ESTRUCTURA DE DATOS 1
Código ST0245

Laboratory practice No. 3

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3) Practice for final project defense presentation

3.1
The first exercise (1.1) was made with dynamic vectors, since arrays in python are dynamic vectors, because it had a lower complexity.

	Dynamic Vector	**Linked List**
1.1	O(n)	O(n*m)

Linked List had a higher complexity since it has to go through each attribute node in each person.

3.2
A linked List was created in which each position is a character from the original string. The first loop of the method takes the string and separates them into characters. It then checks for the character '[' and ']' assigning each one of them a Boolean value, then at the end depending on the value of the Boolean it will be added to a counter or it will be ignored. Then, after the loop is done, a new linked list made up of characters will be created in which another loop will run through the length of the list until it is empty, in which bracket characters will be removed and mom bracket characters will be added to a new list.

3.3
The complexity of 2.1 is $O(n^2)$

3.4
n is the number of characters on the string

4) Practice for midterms

4.1
4.1.1 *B*
4.1.2 B
4.2 C
4.3
4.3.1 B
4.3.2 D

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4.4
- ***4.4.1*** Token
- ***4.4.2*** C

4.5 A
4.6 A
4.7 C
4.8
- ***4.8.1*** A
- ***4.8.2*** C
- ***4.8.3*** C

4.9
- ***4.9.1*** D
- ***4.9.2*** A
- ***4.9.3*** B

4.10
- ***4.10.1*** A
- ***4.10.2*** B

4.11
- ***4.11.1*** ¡s1.isEmpty()
- ***4.11.2*** S1.pop()
- ***4.11.3*** S2.get(0)

4.12
- ***4.12.1*** A
- ***4.12.2*** A

4.13
- ***4.13.1*** D
- ***4.13.2*** A

4.14
- ***4.14.1*** D

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