CST8132 Object Oriented Programming

Exercise 8 – File IO

Steps:

- Create a new project in Eclipse
- Copy the provided wordlist.txt file into the Project folder
- Write a single Class named "Reverser" that performs the requested tasks:

Tasks:

- Use a java.util.Scanner to load each word in the wordlist.txt file into an ArrayList<String>
  - Provide the Scanner a reference to a FileReader
- Report the number of words placed into the ArrayList
- Use the java.util.Collections class to reverse the order of the references in the ArrayList
- Use a java.util.Formatter to write the re-ordered words into a new text file named "reversed.txt"
  - Provide the Formatter with a reference to a FileWriter
  - Make sure that each word is placed onto a separate line
  - Additionally, write code so that Java provides the correct end of line terminator for each line.
    - Note: No \n, or \r\n allowed!
- Write code to help ensure your program has no resource leaks.

Grading (1 point each):

- Program opens file with Scanner?
- Program loads words into ArrayList<String>?
- Program reports number of words loaded into ArrayList<String>?
- Collections class was used to reverse order of references to words in the ArrayList<String>?
- Program writes to a new file using Formatter?
- Program uses Java code to insert correct end of line terminator after each word?
- IOException is caught?
- Scanner and Formatter were closed? Formatter was flushed before closed?
- Student shows original file using text editor?
- Student shows new file using text editor?

Reference / Resources:

Note: wordlist was downloaded from the internet and has no warrantees implied or expressed:
John Lawler. (1999). An English Word List. Retrieved from
http://www-personal.umich.edu/~jlawler/wordlist.html

Appendix – Sample Program outputs:

```
Reading in data
Loaded 69903 words from file
Reversing word list
Writing word list
```

wordlist.txt:	reversed.txt:
a	zymurgy
a-horizon	zymotic
a-ok	zymosis
aardvark	zymase
aardwolf	zygotic