

Phonetics Project Final Documentation

Repo: <https://github.com/reidash/Phonetics>

Video: https://www.youtube.com/watch?v=xrUqkK_4JRE

Team Kennedy

Xiao (Christina) Tan x22tan 20428070

Cindy Xie x22xie 20407986

Colin Elliott cdhellio 20460566

Tham Guo Bin GbTham 20700984

Demo Summary

Our presentation will consist of an app demo and a discussion of the project's technical underpinnings.

The first half of the presentation will be the demo, which will capture the process of a user getting started with Phonetics for the first time. We will show the initial profile setup sequence, during which a user enters a profile name, sets a profile picture, and selects his/her native language background. Completion of the profile setup will leave the user at the app's Lessons screen, from which users can start a practice session. We will present the features accessible from the Lessons screen, demo a quick Listening mode practice session and a quick Speaking mode practice session. Upon completion of these sessions, we will demo the now-active Challenge List feature, as well as present the Performance Statistics feature.

The second half of the presentation will include a brief discussion of the work involved in creating the app. We will talk about the framework that supported our development, our development process, and the technical challenges that we faced. Finally, our presentation will conclude with some short remarks on what remains unimplemented, as well as the direction in which we would take the project should we return to it in the future.

Features Summary

In our original proposal for the Phonetics project, we identified six distinct pieces of functionality that the app should be able to support. The seven features are as follows.

Profile Creation

Status: Complete

Description:

The user is able to create a profile through which his/her progress on the app can be tracked. The profile contains a profile image, which can be selected from the photos that currently exist on the device or can be a new photo taken with the device's built-in camera. The profile also contains a username and the user's native language.

Lesson Selection

Status: Complete

Description:

After a profile is set up for the first time, the user is presented with a list of all the lessons available for his/her language selection. This screen serves as the app's "home" screen and provides the calls-to-action for the app's supported features.

Listening Mode Practice

Status: Complete

Description:

The user is able to start a practice session in listening mode. In this mode, users listen to an audio recording and selects the word he/she has heard from a pair of options. The practice mode presents the user with immediate feedback regarding his/her accuracy, as well as allows the user to listen to the recording again in the case of a misrecognition.

Speaking Mode Practice

Status: Complete

Description:

The user is able to start a practice session in speaking mode. In this mode, users are presented with a word and prompted to pronounce the word aloud. Speech recognition is used to detect if the word was pronounced correctly, and the app provides immediate accuracy feedback. In case of mispronunciations, the user has the option to listen to a recording of the correct pronunciation and/or view a brief video demonstrating the correct way to pronounce words targeted by the particular lesson.

Performance Statistics

Status: Complete

Description:

The user's accuracy statistics are tracked across all lessons he/she completes. The user is able to view his/her statistics for each lesson. The app presents overall Listening Mode and Speaking Mode accuracy, as well as their combined accuracy over completed sessions.

Dynamic Challenge List

Status: Complete

Description:

Phonetics maintains two dynamically-generated lists (Listening and Speaking) of words that the user has struggled with. Users can access this list for targeted practice. Getting a word right in this mode clears the word from the challenge list.

Practice Goals

Status: Incomplete

Description:

Originally, we wanted to include a feature that allowed users to set practice goals. Users would be able to create goals such as "practice x hours per week," and Phonetics would remind users to achieve their goals by sending push notifications. However, due to time constraints and the low priority of this feature, we ultimately decided to remove it from this iteration of the app.