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Proposal for Assignment

In this testing assignment, the name of the Python library which I would like to use TSTL to test is Xpinyin. The source code of this library can be download from the Github website and the link come as follow https://github.com/lxneng/xpinyin. This library is developed by Eric Lo, and he is come from China. This python library is use for transform the Chinese word (writing character) in to Chinese pinyin (the pronunciations of the word). The reason why I choose this library is it can help user get the pinyin for the input(the writing word) from user. With the developing of technology, young people rely on the cell phone and computer. So the ability of recognize the pronunciation of word is become weak. Through this library the user input the word then they would get the pronunciation of the word from the output. In this project, I would like to use the Template Scripting Testing Language (short with TSTL as follow) which I learn in the class this term to test this python library.

First I found this python library in the Github website, it is a third party library, so there are some small problems to install it on mac. But it has no problem to install on windows. I would like try to debug this python library from these aspects, multiple pronunciation, unusual Chinese word, and complex long sentence. In order to debug for this library as much as possible, I would like to design more test data for it. The first kind test data is multiple pronunciation. In Chinese language, some word may have different pronunciation in different situation. In order to test this problem for this python library, I would like to input a sentence include this multiple pronunciation twice or more times. Then check the output to check if the pronunciation is right under the situation. Such like Chinese word “强”， this word has three pronunciations and different meanings. Second case is unusual Chinese word. In this case, I need to collect enough unusual word as the input to test the python library. If the library can not output the right pronunciation for the unusual word that may mean the support data for this library is not strong enough. The third case is complex long sentence. In this problem, I combine two aspects one is the longest strings this library can accept the other is the long string is includes the multiple pronunciation. So if I just set a paragraph of Chinese word as the input, then check the output.

In class, the professor provides a example use TSTL to test the AVL tree. In the requirement of this project, the library need with multiple function, so I choose this library as my project. There several function calls in this python library, such like get_pinyin(), show_tone_marks, remove_splitter, get_initials and so on. Get_pinyin() function would help user transform the Chinese word to pinyin. Show tone marks would provide the pitch of the voice for each word in the output. I would design more test example for this python library in the future to improve this library.