**PIG LATING CONVERTER LISTS LAB INSTRUCTIONS**

Pig Latin is a made-up language sometimes used by children. Here are the rules for converting an English word to Pig Latin. If the word begins with a consonant, move the consonant to the end of the word and add “ay” after it. If the word begins with a vowel, add “yay” to the end of the word.

Examples:

English Pig Latin

dog ogday

Apple Appleyay

easy easyyay

Cattle attleCay

Consider the following incomplete declarations of a PigLatinConverter class that allows a line of text to be converted to Pig Latin. The line of text is stored internally as a String.

public class PigLatinConverter

{

private String myLine;

/\*\*

\* @param ch a single-character string

\* @return true if ch is a vowel, false otherwise

\*/

private boolean isVowel(String ch)

{ /\* should have been implemented in part (a) of original PigLatinConverter Lab; copy it over \*/  
}

/\*\*

\* Precondition: word is not null and may begin with a vowel or consonant.

\* @param word the word to be converted to Pig Latin

\* @return the Pig Latin form of word

\*/

public String toPig(String word)

{ /\* should have been implemented in part (b) of original PigLatinConverter Lab; copy it over \*/}

/\*\* Private helper method

\* Precondition: myLine contains at least one word.

\* Words are separated by exactly one space.

\* There is no punctuation in myLine.

\* Postcondition: myLine is unchanged.

\* @return a list of words in myLine

\*/

private List<String> getLineWords()

{ /\* to be implemented in part (a) \*/  
}

/\*\*

\* Mutator method

\* Precondition: myLine contains at least one word.

\* Words are separated by exactly one space.

\* There is no punctuation in myLine.

\* Postcondition: myLine has been converted to Pig Latin.

\* The Pig Latin words are separated by one space.

\*/

public void pigLatin()

{ /\* to be implemented in part (b) \*/}

}

1. Write the private helper method getLineWords. The method returns an ArrayList of words contained in myLine. You may assume that myLine contains at least one word, that there is no punctuation, and that the words in myLine are separated by one space.

For example, if myLine is the String

“What a lovely day”

a call to getLineWords() will return the ArrayList [“What” , “a” , “lovely” , “day”]

Complete method getLineWords below.

/\*\*

\* Private helper method

\* Precondition: myLine contains at least one word.

\* Words are separated by exactly one space.

\* There is no punctuation in myLmne.

\* Postcondition: myLine is unchanged.

\* @return a list of words in myLine

\*/

private List<String> getLineWords()

{

}

1. Write the PigLatinConverter mutator method pigLatin. This method converts all the words in myLine to Pig Latin.

For example, if myLine is the String

“What a lovely day”

a call to pigLatin() will change myLine to the String “hatWay ayay ovelylay ayday”

In writing pigLatin, you may call methods toPig and getLineWords from parts (a) and (b), as well as the isVowel method. Assume that all these methods work as specified, regardless of what you wrote in parts (a) and (b).

Complete method pigLatin below.

/\*\*

\* Mutator method

\* Precondition: myLine contains at least one word.

\* Words are separated by exactly one space.

\* There is no punctuation in myLine.

\* Postcondition: myLine has been converted to Pig Latin.

\* The Pig Latin words are separated by one space.

\*/

public void pigLatin()

{

}