Homework 5

Deadline: 2015/05/01 09:00

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Problem Description

- Some word games require the player to find words that can be formed using the letters of another word.
- For example, given the word SWIMMING, other words that can be formed using the letters include SWIM, WIN, WING, SING, MIMING, etc.
- Write a program that output all the words contained in the file *dictionary.txt* that can be formed from the letters of a given word in *hw5_input.txt*.
  - There may be more than one word in *hw5_input.txt*.
- Your output should be exactly in the format:

  $word_G$ => $word_1$, $word_2$, ..., $word_n$,

  where $word_G$ is the given word in *hw5_input.txt*, and $word_i$ is a word in *dictionary.txt*.

Problem Description

- For solving this problem, here is a simple algorithm to do this:
  - Create an array that counts up the number of each letter in the given word (e.g., one S, one W, two I, two M, etc.)
  - And then creates a similar array for the current word read from *dictionary.txt*.
  - The two arrays can be compared to see if the word from *dictionary.txt* could be created out of the letters from the given word.

- The input files *dictionary.txt* and *hw5_input.txt* are given from the program arguments *args[0]* and *args[1]*, respectively.
- You can assume that all words are in lower case.
- If you define your own classes, put all the classes in one file.

Sample Input and Output

File content	asus htc sony yahoo nike puma casio benq canon nikon
Output	asus => ass, usa, htc => sony => nos, nosy, son, soy, yon, yahoo => ahoy, hay, oho, ooh, yahoo, nike => ink, ken, kin, kine, puma => amp, amu, map, puma, ump, casio => cia, ciao, sac, sci, sic, soc, benq => ben, neb, canon => ann, anno, anon, can, canon, con, conn, nan, non, nikon => ikon, ink, inn, ion, kin, non, oink,

Scoring Criteria

- Correctness: 80%
  - Note that TA will test your program with more than one test case.
- Coding standards: 20%
- Plagiarism is strictly forbidden

Submission

- Please upload your source code to Moodle
- The file name should be `{STUDENT_ID}_hw5.java`
- Deadline: 2015/05/01 09:00
- No late submission is accepted

If you have any problem about this homework,
please email to: t824675951535@hotmail.com（林宥辰）