**Using a Database**

**Introduction**

Last modified: 6 April 2022

Your assignment is to create a web-database system that allows the user to maintain a list of words with parts of speech and definitions. The user must be able to add a new entry (word, part of speech, and definition) and to delete a list of existing entries. All data must be stored in your MySQL database on borax, accessed from your code on sand.

Major differences from earlier versions of this system:

* keeping the words in alphabetical order by word and part of speech is irrelevant; sort order is handled by database queries
* there are no text files; all data are stored in the database
* you do not need to be able to add new parts of speech; the parts of speech are stored in a database table

Otherwise you should follow the instructions and system desiderata in the previous assignments, plus

* when a string is entered in the search box to find potential words to delete, only the words starting with that substring are to be fetched in JSON format using AJAX; do not fetch all the words in the database at once
* when it is time to delete the selected list of words, only a JSON-encoded array of the database word ids is to be POSTed to the server using AJAX

Your database must have the following two tables:

| **Table name: word** | |
| --- | --- |
| **Name** | **Data Type** |
| id | primary key auto-increment |
| word | string |
| part\_id | foreign key |
| definition | a modest amount of text |

| **Table name: part** | |
| --- | --- |
| **Name** | **Data Type** |
| id | primary key auto-increment |
| part | string |

Use the following architecture for your system

**managewords.html**

page layout and starting content

**add\_word.php**

receives a single word, part of speech, and definition, JSON-encoded, POSTed via AJAX

**delete\_words.php**

receives a JSON-encoded list of primary key ids of words to be deleted from the database, JSON-encoded, POSTed via AJAX

**get\_words.php**

receives a single string in a GET parameter and returns a JSON-encoded list, each entry of which contains a primary key, a word, its part of speech as a string, and its definition

**managewords.js**

controls the logic and behavior of the user’s view and communicates with the server as needed using JSON and AJAX

**managewords.css**

the normal CSS stuff

By the due data and time listed above, submit:

1. a text file containing the link to managewords.html on sand named url.txt
2. a SQL file containing the statements that create the tables (but not the statements that add data to the table) named tables.sql
3. the .html, .js, and .php files listed above

to the [homework submission](https://borax.truman.edu/315/submit.php) page.