My Python script *SelectCategories.py* calls up a window that allows you to build a LaTeX file that generates a Mixtec word dictionary. There are several checkboxes on the window, and depending on what you check off, more or less words will be printed on the dictionary. Currently, words can be filtered for part of speech and number of syllables. You can also type in a string of letters in order to filter words by orthographical segment. After checking off how many categories you are interested in, the *Build Dictionary* button is pushed and the dictionary is written as a LaTeX document. The program also runs pdfLaTeX on the new file so that the pdf is already produced.

The program relies on another file to retrieve the Mixtec words. This file, *MixtecDict*, is a collection of a few hundred words bundled together with their alternative spellings, pronunciation information, letter category, part of speech, and translations in Spanish and English. All this information is separated by commas, and each bundle of word information is separated by lines. The python program creates a list of lists from *MixtecDict*, with each line turned into a list, and commas interpreted as entry separation points. This list of lists is called *asList*, and it facilitates retrieval of particular information about each word, such as part of speech. There is another list created called *goodList*, and it is identical to *asList* except that the pronunciation information is further broken down into lists of lists of segmental information.

After creating these new lists, the information from the letter and part of speech columns for each word are sorted into new lists. Another list is made from the syllable information from the pronunciation column, and it has the syllable count for each word. These lists are then operated on by a command called *categories*, which makes a list of all distinct entries. The lists made from the *categories* command are used for writing the checkboxes in the window that pops up after running the program.

The *Build Dictionary* button on the window operates a command, *BuildDict*, that writes a LaTeX document within a new folder called *Dictionary*. The list of letter categories is used for creating different tables that are labeled by each letter. Then, words are inserted into each table with their part of speech and translations, as long as their letter category matches the letter that the table is labeled under. Several *if* statements are used for further filtering words based on syllable count and part of speech. This other layer of filtering is achieved by collecting the information on checked checkboxes and creating new lists of selected categories with a command called *wanted*. The *if* statements allow the user to sort through words as long as their parts of speech or syllable counts are contained in the lists created by the *wanted* command.

The *BuildDict* command also uses the *wanted* lists for writing out the explicated lists of selected categories on the LaTeX document, and it does some math to provide the total words printed as well. Finally, the command runs pdfLaTeX on the new file inside the *Dictionary* folder, creating a pdf. The program can be adapted for filtering by tone sequences, voice quality sequences, and consonants and vowels present. The dictionary notably lacks verbs, which I plan to add later.