# To Do List

Development is broken into short-term and long-term directions. We are interested in optimizing our methodology and are eager to hear from people with linguistics and education backgrouds to comment on our approach

## Short-Term Goals

- We need a working prototype, be able to open an indepedent window and call an audio file.
- Scoring scheme for individual cards and user interface.
- Optimal number of cards for the learning decks.
- Graphic visualization for tones on each card.
- Pinyin and kanji for each card.
- Statistics on each card and on user usage.
- Main deck.

## Long-Term Goals

- Make a database for the audio files.
- English recordings for mandarin speakers to practice english pronunication.
- Simplified kanji.

# Vocabulary Tables

Current vocabulary available organized by level

# Database

A database is simply an organized collection of related information. DBMS stands for database management systems which is software designed for creating and maintaining databases. Generally when you work with a database you are creating, reading from, updating, and deleting information. A DBMS provides these 4 major functions.

There are two major types of databases, SQL (relational) and non-relational (noSQL). Relational databases are the most common, they create tables and store the data within these tables. noSQL are simply anything else. mySQL and Oracle are relational DBMS and use SQL to interact with the database. mongoDB, apache are examples of noSQL DBMS.

SQL is standardized, across platforms there is slight changes in syntax but equivalent structure, the same is not true for noSQL methods.

Given our data space will not be changing (name-english name-chinese Pinyin tones audio) we do not need to use object-oriented methods for the database and will simply use a relational database. For development SQLite seems ideal as it can be used directly from standard python library and it does not require us to make a server. We will have 1 file with tables and the tables contain the data, our entire database is just one file.

In the future we could imagine increasing the dataspace to have user information for development we will just focus on the application itself.

Another option would be a non-relation database like JSON where you store all your information in a file (something like a dictionary in python).

## Card Selection Implementation

The choice of which card to test is crucial.