Laboratory practice No. 3: LinkedList and ArrayList

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3) Practice for final project defense presentation

3.1

ArrayList	LinkedList
O(n)	$O(n^2)$

3.2

3.3 2.1 Algorithm, it is ***O(n)***

The code of the problem posed in point 2.1 consists in a input text problem caused by a bad keyboard which press “Start” or “End” sometimes. At the problem, "[" in the input means “Start” was pressed, and "]" in the input means “End” was pressed.

With that information, a variable (right) can search the position when appears any of this symbols and can be left-bounded with another variable (left) which represents the last “[“ or “]” position. This allows to have some strings that, with some conditions and addFirst and addLast methods, can put in a Linked List and sort the word with errors.

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Example

Input:

```
This_is_a_[Beiju]_text
asd[fgh[jkl
[[a[[d[f[[g[g[h[h[dgd[fgsfa[f
```

Output:

```
BeijuThis_is_a__text
jklfghasd
ffgsfadgdhhggfda
```

3.4 "n" in complexity means "[" and "]" total number

4) Practice for midterms

4.1 c

4.2 c

4.3 Answers:

4.3.1 q.size() > 1

4.3.2 <=

4.3.3 q.remove()

4.3.4 q.remove()

4.4 Answers:

4.4.1 lista.size()

4.4.2 lista.addLast(auxiliar.pop())

4.5 Answers:

4.5.1 auxiliar1.size() > 0

4.5.2 auxiliar2.size() > 0

4.5.3 personas.offer(edad)

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4.6 Let imprimir function be print (Exercise is a bit ambigous):

a

4.7 c

4.8 Answers:

4.8.1 a

4.8.2 c

4.8.3 c

4.9 Answers:

4.9.1 d

4.9.2 a

4.9.3 b

4.10 Answers:

4.10.1 b

4.10.2 b

4.11 Answers:

4.11.1 s1.size() > 1

4.11.2 s1.pop()

4.11.3 s2

4.12 Answers:

4.12.1 iv

4.12.2 ii

4.13 Answers:

4.13.1 i

4.13.2 i

4.14 iv

5) Recommended reading (optional)

We made the conceptual map via Prezi:

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https://prezi.com/8sftcghaux_c/?utm_campaign=share&utm_medium=copy

6) Teamwork and gradual progress (optional)

We meet once only. This is the record: https://bit.ly/2kLx1EA

This is the progress report with github commits: https://bit.ly/2kgsF88.

Even though this document has the Kanban example structure that we often use, for this laboratory practice we don't use it.

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