

Hobby4u Design Process

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Hobby4u

We know you are changing

Value proposition and project goal

Our team wants to create an app that can help users pick up a new hobby to promote well-being and self-development under the big picture that re-envisioning how we live, work and play, beyond the pandemic. To begin with, let us illustrate how we come up with our value proposition by using a mind map. We have asked ourselves four questions: what will you do, who is it for, how will it help, and why do you. Then we have discussed those four questions and come up with answers for each of them.

For what you will do, we will have:

- Experts in the hobby field (e.g. cooking, sports) provide courses to help users get started
- Provide a Reddit-like community platform for users to make posts and share experience (Both in pure text, in picture form, or in video form)
- Provide an AI consultant, when experts are not currently available
- For some hobbies, we could use a computer camera to detect posture to help improve the learning process.

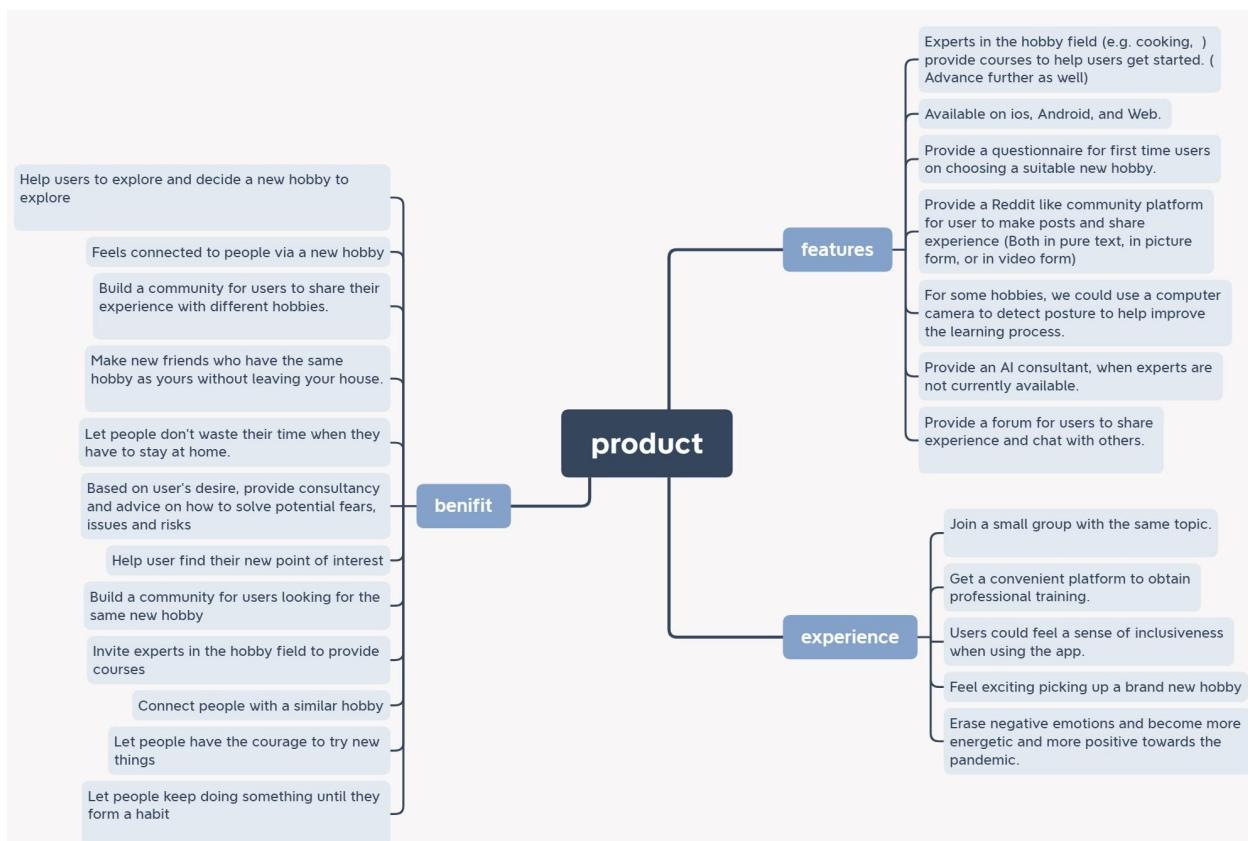
Then for who it is for, our target users are:

- People of all around the world and all ages who understand english, and are planning to learn a new hobby
- People with a portable device, e.g. a smartphone, a tablet.

Move on to how will our app help, it will help by

- Experts in the hobby field (e.g. cooking, sports) provide courses to help users get started that will lower the cost for users to be coached by experts
- AI assistants would provide detailed instructions or posture adjustments (if doing workouts or sports) when coaches and experts are not available
- Share and gain learning experience in a forum and get to know others.

Lastly, why do you, since there are no other substitutes currently in the market, which provide both hobby learning and hobby communities together, our team is the first one which comes up with this idea and is doing it right now. With those answers and background, we finally have a clear idea that we want to create an app that can help people discover and learn new hobbies remotely at the lowest cost and shortest time.

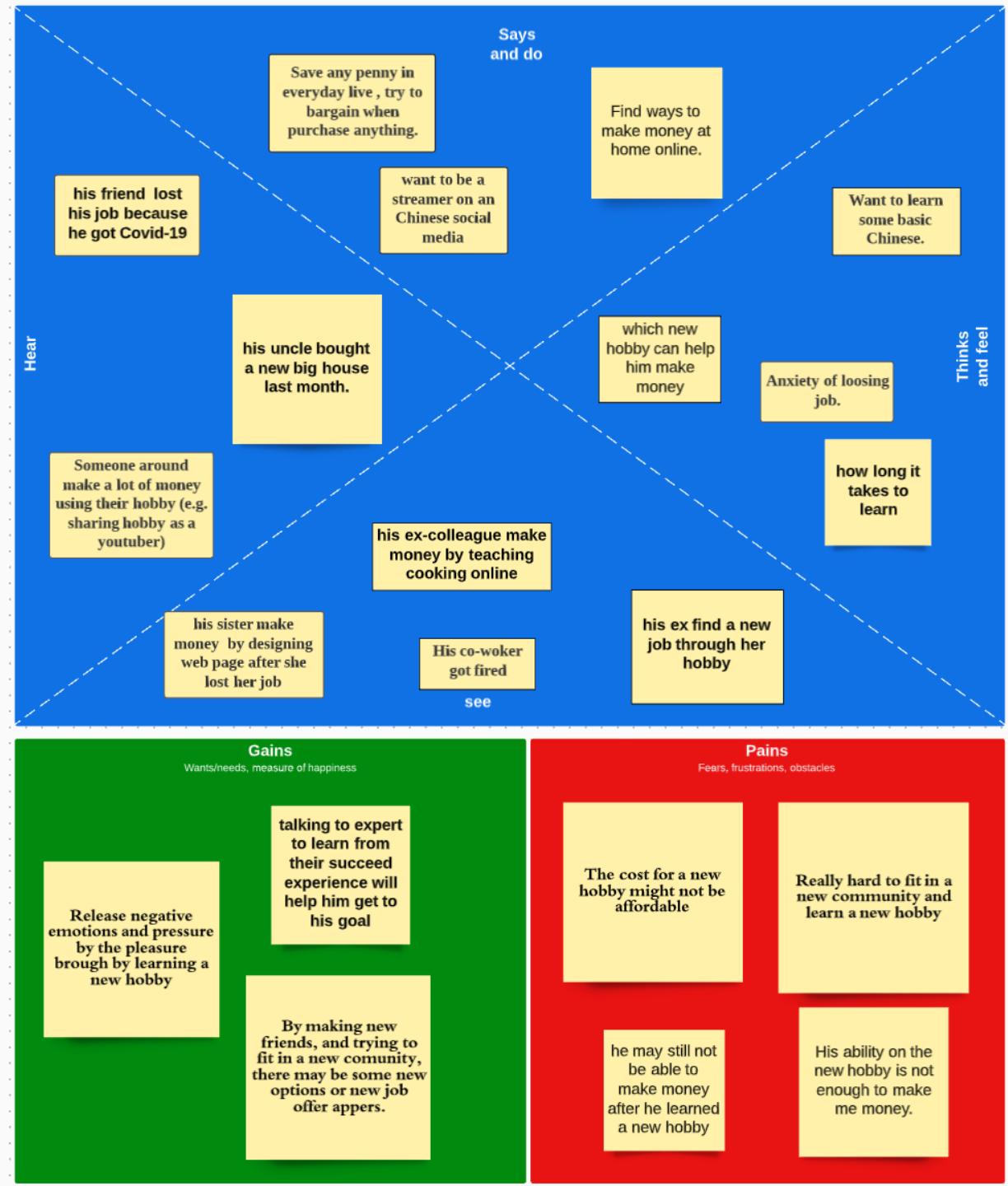


Mind map for our products(From Team B7)

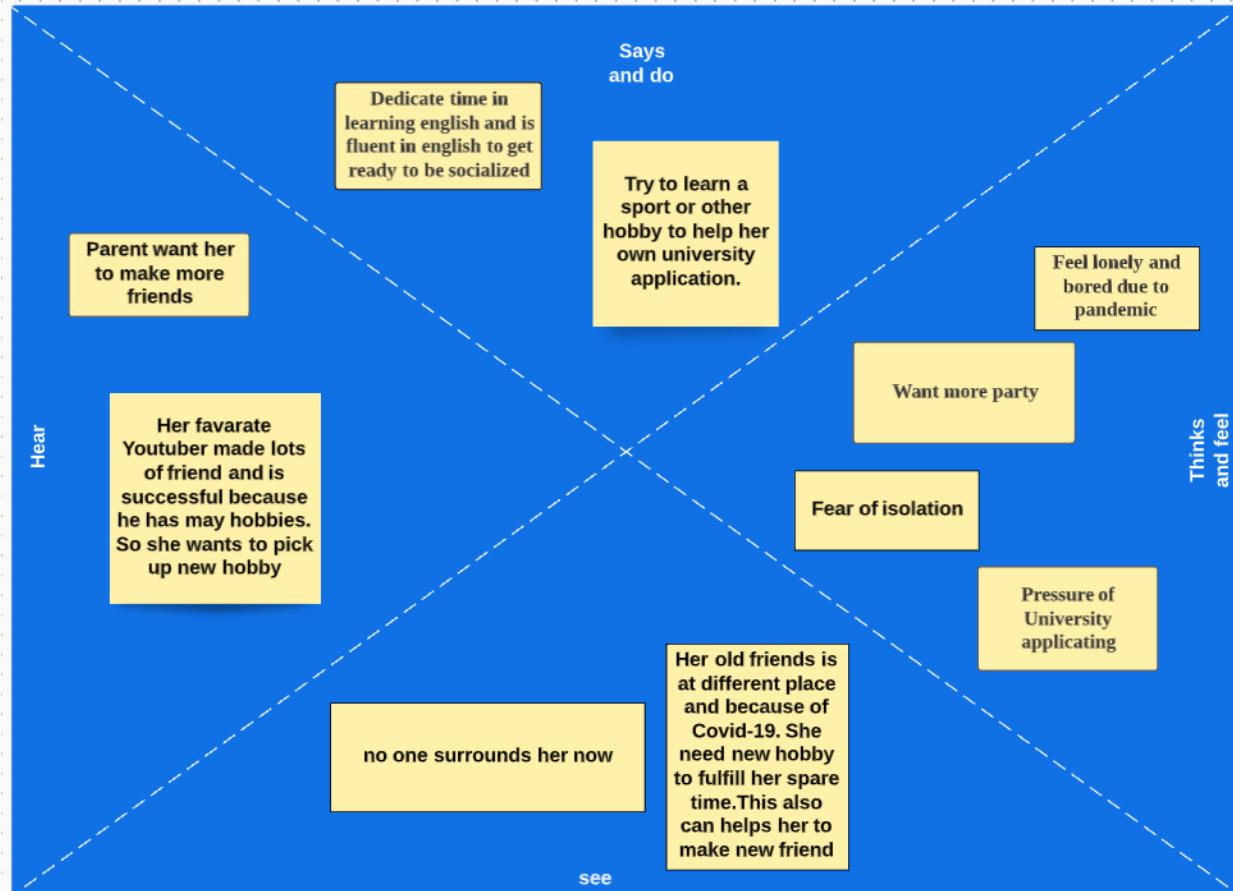
Product anticipated users

We classify our target users into two categories: the first kind is the users who are planning to pick up a new hobby. For example, if they were picking up hobbies that require some professionalism such as playing different musical instruments, doing sports (skilling, skating, playing tennis, etc.), this type of user would generally face difficulties learning those hobbies and might need guidance from professionals. The other kind is the users who have a high probability to pick up a new hobby. We assumed that our users to be people who get used to accepting new stuff and want to make a change in their lives. Based on our assumptions above, we assume our main target users will be the young generation in terms of age group. We have created three personas. The first one is Bob, a 25-year-old truck driver currently living in Chicago. He came from a low-income family, and he does not want to continue to live a poor life. During the pandemic, Bob had less work as well as less salary. His friend even got fired because of reduced staff. If there is a block down or he is infected, he has to stay at home with no income. It is getting harder to be a truck driver, and he wants to change his job. He searched on the Internet and found that being a streamer is lucrative. He thinks he has the potential to become a streamer, but he needs professional guidance. The second one is Alice, a 16-year-old student who came to Canada when she was 12. When she first came to Canada, she was not quite fluent in English, which made her feel isolated at school for around 2-3 years. She cannot make a lot of new friends due to language and cultural differences. What's worse, since she came to Canada, she cannot hang out with most of her old friends back in China anymore. This makes her, as an outgoing person, upset. So, she is dedicated to her English skill and after several years of hard work, she is now able to speak English fluently as a local. Because of this experience, she wanted to be social and outgoing now more than ever. However, not long after she becomes fluent in English, the pandemic strikes. This situation forced her to stay at home, again feeling isolated. The last one is Mitchel Tatum, a 30-year-old married Canadian with two kids. She works as a model manager, which normally requires her to travel a lot. Before the pandemic, she always eats outside with her husband and kids because she doesn't know how to cook and is also busy working outside. However, during the pandemic, she works mostly at home and many restaurants are not open. In addition, time for traveling for work is saved. For these reasons, she has to spend some extra time learning how to cook at home. Mitchel also says that this is a great opportunity for her to be a better mom and promote family harmony. Although her ultimate goal is to make fancy dishes and get praise from her family, she needs to get started with cheap and simple ways of cooking.

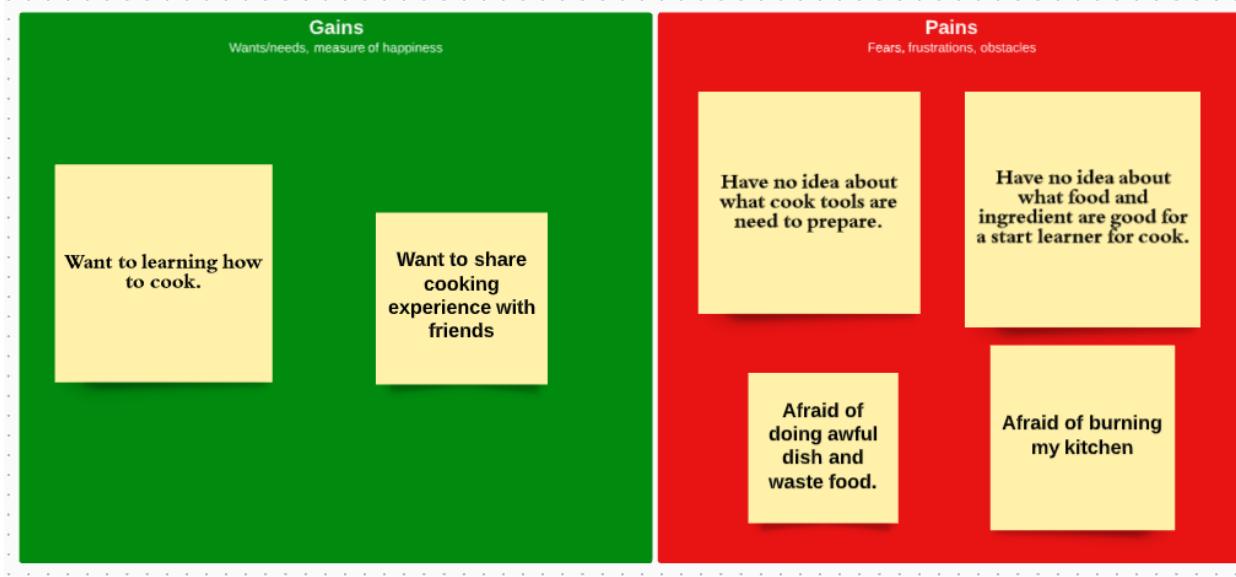
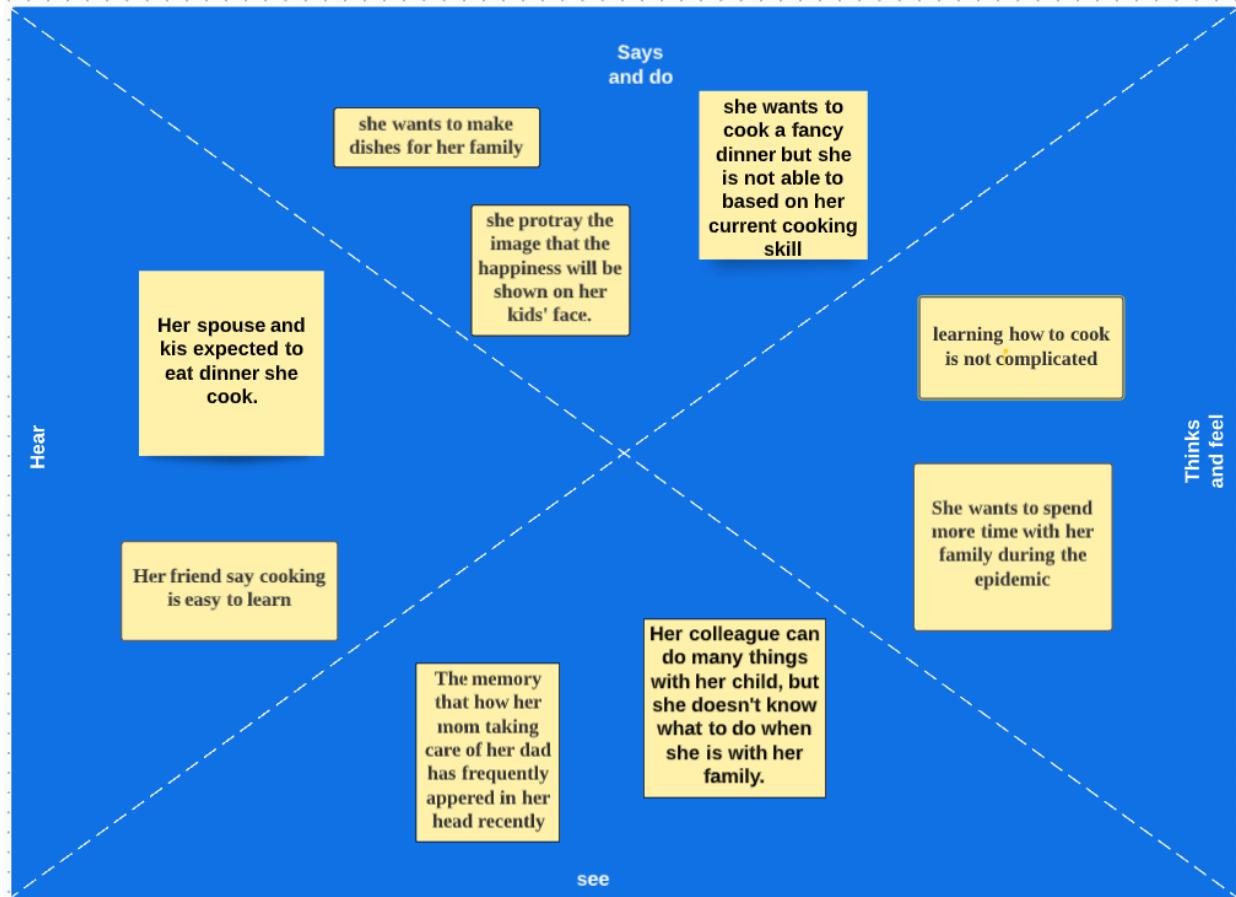
Bob



Alice Wang



Mitchel Tatum

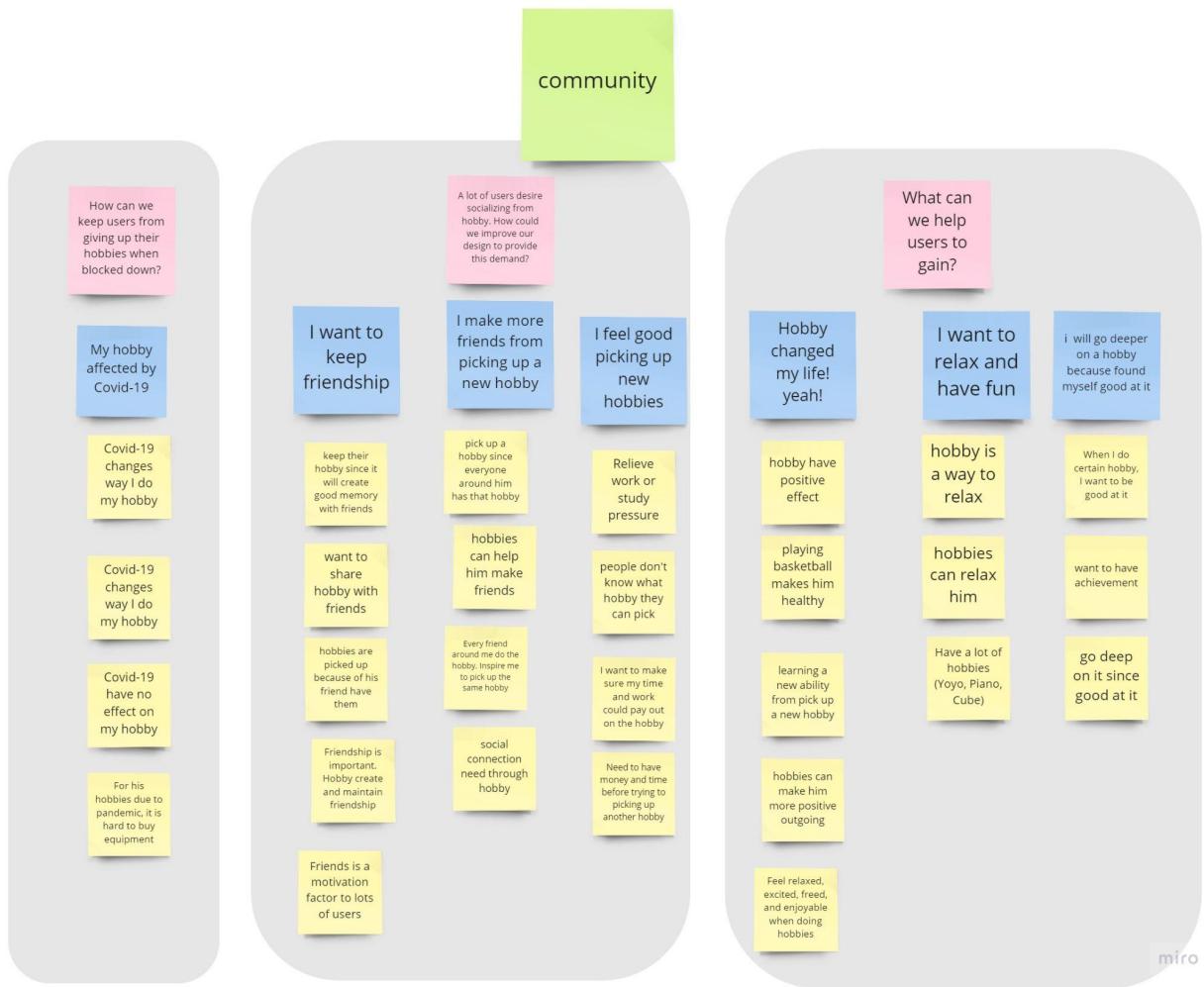


User Interviews:

In the beginning, we did not have an accurate positioning of our products. Interviews with different people helped us understand what the functionality of our application should be. We hope that our application mainly serves young people, so most of our interviewees are our friends and classmates.

We spent some time in the process of designing the interview questions. In the beginning, some of the interview questions were based on the interviewee's answer to the previous question. However, during our actual interview, some interviewees could not give detailed answers to the earlier questions, which made the following question unable to be raised. We then reduced the correlation between the questions and prepared some different sets of questions for various interviewees.

Based on the interview results, we have a preliminary understanding of the functions of the application: community and recommendation. The community is to gather people with the same hobbies together to help each other, exchange information, and even make new friends. The importance of the community has increased in the context of the pandemic. The recommendation system is for people who want to improve but don't know what to do. Different people have different preferences for the choice of hobbies and also have various purposes. In the recommendation system, they can find the hobby that suits them best in some ways.





Screenshot of our Affinity Diagramming

When we made the work model, we had precise positioning for our application. We have listed some problems that users may encounter when using the app and prepared solutions.

Intent:

The user wants to pick up a new hobby.

TRIGGER: Recent life is boring and have desire to enrich myself.

Looking at what others are currently doing on their free time

Find quite a lot of interesting hobby that I could pick up

There are too many hobbies to choose from, and it is difficult to decide.

Due to lack of time, want to choose one single hobby to move forward.

Search for information about hobbies. To make decision

Successfully picked one hobby

Facing difficulties learning the hobby

Get resources, tools and media for learning hobbies

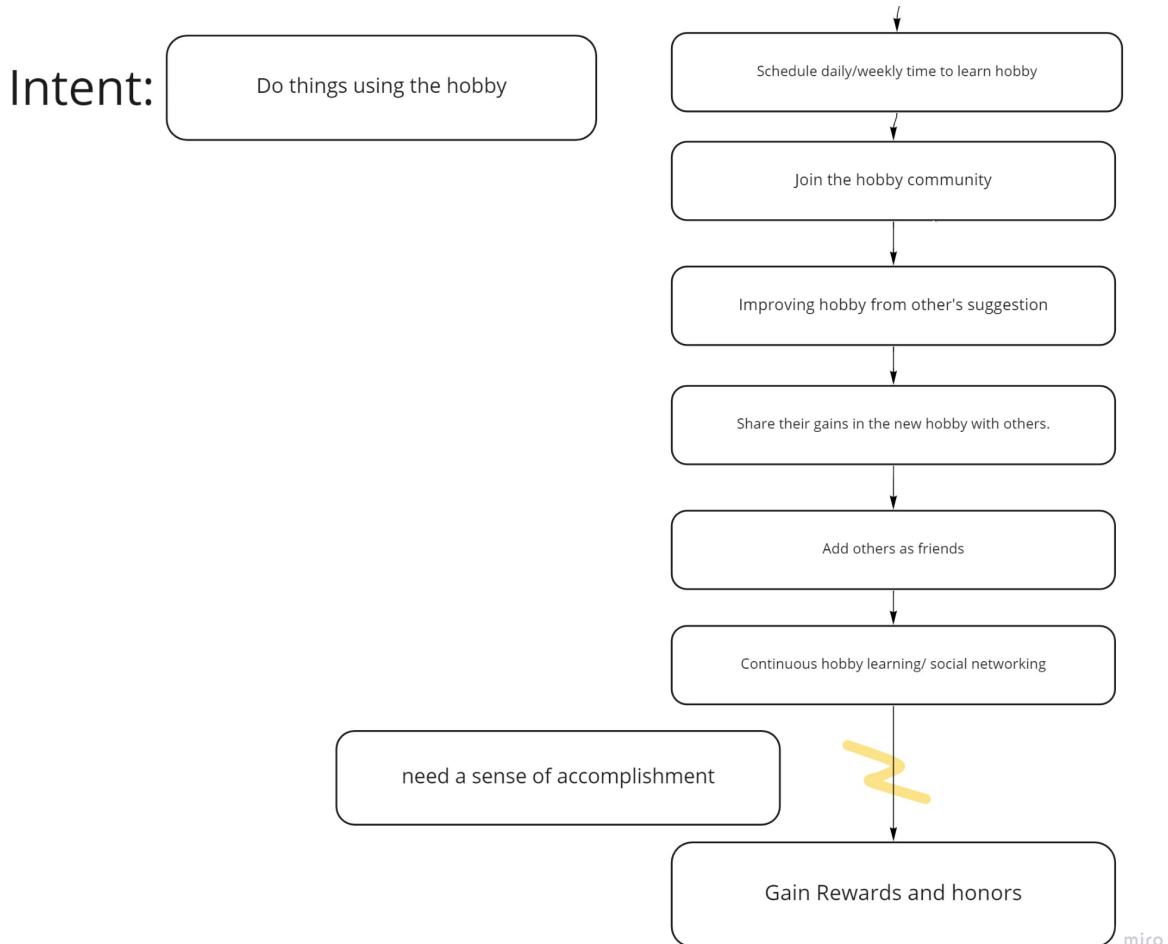
Schedule daily/weekly time to learn hobby

Join the hobby community

Intent:

Do things using the hobby

miro



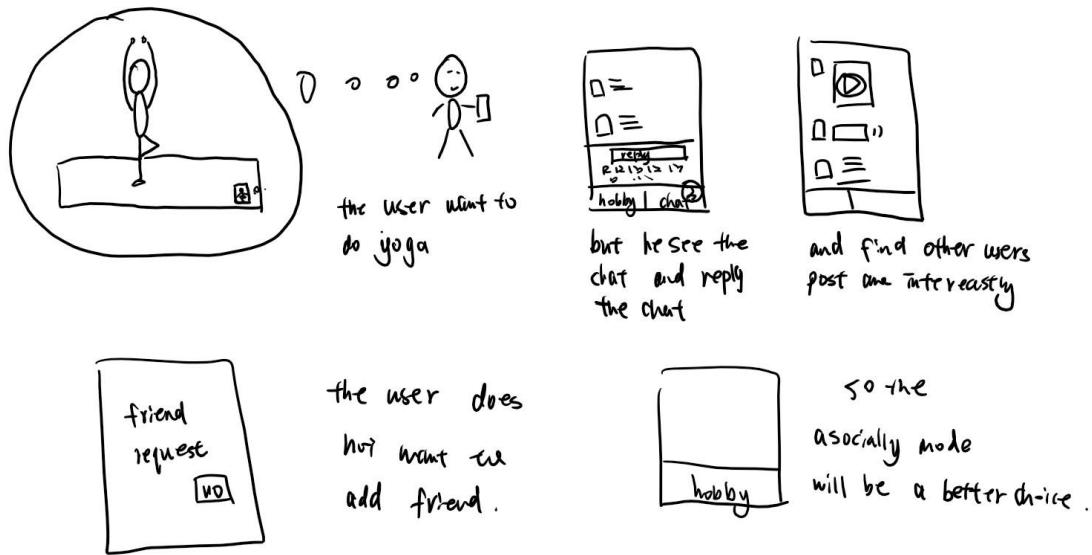
Screenshot of our Sequence Model

When we analyzed the interview results, the biggest problem we encountered was that some interviewees were not interested in developing a new hobby. Even if we assume that the interviewee wants to pick up a new hobby, he will think of many questions to doubt it. For example, am I physically prepared for the hobby? Am I able to be at the level that I anticipated? Will my hard work get paid back? Which makes the interview challenging to continue. When we design a system for users to recommend hobbies, these kinds of users are our key considerations. We mark different hobbies from time spent, money spent, and difficulty to find the most suitable hobby through questionnaires and try to persuade them to join in. We also designed a recommendation system called newbie mode to show users the hobbies in short videos to arouse their interest.

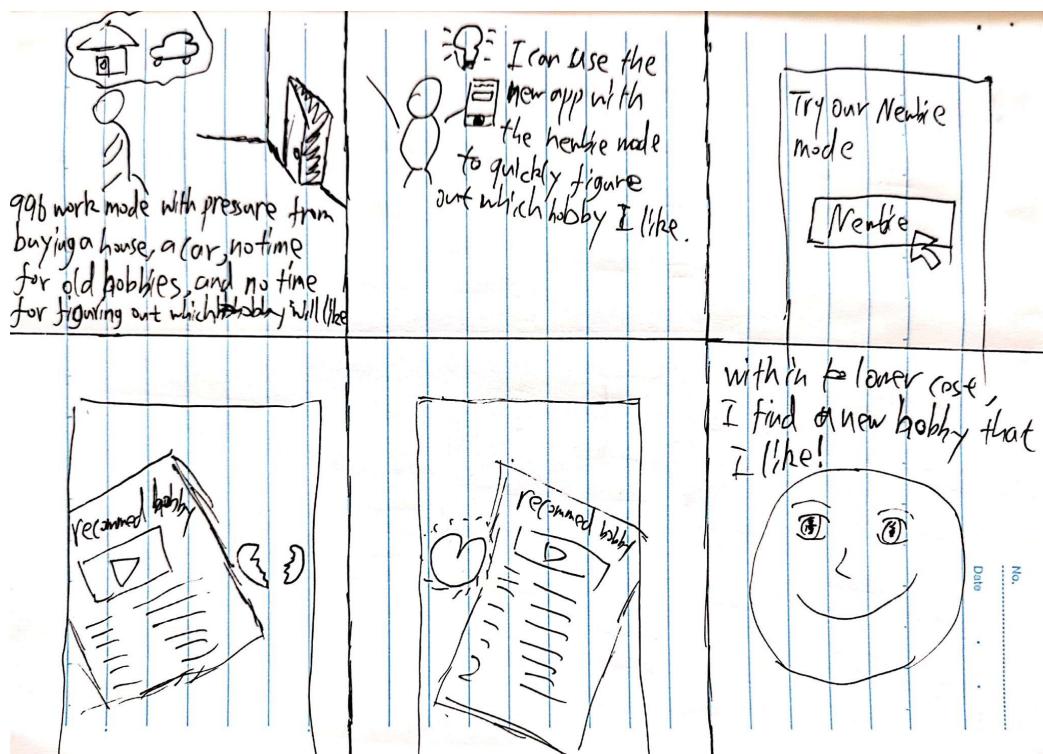
Initial Design Ideas

The initial design of Hobby4u was constructed mainly based on three things: user assumption, user's personal stories, and interviews with potential users. At the starting stage of the Hobby4u product design, we conducted several user interviews, in which we let our interviewee recall their own past experience when picking up a new hobby solely on their own, together with the challenges and difficulties that come along. We collected a lot of useful data from these user interviews. This helped us to find the starting point of our product design. During this process, we figured 2 main assumptions for users. First, most users desire good online resources for specific hobbies, such as step-by-step tutorials, well-constructed guidance videos, etc. Second, users would pick up a new hobby easier with others sharing their past experience, and they would desire social activities on their newly learned hobbies, especially during Covid-19. Naturally, based on these two points, we start to have initial ideas for these 2 features: attractive tutorials and a hobby-sharing community.

Then we started to create user stories based on our user interview data. During this process, some missing assumptions and great ideas popped up. When we were creating one of our user stories, we were not sure which hobby we should choose for this imaginative story. As this issue is also mentioned by one of our interviewees, it reminded us that some users might have the same trouble when finding their hobby of interest, and they might be interested in using our app as a hobby finder. So, we came up with a hobby selection feature that could help users find their interested area, which could potentially help them figure out their desired hobbies. In addition to that, during several user interviews, some indicated that they never looked at any tutorials when picking up hobbies like stamp collection, lego-ing and computer gaming, but they really want to have a platform to share their collections or achievements associated with these hobbies and to made new friends with the same interest. This strengthened our idea of making a hobby-sharing community. Since making new friends is also a general desire of users, we also added a chat feature apart from hobby-sharing community in order to realize their needs. Lastly, we also considered adding an asocial mode, as a method of keeping users' focus on picking up new hobbies. In this feature, we would give users the ability to disable the community and chat functionality, in order to better focus on exploring and picking up a new hobby.



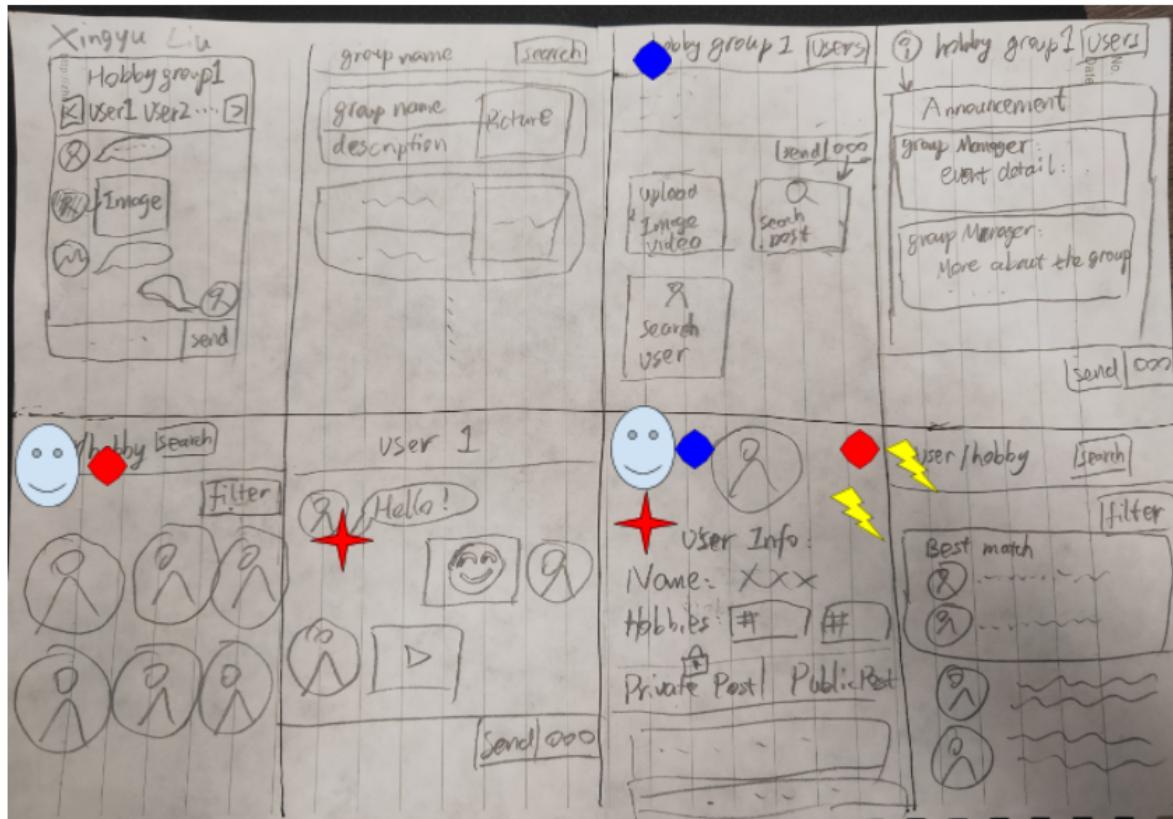
Storyboarding for asocial mode feature (From Maohua Xi)



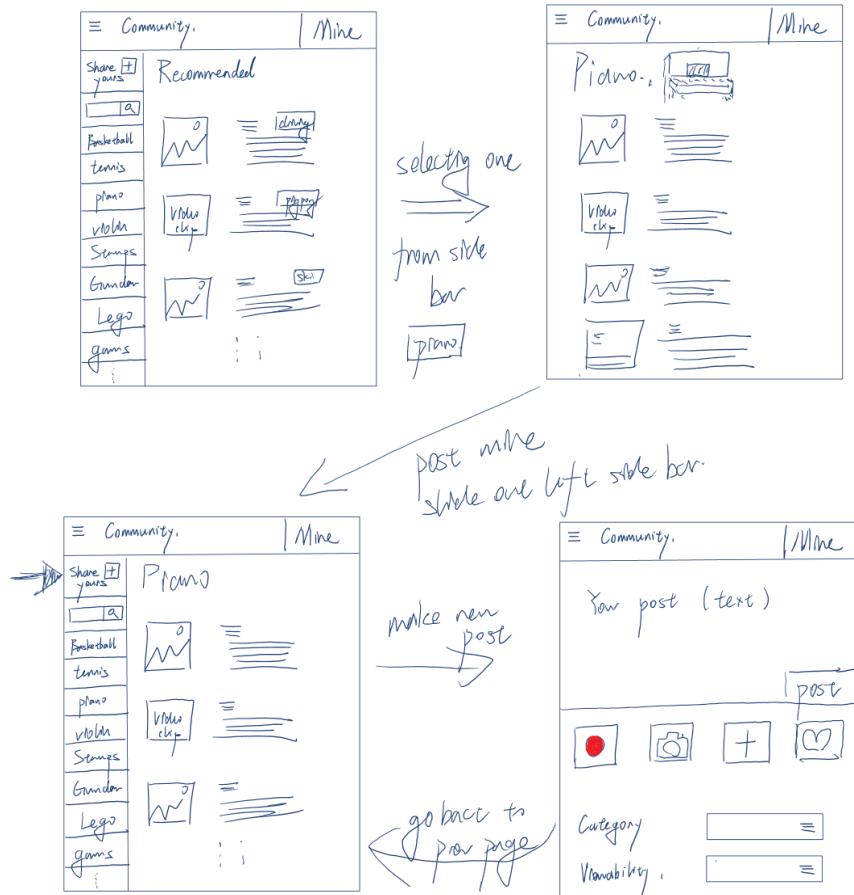
Storyboarding for hobby selection feature (From Bowen Jiang)

Sketches and User Flows

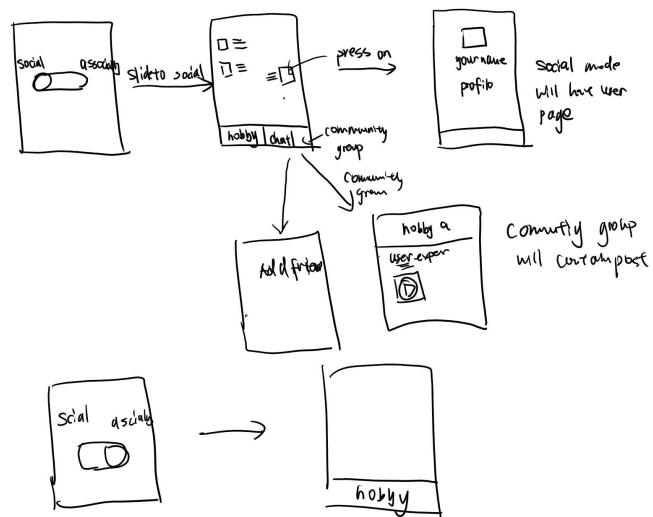
After coming up with the 5 initial design ideas, our team sketched many interfaces for each different feature through Crazy 8. And we voted on the best 3 interfaces in each feature. A good picture of the overall design of the user interface began to show up for our Hobby4u.



From our user stories and Crazy 8 result, we created user flows to have an initial design for interaction between screens for every single feature, and for the overall application. This process stimulated our thinking on good, user-friendly, and straightforward interactions between screens and features. Some sample workflows are shown below.



User flow for hobby-sharing community (From Jiachen Yan)

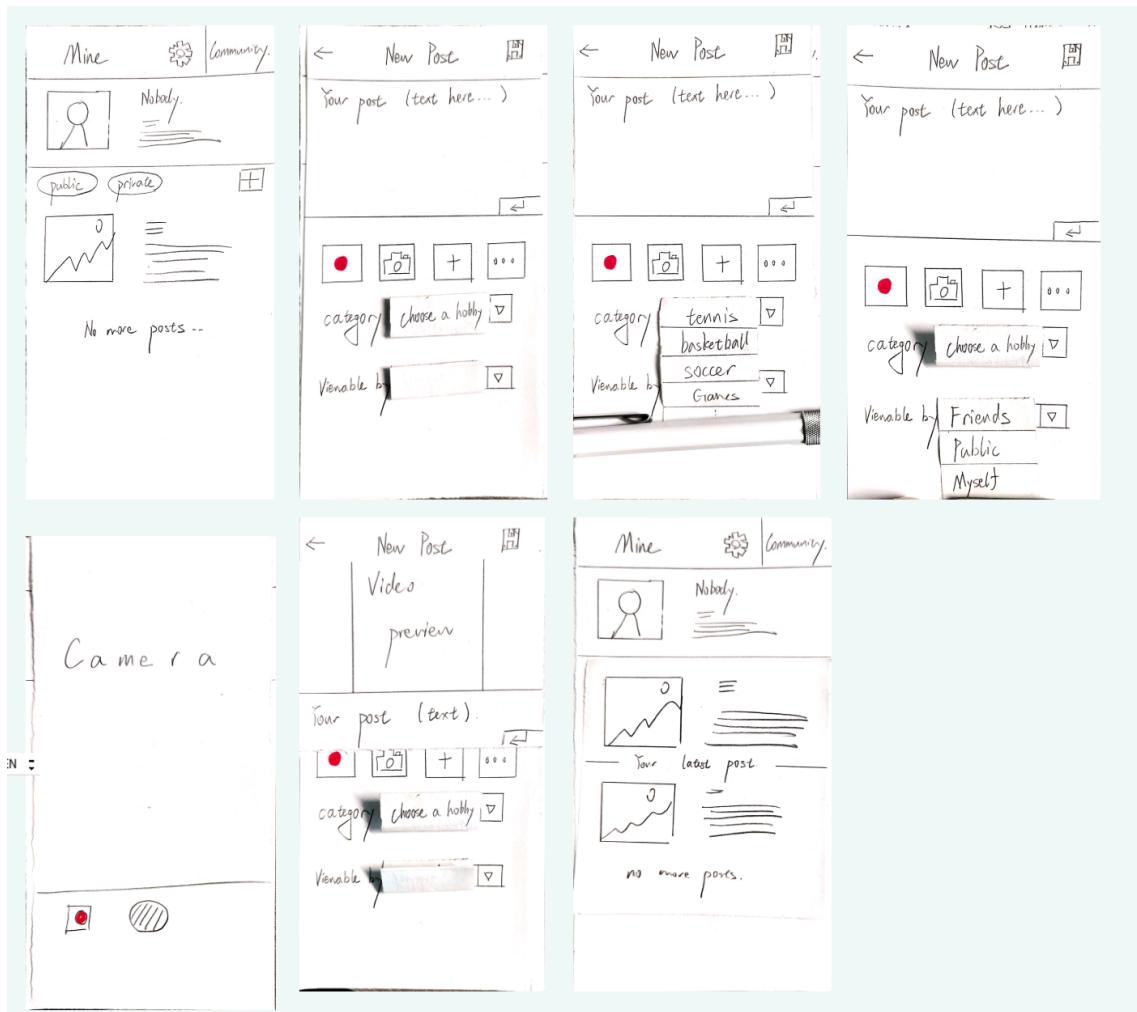


User flow for asocial mode (From Xinyuan Fan)

Finally, we constructed our paper prototype. Some sample screens are shown below.



Hobby-sharing community - view post functionality (from Jiachen Yan)



Hobby-sharing community - Making posts functionality (from Jiachen Yan)

Register and hobby selection (from Maohua Xi)

Paper prototypes and evaluation

Based on our initial design idea, we made a paper prototype for 5 features: Register and hobby selection, hobby share community, hobby selection functionality, chat group, and asocial mode. Then, we find some people who can be our potential users to test on the paper prototype. Through the paper prototype evaluation, we are hoping to receive feedback about whether the feature is useful for users to pick up new hobbies and the ease of use of these features. Our hypothesis is that our feature is useful, the layout of features is clear and users can know how to interact with our design. We are expected to receive constructive comments about how we can make our design better for users to use. In order to test our hypothesis, we gave these tasks to the user:

- Register as a new user and make the selection of the hobby to start
- Explore the hobby selection functionality
- Find people who have the same interest as you and see what they are doing and make a post
- Communicate with other users
- Turn on and off the asocial mode and compare what are the differences between these two modes.

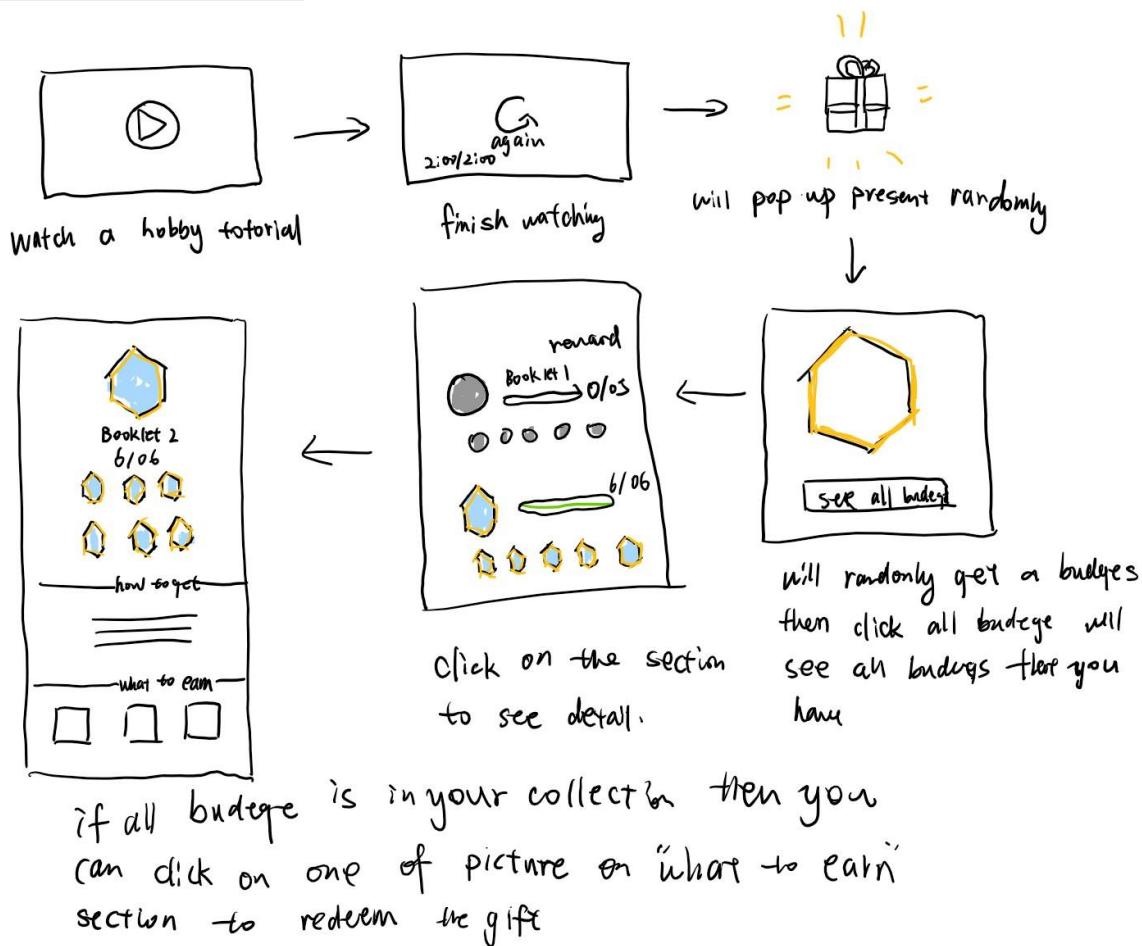
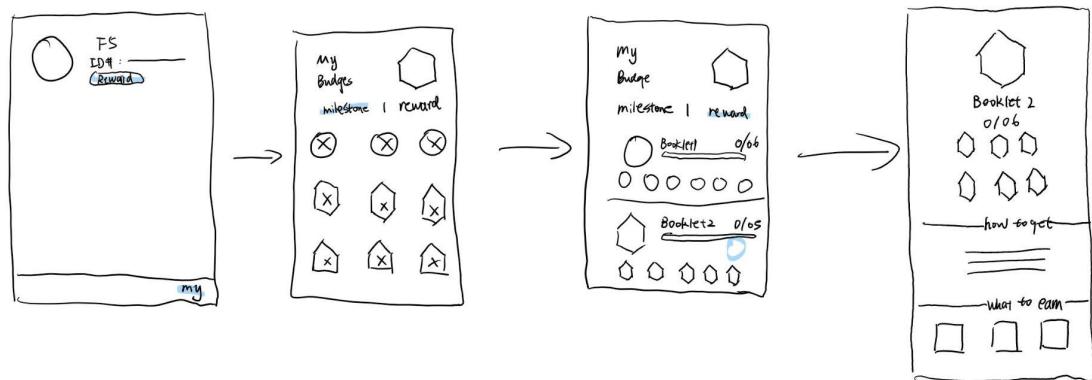
After the evaluation and based on the feedback, we have made a few changes. First of all, we remove the asocial mode. Under the paramedic, people spend most of their time alone. They are more willing to make friends and communicate with others when they are picking up a new hobby. Some users also think picking up new hobbies with friends can motivate them to spend more time on this hobby and learn better. Overall, we remove the asocial mode. Then, in our hobby selection mode, we design the swap functionality in which users swap left to mark as disliking a hobby and swap right to mark as like. But due to the limitation of the paper prototype, it made some confusion to our users in the hobby selection functionality since paper prototypes can't show the animation of swapping. So we also add two buttons to indicate like and dislike to offer more possibilities of the interactions for users to choose. Next, we also move to make new post functionality from the user portfolio page to the bottom of the main page. Last, we clarify the main purpose of our app and the main problem we are trying to solve: help users pick up new hobbies better and communicate with other people through the hobby. Based on the main problem, we add a feature, achievement and reward functionality, to enhance users' sense of achievement and then make users willing to spend more time on hobbies.

Design Iteration

During the prototype evaluation, we got a lot of positive recognition from our interviewees but also a number of improvable points. It is to our surprise that it did not take many users to evaluate and test out applications before some drawbacks of our design popped up. For example, for the hobby-sharing community feature, initially, the plus button for making a new post was built into the mine page, which makes it a hard time for users to access the feature. When users wanted to make their own post, they expected the plus button to be generally accessible from anywhere within the hobby-sharing community, as opposed to only on a personal page. Therefore, we incorporated a bottom taskbar and added an 'add' button for making a post.

Another example is from within hobby-selection functionality. We built this functionality similar to a Tinder-like page, where users swap left to dislike a hobby and right to like a hobby. For first-time users on this feature, they would generally get confused as to how to use the page, as there is no clickable button on the page to indicate a preference, and swapping is generally not intuitive for first-time users. Therefore, we added the clickable button as well as a quick-guide page for first-time users to understand the Tinder-like page.

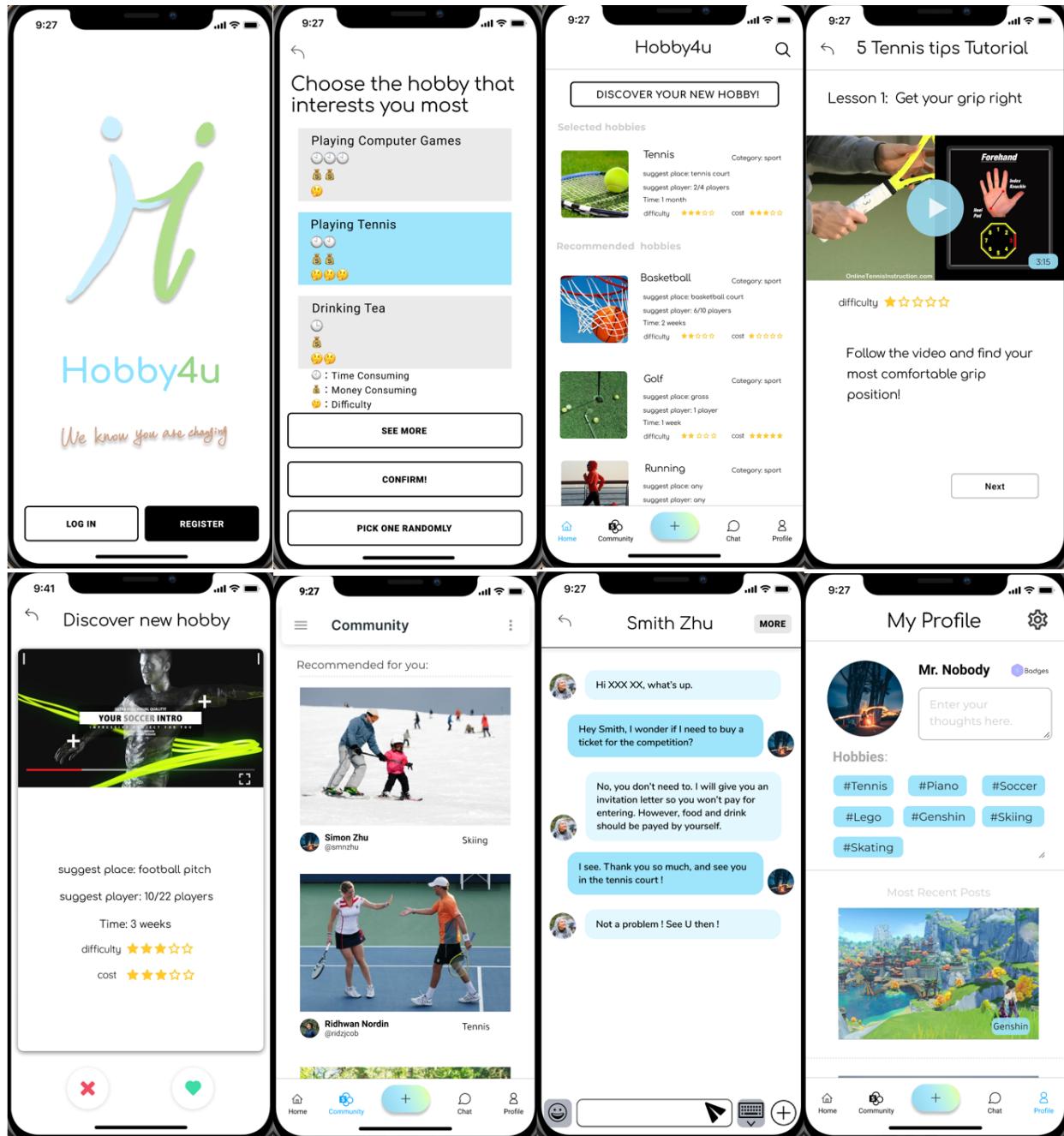
Lastly, we've put 'achievement' functionality into our application. During the prototype evaluation, many users are confused about the meaning of the 'asocial' mode, which suggests that this might not be a good name for the mode. After we pointed out its usage of blocking hobby-sharing communities and chatting functionality, most of them indicated that they would probably never use this feature, especially during this pandemic. In addition to that, almost all users indicated that community and chatting features would be one of their most accessed functionality within this app. Therefore, we decided to take out the asocial mode. As a replacement for the asocial mode, we added the achievement feature to stimulate users on using the hobby-learning feature. By using the achievement feature, users could keep track of their status and progress in learning new hobbies. In addition to that, after users reach certain goals, we could reward them with real-life gifts to stimulate users' passion for learning hobbies.



Newly added achievement functionality (from Xinyuan Fan)

High-fidelity Prototype and Evaluation

Lastly, we designed a hi-fi prototype for an interactive version of our application using Figma.



To evaluate the functionality and usability of our application through the hi-fi prototype, we conducted several heuristic evaluations and cognitive walkthroughs with multiple participants

(potential users). From the evaluation and user feedback, we also hope to know whether our prototype seems to help people pick up new hobbies and make connections with others.

For the heuristic evaluation, we told our participants to provide feedback on their good and bad experiences on the following five heuristics:

- Visibility of System status: We want our application to provide appropriate feedback and reasonable reactions in response to user's clicking, browsing, and navigating so that users can always know what is going on with our system.
- User control and freedom: When a user makes a mistake clicking, he/she should be aware of how to exit the current situation or return back to the previous status. We don't want dead ends to exist in our hi-fi prototype.
- Consistency and standards: Our application has many functions and screens. Therefore, we don't want our users to be confused about whether different words, situations, or actions mean the same thing.
- Flexibility and efficiency: Experienced users and inexperienced users should all feel that using our application is flexible and efficient. We asked about the user's preference about hobbies and allowed them to search for things based on their needs.
- Aesthetic and minimalist design: We need to make sure our application is clean and contains no irrelevant elements. The color scheme, content layout, t, words fonts are also very important in influencing a user's experience.

The tasks to users are the same for heuristic evaluation and cognitive walkthrough. Generally, we have three main tasks:

- As a new user, register an account and choose the first hobby to explore in our application.
- Make a post and share your learning experience.
- Chat with a user or within a group.

The first task includes sub-tasks such as registering an account, discovering a new hobby, and viewing the hobby community. The third task includes chat with a friend, chat within a group, and search for users and groups.

For the result of the user's heuristic evaluation, we received a lot of positive feedback. For visibility of system status, users mostly know what is going on when the layout and screen changes. The navigation is fluent and flexible and with a proper amount. The overall design is

consistent and also simple with enough appropriate information. Most of the users' suggestions of improvement are focused on details of navigation and application content, such as easily overlooked navigation design, uncomfortable navigation animation, and uncompleted navigation, etc. Because of the huge content we have in our hi-fi prototype, users' suggestions are really helpful for us to perfect unnoticed details.

For the cognitive walkthrough, we wrote our ideal detailed steps and sequences for each of the three tasks, let users freely explore our hi-fi prototype knowing tasks but not details, and then compare their actual actions with our expectations. As a result, although the users indicated that they had great experience of freely navigating our application, some unexpected differences and problems were found compared to our ideal steps. For instance, users were confused by the "new friend dropdown button in chat room screen", lack of indication of a successful posting, unexpected navigation, etc.

Upon the feedback of heuristic evaluation and cognitive walkthrough, we made our final edition to hi-fi prototype and polished our functionality and design. We removed redundant content from some screens to make our design cleaner and changed the layout design of some buttons and clickable items to make navigation more obvious and reasonable. For example, on the main screen, we removed some irrelevant cards of hobbies and added a hovering action on the "exploring hobbies" button. We also fixed every single detail of problematic navigation and animation action and made the hi-fi prototype navigation sufficient and clear.

Conclusion

In conclusion, the design process for our project involved user interviews, paper prototypes, design iteration, high fidelity prototypes. We think our design has solved the problem: help users to pick up new hobbies better and make connections with other people. We have questionnaires and tutorials to help users choose and learn a new hobby. We also have a chat feature and hobby-sharing community to let users communicate with others. In addition to that, we have designed some interesting features to make our app different from others. We designed hobby selection functionality to help users quickly explore a lot of hobbies in a short time and we have the difficult and time cost level to let users choose hobbies that fit them. We also have an achievement and reward system to enhance users' sense of achievement to make them willing to spend more time on hobbies. Overall, we think our app has sufficiently addressed the problems we set out to solve at the beginning of the term.

Product Prototype:

<https://www.figma.com/proto/21JCdkQ9OoXpHa437iTslB/Team-B7?node-id=3%3A689&scaling=scale-down&page-id=0%3A1&starting-point-node-id=3%3A689&showproto-sidebar=1>

Demo Video

<https://drive.google.com/file/d/15xtNCpUxlv0p7zKyX2xIMho5BQQDRLqi/view?usp=sharing>