

MILESTONE 5**URL :** <https://lingomingo.app/>

Team Lead :	Cassie Sherman	cassiesherman630@gmail.com
Backend Lead :	Ryan Hu	213edu@gmail.com
Frontend Lead :	Mariam Shahab	mariamshahab2@gmail.com
Database Lead :	Dylan Luong	dluong@mail.sfsu.edu
Github Master :	Sawara Bhattarai	sbhattarai@mail.sfsu.edu
Documentation Lead :	Arjun Bista	arjunbista428@gmail.com

History Table

Milestones/Version	Date
M5	05/21/2020
M4 V2	05/18/2020
M4 V1	05/10/2020
M3 V2	05/09/2020
M3 V1	04/23/2020
M2 V2	04/09/2020
M2 V1	03/26/2020
M1 V2	03/09/2020
M1 V1	03/05/2020

Table of Contents

Product summary	2
Milestone documents	4
Milestone 1	4
Milestone 2	29
Milestone 3	56
Milestone 3 - Feedback	73
Milestone 4	74
Final Product - Demo Pictures	100
Key DB Tables	117
Task Management System (Trello)	119
7) Team Member Contributions	120
8) Post Analysis (Team Lead)	126

Product summary

LingoMingo - A Learning Community

1. Registered users shall be able to log in to account.
 - 1.1 Registered users shall enter an email or an username.
 - 1.2 Registered users shall enter a password.
 - 1.3 Registered users shall be able to reset password, if forgotten.
2. Registered users shall be able to log out to account.
 - 2.1 Registered users have to be logged in before being able to log out.
3. Registered users shall be able to delete the account.
 - 3.1 Register user's profile shall also be deleted.
 - 3.2 Register users shall be able to temporarily deactivate accounts.
 - 3.3 Register users shall be able to reactivate accounts.
4. Registered users shall be able to make changes in setting.
 - 4.1 Registered users shall be able to delete their account from the settings.
 - 4.2 Registered users shall be able to change their password.
5. Registered users shall be able to choose a language to learn.
 - 5.1 Registered users shall be able to change the language they want to learn.
 - 5.2 Registered users shall choose from a list of available languages on LingoMingo.
6. Registered users shall be able to choose to learn multiple languages.
 - 6.1 Registered users shall be able to learn more than one language.
 - 6.2 Registered users shall be able to teach language to others.
7. Registered users shall be able to choose icons for display
 - 7.1 Registered users' icons shall appear on their profile.
 - 7.2 Registered users shall be able change to a different icon.
8. Registered users shall be able to write a bio
 - 8.1 Bio shall be displayed in user's profile
 - 8.2 Registered users shall be able to update their bio

9. Registered users shall be able to add another user as a friend.
 - 9.1 Registered users shall be able to unfriend.
 - 9.3 Registered users shall be able to create a chat with a friend user.
 - 9.4 Registered users shall be able to look at friends' profiles.
10. Registered users shall be able to ask for the help.
 - 10.1 Registered users shall be able to ask help with the support team.
 - 10.2 Registered users shall be able to email support teams.
11. Registered users shall be able to submit data.
 - 11.1 Registered users shall be able to submit images in the chat.
 - 11.2 Registered users shall be able to submit text in the chat.
12. Registered users shall be able to make new posts.
 - 12.1 Registered users shall be able to edit posts.
 - 12.2 Registered users shall be able to delete posts.
 - 12.3 Registered users shall be able to post unlimited.

We plan to market and sell our service by providing a solution to the problem people didn't know they had while learning a language. Learning language through a course is repetitive, boring, and costly, not to mention hard to retain, but speaking to individuals is a whole new ballpark. Socially learning is one of the best ways to improve communication and that is exactly what our users need. We will promote this service using that ideology. Our product offers the unique service of learning a language through the words of an actual nativetongued individual. Not only do you have the awesome opportunity of meeting people from all around the world, but you'll also be learning while you are at it. All our user has to do is put the language they'd like to learn and they're set to go. Our user's matching system is effective and will match the best user for the individual according to their personal preference. There aren't many products offering the same service and for the user's convenience our product can be easily accessed not only in the mobile format but also in the web browser.

Milestone documents

Milestone 1

Team 02

SW Engineering CSC648 Spring 2020

Date: 03/052020

MILESTONE 1

LingoMingo

Team Lead : **Cassie Sherman**

cassiesherman630@gmail.com

Backend Lead : **Ryan Hu**

213edu@gmail.com

Frontend Lead : **Mariam Shahab**

mariamshahab2@gmail.com

Database Lead : **Dylan Luong**

dluong@mail.sfsu.edu

Github Master : **Sawara Bhattarai**

sbhattarai@mail.sfsu.edu

Documentation

Lead : **Arjun Bista**

arjunbista428@gmail.com

History Table

Milestones/Version	Date
M1 V2	03/09/2020
M1 V1	03/05/2020

Table of Contents

Executive Summary	3
Use Cases	4
First Match	4
Making First Friend	5
Inexperienced High School Student	6
Inappropriate Usage of Account	7
Reporting For Bots	8
Privacy Middle Schooler	9
Premium Account	10
Unsatisfied Customer	11
List of main data items and entities	12
Initial list of functional requirements	13
List of non-functional requirements	15
Security	15
Audit	15
Performance	15
Capacity	15
Reliability	15
Recovery	15
Data Integrity	16
Compatibility	16
Conformance with Coding Standards	16
Look and Feel Standards	17
Scalability	17
Web Site Policies	17
Competitive analysis	18
Competitive Apps	18
Competitive Features Table	21
High-level system architecture and technologies used	22
Team Members	23

Executive Summary

The purpose of this website is to bring the cultural aspect of dialect to people who want to be fluent in more than one language. Today, being multilingual is essential for communication because of the diverse society we live in, but learning a language has become very dehumanized because of the lack of real conversations with people in their native tongue. This is the missing component we are trying to acknowledge and correct.

With LingoMingo, we've decided to bridge the gap between culture and language learning by creating a platform where users can communicate and help each other become more articulate. Many other platforms are solely applications on smartphones, but we are available to anyone who can access an internet browser.

LingoMingo will allow users to interact with other users based on the language they want to learn. We focus on the user experience by giving them the full benefits of communicating with people in all parts of the world. We will provide flexible forms of communication and meeting new people by allowing users to communicate via text, voice, and video. Since we will be a free platform, there won't be any commitments to using LingoMingo. We prioritize the user's experience, so users can share their experiences through rating, posting and reporting.

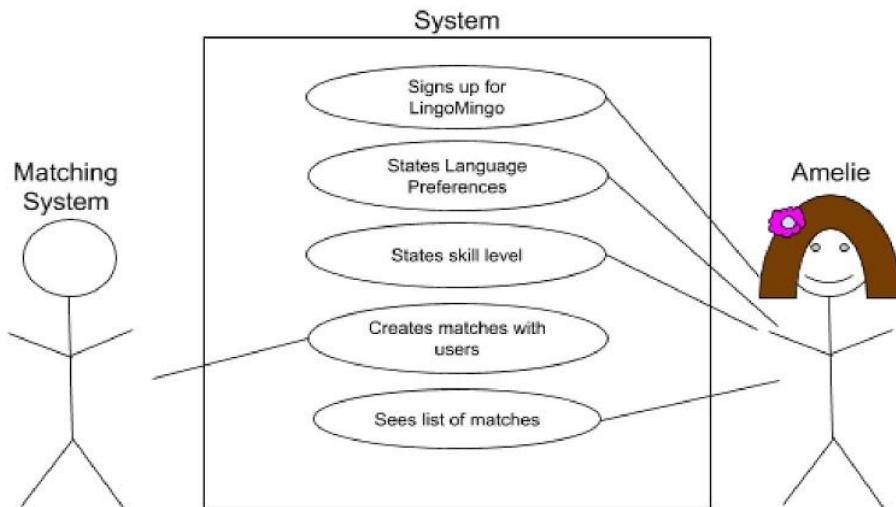
LingoMingo provides great opportunities to bridge languages learning together, creates a sense of community and a safe learning environment. Our product can generate revenue through advertisements on prime locations of the website, users also have the option to upgrade their accounts to be ad-free with cheap and affordable pricing.

Welcome to LingoMingo.

Use Cases

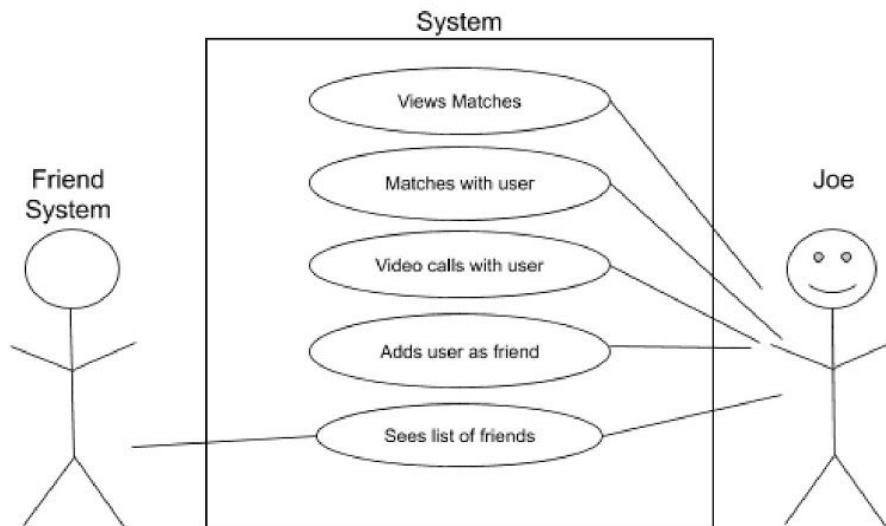
First Match

Amelie: 24, German National, Fluent in German, mid level English speaker, wants to learn English for her upcoming trip in the states. She found out about LingoMingo through one of her friends. She went to the site and signed up for it. During the **signup process** she stated her language preference and skill level. Once completed, she went on and got her first **match** with Otto from Australia. She **chose to connect** with Otto because they had **similar interests** according to his bio. She started a **conversation session**, where she was able to **text chat** and **video chat** with her new friend. They **talked in English** for a little to practice her English, then they **switched the conversation to German**, which Otto was not very fluent in. They had a great conversation, when they ended the session they gave each other a **5 star review**, so that the system will be more likely to **match them together again** in the future.



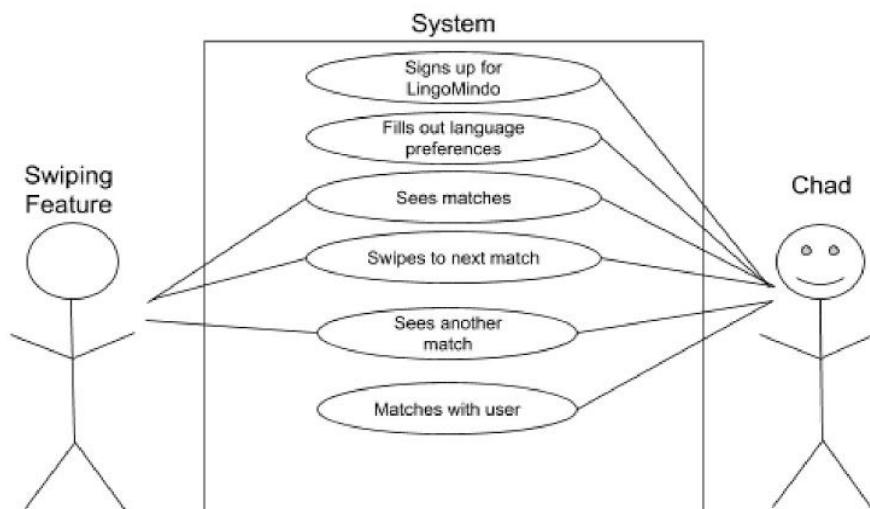
Making First Friend

Joe: 23, Avid language learner, Fluent in German, English and Spanish, but wants to meet new people, and he's willing to teach others. After some searching on the internet, he wants an app that is free and **low commitment**. He signed up with ease and started using the **matching system**. He included his hobbies tags on his profile's bio. He chose a random language to learn and chose the three languages he's fluent in. He matched with John who was fluent in English and wants to learn German. They both used **texting** to interact, but as they got to know each other, they ended up doing **video calling**. The video call was very pleasant, Joe taught basic German to him. As they were about to end the call, Joe **added John as a friend**, so they can **message each other whenever**. After Joe used Lingomingo for months, he got busy and forgot about LingomIngo. Eventually he stopped using it altogether and decided to **delete** his Lingomingo account. After Joe deleted his account, he **received an email** from LingoMingo. LingoMingo thanked Joe for using LingoMingo service and would like to hear Joe's experience through **leaving feedback** on the goods and ways to improve LingoMingo.



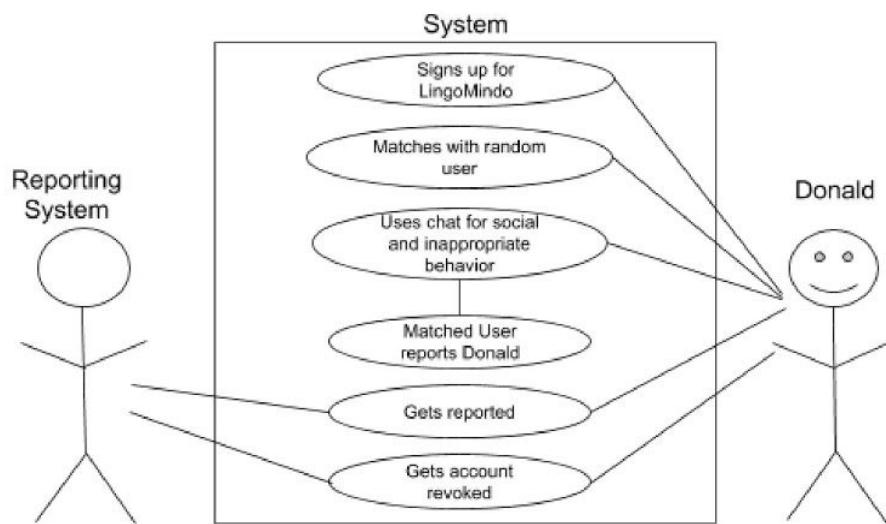
Inexperienced High School Student

Chad: 16, American High Schooler, failing Spanish class, needs to learn Spanish so he can graduate high school. He was trying to get help online so he started looking for a website to learn spanish. While searching for a website he found Lingomingo which was **free** of charge and has everything he wants. Lingomingo offers text, video, and voice chat for learning Spanish, so Lingomingo offers everything he needs. Chad went through a **registration process** where he had to specify the **language** he wants to **learn** and the language he can **teach**, the **area/location** he is trying to find the people he wants to learn spanish. He also had to fill out his **skill label** for the language he wants to learn and teach to find a perfect match for him. Once Chad signed up on Lingomingo, he could see a person's profile with an **icon** and their skill level. According to his preference, he could **click to match** with the person or go to the **next profile**. In this way, he could match and start chatting, video calling and if both agree they could meet and learn when they are in the same location because when choosing location he could do specific area or global.



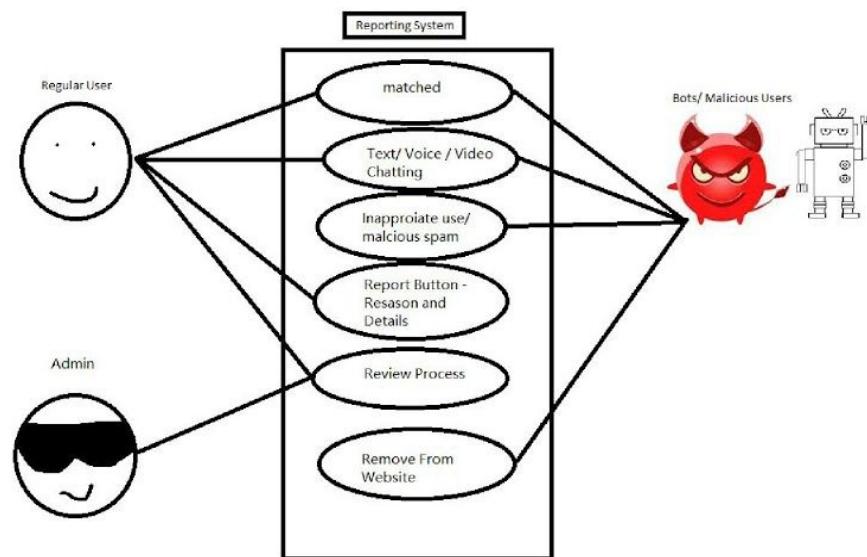
Inappropriate Usage of Account

Donald: 65, Desperate lonely old man, literally only here to stalk people on webcam chats (oh no), knows English and is **not willing to learn** any language **or teach**, he signed up on LingoMingo **just to chat** with others. He got into a session with Ann who is trying to learn English. Donald **didn't put in any effort** into teaching nor communicating and created a **hostile environment** for Ann. After the session ended, Ann **rated** Donald 1 star and **reported him**. Upon review by lingomingo staff, Donald was **banned** from the service.



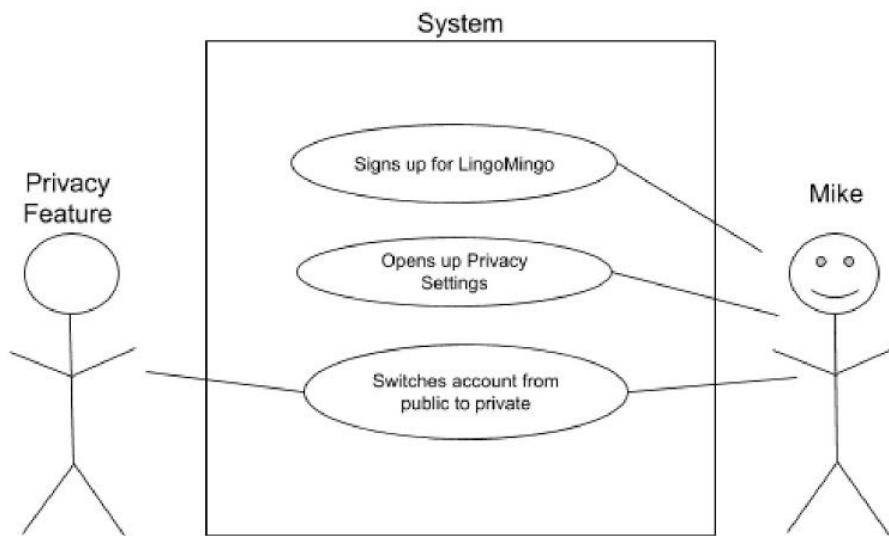
Reporting For Bots

Alexander: 18, Foreign exchange student who is fluent in Spanish. He is originally from Spain, but decided to do a semester abroad in Paris. Alexander wants a platform to do **voice-chat**, since he doesn't have a webcam and he's not very good at typing. Ideally the platform will be **available on the computer**, as he doesn't have a smartphone to use mobile apps. After he did some searching on the web, he found LingoMingo. At first, Alexander is skeptical of whether LingoMingo is like another Omegle with a bunch of **bots**. Thankfully, LingoMingo is normal and has real people to talk to. On the few occasions where Alexander does encounter a bot, he would check their profile to see if they are **posting any status, leaving likes or posts** in general. If the user seems inactive, he'd **report** the user as a **bot**, and include picture evidence.



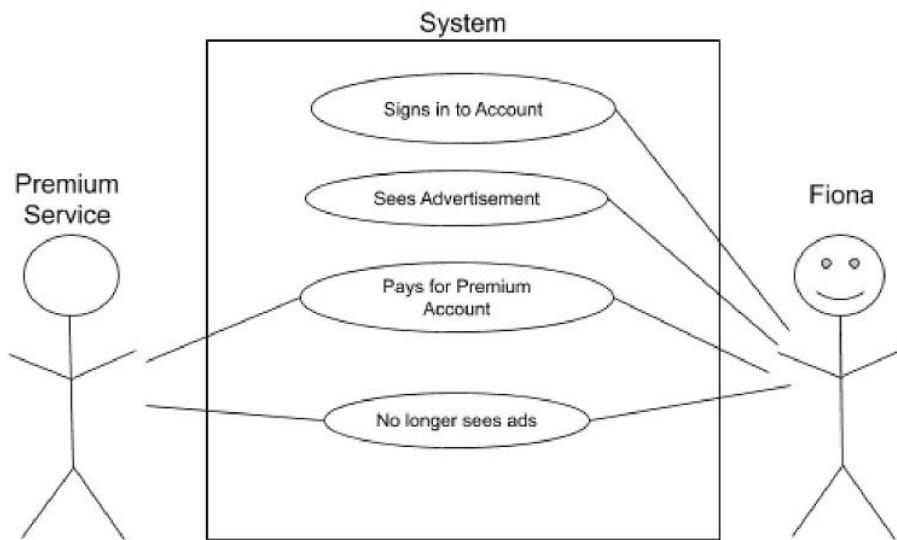
Privacy Middle Schooler

Mike: 12, A middle schooler, who knows English and Chinese but wants to learn another **dialect** in Chinese. He knows how to speak **Mandarin** but **wants to learn Cantonese** to watch his Cantonese dramas. He hears from a friend in class that LingoMingo is a cool language learning site. He signs up and starts matching with other people. He **set a specification that adds dialect** to the matching specification. He manages to find people that know Chinese in Cantonese dialect. He enjoyed his experience as he was able to learn Cantonese. Mike's parents required that he make his profile private so other users can't see personal information. He made his account private in **privacy settings**. He does hope that LingoMingo might add a **group chat** in the near future but for now he is satisfied with what LingoMingo has to offer.



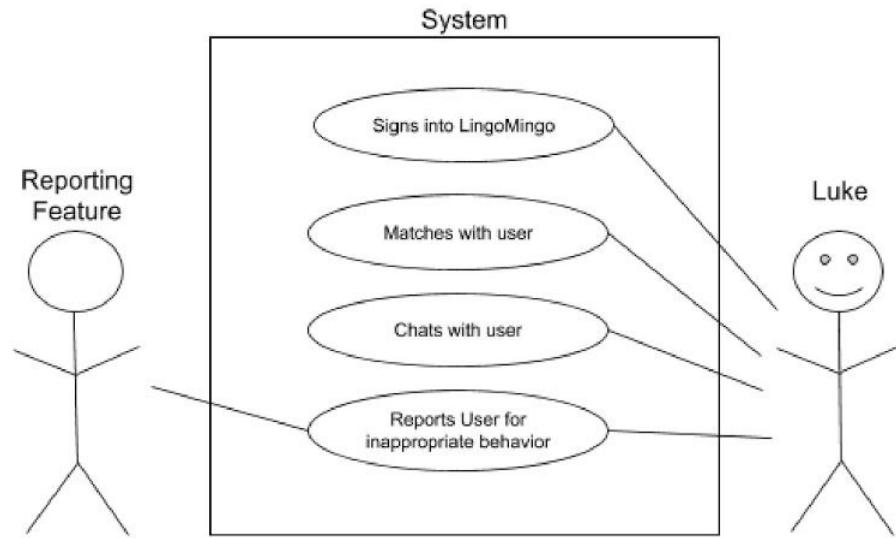
Premium Account

Fiona: 28, A working social worker, who knows English, Spanish, Italian and wants to learn Japanese. She wants to learn Japanese, since she wants to move to Japan one day and she heard from her coworker about LingoMingo. She used LingoMingo for the first time and fell in love with it. Since she has extra money and uses LingoMingo often, she didn't mind paying for a **premium account**. She no longer sees any **ads** whenever she uses LingoMingo. She's glad that it was **affordable** and was a **one time purchase**.



Unsatisfied Customer

Luke: 50, A banker, who knows English, Russian but wants to learn Italian. Luke wants to learn Italian whenever he's away from work, so he found LingoMingo. He used LingoMingo for a couple of days and didn't like it because he met some who were participating in inappropriate behavior. He viewed the profiles who were **inappropriate, rude or mean** during chats. He made sure to **report them** whenever the people.



List of main data items and entities

1. Unregistered User

These are users that have not registered an account yet. They will not have much privilege within our website

2. Account - Registered User / Premium

We will have three types of accounts in total. A registered user is someone who registered themselves within our DB. They have a free account. A premium account is someone who paid to get special privileges.

3. Match

Users will have matches with other users. They will be matched based on language commonalities.

4. Chat

When a User has a match they have the option to create a chat with that person where they can text/voice/video chat.

5. Rate

Users will be able to rate other users after they chat together. This will be used mostly to see if users are violating any rules and to see who is doing well

6. Profile

This will be where Users talk about their interests and hobbies to let other people know a little bit more to get to know them

7. Post

People can post comments or pictures on their account

8. Language

In order to communicate with another user, the users need to know one language in common. We will set English as a common language.

9. Message

One user can send a message to the other user once they are friends

10. Chat rooms

Page where users can interact with other users. Many users can be in one room.

11. Notifications

Display or notify the latest activities related to the LingoMingo.

12. Host

Registered users can create public or private chat rooms.

13. Support

A tab to solve the user's issues and answer their queries.

Initial list of functional requirements

1. The user shall be able to sign up to account.
2. The user shall be able to log in to account.
3. The user shall be able to log out.
4. The user shall be able to add display name.
5. The user shall be able to submit data.
6. The user shall be able to edit any data after it is submitted.
7. The user shall be able to delete the account.
8. The user shall be able to deactivate the account.
9. The user shall be able to reactivate the account.
10. The user shall be able to make changes in setting.
11. The user shall be able to change password.
12. The user shall be able to change display name.
13. The user shall be able to change account name.
14. The user shall be able to choose a primary Language.
15. The user shall be able to change the primary Language.
16. The user shall be able to choose a language to learn.
17. The user shall be able to change the language they want to learn.
18. The user shall be able to choose the skill level they're at.
19. The user shall be able to change the skill level they're at.
20. The user shall be able to choose a language they want to teach.
21. The user shall be able to change the language they want to teach.
22. The user shall be able to choose the location.
23. The user shall be able to update the location.
24. The user shall be able to write a bio.
25. The user shall be able to make changes in their bio.
26. The user shall be able to match with another user.
27. The user shall be able to unmatch a user.
28. The user shall be able to add the user as a friend.
29. The user shall be able to chat with a friend.
30. The user shall be able to choose icons for display.
31. The user shall be able to change to a different icon.
32. The user shall be able to choose more than one language to learn.
33. The user shall be able to choose who to chat with.
34. The user shall be able to text.
35. The user shall be able to voice chat.
36. The user shall be able to video-call .

37. The user shall be able to rate conversations.
38. The user shall be able to rate the app.
39. The user shall be able to delete a friend.
40. The user shall be able to report an account.
41. The user should have a language in common to be matched.
42. The user shall be able to skip through matches.
43. The user shall be able to chat with added friends.
44. The user shall be able to video chat with added friends.
45. The user shall be able to voice call with added friends.
46. The user shall be able to see the profile of other users.
47. The user shall be able to check if other user is a bot.
48. The user shall be able to use LingoMingo on the browser.
49. The user shall be able to post statuses on their profile.
50. The user shall be able to post pictures on their profile.
51. The user shall be able to like other people's posts.
52. The user shall be able to make comments on other people's profile.
53. The user shall be able to make their profile private.
54. The user shall be able to make their profile public.
55. The user shall be able to add additional specifications to matching, such as dialect.
56. The user shall be able to make group chats.
57. The user shall be able to add 4 to 5 people in one group.
58. The user shall be able to make video chat in the group.
59. The user shall be able to make voice calls in the group.
60. The user should be able to view all the activities in the chat group.
61. The user shall be able to be added to existing group chat.
62. The user shall be able to decline the group chat request.
63. The user shall be able to get removed from the group chat.
64. The user shall be able to mute the chat.
65. The user shall be able to turn off the notification.
66. The user shall be able to upgrade their account to premium account.
67. The user shall be able to skip ads in premium accounts.
68. The user shall be able to ask for support.
69. The user shall be able to email the support team.
70. The user shall be able to share progress on social media.

List of non-functional requirements

Security

1. Login shall be required to utilize website and learn a language
2. User's shall verify their emails when registering an account
3. User's shall be able to set a display name different than their email
4. User's emails shall not be displayed by default
5. Passwords shall be encrypted before storing in the database
6. Content uploaded by users shall be audited by the administrator
7. User's payment information shall be encrypted
8. This site shall not accept any third party cookies

Audit

1. New registrations shall be audited by the administrator
2. New registrations shall be approved by the administrator
3. Users shall not be able to login to administrator accounts

Performance

1. The site loading time shall be less than 4 seconds for all screens
2. Application shall be able to retrieve information from the database and react in a timely manner.
3. The site shall handle requests asynchronously following a REST format

Capacity

1. The total data storage for the site shall not exceed 80% of the server's capacity for this site
2. The website shall be capable of handling at least 50 users
3. The website shall be scalable, so that new features can be added easily

Reliability

1. Downtime for maintenance shall be less than 3 hours per month
2. Downtime for maintenance shall not affect the site's main functionality
3. In all cases, users shall be informed of downtime for maintenance, either via an announcement on the main page, or e-mail

Recovery

1. In case of a total site failure, the whole site shall be shut down for revision.
2. If the site is broken, the mean time to recovery shall not exceed one day.

3. User data is the most valuable aspect and priority will be placed on recovering such data in case of total failure.

Data Integrity

1. Database tables shall be backed up weekly
2. Administrator shall be able to execute a recovery if needed
3. Image sizes shall be restricted to at most 1 megabyte
4. Images shall be uploaded in jpg, jpeg, or png formats
5. Images will be saved on Amazon's s3 storage server
6. URLs to image will be stored on the database

Compatibility

1. The site shall be compatible with the last version of the Safari browser version 11.1.2
2. The site shall be compatible with the last version of the Firefox browser version 70
3. The site shall be compatible with the last version of the Chrome browser version 80
4. Third party applications shall not be able to modify any content that may affect the site compatibility
5. Content should be able to be ignored by most popular ad-block services.
6. The site shall be able to account for any other compatibility issues created as a result of browser updates in the future
7. The site should be compatible to escalate to new databases

Conformance with Coding Standards

1. Architecture and design standards shall meet all the requirements listed under the High-level system architecture and technologies used section of this document
2. Design pattern is to be strictly enforced with all aspects of the site.
3. Appropriate documentation must be created for all code that is individually written for future maintenance.
4. Production code shall not have any log or output to the console.
5. All errors must not halt the web application without appropriate error handling.
6. Only working code that meets all code standards shall be submitted to the main branch of the project repository
7. Code shall be thoroughly tested and debugged before being considered working code
8. All internal errors and exceptions encountered when writing or modifying code shall be stored in a log
9. Any error that can affect the site's functionality shall be reported to the user
10. Errors shall be handled in a way that does not affect site functionality
11. The whole production cycle of the site shall be finished at least one week before the delivery date

12. The site shall be tested and debugged as a whole product at least one week before the delivery date
13. The site shall not be launched without all priority one features finished and working
14. All major changes to the application shall be discussed by the team and communicated to the class CTO.

Look and Feel Standards

1. The application and it's layouts shall look professional
2. The site shall be simple, so that it is usable to a wide range of users, and all previously mentioned parties
3. Targeted users will be the main priority for ensuring usability and readability.
4. Elements on screen shall meet the compatibility standards of all supported browsers
5. Elements on screen shall meet the compatibility standards of all supported browsers on mobile devices
6. Elements on screen shall be aesthetically pleasing
7. The site shall be able to work correctly without mouse interaction
8. The site shall be able to work correctly without keyboard interaction
9. Elements in screen shall be resized automatically without user interaction when being loaded in all the different platforms supported by the site
10. Application's user interface shall make it easy for users to find what they are looking for.

Scalability

1. The CPU instance and storage capacity shall be updated to be able to handle a large amount of users if needed
2. It should be able to add extra resources and also keep the structure intact.
3. Individual users should be able to use the app efficiently and properly even when the number of users keeps increasing.

Web Site Policies

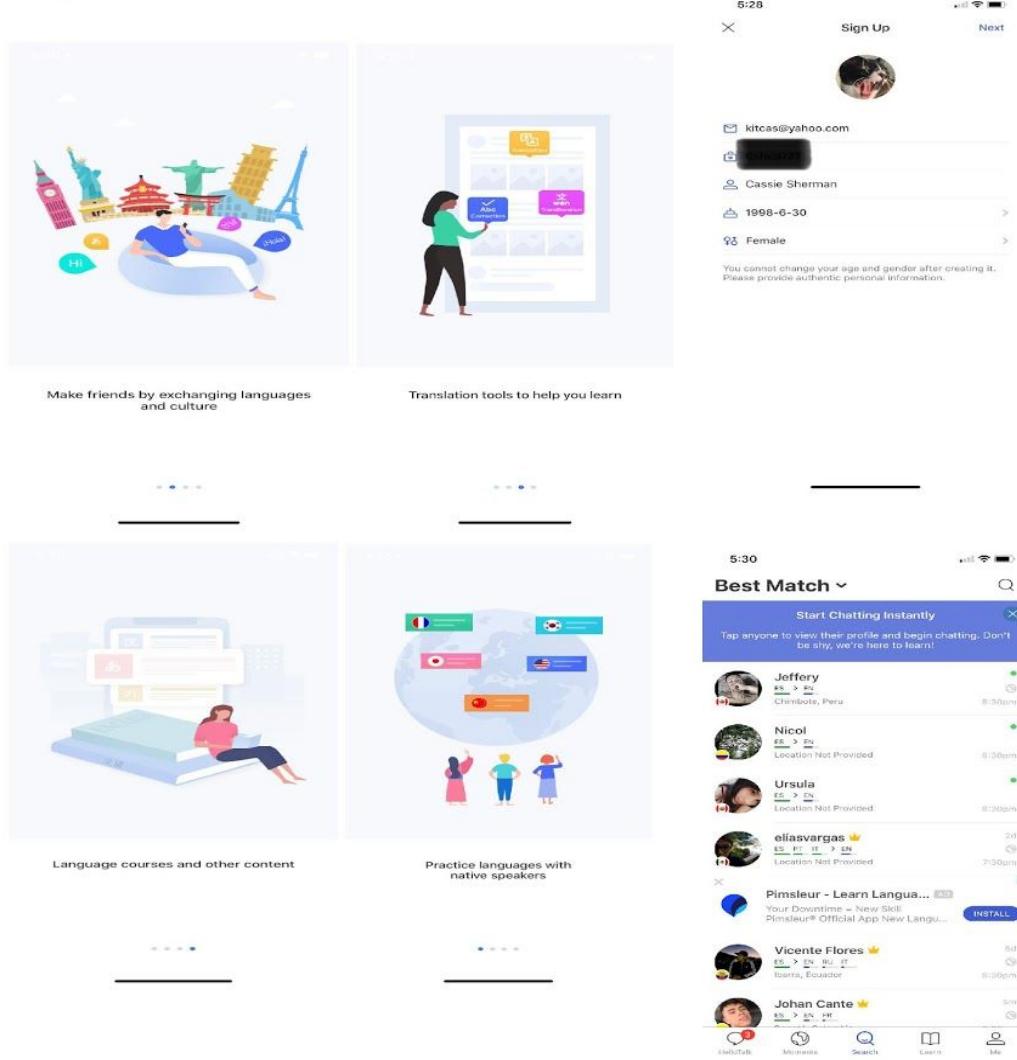
1. A link to the policies of this site shall be always visible in its settings page to be accessible by all the parties
2. The site will not store any payment information.
3. Users payment information shall be kept confidential and secure
4. The website shall allow users to register an account.
5. Email verification shall be implemented upon registration.
6. User's shall agree to the application's privacy policy before using the product.

Competitive analysis

Competitive Apps

1. <https://www.helloTalk.com/>

- Allows users to study vocabulary
- user can buy listening lessons
- Languages they provide: English, Japanese, Korean, Chinese, French, Spanish, Italian, Russian, Arabic, Portuguese, German



Hi, Cassie Sherman! I'm Amy, a friendly robot from HelloTalk.

I'll show you some tips for chatting with language partners. To begin, tap and hold my message below, then tap the translate button.

¿Cómo estás?

Learning Days: 0d, Learning Time: 0h, 0m, Words Learned: 0

Your Level: level 1

Words List

Basic words

Essentials, Numbers 1, Numbers 2, Shape

Home, Kitchen 1, Kitchen 2, Tools

Business

Pimsleur - Learn Language Fast

Marciano: Necesito saber cual es la diferencia entre could y might.

Porfavor que alguien me explique detalladamente que me confundo xd.

saludos!

Jim: Hello!

I'm not very good at explaining but I'll try. With - Could ...

Marciano: Yesterday 01:11

10X QUOTES

Learn

Grammar Checker, Translate, Notepad, Favorites

HelloWords: Learning vocabulary in 10 languages

HelloWords: Learn through interactive games

HelloSpanish: 2000+ new words in 10 languages for Free

Notepad

This is Notepad. Use Notepad to record text and voice notes.

You can also practice how to use HelloTalk by sending messages to Notepad.

Press & hold any message to Translate, Pronounce, or Mark as Favorite.

Mantenga pulsado cualquier frase para Traducir, Pronunciar, o Marcar como Favorito.

Transcription: Voice message with corresponding text for language learning

Get HelloTalk VIP

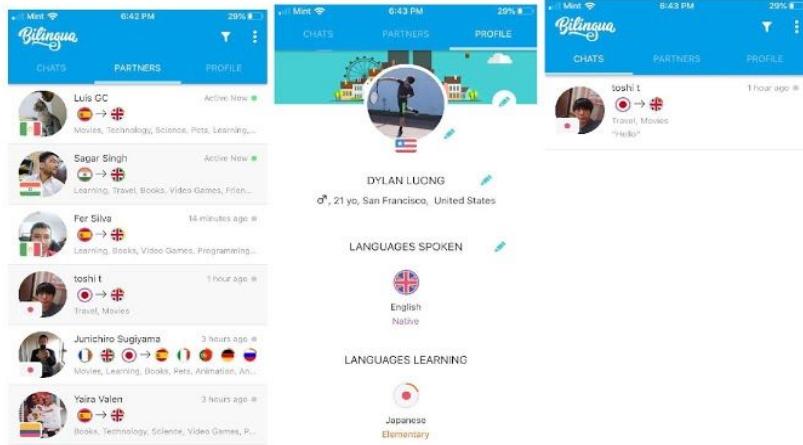
Privileges

	Non-VIP	VIP
Instant Translations	10 times/day	Unlimited
Learning Languages	1	3
Better Search Exposure
Chats with New Users	10/day	25/day
Search by Gender
Search Nearby Users & Moments
Search users around the world

1 Month: \$6.99, 12 Months: \$39.99, Lifetime: \$89.99

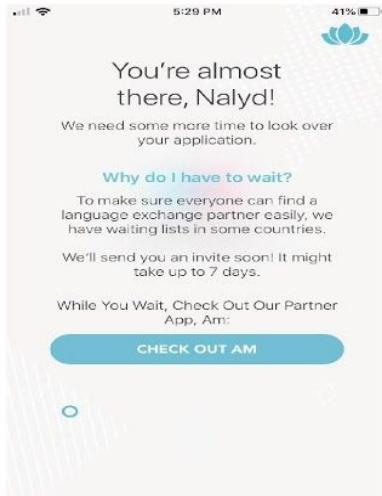
CONTINUE

2. <https://bilingua.io/>



3. <https://www.tandem.net/>

- Offers only mobile app , no desktop version available.
- Long sign up process, as users have to wait up to **seven days** before they're able to use tandem.



Comparison Table

Features	HelloTalk	Bilingua	Tandem
Strengths	-Allows access through the computer. -Offers helpful resources to learn language	-Intuitive app -Easy to join chats -Free	-Tutor feature -Intuitive app
Weaknesses	-Not intuitive for matching with people -Many limitations for unpaid users.	-Only available for mobile	-Only available on mobile app, no web functionality -Many features limited to Pro users, \$6.99 a month -Low User Engagement
Pricing	-\$9 dollars per month or \$105 one time payment	-\$0	-\$6.99 per month -\$2 per month but commit to 1 year

Competitive Features Table

Feature\Product	HelloTalk	Bilingua.io	Tandem	Our Product
Voice/Video	+	+	+	+
Text Chat	+	+	+	+
Report System	+	+	+	+
Matching System	-	-	-	++
Rating System	-	-	-	++
Friend System	-	-	+	++
Access on Web Browser	+	-	-	++
Simple and Easy Interface	-	+	-	+
Pricing	-	+	-	+

In comparison to our competitors, we plan to implement a more effective way of matching the user. We try to match the best user for the individual according to their requirements. For the user's convenience our product can be easily accessed not only in the mobile but also in the web browser whereas, our competitors don't have this feature. In order to improve the user experience, we will have a rating system which will let the users know the true quality and behaviour of that user. Also our product is simple and easy to use. Users don't need to have much knowledge on using the tools.

We are planning to implement text chat function by using websocket, transferring text data and storing them on the server side, this gives us the ability to see chat histories - allowing us to implement our report system for reviewing and administrating against malicious users and bots. We can also use chat data for product improvement purposes.

Voice and video sessions will be implemented with WebRTC, and will be mostly peer-to-peer except for the signaling will be done on our own server. Matching will be made based on language preferences and previous rating. Users with high ratings will more likely to match with other high rating users or friends of friends. Friend System will allow users to interact with their fellow friends, allowing them to see their status, posts, activities and more. We plan to use bootstrap for a simple, intuitive and interactive interface.

High-level system architecture and technologies used

Backend:

- [Ubuntu](#) - Operating System for our server
- [Django](#) - as backend framework
- [Gunicorn](#) - wsgi connecting django and nginx
- [PostgresSQL](#) - Database
- [Nginx](#) - web server
- [Certbot](#) - https certificate

Frontend:

- [FontAwesome](#): where we get avatars country flags, and most of our system ui icons.
- [Flag-icon-css](#): display flags for language/ location on site
- [Bootstrap](#): UI
- [WebRTC](#) - framework we plan to use to achieve real time text, voice and video communication
- [Google Analytics](#)

According to [caniuse.com](#) if we implement WebRTC into our stack we will get approximately 56% of all users, however for our targeted audience which are desktop users, our coverage will be around 94%, Supporting MS Edge, Safari, Firefox and Chrome.

Team Members

Team Lead :	Cassie Sherman
Backend Lead :	Ryan Hu
Frontend Lead :	Mariam Shahab
Database Lead :	Dylan Luong
Github Master :	Sawara Bhattarai
Documentation Lead:	--Front End Team Member
	--Back End Team Member
	Arjun Bista

Checklist:

Item	Status
Team found a time slot to meet outside of the class	DONE
Github master chosen	DONE
Team decided and agreed together on using the listed SW tools and deployment server	DONE
Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on learning and practicing	ON TRACK
Team lead ensured that all team members read the final M1 and agree/understand it before submission	DONE
Github organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)	DONE

Milestone 2

Team 02

SW Engineering CSC648 Spring 2020

Date: 04/09/2020

MILESTONE 2

LingoMingo

Team Lead :	Cassie Sherman	cassiesherman630@gmail.com
Backend Lead :	Ryan Hu	213edu@gmail.com
Frontend Lead :	Mariam Shahab	mariamshahab2@gmail.com
Database Lead :	Dylan Luong	dluong@mail.sfsu.edu
Github Master :	Sawara Bhattarai	sbhattarai@mail.sfsu.edu
Documentation Lead :	Arjun Bista	arjunbista428@gmail.com

History Table

Milestones/Version	Date
M2 V2	04/09/2020
M2 V1	03/36/2020
M1 V2	03/09/2020
M1 V1	03/05/2020

Table of Contents

Data Definitions V2	2
Functional Requirements V2	4
Unregistered User	4
Registered-User	4
Priority 1:	4
Priority 2:	5
Priority 3:	7
UI Mockups and Storyboards	8
High level database architecture and organization	11
Business Rules	11
Description of Entities, Attributes and Relationships	11
Entity Relationship Diagram	15
Database Model	16
High Level APIs and Main Algorithms	17
POST:	17
GET:	17
WS:	18
High Level UML Diagrams	19
High Level Application Network and Deployment Diagrams	20
Application Network Diagram	20
Deployment Diagram	22
Identify actual key risks for your project at this time	23
Schedule Risk	23
Skills Risk	23
Teamwork Risk	23
Legal/Content Risk	23
Project management	24

Data Definitions V2

1. **Unregistered User:** These are users that have not registered an account yet. They will not have much privilege within our website. They will be able to see the create account page of LingoMingo only.
2. **Registered User:** A client or Premium client who is registered within the database with proper information and necessary documentations and has access to different functionality depending on their privilege within the application.
 - a. **Free:** A registered user who has free access to all the site's features. They will see ads on their dashboard.
 - b. **Premium:** A registered user who has access to all the sites features. Ads no longer are displayed on the registered user's UI.
3. **Match:** Users will have matches with other users. They will be matched based on language commonalities. Matches will be displayed in swiping format on a dashboard. Users can swipe right for matching with a matched user and left for unmatched with a user.
4. **Chat:** When a user has matched with another user they have the option to create a chat with that person
 - a. **Text:** Text chat box where the users can converse to practice written language.
 - b. **Voice:** Voice chat to practice spoken language without camera.
 - c. **Video chat:** Both voice and video chat to practice spoken language.
5. **Rate:** Users will be able to rate other users after they chat together via tags. These tags will be precreated and can be chosen by a user to describe other user's performance. These tags will be displayed on the user's profile.
6. **Profile:** This will be where Users talk about their interests and hobbies to let other users know a little bit more to get to know them. Parts of the profile can be private including age, location, and gender.
7. **Post:** People can post status comments or pictures on their account.
8. **Language:** In order to communicate with another user, the users need to know one language in common. We will set English as a common language.
9. **Message:** One user can send a voice or text message to the other user once they are friends.

10. Chat rooms: Page where users can interact with other users. Many users can be in one room.
11. Notifications: Display or notify the latest activities related to the LingoMingo.
12. Host: Registered users can create public or private chat rooms.
13. Support: A tab to solve the user's issues and answer their queries.
14. Report:
 - a. User: User writing a report to send to an admin about another user if any misconduct or policy violation happened during chat conversations or private messaging.
 - b. Post: User writing a report to send to an admin about a post on another user's profile page that is inappropriate or violates policies.

Functional Requirements V2

Unregistered User

Priority 1:

- 1. Unregistered users shall be able to sign up to account**
 - 1.1 Unregistered users shall enter a name.**
 - 1.2 Unregistered users shall enter date of birth.**
 - 1.3 Unregistered users shall enter a username.**
 - 1.4 Unregistered users shall enter a password.**
 - 1.5 Unregistered users shall confirm a password.**
 - 1.6 Unregistered users shall enter an email.**
 - 1.7 Unregistered users should enter a location.**

Registered-User

Priority 1:

- 2. Registered users shall be able to log in to account.**
 - 2.1 Registered users shall enter an email or an username.**
 - 2.2 Registered users shall enter a password.**
 - 2.3 Registered users shall be able to reset password, if forgotten.**
- 3. Registered users shall be able to log out to account.**
 - 3.1 Registered users have to be logged in before being able to log out.**
- 5. Registered users shall be able to submit data.**
 - 5.1 Registered users shall be able to submit images in the chat.**
 - 5.2 Registered users shall be able to submit text in the chat.**
 - 5.3 Registered users shall be able to make new posts.**
 - 5.4 Registered users shall be able to edit posts.**
 - 5.5 Registered users shall be able to delete posts.**
 - 5.6 Registered users shall be able to post unlimited.**
- 7. Registered users shall be able to delete the account.**
 - 7.1 Register user's profile shall also be deleted.**
 - 7.2 Register users shall be able to temporarily deactivate accounts.**
 - 7.3 Register user shall be able to reactive account.**

10. Registered users shall be able to make changes in setting.

 - 10.1 Registered users shall be able to delete their account from the settings.
 - 10.2 Registered users shall be able to set their notifications.
 - 10.3 Registered users shall be able to change their password.
14. Registered users shall be able to choose a primary language.

 - 14.1 Registered users shall choose from a list of available languages on LingoMingo.
 - 14.2 Registered users shall be able to change their primary language.
16. Registered users shall be able to choose a language to learn.

 - 16.1 Registered users shall be able to change the language they want to learn.
 - 16.2 Registered users shall choose from a list of available languages on LingoMingo.
18. Registered users shall be able to choose the skill level they're at.

 - 18.1 Registered users shall be able to change the skill level
 - 18.2 Skill level shall be scaled numerically. Example: (1-10 rating, 1=worse 10=best)
20. Registered users shall be able to choose a language they want to teach.

 - 20.1 Registered users shall be able to update the language they want to teach
 - 20.2 Registered users must be fluent in the language to be able to teach.
26. Registered users shall be able to match with another registered user.

 - 26.1 Registered users shall match based on:primary language, language to learn, language they want to teach
 - 26.2 Registered users shall be able to unmatched with another registered user.
 - 26.3 Registered users shall be able to match with multiple registered users at once.
4. Registered users shall be able to access and edit a profile.

 - 4.1 Registered users shall enter a new name while editing.
 - 4.2 Registered users shall be able to choose a profile icon.
 - 4.3 Registered users shall be able to update profile icons..
 - 4.4 Registered users shall be able to update their city.
 - 4.5 Registered users shall be able to update profile posts.
68. Registered users shall be able to ask for the help.

 - 68.1 Registered users shall be able to ask help with the support team.
 - 68.2 Registered users shall be able to email support teams.

- 28. Registered users shall be able to add another user as a friend.**
- 28.1** Registered users shall be able to unfriend.
 - 28.2** Registered users shall be able to block a friend.
 - 28.3** Registered users shall be able to create a chat with a friend user.
 - 28.4** Registered users shall be able to add additional specifications to matching, such as dialect.
 - 28.5** Registered users shall be able to look at friends' profiles.
 - 28.6** Registered users shall be able to make comments on other friend's posts.

- 24. Registered users shall be able to write a bio**
- 24.1** Bio shall be displayed in user's profile
 - 24.2** Registered users shall be able to update their bio
 - 24.3** Registered users default bio shall be empty.

- 34. Registered users shall be able to choose the methods for communication**
- 34.1** Registered users shall be able to communicate via text.
 - 34.2** Registered users should be able to communicate via voice.
 - 34.3** Registered users should be able to communicate via video call.

- 30. Registered users shall be able to choose icons for display**
- 30.1** Registered users' icon shall appear on their profile.
 - 30.2** Registered users shall be able change to a different icon.

- 40. Registered users shall be able to report an account.**

Priority 2:

- 32. Registered users shall be able to learn multiple languages.**
- 32.1** Registered users shall be able to learn more than one language.
 - 32.2** Registered users shall be able to teach language to others.
- 56. Registered users shall be able to make the group chat.**
- 56.1** Registered users shall be able to add people in group chat.
 - 56.2** Registered users shall be able to make video chat in a group.
 - 56.3** Registered users shall be able to make voice chat in a group.
 - 56.4** Registered users shall be able to see all the activity in a group chat.
 - 56.5** Registered users shall be able to mute the chat.
 - 56.6** Registered users shall be able to remove people from group chat.
 - 56.7** Registered users shall be able to choose whom to chat with.
 - 56.8** Registered users shall be able to decline the group chat request.

56.9 Registered users shall be able to turn on the notification in group chat.

66. Registered users shall be able to upgrade their account.

66.1 Registered users shall be able to upgrade their account to premium to skip the ads.

66.2 Registered users shall be able to stay in basic membership which comes with the ads.

Priority 3:

18. Registered users shall be able to change their skill levels.

18.1 Registered users shall be able to change their skill levels.

18.2 Registered users shall be able to set their skills level.

42. Registered users shall be able to manage the match users.

42.1 Registered users shall be able to skip through the match.

42.2 Registered users shall be able to unmatched with the matched users.

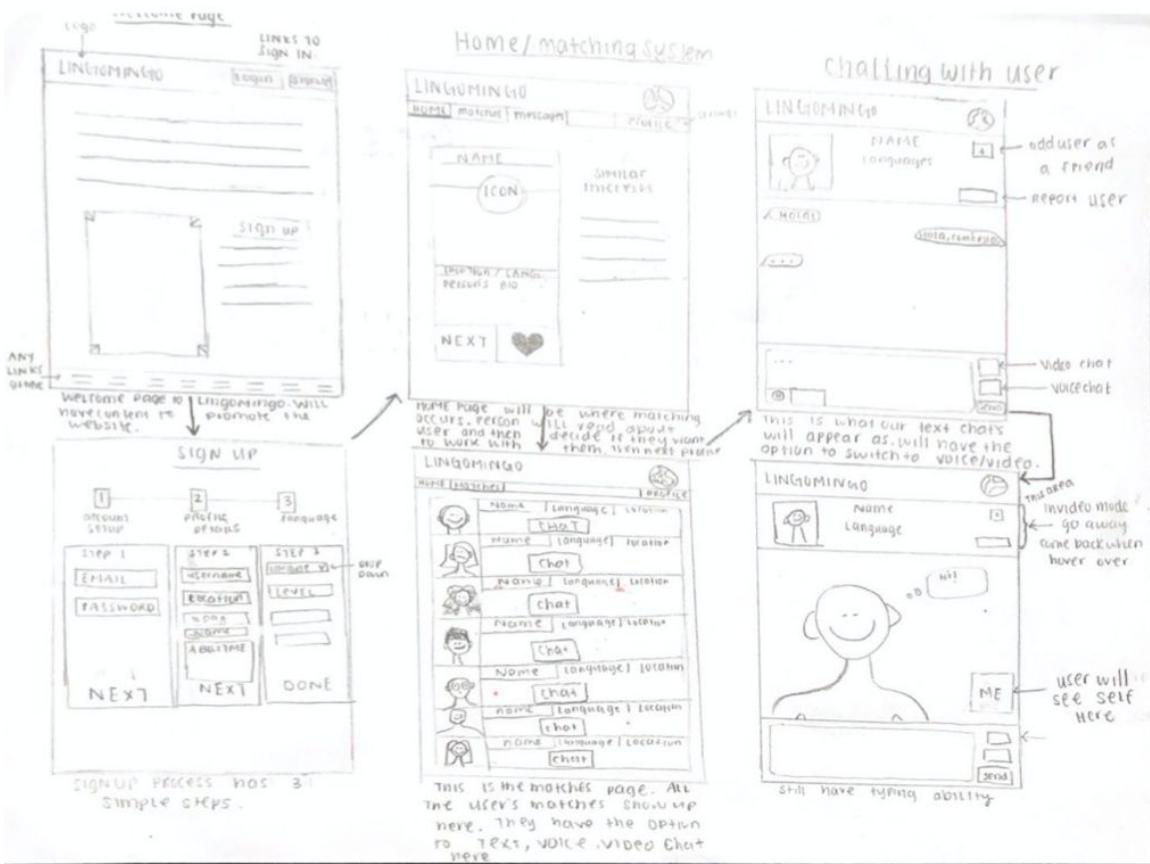
42.3 Registered users shall be able to check if the matched user is a real or bot.

37. Registered users shall be able to rate.

37.1 Registered users shall be able to rate other users.

37.2 Registered users shall be able to rate the apps.

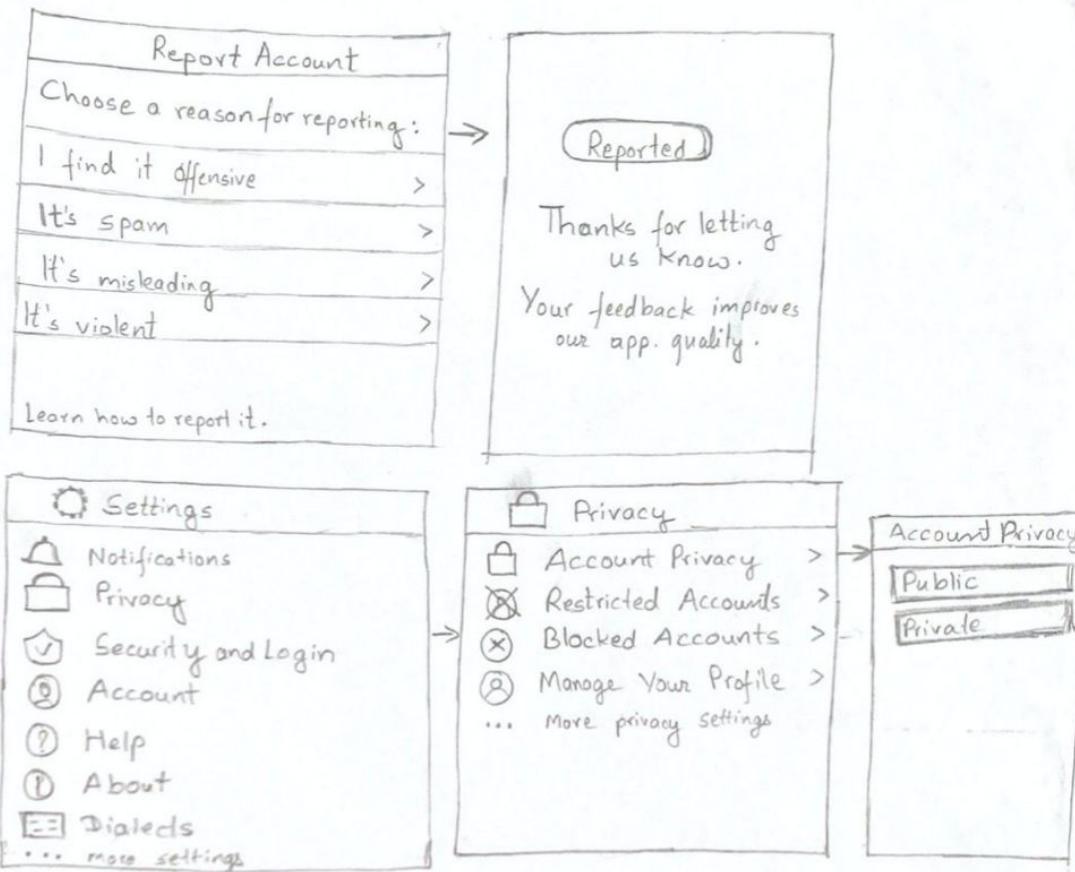
UI Mockups and Storyboards



Unregistered users start off on the welcome page. There will be a login option and a sign up option. The sign up page will be split into three separate, but easy steps : account setup, profile details, and language options.

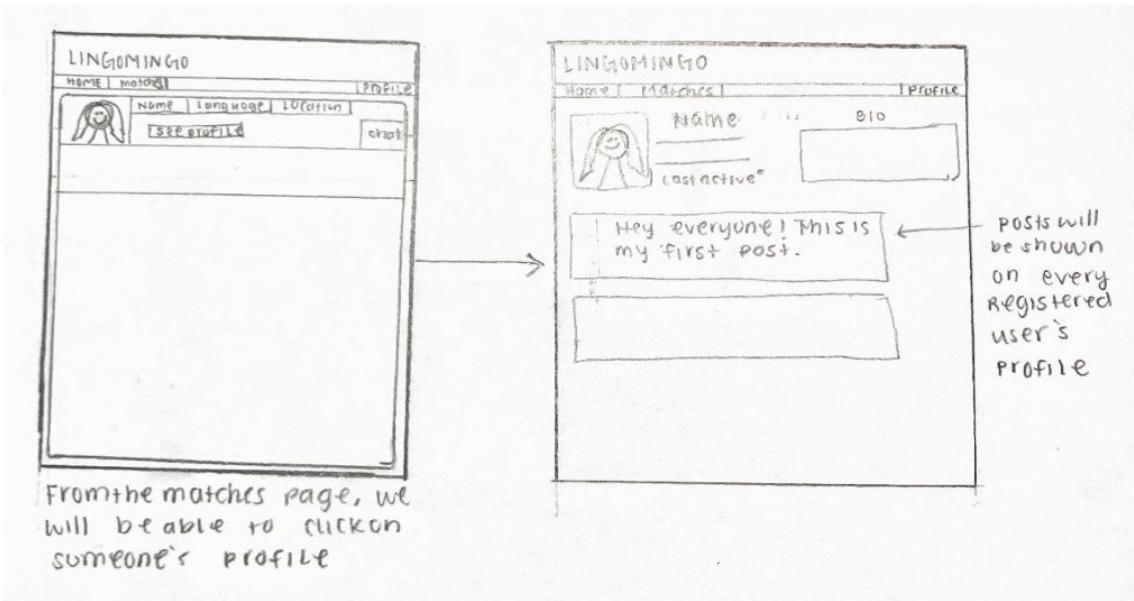
Once a user becomes registered, the home page will be where the matching system is. We will directly allow users to choose which user's they like and want to work with by clicking on the heart button or next to see the next person's profile.

Users will be able to see their matches on the matches page where they will have options to chat, add as a friend, see the person's profile and report any user.



When a registered user chooses to report another registered user, the following options will come up in the browser. It will then be investigated through the LingoMingo team.

Registered users can access their settings through their profile. Users can also change their account to premium through the account button. They also have the option of looking for specific dialects through the settings.



Any registered user will be able to look at other user's profiles if they have matched with them. They will be able to see when they were last active to make sure the user is not a robot.

High level database architecture and organization

Business Rules

1. An unregistered user can create multiple account
2. A registered user must be linked to only one account
3. Registered users can upgrade one account to premium
4. A registered user will match with multiple registered users based on similar languages
5. Registered users can create many chats with any of their matches
6. Profiles must choose at least one primary language
7. Profiles must choose at least one learning language
8. Regular accounts will display at least one advertisement
9. Accounts must have only one profile
10. Profiles can create multiple posts
11. Accounts can friend with multiple accounts

Description of Entities, Attributes and Relationships

Unregistered Users are users that haven't made an account on LingoMingo yet. Non-registered users wouldn't be able to utilize any of LingoMingo's features, besides the ability to sign up an account on LingoMingo and browse the homepages.

Entity: Unregistered User

Attributes: User_id

Relationship: Create (Account)

Non-registered user and account: 1 to M

Non-registered Users can make one account. Meanwhile an account is linked to one non-registered user.

After an account is created, the non-registered user becomes a registered user.

Registered Users can use all the features LingoMingo has to offer: matching, messaging, voice calling, and video calling. Registered users can customize their profiles to express their individuality publicly or privately.

Entity: Registered User

Attributes: User_id: key, Account_id: key, Name: composite, Dob: multi-value, Age: derived, Primary Language, Learning language

Relationships: LinkedTo (Account), Make (Post), Choose (Primary Language)(Learning Language), Send (Chats)

Registered users and Account: 1 to 1

Registered users are linked to an account. If the register user deletes their account, both the user and account ids won't be reused.

Registered users and Primary Language: M to N

Register users can have one or multiple primary languages. By allowing registered users to select multiple primary languages, they would be able to teach multiple languages to other users and not be limited to having one primary language.

Registered users and Learning Language: M to N

Registered users can have one or multiple learning languages. Some registered users may want to learn multiple languages and would be able to select multiple languages.

Registered users and chats: M to N

Registered users can chat to multiple users simultaneously. Users aren't restricted to messaging one person at a time as it would be limiting for the user's experience.

Accounts are created by unregistered users which then become linked to a registered user. Every registered user would be assigned to an account that is unique to them. In other words, if the registered user decides to delete the account, the account id won't be reused. Also, there are two types of accounts: regular and premium. Regular accounts are free and provide almost all the features on LingoMingo has to offer besides the no ads feature.

Entity: Account

Attributes: Account_id: key, User_id: key, Email: key, Profile_id: key, Average rating, Type (Regular or Premium)

Relationship: IsA(Free/Premium), Has(Profile), Gain(Rating)

Account and Regular: 1 to 1, ISA relationship

An account can be a regular or premium account. Regular accounts are the default account type that is free and offers almost all of the LingoMingo's features besides the no-ad feature.

Account and Premium: 1 to 1, ISA relationship

An account can be a regular or premium account. Premium accounts are the upgraded account type that isn't free and offers all the features LingoMingo has to offer. Premium accounts won't have to watch advertisements every so often unlike regular accounts.

Account and profile: 1 to 1

An account can only have one profile, as having multiple profiles wouldn't serve any purpose.

Account and rating: 1 to 1

An account has an averaged rating based on their past conversation. If the registered user was helpful, they would have a higher rating. Meanwhile users that are inappropriate would either have very low ratings or be reported. Each account has one average rating, which is why it's one to one relationship.

Profiles are created upon finishing the sign up process. In a profile, registered users are able to express themselves through posts, bios, languages that they know and languages that they want to learn.

Entity: Profile

Attributes: Profile_id: key, Account_id: key, Posts

Relationships: Have(Account), Have(Post)

Profile to Account: 1 to 1

Each profile is unique to an account. No profile id would be reused for another account.

Profile to Posts: 1 to M

Each profile can have none to many posts depending on the user's preference. Posts are created by one registered user and would remain at the registered user's profile.

Chats are created from the matching system, where two registered users match and start talking to one another. Chats, for now, remains as only messaging but we may add more entities for the video and voice feature. Registered users can chat with multiple people simultaneously.

Entity: Chat

Attributes: Chat_id:key, User_id:key, Learning Language

Relationships: Send(Registered User), MadeBy(Match)

Chat to Registered user: M to N

Chats are created from the matching system between two registered users. Or the chat can be created from a friends list, if we manage to implement the friend system.

Posts are made by users and appear on the user's profile. Registered users can post profile statuses to express themselves publicly or to their friends. Posts are posted in the registered user's profile, which can be reported if the post is inappropriate.

Entity: Post

Attributes: Profile_id:key, Post_id:key

Relationships: Have(Profile), Made(Account)

Profile to Post: 1 to M

Registered users can have multiple posts on their profile if they choose to post. Posting is optional and can be public or private. Posts are created by one profile, as each profile is responsible for their own posts.

Advertisements appear only for regular accounts. LingoMingo allows other companies to advertise their products on LingoMingo. Advertisements appear only for regular accounts. Premium accounts won't have any advertisements when they chat with another registered user. Advertisements will appear periodically throughout the use of LingoMingo

Entity: Advertisement

Attributes: Ad_id: key, Company_name: composite

Relationships: Have(Account)

Advertisement to regular account: M to N

Advertisements can be seen by many regular accounts, while each regular account can see many advertisements.

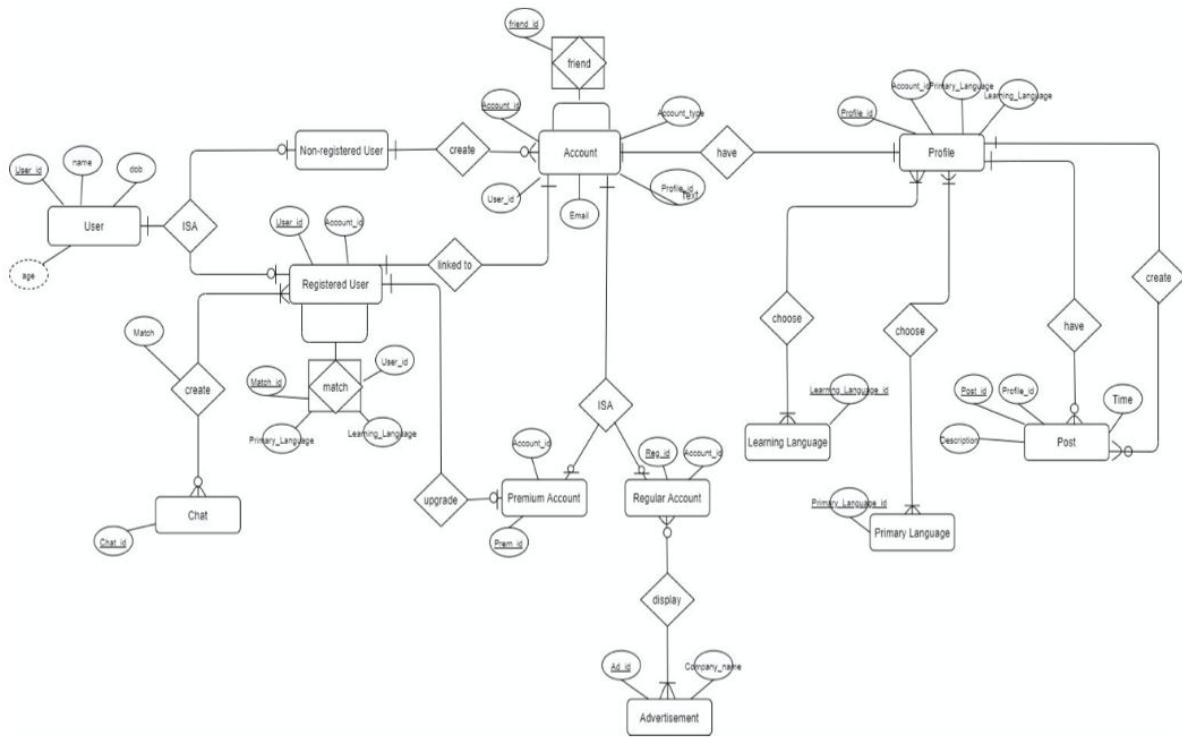
Ratings are something an account receives once they are finished chatting. Each account will average out the ratings it receives to give one definitive rating.

Entity: Rating

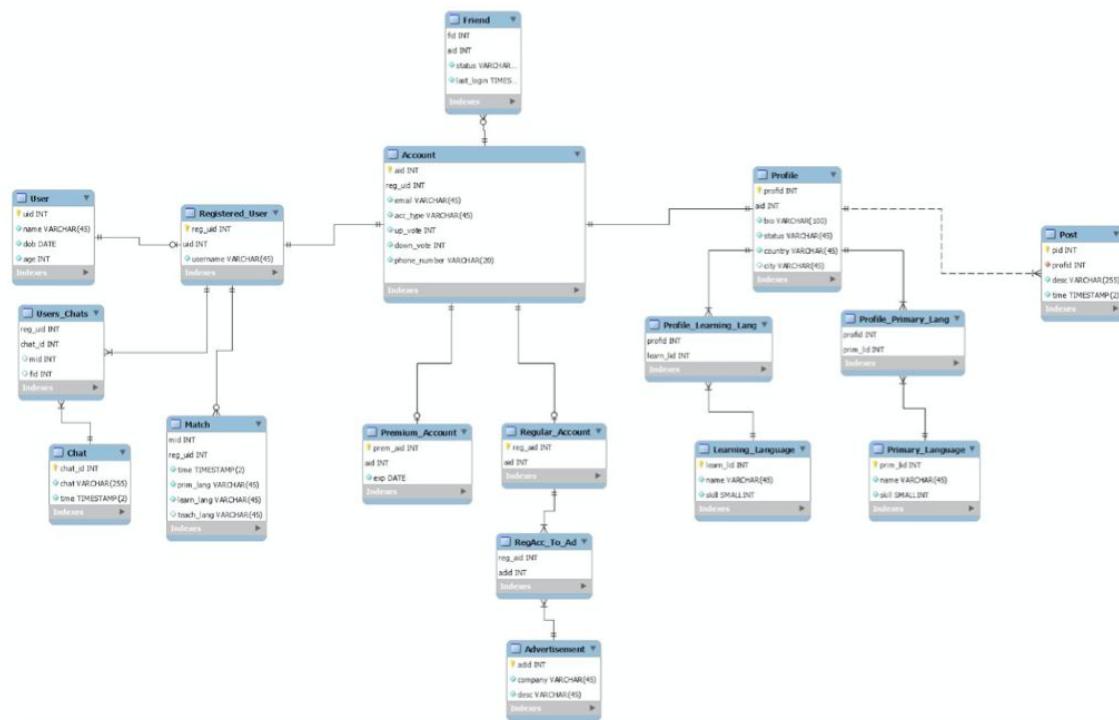
Attributes: Account_id, chat_id, rating_id

Relationships: Gain(Account)

Entity Relationship Diagram



Database Model



- Media storage: Decide if images and video/audio will be kept in file systems or in DB BLOBs (decision on file vs. BLOBs must be made by the end of M2). Describe any other special data format requirements like for video/audio/GPS etc.

All media files will be stored on the server. The database will store the file path, where the media file is located. For now, we don't have any special data format requirements yet. If we do, we'll include it.

For example, when a user visits a person's profile. The person's profile picture will be obtained through the file path that's provided by the database.

- Search/filter architecture and implementation: what will be the alg/SW for search; how will you organize search items from the user; what DB terms will be searched, how it will be coded and organized in the DB (check instructors' suggestions in the class. OK to use SQL and %like).

Our most used search function would likely be the matching process. User are getting match suggested to them on a daily basis. We plan to implement the search function inside Django since the framework has very powerful database management built in. For retrieving users, we can use `User.objects.all()` and make them filterable by doing `Users.objects.filter(field=query)`. We can encapsulate these functions into one of the API for convenience and security. For example if we want to match a user who knows english and wants to learn german, the match api will filter the user query with `primary_lang=german` and combine that with `learning_lang=english`. So that the user gets matches that share at least one commonly known language.

High Level APIs and Main Algorithms

APIs

Login User:

When a user types in their username and password and clicks on submit, the data will be sent to the database and checked if the user exists by username. If the username exists, then the password will be checked if valid or not. The server then returns a response with the user's session and redirects users to their page of intended visit or back to the index page.

Register User:

This is used for users to register and make an account. Users will add their name, email, password, birthdate, location, language they want to learn and teach, skill level for each language to make their account. The data then will be sent to django as a POST request. We validate the form and if valid, save the form data into the User object and store the user object into our database. We then authenticate() function to authenticate the user using their username and password from the form, and use login() function to return a session to the user. Both authenticate and login are part of django.contrib.auth API/ user management system.

Match user:

In this API, users are matched based on the language they want to learn/teach and their skill level. There will be three skill levels: advanced, intermediate and beginners. Users will also be matched by their login timestamp.

Chat, Audio and Video Calling:

Once the user gets matched with other users, they will have the options to text, audio call or video call. Text based chats will be implemented with websocket. The frontend will send chat text to the server with websocket. The server will then forward the text to all other users in that chat session, and store the chat in the database.

Audio and Video Calling will be implemented using webrtc's API.

(<https://webrtc.org/getting-started/media-devices>)

We first capture the user's media device. Then initiate the peer connection with a stun server. Upon connection with a remote peer, webrtc's api will start streaming media over likely over a TURN server. At the current stage we are still familiarizing ourselves with webrtc and technology behind it. But we can possibly set up a TURN/STUN server on our aws instance as well.

Rate User:

This API will be used to rate the app and the users. Once the user matches with another user it will be allowed to rate users. To rate users are asked if they would like to match with the other user again. If yes, they are prompted with a list of pre created tags. Tag examples: would you match with this user again?, caring, inspirational, accessible, clear, tough, hilarious, respectful. These tags will display on the user's profile. If no, the user will be removed from the possible match list.

Rate Website: Users can also rate the website and users will be using the thumbs up and down to show if they like the website or not.

Report User: This API will be used to report a user. One user fills out a report form the reported user's account name and reason for the report will be sent to the API. The server will then check the user for other reports and send a suspension to the users account.

Algorithms

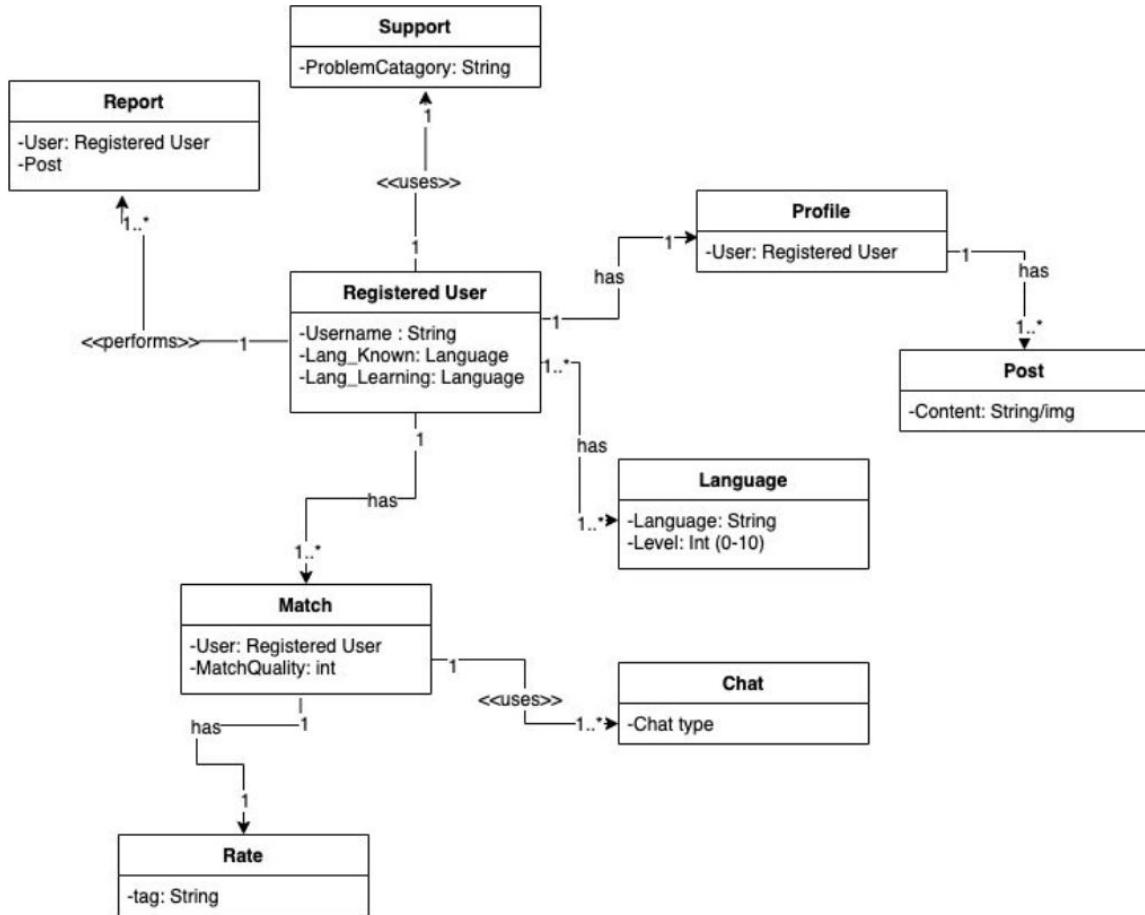
Matching:

First filter all users by primary language against Matcher's learning language. Combine the list filtering all users by learning language against the matcher's primary language. Then sort the user list by the rating from highest to lowest, lastly sort them by last login timestamp from most recent to least recent.

So that matcher's matches will guarantee at least one common known language, and have recent and high quality users presented to them.

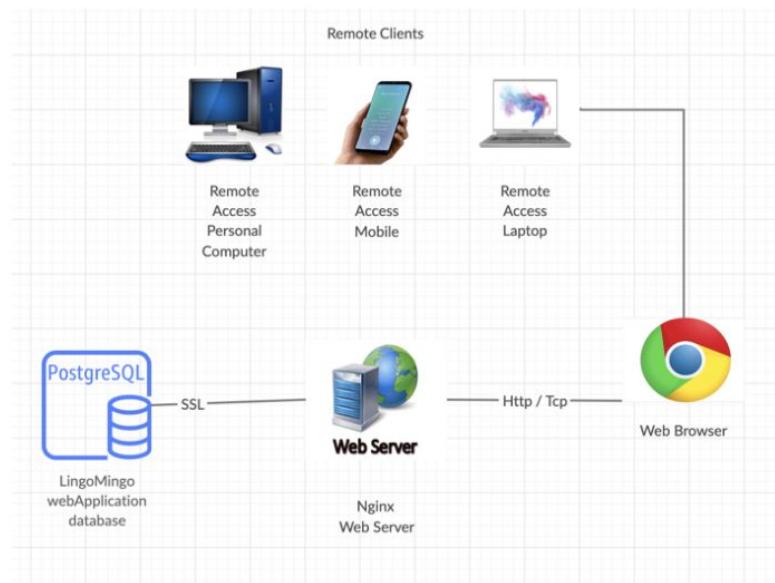
High Level UML Diagrams

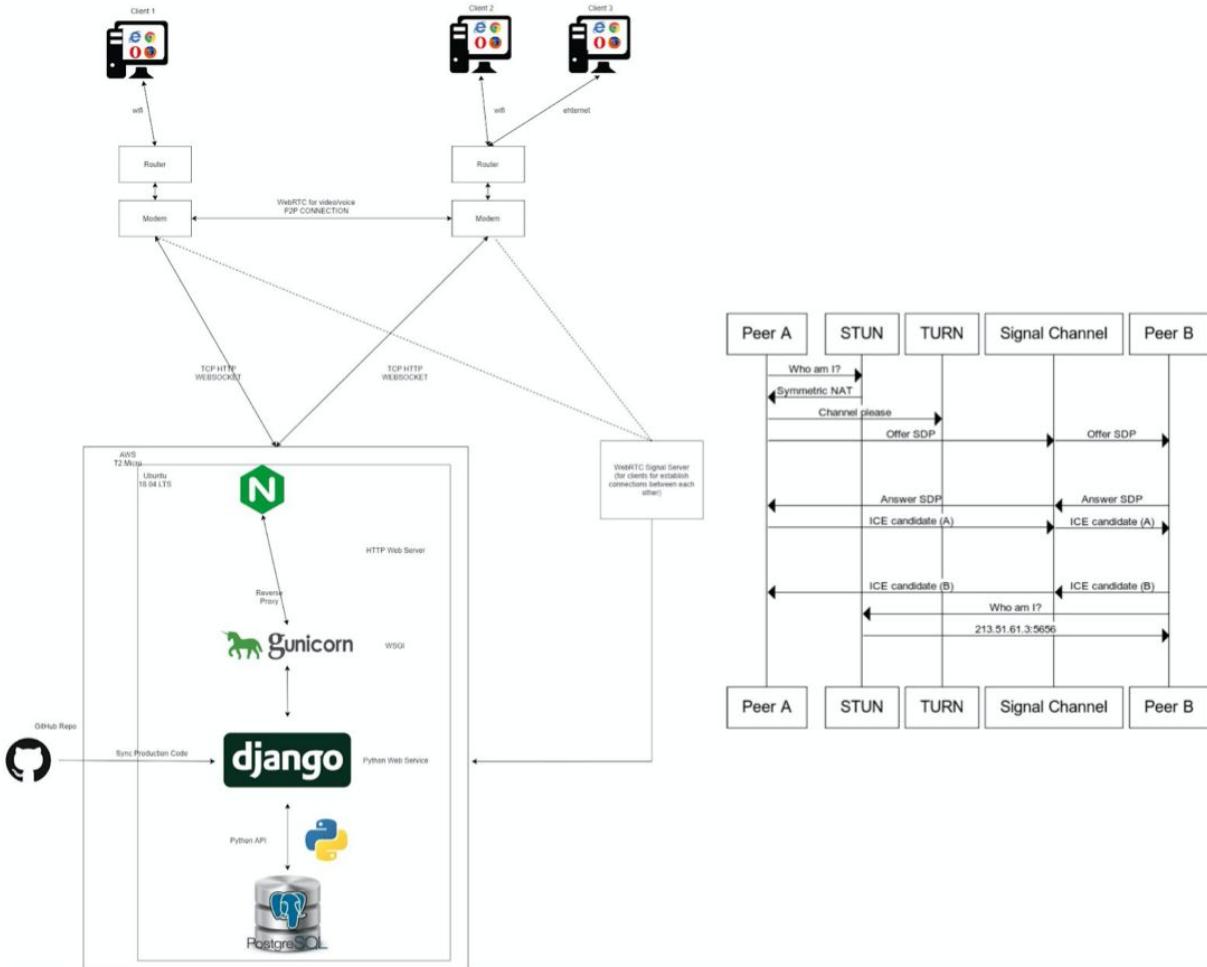
Matching System



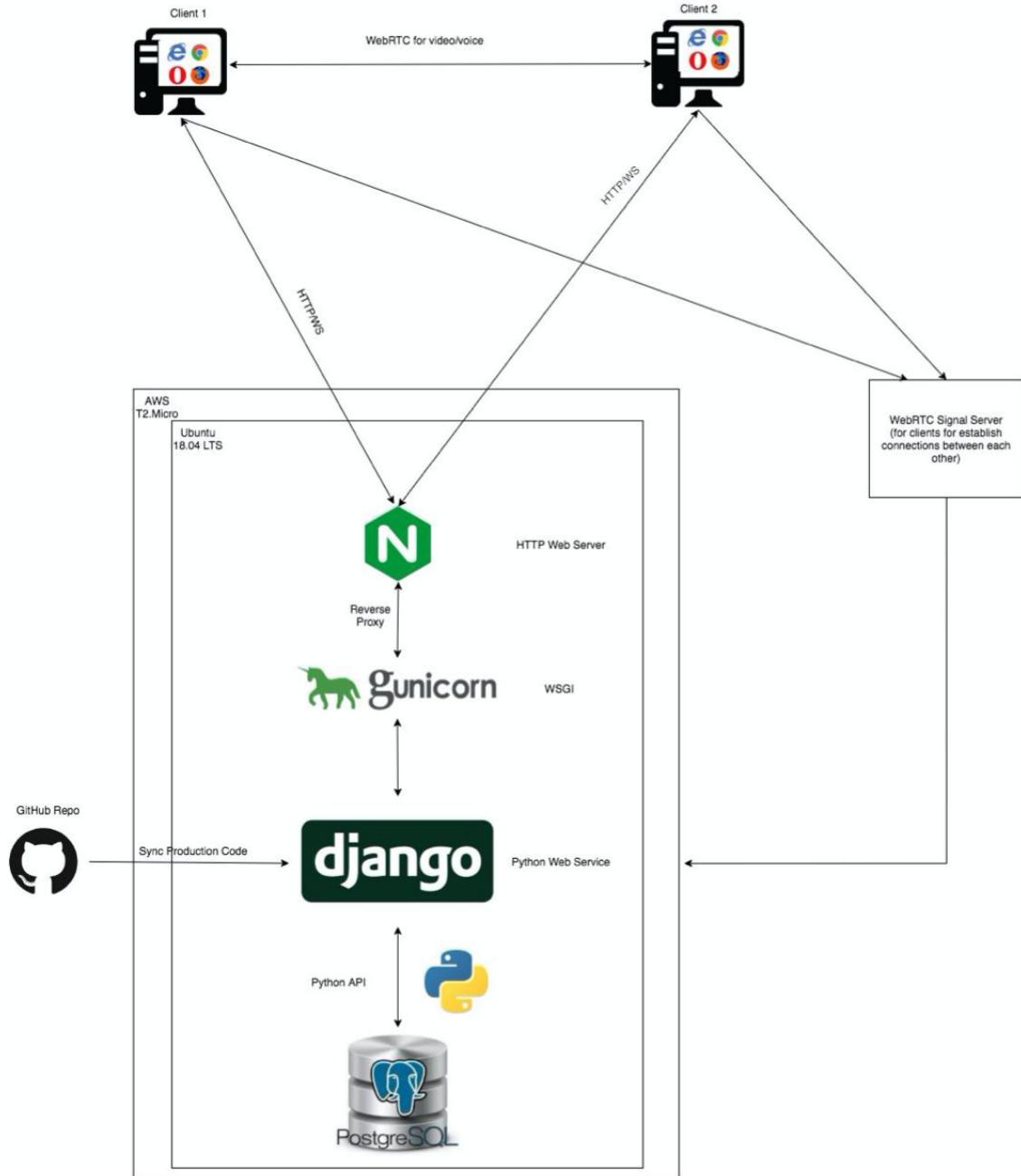
High Level Application Network and Deployment Diagrams

Application Network Diagram





Deployment Diagram



Identify actual key risks for your project at this time

Schedule Risk

Group meetings - Since, all face to face meetings became online, it is taking some time for us to organize the group meeting. We cannot meet in person and this is a group project and it is very important in this class to meet with your group to do the project smoothly. To solve this problem, we are doing discord meetings to assign and discuss all the problems we are having with the project. We are texting and figuring out what time is suitable for each member in the group and doing discord meetings.

Skills Risk

Video chat - We are thinking to implement video chat as one of the features of our website. There are chances of having problems in implementing it, therefore we may decide to start with a basic wordpress website for now. Later on, by looking at the source/html code, we may inherit the specific skills to accomplish the task we wish to obtain. A simple wordpress website will serve our purpose very well at an initial stage of our project.

Teamwork Risk

Because of the COVID-19, we were not able to continue our in-person weekly meeting. So we are forced to go for online meetings through ZOOM. Which may reduce productivity and lower the quality of product. To resolve this issue, we are doing an online meeting and discussing all the issues and progress of the project. We are continuously communicating via text and updating about the project with our team members. With everything going on, there just might not be enough time to implement all of the things we want to.

Legal/Content Risk

Not applicable

Project management

To manage M2 tasks we split up each section and each section had approx. two workers. We did all of our work on Google Drive that way the team members could collaborate on their section. We followed the same outline from M1. Because our team is using Google Docs to collaborate off of each other, it is challenging for each member to push their work on the doc through github. To manage future tasks we are going to implement the use of Trello to create Kanban boards to manage individual tasks. During our scrum meetings we will be able to create tasks, and move them from in progress to finished in order to track the current state of our application. It will also allow us to keep track of each team member's efficiency in completing tasks and when they might need assistance.

Milestone 3

Team 02

SW Engineering CSC648 Spring 2020

Date: 04/23/2020

MILESTONE 3

LingoMingo

Team Lead :	Cassie Sherman	cassiesherman630@gmail.com
Backend Lead :	Ryan Hu	213edu@gmail.com
Frontend Lead :	Mariam Shahab	mariamshahab2@gmail.com
Database Lead :	Dylan Luong	dluong@mail.sfsu.edu
Github Master :	Sawara Bhattarai	sbhettarai@mail.sfsu.edu
Documentation Lead :	Arjun Bista	arjunbista428@gmail.com

History Table

Milestones/Version	Date
M3 V2	05/09/20
M3 V1	04/23/2020
M2 V2	04/09/2020
M2 V1	03/26/2020
M1 V2	03/09/2020
M1 V1	03/05/2020

Table of Contents

1. Data Definitions V3	2
2. Functional Requirements V3	4
Unregistered User	4
Registered-User	4
Priority 1:	4
Priority 2:	7
Priority 3:	9
3. Wireframes Based on your Mockups/Storyboards V2 (detailed)	10
4. High level database architecture and organization V2	12
5. High Level Diagrams V2 (detailed)	13
Application Network Diagram	13
Deployment Diagram	15
UML Diagram	16

1. Data Definitions V3

1. **Unregistered User:** These are users that have not registered an account yet. They will not have much privilege within our website. They will be able to see the created account page of LingoMingo only.
2. **Registered User:** A client or Premium client who is registered within the database with proper information and necessary documentations and has access to different functionality depending on their privilege within the application.
 - a. **Free:** A registered user who has free access to all the site's features. They will see ads on their dashboard.
 - b. **Premium:** A registered user who has access to all the sites features. Ads no longer are displayed on the registered user's UI.
3. **Match:** Users will have matches with other users. They will be matched based on language commonalities. Matches will be displayed in swiping format on a dashboard. Users can swipe right for matching with a matched user and left for unmatched with a user.
4. **Chat:** When a user has matched with another user they have the option to create a chat with that person
 - a. **Text:** Text chat box where the users can converse to practice written language.
 - b. **Voice:** Voice chat to practice spoken language without camera.
 - c. **Video chat:** Both voice and video chat to practice spoken language.
5. **Profile:** This will be where Users talk about their interests and hobbies to let other users know a little bit more to get to know them. Parts of the profile can be private including age, location, and gender.

6. Post: People can post status comments or pictures on their account.
7. Language: In order to communicate with another user, the users need to know one language in common. We will set English as a common language.
8. Message: One user can send a voice or text message to the other user once they are friends.
9. Chat rooms: Page where users can interact with other users. Many users can be in one room.
10. Notifications: Display or notify the latest activities related to the LingoMingo.
11. Host: Registered users can create public or private chat rooms.
12. Support: A tab to solve the user's issues and answer their queries.
13. Report:
 - a. User: User writing a report to send to an admin about another user if any misconduct or policy violation happened during chat conversations or private messaging.
 - b. Post: User writing a report to send to an admin about a post on another user's profile page that is inappropriate or violates policies.

2. Functional Requirements V3

Unregistered User

Priority 1:

- 1. Unregistered users shall be able to sign up to account**
 - 1.1 Unregistered users shall enter a name.**
 - 1.2 Unregistered users shall enter date of birth.**
 - 1.3 Unregistered users shall enter a username.**
 - 1.4 Unregistered users shall enter a password.**
 - 1.5 Unregistered users shall confirm a password.**
 - 1.6 Unregistered users shall enter an email.**
 - 1.7 Unregistered users should enter a location.**

Registered-User

Priority 1:

- 2. Registered users shall be able to log in to account.**
 - 2.1 Registered users shall enter an email or an username.**
 - 2.2 Registered users shall enter a password.**
 - 2.3 Registered users shall be able to reset password, if forgotten.**
- 3. Registered users shall be able to log out to account.**

3.1 Registered users have to be logged in before being able to log out.

5. Registered users shall be able to submit data.

5.1 Registered users shall be able to submit images in the chat.

5.2 Registered users shall be able to submit text in the chat.

5.3 Registered users shall be able to make new posts.

5.4 Registered users shall be able to edit posts.

5.5 Registered users shall be able to delete posts.

5.6 Registered users shall be able to post unlimited.

7. Registered users shall be able to delete the account.

7.1 Register user's profile shall also be deleted.

7.2 Register users shall be able to temporarily deactivate accounts.

7.3 Register user shall be able to reactive account.

10. Registered users shall be able to make changes in setting.

10.1 Registered users shall be able to delete their account from the settings.

10.3 Registered users shall be able to change their password.

14. Registered users shall be able to choose a primary language.

14.1 Registered users shall choose from a list of available languages on LingoMingo.

14.2 Registered users shall be able to choose more than one primary language.

14.3 Registered users shall be able to update the language they want to teach

16. Registered users shall be able to choose a language to learn.

16.1 Registered users shall be able to change the language they want to learn.

16.2 Registered users shall choose from a list of available languages on LingoMingo.

26. Registered users shall be able to match with another registered user.

26.1 Registered users shall match based on:primary language, language to learn

26.2 Registered users shall be able to unmatched with another registered user.

26.3 Registered users shall be able to match with multiple registered users.

4. Registered users shall be able to access and edit a profile.

4.1 Registered users shall be able to enter a new name while editing.

4.2 Registered users shall be able to choose a profile icon.

4.3 Registered users shall be able to update profile icons.

4.4 Registered users shall be able to update their country.

4.5 Registered users shall be able to update profile posts.

68. Registered users shall be able to ask for the help.

68.1 Registered users shall be able to ask help with the support team.

68.2 Registered users shall be able to email support teams.

28. Registered users shall be able to add another user as a friend.

28.1 Registered users shall be able to unfriend.

28.3 Registered users shall be able to create a chat with a friend user.

28.4 Registered users shall be able to add additional specifications to matching, such as dialect.

28.5 Registered users shall be able to look at friends' profiles.

24. Registered users shall be able to write a bio

24.1 Bio shall be displayed in user's profile

24.2 Registered users shall be able to update their bio

24.3 Registered users default bio shall be empty.

30. Registered users shall be able to choose icons for display

30.1 Registered users' icon shall appear on their profile.

30.2 Registered users shall be able change to a different icon.

32. Registered users shall be able to learn multiple languages.

32.1 Registered users shall be able to learn more than one language.

32.2 Registered users shall be able to teach language to others.

Priority 2:

28. Registered users shall be able to make comments on other friend's posts.

34. Registered users shall be able to choose the methods for communication

34.1 Registered users shall be able to communicate via text.

34.2 Registered users should be able to communicate via voice.

34.3 Registered users should be able to communicate via video call.

56. Registered users shall be able to make the group chat.

56.1 Registered users shall be able to add people in group chat.

56.2 Registered users shall be able to make video chat in a group.

56.3 Registered users shall be able to make voice chat in a group.

56.4 Registered users shall be able to see all the activity in a group chat.

56.5 Registered users shall be able to mute the chat.

56.6 Registered users shall be able to remove people from group chat.

56.7 Registered users shall be able to choose whom to chat with.

56.8 Registered users shall be able to decline the group chat request.

56.9 Registered users shall be able to turn on the notification in group chat.

66. Registered users shall be able to upgrade their account.

66.1 Registered users shall be able to upgrade their account to premium to skip the ads.

66.2 Registered users shall be able to stay in basic membership which comes with the ads.

40. Registered users shall be able to report an account.

Priority 3:

28. Registered users shall be able to block a friend.

18. Registered users shall be able to change their skill levels.

18.1 Registered users shall be able to change their skill levels.

18.2 Registered users shall be able to set their skills level

42. Registered users shall be able to manage the match users.

42.1 Registered users shall be able to skip through the match.

42.2 Registered users shall be able to unmatched with the matched users.

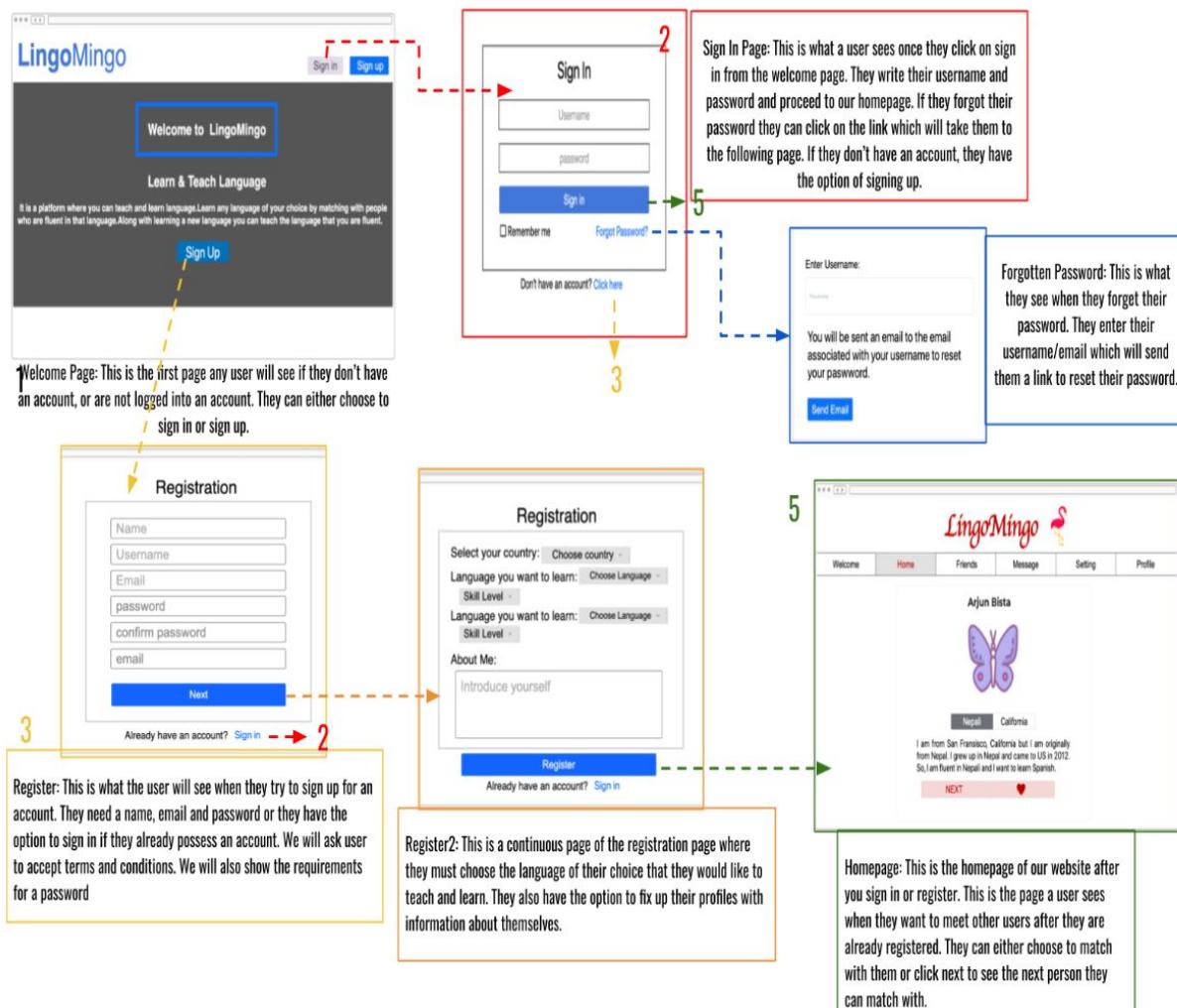
42.3 Registered users shall be able to check if the matched user is a real or bot.

37. Registered users shall be able to rate.

37.1 Registered users shall be able to rate other users.

37.2 Registered users shall be able to rate the apps.

3. Wireframes Based on your Mockups/Storyboards V2 (detailed)



10

Homepage: This is the homepage of our website after you sign in or register. This is the page a user sees when they want to meet other users after they are already registered. They can either choose to match with them or click next to see the next person they can match with. When you choose the heart, their profile shows up in your friends and if you click next the profile is removed from your view.

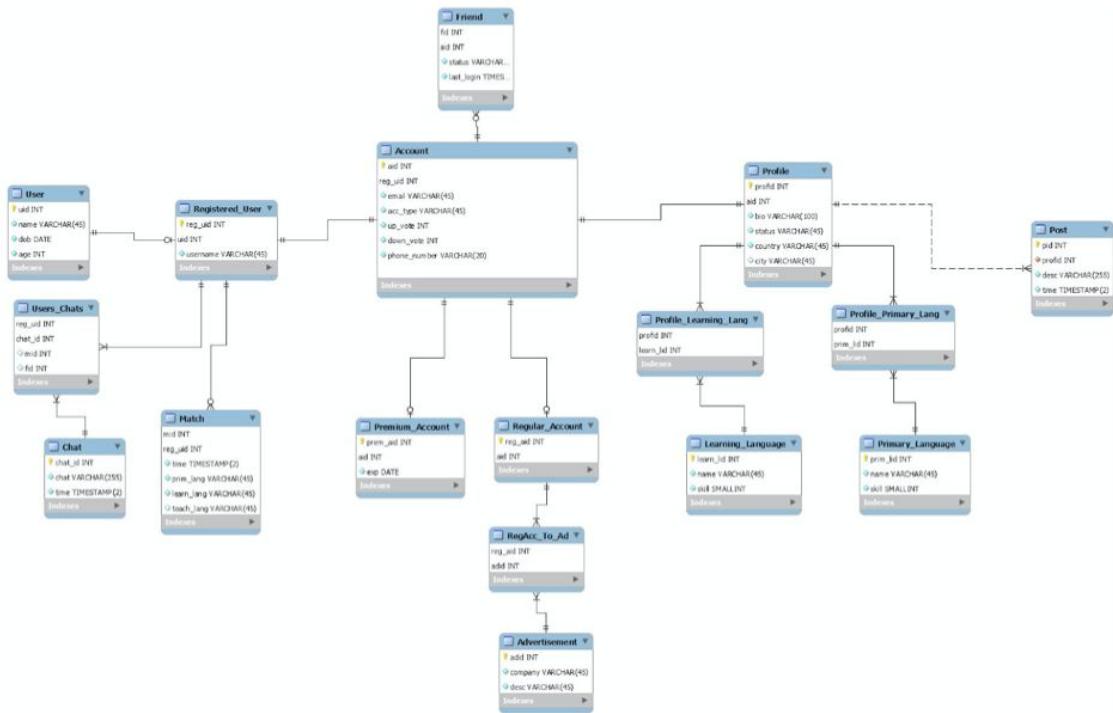
Settings: This is the setting page where users can make changes in their account. They can make changes like security of their page, privacy policy as well as if they need any help, users can contact the support team on this page using help.

Profile: This is what a user's profile page will look like. They can add posts and change their icon as they please.

Friends: This page shows the friend list of a user. After getting a match, the user can add the other matched user as their friend and this page is to see all the friends. They can also click on the chat button to go to the message page to text their friend from this page whereas the remove button is for the user to remove the other users as their friend.

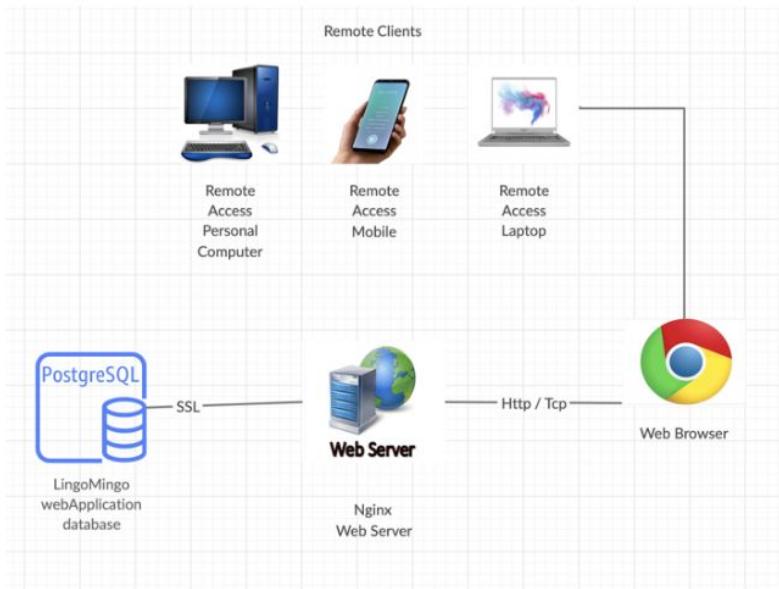
Messages: This page shows the messages. Once users are matched they can message each other to learn and teach the language. This page is for users to contact and learn or teach the language.

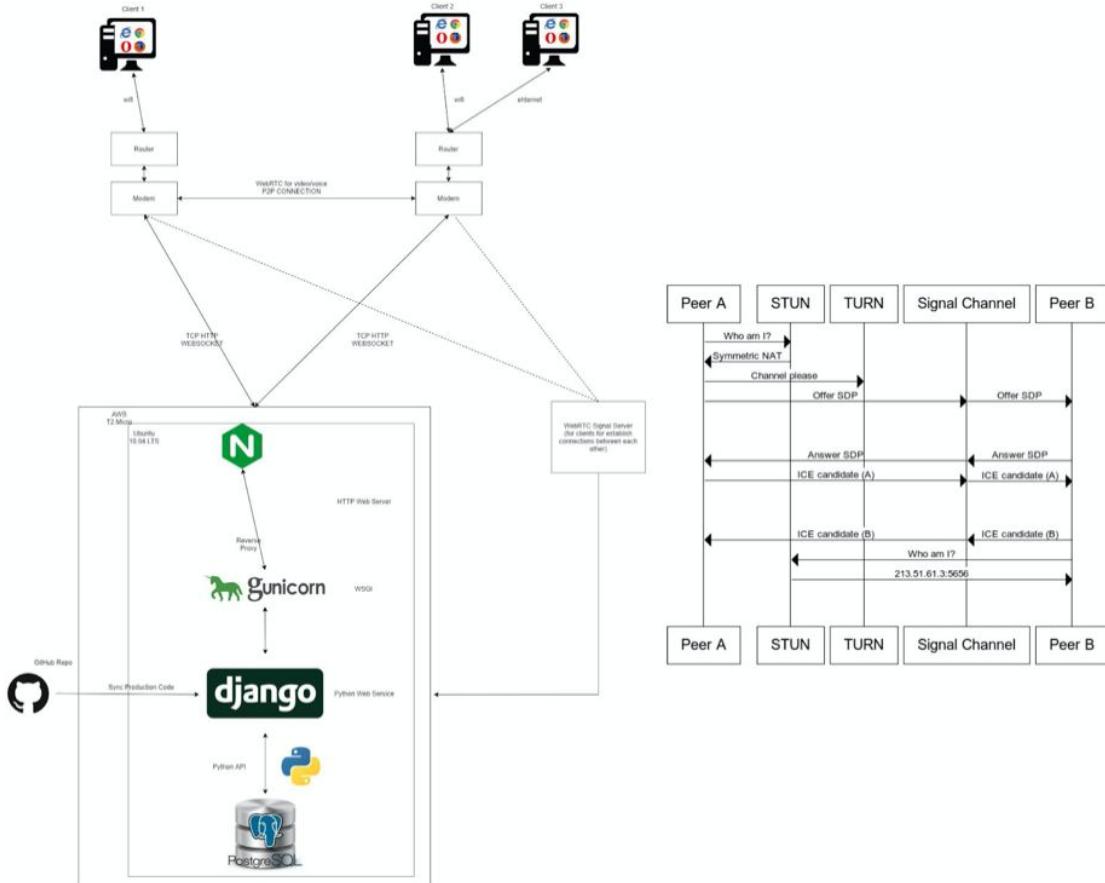
4. High level database architecture and organization V2



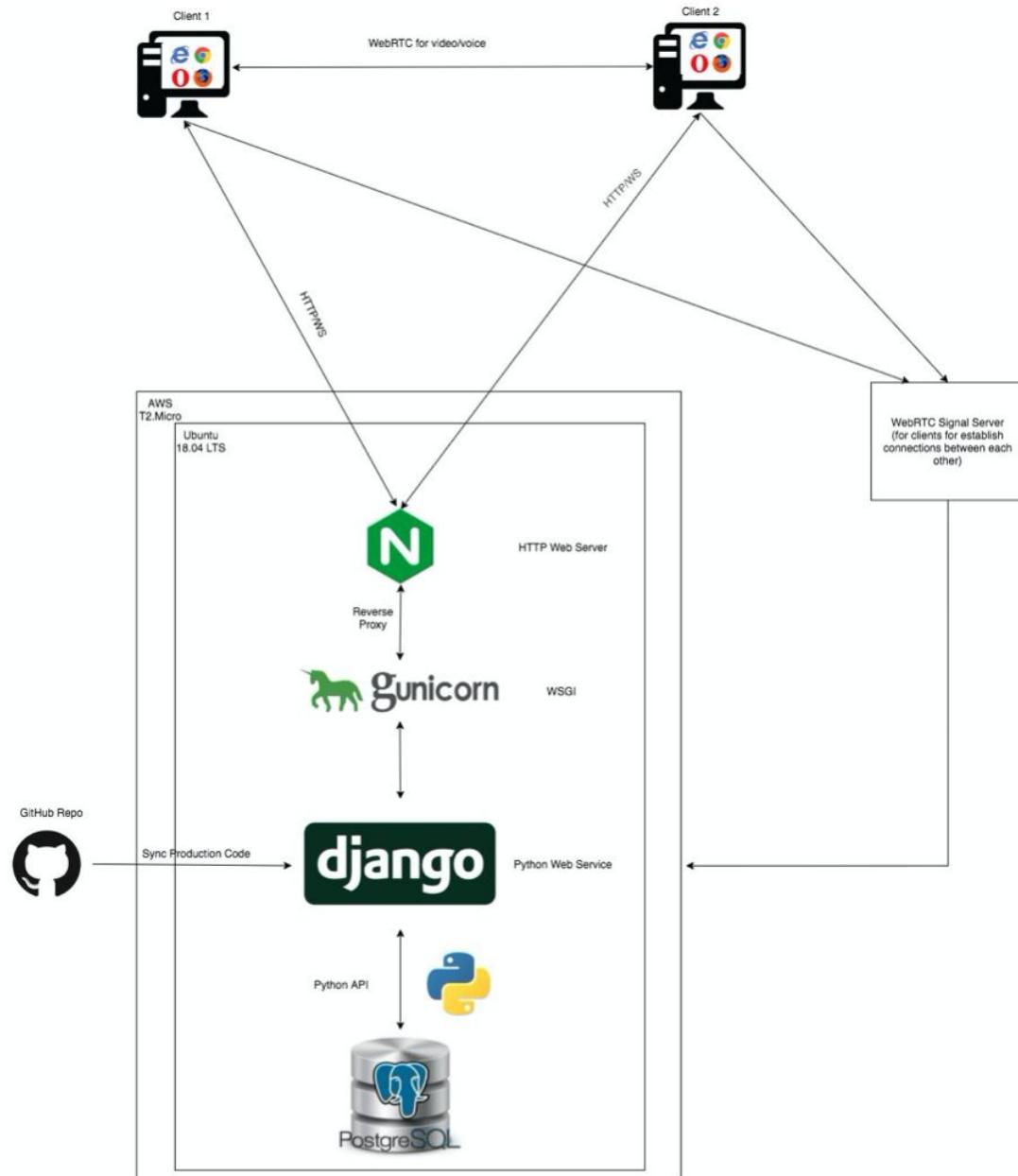
5. High Level Diagrams V2 (detailed)

Application Network Diagram

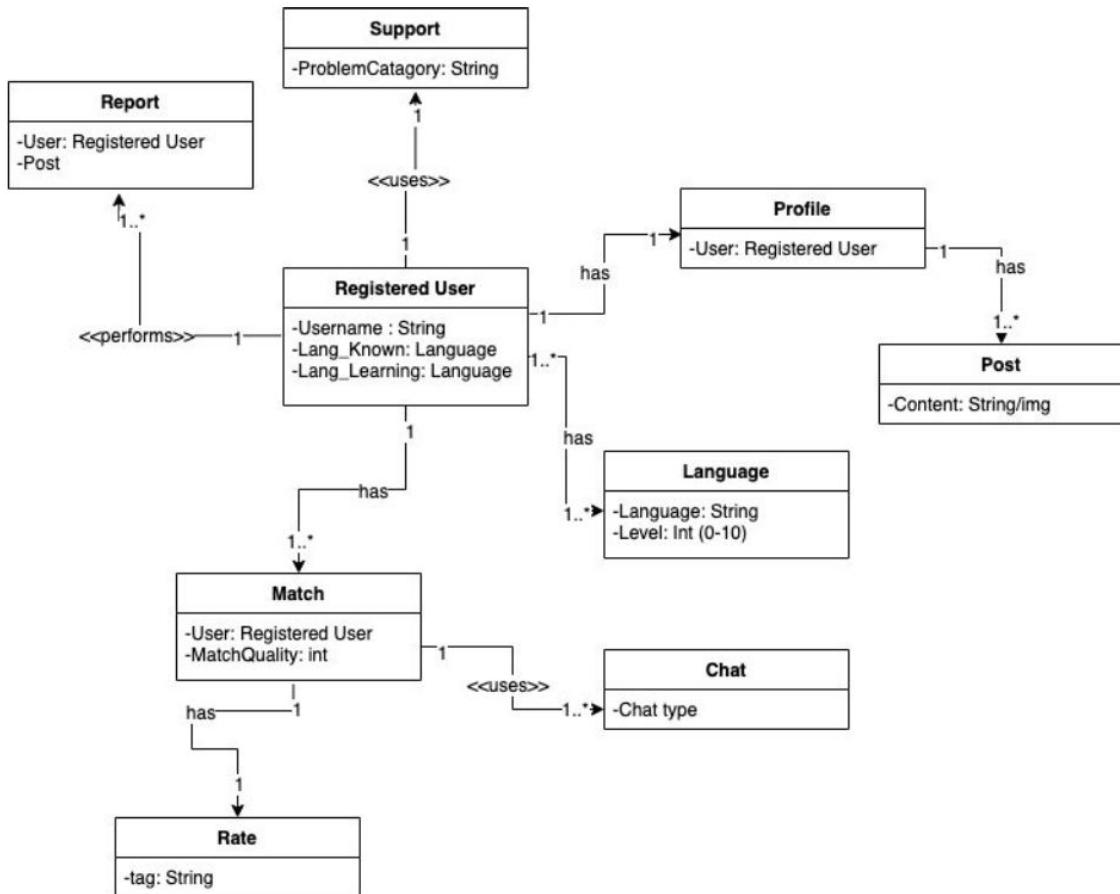




Deployment Diagram



UML Diagram



Milestone 3 - Feedback

April 23, 2020 at 8:05 PM

Bigger font in welcome page

Background color change in welcome page

Change the welcome page

Registration

Example for email

Password limit, alpha numeric

Birthday: put the format month day year

Add: Terms and conditions

Homepage : add description where are they and what they need to do next

Add User guidance, what next does and what add match does and it doesn't look like button, it should be visible as button

Milestone 4

Team 02

SW Engineering CSC648 Spring 2020

Date: 05/07/2020

MILESTONE 4



Team Lead :	Cassie Sherman	cassiesherman630@gmail.com
Backend Lead :	Ryan Hu	213edu@gmail.com
Frontend Lead :	Mariam Shahab	mariamshahab2@gmail.com
Database Lead :	Dylan Luong	dluong@mail.sfsu.edu
Github Master :	Sawara Bhattarai	sbhattarai@mail.sfsu.edu
Documentation Lead :	Arjun Bista	arjunbista428@gmail.com

History Table

Milestones/Version	Date
M4 V2	05/18/2020
M4 V1	05/10/2020
M3 V2	05/09/2020
M3 V1	04/23/2020
M2 V2	04/09/2020
M2 V1	03/26/2020
M1 V2	03/09/2020
M1 V1	03/05/2020

Table of Contents

Product summary	3
Usability Test Plan	5
Functions	5
Usability test table	7
Questionnaire	8
QA Test Plan	9
Code Review	14
Best Practices For Security	19
Adherence To Original Non-Functional Specs	20

Product summary

LingoMingo - A Learning Community

1. Registered users shall be able to log in to account.
 - 1.1 Registered users shall enter an email or an username.
 - 1.2 Registered users shall enter a password.
 - 1.3 Registered users shall be able to reset password, if forgotten.
2. Registered users shall be able to log out to account.
 - 2.1 Registered users have to be logged in before being able to log out.
3. Registered users shall be able to delete the account.
 - 3.1 Register user's profile shall also be deleted.
 - 3.2 Register users shall be able to temporarily deactivate accounts.
 - 3.3 Register users shall be able to reactivate accounts.
4. Registered users shall be able to make changes in setting.
 - 4.1 Registered users shall be able to delete their account from the settings.
 - 4.2 Registered users shall be able to change their password.
5. Registered users shall be able to choose a language to learn.
 - 5.1 Registered users shall be able to change the language they want to learn.
 - 5.2 Registered users shall choose from a list of available languages on LingoMingo.
6. Registered users shall be able to choose to learn multiple languages.
 - 6.1 Registered users shall be able to learn more than one language.
 - 6.2 Registered users shall be able to teach language to others.
7. Registered users shall be able to choose icons for display
 - 7.1 Registered users' icons shall appear on their profile.
 - 7.2 Registered users shall be able change to a different icon.
8. Registered users shall be able to write a bio
 - 8.1 Bio shall be displayed in user's profile

- 8.2 Registered users shall be able to update their bio
9. Registered users shall be able to add another user as a friend.
 - 9.1 Registered users shall be able to unfriend.
 - 9.3 Registered users shall be able to create a chat with a friend user.
 - 9.4 Registered users shall be able to look at friends' profiles.
10. Registered users shall be able to ask for the help.
 - 10.1 Registered users shall be able to ask help with the support team.
 - 10.2 Registered users shall be able to email support teams.
 11. Registered users shall be able to submit data.
 - 11.1 Registered users shall be able to submit images in the chat.
 - 11.2 Registered users shall be able to submit text in the chat.
 12. Registered users shall be able to make new posts.
 - 12.1 Registered users shall be able to edit posts.
 - 12.2 Registered users shall be able to delete posts.
 - 12.3 Registered users shall be able to post unlimited.

We plan to market and sell our service by providing a solution to the problem people didn't know they had while learning a language. Learning language through a course is repetitive, boring, and costly, not to mention hard to retain, but speaking to individuals is a whole new ballpark. Socially learning is one of the best ways to improve communication and that is exactly what our users need. We will promote this service using that ideology. Our product offers the unique service of learning a language through the words of an actual nativetongued individual. Not only do you have the awesome opportunity of meeting people from all around the world, but you'll also be learning while you are at it. All our user has to do is put the language they'd like to learn and they're set to go. Our user's matching system is effective and will match the best user for the individual according to their personal preference. There aren't many products offering the same service and for the user's convenience our product can be easily accessed not only in the mobile format but also in the web browser.

Usability Test Plan

URL: Lingomingo.app

Functions:

Setting Languages, Matching, Chat, Edit Profile, Posting

Test Objective:

These are the most used functions on the entire website, so it is critical to know how well these functions are doing and to see the user's perspective on how to make it easier to use. Setting languages is one of the key functions of our website. Once the user sets the language they want to teach and learn, the backend finds the user's possible matches on the basis of their language preference so we need to test this functionality. Next we want to test our matching function, everything is done in the backend once a user sets a language. Users can see all the possible matches on the home page and then select other users to add them as their friends so we need to check this functionality to see how well it works and if it shows all the matches. We would like to understand what needs some changing to be more usable. After users get matched they can start chatting with their friends. Our website is for learning and teaching the language and it is done via chatting which makes this function necessary for being tested. Profile page is one of the other functionality we want to test. This is the page where you can see users details. It is important for this page to be tested since users can make all the changes like language, location, icons, description about them and add their post in this page. Posting is another functionality used in our website, it can be found in the profile page of a user. This is the place where users write and post their daily updates. We need to make sure this functionality works perfectly for users so they are able to make posts easily.

System Setup:

We set up our server by cloning the code base from GitHub, migrating databases, running the setup script and hooking up nginx & gunicorn to work with Django. We give our user a laptop with Chrome Browser version 81.0

Starting Point:

The user must either register or log in to an account on our website which once completed is the starting point of the test. First they need to select their preferred language. Only when they choose the language it shows them their possible matches on the home screen. Setting the preference language and learning language is the first thing they need to do in our website to get possible matches, add them as friends, and chat. So, the starting point after signing up to our website is setting the languages.

Intended Users:

Our intended users are everyday people. The beauty of it is that everyone is open to learning a new language at some point in their life and our website is there to help these people actually retain the knowledge they have learned by allowing them to speak the language to somebody who understands fluently. This is the hardest part for people because a person can learn how to read, write and speak a language, but won't be able to have a conversation because they never practiced. Our website can be used by literally anyone.

URL + What Is To Be Measured:

The url of our website is lingomingo.app

We would like to measure the usability of our website and how well the user understands how to navigate through the website since the user is the most important factor in how successful the website turns out to be. We are also trying to see what feedback the user has regarding the website. We would like our website to be enjoyable and truly serve its purpose by getting the users rating on our major functions. We would like to see the users perspective on our layout and how they like it. In the end we are just measuring how satisfied the user is with our website.

Usability Task Description:

The Usability Task is for users to add language according to their preference and then check for the possible matches in the home page. After that, add the matches as their friend. Another test is to chat with the friend they added. Users need to make a post in their profile page for the next task and then need to go and edit their profile like add location or write description about them. The usability test will be completed when they get some matches after setting the language, ,adding them as friends and chatting with the friend they added. The user should be able to make the post and edit their profile successfully for the task to be completed.

Usability test table

Test/Use Case	% Completed	Errors	Comments
Setting Languages	100%	No errors	Needs to change the formatting and font sizes, works properly but doesn't look good.
Matching	100%	No errors	Font is small for the match list and the title font is too big.
Post to Profile	100%	No errors	The button for add post is small, instead of separate plus sign button, clicking on add post should be easier.
Chat	100%	No errors	Chat works fine but it's just plain text. Both people chat on the same side which makes it kinda confusing. No spacing in the chat.
Edit Profile	90%	No errors	The add icon doesn't work. The edit profile page needs to be more organized.

Questionnaire

Please put an x through the one you agree most.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I understood how to use the website.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
It took me a long time to figure out how everything worked.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The matching process was easy to use and enjoyable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Setting my language preferences was confusing and difficult to find.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please leave any comments, feedback is greatly appreciated:

Everything works properly and it is great but the look of the website is not that great, make some changes in fonts and design of the website. Some of the stuff looks all cluttered making it better will make the website great.

QA Test Plan

Non-Function Test 1

Test Objective:

We are testing how things would look and work under different browsers to ensure good user experience

HW and SW setup:

HW: LingoMingo Development Server on AWS

SW: Chrome, FireFox, Opera, IOS Chrome and LingoMingo code base on development branch as of 05/09/2020

Features to be tested:

LingoMingo's compatibility on different browsers

QA Test Plan:

Load all pages of LingoMingo on different browsers and see if it renders the way we want it to/ is functional

Test #	Test Title	Test Description	Test Input	Expected Output	Actual Output
1.1	Compatibility	Site Content Render Test	Chrome 81.0.4 64 bits	Fully Compatible	PASS
1.2	Compatibility	Site Content Render Test	Firefox Version 76.0.1 64 bits	Fully Compatible	PASS
1.3	Compatibility	Site Content Render Test	Mobile Chrome Version 81 on iOS 13.3	Partially Compatible	FAILED
1.4	Compatibility	Site Content Render Test	Opera Version 68.0.3 64 bits	Fully Compatible	PASS

Non-Function Test 2

Test Objective:

We are testing LingoMingo's load speed for both the pages to ensure quick and snappy experience.

HW and SW setup

HW: LingoMingo Development Server on AWS

SW: Chrome and LingoMingo code base on development branch as of 05/09/2020

Features to be tested:

LingoMingo's pages load speed on browsers,

QA Test Plan:

We use Chrome's built-in auditing tool [Lighthouse](#) to perform page load speed test

Test #	Test Title	Test Description	Test Input	Expected Output	Actual Output
2.1	Performance	Load Speed	/ (logged in and not logged in)	<4.0 seconds for load time	2.9 s PASS
2.2	Performance	Load Speed	/profile	<4.0 seconds for load time	50s FAILED (with 50k posts, need to implement pagination)
2.3	Performance	Load Speed	/settings	<4.0 seconds for load time	2.9s PASS



Non-Function Test 3

Test Objective:

We are testing LingoMingo's database queries to ensure fast searching of data.

HW and SW setup:

HW: LingoMingo Development Server on AWS

SW: Chrome and LingoMingo code base on development branch as of 05/09/2020

Features to be tested:

LingoMingo's retrieval speed from database.

QA Test Plan:

We wrote scripts to test query time for 50k post entries on our database

Test #	Test Title	Test Description	Test Input	Expected Output	Actual Output
3.1	Performance	Query Time	Search Post by ID	<1 seconds for load time	0.001977s PASS
3.2	Performance	Query Time	Search Post by Content	<1 seconds for load time	0.001975s PASS
3.3	Performance	Query Time	Search Post by Profile	<1 seconds for load time	0.002739s PASS

Non-Function Test 4

Test Objective:

We are testing image uploading and to make sure image format isn't a concern.

HW and SW setup:

HW: LingoMingo Development Server on AWS

SW: Chrome and LingoMingo code base on development branch as of 05/09/2020

Features to be tested:

Images shall be uploaded in jpg, jpeg, or png formats.

QA Test Plan:

We will upload different formats of files in extreme conditions: image size, file size, non image files

Test #	Test Title	Test Description	Test Input	Expected Output	Actual Output
4.1	Data Integrity	Image Upload Test	LARGE IMAGE SIZE PNG/JPG	5k by 5k pixels Pass	PASS
4.2	Data Integrity	Image Upload Test	LARGE FILE SIZE PNG/JPG	Pass if <100MB	PASS
4.3	Data Integrity	Image Upload Test	NON IMG FILES	Does not get uploaded	PASS

Non-Function Test 5

Test Objective:

We are testing our site's ability to rescale in size in different browsers.

HW and SW setup:

HW: LingoMingo Development Server on AWS

SW: Chrome and LingoMingo code base on development branch as of 05/09/2020

Features to be tested:

Elements in screen shall be resized automatically without user interaction when being loaded in all the different platforms supported by the site

QA Test Plan:

We will stretch and resize LingoMingo's pages and see if everything scales automatically.

Test #	Test Title	Test Description	Test Input	Expected Output	Actual Output
5.1	Look and Feel Standards	Element Resize Test	Chrome	Resizeable, PASS	PASS
5.2	Look and Feel Standards	Element Resize Test	FireFox	Resizeable, PASS	PASS
5.3	Look and Feel Standards	Element Resize Test	Opera	Resizeable, PASS	PASS

Code Review

Our style of coding is eXtreme Programming (XP). This is the style that works best for us because we are such a small group of people working on the project. As a group we focus on simplicity first and then when things work we try to improve each aspect of our application. We also spend a lot of time working together and coding together on zoom calls and discord chats. This has helped with front end and back end working together.

From Arjun Bista to Sawara Bhattarai

The screenshot shows an email interface with a message from Arjun Bista to Sawara Bhattarai. The message is dated Sun 5/10/2020 2:16 PM and includes a file attachment named 'welcome.html' (3 KB). The message content is as follows:

Hello Sawara,
I looked on your welcome page, it looks good. Though I found some space for improvements for the frontend part. I have given some feedback and hope these comments are useful to you.
Regards,
Arjun Bista

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <!-- code review for welcome page
4   - Code looks good but still there is space for improvement.
5   | font is small, you can increase font size
6   - Also, I would like you to change background color or you
7   | can use same colors instead of two different.
8   -I would also recommend you to use bootstrap's version 4.| 
9   |-->
10
11 <head>
12   <meta charset="utf-8">
13   <meta name="viewport" content="width=device-width, initial-scale=1">
14   <title>LingoMingo</title>
15   <meta name="description" content="Free Bootstrap Theme by BootstrapMade.com">
16   <meta name="keywords" content="free website templates, free bootstrap themes, free template, free bootstrap, free
17
18   <link rel="stylesheet" type="text/css" href="https://fonts.googleapis.com/css?family=Open+Sans|Candal|Alegreya+Sans">
19   <link rel="stylesheet" type="text/css" href="../css/font-awesome.min.css">
20   <link rel="stylesheet" type="text/css" href="../css/bootstrap.min.css">
```

Sawara's Code Fixes

```

<link href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Baloo&lt;/head>
<!-- Template Main CSS File -->
<link href="static/css/homepage.css" rel="stylesheet">

<!-- Vendor CSS Files -->
<link href="static/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
<link href="static/vendor/iconfont/font-awesome.min.css" rel="stylesheet">
<link href="static/vendor/hexicons/css/hexicons.min.css" rel="stylesheet">
<link href="static/vendor/animate.css/animate.min.css" rel="stylesheet">
<link href="static/vendor/venobox/venobox.css" rel="stylesheet">
<link href="static/vendor/owl.carousel/assets/owl.carousel.min.css" rel="stylesheet">

dy>
----- Header ----->
<header id="header" class="fixed-top d-flex align-items-center">
<div class="container d-flex align-items-center">
<div class="logo mr-auto">
<h1><a href="index.html">LingoMingo</a></h1>
</div>
<nav class="nav-menu d-none d-lg-block">

```

From Arjun Bista to Cassie Sherman

peer code review

Arjun Bista
Sun 5/10/2020 2:59 PM
To: cassiesherman630@gmail.com

setting.html 11 KB

Hello Cassie,
Your code looks good and has followed all the styles that we have discussed. You have done a great job. I don't see much room for the improvement, though I found a small glitch need to fix. Hope my comments will help you.
Regards,
Arjun Bista

```

login.html  o welcome.html  o setting.html  ●  o registration.html  o registration1.html
1  <!DOCTYPE html>
2  <html lang="en">
3
4  <!-- peer code review for setting page
5  - Wow, everythings looks great. It is simple, neat, clean,
6  |   easy to use and well designed.
7  - I found that you need to work on email notification button,
8  |   one of the button is not working.  -->
9
10 <head>
11    <meta charset="utf-8">
12    <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.10.2/jquery.min.js"></script>
13    <link rel="stylesheet" href="../css/settings.css">
14
15    <script src="jquery.js"></script>
16    <script>
17      $(function(){
18        $("#includedContent").load("nav.html");

```

Cassie's Fixes

 cassie sherman <cassiesherman630@gmail.com>
to Arjun ▾

7:44 PM (16 minutes ago) ⚡ ⌂ ⌂ ⌂

Hey Arjun,

I went ahead and fixed the button. Thanks for the feedback.
Below is the fixed button code.

```
<div class="modal-content">
  <div class="modal-header">
    <button type="button" class="close" data-dismiss="modal"></button>
  </div>
  <div class="modal-body">
    <p>Are you sure you want to deactivate your account? </p>
  </div>
  <div class="modal-footer">
    <button type="button" class="btn btn-primary" data-dismiss="modal">Yes, I am
      sure.
    </button>
    <button type="button" class="btn btn-primary" data-dismiss="modal">Cancel
    </button>
  </div> <!-- Modal Footer -->
</div> <!-- Modal content -->
```

From Cassie to Mariam

Code Review for match.html ⓘ

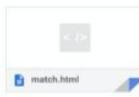
 cassie sherman <cassiesherman630@gmail.com>
to mariamshahab2 ▾

9:35 PM (0 minutes ago) ⚡ ⌂ ⌂ ⌂

Hey Mariam,

Your match front end looks good. A list Only one match comes up though. I think it would be cool if it worked like Tinder where instead of all the matches appearing on one page, you could swipe through them. Otherwise the actual match looks good.





Mariam's Fixes

cassie sherman 9:36 PM (13 minutes ago)
Hey Mariam, Your matching front end looks good. A list Only one match comes up though. I think it would be cool if it worked like Tinder where instead of all th

Mariam Shahab <mariamshahab2@gmail.com> 9:49 PM (0 minutes ago)
to cassie ▾

Hey Cassie, I fixed the matching and now it shows every user you're matched with on a card. I will try to work on getting it to look like tinder swiping, but for now take a look a the layout and tell me what you think of it. I'm still working on the Friends portion on the left side. I'm also having problems getting the 2 buttons in the card to span the length of the card footer. If you have any tips lmk.



The screenshot shows a web browser window for the LINGOMINGO application. The title bar says 'LINGOMINGO'. The main content area is titled 'Find People' and displays a grid of user profiles. Each profile card includes a circular icon with a bear head, the user's name (e.g., MARIAM, JAMES, JOHN, JOJO), their location (United States), and their language skills (Learning English, Learning Spanish, English, Spanish). Below each card are two buttons: 'Add Friend' and 'Meet'. The bottom of the page has a footer with links: 'Index.html', 'home.html', 'lingomingo.css', 'register.html', 'password_change_done.html', and 'password_change_form.html'. A small note at the bottom left says 'IF THIS IS EVERY CARD IN PROFILE LIST #0 ONLY CLASSIFIED AS 0'.

From Mariam To Arjun

Mariam Shahab <mariamshahab2@gmail.com>
to arjumbista428 +

Hey Arjun, I really thought the register page is great, the only thing I would suggest is to add that 'By registering, the user accepts the terms & condition'. This is really important for us to include, also I'm not sure if the password requirements are on the page yet, I saw it on the register page in the front end folder, just make sure to implement it on the actual website when it's done. Great job with this. It was very well designed!

```
html  home.html  lingomingo.css  register.html  login.html  register_plain.html
(% extends 'mainapp/base.html' %)
(% block title %)Register!%endblock
(% load crispy_forms_tags %)

{# The reason why the register page is great, the only thing I would suggest is to add
   that 'By registering, the user accepts the terms & condition'. This is really important
   for us to include, also I'm not sure if the password requirements are on the page yet,
   I saw it on the register page in the front end folder, just make sure to implement it
   on the actual website when it's done. Great job with this.-->

(% block content %)

<style type="text/css">...
| 
<script>
    document.getElementById("nav-signup").className += " active";
</script>

<div class="registration-form">
    <form method="post" class="form-group">
        (% csrf_token %)
        {{ form|crispy }}
        <button type="submit" class="btn btn-success">Register</button>
        <br/>
        <br/>
        <p class="text-center">Already have an Account?<a href="{% url 'login' %}"> Sign in</a></p>
    </form>
</div>
(% endblock %)
```

Arjun's Fixes



Arjun Bista
to Mariam ▾

Hey Mariam,

Thanks for your feedback, I have added "Terms and Conditions" in the register page. I have attached the screenshot of the code.

```
<div class="form-group">
  <B> Birthday</B>
  <input type="Date" class="form-control" placeholder="Birthday" required="required">
</div>

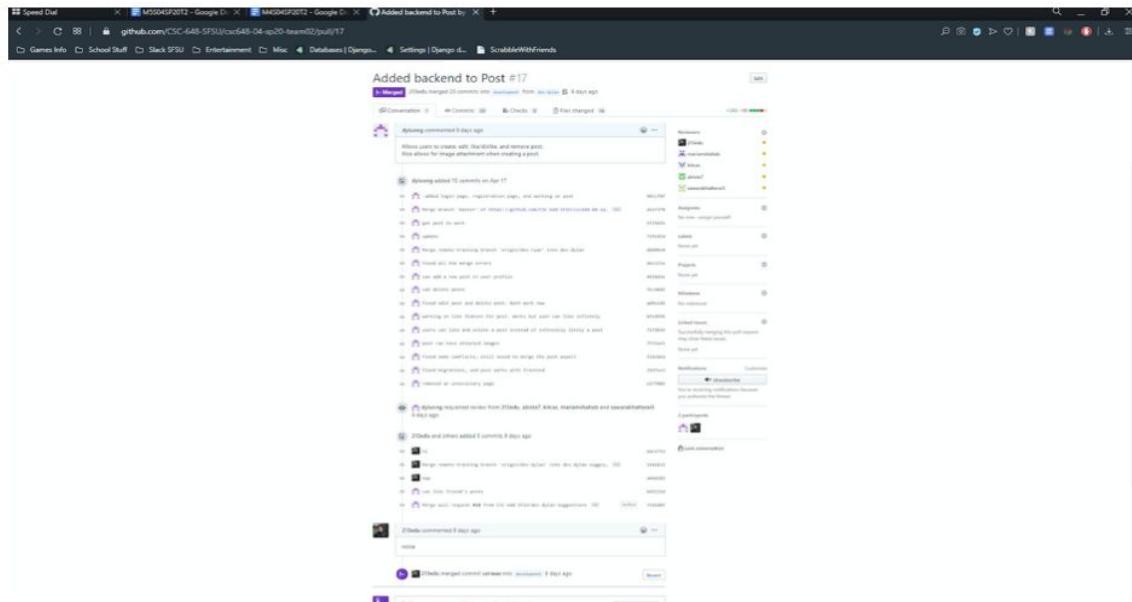
<div class="form-group">
  <p class="text-center">By signing up you accept our <a href="#">Terms and Conditions</a></p>
</div>

<div class="form-group">
  <button type="submit" class="btn btn-primary btn-block">Register</button>
</div>
```

Regards,
Arjun Bista

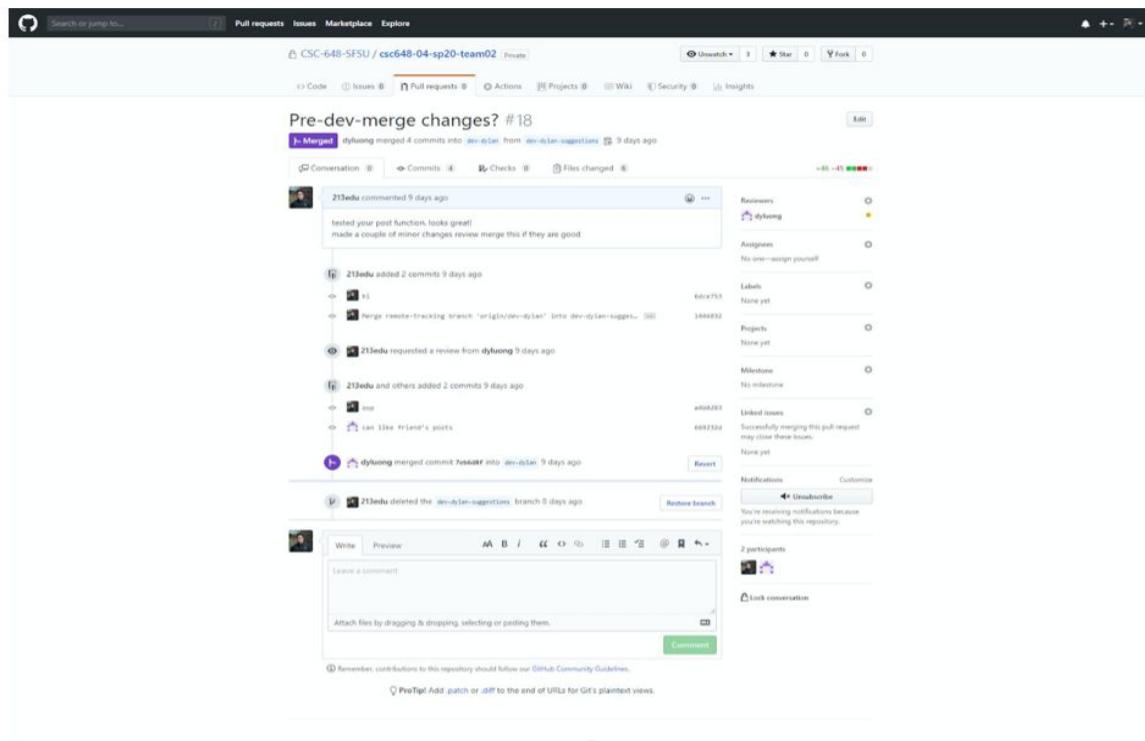
• • •

From Dylan to Ryan



Ryan's Fixes

<https://github.com/CSC-648-SFSU/csc648-04-sp20-team02/pull/17/files>

From Ryan to dylanDylan's Fixes

See:

<https://github.com/CSC-648-SFSU/csc648-04-sp20-team02/commit/7eb6d8f66041e263d7460b48b2ae2c73ff4e19a>

Best Practices For Security

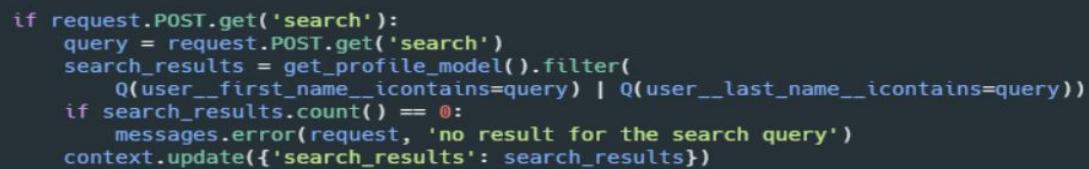
In LingoMingo, the most important assets are our user's information, such as passwords, chat logs, pictures in their posts. We encrypt our user's password using Django's authentication system which by default uses PBKDF2 algorithm with SHA256 hash with salt. In the following image, our password field value in the database is stored as <algorithm>\$<iterations>\$<salt>\$<hash>

(<https://docs.djangoproject.com/en/3.0/topics/auth/passwords/>)



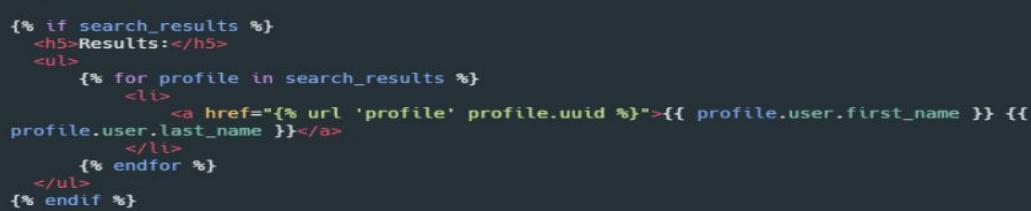
A screenshot of a Django password change form. The 'Username' field contains '213edu'. Below it, a note says 'Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.' The 'Password' field shows a long, complex string of characters: 'algorithm: pbkdf2_sha256 iterations: 180000 salt: 3vB2jt***** hash: fWax61*****'. A note below says 'Raw passwords are not stored, so there is no way to see this user's password, but you can change the password using this form.'

Users have the option to change their personal profile, create posts containing photos/text, and search for users. We do validation on every POST request that the user passes in.



```
if request.POST.get('search'):
    query = request.POST.get('search')
    search_results = get_profile_model().filter(
        Q(user__first_name__icontains=query) | Q(user__last_name__icontains=query))
    if search_results.count() == 0:
        messages.error(request, 'no result for the search query')
    context.update({'search_results': search_results})
```

For example, when users pass in a search query for searching other's profiles by name, we use Django's query method to get the result as QuerySet then returns the QuerySet to our template rendering that will only output the name of the users, Preventing SQL injections. As for pictures and chat, we use Django's built-in user authentication verification to ensure only registered users with sufficient permission can view the requested files and logs.



```
{% if search_results %}
<h3>Results:</h3>



{% for profile in search_results %}
    <li>
        <a href="{% url 'profile' profile.uuid %}">{{ profile.user.first_name }} {{ profile.user.last_name }}</a>
    </li>
{% endfor %}


{% endif %}
```

Adherence To Original Non-Functional Specs

Security

Login shall be required to utilize website and learn a language	DONE
User's shall verify their emails when registering an account	N/A
User's shall be able to set a display name different than their email	DONE
User's emails shall not be displayed by default	DONE
Passwords shall be encrypted before storing in the database	DONE
Content uploaded by users shall be audited by the administrator	ON TRACK
User's payment information shall be encrypted	Issue, we don't have premium accounts yet
This site shall not accept any third party cookies	N/A

Audit

1. New registrations shall be audited by the administrator	N/A
2. New registrations shall be approved by the administrator	N/A
3. Users shall not be able to login to administrator accounts	DONE

Performance

1. The site loading time shall be less than 4 seconds for all screens	ON TRACK
2. Application shall be able to retrieve information from the database and react in a timely manner.	DONE
3. The site shall handle requests asynchronously following a REST format	N/A

Capacity

1. The total data storage for the site shall not exceed 80% of the server's capacity for this site	ON TRACK
2. The website shall be capable of handling at least 50 users	DONE
3. The website shall be scalable, so that new features can be added easily	DONE

Reliability

1. Downtime for maintenance shall be less than 3 hours per month	ON TRACK
2. Downtime for maintenance shall not affect the site's main functionality	DONE
3. In all cases, users shall be informed of downtime for maintenance, either via an announcement on the main page, or e-mail	DONE

Recovery

1. In case of a total site failure, the whole site shall be shut down for revision.	DONE
2. If the site is broken, the mean time to recovery shall not exceed one day.	ON TRACK
3. User data is the most valuable aspect and priority will be placed on recovering such data in case of total failure.	DONE

Data Integrity

1. Database tables shall be backed up weekly	DONE
2. Administrator shall be able to execute a recovery if needed	DONE
3. Image sizes shall be restricted to at most 1 megabyte	DONE
4. Images shall be uploaded in jpg, jpeg, or png formats	DONE
5. Images will be saved on Amazon's s3 storage server	DONE
6. URLs to image will be stored on the database	DONE

Compatibility

1. The site shall be compatible with the last version of the Safari browser version 11.1.2	DONE
2. The site shall be compatible with the last version of the Firefox browser version 70	DONE

3. The site shall be compatible with the last version of the Chrome browser version 80	DONE
4. Third party applications shall not be able to modify any content that may affect the site compatibility	DONE
5. Content should be able to be ignored by most popular ad-block services.	DONE
6. The site shall be able to account for any other compatibility issues created as a result of browser updates in the future	DONE
7. The site should be compatible to escalate to new databases	DONE

Conformance with Coding Standards

1. Architecture and design standards shall meet all the requirements listed under the High-level system architecture and technologies used section of this document	DONE
2. Design pattern is to be strictly enforced with all aspects of the site.	DONE
3. Appropriate documentation must be created for all code that is individually written for future maintenance.	DONE
4. Production code shall not have any log or output to the console.	DONE
5. All errors must not halt the web application without appropriate error handling.	DONE
6. Only working code that meets all code standards shall be submitted to the main branch of the project repository	DONE
7. Code shall be thoroughly tested and debugged before being considered working code	DONE
8. All internal errors and exceptions encountered when writing or modifying code shall be stored in a log	ON TRACK

9. Any error that can affect the site's functionality shall be reported to the user	DONE
10. Errors shall be handled in a way that does not affect site functionality	DONE
11. The whole production cycle of the site shall be finished at least one week before the delivery date	DONE
12. The site shall be tested and debugged as a whole product at least one week before the delivery date	DONE
13. The site shall not be launched without all priority one features finished and working	DONE
14. All major changes to the application shall be discussed by the team and communicated to the class CTO.	DONE

Look and Feel Standards

1. The application and its layouts shall look professional	DONE
2. The site shall be simple, so that it is usable to a wide range of users, and all previously mentioned parties	DONE
3. Targeted users will be the main priority for ensuring usability and readability.	DONE
4. Elements on screen shall meet the compatibility standards of all supported browsers	DONE
5. Elements on screen shall meet the compatibility standards of all supported browsers on mobile devices	DONE
6. Elements on screen shall be aesthetically pleasing	DONE
7. The site shall be able to work correctly without mouse interaction	DONE

8. The site shall be able to work correctly without keyboard interaction	DONE
9. Elements in screen shall be resized automatically without user interaction when being loaded in all the different platforms supported by the site	DONE
10. Application's user interface shall make it easy for users to find what they are looking for.	DONE

Scalability

1. The CPU instance and storage capacity shall be updated to be able to handle a large amount of users if needed	ON TRACK
2. It should be able to add extra resources and also keep the structure intact.	DONE
3. Individual users should be able to use the app efficiently and properly even when the number of users keeps increasing.	DONE

Web Site Policies

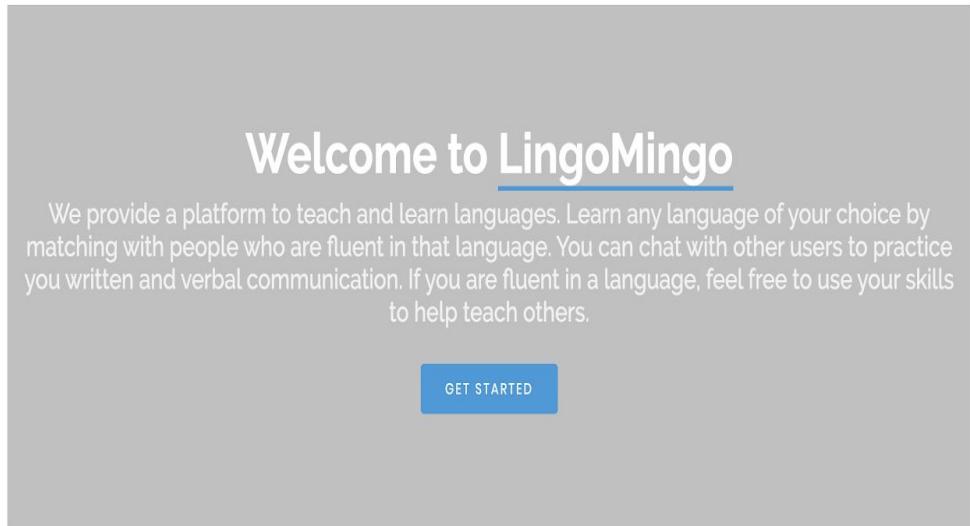
1. A link to the policies of this site shall be always visible in its settings page to be accessible by all the parties	ON TRACK
2. The site will not store any payment information.	NOT AVAILABLE
3. Users payment information shall be kept confidential and secure	NOT AVAILABLE
4. The website shall allow users to register an account.	DONE
5. Email verification shall be implemented upon registration.	DONE

6. User's shall agree to the application's privacy policy before using the product.	DONE
---	------

Final Product - Demo Pictures

Welcome Page - P1

LINGOMINGO [Register](#) [Sign In](#)



Welcome Page - P2

LINGOMINGO

Register Sign In

What You Can Do



Match with Users

Match with other users who share a common language and are fluent in the new language you want to learn.



Learn a new language from others

Chat with your matches in the language you would like to learn.



Teach a new language

Chat with your matches and help them practice written and spoken languages.

Welcome Page - P3

Testimonials

What other users have to say about LingoMingo.

Met some awesome people on LingoMingo who really helped me. My written Spanish has gotten so much better.

Mariam Shahab

User - Wants to Learn

Register Page

LINGOMINGO

Register Sign In

First name*

Last name*

Email*

Username*

Required. 150 characters or fewer. Letters, digits and @/_/-/_ only.

Password*

Your password can't be too similar to your other personal information.
Your password must contain at least 8 characters.
Your password can't be a commonly used password.
Your password can't be entirely numeric.

Password confirmation*

Enter the same password as before, for verification.

By registering, you agree to our Terms & Conditions*

Register

Already have an Account? [Sign in](#)

Sign In Page

LINGOMINGO

Register Sign In

Username*

Password*

Don't have a account? [Create one here](#)

Profile Set Up

LINGOMINGO Friends Messages Profile John ▾

Personal Info





First Name: Last Name:
Location: Email:

About Me

nothing here

LINGOMINGO Friends Messages Profile John ▾

Location: Email:

About Me

nothing here

Languages You Know

Ex: English

Learn A Language

Ex: Spanish

Friends and Matches

The screenshot shows the LINGOMINGO user interface for managing friends and matches. At the top, there is a navigation bar with links for Friends, Messages, Profile, and a dropdown for John. The main content area is divided into three sections:

- Friend Requests:** A section containing two buttons: "ADD FRIENDS" and "SENT".
- Your Matches:** A section showing a small icon with a question mark and a number.
- Find Friends:** A section with a search bar labeled "Search By Name" and a green "Search" button.

Chat and Messages

The screenshot shows the LINGOMINGO application interface. At the top, there's a navigation bar with links for Friends, Messages, Profile, and a dropdown for 'yugi'. Below the navigation is a sidebar titled 'Recent Matches' containing two entries: 'yugi oh' and 'okita bushido'. The main area displays a chat conversation between the user and another person. The messages are as follows:

- User: does this work
Time: an hour ago
- Other Person: I hope so
Time: an hour ago
- Other Person: omg
Time: an hour ago
- Other Person: marry me
Time: an hour ago
- User: yes
Time: an hour ago
- Other Person: わたしきたああああ
Time: an hour ago
- Other Person: sakdaskda
Time: an hour ago

At the bottom of the message list, there's a placeholder 'Type a message' and a small microphone icon.

Profile Page

LINGOMINGO

Friends Messages Profile John ▾



JOHNWAYNE

Edit Profile

Tags : Easy to Understand Friendly

ABOUT

Name: **John Wayne**

I can teach:

Location:

I want to learn:

About Me: **nothing here**

Posts

Add post [+](#) [edit mode](#)

Settings Page - P1

The screenshot shows a user interface for account settings. At the top, there is a navigation bar with links for Friends, Messages, Profile, and a dropdown for 'John'. Below the navigation is a header 'LINGOMINGO'. On the left, a sidebar titled 'Account Settings' lists 'Notifications' (which is highlighted with a blue background), 'Privacy', 'Security and Login', 'Help', and 'Account'. The main content area is titled 'Notifications' and contains the question 'Would you like to receive email notifications?'. It includes three radio button options: 'Receive emails about LingoMingo updates and new features.' (selected), 'Receive emails about new matches.', and 'Both'.

Settings Page - P2

The screenshot shows a user interface for a social media platform named LINGOMINGO. At the top, there is a navigation bar with links for Friends, Messages, Profile, and a dropdown menu for 'John'. Below the navigation bar is a sidebar on the left containing the following menu items:

- Account Settings
- Notifications
- Privacy** (This item is highlighted with a blue background)
- Security and Login
- Help
- Account

To the right of the sidebar, the main content area is titled 'Privacy' and contains two checked options:

- Show location on profile.
- Show last name on profile.

Settings Page - P3

The screenshot shows a user interface for a service named LINGOMINGO. At the top right, there are links for Friends, Messages, Profile, and a user account named Ryan with a dropdown arrow. Below this, a navigation bar has several items: Account Settings, Notifications, Privacy, Security and Login (which is highlighted with a blue background), Help, and Account.

The main content area is titled "Security and Login". It contains two sections: one for reporting suspicious activity and another for changing the password. A "Change Password" button is visible at the bottom of the password section.

A small URL bar at the bottom left shows the address: localhost:8000/settings/#account.

Settings Page - P4

Account Settings
Notifications
Privacy
Security and Login
Help
Account

Help

Contact LingoMingo support for any questions or concerns you may have at
support@lingomingo.app.

localhost:8000/settings/#help

Settings Page - P5

The screenshot shows the LingoMingo settings page. At the top right, there are links for Friends, Messages, Profile, and a user named Ryan with a dropdown arrow. Below this, there are two main sections: 'Account Settings' and 'Account Status'. The 'Account Settings' section contains links for Notifications, Privacy, Security and Login, Help, and Account (which is highlighted with a blue background). The 'Account Status' section contains text about taking a break from the service and offers 'Deactivate Account' and 'Delete Account' buttons.

Account Settings	Account Status
Notifications	Taking a break from LingoMingo? You can deactivate your account here:
Privacy	Deactivate Account
Security and Login	Mastered all languages? Delete your account here:
Help	Delete Account
Account	

Key DB Tables (1-2 Pages)

Show a snapshots of all important DB tables such as user table, item table, category table. Make it easy to read and review

User

#	id	password	last_login	is_superuser	username	first_name	email	is_staff	is_active	date_joined	last_name
1	1	pbkdf2_sha256\$18000\$NxDy1FXgTXSL2\$rIAI/z...	2028-05-21 13:42:57.989425	<input checked="" type="checkbox"/>	dylan			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2028-05-11 19:28:28.869568	
2	2	pbkdf2_sha256\$18000\$57jeEqzU5KrlMs\$sn19wDx...	2028-05-21 13:56:59.453575	<input type="checkbox"/>	yugion	yugi	yugioh@duel.com	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2028-05-11 19:23:48.748954	oh
3	3	pbkdf2_sha256\$18000\$5QawaxXqLujS1sPUhe...	2028-05-21 13:16:13.460233	<input type="checkbox"/>	okita	okita	okita@mail.com	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2028-05-28 16:39:47	bushido
4	4	pbkdf2_sha256\$18000\$u9GlyeoMSFLK\$wScXGtd...	2028-05-21 13:28:28.563958	<input type="checkbox"/>	john	John	johnwest@mail.com	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2028-05-21 13:27:14.505141	West

Profile

```
class Profile(models.Model):
    GENDERS = (
        ('M', 'Male'),
        ('F', 'Female'),
        ('O', 'Other'),
    )
    country_list = []
    for c in list(pycountry.countries):
        country_list.append((c.alpha_2.lower(), c.name))

    user = models.OneToOneField(User, on_delete=models.CASCADE, default=None)
    primary_language = models.ManyToManyField(Language, related_name='primary_language')
    learning_language = models.ManyToManyField(Language, related_name='learning_language')
    gender = models.CharField(choices=GENDERS, max_length=10, default='N/A')
    location = models.CharField(choices=country_list, max_length=2, null=True)
    uuid = models.UUIDField(default=uuid.uuid4)
    about_me = models.TextField(default='nothing here', null=True)
    profile_icon = models.CharField(max_length=20, default='paw')
```

#	id	gender	location	user_id	uuid	profile_icon	about_me
1	1	N/A	<null>		1 77e9e06d203b43cfa014d232f6eb059e	paw	nothing here
2	2	M	us		2 cefb0ebfe6b743f3a6b9f4efa1924b8d	hippo	Hello o/
3	3	M	jp		3 8acc2ca7ce1a46df8aa0d76394e13a75	paw	nothing here
4	4	N/A	<null>		4 0019d6192e5444bd8f6970d3a929172d	paw	nothing here

Friend

```
class Friend(models.Model):
    created = models.DateTimeField(auto_now_add=True, editable=False)
    profile_1 = models.ForeignKey(Profile, related_name="friend_creator",
        on_delete=models.CASCADE)
    profile_2 = models.ForeignKey(Profile, related_name="friend",
        on_delete=models.CASCADE)
    is_friend = models.BooleanField(default=False)
    friend_time = models.DateTimeField(auto_now=True)
```

	id	created	is_friend	friend_time	profile_1_id	profile_2_id
1	1	2020-05-20 16:41:46.875823	✓	2020-05-20 16:41:46.875823	2	3

Language



```

class Language(models.Model):
    name = models.CharField(max_length=100, null=True)
    alpha_3 = models.CharField(max_length=3, null=True)

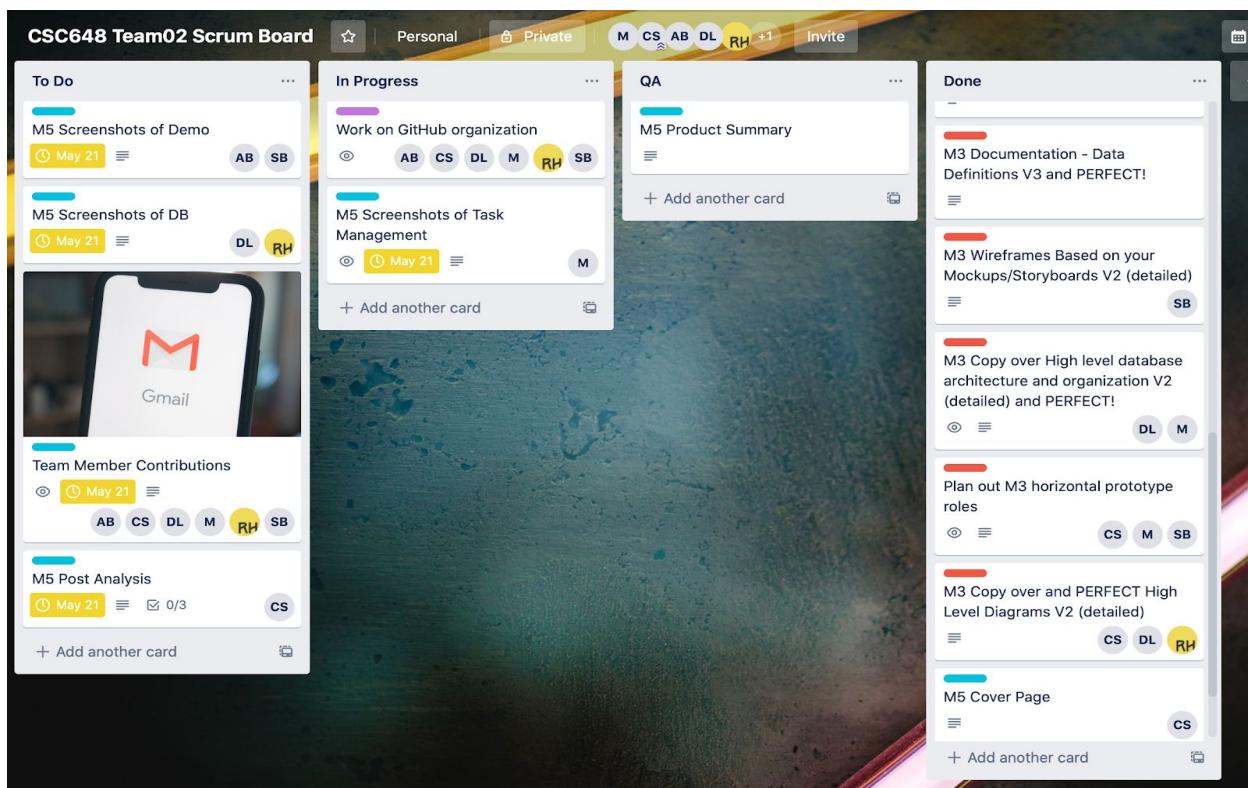
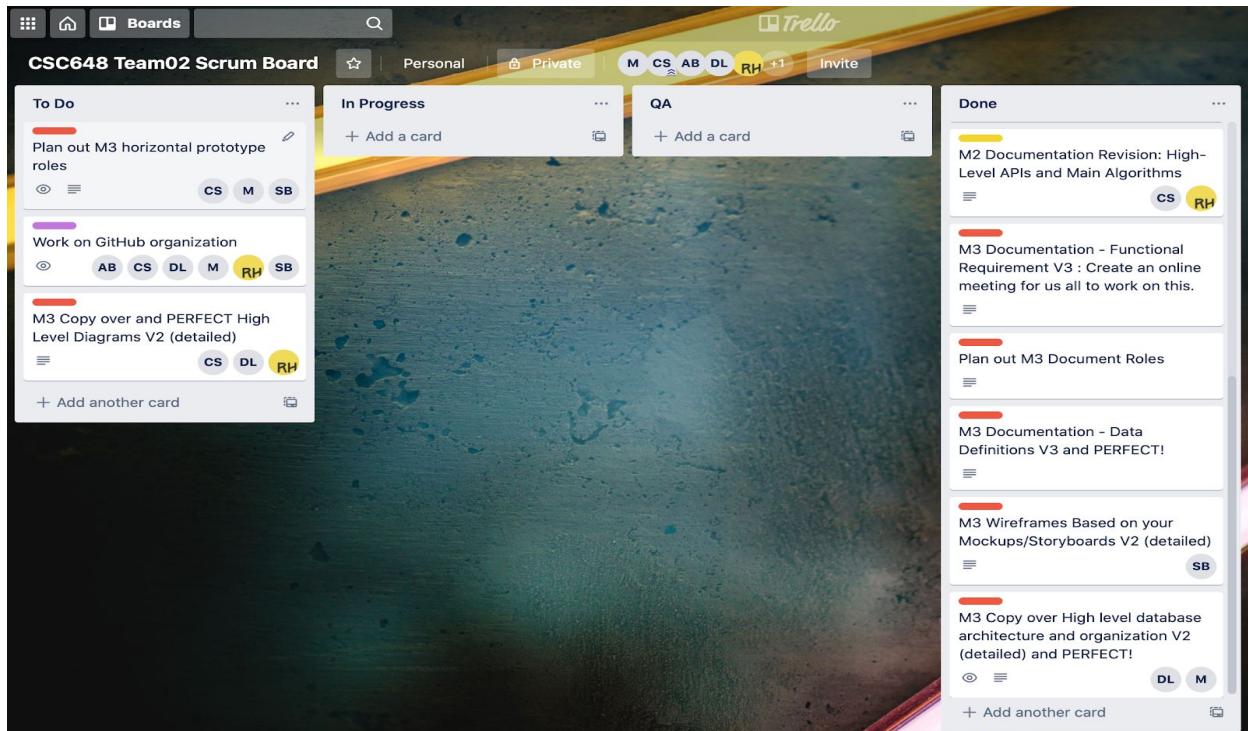
```

	id	name	alpha_3
1	1	Afrikaans	afr
2	2	Arabic	ara
3	3	Bengali	ben
4	4	German	deu

Chat Messages

	id	created_on	body	created_by_id	thread_id
1	1	2020-05-21 13:15:25.073568	hello	2	2
2	2	2020-05-21 13:16:20.526177	does this work	3	1
3	3	2020-05-21 13:16:26.754855	i hope so	2	1
4	4	2020-05-21 13:16:32.442587	omg	2	1
5	5	2020-05-21 13:16:34.200195	marry me	2	1
6	6	2020-05-21 13:16:37.067826	yes	3	1
7	7	2020-05-21 13:16:47.493832	わたしきたああああ	2	1
8	8	2020-05-21 13:34:08.557243	sakdjaskda	2	1
9	9	2020-05-21 13:38:29.068196	rerere	2	2
10	10	2020-05-21 13:38:32.003371	tteterew	2	2

Task Management System (Trello)



Team Member Contributions

AB

Arjun Bista <arjunbista428@gmail.com>

Thu 5/21/2020 11:15 AM

To: Dylan Luong

Cc: Ryan Hu <213edu@gmail.com>; Cassie Sherman; mariamshahab2@gmail.com; Sawara Bhattarai



Arjun Bista - Documentation Lead

My contributions are:

Milestone 1: worked in data entities and non-functional requirements.

Milestone 2: worked in functional requirements and application diagram.

Milestone 3: work on a sign in and sign up page(fronted).

Milestone 4: work on peer review and product summary.

Milestone 5: Helped team with documentation

What I could have improved on:

making sure that all the requirements for milestones have been met.

Regards,

Arjun Bista

...

CS

Cassie Sherman

Thu 5/21/2020 11:48 AM

To: Arjun Bista <arjunbista428@gmail.com>



I agree with your contributions.

...

 SB

Sawara Bhattarai

Thu 5/21/2020 11:17 AM

To: Dylan Luong; Ryan Hu <213edu@gmail.com>; Cassie Sherman
Cc: mariamshahab2@gmail.com; arjunbista428@gmail.com



Sawara Bhattarai- Github Master

What I contributed:

- worked on frontend: homepage and friends list page, changed few stuff in register page as given review
- made the prototype
- helped on each milestone document

What I could have improved:

I could have improved my work on handling GitHub, I could have payed more attention to it and got that extra credit if we submit milestones changes by everyone through GitHub.

Please respond to this email with either agree or disagree. If you disagree please specify what parts of my contribution in question.

Sincerely,

Sawara Bhattarai

sbhattarai@mail.sfsu.edu

bhattaraisawara15@gmail.com

 CS

Cassie Sherman

Thu 5/21/2020 11:40 AM

To: Sawara Bhattarai



I agree with your contributions.

-Cassie Sherman

...

 Dylan Luong
Thu 5/21/2020 10:38 AM

To: Ryan Hu <213edu@gmail.com>; Cassie Sherman
Cc: mariamshahab2@gmail.com; arjunbista428@gmail.com; Sawara Bhattarai

Dylan - Database Lead

What I contributed:

- creating and designing the database
- pair programming with backend lead
- helped with backend development such as implementing post
- styling edit profile

What I could've improved on:

- rereading the documentation
- finish my tasks faster, so I could contribute more in the backend development

Please respond to this email with either agree or disagree. If you disagree please specify what parts of my contribution in question.

Sincerely,
Dylan

Dylan Luong
dluong1@mail.sfsu.edu

...

 Cassie Sherman
Thu 5/21/2020 11:43 AM

To: Dylan Luong

I agree with your contributions.

...



Mariam Shahab <mariamshahab2@gmail.com>

Thu 5/21/2020 9:24 AM

To: Cassie Sherman; 213edu@gmail.com; bhattaraisawara15@gmail.com; dylan.luong98@gmail.com; arjunbista428@gmail.com



Frontend Lead: Mariam Shahab

of submissions: ~26-30

My role as frontend lead was new, but I worked on getting everyone's pages to look alike and get the content out there. If there were any frontend issues, I made sure it was somehow taken care of.

- M1
 - Fixed Layout of M1 Document, created table of contents
 - wrote the executive summary with Ryan, created a use case
 - Helped define main data items/entities and functional requirements
- M2
 - Helped write functional requirements out in detail
 - created UI mockups + storyboard with help of Sawara
 - slightly helped database lead: Dylan with any problems
 - worked on message layout for frontend
- M3
 - Created wireframes + created navbar with links to other pages
 - separated frontend layout to get ready for horizontal prototype
- M4
 - put index page to use, worked on frontend design and functionality
- M5
 - put all milestones onto m5 doc, added task management page
 - finished any last minute frontend details for demo like fixing messaging

...



Cassie Sherman

Thu 5/21/2020 11:43 AM

To: Mariam Shahab <mariamshahab2@gmail.com>



I agree with your contributions.

...



Ryan Hu <213edu@gmail.com>
Thu 5/21/2020 9:18 AM
To: Cassie Sherman
Cc: mariamshahab2@gmail.com; arjunbista428@gmail.com; Sawara Bhattarai; Dylan Luong



Ryan - Backend Lead

what I did:

I contributed mostly on Django backend logic and server deployment

what I could've improved on:

providing better documentation for frontend team
cleaner codes & comments

Please respond to this email with either agree or disagree. If you disagree please specify what parts of my contribution in question.

Sincerely,

Ryan Hu

m.me/213edu
hello@ryanhu.me
pub key @ <https://keybase.io/213edu>

(860) 8RYA-NHU

...



Cassie Sherman
Thu 5/21/2020 11:42 AM
To: Ryan Hu <213edu@gmail.com>



I agree with your contributions.

...

Cassie's Contributions



Cassie Sherman
Thu 5/21/2020 3:08 AM

To: mariamshahab2@gmail.com; 213edu@gmail.com; arjunbista428@gmail.com; Sawara Bhattarai; Dylan Luong



```
iBook-Air django % git shortlog -s -n
 0: bhattarai
 0: bhattarai
 0: luong
 0: z Costa
 0: Instr
iBook-Air django %
```

Cassie Sherman - Team Lead

I was the team lead for this project and worked mostly on front end.

What I brought to the table:

- Created meetings
- Kept up with team members on progress
- Communicated Deadlines
- Creating Settings and profile pages for posts.
- Refactored home page based on review.
- Completed sections within the milestone documents every due date.

What I could have improved on:

-One of the things I could have worked on better was keeping up with scrum meetings and towards the very end of the semester, balancing my team lead role with my other classes.

-Make sure I reread the requirements for the milestone documents multiple times and checked before submitting.

Github pushes from when this email was written:
(Linker to email)

Please respond to this email with either agree or disagree. If you disagree please specify what parts of my contribution in question.

Post Analysis (Team Lead)

Post Analysis as a Team Lead



Cassie Sherman

Thu 5/21/2020 1:55 PM

To: mariamshahab2@gmail.com; 213edu@gmail.com; Dylan Luong; Sawara Bhattarai; arjunbista428@gmail.com



This was my first time in any sort of leadership role for a school project. I feel like I faced a lot of challenges in the role especially regarding what has happened in the world recently. I will admit that I started strong with being a team lead and had an idea on how I was going to perform as a team lead. But as the semester continued I encountered challenges that needed to be faced. When it came to documentation, everyone on the team would work on a specific section. As the milestone documentation got more complicated it was my job to clarify every section was following the requirements and guidelines. There were numerous milestones where one section was missing a requirement and that was my fault. Once the quarantine happened it became challenging as a team lead to keep up with the amount of contact to keep everyone focused as the structure of school changed. I should have set a reminder on my part to contact my team daily to keep myself accountable. Our biggest issue as a team was understanding the requirements for every milestone and putting it into action. Another problem that could have been avoided by planning was in front end. When those working on front end split up the horizontal prototype we did not have a preexisting plan for what version of bootstrap we were all going to use or a plan for the styling. This lack of planning caused the combination of a cohesive horizontal prototype to be impossible. Next time I would have made sure planning was done for front end instead of just backend.

If I am a team lead in the actual industry I won't have to worry about 5 other classes and will be able to put more of my attention and planning into my team. I think I have learned a lot about how to interact with others in a professional setting and hope that I have done a decent job.

Thank you,

Cassie Sherman 😊