

## CSCD 210

### Lab 10

Provided is CSCD210Lab10.java that is an unchangeable Java file. Your task is to complete the program based on the specifications below.

- You will prompt the user for the name of the input file. You must ensure the file exists, if it does not you must reprompt. The file will contain strings, one string per line. The string may contain spaces.
- You will open that file and count the number of records in the file. There will be one string per line.
- You will create and fill an array of type String for each String that is in the file.
- The array is then sorted by calling the compareTo of String and you must write the selection sort method
- After the array is sorted, the information is printed to the screen, each string will be on a separate line. Your output to the screen will be in the format similar as your input file.
- The above is repeated passing in a String as the file name
- The above is repeated passing in a bad String as the filename. This will cause a program ending exception.

### NOTES

- See the provided API – you must write all the methods specified in the API
- All parameters passed to a method will be final
- All preconditions for the method will be checked
- You may NOT assume the input file specified by the user exists. If it does not, print an error message and re-prompt the user for an input file name.
- You must create an input file that allows you to sufficiently test the specifications of this lab.
- You can't change my imports or class in any fashion.
- I have provided the Javadoc which contains more details, please refer to the Javadoc.

### TO TURN IN

A zip file, in Canvas, by the required due date containing:

- all java files in the proper packages
- the input file(s) used to test your program
- a test run named cscd210lab10out.txt – testing all aspects
- We should be able to download the zip and compile your code, and then run your code.
- Name your zip, your last name first letter of your first name lab10.zip (Example: steinerslab10.zip)

## **Sample Run**

Please enter the name of the file `words.txt`

a

aardvark

aback

abacus

abaft

abalone

abandon

abandoned

abase

abash

abate

azure

b

babble

babe

babel

baboon

babushka

baby

baccalaureate

bacchanalia

bachelor

bacillus

back

adversativeconjunction

anthropomorphologically

antidisestablishmentarianism

antiestablishmentarians

beating around the bush

carboxymethylcelluloses

chlorotrifluoroethylene

cyclotrimethylenetrinitramine

deinstitutionalizations

dichlorodifluoromethane

electroencephalographic

electrophotomicrography

ethylenediaminetetraacetates

floccinaucinihilipilification

hexamethylenetetramines

hydrochlorofluorocarbon

hypobetalipoproteinemia

magnetohydrodynamically

methylenedioxymethamphetamine

microspectrophotometric

penny for your thoughts

polytetrafluoroethylene

thymolsulphonephthalein

transubstantiationalist

Exception in thread "main" java.lang.RuntimeException: File could not be opened at `cscd210Utils.FileUtils.openInputFile(FileUtils.java:118)`  
at `cscd210Lab10.CSCD210Lab10.main(CSCD210Lab10.java:51)`