

CS121 - Computer Science II

Lab Assignment #8

Fall 2011

The purpose of this exercise is to get more experience dealing with characters and strings.

For this program you are to implement an English to pig Latin translator. Pig Latin is an artificial language that is derived by permuting English words - it really serves no useful purpose, but it is sometimes a source of amusement for school-aged children.

The rules for the translation are:

- The word *a* becomes *an*.
- Other one-letter words remain unchanged.
- Words beginning with vowels are given the suffix *way*.
- Words beginning with a consonant string are altered by moving the consonant string to the end of the word and adding the suffix *ay*.
- A *q* moved due to the above rule carries its *u* along with it.
- The letter *y* is either a consonant or vowel, depending upon its use. For this lab, you can consider that *y* is a consonant when it is at the beginning of a word, but a vowel otherwise. This is usually the case, so this simplification will usually yield correct results.
- A word is considered to be a group of characters separated by white space. Punctuation characters are not considered part of any word. Also, pure numbers (character groups containing all numeric characters) are not considered to be words.

The input to this program should come from a file whose name is entered on the command line. The resulting translation should be displayed on the screen, with no more than 80 characters on each line, and with only full words printed on each line.

You can use either chars and C-style strings (recommended), or the C++ string class for implementation.

An example dialog is shown below. The Unix cat command is used to display the original input file (named `examp.eng`):

```
$ cat examp.eng
The quick brown fox jumped over the lazy dog with style;
except when
a fox has jumped over
more than 100 dogs.
$ ./piglatin examp.eng
Ethay ickquay ownbray oxfay umpedjay overway ethay azylay ogday ithway ylestay;
exceptway enwhay anway oxfay ashay umpedjay overway oremay anthay 100 ogsday.
$
```