



Mental Bridge

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INFO 200 Project Final Prototype| Section AC-4 | TA: Larry Tian

Project brief: “Mental bridge” is a mobile app that focuses on the Chinese international students’ mental health.

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Team Members

Jinrong Zuo: currently a junior majoring in ECO at UW. I love playing tennis and ping-pong. I'm also really into jigsaw during my spare time. Recently, I've been spending a lot of time cooking and baking for my family at home. For the group activity, I'll be responsible for organizing and planning meetings. I will be the leader of the team as nominated by the group members.

Yudi Zhang: I am Junior and I am in psychology major. I love listening to music and watching movies. I have been in choir for two year in my high school. I take the role of designer and analyzer in our team.

Yuying Wang: My name is Yuying Wang. I am a current junior student in Psychology major. I am taking this class since I am interested in UX a lot. I want to know more about this job in this class. I am good at doing research, so I will do some user's research during this project.

Iris(Yunyi) Ding: My name is Iris and I am a freshman in the UW. I am interested in informatics and that is the reason why I took this course. I am taking the role as resource investigator and project designer in the whole team.

Introduction

Our project focuses on the Chinese International Student mental health problem. According to the research, Chinese students are the biggest international student group in the U.S. now (Wang, 2021). Moreover, all of our team members are part of the community which makes us more empathetic with this problem. We recognize that International students are facing a lot of serious issues socially, physically and mentally, such as emotional problems, academic stress, and so on. In a foreign country, students may need to face more unavoidable problems when they want to ask for help like cultural differences and language barriers. How do international students cope with different mental problems? We would like to make contributions for the group by information technology for Chinese international students to gain support. And we are trying our best to improve their mental health so that they can focus on better studying and a healthy lifestyle.

Solutions Considered

Solution 1: Wechat official account

The first solution is to develop a WeChat official account for both Chinese international students and their parents. In the WeChat official account, we can publish articles on various useful information such as how to identify and deal with mental problems and negative emotions, how to have a better understanding of a child's behaviors and how to find assistance when a student faces a serious problem. Because Wechat is a major tool of communication for Chinese international students and their parents, they are more accessible to this kind of information. Creating a WeChat official account also has a little cost. According to WeChat official website, the WeChat Official account yearly verification fee is only around 46 dollars per year (Plotnick, 2020). However, WeChat official account articles only offer a few functions like image, words, and votes, which is not the best solution for us to use. Thus, the student has difficulty seeking immediate assistance from professional experts.

Solution 2: Physical activities service

One possible solution for the international students' mental health problems is doing off-line physical activities together. We organize international students to do some group activities like camping, playing board games, and having meals together. During the exercises, they will communicate with each other face-to-face which is a chance to interact with others effectively and make new friends. An excellent social relationship will positively influence one's mental condition. However, there are some barriers for physical activities. For example, there might be a high cost in renting the places and hiring some staff, ect. The strict social distancing and time may prevent some people who want to participate from attending, and also the off-line activities are challenging to protect participants' privacy.

Solution 3: Online activities service

One possible solution we brainstormed is online activities service. Basically, it's a weekly service for Chinese international students as our main audience to have various activities through Zoom. For example, we would have professional speakers sharing information or tips on various topics that can potentially help improve their mental health. We could also have breakout rooms for special one-to-one consultant time or group discussion rooms. It's flexible in terms of

locations and devices, and it can keep users' privacy through anonymous and video-off functions. People can have direct communication with others through Zoom meetings. However, it's not flexible in terms of the schedule (fixed, weekly). And it might be difficult to organize activities for larger groups and difficult for us to make plans.

Solution 4: Phone APP

Building an APP could be another possible solution to help solve mental health for Chinese international students. With the development of the technology, it is easy for our three groups of stakeholders (Chinese international students, parents, mental health experts) to access the APP. Moreover, APP has more utilizing features like online chatting, consulting, etc. And users could get the immediate notification about some mental health information when the APP updates. However, there are still some disadvantages about the APP. One issue is the data security: personal information leakage frequently occurred during the usage of mobile apps. Our users definitely do not want their data to be "stolen." Moreover, developing an APP needs lots of money and time.

Selected Solution

We select App as our ideal solution to help resolve the mental issues for our stakeholders. App is a platform which could combine comprehensive functions altogether to serve for our different stakeholders. Also, apps have several outstanding advantages over other solutions that we mentioned above. Compared to Wechat official account which can only post words, pictures and videos, the app could have both the information section and human interaction. They can ask questions and solve problems instead of the process of information acquisition. For the physical activity service, we still need to concern the outbreak of COVID-19 even with all the protections. App is a safe place where people can interact with each other online without the need to be face-to-face. Moreover, using APP is more flexible and organized for a large group of people compared to both physical and online activity service. The APP can send notification to all the users about an event that is going to happen, and people can join based on their interest and time. Based on the user research we did before, ([graph1&2](#)) the majority of our direct stakeholders prefer to talk to others and they usually receive information online. Thus, App is the most appropriate solution for our stakeholders that provides both leisure chatting and professional consulting along with other unique and important features in the following paragraphs.

Description of Your Solution

Our solution is a mobile app with many utilizing features that serves to solve the main information problem: helping Chinese international students to improve mental health. Our groups followed the steps of visual thinking in generating ideas (Iurchenko, 2017) to decide that app would be the best solution: generate, post-up, group, evaluate and filter. We divided 4 members into two sub-groups and asked each of the groups to generate some ideas. Then we hold a zoom meeting to discuss our thoughts and analyze all the possible solutions critically. Finally, all of us voted for the APP option. In our App, it will mainly focus on information sharing (helpful mental health articles, music or videos) and communication gateway (supportive interaction with others). From the survey for students in the previous user research([Graph5](#)), students like to talk to others to release pressure and boost mental health. Thus, we consider interaction to be one important element. Bulletin boards and Message serve this specific purpose. Meeting our professional consultants and mental health assessment provide a space for users to receive professional help and evaluation in their own situations. Moreover, we will provide an information section for supportive articles and advice on the Home page. Furthermore, we make considerations to build an interesting and unique check-in process for users: users will give a brick per day for everyday login. Accumulated bricks can eventually help build a “mental bridge” to better cope with potentially mental health problems.

Product Features

Primary Features

Feature 1: stakeholders interaction/ communication

The app provides a space that connects students, parents and mental health consultants. Parents and students could release their stress through interaction with others and professional consultants. Users can make appointments and pay directly to the consultants. Also, parents could link to the student account based on the students' opinion. Moreover, because our stakeholders might not be able to communicate with their parents or consultants directly in reality, our App provides this valuable feature for them to have a more convenient communication in this safe and private space.

Feature 2: information section

The app provides an information section that offers articles, videos, boardcats, music, events and many other genres that are related to mental health. Also, the app provides insightful content just for Chinese international students and their parents like some articles provide tips

about overcoming the stress that is brought by the language barrier. Moreover, some music and videos serve as great tools in releasing users' pressure. And our stakeholders could gain more knowledge about basic mental health through general information.

Secondary Features

Feature Name: mental health assessments

Users are able to take different professional psychological assessments and they will get a score. This function helps students to evaluate their personality and mental state and find the most suitable treatments.

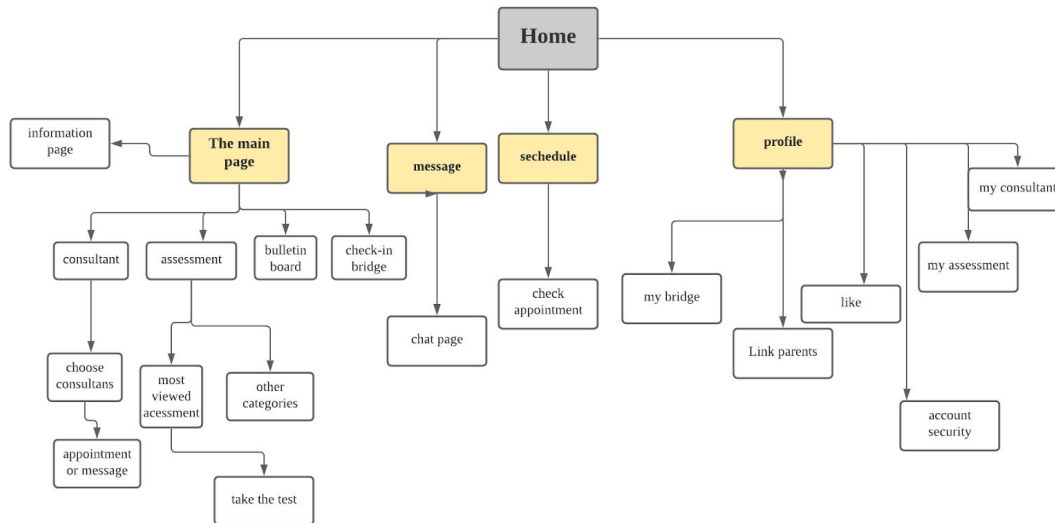
Feature Name: bulletin board for everyone to access (could be anonymous or not)

People could post their troubles and annoyances on the bulletin board anonymously or not and other users can make comments on the posts offering helpful tips and creating meaningful conversations. People can say whatever they want in this place and since this is an app for the international student community, other users may also face the similar problem and give good suggestions.

Feature Name: check-in bridge

This unique feature allows our users to constantly check-in as they open our App. It matches our App name (Mental Bridge). Once they check in, they would get a piece of bricks and start the journey of building a bridge. This allows the user to feel fulfillment in overcoming their negative emotions and looking forward to having a surprise after building a bridge.

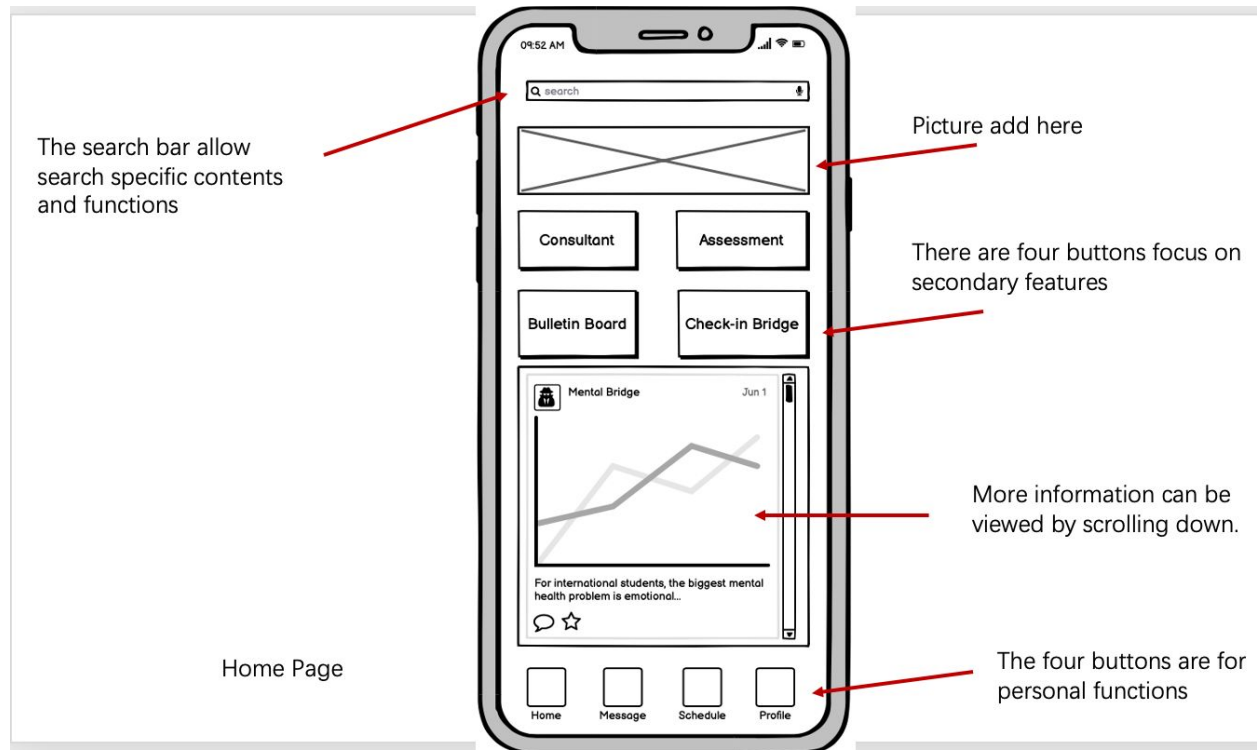
SiteMap:



Low-Fidelity Wireframes

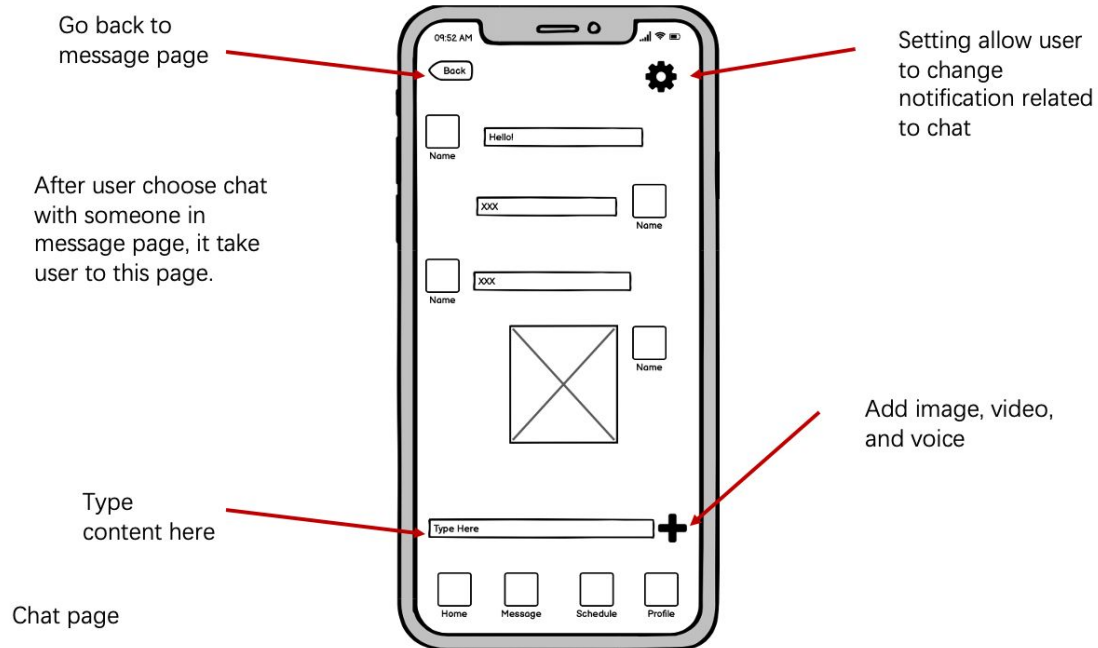
Screen 1: Home Screen

This is the home page of our application. The home page is designed for users to easily understand and follow along with various functions. There are four functions in the middle for our secondary features: consultant, assessment, bulletin board and check-in bridge. Also, we include information targeted on Chinese international students. The four buttons are for any personal functions such as chatting on message.



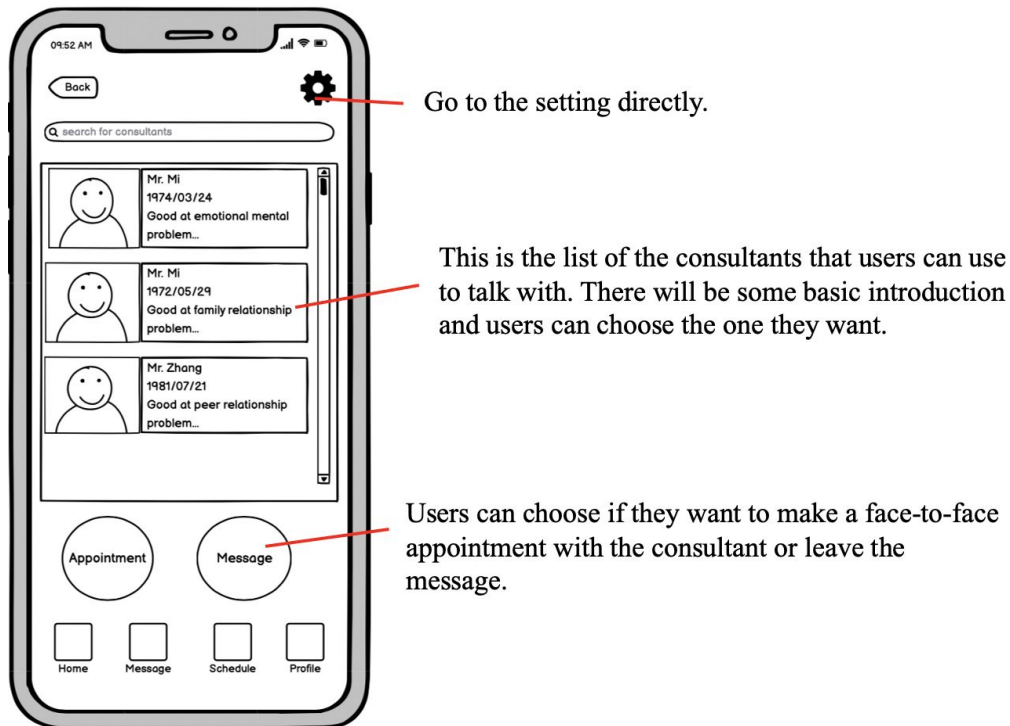
Screen 2: Chat screen

We offer a message function for our users. The chat page basically builds communication between our three groups of stakeholders Chinese international students, their parents and consultants together. Users can type words and add photos, videos and links by clicking the plus sign. The setting sign is located on the upper right corner for changing notification and language. This chat screen is specially designed from one of the chats on the message page.



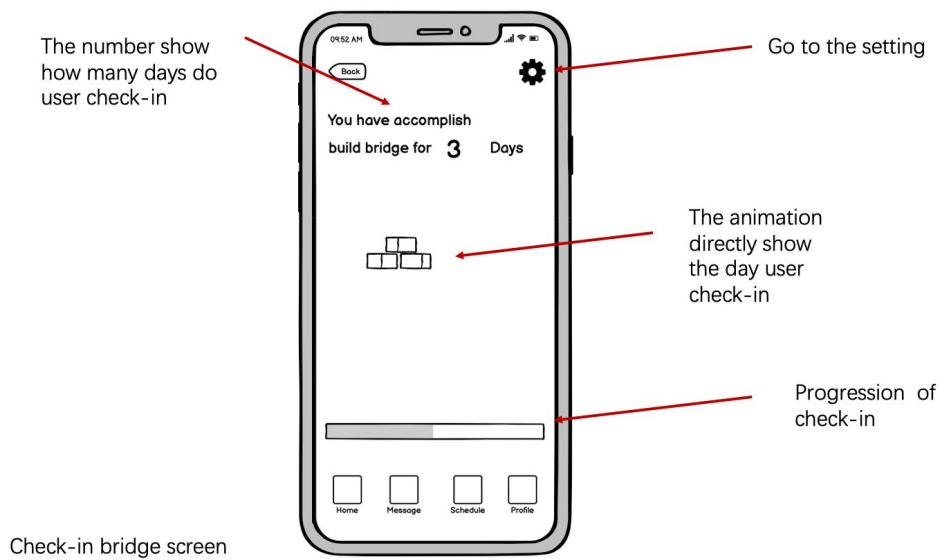
Screen 3: Consultant Screen

This page is where users or their related parents can choose the mental health consultants to communicate with. There are three stakeholders for the app: the students, parents, and mental health experts. There is a list of available mental health experts and basic descriptions, and students can select one of them and choose to either make an appointment or leave a message to them to seek help. Users can choose an appropriate time for appointments and have a video or voice call with the consultant. If a user doesn't want to have a live chat, they can leave a message on this screen and receive the reply when the consultant sees it. International students' parents are far from their children and worry about their health conditions. When they start using the app, they can bind their account with their children under students' permissions, and then they can communicate with the consultant that talked with their children.



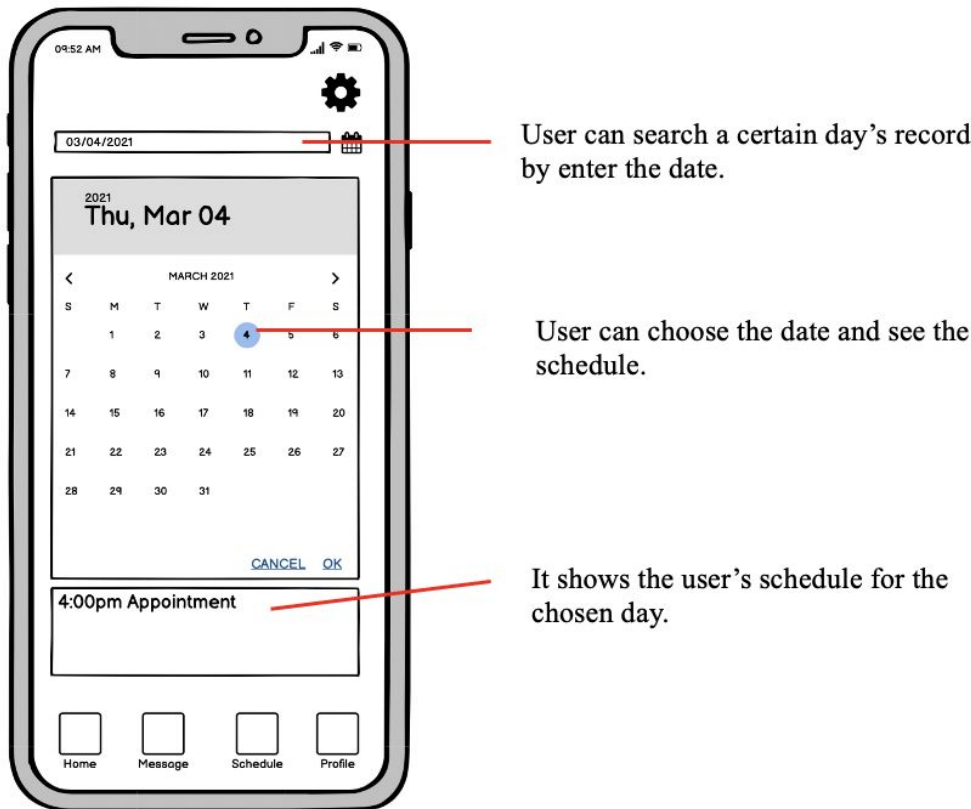
Screen 4: Check-in Bridge Screen

The check-in bridge is a unique feature matching the name of our app (Mental Bridge). The number, animation and progression all clearly shows how many days do user check-in.



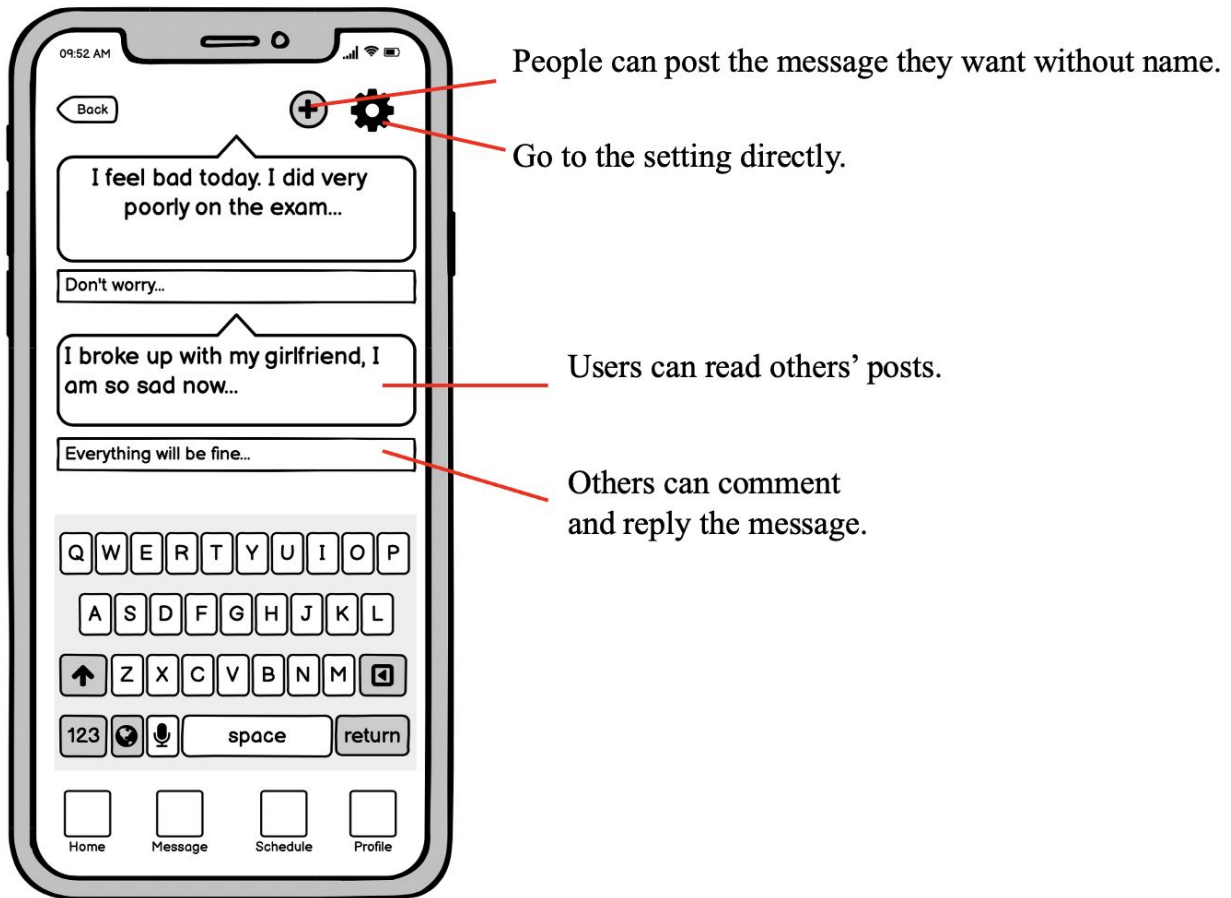
Screen 5: Schedule Screen

This wireframe has a calendar on it; users can check their schedules every day. In our app, users can make appointments with a professional consultant to have a conversation. The calendar relates to the reservation system and shows the appointment to the users. It also reminds the user when the time for a meeting is near. For example, it will notify the users by warning music or messages. It also keeps track of what consulting activities users did previously by checking the calendar. Users can know when they receive the consultant by checking this calendar.



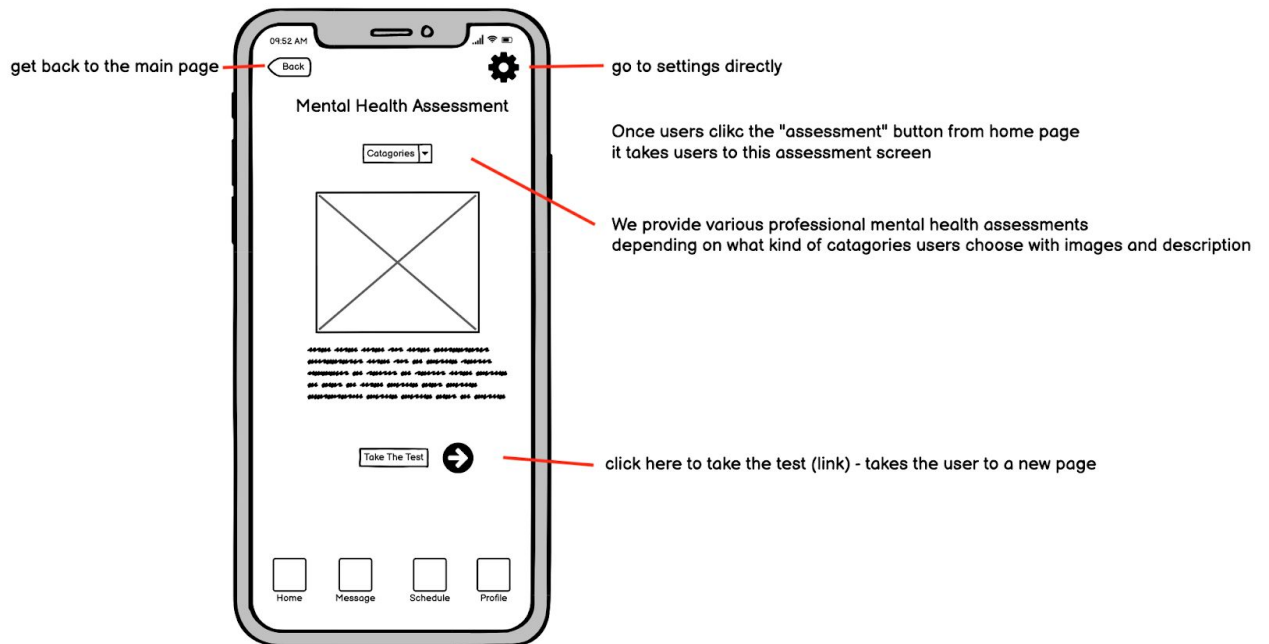
Screen 6: Bulletin Board Screen

This is a wireframe showing an anonymous bulletin board that users can publish their puzzles and difficulties, read others' published contents, and can comment to them or reply to them individually. It provides users a place to pour out and don't need to worry about others knowing who they are and what they do. It is useful, especially for someone that has no one to talk to or someone who is not comfortable talking to people they know. Also, by reading others' comments, some users might feel related or empathetic. The bulletin board is a place where people can mingle freely.



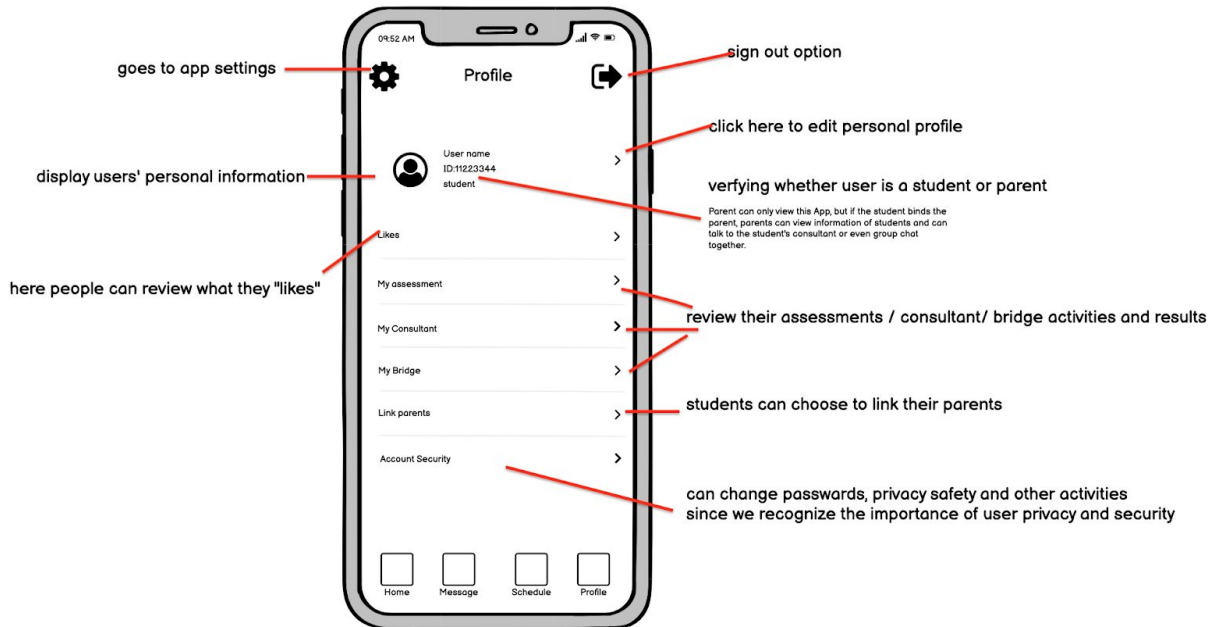
Screen 7: Assessment screen

This is the assessment screen used for users to take various mental health tests as they choose. It could include categories such as most-viewed mental health tests, specific types of mental health assessments (like anxiety, depression...), and so on. When users have or think they have symptoms of various mental health problems, we recognize that a simple and professional test would help to assess their mental stage rather than making an appointment to visit doctors directly, particularly during the pandemic. Through the professional mental health assessments, users are able to see results of their assessments. Based on the results, they can decide to go further consulting, or find out more information as they want.



Screen 8: Profile screen:

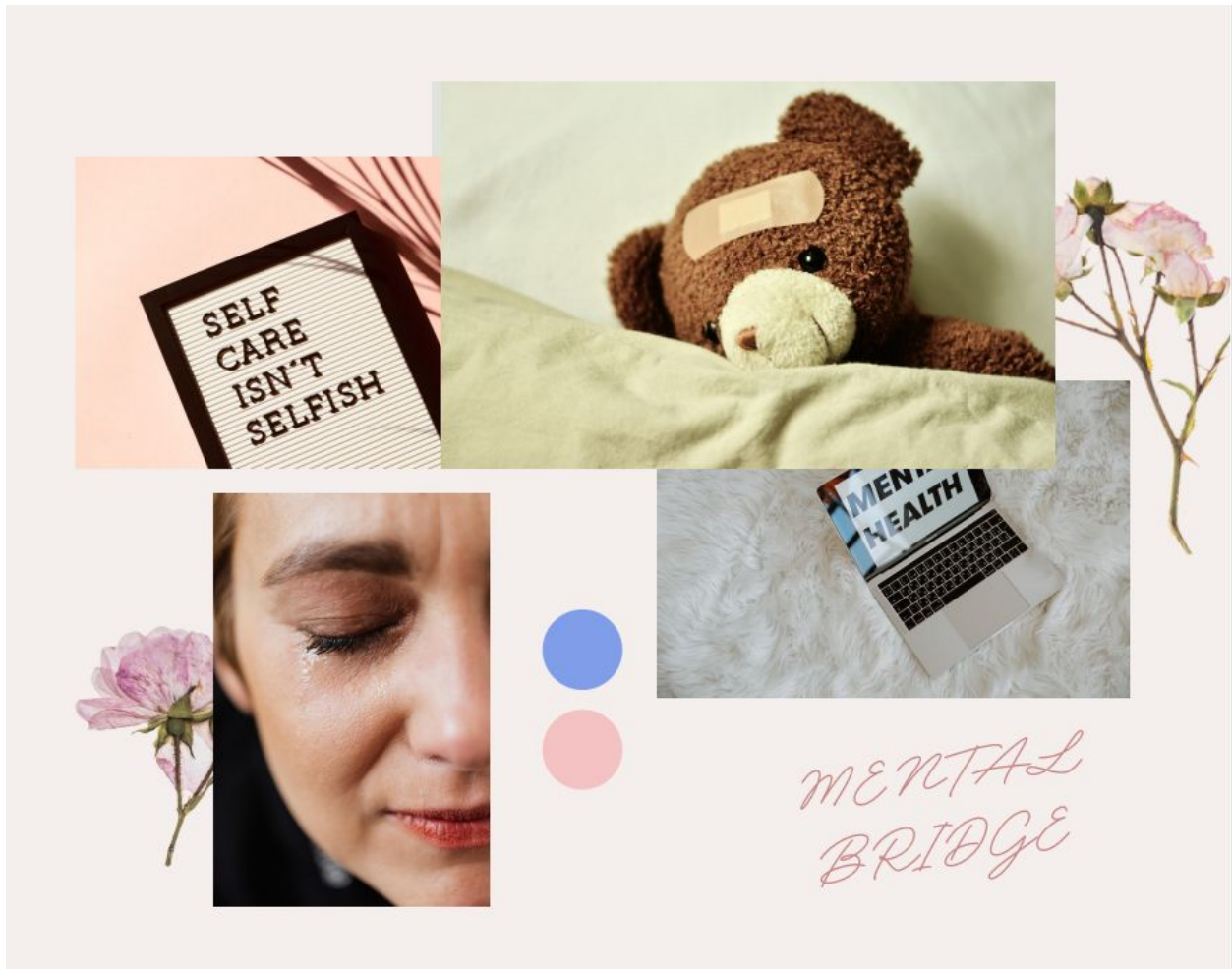
This is the profile screen when the users click the bottom right corner “Profile” icon. Each user has a unique ID number, name as they choose (could be anonymous for private purpose), profile photo, and identity (whether the user is a parent or student). In this screen, it has collective data about the users including what “likes” they have through various information, users’ mental health assessments results and activities, users consulting activities and record, and users’ journeys to build the bridges. It’s also important and necessary to contain a function for users’ security and privacy since it might be sensitive for some users about the topic of mental health. There is also an essential sign -- “settings” including notification settings, privacy settings, general settings and so on. On the upper right corner, there is a sign out option for users to sign out.



Low-Fidelity Wireframing Stage

Based on the feedback, the low-fidelity wireframing stage of the menu screen shows features that looked a bit complex on the homepage. We change it to a hamburger bar on the top-left corner of our homepage screen. This contains all the main features of our app, and it will exhibit when the users tap it. For the message screen, we got feedback that we can add more features to it. So, we design that when the users long-press the message, there will be some new functions for a message like translate, copy, and lookup. For the schedule part, we receive the suggestion that there may be some symbols or signs to represent the different types of events. We used a bell to perform appointments and a dialog box to present chat in the high-fidelity wireframing stage. Also, the date will be red on the calendar if there are some events to remind the users. We get the advice that there should be more information from experts for users to look at. We add a page that when users click the experts' basic information on the consultant page, they will see a page that contains a more comprehensive introduction of this expert, like rating, reviews, and strengths. Overall, through the feedback, we learned that it's important to think about various things and accessibilities for various users to provide a good user experience.

Moodboard



Design Language / Style Guide

Font

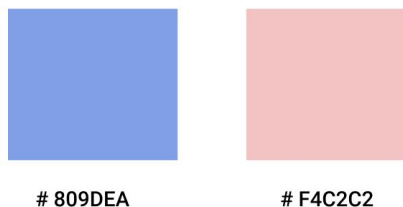
For our App, we selected Roboto as the overall font style. We don't want to create a serious and academic feeling for our users when they read through our App. Also, we don't want to show any frivolous attitude to our users because mental health is an important topic. This font sets up a clear visual hierarchy for users to understand based on the stroke and size, and "optimize readability and accessibility" to ensure our users have a good user experience (Hannah, 2020).

Roboto Thin
Roboto Light
Roboto Regular
Roboto Medium
Roboto Bold
Roboto Black
Roboto Condensed Light
Roboto Condensed
Roboto Condensed Bold

Colors

For our App, we selected two main colors along with common colors (black, white and grey). It includes the Tea Rose color (also called Baby Pink) -- # F4C2C2, and a relative blue color -- #809DEA. As mentioned in our lecture, color is an important UI element for setting the overall tone and mode. Pink-ish color is associated with hope, sensitivity, feminine, kindness and relaxation. Blue-ish color is associated with trust, cozy, harmony, calmness, and relaxation. We hope to provide a relaxing, reliable, and cozy space for our users, especially when they are dealing with some mental health issues.

Final Color Schema



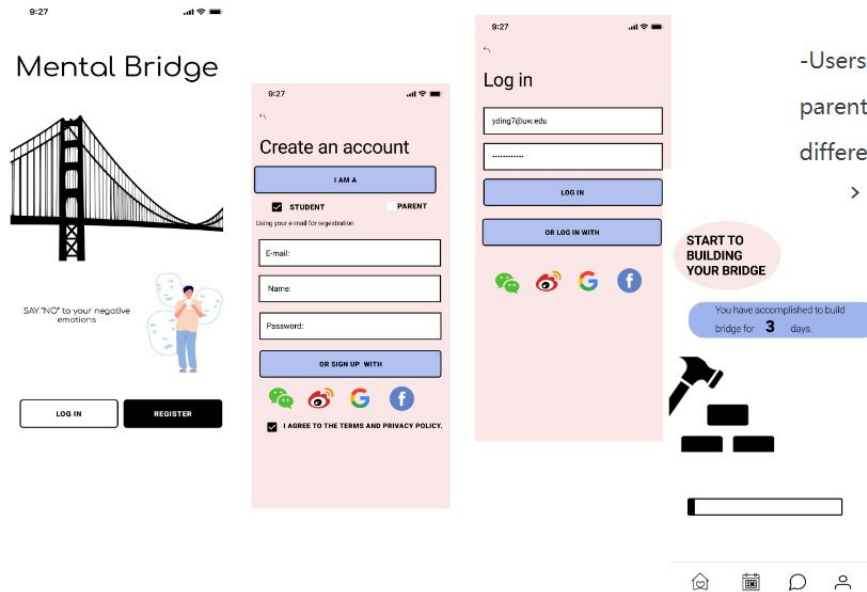
809DEA

F4C2C2

High-Fidelity Wireframes

Onboarding

Onboarding and check-in bridge page

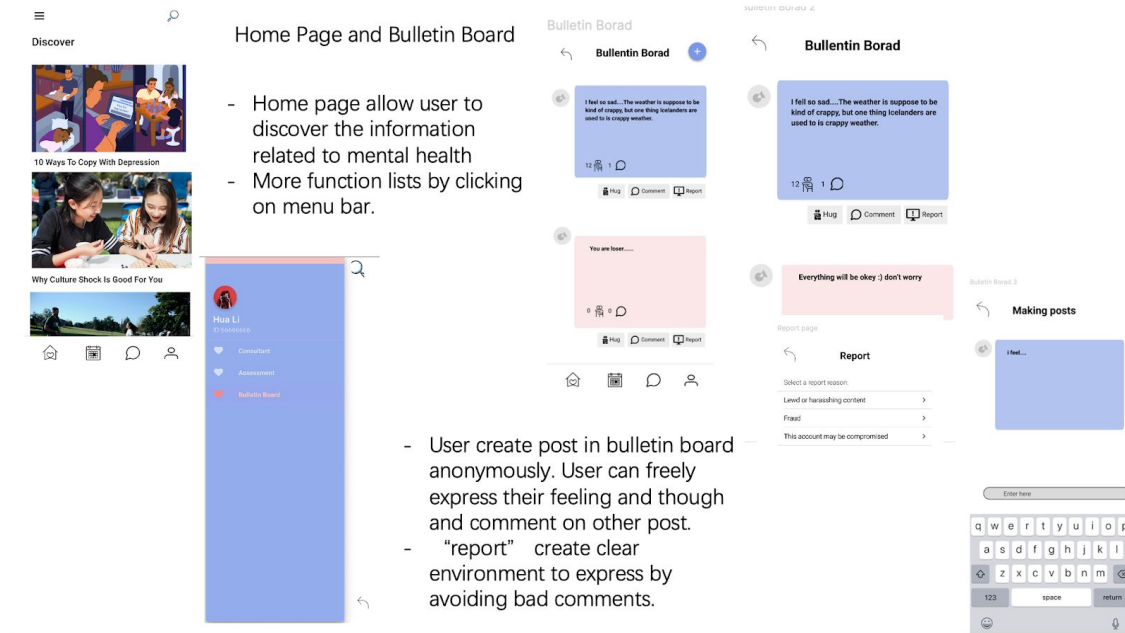


- Allowing users to sign or login with other social media like wechat

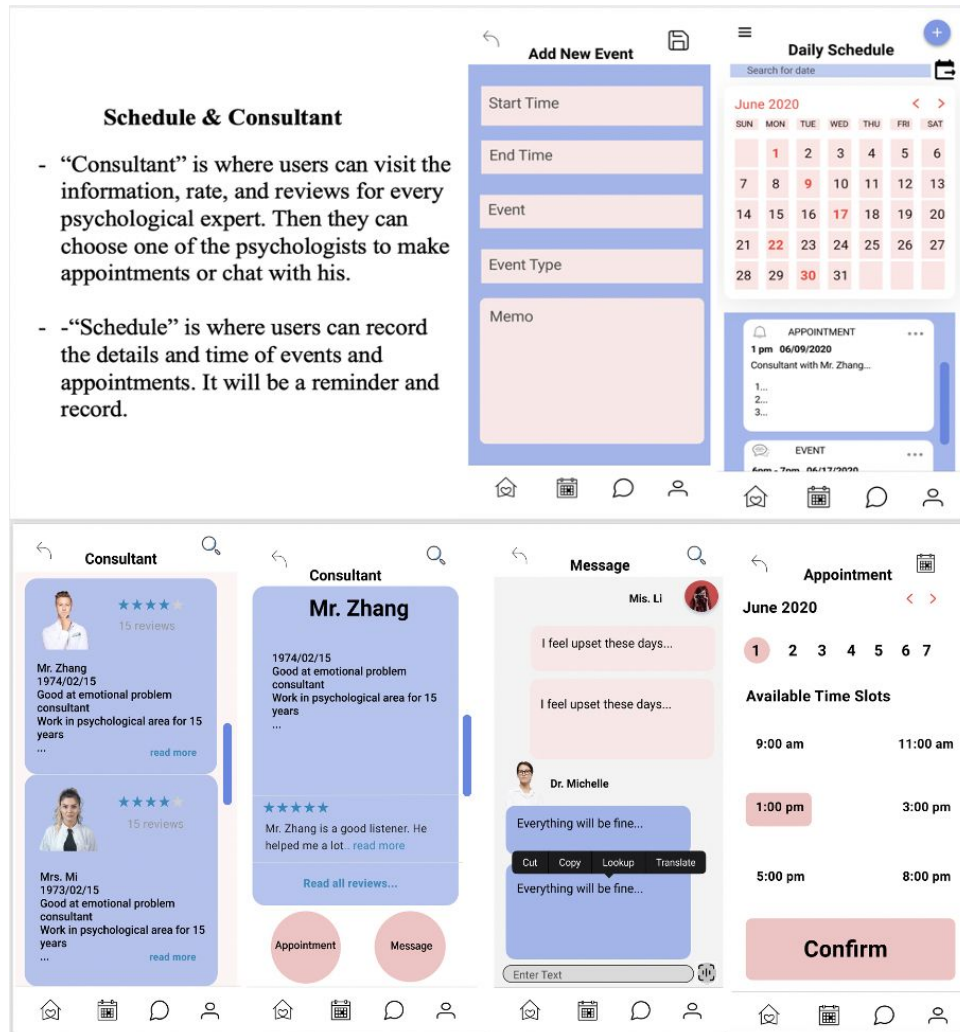
-Users can choose to sign in with a parent or student mode which have different functions

- Users can get one brick for one day login. The brick can help to build a "mental bridge" which make the app more interesting.

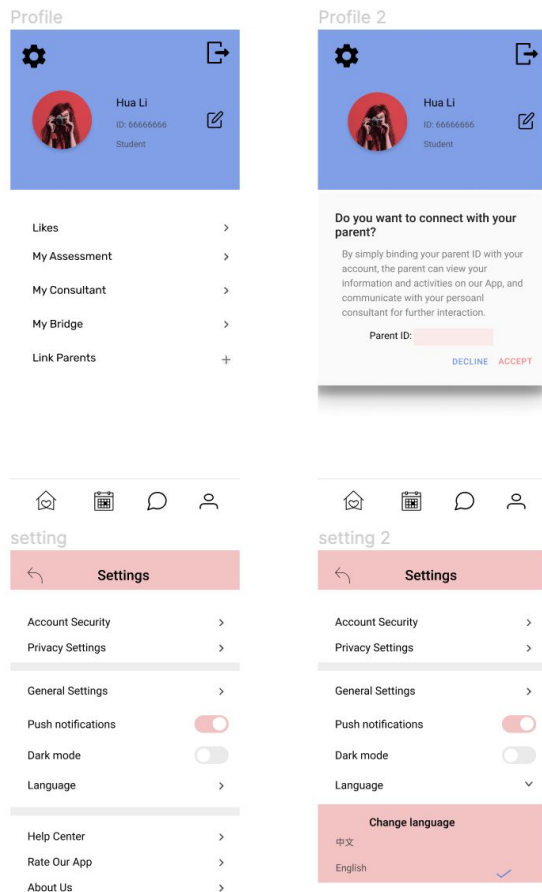
Usage Scenario 1: Home page + Bulletin Board



Usage Scenario 2: Schedule & Consultant



Usage Scenario 3 : Profile and Settings



Profile & Settings

-Link Parents:
we recognize that parents are important stakeholders for problem we are trying to solve. Thus, users can choose to make connection with their parents by simply binding parent ID so that parents can view student's information and activities, and communicate with students' counselor.

-User language setting:
we recognize that our main users are Chinese international students who know both English and Chinese. As part of the community, we recognize that there might be language barriers for some users. Thus, we provide a necessary function for users to change between these two languages for their own preferences.

Interactive Prototype

For this App prototype, we applied Figma based on what we learned from INFO 200 class to make the interactive prototype. Here is the link to the prototype:

<https://www.figma.com/proto/CnfXW3mhlaUbD95ytWqH1G/Mental-Bridge?node-id=18%3A707&scaling=scale-down>

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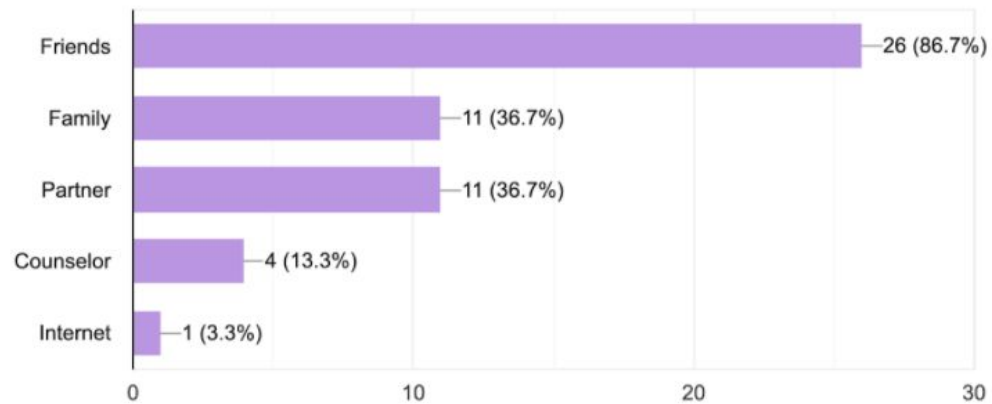
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Appendix

Graph 1 from the survey for user research

When you experience mental health problems, who do you often reach out to?

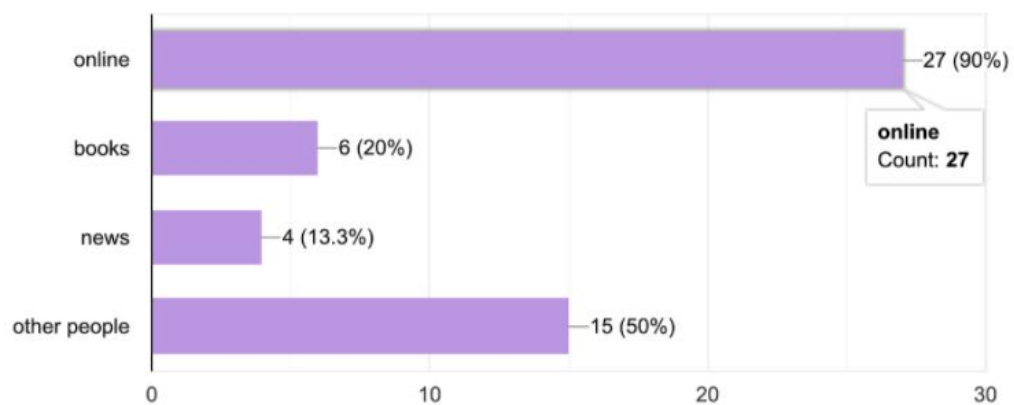
30 responses



Graph 2 from the survey for user research

Where do you find information about mental health and wellbeing?

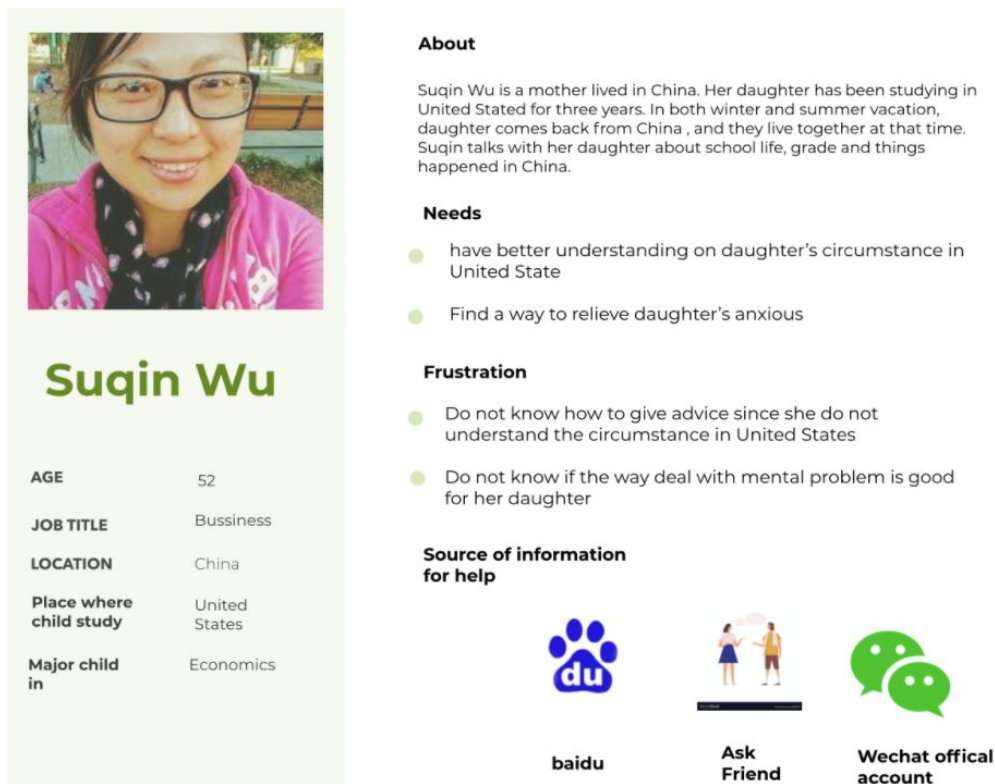
30 responses



Graph 3 (Stakeholder's persona)



Graph 4 (Stakeholder's persona)



Graph5

Questions	Sherry Lin-Feb 10, at 9:20 a.m
Age? Gender? Major? Year at school?	I am a junior that major in sociology at UW and you can obviously see I am a girl. I will graduated in the year of 2020.
Do you often feel sad or depressed? If so, why?	I will feel sad and depressed sometimes since I feel homesick and want to back to China. Even though I had a lot of friend and meet many good professors, I can not feel a sense of belonging here.
Do you often feel stressed or anxious? If so, why?	I often feel stressed and anxious since the pressure from schoolwork is huge. I am struggle to keep a perfect score at School. I will feel extremely nervous especially before the quizzes and exams.
Who do you often reach out to? Or what do you do to cope with mental health issues?	I often talk with my roommate and friends. I don not want my parents to worry about me so I will not talk to them. I will tell my issue to my friends and they would listen carefully and provide some helpful suggestions to me.
Do you know where to find information about mental health and well being?	I know the University would provide some help to solve the problem of student' mental health problem and I can find them by searching on the school website. Also, I can find more information about mental heath by searching one Google.