import edu.duke.\*;

import java.util.\*;

public class WordFrequenciesMap {

public void countWords(String filename){

FileResource fr = new FileResource(filename);

ArrayList<String> words = new ArrayList<String>();

ArrayList<Integer> counters = new ArrayList<Integer>();

for(String w : fr.words()){

w = w.toLowerCase();

int index = words.indexOf(w);

if (index == -1){

words.add(w);

counters.add(1);

}

else {

int value = counters.get(index);

counters.set(index, value + 1);

}

}

int total = 0;

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

if (counters.get(k) > 500){

System.out.println(counters.get(k)+"\t"+words.get(k));

}

total += counters.get(k);

}

System.out.println("total count: "+total+" different = "+words.size());

}

public void countWordsMap(String filename){

FileResource fr = new FileResource(filename);

HashMap<String,Integer> map = new HashMap<String,Integer>();

for(String w : fr.words()){

w = w.toLowerCase();

if (!map.containsKey(w)){

map.put(w,1);

}

else {

map.put(w,map.get(w)+1);

}

}

int total = 0;

for(String w : map.keySet()){

int value = map.get(w);

if (value > 500){

System.out.println(value+"\t"+w);

}

total += value;

}

System.out.println("total count: "+total+" different = "+map.keySet().size());

}

public void tester(){

String filename = "data/kjv10.txt";

double start = System.currentTimeMillis();

countWords(filename);

double end = System.currentTimeMillis();

double time = (end-start)/1000;

System.out.println("time = "+time);

start = System.currentTimeMillis();

countWordsMap(filename);

end = System.currentTimeMillis();

time = (end-start)/1000;

System.out.println("time = "+time);

}

}