Lab # 10

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CPSC 1150 - 003

Instructor: H. Darbandi

Lab Title: Lab 10

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Department: CPSC

Program to read a text file word by word in an array of Strings, process the words, sort

the words in alphabetical order, and save them in sorted order in another file

File Name: Lab10.java

Purpose: read a text file word by word in an array of Strings, process the words, sort

the words in alphabetical order, and save them in sorted order in another file

Input: unsorted text

Output: output file

Technical Information:

(You should fill the following information based on compiler and computer you are using).

Compiler: IntelliJ IDEA Community Edition 2023.1.1

Computer: (R) Core(TM) i7-10870H CPU @ 2.20GHz 2.21 GHz, 16 GB of RAM

Operating System: Windows 10 Home Single Language

Language: Java

Program Logic (Pseudocode)

**writeFile(FileWriter output, String[] arr)**

Algorithm: Writes all the formatted string into a file and ignoring any reoccurring words in the file

* 1. output: output file that is going to be written into
  2. arr: array that contains all the words in the file

START

1. temp, prev 🡨 “”
2. FOR s in arr
   1. IF length of s == 0 OR character at (0) == ‘-‘

CONTINUE

* 1. temp 🡨 s
  2. IF temp IS NOT EQUAL prev

WRITE output = temp + \n

prev 🡨 temp

END

Generate your test cases based on the specifications in your lab assignment. Follow following format for each test case: (Refer to external document of your first lab)

*purpose*

*input*

*output*

*expected value*

*passed or failed*

Test Cases:

Test Case: use the file provided

Input:

Enter input file

Unsorted.txt

Enter output file

Sorted.txt

Output:

No. of words: 593

a-265

b-33

c-134

d-98

e-335

f-52

g-85

h-92

i-251

j-24

k-13

l-98

m-69

n-247

o-235

p-65

q-5

r-246

s-223

t-303

u-61

v-39

w-32

x-7

y-29

z-0

Sorted.txt:

a

accessing

addition

allocated

almost

an

and

any

api

api-compatible

arbitrary

are

array

as

assign

assigning

associated

at

away

be

because

below

between

but

by

c

call

calling

can

cannot

cc

char

characters

cheaper

circle

circles

class

classes

codes

common

commonly

commonly-used

complete

complex

computation

concatenate

concatenation

conserve

consideration

constructed

construction

constructor

constructors

constructs

contain

contains

content

contents

cool

create

created

crucial

decided

declared

designed

designers

directly

does

doing

double

double-quoted

drop-in

efficiency

either

engineering

environment

everything

example

except

existing

explicit

facilitates

faster

features

first

for

form

frequently

guarantee

guaranteed

hand

having

heap

hello

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implicit

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include

initialized

instance

instead

int

integrity

internally

into

introduced

is

it

its

java

javalang

javalangstring

javas

jdk

just

language

less

like

listing

literal

literals

makes

making

management

manipulate

memory

method

methods

modified

modifying

more

most

multiple

new

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object

object-oriented

objects

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other

overhead

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package

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performance

performs

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stringbuilder

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synchronization

synchronized

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