**Laboratorio Nro. 3  
Recursión**

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**3) Simulacro de preguntas de sustentación de Proyectos**

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|  | LinkedList | ArrayList |
| 2.1 | O(n+m^2) | O(n^2+m) |

**3.1**

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 o 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) >=

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=método invertirqueue(Queue<Integer> a)

4.6 a

4.7 a

4.8

4.81 c

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