



同濟大學
TONGJI UNIVERSITY

School of Software Engineering

Object-Oriented Programming OOP (2016)

Exercise 4

Please submit the source files, program results after running the .exe file and related documents. The submitted package/files should be named by “yourname_studentid_exerciseno”. Submit the package/files to your own folder on server ([\\10.60.41.1](http://10.60.41.1)). It should be the C++ folder.

Due day: 12:00 noon, Wednesday, Apr.13, 2016

Problem 1

Implement a function that counting word frequency. It reads an English article from a user-specified txt file (the article.txt in exercise 1) and counts their number. Output the words and counts to two files. One of the output files is in lexicographic order, and the other file is in descending frequency order.

Problem 2

Implement a function that reads the previous input file (article.txt), and stores the words into a vector, then sort the vector according to the length of the words. A function object should be passed to `sort()`, which accepting two strings as parameters. If the length of the first string is shorter than that of the second, the function object returns true. Output the sorted words to a file.

Problem 3

Implement a function that uses *istream_iterator* to read a series of integer from the standard input device. Use *ostream_iterator* to write the odd numbers to a file, which delimited by space. Write the even numbers to another file, which delimited by a return.