

Assignment 1

Project proposal

LANGUAGE EXCHANGE SERVICE

SIT120 Introduction To Responsive Web Apps

Product summary

Progressive Language Exchange Service

I'm going to create a language exchange website. On this website, users can practise a different language with a native speaker in exchange for teaching their native language. They can find a language exchange partner from a user list and send a request. Once the partner approves the request, they can start talking.

Users will talk with their language exchange partners using a chat function and a video call function built on this website.

Two important points make it a progressive website.

Firstly, this service is specialised in online. Users can talk with others all over the world on this website, so they will not struggle to find partners live nearby to meet face to face anymore.

Secondly, users can easily find the best partner. In addition to using the normal search function, they can register their available time on the website. By using it, they can find partners without arranging the call schedule.

Asset list

In this project, I am going to use many assets. I'd like to show some main assets out of those.

Asset	How to be used	Detail
index.html	A foundation of all pages in this project. This includes metadata, footer and #app elements. Vue applications below will be rendered on each page.	HTML file, static
style.css	A stylesheet for index.html. Besides this, each Vue component will have internal CSS.	CSS file for index.html
main.js	The main JavaScript file to import and use Vue components down below.	JavaScript file for index.html
App.vue	The root component which includes all other components.	Single file component
Navbar.vue	Navigation bar component	Single file component Responsive bar

Home.vue	Home page component. (before login)	Single file component Passive page
Search.vue	Search page component. (after login, this page will be home)	Single file component Interactive page
Profilecards.vue	A component of profile cards in a search result list.	Single file component Responsive list
Profilecard.vue	Each profile card in a search result list.	Single file component Responsive design. Will use list rendering
Profile.vue	Profile page component	Single file component Will use list rendering
Schedule.vue	User's schedule page component	Single file component
Chat.vue	Chat page component Will include three child components down below.	Responsive web page
Chatbox.vue	Chatbox component in a chat page	Single file component Interactive page
Contactlist.vue	Contact list component in a chat page	Single file component
Textbox.vue	Textbox component in a chat page	Single file component
Videochat.vue	Videochat page component	Single file component
About.vue	About us page component	Single file component
Contact.vue	Contact form page component	Single file component
Submitted.vue	The page after the contact form is submitted	Single file component
Login.vue	Login page component	Single file component Will use conditional rendering to check an email address
Loggedout.vue	The page after the user logged out	Single file component
Register.vue	Registration page component	Single file component

Product purpose

The purpose of this website is to connect language learners and provide a good environment to practise the language.

Target audience

Language learner

Many language learners don't have enough opportunity to use the language in an actual conversation.

In this website, those people can practise talking with native speakers.

International student

International students want more chances to improve their language skill, but they can't afford to take some extra lessons.

They will use this website to practise speaking for free.

Busy person

Busy people want to learn a language but it's difficult to make much time for taking lessons or joining a face to face language exchange.

They can find others available in the small spare time.

People in rural area

For people in a rural area, it is hard to find a native speaker of the language they are learning.

In this website, they will be able to find native speakers to talk with easily.

Creativity demonstration

- **Responsive and modern, simple design**

This website is responsive so that users will get the best experience in any kind of device. Its modern design also makes it an appealing website. Besides that, I used a few colours to keep it simple and easy to understand the contents.

- **Innovative scheduled language exchange**

This service is like a cherry-picking of conventional language exchange and language lessons. While users do a language exchange, they can book that conversation from a schedule, so that they can call as though they take a class.

- **Profiles with a picture of a face and self-introduction**

When you search for people, you will find each profile is relatively big. The purpose of this design is to strengthen intimacy with others. I want users to respect their partners, rather than see the partners just as a means of practising the language.

Intended behaviour

Components explanation

Component	Explanation
Props	Props are used to transfer data from parent components to child components. I will use props to pass a blank profile card template to each profile card.
Custom events	Events are used to emit some events from the child component to its parent component. I will use events to emit input text from Textbox.vue to the parent component to render the text in a chatbox.
List rendering	It is a quite important asset in this website. I will use this asset in a search page, to store and show user's data (e.g. age, gender). This will make my code more readable and effective.
Conditional rendering	It will be used many times on this website. I will use this asset to "available" sign on a profile card if someone is available at that time. I will also use this to lead users who typed an invalid address to a registration page.

User stories

User Story: 1

Statement	Acceptance Criteria	Priority
As a user, I want to search for other users, so that I can find a new language exchange partner easily.	<ol style="list-style-type: none">1. From a search box, the user can search for other users.2. User should be able to see the search results as a list.3. User can apply search filters such as age, gender, and learning language.	Priority: 1 High Priority

User Story: 2

Statement	Acceptance Criteria	Priority
As a user, I want to be found by other users, so that I can do a language exchange with someone interested in me.	<ol style="list-style-type: none">1. User's profile should be shown when other users search for him.2. User can be found based on his profile information.	Priority: 1 High Priority

User Story: 3

Statement	Acceptance Criteria	Priority
As a user, I want to custom my profile, so that others can recognise what kind of person I am.	<ol style="list-style-type: none">1. User can edit their profile in a profile settings page.2. User should upload the profile picture to show others.3. User can choose which information he shows in public.	Priority: 1 High Priority

User Story: 4

Statement	Acceptance Criteria	Priority
As a user, I want to send a message to others, so that I can chat with them outside a language exchange call.	<ol style="list-style-type: none">1. User can type a message and send others in a chatbox.2. User can receive a message in a chatbox.3. User should get a notification when he receives a message.	Priority: 1 High Priority

User Story: 5

Statement	Acceptance Criteria	Priority
As a mobile user, I want to use the site designed for a small device, so that I can use the service easily without any inconvenience.	<ol style="list-style-type: none">1. The website should be responsive, and there is another styling made for the small screen.2. Buttons and menu should be sized and put properly so that the user can use smoothly.3. The menu bar should be hidden, and the user can open the menu from a hamburger icon.	Priority: 1 High Priority

User Story: 6

Statement	Acceptance Criteria	Priority
As a user, I want to upload available time, so that I can find a new language exchange partner available in a convenient time.	<ol style="list-style-type: none">1. User should be able to select their available time from the time table.2. User can use the time table as a search filter to find someone who is available at the same time.3. User's current availability can be seen on his profile, which should be real-time information.	Priority: 1 High Priority

User Story: 7

Statement	Acceptance Criteria	Priority
As a user, I want to keep my account to be logged in, so that I don't have to log in every time I use.	<ol style="list-style-type: none">1. User should be able to choose whether the web page keeps him logged in or not.2. The "Log out" button should be put, to log out whenever the user wants to.	Priority: 1 High Priority

User Story: 8

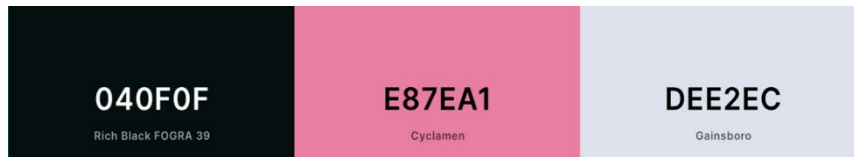
Statement	Acceptance Criteria	Priority
As a user, I want to add someone to a friend list, so that I can call favourite people from the list after the first call.	<ol style="list-style-type: none">1. After the first language exchange call, the user can bookmark the partner by clicking the bookmark button on his profile.2. From the menu bar, the user can access their "bookmark list" and call their favourites without searching again.3. User can delete someone from the bookmark list if he wants to.	Priority: 2 Medium Priority

User Story: 9

Statement	Acceptance Criteria	Priority
As a user, I want to link my social media accounts, so that I can contact with language exchange friends outside the web page.	<ol style="list-style-type: none">1. User can put their social media icon on the profile page, and others can access their account from the icon button.2. User can choose the disclosure range such as "bookmarked friends only".	Priority: 3 Low Priority

UX/UI design

As I mentioned in the creativity demonstration section, I'm going to use only a few colours.



Colour scheme

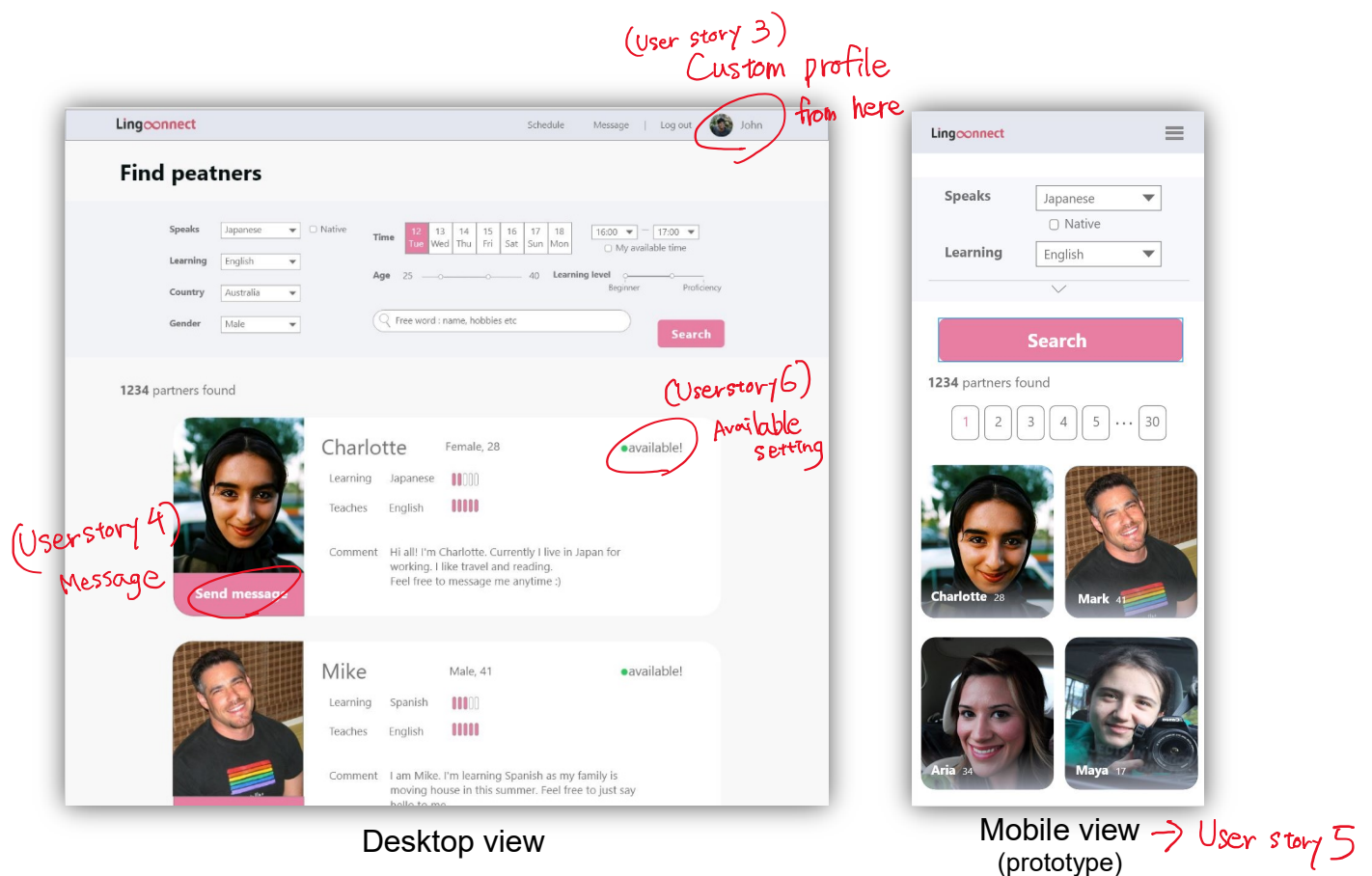
Design

Using white and light grey as the main colour. Using pink as an accent colour. I've tried to make a simple but not outdated website.

Also, there are a limited number of buttons and information so that the user will not be confused.

In a search function, on the other hand, I put more priority on its functionality because I believe it is really important. The buttons and droplists make it easier to apply filter.

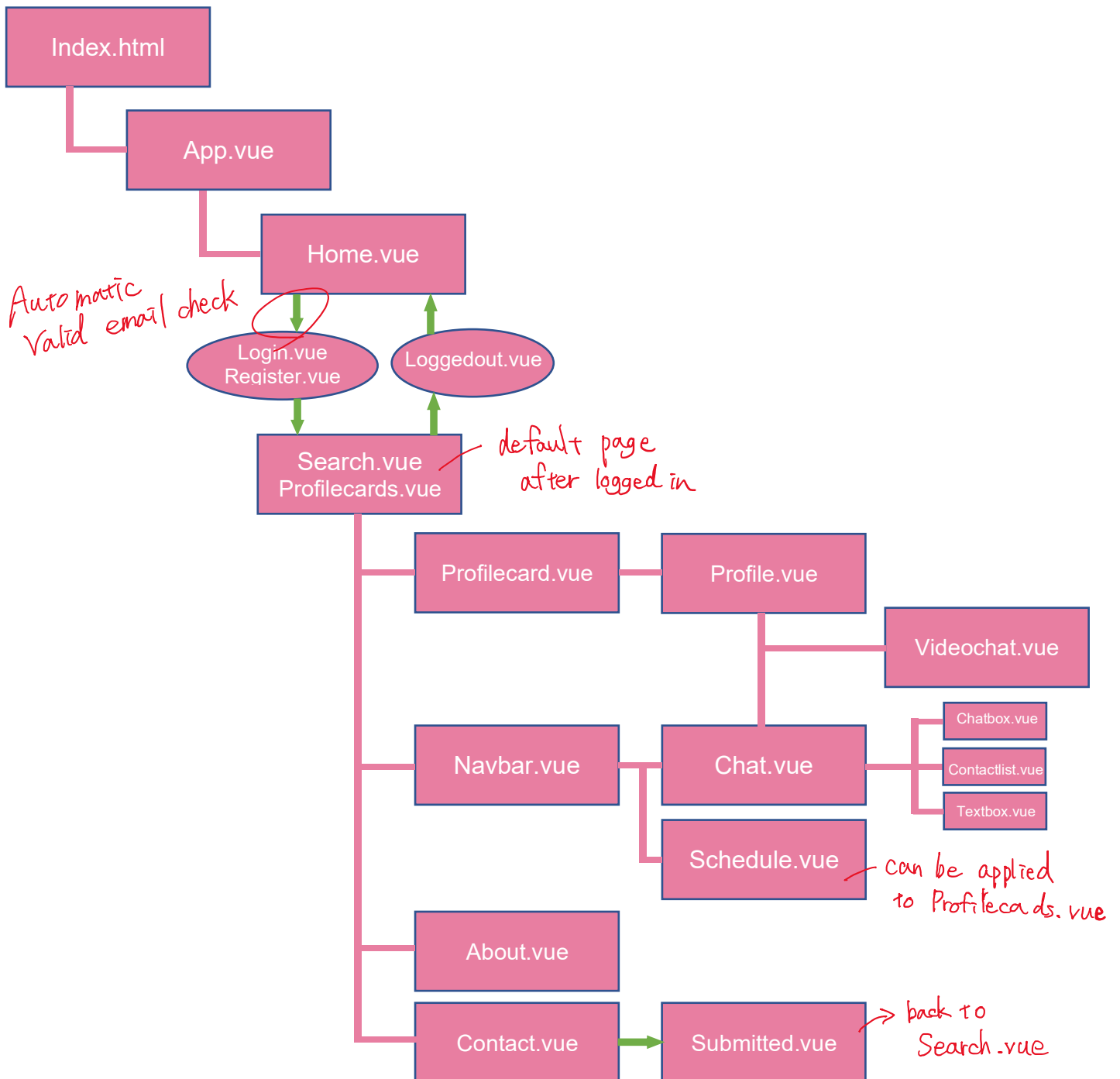
Although I haven't made the website for mobile yet, I'll make it more intuitive.



System summary

Component integrating

In this project, the components mentioned above will be structured as follows.



Concept & future plan

- **System analysis**

Once the user registered, that information will be stored, and reuse that to log in from next time. User can stay signed in as well.

In the search page, input data in a search function will narrow down the condition and proper profile cards will appear on the list accordingly.

In a chat page, the chat function will be real-time so that user can use it just like other messenger apps.

- **Technical analysis**

Following the assignment guideline, I will mainly use **HTML**, **CSS**, **JavaScript** and **Vue.js**. especially, Vue.js will play an important role in many functions (i.e. login, search, contact form). Besides, I'll also use **Socket.io** to make a real-time chat, and **webRTC** to make a video chat function.

- **My development schedule**

In this class, the assignment1's due date is September 25, Friday. Therefore we have about 50 days to finish the program. Considering the remaining days, I estimated my timeline depends on the importance of each task. My schedule is as follows.

⇒ **Timeline feasibility**

Each task is allocated on average 2~3 days to finish. Although I decided the due given its difficulty and importance, my estimation may not accurate in some tasks. Therefore, I left the last 5 days supposing the case some task takes longer time to finish.

Development schedule					
MY TASKS	START DATE	DUE DATE	% COMPLETE	NOTES	
Home page	2020/08/10	2020/08/13	5%		
Search page	2020/08/14	2020/08/17	15%		
Profile page	2020/08/18	2020/08/19	20%		
Search function	2020/08/20	2020/08/23	30%		
About us page	2020/08/24	2020/08/24	35%		
Contact form	2020/08/25	2020/08/26	45%		
Login/out function	2020/08/27	2020/08/29	55%	Vue.js user authentication	
Chat page & function	2020/08/30	2020/09/05	70%	Using Socket.io	
Video chat function	2020/09/06	2020/09/12	90%	Using webRTC	
Redesign	2020/09/13	2020/09/15	95%	Additional design (i.e. animation)	
Final check & fix	2020/09/16	2020/09/20	100%		