

SW Engineering CSC648-848-05 Spring 2023

ULingual

Team 6

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Milestone #1

2/20/23

History Table

M1V1	3/5/23

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Executive Summary

Language is everything; the world has operated and functioned through the notion of language since the beginning of civilization. The world is cultivated off of different languages and ideologies. The world has a vast diversity in cultures and is grand in landscape—San Francisco is a great example of the world's diversity as this city harbors multiple ethnicities that harbor their own language and dialects. Many people have become eager to learn more about other cultures as well as their own culture themselves. Language is both the barrier and the linkage to interactions and connections with others. Think of all the business opportunities, family connections, and cultural experiences you could expand upon if you have the knowledge of more than just one language under your sleeve. We all only share a single life to enjoy the rare experiences it has to offer. Why not expand your experiences by learning a new language or expanding upon your culture's own language? This is why we introduced ULingual as the next service to connect people together across the world, through language.

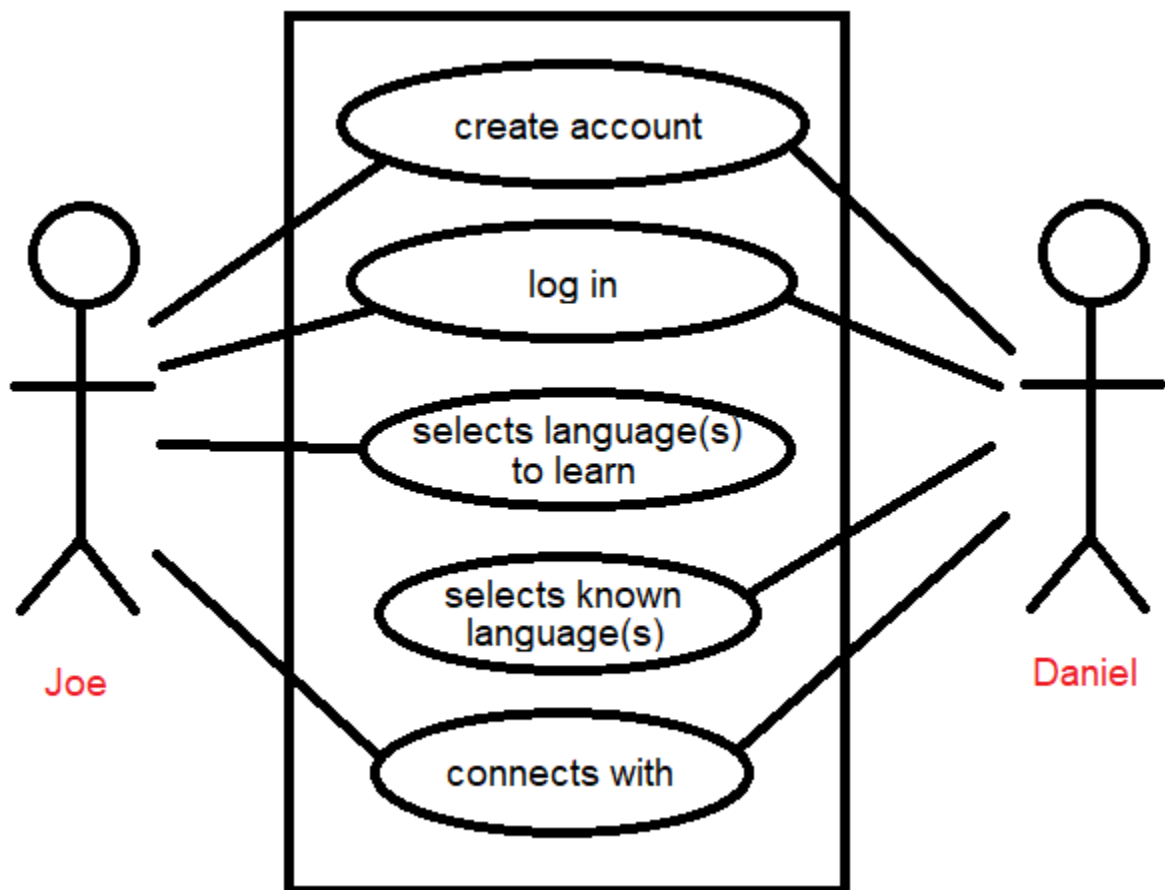
ULingual is a language exchange platform that connects native speakers with non native speakers of a given language. Traditional language learning methods without conversational practice can be time consuming and ineffective. Together, users can learn and practice speaking a language with each other over a video streaming connection to experience a more personal and intriguing learning environment. ULingual understands that learning a language is difficult, practicing by speaking is great; however, it's also important to hear the language often. Diving yourself into the language, listening to the language, and connecting with its culture. This is why ULingual recommends music playlists based on the language you are trying to learn. ULingual also recommends movies, television shows, and books based on the language you want to learn so that way you can further envelop yourself and get a better grasp of the language. What makes ULingual stand out from the rest, lies in our alternative learning methods. Speaking the language is half the battle. Here at ULingual we believe it's critical to immerse yourself in the language by getting involved with its culture, whether through music, books, movies, or television. Hearing is just as important as speaking; to be able to identify what someone else is saying is important, as you can then properly know how to respond to them. Learning a language can be daunting and also intimidating, this is why we not only offer services to connect you with native speakers but also offer services that connect you with others who are also trying to learn the same language as you. Being able to practice together, in a judgment free environment, collaborating and improving each other's knowledge and skill.

Main Use Cases

Use Case 1: Learning Language Discreetly

Joe is a third generation Mexican who is not very fluent in Spanish. He attempts to speak what little he knows of Spanish to his family and friends but gets teased for not being fluent. Feeling disconnected from his family and friends, Joe sets out to improve his Spanish in a better learning environment. Joe finds ULingual, creates an account and selects Spanish as the language he wants to learn. Joe is connected with Daniel, a native Spanish speaker, and is able to learn Spanish discreetly with no judgment.

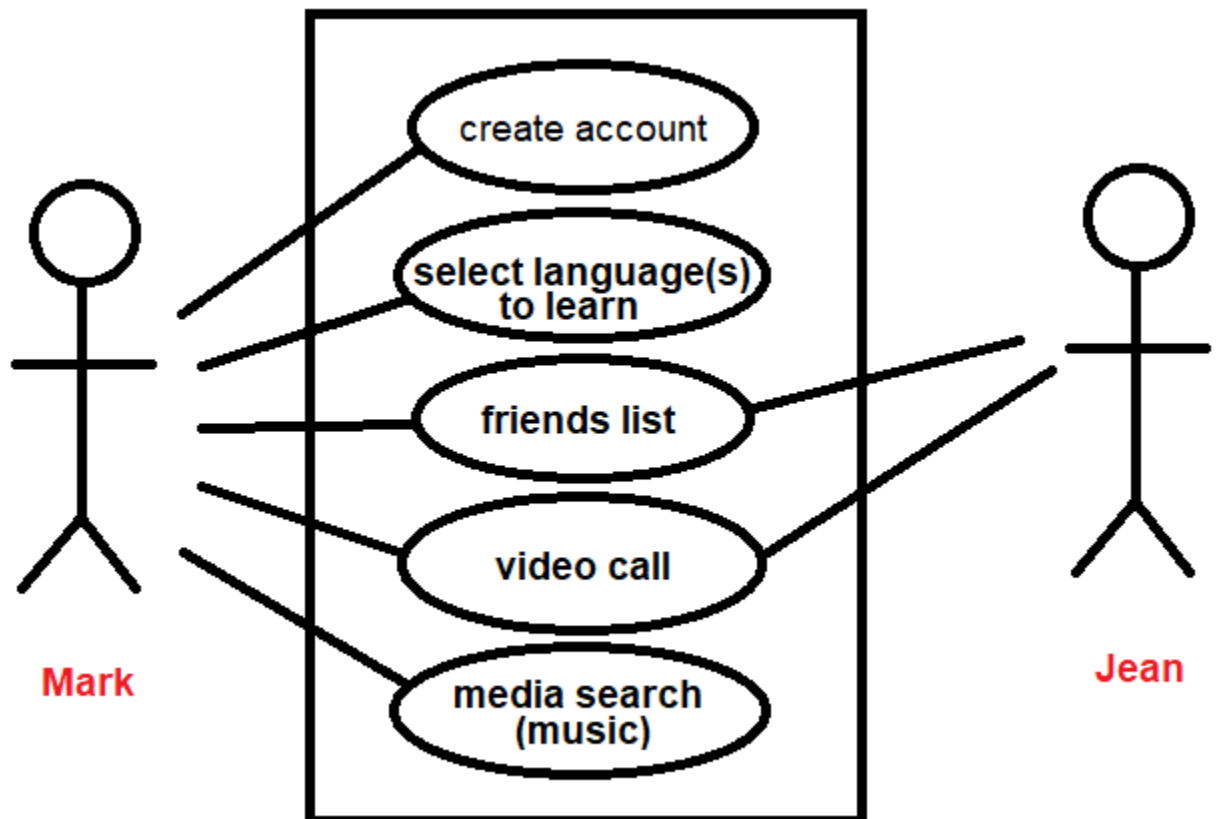
Diagram:



Use Case 2: Interracial/Cultural Relationships

Mark has been dating Jolyne for about 6 months. Jolyne is fluent in French. Mark only speaks English but wants to learn French to better connect with his girlfriend and to also impress her family. Mark finds ULingual, creates an account, selects French as his desired language. He connects with Jean who is fluent in French and Jean teaches Mark the basic introductions and greetings in French. Mark friends Jean on the website, and they have weekly video calls to improve Mark's French. Mark finds a French playlist for music from ULingual. Mark plays these sounds in front of his girlfriend Jolyne and she's really surprised he knows the songs. Mark is happy he's building a better connection with his girlfriend through language.

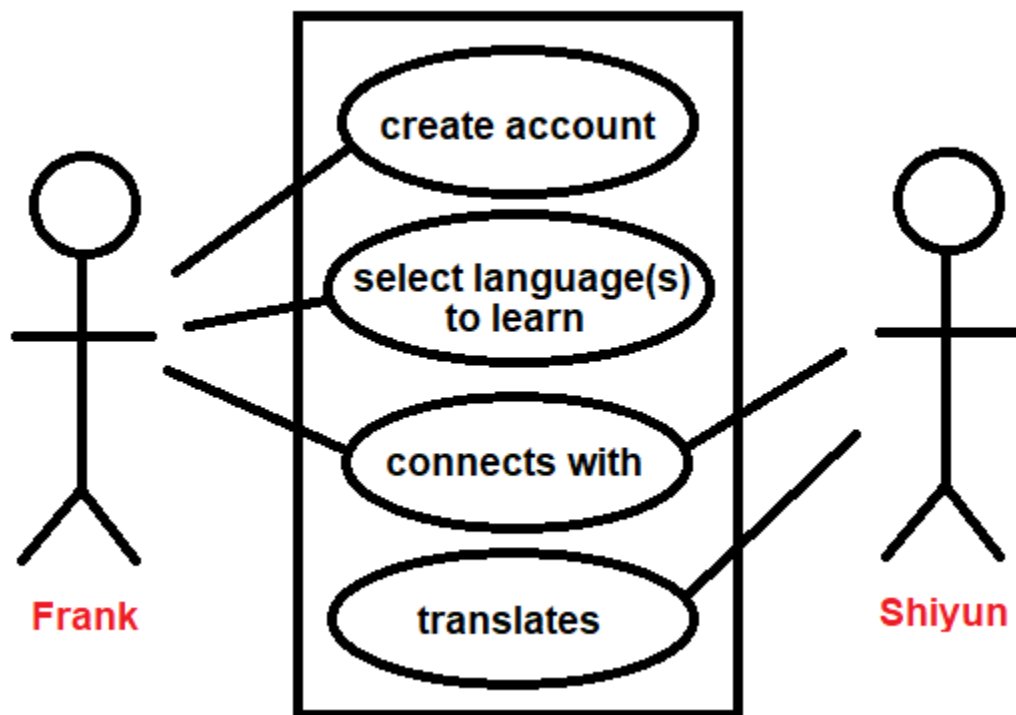
Diagram:



Use Case 3: Global Economy/Business Purposes

Frank is a representative for a biotech company who will be flying to South Korea in a week for a business meeting for a potential partnership. Frank believes it's important he learns basic Korean to further increase his partnership potential (he'll have a translator but he believes saying some things himself is worth more). Frank finds ULingual, creates an account, selects Korean as the language he wants to learn. Frank connects with Shiyun and they converse; Frank is able to obtain basic introductions to Korean for his business ventures.

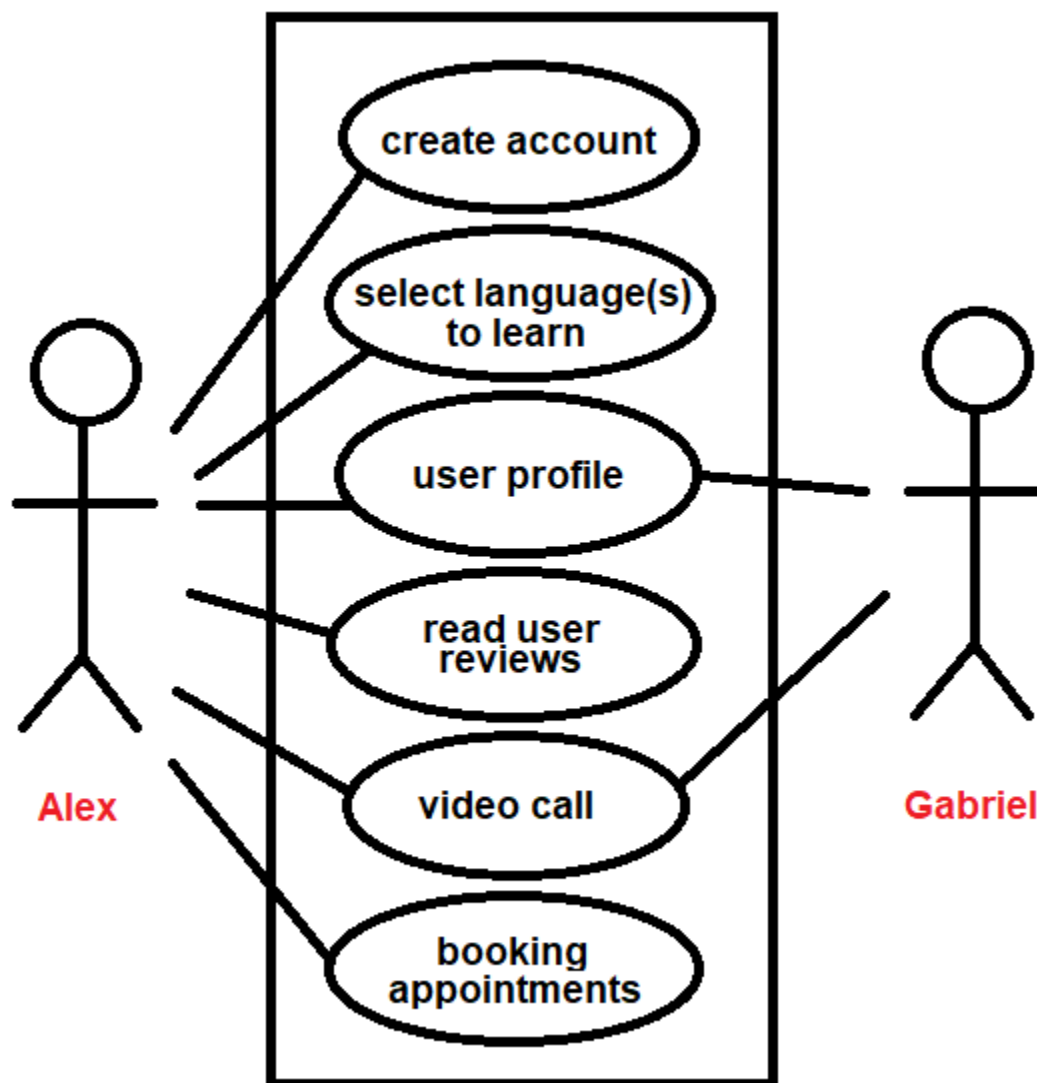
Diagram:



Use Case 4: Traveling/Vacation

Alex plans to travel to France in 4 months and he wants to have at least basic conversational skills before he arrives there. Alex creates an account on ULingual and states that he wants to learn French. He finds Gabriel's profile and reads reviews claiming that he is an amazing tutor, especially for first time learners of French. Gabriel is known to use visual tools when helping people learn a language, so he requires his sessions to be held over video calls. Alex has always thought of himself as a visual learner so he instantly books multiple appointments with Gabriel, eager to learn a new language.

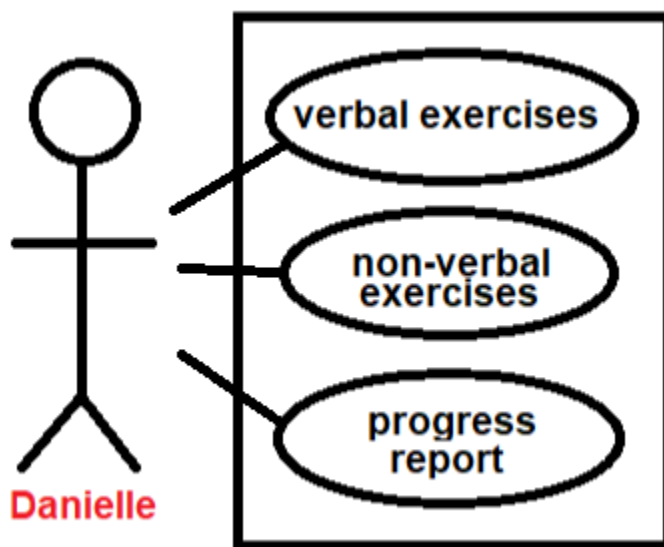
Diagram:



Use Case 5: International Students

Danielle is an international student who just transferred to Spain to pursue her studies. Although she has a basic understanding of the local language, she is not proficient enough to fully participate in classroom discussions or effectively converse with native speakers. As a result, she frequently feels alone and finds it difficult to engage into the community. ULingual provides verbal and non-verbal exercises to help her learn a language quickly on her own. She can also track how quickly she improves by accessing ULingual's progress report feature.

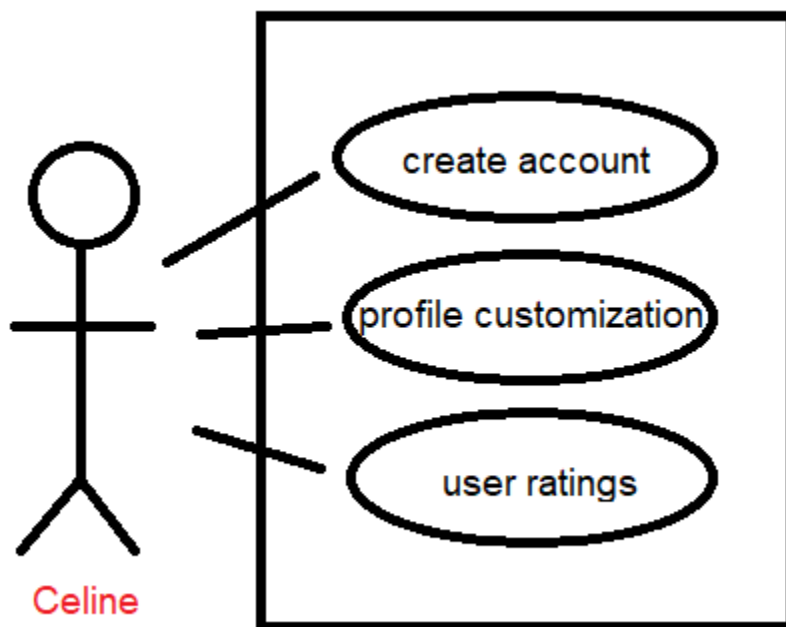
Diagram:



Use Case 6: Tutor/Teacher

Celine is an aspiring foreign language teacher that doesn't have any real experience with teaching others. She finds ULingual and hopes to develop her teaching skills through helping others learn a language. She creates her account and customizes her profile, listing her availability schedule and known languages. After using the website for a couple months, she reads the user reviews written about her from users that have connected with her through ULingual. She uses this feedback to improve her methods of teaching in the future.

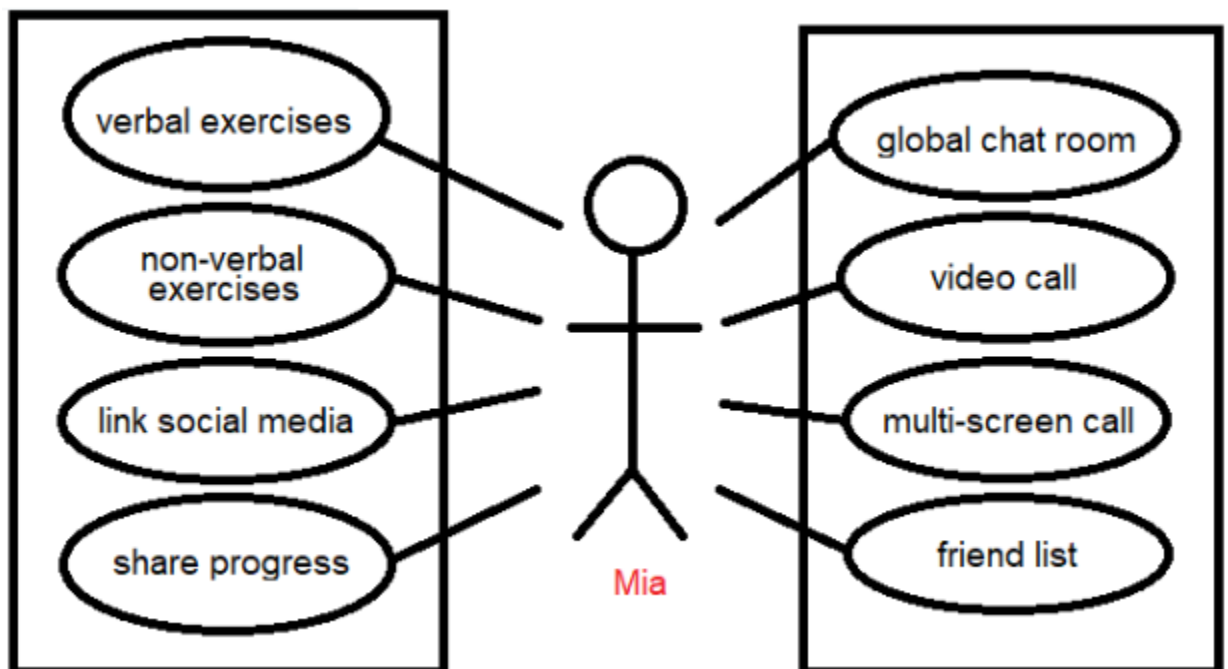
Diagram:



Use Case 7: General Language Learner

Mia is an enthusiastic social butterfly who loves learning new languages and frequents ULingual on a daily basis. On weekdays she likes working on verbal and non-verbal exercises, often sharing her progress through linked social media websites. On weekends she enjoys spending her time meeting new people in ULingual's global chat room or video chatting with one or more people already on her friends list.

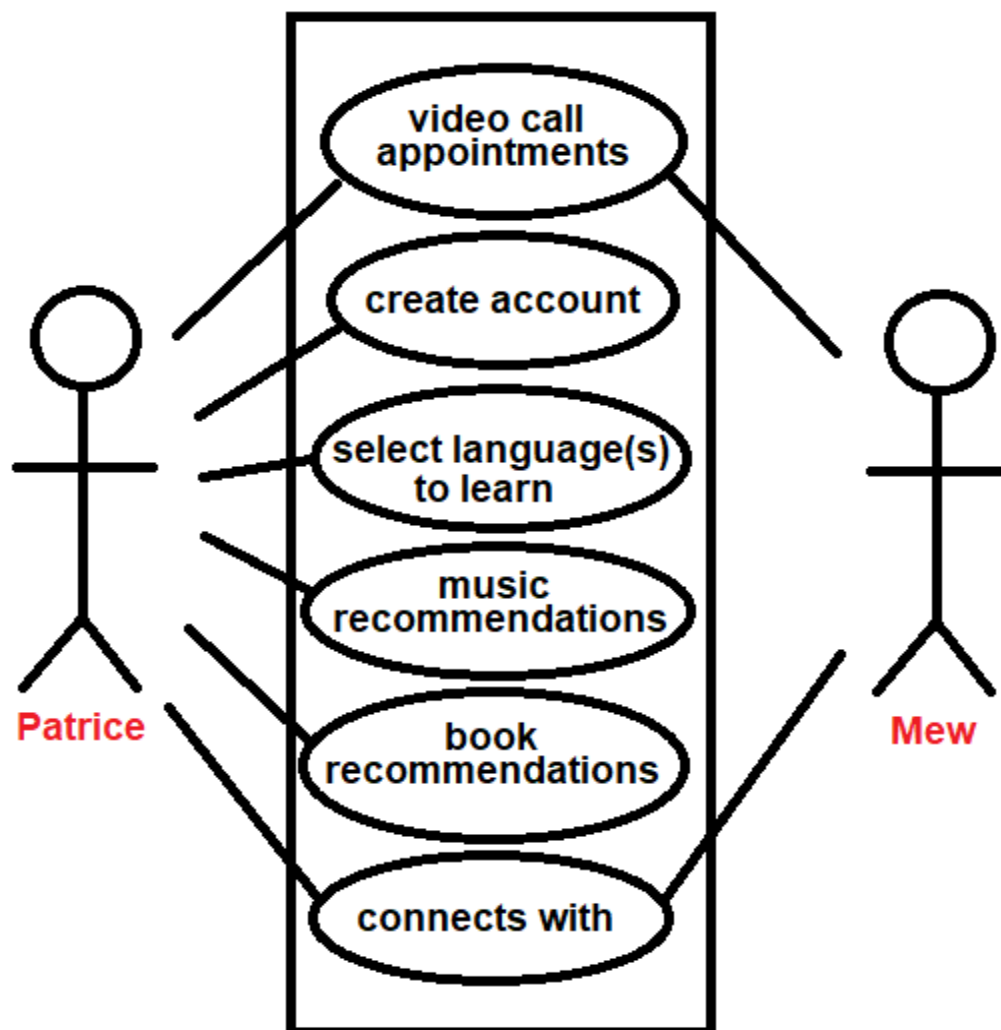
Diagram:



Use Case 8: Language Retention

Patrice learned Japanese about 4 years ago back in college. Patrice has some knowledge of Japanese but wants to brush up and see what he remembers. Patrice finds out about ULingual and sees it not only provides video connection with a native speaker but also recommendations of media in relation to the language. This interests Patrice so he creates an account and selects Japanese as his language. Patrice goes to the media section and stumbles upon a music playlist, he listens to some music and remembers a lot of the words and what they mean. He then checks out the book section and reads a digit book in hiragana (form of Japanese) not perfectly but very well. He then takes his final test and connects with Mew who is a native speaker; Patrice and Mew converse and at the end of this conversation and overall session with the website Patrice is ecstatic and remembers the language he once got disconnected from.

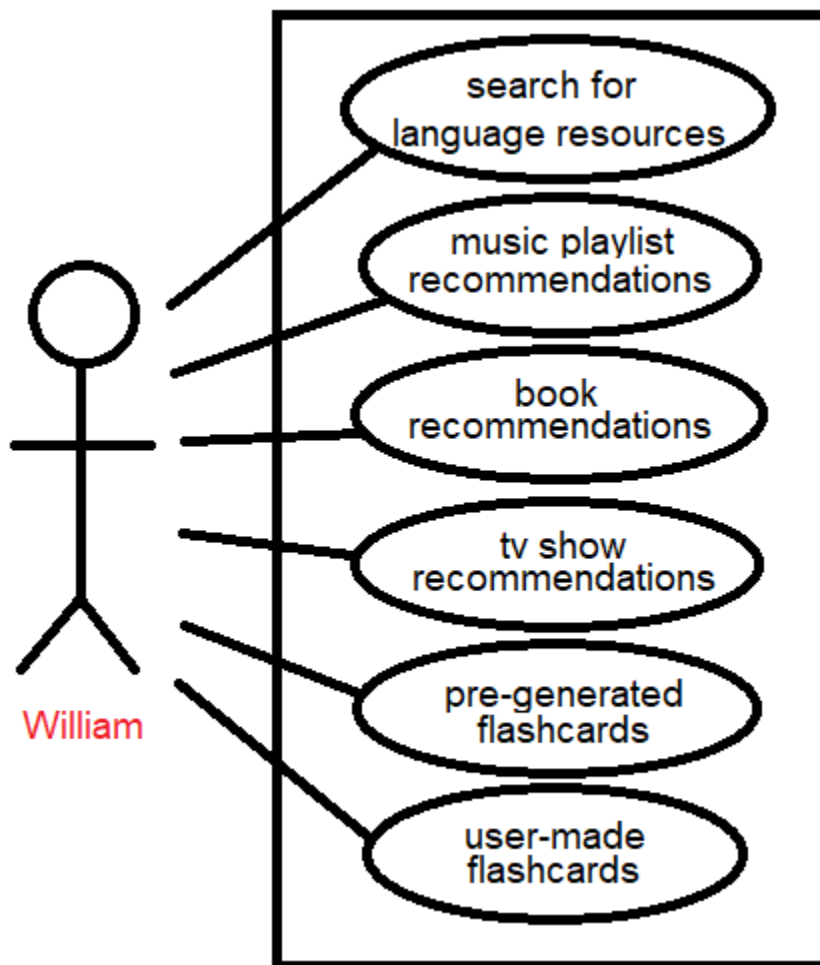
Diagram:



Use Case 9: Studying for Exam

William is a college student looking for more studying resources to help him with his upcoming Spanish exam. William searches for as many Spanish related materials as he can find on ULingual. In his search, he was able to find recommendations for music playlists, books, and TV shows. He also finds a feature that allows users to use pre-generated flashcards and create custom flashcards of their own.

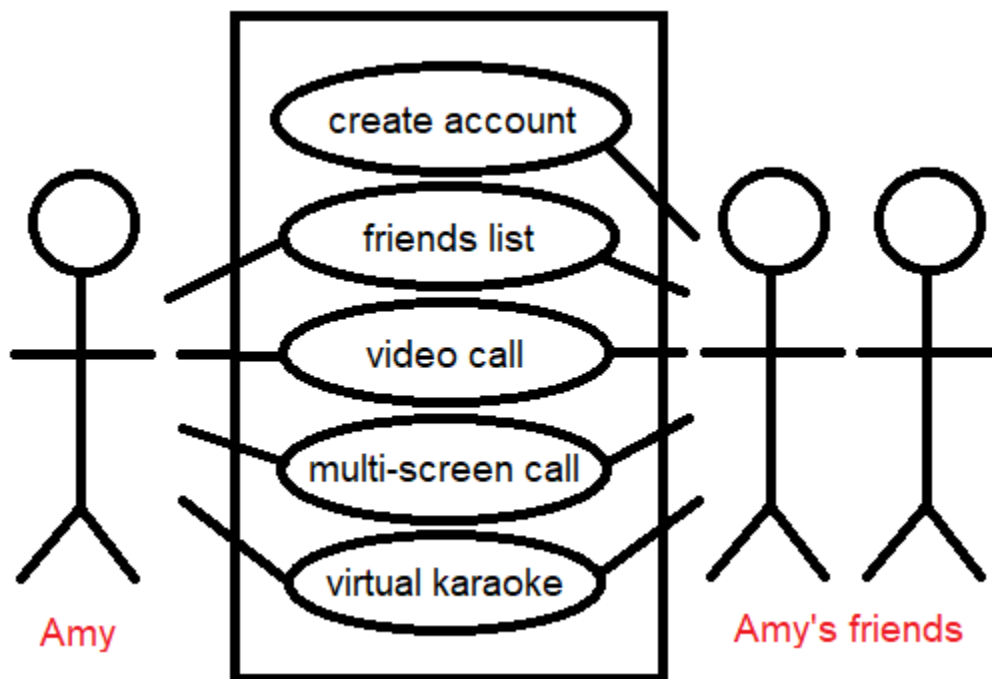
Diagram:



Use Case 10: Remote Activities

Amy is an experienced user of ULingual who is familiar with all the features offered on the website. She had plans to go out with a couple of friends one evening, but found out one of them had tested positive for covid. Instead of canceling their hangout, Amy suggested they do karaoke on ULingual's website instead. She tells her two friends that they only need to create an account on the website and add her to their friends list. From there, she can host a video call, invite both her friends to join, and make use of ULingual's virtual karaoke feature.

Diagram:



Main Data Items and Entities

Main data items:

1. **Images:**
 - 1.1. Through images many things can be taught, therefore ULingual will also offer images in each language.
2. **Pages:**
 - 2.1. Users shall scroll down the pages when needed.
3. **Posts:**
 - 3.1. ULingual shall offer posts according to the languages selected.
4. **Progress Bar:**
 - 4.1. The ULingual website shall be able to save the users progress.
5. **Language Title:**
 - 5.1. The name of the language.
6. **Forum Title:**
 - 6.1. Forum titles are phrases to categorize the content.
7. **Forum Content:**
 - 7.1. A brief explanation of forum goals and topics that users may use to determine whether to engage in the forum.
8. **Enrollment:** Indicate if the course is open for enrollment.
9. **Course and Categorize:** ULingual shall have Courses, Schedules, and a list of enrolled students.

Entities:

1. **Format:**
 - 1.1. Full Screen, Slideshow, and Horizontal Scrolling
2. **Users:**
 - 2.1. An individual who makes use of the system, by setting up an account and logging in. Users shall have access with other entities including lessons, exercises, and forums.
3. **User Type:**
 - 3.1. Shall consist of data that is kept about specific users. For example, if they are students, instructors, or guests.
4. **Lessons:**
 - 4.1. Shall have text, images, videos, and other material used in lessons.
5. **Comments:**
 - 5.1. All the users shall be able to leave comments during the session.
6. **Search bars:**
 - 6.1. Users shall be able to search for languages, books, and videos.

7. **Chat:**
 - 7.1. Users shall be able to use the chat window during the session.
8. **User Profile:**
 - 8.1. Users shall be able to customize their profile in this section. Such as profile picture and preferred names, etc.
9. **Languages:**
 - 9.1. The ULingual shall be offering many languages to its users.
10. **Exercises:**
 - 10.1. ULingual shall have Interactive exercises that users can complete within a lesson or in a separate time as practice for their language.
11. **Forums:**
 - 11.1. ULingual shall have a discussion board where users are able to interact with each other. Such as questions and sharing information.
12. **Courses:**
 - 12.1. ULingual shall have a series of classes where lessons and exercises combined to teach a language.

Functional Requirements

- 1. Camera Connection Between Users:**
 - 1.1. The user shall be able to connect and have a camera connection with other users.
- 2. Audio Connection Between Users:**
 - 2.1. The user shall be able to connect and have an audio connection to speak with other users.
- 3. Chat Box For Video Calls:**
 - 3.1. The user shall be able to text other users during their video calls.
- 4. Booking Video Calls with Native Speakers:**
 - 4.1. The users shall be able to book video call times from a native speaker of their preferred choice.
- 5. Catalog Of Available Appointments with Native Speakers:**
 - 5.1. The user shall be able to see a list of native speakers and their available time slots.
- 6. Booking Appointments with Tutors:**
 - 6.1. The user shall be able to book appointments with specialized tutors with teaching credentials.
- 7. User Ratings:**
 - 7.1. The user shall be able to leave ratings for their experience with their respective speaker—vice versa; out of 5 stars.
- 8. Review Section:**
 - 8.1. The user shall be able to leave a short review of their experience with their respective speaker—vice versa.
- 9. Display Ratings and Reviews:**
 - 9.1. The user shall be able to see their own ratings and reviews on their profile.
 - 9.2. The user shall be able to see others' ratings and reviews on others' profiles.
- 10. Progress Report:**
 - 10.1. The user shall be able to observe their language progress in a graphical way.
- 11. Transcript of Conversations Toggle:**
 - 11.1. The user shall be given the option to select if they want their conversation to be subtitled and written on a document.
 - 11.2. The user shall be able reference this document as support for their studies.
- 12. Create Flashcards:**
 - 12.1. The user shall be able to create digital flashcards to help them review and practice words or phrases of their desired language.

- 13. Generate Flashcards:**
 - 13.1. The user shall be able to access ULinguals generated flashcards as a small test for their desired language.
- 14. Playlists of Music:**
 - 14.1. The user shall be able to access playlists of music in relation to the language they desire to learn.
- 15. Language Comprehension Exercises:**
 - 15.1. The user shall be able to practice precreated exercises as a form of reinforcing their learning.
 - 15.2. The user shall be able to complete exercises like filling in the blank of sentences, word matching, and object identification in their desired language.
- 16. Verbal Translation Exercises:**
 - 16.1. The user shall have access to verbal translation exercises which will allow them to practice translating between two different languages.
- 17. Non-Verbal Translation Exercises:**
 - 17.1. The user shall have access to non-verbal translation exercises which will allow them to practice translating between two different languages.
- 18. Registering an Account:**
 - 18.1. The user shall be able to create an account.
 - 18.2. The user shall be able to register the account as a learner or native-speaking instructor.
- 19. Logging in:**
 - 19.1. The user shall be able to log in to their registered account and use website features.
- 20. Create a Profile:**
 - 20.1. The user shall be able to create and manage their own profile page.
 - 20.2. The user shall be able to customize their profile theme, wallpaper, and banner.
 - 20.3. The user shall be able to select a premade profile picture or upload and use one of their own.
 - 20.4. The user shall be able to set roles/tags for their knowledge of a language to be shown on their profile page.
- 21. Friends List:**
 - 21.1. The user shall be able to view an organized list of friends on the website.
 - 21.2. The user shall be able to edit their username that is shown to others on the friends list.
 - 21.3. The user shall be able to search for other users by username or user ID.
 - 21.4. The user shall be able to send and accept friend requests to and from other users.

- 21.5. The user shall be able to set their status to Available, Busy, or Offline/Invisible.
- 21.6. The user shall be able to view the status of other users on their friends list.
- 22. Linking Social Media:**
 - 22.1. The user shall be able to link their account to their accounts on other social media websites.
- 23. Recommendation List of Books:**
 - 23.1. The user shall have access to a list of book recommendations in a specified language.
- 24. Recommendation List of Films/Shows:**
 - 24.1. The user shall have access to a list of movie and tv show recommendations in a specified language.
- 25. Call Statistics:**
 - 25.1. The user shall be able to view their own video call history.
 - 25.2. The user shall be able to view who they have had video calls with.
 - 25.3. The user shall be able to view the duration of video calls.
 - 25.4. The user shall be able to view the dates of when video calls occurred.
- 26. Multi-Screen Call:**
 - 26.1. The user shall be able to host or join a video call with multiple users.
- 27. Certification of Completion:**
 - 27.1. The user shall be given a digital certificate of completion after the user has completed a language program.
- 28. History of Language:**
 - 28.1. The user shall be able to read about the history of available languages offered on the website.
- 29. Recommended Travel Locations:**
 - 29.1. The user shall have access to a list of recommended traveling locations based on their language roles/tags.
- 30. Global Chat Room:**
 - 30.1. The user shall be able to join the global chat room.
- 31. Language Difficulty System:**
 - 31.1. The user shall be able to view a list of languages rated by difficulty according to other users on the website.
- 32. Age System:**
 - 32.1. The user shall be provided course content relevant to their age.
- 33. Virtual Karaoke:**
 - 33.1. The user shall be able to activate a live karaoke feature during video calls.
- 34. Custom Newsletter:**
 - 34.1. The user shall have the option to receive monthly emails of current events around the world related to their language roles/tags.

35. Donation to Others:

35.1. The user shall have the option of donating to other users on the website.

36. Friends Count:

36.1. The user shall have the option of displaying how many other users they have connected with.

37. Distinguished Teaching Symbols

37.1. The user shall be able to display distinguished symbols on their profile indicating their level of teaching ability for a specific language.

38. Customer Support:

38.1. The user shall be able to send a ticket to request help from a web admin or report bugs/issues.

39. Weekly Quiz Competition:

39.1. The user shall be able to participate in weekly quizzes.

39.2. The user shall be able to view weekly quiz scores of other users on their friends list.

40. Sharing Progress to Social Media:

40.1. The user shall have the option of posting personal course progress to linked social media websites.

41. User Recommendations:

41.1. The user shall be given a list of recommended users to follow related to their language roles/tags.

42. Test to Verify Native Speakers:

42.1. The user shall be required to pass a test to confirm their mastery of the specified language.

Non-Functional Requirements

1. System Requirements:

- 1.1. Operating System Minimums: System shall support operating systems running Windows 7, Mac OS 10.8 or newer.

2. Performance:

- 2.1. Server Downtime: The server shall be run through the day for 23 hours and have an hour cool down each day.
- 2.2. Minimal Message Delay: The server shall be able to process and display live texts within 3 seconds.
- 2.3. Minimal Page Load Delay: The server shall load pages for the user within 2 seconds.

3. Storage:

- 3.1. Server Storage Capability: ULingual's server shall be run on 8GiB Volume.

4. Security:

- 4.1. Data Privacy: The users login information shall be protected and encrypted within ULinguals database. N
- 4.2. Secure Password: The user shall have a secure password that includes an uppercase, lowercase, special symbol, and be a length of at least 6 characters.
- 4.3. Confirmation Question: The user shall select a preset question to answer as a backup to their account in case they forget their password.
- 4.4. Username Uniqueness: There shall be no duplicate usernames within the database of ULingual.

5. Environmental:

- 5.1. Safe Space Environment: The user shall experience a judgment free zone while using ULingual services.
- 5.2. Bad Ratings Strike Rule: Any user with bad ratings on experience and reviews shall have their account viewed and terminated upon evidence of breaking comfort in a non-judgemental free zone.

6. Marketing:

- 6.1. Weekly Media Presence: ULingual shall post images and videos weekly promoting the product via Instagram & Tiktok.
- 6.2. ULingual shall have an easy to identify logo that distinguishes itself from others.

7. Legal:

- 7.1. Acceptance of Policies & Services: The user must accept our policies and terms of service prior to creating a ULingual account.

8. Content:

- 8.1. Immersive & Interactive Content: The user shall experience content that's both enjoyable and also interactive.
- 9. **Look and Feel:**
 - 9.1. Smooth User Experience: The user shall experience the services of ULingual in an easy and smooth way, mitigating confusion and frustration.
 - 9.2. Smooth Customer Support: The system shall provide a form system where the user shall be able to contact us regarding inquiries, feedback, and issues they are facing regarding the software.
- 10. **Usability:**
 - 10.1. Accessibility: ULingual shall be accessible to anyone with a general internet connection and the minimum required operating system requirements.
 - 10.2. Efficiency: The ULingual system shall be efficient for the users.
 - 10.3. Username Changes: The user shall be able to change their username whenever they please, granted it isn't taken already.
- 11. **Privacy:**
 - 11.1. Data Encryption: The system shall encrypt and protect all user data.
 - 11.2. Data Privacy: The user's data shall not be spread elsewhere outside the bounds of the systems database.
- 12. **Compatibility:**
 - 12.1. ULingual shall be dynamic and be able to scale to the proper size of web content in relation to a device's screen size.
- 13. **Organizational:**
 - 13.1. Form Branch: ULingual shall have dedicated personnel to respond to and review all form responses sent to ULingual.
 - 13.2. Ratings Strike Branch: ULingual shall have dedicated personnel to review bad rating cases and make decisions on terminating an account.
- 14. **Coding Standards:**
 - 14.1. Naming Conventions: ULingual shall follow standard naming conventions for variables, i.e meaningful and understandable variable names.
 - 14.2. Documentation: ULingual shall follow adequate documentation protocol; comments in regard to code should be easily understandable.
 - 14.3. Indentation Conventions: ULingual shall follow proper indentation to make code readable.
 - 14.4. Brace Conventions: ULingual shall follow adequate bracing format; i.e braces shall start and end at a new line for better readable code.

Competitive Analysis

Feature/ Company	Verbling	Lingoda	Italki	Mango Languages	Busuu	ULingual
Pricing	<ul style="list-style-type: none"> * Tutoring sessions charge by tutor per hour 	<ul style="list-style-type: none"> * Can enroll in individual classes/lessons. * Purchase classes by package (5, 10, 20, etc). Cost per class decreases as the number of classes purchased in a package increases. 	<ul style="list-style-type: none"> * Can purchase by lesson for 1 on 1 tutoring or group classes *Purchasing more lessons at once may include a discount * Purchase lesson by time period (30, 45, 60 mins) 	<ul style="list-style-type: none"> *Free through public libraries, colleges, and universities *\$18/month for access to all 70+ languages and up to 5 family profiles *\$8/month for one language and its content 	<ul style="list-style-type: none"> *\$14/month, less if you buy multiple months in advance for Premium *Free if you do not want all content and lessons 	<ul style="list-style-type: none"> * Basic features (tbd) are free * Monthly (\$5) subscription to access more advanced, personalized features. * Tutoring sessions prices vary by tutor
Tutoring	<ul style="list-style-type: none"> * Tutors with prior teaching experience. * Tutors must be at a C2 CEFR language proficiency level. 	<ul style="list-style-type: none"> * Group classes with proper lesson plans. * Can schedule based on your learning level (defined by Lingoda) and topic. 	<ul style="list-style-type: none"> * Can schedule lessons customized by the teacher on the platform. Pricing varies by lesson and by teacher. *Live classes *Offers group classes and 1 on 1 lessons 	n/a, no tutors	n/a, no tutors	<ul style="list-style-type: none"> *Tutors must have prior teaching experience in a given language. *Tutors have creative control over their lesson plan, but must accurately advertise this before users purchase sessions. * Tutors can offer group sessions with an enrollment limit.
Solo study/practice tools offered?	No	No	No	Yes	Yes	Yes
Additional	n/a (primary)	* Provides	* Offers	*Individualized	*Page to	*

(non-tutoring) learning resources offered	service is video tutoring)	suggested courses and basic grammar articles under resources.	<p>purchasable language proficiency tests</p> <p>*Podcasts, practice quizzes</p> <p>*Community forums</p>	<p>lessons based on topics for learning. Different learning strategies used</p> <p>*Mango Movies</p> <p>*Resource articles in target language</p> <p>*Translation under Tools tab</p>	<p>review what you have learned</p> <p>*Has structured lessons based on relevant topics</p> <p>*Lessons for pronunciation</p> <p>*Has a placement so you can start at your current level</p>	<p>Verbal/non-verbal translation exercises, flashcards</p> <p>* Recommended music, movies, books</p>
Onboarding incentive	'Try a free lesson' button, must sign up	Free 7 day trial, purchase classes ahead of time after signing up	n/a, 'Start now' button with no incentive	* Free access through public libraries, colleges, and universities.	<p>* After signing up, take a placement test</p> <p>* Student discount</p> <p>* Larger plans offer up to 50% discount</p> <p>* 14-day money back guarantee</p>	* 1 week free trial for premium subscription benefits (not tutoring)
# of languages offered	70+	4 (business english included would be 5)	150+	70+	13	<p>2-5</p> <p>Definitely: (English, Spanish)</p> <p>Possibly: (Arabic, French, Korean)</p>

+ feature exists; ++ feature superior; - does not exist

Features	Verbling	Lingoda	Itaki	Mango Languages	Busuu	ULingual
Pricing	+	+	+	+	+	+
Tutoring	+	+	+	-	-	+
Solo study/practice tools offered?	-	-	-	+	+	+
Additional (non-tutoring) learning resources offered	-	+	++	++	++	++
Onboarding incentive	+	+	-	+	++	+
# of languages offered	++	+	++	++	+	+

High-level Architecture and Technologies Used

Server Host: Amazon AWS 1vCPU 8 GiB Volume

Operating System: Ubuntu Server 22.04 LTS

Database: MySQL 8.0.32

Web Server: Node.js v16.19.1

Server-Side Language: Javascript

Additional Technologies

- **Web Framework:** React 18
- **IDE:** Visual Studio

Checklist

- 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
DONE
- Team lead ensured that all team members read the final M1 and agree/understand it before submission
DONE
- Github is organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)
DONE

List of Team Contributions:

Sara Murad Ahmed Seid:

- Contribution Score: 5

Sara attended meetings but her microphone was off and she rarely spoke during our meetings. Sara contributed to user case ideas but never finished the description of the user cases. Sara hasn't been collaborative in discussion. I assigned Sara some tasks for this milestone. She was given the task of filling out the Main Data Entities section along with Elias and Nik. She was also given the task of creating a server for us to deploy our code on along with Elias and Nik. I gave Sara a deadline for this, and she neither had Main Data Entities or the server complete by the date I assigned. She along with Elias and Nik eventually completed the Main Data Entities but a few days after the due date I assigned it for. I hope for future milestones she improves her contribution and collaboration.

Steven Anthony Vasquez:

- Contribution Score: 10

Steven has been a great help through the entire process of milestone one. He was always there for all the meetings, even short notice emergency meetings. He was very collaborative and gave great feedback during our zoom meetings. Steven helped with user cases, competitive analysis, ideas regarding functional requirements, nonfunctional requirements, and also helped with the structure and follow of the executive summary. Him and Aidan did a great job on research for the competitive analysis and gave us a thorough and in depth comparison of our competitors to what we have in mind. Steven also helped with the initialization of the react.js application launch for our website.

Nik Shahrul Nafiz Bin Nik Azhan:

- Contribution Score: 6

Nik has attended all meetings we've had and has been collaborative. He has his microphone both on and off but is definitely collaborative either through microphone and via text. Nik helped with nonfunctional requirement ideas, and functional requirement ideas. I assigned Nik as well as Sara and Elias the task of the Main Data Entities section and server deployment. Although Nik, Sara, and Elias didn't finish the tasks on time. Nik was the first one to reach out and ask about his task, he made an effort and tried—which goes a long way for me. He also always asked questions during our meetings for clarification which shows he's interested in our product. Nik as well as Sara and Elias submitted the Main Data Entities section a few days after the due date I assigned them, but again Nik was the first one to make an effort and reach out to me with questions.

Elias G Yetchalew:

- Contribution Score: 4

Elias attended meetings but his microphone was off and he rarely spoke during meetings. Elias hasn't been collaborative in discussion. It takes me a lot to get into

contact with Elias, I not only have to ping him on discord but I also have to send him an additional email to grab his attention at times. I assigned Elias along with Sara and Nik the tasks of the Main Data Entities section and server deployment. I gave Elias and them a deadline for this, and he as well as them didn't have the Main Data Entities and server deployment complete by the due date I assigned. They completed the due Main Data Entities a few days after the due date I assigned. What really displeased me was the lack of communication from Elias—as well as Sara. Especially with the server deployment, if they were unable to do the task they should have asked me for help; instead they stayed silent and didn't tell me a thing. I was left with the task of establishing the server deployment on a shorter time frame than anticipated because of their lack of communication and participation. I hope that Elias in future milestones is more collaborative and participates in a timely manner.

John Lee Santiago:

- Contribution Score: 8

John has been there to all the meetings, even the short notice ones. He also gives collaborative feedback and ideas. He has made great contribution to the user cases and made all the diagrams for the user cases, helped with functional requirements and also reformatting the structure and formality of our requirements to match business presentation, overlooked formatting of document, and also always double checked with me on issues he was concerned about whether it be in terms of our repository or our ideas.

Aidan Carl Stivers:

- Contribution Score: 8

Aidan has also been to all the meetings, including the short notice emergency meetings. Aidan, like Steven, is great in terms of participating in our meetings, always spreading ideas and giving feedback towards our discussion in regards to functional requirements, use cases, and executive summary. Aidan also contributed to the competitive analysis section like Steven and gave great information regarding our competitors.

Milestone 1 (Checkpoint #2) Submission Form

Section 5 Team 6

Item	Credentials
Website URL	http://18.216.113.91
SSH URL	ec2-18-216-113-91.us-east-2.compute.amazonaws.com
SSH Username	ubuntu
SSH Password/ Key	JojosULingualKey.pem
Database URL	database-1.cdfnojnzo4ui.us-east-2.rds.amazonaws.com
Database Username	admin
Database Password	Bobby2480.

Cmdline MySQL Username	root
Cmdline MySQL Password	Bobby2480.