

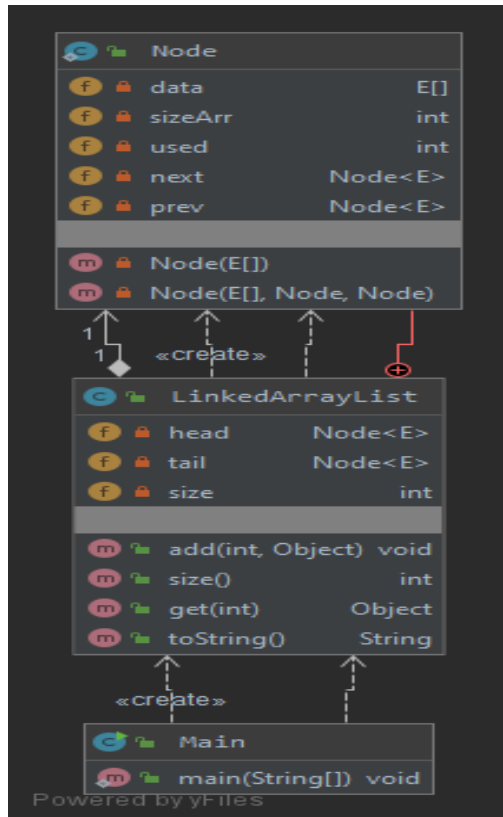
**GIT Department of Computer Engineering
CSE 222/505 - Spring 2020
Homework 3 Report**

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Q1.

1. CLASS DIAGRAMS



2. PROBLEM SOLUTION APPROACH

For this part of the homework, we need to create a linkedlist structure but it has to hold its data as arrays. So, first I created a node class which will keep the data. Node class's data field is array. Also we need to know the size of each array and how many elements are there. That's way I used integer size and used variables for holding these informations. Next and prev variables are for representing the linkedlist's next and previous nodes. After writing the generic inner node class, we need to hold node objects data field for linkedArrayList class. This class holds two nodes; head and tail for the linkedlist structure. And size variable for holding the size of the linkedArrayList. After creating list structure, I implemented a method for adding variables. Method add takes two parameter integer index value and an element of type Object. For printing the elements in the nodes, toString method is overridden.

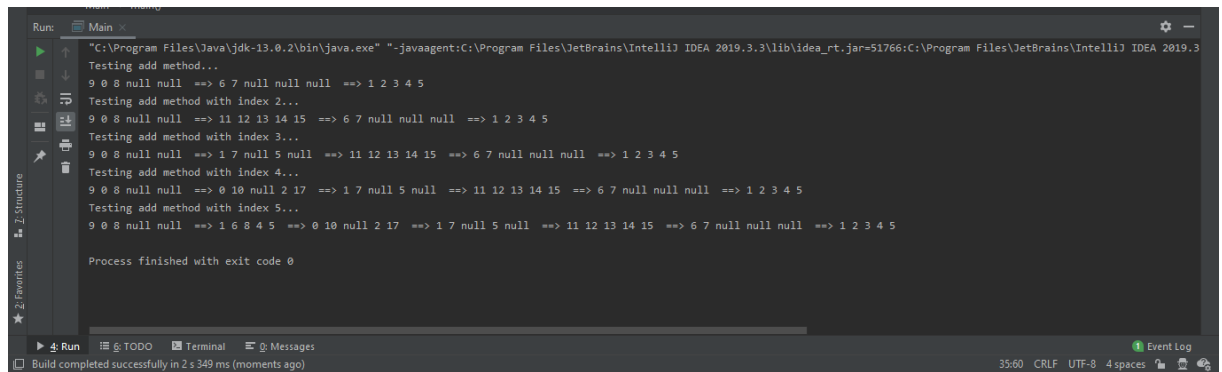
Main class includes static void main method and this main makes the test cases of the program.

Note: I couldn't complete all of the requirements for this part, I could only make addition of nodes and still I want to upload what I made for this question.

3. TEST CASES

- LinkedList object is created.
- Arrays created for adding as node.
- Add method called.
- LinkedList object printed after adding.

4. RUNNING AND RESULTS



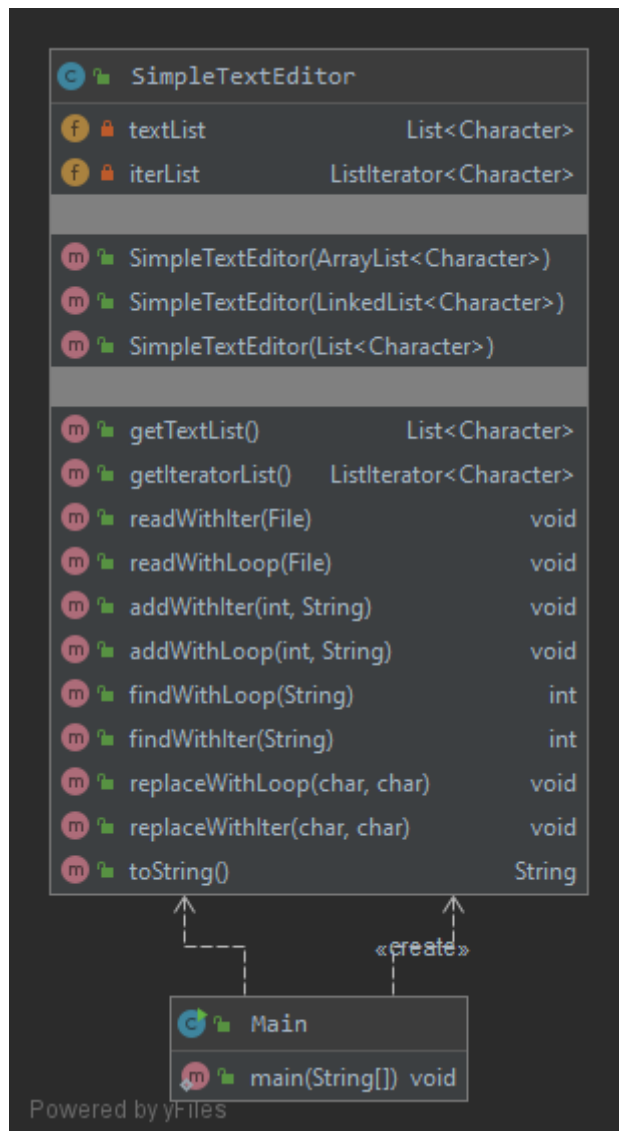
```
"C:\Program Files\Java\jdk-13.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2019.3\lib\idea_rt.jar-51766:C:\Program Files\JetBrains\IntelliJ IDEA 2019.3\bin\idea_rt.jar"
Testing add method...
9 0 8 null null ==> 6 7 null null null ==> 1 2 3 4 5
Testing add method with index 2...
9 0 8 null null ==> 11 12 13 14 15 ==> 6 7 null null null ==> 1 2 3 4 5
Testing add method with index 3...
9 0 8 null null ==> 1 7 null 5 null ==> 11 12 13 14 15 ==> 6 7 null null null ==> 1 2 3 4 5
Testing add method with index 4...
9 0 8 null null ==> 0 10 null 2 17 ==> 1 7 null 5 null ==> 11 12 13 14 15 ==> 6 7 null null null ==> 1 2 3 4 5
Testing add method with index 5...
9 0 8 null null ==> 1 6 8 4 5 ==> 0 10 null 2 17 ==> 1 7 null 5 null ==> 11 12 13 14 15 ==> 6 7 null null null ==> 1 2 3 4 5

Process finished with exit code 0
```

Build completed successfully in 2 s 349 ms (moments ago)

Q2.

1. CLASS DIAGRAMS



2. PROBLEM SOLUTION APPROACH

In question two for homework, we need to implement a `SimpleTextEditor` class. This class should be able to make some editings on a given text.

First we need to keep the text in a data structure. I kept text in a java `List` structure. `List` can be `ArrayList` or `LinkedList`. And I kept an iterator variable for using in methods. Constructor takes list object, so we can test the class using `ArrayList` or `LinkedList` easily. After that I wrote 4 basic methods for iterator used and loop used.

`Read with iterator` method reads the given file and assigns it to the list character by character by using an iterator. `Read with loop` method again, reads the given txt file and assigns it to list data variable by using loop.

Add method adds new one or more characters to the list to specified index. This method written in two ways; using iterator and using loop.

Find method returns the start index of first occurrence of the searched group of characters. If searched characters not exist in the text, it returns -1. This method written both iterator using and loop using versions.

Replace method replaces all occurrences of a character with another character. This method takes two parameters, one is character that will be changed and other is the character that want to be replaced. Replace method written for both iterator and loop used versions.

3. TEST CASES

There are four main test case for this program.

1) List is an ArrayList and iterator is used

- SimpleTextEditor object created with an arrayList object.
- readWithIter method called.
- addWithIter method called.
- findWithIter method called.
- replaceWithIter method called.

2) List is an ArrayList and iterator is not used

- SimpleTextEditor object created with an arrayList object.
- readWithLoop method called.
- addWithLoop method called.
- findWithLoop method called.
- replaceWithLoop method called.

3) List is a LinkedList and iterator is used

- SimpleTextEditor object created with an linkedList object.
- readWithIter method called.
- addWithIter method called.
- findWithIter method called.
- replaceWithIter method called.

4) List is a LinkedList and iterator is not used

- SimpleTextEditor object created with an linkedList object.
- readWithLoop method called.
- addWithLoop method called.
- findWithLoop method called.
- replaceWithLoop method called.

These four test cases worked two times, one for is short text file and other one is longer text file.

5) Analysis of the performance of each method theoretically using the most appropriate asymptotic notation:

- readWithIter method called: $O(n)$ because there is one loop iterates as iterator.hasNext().
 - addWithIter method called: $O(n.m)$ because i have nested for loops .
 - findWithIter method called: $O(n.m)$ because i have two for loops as nested.
 - replaceWithIter method called: $O(n)$ because i iterate as text size.
-
- readWithLoop method called: $O(n)$ because i have only one loop as text size.
 - addWithLoop method called: $O(n)$ because i have only one loop goes as list size.
 - findWithLoop method called: $O(n.m)$ because i used nested for loop.
 - replaceWithLoop method called: $O(n)$ because i used for loop as text size.

To calculate the total time, we take bigger time which is $O(n.m)$ for each case.

List is an ArrayList and iterator is used = $O(n.m)$

List is an ArrayList and iterator is not used = $O(n.m)$

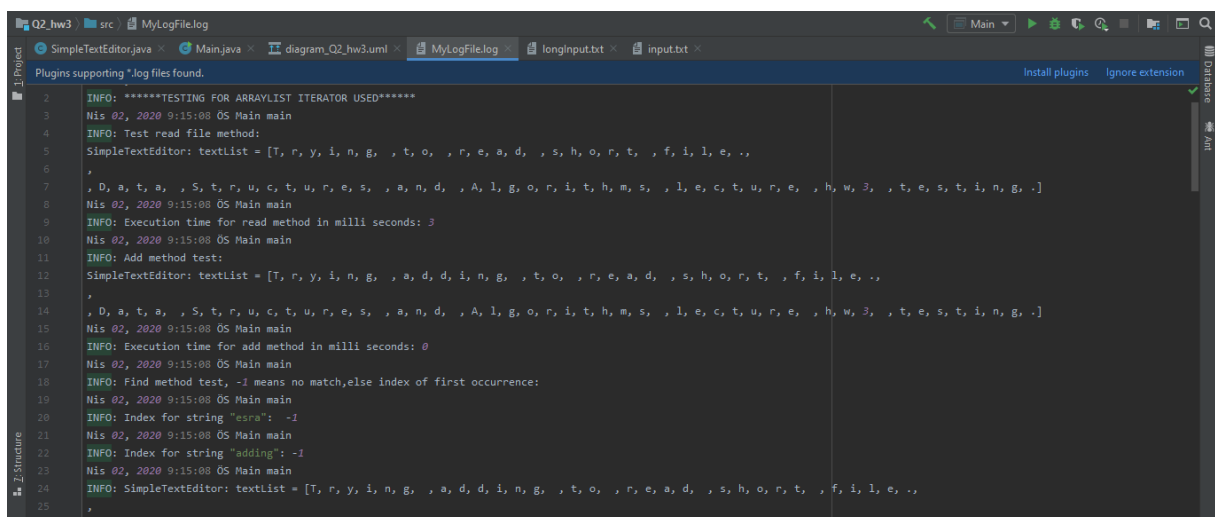
List is a LinkedList and iterator is used = $O(n.m)$

List is a LinkedList and iterator is not used = $O(n.m)$

4. RUNNING AND RESULTS

A-Outputs for short text

1-List is arrayList and iterator used



```
INFO: *****TESTING FOR ARRAYLIST ITERATOR USED*****
Mis 02, 2020 9:15:08 OS Main main
INFO: Test read file method:
SimpleTextEditor: textList = [T, r, y, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
,
, D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
Mis 02, 2020 9:15:08 OS Main main
INFO: Execution time for read method in milli seconds: 3
Mis 02, 2020 9:15:08 OS Main main
INFO: Add method test:
SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, ,s, h, o, r, t, , f, i, l, e, .,
,
, D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
Mis 02, 2020 9:15:08 OS Main main
INFO: Execution time for add method in milli seconds: 0
Mis 02, 2020 9:15:08 OS Main main
INFO: Find method test, -1 means no match, else index of first occurrence:
Mis 02, 2020 9:15:08 OS Main main
INFO: Index for string "esra": -1
Mis 02, 2020 9:15:08 OS Main main
INFO: Index for string "adding": -1
Mis 02, 2020 9:15:08 OS Main main
INFO: SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, ,s, h, o, r, t, , f, i, l, e, .,
,
, D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
```

```
23 Nis 02, 2020 9:15:08 OS Main main
24 INFO: SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, ,
25 ,
26 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
27 Nis 02, 2020 9:15:08 OS Main main
28 INFO: Execution time for find method in milli seconds: 9
29 Nis 02, 2020 9:15:08 OS Main main
30 INFO: Replace method test:
31 Nis 02, 2020 9:15:08 OS Main main
32 INFO: Replacing 'd' with 'D' :
33 SimpleTextEditor: textList = [T, r, y, i, n, g, , a, D, D, i, n, g, , t, o, , r, e, a, D, , s, h, o, r, t, , f, i, l, e, ,
34 ,
35 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, D, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
36 Nis 02, 2020 9:15:08 OS Main main
37 INFO: Execution time for replace method in milli seconds: 2
```

2-List is arrayList and iterator not used

```
Plugins supporting *.log files found. Install plugins Ignore extension Database
40 *****TESTING FOR ARRAYLIST LOOP USED*****
41 Nis 02, 2020 9:15:08 OS Main main
42 INFO: Test read file method:
43 SimpleTextEditor: textList = [T, r, y, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, ,
44 ,
45 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
46 Nis 02, 2020 9:15:08 OS Main main
47 INFO: Execution time for read method in milli seconds: 2
48 Nis 02, 2020 9:15:08 OS Main main
49 INFO: Add method test:
50 SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, ,
51 ,
52 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
53 Nis 02, 2020 9:15:08 OS Main main
54 INFO: Execution time for add method in milli seconds: 0
55 Nis 02, 2020 9:15:08 OS Main main
56 INFO: Find method test, -1 means no match, else index of first occurrence:
57 Nis 02, 2020 9:15:08 OS Main main
58 INFO: Index for string "esra": -1
59 Nis 02, 2020 9:15:08 OS Main main
60 INFO: Index for string "adding": 7
61 Nis 02, 2020 9:15:08 OS Main main
62 INFO: SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, ,
63 ,
64 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
65 Nis 02, 2020 9:15:08 OS Main main
66 INFO: Execution time for find method in milli seconds: 3
```

```
Plugins supporting *.log files found. Install plugins Ignore extension Database
66 INFO: Execution time for find method in milli seconds: 3
67 Nis 02, 2020 9:15:09 OS Main main
68 INFO: Replace method test:
69 Nis 02, 2020 9:15:09 OS Main main
70 INFO: Replacing 'd' with 'D' :
71 SimpleTextEditor: textList = [T, r, y, i, n, g, , a, D, D, i, n, g, , t, o, , r, e, a, D, , s, h, o, r, t, , f, i, l, e, ,
72 ,
73 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, D, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
74 Nis 02, 2020 9:15:09 OS Main main
75 INFO: Execution time for replace method in milli seconds: 2
76 Nis 02, 2020 9:15:09 OS Main main
77 INFO:
```

3-List is LinkedList and iterator used

```
78 *****TESTING FOR LINKEDLIST ITERATOR USED*****
79 Nis 02, 2020 9:15:09 OS Main main
80 INFO: Test read file method:
81 SimpleTextEditor: textList = []
82 Nis 02, 2020 9:15:09 OS Main main
83 INFO: Execution time for read method in milli seconds: 4
84 Nis 02, 2020 9:15:09 OS Main main
85 INFO: Add method test:
86 SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, ,
87 ,
88 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
89 Nis 02, 2020 9:15:09 OS Main main
90 INFO: Execution time for add method in milli seconds: 0
91 Nis 02, 2020 9:15:09 OS Main main
92 INFO: Find method test, -1 means no match, else index of first occurrence:
93 Nis 02, 2020 9:15:09 OS Main main
94 INFO: Index for string "esra": -1
95 Nis 02, 2020 9:15:09 OS Main main
96 INFO: Index for string "adding": 7
97 Nis 02, 2020 9:15:09 OS Main main
98 INFO: SimpleTextEditor: textList = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, ,
99 ,
100 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
101 Nis 02, 2020 9:15:09 OS Main main
102 INFO: Execution time for find method in milli seconds: 3
103 Nis 02, 2020 9:15:09 OS Main main
```

```
100 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
101 Nis 02, 2020 9:15:09 OS Main main
102 INFO: Execution time for find method in milli seconds: 3
103 Nis 02, 2020 9:15:09 OS Main main
104 INFO: Replace method test:
105 Nis 02, 2020 9:15:09 OS Main main
106 INFO: Replacing 'd' with 'D' :
107 SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, D, D, i, n, g, , t, o, , r, e, a, D, , s, h, o, r, t, , f, i, l, e, .,
108 ,
109 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
110 Nis 02, 2020 9:15:09 OS Main main
111 INFO: Execution time for replace method in milli seconds: 1
112 Nis 02, 2020 9:15:09 OS Main main
113 INFO:
```

4-List is LinkedList and iterator not used

```
114 *****TESTING FOR LINKEDLIST LOOP USED*****
115 Nis 02, 2020 9:15:09 OS Main main
116 INFO: Test read file method:
117 SimpleTextEditor: textlist = [T, r, y, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
118 ,
119 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
120 Nis 02, 2020 9:15:09 OS Main main
121 INFO: Execution time for read method in milli seconds: 3
122 Nis 02, 2020 9:15:09 OS Main main
123 INFO: Add method test:
124 SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
125 ,
126 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
127 Nis 02, 2020 9:15:09 OS Main main
128 INFO: Execution time for add method in milli seconds: 0
129 Nis 02, 2020 9:15:09 OS Main main
130 INFO: Find method test, -1 means no match, else index of first occurrence:
131 Nis 02, 2020 9:15:09 OS Main main
132 INFO: Index for string "esra": -1
133 Nis 02, 2020 9:15:09 OS Main main
134 INFO: Index for string "adding": 7
135 Nis 02, 2020 9:15:09 OS Main main
136 INFO: SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
137 ,
138 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
139 Nis 02, 2020 9:15:09 OS Main main
140 INFO: Execution time for find method in milli seconds: 4
```

```
135 Nis 02, 2020 9:15:09 OS Main main
136 INFO: SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
137 ,
138 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
139 Nis 02, 2020 9:15:09 OS Main main
140 INFO: Execution time for find method in milli seconds: 4
141 Nis 02, 2020 9:15:09 OS Main main
142 INFO: Replace method test:
143 Nis 02, 2020 9:15:09 OS Main main
144 INFO: Replacing 'd' with 'D' :
145 SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, D, D, i, n, g, , t, o, , r, e, a, D, , s, h, o, r, t, , f, i, l, e, .,
146 ,
147 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
148 Nis 02, 2020 9:15:09 OS Main main
149 INFO: Execution time for replace method in milli seconds: 1
150
```

B-Outputs for long text (I just added the running time results because long text looks so complicated)

1-List is arrayList and iterator used

```
01 Nis 02, 2020 9:15:09 OS Main main
02 INFO: *****TESTING FOR ARRAYLIST ITERATOR USED*****
03 Nis 02, 2020 9:15:09 OS Main main
04 INFO: Test read file method:
05 SimpleTextEditor: textlist = [T, r, y, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
06 ,
07 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
08 Nis 02, 2020 9:15:09 OS Main main
09 INFO: Execution time for read method in milli seconds: 3
10 Nis 02, 2020 9:15:09 OS Main main
11 INFO: Add method test:
12 SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
13 ,
14 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
15 Nis 02, 2020 9:15:09 OS Main main
16 INFO: Execution time for add method in milli seconds: 0
17 Nis 02, 2020 9:15:09 OS Main main
18 INFO: Find method test, -1 means no match, else index of first occurrence:
19 Nis 02, 2020 9:15:09 OS Main main
20 INFO: Index for string "esra": -1
21 Nis 02, 2020 9:15:09 OS Main main
22 INFO: Index for string "adding": 7
23 Nis 02, 2020 9:15:09 OS Main main
24 INFO: SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, d, d, i, n, g, , t, o, , r, e, a, d, , s, h, o, r, t, , f, i, l, e, .,
25 ,
26 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
27 Nis 02, 2020 9:15:09 OS Main main
28 INFO: Execution time for find method in milli seconds: 4
29 Nis 02, 2020 9:15:09 OS Main main
30 INFO: Replace method test:
31 Nis 02, 2020 9:15:09 OS Main main
32 INFO: Replacing 'd' with 'D' :
33 SimpleTextEditor: textlist = [T, r, y, i, n, g, , a, D, D, i, n, g, , t, o, , r, e, a, D, , s, h, o, r, t, , f, i, l, e, .,
34 ,
35 , D, a, t, a, , S, t, r, u, c, t, u, r, e, s, , a, n, d, , A, l, g, o, r, i, t, h, m, s, , l, e, c, t, u, r, e, , h, w, 3, , t, e, s, t, i, n, g, .]
36 Nis 02, 2020 9:15:09 OS Main main
37 INFO: Execution time for replace method in milli seconds: 1
38
```



```
43 }
44 Nis 02, 2020 9:49:41 OS Main main
45 INFO: Execution time for read method in milli seconds: 19
46 Nis 02, 2020 9:49:41 OS Main main
47 INFO: Add method test:
48 SimpleTextEditor: textlist = [P, r, o, g, r, a, m, a, d, d, i, n, g, , s,
49 ,
50 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , Y, o, u, , u, s, e, , p,
51 ,
52 , t, h, e, , t, i, m, e, , F, o, r, , e, x, a, m, p, l, e, , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
53 ,
54 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
55 ,
56 , t, o, , f, o, l, l, o, w, , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
57 ,
58 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , y, o, u,
59 ,
60 , e, x, e, c, u, t, i, n, g, , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a,
61 ,
62 , F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
63 ,
64 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
65 ,
66 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
67 ,
68 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
69 ,
70 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
71 ,
72 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p, r, o, g, r, a, m, ,
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135 Nis 02, 2020 9:49:41 OS Main main
136 INFO: Execution time for find method in milli seconds: 9
137 Nis 02, 2020 9:49:41 OS Main main
138 INFO: Replace method test:
139 Nis 02, 2020 9:49:41 OS Main main
140 INFO: Replacing 'd' with 'D' :
141 SimpleTextEditor: textlist = [P, r, o, g, r, a, m, a, D, D, i, n, g, , s,
142 ,
143 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, D, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , Y, o, u, , u, s, e,
144 ,
145 , t, h, e, , t, i, m, e, , F, o, r, , e, x, a, m, p, l, e, , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
146 ,
147 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o,
148 ,
149 , t, o, , f, o, l, l, o, w, , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d,
150 ,
151 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , y, o,
152 ,
153 , e, x, e, c, u, t, i, n, g, , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a,
154 ,
155 , F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
156 ,
157 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f,
158 ,
159 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
160 ,
161 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
162 ,
163 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
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, F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
, f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
, i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
, h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
, i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
, f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p, r, o, g, r, a, m, ,
, F, o, r, , e, x, a, m, p, l, e, , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, c, i, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , t, h, e,
, b, e, , t, h, e, , t, e, x, t, , t, h, a, t, , n, e, e, d, s, , t, o, , b, e, , c, h, e, c, k, e, d, , A, s, , f, a, r, , a, s, , t, h, e, , c, o, m, p, u, t, e, r,
, b, o, t, h, , t, h, e, , d, a, t, a, , a, n, d, , t, h, e, , p, r, o, g, r, a, m, , i, t, s, e, l, f, , a, r, e, , i, n, p, u, t, , T, h, e, , o, u, t, p, u, t, ,
, r, e, s, u, l, t, s, , p, r, o, d, u, c, e, d, , w, h, e, n, , t, h, e, , c, o, m, p, u, t, e, r, , f, o, l, l, o, w, s, , t, h, e, , p, r, o, g, r, a, m, , a, n, d, , s,
, t, h, e, , p, r, o, g, r, a, m, , c, h, e, c, k, s, , t, h, e, , s, p, e, c, i, l, i, n, g, , o, f, , s, o, m, e, , t, e, x, t, , t, h, e, , o, u, t, p, u, t, , m, i,
, w, o, r, d, s, , t, h, a, t, , a, r, e, , m, i, s, s, p, e, l, l, e, d,
]
Nis 02, 2020 9:49:41 OS Main main
INFO: Execution time for replace method in milli seconds: 4
Nis 02, 2020 9:49:41 OS Main main
INFO:
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2-List is arrayList and iterator not used

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184 *****TESTING FOR ARRAYLIST LOOP USED*****
185 Nis 02, 2020 9:49:41 OS Main main
186 INFO: Test read file method:
187 SimpleTextEditor: textlist = [P, r, o, g, r, a, m, s,
188 ,
189 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , , Y, o, u, , u, s, e, , p,
190 ,
191 , t, h, e, , t, i, m, e, , , F, o, r, , e, x, a, m, p, l, e, , , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, n, e,
192 ,
193 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
194 ,
195 , t, o, , f, o, l, l, o, w, , , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
196 ,
197 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , , y, o, u,
198 ,
199 , e, x, e, c, u, t, i, o, n, , , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a, ,
200 ,
201 , F, i, g, u, r, e, , 1, , , s, h, o, w, s, , t, h, e, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
202 ,
203 , f, i, r, s, t, , w, a, y, , , i, g, n, o, r, e, , t, h, e, , d, a, t, a, h, e, d, , i, n, e, s, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, e, a, t, , f, o,
204 ,
205 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , , I, , n, , t, h, i, s, , v, i, e,
206 ,
207 , h, a, s, , t, h, e, , k, i, n, d, s, , o, f, , i, n, p, u, t, , , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, s, , o, f, , i, n, p, u, t, , i,
208 ,
209 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, e, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, a, i, l, l, , f, o, l, l, o, w, , , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
210 ,
211 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, e, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p,
212 ,
213 ,
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225 ]
226 Nis 02, 2020 9:49:41 OS Main main
227 INFO: Execution time for read method in milli seconds: 18
228 Nis 02, 2020 9:49:41 OS Main main
229 INFO: Add method test:
230 SimpleTextEditor: textlist = [p, r, o, g, r, a, m, a, d, d, i, n, g, , s,
231 ,
232 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , , Y, o, u, , u, s, e, , p,
233 ,
234 , t, h, e, , t, i, m, e, , , F, o, r, , e, x, a, m, p, l, e, , , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
235 ,
236 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, e, t, o, f, , i, n, s, t, r, u, c, t, i, o, n,
237 ,
238 , t, o, , f, o, l, l, o, w, , , W, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
239 ,
240 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , , y, o, u,
241 ,
242 , e, x, e, c, u, t, i, o, n, , , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a, ,
243 ,
244 , F, i, g, u, r, e, , I, , , , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
245 ,
246 , f, i, r, s, t, , w, a, y, , , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, , l, i, n, e, s, , a, n, d, , b, l, i, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
247 ,
248 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , , I, , n, , t, h, i, s, , v, i, e,
249 ,
250 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , , i,
251 ,
252 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
253 ,
254 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, ,
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1 Project
2 Main.java
3 Diagram_Q2_hw2.uml
4 MyLogfile.log
5 longinput.txt
6 input.txt
7 Database
8 Ant

269 Nis 02, 2020 9:49:41 OS Main main
270 INFO: Execution time for add method in milli seconds: 0
271 Nis 02, 2020 9:49:41 OS Main main
272 INFO: Find method test, -1 means no match,else index of first occurrence:
273 Nis 02, 2020 9:49:41 OS Main main
274 INFO: Index for string "esra": -1
275 Nis 02, 2020 9:49:41 OS Main main
276 INFO: Index for string "adding": 7
277 Nis 02, 2020 9:49:41 OS Main main
278 INFO: SimpleTextEditor: textlist = [P, r, o, g, r, a, m, a, d, d, i, n, g, , s,
279 ,
280 , Y, o, u, , p, r, o, b, a, b, l, y, ,h, a, v, e, ,s, o, m, e, ,i, d, e, a, ,o, f, ,w, h, a, t, ,a, ,p, r, o, g, r, a, m, ,i, s, ,. Y, o, u, ,u, s, e, ,p,
281 ,
282 ,t, h, e, ,t, i, m, e, ,. F, o, r, ,e, x, a, m, p, l, e, ,t, e, x, t, ,e, d, i, t, o, r, s, ,a, n, d, ,w, o, r, d, ,p, r, o, c, e, s, s, o, r, s, ,a, n, d,
283 ,
284 ,m, e, n, t, i, o, n, e, d, ,e, a, r, l, i, e, r, ,a, ,p, r, o, g, r, a, m, ,i, s, ,s, i, m, p, l, y, ,a, ,s, e, t, ,o, f, ,i, n, s, t, r, u, c, t, i, o, n,
285 ,
286 ,t, o, ,f, o, l, l, o, w, ,. W, h, e, n, ,y, o, u, ,g, i, v, e, ,t, h, e, ,c, o, m, p, u, t, e, r, ,a, ,p, r, o, g, r, a, m, ,a, n, d, ,s, o, m, e, ,d, a,
287 ,
288 ,t, h, e, ,c, o, m, p, u, t, e, r, ,t, o, ,f, o, l, l, o, w, ,t, h, e, ,i, n, s, t, r, u, c, t, i, o, n, s, ,i, n, ,t, h, e, ,p, r, o, g, r, a, m, ,. y, o, u,
289 ,
290 ,e, x, e, c, u, t, i, o, n, ,t, h, e, ,p, r, o, g, r, a, m, ,o, n, ,t, h, e, ,d, a, t, a,
291 ,
292 ,F, i, g, u, r, e, ,1, ,. S, h, o, w, ,t, h, o, ,w, a, y, s, ,t, o, ,v, i, e, w, ,t, h, e, ,r, u, n, i, n, g, ,o, f, ,a, ,p, r, o, g, r, a, m, ,
293 ,
294 ,f, i, r, s, t, ,w, a, y, ,i, g, n, o, r, e, ,t, h, e, ,d, a, s, h, e, d, ,l, i, n, e, s, ,a, n, d, ,b, l, o, c, ,s, h, a, d, i, n, g, ,t, h, a, t, ,f, o,
295 ,
296 ,i, s, ,w, h, a, t, ,r, e, a, l, l, y, ,h, a, p, p, e, n, s, ,w, h, e, n, ,y, o, u, ,r, u, n, ,a, ,p, r, o, g, r, a, m, ,I, n, ,t, h, i, s, ,v, i, e,
297 ,
298 ,h, e, r, e, ,k, i, n, d, o, f, i, n, p, u, t. T, h, e, o, n, e, i, n, c, o, n, s, i, d, e, r, e, d, k, i, n, d, o, f, i, n, p, u, t, i, s,
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316 ]
317 Nis 02, 2020 9:49:41 OS Main main
318 INFO: Execution time for find method in milli seconds: 6
319 Nis 02, 2020 9:49:41 OS Main main
320 INFO: Replace method test:
321 Nis 02, 2020 9:49:41 OS Main main
322 INFO: Replacing 'd' with 'D' :
323 SimpleTextEditor: textlist = [P, r, o, g, r, a, m, a, d, D, i, n, g, , s,
324 ,
325 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , , Y, o, u, , u, s, e, , p,
326 ,
327 , t, h, e, , t, i, m, e, , , F, o, r, , e, x, a, m, p, l, e, , , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
328 ,
329 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
330 ,
331 , t, o, , f, o, l, l, o, w, , , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
332 ,
333 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , , y, o, u,
334 ,
335 , e, x, e, c, u, t, i, n, g, , , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , D, a, t, a, ,
336 ,
337 , F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
338 ,
339 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , D, a, t, a, s, h, e, D, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
340 ,
341 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
342 ,
343 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
344 ,
345 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
346 ,
347 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p,
348 ,
349 , f, o, r, , e, x, a, m, p, l, e, , , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, l, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , , t, h,
350 ,
351 , b, e, , t, h, e, , t, e, x, t, , t, h, a, t, , n, e, e, d, s, , t, o, , b, e, , c, h, e, c, k, e, d, , A, s, , f, a, r, , a, s, , t, h, e, , c, o, m, p, u, t, e,
352 ,
353 , b, o, t, h, , t, h, e, , D, a, t, a, , a, n, d, , t, h, e, , p, r, o, g, r, a, m, , i, t, s, e, l, f, , a, r, e, , i, n, p, u, t, , , T, h, e, , o, u, t, p, u, t, ,
354 ,
355 , r, e, s, u, l, t, s, , p, r, o, d, u, c, e, d, , w, h, e, n, , t, h, e, , c, o, m, p, u, t, e, r, , f, o, l, l, o, w, , t, h, e, , p, r, o, g, r, a, m, a, d, □, s, ,
356 ,
357 , t, h, e, , p, r, o, g, r, a, m, , c, h, e, c, k, s, , t, h, e, , s, p, e, l, l, i, n, g, , o, f, , s, o, m, e, , t, e, x, t, , , t, h, e, , o, u, t, p, u, t, , m, i,
358 ,
359 , w, o, r, d, s, , t, h, a, t, , a, r, e, , m, i, s, s, p, e, l, l, e, d, ,
360 ,
361 ]
362 Nis 02, 2020 9:49:41 OS Main main
363 INFO: Execution time for replace method in milli seconds: 3
364 Nis 02, 2020 9:49:41 OS Main main
365 INFO:
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337 , F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
338 ,
339 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , D, a, s, h, e, D, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
340 ,
341 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
342 ,
343 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
344 ,
345 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , , T, h, e, , o, t, h, e, r, , k, i, n, d, ,
346 ,
347 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p,
348 ,
349 , f, o, r, , e, x, a, m, p, l, e, , , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, l, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , , t, h,
350 ,
351 , b, e, , t, h, e, , t, e, x, t, , t, h, a, t, , n, e, e, d, s, , t, o, , b, e, , c, h, e, c, k, e, d, , A, s, , f, a, r, , a, s, , t, h, e, , c, o, m, p, u, t, e,
352 ,
353 , b, o, t, h, , t, h, e, , D, a, t, a, , a, n, d, , t, h, e, , p, r, o, g, r, a, m, , i, t, s, e, l, f, , a, r, e, , i, n, p, u, t, , , T, h, e, , o, u, t, p, u, t, ,
354 ,
355 , r, e, s, u, l, t, s, , p, r, o, d, u, c, e, d, , w, h, e, n, , t, h, e, , c, o, m, p, u, t, e, r, , f, o, l, l, o, w, , t, h, e, , p, r, o, g, r, a, m, a, d, □, s, ,
356 ,
357 , t, h, e, , p, r, o, g, r, a, m, , c, h, e, c, k, s, , t, h, e, , s, p, e, l, l, i, n, g, , o, f, , s, o, m, e, , t, e, x, t, , , t, h, e, , o, u, t, p, u, t, , m, i,
358 ,
359 , w, o, r, d, s, , t, h, a, t, , a, r, e, , m, i, s, s, p, e, l, l, e, d, ,
360 ,
361 ]
362 Nis 02, 2020 9:49:41 OS Main main
363 INFO: Execution time for replace method in milli seconds: 3
364 Nis 02, 2020 9:49:41 OS Main main
365 INFO:
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3-List is LinkedList and iterator used

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366 *****TESTING FOR LINKEDLIST ITERATOR USED*****
367 Nis 02, 2020 9:49:41 OS Main main
368 INFO: Test read file method:
369 SimpleTextEditor: textlist = []
370 Nis 02, 2020 9:49:41 OS Main main
371 INFO: Execution time for read method in milli seconds: 23
372 Nis 02, 2020 9:49:41 OS Main main
373 INFO: Add method test:
374 SimpleTextEditor: textlist = [P, r, o, g, r, a, m, a, d, d, i, n, g, , s,
375 ,
376 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , , Y, o, u, , u, s, e, , p,
377 ,
378 , t, h, e, , t, i, m, e, , , F, o, r, , e, x, a, m, p, l, e, , , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
379 ,
380 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
381 ,
382 , t, o, , f, o, l, l, o, w, , , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
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11 Pro
415 Nis 02, 2020 9:49:41 OS Main main
416 INFO: Find method test, -1 means no match,else index of firs occurrence:
417 Nis 02, 2020 9:49:41 OS Main main
418 INFO: Index for string "esra": -1
419 Nis 02, 2020 9:49:41 OS Main main
420 INFO: Index for string "adding": 7
421 Nis 02, 2020 9:49:41 OS Main main
422 INFO: SimpleTextEditor: textList = [P, r, o, g, r, a, m, a, d, d, i, n, g, , s,
423 ,
424 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , , Y, o, u, , u, s, e, , p,
425 ,
426 , t, h, e, , t, i, m, e, , , F, o, r, , e, x, a, m, p, l, e, , , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
427 ,
428 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
429 ,
430 , t, o, , f, o, l, l, o, w, , , W, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
431 ,
432 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , , y, o, u,
433 ,
434 , e, x, e, c, u, t, i, n, g, , , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a, ,
435 ,
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11 Pro
460 ]
461 Nis 02, 2020 9:49:41 OS Main main
462 INFO: Execution time for find method in milli seconds: 4
463 Nis 02, 2020 9:49:41 OS Main main
464 INFO: Replace method test:
465 Nis 02, 2020 9:49:41 OS Main main
466 INFO: Replacing 'd' with 'D' :
467 SimpleTextEditor: textList = [P, r, o, g, r, a, m, a, D, D, i, n, g, , s,
468 ,
469 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , , Y, o, u, , u, s, e, , p,
470 ,
471 , t, h, e, , t, i, m, e, , , F, o, r, , e, x, a, m, p, l, e, , , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
472 ,
473 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
474 ,
475 , t, o, , f, o, l, l, o, w, , , W, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , D, a,
476 ,
477 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , , y, o, u,
478 ,
479 , e, x, e, c, u, t, i, n, g, , , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a, ,
480 ,
481 , F, i, g, u, r, e, , 1, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
482 ,
483 , f, i, r, s, t, , w, a, y, , , i, g, n, o, r, e, , t, h, e, , D, a, s, h, e, D, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
484 ,
485 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
486 ,
487 , h, a, s, , t, w, o, , k, i, n, D, s, , o, f, , i, n, p, u, t, , , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, D, , o, f, , i, n, p, u, t, , , i,
488 ,
489 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , , T, h, e, , o, t, h, e, r, , k, i, n, D, ,
490 ,
491 , F, o, r, , e, x, a, m, p, l, e, , , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, l, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , , t, h,
492 ,
493 , b, e, , t, h, e, , t, e, x, t, , t, h, a, t, , n, e, e, d, s, , t, o, , b, e, , c, h, e, c, k, e, d, , , A, s, , f, a, r, , a, s, , t, h, e, , c, o, m, p, u, t, e,
494 ,
495 , b, o, t, h, , t, h, e, , d, a, t, a, , a, n, d, , t, h, e, , p, r, o, g, r, a, m, , i, t, s, e, l, f, , a, r, e, , i, n, p, u, t, , , T, h, e, , o, u, t, p, u, t, ,
496 ,
497 , r, e, s, u, l, t, s, , p, r, o, D, u, c, e, D, , w, h, e, n, , t, h, e, , c, o, m, p, u, t, e, r, , f, o, l, l, o, w, s, , t, h, e, , p, r, o, g, r, a, m, , a, , s, ,
498 ,
499 , t, h, e, , p, r, o, g, r, a, m, , c, h, e, c, k, s, , t, h, e, , s, p, e, l, l, i, n, g, , o, f, , s, o, m, e, , t, e, x, t, , , t, h, e, , o, u, t, p, u, t, , m, i,
500 ,
501 , w, o, r, d, s, , t, h, a, t, , a, r, e, , m, i, s, s, p, e, l, l, e, d, ,
502 ,
503 ,
504 ,
505 ]
506 Nis 02, 2020 9:49:41 OS Main main
507 INFO: Execution time for replace method in milli seconds: 2
508 Nis 02, 2020 9:49:41 OS Main main
509 INFO:
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11 Pro
480 ,
481 , F, i, g, u, r, e, , 1, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
482 ,
483 , f, i, r, s, t, , w, a, y, , , i, g, n, o, r, e, , t, h, e, , D, a, s, h, e, D, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
484 ,
485 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
486 ,
487 , h, a, s, , t, w, o, , k, i, n, D, s, , o, f, , i, n, p, u, t, , , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, D, , o, f, , i, n, p, u, t, , , i,
488 ,
489 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , , T, h, e, , o, t, h, e, r, , k, i, n, D, ,
490 ,
491 , F, o, r, , e, x, a, m, p, l, e, , , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, l, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , , t, h,
492 ,
493 , b, e, , t, h, e, , t, e, x, t, , t, h, a, t, , n, e, e, d, s, , t, o, , b, e, , c, h, e, c, k, e, d, , , A, s, , f, a, r, , a, s, , t, h, e, , c, o, m, p, u, t, e,
494 ,
495 , b, o, t, h, , t, h, e, , d, a, t, a, , a, n, d, , t, h, e, , p, r, o, g, r, a, m, , i, t, s, e, l, f, , a, r, e, , i, n, p, u, t, , , T, h, e, , o, u, t, p, u, t, ,
496 ,
497 , r, e, s, u, l, t, s, , p, r, o, D, u, c, e, D, , w, h, e, n, , t, h, e, , c, o, m, p, u, t, e, r, , f, o, l, l, o, w, s, , t, h, e, , p, r, o, g, r, a, m, , a, , s, ,
498 ,
499 , t, h, e, , p, r, o, g, r, a, m, , c, h, e, c, k, s, , t, h, e, , s, p, e, l, l, i, n, g, , o, f, , s, o, m, e, , t, e, x, t, , , t, h, e, , o, u, t, p, u, t, , m, i,
500 ,
501 , w, o, r, d, s, , t, h, a, t, , a, r, e, , m, i, s, s, p, e, l, l, e, d, ,
502 ,
503 ,
504 ,
505 ]
506 Nis 02, 2020 9:49:41 OS Main main
507 INFO: Execution time for replace method in milli seconds: 2
508 Nis 02, 2020 9:49:41 OS Main main
509 INFO:
```

4-List is LinkedList and iterator not used

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510 *****TESTING FOR LINKEDLIST LOOP USED*****
511 Nis 02, 2020 9:49:41 05 Main main
512 INFO: Test read file method:
513 SimpleTextEditor: textList = [P, r, o, g, r, a, m, s,
514 ,
515 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , Y, o, u, , u, s, e, , p,
516 ,
517 , t, h, e, , t, i, m, e, , F, o, r, , e, x, a, m, p, l, e, , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
518 ,
519 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
520 ,
521 , t, o, , f, o, l, l, o, w, , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
522 ,
523 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , y, o, u,
524 ,
525 , e, x, e, c, u, t, i, n, g, , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a,
526 ,
527 , F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m,
528 ,
529 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
530 ,
531 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
532 ,
533 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
534 ,
535 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , T, h, e, , o, t, h, e, r, , k, i, n, d,
536 ,
537 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p,
538 ,
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551 ]
552 Nis 02, 2020 9:49:41 05 Main main
553 INFO: Execution time for read method in milli seconds: 29
554 Nis 02, 2020 9:49:41 05 Main main
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555 *****TESTING FOR LINKEDLIST LOOP USED*****
556 INFO: Add method test:
557 SimpleTextEditor: textList = [P, r, o, g, r, a, m, , a, d, d, i, n, g, , s,
558 ,
559 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , Y, o, u, , u, s, e, , p,
560 ,
561 , t, h, e, , t, i, m, e, , F, o, r, , e, x, a, m, p, l, e, , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
562 ,
563 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
564 ,
565 , t, o, , f, o, l, l, o, w, , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
566 ,
567 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , y, o, u,
568 ,
569 , e, x, e, c, u, t, i, n, g, , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a,
570 ,
571 , F, i, g, u, r, e, , I, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m,
572 ,
573 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
574 ,
575 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
576 ,
577 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
578 ,
579 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , T, h, e, , o, t, h, e, r, , k, i, n, d,
580 ,
581 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p,
582 ,
583 , F, o, r, , e, x, a, m, p, l, e, , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, c, i, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , t, h,
584 ,
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598 INFO: Find method test, -1 means no match,else index of first occurrence:
599 Nis 02, 2020 9:49:41 OS Main main
600 INFO: Index for string "esra": -1
601 Nis 02, 2020 9:49:41 OS Main main
602 INFO: Index for string "adding": 7
603 Nis 02, 2020 9:49:41 OS Main main
604 INFO: SimpleTextEditor: textList = [P, r, o, g, r, a, m, a, d, d, i, n, g, , s,
605 ,
606 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, d, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , Y, o, u, , u, s, e, , p,
607 ,
608 , t, h, e, , t, i, m, e, , F, o, r, , e, x, a, m, p, l, e, , t, e, x, t, , e, d, i, t, o, r, s, , a, n, d, , w, o, r, d, s, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
609 ,
610 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
611 ,
612 , t, o, , f, o, l, l, o, w, , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, d, , s, o, m, e, , d, a,
613 ,
614 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , y, o, u,
615 ,
616 , e, x, e, c, u, t, i, n, g, , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a, ,
617 ,
618 , F, i, g, u, r, e, , 1, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
619 ,
620 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, , l, i, n, e, s, , a, n, d, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
621 ,
622 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
623 ,
624 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
625 ,
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```
643 Nis 02, 2020 9:49:41 OS Main main
644 INFO: Execution time for find method in milli seconds: 49
645 Nis 02, 2020 9:49:41 OS Main main
646 INFO: Replace method test:
647 Nis 02, 2020 9:49:41 OS Main main
648 INFO: Replacing 'd' with 'D' :
649 SimpleTextEditor: textList = [P, r, o, g, r, a, m, a, D, D, i, n, g, , s,
650 ,
651 , Y, o, u, , p, r, o, b, a, b, l, y, , h, a, v, e, , s, o, m, e, , i, D, e, a, , o, f, , w, h, a, t, , a, , p, r, o, g, r, a, m, , i, s, , Y, o, u, , u, s, e, , p,
652 ,
653 , t, h, e, , t, i, m, e, , F, o, r, , e, x, a, m, p, l, e, , t, e, x, t, , e, D, i, t, o, r, s, , a, n, D, , w, o, r, d, s, , p, r, o, c, e, s, s, o, r, s, , a, r, e,
654 ,
655 , m, e, n, t, i, o, n, e, d, , e, a, r, l, i, e, r, , a, , p, r, o, g, r, a, m, , i, s, , s, i, m, p, l, y, , a, , s, e, t, , o, f, , i, n, s, t, r, u, c, t, i, o, n,
656 ,
657 , t, o, , f, o, l, l, o, w, , w, h, e, n, , y, o, u, , g, i, v, e, , t, h, e, , c, o, m, p, u, t, e, r, , a, , p, r, o, g, r, a, m, , a, n, D, , s, o, m, e, , D, a,
658 ,
659 , t, h, e, , c, o, m, p, u, t, e, r, , t, o, , f, o, l, l, o, w, , t, h, e, , i, n, s, t, r, u, c, t, i, o, n, s, , i, n, , t, h, e, , p, r, o, g, r, a, m, , y, o, u,
660 ,
661 , e, x, e, c, u, t, i, n, g, , t, h, e, , p, r, o, g, r, a, m, , o, n, , t, h, e, , d, a, t, a, ,
662 ,
663 , F, i, g, u, r, e, , 1, , 2, , s, h, o, w, s, , t, w, o, , w, a, y, s, , t, o, , v, i, e, w, , t, h, e, , r, u, n, n, i, n, g, , o, f, , a, , p, r, o, g, r, a, m, ,
664 ,
665 , f, i, r, s, t, , w, a, y, , i, g, n, o, r, e, , t, h, e, , d, a, s, h, e, d, , l, i, n, e, s, , a, n, D, , b, l, u, e, , s, h, a, d, i, n, g, , t, h, a, t, , f, o,
666 ,
667 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
668 ,
669 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
670 ,
671 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , t, h, e, , o, t, h, e, r, , k, i, n, d, ,
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667 , i, s, , w, h, a, t, , r, e, a, l, l, y, , h, a, p, p, e, n, s, , w, h, e, n, , y, o, u, , r, u, n, , a, , p, r, o, g, r, a, m, , I, , n, , t, h, i, s, , v, i, e,
668 ,
669 , h, a, s, , t, w, o, , k, i, n, d, s, , o, f, , i, n, p, u, t, , T, h, e, , p, r, o, g, r, a, m, , i, s, , o, n, e, , k, i, n, d, , o, f, , i, n, p, u, t, , i,
670 ,
671 , i, n, s, t, r, u, c, t, i, o, n, s, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , w, i, l, l, , f, o, l, l, o, w, , t, h, e, , o, t, h, e, r, , k, i, n, d, ,
672 ,
673 , f, o, r, , t, h, e, , p, r, o, g, r, a, m, , I, , t, , i, s, , t, h, e, , i, n, f, o, r, m, a, t, i, o, n, , t, h, a, t, , t, h, e, , c, o, m, p, u, t, e, r, , p,
674 ,
675 , F, o, r, , e, x, a, m, p, l, e, , i, f, , t, h, e, , p, r, o, g, r, a, m, , i, s, , a, , s, p, e, l, l, i, n, g, , c, h, e, c, k, , p, r, o, g, r, a, m, , t, h,
676 ,
677 , b, e, , t, h, e, , t, e, x, t, , n, e, e, d, s, , t, o, , b, e, , c, h, e, c, k, e, d, , A, s, , f, a, r, , a, s, , t, h, e, , c, o, m, p, u, t, e,
678 ,
679 , b, o, t, h, , t, h, e, , d, a, t, a, , a, n, D, , t, h, e, , p, r, o, g, r, a, m, , i, t, s, e, l, f, , a, r, e, , i, n, p, u, t, , T, h, e, , o, u, t, p, u, t, ,
680 ,
681 , r, e, s, u, l, t, s, , p, r, o, D, u, c, e, D, , w, h, e, n, , t, h, e, , c, o, m, p, u, t, e, r, , f, o, l, l, o, w, , t, h, e, , p, r, o, g, r, a, m, , a, ,
682 ,
683 , t, h, e, , p, r, o, g, r, a, m, , c, h, e, c, k, s, , t, h, e, , s, p, e, l, l, i, n, g, , o, f, , s, o, m, e, , t, e, x, t, , t, h, e, , o, u, t, p, u, t, , m,
684 ,
685 , w, o, r, d, s, , t, h, a, t, , a, r, e, , m, i, s, s, p, e, l, l, e, d, ,
686 ,
687 ,
688 Nis 02, 2020 9:49:41 OS Main main
689 INFO: Execution time for replace method in milli seconds: 11
690
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We can see that iterator used methods are faster and also short text takes shorter time than long text. Short text generally last 2-3-4 milli seconds and long text take between 10-30 milli seconds.

Note: In every case, same method parameters used to take time difference correctly(ex: always same words searched or added).