

## Laboratorio Nro. 3 pilas y colas

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### 3) Simulacro de preguntas de sustentación de Proyectos

<b>3.1</b>		LinkedList	ArrayList
	2.1	$O(n+m^2)$	$O(n^2+m)$

In the numeral 2.1, we can see that  $O(n+m^2)$  and  $O(n^2+m)$  are very similar and have the “same” complexity, the real difference appears when  $n$  is bigger than  $m$  or vice versa. Both of them work pretty well, depending the case.

**3.2** Starts by analyzing each character of the String, if the character its different to [ and ], its added to another String(b), if not, b (if is not empty) will be added to a linked list, and continue with the process before, but, if the character [ was found, the String b will be added at the beginning of the list, by the other hand, if the character found was ], will be added in the tail.

**3.3**  $O(n+m^2)$

**3.4**  $n$  is the size of the original String and  $m$  is the size of the List.

### 4) Simulacro de Parcial

4.1 a

4.2  $O(n)$

4.3 a)  $q.size > 1$   
b)  $\geq$   
c)  $q.getLast()$   
d)  $q.get(0)$

4.5

4.5.1  $auxiliar1.size() > 0$      $auxiliar2.size() > 0$

4.5.2  $personas.offer(edad)$      $personas = \text{método invertirqueue}(\text{Queue} \langle \text{Integer} \rangle a)$

4.6 a

4.7 a

4.8

4.81 c

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**ESTRUCTURA DE DATOS 1**  
**Código ST0245**

- 4.8.2 d
- 4.8.3 c
- 4.9
  - 4.9.1 n
  - 4.9.2 a
  - 4.9.3 d
- 4.10
  - 4.10.1 b
  - 4.10.2 b
- 4.11
  - 4.11.1 `s2.size()<=s1.size`
  - 4.11.2 `s1.pop()`
  - 4.11.3 `s2`
- 4.12
  - 4.12.1 i
  - 4.12.2 i
- 4.13
  - 4.13.1 iii
  - 4.13.2 iv
- 4.14 iv

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