import java.util.\*;

import edu.duke.\*;

public class WordsWithArrays {

StorageResource myWords;

public WordsWithArrays() {

myWords = new StorageResource();

}

public void readWords(){

myWords.clear();

FileResource resource = new FileResource();

for(String word : resource.words()){

myWords.add(word.toLowerCase());

}

}

public boolean contains(String[] list, String word, int numStored){

for(int k=0; k < numStored; k++){

if (list[k].equals(word)){

return true;

}

}

return false;

}

public int countDifferentArray(){

int numStored = 0;

String[] words = new String[myWords.size()];

for(String s : myWords.data()){

if (! contains(words,s, numStored)){

words[numStored] = s;

numStored++;

}

}

return numStored;

}

public void tester(){

readWords();

System.out.println("number of words read: "+myWords.size());

int unique = countDifferentArray();

System.out.println("array count "+unique);

}

}

/\*\*

\* Find out how many times each word occurs, and

\* in particular the most frequently occurring word.

\*

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\* @version 1.0

\*/

import edu.duke.\*;

import java.util.ArrayList;

public class WordFrequencies

{

private ArrayList<String> myWords;

private ArrayList<Integer> myFreqs;

public WordFrequencies() {

myWords = new ArrayList<String>();

myFreqs = new ArrayList<Integer>();

}

public void findUnique(){

FileResource resource = new FileResource();

for(String s : resource.words()){

s = s.toLowerCase();

int index = myWords.indexOf(s);

if (index == -1){

myWords.add(s);

myFreqs.add(1);

}

else {

int freq = myFreqs.get(index);

myFreqs.set(index,freq+1);

}

}

}

public void tester(){

findUnique();

System.out.println("# unique words: "+myWords.size());

int index = findMax();

System.out.println("max word/freq: "+myWords.get(index)+" "+myFreqs.get(index));

}

public int findMax(){

int max = myFreqs.get(0);

int maxIndex = 0;

for(int k=0; k < myFreqs.size(); k++){

if (myFreqs.get(k) > max){

max = myFreqs.get(k);

maxIndex = k;

}

}

return maxIndex;

}

}