

HiLingual

Team 3

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Problem Statement

A major problem today with language learning is that language courses are generally too boring and restrictive to be indicative of real world communication. Current learning techniques emphasize rote translation and worksheets as opposed to conversation. We plan to introduce a social aspect to the language acquisition process to keep people involved and enjoying learning in a real-world environment. We will emulate first-language acquisition by focusing on these ideas.

Background

There are thousands of languages spoken across the world. Every day, millions of people are trying to learn to speak a new one. Whether it is for school, work, or personal interests, there are always people trying to learn. However, what most language courses fail to capture is that language is a social construct, and thus, to be taught properly, requires an appropriate social context. There have been many different attempts to make language learning more social, whether like Memrise and Duolingo where you can challenge your friends, or like LiveMocha where you can chat with and have your lessons graded by native speakers. However, all of them focus on the user's intrinsic motivation to simply learn the language. We plan to solve this by making language learning the natural byproduct of building relationships with other people, the same way a native language is learned.

Requirements

Functional:

1. As a user I would like to create an account.
2. As a user I would like to login to an account.
3. As a user I would like to find users who speak the language I am trying to learn
4. As a user I would like to choose users who speak the language I am learning
5. As a user I would like to search for specific users by name
6. As a user I would like to send messages to other users in real time
7. As a user I would like to correct messages sent by other users
8. As a user I would like to be able to translate messages that a user sent me
9. As a user I would like to send and receive voice messages

10. As a user I would like to create flashcards for vocabulary words
11. As a user I would like to review flashcards
12. As a user I would like to maintain multiple flash card sets
13. As a user I would like to set my personal information
14. As a user I would like to edit my personal information
15. As a user I would like to be able to report spam
16. As a user I would like to block specific users
17. As a user I would like to have a friend list
18. As a user I would like to have a recent match list
19. As a user I would like to change my privacy settings
20. As a user I would like to change my password
21. As a user I would like to login through Facebook/Google
22. As a user I would like to be able to pay to increase my daily match limit
23. As a user I would like to be able to select my interests to find better matches (if time allows)
24. As a user I would like to match with people with whom I share similar hobbies or interests (if time allows)
25. As a user I would like to be able to pay to increase my daily message translation limit (if time allows)
26. As a developer I would like to see insights regarding how much interaction users have with each of their matches, to be able to improve the algorithm (if time allows)

Non-Functional:

1. We must have the app work on an iOS 9+ device
2. App layout must support iPhone 5, 6 and 6+ screen sizes
3. Interface should be easy to use and intuitive to navigate
4. Messaging must be as fast and reliable as possible
5. Personal/account information must be kept secure
6. App-server communications must be done securely
7. App must be resilient to network connectivity disruptions
8. App and Server must be able to support all target languages
9. Server must be able to authenticate users via OAuth
10. Server must be able to integrate with various support APIs (translation, etc)
11. Server must support a large number of concurrent users
12. Database must be fast and redundant
13. Platform must be able to be run locally for testing/development
14. Platform must support automatic staging and deployment
15. Server must provide a maintenance/administration panel (if time allows)

16. App must allow for account creation through Facebook/Google
17. App must impose a daily match limit for free users
18. App must allow users to pay to increase or remove their daily match limit
19. App must have an algorithm to match users based on language abilities and shared interests (if time allows)