

README -- SkillSwap

The following is the README for SkillSwap. Here we just discuss some Features we left unimplemented, some bugs you may encounter and how to fix them, the tools we used to make the app, and how to download our app.

Features Left Unimplemented:

The following is a list of features that were left unimplemented for various reasons. Most were due to time constraints and the fact that we prioritized other features due to feedback from user tests and class feedback.

- *No way to buy credits/minutes:* Part of our business model was allowing user to use real money to purchase minutes if they were unable or unwilling to earn those minutes through teaching. This would help address the inevitable imbalance of students to teachers as well as provide a form of monetization for the app. Unfortunately doing so would have required processing user's credit card information, which creates a slew of additional security issues and would have hurt our chances of being accepted into the app store. This is obviously something we would eventually want to implement, but we decided to get our app rolling with the non-monetized version for now.
- *Messaging system is not in-app:* A complaint in our very first user test was that users (specifically women) would not feel comfortable meeting with a complete stranger. To alleviate this, we made a feature that encourages people to meet in public locations. However, sharing phone numbers with strangers does not keep this spirit. We felt that in-app messaging was not a major focus of our app, however, and that this would be at the bottom of our priority list since the more important features to fix and implement had to do with swapping skills and user flow for doing so. In-app messaging would also take a not inconsequential amount of time, and the pay-off for having it completed was not enough to warrant making it a priority.
- *No Rating/Karma System:* This is also something that we wanted to implement but didn't have time to, but this was next on our priority list. It would basically be a rating system and hopefully incentivize users to be better teachers and learners (like Yelp super-users) and create a sense of reputation within the SkillSwap community. Only reason we didn't do this is because we didn't have time, we instead prioritized a tutorial, app design cleanup, tightening up the

server/backend, and fixing noticeable usability bugs so that the features we had then all worked well

- *User has to enable push notifications:* This is needed for a lot of the core functionality of the app. The app becomes much less effective if the user does not enable push notifications

Along with not making these features, there are also some small bugs that we did not get to as they were low on our priority list. Every bug we've encountered can be fixed by closing the app and re-entering. These are all relatively small bugs since they don't totally break the app. Here is a list of most (if not all) of them:

- *No checking for going under your minute count:* You can have negative minutes. This doesn't happen too often, since we have checks in the front end and the app won't allow you to pay with minutes you don't have. However, the server doesn't have any checks for this. You can cause this bug by paying a teacher overtime when you do not have that many minutes in your bank.
- *You can teach yourself:* This was useful for debugging and testing, and it doesn't break anything since you will have the same number of minutes afterwards (you pay yourself in the same transaction in the database), so this wasn't a priority
- *Sending a reminder gives wrong error message:* The functionality completely works as it actually sends the notification, but the app says it did not go through (even though it did)
- *Will sometimes duplicate meetups when posted:* We're not too sure why, but the bug was discovered after posting to the app store, so we didn't have time to fix it
- *Time expiration doesn't mean anything:* We say that the session expires, but nothing actually happens when time ends. The meetup stays there. This was not a top priority since it doesn't break anything.
- *Accepted screen sometimes doesn't appear:* This bug happens rarely. On rare occasions, the learner's screen won't update when a teacher accepts a post. You just have to exit the app and re-enter to get on the screen you should be on.

For our last iteration in the app store, we did not have to use any wizard of oz techniques. The server independently handles all push notifications and has a durable

database that keeps all information about users and meetups, and also handles all requests by itself. We did fake interactions in earlier iterations, and implemented push notifications at the very end, but in terms of implementation and functionality, we were able to not use wizard of oz techniques to have a functioning app.

Tools We Used

For the frontend of our project we primarily used Swift. We also used Digits by Twitter Authentication to verify user's phone numbers, Apple push notifications to send push notifications to the user, and iMessage integration to allow users to send text messages to each other. For the backend of the project, we used NodeJS/Express hosted through Heroku, and made the server a RESTful API. We used a Postgres Database that came free with the server we hosted on Heroku. We shared code through Github and messaged each other directly through Groupme. For designing the app, we primarily used Swift and Figma, as well as occasionally Photoshop, Gimp, and Paint Shop Pro for additional visual elements. We also got a lot of our images and icons from freebiesupply.com (credit to Vincent Le Moign and Netguru). Our concept video was made in iMovie. For user testing, we used lookback and other screen recorders to analyze user test data. We generally found all of our tools helpful and all helped us create our final product, but Sketch, icons at freebiesupply, Swift, and Heroku were all the most helpful for creating SkillSwap.

Download Information

The iOS app is available on the App Store. You can download it by clicking the link below or by searching "SkillSwap Learn and Teach" on the App Store.

<https://itunes.apple.com/us/app/skillswap-learn-teach/id1214665162?mt=8>