ESTRUCTURA DE DATOS 1
Código ST0245

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

2.1 $O(n^3 * m^2)$

3.3 Answer 2.1

The code of the problem posed in point 2.1 consists in a linked list, a problem caused by a bad keyboard must be solved which does not type in the correct way although it follows a pattern of behavior when displaying what is written as "["means that the following is at the beginning of the word and"] "means that the preceding is at the end of the word.

With that information, a search (route) is implemented asking if the character (char) is a "[" or "]" symbol taking into account the position, and if so, we will go through the following or subsequent characters until we

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find another starting symbol and finally to know what specific characters should move

Example:

Input:

*[][]*choco*[*Life_*[]*late_*][*is_*[[*a_box_of know*[*never_*]*_what*][*You_ _get*[][*might*[]]][*You_

1 Output:

late_chocolateLife_is_a_box_of	**X**
_whatknownever_You_	**X**
getmightYou	**X**

2 Output:

Life_is_a_box_of_chocolate	**V**
You_never_know_what	**V**
You_might_get	**V**

3.4 2.1: "*n*" it's a "for" cycle

"*m*" it is a "if" question string

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()

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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)

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:

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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:

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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