure that if some people stopped, the researcher would still get at the end 12 participants to interview. Furthermore, the researcher decided not to force participants to complete the diary if they did not want to. This was because completing it out of obligation would lead to poorer quality results.

As mentioned before, the information obtained from this diary was really beneficial not only for the project itself, but also for Banc Sabadell. This is because the information from the diary can help Banc Sabadell to understand their customers and empathise with them. The diary provides deep and meaningful insights on customer motivations, habits and their perception of their banks.

Finally, the love letter and the breakup letter exercise was a really fun exercise to conduct. Participants were very creative and the outcome provided a lot of valuable insights and a deep understanding of the emotional connections that users have with their banks.

Dear bank,

I have been thinking for some time about how to tell you this. I thought it is best to write it to you in this letter. I realised that I am in a moment of my life that I am looking for new things. Things that I must do alone.

After 7 years of relationship with you, I think it is the best for both of us to finish something that is already dead. That no longer brings us happiness. I feel that those bank transfers are already empty. That the income I receive in my account does not fill me with joy. And that even when I see my expenses in the bank movements they do not bring me so much sadness.

I hope you can find a new client that will make you feel fulfilled and be able to offer them those loans you were offering me.

I wish you the best with all my heart.

Gonzalo

Figure 16: A participant's breakup letter.

Qualitative interviews

Once participants have completed the 5-day diary, the second phase of the user research starts. This phase aims to dive deeper in the topic of the home buying process. In order to do so, qualitative interviews have been chosen as the method to gather deeper insights. This method has been chosen as it allows the researcher to gather data through an exploratory approach. An exploratory approach focuses on gaining a deep understanding about how users experience a service and its context (Exploratory Research in UX Design, n.d.). This is achieved through semistructured interviews. Thus, an interview guideline is prepared with open-ended questions. The open-ended questions encourage the participants to freely express their thoughts and perspectives on the topic ("Semi-Structured Interview," 2008, p. 100).

Each participant joined the interview the day after the participant had completed the 5-day diary. Thanks to this, participants were immersed and confident to share their knowledge and experiences around the topic.

This section provides a detailed description of the qualitative interviews, its goal, procedure, tools and guidelines.

3.3.1 Goal

The goal of the qualitative interviews is to capture rich and meaningful data about participants' thoughts and experiences regarding the home buying process. Furthermore, it aims to understand user's habits, routines, motivations and concerns towards the topic of exploration. In order to do so, semistructured interviews are defined, which

give freedom to the participants to express their thoughts about the topic. These interviews cover several topics such as personal and professional background, housing, preferred digital service and the home buying process. These topics will be further explored in the next section. All these topics help to first understand the personality and context of the users' lives and then explore in detail the home buying process. The goal of the interviews is to uncover rich, valuable and meaningful insights that are unique. These insights aim to provide a design direction for the project, uncovering the right problem to solve.

Expectations are considered to have a great influence on how users experience a product or service (Marlene & Bürglen, 2014, p. 4). Thus, if users have high expectations and the service does not meet them, users will be disappointed. On the other hand, if expectations are low and the service goes beyond them, users will be delighted. Thus, it is important to understand the expectations that users have before experiencing the home buying process and how these expectations are met during the process. Therefore, the qualitative interviews aim to analyse and compare users' expectations before the home buying process (users with no mortgage) against user's experiences once they go through the process (users with mortgage).

Thus, the interviews are divided according to two target segments. The goal of the interviews for each target segment is explained below:

Users who have not experienced the process.

The goal of these interviews is to understand participants thoughts and beliefs towards the

home buying process. As these participants have not experienced the home buying process, this interview focus on uncovering user needs and motivations when experiencing their preferred digital service. In this way, the researcher could later identify common functionalities or attributes among all the participants to later include them on the ideation phase.

Furthermore, the aim of these interviews is to define a customer journey based on assumptions from the participants. These participants have not experienced the home buying process, so the researcher goal is to uncover participants' expectations and assumptions towards the process. In order to do so, it is important that the researcher conveys confidence to the participants. This is due to the fact that participants have not experienced the process and some of the information they share might not be right. However, as participants are considered experts on the topic of exploration, they are encouraged to share everything they can think of, regardless of whether it is right or wrong.

Users who have experienced the process.

The goal of these interviews is to understand participant's experiences, feelings and thoughts throughout the whole process of buying their first house. For some of the participants, it has already been a couple of years since they experienced the process. So it could be hard for them to recall those past experiences. For this reason, a path of expression workshop is conducted. The path of expression enables the participant to imagine future situations by first talking about the present, then recalling past situations and finally trying to imagine future needs (Sanders, 2000, pp. 1–3). Thus, the past of expression workshop aims to enable participants to share their experiences

and future needs. During the past of expression workshop participants are first encouraged to talk about the present situation; how is their mortgage, how is their current relationship with their bank... Then, they are asked several questions about past experiences. During this part participants are encouraged to share their experiences from the moment when they decided to buy a house. Finally, participants are encouraged to imagine their future needs or identify potential improvements in the current process.

3.3.2 Interview guideline. Participants with no mortgage.

The interview guideline is divided in different topics. The structure of the topics aims to introduce the home buying process topic in a smooth and natural way for the user.

First, the interviews start exploring the personal and professional background of the participant. This section aims to establish a connection between the participant and the researcher, where the participant trusts the researcher. Therefore, it aims to ensure a good environment for the interview, where the participant feels free to share his/her own thoughts around the topic.

After this, the housing topic is explored, where the participant is asked information about his/her current housing situation. This helps the researcher understand the background information of the participant; if they own/rent, for how long, who do they live with, etc.

Then, the participant's financial habits are explored to understand the relationship that the participant has with the bank. Then, the participant is asked to identify his/her preferred digital service journey. This is an exercise to understand what motivates the participant and what are his/her preferred attributes. Finally, the topic of the home buying process is explored. During this part, the participant is encouraged to share his/her thoughts, assumptions and expectations about the process. The interview finishes with the participant explaining his/her wishes towards the process and identifying potential improvements, according to their expectations.

An overview of the topics and the goal of each topic can be found in the image on this page (see Figure 17).

Introduction

Introduce the researcher, the interview structure and goal of the session. (5min)

Personal and professional background

Understand participant's lifestyle and context. Time to set a nice environment to conduct the interview. (20 min)
[Tool: A day in the life]

Their house

Understand participant's current house situation, rent/own and thoughts, and reasons of choosing the place where the participant lives. (10 min)

Financial habits

Explore participant's financial habits, get an understanding of their needs and relationship with the bank. (20 min)
[Tool: Adjective cards]

Digital service journey

Identify participant's preferred digital service. Map out the experience, touchpoints, feelings, pain points and opportunities. (30 min)
[Tool: Customer journey map]

About the home buying process

Understand participant's knowledge on the current home buying process. Also getting an understanding of the participant's perspective by letting them defining how it is. (20 min)
[Tool: Customer journey map]

The future of the home buying process

Understand participant's needs for the home buying process. How they would like it to be. (15 min)

Figure 17: Interview guideline for participants with no mortgage.

3.3.3 Interview guideline. Participants with mortgage.

The interview guideline for participants with mortgage is similar to the one of participants without mortgage. The main difference is in the way the home buying process is explored.

Participants from this interview have experienced the home buying from one to three years previous to the interview. For this reason, a path of expression workshop is designed. As already mentioned, the path of expression enables participants to imagine their future needs by first immersing themselves in the present, then, recalling experiences from the past and later talking about their future needs (Sanders, 2000, pp. 1–3).

Thus, the path of expression starts with the researcher asking questions to place the participant in the present; how is their mortgage, how is their relationship with their banks and their current needs. After this, several questions are asked regarding the past experiences of the users. During this part, participants are asked to map out their past experience throughout the process. Finally, the interviews finish with a set of questions regarding the future of the home buying process. During this part, participants are encouraged to imagine their future needs or identify potential improvements in the current process.

Introduction

Introduce the researcher, the interview structure and goal of the session. (5 min)

Personal and professional background

Understand participant's lifestyle and context. Time to set a nice environment to conduct the interview. (20 min)
[Tool: A day in the life]

Their house

Understand participant's current house situation, rent/own and thoughts, and reasons of choosing the place where the participant lives. (10 min)

Financial habits

Explore participant's financial habits, get an understanding of their needs and relationship with the bank. (20 min)
[Tool: Adjective cards]

Path of expression workshop

Present

Understand their current situation once they got a mortgage. What is their relationship with the bank, what are their current needs. (20 min)

Past

Map the past experience since the moment they thought about buying a house for the first time until today. (40 min)
[Tool: Customer journey map]

Future

Understand user needs in the coming future and what can be improved in the current process. (30 min)

Figure 18: Interview guideline for participants with mortgage.

3.3.4 Tools

Several tools are designed to help participants communicate and share their motivations and concerns during the interviews. Furthermore, the tools are also designed to better engage participants in the session. Tools are concrete models which follow an specific structure or are built based on templates. These tools are used to collect data during the user research phase (Stickdorn et al., 2018, pp. 1-3).

A day in the life.

A day in the life is an exercise in which the participant visualises what he/she does during a typical day. The goal of this exercise is to understand

the usual activities that a participant does during the day (Design Method Toolkit, n.d.). One of the goals of this exercise is to help participants feel comfortable visualising. This is considered as a warm-up exercise to later engage the participant in the definition and development of the customer journey. At the same time, a day in the life aims to collect participant's personal information to help Banc Sabadell understand their customers.

During the exercise, participants are asked to draw a typical day on paper using the template. At the end of the exercise, participants are asked to show the drawing through the camera and highlight their preferred moments during the day.

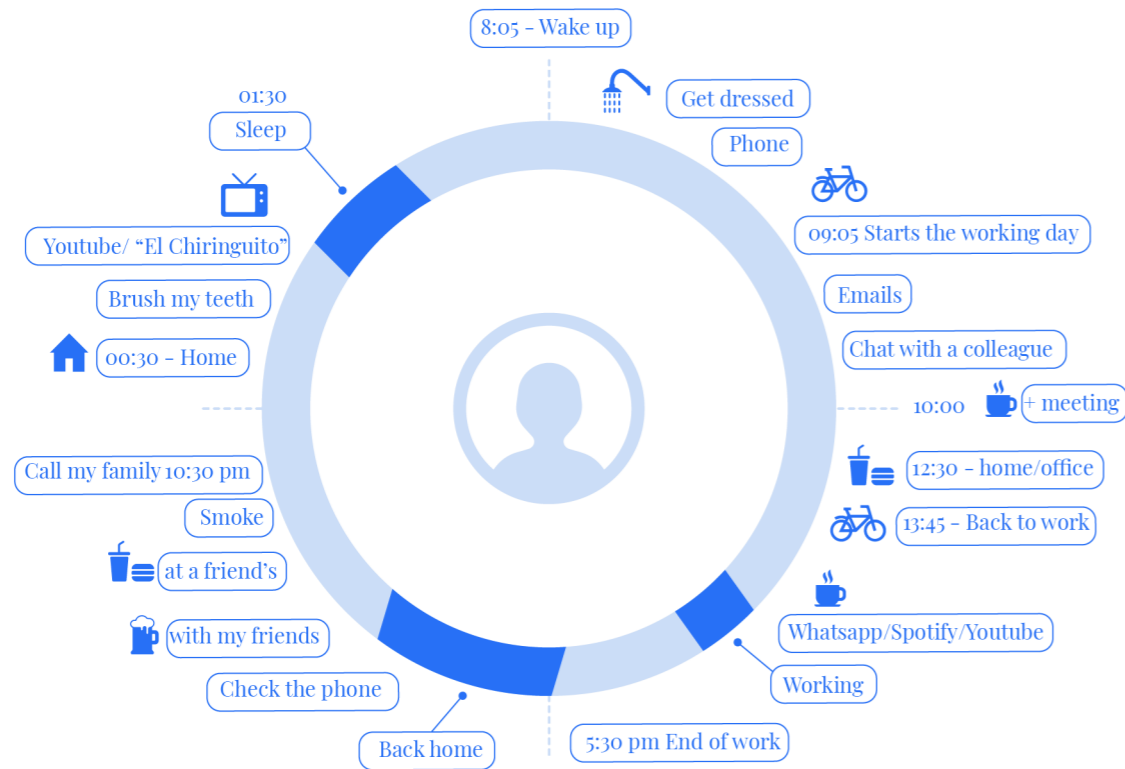


Figure 19: A day in the life - completed by the participant & the researcher.

Adjective cards.

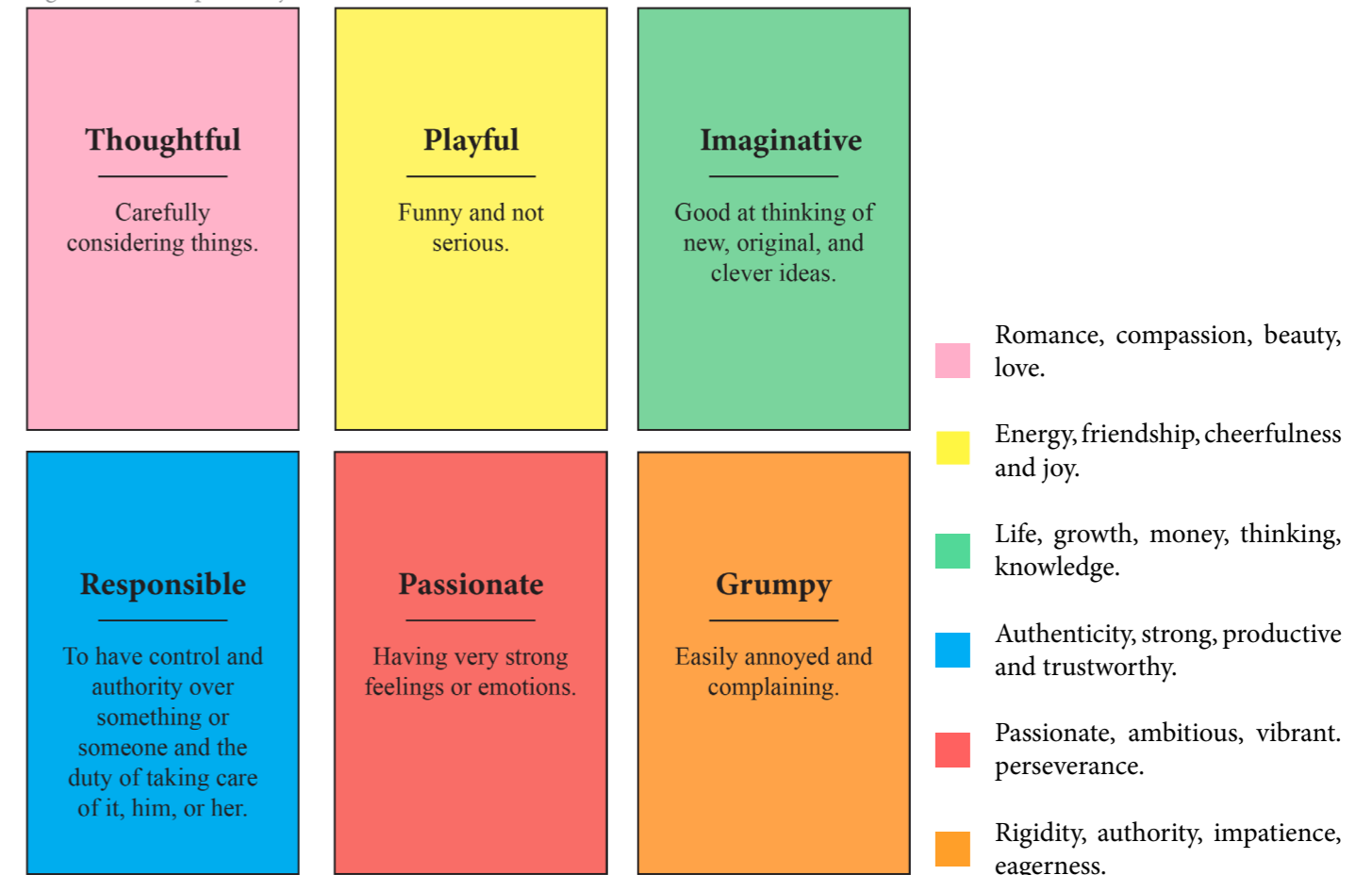
More than 130 cards with adjectives are created to help participants define their banks (See appendix E). During this exercise participants are asked to come up with three adjectives to describe their banks as they are now. After that, participants are encouraged to define with three more adjectives how they would like their banks to be in the future.

A concern arose when defining the interview. Participants would probably always use the same adjectives to define their bank, as for example: trustworthy, conservative and safe. For this reason, the researcher decided to bring a tool to the session, just in case this situation occurs. So, initially

participants are asked the questions and have some time to think about the answer. Only if the researcher notices that the participant is struggling to come up with the adjectives, the cards will be provided to the participant.

As mentioned before, 130 cards are created. In order to help the participant read the cards, the adjectives are clustered in groups. Every group has a color assigned. The color is representative for the personality color chart (Gestión de Personas: Tipos de Caracteres Por Colores, 2017). The personality colour can be seen below (See Figure 20).

Figure 20: Example of adjective cards.



Conclusion

Customer journey.

A customer journey map template is created to help participants during two different parts of the process: their preferred digital service and the home buying process. The goal of the customer journey map is to understand how participants experience the process. Thus, by using the template participants are encouraged to think on a step-by-step interaction with the service. Finally, it aims to define participant's needs, motivations, challenges and opportunities during every step of the process.

Due to the fact that the interviews were conducted online because of the Covid-19 pandemic, it was hard to fill in the template online. Thus, participants were encouraged to share their experiences with the service on a step-by-step process, referring to feelings and experiences while doing so.

3.3.5 Procedure

As already mentioned, two different target groups are defined: participants who have experienced the

home buying process and participants who have not experienced it. Firstly, all interviews to participants with no mortgage are conducted. The reason behind it is because the researcher has not experienced the process herself. So interviewing these participants first is a way to avoid the researcher being biased by the experience of participants with mortgages.

Due to the global pandemic, the interviews had to be conducted online. As mentioned before, each participant was interviewed the day after completing the 5-day diary. Thanks to this, participants were already immersed in the topic of exploration. The interviews took place via Skype, through video and sound. Before starting the meeting, participants were asked to fill in a consent form to obtain permission to audio record the session. Thus, all the sessions were audio recorded. During the session, participants were encouraged to use pen and paper to visualise different ideas. Those ideas were then shared through the camera. The adjective cards were sent to participants in a pdf format through Skype's chat. After that, participants were given some time to go through them.

Twelve participants were selected to participate in the interviews: six participants who had experienced the home buying process and six participants who had not experienced it. However, at the end only four participants, from those who had experienced the process, were invited to the interviews. This is due to the fact that data saturation had been reached. This means that the researcher could not identify new information or themes in the data (Guest et al., 2006, pp. 1–3). The researcher started the analysis phase while conducting the interviews with the participants. This was beneficial to the project, otherwise, the researcher would not have realised that data saturation had been reached.

Overall, the online interviews worked well. A positive fact to highlight is that the online meetings were more productive than planned. The interviews took shorter than expected because online interviews are in general more efficient.

The online setting made it difficult for the users to complete templates such as the customer journey and "a day in the life". Thus, in several interviews the researcher considered that it was not working, and decided to skip the use of the tool. Although, the exercise was conducted anyway, but without using the tool.

Despite this unforeseen, the outcome of the interviews was positive and valuable for the next phase of the project. Finally, the combination of both phases (5-day diary and qualitative interviews) has been very beneficial to the insight collection and generation phase. The use of the 5-day diary helped users engage in the topic as well as guiding the interviews to get better findings. The next step is to analyse the results of the user research phase, which is explained in the next chapter.

It is important to highlight that the user research phase was originally defined to be conducted onsite. This means that the initial set up was to conduct the interviews in a room where participants could feel inspired. Furthermore, the chosen room had to be big enough to be able to visualise and use the different tools. However, due to the Covid-19 pandemic, the interviews had to be conducted online. This means that the original set up was not ideal for the online interviews. However, since participants had already completed the 5-day diary and the online interviews were already scheduled, the interviews were conducted as planned. Although the researcher made slightly changes to the set up.

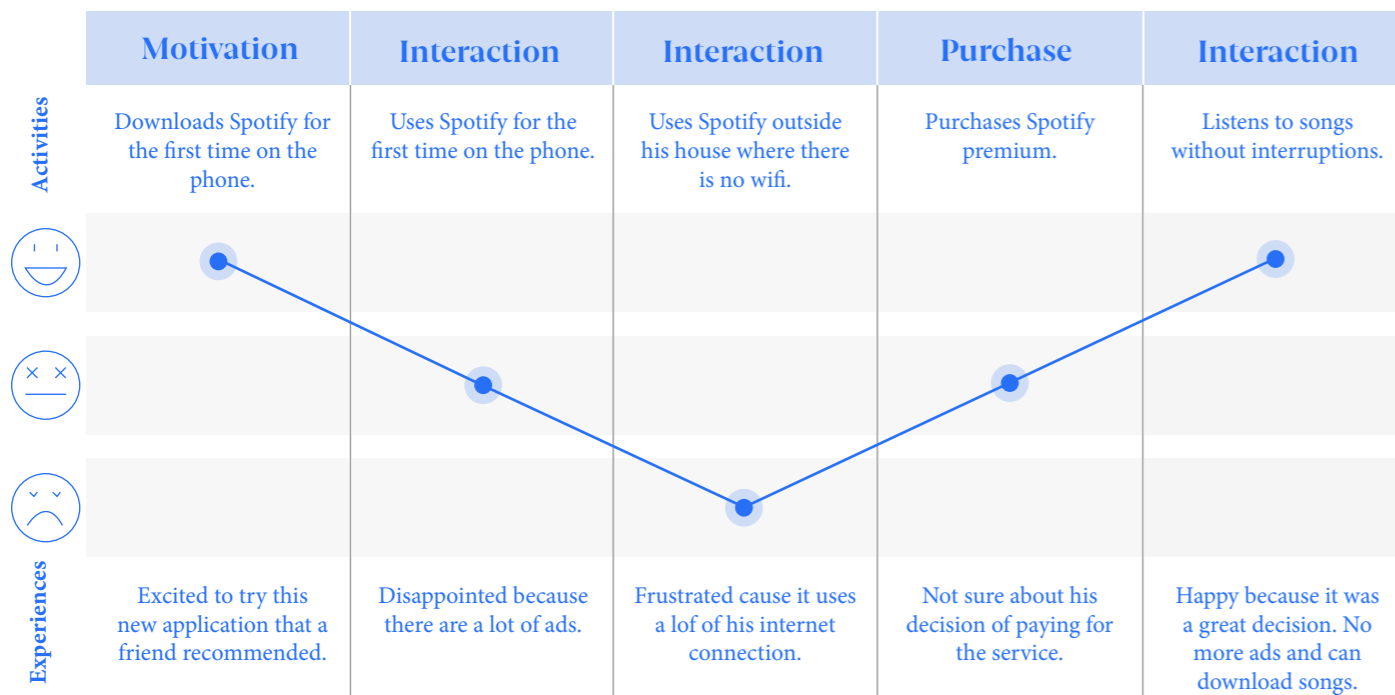


Figure 21: Example of customer journey filled in by the participant and the researcher.

Chapter four

Research analysis

After conducting the user research phase, this chapter explains the process and methodology followed to synthesise and analyse the data collected during the user research. A description of the insights and clusters generated is provided as well as a list of requirements that will define the solution developed. Finally the value proposition is presented, which is the starting point for the concept development phase, explained in the next chapter.

Procedure

This section provides a detailed description of the process followed to synthesise and analyse the data gathered during the user research phase. The user research analysis aims to identify common patterns and themes in the data collected (CareerFoundry, n.d.). These patterns help to uncover relevant insights that will trigger the definition of the problem statement.

Transcripts

The analysis phase starts after conducting the qualitative interviews. The starting point is transcribing all the interviews, from audio files to word documents. Once all the interviews are transcribed, the transcripts are read through to identify relevant information.

Color coding

The data is color coded and classified depending on opportunities, customer journey and personal information. This step serves to clean the raw data and discard relevant information. Furthermore, clustering the data helps to identify which information is relevant for the generation of insights, for Banc Sabadell and for the creation of a customer journey.

- **Opportunities:** Data that is relevant for the generation of insights. This data will influence the outcome of the project.
- **Customer journey:** Data that is relevant to create the customer journey for participants with mortgage and without mortgage.
- **Personal information:** This section is highlighted to help Banc Sabadell to understand their customers.

How long did it take from the time you said you wanted to buy a flat to the time you got into the process?

It was a bit of taking the decision and suddenly, starting the process. In fact, I'm telling you, I didn't have a fixed idea in my head, so every now and then I'd get bored and look at some flats on *Idealista*. I visited two apartments and I didn't like them. The idea was just there but I wasn't working on it. And one day, walking by a real estate agency near my house, I saw a flat that I liked. My mother was coming to Valencia a few days later. So, we met and we saw it together. We liked it and that was it. It was that fast.

What is your level of financial understanding?

I had no idea about financial things. Then I worked for two years in a bank. Then I got a lot of work done. On top of that I worked on the trading side, on the risk side. So I really had to find out and learn through work a lot about finance. **Something residual remains in my head.** So I'm not a person who has zero idea about finance, but I'm not an expert either.

Figure 22: Extract from a transcript of a participant's interview.

Statement cards

Each piece of information extracted from the interviews transcripts is assigned to a statement card. A statement card is a piece of information that represent the needs, wishes and concerns of the users. They are written in the first person as a way to sensitise and build empathy. The goal of the statement cards is to make information comparable across participants (Knoll, 2020). Furthermore, these statement cards include tags that highlight participant's information: Participant's name, bank, mortgage/no mortgage. A tag is a label that indicates participant's information. It helps to make the information easier to understand and find (Knoll, 2020).

The statement cards are used to provide a better overview of the data. This will result in a better interpretation of the results. Furthermore, the statement cards are used to compare them against each other, find common themes and define insights. An example of these statement cards can be found below (see Figure 23).

In our case, we were very nervous because before buying the house we had to reserve it. To do this we had to sign a deposit contract for which we paid 10% of the sale value.

Ana ING Mortgage

Figure 23: Example of a statement card.

Research on the wall

Research on the wall was conducted to analyse all the data gathered. Research on the wall enables the researcher to synthesise and analyse the data through visually arranging it on a wall (Stickdorn & Schneider, 2012, pp. 1–3). However, due to the pandemic situation and the lack of an office, Miro was used as a digital tool to conduct research on the wall. This method has been used because it allows the researcher to freely move information around. During this process, the statements cards are grouped and clustered depending on common attributes or topics (Stickdorn & Schneider, 2012, pp. 1–3).

Clusters

During this process, the statements cards are grouped depending on common attributes or topics. For example: how users feel towards the bank, expectations about their banks, education about the process, etc.

A total of thirty three insights were created along this process. These insights were grouped again in bigger insight themes. These insight themes were generated by looking at the underlying reasons for different needs and behaviors. The reason for creating the insight themes is to make data more actionable and easy to identify.

During this phase, the insights that were not considered relevant for the outcome of the project were set apart. Thus, a total of 17 insight themes resulted from the analysis phase. These insights are further explained in the next section (see section 4.2 Results).

Insight results

An example of the final configuration of the research wall can be seen in this page (see Figure 24). Four levels of data are identified:

- Statement cards.
- First insights created.
- Big insight themes.
- Topic.

During the research on the wall, four topics were identified: Education, quality, expectations and barriers. The topics represent the common themes across several insight themes. Thus, the insight themes were classified and grouped according to the topics to help the research find the information more easily. These topics will be further explained in the next section.

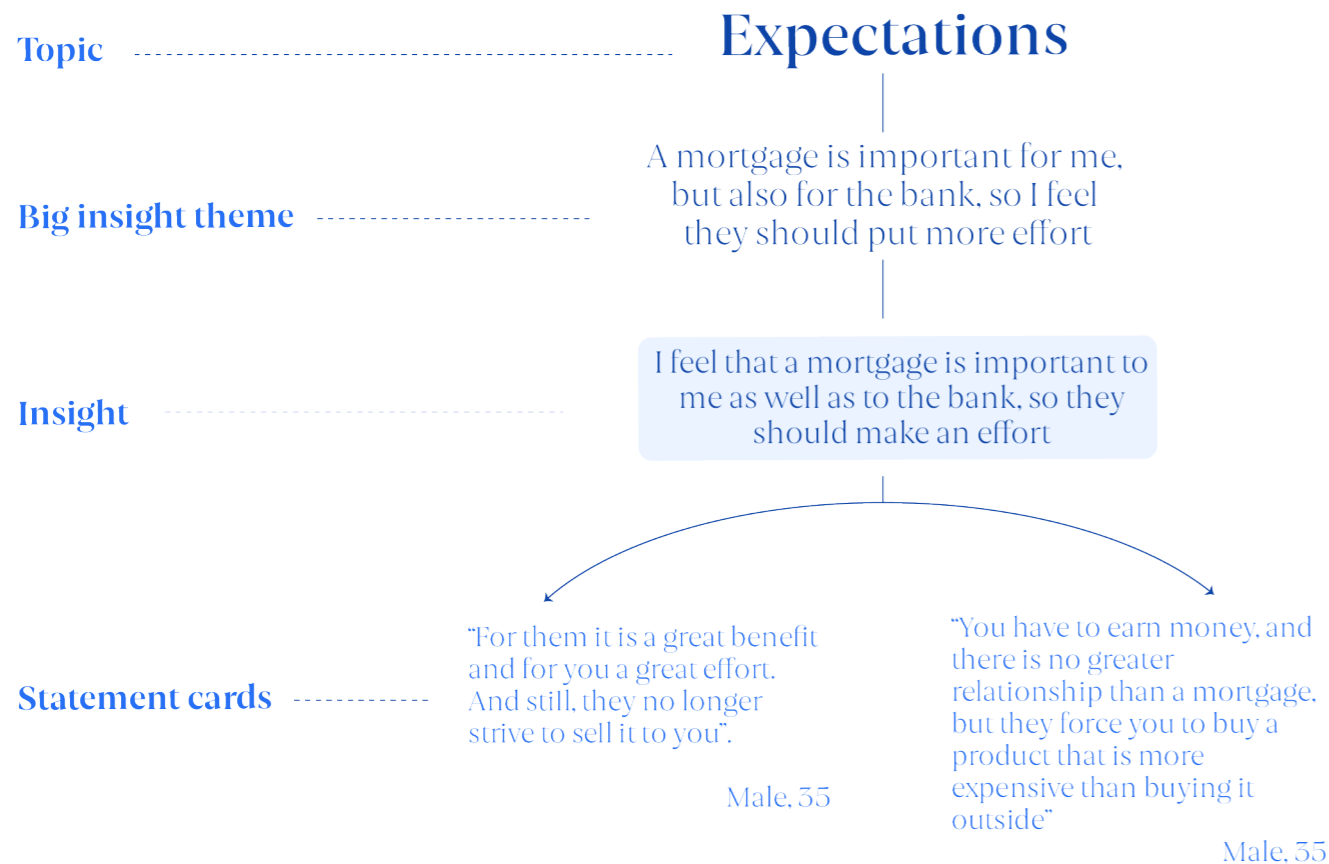


Figure 24: Example of the final configuration of the research on the wall.

As previously mentioned, the insight themes were classified according to different topics: quality, education, expectations and barriers. Each of these attributes is considered to represent the characteristics that users rely on when assessing the home buying process. These attributes are key characteristics that will influence the ideation process.

In this section, a detailed description of the topics and insight themes is provided (see Figure 25). Furthermore, from each attribute group a list of potential requirements is defined as a way to influence the ideation process.

Quality

Quality, as a degree of excellence, is considered a crucial factor that influences the way users experience the home buying process. Thus, the overall home buying process is evaluated by the users according to the quality they perceive. Therefore, several attributes are identified: support, reassurance, engagement, energy, responsibility and bureaucracy. These attributes are representative for each insight theme, which are explained in detail below.

Support

I feel that my bank is not supporting me when making the decision of paying the house without having paid the mortgage. - Insight theme

Overall, users are lacking support from their banks especially when reserving the house. For example,

a user expressed *“In our case, we were very nervous because before buying the house, we had to reserve it. For this we had to sign a deposit agreement for which we paid 10% of the sale value”*. In this case, the user feels already stressed and lacks support before applying for a mortgage. This is due to the uncertainty that users experience when paying for the entrance of the house without knowing if the bank will give them a mortgage or a mortgage with good terms.

Reassurance

I want to know my agent’s face to feel reassured. - Insight theme

Users are in need of personalised services, which provides them with trust and confidence towards their banks. A user expressed *“Trust. I am in favor of banks becoming more digital because it is the future. But it is true that at least the first interaction with them if I am going to buy a house I would like it to be in person.”* Having a real person behind a digital service and always interacting with the same bank employee make users feel reassured during the process. This becomes an important factor when considering the possibility of designing a digital home buying process.

Engagement

The relationship I have with my bank becomes crucial at the stage of getting a mortgage. - Insight theme

Before buying a house users feel that they do not have any kind of relationship with their banks. However, this is perceived a something positive

by the users: *“I think that if I have no relationship with the bank it is because everything is going well. If I had to contact them, it is because something is wrong. So for now it’s perfect.”*

However, as a consequence of not having any kind of relationship with their banks, most of the times users ignore the information they get from their banks. A user expressed: *“Then one day he sent me another one email that said well, we take care of you, but I didn’t even read it. If I see them very generic, I don’t read them, because I don’t see it as something important.”* The fact that users do not feel that they have any kind of relationship with their banks influence the loyalty and engagement that users perceive towards their banks.

Energy

I feel exhausted even before starting to apply for a mortgage. - Insight theme

Users feel that they have used all their energy in the first part of the home buying process, when looking for a house. Thus, once users have chosen the house and they have their first interaction with the bank, their level of energy is already low. This results in a lack of motivation, which results in a bad user experience.

Responsibility

This big steps influences also my future family. - Insight theme

When buying a house users feel a great responsibility as they also think about their children’s inheritance. A user expressed: *“It is not only buying a house but it is already something that you can perhaps inherit to your children. And that is already an asset that you have.”* Therefore, when buying a house users attribute a great importance to it. For this reason, it is important to take into account the value that users assign to the overall experience, as there are a lot of feelings involved.

Bureaucracy

It is such a bureaucratic process that keeps me away from doing it. - Insight theme

Users feel that the process of buying a house is long and tedious. For this reason, they think for a long time if they really want to get into the process. Furthermore, as it is not an attractive process, users do not want to experience it repeatedly. This means that users do not consider buying a house and selling it after several years for a more suitable one. Therefore, for users a house means stability: *“I think that buying a house is something that, given the current situation of young people, I think means stability.”* This attribute is connected to the responsibility attribute, where users do not only feel that they are purchasing a house which they are going to keep for a long time, but also a house that they are going to inherit to their children.

Education

Education refers to the level of knowledge users have about the home buying process. Education influences the way users experience the process. Therefore, if users lack of education they will experience the process together with their relatives. Two attributes have been identified: complexity and experience.

Complexity

It is such a big step in my life yet complex that I rely on my beloved ones and close network. - Insight theme

Users feel that they do not have enough experience to deal with the process by themselves. For this reason, they usually rely on their close network to guide them during the process. For example, a user expressed *“There was a lot of small print but it is true that I did it together with my mother, that she knew everything, and I was there only to sign.”* For this reason, it is important to consider that most

of the times, young adults experience the process together with their relatives.

Experience

People do not feel prepared nor experienced enough to deal with the bank and the process by themselves.- Insight theme

As users are buying a house for the first time, they feel they lack of experience on the process. For this reason, they feel that they are not ready to experience the process on their own. A user said: *“My mother understands this. And if she wouldn’t had been there I would be completely lost.”* This insight theme is directly connected to the previous one, in which users also involve their close network as they feel the process is complex. For this reason, it is important that the solution designed is suitable for the user and his/her relatives.

Business

Banc Sabadell has no record of the number of clients they lose due to mortgages. - Insight theme

During the stakeholder research, a gap was identified. Banc Sabadell has a record of the number of clients that they get due to mortgages, however, Banc Sabadell lacks information about the number of clients they lose. This means that Banc Sabadell does not know how many customers are switching banks due to getting a mortgage at a different bank.

Expectations

As already mentioned, expectations influence the way users experience a service. Therefore, if users have high expectations and the service does not meet them, users will feel disappointed. However, if users have low expectations and the service goes beyond them, users will be delighted.

A mortgage is a big milestone in users’ lives, so they have high expectations in this experience. However,

the current process does not meet their expectations. Furthermore, participants would like to enjoy this moment of their lives.

Several attributes were identified: enjoyment, importance, and frustration.

Enjoyment

I would like to enjoy this big step in my life. - Insight theme

As a consequence of being a long, tedious and bureaucratic process users are not able to enjoy the overall experience. Furthermore, they feel stressed and exhausted during the process. A user said: *“It was long and it was a stressful time.”* Besides, users feel like they should be enjoying such an important milestone in their lives. A user said: *“Instead of being positive, buying a house seems something negative...”*. Therefore, there is a need to design a rewarding and positive experience for the users.

Importance

A mortgage is important for me, but also for the bank, so I feel they should put more effort. - Insight theme

For Banc Sabadell, mortgage loans are one of the products that generate the greatest customer loyalty and commercial margin. And for its customers, buying a house is one of the biggest milestones in their lives. Therefore, a user expressed *“For the bank it is a great benefit and for you a great effort. And still, they no longer strive to sell it to you.”* Users feel that all the parties involved should make an effort during the process. For this reason, Banc Sabadell should make a greater effort to engage customers and guide them and support them during the process.

Frustration

My expectations are high so I feel frustrated since it does not meet my expectations. - Insight theme

The results of the interviews conducted to participants who had not experienced the home buying process indicate that they lack of knowledge about the overall process. Therefore, participants have their own assumptions about the process. For example, a participant said: *“Well, I suppose in a week they can tell me, I guess.”* In this case, the participant believes that the process of getting a mortgage takes only one week. Therefore, if users expect the process to last only one week, they will feel disappointed and frustrated when they experience it and it lasts more than one week.

It is important that Banc Sabadell manages the expectations of the users and informs them of the overall process before users immerse themselves in the process.

Barriers

Barriers refer to the circumstances that prevent users from experiencing a smooth home buying process. Several elements have been identified: schedule, people and flexibility.

Schedule

I consider that the bank's schedule does not suit my lifestyle. - Insight theme

The current mortgage process at Banc Sabadell requires that users go to the bank branch. However, the bank's schedule is a barrier for the users. Currently, the bank just opens from 8am to 3pm, except for Thursday afternoon, which it is open during the whole afternoon. A user expressed: *“Another problem of banks, which is not only my bank but everyone's bank is the schedule. That is not compatible with anyone's life”*. Currently, in order to buy a house, users are forced to go to the bank in person. However, in order to do so, they need to compromise their private lives. For example, a user expressed: *“It was a bit of a pain having to leave work to have to do this formally.”*

People

Most of the times the process is done by a couple and I feel is not designed for it. - Insight theme

During the user research it was identified that sometimes users buy a house together with their partner. However, users feel that the current process is not suitable for more than one person. Therefore, what happens in these situations is that one of the members takes the lead of the whole process. This person becomes responsible for the whole communication with the bank. On the other hand, the other member is not on the loop of the process, and he/she only contributes when having to sign documentation.

Therefore, there is a need to enable users to experience the process together with their relatives and provide the same level of involvement to all the parties involved.

Flexibility

I want to be able to go to the bank if I need to, but I do not want any step to be physically mandatory. - Insight theme

During the user research, several users expressed that they feel ready to do this kind of management online. For example, a user said: *“If it's about following some simple steps online, then there is no problem.”* And another user said: *“I am very digital, so I would do anything that kept me from going to the bank. I think that something like this could be done perfectly from a computer or a mobile phone.”*

As buying a house is an important operation, users feel that they are ready to do the process online if it is easy to understand. However, users also expressed that having the flexibility to go to the bank if they want to would make them feel reassured. This insight theme is related to the following:

I will not be able to do the same digitally and physically and I feel limited by it. - Insight theme

Users feel that currently, experiencing the process physically would provide them more benefits as doing it digitally. For example, a user said: *“Because at the end of the day, the personal assistant on the phone can give me information. But she can't give me as many options the director of a bank at an office, for example”*. In this case, the user feels that negotiation could only take place in person and not digitally. Therefore, this is also a reason why users would like to have the flexibility of going to the bank branch if they want to.

Finally, after generating all the insights from the data gathered, they were translated into actionable points through a list of requirements, which is explained in the next section. An overview of the topics and the insight themes generated can be found in the next page (see Figure 25).

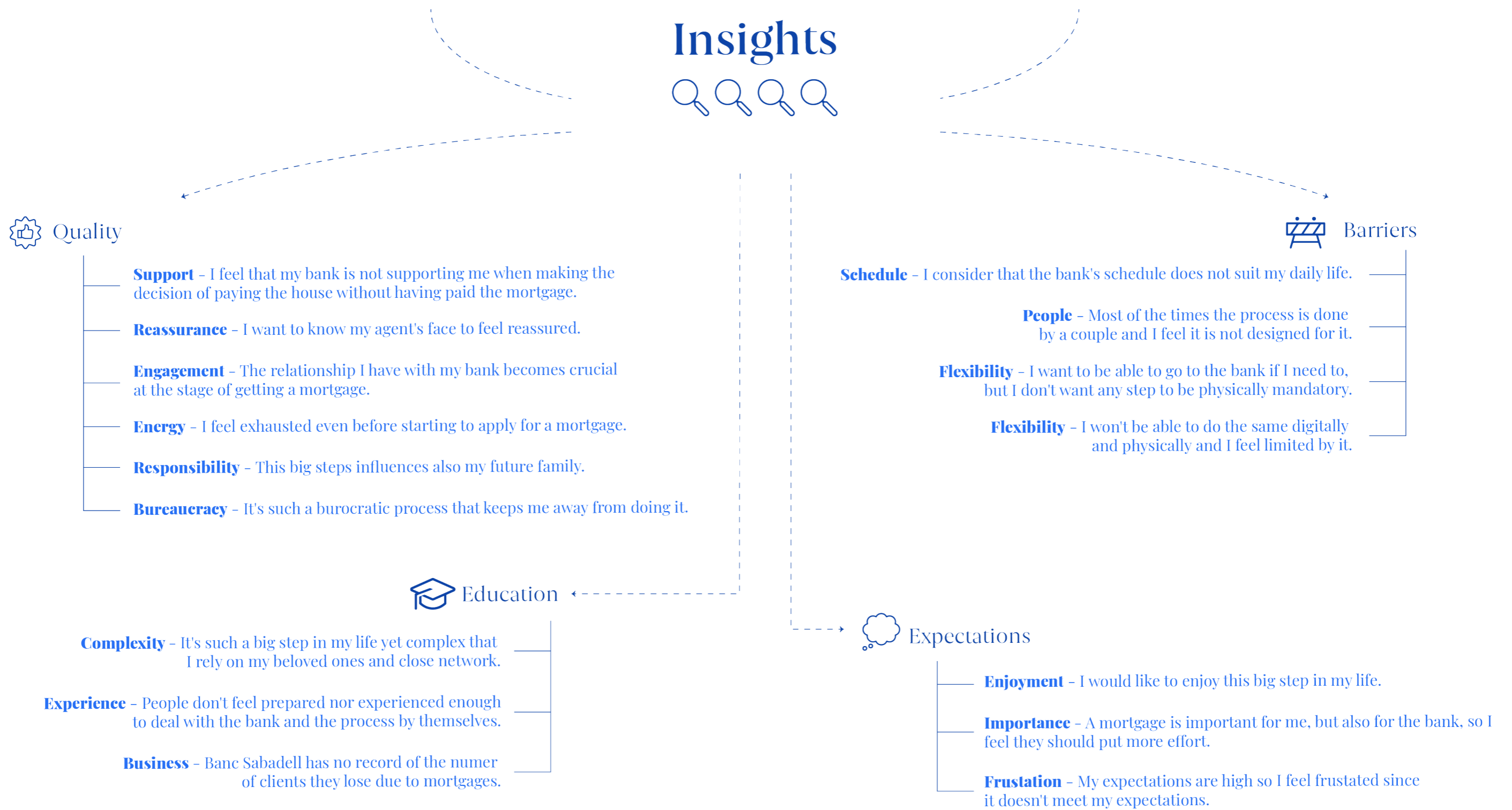


Figure 25: Insights that resulted from the user research analysis.

Customer journey

Research on the wall is conducted to synthesise and analyse the data collected during the user research phase. Besides, another method is used to analyse the information in a visual way, analysing the end-to-end user experience. This method is the customer journey map. This section describes the goal and the procedure of the customer journey map. Furthermore, it provides a detailed description of the results identified.

A customer journey map visualises how users experience a service over time. Furthermore, it explores the service through a detailed step-by-step description. During the creation of the customer journey map feelings and experiences are also explored in every step of the process (Stickdorn & Schneider, 2012, pp. 1–3).

4.3.1 Goal

In this case, the customer journey map is used to compare the expectations and actual experiences of the participants. As already mentioned, two different target groups were involved in the research phase: participants who have experienced the process and participants who have not experienced the process. The goal of involving two different target groups was to identify and compare expectations from participants who have not experienced the process against the real experiences from participants who have experienced the home buying process. In order to analyse this, two customer journeys were created: one based on the assumptions from users with no mortgages, and another one based on facts from users who have a mortgage (see Appendix F). Therefore, the goal of the customer journeys is to identify possible gaps between the expectations and the experiences of the actual process.

4.3.2 Procedure

In order to create the customer journey, the information gathered during the user research was used. As already mentioned, the user research analysis started by transcribing the interviews and color coding them. During this process, all the information related to the customer journey was identified. The customer journey information contains participant's data regarding the different steps they went through, expectations regarding the process, feelings, thoughts, motivations and concerns about every specific step.

The customer journeys were created by clustering the customer journey statement cards. After that, the phases and subphases of the home buying process were defined. Both phases, subphases and statement cards were introduced in the customer journey. Finally, insights were extracted from each subphase. An overview of one phase of the customer journey can be found in Figure 27. The customer journey is divided into 4 different levels of knowledge, which can be identified in Figure 27. The four levels of knowledge are: phase, subphases, statement cards and insights.

4.3.3 Results

Looking back at the two customer journeys different insights are identified.

- Young adults need to hold to someone when starting the process: a family member, partner or friend. Since they lack education in the process they feel insecure going through the process alone.

- Participants also expect to buy a house whenever they please. However, the customer journey from users with mortgages shows that most of the time they need to postpone the home buying process until they meet the requirements.
- Another relevant insight that derives from the customer journeys is that users expect the process to be shorter than expected. Having high expectations before starting the process can influence how users experience the process.
- Finally, in the process of comparing banks, users go through a funnel of 2 stages. The first one takes place online, and the second one takes place going physically to the bank branch. This shows the importance of being present online, and being able to engage and retain clients already on this first step of the funnel (see Figure 26).

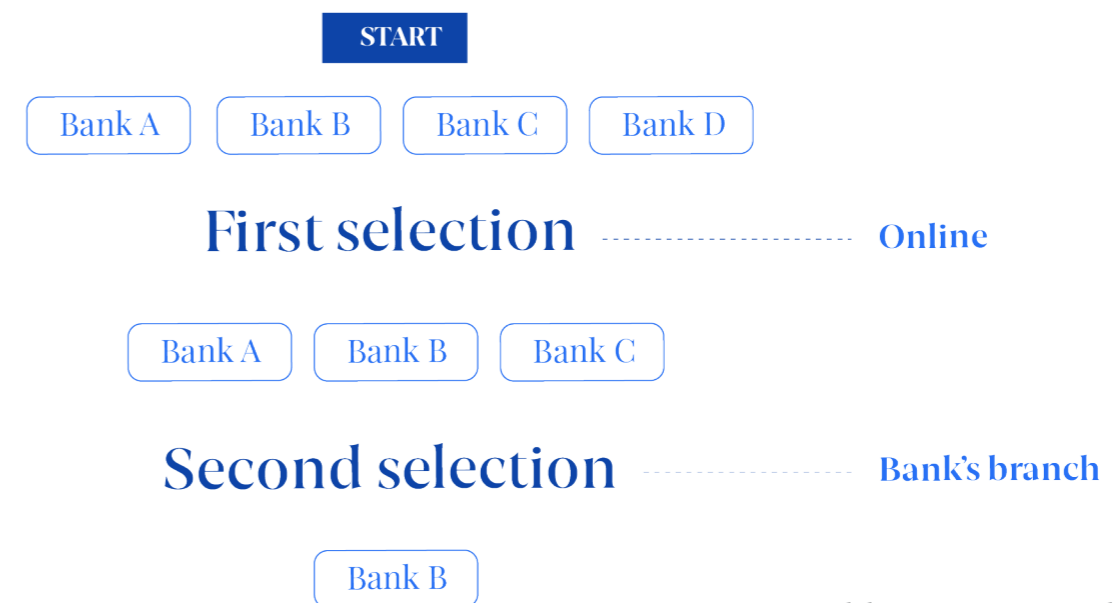


Figure 26: Funnel that users experience when comparing banks.

PHASE

SUBPHASE

STATEMENT CARDS

INSIGHTS

Finding a house

Looking for a house

“Well first I think I would go to find a house maybe ... the first thing that I think about is to go to a website like Idealista or something like that where you put different options, obviously selecting some filters of what you are looking for.”

“When I’ve decided where to buy the house I would study all the agencies and the places where I can look for a house.”

“I think the first step would be to first find a house that I like.”

“There are agencies that take care of it and others not. Those agencies charge you or not.”

“I guess that to buy a house I would look in Idealista and this kind of websites.”

“I would look at how each process is, because I know that there are also social protection houses, which are cheaper and that later on you cannot sell.”

“I would look on Idealista for houses in the areas I like, with the features I am looking for.”

“They go and look just like when you go to rent an apartment, with idealista and so on.”

“I would also look at the banks and the houses they have in order to buy it from them.”

Choosing a house

“Choosing the house and if I like it, go to the bank in person.”

“I choose a house, according to what I think I earn and what the house costs. I would look at how much the monthly payment would be. I would have to pay more or less for this. That I don’t know either, because I should go to the bank so they can explained it to me.”

“So once that house caught my attention or interested me, I would contact the bank.”

“Once I have seen the house and have decided that I am going to buy it or that it is the chosen one, both in price and the features of what the house itself is.”

“Then when I decide on the house I want and the amount of money I need, obviously I don’t have it, so I would have to go to the bank to say “listen, I want to buy a house.”

Paying a deposit

“I imagine that if you have the money you will have to give a signal, so that they see that you are going to keep the house.”

“I imagine that the first step would be after having everything in order paying a deposit.”

“Based on what I earn and the money saved, I could pay the deposit of this house and I could know what I would have to pay monthly for the mortgage.”

“When it comes the time to buy the house, you have to pay a percentage of VAT of the house, for that you also have to pay a deposit to the bank, I imagine it will be to the bank..”

I would look for a house online, through my bank or through an agency.

Before going to the bank I would already know which house to buy.

Once I choose the house, if I have money a pay a deposit, without knowing if I would get a mortgage or not.

Figure 27: Example of a customer journey’s phase from one of the participants.

List of requirements

Once the insights were generated, they were translated into actionable points through a list of requirements. This section provides a detailed description of every requirement identified during the research analysis.

A list of requirements is a set of specifications which has to be included in the designed solution. Therefore, the final solution should meet the requirements identified in order to be successful. Furthermore, the list of requirements provides a direction and a goal for the project. (Gathering Requirements: Defining Scope and Direction, 2020).

After analysing the data gathered and generating the insights, a list of requirements is defined (see Figure 28). Each requirement has been extracted from the insights explained in the previous section. Therefore, the list of requirements represents the user and stakeholder needs towards the home buying process. Finally, if the designed solution meets the requirements, the needs of the users will be successfully met. Each requirement is further explained in the next pages.

List of requirements

- ✓ The solution should be smooth and easy to go through to engage users.
- ✓ The solution should make users feel supported and taken care of.
- ✓ The process should be suitable for the user and the person that is guiding the user through the process.
- ✓ The solution should be simple enough so that users are not dependent on third parties.
- ✓ The solution should be rewarding for the users.
- ✓ The solution should be designed for more than one user.
- ✓ The solution should not require the user to experience the whole process digitally neither physically.

Figure 28: List of requirements.

✓ **The solution should be smooth and easy to go through to engage users.**

Users do not feel engaged in the current home buying process as it feels long, tedious and bureaucratic. Furthermore, there is a lot of paperwork and documentation involved, which users do not understand. At the same time, users consider that it is a high complexity process, thus they are not able to experience it by themselves. For this reason, it is necessary to provide users an appealing and engaging home buying process.

✓ **The solution should make users feel supported and taken care of.**

During the analysis phase, users expressed that they do not feel supported by their banks. Furthermore, as they are not able to experience the process by themselves, they must get support from their close network. For this reason, Banc Sabadell must provide its customers with the necessary support to help them successfully accomplishing the home buying process. Furthermore, this will generate a relationship of trust and loyalty.

✓ **The process should be suitable for the user and the person that is guiding the user through the process.**

Most of the times users experience the process together with their relatives. This is because they lack experience in the home buying process. As they feel inexperienced, they seek support and guidance from family or friends during the process. Therefore, it should be noted that the user rarely experiences the process alone. For this reason, the process should be suitable both for the user and the person who is experiencing the process together with the user. This, will result in a better experience not only for the user but for all the parties involved.

✓ **The solution should be simple enough so that users are not dependent on third parties.**

However, it could be the case where users do not have a third party with whom to experience the process. Therefore, these users would lack support from their relatives. For this reason, it is important to provide users an easy to understand process that enables them to experience the process on their own.

✓ **The solution should be rewarding for the users.**

Buying a house is one of the biggest milestones in users' lives. Therefore, they consider it is an experience of great importance. However, due to the fact that the overall process is long and tedious, users are not able to enjoy the process. Moreover, they feel exhausted and tense after experiencing the process. Therefore, it is important to add an aspect of reward when designing the new solution. In this way, users will finish the process in a rewarding way.

✓ **The solution should be designed for more than one user.**

Research results indicate that sometimes users buy the house with their partner. This means that users experience the whole process together with their partner. However, users feel that the current process is designed for only one person. Therefore, it is not suitable for both of them. This results in one of the partners taking full responsibility for the process. And the other member not being aware of the process and only participating at essential times, such as when having to sign the documentation. For this reason, it is important that the designed solution involves all parties equally. In this way, users will be able to experience the process together and equally participate in the communication, interaction with the bank and all the milestones involved.

✓ **The solution should not require the user to experience the whole process digitally neither physically.**

During the user research phase, users expressed that they feel ready to experience the home buying process online. However, some of them feel reassured if they have the possibility of going to the bank branch if they want to. This is because they feel that they can benefit from some aspects in person, such as negotiating the interest rate of the mortgage. Therefore, the designed solution should give users the possibility of experiencing some parts of the process in a physical way. Thus, the solution should not force users to experience the overall process online.

Finally, this list of requirements provides the direction and goal for the concept development phase. Therefore, this list of requirements will be used throughout the overall ideation and concept development phase to ensure that the designed solution successfully meets the users and stakeholders needs.

Value proposition

The insights gathered during the user research phase were translated into a list of requirements. This list of requirements represent the user needs that will be met through the designed solution. Furthermore, an initial value proposition is designed.

A value proposition is a statement that represents the value that the product or service promises to deliver to customers. Furthermore, the value proposition reflects several design requirements for the designed solutions. Therefore, it is the underlying reason why users choose to use the product or experience the service (Value Proposition: Why Consumers Should Buy a Product or Use a Service, 2020).

This value proposition was created through a How Might We session (see Appendix G). The reason for conducting a session to define the value proposition is because wording plays an important role. It is important to write a value proposition which wording is compelling for the users. Therefore, it should be persuasive to ensure that users decide to experience the home buying process together with Banc Sabadell.

Finally, this value proposition is the starting point for the concept development phase, that is explained in the next chapter (see Chapter 5).



“I want to offer a smooth and socially engaging home buying process to young adults which allows them to feel reassured and rewarded throughout the process. Finally, I want them to experience the process together with their relatives while achieving one of their biggest milestones in their lives.”

Conclusion

The data gathered during the user research phase has been synthesised and analysed throughout this chapter. The main goal has been to translate the insights generated into actionable points.

The main outcome of the user research analysis is a visualisation of two customer journeys, one representative of each target group and a list of requirements. First, the customer journeys allow the researcher to compare the expectations of users who have not experienced the home buying process against the facts from users that have experienced it. Finally, the list of requirements defines a design direction for the concept development phase. Therefore, every requirement will trigger the ideation phase.

From the research, it is clear that young adults rarely face the home buying process by themselves. Most of the times this is because they buy a house together with their partner or because they involve a family member or friend to share their knowledge with and get support. Thus, it is clear that the solution designed should be able to involve more than one user. Finally, buying a house is one of the biggest milestones for participants during their life. However, the home buying process is perceived as a tedious, bureaucratic and tiring process. Because of this, young adults are not able to enjoy such a big step in their lives. Therefore, the solution designed has to change the way young adults feel about the process, allowing them to enjoy a smooth experience.

All of these findings are already represented in the list of requirements. Therefore, the list of requirements is an essential element in the concept development phase, which is the next step in the project and will be further explained in the next chapter.



Chapter five

Concept development

This chapter provides a detailed description of the path followed to go from problem statement to solution. Therefore, the methodology followed during the concept development phase is explained.

As a result of approaching the concept development phase from a design approach, stakeholders and users are involved in this process. This helps to ensure that the final design successfully meets not only user needs, but also business needs, in this case, Banc Sabadell's needs. Therefore, Banc Sabadell employees and users are involved in two ideation sessions. The goal, procedure and results of these ideation sessions are presented in this chapter.

Finally, the chapter presents two concepts that result from the ideation sessions. One of the concept is further developed through a Design Sprint, and evaluated with users through user testing. This helps to identify potential improvements to iterate the solution defined.



Procedure

This section provides an overview of the process followed to go from problem statement to a final concept. This final concept suits the value proposition and meet the design requirements that resulted from the research analysis phase. A visualisation of the process can be found in this page (See Figure 29).

Users and Banc Sabadell employees are involved in the ideation process to ensure that the solution designed meets both user and business needs.

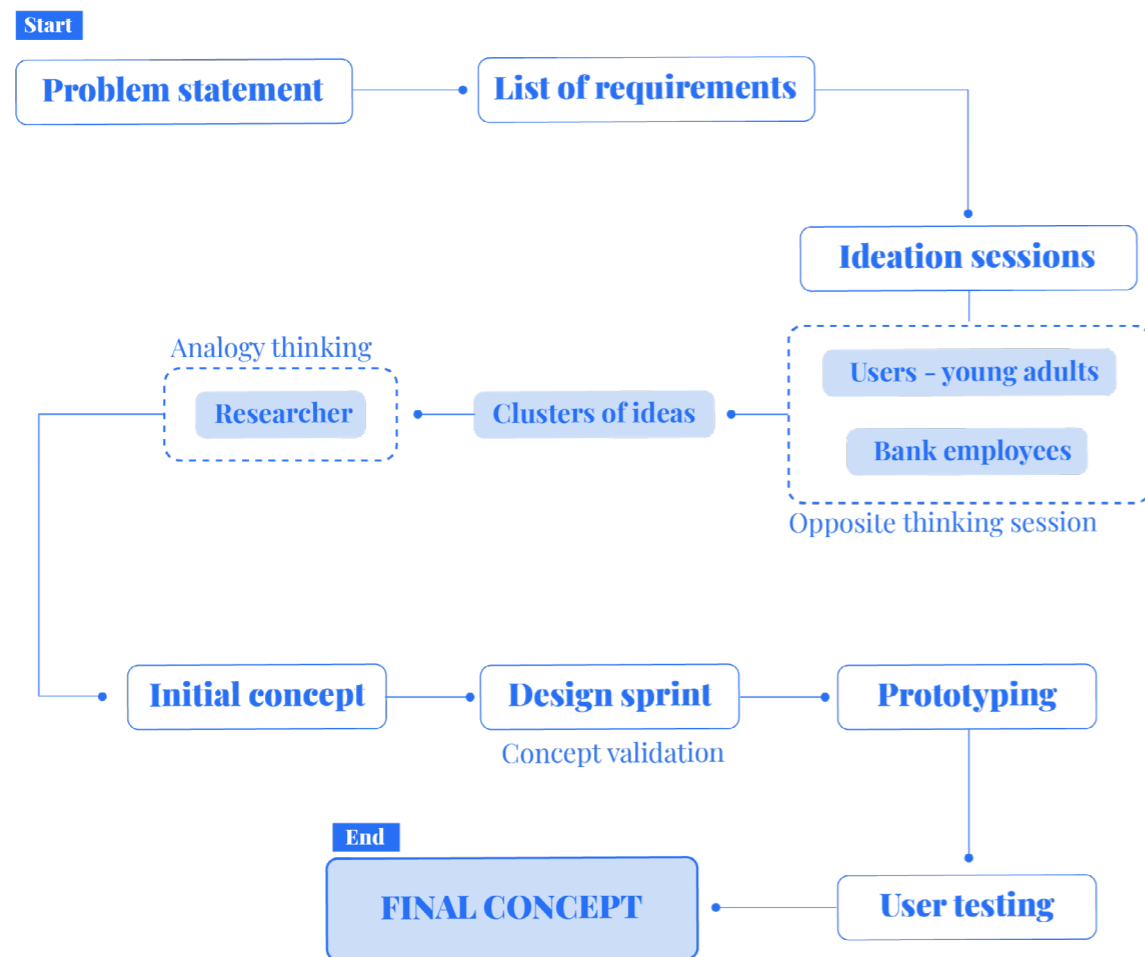


Figure 29: Overview of the concept development and its phases.

Problem Statement

The starting point of the ideation phase consists of translating the challenges identified into areas of opportunity. To achieve this, the insights themes are translated into a How Might We statement. This will be used to inspire the ideation process and spark ideas.

In order to define the How Might We statement that will trigger the ideation process, the first step is to translate the insight themes into Point Of View (POV) (See Figure 30). This exercise helps to identify the right challenge to address, while keeping the focus on the user, their needs and the insights about them (Dam & Siang, 2020).

The second step was to translate this POV into an actionable statement. This step is important as the statement has to provide a narrow focus while capturing people’s attention and trigger the ideation process (Dam & Siang, 2020):

Young adults need to feel reassured during the home buying process because it is one of their biggest milestones in their lives and it also affects the future of their family.

The previous actionable statement was then translated into How Might We. A small brainstorming session was conducted while filling in the template (see Appendix G) . It is important to consider that the HMW should trigger ideas and inspire the team. Thus, it is important to avoid narrowing the HMW too much. The resulted How Might We statement is shown on the right.

Point of View

User	Needs	Insights
Young adults	<ul style="list-style-type: none"> Understand the process Get a mortgage without difficulties Enjoy the process Feel reassured Feel in control 	As a users I do not feel prepared not experienced to deal with the process on my own. At the end, the process becomes too long that I am not able to enjoy such a milestone in my life.

Figure 30: Point Of View exercise.

How Might We:

“How might we make a socially engaging home buying process for young adults?”

List of requirements

As already mentioned, the list of requirements defined in the previous chapter is an important element during the concept development phase. This is because the list of requirements define a goal and design direction for the ideation sessions Gathering Requirements: Defining Scope and Direction, 2020). At the same time, the solution defined has to meet the requirements established, to ensure that the solution successfully meet both users and stakeholders needs. Therefore, the list of requirements will be used during every step of the process. A detailed description of every requirement can be found in the previous chapter (see Chapter 4).

- ✓ The solution should be smooth and easy to go through to engage users.
- ✓ The solution should make users feel supported and taken care of.
- ✓ The process should be suitable for the user and the person that supports the user in the process.
- ✓ The solution should be simple enough so that users are not dependent on third parties.
- ✓ The solution should be rewarding for the users.
- ✓ The solution should be designed for more than one user.
- ✓ The solution should not require the user to experience the whole process digitally neither phisically.

Ideation sessions

Once the How Might We statement is defined, three ideation sessions are conducted. The goal of the ideation sessions is to co-create with the users and stakeholders involved. Co-creation is an important aspect of service design as it ensures that the needs of users and stakeholders are met through their participation in the process (Stickdorn & Schneider, 2012, pp. 1–3). Thus, both users and Banc Sabadell's employees are involved. This helps to ensure that users and business needs are met when defining solutions. The ideation sessions will be explained in more detail in the next section (see Section 5.2). The outcome of the ideation sessions are initial concepts that satisfies the requirements previously defined.

Design Sprint

Two initial concepts are the result from the three ideation sessions. In order to develop the concept in more detail, a one-week Design Sprint is conducted. The goal of the Design Sprint is to answer critical business questions. This is achieved by following a 5-day methodology that requires designing, prototyping and testing. During this phase feedback is gathered to later iterate and improve the solution.

The concept that resulted from the Design Sprint is further developed through wireframes and prototyping. The prototype is used to validate the concept through user testing. Six participants, both participants who have experienced the home buying process and participants who have not experienced it, are involved in the user testing. The goal is to validate the concept, to understand if it is trustworthy for the user and if users would use it. Finally, the results of the user testing are used to iterate the concept. This ensures that the concept satisfies the needs of the users. This final iteration of the concept defines the final solution that provides a socially engaging home buying process to young adults.

Ideation sessions

This section provides a description of the three ideation sessions that were conducted during the concept development phase: one ideation session with users, one ideation session with Banc Sabadell's employees and one ideation session only with the researcher. This last ideation session was used to synthesise and analyse all the ideas gathered during the previous sessions and further develop them.

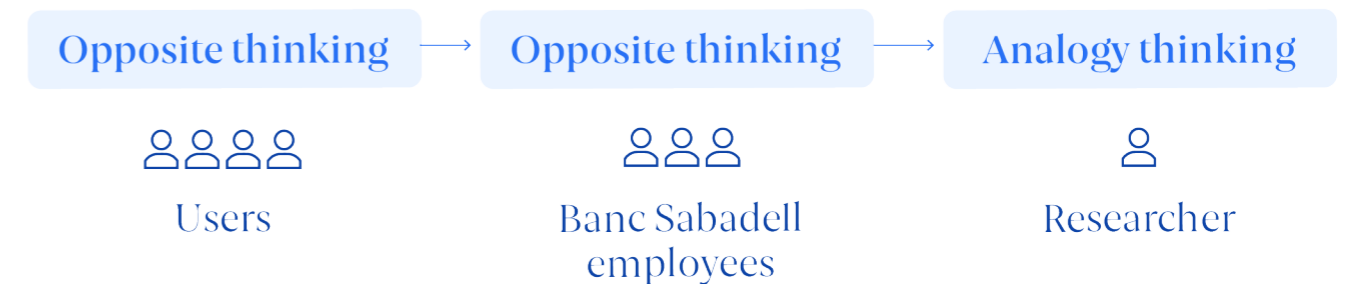


Figure 31: Ideation sessions conducted and participants involved.

5.2.1 Opposite thinking

The opposite thinking ideation session is an ideation tool that consists of challenging the assumptions about the problem statement. The goal of this exercise is to come up with non-common ideas by approaching the ideation from an opposite perspective (Opposite Thinking, 2020). Therefore, during this exercise, opposites realities are identified and the solutions are designed to meet those new realities.

The opposite thinking exercise has been chosen as it provides a structured approach to expand perspectives and define non-common and radical ideas. Furthermore, this exercise has been chosen due to the fact that the ideation session is conducted online. Therefore, it is considered that a structured approach is best suitable for an online session. Furthermore, a structured approach helps participants feel engaged and to better understand the task. On a physical environment, participants can understand what to do by observing what the rest of the participants are doing. However, on an online setting it is harder for participants to observe what everyone is doing. For this reason, a structured approach has been chosen, so participants can easily follow the session.

As already mentioned, users and Banc Sabadell employees are invited to the ideation sessions. This ensures that their needs are met through co-creating with them. Initially, the goal was to involve both parties in the same ideation session. However, due to the current Covid pandemic, the ideation sessions had to be conducted online. Thus, it was decided to divide it into two sessions: one session with users and one session with Banc Sabadell employees.

The reason for doing so is because the online set-up is considered to be suitable for a maximum of four participants, so everyone gets to equally participate. Therefore, two ideation sessions with four participants in each session are conducted.

Participants

• Session 1 - Users

The goal of this session is to involve users in the ideation phase. This is an aspect of the service design approach, which requires involving users and stakeholders during the overall process to ensure that their needs are met (Stickdorn & Schneider, 2012, pp. 1–3). Thus, the goal of this session is to co-create with the users to understand how they would like to experience the process. Before conducting the session, it was considered to involve the same participants from the qualitative interviews. However, since they already ideated during the interviews, it is not sure how much they will be able to contribute during the ideation sessions. For this reason, the ideation sessions were conducted with new participants. However, once the concept is designed, it will be validated with the interview participants.

Four participants were invited to the ideation sessions. The reason why this number of participants was chosen is because it is considered the maximum of participants that is suitable for an online set up. The session took in total one hour and a half. The procedure is explained at the end of this section.

• Session 2 - Banc Sabadell employees

The goal of this session is to involve bank's employees in the ideation session. By involving them, their perspectives are gathered and it is ensured that Banc Sabadell business needs are met in the solution developed.

Three employees were invited to this session. Each employee is representative of an area of interest to the project. For instance, one of the participants works on the mortgage product itself, defining the different packages that are offered to customers. Another participant is responsible for defining the digital marketing strategy of Banc Sabadell, including mortgages. Finally, the last participant is responsible to bring the user perspective to the

digital marketing department.

Procedure

Due to the Covid pandemic, the ideation sessions had to be conducted online. As it was online, it was decided to keep the meeting to one hour and a half. The reason behind it is to prevent participants from losing focus. For the same reason, the established number of participants was four people. It is considered that more than four participants would make online collaboration difficult. In other words, it would be hard for participants to equally participate in the session.

As the sessions were conducted online, Miro was chosen as the tool to conduct the ideation sessions. Miro is an online whiteboard for visual collaboration that allows multiple participants to work together using sticky notes, drawing, adding texts and shapes. At the same time participants were collaborating on Miro, they were talking through a video call on Skype (see Figure 32).

Previous to the meeting, the researcher prepared several tips on Miro to help participants get familiar with the tool. This way, participants could understand the tool and be ready for the session.

An hour and a half was the time set for the ideation session. Thus, the exercise selected for the session was opposite thinking. This exercise was selected because it is structured and dynamic, so it is easy to get participants coming up with ideas. As the participants are at their homes with their laptops during the session, it is better to do an exercise that makes participants feel engaged on the session. The opposite thinking exercise helps to come up with non-common ideas through challenging assumptions about the problem statement (Opposite Thinking, 2020).

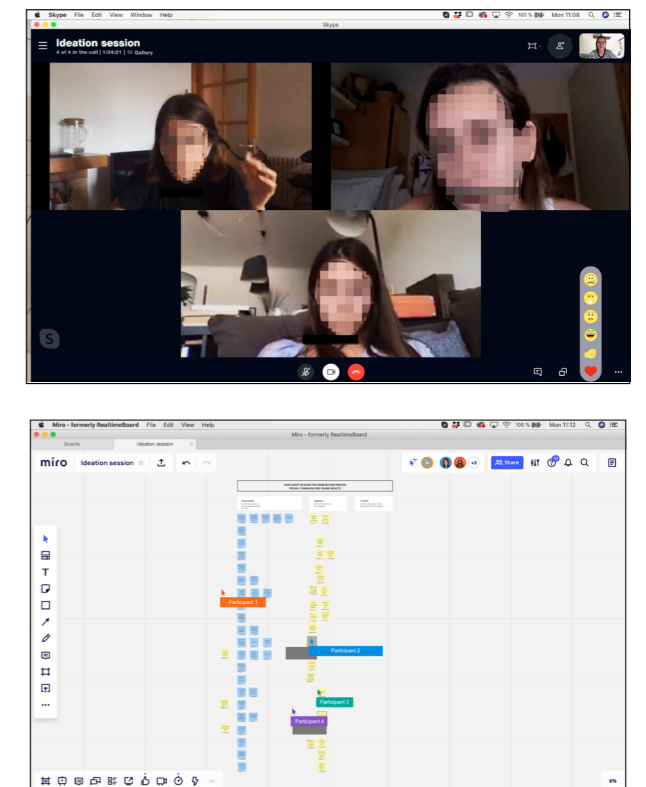


Figure 32: Screenshots taken during the ideation session conducted in Miro.

Guidelines

One day previous to the ideation session the researcher sent to each participant a user persona. The goal was to sensitise and familiarise participants with the topic of the research. This user persona is a story created from the How Might We statement. Therefore, participants were encouraged to read a user story before the ideation session. The goal was to inspire participants and put them in the shoes of the customers. Furthermore, the stories helped to introduce the background information of the project and the context of the session. Therefore, the user stories highlight real problems that customers are facing. Those problems were extracted from the interviews. The user personas sent to the participants can be found in the Appendix (see Appendix H).

An overview of the session, topic and goal can be seen in Figure 33. The ideation session starts with an ice breaker in which participants are assigned several empty circles. The goal is for every participant to draw as many planets as possible in a limited amount of time. This exercise aims to inspire participants to be creative. At the same time, it aims to familiarise participants with the online tool.

Once the ice breaker is conducted, participants are introduced to the HMW of the session: “How Might We make a socially engaging home buying process for young adults?”. In this part of the session each participant is asked to introduce their user persona to the rest of the team. This user persona is the user story that was sent to them previous to the session.

Finally, the opposite thinking exercise is conducted. The goal is to challenge the assumptions of the HMW statement and design radical ideas out of these opposites assumptions (Opposite Thinking, 2020). The exercise starts with users individually writing down assumptions about the current problem statement. For example: “*Young adults trust the experience of others*” or “*Young adults want to be supported on the journey to buy a house*”. After defining the assumptions, users share and

discuss them with the rest of the participants. Then, they individually brainstorm about opposites out of these assumptions. For example: “*Young adults want to do everything on their own*”. Once all the opposite assumptions are defined users share, cluster and discuss them with the team. Finally, they are encouraged to ideate solutions that meet the opposite assumptions. During this phase a lot of ideas are created to solve the opposite assumptions. The goal of the ideation sessions is to provide a design direction to the researcher, to inspire new ideas and to encourage the research to think out of the box.

Sensitizing

Goal: Inspire participants and put them in the shoes of customers. Create stories from the How Might We. Each participant will receive one story previous to the ideation sessions. In this way, participants will be introduced to the background information, the problems that customers are facing and the context of the session. (1day before the ideation sessions)

Introduction

Goal: Introduce the goal of the session to participants. The goal of the session is introduced. Participants have time to introduce themselves. Questions regarding the online tool are answered. (5 min)

Ice breaker

Goal: Break the ice and inspire participants to push the limits of their creativity. Every participant is assigned several empty circles. Each participant has one minute to draw as many planets as possible. (5 min)

HMWs

Goal: The HMW of the session is introduced. Each participant introduces the persona they were assigned one day prior to the ideation session. Through this exercise participants empathize with the users and the problems that need to be solved. (20 min).

Opposite thinking

Goal: Challenge the assumptions about the HMW statement, identify potential solutions through non-common ideas.

1. Each participant writes down assumptions about the problem statement.
2. Assumptions are shared and added to the left column.
3. Participants individually brainstorm about opposites of those assumptions.
4. Share the assumptions and ideate.
5. Share ideas and discuss them.

(55min)

Wrap up

Thanks participants, wrap up findings and conclusions. (5min)

Figure 33: Guidelines for the opposite thinking ideation session.

5.2.2 Opposite thinking results

The opposite thinking exercise consists of three different phases: assumptions about the problem statement, opposites of the assumptions and defining ideas out of the opposites. In order to do so, participants had to complete a template on Miro. A detailed overview of the overall process and results can be found on Appendix H. (See Appendix H).

After conducting the two ideation sessions, first with users and then with Banc Sabadell employees, the ideas were analysed and clustered by the researcher. The goal was to identify common themes among the designed solutions. This process also helped the researcher to analyse every solution and understand which ones met the list of requirements and were feasible.

An overview of the clusters and ideas that resulted from the ideation sessions can be found in this page (see Figure 34).

Two interesting design directions among the ideas generated were identified. The first direction is allowing users to choose their bank agent by getting to know him/her before. The other direction is a book of records or diary to keep track of the milestones achieved. Those two directions are later analysed in more detail through the analogy thinking session (see Section 5.2.3).

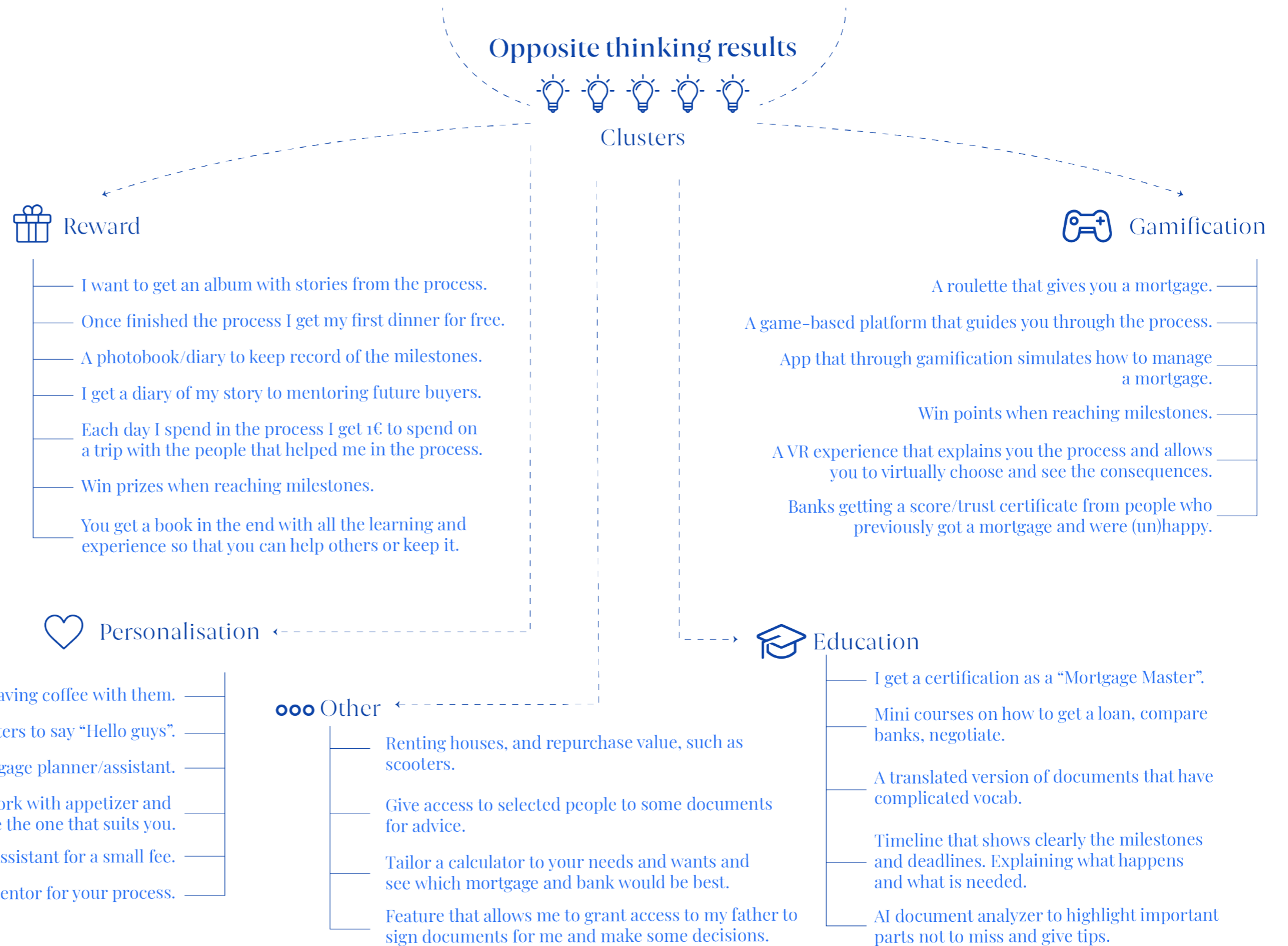


Figure 34: Clusters and ideas developed during the ideation sessions.

5.2.5 Analogy thinking

After conducting the two Opposite Thinking sessions, both with users and Banc Sabadell employees, the researcher conducted an ideation session on her own. The goal is to further analyse and develop the two design directions that resulted from the Opposite Thinking sessions.

The analogy thinking ideation tool is based on the belief that good artists do not try to reinvent the wheel. Therefore, the analogy thinking enables participants to research, identify and apply interesting features from existing solutions (Analogy Thinking, 2019). The exercise consists of researching existing companies to inspire new solutions. For instance, researching a company that does really well in the same market. Finally, the goal is to define existing solutions from these companies and inspire new ideas.

This exercise was chosen as it enables the researcher to further analyse the design directions by following a simple and easy step-by-step process.

Procedure

As already mentioned, this exercise is conducted only by the researcher. The goal is to further explore two design directions that were identified during the Opposite Thinking sessions. The first direction is allowing users to choose their bank agent by getting to know him/her before. The other direction is a book of records or diary to keep track of the milestones achieved.

During the session, the researcher filled in two templates, one for each direction. An overview of this template can be found on the next page (see Figure 35). The session starts with the researcher exploring companies which offer solutions similar to a book of records. After researching, the most relevant cases are chosen. In this case: Instagram, Uber, Duolingo and Nike Running. The next step in the process is to define the features from this

companies that can be used as a great example. Those features are listed on the left side of the template. Some features that arose are: “You have been studying for 5 consecutive days”. This feature is available at Duolingo, which keeps tracks of the amount of days users spent on studying the language. Finally, once all the current cases have been selected, the goal is to ideate by building upon those features.

Results

Four different ideas emerged during this phase:

- Having a calendar that keeps track of your achievements.
- See the experiences from your friends on the home buying process.
- Being able to see furniture that your friends have used.
- App that shows users all the steps of the process and provides a description of them. Furthermore, it shows users where they are in the process.

Finally, the same procedure was repeated to analyse existing solutions similar to an open day. A detailed overview of the results of this session can be found in the Appendix (see Appendix H).

The outcome of the Analogy Thinking session are two concepts that are explained in detail in the next section.

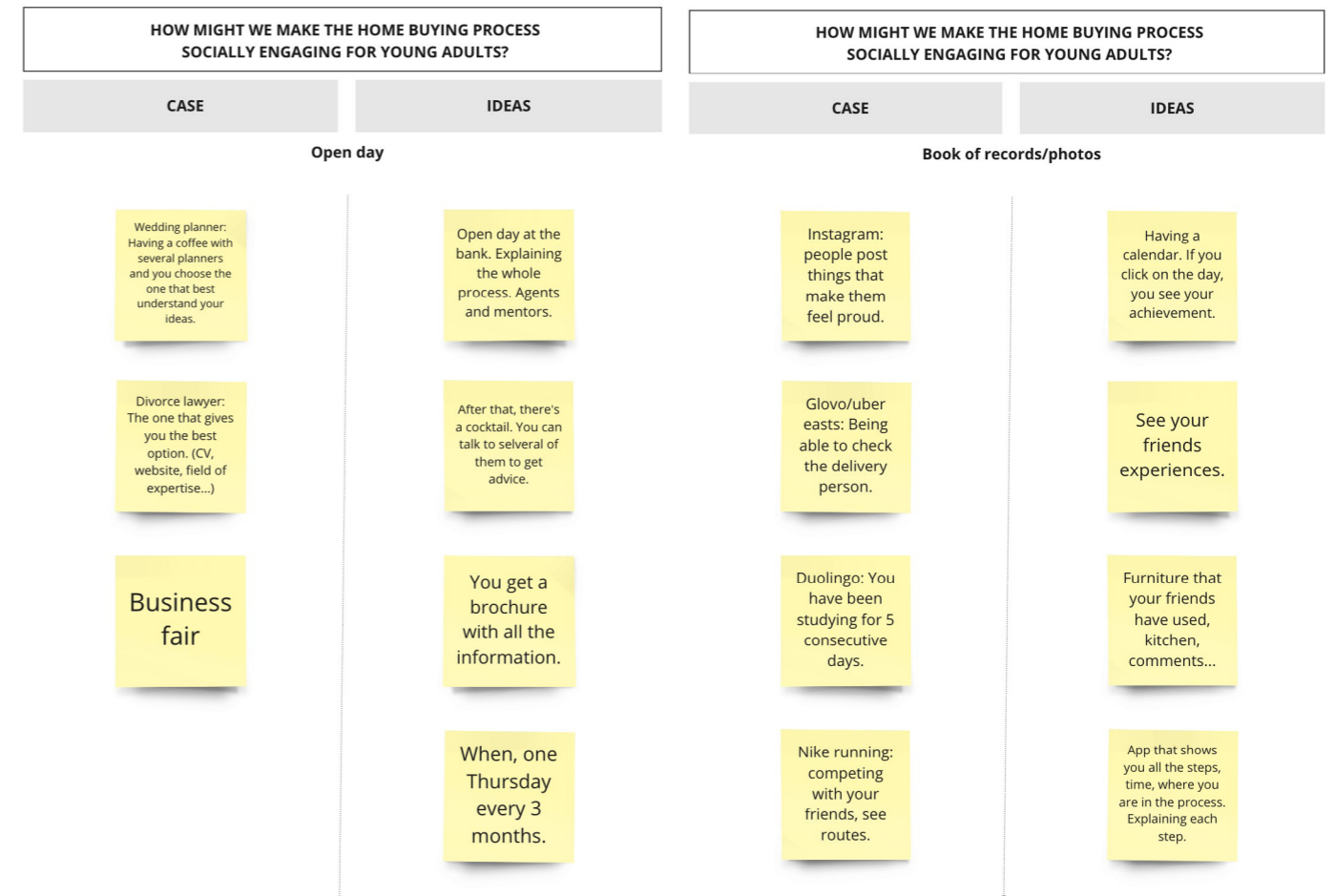


Figure 35: Results of the Analogy Thinking session.

Concepts

After the analogy thinking session, two initial concepts are defined as part of the same strategy. These concepts are chosen as they meet the list of requirements previously defined.

During the user research phase it was identified that users do not want to depend on just one channel. They want to feel free to choose between digital and physical channels. For this reason, two concept directions covering both physical and digital channels are designed. Each of these concepts is explained below.

Open Day at Banc Sabadell

This concept is borned from the need of providing a solution that “should not require the user to experience the whole process digitally neither phisically” and “should make users feel supported and taken care of” (design requirement). Furthermore, this concept arises from further developing the design direction: allowing users to choose their bank agent by getting to know him/her before.

This concept proposes that Banc Sabadell offers an Open Day one Thursday every three months. As the process of buying a house is a long one, a period of one event every 3 months is considered adequate for this event. Moreover, the event takes place on Thursday. This is because Thursday is the only day that Banc Sabadell opens its doors to the public in the afternoon.

Customers and potential customers that are starting the home buying process are invited to this Open Day. The Open Day kicks-off in the afternoon with a seminar. During this seminar, an overview of the

process and the different milestones are explained. At the end of this seminar, the second concept developed is introduced. This concept will be explained later in this section.

Once the seminar is finished, a cocktail takes place. Clients such as real estate promoters and real estate agencies are invited to participate. This is an opportunity for them to offer their properties to attendees. At the same time, it is also a benefit for attendees as it facilitates the process of finding a house. During this cocktail, specialists from Banc Sabadell in mortgages are present to clear up any doubts that participants may have. Notaries or representatives of the notary’s office could also participate in this event.

This event is an exercise of transparency and in getting closer to clients and potential clients. Furthermore, it allows Banc Sabadell to solve many doubts of several clients at the same time. Finally, the Open Day helps Banc Sabadell to engage with current customers and to attract new ones. This concept is further explained in the next chapter (see Chapter 6).

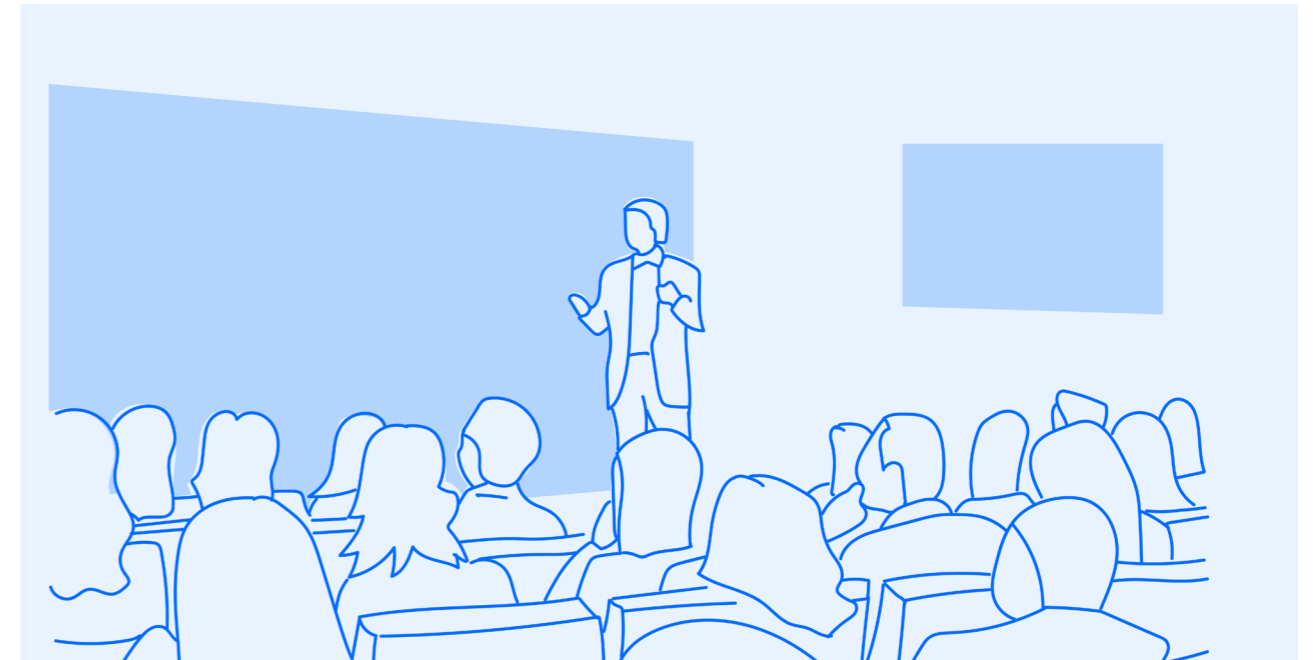


Figure 36: Open Day at Banc Sabadell.

The home buying process app

This concept arises from furthering developing the previous design direction through the Analogy Thinking exercise: a book of records or diary to keep track of the milestones achieved. It also arises from the need of “offering users a solution that is smooth and easy to go through to engage users” (design requirement).

The concept developed is an app that allows users to engage in the home buying process from beginning to end. Furthermore, a book of records or memories is created every time users achieve a milestone. This platform offers users the freedom to choose whether they want to apply for a mortgage through the platform. Or whether if they prefer to use the platform to get information and physically apply for the mortgage at the bank’s branch.

In order to further develop this concept, a Design Sprint is carried out. This is explained in the next section (see Section 5.4).

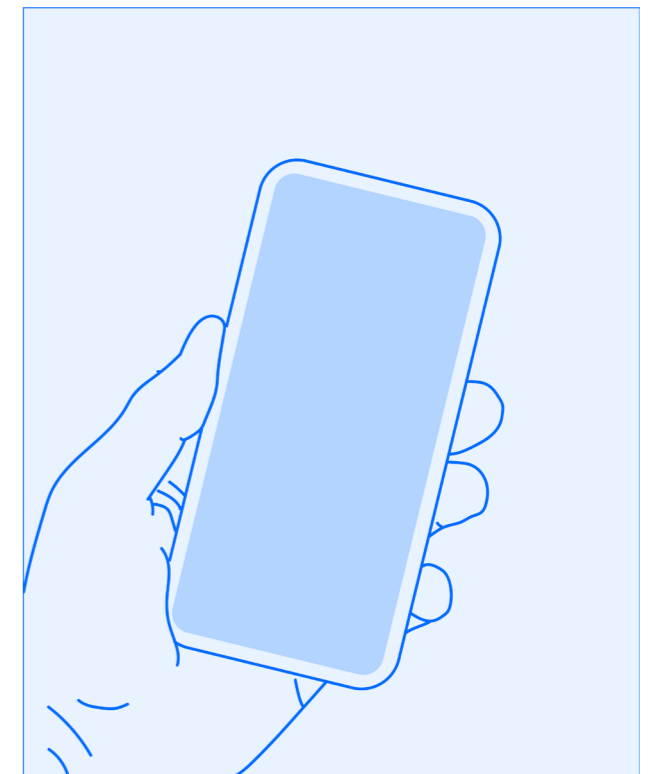


Figure 37: Visual representation of the home buying app.

Design Sprint

In order to further develop the home buying process app, a Design Sprint is carried out. During this process the methodology developed by Google Ventures is applied (Knapp et al., 2016, pp. 1–3). The 5-day design sprint aims to build and validate a prototype through a one week process. The reason why a Design Sprint is conducted is because it enables to rapidly prototype the concept and get immediate feedback (Ferguson, 2020). Therefore, as this master thesis has to be carried out in an established amount of time a Design Sprint is considered ideal for this situation. Therefore, if after conducting the Design Sprint it is found out that the concept does not meet the users needs, then a second Design Sprint can still be carried out to improve it or to develop a new concept.

The Design Sprint helps to validate the concept through a realistic prototype. The Design Sprint methodology is divided in five days, each of them has a defined goal (Knapp et al., 2016, pp. 1–3):

Day 1 - Make a map and choose target.

The Design Sprint starts defining the long-term goal. During this day a map of the challenge is created. This map includes the steps of the process, the actors involved and the end goal. The day finishes picking a target on the map. This target is the part of the problem that is going to be solved during the week.

Day 2 - Sketch solutions.

The goal is to come up with potential solutions. The day starts reviewing existing ideas through Lightning Demos. The Lightning Demos consist on looking for existing solutions in different fields and rapidly sketching the main feature of each solution. After this, a four-step sketching process is carried out. At the end of the day, each participant has a detailed sketch of their designed solution.

Day 3 - Decide on the best solution.

The day starts analyzing every sketch that resulted from the previous day. Every solution is analysed and preferred features are highlighted. The day ends defining a storyboard that visualizes the solution.

Day 4 - Prototype.

The day is spent translating the storyboard into a realistic prototype. The prototype will be used to evaluate the concept with users the next day.

Day 5 - Test

By the last day of the design sprint a solution has been defined and translated into a prototype. The goal of this day is to interview users and gather feedback to iterate and further develop the concept.

5.4.2 Results

A detailed description of the process and the outcome of every step can be found in the Appendix (See Appendix I). As already mentioned, the goal of the Design Sprint was to further develop the concept of the Home Buying Process App.

Therefore, the outcome of the first three days of the Design Sprint was a defined concept. As part of the Design Sprint, the concept was translated into a storyboard that would later influence the design of the prototype. The storyboard represents the Home Buying App, called Doyle, in its context. However, in order to better understand the storyboard, a user persona has been designed (see Figure 39). This persona represents the needs and motivations of young adults in Spain. Young adults represent the target group of the concept defined. For this reason, this user persona represents and summarises the interests, needs and motivations of this target group.

The following pages show a description of the user persona and the storyboard designed. They provide an understanding of the context of the concept. Finally, they highlight user needs, motivations and the context where Doyle would be used.

5.4.1 Procedure

In this project, the Design Sprint is slightly modified to better suit the scope. The first 3 days are conducted following the established methodology. However, the prototyping and testing phase (day 4 and 5) are spread into more days. This is because normally a Design Sprint would be conducted to analyse and evaluate one specific feature. However, in this case, the Design Sprint is used to evaluate a whole application. For this reason, more time is needed to develop the prototype of the whole application.

The Design Sprint is usually carried out with a team. However, as the researcher is missing a team, one participant, who knows the project the researcher has developed so far, is invited to the whole week session. Eight hours per day is the time assigned for the Design Sprint. The researcher and the participant were both in the same room during the whole Design Sprint. Finally, the prototype and testing of the Design Sprint were carried out only by the researcher.

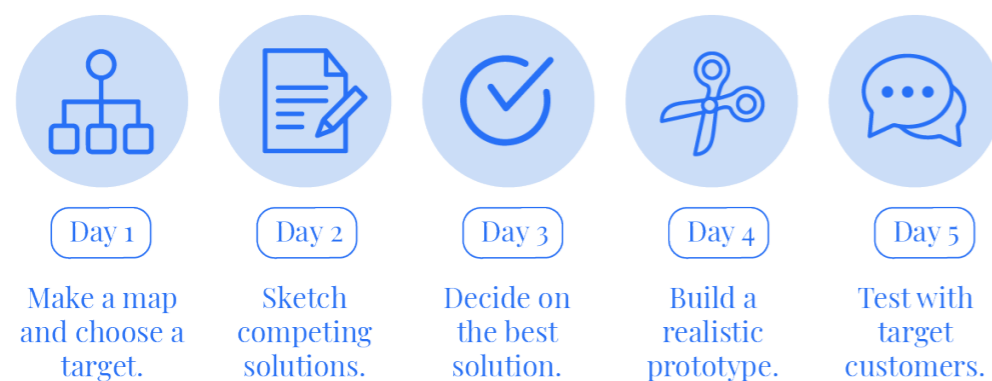
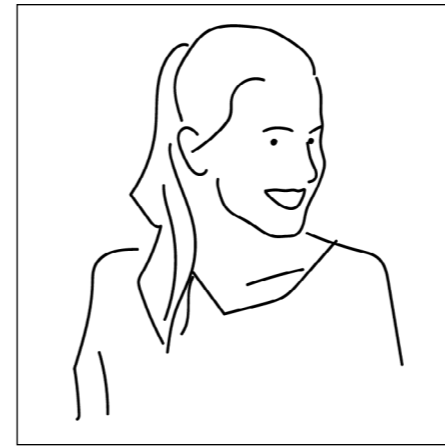


Figure 38: 5-day Design Sprint methodology.



Anna Vila

Age	28
Occupation	Architect
Education	Master
Location	Madrid
Status	Single

Technology

Internet	●●●●●●●●
Social Media	●●●●●●●●
Online Shopping	●●●●●●●●
Smartphone	●●●●●●●●

Anna left her home when she was 18 years old. She moved to another city to study a Bachelor degree. During these 10 years she has been sharing an apartment with her friends from Madrid. Furthermore, she has been moving a lot, so she has not always lived in the same house.

She has been working for the last 4 years. Right now, she is aware that she has a stable and permanent job. And looking back at these 10 years renting apartments she feels that she has been “wasting” money. For this reason, she decides to start thinking about buying a house. However, she does not have any knowledge about it, so she trusts her friends and family for advice.

Interests

Anna spends a lot of time on Social Media, especially on Instagram. She likes to discover the newest trends.

She likes to spend a lot of time with her friends. She is always up to go out for dinner or drinks.

Anna likes travelling and discovering new places. She has recently been in Australia. However, she also enjoys a weekend well spent somewhere in Spain.

Goals

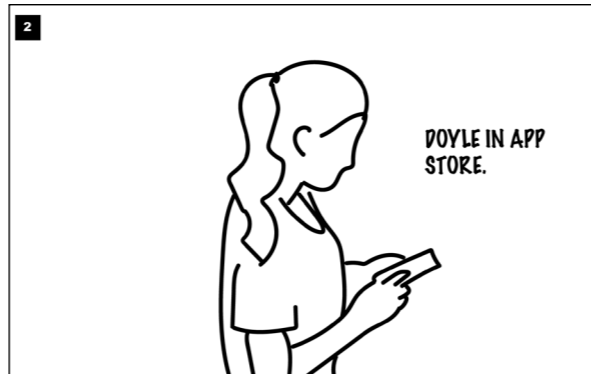
Anna is tired of renting apartments, so her goal is to buy her own house and invest her money in a good way. She is not in a hurry, she has just started to investigate about the process. Furthermore, Anna works a lot of hours, so she does not have a lot of time to go to the bank branch. This is why she tries to get all the information through phone calls or via online.

Figure 39: User persona for the Storyboard.

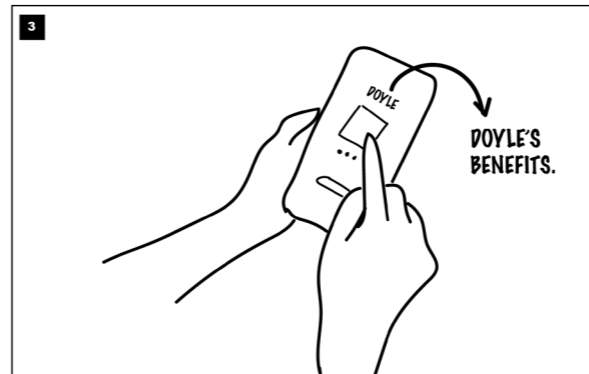
START



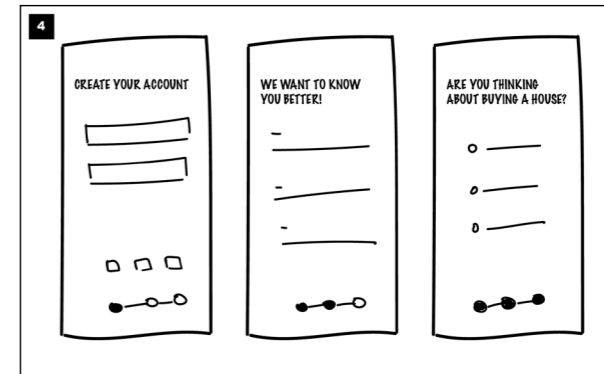
This is Anna. She has been renting apartments during the last 10 years. After 4 years working and saving money, she decides that it is time to start thinking about buying a house.



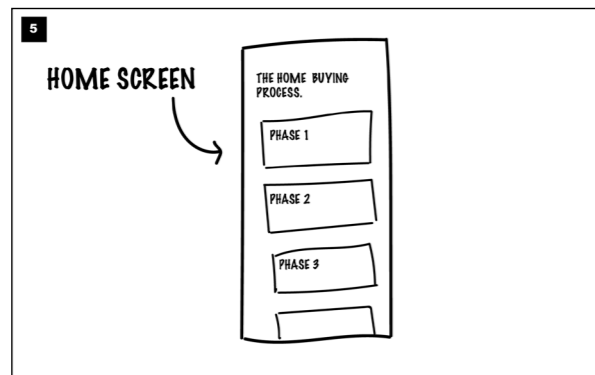
Her friend recommends her to use Doyle. An app that is easy to get hands on the process. Anna downloads the app on App Store.



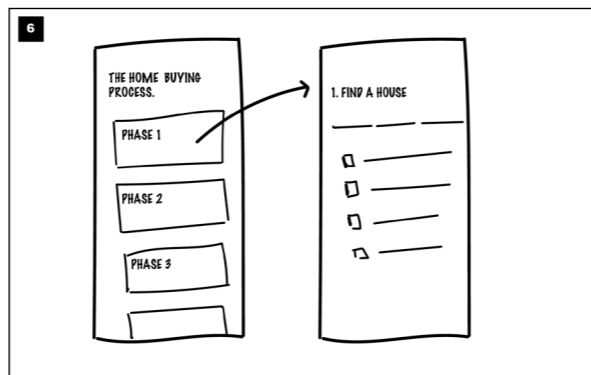
Anna reads the benefits of Doyle and decides to download it and give it a try.



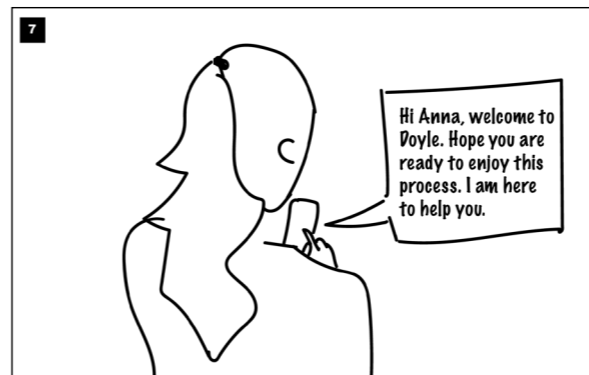
Anna provides her personal information as a way to receive more personalised information.



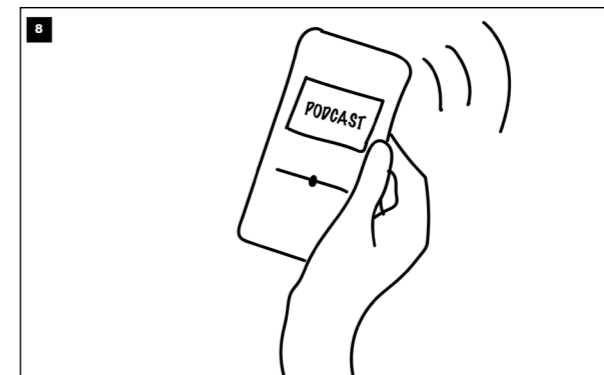
Anna is automatically on the home screen. There, she can see all the different steps of the home buying process in a very structured way.



Moreover, Anna selects a card to see more detailed information about that specific phase.



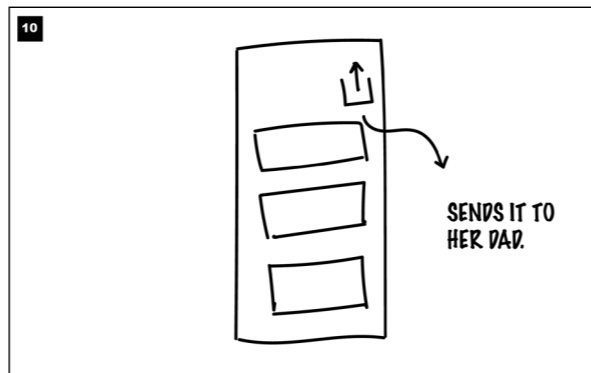
After some minutes exploring the app, Anna receives a message from her agent. Anna answers and they start a short conversation.



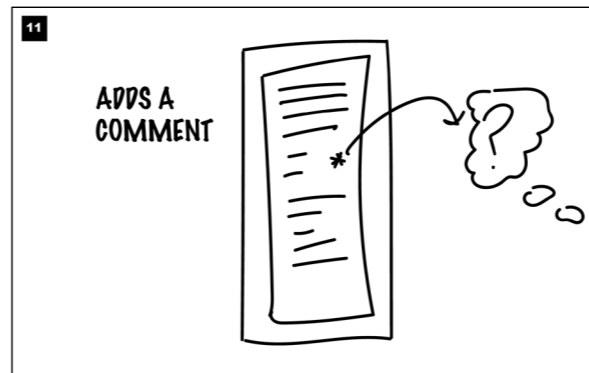
Anna has time to explore the app. She reads podcasts and articles before starting the process. Anna has some doubts, so she texts to her agent.



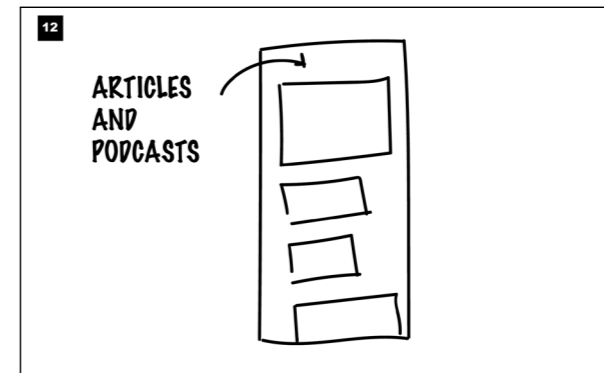
Anna is not sure where to live or in which neighborhood she wants to find her future apartment, so she interacts with the map from "Be where you are".



After Anna has been going through the process, she receives notifications. She also invites her dad to help her through the process.



Anna's dad has doubts regarding a specific document. He adds a comment and Anna receives a notification.



Finally, Anna wants to learn more about the process, so she learns more about it in the "Explore" section.

END

Figure 40: Storyboard of Doyle.

Doyle

5.5.1 Value proposition

The final concept that resulted from the Design Sprint is explained in this section. Doyle is a service that helps young adults to socially engage in the home buying process through a mobile application. The main value of Doyle, is explained and translated into the following value proposition.

“Doyle is a **mobile service application** that allows young adults to experience the home buying process in a **smooth and socially engaging way**.

Doyle offers young adults **independence** in the purchasing process through **providing the tools and information** that users need. Moreover, Doyle allows users to have **everything in one channel**. Avoiding trips to the bank, phone calls or emails.

Thanks to Doyle, users spend **no energy** on understanding the process or multi-channel communication, allowing young adults to **enjoy the experience in the best possible way**.”

5.5.2 Doyle, the concept

The final concept that resulted from the Design Sprint is explained in this section. However, a detailed description of the final application is provided in the next chapter (see Chapter 6). The mobile service application allows users to:

Get an overview of the overall home buying process.

Thanks to Doyle, young adults will be able to have a clear understanding of the different phases of the home buying process and how they relate to each other. This way, they can start the process having an understanding of all the different phases they need to go through.

Detailed understanding of each step.

Through a to-do list, young adults can have a simple and structured way to complete each phase of the process. Furthermore, Doyle offers several tools, such as calculators, to help young adults complete each task.

Keep track of your progress.

Users will have a clear visualization of where they are in the process and what they need to do next.

Upload, sign and share documents.

Doyle allows users to gather all the documents in one place. Furthermore, young adults will be able to share their documents with their bank agent or relatives, without having to go to the bank branch.

Experience the process with your relatives.

Doyle allows young adults to socially engage in the process. It allows them to experience the home buying process together with their relatives. This is achieved by inviting their relatives to the application.

Organize your appointments.

Doyle has a calendar integrated which allows young adults to keep track of their appointments. This also helps the bank agent to understand where the customer is in the process.

Contact your bank agent at any time.

Young adults will have the possibility to contact their bank agent whenever they want. This will be done through a chat in the app that also allows users to call or video call. Young adults will always be in contact with the same agent. This prevents them from having to speak with a different agent each time, which would result in having to explain their challenges multiple times.

Explore the housing market through a map.

Doyle allows young adults to explore the different cities and areas thanks to a map. This map includes several filters that allow users to decide according to different parameters that they will predefine.

Learn and be up-to-date on the housing market.

Young adults will be able to learn and expand their knowledge through podcasts and articles inside the mobile app.

5.5.3 Core aspects

Doyle is the concept that resulted from the ideation sessions conducted. This mobile based application is based on four core aspects that meet the design requirements. The main core aspects of Doyle are Learn, Share, Support and Reward.

Learn.

The aspect of learning focuses on conveying information to users in a simple and structured way. Young adults will be able to go through the process while learning and knowing what they need to do in every step of the process. This main aspect is translated into a to-do list that guides users in the tasks that need to be performed. Through a smooth learning process young adults will be able to enjoy the process while feeling in control.

Share.

Young adults will be able to experience the home buying process together with their relatives. The sharing aspect offers users the possibility of applying for a mortgage together with someone or simply

sharing information with them. The sharing aspect aims to change the way young adults experience the home buying process. In this way, all the parties involved will be able to equally participate in the process.

Support.

This core aspect arises from Banc Sabadell strategy “Estar donde estás” (To be where you are). Following their strategy, Banc Sabadell needs to be where its customers are, offering personalised advice and making them feel taken care of. Through this core aspect, Banc Sabadell will be present in Doyle through a chat that also allows calls and video calls. This way, customers will be able to ask their questions and express their concerns at any time. This also allows users to express themselves at any moment, without having to stop what they are doing to call the bank or to go to the branch.

Reward.

Buying a house is one of the biggest milestones for young adults. However, due to the current set up of the process, young adults are not able to enjoy the

process. They feel that the process is too long and of high complexity. The four core aspects of Doyle aim to change the way young adults feel towards the home buying process. Besides, through the reward aspect, users will feel rewarded and gratified at the end of the process. This is a way for young adults to get a good feeling and impression once the process is completed.

Once the wireframes were defined, they were translated into a high fidelity prototype. This prototype will be presented in the next chapter (see Chapter 6). Finally, the interactions were added to the prototype, to make it clickable to further test it with users.

The interactive prototype allows users to navigate through the application in a very simple and smooth way. It has been developed to be intuitive and self-explanatory for the user. This way a better experience for the users is ensured. The prototype was used to test the concept and application with the users. Therefore, several information is gathered to later iterate it and improve the application. Finally, a detailed overview of the final design of Doyle and its features will be explained in the next chapter (See chapter 6).

5.5.4 Prototyping

The 4 core aspects were translated into wireframes and later into a high fidelity prototype. The wireframes are an outline of the structure of the mobile application. The wireframes were created to define a clear overview of the content, layout, information, navigation and intended behaviours (Hannah, 2019). The wireframes are the exploratory phase of the prototyping, where all the different combinations of how to place the information are analysed. An example of different designs for the Home screen of Doyle can be found in this page (See Figure 42).

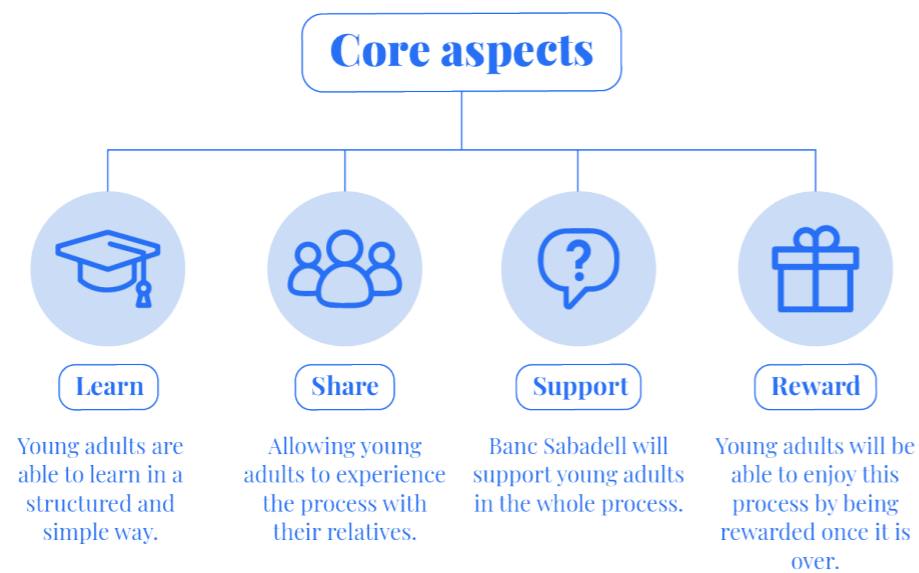
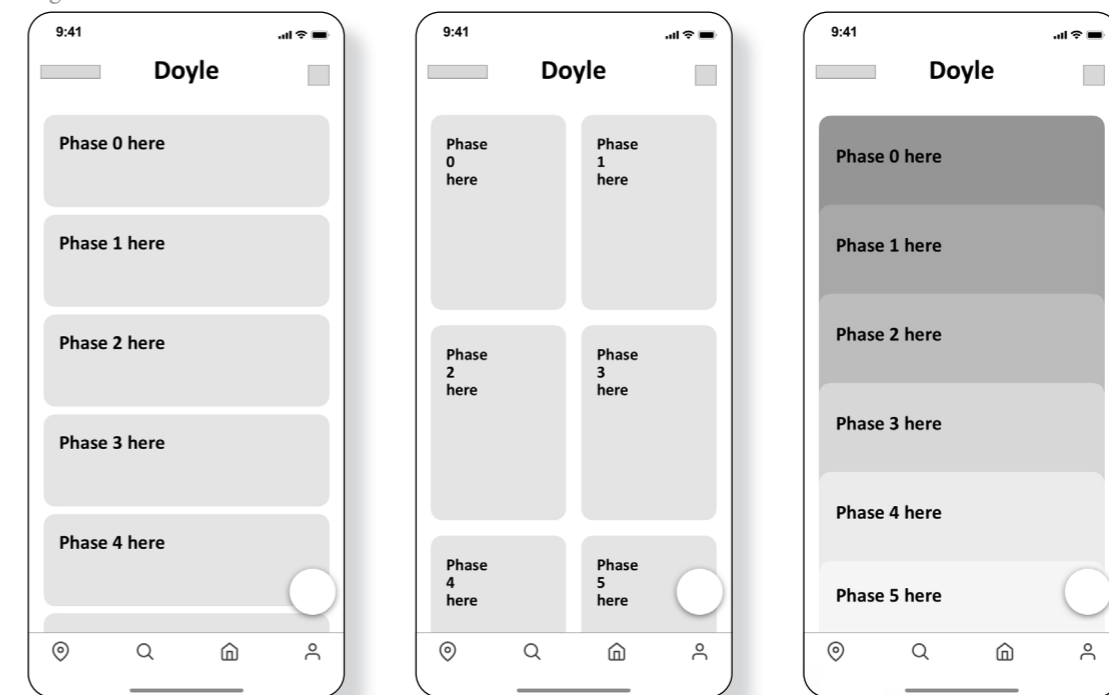


Figure 41: Core aspects of Doyle.

Figure 42: Wireframes of the Home screen.



User testing

This section provides a description of the user testing phase. The goal of the user testing is to validate the concept and the usability of the application. In order to validate the concept, participants are given freedom to explore and understand the main concept. This way, feedback is gathered regarding the value that the concept brings to the user. Moreover, the concept validation provides an understanding of whether the concept is interesting and inviting for the users.

The usability of the application is validated in the same session, allowing participants to complete several tasks and navigate through the application without any guidance.

5.6.1 Participants

Six participants are invited to test the prototype. Three of those participants have experienced the home buying process, whereas the other three participants have not experienced it. In this way, two perspectives are covered when validating the concept. On one hand, it provides insights to understand if this application would have added value to the users when they experienced the process. On the other hand, it provides an understanding whether users who have not experienced the process would use it in the future.

Among these six participants, four participants were part of the previous interviews. This way, it is ensured that the service design approach is included through the whole design process. Through co-creation and involving the users in the sessions, users can validate the concept and propose potential improvements.

5.6.2 Guidelines & procedure

A qualitative approach is adopted to conduct the user testing. This approach is used to collect in-depth insights regarding the value and usability of the concept (Qualitative Usability Testing to Validate Your Product Idea Fast, 2020). Furthermore, this approach allows testing with a smaller sample of participants. Due to the Covid-19 pandemic, the user testing was conducted online. Therefore, the prototype was created on a mobile version for computers (See Figure 44). The user testing was conducted through video call. During the session, the participant shared the screen with the researcher. This way, the researcher analysed how the participant was navigating and interacting with the application.

The following image shows the guidelines and structure of the session. The goal of each phase is indicated:

Introduction

Introduce the researcher, the structure and goal of the session. (5 min)

Setting the participant on the scenario

Explain a story to set the participant into the context of the mobile app. Guide the participant through the story until the moment that the participant downloads Doyle for the first time. (10 min)

The prototype

Send the link of the prototype to the participant. Explain the participant how the prototype works. (5 min)

Moderated testing

Allow the participant to interact with the application. Guide the participant through the different modules of Doyle. During the testing the participant explains his/her thoughts, motivations and concerns. (20 min)

Interview

Ask the participant several questions to evaluate the concept and the navigation of the application. Ask the participant to propose potential improvements. (20 min)

Wrap up

Thanks the participant and summarize conclusions. (20 min)

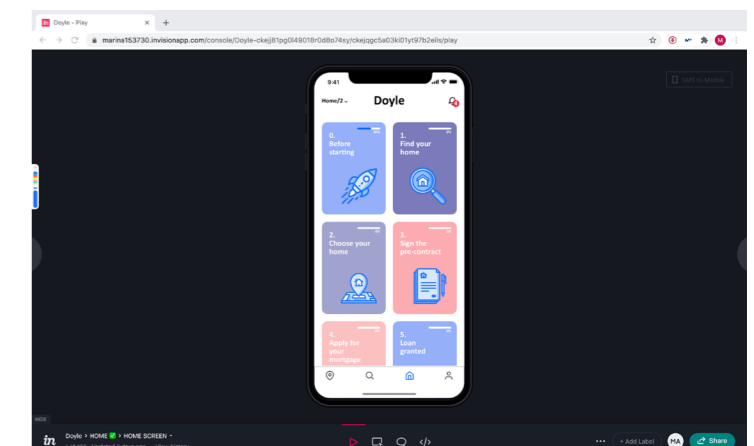


Figure 44: Interactive prototype on the computer.

Figure 43: Guidelines user testing.

Scenario.

Before conducting the user testing, the participant was introduced in the following scenario:

“Imagine that you are a customer of Banc Sabadell and you just decided that you want to buy a house. The first thing that you do is calling your bank to ask for information about the process. Maria, who is the agent on the phone, suggests you to download Doyle, an app of Banc Sabadell that helps you during the whole home buying process. From start to end. Maria explains you a bit how Doyle works, so you download it on App Store. Now imagine that you have downloaded the app, so you are going to interact with the app as if it was on your phone.”

The scenario sets the user in the context of the session. It defines the story of why a user comes to the application (Assistant Secretary for Public Affairs, n.d.).

Moderated testing.

The methodology used to conduct the session is moderated user testing. During a moderated user

testing, the researcher is responsible for assigning tasks and guiding the participant through the application. Furthermore, during this type of testing, the participant is allowed to ask questions to the researcher. Moderated testing is recommended to test prototypes or concepts. This is because the prototypes do not function in the same way as a finished product, which can be confusing for the participant when interacting with it (Moderated vs Unmoderated Usability Testing: Which Do You Need?, 2019). Therefore, during the session the researcher guides the participant through moderated user testing.

The session starts with the participant navigating through the application and explaining to the researcher his/her thoughts, motivations and concerns. Furthermore, the researcher also asks the participant to complete different tasks such as sign a document, add members to the group, or send a message. All these tasks help the researcher to validate the usability and flow of the application. Finally, during the moderated testing, the researcher asks several questions and gathers feedback from user's behaviour and thoughts.

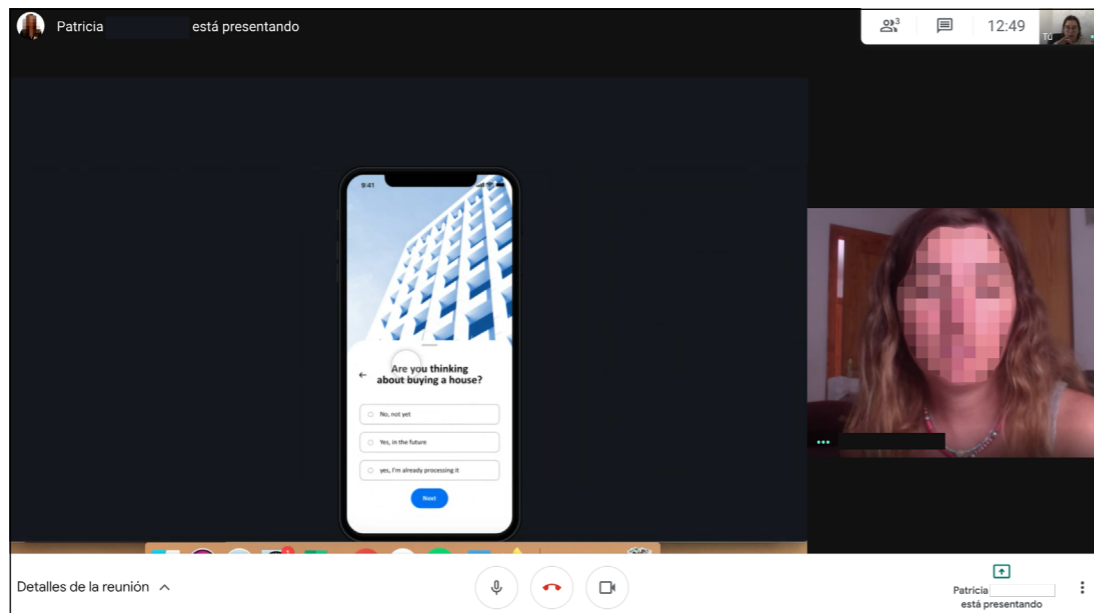


Figure 45: Participant interacting with the prototype during the user testing.

Interview.

Once the interaction with the prototype is completed, an interview is conducted to gather in-depth insights. During this interview several topics are covered such as general feedback, design, usability, navigation and target user. The goal of the interviews is to dive deeper into the thoughts, opinions and concerns of the users. Furthermore, it aims to identify relevant feedback regarding the topics mentioned above.

Below are the questions asked during the interviews:

- What do you think about the product?
- Do you understand what it does?
- Can you tell me which services Doyle offers?
- What do you think that is the one that you would use the most?
- Are you missing something?
- What are your thoughts on the design?
- What do you think about the number of features?
- Is there any feature that you completely ignored?
- Was anything distracting you?
- When exploring the product, were you confused at any time?
- What is the first thing you would like to do in this application?
- Would you use this product?
- If you were able to change something, what would you change?
- Do you feel that Doyle has been designed for people like you?
- What would make you use this product frequently?
- Would you recommend Doyle to a friend?
- Could you tell me 3 words to describe this product?

5.6.3 Results

The user testing sessions provided insights that helped to validate the concept and to identify potential improvements. This section gives a detailed description of the insights gathered, the improvements identified and the perception that

users have towards Doyle.

The information gathered has been divided into several topics.

Concept.

The overall feedback on the concept validation was very positive. Users think that Doyle is a new and different concept from what is already available on the market.

“I believe that it is a new concept, not exploited by the banks, because banks focus mainly on their main app but not on their products”.

Furthermore, users like that Doyle is easy to understand even for those users who are not familiar with the home buying process. Finally, the personalised chat, which allows users to always contact the same bank agent was one of the favorite features. Users consider that the chat is beneficial for them as they could contact the bank at any time. This way, users do not need to stop what they are doing and set a time to call or go to the bank.

“I like it because if you have a specific doubt you can write and read it when you can. You do not have to find 10 minutes to talk to an agent. You just write when you have a question. In other words, you do not have to be in one place at a specific time and having to schedule your agenda for that. Besides, everything is written down, which is very important. Because information is lost through the phone.”

Content.

Users feel that Doyle contains the information in a clear and structured way. They believe it is an easy to follow process, ensuring that users do not miss any step in the process.

“It provides a good structure through the steps. It allows me to know if I have all the documentation I need.”

Navigation.

During the moderated testing users were asked to complete different tasks, such as sign a document, add members to the group, or send a message. All the participants managed to complete the tasks without any inconvenience, doubt or hesitation.

“I think it is easy to navigate as it suits the kind of applications I am used to.”

However, it was identified that some users struggled to find the group feature, because they did not understand the naming of the category.

Design.

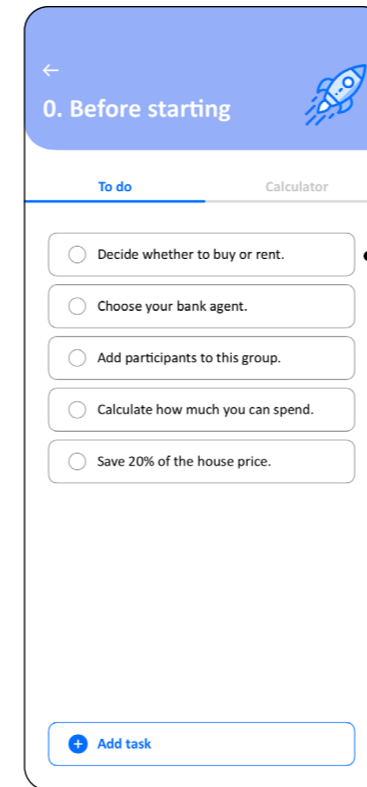
The design of the interface was rated positively by users, highlighting that it is simple and user-friendly.

“I love it because it is very visual, the colours are nice, they are appealing. It is very simple. And it is also very clear what you have to do and where you have to look. I think that is very easy to understand. Everything is easy to follow.”

List of improvements.

After conducting the user testing, several feedback regarding potential improvements was identified. This feedback was then translated into a list of improvements.

Once the analysis of the user testing was conducted, the prototype was iterated according to this list of improvements. After this iteration, the final design of Doyle was created (See chapter 6). An overview of the improvements identified can be found in the next pages.



Add detailed information in every task.

During the testing it was observed that users tried to click on every task of the to-do list. Participants expressed that they would like to be able to select each card for more detailed information. Furthermore, participants expect to be able to complete a task when clicking on it.

Figure 46: Improvement to-do list.

Change naming of the group feature.

When users were asked to change groups or add participants to the current group, users hesitated about where to go. It was found that it is unclear for the user where the group feature is located. This is because the current naming is not clear.

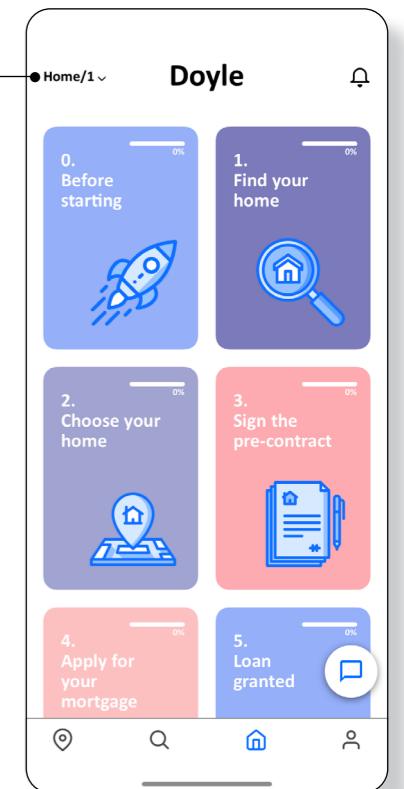


Figure 47: Improvement for the group feature.

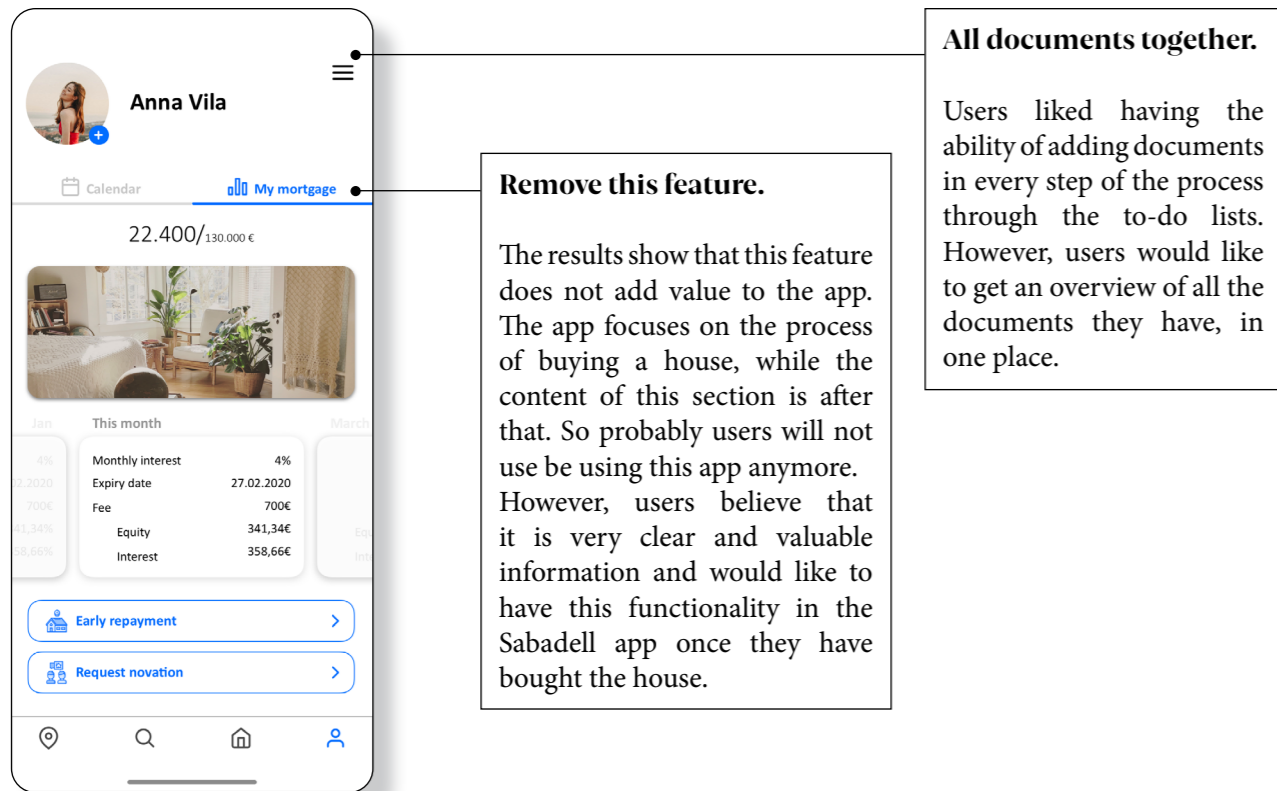


Figure 48: Improvement my mortgage.

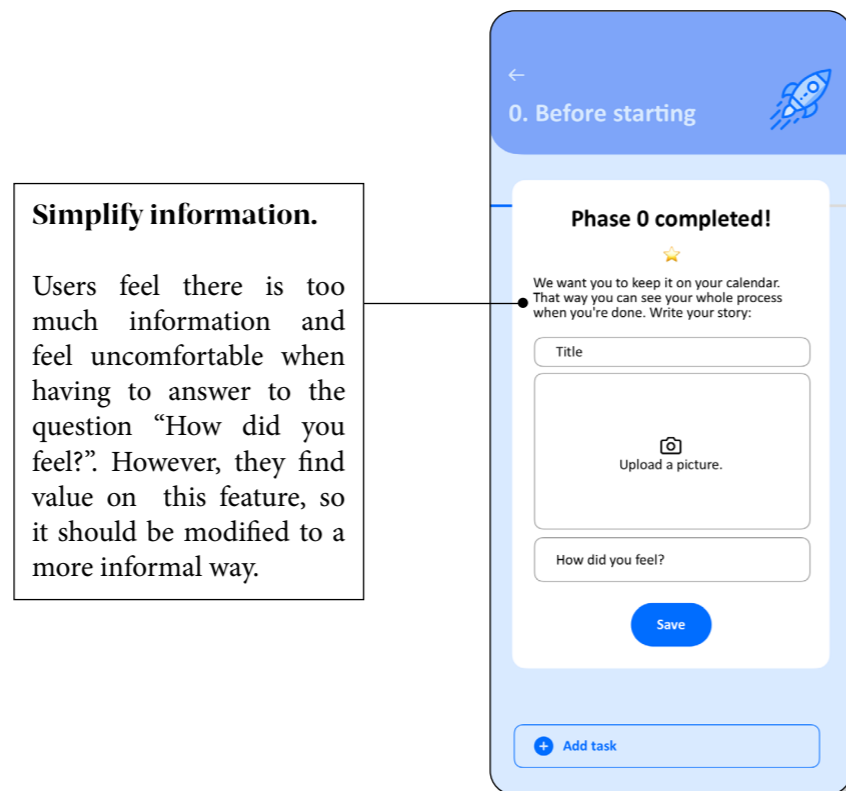


Figure 49: Improvement phase completed.

What users think about Doyle.



Figure 50: Words that users used to describe Doyle.

Conclusion

Throughout this chapter a detailed description of the concept development phase has been provided. The final outcome are two concepts that meet the list of requirements defined in the previous chapter. First Doyle, a mobile service application that supports users throughout the overall home buying process. The second concept is the Open Day at Banc Sabadell, which aims to help Banc Sabadell to get closer to customers and potential customers.

Doyle is the main concept and the core element of the final delivery of this project. Doyle is a mobile service application that allows young adults to experience the process in a smooth and socially engaging way. Doyle is based on four aspects that have been implemented and developed to meet each of the specifications defined in the list of requirements. These core aspects are: Learn, Share, Support and Reward. Furthermore, through conducting user testing several improvements are identified and used to enhance the user experience in Doyle. However, due to the fact that this master thesis has an established amount of time, the same session was used to evaluate the concept and test the usability of Doyle. In order to obtain more detailed and in-depth results it is recommended to validate the concept and the usability in two different sessions. Therefore, both the researcher and the users can focus in one thing at a time, diving deeper in the topic.

Finally, Doyle represents the main element of the final tangible strategy that is delivered to Banc Sabadell. Besides, there are other elements that play an important role in this strategy, which are explained in the next chapter (see Chapter 6).



Chapter six

Final design

The final design and delivery are presented in this chapter. The goal is to provide a description of all the different elements and the relationship between them. The final delivery consists of a tangible strategy for Banc Sabadell that aims to increase customer engagement while offering a smooth and remarkable home buying process to young adults. Doyle is the main element of this strategy. However, there are other elements that play an important role: a ten volume magazine collection, open day at Banc Sabadell and a redesign of Banc Sabadell App. Each of these elements is explained in detail and integrated into a strategy to represent the connection between them.

Final delivery



Figure 51: Elements of the final delivery.

The final delivery is a strategy for Banc Sabadell that aims to increase customer engagement while offering a smooth and remarkable home buying process to young adults. In order to make this strategy tangible, a mobile service application has been developed, Doyle. Doyle is the core element of this strategy. It is a mobile service application that allows young adults to experience the process in a smooth and socially engaging way. This is achieved by providing young adults with a structured and easy to follow process. Doyle is based on four aspects: Lean, Share, Support and Reward. Each of these aspects aims to support young adults from the moment they consider buying a house for the first time until the moment they purchase it.

However, as Schneider states in his book, service design is sequencing. Therefore, when designing a service three different timelines have to be considered (Stickdorn & Schneider, 2012, pp. 1–3). Before the user-service interaction, during the user-service interaction and after the user-service interaction. This means that the strategy delivered to Banc Sabadell has to cover three timelines:

- Before the user starts the home buying process.
- During the time the user is experiencing the home buying process.
- After the user has experienced the home buying process.

For this reason, as Doyle is only covering the time from the moment users consider to buy a house until the moment they purchase it, three elements have been designed to ensure that the overall service experience is covered. Therefore, the four elements of this strategy aim to provide an end-to-end service strategy to Banc Sabadell. The overview of the timelines can be found in this page (see Figure 52). Figure 52 shows how each element contributes to the service timeline.

Magazines

The magazines are the starting point of this service strategy. The goal of this service strategy is for Banc Sabadell to provide a user-centered home buying process to its customers. However, in order to do so, it is important to trigger a change of mindset internally at Banc Sabadell. It is essential that Banc Sabadell understands its users, the challenges that they are currently facing and the needs they have towards the home buying process. Therefore, this element aims to change the mindset of Banc Sabadell employees by sensitising them through the magazines.

Open Day

Once Banc Sabadell employees are aware of the user needs and challenges, the Open Day at Banc Sabadell aims to provide a physical experience for both employees and users. The main goal of this element is for Banc Sabadell to get closer to clients and potential clients. Furthermore, it is an exercise of transparency where Banc Sabadell will provide an introduction to the home buying process to users and solve their doubts.

Doyle

During the same time, Doyle will be already available for the users. Doyle aims to support and guide the users from the moment they consider buying a house for the first time until the moment they purchase it. Through Doyle, users will have all the tools and information they need in one channel. Avoiding trips to the bank, phone calls or emails. Thanks to Doyle users will spend no energy on understanding the process, which will enable them to enjoy the process in the best possible way. Finally, Banc Sabadell will provide personalised support to

its customers through a chat feature in the app. This will increase customer engagement and positively contribute to the overall service experience.

Redesign of Banc Sabadell app

Finally, the last element of this strategy is a redesign on Banc Sabadell’s app. Until now, all the elements have contributed “before” and “during” the home buying process. However, this last element aims to support customers “after” the home buying process. Therefore, in order to do so, Banc Sabadell has to offer a user-friendly, accessible and smooth process after the house is purchased. Thus, a redesign of the current app is proposed to ensure that users enjoy the same experience that Doyle provided to them.

Each of these elements are explained in detail throughout this chapter.

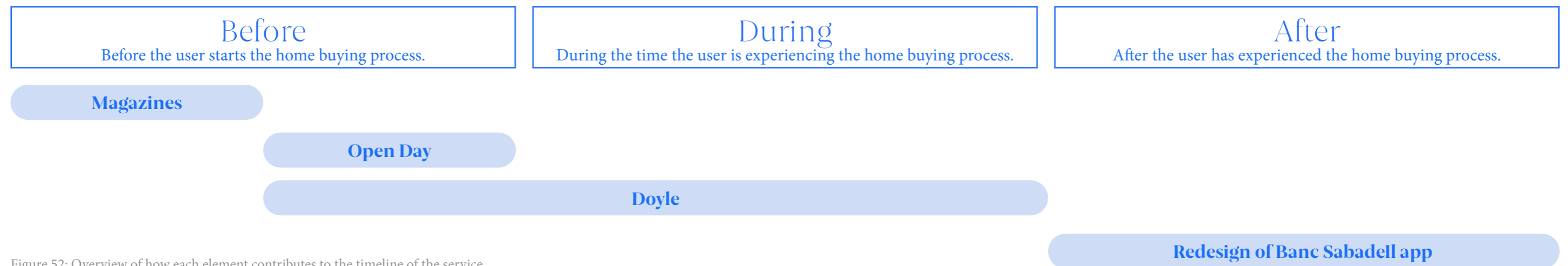


Figure 52: Overview of how each element contributes to the timeline of the service.

Doyle

Doyle is the core element of the service strategy. Through Doyle, young adults are provided with a new way of learning and experiencing the home buying process. Therefore, Doyle aims to provide young adults the required tools and information to experience a smooth and socially engaging home buying process. In this section, the features of Doyle are presented through images of the final screens of the application. The final screens are based on the designs of the wireframes, which can be found in the Appendix (see Appendix J). Finally, the branding of Doyle is presented.

“Doyle is a **mobile service application** that allows young adults to experience the home buying process in a **smooth and socially engaging way**.

Doyle offers young adults **independence** in the purchasing

process through **providing the tools and information** that users need. Moreover, Doyle allows users to have **everything in one channel**. Avoiding trips to the bank, phone calls or emails.

Thanks to Doyle, users spend **no energy** on understanding the process or multi-channel communication, allowing young adults to **enjoy the experience in the best possible way**.”



Figure 53: Doyle app.

A visual representation of the features that are included in Doyle has been created (see Figure 54). These main features contribute to the four aspects of Doyle: Learn, Lean, Share, Support and Reward. These four aspects are explained in the previous chapter (see Chapter 5). A distinction between primary and secondary features has been made.

Primary features

Primary features are those that are essential to provide users with a socially engaging home buying process. Therefore, the home buying process cards provide the information that users need to go through the process. The group feature allows young adults to experience the process together with their relatives, therefore, providing a socially engaging home buying process. Finally, the chat feature allows Banc Sabadell to provide personalised support and guidance to the users.

Secondary features

On the other hand, the secondary features have been introduced as an added value to Doyle. The podcast & articles and the maps are a feature already available in “estardondeestes” one of the websites of Banc Sabadell. Therefore, the goal of these features is to provide an omnichannel experience while aligning “estardondeestes.com” with the new app of Banc Sabadell, Doyle. The profile feature aims to help users to collect all the information in one place. Furthermore, it serves to connect Doyle with the Open Day concept. This is because through the calendar, users can see when the next event will take place. Finally, the notifications have been introduced to help users to be up-to-date and aware of the tasks that the users have to conduct. Each of these features is explained in detail in the next pages.

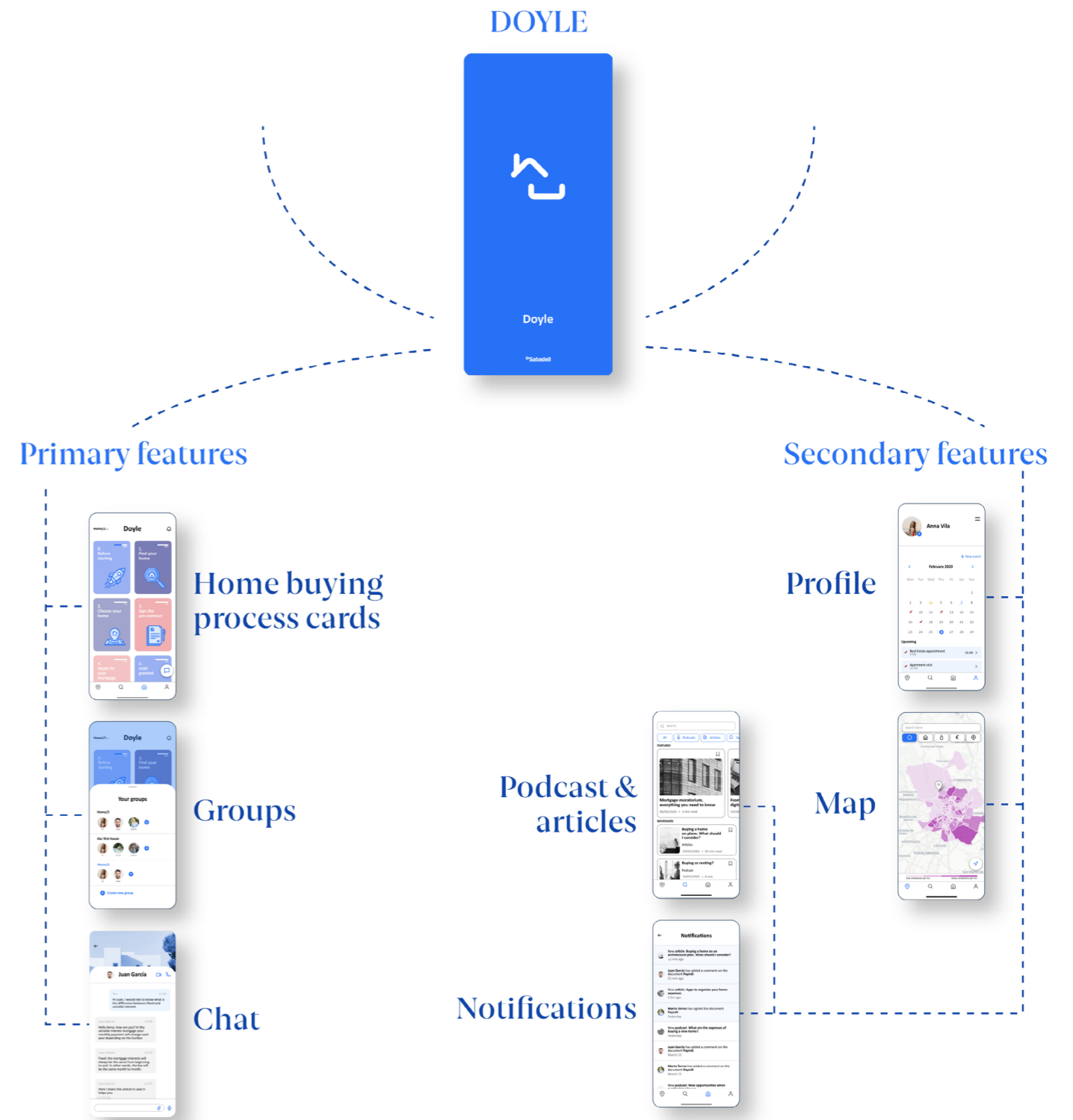


Figure 54: Overview of primary and secondary features of Doyle.

Onboarding

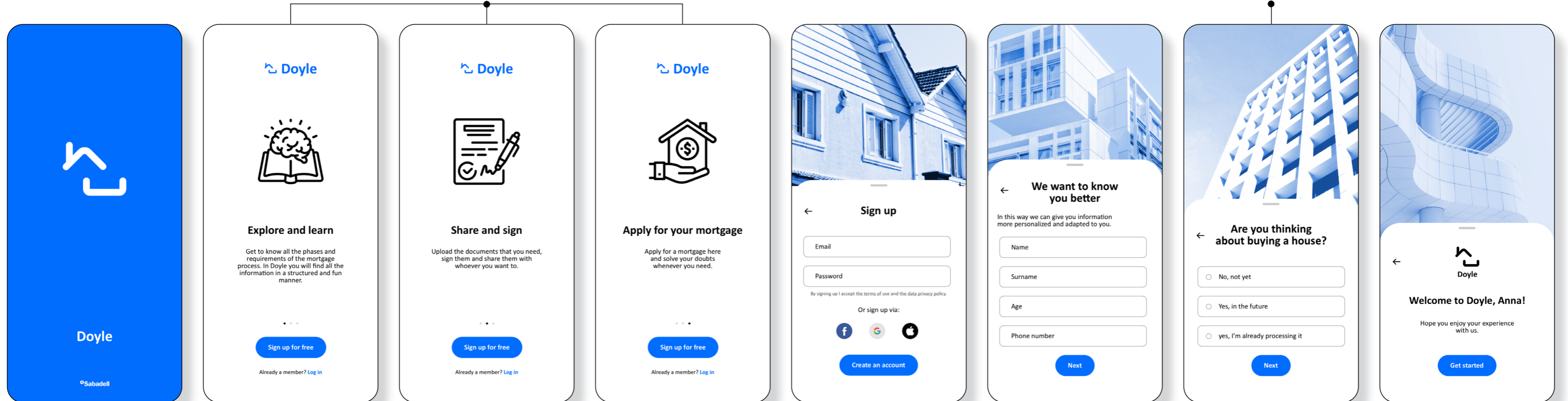
The onboarding is the first interaction that users have with the application. This means that it is the first impression users have of Doyle. Therefore, it is essential that the onboarding engages the users since the first interaction. This is because most of the times, users do not give second chances to an app. Therefore, if users do not like the app, they will delete it and never use it again. Furthermore, a good onboarding increases the likelihood of successful adoption (App Onboarding 101: 7 Tips for Creating Engaged, Informed Users, 2016). For this reason, the onboarding of Doyle has been carefully designed.

The onboarding starts highlighting the value proposition of Doyle. Through three simple visualisations the core functionalities of Doyle are shown to the user. Once the users have read the benefits of Doyle, they are asked to fill in their personal information. In this step, the information has been kept simple, to avoid a long onboarding for the user.

In the last step of the onboarding, users are asked to indicate if they are thinking about buying a house. This question has been introduced to provide Banc Sabadell an understanding of how urgent is the

process for the user. Therefore, if the user is already in the process, Banc Sabadell will have to be more supportive with this user. This means that Banc Sabadell should interact more often with the user. Whereas if the user is not thinking about buying a house yet, Banc Sabadell will have to provide users freedom to navigate through the app and avoid multiple interactions with the users, as they could feel overwhelmed.

Value proposition - Core functionalities



Provides Banc Sabadell an understanding of in which step the user is in the process.

Figure 55: Onboarding of Doyle

The home buying process

Once users have finished the onboarding, they are directed to the home screen of Doyle - The home buying process. As already mentioned, Doyle is a mobile service application that allows users to experience the process together with their relatives. This is achieved by providing multiple users access to the same home buying process. This feature will be explained in the next pages, but it is important to know it to better understand this section.

The home buying process is the main functionality of Doyle. This home screen provides an overview of several cards. Each card represents a step in the process. Thus, just by logging into the app, users can already understand all the different steps that they have to go through when buying a house. Furthermore, a progress bar has been designed. This way users can easily see how far they are in the process. Furthermore, as other users will have access to the process of the user, it will help them to understand where the main user is in the process. Moreover, this feature is also relevant to the Banc Sabadell agent that will guide and support the user through the process. Finally, this feature has been designed to provide Banc Sabadell information about the number of customers that they lose due to switching banks to ask for a mortgage. The progress bar will provide Banc Sabadell with information regarding in which step of the process customers drop. As well as the number of customers that do not get a mortgage with Banc Sabadell.

Finally, this feature allows users to experience the home buying process in a structured way, through a step-by-step process. The reason for providing a structured process is because during the research phase it was identified that users feel confident and reassured when interacting with online processes that are easy to follow. An overview of the information contained in the cards is shown in the next pages.

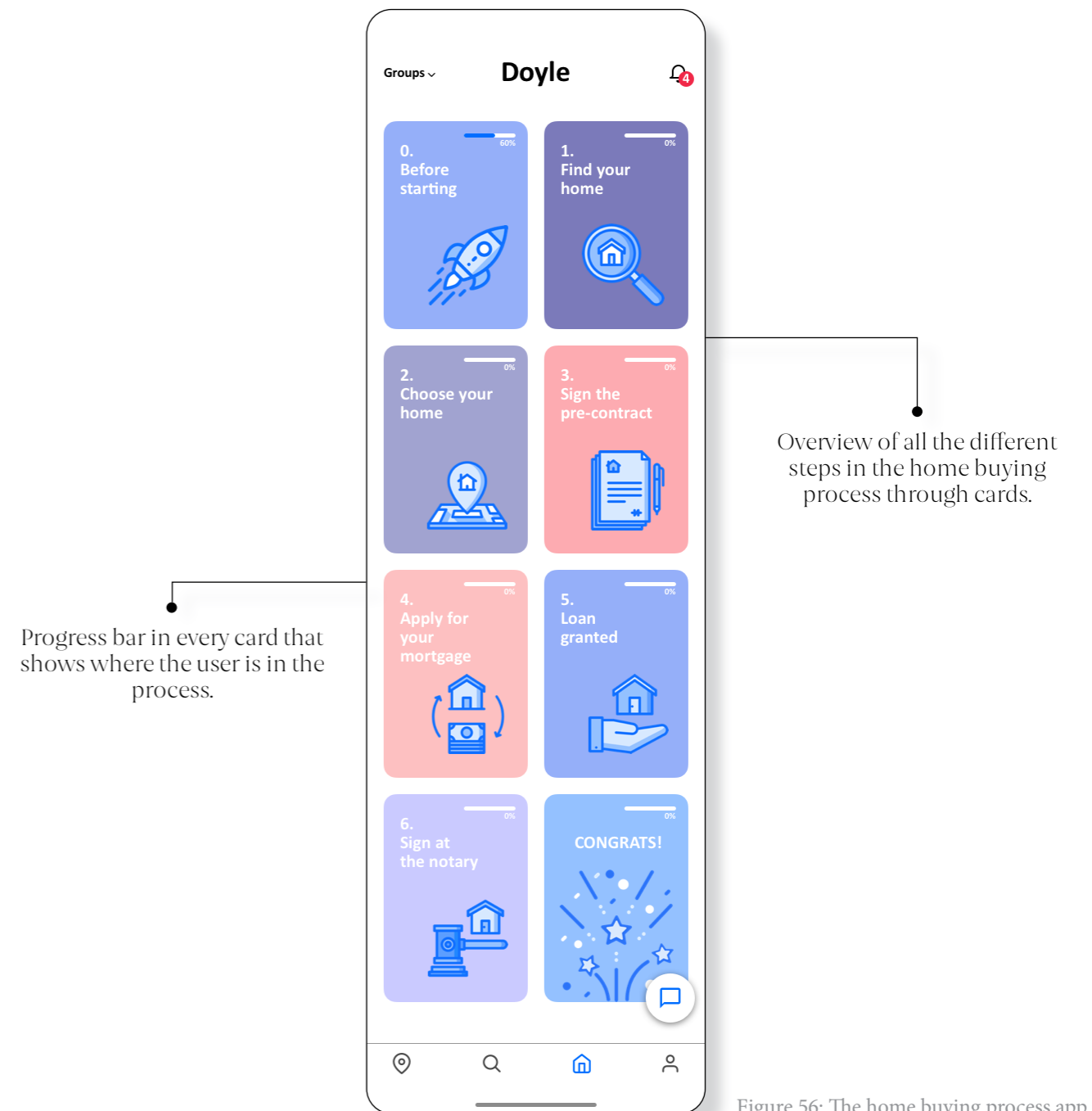


Figure 56: The home buying process app

This section provides an overview of the information contained in one of the cards from the home screen. In this case, the information is shown through the step 0 - Before starting. This phase contains different information to help users to have everything in place before they start the process.

The information contained in the card is divided in two sections: to do and calculator. To do is a feature contained in all the cards. However, the second feature "calculator" varies according to the need in every phase. For example, phase 5 is "Loan granted". Therefore, instead of displaying

calculators, it has been replaced for documents. In this way, participants can add, share, comment and sign documents.

Each card in the home screen contains a to do list with all the different tasks that the user has to conduct in order to complete the phase. Furthermore, users can click on every task of the to do list in order to get detailed information about the task. It is important that the information is not written with a technical language, as it would be hard for the users to understand the information. Therefore, the wording is simple and easy to understand for the users.

The to do list is flexible, so users have the possibility of adding new tasks if they want to. For example: "Book an appointment at the real state agency".

In this case, the calculators contained on "estardondeestes.com" have been integrated. The goal of these calculators is to help users estimate how much they should pay for a house, costs associated to the purchase of a house, and deciding if it is better to buy or rent. A detailed overview of the content of these calculators can be found in Chapter 2.

Finally, once users have completed the to do list, a modal appears. This modal aims to keep track of all the achievements and milestones that users have accomplished throughout the process. This way, when users finish the home buying process they will have a record of their achievements. This feature was borned during the co-creation sessions with users.

The content of every to do list varies with every phase. Every phase contains a to do list, which users have to go through to complete the phase.

Example of the information contained in one of the tasks of the to do list.

Feature that varies with every phase.
Users can add their own tasks.

Calculators from estardondeestes.com

Every time a user completes a phase, a modal appears. Through this feature, users keep track of their achievements throughout the process.

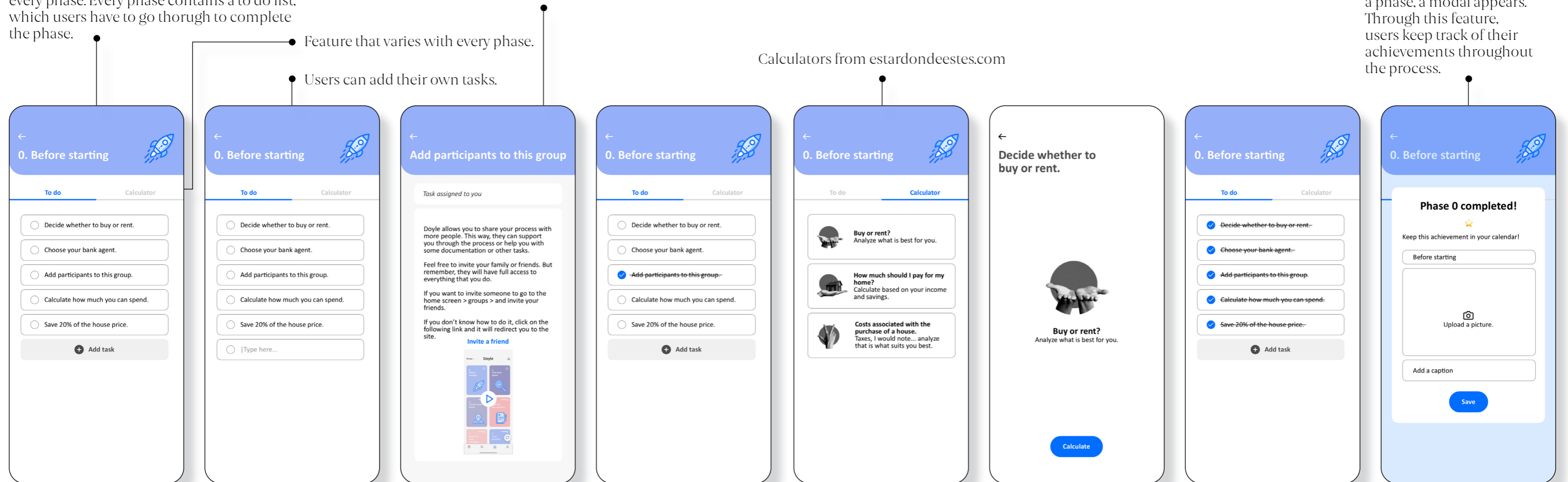


Figure 57: Overview of a home buying process card.

Documents

A lot of documentation is involved and required throughout the home buying process. For this reason, through Doyle users can upload, read, share, comment and sign documents. Furthermore, thanks to the fact that the bank agent has access to Doyle, there is no need for the user to use a different channel to provide the documentation to the bank. This way, trips to the banks or emails are avoided.

By being able to add comments in the documents, users can communicate with their bank agent all the doubts they have towards specific parts of the document. Finally, users can also sign digitally the documents in Doyle. So they do not need to use other tools.

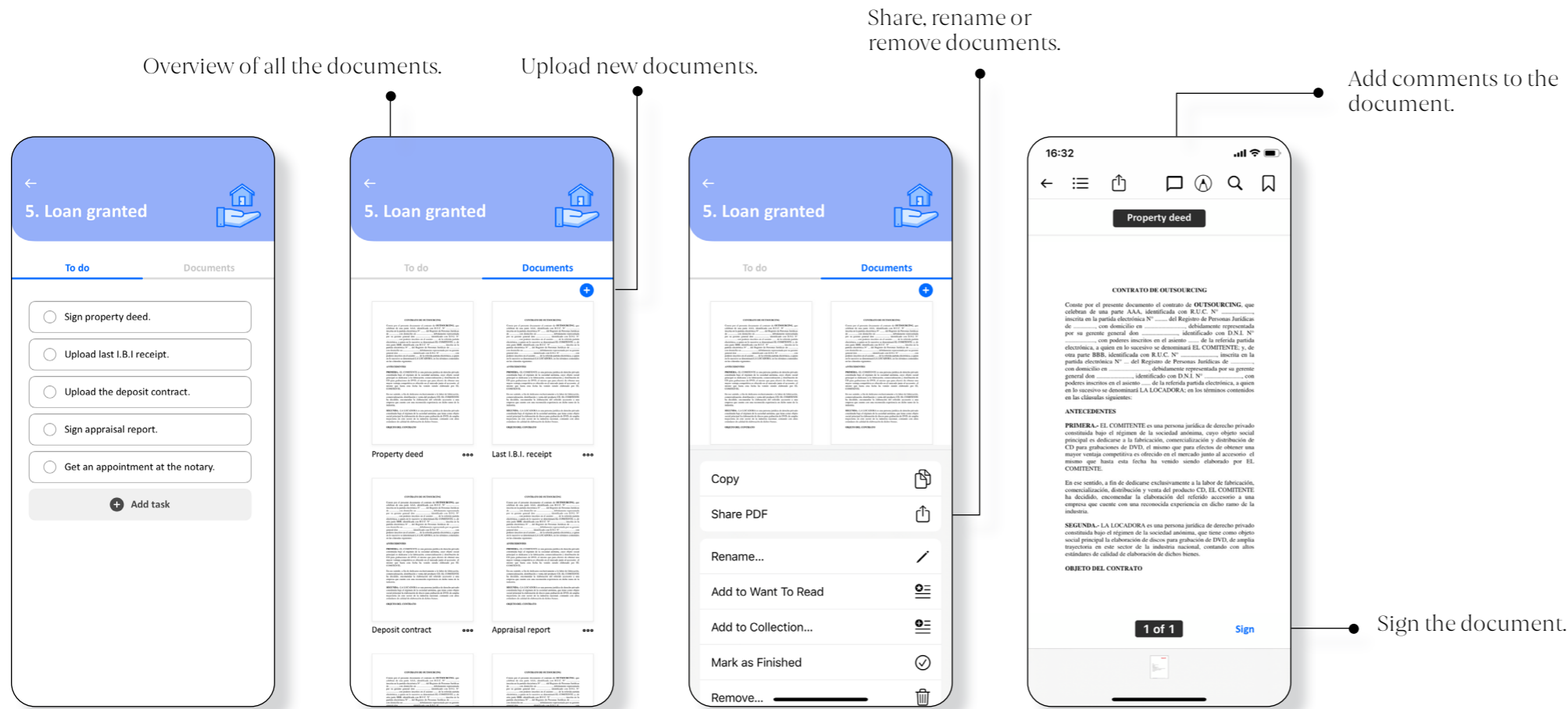


Figure 58: Add, share, comment and sign documents in Doyle.

Chat

Doyle offers users the possibility of choosing their Banc Sabadell agent. During the user research, users expressed that when interacting with online chats they do not like to talk to chatbots and they rather prefer talking to a real person. Therefore, Doyle offers users a chat on the app to talk with a Banc Sabadell agent. Furthermore, during the ideation sessions users expressed the need of being able to choose the person that will guide them through the process. For this reason, Doyle offers users the possibility of choosing their bank agent.

In order to do so, first users will get a chat notification. Once users enter in the chat for the first time, they are asked to provide their city and zip code in order to identify the nearest Sabadell branches. After choosing their preferred branch, users get an overview of all the different agents available at the chosen branch. Furthermore, if they click on the agent, they can get a short description about them. This way, they can learn a bit more about each agent and choose the one that will guide them through the process.

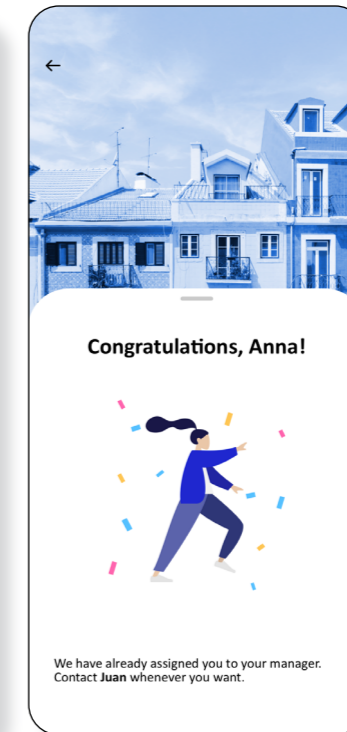
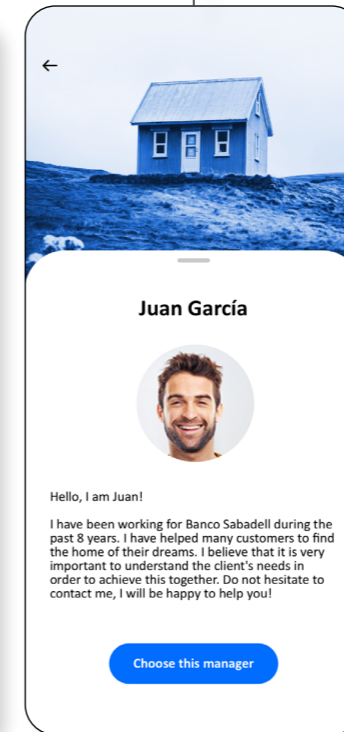
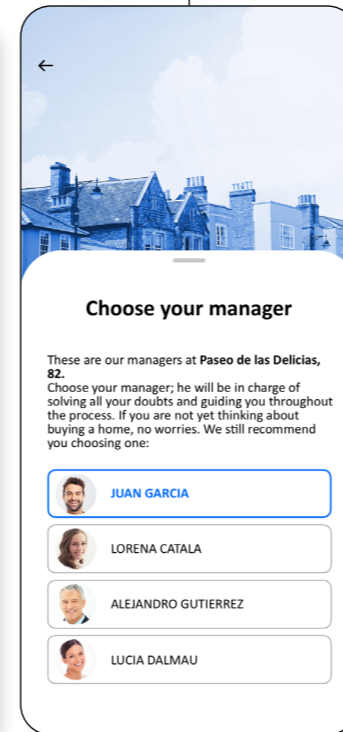
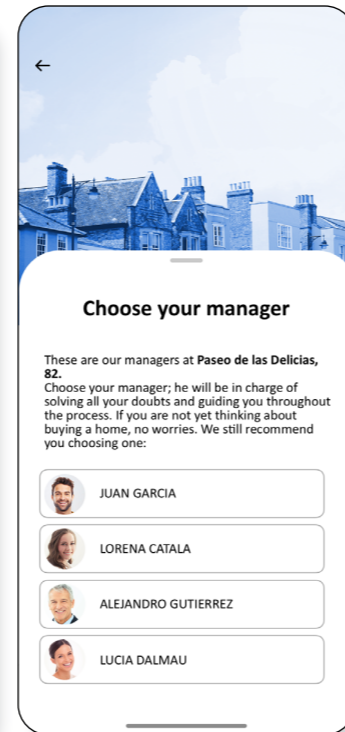
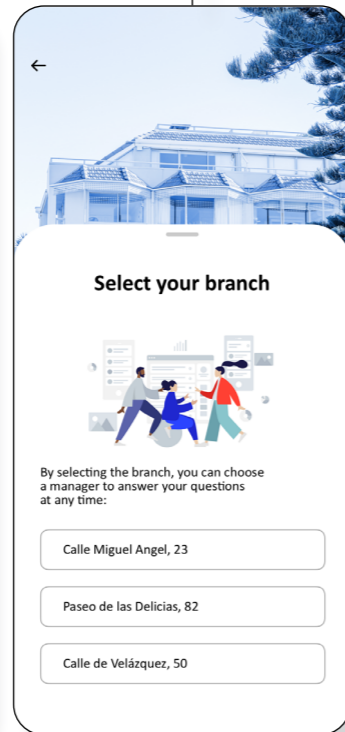
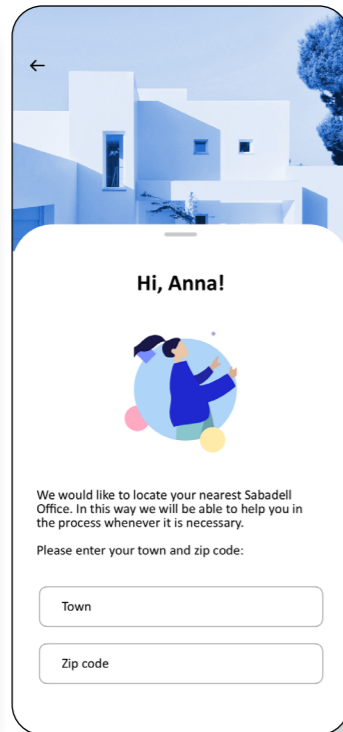
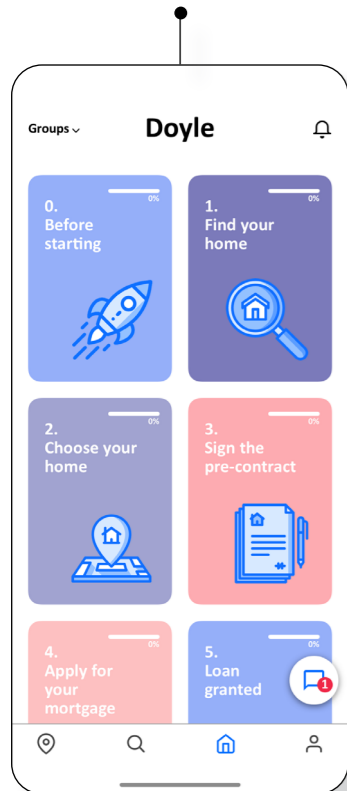
Example of a the chat and a conversation with the bank agent once the user has already gone through the process of choosing a bank agent.

Automatic notification on the chat once the user signs up for the first time.

Three nearest branches to the town and zip code that the user provides.

Overview of all the agents in the chosen Banc Sabadell branch.

Short description of the bank agent.



Rewarding message to the user.

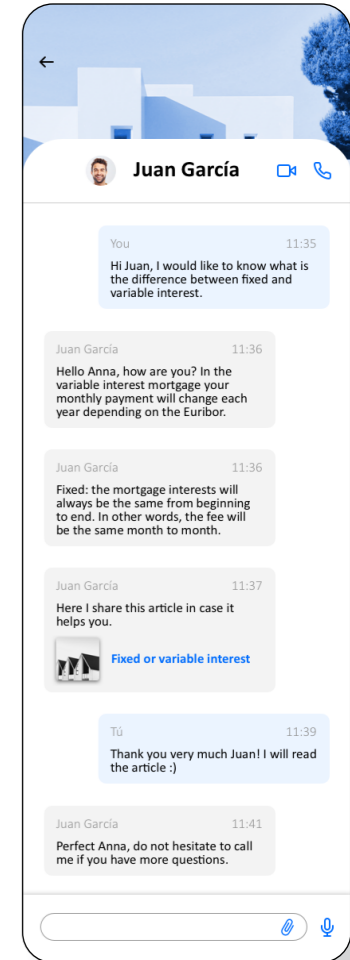
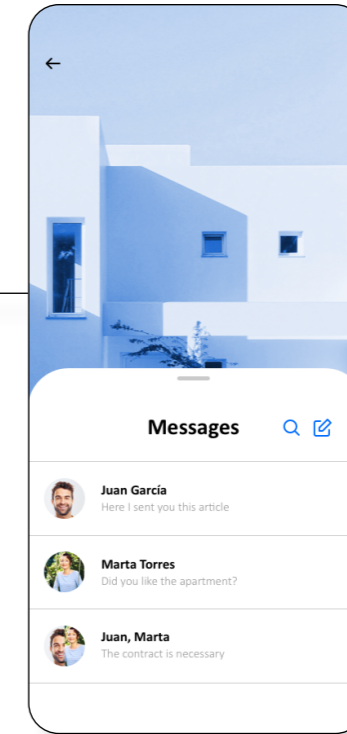


Figure 59: Choosing a bank agent through the chat.

Groups

Doyle allows users to experience the process together with their relatives. In this way, the group feature allow users that are buying a house together to equally participate in the process. Similarly, if a user buys the house alone but wishes to share the process with a family member or friend, this can be achieved through Doyle. The group feature can be accessed through the home screen of Doyle.

Overview of the groups. Users can have several groups in case they buy a second house later on.

Sending an invitation through a link, email or phone.

Rewarding message to the user.

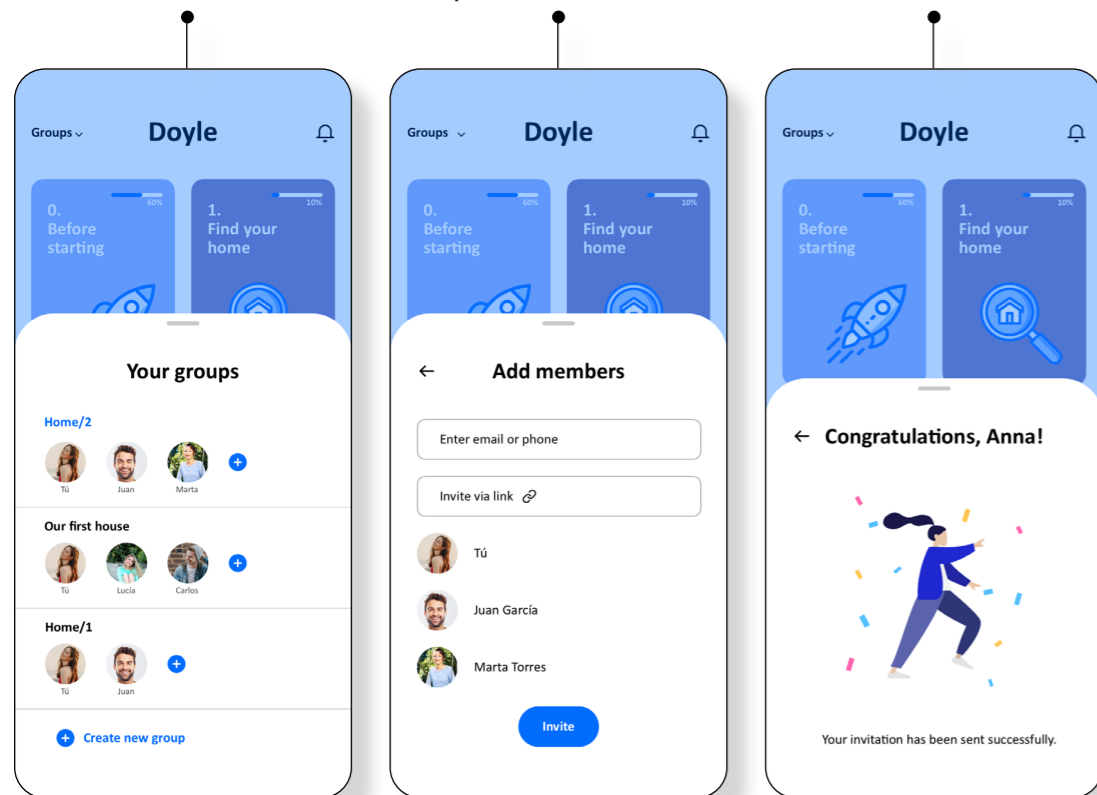


Figure 60:Groups in Doyle.

Notifications

Notifications have been included on Doyle's home screen. The purpose of the notifications is to warn the user of all changes taking place in the application. In this way the user will know for example if new podcasts or articles have been uploaded or if the bank's agent has commented on one of the documents. Furthermore, the notifications are interactive, so if the user selects a notification, he will automatically be redirected to the corresponding section.

Interactive notifications. If the user clicks on the notification, the corresponding section opens.

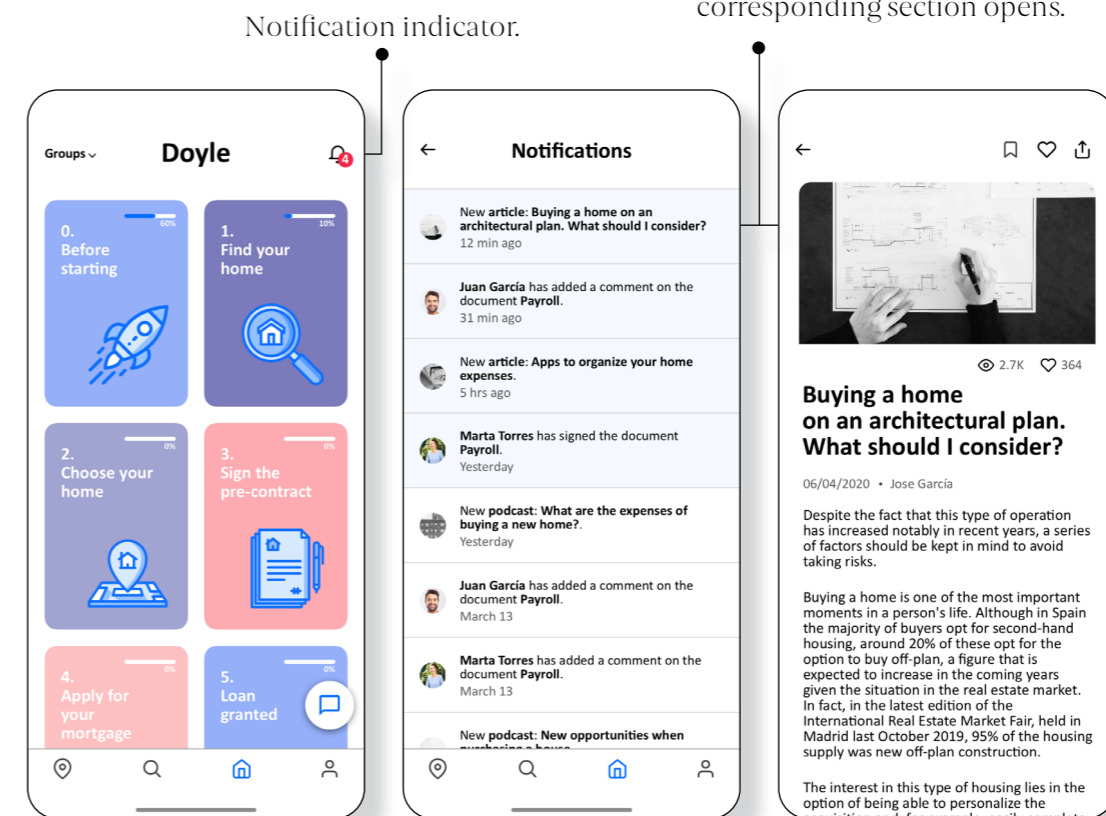


Figure 61:Notifications in Doyle.

Podcasts

As part of the design brief, one of the requirements provided by Banc Sabadell was to align the designed solution to Banc Sabadell strategy. For this reason, the podcasts, articles and maps from estardondeestes.com have been integrated in Doyle. Furthermore, it also helps to provide an omnichannel experience to the user.

The podcasts and articles are a secondary feature of Doyle. This feature aims to broaden users' knowledge about the home buying process. Furthermore, it is an easy feature to implement as the current podcasts and articles are already available on estardondeestes.com. Therefore, Banc Sabadell does not need to create all the podcasts from scratch.

Possibility to search or filter according to podcasts, articles or saved items.

Save items to read them later.

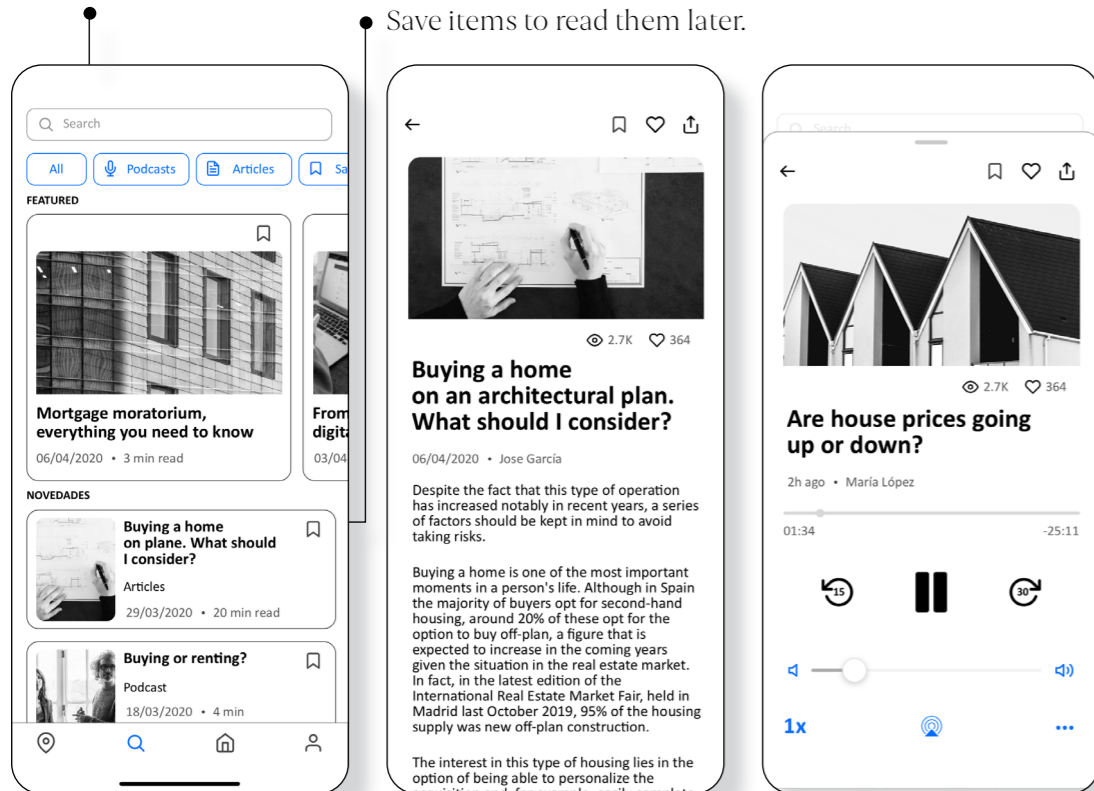


Figure 62: Podcasts and articles from estardondeestes.com.

Maps

Maps are also a feature available at estardondeestes.com. The maps help participants in the initial phase of the home buying process. They aim to help participants choosing their preferred location depending on several attributes: good living, about the rent, about the purchase, leisures and shops and distances to. Those attributes are filters available on the map.

Users can interact with the different attributes through the filters. Furthermore, each filter is assigned different parameters that help the user making the right decision. An overview of the good living filter can be seen in this page.

Filters available on the map: good living, about the rent, about the purchase, leisures and shops and distances to.

Different parameters.

Results.

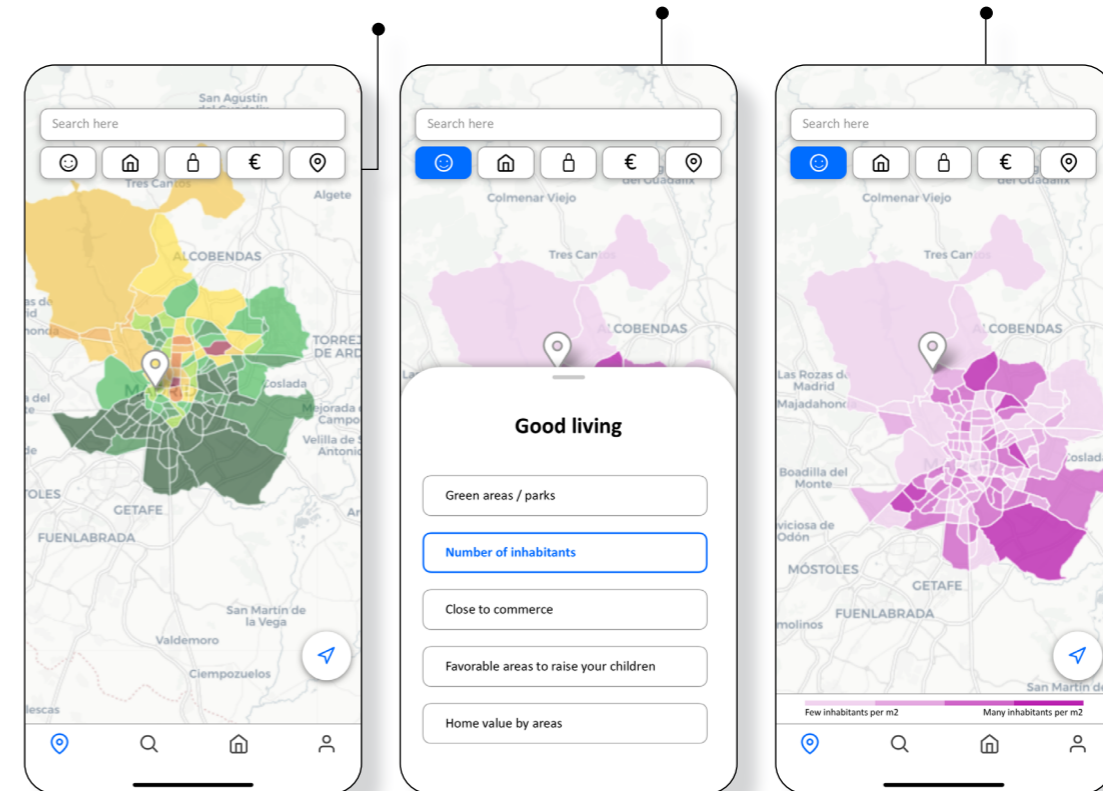


Figure 63: Maps from estardondeestes.com.

Reward

Buying a house is one of the biggest milestones for young adults. For this reason, the reward aspect has been introduced throughout the whole user experience in Doyle. It aims to trigger a feeling of reward and gratitude to the users. Therefore, throughout the whole experience in Doyle, rewarding messages are displayed to the users.

Finally, the reward aspect has been introduced in the last card of the home buying process - "Congrats". This last aspect has been introduced so that users can celebrate and feel gratified once the process has been completed.

Once the users have completed the whole home buying process, Banc Sabadell will reward the users inviting them to a dinner in their new home. This is a way for users to feel gratified and rewarded. And for Banc Sabadell to establish a long-term relationship with their customers.

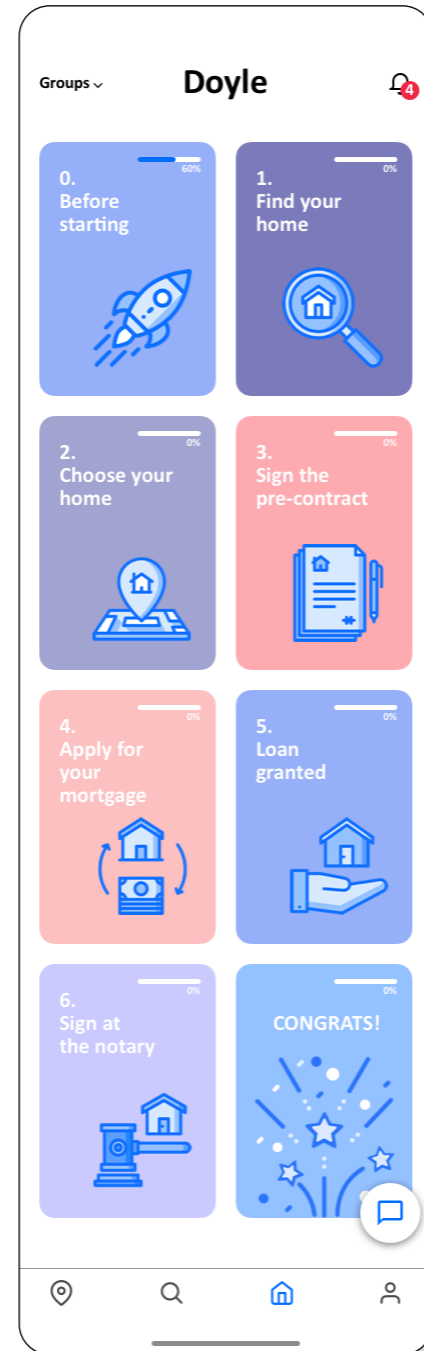
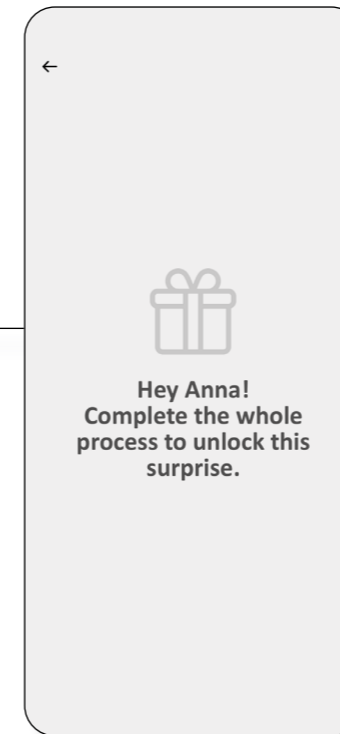
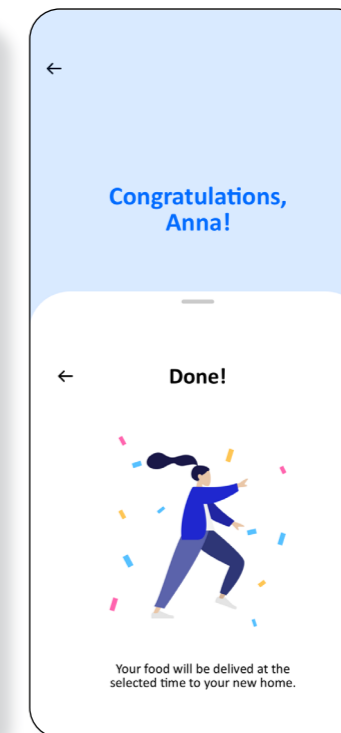
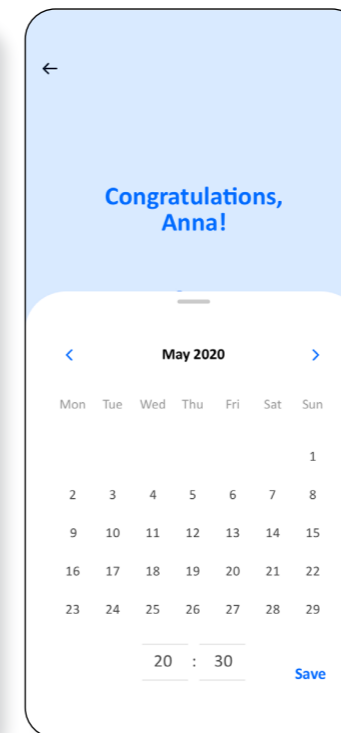
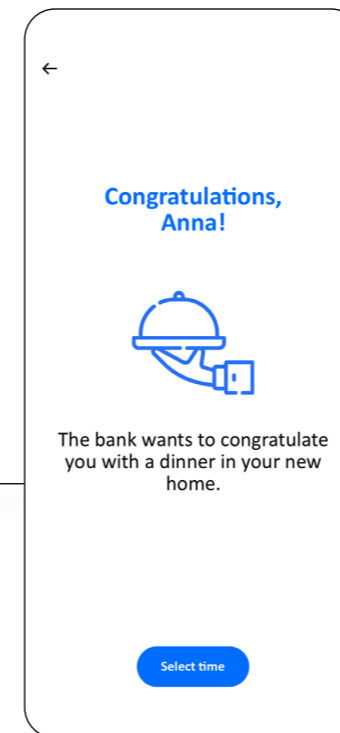


Figure 64: Reward aspect in Doyle.






If users click on the card called "Congrats" without having completed all the previous cards, this is the only thing they can see. The final reward is hidden as a surprise factor.

Finally, once users have completed the overall process, the surprise will be unlocked. Furthermore, users will be able to select the date and time that suits best to them.



Profile

The profile section has been introduced to provide an overview to users of their achievements and upcoming events. This overview is displayed through a calendar. The calendar contains the different icons that represent:

-  Achievement
-  Appointment
-  Banc Sabadell Open Day

Furthermore, the profile section also allows users to gather all their documents in one place. In this way, users will not have to navigate through the different cards in the home screen.

By selecting on the hamburger menu (icon on the top right corner), users can get an overview of all their documentation.

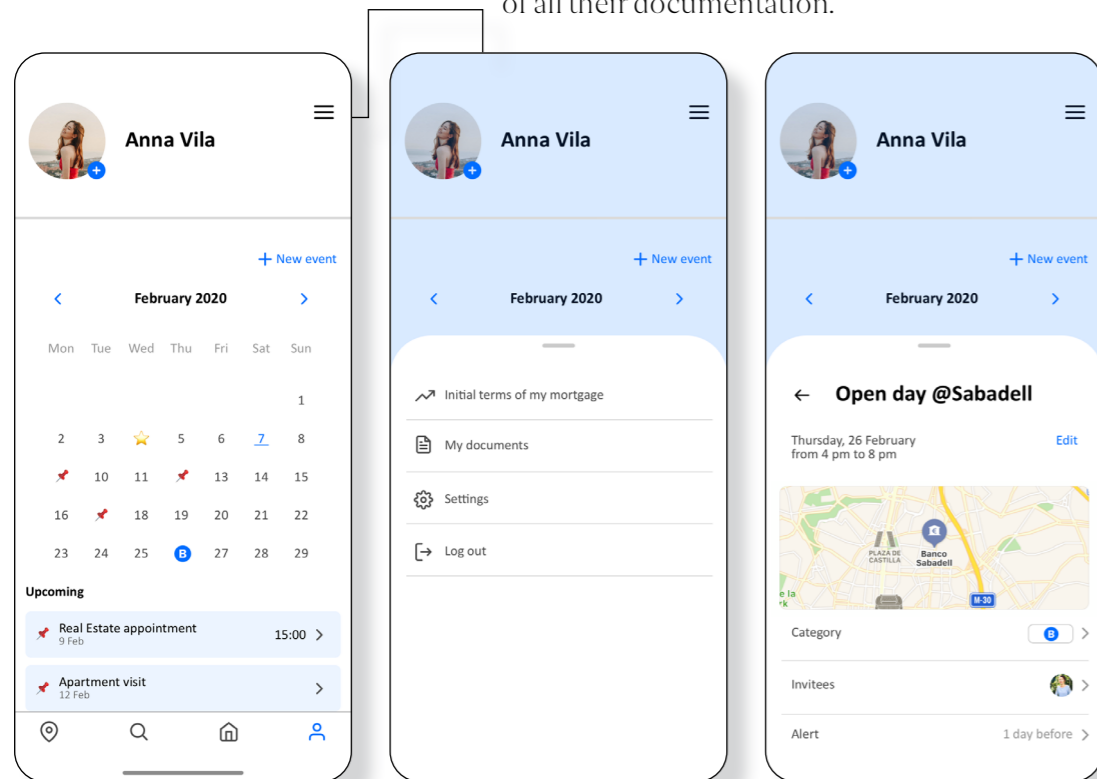


Figure 65: Overview of the profile section in Doyle.



Branding

This section provides an understanding of the core branding aspects of Doyle. Therefore, the naming, corporate identity and logo are explained.

Naming

The term “Doyle” has been created by the combination of three words: Do - and - learn. The term “y” comes from the Spanish translation of the word “and”.

Do - y - le

Do and Learn represent the core elements of Doyle. Thanks to Doyle users will learn about the home buying process by doing and completing the tasks on the to do list.

Corporate identity

The main colour of Doyle is:



Doyle has been assigned the same primary colour as Banc Sabadell. This is to ensure that users relate Doyle to Banc Sabadell. In this way, the aim is to generate greater confidence for users, as Banc Sabadell is an entity trusted by users.

Secondary colours have also been defined. These colours help to convey a young and cheerful design. In general, it is desired that Doyle’s design is perceived by users as simple, light, reliable and attractive.

Logo

The logo of Doyle has been created by the combination of the letter D (Do) and L (Learn).



Figure 66: How the logo of Doyle was created.

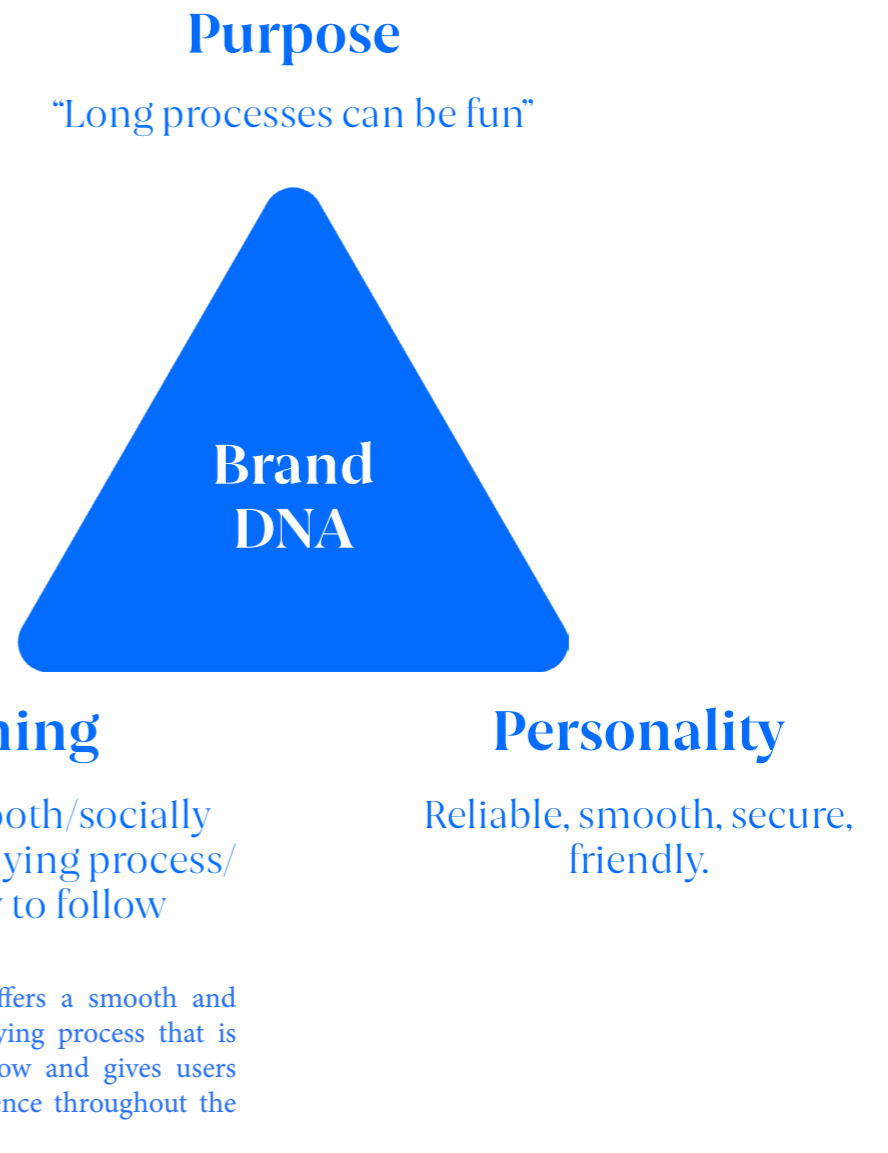


Figure 67: Doyle's Brand DNA.

Long processes can be fun

Magazines

As already mentioned, three elements have been designed to support the service strategy of Doyle. Therefore, these elements aim to cover the overall end-to-end experience for the user.

A ten volume magazine collection has been created with the participant information gathered during the user research phase. A magazine has been designed for each participant. Thus, each volume of the collection belongs to one participant. Each magazine contains the information that resulted from the 5-day diary and the transcript of the interviews.

“Be where you are.”

The title of the magazine collection is “Be where you are”, following Banc Sabadell’s strategy. In this way, every volume is personalised according to the corresponding participant. Thus, every magazine’s title has the following structure “Be where (*participant name*) is”. For instance, volume 1 is called Be where Gonzalo is, which contains the information gathered related to Gonzalo.

The magazines have been designed as a sensitising tool for Banc Sabadell. By means of the strategy “To be where you are”, Banc Sabadell aims to anticipate and meet customer financial needs, while establishing a long-term relationship with them. In order to do so, it is essential that Banc Sabadell has a deep and detailed understanding of its customers. However, during the stakeholder research it was found out that Banc Sabadell lacks information towards the target segment of young adults. Therefore, the magazines aim to help Banc Sabadell to empathise and understand the needs

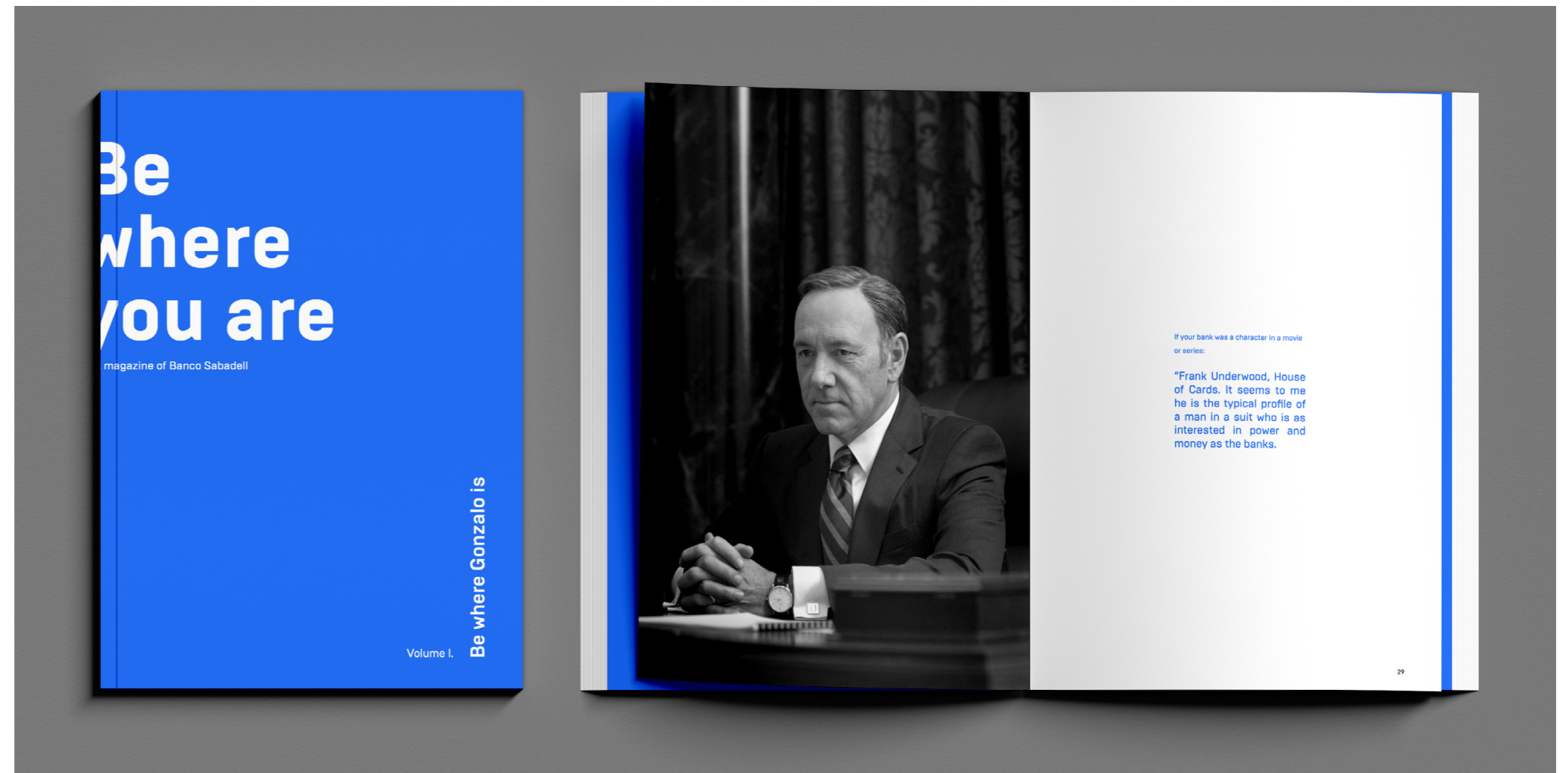


Figure 68: Overview of the magazine - Volume 1.

and concerns of their current customers. This will be achieved by putting employees in the shoes of their customers, through reading the interviews as first person stories. The magazines aim to provide an overview of the participant context such as routines, habits and favorite digital services. Moreover, they also provide a detailed description of customer's feelings and thoughts towards their banks. Finally, the magazines aim to highlight relevant challenges that customers face before, during and after the home buying process.

An overview of the Content of the magazine is provided in the image below (See Figure 69). Finally, the magazines will be distributed internally to Banc Sabadell employees. A magazine will be distributed every week, so the sensitizing phase will take around two and a half months.

“Be where Gonzalo is.”



Content

- 04. Meet Gonzalo.
- 06. A day with Gonzalo.
- 10. Interviewing Gonzalo.
- 19. A love letter.
- 23. Just eat. Best digital service.
- 31. The home buying process.
- 36. Future. Redesigning the home buying process.
- 41. A breakup letter.

Figure 69: Table of content of the magazines.

Figure 70: Cover and content of one of the magazines.

Open Day at Banc Sabadell

The second element of the delivery and strategy is the Open Day at Banc Sabadell. This concept was already introduced in the Concept development chapter (see Chapter 5). The Open Day at Banc Sabadell aims to provide a physical experience to young adults during the home buying process.

Once employees become aware of the needs and challenges of young adults through the collection of magazines, the Open Day will be held at Banc Sabadell. It is important that this phase begins after the sensitising phase. In this way Banc Sabadell's employees will understand the relevance of this part of the strategy.

Banc Sabadell will organize an Open Day one Thursday every three months. It is considered that this timing suits this situation, as the process of buying a house takes a long time. Furthermore, the event will take place on Thursday because it is the only day that the bank opens its doors to the customers in the afternoon.

The goal of this event is for Banc Sabadell to get closer to clients and potential clients. Furthermore, it is an exercise of transparency where Banc Sabadell will give an introduction to the home buying process to its clients and solve their doubts. This is a benefit for the bank, as they will be able to solve the doubts of several clients at the same time. Furthermore, it is expected that the Open Day will engage with current customers and attract new ones.

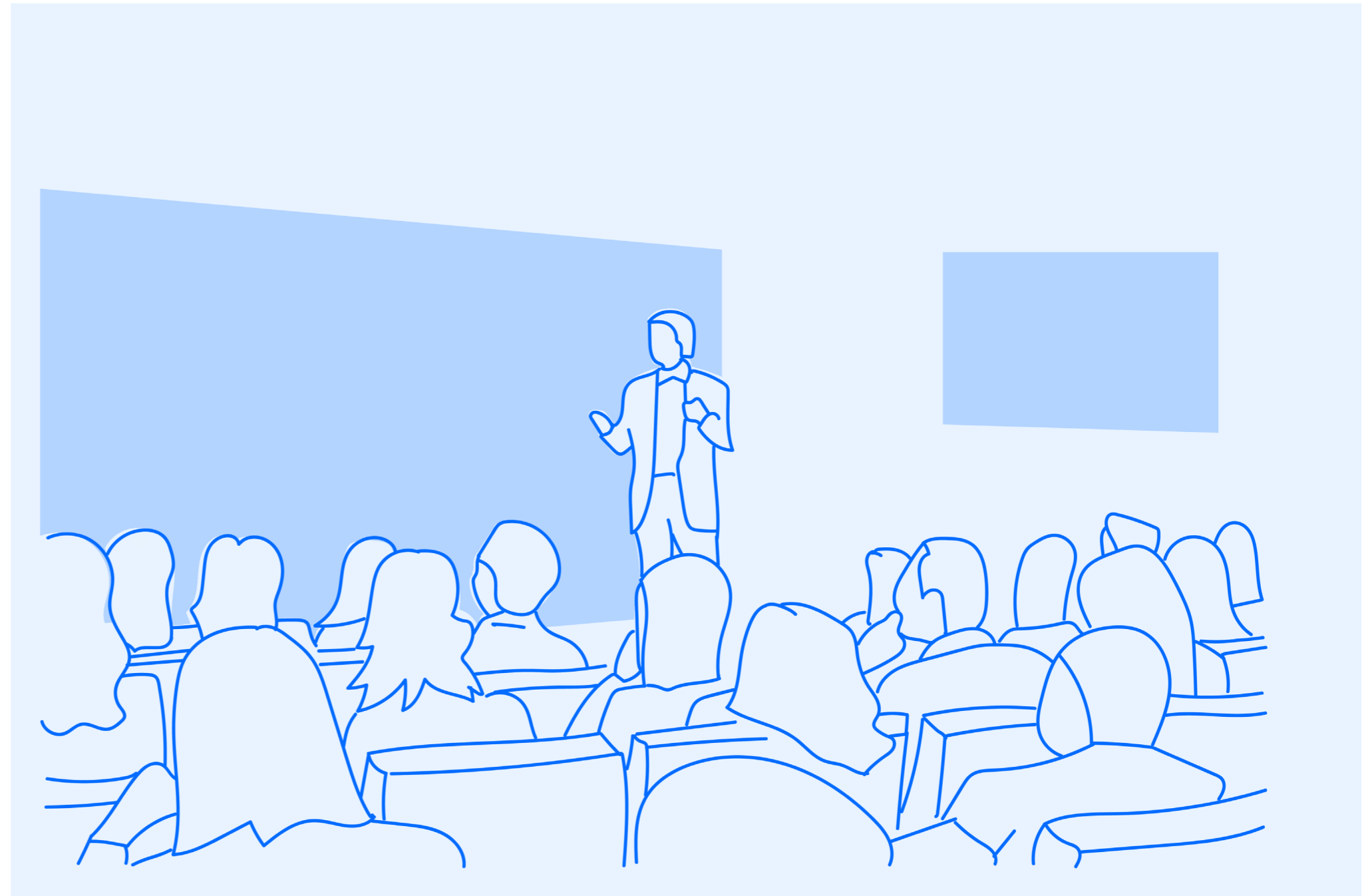


Figure 71: Open Day at Banc Sabadell.

6.2.1 Agenda

At the beginning of the Open Day, attendees will receive a brochure which provides an overview of the agenda (see Figure 72). Furthermore, a QR code to download Doyle is also contained in the brochure. This is a way to ensure that Banc Sabadell will get customers onboard in the application.

The Open Day kicks-off in the afternoon with a seminar. Customers and potential customers that are starting or interested in the home buying are invited to this Open Day. The seminar starts with an overview of the home buying process, where the different milestones are explained. After that, a guest speaker, who is a customer of Banc Sabadell that has already experienced the home buying process, will give a talk about his experience. Finally, Doyle will be introduced. A walk-through the app will be given to explain the benefits and features of the application to the customers.

Once the seminar is finished, a cocktail will take place. Clients such as real estate promoters and real estate agencies are invited to participate. This is an opportunity for them to offer their properties to attendees. At the same time, it is also a benefit for attendees as it facilitates the process of finding a home. During this cocktail, specialists from Banc Sabadell in mortgages are present to clear up any doubts that participants may have. Notaries or representatives of the notary's office could also participate in this event. Finally, Banc Sabadell will also invite mentors, who are customers that have already experienced the home buying process. This event aims to socially engage customers in the home buying process. Furthermore, it also ensures that customers feel in control and ready to experience the process. This will result in a decrease in stress and worries. Thus, through the Open Day Banc Sabadell will help users to enjoy the overall experience of the home buying process.



Figure 72: Brochure of the Open Day at Banc Sabadell.

Redesign of Sabadell's app

The last element of this strategy is a redesign of the mortgage page in Banc Sabadell's App. This element is the result of the insights gathered during the user testing of Doyle. This element proposes a new design of the mortgage page for Banc Sabadell's app. Until now, Banc Sabadell has adopted a customer centric approach before and during the home buying process. This is thanks to all the previous elements already explained. The magazines and the Open Day contribute before the home buying process, whereas Doyle aims to support customers during the overall home buying process. Finally, this last element aims to cover the last part, supporting customers after the home buying process. In order to do that, Banc Sabadell has to offer a user-friendly, accessible and smooth process after the house is purchased.

As mentioned before, this element is the result of the user testing of Doyle. The initial prototype of Doyle contained a feature called "My mortgage" (see Figure 73). This feature allowed users to get an overview of the current status of their mortgage, conduct a repayment or request a novation, everything from the app. During the user testing, users showed a positive attitude towards this feature. They found it very valuable to be able to manage their mortgage online, without having to go to the bank.

However, the insights gathered indicate that this feature should not be present in Doyle, but in Banc Sabadell's own app. This is because, once users have purchased their home, they will no longer use Doyle, as it just aims to help users until the purchase of their house. However, users will be using Sabadell's app for their finances, so they would like to have this feature available on their Banc Sabadell app. For this reason, a redesign of this feature was conducted as a way to modify the interface of "My mortgage" and unify it according to the current design of Banc Sabadell app. The image on the right (see Figure 73, Figure 74) shows the first design of "My mortgage" in Doyle and the new redesign for Banc Sabadell app.

"My mortgage" allows users to see how much they have paid. This feature is almost available in all banking apps, where users can see how much they owe to their banks. However, during the research phase it was found out that users feel disappointed when checking their mortgage, because seeing the large amount of money they owe the bank causes them a feeling of stress. For this reason, this feature has been redesigned to convey a positive feeling to the customer; showing how much they have paid, instead of how much they owe to the bank. Ensuring that they feel relieved when checking their mortgage.

Positive way of showing how much money users have already paid, instead of showing how much they owe to the bank.

Easy access to the monthly information about the mortgage. Clear and simple overview of the important information users need to know. By swiping left/right, users can see the previous and coming month.

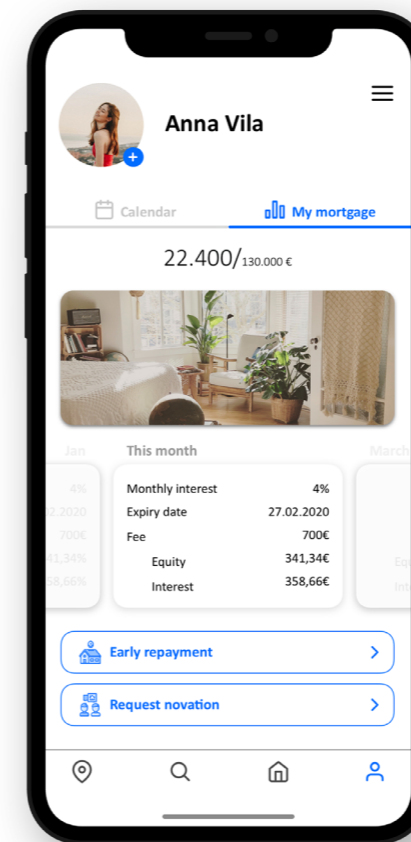


Figure 73: My Mortgage in Doyle.

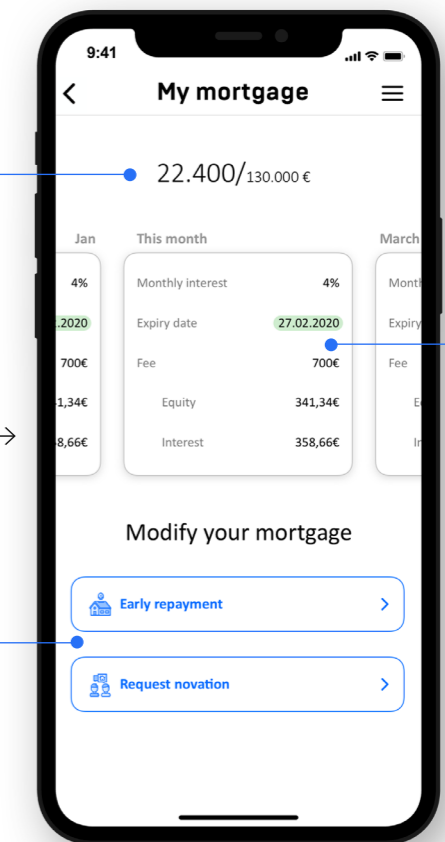


Figure 74: My Mortgage in Sabadell app.

Possibility of conducting an early repayment or requesting a novation, everything online and through the app.

Early repayment

Furthermore, “My mortgage” also allows customers to conduct an early repayment or request a novation. Those tasks are the ones that customers usually perform once they have bought their home. The early repayment allows users to advance a certain amount of money whenever they want. This new feature allows users to do it through a bank transfer or via Bizum.

The benefit that this feature offers is that once users have selected the method by which they want to make the repayment, the application automatically enters all the necessary data except the amount to be paid. Therefore, the only thing the user has to do is to indicate the amount he/she wants to pay. In this way, the user is able to do a repayment just in 3-clicks.

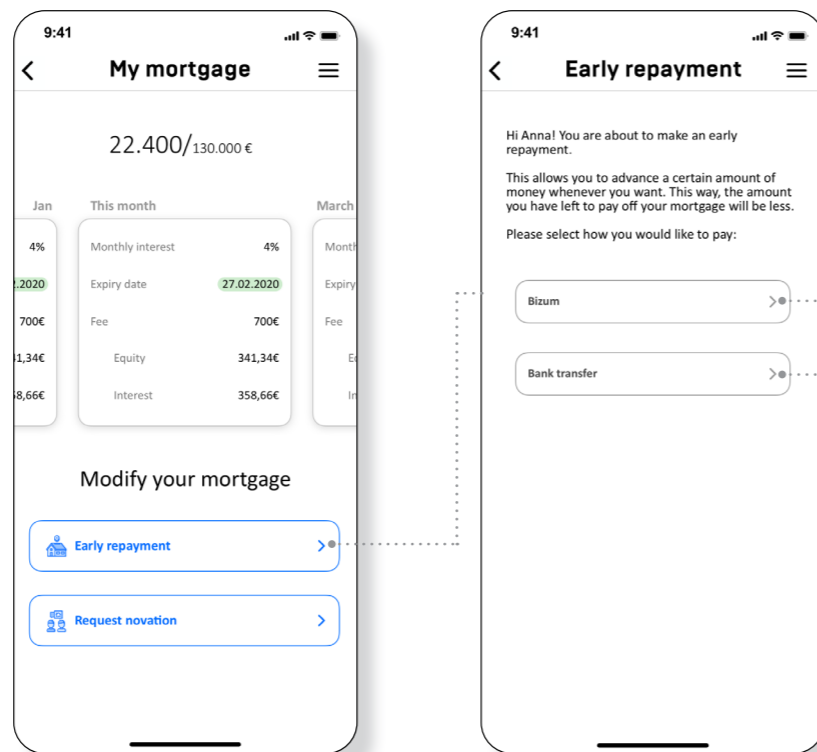
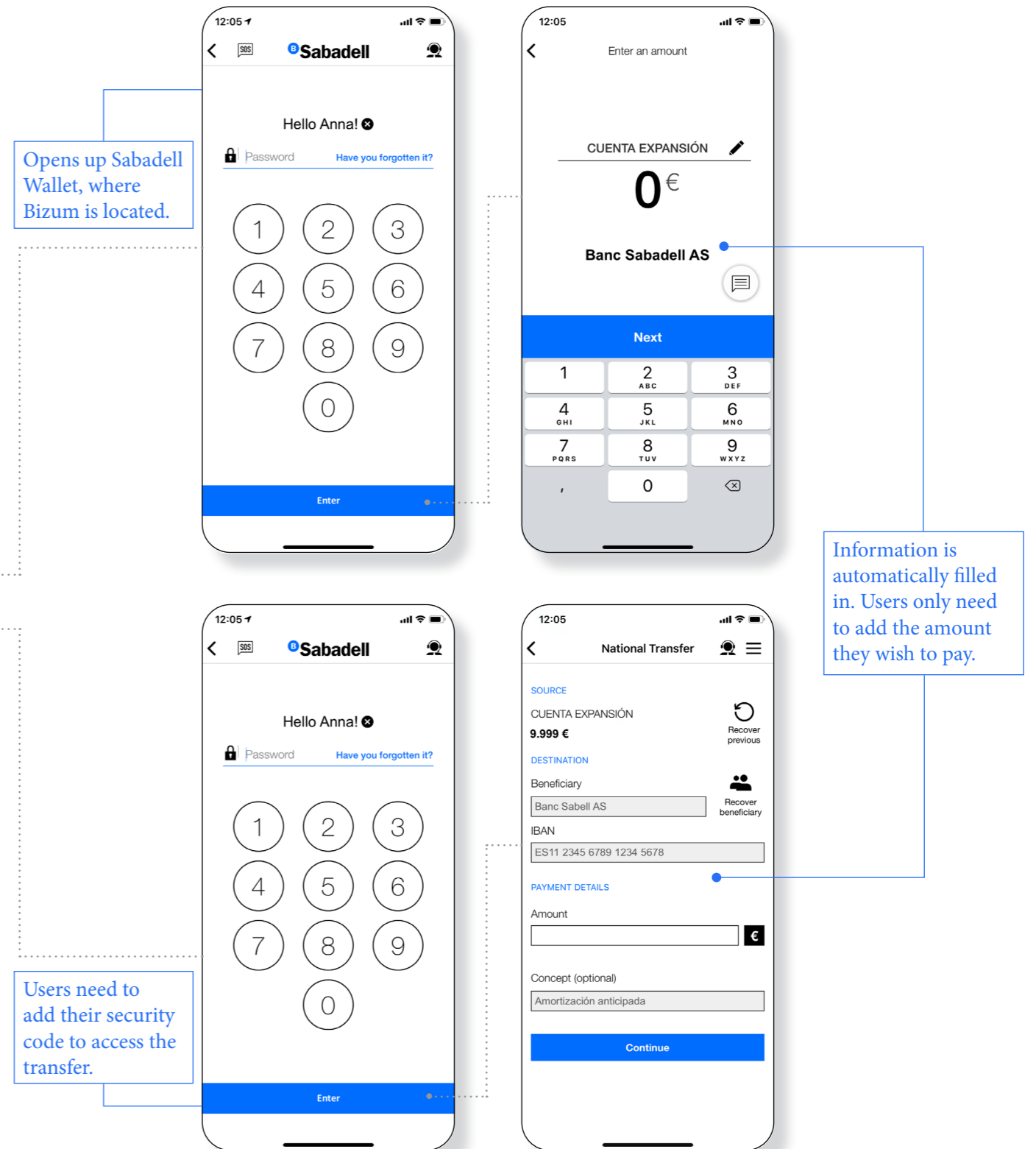


Figure 75: Early repayment.

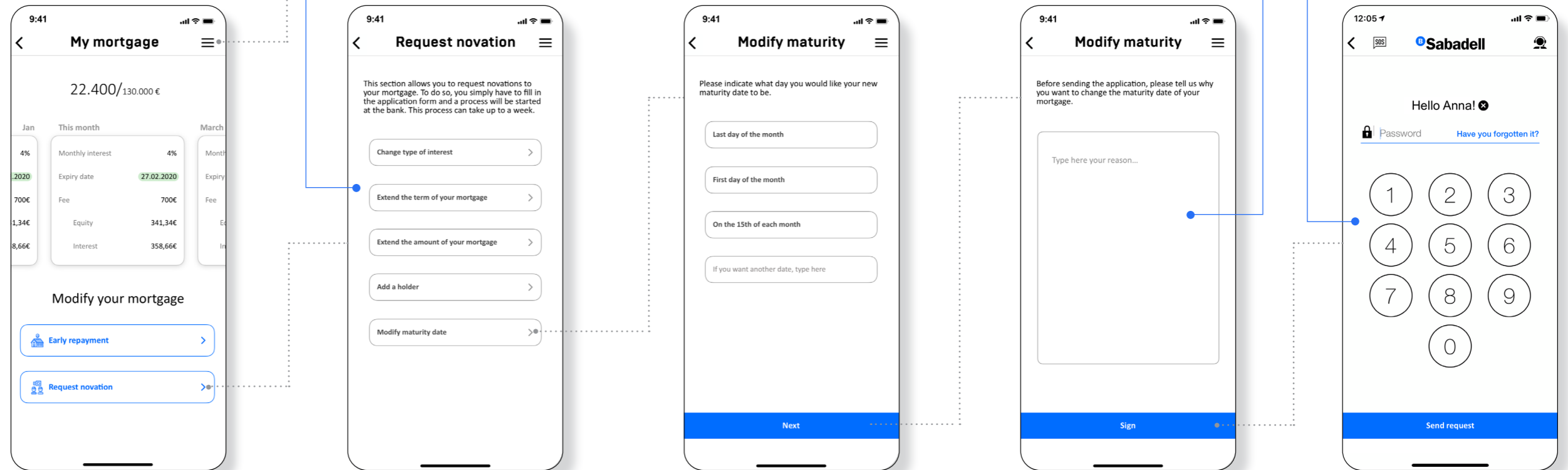


Request novation

Through this feature, users are also able to request a novation online. This novation allows users to carry out modifications to the terms of their mortgage. If users want to carry out modifications, they need to send a request to the bank, which the bank will later evaluate and approve/disapprove. In order to help customers to have full control of the process, a new functionality has been added, which provides an overview of the status of their requests. This way, customers do not have to worry when they do not hear back from the bank, as they will know what is the status of their request: approved, in progress or disapproved. Finally, it is important to highlight that this feature is essential for the overall home buying experience. This is because

customers will have already experienced a smooth, appealing and engaging home buying process through Doyle. Therefore, they have high expectations for the process that follows. For this reason, Banc Sabadell has to offer a tool that is as smooth as Doyle to help customers manage their mortgage. Thus, these features have to be aligned with Doyle in terms of interaction, navigation and usability.

Figure 76: Request novation



Possibility to access the status of the applications through the main menu.

Overview of all the modifications that users can do to their mortgage.

Overview of the novations that the user has requested and the status of the requests. Through the colored labelling systems users can get a rapid understanding.

Easy and simple request form.

Digital signature to guarantee the security of the user when signing the novation request.

Chapter seven

Final conclusion

After completing the project and presenting the four elements of the strategy, this chapter presents further recommendations for Banc Sabadell. Furthermore, it also presents a project and personal conclusion.

Recommendation

This chapter marks the end of the project **“Redesigning the home buying process. A socially engaging experience for young adults”**. The main goal of this project was to provide a tangible strategy for Banc Sabadell to increase customer engagement while offering a smooth and remarkable home buying process. This is achieved through Doyle, a mobile service application that enables young adults to experience a socially engaging home buying process. Doyle is the main element of this strategy, however three more elements have been designed to support and cover the end-to-end service experience: magazines, open day and redesign of Banc Sabadell app. This section aims to provide several recommendations and further steps for Banc Sabadell.

First, it is recommended that Banc Sabadell prints and distributes all the magazines internally to its employees. The magazines are ready to be distributed, so they do not require any modification. In addition, the order of the magazines has also been established through the volumes. Furthermore, the content of the magazines is easy to read and appealing. Therefore, this will help Banc Sabadell employees to understand and empathise with a customer segment that is now young and does not create much economic value for the bank. However, this customer segment will generate more economic value in the long run. Therefore, it is essential that Banc Sabadell starts understanding the needs of this customer segment.

Besides, currently Banc Sabadell is focusing its efforts towards designing an online mortgage process. I would recommend Banc Sabadell following a similar process to the one that I have followed during this graduation project. I want to encourage them not to be in a hurry to get to the solution and take enough time to find the most

valuable and unique insights. Because at the end, those insights will trigger a solution that offers users a value proposition with an added value that will distinguish Banc Sabadell from its competitors.

Furthermore, in case Banc Sabadell does not further develop and implement Doyle, I want to encourage them to take advantage of the amount of information that Doyle contains. The list of requirements defined during this project provides a lot of value for Banc Sabadell. The established requirements can be applied to a great variety of different solutions. In this case, the end solution has been Doyle, but other solutions could be designed that meet the specific requirements. Therefore, Banc Sabadell should analyse this project and keep all the relevant material that can help them offer user-centric products and services to its customers.

Finally, I would recommend Banc Sabadell to get closer to its customers. Not only in the home buying process but in all the products and services the Bank offers. Users are increasingly demanding more digital products. Moreover, the offer of digital products and services is increasing, as there are many competitors in the market. Therefore, it is important for Sabadell to get closer to its customers, to listen to their needs and motivations and to reflect this in its product portfolio. The aim is for Banco Sabadell's personality to be reflected on its products: a bank that is close to its customers and cares about them.

Conclusion

One of the main reasons that led me to write this thesis is my passion for service design in the financial sector, which I discovered during my Master's internship. I believe that today there are many solutions on the market that aim to help users, however, there is still a long way to go. So this project has given me an impulse to see that there is still room for innovation. And I hope in the future to be able to direct my career towards the financial sector.

This project was written during the Covid-19 pandemic. The situation caused by the Covid-19 pandemic influenced the initial plan and the way I managed the project. Therefore, all the social interaction had to be conducted online. This was often tiring, as all interactions took place through screens.

My main objective during this project was to follow a service design approach. I achieved this by involving both Banc Sabadell employees and users during the research phase. As well as by involving them during the ideation process. During this phase, I realised how much I enjoy being close to the user in the design process. I have also learned the complexity behind the research process and how important the wording of each insight is. I feel that if the wording of the insights had been done differently, the final outcome of the thesis would probably have been different.

During this project, the research phase has been of great importance. However, despite having involved both users and Sabadell employees, I would have liked to be able to extend the duration of the research phase. In this way I could have involved other stakeholders such as notaries or real estate agencies. In the end, all relevant stakeholders must be included in the service design process, so

it would have been enriching to hear their opinions and understand their perspectives. However, due to lack of time, I chose the most relevant stakeholders to this project.

It would also have been relevant to closely follow users who experienced the purchase process at the same time the research phase was conducted. In this way, the feedback gathered would have been more relevant as it is still fresh for the users. However, due to the length that the home buying process takes and the Covid-19 pandemic, this was not possible. The same applies to the workshops. All the ideation sessions had to be conducted online. Thanks to all the digital tools that are available the sessions were successfully conducted online. However, I really missed involving the users and Banc Sabadell employees together in the same session. This could have been done in a physical setting, which is suitable for more participants. Furthermore, it would have been valuable for Banc Sabadell, as they would already empathise with the users by collaborating with them in these sessions.

During this project I have grown a lot personally and professionally. I have learned to make decisions in order to move forward in the process. When previously I could have stayed evaluating insights and analysing ideas for a long time. I have learned to be more decisive, to believe in my potential and not to be afraid to take a direction in the project, and go back if it is wrong. Finally, I am very satisfied with all the content generated in this project. I think that only the insights and the magazine would have been useful to create a change in the mindset of Banc Sabadell employees.

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Appendix

- A. Project Brief
- B. Screening survey
- C. 5-day diary
- D. Interview guidelines
- E. Tools
- F. Customer journeys
- G. How Might We
- H. Ideation sessions
- I. Design sprint
- J. Wireframes
- K. Service blueprint



Appendix A

Project Brief

DESIGN
FOR OUR
future

IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT
 Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME
 Save this form according to the format "IDE Master Graduation Project Brief_ familyname_firstname_studentnumber_dd-mm-yyyy".
 Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1!

<p>family name <u>Daviu Moncadas</u></p> <p>initials <u>MDM</u> given name <u>Marina</u></p> <p>student number _____</p> <p>street & no. _____</p> <p>zipcode & city _____</p> <p>country _____</p> <p>phone _____</p> <p>email _____</p>	<p>Your master programme (only select the options that apply to you):</p> <p>IDE master(s): <input type="radio"/> IPD <input type="radio"/> DFI <input checked="" type="radio"/> SPD</p> <p>2nd non-IDE master: _____</p> <p>individual programme: _____ (give date of approval)</p> <p>honours programme: <input type="radio"/> Honours Programme Master</p> <p>specialisation / annotation: <input type="radio"/> Medisign</p> <p><input type="radio"/> Tech. in Sustainable Design</p> <p><input type="radio"/> Entrepreneurship</p>
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SUPERVISORY TEAM **
 Fill in the required data for the supervisory team members. Please check the instructions on the right!

<p>** chair <u>Jan Schoormans</u> dept. / section: <u>PIM</u></p> <p>** mentor <u>Pinar Cankurtaran</u> dept. / section: <u>PIM</u></p> <p>2nd mentor <u>Oriol Ibars Solanas</u></p> <p>organisation: <u>Banc Sabadell</u></p> <p>city: <u>Barcelona</u> country: <u>Spain</u></p> <p>comments (optional): <u>This graduation project will be conducted part time since I have a fulltime job.</u></p>	<p>Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.</p> <p>Second mentor only applies in case the assignment is hosted by an external organisation.</p> <p>Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.</p>
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Procedural Checks - IDE Master Graduation

APPROVAL PROJECT BRIEF
 To be filled in by the chair of the supervisory team.

chair Jan Schoormans date 28 - 01 - 2020 signature _____

CHECK STUDY PROGRESS
 To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

<p>Master electives no. of EC accumulated in total: _____ EC</p> <p>Of which, taking the conditional requirements into account, can be part of the exam programme _____ EC</p> <p>List of electives obtained before the third semester without approval of the BoE _____</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<p><input checked="" type="radio"/> YES all 1st year master courses passed</p> <p><input type="radio"/> NO missing 1st year master courses are:</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>
--	---

name _____ date _____ signature _____

FORMAL APPROVAL GRADUATION PROJECT
 To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

<ul style="list-style-type: none"> • Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)? • Is the level of the project challenging enough for a MSc IDE graduating student? • Is the project expected to be doable within 100 working days/20 weeks ? • Does the composition of the supervisory team comply with the regulations and fit the assignment ? 	<p>Content: <input type="radio"/> APPROVED <input type="radio"/> NOT APPROVED</p> <p>Procedure: <input type="radio"/> APPROVED <input type="radio"/> NOT APPROVED</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> <p style="text-align: right;">comments</p>
--	--

name _____ date _____ signature _____

Personal Project Brief - IDE Master Graduation



Enhancing the home buying process by getting more personal _____ project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 27 - 01 - 2020 _____ end date 07 - 10 - 2020 _____

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

The banking industry has been experiencing radical change for the last years. Due to digitalization a new model of citizen has arose. This user is characterised by being always connected while operating on multiple devices. This segment likes to be informed and expects answers, immediacy and transparency. They compare options before taking important decisions and they are demanding with the companies they interact with.

Here is where Fintechs are taking competitive advantage towards traditional banks. The term Fintech (Financial Technology) refers to startups or tech companies that use innovative technologies to offer financial services (What is a Fintech, 2016). Fintechs and other challengers are taking part of bank's revenues (Bambrough, 2018). This is due to the fact that they deliver user-centered services that satisfy customer needs. For example, N26 is a German fintech that allows new customers to sign up through a video, making it more accessible. Offering targeted solutions to their customers and providing them a feeling of personalisation, that is what customers are looking for.

This graduation project focuses on Banc Sabadell. Banc Sabadell, with 135 years of history, is facing this challenge. It is struggling to adapt to this changes triggered by fintechs. Banc Sabadell is one of the large banking groups in Spain, with international presence. To operate in this environment, where customers demand proximity, quality and transparency, they have summarized their strengths in the following strategy "Be where you are". This strategy aims to create a user-centered mindset, creating excellent services that shows social responsibility and transparency. All of that will result in a long-term relationship with its customers.

One of the most important stakeholders in this project is the Marketing and Digital Sales department of Banc Sabadell. This department has a new focus: transforming all the following areas towards a customer-centric mindset:

- Mortgages
- Insurances
- Freelancers
- Deposit accounts
- Savings and investment

This project aims to work closely with the Marketing and Digital Sales department to define a strategy that will help Banc Sabadell to increase their number of mortgages. Buying a home is one of our biggest milestones in life. This is why there is opportunity in this area to offer good user experiences that feel personalised and create maximum value for the users. If they can create trust in this area, this can change the overall impression on how people perceive the bank.

Limitations

Banc Sabadell's technological foundation lack of innovation. This is one of the main reasons why the different customer touchpoints lack of good user interfaces. This will have to be considered throughout the project, to make sure it can be supported by their technological resources.

space available for images / figures on next page

Personal Project Brief - IDE Master Graduation



introduction (continued): space for images

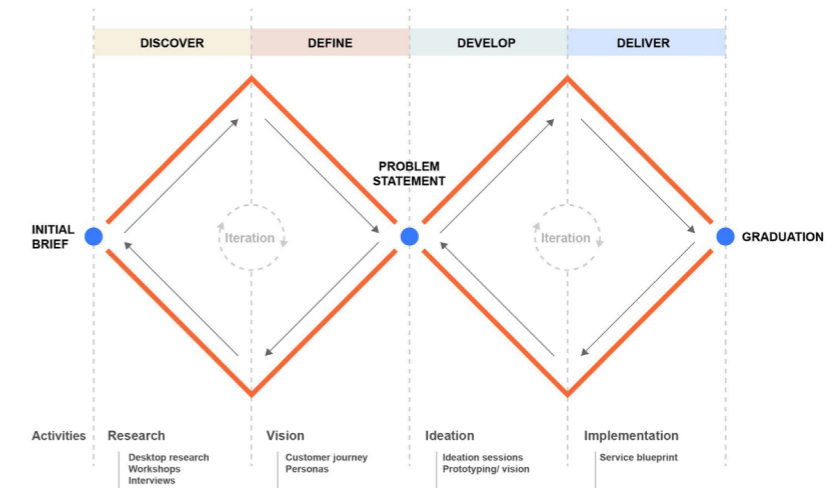


image / figure 1: Design process stages & outcomes

image / figure 2:



Personal Project Brief - IDE Master Graduation

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

Online banking is reducing the need of going to the bank branches. Lately the number of only online banks has been increasing. This changes the way on how we engage on services. Users ask for smooth user experiences that bring value to them. As mentioned previously, this is where Fintechs are taking over banks. While banks are fixing banking problems, fintechs are fixing people's problems, taking advantage on understanding user needs. Users want to feel connected to their bank and share the same value. This is why this project wants to make sure that Banc Sabadell's customers are feeling engaged to the bank, avoiding the feeling of being a "big impersonalised bank".

This project aims to increase the user engagement on the house buying process by redefining it. It aims to provide a sustainable long-term vision that helps Banc Sabadell to deliver the best user experience to its customers. As a result, it aims to increase the number of mortgages sold by Banc Sabadell.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

This project aims to deliver a strategic direction to Banc Sabadell to increase user engagement in the home buying process.

This project will be approached from a Service design perspective, to make sure this project brings value to all stakeholders involved. I will start gathering information from the users and employees through interviews and surveys. In order to identify the main aspects that need to be improved in the process I will involve employees and users to visualise together the actual process. This process will be defined on a customer journey, with the main goal of identifying the different areas where users don't feel engage and connected to Banc Sabadell.

Once this process is defined, a service blueprint will be carried to see the connection of the users feelings and experiences with the different tasks that are carried by the bank. By uncovering what is on the backstage (what it is not visible to the customer) I will be able to bring success to the frontstage.

The solution aims to be a strategy that helps Banc Sabadell increasing user engagement on the house buying process. This strategy will be followed by an implementation plan. Furthermore, it aims to incorporate more tangible design into it, to help communicating some parts of the overall strategy.

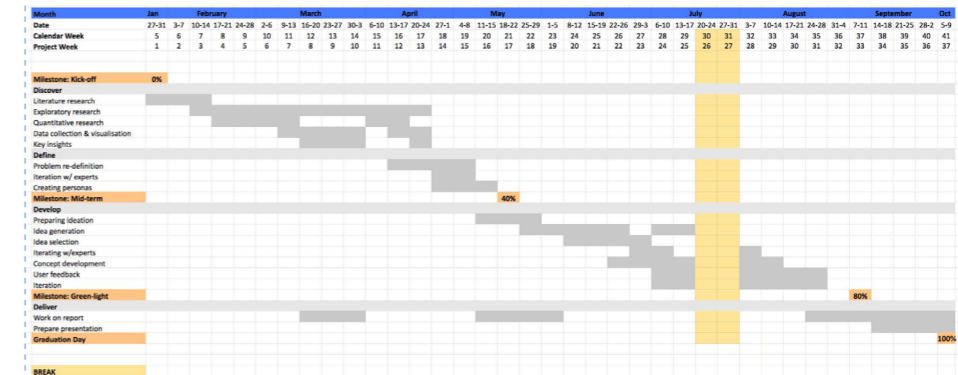


Personal Project Brief - IDE Master Graduation

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 28 - 1 - 2020 end date _____



This graduation project will be approached from a Service Design perspective. This will allow me to frame the problem in the right way, thanks to involving the different stakeholders in the project. While adopting a Service Design approach I will follow the double diamond process. This will help me to apply divergent and convergent thinking and doing. Diverging will allow me to seek for opportunities while I'll be making decisions in the convergent phases.

Discover
I will start conducting literature and desktop research to understand the current state of Banc Sabadell. I will look at the current processes from the backstage and frontstage to uncover the painpoints. In this process I am to involve all stakeholders.

Define
In this phase I will visualise the most relevant insights from the user research, such as customer-journey maps or service blueprints. The main focus of this phase is to identify the right problem to solve, before solving the problem in the right way. I aim to iterate until the problem statement is best defined.

Develop
I will carry different ideation sessions applying service design tools and techniques. I aim to continuously iterate to define the solution that creates more value to Banc Sabadell and its end user.

Deliver
Finally, I will provide Banc Sabadell a sustainable long-term vision that will help them to deliver the best user experience to its customers during the process of buying a house.


Personal Project Brief - IDE Master Graduation

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology. ... Stick to no more than five ambitions.

My motivation to write my thesis on this topic arose when I first moved to Norway and started working on the Financial Services Industry. During my internship in Norway I realised the misconnection between banks and their end users. I saw the gap between what users demand and expect, and what banks actually provide them. All of that usually results in long processes for the user and time to figure out how to perform several task on the banking platforms.

In relation to this, I identified another gap. The new type of user that resulted from the digital transformation is characterized by always being informed and demanding immediacy and good user experiences. But when we think about the situation of banking in Spain, usually users don't get what they want. Buying a house in one of the major milestones in our lives, but why do users lack of information in this topic? The process of buying a house or getting information on the different steps is most of the times a hassle. The ideal scenario would be making people aware of the process so they can start planning beforehand. I want users to enjoy the process from beginning to end. I want them to experience a smooth and remarkable home buying process.

During my graduation I want to practice my visualization skills in order to provide better communication. I also want to experience how innovation is handled in big size companies such as Banc Sabadell. Finally, I want to learn from following a structured service design approach during the whole project. Up to now, I have applied the service design approach in specific parts of the process, but with this graduation project I am to always apply a service design approach and identify the benefits of it.

Bibliography:


What is a Fintech. (2016). [Ebook]. Retrieved from <https://www.pwc.com/us/en/financial-services/publications/viewpoints/assets/pwc-fsi-what-is-fintech.pdf>
 Bambrough, B. (2018). Global Fintech Warning To Traditional Banks -- The Threat Is 'Real And Growing'. Forbes.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

Appendix B

Screening survey



Let's talk about your relationship with your bank!
Hi!

Thanks for answering this survey. We are looking for participants to talk about banking.

However, we need to make sure you meet the requirements to be interviewed.
If you do, we will contact you.

🎁 If you are selected to be part of the interviews, you will get a gift!

Thank you!

Name and surname *

Age *

Gender *

Economic situation *

Marital status *

Last level of education achieved *

In which city do you live? *

Do you have a mortgage? *

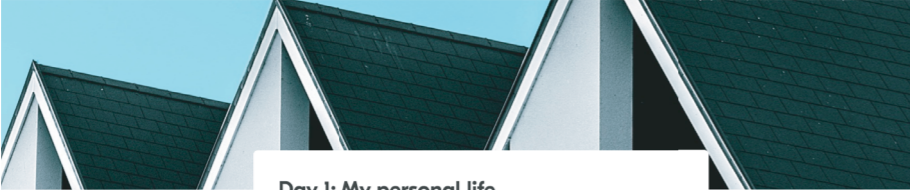
Email or mobile phone *

Choose the one that suits you best

Never submit passwords through this form. Report malicious form

Appendix C

5-day diary



Day 1: My personal life

Today we want to know a bit about you.
Tell us answering these short questions 🗨️

What is your name? *


Name and surname


In which are do you live? With whom? *

What do you like to do in your spare time? *

What do you enjoy the most of this activity? *

Please, post a picture of this activity or activities that you enjoy doing *

 Attach file


 Drop files here

Where would you like to be in your life 5 years from now? *

How can you achieve it? *

[Submit](#)

Never submit passwords through this form. Report malicious form



Day 2: Mi life with technology

Today we want to know about your technology habits.
It will be fast! 🚀

What is your name? *

Name and surname

How much time do you spend online? *

How do you spend your time online? *

Ex: online shopping, listening to music, reading newspapers, etc.


When being online but not performing work activities related, which device do you use more often? *


App, laptop, tablet, etc.

Why? *

Upload a screenshot of your mobile's home screens to see the apps that you have *

If you have several home screens, post them all

 Attach file


 Drop files here

Which app do you enjoy using the most? Why? *

Which website do you enjoy using the most? Why? *

[Submit](#)

Never submit passwords through this form. Report malicious form



Day 3: My banking habits
 Today we want to know about your banking habits.
 No worries! Questions are easy so you will be able to easily answer them 😊

What is your name? *

Name and surname

What is the name of your bank? *

Write as much banks as you have

How do you check your finances? *

App, web, phone, bank branches, etc

How often do you interact with your bank? *

Any contact, digital or personal is considered interaction. For instance, logging in your bank app is considered an interaction.

What do you like the most about you bank's app?

If you usually use the bank's website, tell us about the web

What do you dislike the most? *

If you usually use the bank's website, tell us about the web

If your bank would be a character from a movie. Which one would it be? Why? *


Post a picture of this character in the movie *

[Attach file](#)

Drop files here

Submit

Never submit passwords through this form. Report malicious form



Day 4: A love letter to your bank
 Imagine that you are in a love relationship with your bank, so your bank is your partner. ❤️
 Now, write a love letter to your bank. 📝 Tell him/her how long have you been together, the good things it brings you, how happy it makes you, etc.
 If it is helpful, you can imagine that you are writing it due to Valentine's day, or because you are celebrating your anniversary. Be as creative as you can, there are no limits. 🥰
 The more you put your self in the role, the better results you will get. 🎯


What is your name? *

Name and surname

Write here your love letter ❤️ *

Submit

Never submit passwords through this form. Report malicious form



Day 5: Break up letter

Following the exercise that you did yesterday, now I want you to imagine the opposite situation.

It is time to break your relationship with your bank. ❤️

Write a break up letter to your bank. Remember to give your bank all the reasons why you don't want to be with him/her anymore. Is it because it doesn't make you happy anymore? Or is it because there is someone else? It has been a long relationship, or maybe not that long, but make sure you speak your mind and you do not leave anything to say.

What is your name?

Name and surname

Write here your break up letter ❤️

[Submit](#)

Never submit passwords through this form. [Report malicious form](#)

Appendix D

Interview guidelines

No mortgage participants

THEME	TIME	GOAL	TOOLS
Introduction	5'	Introduce myself and the project. Inform about the objective of the session.	-
Personal and professional background	20'	Understand their lifestyle, context they live in. Make sure we set a nice environment to conduct the interview.	A day in the life
Their house	10'	Understand their current house situation, rent/own and thoughts, choices they made to choose the place where they live, etc.	-
Financial habits	20'	Explore their financial habits, get an understanding of their needs, relationship with the bank.	Cards with adjectives to describe their bank.
Digital service journey	30'	Identify their preferred digital service. Map out the experience, touchpoints, feelings, pain points and opportunities.	Journey map
About the home buying process	20'	Understand their knowledge on the current home buying process. Also getting an understanding of their perspective by letting them defining how it is.	Journey map
Designing a home buying process - future	15'	Understand their needs for the home buying process. How they would like it to be.	Storyboard
Wrap up & greetings	5'	Thank participants for their time and insights. Sign the consent form and give participants the incentive.	Consent form and incentive.

Summary

The goal of the interviews is to get to know the participants. Their habits, routines, motivations and concerns. For this reason, 3 hours have been defined for the interviews. The goal is just to adopt an open approach and let them talk and explain their opinions. In order to uncover their latent needs, several tools are used during the process to help them being creative. Also, using tools is a way to facilitate the communication during the interview.

0. Introduction

Time: 5 min

Goal: Inform about the objective of the session and phases. Introduce the team.

Explain the set up of the session. Inform the participant that this will be an informal conversation. There are no right or wrong questions. All the information will be used for research purposes. Pictures and videos will not be published.

1. Personal and professional background

Time: 20 min

Goal: Understand their lifestyle, context they live in. Make sure we set a nice environment to conduct the interview.

Personal background:

- Age?
- What do you do? Why?
- What did you study?
- Where do you live?
- With whom?
- Have you always lived here?
- What do you like about this city?
- Favorite spots?

Professional background:

- Where do you work?
- For how long have you been working in this company?
- How do you go to work?
- How do you like it?
- What do you like the most?
- What do you like the least?
- How is your schedule?
- Do you manage to perform non-work related tasks at the office?

A day in the life - Visualize a day in the life. Make them colour the grey circle depending on how they feel during that part of the day.

- How does your typical day look like?
- Which moment do you enjoy the most?
- Which moment do you enjoy the least?
- Where do you go for lunch?
- How often do you check your phone during the day?
- Which app do you check the most for personal matters?

2. Their house

Time: 10 min

Goal: Understand their current house situation, rent/own and thoughts, choices they made to choose the place where they live, etc.

- Do you rent/own a house?
- Why do you rent/own?
- How is your house?
- When did you move?
- Where were you living before?
- Why did you choose this house?
- Who influenced that decision?
- How did you find the house?
- How was the process?
- How long did it take?
- Have you thought about buying a house?
- When are you planning on buying it?
- Are you planning on buying it alone or with your partner?
- Do your parents own a house?
- Did they bought it?
- Have you start saving for it?

3. Financial habits

Time: 20 min

Goal: Explore their financial habits, get an understanding of their needs, relationship with the bank.

Financial knowledge:

- What is your financial level understanding?

- What is your understanding of taxes?
- Who is in charge of health insurance, car insurance, etc?
- Why do you have them?
- How do you manage your finances?
- Does anyone help you?

Bank:

- How many banks are you a customer of?
- Why are you a client of that specific bank?
- For how long have you been a customer?
- How did you take the decision of being a customer of this bank?
- Do you remember how it was to become a customer of this bank?
- Refer to love and break up letter
- How is your relationship with the bank?
- How would you like the relationship to be?
- Do you save money?
- With what purpose?

Interaction app/web:

- How often do you check your bank's app/web?
- Which one do you often use?
- Why?
- What do you think about it?
- Which activities do you often perform there?
- Have you identified any limitations?

Help:

- Have you ever needed help from your bank?
- For what?
- How did you ask for help?
- Were they able to help you?

Fintechs/other banking apps:

- Do you use any other platform for your financials?
- Which one?
- What are the benefits?
- Are you thinking about changing banks?
- Why would you change banks?

Describing the bank as is:

Use this cards and pick the ones that define how do you see your bank now. Explain why.

Describing the bank to be:

Now choose some cards to define how would you like it to be in an ideal situation. Explain why.

4. Digital Service Journey

Time: 30 min

Goal: Explore their financial habits, get an understanding of their needs, relationship with the bank.

Now I would like you to think of one of the best experience with digital apps or services. Once you have selected one, I would like you to guide me through the process of this service, from beginning to end. I would like you to try to imagine how you feel in the different situations, which actions you perform, etc.

(Complete journey map template).

Intro:

- Tell me about the service
- How is your relationship with this company?

Past:

- When did you start using it?
- Why?
- How did you know about it?
- Did you get other opinions?

Sign up:

- Do you remember how was the process of sign up?
- How did it make you feel?

Using:

- Tell me about how it works. Every step of the process.
- How did you feel?
- Which is your favorite feature?
- Why?
- What would you improve?

Once the user map is completed, look at it together.

5. Home buying process journey

Time: 20 min

Goal: Understand their knowledge on the current home buying process. Also getting an understanding of their perspective by letting them defining how it is.

- Do you usually read the newspaper?
- Where?

- Have you ever looked for information about the home buying process?
- Can you explain me what do you know about the process?
- How do you imagine the process?
- How would you describe it?
- If you had to ask for a mortgage, which bank would be the first one that you would contact?
- What do you think would make you decide for one bank or another?
- What could make you lose trust in a bank?
- Have you heard about online comparators?
- What is your opinion about them?
- Would you use online calculators to compare between banks?
- Imagine that you have already taken the decision to ask for a mortgage. Is there any type of information that you consider to be sensitive to be shared online with your bank?
- To avoid going to the bank branch, what would you be willing to do?

Now I want you to go through the same exercise than before, and define all the steps that you would image. Remember that there is no right or wrong answer. I just want to explore your knowledge in the field.

Imagine that you think about buying a house

- What would be the first thing that you would do?
- Would someone influence your decision?
- Would you ask for a mortgage to other banks?
- Where would you check a mortgage?
- How long do you think the process takes?
- Who is involved in this process?

6. Designing a home buying process journey - Future

Time: 15 min

Goal: Understand their needs for the home buying process. How they would like it to be.

By taking a look at the previous customer journey I would like you to identify areas of improvement. So I want you to find what you would change in order to make this experience better. -> Storyboarding

- How would the process be?
- Which areas are the most important ones to improve?
- Which channel would be your preferred when applying for a mortgage?
- How would you like to experience it?
- What would be the most important feature in this process?
- What is the most important aspect for you in this process?
- Can you compare it to any existing service?

7. Wrap up & greetings

Time: 5 min

Goal: Thank participants for their time and insights. Sign the consent form and give participants the incentive.

Give the participants the incentives and make sure they sign the consent form.

Mortgage participants

THEME	TIME	GOAL	TOOLS
Introduction	5'	Introduce myself and the project. Inform about the objective of the session.	-
Personal and professional background	20'	Understand their lifestyle, context they live in. Make sure we set a nice environment to conduct the interview.	A day in the life
Their house	10'	Understand their current house situation, rent/own and thoughts, choices they made to choose the place where they live, etc.	-
Financial habits	20'	Explore their financial habits, get an understanding of their needs, relationship with the bank.	Cards with adjectives to describe their bank.
PATH OF EXPRESSION WORKSHOP			
Present	20'	Understand the current situation once they got a mortgage. What is their relationship with the bank, what are their needs.	
Past	40'	Map the past experience since the moment they thought about buying a house for the first time until today.	Customer journey
Future	30'	Understand user needs in the coming future and what can be improved.	Storytelling
Wrap up & greetings	5'	Thank participants for their time and insights. Sign the consent form and give participants the incentive.	Consent form and incentive.

Summary

The goal of the interviews is to get to know the participants. Their habits, routines, motivations and concerns. For this reason, 3 hours have been defined for the interviews. The goal is just to adopt an open approach and let them talk and explain their opinions. In order to uncover their latent needs, several tools are used during the process to help them being creative. Also, using tools is a way to facilitate the communication during the interview.

0. Introduction

Time: 5 min

Goal: Inform about the objective of the session and phases. Introduce the team.

Explain the set up of the session. Inform the participant that this will be an informal conversation. There are no right or wrong questions. All the information will be used for research purposes. Pictures and videos will not be published.

1. Personal and professional background

Time: 20 min

Goal: Understand their lifestyle, context they live in. Make sure we set a nice environment to conduct the interview.

Personal background:

- Age?
- What do you do? Why?
- What did you study?
- Where do you live?
- With whom?
- Have you always lived here?
- What do you like about this city?
- Favorite spots?

Professional background?

- Where do you work?
- For how long have you been working in this company?
- How do you go to work?
- How do you like it?
- What do you like the most?
- What do you like the least?
- How is your schedule?
- Do you manage to perform non-work related tasks at the office?

A day in the life - Visualize a day in the life. Make them colour the grey circle depending on how they feel during that part of the day.

- How does your typical day look like?
- Which moment do you enjoy the most?
- Which moment do you enjoy the least?
- Where do you go for lunch?
- How often do you check your phone during the day?
- Which app do you check the most for personal matters?

2. Their house

Time: 10 min

Goal: Understand their current house situation, rent/own and thoughts, choices they made to choose the place where they live, etc.

- Do you live in the house you bought?
- Did you buy it alone?
- How is your house?
- When did you move?
- Where were you living before?
- Why did you choose this house?
- Who influenced that decision?
- How did you find the house?
- How was the process?
- How long did it take?
- Are you satisfied with the decision you took?
- Do your parents own a house?
- Did they bought it?

3. Financial habits

Time: 20 min

Goal: Explore their financial habits, get an understanding of their needs, relationship with the bank.

Financial knowledge:

- What is your financial level understanding?
- What is your understanding of taxes?
- Who is in charge of health insurance, car insurance, etc?
- Why do you have them?
- How do you manage your finances?
- Does anyone help you?

Bank:

- How many banks are you a customer of?
- Why are you a client of that specific bank?
- For how long have you been a customer?
- How did you take the decision of being a customer of this bank?
- Do you remember how it was to become a customer of this bank?
- Refer to love and break up letter
- How is your relationship with the bank?
- How would you like the relationship to be?
- Do you trust your bank?
- What could make you distrust your bank?
- Do you save money?
- With what purpose?

Interaction app/web:

- How often do you check your bank's app/web?
- Which one do you often use?
- Why?
- What do you think about it?
- Which activities do you often perform there?
- Have you identified any limitations?

Help:

- Have you ever needed help from your bank?
- For what?
- How did you ask for help?
- Were they able to help you?

Fintechs/other banking apps:

- Do you use any other platform for your financials?
- Which one?
- What are the benefits?
- Are you thinking about changing banks?
- Why would you change banks?

Describing the bank as is:

Use this cards and pick the ones that define how do you see your bank now. Explain why.

Describing the bank to be:

Now choose some cards to define how would you like it to be in an ideal situation. Explain why.

4. Path of expression workshop

Time: 1h 30 min

Goal: Enable the participant to imagine future situation by first talking about the present and then make him experience past situations.

4.1 Present

Time: 20 min

Goal: Understand what is the current situation once he/she got the mortgage. What is his/her relationship with the bank, which needs does he/she has.

- How long ago did you ask for a mortgage?
- How is your mortgage?
- Which interest rate is your mortgage?
- How many years do you still need to pay?
- Are you sharing the mortgage with someone?
- What do you think about the amount you are paying?
- Which % of your monthly income does the mortgage take?
- Do you keep yourself up-to-date with the newest trends on the mortgage market?
- How is your relationship with the bank now that you have a mortgage?
- Which type of information do you get from your bank?
- And what about other banks?
- Do you have an overview of your mortgage?
- How do you feel every month when you pay the mortgage?
- Do you perform any task related to your mortgage?
- Have you ever been to a bank branch after getting a mortgage?
- Have you ever had any questions regarding your mortgage?
- Have you thought about changing banks?
- Why?
- If you wouldn't have a mortgage, would you change banks?
- Do you plan to change the mortgage?
- Why?
- What importance do you give to your mortgage?
- How do you feel about having a mortgage?
- What does it take from you to have a mortgage?
- Would you recommend someone to get a mortgage in your bank?
- Have you had any surprises regarding the payment of the mortgage?

4.2 Past

Time: 40 min

Goal: Map the past experience since the moment they thought about buying a house for the first time until today. Now that you told me about the current situation, I would like to imagine the moment when you thought for the first

time about buying a house.

Awareness:

- When did you start thinking about buying a house?
- Who influenced that decision?
- How was the process since you thought about buying a house until you got the mortgage?
- Do you remember how you felt during this process?
- Did you have savings when you take that decision?
- Where did you look for houses?
- How was it to find a house?
- Did someone help you?
- What requirement did you have when looking for a house?

Comparing information:

- How did you find out about the process of buying a house?
- In which sources did you look for information? Why?
- Did you use online comparators? Why? What is your opinion about them?
- Did you use online calculators? Why? What is your opinion about them?
- How many banks did you ask for a mortgage?
- What parameters did you look for when asking for a mortgage?
- What was most relevant to you when choosing a bank?
- Did you discard any specific bank?
- Why?

Decision making:

- Why did you choose this bank?
- Were you a customer of this bank already?
- Did someone influence your decision making?
- How did you contact them?
- How often did you contact your bank?
- Through what channel?
- What were the steps in the process?
- How long did it take since you contacted them until they gave you the mortgage?
- Who from the bank was in contact with you?
- How?
- Are you still in contact with that person?

During the process:

- How would you define the overall process?
- How did you feel during the process?
- Did you have any doubt in any specific part of the process?
- Which documents did you need?
- How was it to get the documentation?

- How complicated was it for you to understand the procedures and documents?
- What did you do if there was something that you didn't understand?
- Did someone outside the bank help you during the process?
- How would you define the attention received by the bank?
- What channels did you use during the experience? (online, office, message..)
- What did each of them bring you?

Once finished, look back together at the customer journey.

4.3 Future

Time: 30 min

Goal: Understand future needs and potential improvements

Now I would like you to imagine yourself in the coming future:

- How would you like your relationship with the bank to be from now on?
- What would you like to change about your mortgage?
- And regarding the overall process?
- What do you expect from your bank?
- What could your bank do in the future to improve the customer experience?
- What is the area that needs further improvement?
- What means do you think would be beneficial to the process?
- What do you think about the digital buying process vs human?
- Would you be willing to provide more information to your bank to better analyze the process?
- Which kind of information would you not be willing to share with your bank in an online platform?
- How would you improve the process?
- Imagine that in a few years Google or Amazon are offering a mortgage:
- How would the process be with them?
- Would you trust them?

5. Wrap up & greetings

Time: 5 min

Goal: Thank participants for their time and insights. Sign the consent form and give participants the incentive.

Give the participants the incentives and make sure they sign the consent form.

Appendix E

Tools

Adjective cards

<p>Energetic</p> <p>Having or involving a lot of energy.</p>	<p>Stupid</p> <p>Silly or unwise; showing poor judgment or little intelligence.</p>	<p>Extroverted</p> <p>An energetic person who enjoys being with other people.</p>
<p>Childish</p> <p>If an adult is childish, they behave badly in a way that would be expected of a child.</p>	<p>Naive</p> <p>Too willing to believe that someone is telling the truth, that people's intentions in general are good and fair.</p>	<p>Immature</p> <p>Not behaving in a way that is as calm and wise as people expect from someone of your age.</p>
<p>Playful</p> <p>Funny and not serious.</p>	<p>Nervous</p> <p>Worried and anxious.</p>	<p>Rogue</p> <p>Behaving in ways that are not expected or not normal, often in a way that causes damage.</p>

<p>Ridiculous</p> <p>Stupid or unreasonable and deserving to be laughed at.</p>	<p>Silly</p> <p>Showing little thought or judgment.</p>	<p>Clumsy</p> <p>A clumsy person often has accidents because they do not behave in a careful, controlled way.</p>
<p>Naughty</p> <p>An adult who has behaved badly or an adult's bad action.</p>	<p>Positive</p> <p>Full of hope and confidence, or giving cause for hope and confidence.</p>	<p>Vivacious</p> <p>A person who is attractively energetic and enthusiastic.</p>
<p>Brave</p> <p>Showing no fear of dangerous or difficult things.</p>	<p>Restless</p> <p>Unwilling or unable to stay still or to be quiet and calm, because you are worried or bored.</p>	<p>Funny</p> <p>Humorous; causing laughter.</p>

Ambitious
 Having a strong wish to be successful, powerful, or rich.

Diligent
 Careful and using a lot of effort.

Entrepreneur
 Someone who starts their own business, especially when this involves seeing a new opportunity.

Persistent
 Someone who continues doing something or tries to do something in a determined way.

Talented
 With talent; able or skilful.

Intelligent
 Showing intelligence, or able to learn and understand things easily.

Demanding
 Needing a lot of time, attention, or energy.

Experienced
 Having skill or knowledge because you have done something many times.

Skilled
 Having the abilities needed to do an activity or job well.

Dared
 To be brave enough to do something difficult or dangerous.

Direct
 Going in a straight line towards somewhere or someone without stopping or changing direction.

Distant
 Used to describe someone who does not show much emotion and is not friendly.

Interesting
 Someone that is interesting keeps your attention because it is unusual, exciting, or has a lot of ideas.

Thoughtful
 Carefully considering things.

Enthusiastic
 A person that shows enthusiasm.

Elegant
 Graceful and attractive in appearance or behaviour.

Scandalous
 Making people shocked and upset.

Stoic
 Determined not to complain or show your feelings, especially when something bad happens to you.

<p>Imaginative</p> <p>Good at thinking of new, original, and clever ideas.</p>	<p>Impatient</p> <p>Easily annoyed by someone's mistakes or because you have to wait.</p>	<p>Impetuous</p> <p>Likely to do something suddenly, without considering the results of your actions.</p>
<p>Independent</p> <p>Not influenced or controlled in any way by other people, events, or things.</p>	<p>Bold</p> <p>Not frightened of danger.</p>	<p>Mean</p> <p>To express or represent something such as an idea, thought, or fact.</p>
<p>Powerful</p> <p>Having a lot of power to control people and events.</p>	<p>Pretentious</p> <p>Trying to appear or sound more important or clever than you are.</p>	<p>Provocative</p> <p>Causing thought about interesting subjects.</p>

<p>Sagacious</p> <p>Having or showing understanding and the ability to make good judgments.</p>	<p>Severe</p> <p>Causing very great pain, difficulty, worry, damage, etc.; very serious.</p>	<p>Sophisticated</p> <p>Having a good understanding of the way people behave and/or a good knowledge of culture and fashion.</p>
<p>Efficient</p> <p>Working or operating quickly and effectively in an organized way.</p>	<p>Beautiful</p> <p>Pleasant and attractive.</p>	<p>Impulsive</p> <p>Doing things suddenly without any planning and without considering the effects they may have.</p>
<p>Disturbing</p> <p>Making you feel worried or upset.</p>	<p>Fussy</p> <p>Not easily satisfied, or having very high standards about particular things.</p>	<p>Reluctant</p> <p>Not willing to do something and therefore slow to do it.</p>

<p>Selfish</p> <p>Someone who is selfish only thinks of their own advantage.</p>	<p>Angry</p> <p>Having a strong feeling against someone who has behaved badly, making you want to shout at them or hurt them.</p>	<p>Conceited</p> <p>Too proud of yourself and your actions and abilities.</p>
<p>Eccentric</p> <p>Strange or unusual, sometimes in a humorous way.</p>	<p>Grumpy</p> <p>Easily annoyed and complaining.</p>	<p>Hysterical</p> <p>Unable to control your feelings or behaviour because you are extremely frightened, angry, excited.</p>
<p>Aloof</p> <p>Not friendly or willing to take part in things.</p>	<p>Insensitive</p> <p>Not feeling or showing sympathy for other people's feelings, or refusing to give importance to something.</p>	<p>Intolerant</p> <p>Disapproving of or refusing to accept ideas or ways of behaving that are different from your own.</p>

<p>Malicious</p> <p>Intended to harm or upset other people.</p>	<p>Annoying</p> <p>Making you feel slightly angry.</p>	<p>Scathing</p> <p>Criticizing someone or something in a severe and unkind way.</p>
<p>Hateful</p> <p>Very unpleasant.</p>	<p>Prideful</p> <p>Proud in a way that shows you think you are better or more important than other people.</p>	<p>Obtrusive</p> <p>Noticeable in a way that is unpleasant or unwanted.</p>
<p>Horrible</p> <p>Very unpleasant or bad.</p>	<p>Impolite</p> <p>Rude.</p>	<p>Superficial</p> <p>Never thinking about things that are serious or important.</p>

<p>Suspicious</p> <p>Making you feel that something illegal is happening or that something is wrong.</p>	<p>Dirty</p> <p>Not clean.</p>	<p>Boring</p> <p>Not interesting or exciting.</p>
<p>Coherent</p> <p>It is clear and carefully considered, and each part of it connects or follows in a natural or reasonable way.</p>	<p>Considered</p> <p>An opinion or decision that someone has reached after a lot of thought.</p>	<p>Cordial</p> <p>Friendly, but formal and polite.</p>
<p>Apathetic</p> <p>Showing no interest or energy and unwilling to take action, especially over something important.</p>	<p>Attentive</p> <p>Listening carefully.</p>	<p>Cautious</p> <p>Someone who is cautious avoids risks.</p>

<p>Discreet</p> <p>Careful not to cause embarrassment or attract too much attention, especially by keeping something secret.</p>	<p>Polite</p> <p>Behaving in a way that is socially correct and shows understanding of and care for other people's feelings.</p>	<p>Balanced</p> <p>Considering all sides or opinions equally.</p>
<p>Formal</p> <p>Suitable for serious or official occasions.</p>	<p>Cold</p> <p>Not showing kindness, love, or emotion and not friendly.</p>	<p>Idle</p> <p>Not working or being used.</p>
<p>Mature</p> <p>Behave like adults in a way that shows they are well developed emotionally.</p>	<p>Meticulous</p> <p>Very careful and with great attention to every detail.</p>	<p>Modest</p> <p>Not large in size or amount, or not expensive.</p>

Peaceful
 Without violence.

Practical
 Relating to experience, real situations, or actions rather than ideas or imagination.

Prudent
 Careful and avoiding risks.

Taciturn
 Tending not to speak much.

Shy
 Nervous and uncomfortable with other people.

Diplomatic
 Acting in a way that does not cause offence.

Realistic
 Accepting things as they are in fact and not making decisions based on unlikely hopes for the future.

Reserved
 Reserved people do not often talk about or show their feelings or thoughts.

Responsible
 To have control and authority over something or someone and the duty of taking care of it, him, or her.

Reliable
 Can be trusted or believed because he, she, or it works or behaves well in the way you expect.

Clever
 Having or showing the ability to learn and understand things quickly and easily.

Patient
 Having patience.

Reasonable
 Based on or using good judgment and therefore fair and practical.

Serene
 Peaceful and calm; worried by nothing.

Serious
 A serious person is quiet, thinks carefully about things, and does not laugh a lot.

Punctual
 Arriving, doing something, or happening at the expected, correct time; not late.

Secure
 Not doubting or being worried about yourself and your personal relationships.

Sincere
 (Of a person, feelings, or behaviour) not pretending or lying; honest.

Quiet
 A quiet person is one who does not talk much.

Angelic
 Very beautiful and very good.

Weak
 Not strong in character, so that you are not able to make decisions or to persuade or lead other people.

Dependent
 Needing the support of something or someone in order to continue existing or operating.

Doubtful
 If you are doubtful about something, you are uncertain about it.

Gentle
 Calm, kind, or soft.

Affectionate
 Showing feelings of liking or love.

Nice
 Pleasant, enjoyable, or satisfactory.

Kind
 Generous, helpful, and thinking about other people's feelings.

Fervent
 People who have strong and sincere beliefs.

Generous
 Willing to give money, help, kindness, etc., especially more than is usual or expected.

Maternal
 Behaving or feeling as a mother does toward her child.

Passionate
 Having very strong feelings or emotions.

Dismayed
 Feeling unhappy and disappointed.

Careful
 Giving a lot of attention to what you are doing.

Passionate
 Having very strong feelings or emotions.

Lazy
 Not willing to work or use any effort.

Sensitive
 Easily upset by the things people say or do, or causing people to be upset, embarrassed, or angry.

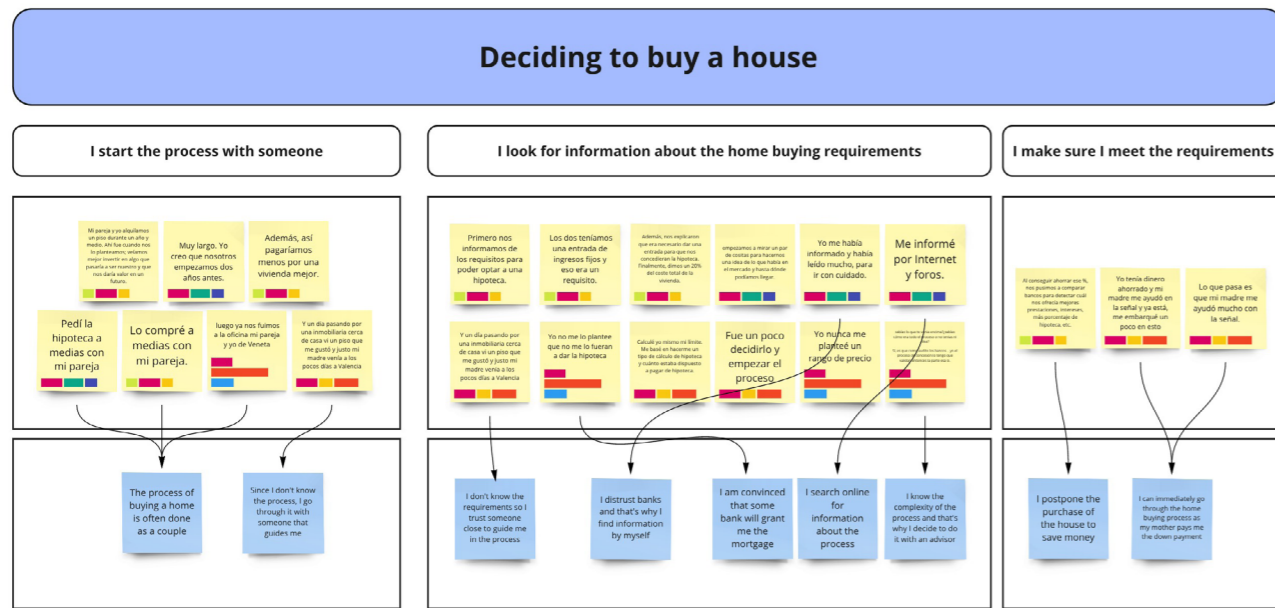


Appendix F

Customer journeys

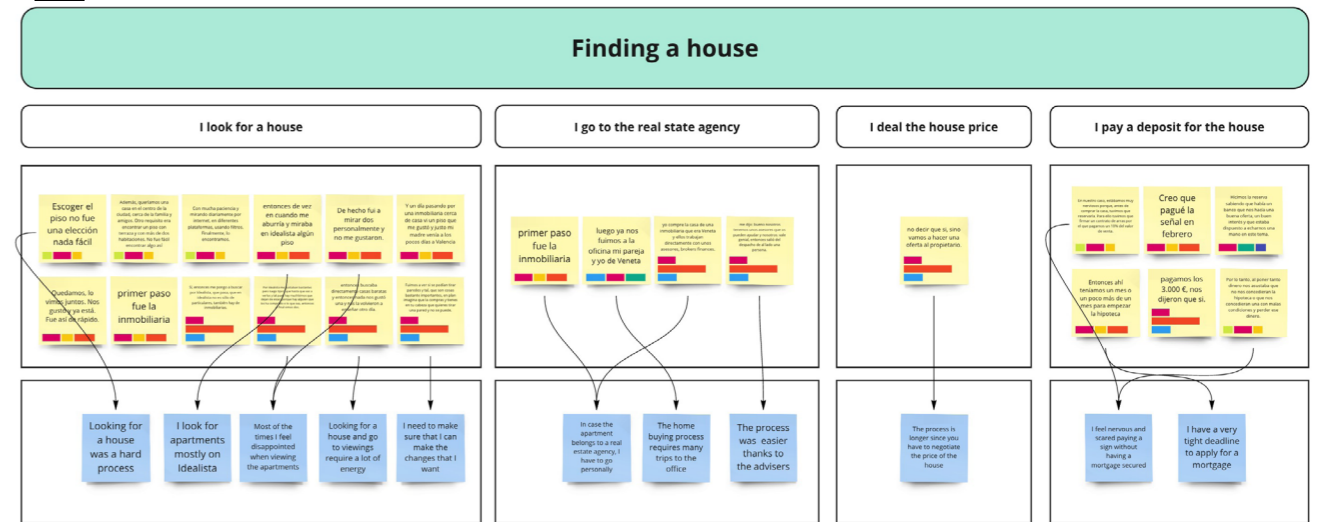
Participants with mortgage

1



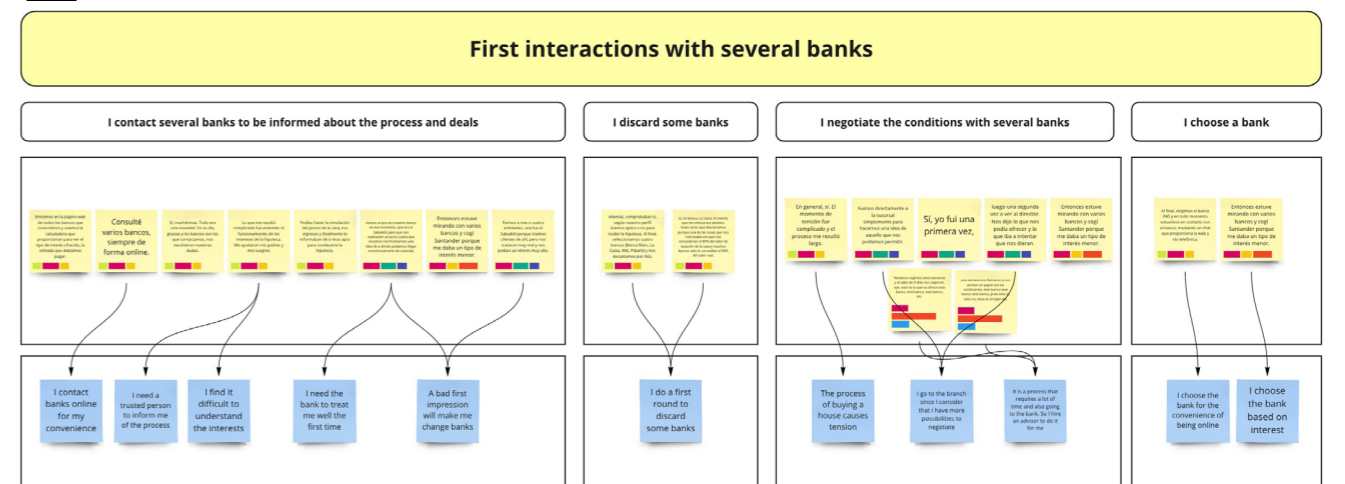
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2



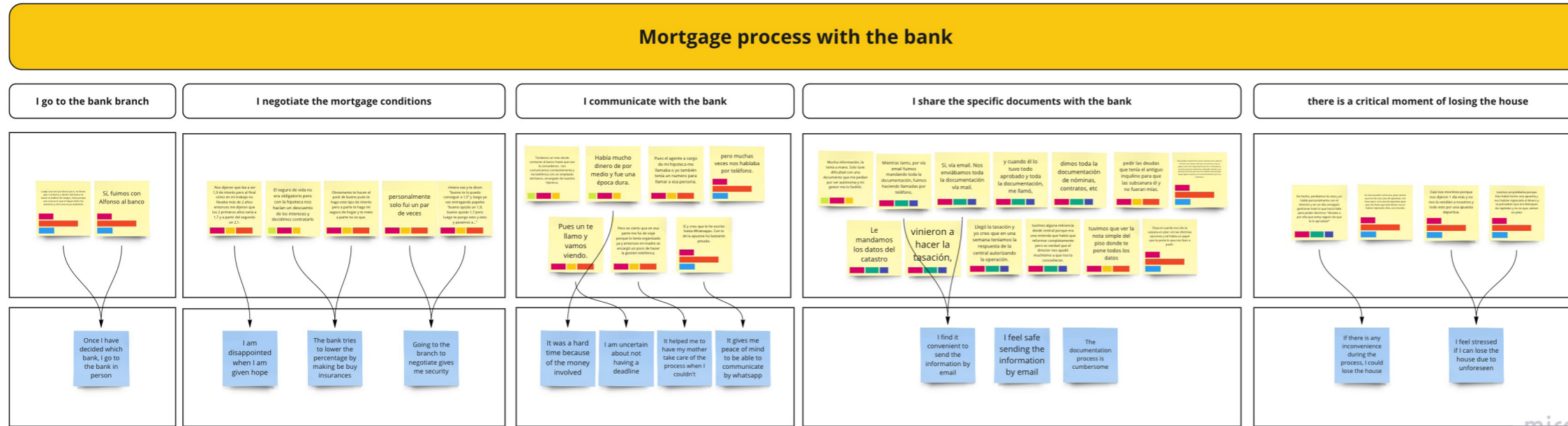
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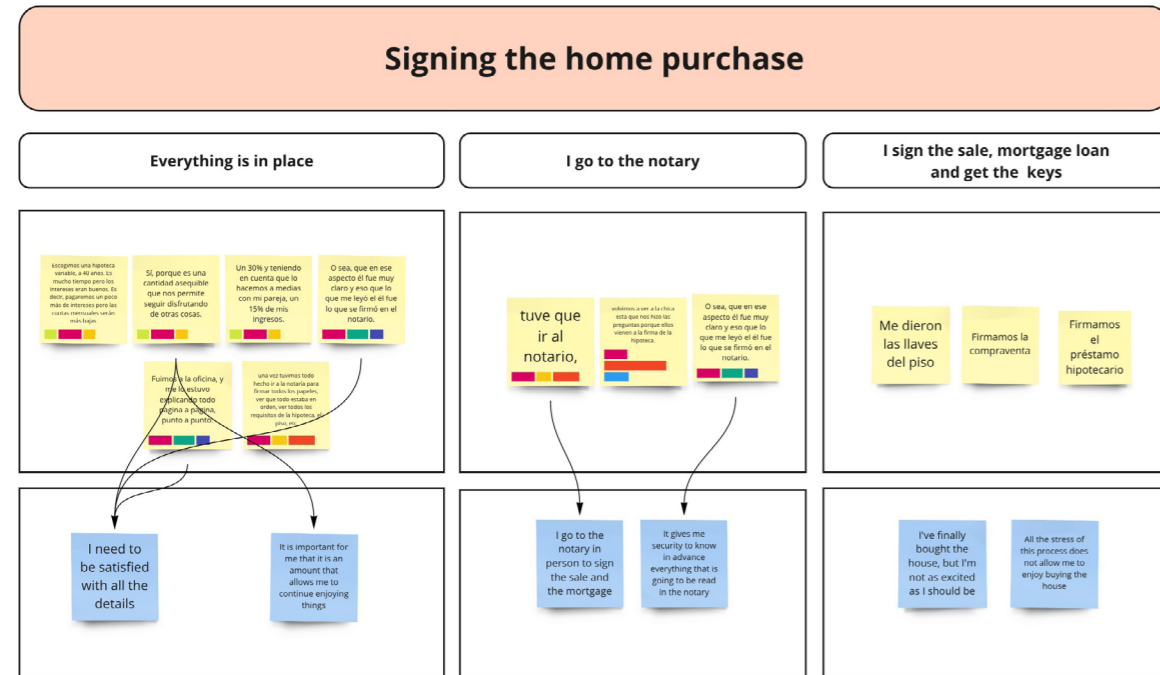
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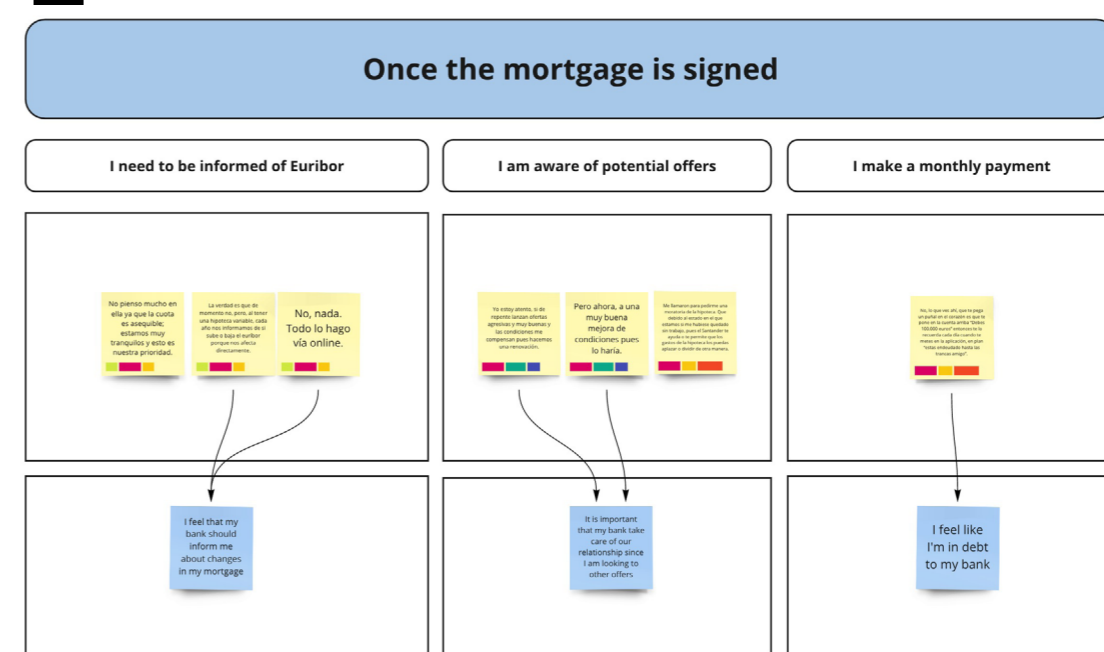
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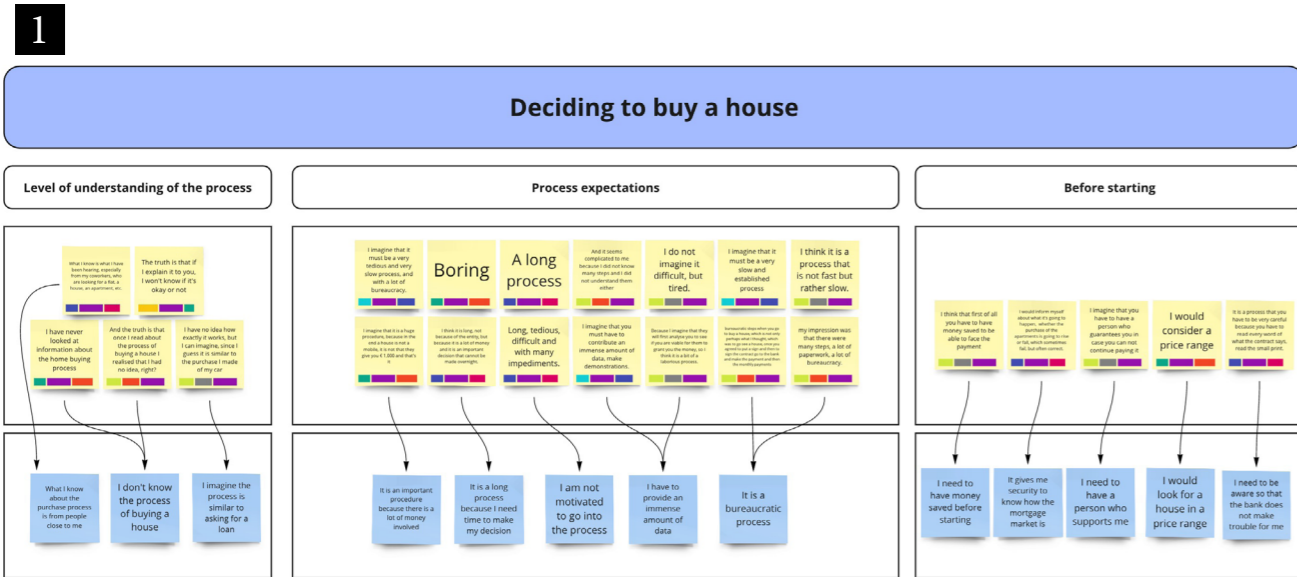
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6

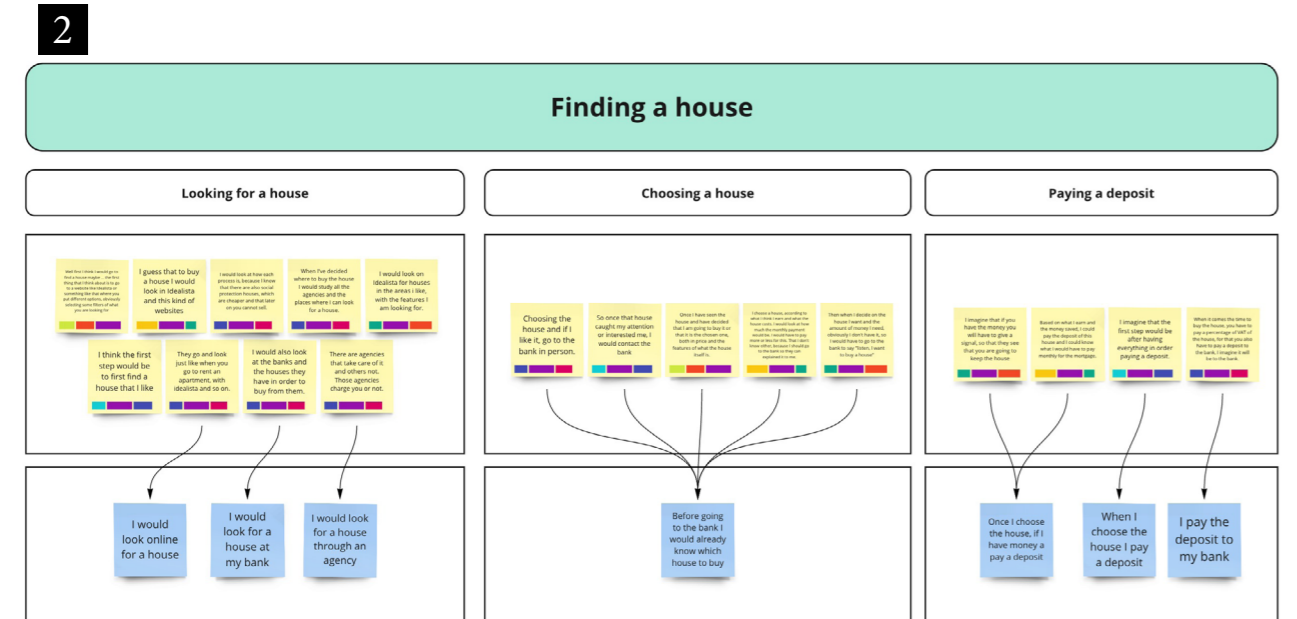


miro

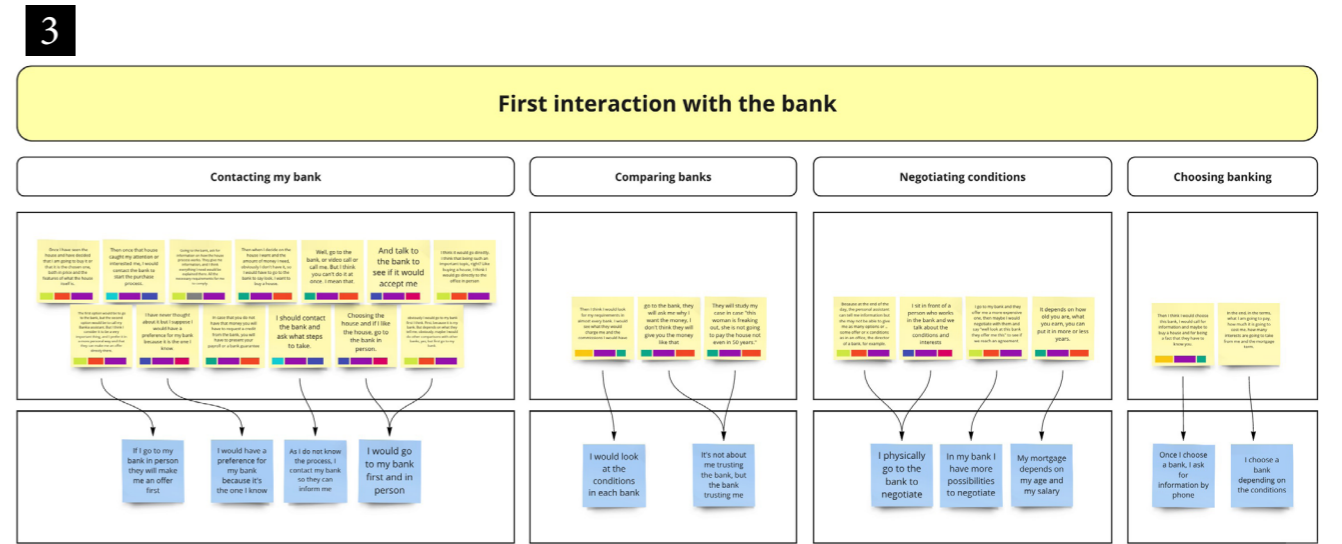
Participants without mortgage



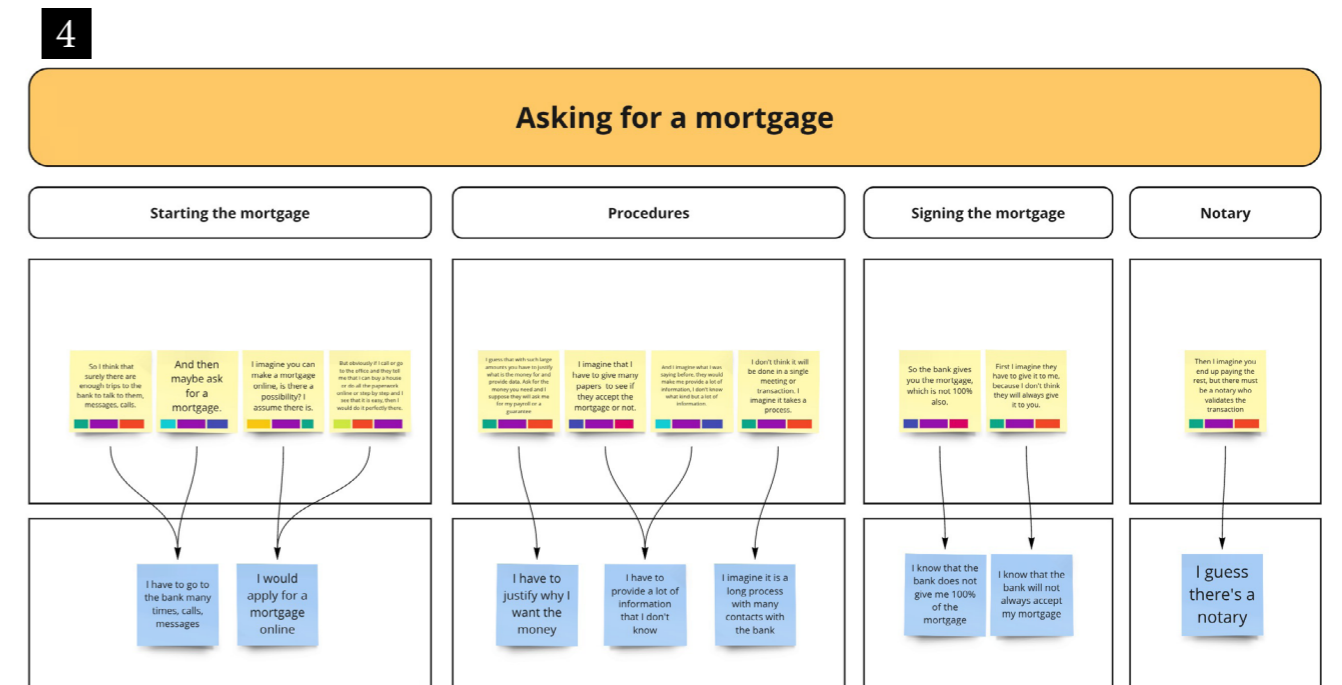
miro



miro



miro



miro

Appendix G

How Might We

How Might We (HMW) Statement

Insight: People don't feel prepared nor experienced enough to deal with the bank and the process by themselves.

Action: To be achieved

Encourage
Create a sense of reassurance
Engage
Manage expectations

Subject: Influenced or affected

Young adults

Outcome: What could be achieved

Have more fun during the process
Socially engaging

How Might We statement:

How might we create a sense of reassurance for young adults to make a social engaging home buying process?

How might we enable young adults to make the home buying process socially engaging.

How might we encourage young adults to have more fun during the home buying process?

How might we encourage young adults to have more fun during the home buying process?

How might we manage the expectation during the process so they can feel reassured?

How might we create a socially engaging process for young adults

List of requirements:

- The first step to make a selection of banks takes place online
- Let Banc Sabadell know the number of clients they lose due to mortgage (changing banks because of the mortgage -> churn rate)
- Suit young adults & the person that does the process with them.

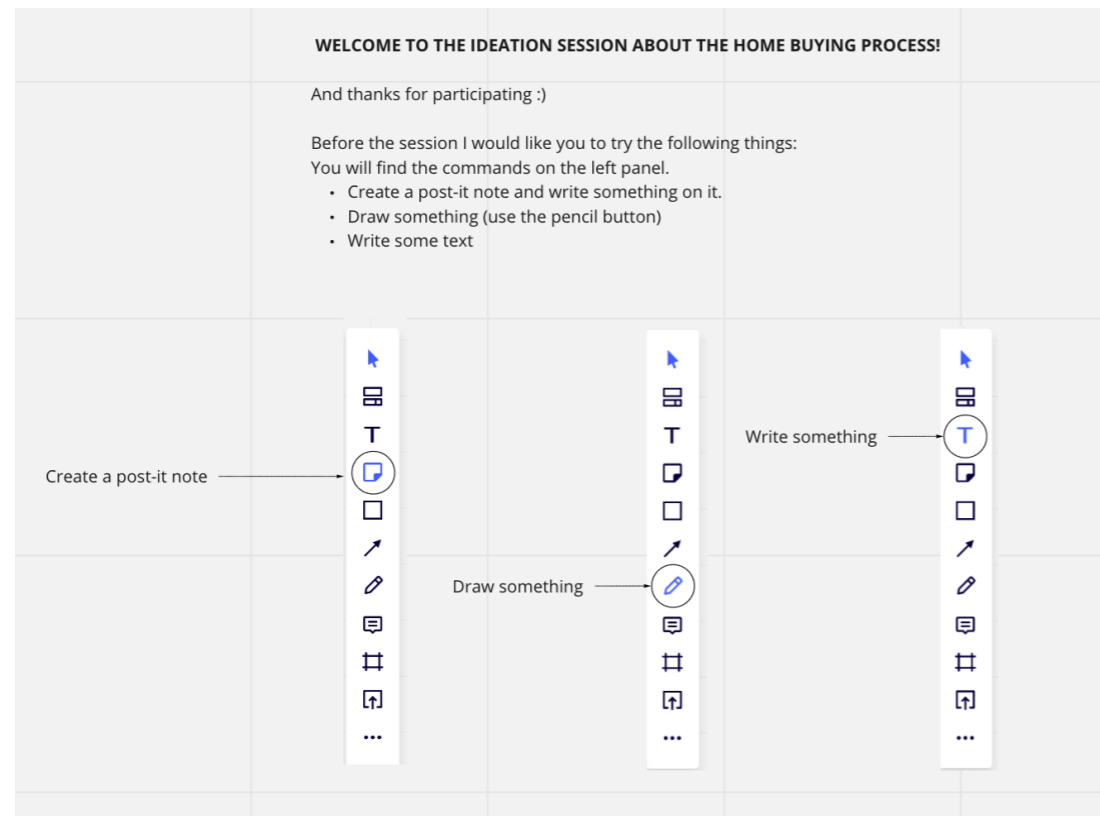
Appendix H

Ideation sessions

Users

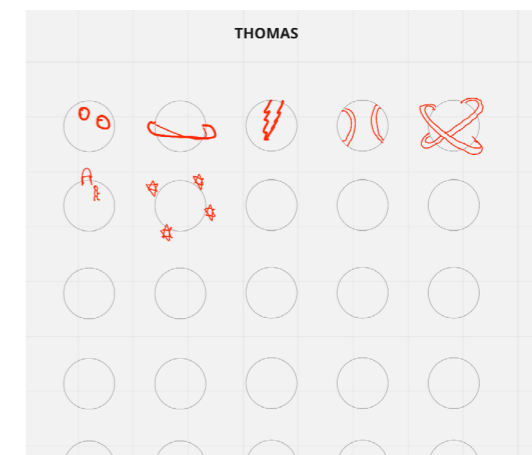
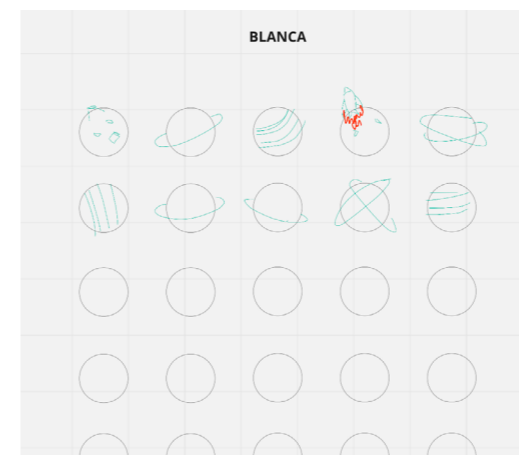
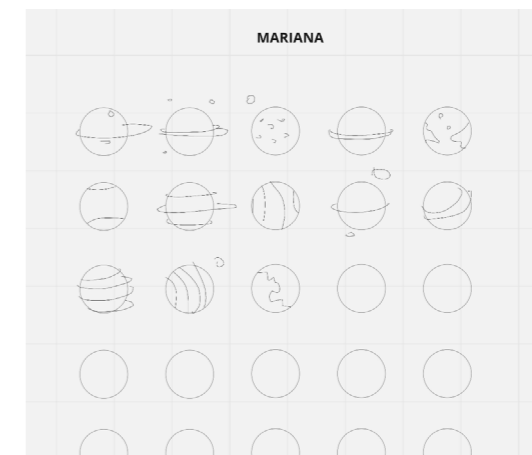
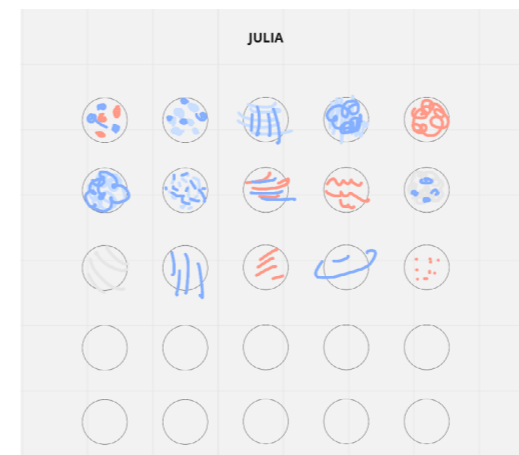
Participants were given access to the Miro whiteboard some days before the ideation session was conducted.

Several exercises were created for them as a way to help them practice and become familiar with the tool.



Warm-up exercise:

The context of this session was online. In order to motivate participants to interact with the whiteboard as much as possible, a simple and fun warm-up exercise was designed. The exercise consisted in drawing as many planets as possible during one minute. Participants were given several circles, and they had to draw a planet in each of this circle.



Sensitizing:

Previous to the meeting, each participant received a user persona. Those user persona stories were created from the How Might We statement. Every story represented the problem statement and problems that users are facing. The goal was to put participants in the shoes of the customers.

During the session, each participant was asked to introduce to the team, the user persona that they were assigned.

Juan, 33

Hola! Me llamo Juan y tengo 33 años. Vivo en Palma de Mallorca y trabajo como profesor. Compré mi primera casa a medias con mi pareja Mar hace 3 años. Estábamos cansados de estar cambiando de piso así que decidimos por fin comprarnos nuestra casa.

Empezamos el proceso 2 años antes, para hacernos una idea de lo que podía haber en el mercado y fuimos a nuestro banco, el Sabadell, para entender dónde podíamos llegar económicamente. Cómo te puedes imaginar, la compra de nuestra casa fue un proceso larguísimo de más de dos años y estábamos agotados.

Durante todo este tiempo fuimos personalmente a varios bancos, y aunque mi pareja siempre me acompañaba yo llevaba toda la comunicación. Al final nos cambiamos de banco, ya que el trato del Sabadell no nos gustó nada; nos dieron una hoja y nos dijeron "os la miráis y cuando lo tengáis claro venís". Así que en ese momento decidimos dejar de ser clientes del Sabadell. Elegimos Ibercaja porque una amiga de mi pareja nos lo recomendó y el trato fue muy bueno.

Para nosotros el trato que te ofrecen los bancos es indispensable ya que es un proceso tan tedioso, con mucha documentación, llamadas, trámites... Además, siento que una hipoteca es importante para nosotros, pero también para el banco; al fin y al cabo, es el producto más importante para el banco. Entonces si yo me esfuerzo, ellos también deberían esforzarse. Pero al final, ellos solo intentan hacer negocio, así que si le dedicas tiempo puedes jugar tu también como juegan ellos. Nosotros tenemos todas las condiciones, yo me dediqué a estudiarlas, a mirarlas y decidí jugar.

Dicho esto, considero que es un proceso muy largo, cansado y agotador.

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Hola, me llamo Marc y tengo 27 años. Vivo en Valencia y trabajo como meteorólogo en la Televisión Autonómica Valenciana. Hace 3 meses me compré mi primera casa; un piso en Valencia. Tomé la decisión muy aleatoriamente ya que me di cuenta que llevaba 10 años pagando alquileres en diversas ciudades como Madrid, Barcelona y Valencia.

Cuando decidí adentrarme en el proceso de compra de la casa no tenía ni idea de como era, por eso le di toda la responsabilidad a mi madre. Confíe mucho en ella para que tomara las decisiones en cuanto al banco, llevar la comunicación, la negociación de la hipoteca, etc. La hipoteca solo era para mi, pero la ayuda y apoyo de mi madre fue fundamental durante el proceso.

Pagamos la señal del piso en febrero, y entonces tuvimos un mes de plazo para encontrar un banco con el que hipotecarme. Al final mi madre y yo decidimos hacerlo con el Santander y tuve que ir varias veces al banco personalmente, pero siempre con la compañía de mi madre para que me ayudara. Creo que si mi madre no hubiese estado me la hubieran pegado por todas partes. De hecho te das cuenta de que tienes que estar muy atento porque te la pegan, tanto la inmobiliaria, como el tasador, como el banco.

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Elegir piso, que es la primera parte del proceso, no fue nada fácil. Desde un principio partimos de un presupuesto que nosotros fijamos. Nuestro objetivo era poder comprar algo y, a la vez, poder llevar una buena vida, sin agobios, seguir viajando y disfrutando de otras cosas. No queríamos una hipoteca que nos tuviera atados. Necesitamos mucha paciencia y mirar diariamente por internet.

El proceso de compra duró 6 meses e influyó mucho la opinión de nuestras familias. Además, nos surgieron muchas dudas durante el proceso. Todo era una novedad para nosotros, así que tuvimos que llamar a muchos bancos y a nuestros padres para que nos lo explicaran. Toda la comunicación con el banco fue remota, nunca fuimos a la sucursal, siempre contactábamos por teléfono.

Durante el proceso estábamos muy nerviosos porque, antes de comprar la casa, tuvimos que pagar una reserva sin tener la hipoteca y nos asustaba que no nos concedieran la hipoteca o que nos concedieran una con malas condiciones y perder ese dinero.

La compra de nuestra casa fue un proceso largo y lo recuerdo como una época agobiante. Había mucho dinero de por medio y fue una época muy dura.

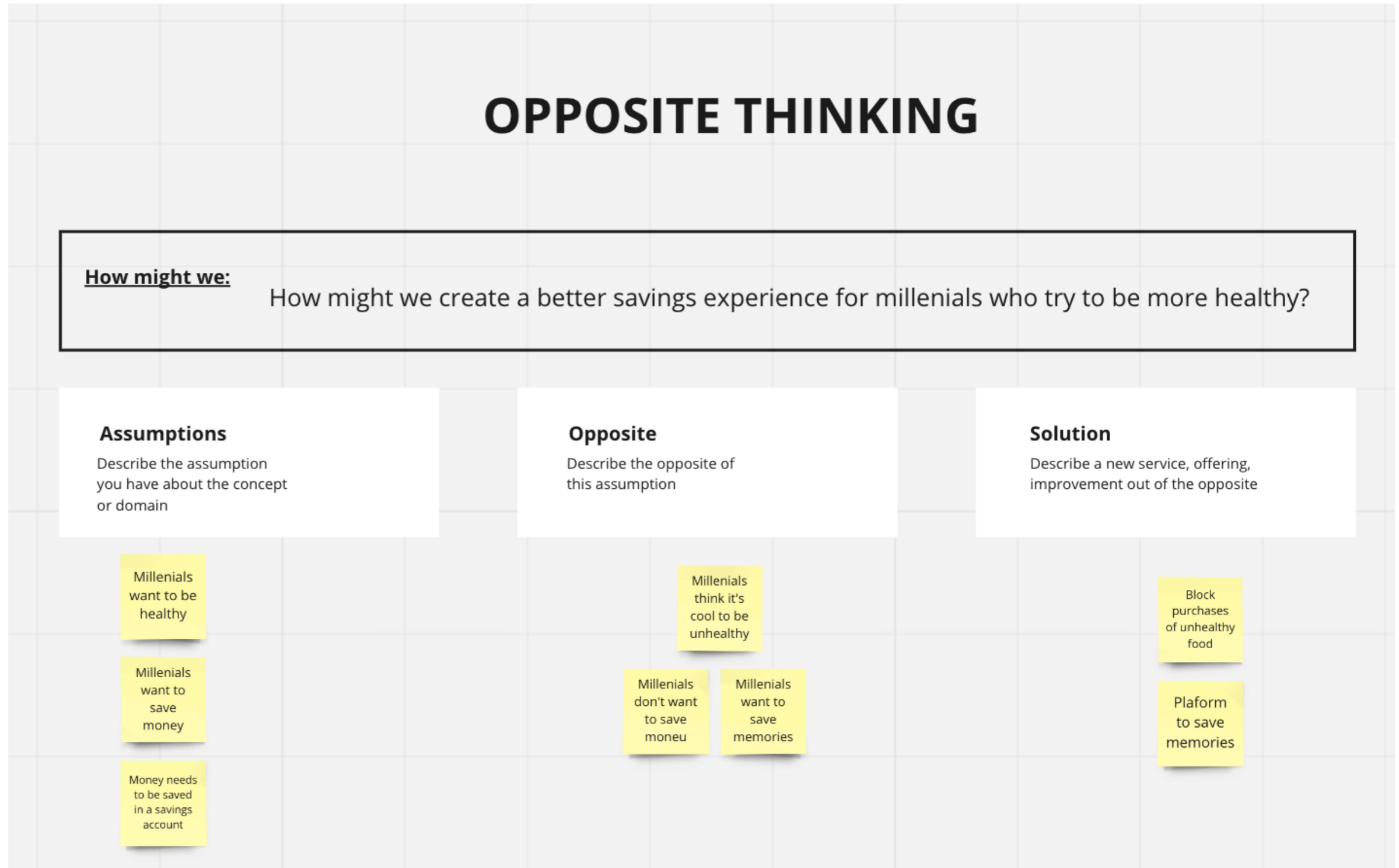
Opposite thinking

Introducing the tool through a savings example.

The goal of this exercise was to challenge the assumptions about the HMW statement. The expected outcome is to define possible solutions through non-common ideas.

In order to explain the exercise to the participants, a short savings example was used. Process:

1. Each participant writes down 2 assumptions about the problem to be solved.
2. Share assumptions with the rest of the participants and add them under the left column.
3. After everyone has shared their assumptions, participants have to brainstorm individually about potential opposites.
4. Participants share again the opposites and clusters them.
5. Participants ideate solution from the opposites. At the end of the session, ideas are shared and discussed.



HOW MIGHT WE MAKE THE HOME BUYING PROCESS SOCIALLY ENGAGING FOR YOUNG ADULTS?

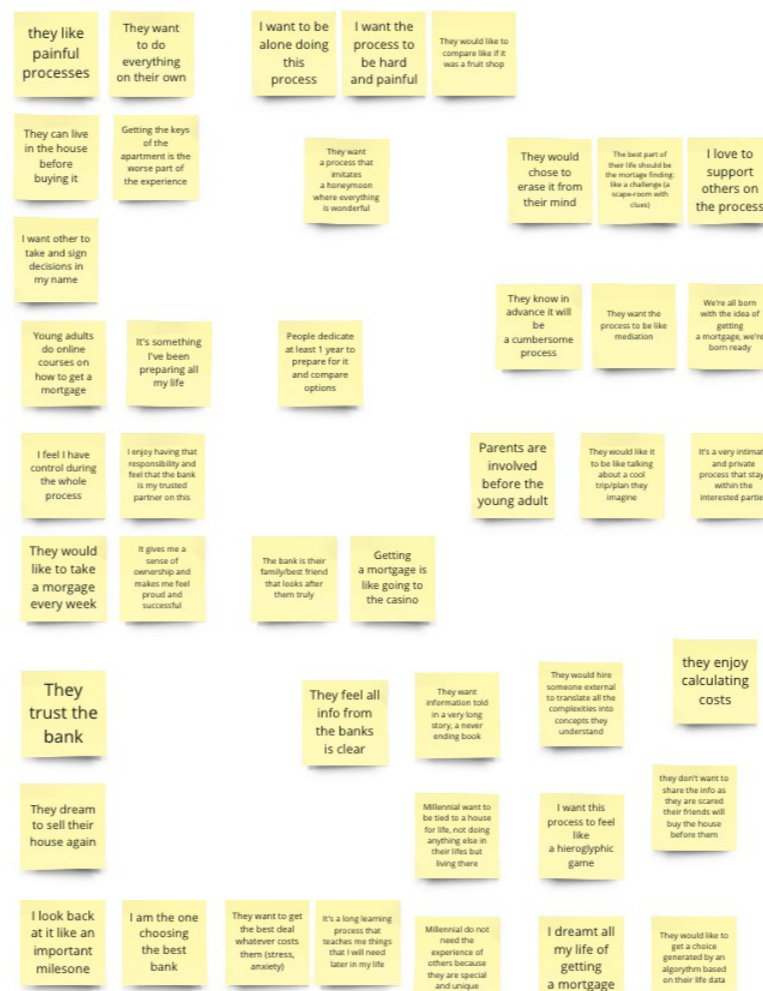
Assumptions

Describe the assumption you have about the concept or domain



Opposite

Describe the opposite of this assumption



Solution

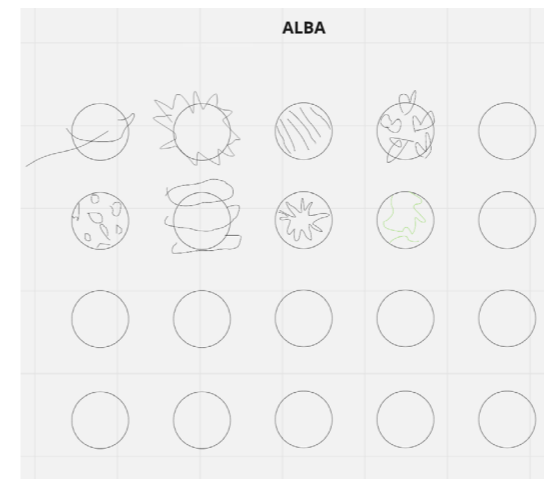
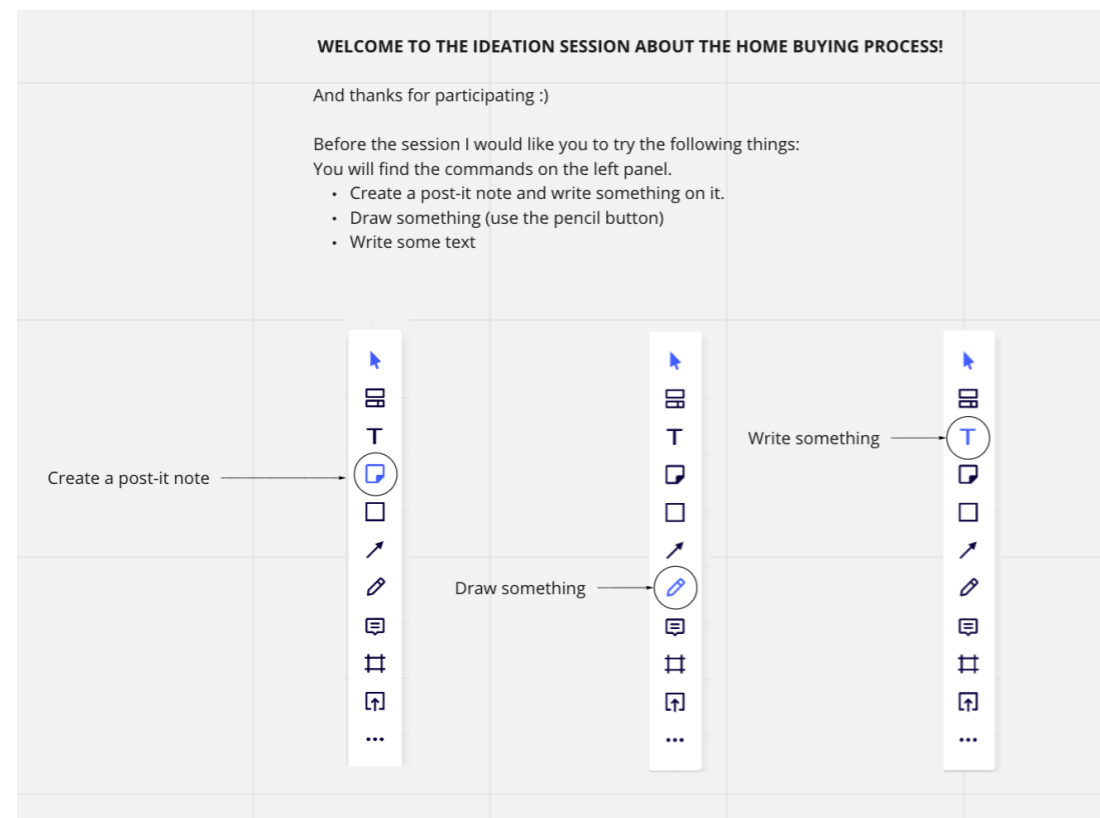
Describe a new service, offering, improvement out of the opposite



Bank employees

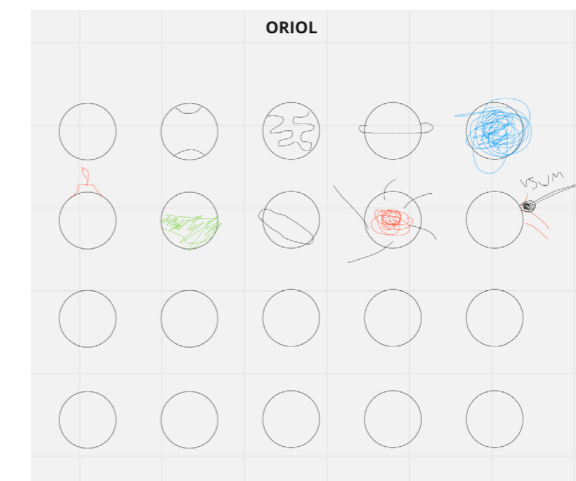
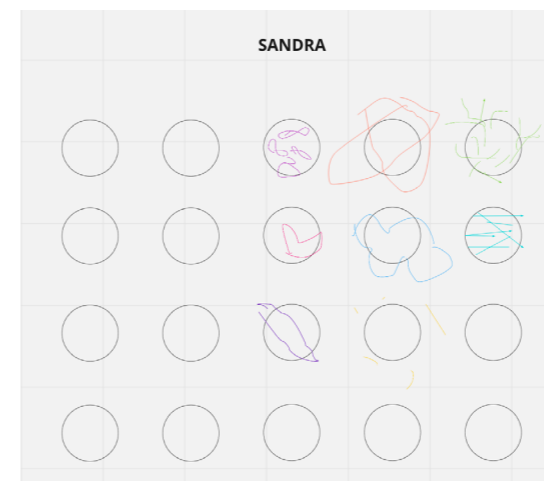
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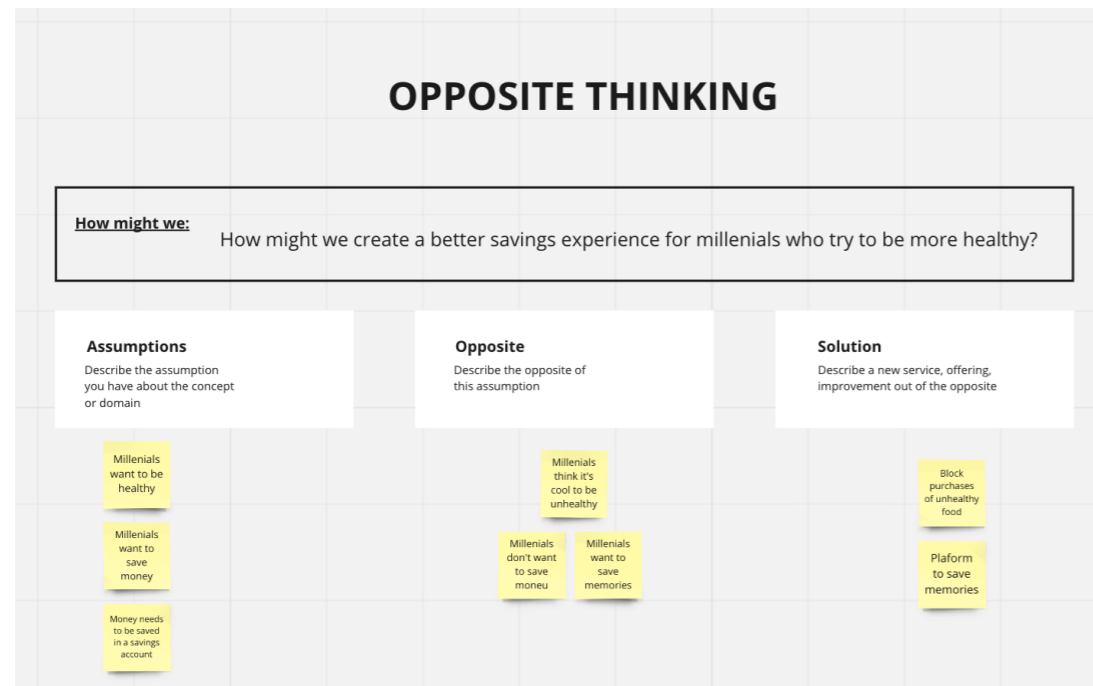
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The goal of this exercise was to challenge the assumptions about the HMW statement. The expected outcome is to define possible solutions through non-common ideas.

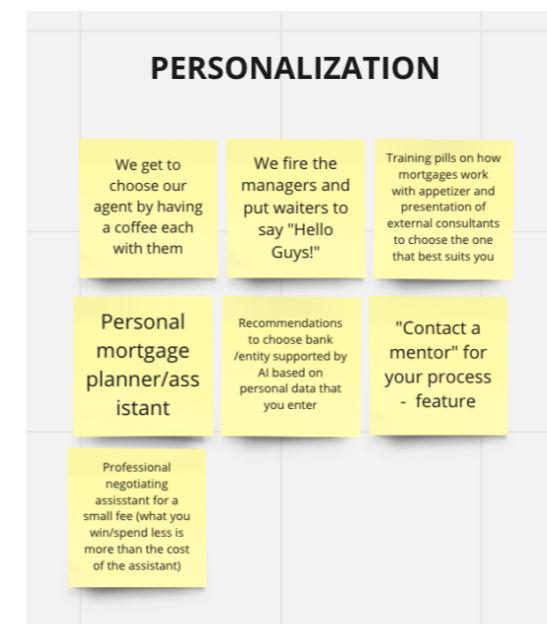
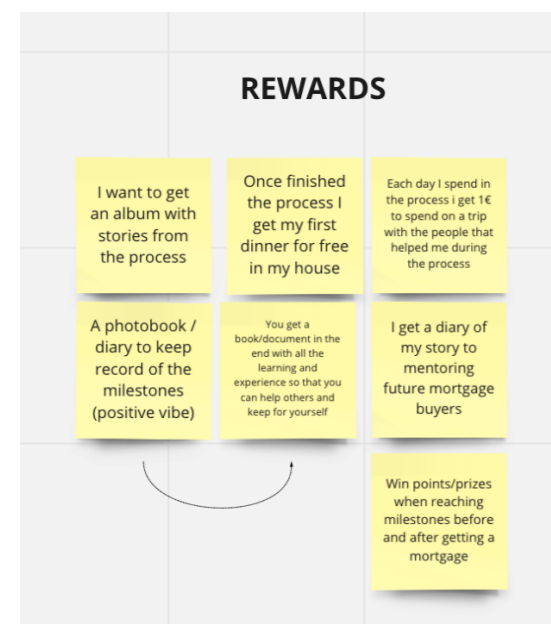
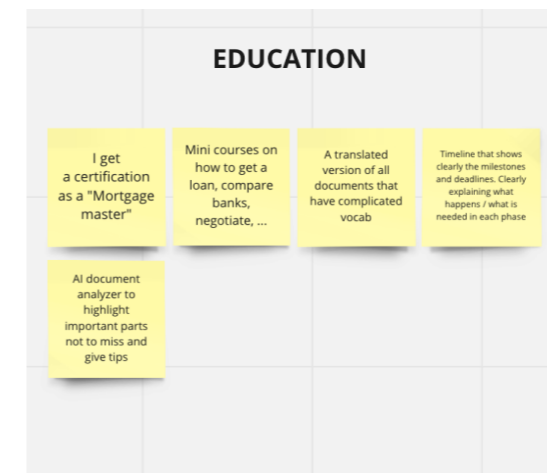
In order to explain the exercise to the participants, a short savings example was used.

Process:

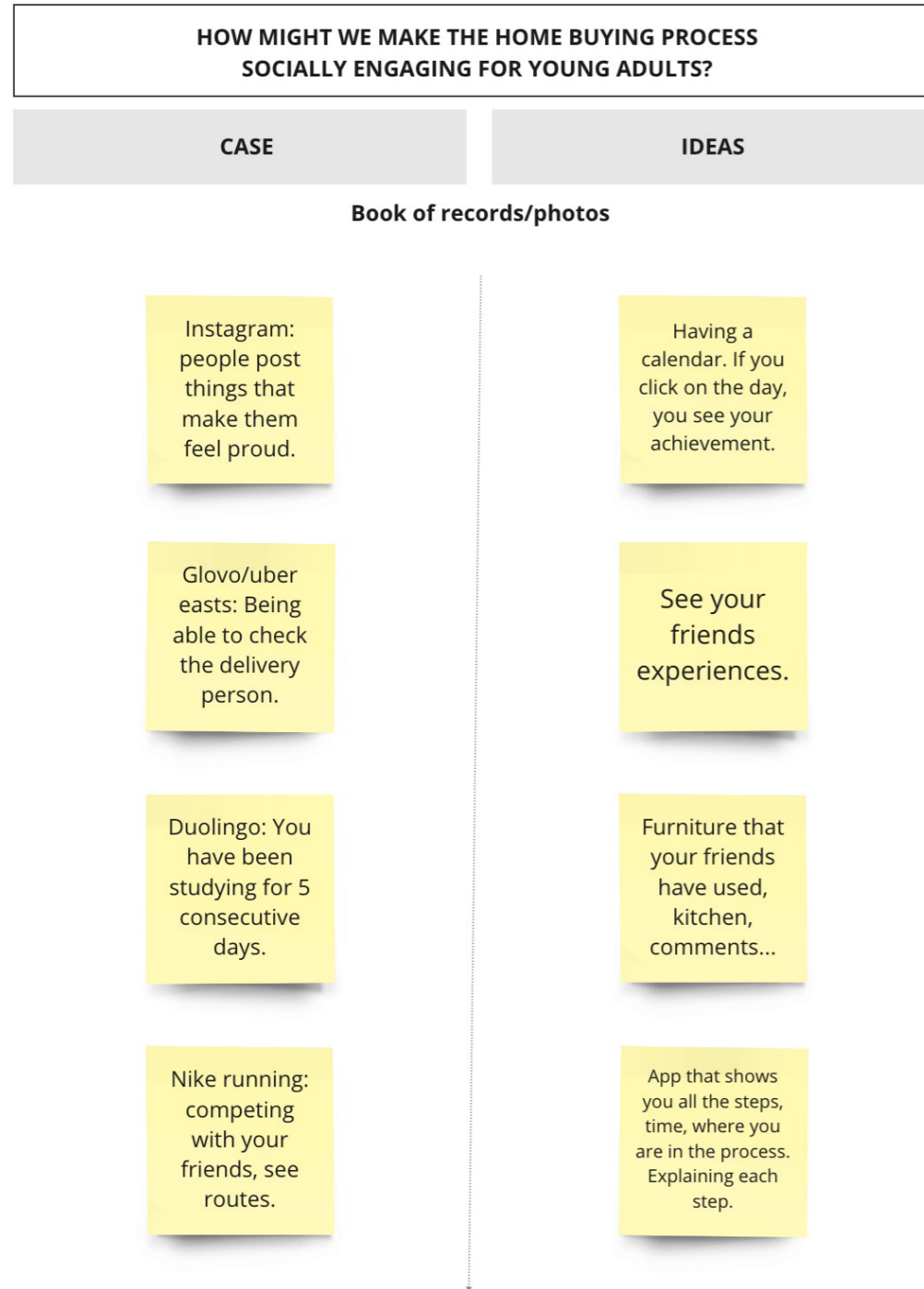
1. Each participant writes down 2 assumptions about the problem to be solved.
2. Share assumptions with the rest of the participants and add them under the left column.
3. After everyone has shared their assumptions, participants have to brainstorm individually about potential opposited.
4. Participants share again the opposites and clusters them.
5. Participants ideate solution from the opposites. At the end of the session, ideas are shared and discussed.



After conducting the two sessions, the researcher clustered the ideas generated. The following images show the clustered that emerged from the ideation sessions.



Analogies



Design sprint

Day 1

Agenda - Day 1

1. Set a long term goal

- Why are we doing this project?
- Where do we want to be in 2 years?

2. List sprint questions

- What do we want to answer in this sprint?
- To meet our long-term goal, what has to be true?
- Imagine that we fail. What might have caused this?

3. Map

- List the actors on the left.
- Write the ending.
- Words and arrows to connect.

4. How Might We

5. Pick a target

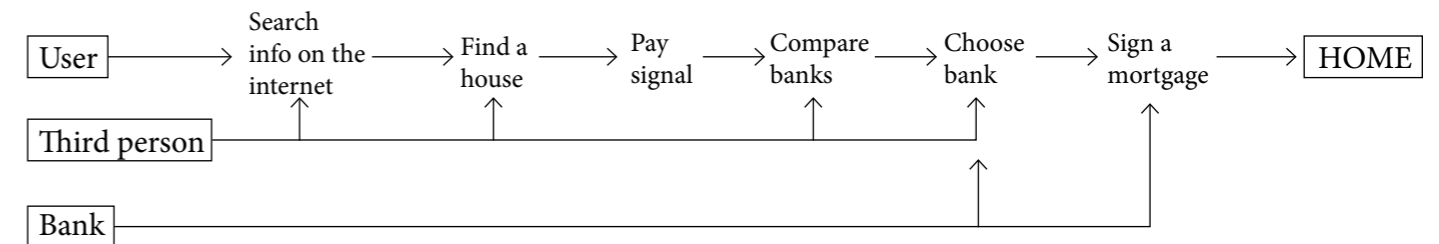
1. Long term goal

Offer a socially engaging home buying process to young adults.

2. Sprint questions.

- Is it easy to use?
- Is is engaging for the users?
- Does it convey trust and transparency?

5. Map



4. How might we

<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Design for everyone involved.</p>	<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>As a bank, put more effort in the process.</p>	<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Manage expectations.</p>	<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Do not make any step physically or digitally mandatory.</p>
<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Make users feel prepared.</p>	<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Engage users through the process.</p>	<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Make people enjoy the process.</p>	<div style="background-color: #007bff; width: 10px; height: 10px; margin-bottom: 5px;"></div> <p>Design a smooth process.</p>

■ ■ ■ Clusters
★ ★ ★ MW notes selected

Day 2

Agenda - Day 2

1. Lightning demos

- Make a list of services, product to review for inspiring solutions (30 min).
- 3 minutes demos (15 min).
Show in 3 minutes the most important feature of the product, what is cool about it.
- Visualize - write down important things (30 min).

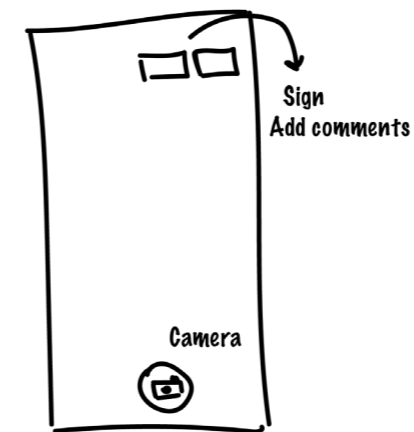
2. The 4-step sketch

- Notes (20 min)
- Ideas (20 min)
- Crazy 8s (8 min)
- Solution sketch (30 min)

1. Lightning demos

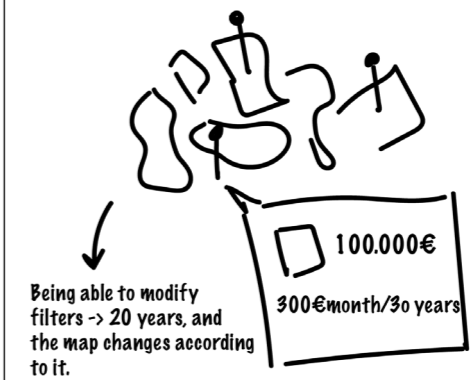
TAP SCANNER

Being able to scan the documents, sign and add comments, in case everything is not clear.



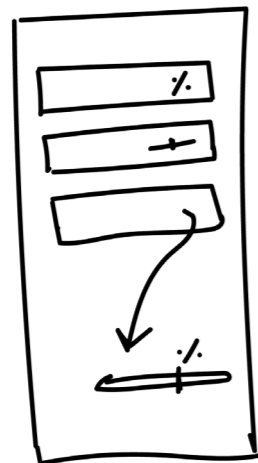
MAPS.ME

Maps with pin where you add the house that you like with pictures, price and the app calculates your mortgage.



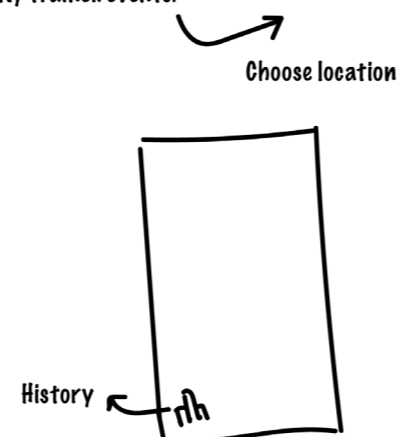
SPLITS TRAINING

Visual calendar that tells the user what they need to do and % completed.



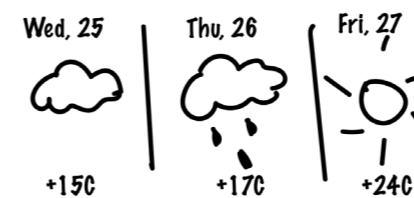
NIKE RUNNING

Belonging to a community.
My trainer/events.



WINDY

Recommending the best day to see the house. For example, if thursday rains it's better to go on Friday cause it's sunny.

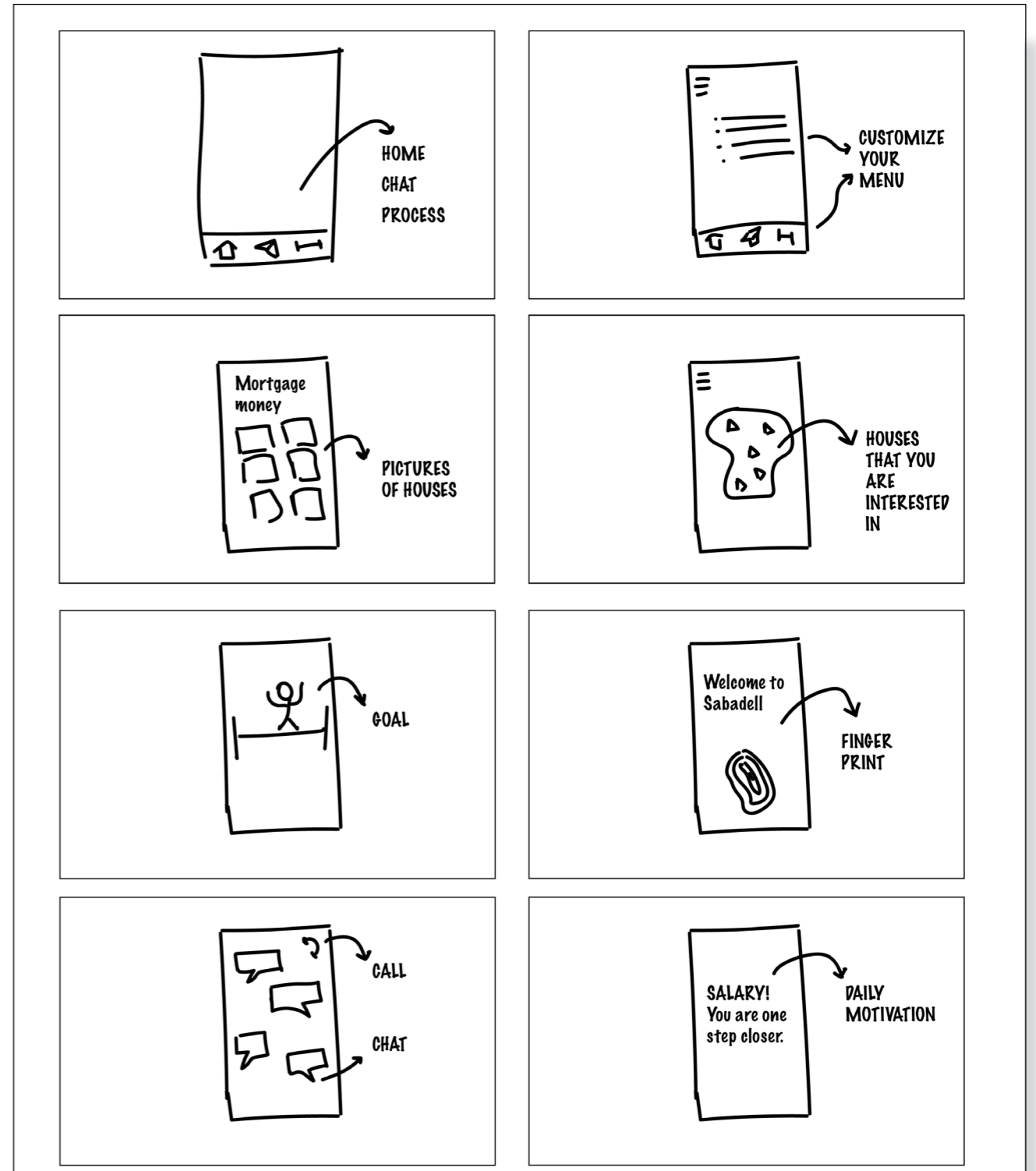
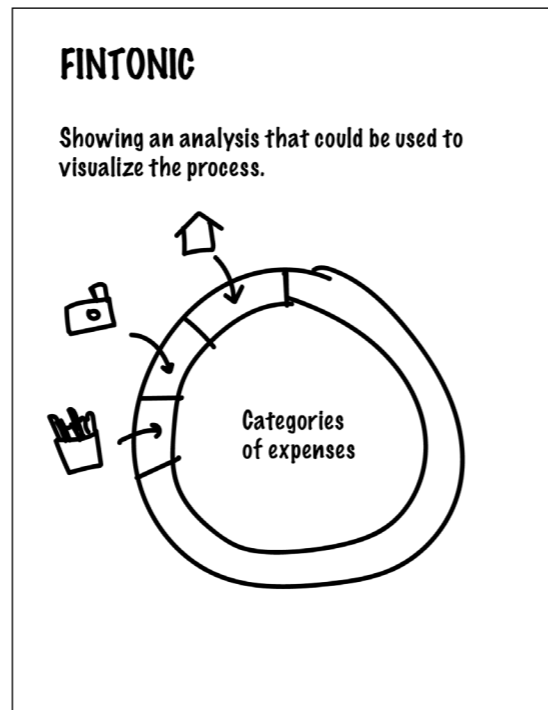
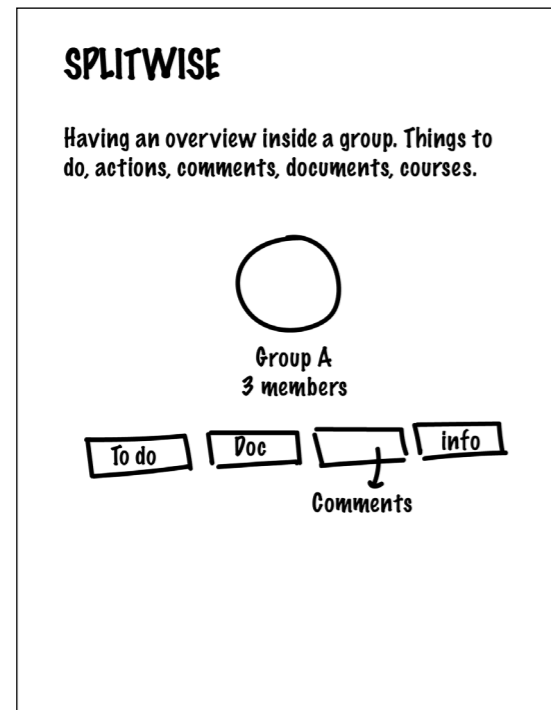
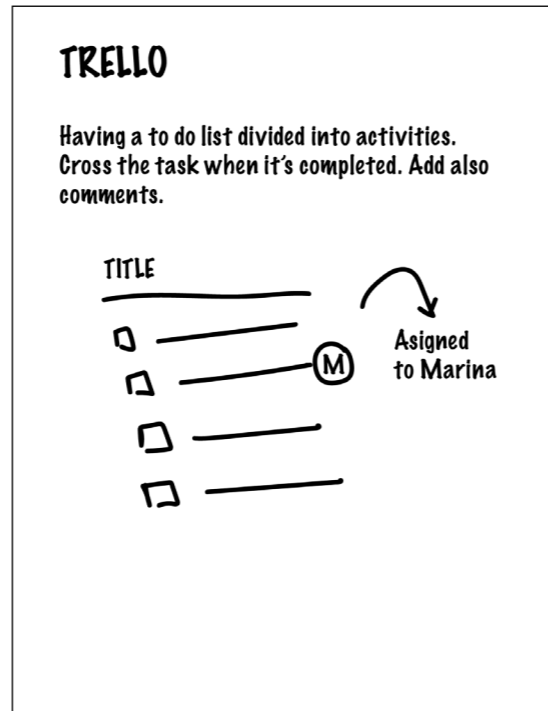


PEOPLE

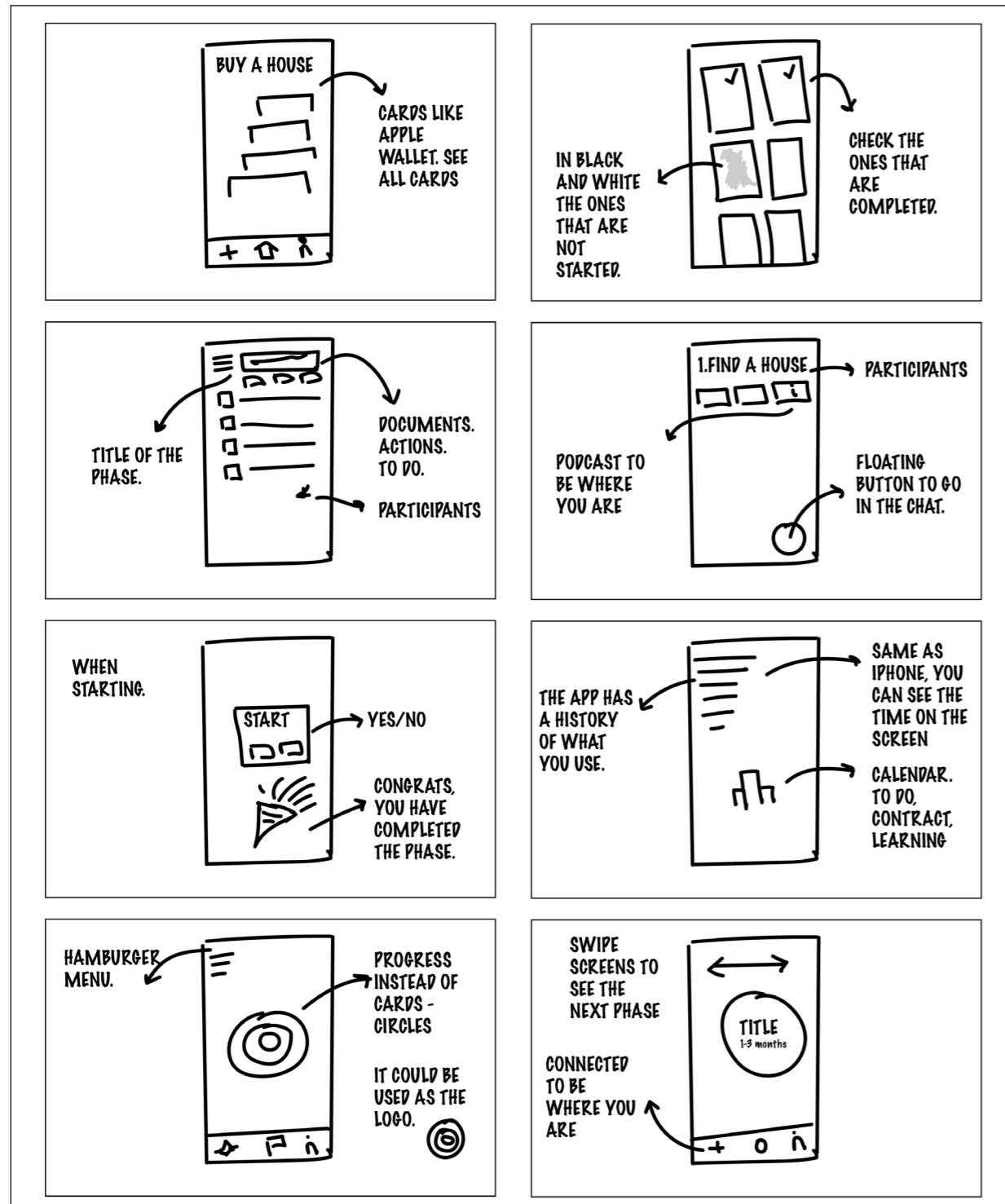
Being able to see the recommendations from other people.



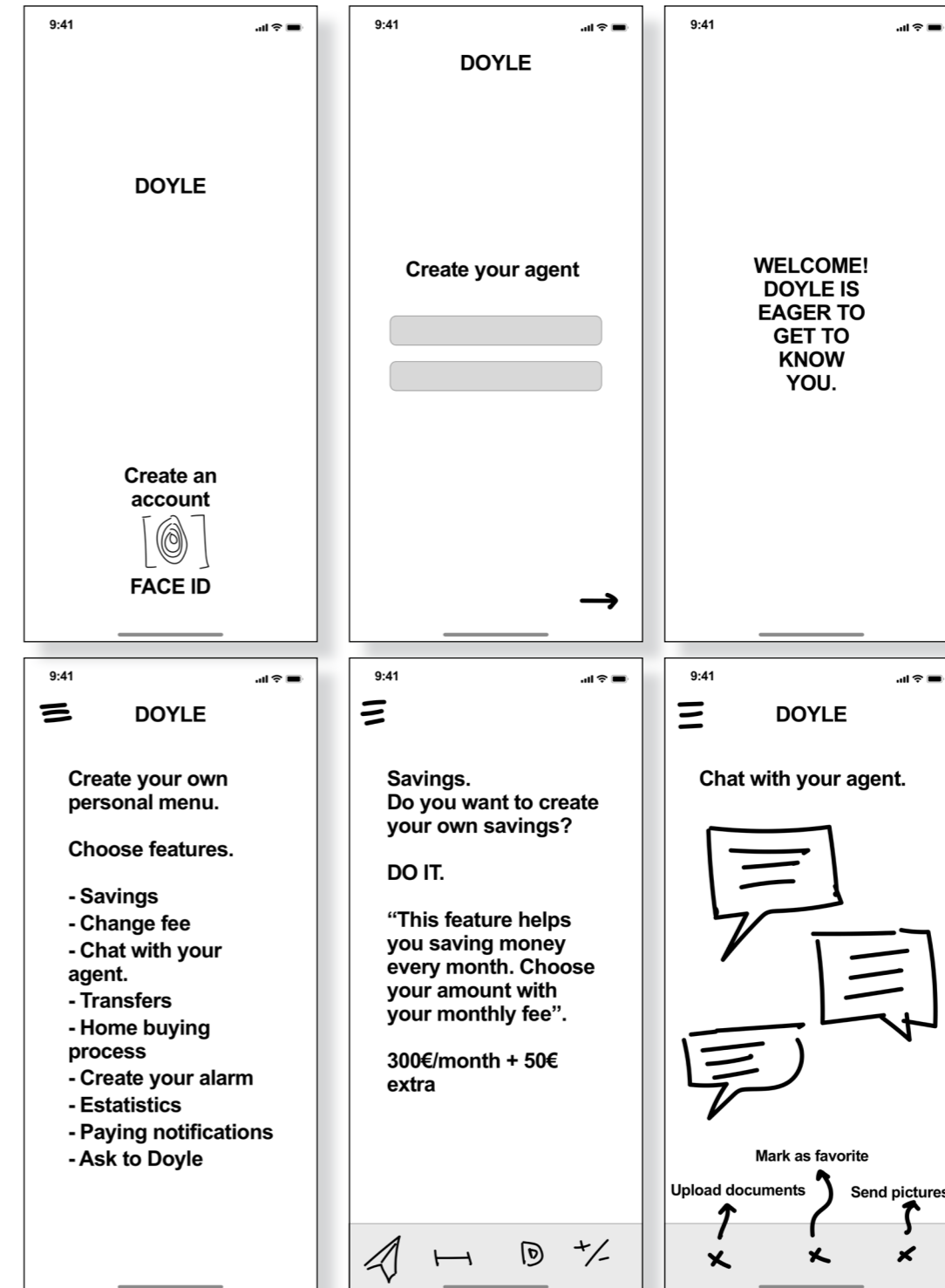
2. Crazy 8s - participant 1



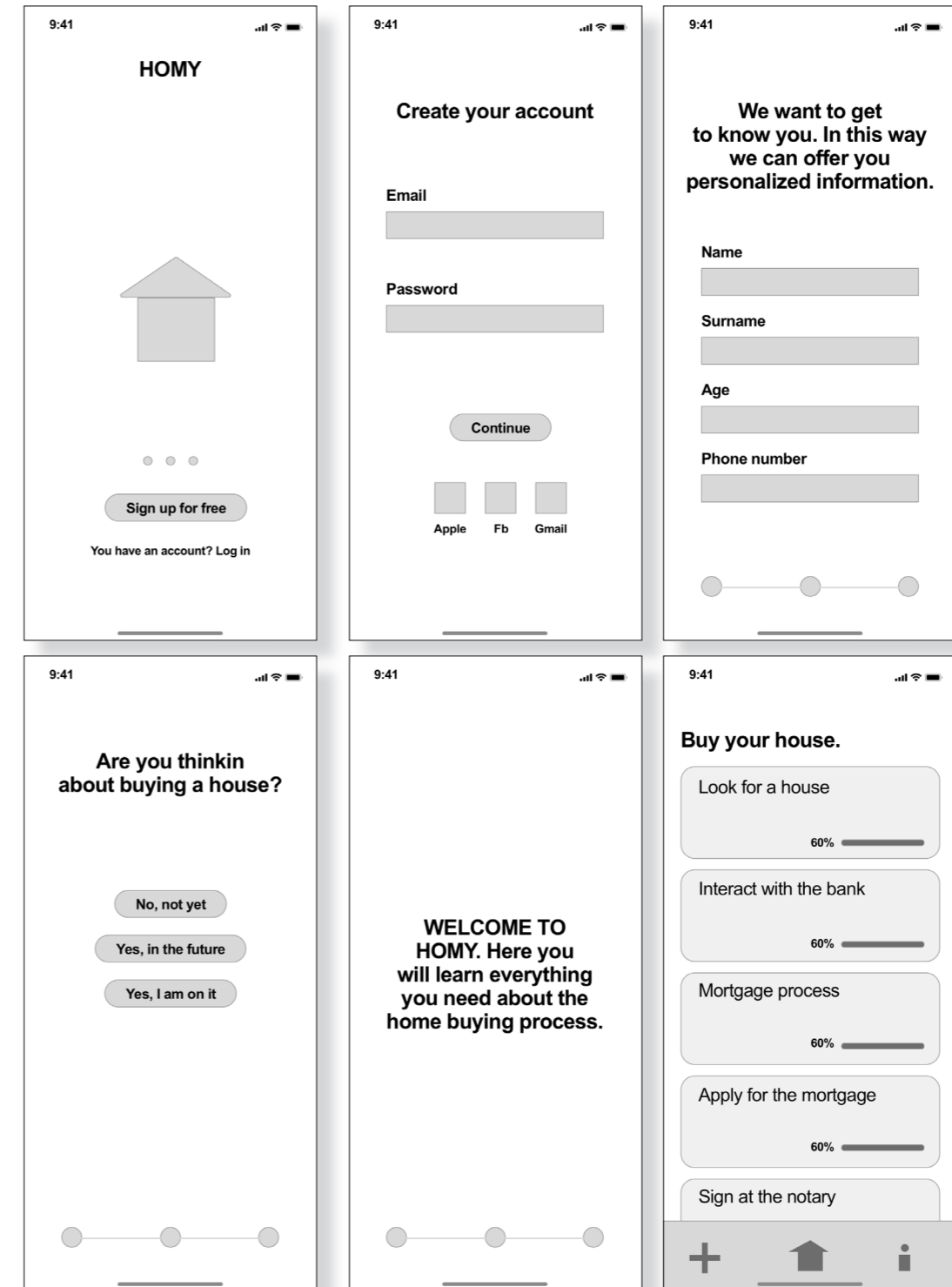
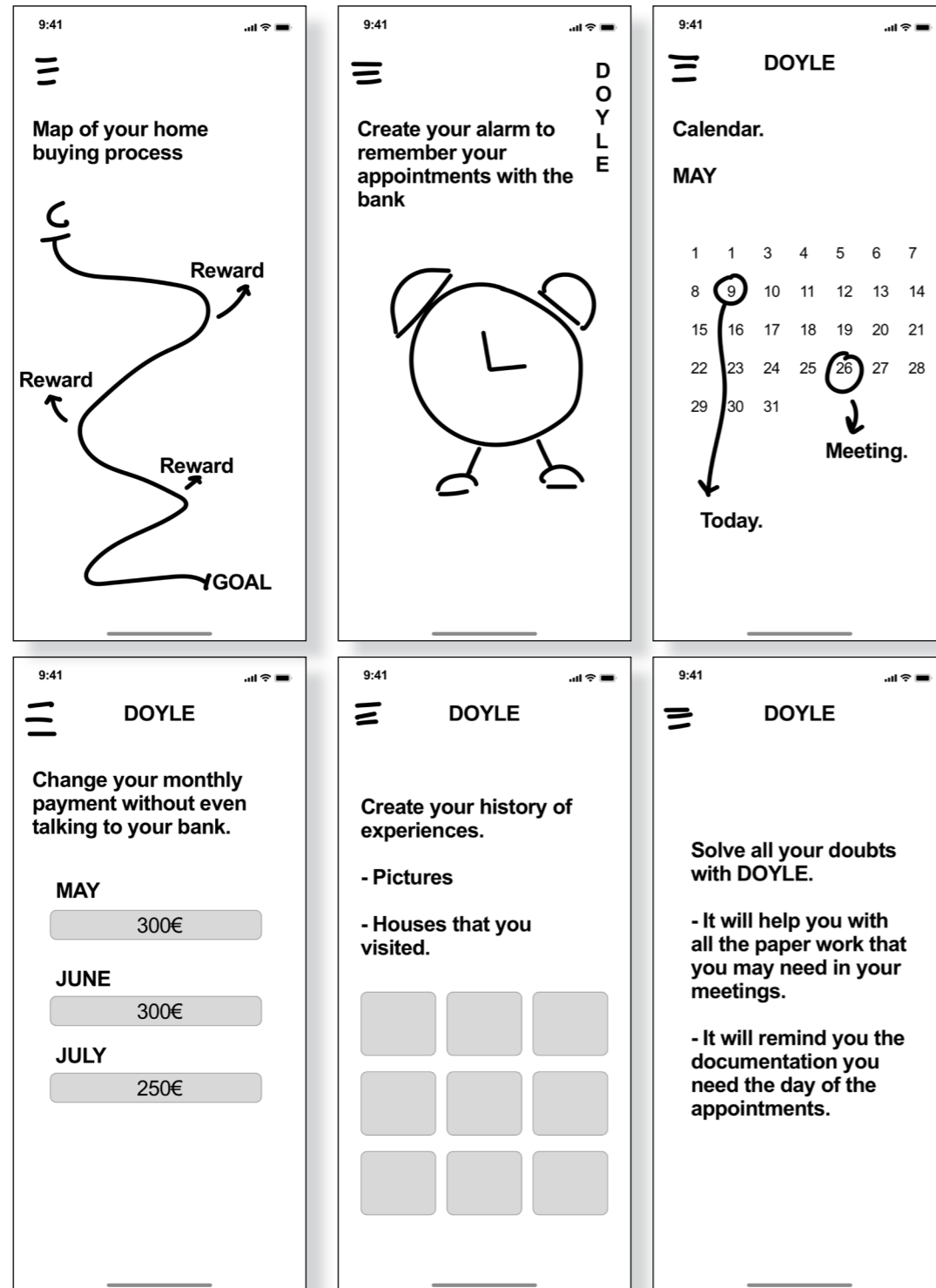
Crazy 8s - participant 2

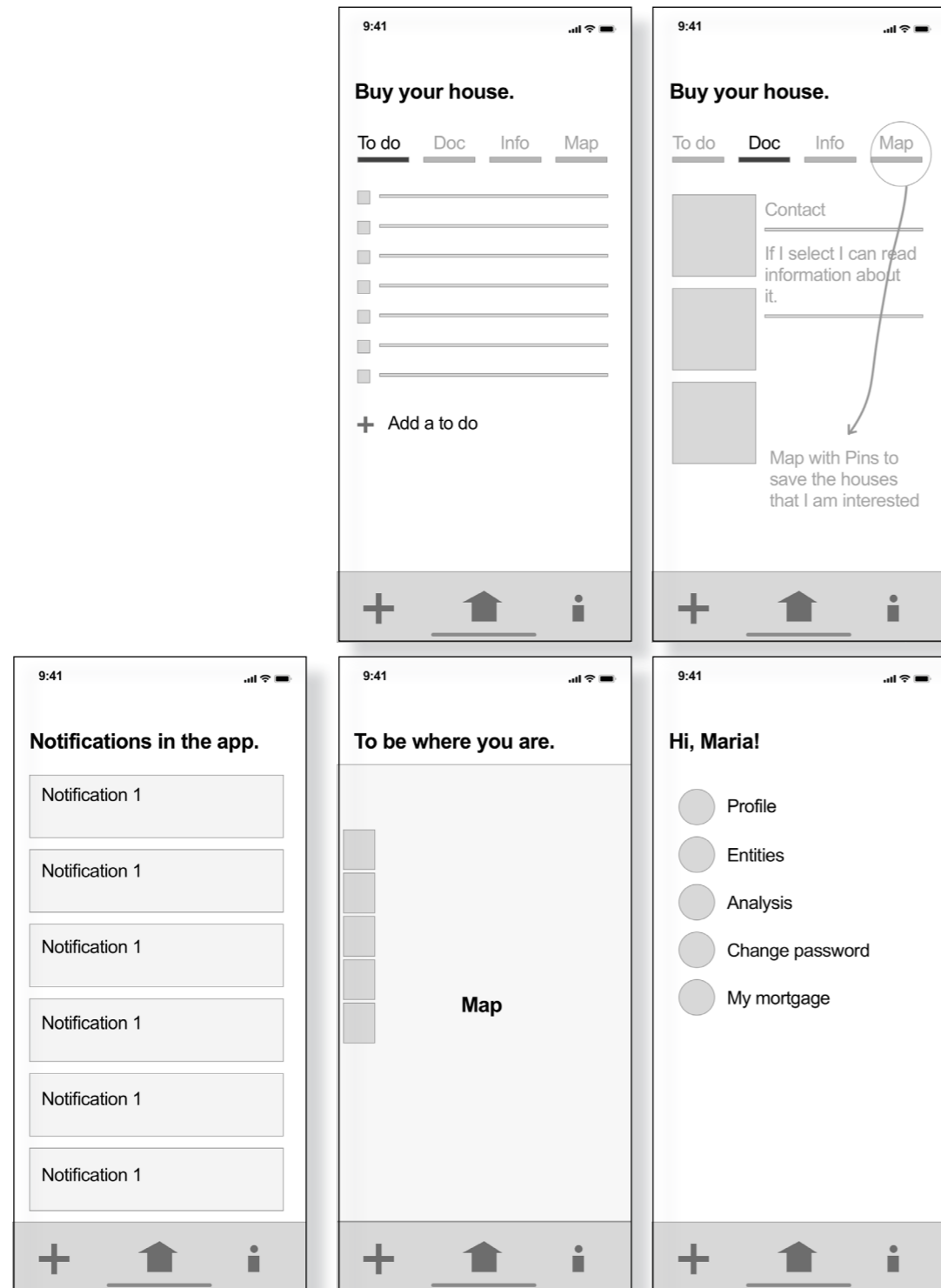


Sketch - participant 1



Sketch - participant 2





Day 3

Agenda - Day 3

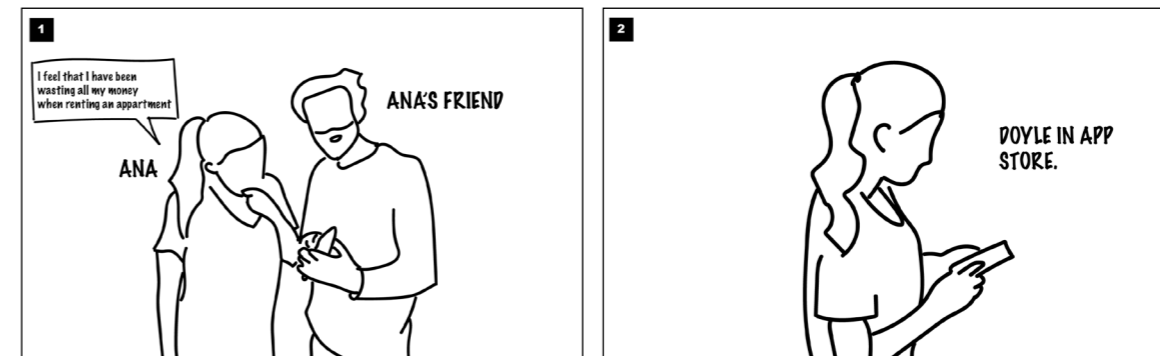
1. The sticky decision

- Art museum
- Heat map
- Speed critique

2. Storyboarding

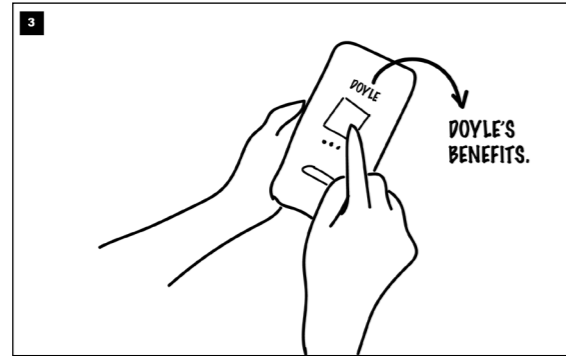
- Draw a grid
- Starting point
- Start on the App Store

Storyboard

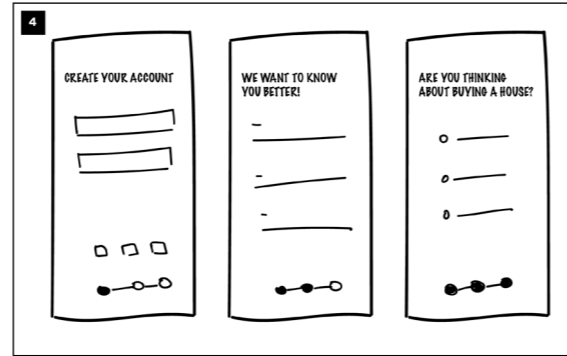


This is Anna. She has been renting apartments during 8 years. After 3 years working and saving money, she decides that it is time to start thinking about buying a house.

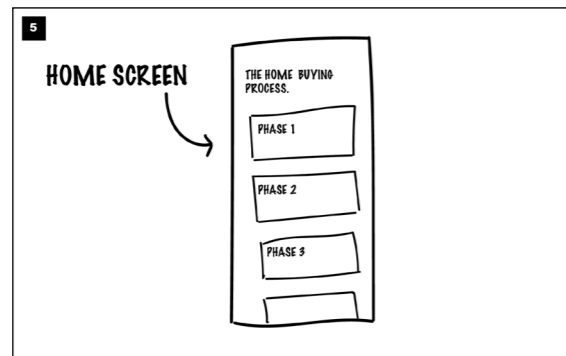
His friends recommends her to use Doyle. An app that is easy to get hands on the process. Anna downloads the app on App store.



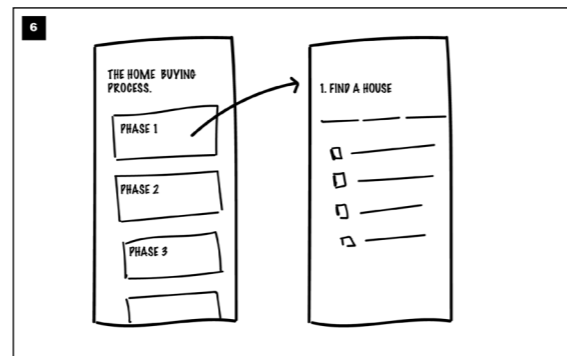
Anna reads the benefits of Doyle and decides to download it and give it a try.



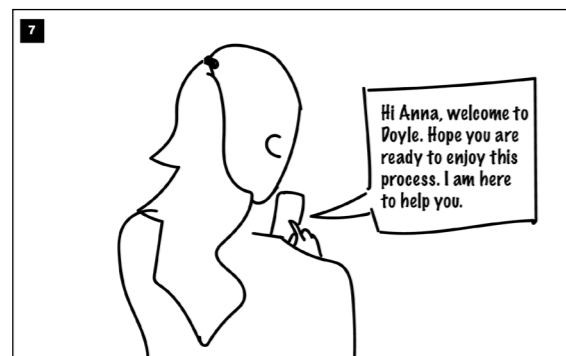
Anna provides her personal information as a way to receive more personalized information.



Anna is automatically on the home screen. There, she can see all the different steps in the buying process.



Moreover, Anna selects a card to see more detailed information.



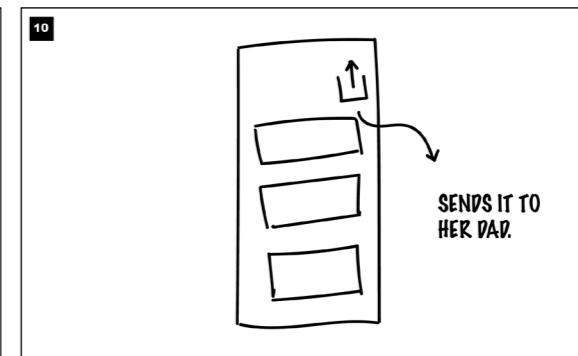
After some minutes exploring the app, Anna receives a message from her agent. Anna answers and they start a short conversation.



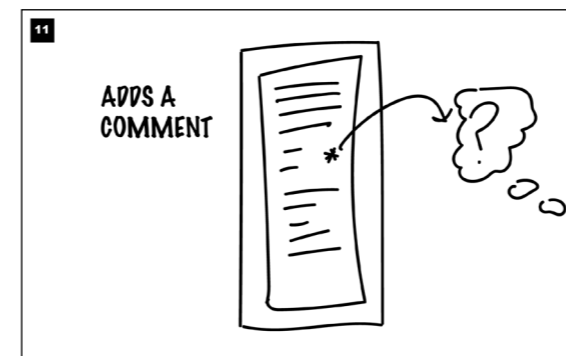
Anna has time to explore and navigate through the app. She reads podcasts and articles before starting the process. Anna has some doubts, so she texts to her agent.



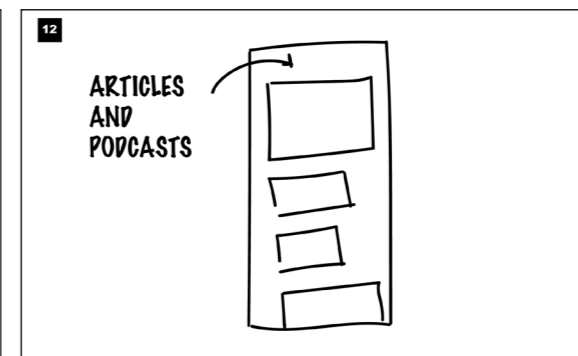
Anna is not sure where to live or in which neighborhood she wants to find her future apartment, so she interacts with the map from "Be where you are".



After Anna has been going through the process, she receives notifications. She also invites her dad to help her through the process.



Anna's dad has doubts regarding a specific document. He adds a comment and Anna receives a notification.

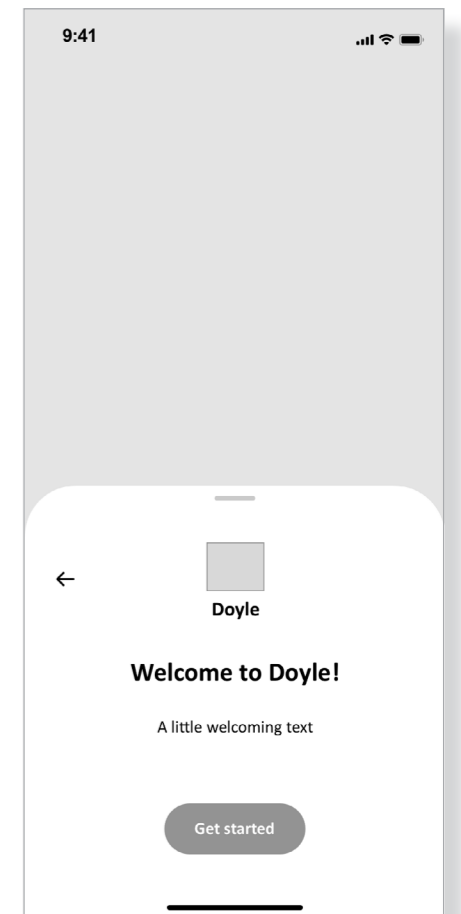
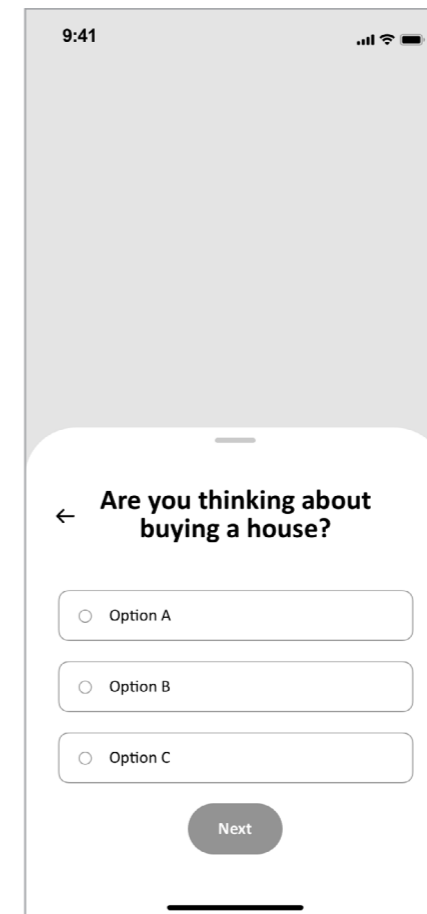
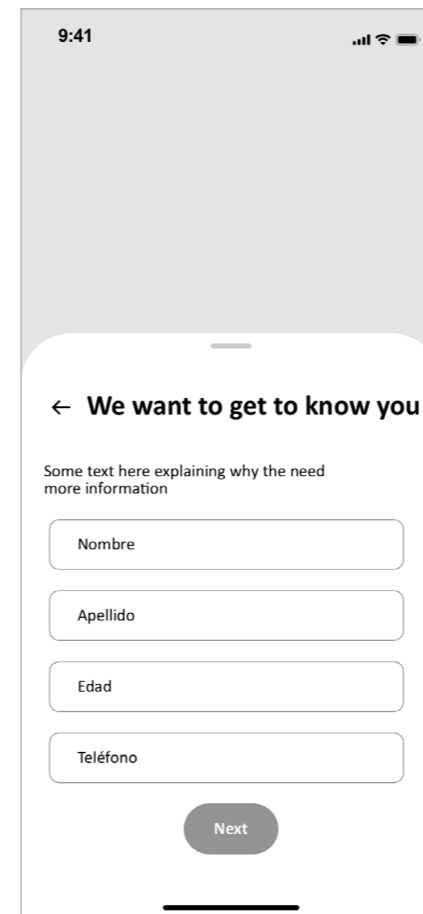
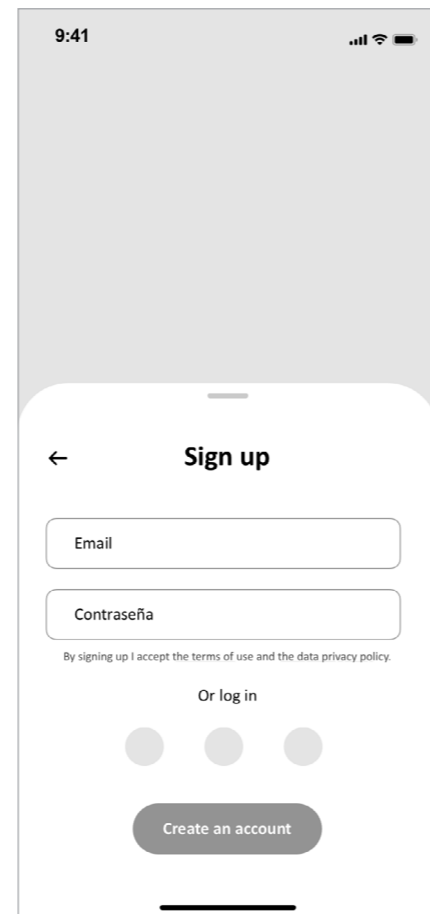
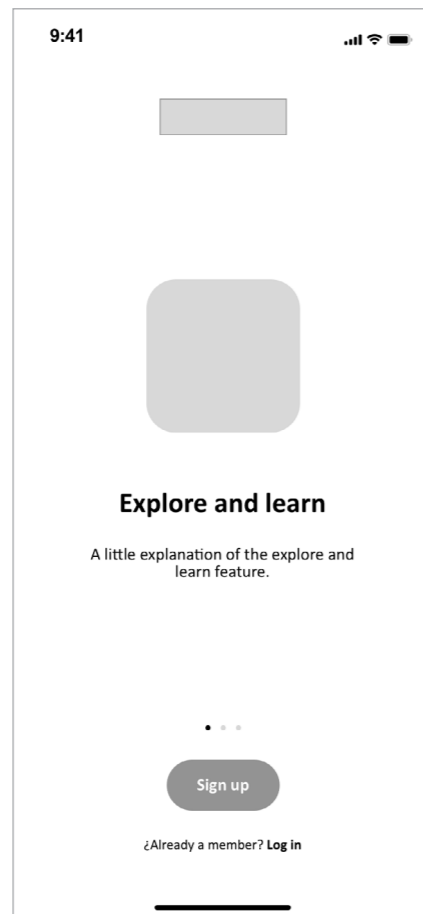
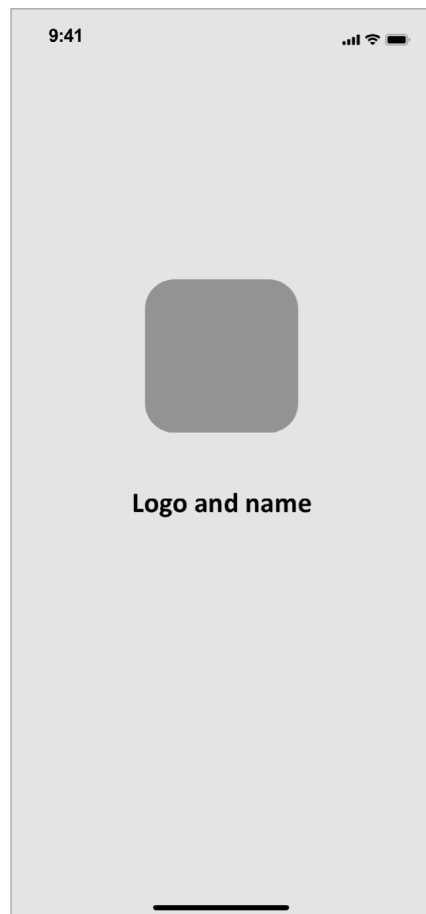


Anna wants to learn more about the process, so she learns more about it in the "Explore" section.

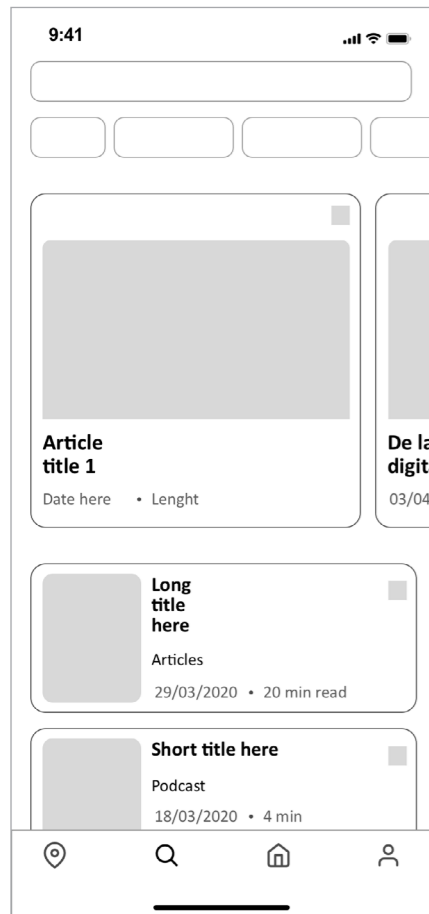
Appendix J

Wireframes

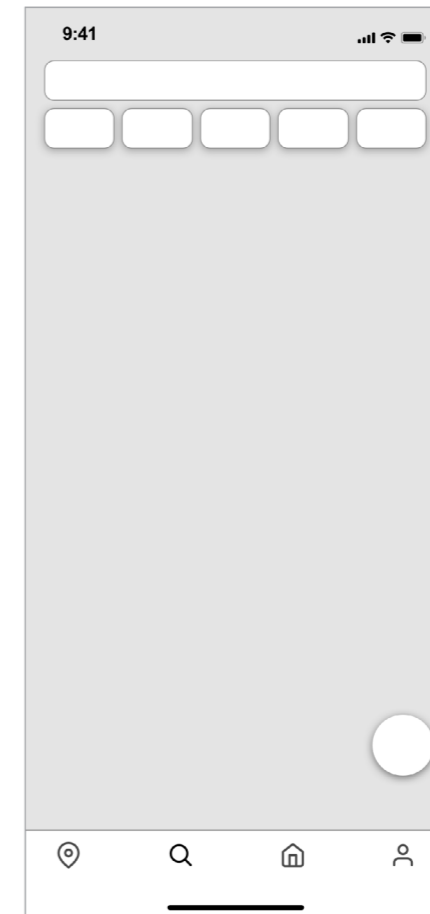
Onboarding



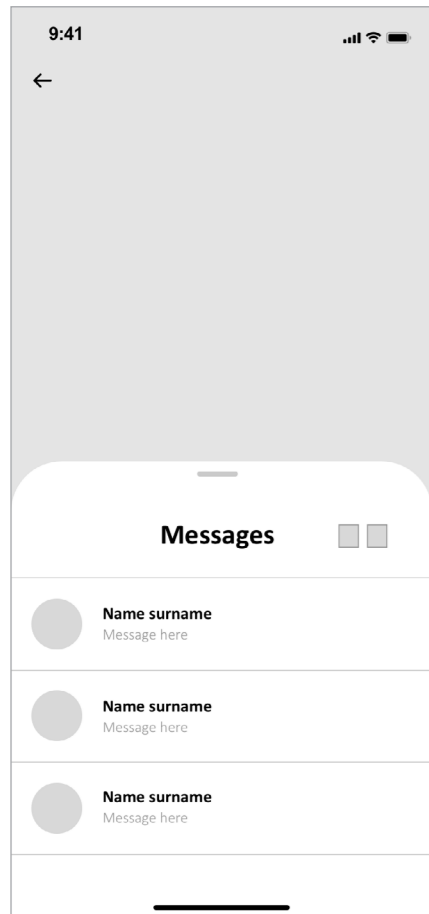
Podcast & articles



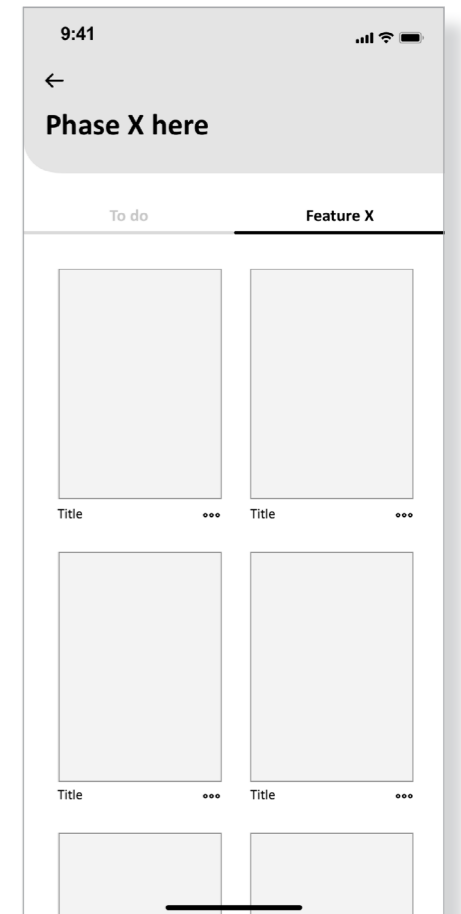
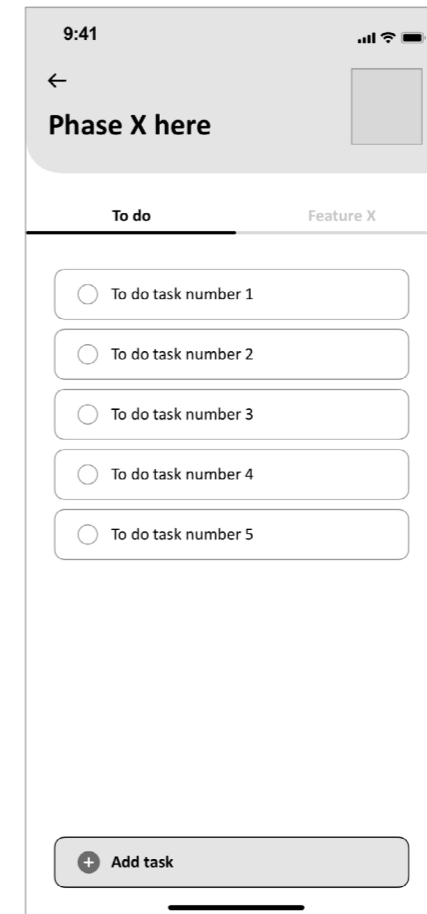
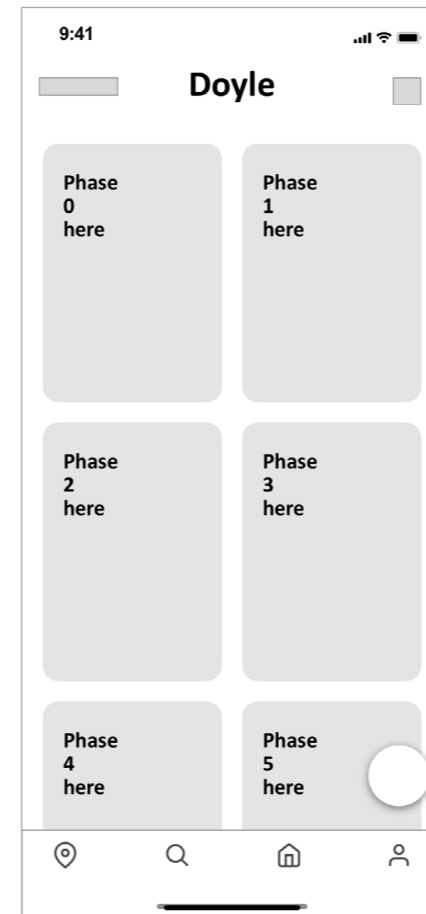
Explore



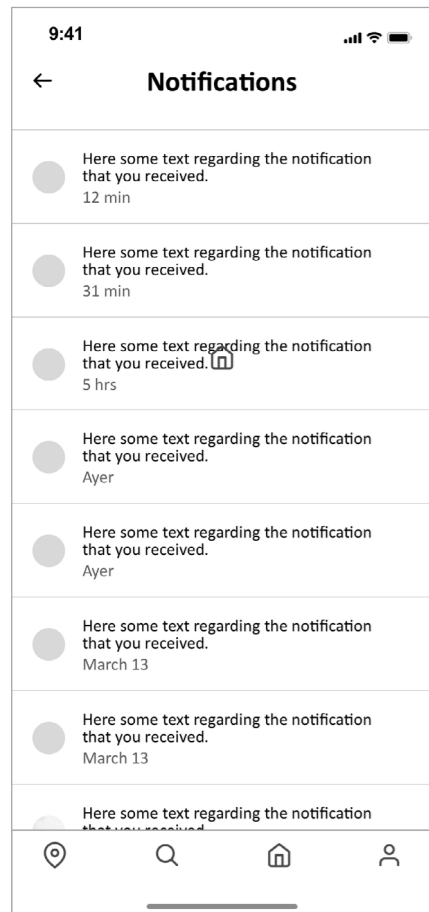
Chat



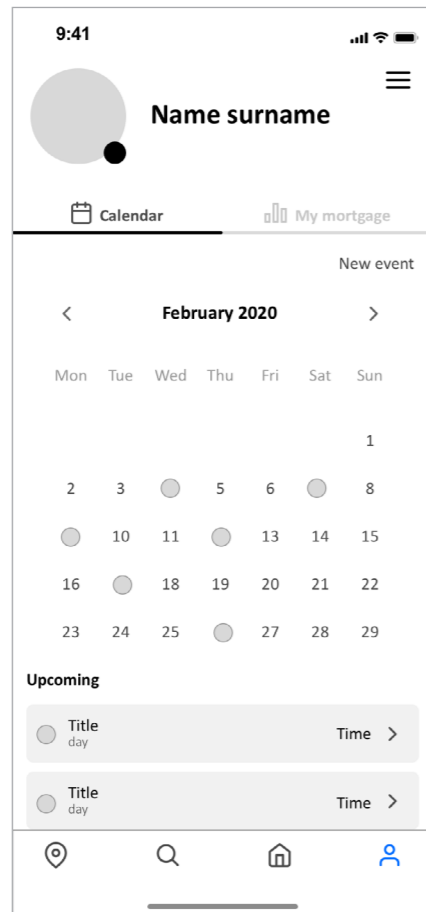
Home screen



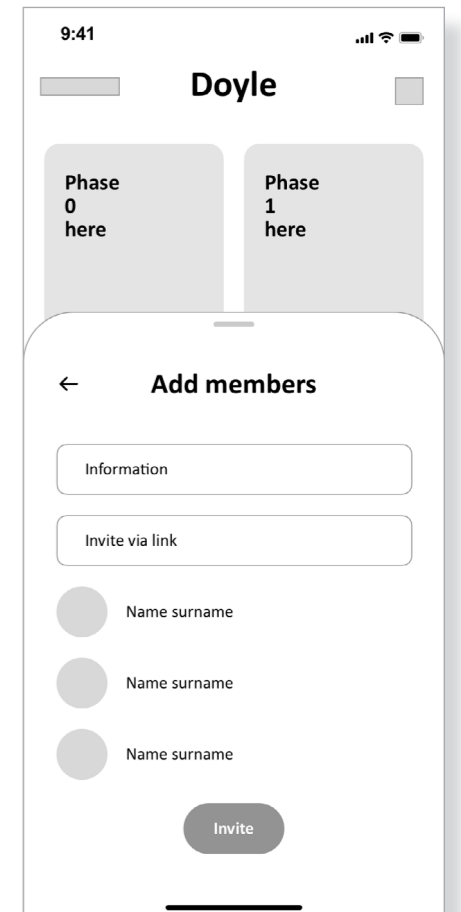
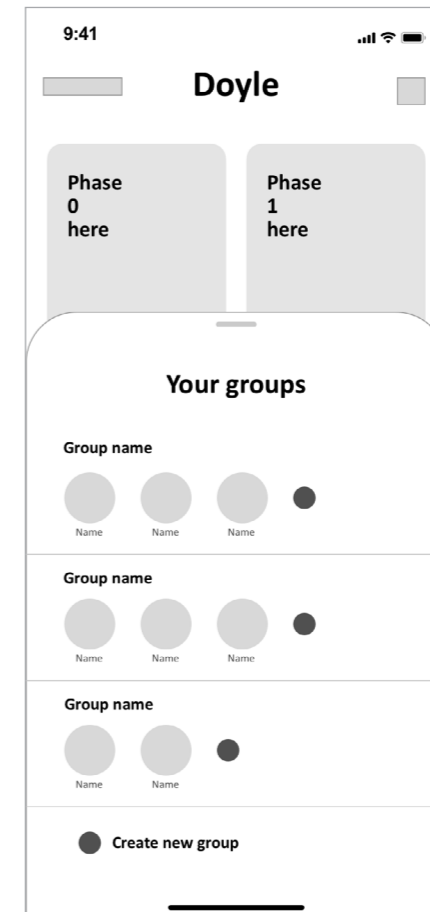
Notifications



Profile



Your groups



Appendix K

Service Blueprint

A simplified Service Blueprint has been defined.

