

## Lab Exercise #3

### Assignment Overview

This lab exercise provides practice with strings and functions in Python.

You will work with a partner on this exercise during your lab session. Two people should work at one computer. Occasionally switch the person who is typing. Talk to each other about what you are doing and why so that both of you understand each step.

### Programming with Strings

Develop a Python program which will convert English words into their Pig Latin form, as described below.

The program will repeatedly prompt the user to enter a word. First convert the word to lower case. The word will be converted to Pig Latin using the following rules:

- a) If the word begins with a vowel, append “way” to the end of the word.
- b) If the word begins with a consonant, remove all consonants from the beginning of the word and append them to the end of the word. Then, append “ay” to the end of the word.

For example:

```
"dog" becomes "ogday"  
"scratch" becomes "atchscray"  
"is" becomes "isway"  
"apple" becomes "appleway"  
"Hello" becomes "ellohay"  
"a" becomes "away"
```

The program will halt when the user enters “quit” (any combination of lower and upper case letters, such as “QUIT”, “Quit” or “qUIt”).

Suggestions:

- a) Use `.lower()` to change the word to lower case.
- b) How do you find the position of the first vowel? I like using `enumerate(word)` as in `for i, ch enumerate(word)` where `ch` is each character in the word and `i` is the character’s index (position).
- c) Use *slicing* to isolate the first letter of each word.
- d) Use *slicing* and *concatenation* to form the equivalent Pig Latin words.
- e) Use the **in** operator and the string `"aeiou"` to test for vowels.  
Good practice: define a constant `VOWELS = "aeiou"`

★ **Test your program on Mimir and demonstrate it to your TA. On-line students should submit the completed program (named “lab03.py”) for grading via the Mrmir system.**