UNIVERSITY OF LONDON

Principles and Applications of Programming

Exercise 4

This coursework consists of Three questions. You must attempt all questions

The marking scheme is a follows:

1. *Spellchecker.java [up to 15 marks]*
   . *if the word is correct and is added at the correct place in the dictionary (up to 5 marks)*
   . *if user has to type the correct spelling and the file is updated with the correct spelling (up to 10)*
2. *a method that implements The soundEx algorithm [up to 10 marks]*
3. *SpellcheckerSuggestion.java. [up to 20 marks]*

   if the suggestion is correctly implemented (up to 10)

   if no suggestion was found and the user has to type the correct spelling, update the file and the dictionary accordingly (up to 10 marks)
4. *(up to 5 marks) for a well commented source code!*

Question 1

(a) Write a program, Spellchecker.java, that takes a file as command line argument, goes through a file and every time it finds a word not in the dictionary it offers the user the following: It prompts the user either to accept a word and add it to the dictionary or to enter a replacement. The correct spellchecked file should be stored in a different file. [15]

(b) Find out about the SoundEx algorithm and write a method that implements it (up to 5 marks) or Find out about the Levenshtein algorithm and write a method that implements it (up to 10 marks). [10]

(c) Write a program, SpellcheckerSuggestion.java, that takes a file as command line argument, goes through a file and every time it finds a word not in the dictionary it offers the user a list of similar words to choose from using the SoundEx algorithm . It prompts the user either to accept a word from the list or to enter a replacement or enter the correct spelling if none of the suggestions is the correct spelling. New words entered by the user should be added to a local dictionary. The correct spellchecked file should be stored in a different file. [25]

 END OF EXAMINATION