

# PRD: “Sunset-Love” Matchmaking App

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## Vision

For single elders in China over 60 years old who seek for emotional partners or want to get remarriage, our “Sunset-Love” Matchmaking App is a mobile application that makes all features easy to adopt and provides safe and professional service which enables elders to have both in-person and virtual matching date through live video without leaving home in consideration of those with mobility issues.

## Motivation

### Target customer segments

- **Elders that live alone:**

With the existing tools, it is very hard for this group of people to find close peer relationships which they need. They need to go to a matchmaker in the real world, risking getting scammed by these agents in the grey area of the law. Or trying to use common social media which is dominated by younger people and struggling with technology they are not familiar with and nobody is around to help them. As a result of all the difficulties, elders who live alone tend to not bother with finding new peer relationships since they do not have enough resource, time or energy. Thus, our “Sunset-love” matchmaking app targets to eliminate all those difficulties with elder friendly design, users can meet new people every day via application just like any younger age group through their electronic devices at home.

- **Single elders with family:**

For this specific group, many would like to start a new relationship or find another relationship to spend time with. In contrast to the previous group mentioned, this group of people have their family around to support them. So many of them are actively seeking relationships. “Sunset-love” enables them to target specific features on users' profiles so that they can easily find people with similar interests, nearby locations or preferred personalities.

- **For children who are looking for a relationship for their parent(s):**

For this group, many individuals are searching with their social network, while it can be awkward to ask friends if they have any candidates in their family, “Sunset-love” is full of people who're in the same situation. It is thus much easier to find what they are looking for without feeling awkward.

The early adopters will likely be younger generations who are helping their parents. It is the case that older people in China have yet to learn the most updated technologies. Over time, this generation will teach their parents and influence more people to use the application. So, we expect a good percentage of the elder who are looking for partners will be mainstream users later.

## Persona's

### Lee

Lee is from a small city in China. He is 68 years old and his son works and lives in a big city nearby, so Lee live alone. Lee divorced his wife years ago and is looking for a new relationship now. However, he doesn't know where to start so he went to the local matchmaker who is asking for 10,000 yuan for agent fee. Lee thinks it's way too expensive and refused. He called his son to help him looking for candidates on the internet since he is not too familiar with how to use a computer. It is very hard for his son to teach him via phone calls and the process takes a lot of time. Lee needs a better way to find and know more candidates.

### Sun

Sun is the daughter of a 72-year-old mother. Sun and her mother have been living on their own for two years and she thinks it's a good idea to find some companionship for her mother. Sun has asked most of her friends for a potential candidate and she could not find one. Some of her friends laughed at her for finding a partner for her mother. Sun feels very uncomfortable and is in urge for a proper way to find her mother a partner.

Please see *Appendix 1* for a summary of our results obtained from interviews and surveys.<sup>[1]</sup>

## Unmet Needs

The current methods of matchmaking for elders in Chinese society are outdated. Here we listed unmet needs for each group in our customer segments.

- **Elders unfamiliarity with modern applications:**

We believe that elders who live alone in China currently tend to take no actions even if they want a new relationship. This is caused by lack of convenient and efficient methods to do so. This is also restrained by limited knowledge and experience on electronic

applications that elders have. From our research conducted, 84% of elders who live alone are not actively looking for a partner. 72% have difficulties using modern applications on their own. And 62% are willing to consider a matchmaking application if they do not have difficulty using the applications. Our conclusion is that for elders that live alone in China, they do not have enough time or energy to search for a new partner since the existing solutions are troublesome. This group of people do not have a fast and easy tool to use for matchmaking.

- **Lack of a well-developed elder matchmaking database:**

We believe that single elders in China currently have no good ways to find appropriate candidates for a new relationship. This is caused by the lack of an organized database with a large data size and a smart filter. From our research, 44% of single elders are currently actively looking for a relationship. 72% have difficulty finding the suitable candidate. 88% are willing to use an application that can help them find candidates. We concluded that it is because the current generation of applications tends to focus on social and matchmaking on the younger generation, there lacks a good matchmaking application for elders.

- **Lack of a comfortable way to find candidates for parents as children:**

We believe that children who are looking for a relationship for their parent(s) nowadays have no comfortable way to do so. From our research, 60% of this group find it difficult. The reason could vary. Some told us that they feel awkward to ask their friends or colleagues. Some told us that there is simply no suitable candidate they could find. It is certainly understandable why this is happening. Finding relationships is a hard thing for oneself, not mentioning for others. This is why building an application could help. If reliable everyone here is in a similar situation, no one will be uncomfortable anymore.

## Existing Solutions

### 1. Happy Life

A traditional dating agency based in Jing An, District, Shanghai. The customer base is of 2000 customers, but it has higher success rates of around 500 pairs as they use traditional approaches to perform manual screening which are trusted by elderly. The charges vary from \$100 to \$10,000 depending on services.

### 2. Peach Blossom Blooming

A local channel blind dating TV show in China for middle aged and elderly people. The number of participants in reality TV shows are limited with application charges of \$150. It may take lot of time for people to get on the show lowering their chances to find a

match. The holding rate in the show is 50% and about 10% of them get married. The success rate is very low.

### 3. Jiayuan.com

A highly reputed Chinese dating application having 1.7 hundred billion registered users. Featured functions include voice chats, online map search, livestream feature; a user can set up a chat topic and see if someone wants to join. It also offers large scale offline dating services. It requires members to add their identification information which makes it reliable to use. However, 40% users are aged between 25-40 and 78% are 25-30. There are no statistics how many users are aged 60+ years.<sup>[2][3]</sup>

### 4. Match.com

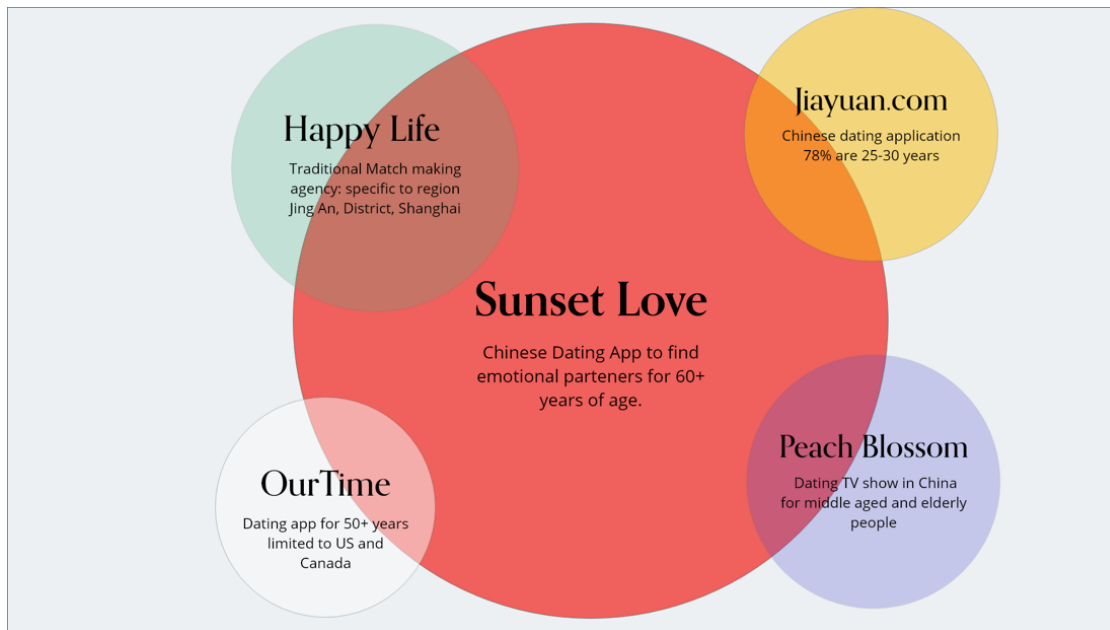
This matchmaking website provides its services over the globe. Users can set their age, location preferences to find their match. Profile creation is easy, it includes education, faith, political interests and other details which helps users find their match. Subscription charges start from \$35.99 monthly. However, out of 17million users, 2.5 million users are seniors.<sup>[4]</sup>

### 5. Ourtime

This application caters audience who are 50+ years. It helps users create their profile by answering straight forward personality questions based on specific interests and desires of seniors helping them finding their perfect match. The app is easy to use for seniors. Features our limited to sending emails and flirts, checking out others profile and photos and liking them. Subscription charges start from \$34.96 monthly. Currently Ourtime is limited to United states and Canada.<sup>[8]</sup>

## Differentiation

The existing dating app solutions in the Chinese market doesn't have a huge customer base for elderly over 60 years of age. <sup>[4]</sup> Traditional match making agencies are limited to specific regions. Applications like Jiayuan.com have complex user interface which makes it difficult for elderly use and the major target audience is below 40 years. The reality TV shows have limited audience with high fees. OurTime provides solution for 50+ years but is limited to Canada and US. *Sunset Love* aims to provide a digital easy to use, user friendly application to find emotional partners for elderly over 60 years.



### Why now?

As time have changed, we are living in COVID era; we need to switch to digital solutions, especially for elderly who are at highest risk and can't step out. Also, to cater the rapid ageing problem and increase in number of early nesters, it is necessary to provide an easy to use, reliable solution for elderly over 60 years to find emotional partners.

## Verbal/Visual Walkthrough of Use Cases

### Single Elders (living alone & staying with family):

#### A. An elder who is a first-time user and wants to browse around.

- He will be asked if he is an elder or a relative for the purpose of finding a relationship.



- He will be asked if he needs voice assistance while using the app. He can navigate by speaking.



- If he skips the voice assistant, he will be directed to the login page.



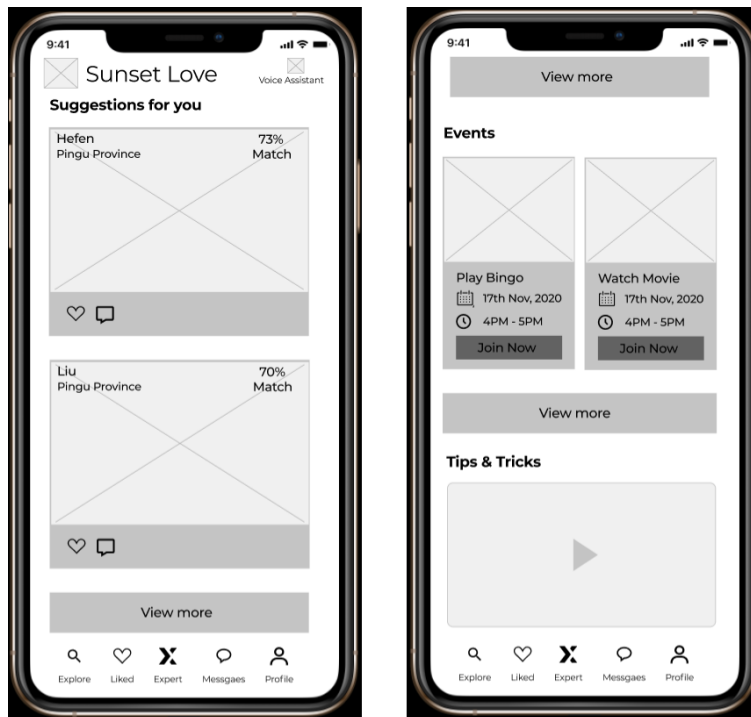
A mobile app login screen. At the top, the status bar shows the time 9:41, signal strength, and battery level. Below the status bar is a large gray square with a black 'X' inside, representing a missing profile picture. Underneath the image are two input fields: 'User Name:' and 'Pass Word:'. Below these fields are two buttons: 'Confirm' and 'Register'.

- If he is first-time user, here he will click register and fill out information at this page.

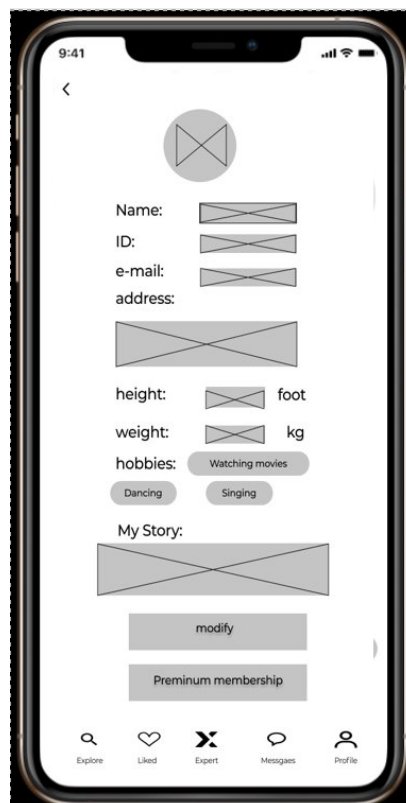


A mobile app registration screen. At the top, the status bar shows the time 9:41, signal strength, and battery level. Below the status bar is a back arrow on the left and a circular 'upload' button on the right. The form contains several input fields: 'Name:', 'ID:', 'e-mail:', and 'address:'. Below the 'address:' field is a large gray rectangle. Further down are 'height:' and 'weight:' fields, each followed by a unit label ('foot' and 'kg' respectively). Below these are 'hobbies:' and 'My Story:' labels, each followed by a large gray rectangle. At the bottom, there are three buttons: 'Singing', 'Dancing', and 'Watching movies'.

- After registration, he will be directed to the home page where he can browse other's profiles.

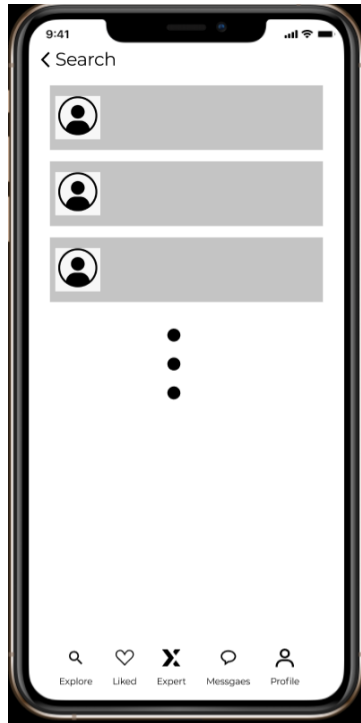


- He can view or edit his profile by clicking on the profile button.

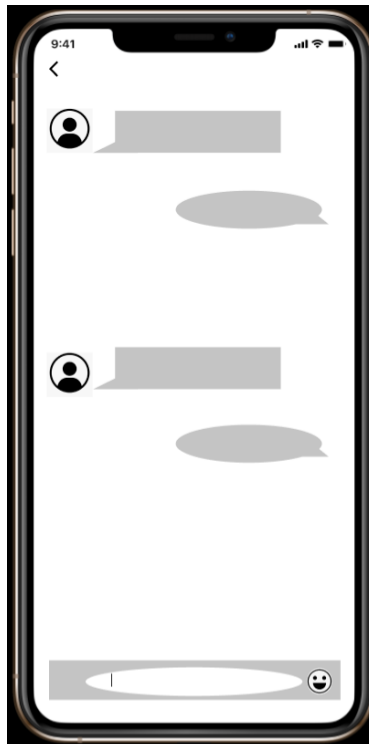




- He can see the message page by clicking the message button.

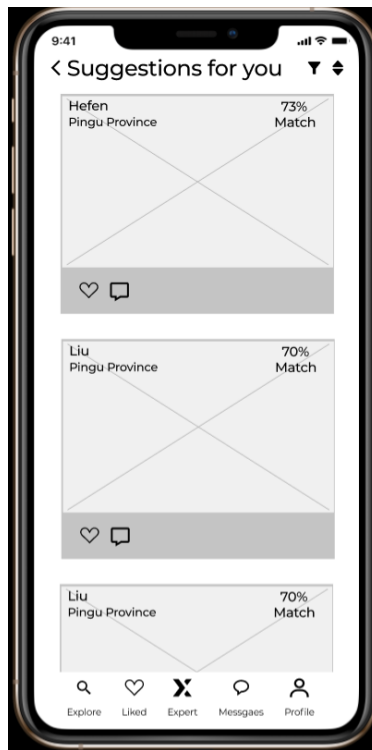


- He can chat by clicking on a friend in his message page.



**B. An elder who is looking for a relationship and has some requirements for his ideal partner.**

- From the home page, he can look for suggested profiles provided by the app.



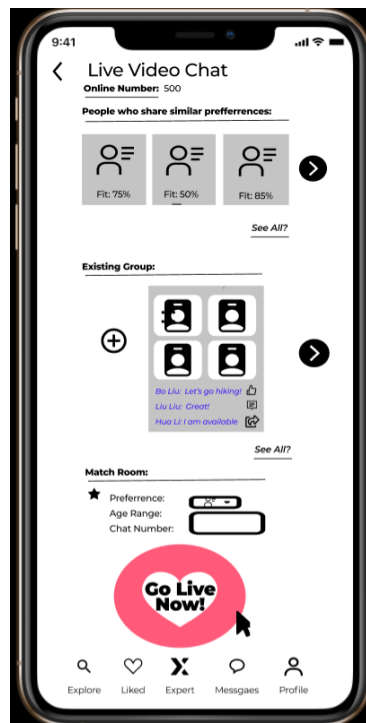
- He can also search profiles with the filter page.



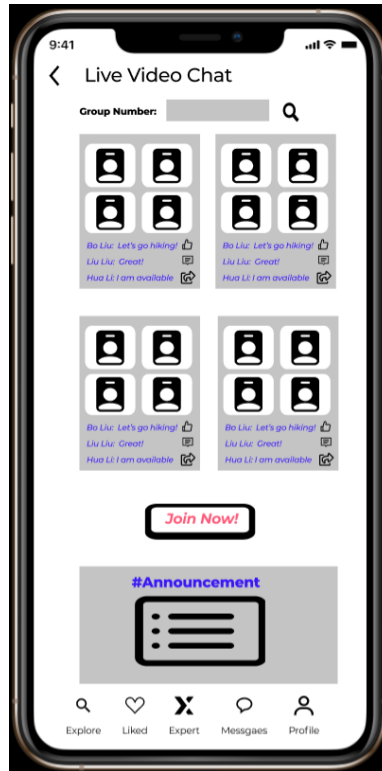
- By clicking on any profile, he can see how well his profile matches with the selected profile. He will receive a suggested matching score based on factors like similar age or common hobbies.



- Another good way to directly meet new people is via the Live Video Chat from home page.



- Here he can search for a specific chatting group by their topic.

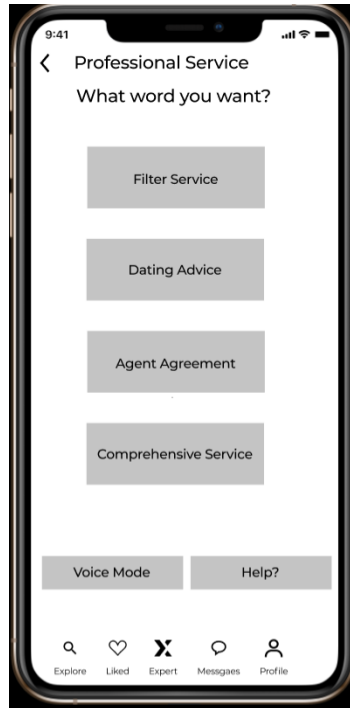


- Join a group live video chat by clicking on it.

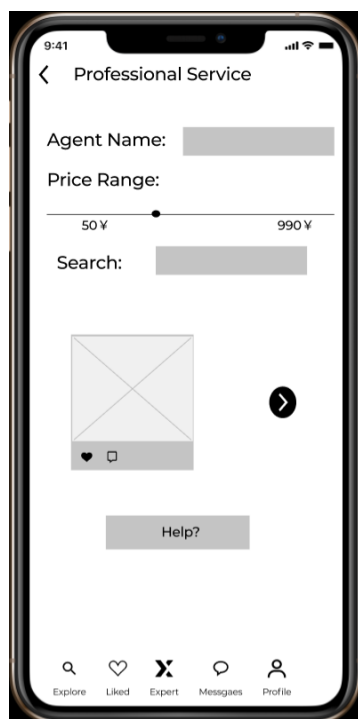


**C. An elder who wants to have professional service and check his dating arrangements.**

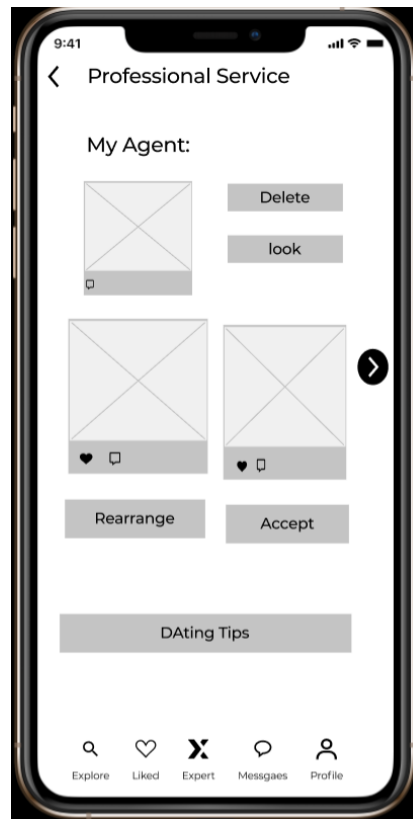
- Clicking the expert button at home page brings him to the professional service page where he can be connected with an expert from our company to be his personal assistant or emotional advisor.



- He can select and view the agents available from the agent page.



- When he selected an agent by clicking on one, he can see the profile of the agent. Also, he can arrange his dating calendar.



### Children:

- A. A child who is finding partner for his single parent and would like to link his profile with his parent's.
- On the welcome page, he will choose looking relationships for my parents.



- He will also register a profile and he can link his parent's profile if there exists one.



- He can also link parents' profiles later in his profile page and view linked profiles.



- He can view and search profiles just as an elder would.

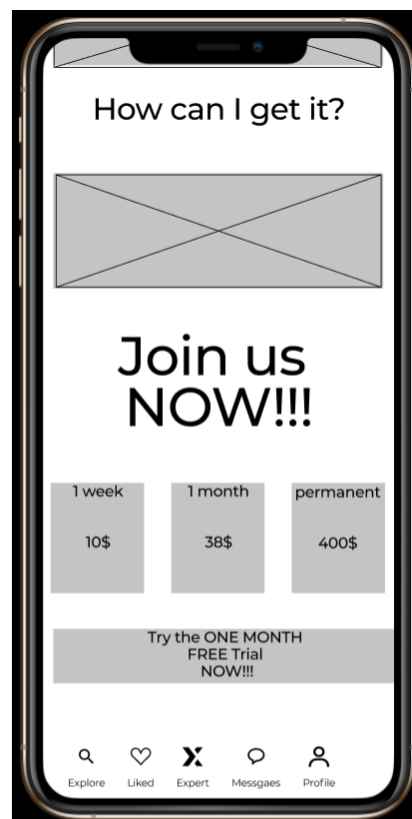
#### **B. A child who prepares to pay for premium membership user experience.**

- In the My profile page, he can click on premium membership button which will direct him to membership register page.





- On the Premium Membership Page, he can purchase for membership.



- He will see successful page after finishing his payment of premium membership.



### Site Administrator:

- He logs into his account, finds his dashboard and then clicks on “admin page”.
- Selects all events, delete all past ones and add new ones.
- Checks on the reports received and ban certain accounts that violates the rules.

## Detailed Design & Features Description

### Design Principles

Our major purpose of inventing “Sunset-Love” are to make finding partner companionship be more feasible and easier for single elders over 60 and provide a convenient platform for their children to help achieve this goal for their parents. Having considered about these missions, following are our product design principles:

- **Be easy for elders over 60 years to use**
  - a. Establish a familial resemblance.
  - b. Maintain user context by staying in place.
  - c. Guide the user where appropriate.
- **Design for the customer and instill confidence**
  - a. Be trustworthy and helpful.

b. Imbue confidence.

- respect each user's privacy and security
- Be customizable based on each user's role and preference
- Own strong stability of system to adopt scalable users and data

Technologically, our infrastructure design principles are as listed below:

<b>Operation System</b>	Windows 7.0 + / IOS / Linux
<b>Environment</b>	Alibaba cloud service
<b>Developing Platform</b>	IntelliJ IDEA
<b>Technological Selection</b>	Java Web Application Architecture <ul style="list-style-type: none"> <li>● Front-end: HTML, CSS, JavaScript</li> <li>● Back-end: SSH framework (Spring + SpringMVC + Hibernate)</li> </ul>
<b>Browser Adaption</b>	<ul style="list-style-type: none"> <li>● IE / Chrome / Safari / Firefox</li> <li>● Automatically adaptive and responsive layout</li> </ul>
<b>Product Management</b>	<ul style="list-style-type: none"> <li>● JIRA</li> <li>● Git</li> </ul>

## Features/information architecture

The features listed below are what our product needed for future release:

<u>Feature</u>	<u>Detail</u>	<u>Dependencies/Mock-ups</u>	<u>Priority</u>
<b>Why come here?</b>	The new users will be asked about role clarification before registration. Users are able to choose their roles as " <i>single elder</i> " or " <i>children</i> ".	<b>Mock-ups:</b> Refer Appendix 9 – Use case Mock-ups – a. Welcome Page	1
<b>Registration</b>	The new single elderly users will be able to register on Sunset-Love app by providing following details and agreeing to the terms and conditions:	<b>Dependency:</b> get legal approval of retrieving users'	1

	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Last Name</li> <li>• Middle Name</li> <li>• Birth of Date (ID verification must over 60s)</li> <li>• Gender</li> <li>• Marriage Situation</li> <li>• Partner characteristic preference</li> <li>• Email Address</li> <li>• Phone number</li> <li>• Username and Password</li> <li>• Three Security questions</li> </ul>	<p>information and personal data.</p> <p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – b. Registration Page (children)</p> <p>Refer Appendix 9 – Use case Mock-ups – c. Registration Page (single elders)</p>	
<b>Login</b>	Single Elders should be able to login in Sunset-Love app with correct username and corresponding password.	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – d. Login Page</p>	1
<b>Forgot your Password</b>	Single elderly users will be able to reset their password while they have forgotten via three ways: registered email address, phone number or security questions.	<p><b>Dependency:</b></p> <p>Need third-party applications such as Outlook email or phone to receive the verification code.</p>	1
<b>Home Page Dashboard</b>	<p>After validation of login action, users will land on Sunset-Love Home page dashboard with the main menu on the blow.</p> <p>There would be 3 parts displayed in page major area:</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – e. Home Page</p>	1

	<ul style="list-style-type: none"><li>• <b>Suggestion for you:</b> users will be able to retrieve the latest customized suggestion and contents.</li><li>• <b>Events:</b> users can go through the matchmaking event calendar and see details.</li><li>• <b>Tips/Tricks:</b> users can watch short videos and articles about tips of finding partners.</li></ul> <p>There would be 5 buttons displayed in menu area:</p> <ul style="list-style-type: none"><li>• <b>Explore:</b> users will be able to click this button to search potential partners they are interested in and the filter conditions they prefer, link to Search page.</li><li>• <b>Liked:</b> users can check liked people list and the number of likes they got, link to Liked page.</li><li>• <b>Expert:</b> users can go for professional matchmaking service and choose personal agent, link to Professional Service page.</li><li>• <b>Messages:</b> users can check existing messages and start new, link to Message page.</li><li>• <b>Profile:</b> users can check personal info and update their profiles, link to Profile page.</li></ul>		
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<b>Setting-up profile</b>	<p>Users will be able to set up their personal profile when it is their first-time registration, including the following content:</p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Address</li> <li>• Email</li> <li>• Hobbies</li> <li>• Height</li> <li>• Weight</li> <li>• My Story</li> <li>• Profession</li> <li>• Religion</li> <li>• Photos</li> </ul> <p>System will automatically do ID verification and enable users to choose whether to share their location or not.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – f. My Profile Page</p>	1
<b>See other users' profile</b>	<p>Users can click on the user they are interested in and read through his/her profile, including hobbies, photos and other details.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – g. Other's Profile Page</p>	1
<b>Profile Matching Report</b>	<p>Users can read the profile matching report with compatible rate provided by system.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – h. Profile Matching Page</p>	2
<b>Link children account with parent profile</b>	<p>Children finding partners for their single parents can be able to link their profile with their parents after ID relationship identification in system.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – i. Link Children and Parent Profile Page</p>	1
<b>Update Profile</b>	<p>Single elderly and children users can edit and update their</p>	<p><b>Mock-ups:</b></p>	2

	personal profile after first-time setting-up.	Refer Appendix 9 – Use case Mock-ups – j. Update Profile Page (single elders)  Refer Appendix 9 – Use case Mock-ups – k. Update Profile Page (children)	
<b>Free Trial/Premium membership</b>	<p>On the “My Profile” page, users can be directed to Premium Membership Page by clicking on the button.</p> <p>After successfully making payment, users will see the success page notification.</p>	<p><b>Dependency:</b></p> <p>Retrieve the approval of third-party payment methods.</p> <p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – l. Premium Membership Registration Page</p> <p>Refer Appendix 9 – Use case Mock-ups – m. Premium Membership Registration Success Page</p>	2
<b>Customized Suggestion for you</b>	Users can click on “Suggestion for you” on home dashboard page and see all recommended partners.	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – n. Customized Suggestion for You Page</p>	1
<b>Results of matching interests</b>	By clicking on “Search” button from home page, users can set multiple condition filters and search for the ideal results. The results can be listed and sorted	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – o. Filter Page</p>	1

	<p>accordingly. The filter settings contain the following choices:</p> <ul style="list-style-type: none"> <li>• Location</li> <li>• Interested In <ul style="list-style-type: none"> <li>a. Relationship</li> <li>b. Friendship</li> </ul> </li> <li>• Age Range</li> <li>• Height Range</li> <li>• Religion Preference(s)</li> </ul>		
<b>Professional Service Selection</b>	<p>By clicking on “Expert” button from home page, users can choose various kinds of professional matchmaking services they would like. The service contains the following kinds:</p> <ul style="list-style-type: none"> <li>• Filter Service</li> <li>• Dating Advice</li> <li>• Agent Arrangement</li> <li>• Comprehensive Service</li> </ul>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – p. Professional Service Selection Page</p>	1
<b>Agent Search</b>	<p>After choosing for service of “Agent Arrangement” service, users will be directed to agent search page. Users could see all feasible options and select an ideal agent.</p> <p>The searching filters are as below:</p> <ul style="list-style-type: none"> <li>• Agent Name</li> <li>• Price Range</li> <li>• Key Words Search</li> </ul> <p>Users could contact online customer service while confronting some issues with</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – q. Agent Search Page</p>	2



	professional service by clicking on “Help?” button.		
<b>Dating Arrangement</b>	<p>Users can check their dating arrangements provided by personal agent.</p> <p>By clicking on each dating event, users are able to take following actions:</p> <ul style="list-style-type: none"> <li>• Accept</li> <li>• Rearrange</li> <li>• Like</li> <li>• Comment</li> <li>• Dating tips</li> </ul> <p>Users could also contact online customer service while confronting some issues with professional service by clicking on “Help?” button.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – r. Dating Arrangement Page</p>	1
<b>Live video chat dashboard</b>	<p>Users can join in live video chat with a single person or a group. On this home page, there are three major areas:</p> <ul style="list-style-type: none"> <li>• People who share similar preference</li> <li>• Existing groups</li> <li>• Match room               <ul style="list-style-type: none"> <li>a. Preference</li> <li>b. Age Range</li> </ul> </li> </ul> <p>By clicking on “Go Live Now”, users can directly enter the live video chat page.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – s. Live Video Chat Home Page</p>	2
<b>Live video chat group search</b>	Users could search for specific group number to join. Also, they	<b>Mock-ups:</b>	2

	<p>are able to view all available chat groups.</p> <p>The “Announcement” area are mandatory requirements for users to approve before entering a group chat. By clicking this zone, there will be a pop-up window to show all details.</p>	Refer Appendix 9 – Use case Mock-ups – t. Live Video Chat Group Search Page	
<b>Group video chat interaction</b>	<p>Users can have video chat with other group members. They can take the listed actions during live chat:</p> <ul style="list-style-type: none"> <li>• Like</li> <li>• Text/Emoji Comment</li> <li>• Voice Comment</li> <li>• Share to third parties</li> </ul>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – u. Group Video Chat Interaction Page</p>	1
<b>Voice Assistance</b>	<p>Users can choose voice assistance when clicking on microphone icon in the home dashboard page. System will automatically distinguish the words and start searching.</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – v. Voice Assistance Help Page</p> <p>Refer Appendix 9 – Use case Mock-ups – w. Voice Assistance Result Page</p>	1
<b>Message Communication</b>	<p>By clicking on the “Message” button of home dashboard page, users will be able to see the message page and are able to:</p> <ul style="list-style-type: none"> <li>• Search user to chat</li> <li>• Start a chat</li> <li>• Check history chatting content</li> </ul> <p>During a chat with other person, users are able to send various kinds of messages:</p>	<p><b>Mock-ups:</b></p> <p>Refer Appendix 9 – Use case Mock-ups – x. Message Home Page</p> <p>Refer Appendix 9 – Use case Mock-ups – y. Message Chat Page</p>	1

	<ul style="list-style-type: none"><li>• Text/Emoji format</li><li>• Voice format</li><li>• Meme format</li><li>• Picture format</li></ul>		
<b>Logout</b>	The logout link will be available on all the pages. System will save all the latest information during any processes.		1

### Version 1 Minimum Viable Product (MVP)

All of the above features with the priority level 1 would be the major tasks the minimum viable product (MVP).

### Version Next

There are 5 different aspects needed to finish and release in this phase:

- Above features with priority level 2 –
- Continue working on improving the following functions:
  - a. Filters
  - b. Agent Team
  - c. Dating Arrangement
  - d. Message
  - e. Payment
- Add new features as listed below:
  - a. Compatibility rate ranking
  - b. Events
  - c. Schedule appointment with experts
- Expand third-party partnership and searching for more investors.
- Syncing the Sunset-Love dating schedule and event calendar with public calendar applications such as Google calendar, outlook, etc.

### Version Long-term

Our long-term goal is to create a mobile app to provide easy and practical matchmaking service to users such as matching search, dating appointment and joining events and reading notifications. Instead, our product should focus on keep interface neat. To stay closely to our users, we will highly value single elders' feedback towards operational difficulty and children's suggestion about the convenience of finding partners for their single parents.

## Roadmap / Timing

We plan to launch our app on August 25, 2021 on Chinese Valentine's day in a park in Beijing.

Milestone	Timing	Notes
Internal launch of MVP  Tasks to be completed: onboard users, search for potential matches	March	Our first test would be conducted internally withing our team. Team would be responsible for executing integration testing, noting bugs and create specific tasks to fix those bugs.
1 <sup>st</sup> beta launch – for selected elders and children reaching out to matchmaking agencies  Tasks to be completed: Increase the accuracy of matchmaking recommendation	May	Tie ups with matchmaking agencies to encourage their customers to sign up for our app. Matchmaking agencies will get an opportunity to offer professional services via our app and increase their customer reach.
Fix bugs, analyze metrics and make necessary app changes  Tasks to be completed: Better Matchmaking Service and Increase Conversions	June	With the help of metrics collected, work on user feedback and make necessary changes for our 2 <sup>nd</sup> launch.
Full launch  Tasks to be completed: Increased connectivity and Improved ease of access	August 25, 2021 on Chinese Valentine's Day	Launch our application in an event conducted at Changpuhe Park, Beijing and stalls at other parks "matchmaking corner" in Hongyadong Park and Revolution Park. Publicize our applications via Online chat rooms and Promotion on TV shows Peach Blossoms Bloom," "Exciting Old Friends" and "Holding Hands."

## Sunset-Love Matchmaking App Roadmap

Themes	Q1	Q2	Q3	Q4
Increase the accuracy of matchmaking recommendation	<b>Filter Conditions</b> Goal: build at least 15 filters conditions Priority: High Effort: S	<b>Expand Matchmaking Agent Team</b> Goal: Increase the number of experts by 25% Priority: Medium Effort: L	<b>Live Group Video System</b> Goal: implement at least 4 person online video chat system Priority: High Effort: L	<b>Group Video System Upgrade</b> Goal: The number of people in one live video chat room increases by 50% Priority: High Effort: L
Better Matchmaking Service	<b>Search partners</b> Goal: implement search algorithm Priority: High Effort: M	<b>Schedule appointments with experts</b> Goal: Implement the scheduling system Priority: High Effort: M	<b>Link children's profile with their parents</b> Goal: implement connection system Priority: High Effort: M	<b>Link Profile System Upgrade</b> Goal: Time of linking children and parent's profile decreases by ½ Priority: High Effort: M
Increase Conversions	<b>Filter results</b> Goal: list all results suited customized filter conditions Priority: High Effort: S	<b>Chat System Upgrade</b> Goal: Time of message refreshing decreases by ½ Priority: High Effort: L	<b>Events Upgrade</b> Goal: Number of events for connectivity increases by 10% Priority: Medium Effort: L	<b>Compatibility Calculation System Overhaul</b> Goal: Accuracy Rate of compatibility system increases by 30% Priority: High Effort: L
Increase connectivity	<b>Sort results</b> Goal: implement sorting algorithm Priority: High Effort: M	<b>Compare compatibility with partners</b> Goal: implement the formula of calculating the score of compatibility Priority: High Effort: L	<b>Payment for Professional Service Upgrade</b> Goal: Time of payment process decreases by ½ Priority: Medium Effort: L	<b>User Interface Overhaul</b> Goal: Satisfaction score of user feedback increases by 40% Priority: Medium Effort: M
Improve ease of access	<b>Create profile</b> Goal: Average time for creating a profile within 1 min Priority: High Effort: M	<b>Filter System Upgrade</b> Goal: Time of collecting all suitable results decreases by ½ Priority: High Effort: L	<b>Payment System Upgrade</b> Goal: increase conversions by 5% Priority: Low Effort: L	
	<b>Premium Membership</b> Goal: implement the membership system Priority: High Effort: L	<b>Voice Assistance Upgrade</b> Goal: Time of loading the voice assistance results faster by 30% Priority: High Effort: M		
	<b>Build Matchmaking Agent Team</b> Goal: recruit over 10 professional experts Priority: High Effort: L	<b>Upload profile</b> Goal: Time for updating and saving profile information decreases by 20% Priority: Medium Effort: M		
	<b>Chatting system</b> Goal: implement immediate message system Priority: High Effort: L	<b>Create Events</b> Goal: implement at least 5 activities for connectivity Priority: Medium Effort: L		
	<b>Voice Assistance</b> Goal: implement voice assistance system Priority: High Effort: M	<b>Payment System Overhaul</b> Goal: increase conversions by 5% Priority: Low Effort: L		

## Metrics

Quantitative Metrics	Elders	Children
Number of user downloads	✓	✓
Number of unique visits per day	✓	✓
Number of user downloads and visits to application	✓	✓
Average time spent by users per day	✓	✓
Number of messages sent/received per day	✓	✓
Continuous Conversations	✓	
Number of verified users registered per month	✓	✓
Number of people subscribing to premium membership	✓	✓

Number of people opting for professional services	✓	
Time spent by users while browsing through profiles	✓	✓
Number of profiles liked	✓	✓
Number of users seeing their match analysis with other profiles	✓	
Duration for which they attend live video chats	✓	
Number of people who found their emotional partners	✓	
Number of couples that successfully started a relationship per day	✓	
Number of requests made through voice assistant service	✓	
Number of results fetched by voice assistance service	✓	
Number of children profiles linked to parent's profile		✓
Number of live events attended	✓	
Number of conversations that turn into dates	✓	
Number of dates arranged	✓	

### Qualitative Metrics

- Written user feedback for features / overall application
- Top exit points
- Number of people who got married
- Number of long-term relationships

## International

With high demand, need, opportunity and unavailability of elderly dating app for Chinese, we are currently focusing on Chinese Market; Once we are well-known and successful in China, we plan to expand it to other Asian countries. Expanding it to other continents would require a lot of research on their culture, preferences and current habits. Thus, we plan to make it available to Asian countries in future.

## Projected Costs

Here are the costs of the first year of our application:

**Alibaba Cloud ecs. g6 server (general edition)**

North China (location of server: Qingdao)

CPU=32 Storage=128GB

Cost= 587.81 USD (3840RMB) \*12(month)=7053.72USD (year)

**Alibaba Cloud database (SQL edition)**

North China (location of Database: Qingdao)

CPU=8 (64GB)

Max iops = 36000

Maximum storage space =3000GB

Cost =771.50USD (5040RMB) \*12(month)= 9,256.95 USD (60480RMB)

Big Data Analysis Supported

**Salary of developers and other employees**

*Front-end developers:*

Interface developer: 8 people

*Back-end developers:*

Database and server: 2 persons

*Project manager and designer:*

Project manager 1 person

Product manager 1 person

Product operation 2 people

According to China's wage standards, the salary of each employee each month is approximately 3,100 USD (20,000 RMB)

Total salary = 45,917.40 USD (total salary 300 thousand RMB per month) \* 12  
= 551008.8 USD (year)

Because bonuses may be issued based on actual conditions.

Total cost of the first year= 567319.47 USD

The total expenditure of the first year is approximately 0.6 million USD.

The total expenditure of every month is about 46 thousand USD

## Operational Needs

In order to make sure the project proceed smoothly; we need the ongoing support of the following organizations:

- **China Civil Affairs Bureau**

If you want to register on this system, you need to provide identity verification. The Civil Affairs Bureau of China provides corresponding ID card identification services to Many enterprises. This can ensure that the identity of the registrant is true. Many online frauds rely on forged identities, which are difficult to trace once they occur. But through cooperation with the Civil Affairs Bureau, we can prevent this.

- **Marriage Agency**

In China, marriage agencies have existed for many years. Although today young people prefer to find their spouse by themselves, many elderly people still like to go to marriage agencies to listen to the "professional advice." The marriage agency will register all the customers' information who have this demand and provide it to others who have the same demand. If we can cooperate with these marriage agencies, then we can use their information. Cooperation with marriage agencies can help us to discover more potential users with related needs. Attract more users to use our application.

- **"Alibaba Cloud" Cloud Service**

To improve our business and understand our users, our team believe the method of data mining should be used to analysis the data of our users. "Alibaba Cloud" cloud computing center will provide this service for our system. (Because we rent their database and server)

- **WeChat/Alipay Corporate Online Payment Service Team**

For our project, online payment is required. We decided to use some mature online payment platform that has been widely used to finish this job. In China, WeChat payment platform and Alipay have been widely used, and can provide corresponding services to various enterprises stably.

- **Remote video call technical team**

In China, this technology has also approaching maturity. Many technical teams are willing to provide corresponding services to various start-up companies. (Of course, these expenses also need to be included in the cost. However, it is hard to be estimated at present.)

- **Law Firm**

This product has long-term cooperation with a third-party law firm to solve related legal issues until the company can establish a mature legal department.

- **Accounting firm**

This product has long-term cooperation with a third-party accounting firm to solve related financial issues until the company can establish a mature financial department.

## Addressing Caveats/risks

Risk Type	Risk Description	Mitigant Solution
Privacy Concerns	Both elderly users and children who are searching for partners for their single parent(s) would be concerned about who has	Apply public and legal APIs from government which will make our application under supervision of Chinese



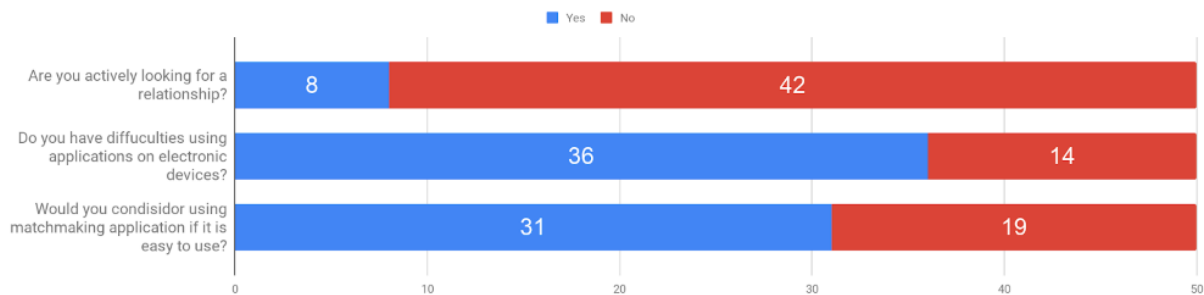
	<p>access to their personal info data and use the data. Additionally, they may worry about data leaking to other people which leads to potential financial issues.</p>	<p>legal department and protect customers' info.</p> <p>Establish a strictly confidentiality system within the company. Set strict permissions for the use, modification and access of the database. Require employees to sign confidentiality agreements. If information is leaked due to the behavior of employees, they should be held accountable. China's current Internet information authentication methods have gradually matured.</p> <p>Civil affairs departments of the government provide enterprises with relevant services and information for personal identity verification. Therefore, it is possible to avoid information leakage during the identity verification process by means of technical means.</p>
Legal Concerns	<p>Need to make sure our product strictly obeys all law rules when collecting and utilizing customers' private information and all data submitted to our application.</p>	<p>Ensure high integrity of each core team member. We should also delegate a lawyer to double check our app's validity.</p>
Breakdown Concerns	<p>Users will be disappointed and lose trust on our application if server is not strong and steady enough so that it can easily crash down, which makes users unable to access their account in a timely manner or losing data.</p>	<p>We may apply distribution system including strong cache architecture to handle high concurrency. In addition, we could deploy a cloud backup.</p>
Using Concerns	<p>Single elderly users may hesitate and feel some pressure since they need to adopt technologies of a brand-new application on mobile phones, which normally</p>	<p>We will do road showing, lecturing, PowerPointing, etc. while advertising our product and patiently teach elderly participants to operate our app. Most importantly, we will set "easy for elderly</p>

	they cannot smoothly operate. Physical agencies are more familiar for them.	people to use” as our product designing principle.
Cost Concerns	Advertisements, market promotions and development will all produce expenses.	Looking for advisors’ opinion from a strategy counsel company for professional suggestions and optimal plan. Introduce our products to various investment institutions. Seek opportunities for angel investment.
Third-party Partnership Concerns	During startup period, our app may need user number foundation by collaborating with third-party organizations, such as traditional agencies. However, they may reject since they worry about customer diversion to our app and lose clients.	We could offer 15%-30% profit earned from customers to these partner companies and promote their brands on our application to ensure that this is a win-win strategy.
Developing Team Concerns	At present, we only have four people in our team. Therefore, it is necessary to find more engineers and designers joining in due to heavy load of product implementation.	Our team will appeal to brilliant youngsters in universities and interpersonal circles who are enthusiastic about entrepreneurship.

## Appendix

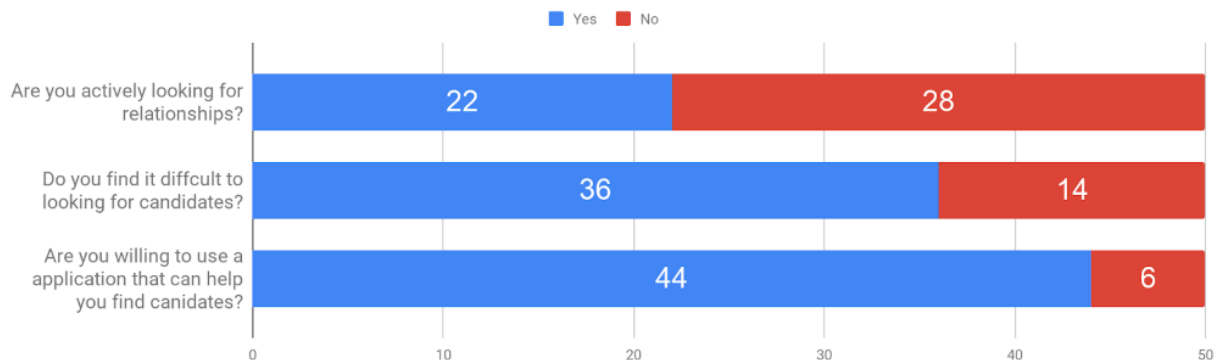
<sup>[1]</sup> As we can tell from the chart below, out of the 50 elders who live alone, most of them are not actively looking for relationships. However, the majority of them are willing to consider an easy to use matchmaking application.

Elders who live alone



Out of the 50 single elders surveyed, we found a higher percentage of actively looking for relationships. And most of them find it difficult to look for suitable candidates, and this is a major reason that they stay passive or take no actions.

Single Elders



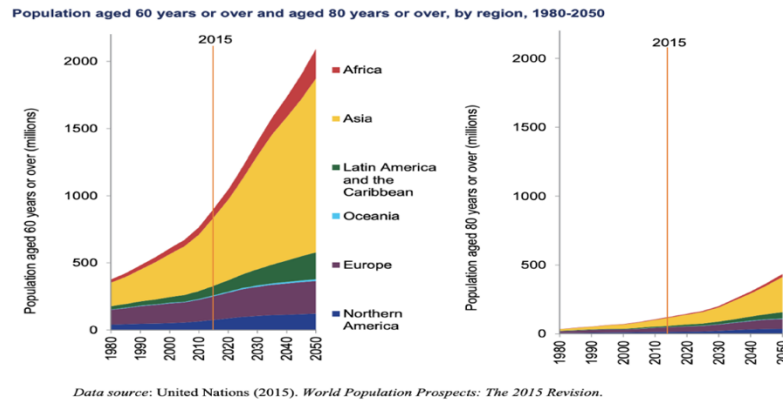
Finally, 6 out of 10 of our last group, which is children looking for relationships for their parents, find it difficult to look for candidates among their social circles.

<sup>[2]</sup> <https://www.jiayuan.com/bottom/index.html>

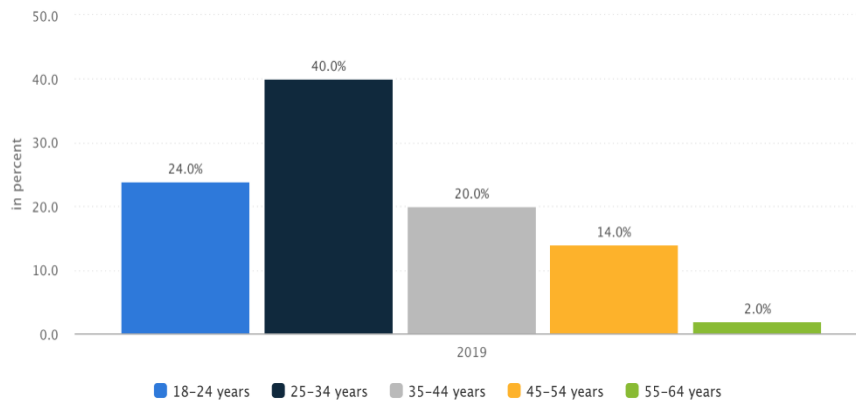
<sup>[3]</sup> <https://www.datingsitesreviews.com/index.php?topic=jiayuan-com>

<sup>[4]</sup> <https://www.datingadvice.com/online-dating/does-match-work>

<sup>[5]</sup> <https://money.eastmoney.com/a/201911281306015270.html>



- Asian Area Rapidly Ageing Issue:** Growth in the number of older persons was fastest in Asian countries and this group of countries is expected to see the fastest growth in the older population between 2015 and 2030 as well. In East and North Asia (which includes countries with significant ageing populations such as Japan and the Republic of Korea), over 33% the population is expected to be 60-year-old elders by 2050, whereas in North and Central Asia 1/4 persons will be 60 years or older.



- Matchmaking Platforms targeted Age Range:** According to 2019 Global Matchmaking consumer survey, the majority users of matchmaking platforms reached 84% with the age period between 18 and 44. However, the middle-age users are only 14% and for elderly over 55 is only 2%, which indicates most existing matchmaking APP and websites are targeted on younger people and neglected elders' emotional needs instead.
- Empty-nest elder Situation:** In 2015, the proportion of empty-nesters of China in the elderly population aged 60 and above reached 51.3%. Single-member elderly households of Japan are forecast to account for 17.7% of all households in 2040, up from 11.7% in 2015. Loneliness has become the biggest emotional problem for these people.

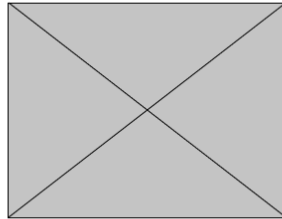
<sup>[6]</sup> <http://sprp-cn.eu/reports/3rdPanel6Sept2016/Population%20Ageing%20CN.pdf>

<sup>[7]</sup> <https://www.analysys.cn/article/detail/1000846/>

[8] <https://www.datingscout.com/ourtime/review>

[9] **User Case Mock-ups**

**a. Welcome Page**



Why you come here?

For myself

For my mother/father

Login

**b. Registration Page (children)**

<

upload

Name:

ID:

e-mail:

address:

ID of your parents:

Complete!

## c. Registration Page (single elders)

<

upload

Name:

ID:

e-mail:

address:

height:  foot

weight:  kg

hobbies:

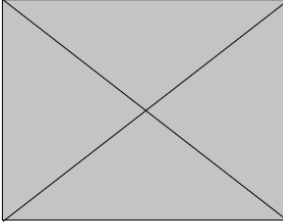
Singing Dancing

Watching movies

My Story:

Complete!

## d. Login Page



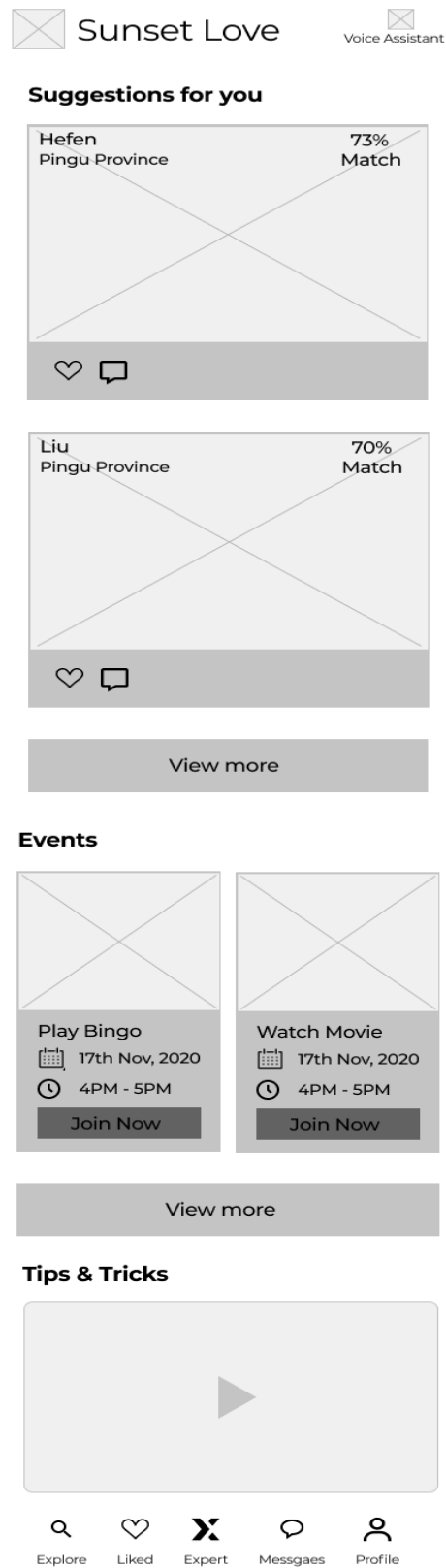
User Name:

Pass Word:


Confirm


Register


## e. Home Page



## f. Setting-up Profile Page







Name:

Address:

Email:

Hobbies:

H:


W:

My story:

Profession:

Religion:

Photos











Photo ID  
Verified




Share my  
location:




Seeking  
relationship:



Myself: 

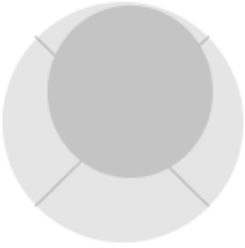
For others: 



## g. Other's Profile Page

 Hefen

 Like 




Hefen

Pingu Province

Height: 5'12 Age: 60

Interested in: Friendship,  
Serious Relationships

"I am a fun loving person looking for someone who understands me and can spend time with me"

 73% Match rate

View Results

## Details

Children 2

Hobbies

Singing

Dancing




Watching movies


Professional Experience Teacher


Religion Buddhism


Photos


[View All](#)




 Explore

 Liked

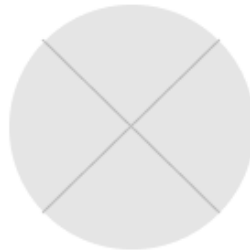
 Expert

 Messages

 Profile

## h. Profile Matching Page

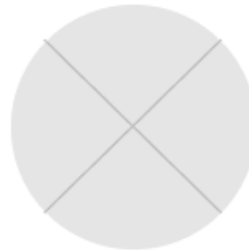
< You and Hefen can be  
great partners



You



Match Rate



Hefen

Age

65

60

Height

5'11

5'12

Children

0

1

Professional  
Experience

Manager

Teacher

Religion

Buddhism

Buddhism

Hobbies

Dancing

Dancing



Explore



Liked



Expert

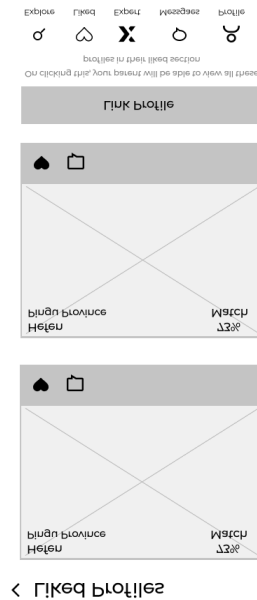


Messgaes

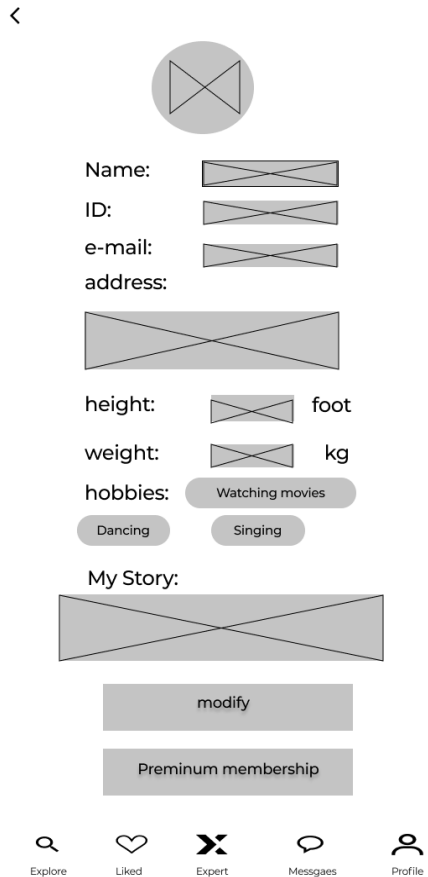


Profile

## i. Link Children and Parent Profile Page




## j. Update Profile Page (single elders)



## k. Update Profile Page (children)

<








Name:

ID:

e-mail:

address:

ID of your parents:

 Explore  Liked  Expert  Messages  Profile

## l. Premium Member Registration Page

<

what is Premium Membership?



How can I get it?



Join us  
NOW!!!

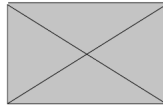
1 week	1 month	permanent
10\$	38\$	400\$

Try the ONE MONTH  
FREE Trial  
NOW!!!

 Explore  Liked  Expert  Messages  Profile

## m. Premium Member Registration Success Page

SUCCESS  
!!!

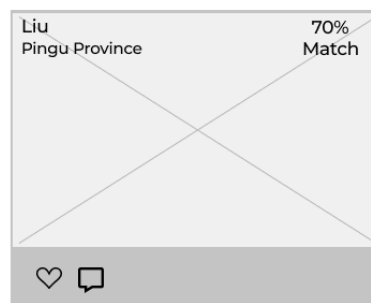


Go back to see it!!!



## n. Customized Suggestion for You Page

< Suggestions for you ▼ ◆



## o. Filter Page

## &lt; Who are you looking for?

Location 

## Interested in

Relationship ☒Friendship ☒

## Age

  
50 70

## Height

  
5 7

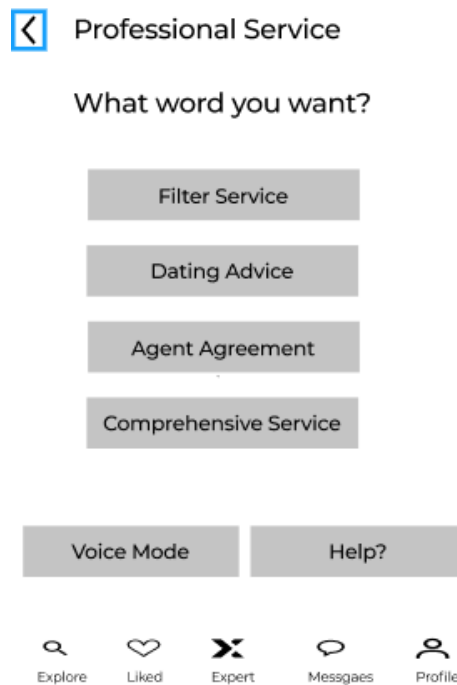
## Religion

Buddhism ☒Catholicism ☒Islam ☒Protestantism ☒

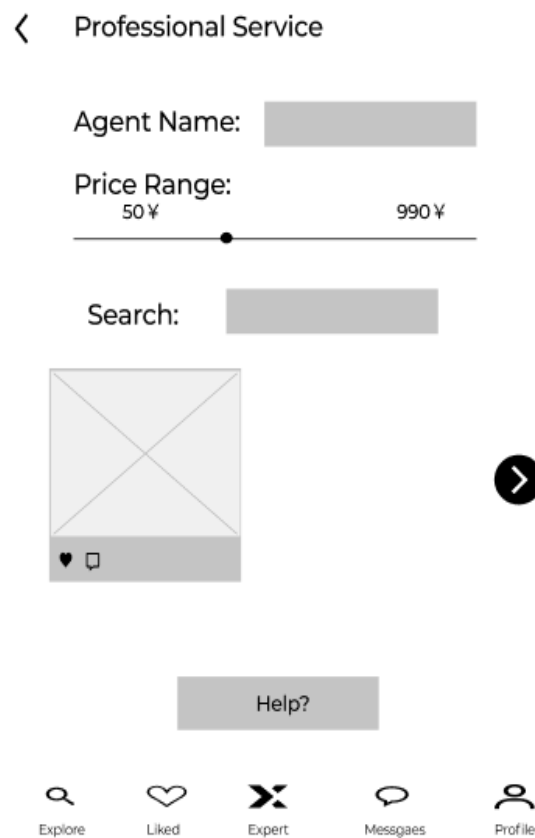
Clear all

Show 153  
results

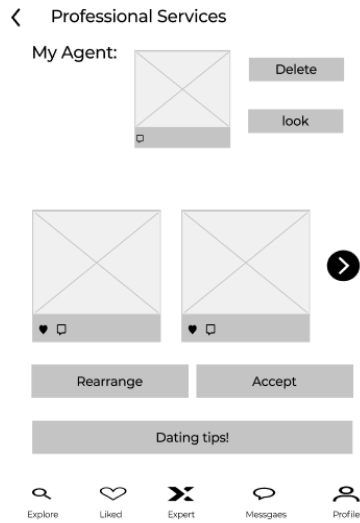
## p. Professional Service Selection Page



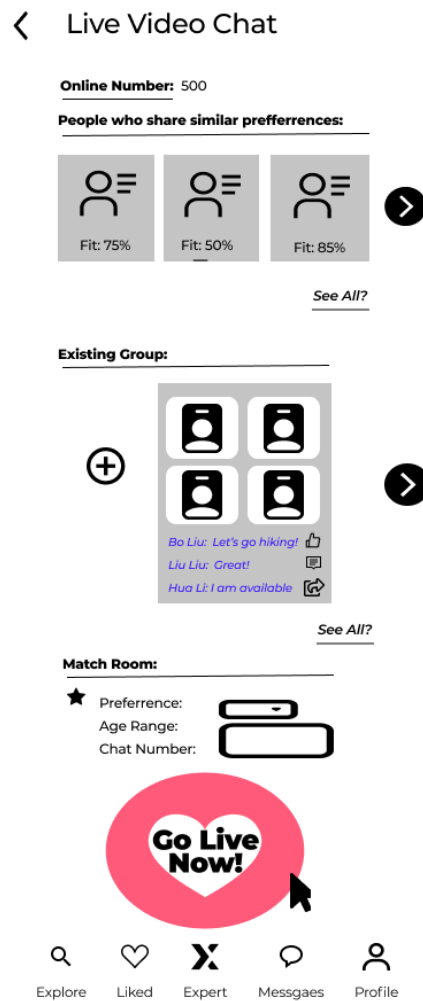
## q. Agent Search Page



## r. Dating Arrangement Page

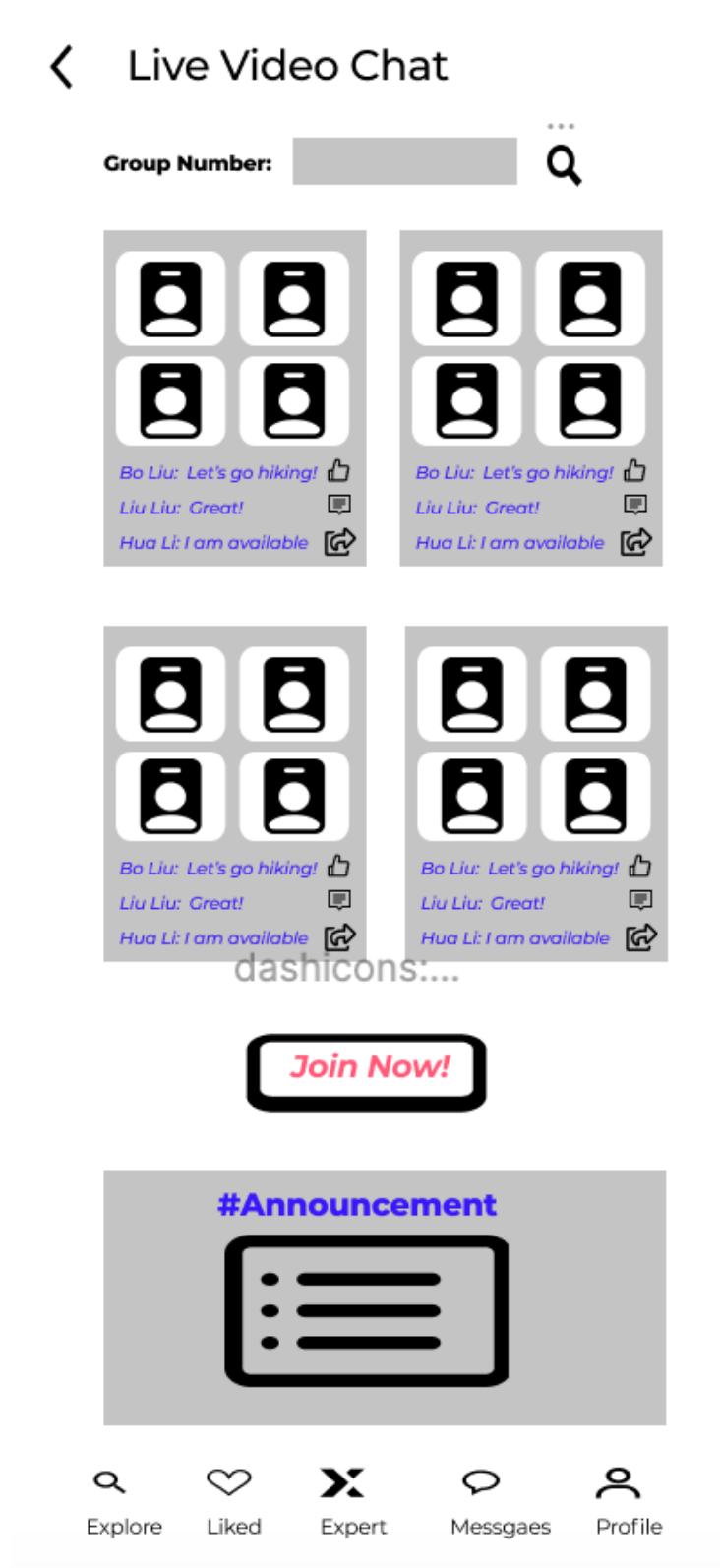


## s. Live Video Chat Home Page





## t. Live Video Chat Group Search Page



## u. Group Video Chat Interaction Page

## &lt; Live Video Chat

**Room #35:** Go Hiking This Weekend!

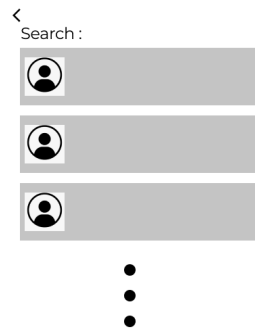
## v. Voice Assistance Help Page



## w. Voice Assistance Result Page



## x. Message Home Page



## y. Message Chat Page

