**Cl Hearing Practice App**

**Goal:** an open-source app for practicing sound and word recognition

**Minimum requirements:**

* Open-source
* Multiplatform: ios and Android
* Multiple screen sizes (phone & tablet)
* Adjustable background noise to mix with desired sound files: be able to adjust level and perhaps type of background noise
* Easy user interface for people ranging from kids to senior
* History tracking of some results/progress
* At least two types of exercise

**Possible Adds on:**

* Multiple types of built-in exercises
* Multi Language
* Speech to text (this might be hard to complete)
* Allow for updating of individual sound files (ex. users reporting a poor sounding word or sentence.)
* Extensible architecture for content (download sets of materials)
* Enable users to contribute their own sound files and exercises
* Extract sentences or words from public domain sources for exercises.
* Shareable information for gamification
* Shareable information for Audiology professionals
* Collaboration with audiology professionals for research purposes
* Collaboration with audiology professionals for exercises
* Support for PC, Mac, Linux

**CS Component:**

* Godot engine, html5, database (might want the application to be web browser supportable)
* If we don’t use the godot engine, we could use html5, webGL and pharer.io to create frontend of this application, backend we could use python

Notes: I think the fun fact of this project is that we could just make it like a game.

**Sound files resource from Auditory Ace:**

* Background noise -> <https://freesound.org/search/?q=car+horn>
* Free audio books -> <https://librivox.org/>

**Other Free listening resources:**

1) BITS English Language Audio Books Website

[http://esl-bits.net/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbHpSeGRPMV9SaTduenpQa1gyS1BrSktGZWZYQXxBQ3Jtc0trQnp0d3hvVWlrY2MxSTcybFpPWHhkY2lJSjRhWE9RNmgzcXhyVEN2UXJEaHhDTUhPdXZBRzJOSFpEbS1Rb0ZmRllwYmNqVzFNd0lJV2gyWlEyUEEzdWpZdHVjendiLWlMSENDU3d6a1FUcGp6bFVERQ&q=http%3A%2F%2Fesl-bits.net%2F&v=6OdooYIKSEg)

2) Angel Sound

[http://angelsound.tigerspeech.com/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqa1ZCNGs5ek1zbGFza2V6NTVyd1UydWMzcGFWUXxBQ3Jtc0tsNHE5QWVmSFA4LWZ2amxyZTIyTnhUNllESmE3R2laQ18wM2JVMTQwaXJGWnZuNW92d2wtX042QVhlYmI0UUptMmJvY0F6QndHdTVDemhvZGlUZEU1cTRnZXg4MWdSbjFpOHZmNmc4WkdYMjFlMVMybw&q=http%3A%2F%2Fangelsound.tigerspeech.com%2F&v=6OdooYIKSEg)

3) The Listening Room

[https://thelisteningroom.com/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbWtUNFFZTHc0b3VqOGJEakVId1BIeEl2akkzQXxBQ3Jtc0ttbm5mR1RzS19fWXZJRUlKX3VmSTUtOG9RZE9DX2llVTI1R25sSkk5U1JsQWlua3NJdmw2ck1rb2p4czE3dmlaN0laWUhSenVyQUZndGJlSlFrczA4clgxM2xYOWotZ1BMYjdUc2gzTHJnUmZCQm5MRQ&q=https%3A%2F%2Fthelisteningroom.com%2F&v=6OdooYIKSEg)

4) TED Talks

Website: [https://www.ted.com/talks](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbGo0dmFSeGFmSGQ3QWtxZnpZYUw3SEtDSTJsUXxBQ3Jtc0ttckRnaS1tUHpubGtyQ0FGSzZYLWEzRXc5WDk3Wkx1M3A5QUVMY1NJZkdidXYtNDRySlgyLTE0VzVpcU9jZ21fZnF0VXlyYUZfNEVoVnFWT3VpdEVpQWpmaWJXWDl0cE5OQ3NReGZuNTNHZ3Y1YjR5WQ&q=https%3A%2F%2Fwww.ted.com%2Ftalks&v=6OdooYIKSEg)

5) YouTube

Website:- [https://www.youtube.com](https://www.youtube.com/)